

Layout Verification Reporter (LVR) User Guide

Ramtera Inc

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1 Command Reference

Purpose. This manual documents the LVR command-line interface for physical verification flows. It organizes commands into categories and provides a consistent two-page reference for each: a narrative description followed by syntax/arguments and examples.

Conventions. Placeholders are used in examples:

- `<string>` denotes a file path, identifier, or free-form string.
- `<int>` denotes an integer value (counts, flags, DBU coordinates).
- `<float>` denotes a real-valued parameter (distances, thresholds).

Paths are shown relative to a project root where practical. Commands that take no arguments list *(none)*.

Page Layout. Each command spans two pages: Page 1 is a tailored description with best practices; Page 2 contains a syntax table and example usage lines. Figures may be inserted later at the indicated placeholders.

Categories. Commands are grouped into: Initialization & Database Management; Input & File Handling; Flow & Resource Settings; Run Commands;

Reporting; LVS Options & Controls; DRC/ERC/SVS/MLVS/Antenna & Limits;
Density & DFM Settings; GUI & Display; Logger; Geometry & Queries.

1.1 Initialization Database Management

1.1.1 `help`

Description.

Display built-in help. Without args lists all commands; some builds support 'help ;command;' for detailed usage. Output is human-readable.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	help	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

help

1.1.2 `init_tool_db`

Description.

Initialize a new tool database/workspace where configuration, parsed inputs, and results are persisted. Overwrites an existing DB of the same name.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	init_tool_db	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
init\_tool\_db <string1>
```

1.1.3 `set_tool_db`

Description.

Switch active tool database context. Subsequent reads/writes/runs operate on this DB.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_tool_db	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_tool\_db <string1>
```

1.1.4 set_debug_mode_3049

Description.

Set debug verbosity level. Higher integers produce more verbose logs; may slow runs.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_debug_mode_3049	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_debug\_mode\_3049 <int1>  
set\_debug\_mode\_3049 1
```

1.1.5 `set_top`

Description.

Define the top-level design entity (root cell / top module) for hierarchy traversal.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_top	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_top <string1>  
set\_top aes\_cipher\_top
```

1.1.6 `set_technode`

Description.

Set technology node/PDK id to select rule defaults, units, and device parameters.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_technode	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_technode <string1>  
set\_technode sky130hd
```

1.1.7 `set_testmode`

Description.

Toggle test/regression mode. Non-zero enables reduced checks or mock IO; not for sign-off.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_testmode	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_testmode <int1>  
set\_testmode 1
```

1.1.8 lvs_enable_ports

Description.

Include top-level ports in LVS extraction; 1 enables, 0 disables.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_enable_ports	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_enable\_ports <int1>  
lvs\_enable\_ports 1
```

1.1.9 load_db

Description.

Load a previously saved tool database/session for reporting or incremental runs.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	load_db	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
load\_db <string1>
```

1.1.10 `set_log_flush_time`

Description.

Set periodic flush interval (seconds) for log output during long runs.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_log_flush_time		—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_log\_flush\_time <int1>  
set\_log\_flush\_time 5
```

1.2 Input File Handling

1.2.1 `set_sch_file`

Description.

Set the main schematic/netlist file path used by schematic-consuming flows.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_sch_file	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_sch\_file <string1>
```

1.2.2 `set_xor1_gds`

Description.

Specify XOR inputs (reference vs. test) for geometric XOR comparison of two GDS databases.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_xor1_gds	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_xor1\_gds <string1>
```

1.2.3 `set_xor2_gds`

Description.

Specify XOR inputs (reference vs. test) for geometric XOR comparison of two GDS databases.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_xor2_gds	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_xor2\_gds <string1>
```

1.2.4 `set_svs1_spice`

Description.

Specify inputs for schematic-vs-schematic (SVS) comparison; accepts SPICE or Verilog sources.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_svs1_spice	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_svs1\_spice <string1>
```

1.2.5 `set_svs2_spice`

Description.

Specify inputs for schematic-vs-schematic (SVS) comparison; accepts SPICE or Verilog sources.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_svs2_spice	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_svs2\_spice <string1>
```

1.2.6 `set_svs1_verilog`

Description.

Specify inputs for schematic-vs-schematic (SVS) comparison; accepts SPICE or Verilog sources.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_svs1_verilog	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_svs1\_verilog <string1>
```

1.2.7 `set_svs2_verilog`

Description.

Specify inputs for schematic-vs-schematic (SVS) comparison; accepts SPICE or Verilog sources.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_svs2_verilog	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_svs2\_verilog <string1>
```

1.2.8 read_gds

Description.

Read a GDS stream file into the active tool DB.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	read_gds	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
read\_gds <string1>  
read\_gds ./input/gds.in
```

1.2.9 read_gds2

Description.

Read a GDSII file (alternative reader) into the tool DB.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	read_gds2	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
read\_gds2 <string1>  
read\_gds2 ./input/gds2.in
```

1.2.10 read_spice

Description.

Read a SPICE netlist and store for LVS/SVS flows.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	read_spice	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
read\_spice <string1>  
read\_spice ./input/spice.in
```

1.2.11 `write_gds`

Description.

Export current layout database to a GDS file.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	write_gds	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
write\_gds <string1>
```

1.2.12 `read_lrf`

Description.

Load a Layout Rules File (LRF) for DRC/DFM verification.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	read_lrf	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
read\_lrf <string1>  
read\_lrf ./input/lrf.in
```

1.2.13 `read_verilog`

Description.

Load a Verilog netlist for LVS/SVS or conversion flows.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	read_verilog	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
read\_verilog <string1>  
read\_verilog ./input/verilog.in
```

1.2.14 `expected_file`

Description.

Set a golden results file used to compare against run outputs.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	expected_file	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
expected\_file <string1>  
expected\_file ./golden/expected.json
```

1.2.15 verilog2sch

Description.

Convert a Verilog netlist to a schematic format compatible with the LVS engine.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	verilog2sch	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument

Example Usage.

```
verilog2sch <string1> <string2>  
verilog2sch ./design.v ./out.sch
```

1.2.16 `test_lvs`

Description.

Quick LVS between provided layout and schematic to smoke-test connectivity.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	test_lvs	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument

Example Usage.

```
test\_lvs <string1> <string2>  
test\_lvs ./layout.gds ./schematic.spice
```

1.2.17 sky130_to_spice

Description.

Translate Sky130 CDL/CDL-like netlist to SPICE format with tool-compatible conventions.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	sky130_to_spice	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument

Example Usage.

```
sky130\_to\_spice <string1> <string2>  
sky130\_to\_spice ./in.cdl ./out.spice
```

1.2.18 `split_cdl_asap7`

Description.

Split a monolithic CDL netlist into per-cell libraries for the named PDK/family; outputs cell files and logs.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	split_cdl_asap7	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument
arg3	string (path/id)	required	—	Positional argument
arg4	string (path/id)	required	—	Positional argument

Example Usage.

```
split\_cdl\_asap7 <string1> <string2> <string3> <string4>  
split\_cdl\_asap7 ./in.cdl ./out\_lib ./cells.map ./split.log
```

1.2.19 `split_cdl_gpkg`

Description.

Split a monolithic CDL netlist into per-cell libraries for the named PDK/family; outputs cell files and logs.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	split_cdl_gpdk	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument
arg3	string (path/id)	required	—	Positional argument
arg4	string (path/id)	required	—	Positional argument

Example Usage.

```
split\_cdl\_gpdk <string1> <string2> <string3> <string4>  
split\_cdl\_gpdk ./in.cdl ./out\_lib ./cells.map ./split.log
```

1.2.20 `split_cdl_ng15`

Description.

Split a monolithic CDL netlist into per-cell libraries for the named PDK/family; outputs cell files and logs.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	split_cdl_ng15	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument
arg3	string (path/id)	required	—	Positional argument
arg4	string (path/id)	required	—	Positional argument

Example Usage.

```
split\_cdl\_ng15 <string1> <string2> <string3> <string4>  
split\_cdl\_ng15 ./in.cdl ./out\_lib ./cells.map ./split.log
```

1.2.21 `split_cdl_ng45`

Description.

Split a monolithic CDL netlist into per-cell libraries for the named PDK/family; outputs cell files and logs.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	split_cdl_ng45	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument
arg3	string (path/id)	required	—	Positional argument
arg4	string (path/id)	required	—	Positional argument

Example Usage.

```
split\_cdl\_ng45 <string1> <string2> <string3> <string4>  
split\_cdl\_ng45 ./in.cdl ./out\_lib ./cells.map ./split.log
```

1.2.22 `split_cdl_saed32`

Description.

Split a monolithic CDL netlist into per-cell libraries for the named PDK/family; outputs cell files and logs.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	split_cdl_saed32	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument
arg3	string (path/id)	required	—	Positional argument
arg4	string (path/id)	required	—	Positional argument

Example Usage.

```
split\_cdl\_saed32 <string1> <string2> <string3> <string4>  
split\_cdl\_saed32 ./in.cdl ./out\_lib ./cells.map ./split.log
```

1.2.23 `split_cdl_sky130`

Description.

Split a monolithic CDL netlist into per-cell libraries for the named PDK/family; outputs cell files and logs.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	split_cdl_sky130	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument
arg3	string (path/id)	required	—	Positional argument
arg4	string (path/id)	required	—	Positional argument

Example Usage.

```
split\_cdl\_sky130 <string1> <string2> <string3> <string4>  
split\_cdl\_sky130 ./in.cdl ./out\_lib ./cells.map ./split.log
```

1.2.24 `split_cdl_xh018`

Description.

Split a monolithic CDL netlist into per-cell libraries for the named PDK/family; outputs cell files and logs.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	split_cdl_xh018	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument
arg3	string (path/id)	required	—	Positional argument
arg4	string (path/id)	required	—	Positional argument

Example Usage.

```
split\_cdl\_xh018 <string1> <string2> <string3> <string4>  
split\_cdl\_xh018 ./in.cdl ./out\_lib ./cells.map ./split.log
```

1.3 Flow Resource Settings

1.3.1 `set_gds_flow`

Description.

Select primary import flow (GDS-based or LEF/DEF-based).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_gds_flow	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_gds\_flow <int1>  
set\_gds\_flow 1
```

1.3.2 `set_lefdef_flow`

Description.

Select primary import flow (GDS-based or LEF/DEF-based).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_lefdef_flow	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_lefdef\_flow <int1>  
set\_lefdef\_flow 1
```

1.3.3 `set_num_cpu`

Description.

Configure resources/partitioning for performance: parallelism, layers, regions, bins.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_num_cpu	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_num\_cpu <int1>  
set\_num\_cpu 8
```

1.3.4 `set_num_cores`

Description.

Configure resources/partitioning for performance: parallelism, layers, regions, bins.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_num_cores	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_num\_cores <int1>
```

```
set\_num\_cores 8
```

1.3.5 `set_num_layers`

Description.

Configure resources/partitioning for performance: parallelism, layers, regions, bins.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_num_layers	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_num\_layers <int1>  
set\_num\_layers 8
```

1.3.6 `set_num_regions`

Description.

Configure resources/partitioning for performance: parallelism, layers, regions, bins.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_num_regions	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_num\_regions <int1>
```

```
set\_num\_regions 8
```

1.3.7 `set_num_bins`

Description.

Configure resources/partitioning for performance: parallelism, layers, regions, bins.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_num_bins	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_num\_bins <int1>
```

```
set\_num\_bins 8
```

1.3.8 cell_orient_scheme

Description.

Choose the cell orientation scheme used during import/checks (e.g., R0/MX/MY).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	cell_orient_scheme		—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
cell\_orient\_scheme <int1>
```

1.3.9 `use_max`

Description.

Enable/disable specific checks/filters to tailor import/verification.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	use_max	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
use\_max <int1>  
use\_max 1
```

1.3.10 no_compare

Description.

Enable/disable specific checks/filters to tailor import/verification.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	no_compare	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
no\_compare <int1>  
no\_compare 1
```

1.3.11 no_cells

Description.

Enable/disable specific checks/filters to tailor import/verification.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	no_cells	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
no\_cells <int1>  
no\_cells 1
```

1.3.12 no_obs

Description.

Enable/disable specific checks/filters to tailor import/verification.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	no_obs	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
no\_obs <int1>
```

```
no\_obs 1
```

1.3.13 no_pwr

Description.

Enable/disable specific checks/filters to tailor import/verification.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	no_pwr	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
no\_pwr <int1>  
no\_pwr 1
```

1.3.14 `no_vias`

Description.

Enable/disable specific checks/filters to tailor import/verification.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	no_vias	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
no\_vias <int1>  
no\_vias 1
```

1.3.15 `no_rect`

Description.

Enable/disable specific checks/filters to tailor import/verification.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	no_rect	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
no\_rect <int1>
```

```
no\_rect 1
```

1.4 Run Commands

1.4.1 `run_drc`

Description.

Execute the DRC flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_drc	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_drc

1.4.2 run_qdrc

Description.

Run quick/fast DRC with an accelerated kernel or subset of rules.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_qdrc	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_qdrc

1.4.3 run_lvs

Description.

Execute the LVS flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_lvs	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_lvs

1.4.4 `run_mlvs`

Description.

Execute the MLVS flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_mlv	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_mlv

1.4.5 `run_svs`

Description.

Execute the SVS flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_svs	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

`run\_svs`

1.4.6 run_dfm

Description.

Execute the DFM flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_dfm	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_dfm

1.4.7 `run_erc`

Description.

Execute the ERC flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_erc	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_erc

1.4.8 `run_xor`

Description.

Execute the XOR flow with current inputs/settings and write results.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_xor	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_xor

1.4.9 `run_fastxor`

Description.

Execute the FASTXOR flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_fastxor	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_fastxor

1.4.10 `run_antenna`

Description.

Execute the ANTENNA flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_antenna	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

`run\_antenna`

1.4.11 run_density

Description.

Execute the DENSITY flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_density	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_density

1.4.12 run_lefdef_drc

Description.

Execute the LEFDEF_DRC flow with current inputs/settings and write results.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	run_lefdef_drc	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

run_lefdef_drc

1.5 Reporting

1.5.1 `report_drc`

Description.

Generate a DRC report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_drc	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

report_drc

1.5.2 `report_lvs`

Description.

Generate a LVS report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_lvs	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

```
report\_lvs
```

1.5.3 `report_mlvs`

Description.

Generate a MLVS report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_mlv	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

```
report\_mlv
```

1.5.4 `report_dfm`

Description.

Generate a DFM report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_dfm	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

report_dfm

1.5.5 `report_erc`

Description.

Generate a ERC report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_erc	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

report_erc

1.5.6 `report_xor`

Description.

Generate a XOR report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_xor	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

```
report\_xor
```

1.5.7 `report_fastxor`

Description.

Generate a FASTXOR report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_fastxor	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

```
report\_fastxor
```

1.5.8 `report_svs`

Description.

Generate a SVS report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_svs	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

```
report\_svs
```

1.5.9 `report_antenna`

Description.

Generate a ANTENNA report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_antenna	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

report_antenna

1.5.10 rep_antenna

Description.

Generate a ANTENNA report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	rep_antenna	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

rep_antenna

1.5.11 `report_density`

Description.

Generate a DENSITY report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_density	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

```
report\_density
```

1.5.12 rep_density

Description.

Generate a DENSITY report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	rep_density	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

rep_density

1.5.13 `report_lefdef_drc`

Description.

Generate a LEFDEF_DRC report from the most recent run, writing to the configured report file.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	report_lefdef_drc	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

```
report\_lefdef\_drc
```

1.5.14 `set_report_file_drc`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_drc		—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_drc <string1>  
set\_report\_file\_drc ./reports/drc.rpt
```

1.5.15 `set_report_file_lvs`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_lvs		—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_lvs <string1>  
set\_report\_file\_lvs ./reports/lvs.rpt
```

1.5.16 `set_report_file_mlv`s

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_mlvs		—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_mlvs <string1>  
set\_report\_file\_mlvs ./reports/mlvs.rpt
```

1.5.17 `set_report_file_dfm`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_dfm		—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_dfm <string1>  
set\_report\_file\_dfm ./reports/dfm.rpt
```

1.5.18 `set_report_file_erc`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_erc	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_erc <string1>  
set\_report\_file\_erc ./reports/erc.rpt
```

1.5.19 `set_report_file_xor`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_xor		—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_xor <string1>  
set\_report\_file\_xor ./reports/xor.rpt
```

1.5.20 `set_report_file_fastxor`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_fastxor		—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_fastxor <string1>  
set\_report\_file\_fastxor ./reports/fastxor.rpt
```

1.5.21 `set_report_file_svs`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_svs		—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_svs <string1>  
set\_report\_file\_svs ./reports/svs.rpt
```

1.5.22 `set_report_file_antenna`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file	antenna	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_antenna <string1>  
set\_report\_file\_antenna ./reports/antenna.rpt
```

1.5.23 `set_report_file_density`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_density		—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_density <string1>  
set\_report\_file\_density ./reports/density.rpt
```

1.5.24 `set_report_file_lefdef_drc`

Description.

Set output path for a specific report category. Must be set before running the report.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_report_file_lefdef_drc	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
set\_report\_file\_lefdef\_drc <string1>  
set\_report\_file\_lefdef\_drc ./reports/lefdef\_drc.rpt
```

1.6 LVS Options Controls

1.6.1 lvs

Description.

Invoke the LVS engine with the provided argument (file or rule id).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs <string1>  
lvs ./rule\_or\_input\_file
```

1.6.2 lvs_write_layout_from_db

Description.

Export current layout view from DB to a file for debug or downstream use.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_write_layout_from_db	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_write\_layout\_from\_db <string1>
```

1.6.3 `lvs_write_schematic_from_spice`

Description.

Emit a schematic representation derived from SPICE for LVS inspection or GUI view.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_write_schematic_from_spice			Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_write\_schematic\_from\_spice <string1> <string2>
```

1.6.4 `lvs_set_schematic_file_name`

Description.

Set an LVS-related input path or mode (schematic, SPICE, macros, Verilog, DATC flow).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	<code>lvs_set_schematic_file_name</code>	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_set\_schematic\_file\_name <string1>  
lvs\_set\_schematic\_file\_name ./netlist.spice
```

1.6.5 lvs_set_spice_file_name

Description.

Set an LVS-related input path or mode (schematic, SPICE, macros, Verilog, DATC flow).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_set_spice_file_name	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_set\_spice\_file\_name <string1>  
lvs\_set\_spice\_file\_name ./netlist.spice
```

1.6.6 lvs_set_macros_cdl_file_name

Description.

Set an LVS-related input path or mode (schematic, SPICE, macros, Verilog, DATC flow).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_set_macros_cdl_file_name			Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_set\_macros\_cdl\_file\_name <string1>  
lvs\_set\_macros\_cdl\_file\_name ./netlist.spice
```

1.6.7 `lvs_set_verilog_netlist_file_name`

Description.

Set an LVS-related input path or mode (schematic, SPICE, macros, Verilog, DATC flow).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_set_verilog_netlist_file_name			Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_set\_verilog\_netlist\_file\_name <string1>  
lvs\_set\_verilog\_netlist\_file\_name ./netlist.spice
```

1.6.8 `lvs_set_datc_flow`

Description.

Set an LVS-related input path or mode (schematic, SPICE, macros, Verilog, DATC flow).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_set_datc_flow	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_set\_datc\_flow <int1>  
lvs\_set\_datc\_flow ./netlist.spice
```

1.6.9 lvs_use_datc_flow

Description.

Toggle the DATC reference flow for LVS preprocessing/import (0/1).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_use_datc_flow		—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_use\_datc\_flow <int1>
```

```
lvs\_use\_datc\_flow 1
```

1.6.10 lvs_consider_macro_pins

Description.

(Description TBD) Sets configuration or triggers a run in the LVR flow.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_consider_macro_pins	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_consider\_macro\_pins <int1>  
lvs\_consider\_macro\_pins 1
```

1.6.11 lvs_check_shorts

Description.

Enable/disable LVS check for shorts (0/1).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_check_shorts	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_check\_shorts <int1>
```

```
lvs\_check\_shorts 1
```

1.6.12 lvs_check_open

Description.

Enable/disable LVS check for open (0/1).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_check_open	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_check\_open <int1>  
lvs\_check\_open 1
```

1.6.13 lvs_check_macro

Description.

Enable/disable LVS check for macro (0/1).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_check_macro	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_check\_macro <int1>
```

```
lvs\_check\_macro 1
```

1.6.14 lvs_check_matching

Description.

Enable/disable LVS check for matching (0/1).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_check_matching		—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_check\_matching <int1>  
lvs\_check\_matching 1
```

1.6.15 lvs_check_unconnected_pins

Description.

Enable/disable LVS check for unconnected pins (0/1).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	<code>lvs_check_unconnected_pins</code>			Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_check\_unconnected\_pins <int1>  
lvs\_check\_unconnected\_pins 1
```

1.6.16 lvs_detect_short

Description.

Enable detection of shorts/opens during LVS (0=off, 1=on).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_detect_short	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_detect\_short <int1>
```

```
lvs\_detect\_short 1
```

1.6.17 lvs_detect_open

Description.

Enable detection of shorts/opens during LVS (0=off, 1=on).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_detect_open	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_detect\_open <int1>  
lvs\_detect\_open 1
```

1.6.18 lvs_power_pin

Description.

Declare canonical power/ground pin names for special handling in LVS equivalence.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_power_pin	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_power\_pin <string1>  
lvs\_power\_pin VDD
```

1.6.19 lvs_ground_pin

Description.

Declare canonical power/ground pin names for special handling in LVS equivalence.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_ground_pin	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_ground\_pin <string1>
```

```
lvs\_ground\_pin VDD
```

1.6.20 lvs_timeout

Description.

Set timeout (seconds) for LVS phase or run to prevent pathological run-times.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_timeout	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_timeout <int1>
```

1.6.21 lvs_max_error

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_max_error	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_max\_error <int1>
```

1.6.22 lvs_option_max_error

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_option_max_error	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
lvs\_option\_max\_error <int1>
```

1.6.23 lvs_mapping_pin_to_terminal

Description.

Map a schematic pin to a layout terminal name for name-equivalence resolution.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_mapping_pin_to_terminal	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_mapping\_pin\_to\_terminal <string1> <string2>
```

1.6.24 lvs_waiver_macro_net

Description.

Declare an LVS waiver for known differences (macro net or netlist net), suppressing selected errors.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_waiver_macro_net	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument
arg2	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_waiver\_macro\_net <string1> <string2>
```

```
lvs\_waiver\_macro\_net U\_MACRO\_1 NET\_A
```

1.6.25 `lvs_waiver_netlist_net`

Description.

Declare an LVS waiver for known differences (macro net or netlist net), suppressing selected errors.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	lvs_waiver_netlist_net	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
lvs\_waiver\_netlist\_net <string1>  
lvs\_waiver\_netlist\_net U\_MACRO\_1 NET\_A
```

1.7 DRC/ERC/SVS/MLVS/Antenna Limits

1.7.1 drc

Description.

Invoke the DRC engine with the provided argument (file or rule id).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	drc	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
drc <string1>  
drc ./rule\_or\_input\_file
```

1.7.2 `erc`

Description.

Invoke the ERC engine with the provided argument (file or rule id).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	erc	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
erc <string1>  
erc ./rule\_or\_input\_file
```

1.7.3 SVS

Description.

Invoke the SVS engine with the provided argument (file or rule id).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	svs	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
svs <string1>  
svs ./rule\_or\_input\_file
```

1.7.4 mlvs

Description.

Invoke the MLVS engine with the provided argument (file or rule id).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	mlvs	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
mlvs <string1>  
mlvs ./rule\_or\_input\_file
```

1.7.5 antenna

Description.

Invoke the ANTENNA engine with the provided argument (file or rule id).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	antenna	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
antenna <string1>  
antenna ./rule\_or\_input\_file
```

1.7.6 dfm

Description.

Invoke the DFM engine with the provided argument (file or rule id).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	dfm	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
dfm <string1>  
dfm ./rule\_or\_input\_file
```

1.7.7 perc

Description.

Invoke the PERC engine with the provided argument (file or rule id).

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	perc	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
perc <string1>  
perc ./rule\_or\_input\_file
```

1.7.8 density

Description.

Invoke the DENSITY engine with the provided argument (file or rule id).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	density	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
density <string1>
```

```
density ./rule\_or\_input\_file
```

1.7.9 xor_check

Description.

Invoke the XOR_CHECK engine with the provided argument (file or rule id).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	xor_check	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
xor\_check <string1>  
xor\_check ./rule\_or\_input\_file
```

1.7.10 drc_max_error

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	drc_max_error	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
drc\_max\_error <int1>
```

1.7.11 `erc_max_error`

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	erc_max_error	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
erc\_max\_error <int1>
```

1.7.12 `svs_max_error`

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	svs_max_error	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
svs\_max\_error <int1>
```

1.7.13 `mlvs_max_error`

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	mlvs_max_error	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
mlvs\_max\_error <int1>
```

1.7.14 `xor_max_error`

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	xor_max_error	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
xor\_max\_error <int1>
```

1.7.15 `density_max_error`

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	density_max_error		—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
density\_max\_error <int1>
```

1.7.16 `antenna_max_error`

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	antenna_max_error	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
antenna\_max\_error <int1>
```

1.7.17 dfm_max_error

Description.

Limit the number of errors recorded for the category; extra errors suppressed after the cap.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	dfm_max_error	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
dfm\_max\_error <int1>
```

1.8 Density DFM Settings

1.8.1 `density_layer`

Description.

Configure density analysis: target layer, pixel size, and window/stride parameters.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	density_layer	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
density\_layer <string1>  
density\_layer VDD
```

1.8.2 density_pixel

Description.

Configure density analysis: target layer, pixel size, and window/stride parameters.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	density_pixel	—	—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
density\_pixel <int1>  
density\_pixel 2
```

1.8.3 density_window

Description.

Configure density analysis: target layer, pixel size, and window/stride parameters.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	density_window	—	—	Command keyword
arg1	integer	required	—	Positional argument
arg2	integer	required	—	Positional argument
arg3	integer	required	—	Positional argument
arg4	integer	required	—	Positional argument
arg5	integer	required	—	Positional argument

Example Usage.

```
density\_window <int1> <int2> <int3> <int4> <int5>  
density\_window 1000 1000 100 100 0
```

1.9 GUI Display

1.9.1 `gui_display_single_layer`

Description.

GUI: display only the specified layer (hides all others).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	gui_display_single_layer	—	—	Command keyword
arg1	string (path/id)	required	—	Positional argument

Example Usage.

```
gui\_display\_single\_layer <string1>  
gui\_display\_single\_layer VDD
```

1.9.2 `gui_display_all_layers`

Description.

GUI: display all layers.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	gui_display_all_layers	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

gui_display_all_layers

1.9.3 load_gui

Description.

Launch or attach GUI for interactive viewing of layout/rules/markers.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	load_gui	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

load_gui

1.9.4 `cmd_line_only`

Description.

Force command-line mode (no GUI). Suited for servers and CI.

Best practices:

- Validate paths before invocation; prefer relative project paths.
- Use consistent naming for DBs and reports to simplify CI.
- When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	cmd_line_only	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

cmd_line_only

1.9.5 `set_gui_xor_result`

Description.

Toggle rendering of XOR results in GUI after a run (0/1).

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_gui_xor_result		—	Command keyword
arg1	integer	required	—	Positional argument

Example Usage.

```
set\_gui\_xor\_result <int1>  
set\_gui\_xor\_result 1
```

1.10 Logger

1.10.1 `disable_logger_timestamp`

Description.

Disable/enable timestamps in logger output.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	disable_logger_timestamp	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

disable_logger_timestamp

1.10.2 `enable_logger_timestamp`

Description.

Disable/enable timestamps in logger output.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	enable_logger_timestamp	—	—	Command keyword
—	(none)	—	—	No arguments

Example Usage.

enable_logger_timestamp

1.11 Geometry Queries

1.11.1 `query_rect`

Description.

Query rectangles within DBU coordinate window (lx ly ux uy) for CLI debugging/inspection.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	query_rect	—	—	Command keyword
arg1	integer	required	—	Positional argument
arg2	integer	required	—	Positional argument
arg3	integer	required	—	Positional argument
arg4	integer	required	—	Positional argument

Example Usage.

```
query\_rect <int1> <int2> <int3> <int4>
```

```
query\_rect 0 0 1000 1000
```

1.11.2 `set_die_area`

Description.

Define die bounding box in DBU coordinates (lx ly ux uy). Affects reporting/visualization.

Best practices: • Validate paths before invocation; prefer relative project paths. • Use consistent naming for DBs and reports to simplify CI. • When scripting, check exit codes and report presence.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
Command	set_die_area	—	—	Command keyword
arg1	integer	required	—	Positional argument
arg2	integer	required	—	Positional argument
arg3	integer	required	—	Positional argument
arg4	integer	required	—	Positional argument

Example Usage.

```
set\_die\_area <int1> <int2> <int3> <int4>
```

```
set\_die\_area 0 0 1000 1000
```

1.12 Appendix

1.12.1 Glossary

DRC	Design Rule Checking.
LVS	Layout vs. Schematic comparison.
SVS	Schematic vs. Schematic comparison.
GDS	Graphic Data System layout format.
CDL	Circuit Description Language netlist.
PDK	Process Design Kit.
DBU	Database Unit, the internal coordinate unit.

1.12.2 Example Complete Flow

```
init\_tool\_db project\_db
set\_tool\_db project\_db
set\_technode sky130hd
set\_top aes\_cipher\_top
read\_gds ./input/chip.gds
read\_lrf ./rules/sky130\_drc.lrf
run\_drc
report\_drc
read\_spice ./netlist/chip.spice
lvs\_enable\_ports 1
run\_lvs
report\_lvs
```

2 LRF (Layout Rules File Reference

2.1 `size (extent) -by 1.0 -layerOut bulk`

Description.

The `size` command reshapes geometry by performing an offset (grow or shrink) operation. In `extent` mode, it operates on the bounding extent of the input layer rather than on each polygon independently. Conceptually, the engine computes the minimal axis-aligned bounding rectangle that covers all shapes in the source layer and then expands or contracts that rectangle by the value supplied after `-by`.

This is useful for constructing guard or keep-out regions, enlarging search regions before subsequent Boolean operations, and creating context envelopes for checks such as enclosure or minimum surround. Because the operation is applied to a global extent rather than to each polygon, it preserves the overall footprint while smoothing small interior details.

Implementation notes: offsetting is usually Manhattan (L_1 metric) in sign-off decks to ensure deterministic grid snapping. Very large positive values of `-by` can cause the extent to overlap regions that were previously separated, which is sometimes intentional (e.g., to force a unified analysis box). Negative values contract the extent and may clip valid shapes—this is occasionally used to test margins under worst-case misalignment assumptions.

Edge cases to consider include empty inputs (which should yield an empty result), degenerate single-point extents, and numerical robustness near the database unit. The output can be emitted to a named layer via `-layerOut`; when omitted, the sized extent remains in the evaluation pipeline for subsequent operations.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
size	keyword	yes	—	Operation name.
(extent)	enum	yes	—	Operate on global bounding extent.
-by <float_value>	flag+number	yes	—	Offset amount; positive=grow, negative=shrink.
-layerOut <output_layer>	flag+layer	optional	—	Destination for the resulting extent.

Example Usage.

```
size (extent) -by <float\_value> -layerOut <output\_layer>
```

2.2 not bulk NWELL -layerOut PWELL

Description.

The `not` operator performs Boolean subtraction: all shapes from the first operand that overlap the second operand are removed. Here, subtracting NWELL from `bulk` yields the complement region (commonly called PWELL in technologies where the substrate is p-type). This derived region is used to drive checks that target features located outside wells, such as taps or implants that must reside strictly in the substrate.

Algorithmically, subtraction is computed per polygon with robust polygon clipping. The engine preserves layer semantics (datatypes, hierarchy) according to tool policy; most decks flatten for Boolean evaluation to avoid aliasing at cell boundaries. If `-layerOut` is specified, the result is materialized on the given layer, enabling reuse in subsequent rules and clear visualization in debug. When NWELL overlaps `bulk` exactly at an edge (touching but not overlapping), the treatment is implementation-defined; sign-off decks typically treat touching edges as non-overlap to avoid spurious slivers.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
not	keyword	yes	—	Boolean subtraction A.
bulk	layer	yes	—	Minuend (A).
NWELL	layer	yes	—	Subtrahend (B).
-layerOut PWell	flag+layer	yes	—	Output layer for A.

Example Usage.

```
not <layer1\_name> <layer2\_name> -layerOut <output\_layer>
```

2.3 not bulk NWELL

Description.

This form performs the same Boolean subtraction as the previous rule but keeps the result transient (piped to the next operation) rather than materializing it on a named layer. Use this when the result is an intermediate in a larger Boolean expression and does not need to be visualized or re-referenced.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
not	keyword	yes	—	Boolean subtraction A.
bulk	layer	yes	—	Minuend (A).
NWELL	layer	yes	—	Subtrahend (B).

Example Usage.

```
not <layer1\_name> <layer2\_name>
```

2.4 and DIFF NSDM -layerOut NDIFF

Description.

The and operator computes the geometric intersection of two layers. Intersecting DIFF (active diffusion) with NSDM (n-type source/drain implant mask) produces n-diffusion (NDIFF). This is a canonical derivation used to classify device regions and to drive transistor recognition or implant-specific rules.

Intersection is robust to hierarchy and handles coincident edges. If either operand is empty, the result is empty. Persisting the result with -layerOut is useful for repeated reuse (e.g., contacts over NDIFF, enclosure checks, and antenna accounting).

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
and	keyword	yes	—	Boolean intersection $A \cap B$.
DIFF	layer	yes	—	Diffusion (active).
NSDM	layer	yes	—	N+ implant mask.
-layerOut NDIFF	flag+layer	yes	—	Output n-diffusion layer.

Example Usage.

and <layer1_name> <layer2_name> -layerOut <output_layer>

2.5 and DIFF NSDM

Description.

Same intersection as above but transients the result in the evaluation pipeline. Use this form inside chained Boolean expressions to minimize the number of temporary layers while retaining clarity of intent.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
and	keyword	yes	—	Boolean intersection.
DIFF	layer	yes	—	First operand.
NSDM	layer	yes	—	Second operand.

Example Usage.

and <layer1_name> <layer2_name>

2.6 or PSD NSD -layerOut MYDIFF

Description.

The `or` operator forms the geometric union of two layers. Combining PSD (p-type S/D implant) and NSD (n-type S/D implant) yields a generalized S/D implant region that can be convenient when rules apply to either polarity. Materializing the union with `-layerOut` enables downstream reuse for contact density, spacing-to-metal, or keep-out analyses.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
or	keyword	yes	—	Boolean union $A \cup B$.
PSD	layer	yes	—	P+ implant mask.
NSD	layer	yes	—	N+ implant mask.
-layerOut MYDIFF	flag+layer	yes	—	Output union layer.

Example Usage.

or <layer1_name> <layer2_name> -layerOut <output_layer>

2.7 or PSD NSD

Description.

Same union as above, but the result remains in-flight for immediate consumption by subsequent operations. Use this for concise one-liners that derive generalized regions without cluttering the namespace with temporary layers.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
or	keyword	yes	—	Boolean union.
PSD	layer	yes	—	First operand.
NSD	layer	yes	—	Second operand.

Example Usage.

or <layer1_name> <layer2_name>

2.8 `get_corners` DIFF -layerOut CD

Description.

`get_corners` extracts polygon corner features from the input layer. Corners are typically identified by evaluating interior angles at vertices; for orthogonal layouts, corners are usually 90° or 270° , but corner classification can include convex vs. concave, acute vs. obtuse, and minimum radius criteria.

This command is commonly used to detect notch-prone shapes, to drive corner smoothing rules, or to locate places where additional enclosure or spacing is required due to lithographic sensitivity. Emitting the result to an output layer (CD) allows visualization of the corner markers and correlation with downstream spacing or enclosure checks.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
get_corners	keyword	yes	—	Corner feature extraction.
DIFF	layer	yes	—	Source layer.
-layerOut CD	flag+layer	yes	—	Output layer for corner markers.

Example Usage.

```
get\_corners <layer1\_name> -layerOut <output\_layer>
```

2.9 `get_corners` DIFF

Description.

Same as above without emitting an explicit output layer. Use when corner features are immediately filtered or combined with other feature-extraction commands.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
get_corners	keyword	yes	—	Corner extraction.
DIFF	layer	yes	—	Source layer.

Example Usage.

```
get\_corners <layer1\_name>
```

2.10 `get_intersecting LICON DIFF -layerOut diff_licon`

Description.

`get_intersecting` filters shapes from the first layer that geometrically intersect shapes from the second layer. Using `ICON` as the primary set and `DIFF` as the intersect-with set yields contacts placed over active diffusion. This derived subset is widely used to check enclosure of contacts by implant or well, to count contact density, or to compute antenna contributions.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
get_intersecting	keyword	yes	—	Retain shapes from A that intersect B.
LICON	layer	yes	—	Primary set (candidate shapes).
DIFF	layer	yes	—	Intersect-with set.
-layerOut diff_licon	flag+layer	yes	—	Output subset layer.

Example Usage.

```
get\_intersecting <layer1\_name> <layer2\_name> -layerOut <output\_layer>
```

2.11 `get_intersecting LICON DIFF`

Description.

Same intersection as above, but the result remains transient for subsequent processing. This is convenient when the intersected subset feeds immediately into spacing, enclosure, or sizing operations.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
get_intersecting	keyword	yes	—	Filter by intersection.
LICON	layer	yes	—	Primary set.
DIFF	layer	yes	—	Intersect-with set.

Example Usage.

```
get\_intersecting <layer1\_name> <layer2\_name>
```

2.12 enclosure -all_side VARAC NWELL -lt 0.15

Description.

enclosure measures how much a target layer surrounds a reference layer. The -all_side mode requires that the enclosing layer (here NWELL) meets the threshold on every side of the inner layer (VARAC). The comparator -lt flags locations where the measured enclosure is less than the specified margin.

Typical uses include ensuring that sensitive devices (e.g., varactors) sit within a protective region (well, guard ring) with adequate margin. Measurement can be implemented by dilating the inner layer by the required margin and checking that the result is completely contained within the outer layer, or by computing minimum edge-to-edge distances around the inner perimeter.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
enclosure	keyword	yes	—	Measure surrounding margin.
-all_side	flag	yes	—	Require enclosure on every side.
VARAC	layer	yes	—	Inner (enclosed) layer.
NWELL	layer	yes	—	Outer (enclosing) layer.
-lt <float_value>	flag+number	yes	—	Flag if enclosure < threshold.

Example Usage.

```
enclosure -all\_side <layer1\_name> <layer2\_name> -lt <float\_value>
```

2.13 enclosure -all_side VARAC NWELL -lt 0.15 -layerOut
temp

Description.

Same as the previous rule but emits the failing (or measured) regions to a named layer for inspection. This is helpful to debug marginal margins around device edges and to attach error markers for reporting.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
enclosure	keyword	yes	—	Measure surrounding margin.
-all_side	flag	yes	—	Require enclosure on every side.
VARAC	layer	yes	—	Inner (enclosed) layer.
NWELL	layer	yes	—	Outer (enclosing) layer.
-lt <float_value>	flag+number	yes	—	Flag if enclosure < threshold.
-layerOut <output_layer>	flag+layer	yes	—	Materialize result.

Example Usage.

```
enclosure -all\_side <layer1\_name> <layer2\_name> -lt <float\_value> -layerOut <
```

2.14 `enclosure -opposite_side licon_poly POLY -lt 0.08`
`-layerOut temp`

Description.

The `-opposite_side` mode measures enclosure on the side opposite a reference edge or anchor. This is useful when only one side of a feature needs a particular margin—for example, ensuring that a contact near the edge of a poly gate has adequate poly extension on the far side (opposite the contact edge). The `-lt` comparator flags insufficient enclosure relative to the threshold.

Internally, the tool identifies the reference side based on local edge normals or a designated anchor relationship between the two layers. Only the opposite side is evaluated; other sides may be below threshold without being reported by this rule.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
enclosure	keyword	yes	—	Enclosure measurement.
-opposite_side	flag	yes	—	Measure on the opposite side only.
licon_poly	layer	yes	—	Inner or reference feature.
POLY	layer	yes	—	Enclosing/target layer.
-lt <float_value>	flag+number	yes	—	Flag if enclosure < threshold.
-layerOut <output_layer>	flag+layer	yes	—	Emit result layer.

Example Usage.

```
enclosure -opposite\_side <layer1\_name> <layer2\_name> -lt <float\_value> -layer0
```

2.15 enclosure -opposite_side licon_poly POLY -lt 0.08

Description.

Same as the previous opposite-side enclosure check but leaves the result transient for immediate use in chained checks without materializing an output layer.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
enclosure	keyword	yes	—	Enclosure measurement.
-opposite_side	flag	yes	—	Opposite-side mode.
licon_poly	layer	yes	—	Inner/reference feature.
POLY	layer	yes	—	Enclosing layer.
-lt <float_value>	flag+number	yes	—	Comparator threshold.

Example Usage.

```
enclosure -opposite\_side <layer1\_name> <layer2\_name> -lt <float\_value>
```

2.16 `density_rule "min_fail" ...`

Description.

`density_rule` declares a sliding-window density analysis. With a `min_fail` profile, the engine reports windows whose coverage falls below `density_minimum`. The window is defined by `density_window` and slid across the design by `density_step`. Optional `density_exclude` regions are subtracted from the analysis area to avoid false positives (e.g., over large blockage shapes).

Manufacturing motivations: insufficient pattern density can cause CMP dishing, erosion, and non-uniformity in lithography. Foundry decks therefore enforce lower bounds per layer and sometimes per direction. The `density_surround` adds a margin (halo) around the evaluation window to account for proximity effects. `density_mode TEST` selects a diagnostic mode; `density_report` assigns a tagged name to the output report to organize multiple analyses in a run.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
density_rule min_fail"	block	yes	—	Begin density block.
density_layer <layer_name>	layer	yes	—	Layer to analyze.
density_window SIZE <int> BY <int>	window	yes	—	Window size (DB units or um).
density_step <int>	number	optional	—	Stride between adjacent windows.
density_exclude <layer>	layer	optional	—	Subtract from analysis area.
density_maximum <float>	number	optional	1.0	Upper bound (rarely used for min_fail).
density_minimum <float>	number	optional	—	Lower bound for pass.
density_surround <int>	number	optional	0	Halo around window.
density_mode TEST	enum	optional	DEFAULT	Analysis mode.
density_report <string>	string	optional	—	Named report id.
density_min_fail	flag	optional	—	Emit min-density failures.

Example Usage.

```
density\_rule "min\_fail" {  
    density\_layer <layer1\_name>
```

```
density\_window SIZE <int\_value> BY <int\_value>
density\_step <int\_value>
density\_exclude <layer2\_name>
density\_maximum <float\_value>
density\_minimum <float\_value>
density\_surround <int\_value>
density\_mode TEST
density\_report <string\_id>
density\_min\_fail
}
```

2.17 `density_rule "max_fail" ...`

Description.

This density profile flags windows that exceed the maximum threshold or fall outside a permitted range. Directional flags (`density_xdir_fail`, `density_ydir_fail`) partition the design into directional slices to capture anisotropy (e.g., long metals preferentially oriented in X). `density_out_of_range` reports any window below `minimum` or above `maximum`, depending on previously declared bounds (from another density block or defaults).

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
density_rule max_fail"	block	yes	—	Begin density block.
density_maximum <float>	number	optional	—	Upper bound for pass.
density_max_fail	flag	optional	—	Emit max-density failures.
density_out_of_range	flag	optional	—	Emit if below min or above max.
density_xdir_fail	flag	optional	—	Directional failure in X.
density_ydir_fail	flag	optional	—	Directional failure in Y.

Example Usage.

```
density\_rule "max\_fail" {  
    density\_maximum <float\_value>  
    density\_out\_of\_range  
    density\_xdir\_fail  
    density\_ydir\_fail  
    density\_max\_fail  
}
```

2.18 `get_intersecting -neg npc poly_licon`

Description.

With the `-neg` modifier, `get_intersecting` returns shapes from the first operand that do *not* intersect the second operand. For `npc` vs. `poly_licon`, this isolates nitride-poly-cut shapes that are clear of poly contacts—useful to find missing or misaligned contacts, or to assert keep-out spacing from contact regions.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
<code>get_intersecting</code>	keyword	yes	—	Intersection-based filter.
<code>-neg</code>	flag	optional	off	Invert selection (A minus intersect(A,B)).
<code>npc</code>	layer	yes	—	Primary set.
<code>poly_licon</code>	layer	yes	—	Intersect-with set.

Example Usage.

```
get\_intersecting -neg <layer1\_name> <layer2\_name>
```

2.19 `get_intersecting npc poly_licon`

Description.

Standard intersection of nitride-poly-cut with poly contacts. Use to drive enclosure of poly around contacts, or to verify that only intended poly regions are cut.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
get_intersecting	keyword	yes	—	Filter A by intersection with B.
npc	layer	yes	—	Primary set.
poly_licon	layer	yes	—	Intersect-with set.

Example Usage.

```
get\_intersecting <layer1\_name> <layer2\_name>
```

2.20 `get_intersecting -neg npc poly_licon -layer0ut somelayer`

Description.

Same as the negative-intersection rule, but the result is materialized for review and reuse. Persisting the subset aids visualization and simplifies subsequent rule blocks that reference the same derived geometry.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
get_intersecting	keyword	yes	—	Filter based on (non-)intersection.
-neg	flag	yes	on	Return shapes in A that do not intersect B.
npc	layer	yes	—	Primary set.
poly_licon	layer	yes	—	Second set.
-layerOut <output_layer>	flag+layer	yes	—	Output layer.

Example Usage.

```
get\_intersecting -neg <layer1\_name> <layer2\_name> -layerOut <output\_layer>
```

2.21 `lvr_layer_map 235 -datatype 4 30000`

Description.

Maps a source GDS/OAS layer number and datatype to an internal LVR layer id. This decouples foundry-specific stream assignments from rule logic and lets the deck use semantic names elsewhere. Multiple mappings can target the same internal id to aggregate equivalent inputs (e.g., OPC variants).

Conflicts should be avoided: mapping the same (layer,datatype) pair twice to different ids is undefined. If `-datatype` is omitted, a default (often 0) is assumed. Use explicit mapping entries to ensure robust import across design libraries and PDK revisions.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
lvr_layer_map	keyword	yes	—	Create mapping entry.
<int_layer>	number	yes	—	Source stream layer.
-datatype <int>	flag+number	optional	0	Source datatype.
<int_id>	number	yes	—	Internal LVR layer id.

Example Usage.

```
lvr\_layer\_map <int\_layer> -datatype <int\_value> <int\_id>
```

2.22 `lvr_layer_map 74 -texttype 5 30320`

Description.

Like `lvr_layer_map` for geometry, this variant maps source text layers by `texttype`. Text layers are used for labels, pin names, or markers that participate in LVS and annotation flows. Mapping ensures consistent ingestion of text semantics across libraries.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
lvr_layer_map	keyword	yes	—	Create mapping entry.
<int_layer>	number	yes	—	Source text layer.
-texttype <int>	flag+number	yes	—	Source text type.
<int_id>	number	yes	—	Internal text layer id.

Example Usage.

```
lvr\_layer\_map <int\_layer> -texttype <int\_value> <int\_id>
```

2.23 `lvr_layer_def` BOUND 30000

Description.

Defines a symbolic alias for an internal layer id. Whereas `lvr_layer_map` binds external stream codes to internal ids, `lvr_layer_def` binds human-readable names (e.g., BOUND) to those ids for use elsewhere in the deck. This improves readability and allows refactoring without touching numerical ids.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
lvr_layer_def	keyword	yes	—	Define alias.
<layer_alias>	string	yes	—	Symbolic layer name.
<int_id>	number	yes	—	Existing internal id.

Example Usage.

```
lvr\_layer\_def <layer\_alias> <int\_id>
```

2.24 connect layer1 layer2

Description.

Declares physical/electrical connectivity between two layers. The most common use is to connect conductor layers via a via/contact layer (e.g., M1 connected to M2 through V1). Connectivity declarations build the graph that LVS uses to compute nets from geometry.

Connections are undirected and typically transitive: if A is connected to B and B to C, then A is connected to C. The order of declarations does not matter, but the graph must remain acyclic with respect to purpose (no layer should be both a via and a conductor simultaneously). Some flows also support conditional connect (e.g., within device recognition regions) for advanced extraction control.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
connect	keyword	yes	—	Declare connectivity.
<layer1_name>	layer	yes	—	First layer.
<layer2_name>	layer	yes	—	Second layer.

Example Usage.

```
connect <layer1\_name> <layer2\_name>
```

2.25 lvs_timeout 10

Description.

Sets a wall-clock timeout (seconds) applied to LVS phases such as device recognition, graph matching, or equivalence checking. Timeouts are safeguards for pathological cases (e.g., degenerate hierarchies or mismatched black boxes).

When a timeout elapses, the engine should fail gracefully and record the scope in the report. Use conservative values to avoid masking genuine issues; prefer granular timeouts per phase rather than a single global ceiling when available.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
lvs_timeout	keyword	yes	—	Set timeout policy.
<int_value>	number (s)	yes	—	Timeout in seconds.

Example Usage.

```
lvs\_timeout <int\_value>
```

2.26 `caption "dnwell.2 : min. dnwell width : 3.0um"`

Description.

Assigns a human-readable label to the next emitted markers or to the immediately following rule block (e.g., a `drc_rule`). Captions convey intent to designers and appear in reports, marker browsers, or GUIs.

Good captions include the rule id, a short description, and the key threshold (e.g., minimum width). Keep them stable across deck revisions to maintain traceability between runs.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
caption	keyword	yes	—	Attach label to following rule(s).
<free_text>	string	yes	—	Caption text.

Example Usage.

```
caption \"<rule\_id> : <short\_description> : <float\_value>um\"
```

2.27 `drc_rule "dnwell.2"`

Description.

Opens a DRC rule block for checks associated with the logical caption `"dnwell.2"`. Within this block, exactly one primitive check is typically placed, preceded by a human-readable `caption`. Using a consistent caption unifies report text, marker browser labels, and documentation references. Rule authors often keep one check per block to simplify debug and per-rule enable/disable.

The block does not by itself enforce any geometry constraint; semantics come from the enclosed primitive (e.g., `edge_width`, `spacing`). The wrapper standardizes output formatting and makes downstream parsing predictable. When multiple similar checks are needed, duplicate the block with distinct captions (e.g., `"dnwell.2a"`, `"dnwell.2b"`) to keep markers disambiguated.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
drc_rule {	block opener	yes	—	Begins the rule block.
caption "dnwell.2"	string	yes	—	Human-readable tag shown in reports/markers.
<drc_rule>	line	yes	—	The actual check (see entries below).
}	block closer	yes	—	Ends the rule block.

Example Usage.

```
drc_rule "rule_name" {  
  caption "dnwell.2"  
  <drc_rule>  
}
```

2.28 `edge_width DNWELL -lt 3.0`

Description.

Checks that the edge-based width of shapes on DNWELL is strictly less than 3.0. In a “minimum width” specification, decks commonly encode a fail when width is *less than* the minimum, so this primitive is used with the block’s caption/reporting to flag sub-minimum wells. Edge-width measurement follows the engine’s definition (e.g., medial-axis or offset-based), which should be consistent across layers to avoid bias near corners and notches.

Corner rounding and grid quantization may slightly perturb measured widths near acute features; sign-off flows typically heal slivers or snap to a manufacturing grid before measurement to stabilize results across variants.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
edge_width	keyword	yes	—	Measures polygon edge-based width.
DNWELL	layer	yes	—	Target layer to measure.
-lt 3.0	flag+number	yes	—	Width must be < the threshold.

Example Usage.

```
drc_rule "rule_name" {  
    caption "dnwell.2"  
    edge_width DNWELL -lt 3.0  
}
```

2.29 `edge_width DNWELL -lt 3.0 (duplicate)`

Description.

This is a separate, duplicate entry documented independently (no grouping), to allow distinct reporting or future threshold tuning while preserving the same caption context.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
edge_width	keyword	yes	—	Same semantics as prior entry.
DNWELL	layer	yes	—	Target layer.
-lt 3.0	flag+number	yes	—	Threshold repeated intentionally.

Example Usage.

```
drc_rule "rule_name" {  
  caption "dnwell.2"  
  edge_width DNWELL -lt 3.0  
}
```

2.30 `edge_width DNWELL -gt 3.0`

Description.

Checks that the edge-based width of `DNWELL` is strictly greater than 3.0. This can be used for “maximum-width” or “forbidden narrow channel” style constraints depending on deck policy. Use with caution alongside the `-lt` variant to avoid contradictory requirements.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
edge_width	keyword	yes	—	Edge-based width metric.
DNWELL	layer	yes	—	Target layer.
-gt 3.0	flag+number	yes	—	Width must be > the threshold.

Example Usage.

```
drc_rule "rule_name" {  
    caption "dnwell.2"  
    edge_width DNWELL -gt 3.0  
}
```

2.31 extension DNWELL DNWELL -eq 0

Description.

Checks that the extension between the two operands is exactly zero (abutment). For self-operand use, this often validates that adjacent DNWELL instances either do not overlap or meet perfectly without overhangs. Exact-equal tests are sensitive to grid/rounding; prefer normalized database units and healed boundaries to reduce false flags on coincident edges.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
extension	keyword	yes	—	Edge/endpoint extension metric.
DNWELL	layer	yes	—	First operand.
DNWELL	layer	yes	—	Second operand.
-eq 0	flag+number	yes	—	Exact equality (use healed geometry).

Example Usage.

```
drc_rule "rule_name" {  
  caption "dnwell.2"  
  extension DNWELL DNWELL -eq 0  
}
```

2.32 extension DNWELL DNWELL -lt 0.1

Description.

Checks that the extension between the two operands is strictly less than 0.1. This is useful to cap overhangs or near-abutment allowances where slight overlaps are permitted but bounded.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
extension	keyword	yes	—	Extension metric between operands.
DNWELL	layer	yes	—	First operand.
DNWELL	layer	yes	—	Second operand.
-lt 0.1	flag+number	yes	—	Threshold for “less-than” constraint.

Example Usage.

```
drc_rule "rule_name" {  
    caption "dnwell.2"  
    extension DNWELL DNWELL -lt 0.1  
}
```

2.33 edge_length MF -lt 7.2

Description.

Checks that the measured edge length (contour length of shapes) on layer MF is strictly less than 7.2. Depending on engine semantics, this can target short-edge constraints or be repurposed to gate patterns that should not form excessively short segments.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
edge_length	keyword	yes	—	Measures perimeter segment length(s).
MF	layer	yes	—	Target layer.
-lt 7.2	flag+number	yes	—	Edge length must be < threshold.

Example Usage.

```
drc_rule "rule_name" {  
    caption "dnwell.2"  
    edge_length MF -lt 7.2  
}
```

2.34 area MET3 -lt 0.24

Description.

Checks that the polygon area on MET3 is strictly less than 0.24. This is typically used to catch undersized features or enforce minimum-area constraints by flagging shapes below a required floor.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
area	keyword	yes	—	Computes polygon area.
MET3	layer	yes	—	Target layer.
-lt 0.24	flag+number	yes	—	Area must be < threshold.

Example Usage.

```
drc_rule "rule_name" {  
    caption "dnwell.2"  
    area MET3 -lt 0.24  
}
```

2.35 area MET3 -lt 0.24 -layerOut temp

Description.

Same as the previous area check, but the resulting fail/diagnostic regions are materialized to output layer temp for visualization and reuse in follow-on debug rules. The exact contents (fail shapes, measured clips, or references) depend on engine policy.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
area	keyword	yes	—	Polygon area evaluation.
MET3	layer	yes	—	Target layer.
-lt 0.24	flag+number	yes	—	Area must be < threshold.
-layerOut temp	flag+layer	yes	—	Sends result to temp.

Example Usage.

```
drc_rule "rule_name" {  
    caption "dnwell1.2"  
    area MET3 -lt 0.24 -layerOut temp  
}
```

2.36 `spacing -wider 1.5 -longer 4.0 -same_layer metal8
metal8 -lt 1.5`

Description.

Same-layer spacing check on `metal8` with qualifiers: `-wider 1.5` indicates that shapes wider than this value are considered in the spacing context; `-longer 4.0` similarly filters by length. The `-same_layer metal8 metal8` scope restricts measurement to intra-layer pairs. The `-lt 1.5` comparator enforces a minimum spacing of 1.5 (violations where spacing falls below the threshold).

Qualifier semantics (width/length measurement axes) follow the engine and PDK conventions; ensure the deck's global grid/angle settings match routing style.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
spacing	keyword	yes	—	Spacing/edge-to-edge measurement.
-wider 1.5	flag+number	no	—	Consider only shapes wider than value.
-longer 4.0	flag+number	no	—	Consider only shapes longer than value.
-same_layer metal8 metal8	scope	yes	—	Intra-layer spacing on metal8.
-lt 1.5 <i>gethreshold; fails when j.</i>	flag+number	yes	—	Spacing must be

Example Usage.

```
drc_rule "rule_name" {  
    caption "dnwell.2"  
    spacing -wider 1.5 -longer 4.0 -same_layer metal8 metal8 -lt 1.5  
}
```

2.37 spacing -same_layer DNWELL DNWELL -lt 6.3

Description.

Same-layer spacing check on DNWELL polygons. The comparator flags any pair of well shapes that violate the minimum separation of 6.3.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
spacing	keyword	yes	—	Edge-to-edge spacing measurement.
-same_layer DNWELL DNWELL	scope	yes	—	Intra-layer well-to-well spacing.
-lt 6.3 <i>gethreshold; fails when j.</i>	flag+number	yes	—	Spacing must be

Example Usage.

```
drc_rule "rule_name" {  
    caption "dnwell.2"  
    spacing -same_layer DNWELL DNWELL -lt 6.3  
}
```

2.38 spacing LVTN HVTP -1t 0.38

Description.

Inter-layer spacing check between LVTN and HVTP. This captures proximity requirements across two different implant or threshold-related layers. The comparator encodes the minimum allowed separation; pairs closer than the threshold are reported as violations.

Syntax and Arguments.

Parameter	Type	Required	Default	Notes
spacing	keyword	yes	—	Inter-layer spacing measurement.
LVTN	layer	yes	—	First layer operand.
HVTP	layer	yes	—	Second layer operand.
-lt 0.38	flag+number	yes	—	Spacing must be <i>gethreshold; failswhenj</i> .

Example Usage.

```
drc_rule "rule_name" {  
    caption "dnwell.2"  
    spacing LVTN HVTP -lt 0.38  
}
```

3 LRF File Examples

3.1 SKY130.lrf Example

```
lvr_layer_map 235 -datatype 4 30000  
lvr_layer_def BOUND 30000  
lvr_layer_map 64 -datatype 18 30005  
lvr_layer_def DNWELL 30005  
lvr_layer_map 64 -datatype 13 30010  
lvr_layer_def PWRES 30010  
lvr_layer_map 64 -datatype 20 30015  
lvr_layer_def NWELL 30015  
lvr_layer_map 64 -texttype 5 30020  
lvr_layer_def NWELLTXT 30020  
lvr_layer_map 64 -datatype 16 30025  
lvr_layer_def NWELLPIN 30025  
lvr_layer_map 122 -texttype 5 30030  
lvr_layer_def SUBTXT 30030  
lvr_layer_map 64 -texttype 59 30035  
lvr_layer_def SUBPIN 30035  
lvr_layer_map 65 -datatype 20 30040  
lvr_layer_def DIFF 30040  
lvr_layer_map 65 -datatype 44 30045  
lvr_layer_def TAP 30045  
lvr_layer_map 94 -datatype 20 30050  
lvr_layer_def PSDM 30050
```

```

lvr_layer_map 93 -datatype 44 30055
lvr_layer_def NSDM 30055
lvr_layer_map 125 -datatype 44 30060
lvr_layer_def LVTN 30060
lvr_layer_map 18 -datatype 20 30065
lvr_layer_def HVTR 30065
lvr_layer_map 78 -datatype 44 30070
lvr_layer_def HVTP 30070
lvr_layer_map 80 -datatype 20 30075
lvr_layer_def SONOS 30075
lvr_layer_map 81 -datatype 2 30080
lvr_layer_def COREID 30080
lvr_layer_map 81 -datatype 4 30085
lvr_layer_def STDCELL 30085
lvr_layer_map 82 -datatype 20 30090
lvr_layer_def NPNID 30090
lvr_layer_map 82 -datatype 44 30095
lvr_layer_def PNPID 30095
lvr_layer_map 86 -datatype 20 30100
lvr_layer_def RPM 30100
lvr_layer_map 79 -datatype 20 30105
lvr_layer_def URPM 30105
lvr_layer_map 11 -datatype 44 30110
lvr_layer_def LDNTM 30110
lvr_layer_map 125 -datatype 20 30115
lvr_layer_def HVNTM 30115
lvr_layer_map 66 -datatype 20 30120
lvr_layer_def POLY 30120
lvr_layer_map 66 -texttype 5 30125
lvr_layer_def POLYTXT 30125
lvr_layer_map 66 -datatype 16 30130
lvr_layer_def POLYPIN 30130
lvr_layer_map 75 -datatype 20 30135
lvr_layer_def HVI 30135
lvr_layer_map 66 -datatype 44 30140
lvr_layer_def LICON 30140
lvr_layer_map 95 -datatype 20 30145
lvr_layer_def NPC 30145
lvr_layer_map 65 -datatype 13 30150
lvr_layer_def DIFFRES 30150
lvr_layer_map 66 -datatype 13 30155
lvr_layer_def POLYRES 30155
lvr_layer_map 66 -datatype 15 30160
lvr_layer_def POLYSHO 30160
lvr_layer_map 81 -datatype 23 30165
lvr_layer_def DIODE 30165
lvr_layer_map 67 -datatype 20 30170
lvr_layer_def LI 30170
lvr_layer_map 67 -texttype 5 30175
lvr_layer_def LITXT 30175
lvr_layer_map 67 -datatype 16 30180
lvr_layer_def LIPIN 30180
lvr_layer_map 67 -datatype 13 30185
lvr_layer_def LIRES 30185
lvr_layer_map 67 -datatype 44 30190
lvr_layer_def MCON 30190
lvr_layer_map 68 -datatype 20 30195
lvr_layer_def MET1 30195
lvr_layer_map 68 -texttype 5 30200
lvr_layer_def MET1TXT 30200
lvr_layer_map 68 -datatype 16 30205
lvr_layer_def MET1PIN 30205

```

```
lvr_layer_map 68 -datatype 13 30210
lvr_layer_def MET1RES 30210
lvr_layer_map 68 -datatype 44 30215
lvr_layer_def VIA1 30215
lvr_layer_map 69 -datatype 20 30220
lvr_layer_def MET2 30220
lvr_layer_map 69 -texttype 5 30225
lvr_layer_def MET2TXT 30225
lvr_layer_map 69 -datatype 16 30230
lvr_layer_def MET2PIN 30230
lvr_layer_map 69 -datatype 13 30235
lvr_layer_def MET2RES 30235
lvr_layer_map 69 -datatype 44 30240
lvr_layer_def VIA2 30240
lvr_layer_map 70 -datatype 20 30245
lvr_layer_def MET3 30245
lvr_layer_map 70 -texttype 5 30250
lvr_layer_def MET3TXT 30250
lvr_layer_map 70 -datatype 16 30255
lvr_layer_def MET3PIN 30255
lvr_layer_map 70 -datatype 13 30260
lvr_layer_def MET3RES 30260
lvr_layer_map 70 -datatype 44 30265
lvr_layer_def VIA3 30265
lvr_layer_map 71 -datatype 20 30270
lvr_layer_def MET4 30270
lvr_layer_map 71 -texttype 5 30275
lvr_layer_def MET4TXT 30275
lvr_layer_map 71 -datatype 16 30280
lvr_layer_def MET4PIN 30280
lvr_layer_map 71 -datatype 13 30285
lvr_layer_def MET4RES 30285
lvr_layer_map 71 -datatype 44 30290
lvr_layer_def VIA4 30290
lvr_layer_map 72 -datatype 20 30295
lvr_layer_def MET5 30295
lvr_layer_map 72 -texttype 5 30300
lvr_layer_def MET5TXT 30300
lvr_layer_map 72 -datatype 16 30305
lvr_layer_def MET5PIN 30305
lvr_layer_map 72 -datatype 13 30310
lvr_layer_def MET5RES 30310
lvr_layer_map 74 -datatype 20 30315
lvr_layer_def RDL 30315
lvr_layer_map 74 -texttype 5 30320
lvr_layer_def RDLTXT 30320
lvr_layer_map 74 -datatype 16 30325
lvr_layer_def RDLPIN 30325
lvr_layer_map 76 -datatype 20 30330
lvr_layer_def GLASS 30330
lvr_layer_map 89 -datatype 44 30335
lvr_layer_def CAPM 30335
lvr_layer_map 97 -datatype 44 30340
lvr_layer_def CAPM2 30340
lvr_layer_map 81 -datatype 14 30345
lvr_layer_def LOWTAPD 30345
lvr_layer_map 62 -datatype 24 30350
lvr_layer_def FILLOBSM1 30350
lvr_layer_map 105 -datatype 52 30355
lvr_layer_def FILLOBSM2 30355
lvr_layer_map 107 -datatype 24 30360
lvr_layer_def FILLOBSM3 30360
```

```
lvr_layer_map 112 -datatype 4 30365
lvr_layer_def FILLOBSM4 30365
lvr_layer_map 92 -datatype 44 30370
lvr_layer_def NCM 30370
lvr_layer_map 236 -datatype 0 30375
lvr_layer_def SUB 30375
```

```
lvr_layer_map 61 -datatype 20 30380
lvr_layer_def NSM 30380
lvr_layer_map 89 -datatype 44 30385
lvr_layer_def CAPM 30385
lvr_layer_map 97 -datatype 44 30390
lvr_layer_def CAP2M 30390
lvr_layer_map 74 -datatype 21 30395
lvr_layer_def VHVI 30395
lvr_layer_map 74 -datatype 22 30400
lvr_layer_def UHVI 30400
lvr_layer_map 82 -datatype 20 30405
lvr_layer_def NPN 30405
lvr_layer_map 82 -datatype 24 30410
lvr_layer_def INDUCTOR 30410
lvr_layer_map 82 -datatype 64 30415
lvr_layer_def VPP 30415
lvr_layer_map 82 -datatype 44 30420
lvr_layer_def PNP 30420
lvr_layer_map 84 -datatype 44 30425
lvr_layer_def LVS_PRUNE 30425
lvr_layer_map 92 -datatype 44 30430
lvr_layer_def NCM 30430
lvr_layer_map 81 -datatype 20 30435
lvr_layer_def PADCENTER 30435
lvr_layer_map 76 -datatype 44 30440
lvr_layer_def MF 30440
lvr_layer_map 81 -datatype 1 30445
lvr_layer_def AREAID_SL 30445
lvr_layer_map 81 -datatype 2 30450
lvr_layer_def AREAID_CE 30450
lvr_layer_map 81 -datatype 3 30455
lvr_layer_def AREAID_FE 30455
lvr_layer_map 81 -datatype 4 30460
lvr_layer_def AREAID_SC 30460
lvr_layer_map 81 -datatype 6 30465
lvr_layer_def AREAID_SF 30465
lvr_layer_map 81 -datatype 7 30470
lvr_layer_def AREAID_SW 30470
lvr_layer_map 81 -datatype 8 30475
lvr_layer_def AREAID_SR 30475
lvr_layer_map 81 -datatype 10 30480
lvr_layer_def AREAID_MT 30480
lvr_layer_map 81 -datatype 11 30485
lvr_layer_def AREAID_DT 30485
lvr_layer_map 81 -datatype 12 30490
lvr_layer_def AREAID_FT 30490
lvr_layer_map 81 -datatype 13 30495
lvr_layer_def AREAID_WW 30495
lvr_layer_map 81 -datatype 14 30500
lvr_layer_def AREAID_LD 30500
lvr_layer_map 81 -datatype 15 30505
lvr_layer_def AREAID_NS 30505
lvr_layer_map 81 -datatype 17 30510
```

```

lvr_layer_def AREAID_IJ 30510
lvr_layer_map 81 -datatype 18 30515
lvr_layer_def AREAID_ZR 30515
lvr_layer_map 81 -datatype 19 30520
lvr_layer_def AREAID_ED 30520
lvr_layer_map 81 -datatype 23 30525
lvr_layer_def AREAID_DE 30525
lvr_layer_map 81 -datatype 24 30530
lvr_layer_def AREAID_RD 30530
lvr_layer_map 81 -datatype 50 30535
lvr_layer_def AREAID_DN 30535
lvr_layer_map 81 -datatype 51 30540
lvr_layer_def AREAID_CR 30540
lvr_layer_map 81 -datatype 52 30545
lvr_layer_def AREAID_CD 30545
lvr_layer_map 81 -datatype 53 30550
lvr_layer_def AREAID_ST 30550
lvr_layer_map 81 -datatype 54 30555
lvr_layer_def AREAID_OP 30555
lvr_layer_map 81 -datatype 57 30560
lvr_layer_def AREAID_EN 30560
lvr_layer_map 81 -datatype 58 30565
lvr_layer_def AREAID_EN20 30565
lvr_layer_map 81 -datatype 60 30570
lvr_layer_def AREAID_LE 30570
lvr_layer_map 81 -datatype 63 30575
lvr_layer_def AREAID_HL 30575
lvr_layer_map 81 -datatype 70 30580
lvr_layer_def AREAID_SD 30580
lvr_layer_map 81 -datatype 81 30585
lvr_layer_def AREAID_PO 30585
lvr_layer_map 81 -datatype 84 30590
lvr_layer_def AREAID_IT 30590
lvr_layer_map 81 -datatype 101 30595
lvr_layer_def AREAID_ET 30595
lvr_layer_map 81 -datatype 108 30600
lvr_layer_def AREAID_LVT 30600
lvr_layer_map 81 -datatype 125 30605
lvr_layer_def AREAID_RE 30605
lvr_layer_map 81 -datatype 79 30610
lvr_layer_def AREAID_AG 30610
lvr_layer_map 66 -datatype 13 30615
lvr_layer_def POLY_RS 30615
lvr_layer_map 65 -datatype 13 30620
lvr_layer_def DIFF_RS 30620
lvr_layer_map 64 -datatype 13 30625
lvr_layer_def PWELL_RS 30625
lvr_layer_map 67 -datatype 13 30630
lvr_layer_def LI_RS 30630
lvr_layer_map 22 -datatype 20 30635
lvr_layer_def CFOM 30635

```

```

size ( extent ) -by 1.0 -layerOut bulk

```

```

not bulk NWEELL -layerOut PWELL
and DIFF NSDM -layerOut NDIFF
and DIFF PSDM -layerOut PDIFF
and PDIFF POLY -layerOut PGATE
and NDIFF POLY -layerOut NGATE
not PDIFF PGATE -layerOut PSD
not NDIFF NGATE -layerOut NSD

```

```

//not MYDIFF1 PGATE -layerOut MYDIFF2
//not MYDIFF2 NGATE -layerOut MYDIFF
or PSD NSD -layerOut MYDIFF
or POLY POLY -layerOut MYPOLY
//not POLY PGATE -layerOut POLY1
//not POLY1 NGATE -layerOut MYPOLY

```

```

connect LI LI
connect MET1 MET1
//connect MYDIFF MYDIFF
//connect PDIFF PDIFF
//connect NDIFF NDIFF
//connect PSD PSD
//connect NSD NSD
//connect POLY POLY
//connect MET1 MET1TXT
//connect MET2 MET2
//connect MET3 MET3
//connect MET4 MET4
//connect MET5 MET5
//connect NWELL NWELL
//connect NWELL NWELLTXT
//connect SUB SUB
//connect SUB SUBPIN
//connect SUB SUBTXT
connect VIA2 MET3
connect MET2 VIA2
connect VIA1 MET2
connect MET1 VIA1
connect MCON MET1
connect LI MCON
connect LICON LI
connect MYDIFF LICON
connect MYPOLY LICON
//connect PSD LICON
//connect NSD LICON
//connect POLY LICON
//connect NWELL LICON
//connect SUB TAP
//connect bulk TAP
//connect NGATE POLY
//connect PGATE POLY
//connect PWELL SUB

```

```

lvs_timeout 10
lvs_max_error 100
lvs_ground_pin VNB
lvs_ground_pin VSS
lvs_ground_pin VGND
lvs_power_pin VPWR
lvs_power_pin VPB
lvs_power_pin VDD
//lvs_waiver_netlist_net Ab1
//lvs_waiver_netlist_net VGND
//lvs_waiver_netlist_net net105
//lvs_waiver_netlist_net smdNA0218
//lvs_waiver_netlist_net sndNS
//lvs_waiver_netlist_net xlow
//lvs_waiver_netlist_net S0b12

```

```

lvs_power_pin1 VDD
lvs_power_pin2 VDD
lvs_power_pin3 VDD
lvs_power_pin4 VDD
lvs_power_pin5 VDD
lvs_power_pin6 VDD
lvs_power_pin7 VDD

drc_rule "dnwell.2" {
    caption "dnwell.2 : min. dnwell width : 3.0um"
    edge_width DNWELL -lt 3.0
}

drc_rule "dnwell.3" {
    caption "dnwell.3 : min. dnwell spacing : 6.3um"
    spacing -same_layer DNWELL DNWELL -lt 6.3
}

drc_rule "dnwell.4" {
    caption "dnwell.4 : dnwell must not overlap pnp"
    and DNWELL PNP
}

drc_rule "dnwell.5" {
    caption "p+ must not straddle dnwell"
    extension DNWELL DNWELL -eq 0
}

drc_rule "nwell.1" {
    caption "nwell.1 : min. nwell width : 0.84um"
    edge_width NWELL -lt 0.84
}

drc_rule "nwell.2a" {
    caption "nwell.2a : min. nwell spacing (merged if less) : 1.27um"
    spacing -same_layer NWELL NWELL -lt 1.27
}

drc_rule "nwell.4" {
    caption "nwell.4 : all nwell exempt inside uhvi must contain a n+tap"
    not NWELL UHVI
}

drc_rule "nwell.5" {
    caption "nwell.5 : min. nwell enclosing dnwell exempt unside uhvi : 0.4um"
    enclosure -all_side NWELL DNWELL -lt 0.4
}

drc_rule "nwell.6" {
    caption "nwell.6 : min. dnwell enclosing nwell exempt unside uhvi : 1.03um"
    enclosure -all_side NWELL DNWELL -lt 1.03
}

drc_rule "pwbm" {
    caption "pwbm must be inside uhvi"
    not PWBM UHVI
}

drc_rule "pwbm.4" {
    caption "pwbm.4 : dnwell inside uhvi must be enclosed by pwbm"
    not PWBM DNWELL
}

```

```

drc_rule "pwdem.3" {
    caption "pwdem.3 : pwde must be inside pwbm"
    not PWDEM PWBM
}

drc_rule "pwdem.4" {
    caption "pwdem.4 : pwde must be inside uhvi"
    not PWDEM UHVI
}

drc_rule "pwdem.5" {
    caption "pwdem.5 : pwde must be inside dnwell"
    not PWDEM DNWELL
}

drc_rule "hvtp" {
    caption "hvtp must inside nwell"
    and NWELL HVTP -layerOut AB
    not AB HVTP
}

drc_rule "hvtp.1" {
    caption "hvtp.1 : min. hvtp width : 0.38um"
    edge_width HVTP -lt 0.38
}

drc_rule "hvtp.2" {
    caption "hvtp.2 : min. hvtp spacing : 0.38um"
    spacing -same_layer HVTP HVTP -lt 0.38
}

drc_rule "hvtp.3" {
    caption "hvtp.3 : min. hvtp enclosure of pfet gate : 0.18um"
    //enclosure -all_side PGATE HVTP -lt 0.18
    //TODO
}

drc_rule "hvtp.4" {
    caption "hvtp.4 : min. hvtp spacing pfet gate: 0.18um"
    spacing -same_layer HVTP HVTP -lt 0.18
}

drc_rule "hvtp.5" {
    caption "hvtp.5 : min. hvtp area : 0.265um^2"
    area HVTP -lt 0.265
}

drc_rule "hvtr.1" {
    caption "hvtr.1 : min. hvtr width : 0.38um"
    edge_width HVTR -lt 0.38
}

drc_rule "hvtr.2" {
    caption "hvtr.2 : min. hvtr spacing : 0.38um"
    spacing -same_layer HVTR HVTR -lt 0.38
}

drc_rule "lvtn.1" {
    caption "lvtn.1 : min. lvtn width : 0.38um"
    edge_width LVTN -lt 0.38
}

```

```

drc_rule "lvtn.2" {
    caption "lvtn.2 : min. lvtn spacing : 0.38um"
    spacing -same_layer LVTN LVTN -lt 0.38
}

drc_rule "lvtn.3a" {
    caption "lvtn.3a : min. lvtn spacing to gate : 0.18um"
    spacing -same_layer LVTN LVTN -lt 0.18
}

drc_rule "lvtn.3b" {
    caption "lvtn.3b : min. lvtn spacing to pfet s/d : 0.18um"
    spacing -same_layer LVTN LVTN -lt 0.18
}

drc_rule "lvtn.4b" {
    caption "lvtn.4b : min. lvtn enclosing to gate : 0.18um"
    enclosure -all_side PGATE LVTN -lt 0.18
    enclosure -all_side NGATE LVTN -lt 0.18
}

drc_rule "lvtn.9" {
    caption "lvtn.9 : min. lvtn spacing hvtp : 0.38um"
    spacing LVTN HVTP -lt 0.38
}

drc_rule "lvtn.4b" {
    caption "lvtn.4b : min. lvtn enclosure of gate : 0.18um"
    enclosure -all_side PGATE LVTN -lt 0.18
    enclosure -all_side NGATE LVTN -lt 0.18
}

drc_rule "lvtn.12" {
    caption "lvtn.12 : min. lvtn spacing nwell inside areaid.ce : 0.38um"
    spacing LVTN NWELL -lt 0.38
}

drc_rule "lvtn.13" {
    caption "lvtn.13 : min. lvtn area : 0.265um²"
    area LVTN -lt 0.265
}

drc_rule "ncm.x.3" {
    caption "ncm.x.3 : ncm must not overlap n+diff"
    and NCM NCM
}

drc_rule "ncm.1" {
    caption "ncm.1 : min. ncm width : 0.38um"
    edge_width NCM -lt 0.38
}

drc_rule "ncm.2" {
    caption "ncm.2 : min. ncm spacing manual merge if smaller : 0.38um"
    spacing -same_layer NCM NCM -lt 0.38
}

drc_rule "ncm.3" {
    caption "ncm.3 : min. ncm enclosure of p+diff : 0.18um"
    enclosure -all_side PDIFF NCM -lt 0.18
}

```

```

drc_rule "ncm.5" {
    caption "ncm.5 : min. ncm spacing lvtn diff : 0.23um"
    spacing NCM LVTN -lt 0.23
}

drc_rule "ncm.6" {
    caption "ncm.6 : min. ncm spacing nfet : 0.2um"
    spacing -same_layer NCM NCM -lt 0.2
}

drc_rule "ncm.7" {
    caption "ncm.13 : min. ncm area : 0.265um2"
    area NCM -lt 0.265
}

drc_rule "difftap.1" {
    caption "difftap.1 : min. difftap width : 0.15um"
    edge_width DIFFTAP -lt 0.15
}

drc_rule "difftap.2" {
    caption "difftap.2: min. gate (exempt areaid.sc) width : 0.42um"
    edge_width DIFFTAP -lt 0.42
}

drc_rule "difftap.2" {
    caption "difftap.2: min. gate inside areaid.sc width : 0.36um"
    not DIFFTAP DIFFTAP
}

drc_rule "difftap.3" {
    caption "difftap.3 : min. difftap spacing : 0.27um"
    spacing -same_layer DIFFTAP DIFFTAP -lt 0.27
}

drc_rule "difftap.7" {
    caption "difftap.7 : min. diff/tap spacing to non-coincident diff edge : 0.13um"
    spacing -same_layer DIFFTAP DIFFTAP -lt 0.13
}

drc_rule "difftap.7" {
    caption "difftap.7 : min. diff/tap spacing to non-coincident tap edge : 0.13um"
    spacing -same_layer DIFFTAP DIFFTAP -lt 0.13
}

drc_rule "difftap.8" {
    caption "difftap.8 : min. p+diff enclosure by nwell : 0.18um"
    enclosure -all_side DIFFTAP NWELL -lt 0.18
}

drc_rule "difftap.9" {
    caption "difftap.9 : min. n+diff spacing to nwell : 0.34um"
    spacing DIFFTAP NWELL -lt 0.34
}

drc_rule "difftap.10" {
    caption "difftap.10 : min. n+tap enclosure by nwell : 0.18um"
    enclosure -all_side DIFFTAP NWELL -lt 0.18
}

drc_rule "difftap.11" {

```

```

caption "diffTap.11 : min. p+tap spacing to nwell : 0.13um"
spacing DIFFTAP NWELL -lt 0.13
}

drc_rule "tunm.1" {
caption "tunm.1 : min. tunm width : 0.41um"
edge_width TUNM -lt 0.41
}

drc_rule "tunm.2" {
caption "tunm.2 : min. tunm spacing : 0.5um"
spacing -same_layer TUNM TUNM -lt 0.5
}

drc_rule "tunm.4" {
caption "tunm.4 : min. tunm spacing to gate outside tunm: 0.095um"
spacing -same_layer TUNM TUNM -lt 0.095
}

drc_rule "tunm.5" {
caption "tunm.5 : gate must not straddle tunm"
extension TUNM TUNM -eq 0
}

drc_rule "tunm.6a" {
caption "tunm.6a : tunm not allowed outside dnwell"
and TUNM DNWELL
}

drc_rule "tunm.7" {
caption "tunm.7 : min. tunm area : 0.672um^2"
area TUNM -lt 0.672
}

drc_rule "poly.1a" {
caption "poly.1a : min. poly width : 0.15um"
edge_width POLY -lt 0.15
}

drc_rule "poly.1b" {
caption "poly.1b: min. lvtn gate width : 0.35um"
edge_width LVTN -lt 0.35
}

drc_rule "poly.2" {
caption "poly.2 : min. poly spacing : 0.21um"
spacing -same_layer POLY POLY -lt 0.21
}

drc_rule "poly.3" {
caption "poly.3 : min. poly resistor width : 0.33um"
edge_width POLY_RS -lt 0.33
}

drc_rule "poly.4" {
caption "poly.4 : min. poly on field spacing to diff : 0.075um"
spacing POLY NDIFF -lt 0.075
spacing POLY PDIFF -lt 0.075
}

drc_rule "poly.5" {
caption "poly.5 : min. poly on field spacing to tap : 0.055um"

```

```

    spacing POLY TAP -lt 0.055
}

drc_rule "poly.6" {
    caption "poly.6 : min. gate spacing to tap : 0.3um"
    spacing NGATE TAP -lt 0.3
    spacing PGATE TAP -lt 0.3
}

drc_rule "poly.7" {
    caption "poly.7 : min. source/drain length : 0.25um"
    not DIFF POLY -layerOut source
    not DIFF POLY -layerOut drain
    edge_ywidth drain -lt 0.25
    edge_ywidth source -lt 0.25
}

drc_rule "poly.8" {
    caption "poly.8 : min. poly extension gate (endcap) : 0.13um"
    extension PGATE POLY -lt 0.13
    extension NGATE POLY -lt 0.13
}

drc_rule "poly.9" {
    caption "poly.9 : min. poly resistor space to poly or diff/tap : 0.48um"
    spacing POLY POLY_RS -lt 0.48
}

drc_rule "poly.10" {
    caption "poly.10 : poly must not overlap diff corner"
    get_corners DIFF -layerOut CD
    and CD POLY
}

drc_rule "poly.12" {
    caption "poly.12 : poly must not overlap tap"
    and POLY TAP
}

drc_rule "poly.15" {
    caption "poly.15 : poly must not overlap diff resistor"
    and POLY DIFF_RS
}

drc_rule "rpm.1a" {
    caption "rpm.1a : min. rpm width : 1.27um"
    edge_width RPM -lt 1.27
}

drc_rule "rpm.2" {
    caption "rpm.2 : min. rpm spacing : 0.84um"
    spacing RPM RPM -lt 0.84
}

drc_rule "rpm.3" {
    caption "rpm.3 : min. rpm enclosure of poly resistor : 0.2um"
    enclosure -all_side POLY_RS POLY -lt 0.2
}

drc_rule "rpm.4" {
    caption "rpm.4 : min. psdm enclosure of poly resistor : 0.11um"
    enclosure -all_side POLY_RS PSDM -lt 0.11
}

```

```

}

drc_rule "rpm.5" {
    caption "rpm.5 : min. npc enclosure of poly resistor : 0.095um"
    enclosure -all_side POLY_RS NPC -lt 0.095
}

drc_rule "rpm.6" {
    caption "rpm.6 : min. rpm spacing nsdm: 0.2um"
    spacing RPM NSDM -lt 0.2
}

drc_rule "rpm.7" {
    caption "rpm.7 : min. rpm spacing poly: 0.2um"
    spacing RPM POLY -lt 0.2
}

drc_rule "rpm.8" {
    caption "rpm.8 : poly must not straddle rpm"
    extension RPM POLY -eq 0
}

drc_rule "rpm.9" {
    caption "rpm.9 : min. poly resistor spacing hvntm: 0.185um"
    spacing RPM HVNTM -lt 0.185
}

drc_rule "rpm.10" {
    caption "rpm.107 : min. rpm spacing pwbm: 0.001"
    spacing RPM PWBM -lt 0.001
}

drc_rule "varac.1" {
    caption "varac.1: min. varac channel length : 0.18um"
    edge_length VARAC -lt 0.18
}

drc_rule "varac.2" {
    caption "varac.2: min. varac channel width : 1.0um"
    edge_width VARAC -lt 1.0
}

drc_rule "varac.3" {
    caption "varac.3: min. varac channel space to hvtp : 0.18um"
    spacing VARAC HVTP -lt 0.18
}

drc_rule "varac.4" {
    caption "varac.4: min. varac channel space to licon on tap : 0.25um"
    spacing VARAC LICON -lt 0.25
}

drc_rule "varac.5" {
    caption "varac.5: min. nwell enclosure of poly overlapping varac channel : 0.15um"
    enclosure -all_side VARAC NWELL -lt 0.15
}

drc_rule "varac.6" {
    caption "varac.6: min. varac channel tap space to difftap : 0.27um"
    spacing VARAC DIFFTAP -lt 0.27
}

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```

drc_rule "varac.7" {
    caption "varac.7: nwell overlapping varac channel must not overlap p+diff"
    and VARAC NWELL
}

drc_rule "photo.2" {
    caption "photo.2 : minimum/maximum width of photodiode : 3.0um"
    edge_width PHOTO -lt 3.0
}

drc_rule "photo.3" {
    caption "photo.3 : mini. photodiode spacing : 5.0um"
    spacing PHOTO PHOTO -lt 5.0
}

drc_rule "photo.4" {
    caption "photo.4 : mini. photodiode spacing to dnmwell : 5.3um"
    spacing PHOTO DNWELL -lt 5.3
}

drc_rule "photo.5.6" {
    caption "photo.5.6 : photodiode edges must coincide areaid.po and enclosed by dnmwell"
    not PHOTO DNWELL
}

drc_rule "photo.7" {
    caption "photo.7 : photodiode must be enclosed by p+tap ring"
    not PHOTO PHOTO
}

drc_rule "photo.8" {
    caption "photo.8 : minimum/maximum width of nwell inside photodiode : 0.84um"
    not PHOTO NWELL
}

drc_rule "photo.9" {
    caption "photo.9 : minimum/maximum enclosure of nwell by photodiode : 1.08um"
    enclosure -all_side PHOTO NWELL -lt 1.08
}

drc_rule "photo.10" {
    caption "photo.10 : minimum/maximum width of tap inside photodiode : 0.41um"
    not PHOTO PHOTO
}

drc_rule "npc.1" {
    caption "npc.1 : min. npc width : 0.27um"
    edge_width NPC -lt 0.27
}

drc_rule "npc.2" {
    caption "npc.2 : min. npc spacing, should be mnually merge if less : 0.27um"
    spacing -same_layer NPC NPC -lt 0.27
}

drc_rule "npc.4" {
    caption "npc.4 : min. npc spacing to gate : 0.09um"
    spacing NPC NGATE -lt 0.09
    spacing NPC PGATE -lt 0.09
}

drc_rule "nsdm.1" {

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    caption "nsdm.1 : min. nsdm width : 0.38um"
    edge_width NSDM -lt 0.38
}

drc_rule "psdm.1" {
    caption "psdm.1 : min. psdm width : 0.38um"
    edge_width PSDM -lt 0.38
}

drc_rule "n/psdm.1" {
    caption "n/psdm.1 : min. nsdm spacing, should be mnually merge if less : 0.38um"
    spacing N/PSDM NSDM -lt 0.38
}

drc_rule "n/psdm.1" {
    caption "n/psdm.1 : min. psdm spacing, should be mnually merge if less : 0.38um"
    spacing N/PSDM PSDM -lt 0.38
}

drc_rule "n/psdm.5a" {
    caption "n/psdm.5a : min. n/psdm enclosure diff except butting edge : 0.125um"
    enclosure -all_side N/PSDM PSDM -lt 0.125
}

drc_rule "n/psdm.5b" {
    caption "n/psdm.5b : min. n/psdm enclosure tap except butting edge : 0.125um"
    enclosure -all_side N/PSDM PSDM -lt 0.125
}

drc_rule "n/psdm.6" {
    caption "n/psdm.6 : min. n/psdm enclosure of butting edge : 0.0um"
    enclosure -all_side N/PSDM PSDM -lt 0.0
}

drc_rule "n/psdm.7" {
    caption "n/psdm.7 : min. nsdm diff spacing to psdm diff except butting edge : 0.13um"
    spacing N/PSDM NSDM -lt 0.13
}

drc_rule "tap and diff" {
    caption "tap and diff must not overlap"
    and TAP DIFF
}

drc_rule "n/psdm.10a" {
    caption "n/psdm.10a : min. nsdm area : 0.265um2"
    area N/PSDM -lt 0.265
}

drc_rule "n/psdm.10b" {
    caption "n/psdm.10b : min. psdm area : 0.265um2"
    area N/PSDM -lt 0.265
}

drc_rule "licon.1" {
    caption "licon.1 : minimum/maximum width of licon : 0.17um"
    edge_width LICON -lt 0.17
}

drc_rule "licon.1b/c" {
    caption "licon.1b/c : minimum/maximum width/length of licon inside poly resistor : 2.0/0.19um"
    and LICON POLY_RS -layerOut poly_rs_licon
}

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    edge_width poly_rs_licon -lt 0.19
}

drc_rule "licon.2" {
    caption "licon.2 : min. licon spacing : 0.17um"
    spacing -same_layer LICON LICON -lt 0.17
}

drc_rule "licon.2b" {
    caption "licon.2b : min. licon 0.19um edge on resistor spacing : 0.35um"
    //edge_width LICON -lt 0.19 -layerOut li19
    //spacing li19 li19 -lt 0.35
    //TODO
}

drc_rule "licon.2c" {
    caption "licon.2c : min. licon 2.0um edge on resistor spacing : 0.51um"
    //edge_width LICON -lt 0.20 -layerOut li20
    //spacing li20 li20 -lt 0.51
    //TODO
}

drc_rule "licon.2d" {
    caption "licon.2d : min. licon on resistor spacing other licon : 0.51um"
    //spacing -same_layer LICON LICON -lt 0.51
    //TODO
}

drc_rule "licon.5" {
    caption "licon.5 : min. diff enclosure of licon : 0.04um"
    get_intersecting LICON DIFF -layerOut diff_licon
    enclosure -all_side diff_licon DIFF -lt 0.04
}

drc_rule "licon.6" {
    caption "licon.6 : min. abutting edge spacing to licon tap : 0.06um"
    spacing LICON LICON -lt 0.06
}

drc_rule "licon.7" {
    caption "licon.7 : min. tap enclosure of licon by one of 2 opposite edges : 0.12um"
    get_intersecting LICON TAP -layerOut tap_licon
    enclosure -opposite_side tap_licon TAP -lt 0.12
}

drc_rule "licon.8" {
    caption "licon.8 : min. poly enclosure of licon : 0.05um"
    get_intersecting LICON POLY -layerOut licon_poly
    enclosure -all_side licon_poly POLY -lt 0.05
}

drc_rule "licon.8a" {
    caption "licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um"
    enclosure -opposite_side licon_poly POLY -lt 0.08
}

drc_rule "licon.10" {
    caption "licon.10 : min. licon spacing to varac channel : 0.25um"
    spacing LICON VARAC -lt 0.25
}

drc_rule "licon.11" {

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caption "licon.11 : min. licon spacing to gate : 0.055um"
spacing LICON LICON -lt 0.055
}

drc_rule "licon.11a" {
caption "licon.11a : min. licon spacing to gate inside areaid.sc : 0.05um"
spacing LICON LICON -lt 0.05
}

drc_rule "licon.11c" {
caption "licon.11c : min. licon spacing to gate for specific cells: 0.04um"
spacing LICON LICON -lt 0.04
}

drc_rule "licon.12" {
caption "licon.12 : max. sd width without licon : 5.7um"
edge_width LICON -gt 5.7
}

drc_rule "licon.13" {
caption "licon.13 : min. diff tap licon spacing to npc : 0.09um"
spacing LICON DIFFTAP -lt 0.09
}

drc_rule "licon.14" {
caption "licon.14 : min. poly licon spacing to diff tap : 0.19um"
spacing LICON DIFFTAP -lt 0.19
}

drc_rule "licon.15" {
caption "licon.15 : min. npc enclosure of poly-licon : 0.1um"
get_intersecting LICON POLY -layerOut poly_licon
enclosure -all_side poly_licon NPC -lt 0.1
}

drc_rule "licon.17" {
caption "licon.17 : tap must not straddle poly"
and POLY TAP
}

drc_rule "licon.18" {
caption "licon.18 : npc must enclosed one poly-licon"
get_intersecting -neg npc poly_licon
}

drc_rule "vpp.1" {
caption "vpp.1 : min. vpp width : 1.43um"
edge_width VPP -lt 1.43
}

drc_rule "vpp.3" {
caption "vpp.3 : vpp must not overlapp poly or diff or tap"
and VPP POLY
}

drc_rule "vpp.4" {
caption "vpp.4 : vpp must not straddle nwell"
extension VPP NWELL -eq 0
}

drc_rule "vpp.4" {
caption "vpp.4 : vpp must not straddle dnwell"

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```

    extension VPP DNWELL -eq 0
}

drc_rule "vpp.5" {
    caption "vpp.5 : min. vpp spacing to poly or li or m1 or m2 : 1.5um"
    spacing VPP POLY -lt 1.5
}

drc_rule "vpp.5a" {
    caption "vpp.5a : max. m3 density in vpp : 0.25"
    //max_density
}

drc_rule "vpp.5b" {
    caption "vpp.5b : max. m4 density in vpp : 0.3"
    //max_density
}

drc_rule "vpp.5c" {
    caption "vpp.5c : max. m5 density in vpp : 0.4"
    //max_density
}

drc_rule "vpp.8" {
    caption "vpp.8 : nwell enclosure of vpp : 1.5"
    enclosure -all_side VPP NWELL -lt 1.5
}

drc_rule "vpp.9" {
    caption "vpp.9 : vpp spacing to nwell : 1.5"
    spacing VPP NWELL -lt 1.5
}

drc_rule "vpp.13" {
    caption "vpp.13 : m1 spacing to minsides vpp : 0.16"
    spacing VPP MET1 -lt 0.16
}

drc_rule "capm.1" {
    caption "capm.1 : min. capm width : 1.0um"
    edge_width CAPM -lt 1.0
}

drc_rule "capm.2a" {
    caption "capm.2a : min. capm spacing : 0.84um"
    spacing CAPM CAPM -lt 0.84
}

drc_rule "capm.2b" {
    caption "capm.2b : min. capm spacing : 1.2um"
    spacing CAPM CAPM -lt 1.2
}

drc_rule "capm.3" {
    caption "capm.3 : min. m2 enclosure of capm : 0.14um"
    enclosure -all_side CAPM MET2 -lt 0.14
}

drc_rule "capm.4" {
    caption "capm.4 : min. capm enclosure of via2 : 0.14um"
    enclosure -all_side CAPM VIA2 -lt 0.14
}

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drc_rule "capm.5" {
    caption "capm.5 : min. capm spacing to via2 : 0.14um"
    spacing CAPM VIA2 -lt 0.14
}

drc_rule "capm.6" {
    caption "capm.6 : max. capm lenght/width : 20um"
    edge_width CAPM -lt 20
}

drc_rule "capm.8" {
    caption "capm.8 : min. capm spacing to via : 0.14um"
    spacing CAPM VIA -lt 0.14
}

drc_rule "capm.10" {
    caption "capm.10 : capm must not straddle nwell"
    extension CAPM NWEEL -eq 0
}

drc_rule "capm.10" {
    caption "capm.10 : capm must not straddle diff"
    extension CAPM CAPM -eq 0
}

drc_rule "capm.10" {
    caption "capm.10 : capm must not straddle tap"
    extension CAPM CAPM -eq 0
}

drc_rule "capm.10" {
    caption "capm.10 : capm must not straddle poly"
    extension CAPM POLY -eq 0
}

drc_rule "capm.10" {
    caption "capm.10 : capm must not straddle li"
    extension CAPM LI -eq 0
}

drc_rule "capm.10" {
    caption "capm.10 : capm must not straddle m1"
    extension CAPM MET1 -eq 0
}

drc_rule "capm.11" {
    caption "capm.11 : min. capm spacing to m2 not overlapping capm : 0.5um"
    spacing CAPM MET2 -lt 0.5
}

drc_rule "li.1" {
    caption "li.1 : min. li width : 0.17um"
    edge_width LI -lt 0.17
}

drc_rule "li.1a" {
    caption "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um"
    edge_width LI -lt 0.14
}

drc_rule "li.3" {

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```

    caption "li.3 : min. li spacing : 0.17um"
    spacing -same_layer LI LI -lt 0.17
}

drc_rule "li.3a" {
    caption "li.3a : min. li spacing for the cells s8rf2_xcmvpp_hd5_* : 0.14um"
    //spacing LI LI -lt 0.14
// TODO
}

drc_rule "li.5" {
    caption "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um"
    get_intersecting LICON LI -layerOut li_licon
    enclosure -opposite_side li_licon LI -lt 0.08
}

drc_rule "li.6" {
    caption "li.6 : min. li area : 0.0561um2"
    area LI -lt 0.0561
}

drc_rule "ct.1" {
    caption "ct.1 : minimum/maximum width of mcon : 0.17um"
    edge_width CT -lt 0.17
}

drc_rule "ct.2" {
    caption "ct.2 : min. mcon spacing : 0.19um"
    spacing CT CT -lt 0.19
}

drc_rule "ct.4" {
    caption "ct.4 : mcon should covered by li"
    not CT LI
}

drc_rule "ct.irdrop.1" {
    caption "ct.irdrop.1 : min. li enclosure of 1..10 mcon : 0.2um"
    //get_intersecting MCON LI -layerOut li_mcon
    //enclosure -all_side li_mcon LI -lt 0.2
    //TODO
}

drc_rule "ct.irdrop.2" {
    caption "ct.irdrop.2 : min. li enclosure of 11..100 mcon : 0.3um"
    //enclosure -all_side MCON LI -lt 0.3
    //TODO
}

drc_rule "m1.1" {
    caption "m1.1 : min. m1 width : 0.14um"
    edge_width MET1 -lt 14
    //edge_width MET1 -lt 0.14
}

drc_rule "m1.2" {
    caption "m1.2 : min. m1 spacing : 0.14um"
    spacing -same_layer MET1 MET1 -lt 14
    //spacing -same_layer MET1 MET1 -lt 0.14
}

drc_rule "m1.3ab" {

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    caption "m1.3ab : min. 3um.m1 spacing m1 : 0.28um"
    //spacing MET1 MET1 -lt 3
}

drc_rule "m1.4" {
    caption "m1.4 : min. m1 enclosure of mcon : 0.03um"
    enclosure -all_side MCON MET1 -lt 0.03
}

drc_rule "m1.4a" {
    caption "m1.4a : min. m1 enclosure of mcon for specific cells : 0.005um"
    enclosure -all_side MCON MET1 -lt 0.005
}

drc_rule "m1.6" {
    caption "m1.6 : min. m1 area : 0.083um²"
    area MET1 -lt 0.083
}

drc_rule "m1.7" {
    caption "m1.7 : min. m1 holes area : 0.14um²"
    //holes_area MET1 -eq 1
    //TODO
}

drc_rule "m1.5" {
    caption "m1.5 : min. m1 enclosure of mcon of 2 opposite edges : 0.06um"
    enclosure -opposite_side MCON MET1 -lt 0.06
}

drc_rule "m1.11" {
    caption "m1.11 : max. m1 width after slotting : 4.0um"
    edge_width MET1 -gt 4.0
}

drc_rule "via.4c.5c" {
    caption "via.4c.5c : m1 must enclose all via"
    not VIA MET1
}

drc_rule "via.1a" {
    caption "via.1a : minimum/maximum width of via : 0.15um"
    edge_width VIA -lt 0.15
}

drc_rule "via.1b" {
    caption "via.1b : minimum/maximum width of via in areaid.mt: 0.15um or 0.23um or 0.28um"
    edge_width VIA -lt 0.15
}

drc_rule "via.2" {
    caption "via.2 : min. via spacing : 0.17um"
    spacing -same_layer VIA VIA -lt 0.17
}

drc_rule "via.4a" {
    caption "via.4a : min. m1 enclosure of 0.15um via : 0.055um"
    enclosure -all_side VIA MET1 -lt 0.15
}

drc_rule "via.4b" {
    caption "via.4b : min. m1 enclosure of 0.23um via : 0.03um"

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    enclosure -all_side VIA MET1 -lt 0.23
}

drc_rule "via1.5a" {
    caption "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um"
    enclosure -opposite_side VIA1 MET1 -lt 0.15
}

drc_rule "via1.5b" {
    caption "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um"
    enclosure -opposite_side VIA1 MET1 -lt 0.23
}

drc_rule "via.11" {
    caption "via.11 : minimum/maximum width of via : 0.18um"
    edge_width VIA -lt 0.18
}

drc_rule "via.12" {
    caption "via.12 : min. via spacing : 0.13um"
    spacing -same_layer VIA VIA -lt 0.13
}

drc_rule "via1.14" {
    caption "via1.14 : min. m1 enclosure of 0.04um via of 2 opposite edges : 0.04um"
    enclosure -opposite_side VIA1 MET1 -lt 0.04
}

drc_rule "m2.1" {
    caption "m2.1 : min. m2 width : 0.14um"
    edge_width MET2 -lt 0.14
}

drc_rule "m2.2" {
    caption "m2.2 : min. m2 spacing : 0.14um"
    spacing -same_layer MET2 MET2 -lt 0.14
}

drc_rule "m2.3ab" {
    caption "m2.3ab : min. 3um.m2 spacing m2 : 0.28um"
    //spacing -same_layer MET2 MET2 -lt 0.28
    //TODO:
}

drc_rule "m2.6" {
    caption "m2.6 : min. m2 area : 0.0676um2"
    area MET2 -lt 0.0676
}

drc_rule "m2.7" {
    caption "m2.7 : min. m2 holes area : 0.14um2"
    //holes_area MET2 -eq 1
//TODO
}

drc_rule "m2.4" {
    caption "m2.4 : min. m2 enclosure of via : 0.055um"
    enclosure -all_side VIA MET2 -lt 0.055
}

drc_rule "m2.5" {
    caption "m2.5 : min. m2 enclosure of via of 2 opposite edges : 0.085um"

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    enclosure -opposite_side VIA MET2 -lt 0.085
}

drc_rule "m2.11" {
    caption "m2.11 : max. m2 width after slotting : 4.0um"
    edge_width MET2 -gt 4.0
}

drc_rule "via2" {
    caption "via2 : m2 must enclose all via2"
    not VIA2 MET2
}

drc_rule "via2.1a" {
    caption "via2.1a : minimum/maximum width of via2 : 0.2um"
    edge_width VIA2 -lt 0.2
}

drc_rule "via2.1b" {
    caption "via2.1b : minimum/maximum width of via2 in areaid.mt: 0.2um or 1.2um or 1.5um"
    edge_width VIA2 -lt 0.2
}

drc_rule "via2.2" {
    caption "via2.2 : min. via2 spacing : 0.2um"
    spacing -same_layer VIA2 VIA2 -lt 0.2
}

drc_rule "via2.4" {
    caption "via2.4 : min. m2 enclosure of via2 : 0.04um"
    enclosure -all_side VIA2 MET2 -lt 0.04
}

drc_rule "via2.4a" {
    caption "via2.4a : min. m2 enclosure of 1.5um via2 : 0.14um"
    //enclosure -all_side VIA2 MET2 -lt 1.5
    //TODO
}

drc_rule "via2.5" {
    caption "via2.5 : min. m2 enclosure of via2 of 2 opposite edges : 0.085um"
    enclosure -opposite_side VIA2 MET2 -lt 0.085
}

drc_rule "via2.11" {
    caption "via2.11 : minimum/maximum width of via2 : 0.21um"
    edge_width VIA2 -lt 0.20
}

drc_rule "via2.12" {
    caption "via2.12 : min. via2 spacing : 0.18um"
    spacing -same_layer VIA2 VIA2 -lt 0.18
}

drc_rule "via2.14" {
    caption "via2.14 : min. m2 enclosure of via2 : 0.035um"
    enclosure -all_side VIA2 MET2 -lt 0.035
}

drc_rule "m3.1" {
    caption "m3.1 : min. m3 width : 0.3um"
    edge_width MET3 -lt 0.3
}

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```

}

drc_rule "m3.2" {
    caption "m3.2 : min. m3 spacing : 0.3um"
    spacing -same_layer MET3 MET3 -lt 0.3
}

drc_rule "m3.3ab" {
    caption "m3.3ab : min. 3um.m3 spacing m3 : 0.4um"
    //spacing -same_layer MET3 MET3 -lt 0.4
    //TODO
}

drc_rule "m3.6" {
    caption "m3.6 : min. m3 area : 0.24um²"
    area MET3 -lt 0.24
}

drc_rule "m3.4" {
    caption "m3.4 : min. m3 enclosure of via2 : 0.065um"
    enclosure -all_side VIA2 MET3 -lt 0.065
}

drc_rule "m3.5" {
    caption "m3.5 : min. m3 enclosure of via2 of 2 opposite edges : 0.085um"
    enclosure -opposite_side VIA2 MET3 -lt 0.065
}

drc_rule "m3.7" {
    caption "m3.7 : min. m3 holes area : 0.2um²"
    //holes_area MET3 -eq 1
    //TODO
}

drc_rule "m3.11" {
    caption "m3.11 : max. m3 width after slotting : 4.0um"
    edge_width MET3 -gt 4.0
}

drc_rule "via3" {
    caption "via3 : m3 must enclose all via3"
    not VIA3 MET3
}

drc_rule "via3.1a" {
    caption "via3.1a : minimum/maximum width of via3 : 0.2um"
    edge_width VIA3 -lt 0.2
}

drc_rule "via3.1a" {
    caption "via3.1a : minimum/maximum width of via3 in areaid.mt: 0.2um or 0.8um"
    edge_width VIA3 -lt 0.2
}

drc_rule "via3.2" {
    caption "via3.2 : min. via3 spacing : 0.2um"
    spacing VIA3 VIA3 -lt 0.2
}

drc_rule "via3.4" {
    caption "via3.4 : min. m3 enclosure of via3 : 0.06um"
    enclosure -all_side VIA3 MET3 -lt 0.06
}

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}

drc_rule "via3.5" {
    caption "via3.5 : min. m2 enclosure of via3 of 2 opposite edges : 0.09um"
    enclosure -opposite_side VIA3 MET3 -lt 0.09
}

drc_rule "via3.11" {
    caption "via3.11 : minimum/maximum width of via3 : 0.21um"
    edge_width VIA3 -lt 0.20
}

drc_rule "via3.12" {
    caption "via3.12 : min. via3 spacing : 0.18um"
    spacing VIA3 VIA3 -lt 0.18
}

drc_rule "via3.13" {
    caption "via3.13 : min. m3 enclosure of via3 : 0.055um"
    enclosure -all_side VIA3 MET3 -lt 0.055
}

drc_rule "m4.1" {
    caption "m4.1 : min. m4 width : 0.3um"
    edge_width MET4 -lt 0.3
}

drc_rule "m4.2" {
    caption "m4.2 : min. m4 spacing : 0.3um"
    spacing -same_layer MET4 MET4 -lt 0.3
}

drc_rule "m4.5ab" {
    caption "m4.5ab : min. 3um.m4 spacing m4 : 0.4um"
    spacing MET4 MET4 -lt 3
}

drc_rule "m4.4" {
    caption "m4.4 : min. m4 area : 0.24um^2"
    area MET4 -lt 0.24
}

drc_rule "m4.3" {
    caption "m4.3 : min. m4 enclosure of via3 : 0.065um"
    enclosure -all_side VIA3 MET4 -lt 0.065
}

drc_rule "m4.5" {
    caption "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um"
    enclosure -opposite_side VIA3 MET4 -lt 0.085
}

drc_rule "m4.7" {
    caption "m4.7 : min. m4 holes area : 0.2um^2"
    //holes_area MET4 -eq 1
//TODO
}

drc_rule "m4.11" {
    caption "m4.11 : max. m4 width after slotting : 10.0um"
    edge_width MET4 -gt 10.0
}

```

```

drc_rule "m4.15" {
    caption "m4.15 : min. m4 enclosure of via3 : 0.06um"
    enclosure -all_side VIA3 MET4 -lt 0.06
}

drc_rule "via4.1a" {
    caption "via4.1a : minimum/maximum width of via4 : 0.8um"
    edge_width VIA4 -lt 0.8
}

drc_rule "via4.2" {
    caption "via4.2 : min. via4 spacing : 0.8um"
    spacing -same_layer VIA4 VIA4 -lt 0.8
}

drc_rule "via4.4" {
    caption "via4.4 : min. m4 enclosure of via4 : 0.19um"
    enclosure -all_side VIA4 MET4 -lt 0.19
}

drc_rule "via4" {
    caption "via4 : m4 must enclose all via4"
    not VIA4 MET4
}

drc_rule "m5.1" {
    caption "m5.1 : min. m5 width : 1.6um"
    edge_width MET5 -lt 1.6
}

drc_rule "m5.2" {
    caption "m5.2 : min. m5 spacing : 1.6um"
    spacing -same_layer MET5 MET5 -lt 1.6
}

drc_rule "m5.3" {
    caption "m4.3 : min. m5 enclosure of via4 : 0.31um"
    enclosure -all_side VIA4 MET5 -lt 0.31
}

drc_rule "nsm.1" {
    caption "nsm.1 : min. nsm width : 3.0um"
    edge_width NSM -lt 3.0
}

drc_rule "nsm.2" {
    caption "nsm.2 : min. nsm spacing : 4.0um"
    spacing -same_layer NSM NSM -lt 4.0
}

drc_rule "nsm.4" {
    caption "nsm.4 : min. nsm enclosure of diff : 3.0um"
    enclosure -all_side DIFF NSM -lt 3.0
}

drc_rule "nsm.4" {
    caption "nsm.4 : min. nsm enclosure of tap : 3.0um"
    enclosure -all_side TAP NSM -lt 3.0
}

drc_rule "nsm.4" {

```

```

caption "nsm.4 : min. nsm enclosure of poly : 3.0um"
enclosure -all_side POLY NSM -lt 3.0
}

drc_rule "nsm.4" {
caption "nsm.4 : min. nsm enclosure of li : 3.0um"
enclosure -all_side LI NSM -lt 3.0
}

drc_rule "nsm.4" {
caption "nsm.4 : min. nsm enclosure of m1 : 3.0um"
enclosure -all_side MET1 NSM -lt 3.0
}

drc_rule "nsm.4" {
caption "nsm.4 : min. nsm enclosure of m2 : 3.0um"
enclosure -all_side MET2 NSM -lt 3.0
}

drc_rule "nsm.4" {
caption "nsm.4 : min. nsm enclosure of m3 : 3.0um"
enclosure -all_side MET3 NSM -lt 3.0
}

drc_rule "nsm.4" {
caption "nsm.4 : min. nsm enclosure of m4 : 3.0um"
enclosure -all_side MET4 NSM -lt 3.0
}

drc_rule "nsm.4" {
caption "nsm.4 : min. nsm enclosure of m5 : 3.0um"
enclosure -all_side MET5 NSM -lt 3.0
}

drc_rule "nsm.4" {
caption "nsm.4 : min. nsm enclosure of cfom : 3.0um"
enclosure -all_side CFOM NSM -lt 3.0
}

drc_rule "nsm.3" {
caption "nsm.3 : min. nsm spacing to diff : 1.0um"
spacing NSM DIFF -lt 1.0
}

drc_rule "nsm.3" {
caption "nsm.3 : min. nsm spacing to tap : 1.0um"
spacing NSM TAP -lt 1.0
}

drc_rule "nsm.3" {
caption "nsm.3 : min. nsm spacing to poly : 1.0um"
spacing NSM POLY -lt 1.0
}

drc_rule "nsm.3" {
caption "nsm.3 : min. nsm spacing to li : 1.0um"
spacing NSM LI -lt 1.0
}

drc_rule "nsm.3" {
caption "nsm.3 : min. nsm spacing to m1 : 1.0um"
spacing NSM MET1 -lt 1.0
}

```

```

}

drc_rule "nsm.3" {
    caption "nsm.3 : min. nsm spacing to m2 : 1.0um"
    spacing NSM MET2 -lt 1.0
}

drc_rule "nsm.3" {
    caption "nsm.3 : min. nsm spacing to m3 : 1.0um"
    spacing NSM MET3 -lt 1.0
}

drc_rule "nsm.3" {
    caption "nsm.3 : min. nsm spacing to m4 : 1.0um"
    spacing NSM MET4 -lt 1.0
}

drc_rule "nsm.3" {
    caption "nsm.3 : min. nsm spacing to m5 : 1.0um"
    spacing NSM MET5 -lt 1.0
}

drc_rule "nsm.3" {
    caption "nsm.3 : min. nsm spacing to cfom : 1.0um"
    spacing NSM NSM -lt 1.0
}

drc_rule "pad.2" {
    caption "pad.2 : min. pad spacing : 1.27um"
    spacing -same_layer PAD PAD -lt 1.27
}

drc_rule "mf.1" {
    caption "mf.1 : minimum/maximum width of fuse : 0.8um"
    edge_width MF -lt 0.8
}

drc_rule "mf.2" {
    caption "mf.2 : minimum/maximum length of fuse : 7.2um"
    edge_length MF -lt 7.2
}

drc_rule "mf.3" {
    caption "mf.3 : min. fuse center spacing : 2.76um"
    spacing MF MF -lt 2.76
}

drc_rule "hvi.1" {
    caption "hvi.1 : min. hvi width : 0.6um"
    edge_width HVI -lt 0.6
}

drc_rule "hvi.2" {
    caption "hvi.2 : min. hvi spacing, merge if less : 0.7um"
    spacing -same_layer HVI HVI -lt 0.7
}

drc_rule "hvi.4" {
    caption "hvi.4 : hvi must not overlapp tunm"
    and HVI TUNM
}

```

```

drc_rule "hvnwell.8" {
    caption "hvnwelli.8 : min. hvnwel spacing to nwell : 2.0"
    spacing HVNWELL NWELL -lt 2
}

drc_rule "hvdifftap.14" {
    caption "hvdifftap.14 : min. diff inside hvi width : 0.29um"
    not HVDIFFTAP HVI
}

drc_rule "hvdifftap.14a" {
    caption "hvdifftap.14a : min. p+diff resistor inside hvi width : 0.15um"
    not HVDIFFTAP HVI
}

drc_rule "hvdifftap.15a" {
    caption "hvdifftap.15a : min. diff inside hvi spacing : 0.3um"
    spacing HVDIFFTAP HVI -lt 0.3
}

drc_rule "hvdifftap.15b" {
    caption "hvdifftap.15b : min. n+diff inside hvi spacing to p+diff inside hvi except abutting: 0.37um"
    spacing HVDIFFTAP HVI -lt 0.37
}

drc_rule "hvdifftap.16" {
    caption "hvdifftap.16 : min. tap inside hvi abutting diff : 0.7um"
    not HVDIFFTAP HVI
}

drc_rule "hvdifftap.17" {
    caption "hvdifftap.17 : min. hvnwell enclosure of p+diff : 0.33um"
    enclosure -all_side HVDIFFTAP HVNWELL -lt 0.33
}

drc_rule "hvdifftap.18" {
    caption "hvdifftap.18 : min. hvnwell spacing to n+diff : 0.43um"
    spacing HVDIFFTAP HVNWELL -lt 0.43
}

drc_rule "hvdifftap.19" {
    caption "hvdifftap.19 : min. hvnwell enclosure of n+tap : 0.33um"
    enclosure -all_side HVDIFFTAP HVNWELL -lt 0.33
}

drc_rule "hvdifftap.20" {
    caption "hvdifftap.20 : min. hvnwell spacing to p+tap : 0.43um"
    spacing HVDIFFTAP HVNWELL -lt 0.43
}

drc_rule "hvdifftap.21" {
    caption "hvdifftap.21 : diff must not straddle hvi"
    extension HVDIFFTAP HVI -eq 0
}

drc_rule "hvdifftap.21" {
    caption "hvdifftap.21 : tap must not straddle hvi"
    extension HVDIFFTAP HVI -eq 0
}

drc_rule "hvdifftap.22" {
    caption "hvdifftap.22 : min. hvi enclosure of diff or tap : 0.18um"

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```

    enclosure -all_side HVDIFFTAP HVI -lt 0.18
}

drc_rule "hvdifftap.23" {
    caption "hvdifftap.23 : min. hvi spacing to diff or tap : 0.18um"
    spacing HVDIFFTAP HVI -lt 0.18
}

drc_rule "hvdifftap.24" {
    caption "hvdifftap.24 : min. hv n+diff spacing to nwell : 0.43um"
    spacing HVDIFFTAP NWELL -lt 0.43
}

drc_rule "hvdifftap.25" {
    caption "hvdifftap.25 : min. n+diff inside hvi spacing accros p+tap : 1.07um"
    spacing HVDIFFTAP HVI -lt 1.07
}

drc_rule "hvpoly.13" {
    caption "hvpoly.13: min. hvi gate length : 0.5um"
    edge_length HVPOLY -lt 0.5
}

drc_rule "hvpoly.14" {
    caption "hvpoly.14 : poly must not straddle hvi"
    extension HVPOLY POLY -eq 0
}

drc_rule "hvntm.1" {
    caption "hvntm.1 : min. hvntm width : 0.7um"
    edge_width HVNTM -lt 0.7
}

drc_rule "hvntm.2" {
    caption "hvntm.2 : min. hvntm spacing : 0.7um"
    spacing HVNTM HVNTM -lt 0.7
}

drc_rule "hvntm.3" {
    caption "hvntm.3 : min. hvntm enclosure of hv n+diff : 0.185um"
    enclosure -all_side HVNTM HV -lt 0.185
}

drc_rule "hvntm.4" {
    caption "hvntm.4 : min. hvntm spacing to n+diff : 0.185um"
    spacing HVNTM HVNTM -lt 0.185
}

drc_rule "hvntm.5" {
    caption "hvntm.5 : min. hvntm spacing to p+diff : 0.185um"
    spacing HVNTM HVNTM -lt 0.185
}

drc_rule "hvntm.6a" {
    caption "hvntm.6a : min. hvntm spacing to p+tap : 0.185um"
    spacing HVNTM HVNTM -lt 0.185
}

drc_rule "hvntm.9" {
    caption "hvntm.9 : hvntm must not overlapp areaid.ce"
    and HVNTM HVNTM
}

```

```

drc_rule "denmos.1" {
    caption "denmos.1 : min. de_nfet gate width : 1.055um"
    edge_width DENMOS -lt 1.055
}

drc_rule "denmos.2" {
    caption "denmos.2 : min. de_nfet source outside poly width : 0.28um"
    edge_width DENMOS -lt 0.28
}

drc_rule "denmos.3" {
    caption "denmos.3 : min. de_nfet source inside poly width : 0.925um"
    not DENMOS POLY
}

drc_rule "denmos.4" {
    caption "denmos.4 : min. de_nfet drain width : 0.17um"
    edge_width DENMOS -lt 0.17
}

drc_rule "denmos.5" {
    caption "denmos.5 : min. de_nfet source inside nwell width : 0.225um"
    not DENMOS NWELL
}

drc_rule "denmos.6" {
    caption "denmos.6 : min. de_nfet source spacing to drain : 1.585um"
    spacing DENMOS DENMOS -lt 1.585
}

drc_rule "denmos.7" {
    caption "denmos.7 : min. de_nfet channel width : 5.0um"
    edge_width DENMOS -lt 5.0
}

drc_rule "denmos.10" {
    caption "denmos.10 : min. nwell enclosure of de_nfet drain : 0.66um"
    enclosure -all_side DENMOS NWELL -lt 0.66
}

drc_rule "denmos.11" {
    caption "denmos.11 : min. de_nfet nwell spacing to tap : 0.86um"
    spacing DENMOS NWELL -lt 0.86
}

drc_rule "denmos.13" {
    caption "denmos.13 : min. nsdm enclosure of de_nfet source : 0.13um"
    enclosure -all_side DENMOS NSDM -lt 0.13
}

drc_rule "depmos.1" {
    caption "depmos.1 : min. de_pfet gate width : 1.05um"
    edge_width DEPMOS -lt 1.05
}

drc_rule "depmos.2" {
    caption "depmos.2 : min. de_pfet source outside poly width : 0.28um"
    edge_width DEPMOS -lt 0.28
}

drc_rule "depmos.3" {

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    caption "depмос.3 : min. de_pfet source inside poly width : 0.92um"
    not DEPMOS POLY
}

drc_rule "depмос.4" {
    caption "depмос.4 : min. de_pfet drain width : 0.17um"
    edge_width DEPMOS -lt 0.17
}

drc_rule "depмос.5" {
    caption "depмос.5 : min. de_pfet source inside nwell width : 0.26um"
    not DEPMOS NWELL
}

drc_rule "depмос.6" {
    caption "depмос.6 : min. de_pfet source spacing to drain : 1.19um"
    spacing DEPMOS DEPMOS -lt 1.19
}

drc_rule "depмос.7" {
    caption "depмос.7 : min. de_pfet channel width : 5.0um"
    edge_width DEPMOS -lt 5.0
}

drc_rule "depмос.10" {
    caption "depмос.10 : min. pwell enclosure of de_pfet drain : 0.86um"
    enclosure -all_side DEPMOS DEPMOS -lt 0.86
}

drc_rule "depмос.11" {
    caption "depмос.11 : min. de_pfet pwell spacing to tap : 0.66um"
    spacing DEPMOS DEPMOS -lt 0.66
}

drc_rule "depмос.12" {
    caption "depмос.12 : min. psdm enclosure of de_pfet source : 0.13um"
    enclosure -all_side DEPMOS PSDM -lt 0.13
}

drc_rule "extd.1" {
    caption "extd.1 : diff tap must not straddle areaid.en"
    extension EXT DIFFTAP -eq 0
}

drc_rule "extd.2" {
    caption "extd.2 : poly must not overlapp entirely diff tap in areaid.en"
    and EXT DIFFTAP
}

drc_rule "vhvi.1" {
    caption "vhvi.1 : min. vhvi width : 0.02um"
    edge_width VHVI -lt 0.02
}

drc_rule "vhvi.2" {
    caption "vhvi.2 : vhvi must not overlap areaid.ce"
    and VHVI VHVI
}

drc_rule "vhvi.3" {
    caption "vhvi.3 : vhvi must not overlap hvi"
    and VHVI HVI
}

```

```

}

drc_rule "vhvi.5" {
    caption "vhvi.5 : vhvi must not straddle diff"
    extension VHVI VHVI -eq 0
}

drc_rule "vhvi.5" {
    caption "vhvi.5 : vhvi must not straddle tap"
    extension VHVI VHVI -eq 0
}

drc_rule "vhvi.7" {
    caption "vhvi.7 : vhvi must not straddle poly"
    extension VHVI POLY -eq 0
}

drc_rule "hv.nwell.1" {
    caption "hv.nwell.1 : min. vhvi nwell spacing to nwell : 2.5um"
    spacing HV NWELL -lt 2.5
}

drc_rule "hv.diff.1" {
    caption "hv.diff.1 : min. vhvi diff spacing : 0.3um"
    spacing HV VHVI -lt 0.3
}

drc_rule "hv.diff.2" {
    caption "hv.diff.2 : min. vhvi nwell spacing n+diff : 0.43um"
    spacing HV NWELL -lt 0.43
}

drc_rule "hv.diff.3a" {
    caption "hv.diff.3a : min. vhvi n+diff spacing nwell : 0.55um"
    spacing HV NWELL -lt 0.55
}

drc_rule "hv.poly.2" {
    caption "hv.poly.2 : min. vhvi poly spacing to diff : 0.3um"
    spacing HV POLY -lt 0.3
}

drc_rule "hv.poly.3" {
    caption "hv.poly.3 : min. vhvi poly spacing to nwell : 0.55um"
    spacing HV NWELL -lt 0.55
}

drc_rule "hv.poly.4" {
    caption "hv.poly.4 : min. nwell enclosure of vhvi poly : 0.3um"
    enclosure -all_side VHVI NWELL -lt 0.3
}

drc_rule "hv.poly.6" {
    caption "hv.poly.6 : min. poly enclosure of hvfet gate : 0.16um"
    enclosure -all_side HV POLY -lt 0.16
}

drc_rule "uhvi.1" {
    caption "uhvi.1 : diff must not straddle uhvi"
    extension UHVI UHVI -eq 0
}

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```

drc_rule "uhvi.1" {
    caption "uhvi.1 : tap must not straddle uhvi"
    extension UHVI UHVI -eq 0
}

drc_rule "uhvi.2" {
    caption "uhvi.2 : poly must not straddle uhvi"
    extension UHVI POLY -eq 0
}

drc_rule "uhvi.3" {
    caption "uhvi.3 : uhvi must not enclose pwbm"
    and UHVI PWBM
}

drc_rule "uhvi.4" {
    caption "uhvi.4 : dnwell must not straddle uhvi"
    extension UHVI DNWELL -eq 0
}

drc_rule "uhvi.5" {
    caption "uhvi.5 : uhvi must not enclose areaid.en20"
    and UHVI UHVI
}

drc_rule "uhvi.6" {
    caption "uhvi.6 : uhvi must not enclose dnwell"
    and UHVI DNWELL
}

drc_rule "uhvi.7" {
    caption "uhvi.7 : uhvi must not enclose natfet"
    and UHVI UHVI
}

drc_rule "pwres.2" {
    caption "pwres.2 : min. pwell resistor width : 2.65um"
    edge_width PWRES -lt 2.65
}

drc_rule "pwres.2" {
    caption "pwres.2 : max. pwell resistor width : 2.65um"
    edge_width PWRES -lt 2.65
}

drc_rule "pwres.3" {
    caption "pwres.3 : min. pwell resistor length : 26.5um"
    edge_length PWRES -lt 26.5
}

drc_rule "pwres.4" {
    caption "pwres.4 : max. pwell resistor length : 265um"
    edge_length PWRES -lt 265
}

drc_rule "pwres.5" {
    caption "pwres.5 : min. pwell resistor tap spacing to nwell : 0.22um"
    spacing PWRES NWELL -lt 0.22
}

drc_rule "pwres.5" {
    caption "pwres.5 : max. pwell resistor tap spacing to nwell : 0.22um"

```

```

    spacing PWRES NWELL -lt 0.22
}

drc_rule "pwres.6" {
    caption "pwres.6 : min. width of tap inside pwell resistor : 0.53um"
    not PWRES PWRES
}

drc_rule "pwres.6" {
    caption "pwres.6 : max. width of tap inside pwell resistor : 0.53um"
    not PWRES PWRES
}

drc_rule "pwres.8" {
    caption "pwres.8 : diff not allowed inside pwell resistor"
    not PWRES PWRES
}

drc_rule "pwres.8" {
    caption "pwres.8 : poly not allowed inside pwell resistor"
    not PWRES POLY
}

drc_rule "rfdiode.1" {
    caption "rfdiode.1 : non 90 degree angle areaid.re"
    //area RFDIODE -lt ?
    //TODO:
}

drc_rule "rfdiode.2" {
    caption "rfdiode.2 : areaid.re must coincide rf nwell diode"
    //area RFDIODE -lt ?
    //TODO:
}

drc_rule "areaid_re_OFFGRID" {
    caption "x.1b : OFFGRID vertex on areaid.re"
    //area AREAID_RE_OFFGRID -lt ?
    //TODO:
}

// "capm.7 : capm not rectangle"
// "ct.irdrop.1 : min. li enclsoure of 1..10 mcon : 0.2um"
// "ct.irdrop.2 : min. li enclsoure of 11..100 mcon : 0.3um"
// "denmos.12 : min. de_nfet nwell : 2.4um"
// "denmos.8 : 90deg. not allowed for de_nfet drain"
// "denmos.9a : 45deg. bevels of de_nfet nwell should be 0.43um from corners"
// "denmos.9a : 90deg. not allowed for de_nfet nwell"
// "denmos.9b : 45deg. bevels of de_nfet drain should be 0.05um from corners"
// "depms.8 : 90deg. not allowed for de_pfet drain"
// "depms.9a : 45deg. bevels of de_pfet pwell should be 0.43um from corners"
// "depms.9a : 90deg. not allowed for de_pfet pwell"
// "depms.9b : 45deg. bevels of de_pfet drain should be 0.05um from corners"
// "difftap.4 : min. tap bound by diffusion : 0.29um"
// "difftap.5 : min. tap bound by 2 diffusions : 0.4um"
// "difftap.6 : diff and tap not allowed to extend beyond their abutting ege"
// "hvnwell.9 : hvi must overlapp hvnwell"
// "licon.16 : diff must enclose one licon"
// "licon.16 : tap must enclose one licon"
// "licon.4 : min. licon must overlap li and (poly or tap or diff) "
// "m2.via : m2 must enclose via"

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// "m3.via2 : m3 must enclose via2"
// "m4.via3 : m4 must enclose via3"
// "m5.via4 : m5 must enclose via4"
// "n/psdm.8 : diff should be the opposite type of well/substrate underneath"
// "n/psdm.8 : tap should be the same type of well/substrate underneath"
// "nwell.7 : min. dnwell separation nwell : 4.5um"
// "poly.11 : non 90 degree angle gate"
// "tunm.3 : min. tunm beyond gate : 0.095um"
// "varac.2: min. varac channel wdh : 1.0um"
// "x.1b : OFFGRID vertex on diff"
// "x.1b : OFFGRID vertex on dnwell"
// "x.1b : OFFGRID vertex on hvi"
// "x.1b : OFFGRID vertex on hvntm"
// "x.1b : OFFGRID vertex on hvtp"
// "x.1b : OFFGRID vertex on hvtr"
// "x.1b : OFFGRID vertex on li"
// "x.1b : OFFGRID vertex on licon"
// "x.1b : OFFGRID vertex on lvtm"
// "x.1b : OFFGRID vertex on m1"
// "x.1b : OFFGRID vertex on m2"
// "x.1b : OFFGRID vertex on m3"
// "x.1b : OFFGRID vertex on m4"
// "x.1b : OFFGRID vertex on m5"
// "x.1b : OFFGRID vertex on mcon"
// "x.1b : OFFGRID vertex on mf"
// "x.1b : OFFGRID vertex on ncm"
// "x.1b : OFFGRID vertex on npc"
// "x.1b : OFFGRID vertex on nsdm"
// "x.1b : OFFGRID vertex on nsm"
// "x.1b : OFFGRID vertex on nwell"
// "x.1b : OFFGRID vertex on pad"
// "x.1b : OFFGRID vertex on poly"
// "x.1b : OFFGRID vertex on psdm"
// "x.1b : OFFGRID vertex on pwbm"
// "x.1b : OFFGRID vertex on pwde"
// "x.1b : OFFGRID vertex on pwell_rs"
// "x.1b : OFFGRID vertex on rpm"
// "x.1b : OFFGRID vertex on tap"
// "x.1b : OFFGRID vertex on tunm"
// "x.1b : OFFGRID vertex on uhvi"
// "x.1b : OFFGRID vertex on vhvi"
// "x.1b : OFFGRID vertex on via"
// "x.1b : OFFGRID vertex on via2"
// "x.1b : OFFGRID vertex on via3"
// "x.1b : OFFGRID vertex on via4"
// "x.1b : OFFGRID vertex on vpp"
// "x.2 : non 90 degree angle diff"
// "x.2 : non 90 degree angle licon"
// "x.2 : non 90 degree angle mcon"
// "x.2 : non 90 degree angle mf"
// "x.2 : non 90 degree angle poly"
// "x.2 : non 90 degree angle tap"
// "x.2 : non 90 degree angle via"
// "x.2 : non 90 degree angle via2"
// "x.2 : non 90 degree angle via3"
// "x.2 : non 90 degree angle via4"
// "x.2c : non 45 degree angle diff"
// "x.2c : non 45 degree angle tap"
// "x.3a : non 45 degree angle dnwell"
// "x.3a : non 45 degree angle hvi"
// "x.3a : non 45 degree angle hvntm"
// "x.3a : non 45 degree angle hvtp"

```

```

// "x.3a : non 45 degree angle hvtr"
// "x.3a : non 45 degree angle li"
// "x.3a : non 45 degree angle lvtn"
// "x.3a : non 45 degree angle m1"
// "x.3a : non 45 degree angle m2"
// "x.3a : non 45 degree angle m3"
// "x.3a : non 45 degree angle m4"
// "x.3a : non 45 degree angle m5"
// "x.3a : non 45 degree angle ncm"
// "x.3a : non 45 degree angle npc"
// "x.3a : non 45 degree angle nsdm"
// "x.3a : non 45 degree angle nsm"
// "x.3a : non 45 degree angle nwell"
// "x.3a : non 45 degree angle pad"
// "x.3a : non 45 degree angle psdm"
// "x.3a : non 45 degree angle pwbm"
// "x.3a : non 45 degree angle pwde"
// "x.3a : non 45 degree angle pwell_rs"
// "x.3a : non 45 degree angle rpm"
// "x.3a : non 45 degree angle tunm"
// "x.3a : non 45 degree angle uhvi"
// "x.3a : non 45 degree angle vhvi"
// "x.3a : non 45 degree angle vpp"

//set_die_area 0 0 106060 106060

density_rule "min_fail" {
caption "Min Fail"
density_layer MET1
//density_window SIZE 10606 BY 10606
//density_window SIZE 106060 BY 106060
density_window SIZE 1000 BY 1000
density_step 1001
density_exclude MET2
density_maximum 0.0
density_minimum 0.10
density_surround 10
density_mode TEST
density_report TEST1
density_min_fail
}

density_rule "max_fail" {
caption "Max Fail"
density_layer MET1
//density_window SIZE 10606 BY 10606
//density_window SIZE 106060 BY 106060
density_window SIZE 1000 BY 1000
density_step 1001
density_exclude MET2
density_maximum 0.30
density_minimum 0.50
density_surround 10
density_mode TEST
density_report TEST1
density_max_fail
}

```

```

density_rule "out_of_range" {
  caption "Out of Range"
  density_layer MET1
  //density_window SIZE 10606 BY 10606
  //density_window SIZE 106060 BY 106060
  density_window SIZE 1000 BY 1000
  density_step 1001
  density_exclude MET2
  density_maximum 0.30
  density_minimum 0.30
  density_surround 10
  density_mode TEST
  density_report TEST1
  density_out_of_range
}

density_rule "xdir_fail" {
  caption "Xdir fail"
  density_layer MET1
  //density_window SIZE 10606 BY 10606
  //density_window SIZE 106060 BY 106060
  density_window SIZE 1000 BY 1000
  density_step 1001
  density_exclude MET2
  density_maximum 0.30
  density_minimum 0.30
  density_surround 10
  density_mode TEST
  density_report TEST1
  density_xdir_fail
}

density_rule "ydir_fail" {
  caption "Ydir Fail"
  density_layer MET1
  //density_window SIZE 10606 BY 10606
  //density_window SIZE 106060 BY 106060
  density_window SIZE 1000 BY 1000
  density_step 1001
  density_exclude MET2
  density_maximum 0.30
  density_minimum 0.10
  density_surround 10
  density_mode TEST
  density_report TEST1
  density_ydir_fail
}

// below are 3nm rules

//# ===== METAL 1: width/space/area/EOL/notch/jog =====
//RULE_001: M1 WIDTH < 18nm -> ERR "M1_MIN_WIDTH"
//RULE_002: M1 SPACE < 20nm DIFF_NET -> ERR "M1_MIN_SPACE_DIFF"
//RULE_003: M1 SPACE < 18nm SAME_NET -> ERR "M1_MIN_SPACE_SAME"

```

```

//RULE_004: M1 AREA < 32nm^2 -> ERR "M1_MIN_AREA"
//RULE_005: M1 EOL_SPACE < 24nm LEN<30nm -> ERR "M1_EOL_SPACE"
//RULE_006: M1 NOTCH < 16nm DEPTH>16nm -> ERR "M1_NOTCH"
//RULE_007: M1 JOG_LEN < 24nm -> ERR "M1_MIN_JOG_LEN"
//RULE_008: M1 CORNER_ANGLE < 70deg -> ERR "M1_ACUTE_ANGLE"
//
//# ===== METAL 2: pitch/color/EUV/forbidden =====
//RULE_009: M2 WIDTH < 18nm -> ERR "M2_MIN_WIDTH"
//RULE_010: M2 PITCH < 36nm -> ERR "M2_MIN_PITCH"
//RULE_011: M2 SPACE_COLOR SAME < 18nm -> ERR "M2_SAMECOLOR_SPACE"
//RULE_012: M2 SPACE_COLOR DIFF < 16nm -> ERR "M2_DIFCOLOR_SPACE"
//RULE_013: M2 FORBIDDEN_PITCH {44, 52} -> ERR "M2_FORBIDDEN_PITCH"
//RULE_014: M2 ODD_CYCLE DETECT -> ERR "M2_ODD_CYCLE"
//RULE_015: M2 LINE_END_TO_EDGE < 22nm -> ERR "M2_TIP_TO_EDGE"
//RULE_016: M2 BLOCK_MASK_SPACE < 40nm -> ERR "M2_BLOCK_SPACE"
//
//# ===== METAL 3: multi-patterning & EOL variants =====
//RULE_017: M3 WIDTH < 20nm -> ERR "M3_MIN_WIDTH"
//RULE_018: M3 SPACE < 22nm DIFF_NET -> ERR "M3_MIN_SPACE"
//RULE_019: M3 COLORING REQUIRED -> ERR "M3_UNCOLORED"
//RULE_020: M3 SAME_COLOR_CHAIN LEN>1um -> ERR "M3_SAMECOLOR_CHAIN_LEN"
//RULE_021: M3 EOL_EXT < 14nm -> ERR "M3_MIN_EOL_EXT"
//RULE_022: M3 TIP2TIP < 20nm -> ERR "M3_TIP2TIP"
//
//# ===== CUT/VIA layers =====
//RULE_023: VIA1 CUT_WIDTH < 12nm -> ERR "V1_MIN_CUT_WIDTH"
//RULE_024: VIA1 CUT_SPACE < 36nm -> ERR "V1_MIN_CUT_SPACE"
//RULE_025: VIA1 ENCLOSED_BY M1 < 10nm -> ERR "V1_ENC_M1"
//RULE_026: VIA1 ENCLOSED_BY M2 < 10nm -> ERR "V1_ENC_M2"
//RULE_027: VIA1 TO M1 EDGE < 6nm -> ERR "V1_TO_M1_EDGE"
//RULE_028: VIA1 ARRAY PITCH_XY < (36,36)-> ERR "V1_ARRAY_PITCH"
//RULE_029: VIA1 STACKED W/ VIA2 RESTRICT-> ERR "V1_V2_STACK_RULE"
//RULE_030: VIA2 CUT_SPACE < 40nm -> ERR "V2_MIN_CUT_SPACE"
//
//# ===== LI / LOCAL INTERCONNECT / CONTACT =====
//RULE_031: LI WIDTH < 14nm -> ERR "LI_MIN_WIDTH"
//RULE_032: LI SPACE < 16nm -> ERR "LI_MIN_SPACE"
//RULE_033: CONTACT_OD ENC < 8nm -> ERR "CONT_OD_ENC"
//RULE_034: CONTACT_PO ENC < 8nm -> ERR "CONT_PO_ENC"
//
//# ===== POLY / GATE (FEOL) =====
//RULE_035: POLY WIDTH < 14nm -> ERR "PO_MIN_WIDTH"
//RULE_036: POLY SPACE < 18nm -> ERR "PO_MIN_SPACE"
//RULE_037: GATE_LENGTH < 16nm -> ERR "GATE_MIN_L"
//RULE_038: POLY_TO_OD < 8nm -> ERR "PO_TO_OD_SPACE"
//RULE_039: POLY_JOG_LEN < 20nm -> ERR "PO_MIN_JOG_LEN"
//
//# ===== ACTIVE / OD / DIFF =====
//RULE_040: OD AREA < 40nm^2 -> ERR "OD_MIN_AREA"
//RULE_041: OD NOTCH < 16nm DEPTH>16nm -> ERR "OD_NOTCH"
//RULE_042: OD TO OD SPACE < 20nm -> ERR "OD_MIN_SPACE"
//
//# ===== WELL / IMPLANT =====
//RULE_043: NWELL TO PWELL < 60nm -> ERR "WELL_ABUT_SPACE"
//RULE_044: IMPLANT OVERLAP OD < 6nm -> ERR "IMP_OD_OVERLAP"
//RULE_045: WELL_TAP_DENSITY WIN 1um <1/5-> ERR "WELL_TAP_DENSITY"
//
//# ===== DENSITY / CMP =====
//RULE_046: M1 DENSITY WIN 500x500nm 20{80% -> ERR "M1_DENSITY_RANGE"
//RULE_047: M1 DENSITY_GRAD ADJ_WIN > 15% -> ERR "M1_DENSITY_GRAD"
//RULE_048: [M1+M2] COMBO_DENS WIN 1x1um 30{70% -> ERR "MX_COMBO_DENS"
//RULE_049: SLOT_REQUIRED WIDTH>200nm SLOT_W=40nm S=80nm -> ERR "M1_SLOT_REQ"

```

```
//  
//# ===== DFM-style recommended (flag as WARN unless strict) =====  
//RULE_050: VIA_REDUNDANCY REQ ON CRIT_NET -> WARN "VIA_REDUNDANCY_REQ"
```

3.2 NG45.lrf example

```
lvr_layer_map 1 -datatype 0 30000
lvr_layer_def active 30000
lvr_layer_map 2 -datatype 0 30005
lvr_layer_def pwell 30005
lvr_layer_map 3 -datatype 0 30010
lvr_layer_def nwell 30010
lvr_layer_map 4 -datatype 0 30015
lvr_layer_def nplus 30015
lvr_layer_map 5 -datatype 0 30020
lvr_layer_def pplus 30020
lvr_layer_map 6 -datatype 0 30025
lvr_layer_def vtg 30025
lvr_layer_map 7 -datatype 0 30030
lvr_layer_def vth 30030
lvr_layer_map 8 -datatype 0 30035
lvr_layer_def thkox 30035
lvr_layer_map 9 -datatype 0 30040
lvr_layer_def poly 30040
lvr_layer_map 10 -datatype 0 30045
lvr_layer_def cont 30045
lvr_layer_map 11 -datatype 0 30050
lvr_layer_def metal1 30050
lvr_layer_map 11 -texttype 0 30051
lvr_layer_def metal1_txt 30051
lvr_layer_map 12 -datatype 0 30055
lvr_layer_def via1 30055
lvr_layer_map 13 -datatype 0 30060
lvr_layer_def metal2 30060
lvr_layer_map 13 -texttype 0 30061
lvr_layer_def metal2_txt 30061
lvr_layer_map 14 -datatype 0 30065
lvr_layer_def via2 30065
lvr_layer_map 15 -datatype 0 30070
lvr_layer_def metal3 30070
lvr_layer_map 16 -datatype 0 30075
lvr_layer_def via3 30075
lvr_layer_map 17 -datatype 0 30080
lvr_layer_def metal4 30080
lvr_layer_map 18 -datatype 0 30085
lvr_layer_def via4 30085
lvr_layer_map 19 -datatype 0 30090
lvr_layer_def metal5 30090
lvr_layer_map 20 -datatype 0 30095
lvr_layer_def via5 30095
lvr_layer_map 21 -datatype 0 30100
lvr_layer_def metal6 30100
lvr_layer_map 22 -datatype 0 30105
lvr_layer_def via6 30105
lvr_layer_map 23 -datatype 0 30110
lvr_layer_def metal7 30110
lvr_layer_map 24 -datatype 0 30115
lvr_layer_def via7 30115
lvr_layer_map 25 -datatype 0 30120
lvr_layer_def metal8 30120
lvr_layer_map 26 -datatype 0 30125
lvr_layer_def via8 30125
lvr_layer_map 27 -datatype 0 30130
lvr_layer_def metal9 30130
lvr_layer_map 28 -datatype 0 30135
lvr_layer_def via9 30135
```

```

lvr_layer_map 29 -datatype 0 30140
lvr_layer_def metal10 30140
lvr_layer_map 63 -texttype 63 30141
lvr_layer_def metal11 30141
lvr_layer_map 63 -datatype 0 30142
lvr_layer_def metal12 30142
lvr_layer_map 235 -datatype 0 30143
lvr_layer_def metal13 30143

//size ( extent ) -by 1.0 -layerOut bulk
//not bulk nwell -layerOut PWell

and poly active -layerOut gate
//add below in the code, not here
and active nplus -layerOut ndiff
and active pplus -layerOut pdiff
and cont active -layerOut diode

or poly poly -layerOut MYPOLY
or ndiff pdiff -layerOut MYDIFF

connect metal1 metal1.txt
connect metal1 metal1
connect metal2 metal2.txt
connect metal2 metal2
connect via2 metal3
connect metal2 via2
connect via1 metal2
connect metal1 via1
connect cont metal1
connect MYDIFF cont
connect MYPOLY cont

lvs_timeout 10
lvs_max_error 100

drc_rule "well.1" {
    caption "well.1 : nwell/pwell must not overlap"
    and well well
}
drc_rule "well.3" {
    caption "well.3 : minimum spacing of nwell at same potential : 135nm"
    spacing -same_layer well well -lt 0.135
}
drc_rule "well.3" {
    caption "well.3 : minimum spacing of pwell at same potential : 135nm"
    spacing -same_layer well well -lt 0.135
}
drc_rule "well.4" {
    caption "well.4 : minimum width of nwell/pwell : 200nm"
    edge_width well -lt 0.2
}
drc_rule "vt.1" {
    caption "vt.1 : vtg adjust layers must coincide with well"
    not well vt
}
drc_rule "vt.1" {
    caption "vt.1 : vth adjust layers must coincide with well"
    not well vt
}
drc_rule "poly.1" {
    caption "poly.1 : minimum width of poly : 50nm"

```

```

    edge_width poly -lt 0.05
}
drc_rule "poly.2.a" {
    caption "poly.2 : minimum spacing of poly and active: 140nm"
    spacing -same_layer active active -lt 0.04
}
drc_rule "poly.2.b" {
    caption "poly.2 : minimum spacing of poly and active: 140nm"
    spacing -same_layer poly poly -lt 0.04
}
drc_rule "poly.3" {
    caption "poly.3 : minimum poly extension beyond active : 55nm"
    extension active poly -lt 0.055
}
drc_rule "poly.4" {
    caption "poly.4 : minimum enclosure of active around gate : 70nm"
    and active gate -layer0ut gate_active
    enclosure -opposite_side gate_active active -lt 0.07
}
drc_rule "poly.5" {
    caption "poly.5 : minimum spacing of field poly to active: 50nm"
    spacing active poly -lt 0.05
}
drc_rule "poly.6" {
    caption "poly.6 : minimum spacing of field poly: 75nm"
    spacing -same_layer poly poly -lt 0.075
}
drc_rule "active.1" {
    caption "active.1 : minimum width of active : 90nm"
    edge_width active -lt 0.09
}
drc_rule "active.2" {
    caption "active.2 : minimum spacing of active : 80nm"
    spacing -same_layer active active -lt 0.08
}
drc_rule "active.3" {
    caption "active.3 : minimum enclosure/ spacing of nwell/pwell to active: 55nm"
    enclosure -all_side active well -lt 0.055
}
drc_rule "active.4" {
    caption "active.4 : active must be inside nwell or pwell"
    not active well
}
drc_rule "implant.1" {
    caption "implant.1 : minimum spacing of nimplant/ pimplant to channel : 70nm"
    spacing implant implant -lt 0.07
}
drc_rule "implant.2" {
    caption "implant.1 : minimum spacing of nimplant/ pimplant to contact : 25nm"
    spacing contact implant -lt 0.025
}
drc_rule "implant.3" {
    caption "implant.3 : minimum width of nimplant/ pimplant : 45nm"
    edge_width implant -lt 0.045
}
drc_rule "implant.4" {
    caption "implant.4 : minimum spacing of nimplant/ pimplant : 45nm"
    spacing implant implant -lt 0.045
}
drc_rule "implant.5" {
    caption "implant.5 : nimplant and pimplant must not overlap"
    and implant implant

```

```

}
drc_rule "contact.1" {
    caption "contact.1 : minimum/maximum width of contact : 65nm"
    edge_width contact -gt 0.065
}
drc_rule "contact.2" {
    caption "contact.2 : minimum spacing of contact : 75nm"
    spacing -same_layer contact contact -lt 0.075
}
drc_rule "contact.3" {
    caption "contact.3 : contact must be inside active or poly or metal1"
    not contact active
}
drc_rule "contact.4" {
    caption "contact.4 : minimum enclosure of active around contact : 5nm"
    enclosure -all_side contact active -lt 0.005
}
drc_rule "contact.5" {
    caption "contact.5 : minimum enclosure of poly around contact : 5nm"
    enclosure -all_side contact poly -lt 0.005
}
drc_rule "contact.6" {
    caption "contact.6 : minimum spacing of contact and poly : 35nm"
    spacing contact poly -lt 0.035
}
drc_rule "metal1.1" {
    caption "metal1.1 : minimum width of metal1 : 65nm"
    edge_width metal1 -lt 0.065
}
drc_rule "metal1.2" {
    caption "metal1.2 : minimum spacing of metal1 : 65nm"
    spacing -same_layer metal1 metal1 -lt 0.065
}
drc_rule "metal1.3" {
    caption "metal1.3 : minimum enclosure around contact on two opposite sides : 35nm"
    enclosure -opposite_side contact metal1 -lt 0.035
}
drc_rule "metal1.4" {
    caption "metal1.4 : minimum enclosure around via1 on two opposite sides : 35nm"
    enclosure -opposite_side via1 metal1 -lt 0.035
}
drc_rule "metal1.5" {
    caption "metal1.5 : minimum spacing of metal1 wider than 90 nm and longer than 300 nm : 90nm"
    spacing -wider 0.09 -longer 0.3 -same_layer metal1 metal1 -lt 0.09
}
drc_rule "metal1.6" {
    caption "metal1.6 : minimum spacing of metal1 wider than 270 nm and longer than 900 nm : 270nm"
    spacing -wider 0.27 -longer 0.9 -same_layer metal1 metal1 -lt 0.27
}
drc_rule "metal1.7" {
    caption "metal1.7 : minimum spacing of metal1 wider than 500 nm and longer than 1.8 um : 500nm"
    spacing -wider 0.5 -longer 1.8 -same_layer metal1 metal1 -lt 0.5
}
drc_rule "metal1.8" {
    caption "metal1.8 : minimum spacing of metal1 wider than 900 nm and longer than 2.7 um : 900nm"
    spacing -wider 0.9 -longer 2.7 -same_layer metal1 metal1 -lt 0.9
}
drc_rule "metal1.9" {
    caption "metal1.9 : minimum spacing of metal1 wider than 1500 nm and longer than 4.0 um : 1500nm"
    spacing -wider 1.5 -longer 4.0 -same_layer metal1 metal1 -lt 1.5
}
drc_rule "via1.1" {

```

```

caption "via1.1 : minimum/maximum width of via1 : 65nm"
edge_width via1 -lt 0.065
}
drc_rule "via1.2" {
caption "via1.2 : minimum spacing of via1 : 75nm"
spacing -same_layer via1 via1 -lt 0.075
}
drc_rule "via1.3" {
caption "via1.3 : via1 must be inside metal1"
not via1 metal1
}
drc_rule "via1.4" {
caption "via1.4 : via1 must be inside metal2"
not via1 metal2
}
drc_rule "metal2.1" {
caption "metal2.1 : minimum width of intermediate metal2 : 70nm"
edge_width metal2 -lt 0.07
}
drc_rule "metal2.2" {
caption "metal2.2 : minimum spacing of intermediate metal2 : 70nm"
spacing -same_layer metal2 metal2 -lt 0.07
}
drc_rule "metal2.3" {
caption "metal2.3 : minimum enclosure around via1 on two opposite sides : 35nm"
enclosure -opposite_side via1 metal2 -lt 0.035
}
drc_rule "metal2.4" {
caption "metal2.4 : minimum enclosure around via2 on two opposite sides : 35nm"
enclosure -opposite_side via2 metal2 -lt 0.035
}
drc_rule "metal2.5" {
caption "metal2.5 : minimum spacing of intermediate metal2 wider than 90 nm and longer than 300 nm : 90nm"
spacing -wider 0.9 -longer 0.3 -same_layer metal2 metal2 -lt 0.09
}
drc_rule "metal2.6" {
caption "metal2.6 : minimum spacing of intermediate metal2 wider than 270 nm and longer than 900 nm : 270nm"
spacing -wider 0.27 -longer 0.9 -same_layer metal2 metal2 -lt 0.27
}
drc_rule "metal2.7" {
caption "metal2.7 : minimum spacing of intermediate metal2 wider than 500 nm and longer than 1.8 um : 500nm"
spacing -wider 0.50 -longer 1.8 -same_layer metal2 metal2 -lt 0.500
}
drc_rule "metal2.8" {
caption "metal2.8 : minimum spacing of intermediate metal2 wider than 900 nm and longer than 2.7 um : 900nm"
spacing -wider 0.9 -longer 2.7 -same_layer metal2 metal2 -lt 0.9
}
drc_rule "metal2.9" {
caption "metal2.9 : minimum spacing of intermediate metal2 wider than 1500 nm and longer than 4.0 um : 1500nm"
spacing -wider 1.5 -longer 4.0 -same_layer metal2 metal2 -lt 1.5
}
drc_rule "via2.1" {
caption "via2.1 : minimum/maximum width of via2 : 70nm"
edge_width via2 -gt 0.07
}
drc_rule "via2.2" {
caption "via2.2 : minimum spacing of via2 : 85nm"
spacing -same_layer via2 via2 -lt 0.085
}
drc_rule "via2.3" {
caption "via2.3 : via2 must be inside metal2"
not via2 metal2
}

```

```

}
drc_rule "via2.4" {
    caption "via2.4 : via2 must be inside metal3"
    not via2 metal3
}
drc_rule "metal3.1" {
    caption "metal3.1 : minimum width of intermediate metal3 : 70nm"
    edge_width metal3 -lt 0.07
}
drc_rule "metal3.2" {
    caption "metal3.2 : minimum spacing of intermediate metal3 : 70nm"
    spacing -same_layer metal3 metal3 -lt 0.07
}
drc_rule "metal3.3" {
    caption "metal3.3 : minimum enclosure around via2 on two opposite sides : 35nm"
    enclosure -opposite_side via2 metal3 -lt 0.035
}
drc_rule "metal3.4" {
    caption "metal3.4 : minimum enclosure around via3 on two opposite sides : 35nm"
    enclosure -opposite_side via3 metal3 -lt 0.035
}
drc_rule "metal3.5" {
    caption "metal3.5 : minimum spacing of intermediate metal3 wider than 90 nm and longer than 300 nm : 90nm"
    spacing -wider 0.9 -longer 0.3 -same_layer metal3 metal3 -lt 0.9
}
drc_rule "metal3.6" {
    caption "metal3.6 : minimum spacing of intermediate metal3 wider than 270 nm and longer than 900 nm : 270nm"
    spacing -wider 0.27 -longer 0.9 -same_layer metal3 metal3 -lt 0.27
}
drc_rule "metal3.7" {
    caption "metal3.7 : minimum spacing of intermediate metal3 wider than 500 nm and longer than 1.8 um : 500nm"
    spacing -wider 0.50 -longer 1.8 -same_layer metal3 metal3 -lt 0.50
}
drc_rule "metal3.8" {
    caption "metal3.8 : minimum spacing of intermediate metal3 wider than 900 nm and longer than 2.7 um : 900nm"
    spacing -wider 0.9 -longer 2.7 -same_layer metal3 metal3 -lt 0.9
}
drc_rule "metal3.9" {
    caption "metal3.9 : minimum spacing of intermediate metal3 wider than 1500 nm and longer than 4.0 um : 1500nm"
    spacing -wider 1.5 -longer 4.0 -same_layer metal3 metal3 -lt 0.1500
}
drc_rule "via3.1" {
    caption "via3.1 : minimum/maximum width of via3 : 70nm"
    edge_width via3 -gt 0.07
}
drc_rule "via3.2" {
    caption "via3.2 : minimum spacing of via3 : 85nm"
    spacing -same_layer via3 via3 -lt 0.085
}
drc_rule "via3.3" {
    caption "via3.3 : via3 must be inside metal3"
    not via3 metal3
}
drc_rule "via3.4" {
    caption "via3.4 : via3 must be inside metal4"
    not via3 metal4
}
drc_rule "metal4.1" {
    caption "metal4.1 : minimum width of semi-global metal4 : 140nm"
    edge_width metal4 -lt 0.14
}
drc_rule "metal4.2" {

```

```

caption "metal4.2 : minimum spacing of semi-global metal4 : 140nm"
spacing -same_layer metal4 metal4 -lt 0.14
}
drc_rule "metal4.6" {
caption "metal4.6 : minimum spacing of semi-global metal4 wider than 270 nm and longer than 900 nm : 270nm"
spacing -wider 0.27 -longer 0.9 -same_layer metal4 metal4 -lt 0.27
}
drc_rule "metal4.7" {
caption "metal4.7 : minimum spacing of semi-global metal4 wider than 500 nm and longer than 1.8 um : 500nm"
spacing -wider 0.50 -longer 1.8 -same_layer metal4 metal4 -lt 0.500
}
drc_rule "metal4.8" {
caption "metal4.8 : minimum spacing of semi-global metal4 wider than 900 nm and longer than 2.7 um : 900nm"
spacing -wider 0.9 -longer 2.7 -same_layer metal4 metal4 -lt 0.9
}
drc_rule "via4.1" {
caption "via4.1 : minimum width of via4 : 140nm"
edge_width via4 -lt 0.14
}
drc_rule "via4.2" {
caption "via4.2 : minimum spacing of via4 : 160nm"
spacing via4 via4 -lt 0.16
}
drc_rule "via4.3" {
caption "via4.3 : via4 must be inside metal4"
not via4 metal4
}
drc_rule "via4.4" {
caption "via4.4 : via4 must be inside metal5"
not via4 metal5
}
drc_rule "metal5.1" {
caption "metal5.1 : minimum width of semi-global metal5 : 140nm"
edge_width metal5 -lt 0.14
}
drc_rule "metal5.2" {
caption "metal5.2 : minimum spacing of semi-global metal5 : 140nm"
spacing -same_layer metal5 metal5 -lt 0.14
}
drc_rule "metal5.6" {
caption "metal5.6 : minimum spacing of semi-global metal5 wider than 270 nm and longer than 900 nm : 270nm"
spacing -wider 0.27 -longer 0.9 -same_layer metal5 metal5 -lt 0.27
}
drc_rule "metal5.7" {
caption "metal5.7 : minimum spacing of semi-global metal5 wider than 500 nm and longer than 1.8 um : 500nm"
spacing -wider 0.50 -longer 1.8 -same_layer metal5 metal5 -lt 0.50
}
drc_rule "metal5.8" {
caption "metal5.8 : minimum spacing of semi-global metal5 wider than 900 nm and longer than 2.7 um : 900nm"
spacing -wider 0.9 -longer 2.7 -same_layer metal5 metal5 -lt 0.9
}
drc_rule "via5.1" {
caption "via5.1 : minimum/maximum width of via5 : 140nm"
edge_width via5 -gt 0.14
}
drc_rule "via5.2" {
caption "via5.2 : minimum spacing of via5 : 160nm"
spacing -same_layer via5 via5 -lt 0.16
}
drc_rule "via5.3" {
caption "via5.3 : via5 must be inside metal5"
not via5 metal5
}

```

```

}
drc_rule "via5.4" {
    caption "via5.4 : via5 must be inside metal6"
    not via5 metal6
}
drc_rule "metal6.1" {
    caption "metal6.1 : minimum width of semi-global metal6 : 140nm"
    edge_width metal6 -lt 0.14
}
drc_rule "metal6.2" {
    caption "metal6.2 : minimum spacing of semi-global metal6 : 140nm"
    spacing -same_layer metal6 metal6 -lt 0.14
}
drc_rule "metal6.6" {
    caption "metal6.6 : minimum spacing of semi-global metal6 wider than 270 nm and longer than 900 nm : 270nm"
    spacing -wider 0.27 -longer 0.9 -same_layer metal6 metal6 -lt 0.27
}
drc_rule "metal6.7" {
    caption "metal6.7 : minimum spacing of semi-global metal6 wider than 500 nm and longer than 1.8 um : 500nm"
    spacing -wider 0.50 -longer 1.8 -same_layer metal6 metal6 -lt 0.50
}
drc_rule "metal6.8" {
    caption "metal6.8 : minimum spacing of semi-global metal6 wider than 900 nm and longer than 2.7 um : 900nm"
    spacing -wider 0.90 -longer 2.7 -same_layer metal6 metal6 -lt 0.9
}
drc_rule "via6.1" {
    caption "via6.1 : minimum/maximum width of via6 : 140nm"
    edge_width via6 -gt 0.14
}
drc_rule "via6.2" {
    caption "via6.2 : minimum spacing of via6 : 160nm"
    spacing -same_layer via6 via6 -lt 0.16
}
drc_rule "via6.3" {
    caption "via6.3 : via6 must be inside metal6"
    not via6 metal6
}
drc_rule "via6.4" {
    caption "via6.4 : via6 must be inside metal7"
    not via6 metal7
}
drc_rule "metal7.1" {
    caption "metal7.1 : minimum width of thin global metal7 : 400nm"
    edge_width metal7 -lt 0.4
}
drc_rule "metal7.2" {
    caption "metal7.2 : minimum spacing of thin global metal7 : 400nm"
    spacing -same_layer metal7 metal7 -lt 0.4
}
drc_rule "metal7.7" {
    caption "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm"
    spacing -wider 0.50 -longer 1.8 -same_layer metal7 metal7 -lt 0.50
}
drc_rule "metal7.8" {
    caption "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm"
    spacing -wider 0.9 -longer 2.7 -same_layer metal7 metal7 -lt 0.9
}
drc_rule "metal7.9" {
    caption "metal7.9 : minimum spacing of thin global metal7 wider than 1500 nm and longer than 4.0 um : 1500nm"
    spacing -wider 1.5 -longer 4.0 -same_layer metal7 metal7 -lt 1.50
}
drc_rule "via7.1" {

```

```

caption "via6.1 : minimum/maximum width of via7 : 400nm"
edge_width via7 -gt 0.4
}
drc_rule "via7.2" {
caption "via6.7 : minimum spacing of via7 : 440nm"
spacing -same_layer via7 via7 -lt 0.44
}
drc_rule "via7.3" {
caption "via7.3 : via7 must be inside metal7"
not via7 metal7
}
drc_rule "via7.4" {
caption "via7.4 : via7 must be inside metal8"
not via7 metal8
}
drc_rule "metal8.1" {
caption "metal8.1 : minimum width of thin global metal8 : 400nm"
edge_width metal8 -lt 0.4
}
drc_rule "metal8.2" {
caption "metal8.2 : minimum spacing of thin global metal8 : 400nm"
spacing -same_layer metal8 metal8 -lt 0.4
}
drc_rule "metal8.7" {
caption "metal8.7 : minimum spacing of thin global metal8 wider than 500 nm and longer than 1.8 um : 500nm"
spacing -wider 0.5 -longer 1.8 -same_layer metal8 metal8 -lt 0.5
}
drc_rule "metal8.8" {
caption "metal8.8 : minimum spacing of thin global metal8 wider than 900 nm and longer than 2.7 um : 900nm"
spacing -wider 0.9 -longer 2.7 -same_layer metal8 metal8 -lt 0.9
}
drc_rule "metal8.9" {
caption "metal8.9 : minimum spacing of thin global metal8 wider than 1500 nm and longer than 4.0 um : 1500nm"
spacing -wider 1.5 -longer 4.0 -same_layer metal8 metal8 -lt 1.5
}
drc_rule "via8.1" {
caption "via8.1 : minimum/maximum width of via8 : 400nm"
edge_width via8 -gt 0.4
}
drc_rule "via8.2" {
caption "via8.2 : minimum spacing of via8 : 440nm"
spacing -same_layer via8 via8 -lt 0.44
}
drc_rule "via8.3" {
caption "via8.3 : via8 must be inside metal8"
not metal8 via8
}
drc_rule "via8.4" {
caption "via8.4 : via8 must be inside metal9"
not metal9 via8
}
drc_rule "metal9.1" {
caption "metal9.1 : minimum width of global metal9 : 800nm"
edge_width metal9 -lt 0.8
}
drc_rule "metal9.2" {
caption "metal9.2 : minimum spacing of global metal9 : 800nm"
spacing -same_layer metal9 metal9 -lt 0.8
}
drc_rule "metal9.7" {
caption "metal9.7 : minimum spacing of global metal9 wider than 500 nm and longer than 1.8 um : 500nm"
spacing -wider 0.5 -longer 1.8 -same_layer metal9 metal9 -lt 0.5
}

```

```

}
drc_rule "metal9.8" {
    caption "metal9.8 : minimum spacing of global metal9 wider than 900 nm and longer than 2.7 um : 900nm"
    spacing -wider 0.9 -longer 2.7 -same_layer metal9 metal9 -lt 0.9
}
drc_rule "metal9.9" {
    caption "metal9.9 : minimum spacing of global metal9 wider than 1500 nm and longer than 4.0 um : 1500nm"
    spacing -wider 1.5 -longer 4.0 -same_layer metal9 metal9 -lt 1.5
}
drc_rule "via9.1" {
    caption "via9.1 : minimum/maximum width of via9 : 800nm"
    edge_width via9 -gt 0.8
}
drc_rule "via9.2" {
    caption "via9.2 : minimum spacing of via9 : 880nm"
    spacing -same_layer via9 via9 -lt 0.88
}
drc_rule "via9.3" {
    caption "via9.3 : via9 must be inside metal9"
    not metal9 via9
}
drc_rule "via9.4" {
    caption "via9.4 : via9 must be inside metal10"
    not metal10 metal1
}
drc_rule "metal10.1" {
    caption "metal10.1 : minimum width of global metal10 : 800nm"
    edge_width metal10 -lt 0.8
}
drc_rule "metal10.2" {
    caption "metal10.2 : minimum spacing of global metal10 : 800nm"
    spacing -same_layer metal10 metal10 -lt 0.8
}
drc_rule "metal10.7" {
    caption "metal10.7 : minimum spacing of global metal10 wider than 500 nm and longer than 1.8 um : 500nm"
    spacing -wider 0.50 -longer 1.8 -same_layer metal10 metal10 -lt 0.50
}
drc_rule "metal10.8" {
    caption "metal10.8 : minimum spacing of global metal10 wider than 900 nm and longer than 2.7 um : 900nm"
    spacing -wider 0.9 -longer 2.7 -same_layer metal10 metal10 -lt 0.9
}
drc_rule "metal10.9" {
    caption "metal10.9 : minimum spacing of global metal10 wider than 1500 nm and longer than 4.0 um : 1500nm"
    spacing -wider 1.5 -longer 4.0 -same_layer metal10 metal10 -lt 1.5
}
drc_rule "metal1_antenna" {
    caption "metal1_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}
drc_rule "metal2_antenna" {
    caption "metal2_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}
drc_rule "metal3_antenna" {
    caption "metal3_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}
drc_rule "metal4_antenna" {
    caption "metal4_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}
drc_rule "metal5_antenna" {

```

```

    caption "metal5_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}
drc_rule "metal6_antenna" {
    caption "metal6_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}
drc_rule "metal7_antenna" {
    caption "metal7_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}
drc_rule "metal8_antenna" {
    caption "metal8_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}
drc_rule "metal9_antenna" {
    caption "metal9_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}
drc_rule "metal10_antenna" {
    caption "metal10_antenna : ratio of maximum allowed (field poly area or metal layer area) to transistor gate area : 300:1"
    // todo: drc_rule for this caption
}

density_rule "min_fail" {
    caption "Min Fail"
    density_layer metal1
    //density_window SIZE 10606 BY 10606
    //density_window SIZE 106060 BY 106060
    density_window SIZE 10000 BY 10000
    density_step 10001
    density_exclude    metal2
    density_maximum 0.0
    density_minimum 0.10
    density_surround 10
    density_mode TEST
    density_report TEST1
    density_min_fail

}

density_rule "max_fail" {
    caption "Max Fail"
    density_layer metal1
    //density_window SIZE 10606 BY 10606
    //density_window SIZE 106060 BY 106060
    density_window SIZE 10000 BY 10000
    density_step 10001
    density_exclude    metal2
    density_maximum 0.30
    density_minimum 0.50
    density_surround 10
    density_mode TEST
    density_report TEST1
    density_max_fail

}

density_rule "out_of_range" {
    caption "Out of Range"

```

```
density_layer metal1
//density_window SIZE 10606 BY 10606
//density_window SIZE 106060 BY 106060
density_window SIZE 10000 BY 10000
density_step 10001
density_exclude metal2
density_maximum 0.30
density_minimum 0.30
density_surround 10
density_mode TEST
density_report TEST1
density_out_of_range
```

```
}
```

```
density_rule "xdir_fail" {
caption "Xdir fail"
density_layer metal1
//density_window SIZE 10606 BY 10606
//density_window SIZE 106060 BY 106060
density_window SIZE 10000 BY 10000
density_step 10001
density_exclude metal2
density_maximum 0.30
density_minimum 0.30
density_surround 10
density_mode TEST
density_report TEST1
density_xdir_fail
```

```
}
```

```
density_rule "ydir_fail" {
caption "Ydir Fail"
density_layer metal1
//density_window SIZE 10606 BY 10606
//density_window SIZE 106060 BY 106060
density_window SIZE 10000 BY 10000
density_step 10001
density_exclude metal2
density_maximum 0.30
density_minimum 0.10
density_surround 10
density_mode TEST
density_report TEST1
density_ydir_fail
```

```
}
```



Figure 1: Enter Caption

4 LVR GUI Usage Guide

This section describes the features available with the Graphical user interface of LVR. Here we take the example of LVS tool of LVR, instead of going over all the graphics features with other tools of LVR.

4.1 Input Configuration

4.1.1 Run Data: Run Settings

This section allows users to configure execution parameters as an example for LVS (Layout Versus Schematic) runs in LVR. It ensures that users can control runtime limits, parallelism, and top-level hierarchy before launching LVS. **Macro Timeout (sec)** defines the maximum time allocated to resolve large macro blocks individually. This helps prevent stalling due to complex macro-level mismatches during connectivity resolution. The default macro timeout is set to 1 second, but it can be increased based on design size or complex-

ity. **Instance Matching Timeout (sec)** sets an upper limit for the instance-to-instance netlist comparison stage. A value of 3600 seconds (1 hour) is typically sufficient for large hierarchical designs. **Number of Cores** allows users to select how many CPU cores to allocate to the LVS run. This facilitates multithreaded execution, significantly speeding up processing for large designs. Users should choose a value based on system capability and license limits (e.g., max 16 or 32). **Top Cell Name** specifies the name of the hierarchical root cell for layout and schematic comparison. This field is mandatory and must match the top cell present in both layout and netlist databases. If the top cell name is incorrect, LVS will terminate with an error message. The yellow background indicates editable runtime fields specific to LVS control, distinct from input/output paths. Navigation buttons on the left panel allow users to move between configuration pages. The **Cancel** button discards changes, while **Apply** saves them temporarily without running LVS. **Submit** saves settings and starts the LVS process with the configured parameters. Each setting is validated internally to ensure correctness before launching LVS. This configuration page is especially useful for debugging and tuning LVS performance. Users can update values between runs for iterative optimization based on design size and mismatch complexity.



Figure 2: Enter Caption

4.1.2 Rules Tab

The **Rules** section is where users select technology-specific rule files for LVS verification. The **Technology** dropdown lists available technology nodes (e.g., sky130, asap7, etc.). Selecting the correct technology ensures proper interpretation of layers and devices. An incorrect technology may lead to false errors or mismatches in LVS. The **LRF File** (Layout Rule File) defines how layout and netlist devices are recognized and mapped. This .pvs or .lrf file includes layer mapping, device recognition, and net extraction rules. Clicking the ... button allows users to browse and select the appropriate LRF file from disk. Paths can be absolute or relative to the run directory. This step is critical for proper LVS functioning across multiple technology nodes. Make sure the selected technology matches the input layout and schematic data. Misaligned technology and rule files can result in high error counts or failed runs. The selected rules remain cached until explicitly changed or cleared by the user. Apply changes using the **Apply** button to save without starting LVS. Click **Submit** only after all tabs are configured correctly. The configuration file supports

multiple versions, and LVR validates format compliance. Rule files are parsed before execution to ensure syntactic correctness. Errors in the rule file are reported in the GUI error log section. Rules tab must be configured before submitting the run to avoid tool termination. This section enables multi-node support for advanced verification workflows.



Figure 3: Enter Caption

4.1.3 Input Tab

The **Input** section gathers the files needed for LVS comparison. **Module-SPICE File** refers to the flattened SPICE netlist generated from layout. This file should include extracted parasitics and proper instance hierarchy. **Verilog Netlist** provides the reference RTL or gate-level source for comparison. This file must match the hierarchy used in layout netlist extraction. **Macro CDL Library** is used to resolve external macro references during LVS. It ensures that black-box or hard macros are matched and verified correctly. **GDS File1** refers to the physical layout database in GDSII format. The layout file must contain the top cell and all child instances. Clicking ... next to each file opens a browser to select the appropriate input. Absolute or relative paths can be used depending on user preference. Ensure consistency between the SPICE and Verilog top-level modules. Missing files or unmatched macros will result in LVS errors or termination. Use **Apply** to validate and save inputs before launching the run. The GDS file and netlists should be pre-verified for syntax and completeness. This section is crucial for ensuring the integrity of LVS input

data. Misconfigured inputs can cause false errors or missed shorts/opens. The yellow background distinguishes this section clearly for usability. All fields must be populated before running LVS to avoid tool exit. Validated input paths are cached between sessions for convenience.

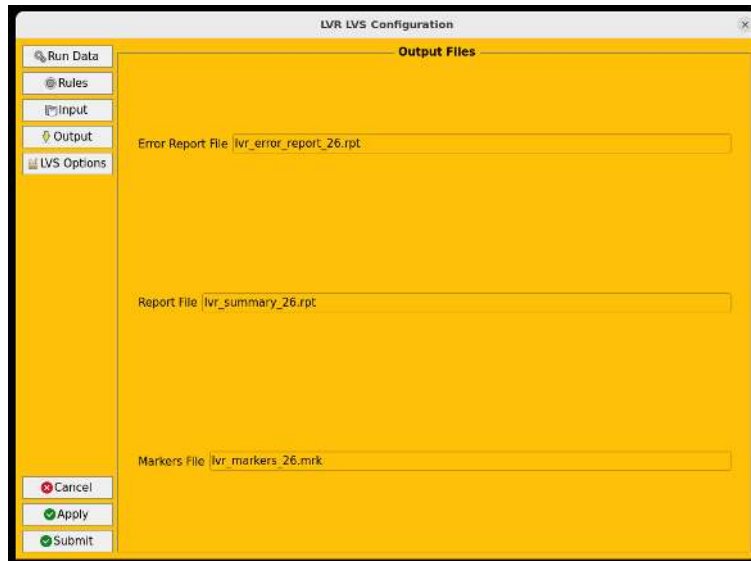


Figure 4: Enter Caption

4.1.4 Output Tab

The **Output** section defines where LVS results and reports are stored. **Error Report File** stores detailed error logs generated during LVS. It includes mismatches, shorts, opens, and macro failures in structured format. **Report File** provides a summary of LVS results including pass/fail status. This file is suitable for quick reviews and automation scripts. **Markers File** logs layout coordinates of error markers, helpful for GUI debugging. Markers can be visualized later using the LVR viewer or external tools like KLayout. Users can specify filenames or use defaults that include a timestamp or ID suffix. Click ... to browse or manually enter the desired output file name. Ensure write permissions exist in the output directory. Overwriting existing files without notice is prevented via internal checks. Reports are generated only after successful completion of LVS. Incomplete runs will leave some files empty or missing. Keep outputs in organized directories per design or run ID for traceability. Output filenames can also be used for regression tracking. Markers are essential for visually resolving layout-level issues. Use **Apply** to store output file selec-

tions without launching LVS. Reports can be browsed in the LVR GUI post-run using the error browser. This tab simplifies debugging and helps in run result documentation. Ensure consistent naming if scripting post-run analysis workflows.

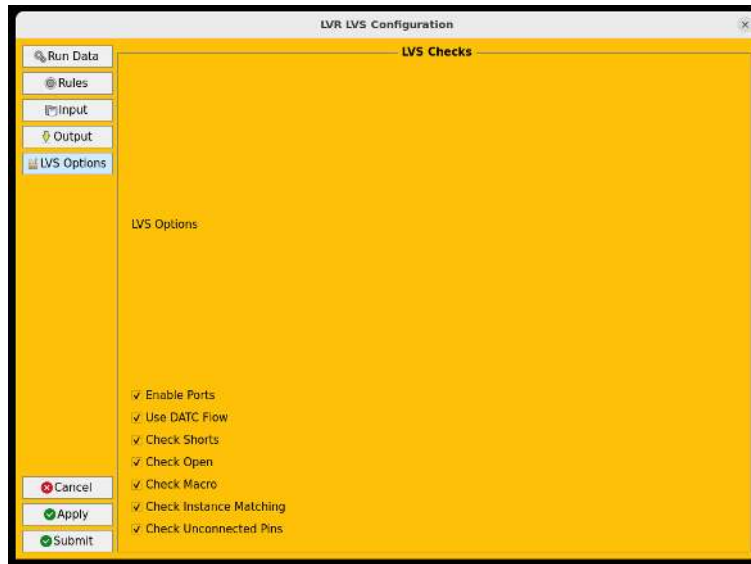


Figure 5: Enter Caption

4.1.5 Options Tab

The **LVS Options** section allows users to enable or disable specific checks. **Enable Ports** ensures that external ports are considered during LVS. This is critical for top-level connectivity and interface matching. **Use DATC Flow** activates flow compliance with the DATC reference benchmarks. Enabling it aligns output format and checks with public LVS standards. **Check Shorts** validates if unintended connections exist between nets. **Check Open** finds cases where nets are disconnected or incomplete. **Check Macro** inspects macro-level block connections for consistency. **Check Instance Matching** ensures each layout instance matches its schematic counterpart. **Check Unconnected Pins** detects floating or unconnected pins that can cause logic errors. All options are enabled by default for comprehensive LVS coverage. Users may selectively disable options for debug runs or performance tuning. Disabling essential checks may lead to false LVS pass results. These options directly influence runtime and reporting verbosity. Use **Apply** to save changes and **Submit** to execute the run. Options are stored in the configuration and

reused across sessions. This panel allows fine-grained control over the LVS flow. It enables targeted debugging and iteration for mismatched designs. The yellow layout and checkbox format simplify usability and reduce errors. These settings can also be overridden via command-line flags in automated runs. Proper configuration here is crucial for reliable LVS outcomes.

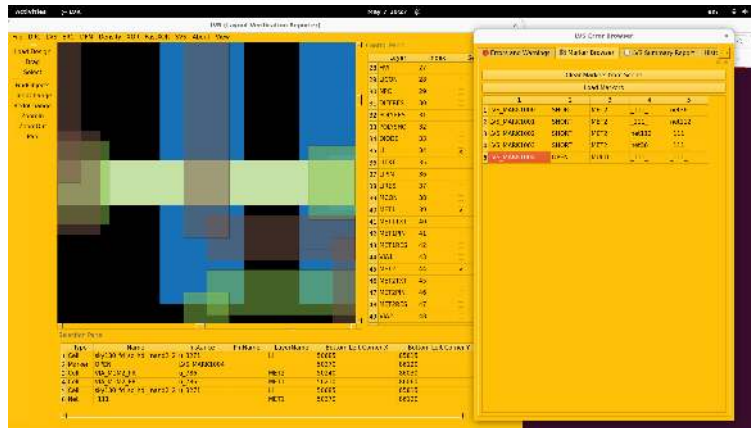


Figure 6: Enter Caption

4.2 Error Browser

4.2.1 Overview Panel and Marker Integration

The main LVS Error Browser panel provides a synchronized view of the layout, control panel, and error markers. The layout window (left) displays the physical design, while the right-hand error browser shows marker data. Each LVS error is listed with a unique marker ID, type (e.g., SHORT, OPEN), layer, and interacting nets. Selecting a marker highlights the corresponding area in the layout and updates the selection panel. The selection panel at the bottom provides detailed instance, pin, and layer information for the selected marker. The layer visibility control (center) allows toggling display of individual metal and via layers. This integration helps users visually inspect shorts, opens, or mismatches with accurate coordinates. Each net in the layout is interactively highlighted, aiding quick debugging of LVS violations. Users can filter layers for clarity, and markers are color-coded by error type. This consolidated view supports rapid identification and resolution of physical LVS issues.

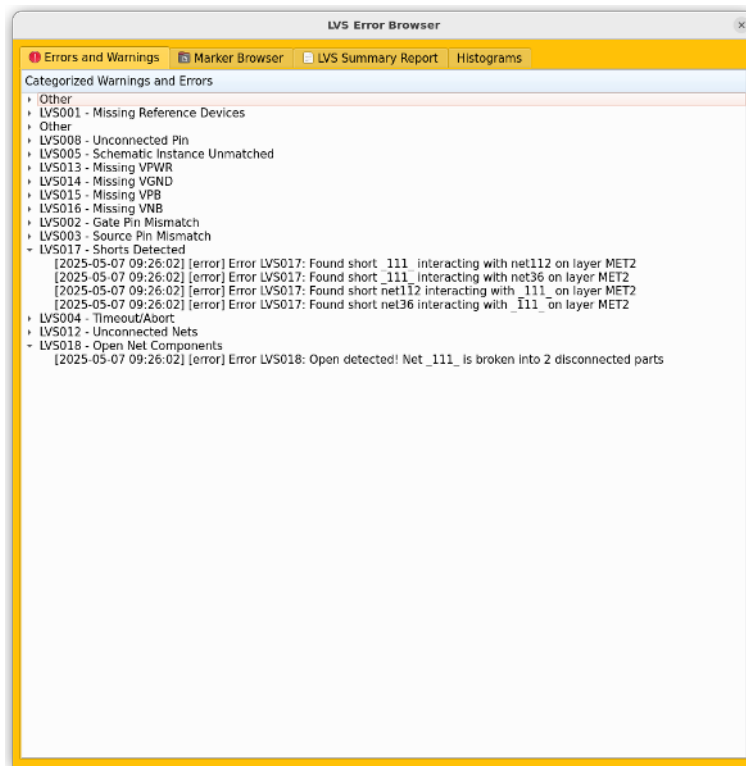


Figure 7: Enter Caption

4.2.2 Errors and Warnings Panel

The **Errors and Warnings** tab categorizes LVS violations using standard error codes. Each error category (e.g., LVS017 - Shorts, LVS018 - Opens) is collapsible and displays sub-errors with timestamps. These logs are automatically grouped for easier navigation during large design analysis. Each message contains detailed context: involved nets, layers, and the nature of the error. Warnings and errors can be reviewed post-run, allowing iterative LVS debug flows. Errors are prefixed with timestamps and log levels (info, error) for traceability. This textual view complements the graphical marker interface. Error types such as "Missing Reference Devices", "Unconnected Pins", or "Source Pin Mismatch" are easily browsable. The panel helps engineers

correlate error markers with detailed error descriptions.

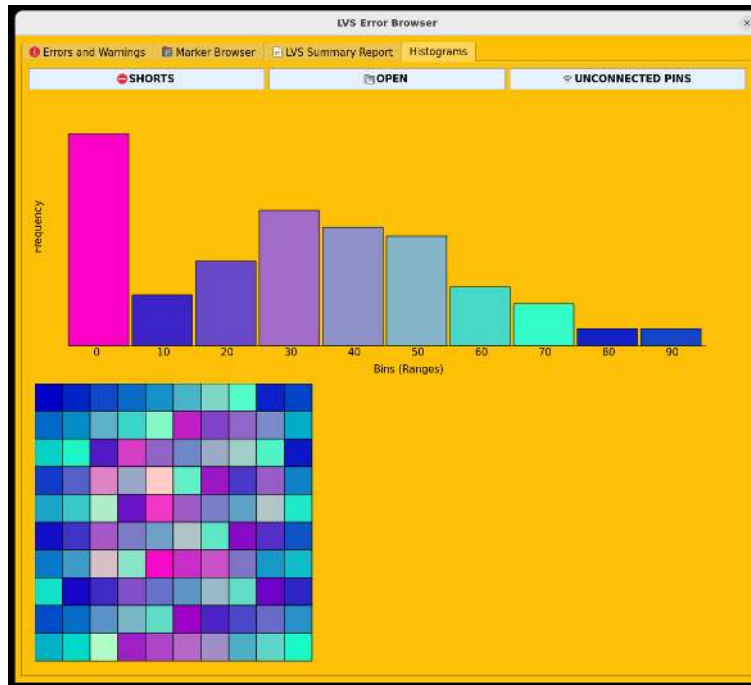


Figure 8: Enter Caption

4.2.3 Histograms Tab

The **Histograms** tab provides spatial distribution of errors across the design. Users can toggle between SHORTS, OPEN, and UNCONNECTED PINS error types. The heatmap at the bottom left shows spatial frequency of errors using color-coded bins. The main bar chart visualizes the count of errors per bin, helping identify error-dense areas. This view enables prioritization of debug regions in large layouts. Each bin corresponds to a section of the layout, and the zoom factor can be configured in Preferences. Hotspots (e.g., high frequency of shorts) are colored in brighter tones like magenta or pink. This statistical view assists in assessing layout quality and patterning issues. Histogram visualization is crucial for batch validation and regression debugging workflows.

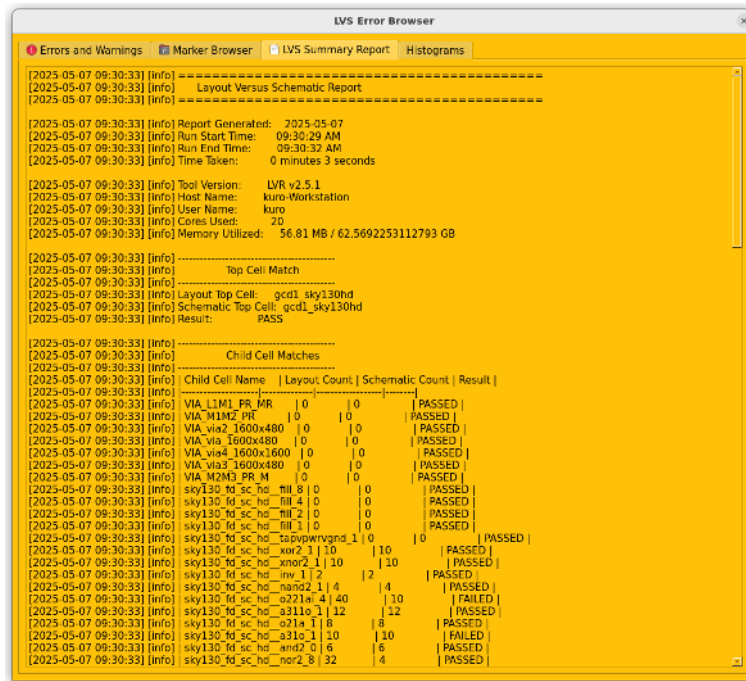


Figure 9: Enter Caption

4.2.4 Summary Report Tab

The **LVS Summary Report** tab displays the full summary log of the LVS run. It contains metadata such as tool version, host, user name, core usage, and memory footprint. The top cell match section shows layout and schematic cell names along with pass/fail status. Child cell matches are listed in a table format with counts and match results. Each cell is checked for equivalence in hierarchy and connectivity. Failed cells are highlighted and must be resolved before achieving a PASS. The summary gives a complete picture of LVS correctness at hierarchical levels. This log is often archived as part of design verification documentation. It can also be used in automation pipelines for pass/fail gating.

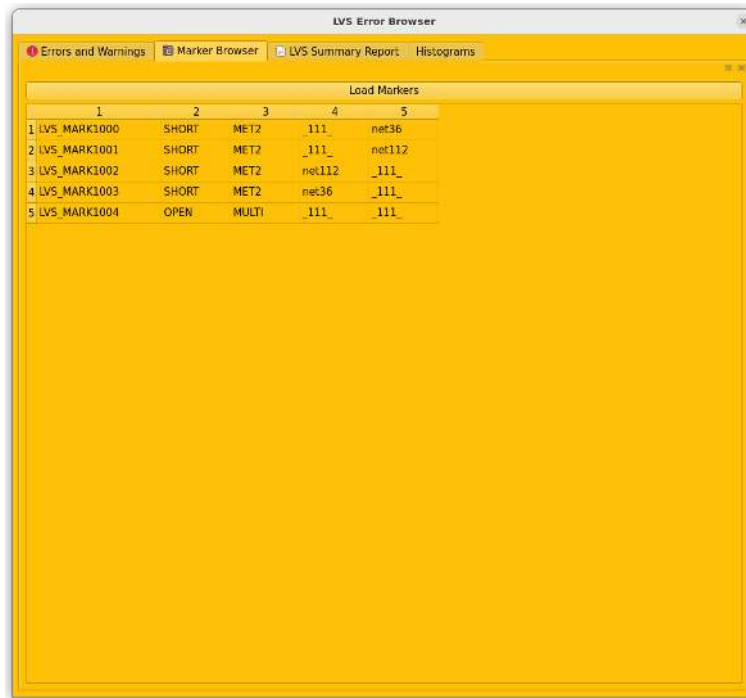


Figure 10: Enter Caption

4.2.5 Marker Browser Tab

The **Marker Browser** tab presents a tabular view of LVS error markers. Each row corresponds to a unique marker, listing marker ID, type (SHORT or OPEN), layer, and nets involved. Users can click on any marker row to highlight its location in the layout viewer. This browser supports sorting and filtering for quick navigation. Markers can be loaded or cleared using the provided buttons. It is designed for rapid pinpointing of problematic layout regions. This tab is ideal for use during interactive layout inspection sessions. It also supports batch mode operation where all markers are loaded from an external file.

4.3 Graphics View

The **Graphics View** in LVR (Layout Verification Reporter) is the central area for layout visualization and graphical interaction. It enables users to examine the physical representation of the design with intuitive panning, zooming, and object selection. As seen in Figure 11, this view displays the layout across multiple layers and supports interactive debugging by highlighting selected cells, nets, and geometries.

The layout canvas is flanked by essential tools such as the Layer Control Panel, Navigation Panel, FindObjects Dialog, and the Selection Panel. These components collectively enable a seamless GUI-based experience for exploring verification errors, inspecting design connectivity, and reviewing geometry across process layers.

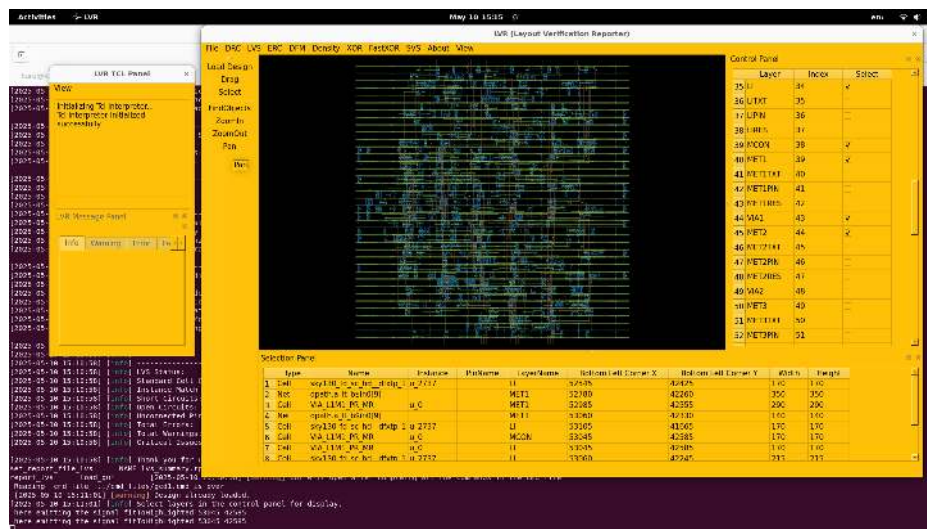


Figure 11: Main Graphics View with active layout display and pan tool

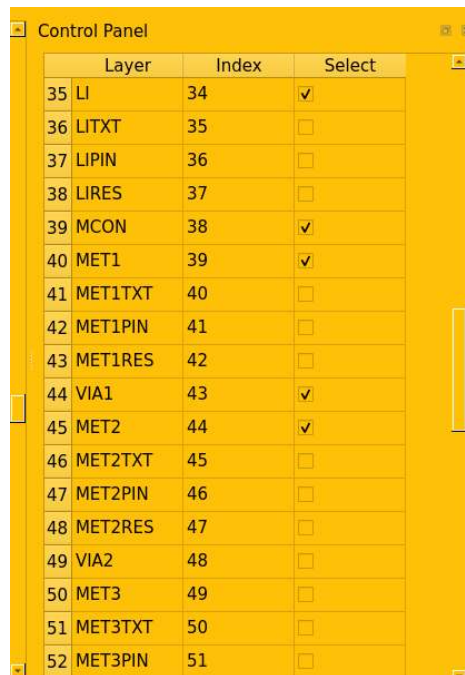
4.3.1 Layer Control Panel

The **Layer Control Panel** (Figure 12) allows users to toggle visibility of specific layers such as LI, MET1, MET2, VIA1, and MCON. Each row in the panel

consists of:

- **Layer:** The name of the layout layer (e.g., MET1, VIA1).
- **Index:** The internal identifier used by the tool.
- **Select:** A checkbox to show or hide the layer in the view.

This selective visibility aids in debugging by isolating problematic layers, helping users focus on shorts, opens, or misalignments at a specific metal or via level.



	Layer	Index	Select
35	LI	34	☒
36	LITXT	35	☐
37	LIPIN	36	☐
38	LIRES	37	☐
39	MCON	38	☒
40	MET1	39	☒
41	MET1TXT	40	☐
42	MET1PIN	41	☐
43	MET1RES	42	☐
44	VIA1	43	☒
45	MET2	44	☒
46	MET2TXT	45	☐
47	MET2PIN	46	☐
48	MET2RES	47	☐
49	VIA2	48	☐
50	MET3	49	☐
51	MET3TXT	50	☐
52	MET3PIN	51	☐

Figure 12: Layer Control Panel

4.3.2 Selection Panel

The **Selection Panel** (Figure 13) shows properties of selected graphical items. Each entry includes:

- **Type:** Identifies if the object is a Cell or Net.
- **Name, Instance, PinName:** Metadata for the selected element.
- **LayerName:** Corresponding layer.
- **Bounding Box:** Bottom-left coordinates (X, Y), Width, and Height.

This panel helps in verifying if a net or cell instance is correctly placed, sized, and connected.

Selection Panel								
Type	Name	Instance	PinName	LayerName	Bottom Left Corner X	Bottom Left Corner Y	Width	Height
1 Cell	sky130_fd_sc_hd_dfxtp_1_u_2737			LI	52545	42425	170	170
2 Net	dpath_a_lt_bsin0[9]			MET1	52780	42260	350	350
3 Cell	VIA_L1M1_PR_MR	u_0		MET1	52985	42555	290	290
4 Net	dpath_a_lt_bsin0[9]			MET1	53060	42330	140	140
5 Cell	sky130_fd_sc_hd_dfxtp_1_u_2737			LI	53105	41665	170	170
6 Cell	VIA_L1M1_PR_MR	u_0		MCON	53045	42585	170	170
7 Cell	VIA_L1M1_PR_MR	u_0		LI	53045	42585	170	170
8 Cell	sky130_fd_sc_hd_dfxtp_1_u_2737			LI	53060	42745	215	215

Figure 13: Selection Panel displaying highlighted instance u_0

4.3.3 FindObjects Dialog

The **FindObjects Dialog** (Figure 14) allows searching for specific nets or instances in the layout. This utility provides two buttons:

- **Find Net:** Zooms into and highlights a given net.
- **Find Inst:** Locates an instance such as a cell and centers it in the graphics view.

It is a powerful feature for quickly navigating large designs, especially when reviewing reported issues.

4.3.4 Search Result View

Figure 15 shows the layout centered and zoomed into instance u_0 after performing a search via the Find Inst button. This interactive navigation helps in pinpointing the physical location of a logic element reported in error.

level.



Figure 16: Navigation Panel with layout view tools

5 LVR Errors and Warnings

Each error/warning appears on its own page with a tailored description, impact, likely root causes, and step-by-step resolution guidance. This manual was constructed from source log format strings and categorized by module. Antenna, TCL, DFM, and PERC items were excluded per request.

5.1 Summary Index

Module	Code	Message (truncated)
DB	DB_ERR	Need to set number of cores as well before setting die_area
DB	DB_ERR001	Top cell is not specified
DB	DB_ERR004	Review and fix the DB loading errors and re-run LVR: DENSITY cannot proceed
DB	DB_ERR005	No DB instance found for {}, create a DB using init_tool.db command
DB	DB_ERR006	The file {} could not be opened
DB	DB_ERR007	LRF file not found
DB	DB_ERR008	Module-SPICE file not found
DB	DB_ERR009	Macro CDL Library not found
DB	DB_ERR010	DB for {} already exists
DB	DB_ERR011	Summary Report File not found
DB	DB_ERR012	Markers File not found
DB	DB_ERR014	Macro Timeout is less than 1 second
DB	DB_ERR015	Instance Matching Timeout is less than 60 seconds
DB	DB_ERR016	Number of OpenMP threads is invalid
DB	DB_ERR017	One or more input fields (LineEdits) are missing.
DB	DB_ERR018	Number of Cores is more than the available cores for this machine
DB	DB_ERR021	Max error is less than 1
DB	DB_ERR022	Max error (option) is less than 1
DENSITY	DENSITY_ERR001	Module {} not found in Layout DB for {}, DENSITY cannot proceed

DENSITY	DENSITY_ERR022	DENSITY has already been run, to re-run, create a fresh DB
DENSITY	DENSITY_ERR024	DENSITY DB has not been set, please initialize DENSITY DB to run density
DRC	DRC_ERR009	Module {} not found in Layout DB for {}, DRC cannot proceed
DRC	DRC_ERR023	DRC has already been run, to re-run, create a fresh DB
DRC	DRC_ERR024	DRC DB has not been set, please initialize DRC DB to run drc
ERC	ERC_ERR001	Pin {} of instance {} is shorted with power
ERC	ERC_ERR002	Pin {} of instance {} is shorted with ground
ERC	ERC_ERR003	Input pin {} of instance {} is unconnected
ERC	ERC_ERR004	Output pin {} of instance {} is dangling and unconnected
ERC	ERC_ERR005	Pin {} of instance {} is shorted to ground
ERC	ERC_ERR006	Pin {} of instance {} is shorted to power
ERC	ERC_ERR007	Net {} has multiple output drivers: {} and {}
ERC	ERC_ERR008	Power pin {} of instance {} is undriven
ERC	ERC_ERR009	Ground pin {} of instance {} is undriven
ERC	ERC_ERR017	Found short {} interacting with {} on layer {}
ERC	ERC_ERR019	The pin {} of instance of the layout {} is unconnected, this will lead to ERC mismatches
ERC	ERC_ERR020	Mismatch in pins and ports size for instance {}

ERC	ERC_ERR023	ERC has already been run, to re-run, create a fresh DB
ERC	ERC_ERR024	ERC DB has not been set, please initialize ERC DB to run erc
LVS	LVS_ERR003	Pin {} of instance {} is open and unconnected
LVS	LVS_ERR005	The instance {} of the schematic remained unmatched
LVS	LVS_ERR006	Macros cdl file not specified, LVS cannot proceed
LVS	LVS_ERR007	Module Spice file not specified, LVS cannot proceed
LVS	LVS_ERR009	Module {} not found in Layout DB for {}, LVS cannot proceed
LVS	LVS_ERR017	Found short {} interacting with {} on layer {}
LVS	LVS_ERR018	Open detected! Net {} is broken into {} disconnected parts
LVS	LVS_ERR019	The pin {} of instance of the layout {} is unconnected, this will lead to LVS mismatches
LVS	LVS_ERR020	Mismatch in pins and ports size for instance {}
LVS	LVS_ERR023	LVS has already been run, to re-run, create a fresh DB
LVS	LVS_ERR024	LVS DB has not been set, please initialize LVS DB to run lvs
LVS	LVS_ERR025	Required pin {} of instance {} is unconnected

LVS	LVS_ERR026	Required pin {} of instance {} is unconnected
LVS	LVS_ERR027	Required pin {} of instance {} is unconnected
LVS	LVS_ERR028	Required pin {} of instance {} is unconnected
MLVS	MLVS_ERR002	Mismatch for the Gate Pin of macro {}
MLVS	MLVS_ERR003	Mismatch for the Source Pin of macro {}
MLVS	MLVS_ERR006	Macros cdl file not specified, MLVS cannot proceed
MLVS	MLVS_ERR007	Module Spice file not specified, MLVS cannot proceed
MLVS	MLVS_ERR009	Module {} not found in Layout DB for {}, MLVS cannot proceed
MLVS	MLVS_ERR023	MLVS has already been run, to re-run, create a fresh DB
MLVS	MLVS_ERR024	MLVS DB has not been set, please initialize MLVS DB to run mlvs
SVS	SVS_ERR001	No perfect left-side matching found!
SVS	SVS_ERR002	No perfect right-side matching found!
SVS	SVS_ERR005	The instance {} of the schematic remained unmatched
SVS	SVS_ERR006	Macros cdl file not specified, SVs cannot proceed
SVS	SVS_ERR009	Module {} not found in Layout DB for {}, SVS cannot proceed
SVS	SVS_ERR010	Module Verilog file not specified, svcs cannot proceed

SVS	SVS_ERR011	Module Verilog file not specified, svs cannot proceed
SVS	SVS_ERR012	Module Spice file not specified, svs cannot proceed
SVS	SVS_ERR013	Module Spice file not specified, svs cannot proceed
SVS	SVS_ERR020	Mismatch in pins and ports size for instance {}
SVS	SVS_ERR023	SVS has already been run, to re-run, create a fresh DB
SVS	SVS_ERR024	SVS DB has not been set, please initialize SVS DB to run svs
SVS	SVS_ERR031	Mismatch in the number of instances , Left = {} , Right= {}
SVS	SVS_ERR032	Mismatch in the number of pins for the instance {}
SVS	SVS_ERR033	Mismatch in the number of ports for the instance {}
SVS	SVS_ERR034	Mismatch in the number of pin to net matching for the instance {}
XOR	XOR_ERR001	XOR Mismatch is found for a polygon on the layer {}
XOR	XOR_ERR009	Module {} not found in Layout DB for {}, XOR cannot proceed
XOR	XOR_ERR023	XOR has already been run, to re-run, create a fresh DB
XOR	XOR_ERR024	XOR DB has not been set, please initialize XOR DB to run xor_check

5.2 DB

5.2.1 DB_ERR

Message Template.

Need to set number of cores as well before setting die_area

Meaning.

General database configuration problem detected during validation.

Impact.

Requested operation cannot proceed until DB issues are resolved.

Typical Root Causes.

- Missing/invalid paths.
- Permissions.
- Corruption.

Recommended Resolution.

- Fix paths and permissions.
- Recreate DB if necessary.

Example Appearance.

DB_ERR: Need to set number of cores as well before setting die_area

5.2.2 DB_ERR001

Message Template.

Top cell is not specified

Meaning.

The top cell name required to anchor hierarchy was not specified.

Impact.

Modules cannot resolve a root for analysis; runs aborted.

Typical Root Causes.

- set_top not called.
- GUI form missing top-cell entry.

Recommended Resolution.

- Call set_top with correct cell.
- Populate forms with valid top cell.

Example Appearance.

DB_ERR001: Top cell is not specified

5.2.3 DB_ERR004

Message Template.

Review and fix the DB loading errors and re-run LVR: DENSITY cannot proceed

Meaning.

There were errors while loading inputs; modules depending on DB will not proceed.

Impact.

Subsequent runs (LVS/DRC/etc.) are blocked.

Typical Root Causes.

- Malformed or missing input files.
- Path/access issues.

Recommended Resolution.

- Fix the loading errors first (see detailed log).
- Re-run after inputs validate.

Example Appearance.

DB_ERR004: Review and fix the DB loading errors and re-run LVR:
DENSITY cannot proceed

5.2.4 DB_ERR005

Message Template.

No DB instance found for {}, create a DB using init_tool.db command

Meaning.

No active DB instance is present for the requested tool module.

Impact.

Module cannot access state or write results.

Typical Root Causes.

- init_tool.db not called.
- set_tool.db not used.

Recommended Resolution.

- Create and select a DB.
- Ensure correct toolName context.

Example Appearance.

DB_ERR005: No DB instance found for {}, create a DB using init_tool.db command

5.2.5 DB_ERR006

Message Template.

The file {} could not be opened

Meaning.

An input file could not be opened for reading.

Impact.

Run configuration is incomplete; module may fail early.

Typical Root Causes.

- Wrong path or filename.
- Insufficient permissions.
- File locked or corrupt.

Recommended Resolution.

- Correct the path.
- Fix permissions.
- Verify file integrity.

Example Appearance.

DB_ERR006: The file {} could not be opened

5.2.6 DB_ERR007

Message Template.

LRF file not found

Meaning.

LRF (layout rules file) not found where expected.

Impact.

Cannot run rule-driven checks.

Typical Root Causes.

- Path typo.
- File missing from repo.

Recommended Resolution.

- Point to correct LRF path.
- Restore the rule deck.

Example Appearance.

DB_ERR007: LRF file not found

5.2.7 DB_ERR008

Message Template.

Module-SPICE file not found

Meaning.

Module SPICE file not found by the input forms/checks.

Impact.

Dependent flows (LVS/ERC/SVS) cannot proceed.

Typical Root Causes.

- Path wrong.
- File removed.

Recommended Resolution.

- Fix SPICE path.
- Re-export SPICE.

Example Appearance.

DB_ERR008: Module-SPICE file not found

5.2.8 DB_ERR009

Message Template.

Macro CDL Library not found

Meaning.

Macro CDL library not found.

Impact.

Macro expansion blocked in flows requiring CDL.

Typical Root Causes.

- CDL path invalid or missing.
- PDK assets not installed.

Recommended Resolution.

- Supply correct CDL path.
- Install/restore PDK library.

Example Appearance.

DB_ERR009: Macro CDL Library not found

5.2.9 DB_ERR010

Message Template.

DB for {} already exists

Meaning.

A DB with the requested name already exists.

Impact.

May cause accidental overwrite or stale results.

Typical Root Causes.

- Reusing run identifiers.
- Concurrent jobs writing same DB.

Recommended Resolution.

- Choose unique DB name.
- Archive or remove old DB.

Example Appearance.

DB_ERR010: DB for {} already exists

5.2.10 DB_ERR011

Message Template.

Summary Report File not found

Meaning.

Summary report file not found when validating inputs.

Impact.

Report generation cannot proceed for that module.

Typical Root Causes.

- Report path not created yet.
- Wrong output directory.

Recommended Resolution.

- Set report output path first.
- Ensure directory exists.

Example Appearance.

DB_ERR011: Summary Report File not found

5.2.11 DB_ERR012

Message Template.

Markers File not found

Meaning.

Marker file not found while validating GUI/report options.

Impact.

Viewer cannot load markers; reporting degraded.

Typical Root Causes.

- Markers not yet generated.
- Wrong file path.

Recommended Resolution.

- Run checks to generate markers.
- Fix marker file path.

Example Appearance.

DB_ERR012: Markers File not found

5.2.12 DB_ERR014

Message Template.

Macro Timeout is less than 1 second

Meaning.

Macro timeout parameter is too small.

Impact.

Macro extraction may not complete.

Typical Root Causes.

- CLI value < 1 second.
- Bad default.

Recommended Resolution.

- Increase macro timeout.
- Use recommended values in docs.

Example Appearance.

DB_ERR014: Macro Timeout is less than 1 second

5.2.13 DB_ERR015

Message Template.

Instance Matching Timeout is less than 60 seconds

Meaning.

Instance matching timeout is too small.

Impact.

Equivalence search may terminate early.

Typical Root Causes.

- Timeout $\leq$ 60 seconds.
- Large design with deep hierarchy.

Recommended Resolution.

- Increase timeout beyond 60s.
- Scale with design size.

Example Appearance.

DB_ERR015: Instance Matching Timeout is less than 60 seconds

5.2.14 DB_ERR016

Message Template.

Number of OpenMP threads is invalid

Meaning.

Number of threads/cores parameter is invalid (less than 1).

Impact.

Parallel engine disabled or errors out.

Typical Root Causes.

- CLI value 0 or negative.
- Form validation failed.

Recommended Resolution.

- Set cores ≥ 1 .
- Detect system cores dynamically.

Example Appearance.

DB_ERR016: Number of OpenMP threads is invalid

5.2.15 DB_ERR017

Message Template.

One or more input fields (LineEdits) are missing.

Meaning.

One or more required UI input fields are empty.

Impact.

Cannot validate or start run.

Typical Root Causes.

- Form not fully filled.
- Automation missing keys.

Recommended Resolution.

- Complete all required fields.
- Add validation in script.

Example Appearance.

DB_ERR017: One or more input fields (LineEdits) are missing.

5.2.16 DB_ERR018

Message Template.

Number of Cores is more than the available cores for this machine

Meaning.

Requested core count exceeds available machine cores.

Impact.

Scheduling will fail or be clamped.

Typical Root Causes.

- Hardcoded value too high.
- Container limits.

Recommended Resolution.

- Detect cores programmatically.
- Respect container quotas.

Example Appearance.

DB_ERR018: Number of Cores is more than the available cores for
this machine

5.2.17 DB_ERR021

Message Template.

Max error is less than 1

Meaning.

Max error count is set below 1.

Impact.

Error reporting suppressed unnaturally; runs may abort.

Typical Root Causes.

- Bad form value.
- Script setting 0.

Recommended Resolution.

- Set max error $\leq$ 1.
- Use tool defaults.

Example Appearance.

DB_ERR021: Max error is less than 1

5.2.18 DB_ERR022

Message Template.

Max error (option) is less than 1

Meaning.

Option max error limit is set below 1.

Impact.

Option-related diagnostics suppressed.

Typical Root Causes.

- Incorrect parameterization.
- Form validation bug.

Recommended Resolution.

- Set option max error $\epsilon = 1$.
- Align with module defaults.

Example Appearance.

DB_ERR022: Max error (option) is less than 1

5.3 DENSITY

5.3.1 DENSITY_ERR009

Message Template.

Module {} not found in Layout DB for {}, DENSITY cannot proceed

Meaning.

Top module not found when preparing density windows; analysis cannot locate layout hierarchy.

Impact.

Density analysis halted; no coverage numbers.

Typical Root Causes.

- Wrong top cell name.
- Layout DB not loaded.
- Flattened hierarchy not matching expectations.

Recommended Resolution.

- Set correct top cell.
- Reload layout DB.
- Confirm windowing parameters.

Example Appearance.

DENSITY_ERR009: Module {} not found in Layout DB for {}, DENSITY cannot proceed

5.3.2 DENSITY_ERR023

Message Template.

DENSITY has already been run, to re-run, create a fresh DB

Meaning.

Density analysis already performed in this DB; re-run requires a fresh DB.

Impact.

Potential mixing of old/new markers; run blocked.

Typical Root Causes.

- Re-running in same workspace.
- Automations reusing DB.

Recommended Resolution.

- Create a new DB for the re-run.
- Purge prior artifacts.

Example Appearance.

DENSITY_ERR023: DENSITY has already been run, to re-run, create a fresh DB

5.3.3 DENSITY_ERR024

Message Template.

DENSITY DB has not been set, please initialize DENSITY DB to run density

Meaning.

Density DB not set for the session.

Impact.

Tool cannot instantiate windowing or collect metrics.

Typical Root Causes.

- Missing init/set of DB.
- Corrupt or moved DB path.

Recommended Resolution.

- Initialize DB and set active.
- Repair path or permissions.

Example Appearance.

DENSITY_ERR024: DENSITY DB has not been set, please initialize DENSITY
DB to run density

5.4 DRC

5.4.1 DRC_ERR009

Message Template.

Module {} not found in Layout DB for {}, DRC cannot proceed

Meaning.

The requested module (top cell) was not found for DRC context, usually due to mismatched naming or missing GDS.

Impact.

DRC cannot target the intended block; run aborted.

Typical Root Causes.

- Wrong set_top name.
- GDS missing the cell.
- Import filters dropped the cell.

Recommended Resolution.

- Set the correct top.
- Re-stream GDS with full hierarchy.
- Check library map filters.

Example Appearance.

DRC_ERR009: Module {} not found in Layout DB for {}, DRC cannot proceed

5.4.2 DRC_ERR023

Message Template.

DRC has already been run, to re-run, create a fresh DB

Meaning.

A DRC run already exists in this DB; the tool enforces clean re-runs only.

Impact.

Stale markers/reports could confuse interpretation; run blocked.

Typical Root Causes.

- Re-run without cleaning DB.
- Shared DB across jobs.

Recommended Resolution.

- Create a fresh DB.
- Use unique run directories.

Example Appearance.

DRC_ERR023: DRC has already been run, to re-run, create a fresh DB

5.4.3 DRC_ERR024

Message Template.

DRC DB has not been set, please initialize DRC DB to run drc

Meaning.

DRC DB has not been initialized for the current session.

Impact.

Cannot load rule deck or write markers; DRC aborted.

Typical Root Causes.

- Missing init_tool_db or set_tool_db.
- DB path moved or not writable.

Recommended Resolution.

- Initialize and activate a DB.
- Fix permissions and paths.

Example Appearance.

DRC_ERR024: DRC DB has not been set, please initialize DRC DB to
run drc

5.5 ERC

5.5.1 ERC_ERR001

Message Template.

Pin {} of instance {} is shorted with power

Meaning.

A functional pin is accidentally tied to the power rail.

Impact.

Overdrive, leakage, or permanent assertion; can damage device.

Typical Root Causes.

- Labeling error, short shapes, or wrong tie cell.
- Incorrect net aliasing.

Recommended Resolution.

- Break the short; route through proper tie-high cell.
- Verify label layers and net connectivity.

Example Appearance.

ERC_ERR001: Pin {} of instance {} is shorted with power

5.5.2 ERC_ERR002

Message Template.

Pin {} of instance {} is shorted with ground

Meaning.

A functional pin is accidentally tied to ground.

Impact.

Signal stuck-low; dynamic paths disabled; possible damage.

Typical Root Causes.

- Metal short to ground ring/strap.
- Wrong tie-low usage.

Recommended Resolution.

- Remove short and use proper tie-low cell.
- Reroute away from ground domains.

Example Appearance.

ERC_ERR002: Pin {} of instance {} is shorted with ground

5.5.3 ERC_ERR003

Message Template.

Input pin {} of instance {} is unconnected

Meaning.

An input pin is left unconnected in the schematic or extracted layout.

Impact.

Floating input causes unpredictable logic levels and current draw.

Typical Root Causes.

- Missed wire, removed buffer, or port name mismatch.
- Conditional port excluded in one view.

Recommended Resolution.

- Connect to the correct driving net or tie cell.
- Re-export netlists to align port sets.

Example Appearance.

ERC_ERR003: Input pin {} of instance {} is unconnected

5.5.4 ERC_ERR004

Message Template.

Output pin {} of instance {} is dangling and unconnected

Meaning.

An output pin has no load or is not connected onward.

Impact.

Dangling output; potential power waste or missing function.

Typical Root Causes.

- Net cut by ECO, or sink removed.
- Port direction mismatch masking the connection.

Recommended Resolution.

- Reconnect to intended sinks.
- Check optimized netlists for pruned nets.

Example Appearance.

ERC_ERR004: Output pin {} of instance {} is dangling and unconnected

5.5.5 ERC_ERR005

Message Template.

Pin {} of instance {} is shorted to ground

Meaning.

A functional pin is shorted to ground (duplicate in messages may reflect detection at different stages).

Impact.

Permanent low; possible device stress.

Typical Root Causes.

- Physical short or aliasing of nets.
- Misplaced via stack crossing ground.

Recommended Resolution.

- Isolate shapes; correct alias/label.
- Validate with DRC short checks.

Example Appearance.

ERC_ERR005: Pin {} of instance {} is shorted to ground

5.5.6 ERC_ERR006

Message Template.

Pin {} of instance {} is shorted to power

Meaning.

A functional pin is shorted to power.

Impact.

Permanent high; crowbar risk with downstream logic.

Typical Root Causes.

- Short to VDD rail or well tie.
- Wrong tie-high usage.

Recommended Resolution.

- Remove short; use dedicated tie-high cells.
- Verify power domain boundaries.

Example Appearance.

ERC_ERR006: Pin {} of instance {} is shorted to power

5.5.7 ERC_ERR007

Message Template.

Net {} has multiple output drivers: {} and {}

Meaning.

A single net is driven by more than one output driver.

Impact.

Bus contention; reliability and timing hazards.

Typical Root Causes.

- Two outputs shorted together.
- Bi-directional pins both driving simultaneously.

Recommended Resolution.

- Insert tri-state controls or arbitration.
- Separate drivers or use wired-OR structures if supported.

Example Appearance.

ERC_ERR007: Net {} has multiple output drivers: {} and {}

5.5.8 ERC_ERR008

Message Template.

Power pin {} of instance {} is undriven

Meaning.

A power pin is not driven by any valid supply source.

Impact.

Undriven power pin makes cell behavior undefined.

Typical Root Causes.

- Missed ring/strap connection.
- Level-shifter domain not hooked to supply.

Recommended Resolution.

- Connect to correct rail via tap/strap.
- Check power intent (UPF/CPF) consistency.

Example Appearance.

ERC_ERR008: Power pin {} of instance {} is undriven

5.5.9 ERC_ERR009

Message Template.

Ground pin {} of instance {} is undriven

Meaning.

A ground pin is not connected to a ground network.

Impact.

Reference potential undefined; ESD and noise issues.

Typical Root Causes.

- Missing ground strap connection.
- Name mismatch of ground net (e.g., GND vs VSS).

Recommended Resolution.

- Connect to ground mesh and taps.
- Normalize ground net names.

Example Appearance.

ERC_ERR009: Ground pin {} of instance {} is undriven

5.5.10 ERC_ERR017

Message Template.

Found short {} interacting with {} on layer {}

Meaning.

A short is detected between two nets on a specific layer context.

Impact.

Electrical short; can cause functional failure.

Typical Root Causes.

- Metal overlap or insufficient spacing.
- Via misalignment bridging nets.

Recommended Resolution.

- Separate shapes or enforce spacing.
- Fix via enclosures and rerun ERC/DRC.

Example Appearance.

ERC_ERR017: Found short {} interacting with {} on layer {}

5.5.11 ERC_ERR019

Message Template.

The pin {} of instance of the layout {} is unconnected, this will lead to ERC mismatches

Meaning.

A layout instance exposes a pin that is not connected to any net, flagged at the ERC stage.

Impact.

Floating node; may cause leakage or undefined behavior.

Typical Root Causes.

- Missed ECO reconnect.
- Abstract LEF pin not realized in GDS.

Recommended Resolution.

- Connect or tie off per design intent.
- Update abstract and re-export.

Example Appearance.

ERC_ERR019: The pin {} of instance of the layout {} is unconnected, this will lead to ERC mismatches

5.5.12 ERC_ERR020

Message Template.

Mismatch in pins and ports size for instance {}

Meaning.

Generic tool error.

Impact.

Operation failed or halted.

Typical Root Causes.

- Configuration issue.
- Missing file.
- Incompatible options.

Recommended Resolution.

- Review logs.
- Provide required inputs.
- Correct parameters.

Example Appearance.

ERC_ERR020: Mismatch in pins and ports size for instance {}

5.5.13 ERC_ERR023

Message Template.

ERC has already been run, to re-run, create a fresh DB

Meaning.

Generic tool error.

Impact.

Operation failed or halted.

Typical Root Causes.

- Configuration issue.
- Missing file.
- Incompatible options.

Recommended Resolution.

- Review logs.
- Provide required inputs.
- Correct parameters.

Example Appearance.

ERC_ERR023: ERC has already been run, to re-run, create a fresh DB

5.5.14 ERC_ERR024

Message Template.

ERC DB has not been set, please initialize ERC DB to run erc

Meaning.

Generic tool error.

Impact.

Operation failed or halted.

Typical Root Causes.

- Configuration issue.
- Missing file.
- Incompatible options.

Recommended Resolution.

- Review logs.
- Provide required inputs.
- Correct parameters.

Example Appearance.

ERC_ERR024: ERC DB has not been set, please initialize ERC DB to
run erc

5.6 LVS

5.6.1 LVS_ERR003

Message Template.

Pin {} of instance {} is open and unconnected

Meaning.

A pin on a placed instance in the layout has no resolved connection in the extracted netlist. The schematic expects this pin to be tied to a net, but the layout leaves it floating.

Impact.

Connectivity mismatch leading to LVS failure; floating pins can cause functional indeterminism.

Typical Root Causes.

- Missing route/shape to the pin metal.
- Incorrect pin name mapping or case mismatch between layout and schematic.
- Pin disabled or pruned during export.

Recommended Resolution.

- Probe the reported instance/pin in the layout viewer and trace to the nearest net.
- Verify pin labels and layer mapping in the PDK/LVS deck.
- Reconnect or add the missing metal/via to complete the net.

Example Appearance.

LVS_ERR003: Pin {} of instance {} is open and unconnected

5.6.2 LVS_ERR005

Message Template.

The instance {} of the schematic remained unmatched

Meaning.

Generic tool error.

Impact.

Operation failed or halted.

Typical Root Causes.

- Configuration issue.
- Missing file.
- Incompatible options.

Recommended Resolution.

- Review logs.
- Provide required inputs.
- Correct parameters.

Example Appearance.

LVS_ERR005: The instance {} of the schematic remained unmatched

5.6.3 LVS_ERR006

Message Template.

Macros cdl file not specified, LVS cannot proceed

Meaning.

LVS requires a macro CDL library so that black-box macros can be expanded into devices for equivalence checking.

Impact.

Macros compare as unknown; LVS cannot descend hierarchy and will halt or skip comparisons.

Typical Root Causes.

- CDL path not set via `lvs_set_macros_cdl_file_name`.
- File missing or incompatible with selected technode.
- Access permission or path typo.

Recommended Resolution.

- Provide the correct CDL file for the technode.
- Confirm file readability and include paths.
- Re-run LVS after setting the CDL file.

Example Appearance.

LVS_ERR006: Macros cdl file not specified, LVS cannot proceed

5.6.4 LVS_ERR007

Message Template.

Module Spice file not specified, LVS cannot proceed

Meaning.

The primary schematic netlist (SPICE) is not provided for LVS.

Impact.

No reference graph to compare against; LVS cannot proceed.

Typical Root Causes.

- Forgot to set lvs_set_spice_file_name.
- Wrong file extension or path.
- Build flow relies on Verilog but SPICE output path not generated.

Recommended Resolution.

- Set the SPICE file path.
- If using Verilog→SPICE, generate the intermediate SPICE first.
- Validate file exists and parses.

Example Appearance.

LVS_ERR007: Module Spice file not specified, LVS cannot proceed

5.6.5 LVS_ERR009

Message Template.

Module {} not found in Layout DB for {}, LVS cannot proceed

Meaning.

The named module (top cell) cannot be found in the loaded layout database.

Impact.

Stop condition for LVS or module-level checks; top-of-hierarchy cannot be resolved.

Typical Root Causes.

- Incorrect top cell name in set_top.
- GDS file lacks the expected top cell.
- Stripped or renamed cell during stream-in.

Recommended Resolution.

- Open GDS and inspect library cell names; pick the correct top.
- Adjust set_top to the actual top cell.
- Re-import if the top was flattened or renamed.

Example Appearance.

LVS_ERR009: Module {} not found in Layout DB for {}, LVS cannot proceed

5.6.6 LVS_ERR017

Message Template.

Found short {} interacting with {} on layer {}

Meaning.

Two nets that should be isolated are found shorted in the layout extraction.

Impact.

Hard LVS mismatch; can imply catastrophic functional failure or reliability issues.

Typical Root Causes.

- Metal shapes touching due to spacing violation.
- Incorrect via enclosure overlapping adjacent net.
- Labeling error merging two distinct nets.

Recommended Resolution.

- Display short markers and separate polygons.
- Fix spacing/enclosure; re-run DRC to validate.
- Correct labels to ensure proper net separation.

Example Appearance.

LVS_ERR017: Found short {} interacting with {} on layer {}

5.6.7 LVS_ERR018

Message Template.

Open detected! Net {} is broken into {} disconnected parts

Meaning.

A single logical net is fragmented into multiple disconnected islands in the layout.

Impact.

Open circuit; signals cannot propagate; LVS mismatch.

Typical Root Causes.

- Missing stitch/route or omitted via.
- Disconnected pin after ECO.
- DRC-driven auto-fix broke continuity.

Recommended Resolution.

- Use connectivity highlight to find islands; route metal/via to bridge them.
- Check ECO diffs for removed segments.
- Re-run extraction and LVS.

Example Appearance.

LVS_ERR018: Open detected! Net {} is broken into {} disconnected parts

5.6.8 LVS_ERR019

Message Template.

The pin {} of instance of the layout {} is unconnected, this will lead to LVS mismatches

Meaning.

A pin of a layout instance is unconnected; typically reported with instance and pin names.

Impact.

Instance-level mismatch and potential functional failure at block pins.

Typical Root Causes.

- Pin shape not abutting target net.
- Pin suppressed in LEF or label mismatch.
- Hierarchical port not propagated.

Recommended Resolution.

- Ensure pin geometry overlaps metal of the intended net.
- Align naming conventions across abstract views.
- Export pins correctly from P&R.

Example Appearance.

LVS_ERR019: The pin {} of instance of the layout {} is unconnected, this will lead to LVS mismatches

5.6.9 LVS_ERR020

Message Template.

Mismatch in pins and ports size for instance {}

Meaning.

The count of pins/ports between compared entities differs (e.g., layout vs netlist or left vs right schematic).

Impact.

Graph isomorphism cannot be established; LVS comparison terminates with mismatch.

Typical Root Causes.

- Macro version mismatch (extra or removed ports).
- Conditionally compiled pins in netlist.
- Incorrect view (symbol vs implementation) used.

Recommended Resolution.

- Align library versions for both sides.
- Regenerate symbols/abstracts.
- Audit pin lists and update constraints.

Example Appearance.

LVS_ERR020: Mismatch in pins and ports size for instance {}

5.6.10 LVS_ERR023

Message Template.

LVS has already been run, to re-run, create a fresh DB

Meaning.

LVS is being invoked on a database where LVS results already exist, and the flow requires a fresh DB for a clean run.

Impact.

Stale artifacts may contaminate results; tool refuses to run.

Typical Root Causes.

- Re-run without clearing the DB.
- Sharing a DB across multiple runs.

Recommended Resolution.

- Create a fresh DB with `init_tool_db`.
- Use a new run directory per attempt.

Example Appearance.

LVS_ERR023: LVS has already been run, to re-run, create a fresh DB

5.6.11 LVS_ERR024

Message Template.

LVS DB has not been set, please initialize LVS DB to run lvs

Meaning.

The LVS module's database context is not initialized.

Impact.

LVS cannot load inputs or write outputs; run aborted.

Typical Root Causes.

- Forgot init_tool_db/set_tool_db.
- DB deleted or path moved.

Recommended Resolution.

- Initialize DB and set it active.
- Verify permissions and paths.

Example Appearance.

```
LVS_ERR024:  LVS DB has not been set, please initialize LVS DB to  
run lvs
```

5.6.12 LVS_ERR025

Message Template.

Required pin {} of instance {} is unconnected

Meaning.

A required pin reported by the LVS engine is unconnected, indicating incomplete connectivity for the instance.

Impact.

Mismatch at the device interface; LVS equivalence fails.

Typical Root Causes.

- Schematic pin present but layout metal missing.
- Name or direction mismatch prevents binding.
- Power/ground pins not tied correctly.

Recommended Resolution.

- Add missing connection in layout.
- Normalize pin names across views.
- Ensure P/G pins are connected per PDK.

Example Appearance.

LVS_ERR025: Required pin {} of instance {} is unconnected

5.6.13 LVS_ERR026

Message Template.

Required pin {} of instance {} is unconnected

Meaning.

A required pin reported by the LVS engine is unconnected, indicating incomplete connectivity for the instance.

Impact.

Mismatch at the device interface; LVS equivalence fails.

Typical Root Causes.

- Schematic pin present but layout metal missing.
- Name or direction mismatch prevents binding.
- Power/ground pins not tied correctly.

Recommended Resolution.

- Add missing connection in layout.
- Normalize pin names across views.
- Ensure P/G pins are connected per PDK.

Example Appearance.

LVS_ERR026: Required pin {} of instance {} is unconnected

5.6.14 LVS_ERR027

Message Template.

Required pin {} of instance {} is unconnected

Meaning.

A required pin reported by the LVS engine is unconnected, indicating incomplete connectivity for the instance.

Impact.

Mismatch at the device interface; LVS equivalence fails.

Typical Root Causes.

- Schematic pin present but layout metal missing.
- Name or direction mismatch prevents binding.
- Power/ground pins not tied correctly.

Recommended Resolution.

- Add missing connection in layout.
- Normalize pin names across views.
- Ensure P/G pins are connected per PDK.

Example Appearance.

LVS_ERR027: Required pin {} of instance {} is unconnected

5.6.15 LVS_ERR028

Message Template.

Required pin {} of instance {} is unconnected

Meaning.

A required pin reported by the LVS engine is unconnected, indicating incomplete connectivity for the instance.

Impact.

Mismatch at the device interface; LVS equivalence fails.

Typical Root Causes.

- Schematic pin present but layout metal missing.
- Name or direction mismatch prevents binding.
- Power/ground pins not tied correctly.

Recommended Resolution.

- Add missing connection in layout.
- Normalize pin names across views.
- Ensure P/G pins are connected per PDK.

Example Appearance.

LVS_ERR028: Required pin {} of instance {} is unconnected

5.7 MLVS

5.7.1 MLVS_ERR002

Message Template.

Mismatch for the Gate Pin of macro {}

Meaning.

Macro LVS pin mismatch at specific terminals (e.g., Gate, Source). The pin type does not align between macro representation and extracted view.

Impact.

Macro equivalence fails; downstream LVS may cascade mismatches.

Typical Root Causes.

- Symbol/abstract uses different pin naming or polarity.
- Process corner variant with different pins.

Recommended Resolution.

- Unify pin naming across macro views.
- Use correct macro variant for node.

Example Appearance.

MLVS_ERR002: Mismatch for the Gate Pin of macro {}

5.7.2 MLVS_ERR003

Message Template.

Mismatch for the Source Pin of macro {}

Meaning.

Macro LVS pin mismatch at specific terminals (e.g., Gate, Source). The pin type does not align between macro representation and extracted view.

Impact.

Macro equivalence fails; downstream LVS may cascade mismatches.

Typical Root Causes.

- Symbol/abstract uses different pin naming or polarity.
- Process corner variant with different pins.

Recommended Resolution.

- Unify pin naming across macro views.
- Use correct macro variant for node.

Example Appearance.

MLVS_ERR003: Mismatch for the Source Pin of macro {}

5.7.3 MLVS_ERR006

Message Template.

Macros cdl file not specified, MLVS cannot proceed

Meaning.

Macro CDL file not specified for MLVS run.

Impact.

Cannot expand macro internals; MLVS aborted.

Typical Root Causes.

- CDL path missing.
- PDK setup incomplete.

Recommended Resolution.

- Provide CDL path.
- Verify PDK installation.

Example Appearance.

MLVS_ERR006: Macros cdl file not specified, MLVS cannot proceed

5.7.4 MLVS_ERR007

Message Template.

Module Spice file not specified, MLVS cannot proceed

Meaning.

Macro SPICE file not specified for MLVS run.

Impact.

No reference netlist to compare; MLVS cannot proceed.

Typical Root Causes.

- Missing SPICE path.
- Wrong file referenced.

Recommended Resolution.

- Set SPICE file path.
- Check file exists and parses.

Example Appearance.

MLVS_ERR007: Module Spice file not specified, MLVS cannot proceed

5.7.5 MLVS_ERR009

Message Template.

Module {} not found in Layout DB for {}, MLVS cannot proceed

Meaning.

Macro top module not found in layout DB.

Impact.

MLVS cannot correlate macro instance.

Typical Root Causes.

- Wrong macro name.
- Layout import incomplete.

Recommended Resolution.

- Verify macro cell naming.
- Re-import GDS with macro library.

Example Appearance.

MLVS_ERR009: Module {} not found in Layout DB for {}, MLVS cannot proceed

5.7.6 MLVS_ERR023

Message Template.

MLVS has already been run, to re-run, create a fresh DB

Meaning.

MLVS was already run in this DB; clean re-run required.

Impact.

Stale markers confuse results.

Typical Root Causes.

- Re-run without fresh DB.
- Automation reusing workspace.

Recommended Resolution.

- Create new DB.
- Purge prior MLVS artifacts.

Example Appearance.

MLVS_ERR023: MLVS has already been run, to re-run, create a fresh DB

5.7.7 MLVS_ERR024

Message Template.

MLVS DB has not been set, please initialize MLVS DB to run mlvs

Meaning.

MLVS DB not set for current session.

Impact.

Run cannot start.

Typical Root Causes.

- init/set DB missing.
- Path invalid.

Recommended Resolution.

- Initialize and select DB.
- Fix paths.

Example Appearance.

```
MLVS_ERR024: MLVS DB has not been set, please initialize MLVS DB  
to run mlvs
```

5.8 SVS

5.8.1 SVS_ERR001

Message Template.

No perfect left-side matching found!

Meaning.

No perfect matching found on left/right side during bipartite matching of instances.

Impact.

SVS cannot produce a 1:1 correspondence.

Typical Root Causes.

- Ambiguous naming or topology differences.
- Graph isomorphism fails.

Recommended Resolution.

- Constrain matching with attributes.
- Ensure consistent hierarchy and parameters.

Example Appearance.

SVS_ERR001: No perfect left-side matching found!

5.8.2 SVS_ERR002

Message Template.

No perfect right-side matching found!

Meaning.

No perfect matching found on left/right side during bipartite matching of instances.

Impact.

SVS cannot produce a 1:1 correspondence.

Typical Root Causes.

- Ambiguous naming or topology differences.
- Graph isomorphism fails.

Recommended Resolution.

- Constrain matching with attributes.
- Ensure consistent hierarchy and parameters.

Example Appearance.

SVS_ERR002: No perfect right-side matching found!

5.8.3 SVS_ERR005

Message Template.

The instance {} of the schematic remained unmatched

Meaning.

General SVS configuration or matching error.

Impact.

SVS halted or mismatch flagged.

Typical Root Causes.

- Missing inputs.
- Structural mismatch.

Recommended Resolution.

- Provide required files.
- Align schematics.

Example Appearance.

SVS_ERR005: The instance {} of the schematic remained unmatched

5.8.4 SVS_ERR006

Message Template.

Macros cdl file not specified, SVs cannot proceed

Meaning.

Macro CDL library required by SVS is missing.

Impact.

SVS cannot resolve macro pin/device details.

Typical Root Causes.

- No CDL path set.
- CDL file not present for technode.

Recommended Resolution.

- Provide macro CDL path.
- Validate file exists and matches node.

Example Appearance.

SVS_ERR006: Macros cdl file not specified, SVs cannot proceed

5.8.5 SVS_ERR009

Message Template.

Module {} not found in Layout DB for {}, SVS cannot proceed

Meaning.

Top module not found in layout DB context when preparing SVS comparison.

Impact.

SVS cannot correlate hierarchy to schematic views.

Typical Root Causes.

- Wrong top cell.
- Layout not loaded.

Recommended Resolution.

- Set correct top or load layout DB.
- Confirm hierarchy names.

Example Appearance.

SVS_ERR009: Module {} not found in Layout DB for {}, SVS cannot proceed

5.8.6 SVS_ERR010

Message Template.

Module Verilog file not specified, svcs cannot proceed

Meaning.

Verilog files required for one/both SVS sides are not specified.

Impact.

SVS cannot build comparison graphs.

Typical Root Causes.

- Missing path arguments.
- Typo in file names.

Recommended Resolution.

- Provide required Verilog file(s).
- Check readability and format.

Example Appearance.

SVS_ERR010: Module Verilog file not specified, svcs cannot proceed

5.8.7 SVS_ERR011

Message Template.

Module Verilog file not specified, svcs cannot proceed

Meaning.

Verilog files required for one/both SVS sides are not specified.

Impact.

SVS cannot build comparison graphs.

Typical Root Causes.

- Missing path arguments.
- Typo in file names.

Recommended Resolution.

- Provide required Verilog file(s).
- Check readability and format.

Example Appearance.

SVS_ERR011: Module Verilog file not specified, svcs cannot proceed

5.8.8 SVS_ERR012

Message Template.

Module Spice file not specified, svb cannot proceed

Meaning.

SPICE file(s) required by SVS are not specified.

Impact.

SVS cannot run in SPICE-based path.

Typical Root Causes.

- Missing SPICE output.
- Incorrect CLI usage.

Recommended Resolution.

- Generate or set SPICE file(s).
- Re-run after providing paths.

Example Appearance.

SVS_ERR012: Module Spice file not specified, svb cannot proceed

5.8.9 SVS_ERR013

Message Template.

Module Spice file not specified, svcs cannot proceed

Meaning.

SPICE file(s) required by SVS are not specified.

Impact.

SVS cannot run in SPICE-based path.

Typical Root Causes.

- Missing SPICE output.
- Incorrect CLI usage.

Recommended Resolution.

- Generate or set SPICE file(s).
- Re-run after providing paths.

Example Appearance.

SVS_ERR013: Module Spice file not specified, svcs cannot proceed

5.8.10 SVS_ERR020

Message Template.

Mismatch in pins and ports size for instance {}

Meaning.

Instance-level mismatch in the number of pins or ports between compared schematics.

Impact.

Graph matching fails; SVS not equivalent.

Typical Root Causes.

- Different library versions.
- Conditional ports exist in one side only.

Recommended Resolution.

- Normalize library versions.
- Regenerate symbols/ports.

Example Appearance.

SVS_ERR020: Mismatch in pins and ports size for instance {}

5.8.11 SVS_ERR023

Message Template.

SVS has already been run, to re-run, create a fresh DB

Meaning.

SVS already run in this DB; requires fresh DB for clean re-run.

Impact.

Stale artifacts may mislead analysis.

Typical Root Causes.

- Reused DB.
- Incomplete cleanup.

Recommended Resolution.

- Create a new DB for SVS run.
- Automate workspace rotation.

Example Appearance.

SVS_ERR023: SVS has already been run, to re-run, create a fresh DB

5.8.12 SVS_ERR024

Message Template.

SVS DB has not been set, please initialize SVS DB to run svcs

Meaning.

SVS DB not initialized.

Impact.

Run cannot proceed.

Typical Root Causes.

- DB not created/selected.
- Path invalid.

Recommended Resolution.

- Initialize and set DB.
- Fix paths.

Example Appearance.

SVS_ERR024: SVS DB has not been set, please initialize SVS DB to
run svcs

5.8.13 SVS_ERR031

Message Template.

Mismatch in the number of instances , Left = {} , Right= {}

Meaning.

Structural mismatch: instance counts, pin counts, port counts, or pin-to-net mapping differ between schematics.

Impact.

SVS comparison fails; designs are not equivalent.

Typical Root Causes.

- Divergent versions of IP.
- Net aliasing or rename without propagation.

Recommended Resolution.

- Reconcile IP versions.
- Apply consistent renaming and regenerate netlists.

Example Appearance.

SVS_ERR031: Mismatch in the number of instances , Left = {} , Right=
{}

5.8.14 SVS_ERR032

Message Template.

Mismatch in the number of pins for the instance {}

Meaning.

Structural mismatch: instance counts, pin counts, port counts, or pin-to-net mapping differ between schematics.

Impact.

SVS comparison fails; designs are not equivalent.

Typical Root Causes.

- Divergent versions of IP.
- Net aliasing or rename without propagation.

Recommended Resolution.

- Reconcile IP versions.
- Apply consistent renaming and regenerate netlists.

Example Appearance.

SVS_ERR032: Mismatch in the number of pins for the instance {}

5.8.15 SVS_ERR033

Message Template.

Mismatch in the number of ports for the instance {}

Meaning.

Structural mismatch: instance counts, pin counts, port counts, or pin-to-net mapping differ between schematics.

Impact.

SVS comparison fails; designs are not equivalent.

Typical Root Causes.

- Divergent versions of IP.
- Net aliasing or rename without propagation.

Recommended Resolution.

- Reconcile IP versions.
- Apply consistent renaming and regenerate netlists.

Example Appearance.

SVS_ERR033: Mismatch in the number of ports for the instance {}

5.8.16 SVS_ERR034

Message Template.

Mismatch in the number of pin to net matching for the instance {}

Meaning.

Structural mismatch: instance counts, pin counts, port counts, or pin-to-net mapping differ between schematics.

Impact.

SVS comparison fails; designs are not equivalent.

Typical Root Causes.

- Divergent versions of IP.
- Net aliasing or rename without propagation.

Recommended Resolution.

- Reconcile IP versions.
- Apply consistent renaming and regenerate netlists.

Example Appearance.

SVS_ERR034: Mismatch in the number of pin to net matching for the instance {}

5.9 XOR

5.9.1 XOR_ERR001

Message Template.

XOR Mismatch is found for a polygon on the layer {}

Meaning.

Geometric XOR found a mismatch polygon on a specific layer.

Impact.

Masks differ between reference and test; fabrication risk if unintended.

Typical Root Causes.

- Missing or extra shapes in one database.
- Rounding/quantization differences after OPC or export.

Recommended Resolution.

- Inspect mismatch geometry and fix source database.
- Align export settings and grid.

Example Appearance.

XOR_ERR001: XOR Mismatch is found for a polygon on the layer {}

5.9.2 XOR_ERR009

Message Template.

Module {} not found in Layout DB for {}, XOR cannot proceed

Meaning.

The specified top module was not found in the layout DB while preparing XOR inputs.

Impact.

XOR cannot align hierarchies; run blocked.

Typical Root Causes.

- Wrong top name or missing GDS2 import.
- Incorrect library mapping.

Recommended Resolution.

- Verify top cell name.
- Re-import GDS with full hierarchy.

Example Appearance.

XOR_ERR009: Module {} not found in Layout DB for {}, XOR cannot proceed

5.9.3 XOR_ERR023

Message Template.

XOR has already been run, to re-run, create a fresh DB

Meaning.

An XOR run already exists in this DB; clean DB required for re-run.

Impact.

Old markers would pollute the result; run blocked.

Typical Root Causes.

- Re-run in same workspace.
- Leftover artifacts from previous job.

Recommended Resolution.

- Create new DB.
- Purge XOR outputs before re-run.

Example Appearance.

XOR_ERR023: XOR has already been run, to re-run, create a fresh DB

5.9.4 XOR_ERR024

Message Template.

XOR DB has not been set, please initialize XOR DB to run xor_check

Meaning.

XOR DB is not initialized.

Impact.

Run cannot start.

Typical Root Causes.

- init_tool_db not called.
- DB not active.

Recommended Resolution.

- Initialize and set DB.
- Check write permissions.

Example Appearance.

```
XOR_ERR024: XOR DB has not been set, please initialize XOR DB to  
run xor_check
```

6 Application Notes

6.1 Running LVR Using Command Script (Method 1)

This method describes how to run LVR using a **command script file**. It is the most straightforward and automatable method of running LVR, suitable for batch processing and regression environments.

6.1.1 Step 1: Prepare the Command Script

Create a command script file named `command_script.cmd` with the following contents: Each command corresponds to a critical step in the LVS flow: tool setup, data loading, verification, and visualization.

6.1.2 Step 2: Run LVR with the Script

Execute the command script by running the following in the terminal:

```
% LVR command_script.cmd
```

LVR will sequentially execute all the instructions defined in the script.

6.1.3 Step 3: Open GUI and Review Results

Once the GUI launches, use the tabs to review results:

- **Errors and Warnings** – Categorized issues such as missing nets, pin mismatches, etc.
- **Marker Browser** – For geometric location of errors
- **LVS Summary Report** – Overview report from `lvs_summary.rpt`
- **Histograms** – (if enabled) Error distributions

```

# initiate tool DB
#####
init_tool_db LVS

# set technology
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 10

# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db "LVS"

#####
# LVS settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 1
lvs_check_matching 1
lvs_check_unconnected_pins 1

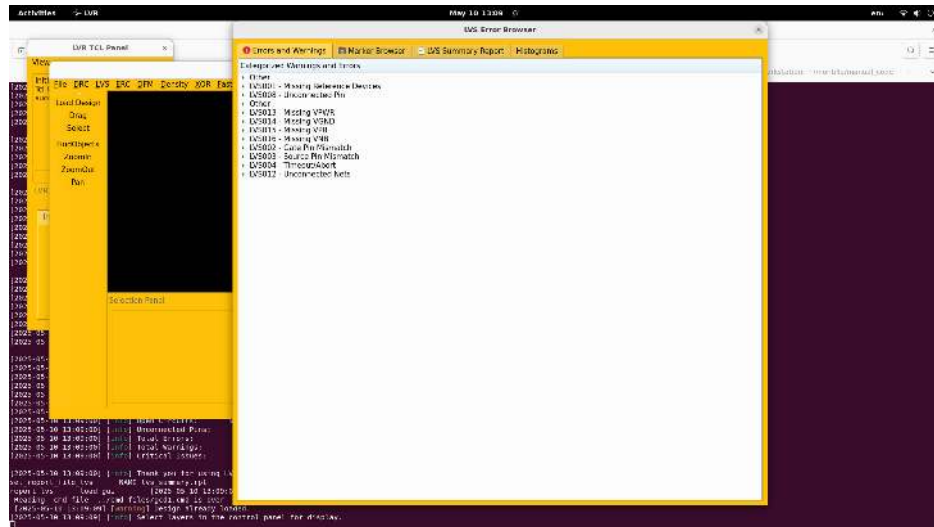
# call lvs
#####
lvs gcd1_sky130hd gcd1_sky130hd.sch

#####
# set and generate report file
#####
set_report_file_lvs lvs_summary.rpt
report_lvs

#####
# load gui
#####
load_gui

```

Figure 17: Example command file to run LVR



Screenshot of the gui after the tool command load_gui is called.

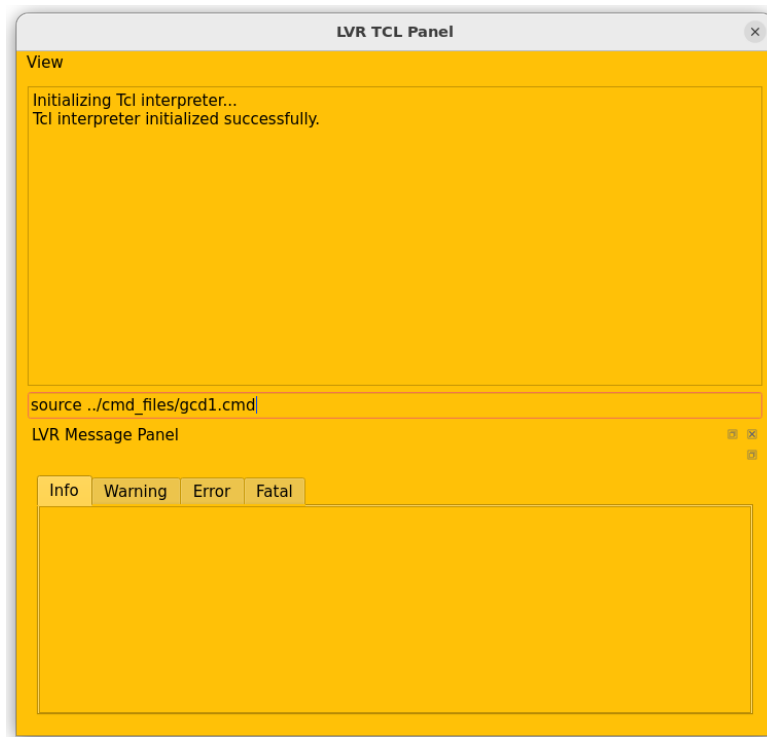
Sample categorized messages include:

- LVS001 – Missing Reference Devices
- LVS008 – Unconnected Pin
- LVS013{LVS016 – Missing Power Rails (VPWR, VGND, VPB, VNB)
- LVS020{LVS012 – Gate/Source/Pin Mismatches and Unconnected Nets

6.1.4 Conclusion

This method is ideal for:

- **Headless runs** (no GUI)
- **Automated test benches**
- **CI/CD pipelines**



6.2 Running LVR Using Command Script (Method 2)

This method allows users to interactively run LVR using its graphical interface. Instead of supplying the command file as a command-line argument, the user launches the GUI and uses the built-in TCL interpreter panel to load the script.

6.2.1 Step 1: Prepare the Command Script

As shown in **Method 1**, prepare a TCL script file (e.g., `command_script.cmd`) that contains the sequence of LVR commands for initialization, setup, LVS, and report generation.

6.2.2 Step 2: Launch LVR Without Arguments

Start LVR directly without specifying any script file: This opens the full graphical interface of the tool with access to TCL scripting and visualization features.

6.2.3 Step 3: Source the Script from the TCL Panel

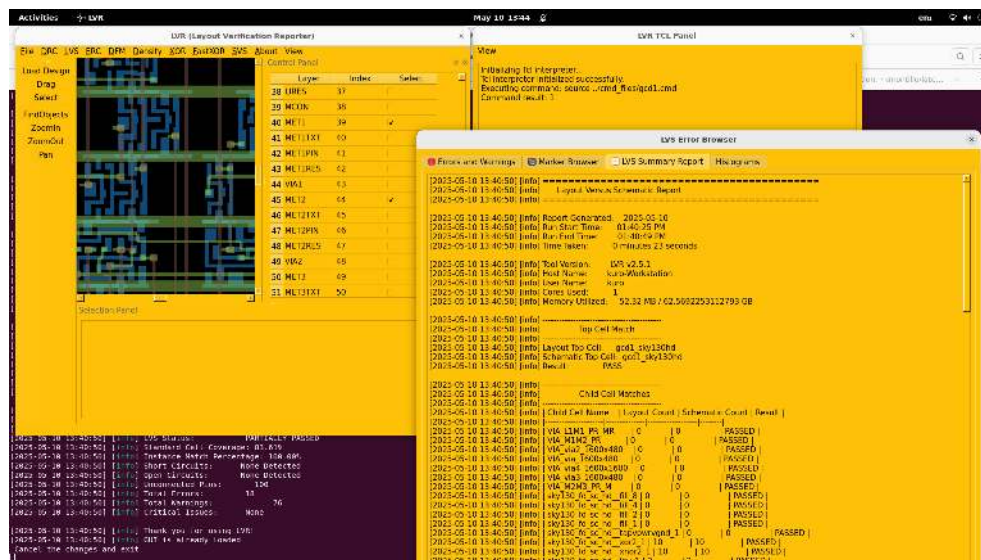
In the **LVR TCL Panel**, type the following command:

```
% source ../cmd_files/gcd1.cmd
```

Then press **Enter**. The TCL interpreter will begin executing the script and display real-time status messages.

6.2.4 Step 4: Load Design in Layout Viewer

Once LVS run is complete, click on **Load Design** in the toolbar. This opens the layout view, allowing you to browse layers, navigate geometry, and examine graphical error markers.



6.2.5 Step 5: Open the Error Browser and Review Reports

Navigate to the **LVS Error Browser** window. It contains multiple tabs:

-
- **Errors and Warnings** – Lists categorized LVS issues.
 - **LVS Summary Report** – Displays report headers, host, runtime, memory, and result.
 - **Marker Browser** – Allows navigation to error markers.
 - **Histograms** – Summarizes error distributions (if enabled).

6.2.6 Conclusion

This method is ideal for:

- Users who prefer a GUI-assisted workflow
- Interactive debugging of command files
- Quick script testing and visualization

With TCL scripting embedded directly into the GUI, this method provides a powerful mix of automation and interactivity.

6.3 Running LVR Using GUI Input (Method 3)

Open LVR by running the executable from your terminal:

```
% LVR
```

The tool will start and initialize its Tcl interpreter. The main window and TCL panel will appear.

6.3.1 Step 2: Open the Configuration GUI

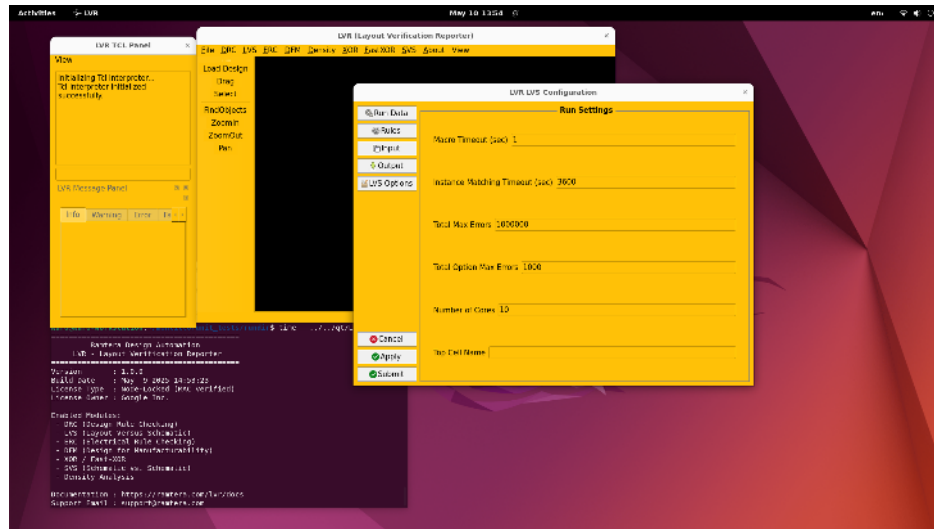
Click on the LVS menu and select the option to open the LVS configuration panel. This interface contains multiple tabs like:

- **Run Data** – Runtime parameters
- **Rules** – Paths to rule files
- **Input** – GDS, Verilog, CDL, SPICE
- **Output** – Output files
- **LVS Options** – Feature toggles and control flags

6.3.2 Step 3: Fill in All Required Fields

Manually enter all input values. Example fields include:

- Macro Timeout: 1 sec
- Instance Matching Timeout: 3600 sec
- Total Max Errors: 1000000
- Total Option Max Errors: 1000
- Number of Cores: 10
- Top Cell Name: (e.g., gcd1_sky130hd)



6.3.3 Step 4: Submit the Configuration

Click on the Submit button. LVR will begin executing the flow internally, based on the data provided. Progress and logs will be displayed in the message panel.

6.3.4 Step 5: Load Design and Debug

Once execution completes, click on Load Design to open the layout in the viewer. Then, open the **Error Browser** to inspect:

- Errors and Warnings
- LVS Summary Report
- Marker Browser
- Histograms (if applicable)

6.3.5 Conclusion

This GUI-based flow is ideal for:

-
- First-time users
 - Manual setup or validation tasks
 - Running smaller projects or one-off verifications

It provides the full functionality of LVR without requiring any scripting or command-line expertise.

7 Usecases

7.1 Test Case: gcd1_SVS001 (SVS)

Overview & Purpose

Context identification (0): From the name gcd1_SVS001, the tag “SVS” indicates this is a **Schematic vs. Schematic (SVS)** test.

Purpose (1.1): This test compares two netlist representations of the GCD design—SVS001A and SVS001B—to ensure structural/connection equivalence at the schematic level. It is intended to:

- verify that LVR correctly ingests two Verilog sources and performs side-by-side instance/net matching,
- surface connectivity differences (e.g., missing instances/nets, pin mismatches, opens),
- produce human-readable reports (Errors & Warnings, Marker Browser, Summary, Histogram) and enable fast debug in the GUI.

Figure 18 captures the high-level user flow for this use case (load rules → load SVS sources → run svcs → inspect reports/GUI).

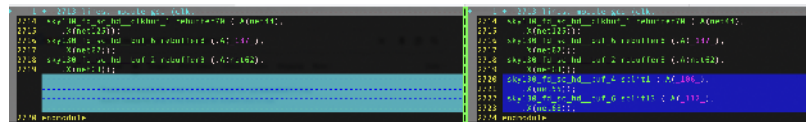


Figure 18: Use-case illustration for gcd1_SVS001 (SVS flow).

Command File (2, 2.1)

The file gcd1_SVS001.cmd (verbatim) used to run LVR for this SVS test:

```

# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db SVS

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
#read_gds ../gds/gcd1_sky130hd.gds
load_db SVS
no_compare 1

#####
# LVS settings
#####
lvs_set_datc_flow 1

```

```

#lvs_set_spice_file_name test
set_svs1_verilog ../verilog/sky130/gcd1_sky130hd_SVS001A.v
set_svs2_verilog ../verilog/sky130/gcd1_sky130hd_SVS001B.v
#set_svs1_verilog sv1
#set_svs2_verilog sv2
set_svs1_spice sp1
set_svs2_spice sp2
#set_svs1_spice ../spice/gcd1_sky130hd_SVS001A.sp
#set_svs2_spice ../spice/gcd1_sky130hd_SVS001B.sp
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
#lvs_enable_ports 1
#lvs_check_shorts 1
#lvs_check_open 1
#lvs_check_macro 0
#lvs_check_matching 1
#lvs_check_unconnected_pins 1

# call lvs
#####
svs gcd1_sky130hd
#svs gcd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui

```

```
#####
```

```
load_gui
```

Settings Explained (3)

Key settings from `gcd1_SVS001.cmd` and their roles:

- `init_tool_db SVS`: Starts LVR in **SVS** mode (schematic-vs-schematic comparison).
- `set_technode sky130`: Targets the Sky130 node; aligns rule/primitive expectations with the `sky130.lrf`.
- `set_top gcd`: Declares the top module for hierarchy resolution.
- `set_num_cores 1`: Single-core run (deterministic baseline).
- `set_die_area 0 0 106060 106060, set_num_regions 1`: Provides design bounds/regioning (useful for uniform defaults across flows).
- `read_lrf ../rule/sky130.lrf`: Loads LVR rule definitions (layer/primitive/lib expectations used by parsers and checks).
- `load_db SVS`: Finalizes DB prep for an SVS comparison run.
- `no_compare 1`: Keeps the flow strictly in the non-geometric/SVS path (bypasses layout-vs-schematic geometry compares).
- `lvs_set_datc_flow 1`: Enables the DatC-style netlist handling in the comparison pipeline.
- `set_svs1_verilog / set_svs2_verilog`: Supply the two Verilog sources to be matched.
- `set_svs1_spice / set_svs2_spice`: Placeholders for spice-side hooks; combined with `lvs_set_macros_cdl_file_name ../spice/sky130.cdl` to resolve library macros consistently.

-
- `svs gcd1_sky130hd`: Runs the comparison with project tag `gcd1_sky130hd`.
 - `load_gui`: Opens the GUI (Error/Marker/Summary/Histogram tabs) for interactive debug.

How to Run (4)

Execute the test from a shell as:

```
% LVR gcd1_SVS001.cmd
```

This will produce the Error/Warning list, Marker browser, Summary (and Histogram if available) and launch the GUI for inspection.

Results & Screenshots (5–12)

Errors & Warnings (5–6). Figure 19 shows categorized messages. Typical items visible in this run include:

- *DB_WARN*: e.g., “number of cores is set as 1” (informational).
- *VER_WARN012*: nets like `VDD/VSS/net54/net67` reported open in one of the source files.
- *LRF_ERROR01*: several `.lrf` syntax errors with line numbers (points to rule-file clean-up needed).
- *SVS_ERR001/ERR005*: left/right matching not perfect; specific instance pins/nets (e.g., `clk`, `req_msg`, `resp_val`) remained unmatched.
- *SVS_ERR031*: mismatch in instance count (e.g., `Left=359`, `Right=361`).

Marker Browser (7–8). As indicated in Figure 20, the Marker Browser tab lets you load and navigate markers one-by-one (or clear them) for targeted debug of unmatched instances/nets.

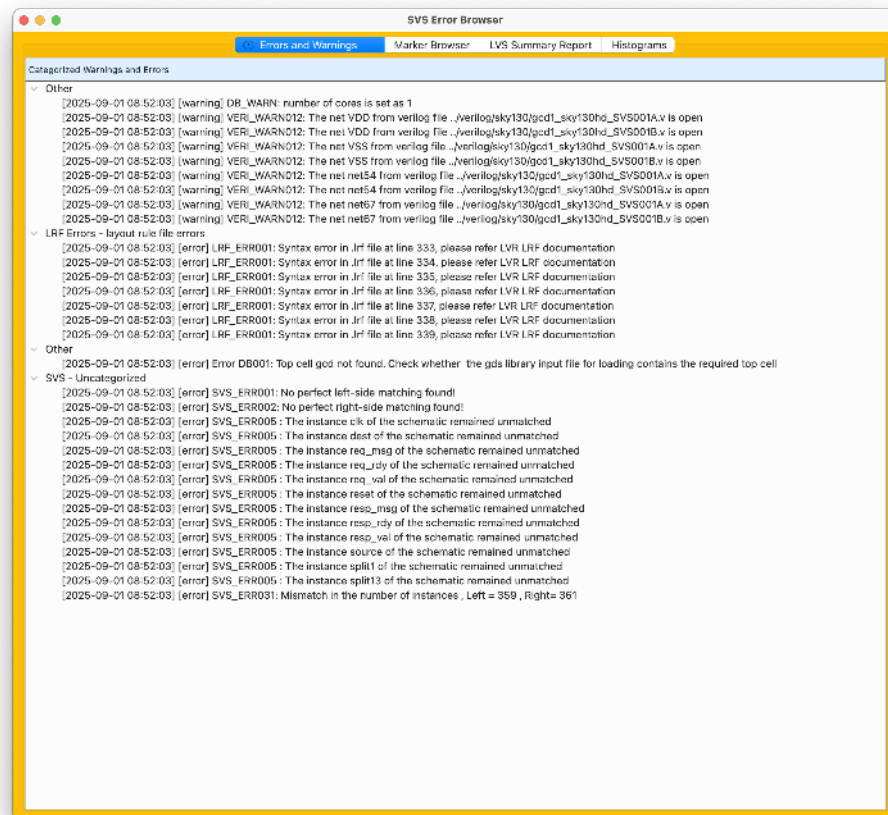


Figure 19: Errors and Warnings view for gcd1_SVS001.

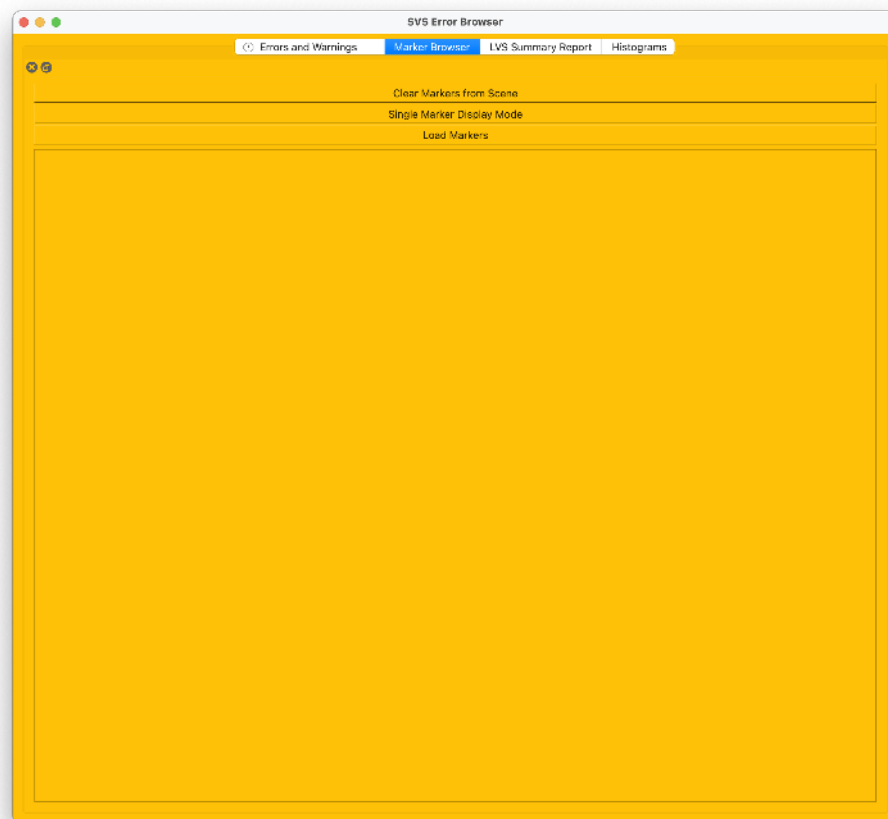


Figure 20: Marker Browser for gcd1_SVS001 (load markers to inspect individual mismatches).



Figure 21: SVS Summary for gcd1_SVS001.

SVS Summary Report (9–10). Figure 21 summarizes the run:

- **SVS Status:** PASSED
- **Instance Match Percentage:** $\approx 96.95\%$
- **Total Errors:** 37
- Top-cell labels for both sources, timing breakdown for stages (Netlist parsing, Device matching, Report generation), node=SKY130HD (130nm), flattened DB, and “Full Check” verification mode.
- Counts by error type (e.g., DB_WARN, LRF_ERROR01, VER_WARN012, SVS_ERR001/2/5/31).

Notes for Debugging

The diff snapshot (not shown here) indicates additional instances present only on the right side (e.g., a `split1` and `split13` stage), which aligns with SVS_ERR031 and several SVS_ERR005 unmatched-instance reports. Start by reconciling those structural diffs, then re-run to confirm the instance-match percentage improves and total errors drop.

7.2 Test Case: gcd1_SVS002 (SVS)

Overview & Purpose (0, 1, 1.1)

Context identification: The tag “SVS” in gcd1_SVS002 indicates a **Schematic vs. Schematic** comparison.

Purpose: Compare two schematic/netlist representations of the GCD design (SVS002A vs. SVS002B) at the Sky130 node to confirm structural connectivity equivalence. This test exercises LVR’s SVS flow: rules loading, twin-netlist ingestion, instance/net matching, and GUI-assisted debug (errors, markers, summary, histogram).

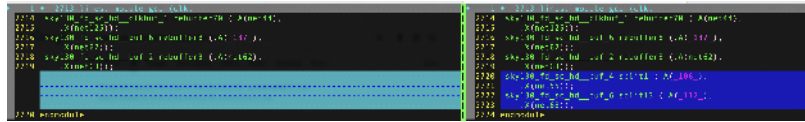


Figure 22: Use-case illustration for gcd1_SVS002 (SVS flow).

Command File (2, 2.1)

Verbatim copy of gcd1_SVS002.cmd; these are the commands that run LVR for this test:

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db SVS

# set techonology
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
```

```

read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db SVS
no_compare 1

#####
# SVS settings
#####
lvs_set_datc_flow 1
#lvs_set_spice_file_name test
#lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_SVS002A.v
#lvs_set_verilog_netlist2_file_name ../verilog/sky130/gcd1_sky130hd_SVS002B.v
set_svs1_verilog ../verilog/sky130/gcd1_sky130hd_SVS002A.v
set_svs2_verilog ../verilog/sky130/gcd1_sky130hd_SVS002B.v
set_svs1_spice sp1
set_svs2_spice sp2
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
#lvs_enable_ports 1
#lvs_check_shorts 1
#lvs_check_open 1
##lvs_check_macro 0
#lvs_check_matching 1
#lvs_check_unconnected_pins 1

# call lvs
#####
svs gcd1_sky130hd
svs gcd1_sky130hd

#####

```

```

# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

Settings Explained (3)

Key switches and why they matter:

- `init_tool_db` SVS initializes the database explicitly for **SVS** comparison mode.
- `set_technode sky130` selects Sky130; aligns parsing/macro expectations with `../rule/sky130.lrf`.
- `set_top gcd1_sky130hd` defines the schematic top for hierarchy resolution.
- `set_num_cores 1` creates a deterministic single-core baseline.
- `set_die_area ... , set_num_regions 1` standardize design bounds/regions for uniform flows.
- `read_lrf ...` loads rule constructs; `read_gds ...` is present though geometry is not compared (SVS only), which is fine for unified project context.
- `load_db` SVS finalizes DB prep for an SVS run; `no_compare 1` keeps the run schematic-only.

-
- `lvs_set_datc_flow 1` enables DatC-style netlist handling.
 - `set_svs1_verilog/set_svs2_verilog` point LVR at the two Verilog sources; `set_svs*_spice` placeholders and `lvs_set_macros_cdl_file_name ...` ensure library macro resolution.
 - `svs gcd1_sky130hd` triggers the comparison; it appears *twice* here, which simply re-invokes the SVS run with the same tag.
 - `load_gui` launches the GUI (tabs for Errors & Warnings, Marker Browser, Summary, Histogram) for interactive debug.

How to Run (4)

Execute from a shell:

```
% LVR gcd1_SVS002.cmd
```

This runs the SVS comparison and launches the GUI. Reports are available in the GUI tabs and as log/summary artifacts.

Results & Screenshots (5–12)

Errors & Warnings (5–6). Figure 23 shows categorized diagnostics. Notable items in this run:

- *VER_WARN012*: several nets (e.g., VDD, VSS, net54, net67) reported *open* on one side (SVS002A/SVS002B annotations).
- *LRF_ERROR01*: syntax errors around lines ~333–339 in the .lrf; clean these to avoid cascading issues.
- *SVS_ERR001*: no perfect left/right match; *SVS_ERR005*: specific signals like `clk`, `req_msg`, `resp_msg`, `reset`, `req_val`, `resp_val`, `source`, `split13` remained unmatched.
- *SVS_ERR031*: instance-count mismatch (Left = 360, Right = 361).

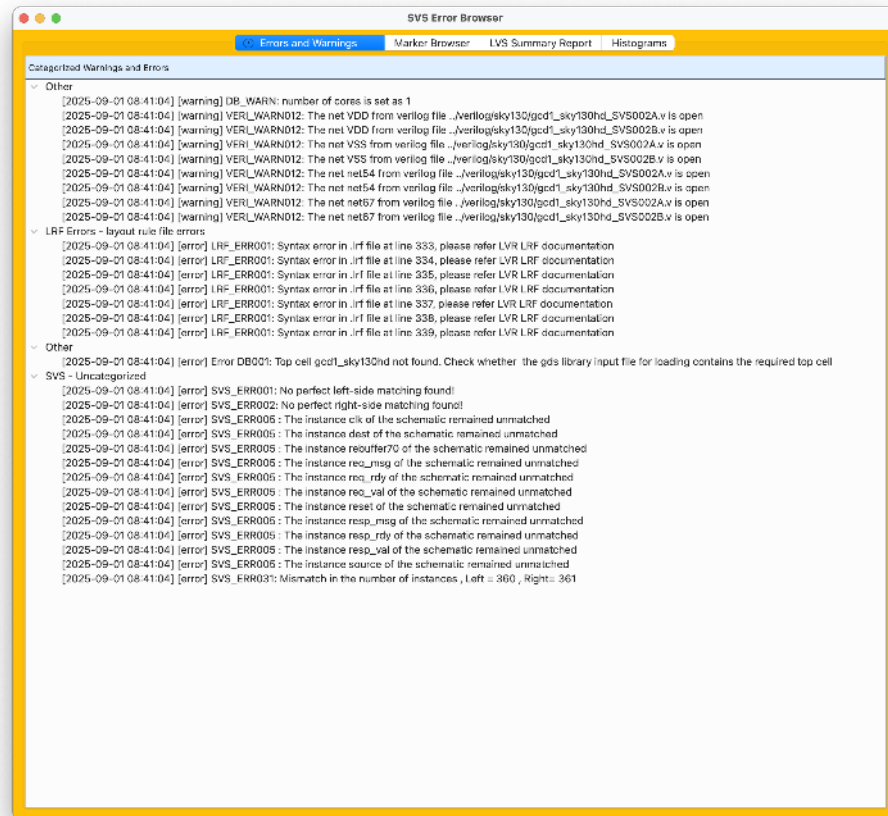


Figure 23: Errors and Warnings for gcd1_SVS002.

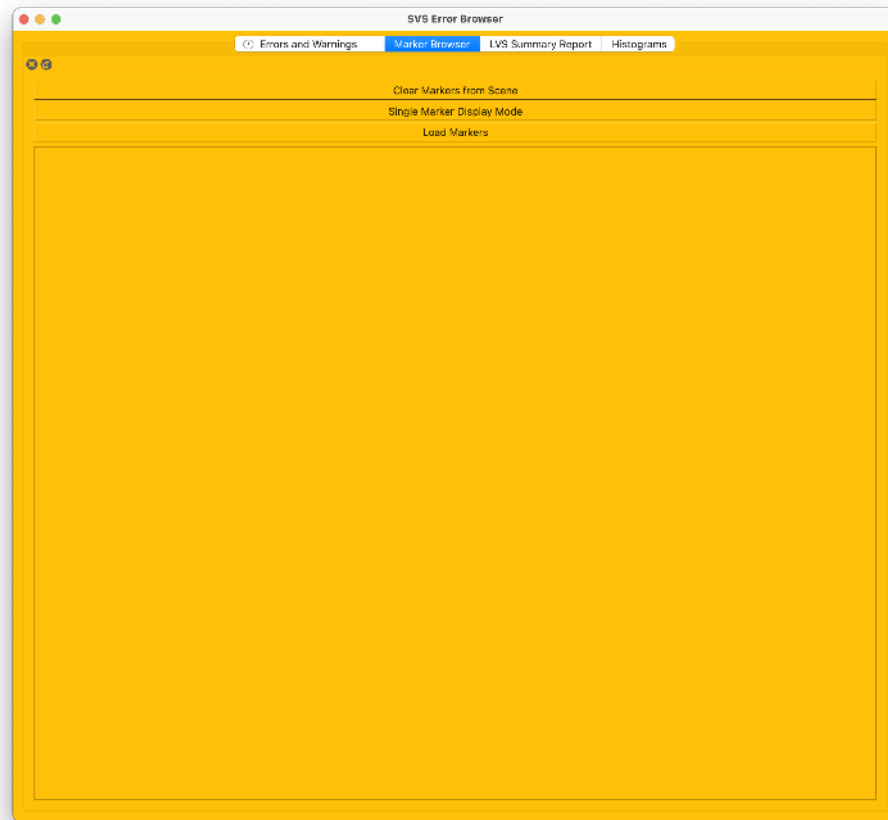


Figure 24: Marker Browser for gcd1_SVS002 (load markers, step through mismatches).

Marker Browser (7–8). As shown in Figure 24, load markers to navigate instance/net mismatches one by one. Use single-marker mode for focused inspection.

SVS Summary Report (9–10). Figure 25 summarizes the run (example fields visible on screen):

- **SVS Status:** PASSED
- **Instance Match Percentage:** $\approx 97.23\%$



Figure 25: SVS Summary for gcd1_SVS002.

-
- **Total Errors:** 36; **Total Warnings:** 9; **Critical Issues:** none
 - Node: SKY130HD (130nm), flattened DB, GDSII format, Full Check verification mode, error reporting enabled.
 - Stage timings for Netlist Parsing, Device Matching, and Report Generation.

Quick Debug Note

The diff panel (not included here) points to extra right-side instances (e.g., a split stage), consistent with SVS_ERR031. Reconcile the structural delta and re-run; open-net warnings should drop if undeclared/unused pins are tied or removed consistently across both sources.

7.3 Test Case: gcd1_SVS005 (SVS)

Overview & Purpose (0, 1, 1.1)

Context identification: The tag “SVS” in gcd1_SVS005 indicates a **Schematic vs. Schematic** comparison.

Purpose: Compare two Sky130 GCD schematic/netlist variants (SVS005A vs. SVS005B) to validate logical connectivity equivalence. This exercise stresses LVR’s SVS flow: rule loading, twin-netlist ingestion, left/right instance & net matching, and GUI-assisted debug (Errors & Warnings, Marker Browser, Summary, Histogram). Figure 26 sketches the use-case pipeline: rules → SVS inputs → svb run → report inspection.

Command File (2, 2.1)

Verbatim listing of gcd1_SVS005.cmd; these commands run LVR for this SVS test:

```
# initialize tool DB
```

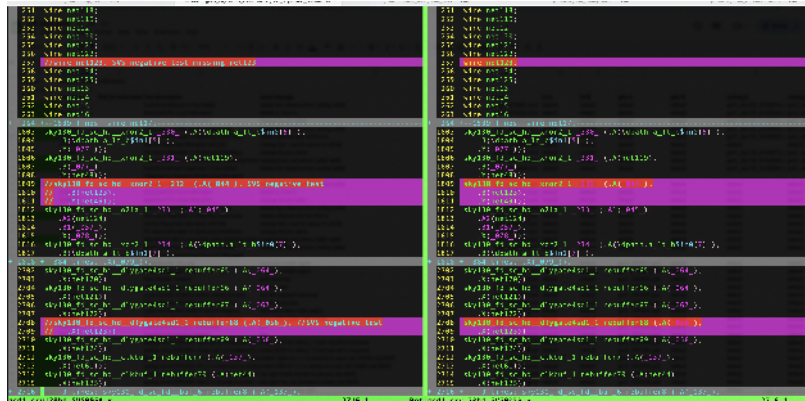


Figure 26: Use-case illustration for gcd1_SVS005 (SVS flow).

```
#####
#set_debug_mode_3049 0
init_tool_db SVS

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
```

```
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db SVS
no_compare 1

#####
# SVS settings
#####
lvs_set_datc_flow 1
#lvs_set_spice_file_name test
#lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_SVS005A.v
#lvs_set_verilog_netlist2_file_name ../verilog/sky130/gcd1_sky130hd_SVS005B.v
set_svs1_verilog ../verilog/sky130/gcd1_sky130hd_SVS005A.v
set_svs2_verilog ../verilog/sky130/gcd1_sky130hd_SVS005B.v
set_svs1_spice sp1
set_svs2_spice sp2
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
#lvs_enable_ports 1
#lvs_check_shorts 1
#lvs_check_open 1
#lvs_check_macro 0
#lvs_check_matching 1
#lvs_check_unconnected_pins 1

# call lvs
#####
svs gcd1_sky130hd

#####
```

```

# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_svs

#####
# load gui
#####
#set_log_flush_time 1
load_gui

```

Settings Explained (3)

Key switches and intent:

- `init_tool_db` SVS: start LVR in **SVS** mode (schematic-vs-schematic).
- `set_technode sky130` and `read_lrf ../rule/sky130.lrf`: align parsing/macro expectations with Sky130 rules.
- `set_top gcd1_sky130hd`: declare schematic top for hierarchy resolution.
- `set_num_cores 1`: single-core, deterministic baseline; `set_die_area/set_num_regions`: standardize bounds/regioning.
- `read_gds ...`: loads layout context (useful for a unified project); `no_compare 1` keeps the run schematic-only.
- `lvs_set_datc_flow 1`: enable DatC-style netlist handling in comparison.
- `set_svs1_verilog/set_svs2_verilog`: point to the two Verilog sources to be matched.

-
- `set_svs*_spice placeholders + lvs_set_macros_cdl_file_name ...`: ensure macro/library resolution consistency.
 - `svs gcd1_sky130hd`: execute the comparison; `load_gui` opens the GUI (tabs for Errors & Warnings, Marker Browser, Summary, Histogram).

How to Run (4)

Execute from a shell:

```
% LVR gcd1_SVS005.cmd
```

This launches the SVS comparison and opens the GUI. Artifacts appear in the GUI tabs and logs.

Results & Screenshots (5–12)

Errors & Warnings (5–6). Figure 27 shows categorized diagnostics. Highlights include:

- *VER_WARN012*: opens on nets like VDD, VSS, net54, net67 (A/B suffix indicates which side).
- *LRF_ERROR01*: .lrf syntax issues around lines 333–339.
- *SVS_ERR001*: no perfect left/right match; *SVS_ERR005*: specific signals (e.g., clk, dest, req_msg, resp_msg, reset, req_val, resp_val, source) remained unmatched; also an unmatched instance __232__.
- *SVS_ERR031*: instance-count mismatch (Left = 359, Right = 361).

Marker Browser (7–8). As shown in Figure 28, load markers to navigate individual mismatches; single-marker mode helps focused inspection.

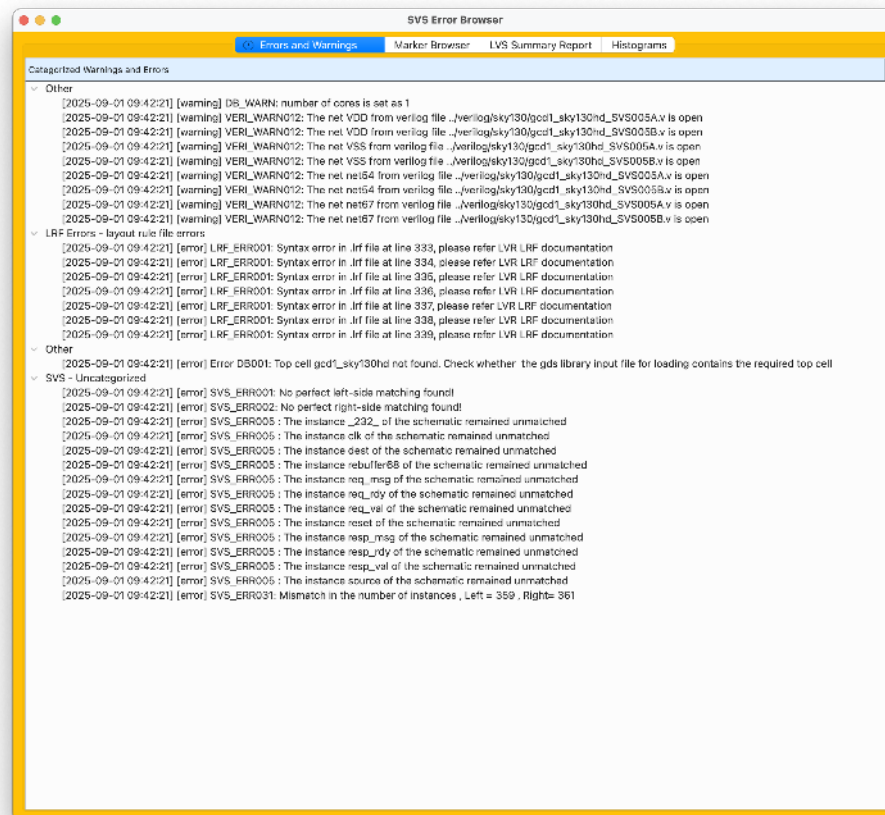


Figure 27: Errors and Warnings for gcd1_SVS005.

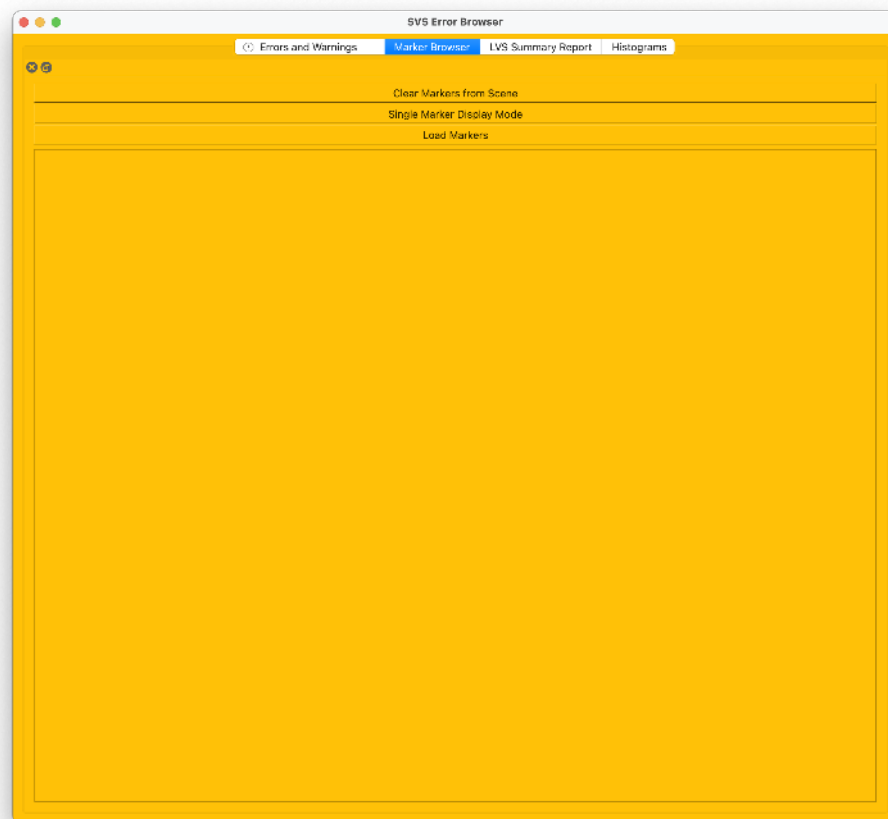


Figure 28: Marker Browser for gcd1_SVS005 (load markers and step through mismatches).



Figure 29: SVS Summary for gcd1_SVS005.

SVS Summary Report (9–10). From Figure 29: **SVS Status=PASSED**, **Instance Match** $\approx 96.95\%$, **Total Errors=37**, **Total Warnings=9**, **Unconnected Pins=100**; node=SKY130HD (130nm), flattened DB, GDSII, Full Check mode with timings reported for Netlist Parsing, Device Matching, and Report Generation.

Debug Note (diff context)

The provided diff snapshot for this test shows intentional negative edits (e.g., missing `net123`, extra buffers like `rebuffer68`, and an `xnor2_1_232` instance on one side). These explain `SVS_ERR031` (instance-count mismatch) and multiple `SVS_ERR005` unmatched-signal reports. Reconciling those deltas (restore/tie the missing net, mirror added logic, or consistently remove across both sources) should raise the match percentage and reduce error counts.

7.4 Test Case: `gcd1_ERC001` (ERC)

Overview & Purpose (0, 1, 1.1)

Context identification: The tag “ERC” in `gcd1_ERC001` indicates an **Electrical Rule Check**.

Purpose: Demonstrate ERC short detection on the Sky130 GCD layout when a signal is unintentionally connected to power. In this negative test, the *bottom-right* buffer instance (`buf_1`) has its output pin X shorted to the **upper VPWR rail** (Metal1). The note “use 68/20” refers to the author’s layout guidance for reproducing/locating the condition in the editing grid. The goal is to verify that LVR:

- loads the Sky130 rule context and the test GDS,
- correlates layout nets and library macros against the schematic,
- detects power/ground shorts (e.g., `VDD` $\leftrightarrow$ signal nets on MET1),

- reports issues via Errors & Warnings, Marker Browser, Summary, and Histograms,
- and enables rapid root-cause debug in the GUI.



Figure 30: Use-case illustration for gcd1_ERC001: rules → GDS load → ERC run → report/GUI debug.

Command File (2, 2.1)

Verbatim listing of gcd1_ERC001.cmd; these commands run LVR for this ERC test:

```
# initialize tool DB
#####
#set_debug_mode_3049 0
init_tool_db ERC

# set technology
#####
set_technode sky130
```

```

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_ERC001.gds
load_db ERC
no_compare 1

#####
# ERC settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1

```

```

lvs_check_unconnected_pins 1

# call lvs
#####
erc gcd1_sky130hd
#erc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

Settings Explained (3)

Key switches and intent:

- `init_tool_db ERC`: initializes the database in **ERC** mode (electrical connectivity sanity).
- `set_technode sky130 & read_lrf ../rule/sky130.lrf`: select Sky130 rules and primitive/lib context.
- `set_top gcd1_sky130hd`: names the top cell for hierarchical resolution across layout/schematic.
- `set_num_cores 1`: deterministic single-core run baseline. `set_die_area/set_num_regions`: standard bounds/region setup.

-
- `read_gds ../gds/gcd1_ERC001.gds`: loads the edited GDS that contains the deliberate VPWR short at the buffer output.
 - `load_db ERC & no_compare 1`: finalize DB and keep the flow in electrical checks (not geometric DRC).
 - `lvs_*` toggles: even in ERC flow, LVR reuses LVS infrastructure for netlist/macros: DatC handling, macro CDL, port enablement, and optional open/short checks.
 - `lvs_check_shorts 1/lvs_check_open 1`: enable short/open detection.
 - `erc gcd1_sky130hd`: executes the ERC analysis.
 - `load_gui`: launches the GUI with the tabs *Errors & Warnings*, *Marker Browser*, *ERC Summary Report*, and *Histograms*.

How to Run (4)

Execute from a shell:

```
% LVR gcd1_ERC001.cmd
```

This runs ERC and opens the GUI. Reports are available within the GUI tabs and associated logs.

Results & Screenshots (5–12)

Errors & Warnings (5–6). Figure 31 lists categorized diagnostics. Highlights visible include:

- database/tool warnings and layer-map not-found messages (ignored for run),
- `VER_WARN012: VDD/VSS/net54/net67` open warnings (from verilog context),

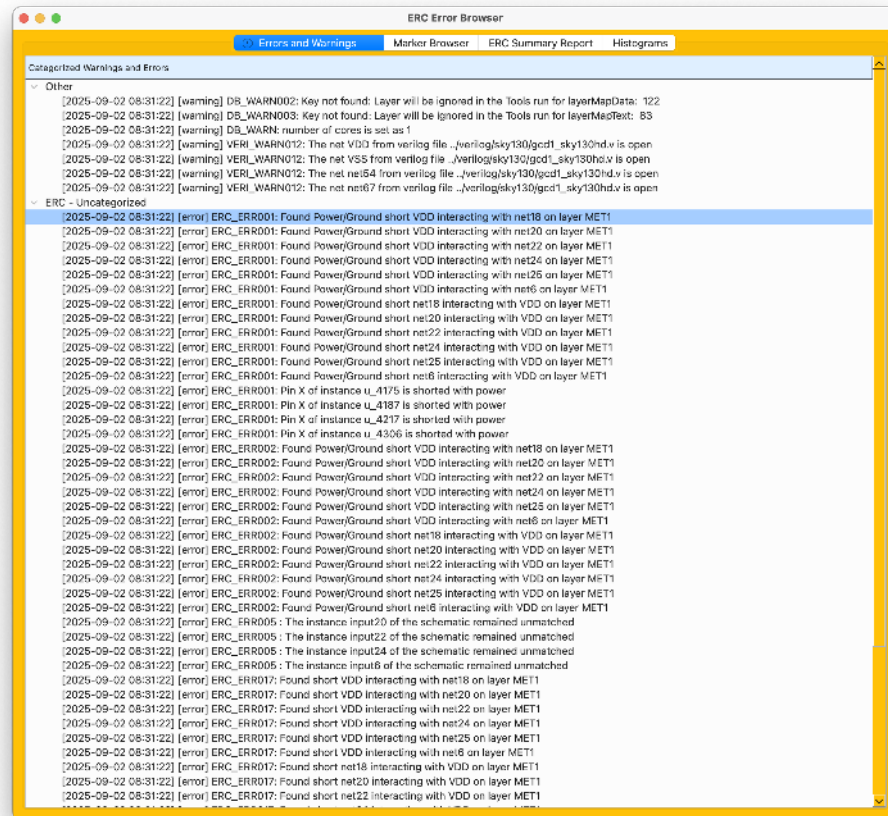


Figure 31: Errors & Warnings for gcd1_ERC001.

- numerous ERC_ERR001/ERC_ERR002: **Power/Ground shorts**—e.g., VDD interacting with signal nets net18, net20, net22, net24, net25, net6 on **MET1**.

These align with the intended defect (buffer X node shorted to VPWR).

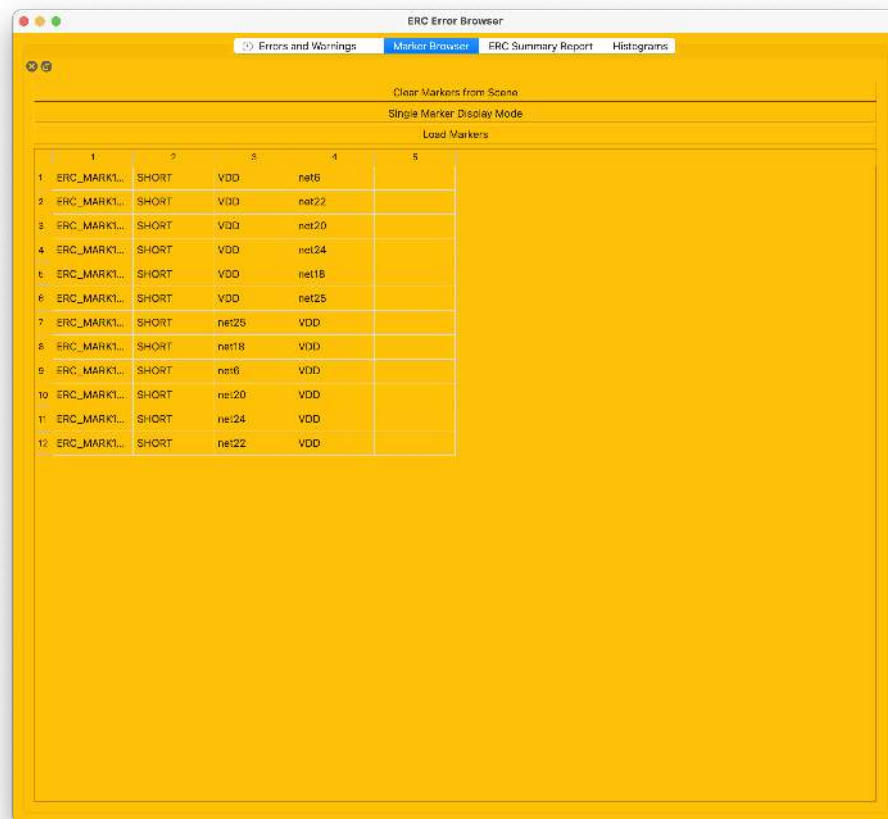


Figure 32: Marker Browser for gcd1_ERC001: per-violation entries (type, netA, netB).

Marker Browser (7–8). Figure 32 shows *SHORT* markers such as VDD ↔ net22/net24/net18/net6/net20/net25. Load markers and navigate one-by-one; use single-marker mode for focused inspection.

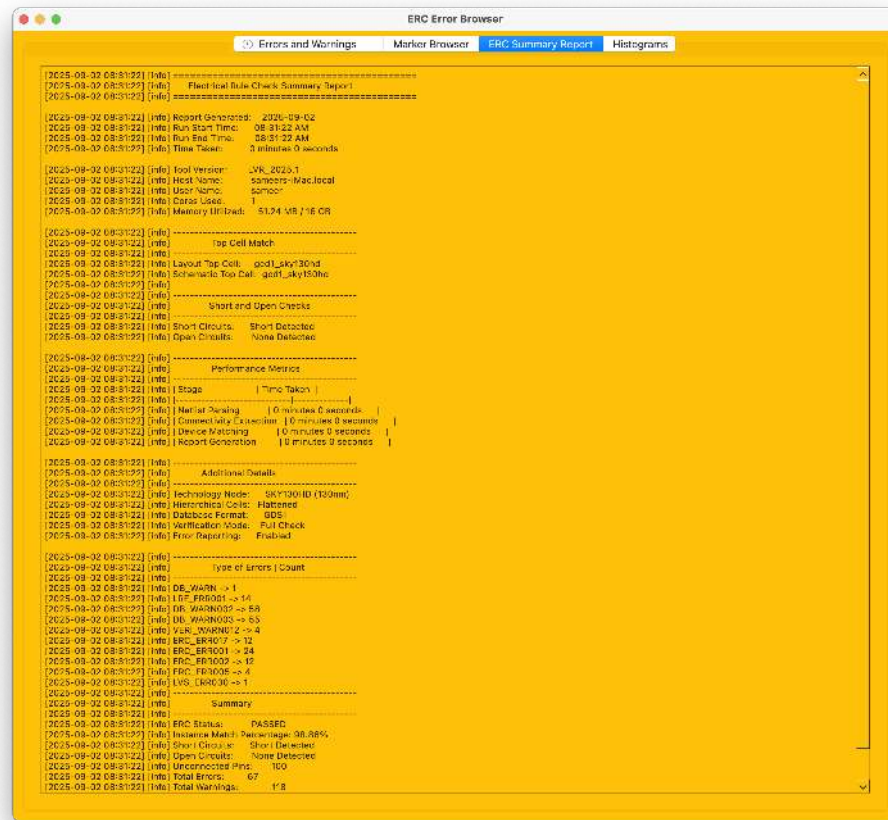


Figure 33: ERC Summary for gcd1_ERC001.

ERC Summary Report (9–10). Figure 33 summarizes the run:

- **ERC Status:** PASSED; **Short Circuits:** Short Detected; **Open Circuits:** None Detected.
- **Instance Match Percentage:** $\approx 99.86\%$; **Unconnected Pins:** 100.
- **Total Errors:** 67; **Total Warnings:** 118.
- Sky130HD (130 nm), flattened DB, GDSII, timings for Netlist Parsing / Connectivity Extraction / Device Matching / Report Generation.

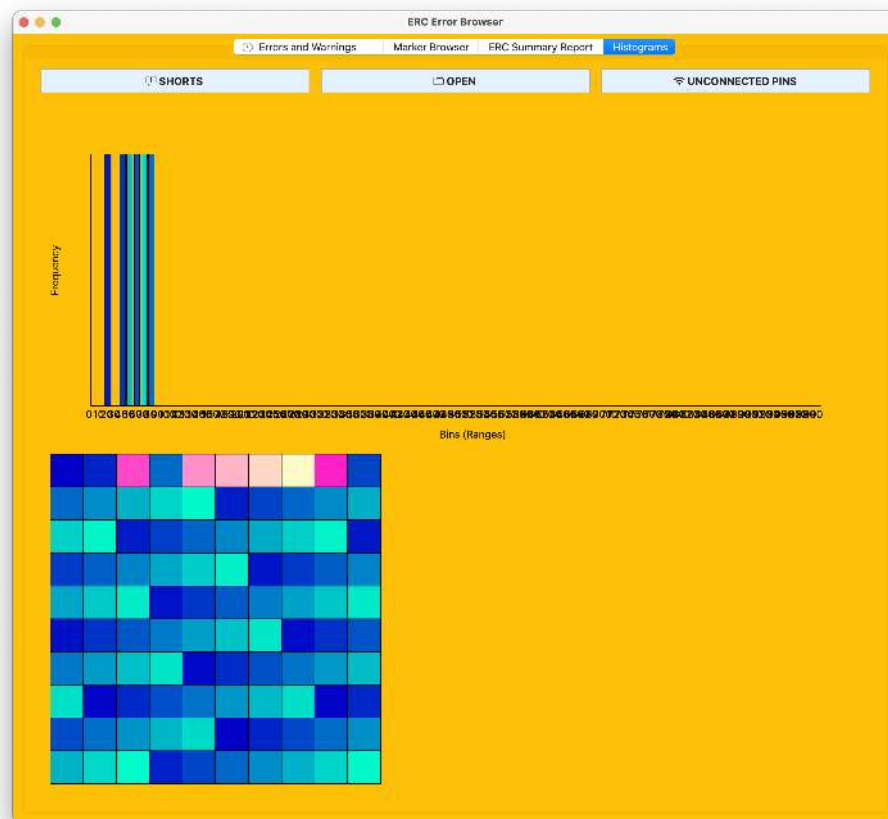


Figure 34: Histogram views for gcd1_ERC001: distribution of *SHORTS*; tabs also provide *OPEN* and *UNCONNECTED PINS*.

Histograms (11–12). As shown in Figure 34, the *SHORTS* histogram is concentrated in a few early bins, indicating repeated short patterns (consistent with a rail overlap) rather than dispersed random issues.

Debug Tip (GUI)

In the GUI, zoom to the bottom-right region of `gcd1_sky130hd`; on **MET1** you can visualize `net22` overlapping VDD near the buffer output X, with the marker table listing the exact coordinates and cell context. Clearing/fixing that metal stub (or separating it from the VPWR rail) should eliminate the short markers and reduce the error count on re-run.

7.5 Test Case: `gcd1_ERC002` (ERC)

Overview & Purpose (0, 1, 1.1)

Context identification: The tag “ERC” in `gcd1_ERC002` indicates an **Electrical Rule Check**.

Purpose of the test: This negative test demonstrates ERC short detection on the Sky130 GCD block when a signal node is unintentionally shorted to ground. Concretely, the *bottom-left* `buf_1` instance has its output pin X shorted to the lower rail **VGND** (VSS) on MET1; the note “use 68/20” refers to the author’s edit/viewport guidance to reproduce or locate the issue in layout. The goal is to verify that the LVR/ERC flow:

- loads Sky130 rules and the modified test GDS,
- correlates layout connectivity to reference libraries/netlists,
- flags *short circuits* between signal nets (e.g., `req_msg[*]`, `net40`, `net39`) and **VSS** on MET1,
- produces actionable reports (Errors & Warnings, Marker Browser, Summary, Histograms),

- and supports rapid pinpointing of the defect in the GUI.



Figure 35: Use-case for gcd1_ERC002: rules → GDS load → ERC run → report/GUI debug.

Command File (2, 2.1)

Verbatim listing of gcd1_ERC002.cmd; these commands run LVR in ERC mode:

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db ERC

# set technology
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd
```

```

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_ERC002.gds
load_db ERC
no_compare 1

#####
# ERC settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####

```

```

erc gcd1_sky130hd
erc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

Settings Explained (3)

Key switches and how they shape the run:

- `init_tool_db` ERC initializes the database specifically for **ERC** analysis (electrical-sanity checks rather than geometry DRC or SVS).
- `set_technode sky130` with `read_lrf ../rule/sky130.lrf` selects the Sky130 rule context (device/primitive expectations, layers, nets).
- `set_top gcd1_sky130hd` declares the hierarchical top for consistent cell resolution in both layout and netlist domains.
- `set_num_cores 1` keeps a deterministic baseline; `set_die_area` and `set_num_regions` provide standard bounds/regioning.
- `read_gds ../gds/gcd1_ERC002.gds` loads the edited GDS that contains the intentional VGND short at the buffer output; `load_db ERC` finalizes the ERC database. `no_compare 1` limits the run to electrical/connectivity analysis (no polygon vs schematic comparison).

-
- The `lvs_*` knobs reuse LVS infrastructure for ERC: DatC netlist handling, macro CDL for device pins, port enablement, and enabling checks for **shorts** and **opens**.
 - `erc gcd1_sky130hd` executes the ERC engine (listed twice here, effectively re-invoking the same run).
 - `load_gui` launches the GUI with tabs: *Errors & Warnings*, *Marker Browser*, *ERC Summary Report*, *Histograms*.

How to Run (4)

From a shell:

```
% LVR gcd1_ERC002.cmd
```

This runs ERC and opens the GUI. Reports/markers are accessible in the GUI and logs.

Results & Screenshots (5–12)

Errors & Warnings (5–6). Figure 36 shows numerous `ERC_ERR001` entries: *Power/Ground short VSS interacting* with signal nets on MET1—e.g., `net39`, `net40`, and bus bits such as `req_msg[0]`, `req_msg[11]`, `req_msg[25]`, `req_msg[30]`, `req_msg[31]`, etc. Database/layer-map warnings and a handful of `VER_WARN012` opens are also visible but are secondary to the intended short.

Marker Browser (7–8). In Figure 37, *SHORT* markers confirm **VSS** interacting with the above `req_msg[*]` bits and `net39/net40`. Use single-marker mode to step through each location in the viewer and observe the MET1 overlap near the bottom-left `buf_1` output X.

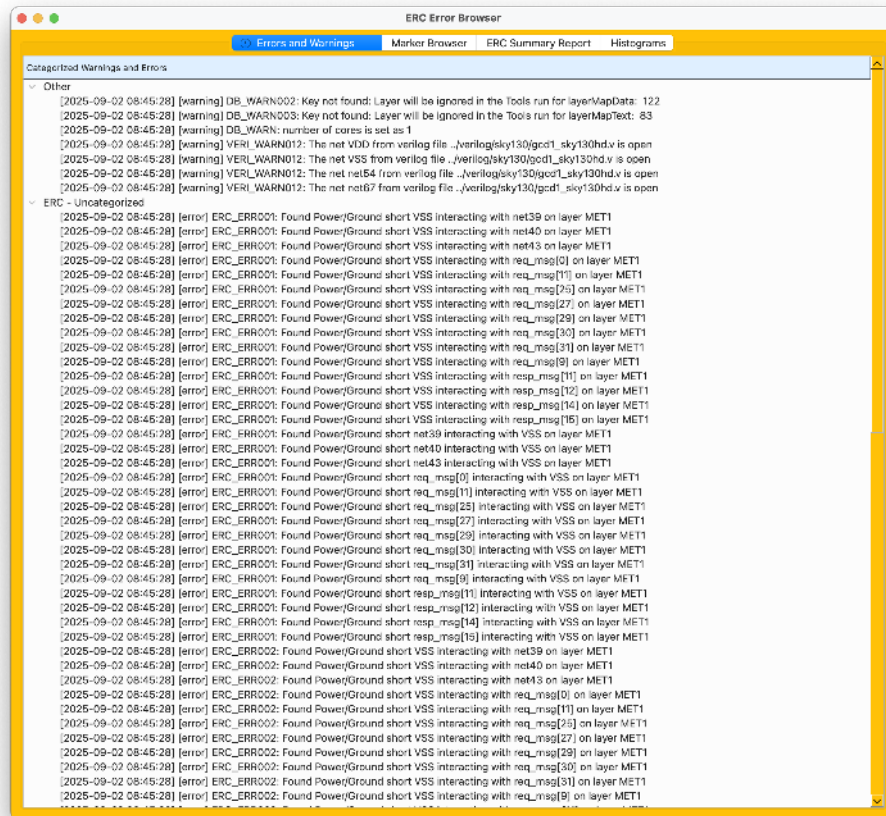


Figure 36: Errors & Warnings for gcd1_ERC002.

1	2	3	4	5
1	ERC_MARK1_	SHORT	VSS	resp_msg[14]
2	ERC_MARK1_	SHORT	VSS	resp_msg[15]
3	ERC_MARK1_	SHORT	VSS	resp_msg[12]
4	ERC_MARK1_	SHORT	VSS	resp_msg[11]
5	ERC_MARK1_	SHORT	VSS	resp_msg[14]
6	ERC_MARK1_	SHORT	VSS	resp_msg[15]
7	ERC_MARK1_	SHORT	VSS	resp_msg[12]
8	ERC_MARK1_	SHORT	VSS	resp_msg[11]
9	ERC_MARK1_	SHORT	VSS	req_msg[0]
10	ERC_MARK1_	SHORT	VSS	req_msg[9]
11	ERC_MARK1_	SHORT	VSS	req_msg[31]
12	ERC_MARK1_	SHORT	VSS	net43
13	ERC_MARK1_	SHORT	VSS	req_msg[11]
14	ERC_MARK1_	SHORT	VSS	req_msg[25]
15	ERC_MARK1_	SHORT	VSS	req_msg[30]
16	ERC_MARK1_	SHORT	VSS	net40
17	ERC_MARK1_	SHORT	VSS	req_msg[27]
18	ERC_MARK1_	SHORT	VSS	req_msg[29]
19	ERC_MARK1_	SHORT	VSS	net39
20	ERC_MARK1_	SHORT	req_msg[31]	VSS
21	ERC_MARK1_	SHORT	resp_msg[15]	VSS
22	ERC_MARK1_	SHORT	resp_msg[15]	VSS
23	ERC_MARK1_	SHORT	net43	VSS
24	ERC_MARK1_	SHORT	req_msg[0]	VSS
25	ERC_MARK1_	SHORT	req_msg[29]	VSS
26	ERC_MARK1_	SHORT	req_msg[9]	VSS

Figure 37: Marker Browser for gcd1_ERC002: per-violation entries (type, NetA, NetB).



Figure 38: ERC Summary for gcd1.ERC002.

ERC Summary Report (9–10). Figure 38 summarizes the run: **ERC Status**=PASSED, **Short Circuits**=Short Detected, **Open Circuits**=None Detected. Additional fields show Sky130HD (130 nm), flattened DB, GDSII, Full Check verification, and stage timings. The type-counts section indicates (approximately) DB_WARN≈1, LRF_ERROR01≈14, DB_WARN00x≈5, VER_WARN012≈64, ERC_ERR001≈38.

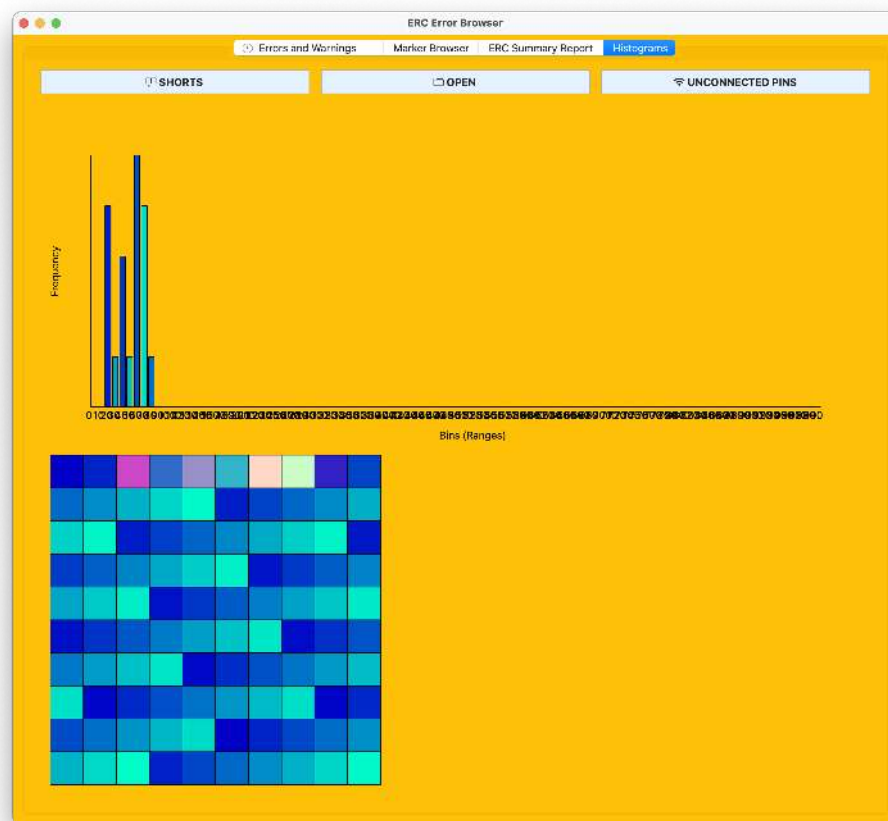


Figure 39: Histogram views for gcd1_ERC002: distribution of *SHORTS*; tabs also provide *OPEN* and *UNCONNECTED PINS*.

Histograms (11–12). As seen in Figure 39, the *SHORTS* distribution clusters in early bins—consistent with multiple instances of the same root cause

(a VSS rail overlap with the `buf_1.X` network and its fan-outs), rather than scattered random defects.

Debug tip

Zoom to the bottom-left of `gcd1_sky130hd` with MET1 enabled; follow the markers associated with `req_msg[*]` near `buf_1.X`. Separating the MET1 segment from **VGND (VSS)** or removing the offending stub resolves the cluster; re-run ERC to confirm SHORTS disappear and the histogram collapses.

7.6 Test Case: `gcd1_ERC003` (ERC)

Overview & Purpose (0, 1, 1.1)

Context identification: The tag “ERC” in `gcd1_ERC003` indicates an **Electrical Rule Check**.

Purpose of the test: This negative test validates ERC open/connection checks when a required input pin is physically *removed* in layout. Concretely, the Metal1 connection (author note: “metal 68/20”) to the A input pin of instance `clkbuf_1` (top-left) is deleted, leaving the pin unconnected. The objective is to confirm that the LVR/ERC flow:

- loads Sky130 rules and the edited GDS containing the defect,
- correlates layout connectivity to the reference netlist/library,
- flags the missing wiring as *UNCONNECTED.PIN*/input-pin-open, and
- reports it clearly via Errors & Warnings, Marker Browser, Summary (and Histograms if present), with coordinates for fast GUI debug.



Figure 40: Use-case for gcd1_ERC003: rules → GDS load → ERC run → report/GUI debug.

Command File (2, 2.1)

Verbatim listing of gcd1_ERC003.cmd; these commands run LVR in ERC mode for this test:

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db ERC

# set technology
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
```

```
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_ERC003.gds
load_db ERC
no_compare 1

#####
# ERC settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####
erc gcd1_sky130hd
erc gcd1_sky130hd
```

```
#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui
```

Settings Explained (3)

Key switches and how they shape the run:

- `init_tool_db` ERC starts the tool in **ERC** mode for electrical-sanity checks (not geometry DRC nor SVS).
- `set_technode sky130` with `read_lrf ../rule/sky130.lrf` selects the Sky130 rule context (layers, devices, macro pins).
- `set_top gcd1_sky130hd` declares the hierarchical top cell for both layout and netlist correlation.
- `set_num_cores 1` keeps a deterministic baseline; `set_die_area/set_num_regions` provide standard bounds/regioning.
- `read_gds ../gds/gcd1_ERC003.gds` loads the edited GDS where the `clkbuf_1.A` pin metal is intentionally removed; `load_db ERC` finalizes the ERC DB. `no_compare 1` keeps the flow focused on electrical checks (short/open/unconnected).

-
- The `lvs_*` knobs reuse LVS infrastructure: DatC netlist handling, macro CDL for pin semantics, port enablement, and enabling checks for **shorts**, **opens**, and **unconnected pins**.
 - `erc gcd1_sky130hd` executes the ERC engine (listed twice here, re-invoking the same run if desired).
 - `load_gui` launches the GUI tabs: *Errors & Warnings*, *Marker Browser*, *ERC Summary Report*, *Histograms*.

How to Run (4)

Execute from a shell:

```
% LVR gcd1_ERC003.cmd
```

This runs ERC and opens the GUI. Reports/markers are available in the GUI tabs and logs.

Results & Screenshots (5–12)

Errors & Warnings (5–6). Figure 41 shows database/layer-map warnings and open-net notices from the verilog context. The key ERC items are:

- `ERC_ERR003`: “Input pin A of instance `u_3337` is unconnected” (schematic/layout correlation),
- `ERC_ERR019`: “The pin A of instance `u_3337` of the layout is unconnected, this will lead to ERC mismatches”,
- plus an *LVS source-pin mismatch* category consistent with the removed metal on `clkbuf_1.A`.

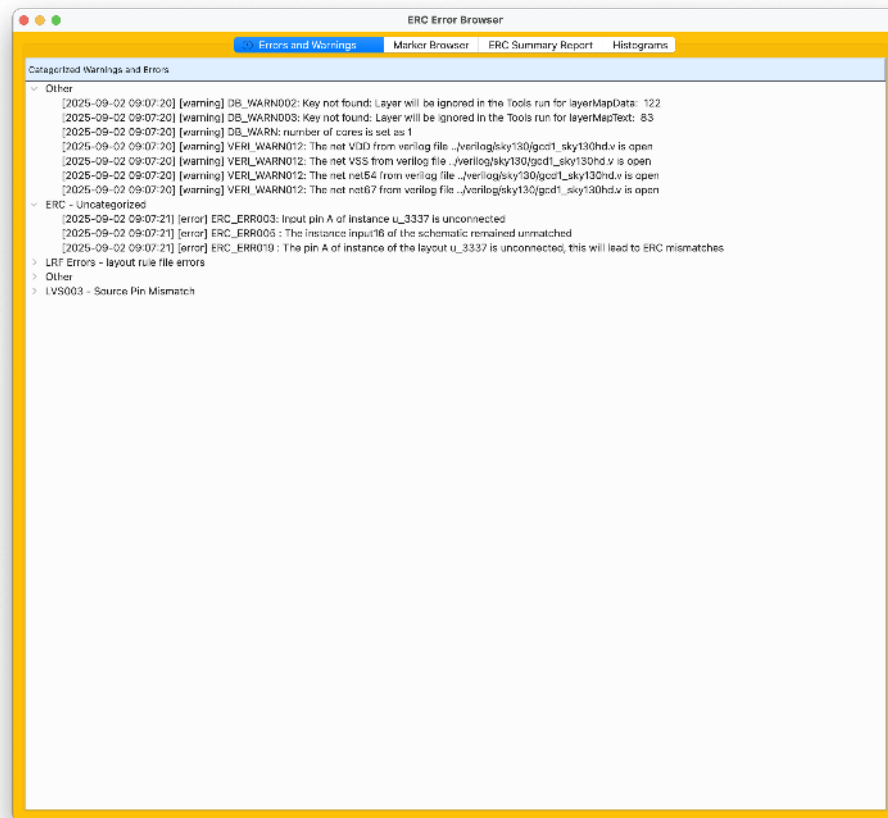


Figure 41: Errors & Warnings for gcd1_ERC003.

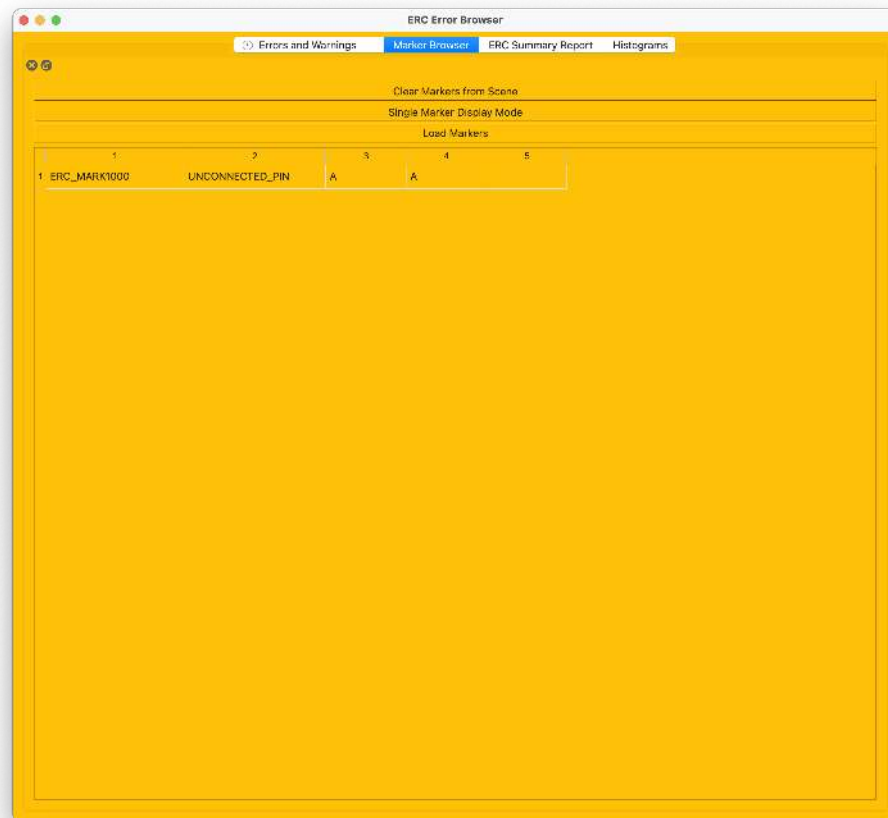


Figure 42: Marker Browser for gcd1_ERC003: *UNCONNECTED_PIN* at pin A.

Marker Browser (7–8). As seen in Figure 42, the single marker enumerates an *UNCONNECTED_PIN* on pin A. Use single-marker mode to jump directly to the coordinates in the viewer and verify the missing Metal1 stub near the top-left of *clkbuf_1*.



Figure 43: ERC Summary for gdc1_ERC003.

ERC Summary Report (9–10). Figure 43 summarizes the run: **ERC Status**=PASSED; **Short Circuits**=None Detected; **Open Circuits**=None Detected. The instance-match percentage is about $\sim 99.7\%$, with **Total Errors** around ~ 19 and **Total Warnings** around ~ 118 . Sky130HD (130 nm), flattened DB,

GDSII, and stage timings are also reported.

Debug Tip

In the GUI (MET1, MCON, and text layers on), pan to the top-left of the `clkbuf_1` instance (coordinates near the noted “68/20”). The selection panel will list `clkbuf_1 u_3337` and a marker like `ERC_MARK1000` with type *UNCONNECTED_PIN* at pin A. Restoring the Metal1 connection (or adding a via/LI stub to the pin) clears the error on re-run.

7.7 Test Case: `gcd1_ERC004` (ERC)

Overview & Purpose (0, 1, 1.1)

Context identification: The tag “ERC” in `gcd1_ERC004` indicates an **Electrical Rule Check**.

Purpose of the test: Validate ERC open/connection checks when a required *output* pin is physically removed in layout. In this negative test, the Metal1 connection (author note: “metal 68/20”) to the X output pin of instance `clkbuf_1` (top-left) is deleted, leaving the pin open. The objective is to confirm that the LVR/ERC flow:

- loads Sky130 rules and the edited GDS containing the defect,
- correlates layout connectivity to the reference netlist/library,
- flags the missing wiring as *UNCONNECTED_PIN*/output-pin open (and source-pin mismatch),
- and reports it clearly via Errors & Warnings, Marker Browser, Summary (and Histogram if present), with coordinates for fast GUI debug.

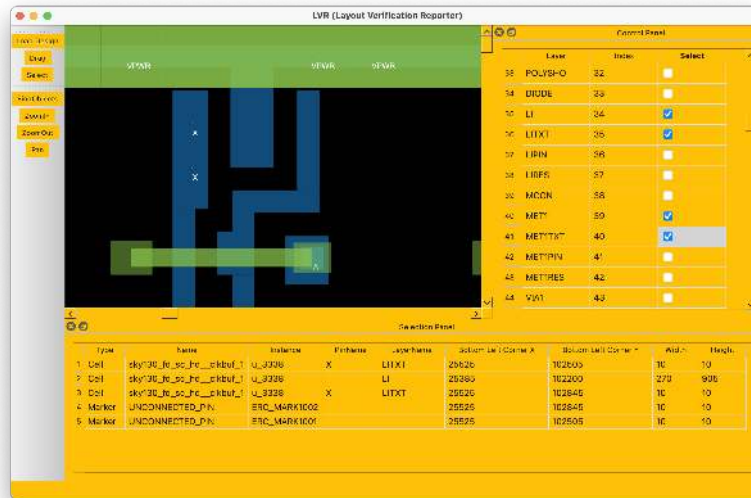


Figure 44: Use-case for gcd1_ERC004: rules → GDS load → ERC run → report/GUI debug.

Command File (2, 2.1)

Verbatim listing of gcd1_ERC004.cmd; these commands run LVR in ERC mode for this test:

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db ERC

# set technology
#####
set_technode sky130

# set top module
#####
```

```

set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_ERC004.gds
load_db ERC
no_compare 1

#####
# ERC settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs

```

```
#####
erc gcd1_sky130hd
erc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui
```

Settings Explained (3)

Key switches and how they shape the run:

- `init_tool_db` ERC starts the tool in **ERC** mode (electrical-sanity checks rather than geometry DRC or SVS).
- `set_technode sky130` with `read_lrf ../rule/sky130.lrf` selects the Sky130 rule context (layers, devices, macro pins).
- `set_top gcd1_sky130hd` declares the hierarchical top cell for both layout and netlist correlation.
- `set_num_cores 1` keeps a deterministic baseline; `set_die_area/set_num_regions` provide standard bounds/regioning.
- `read_gds ../gds/gcd1_ERC004.gds` loads the edited GDS where the `clkbuf_1.X` metal is intentionally removed; `load_db ERC` finalizes the

ERC DB. `no_compare 1` keeps the flow focused on electrical checks (short/open/unconnected).

- The `lvs_*` knobs reuse LVS infrastructure: DatC netlist handling, macro CDL for pin semantics, port enablement, and enabling checks for **shorts**, **opens**, and **unconnected pins**.
- `erc gcd1_sky130hd` executes the ERC engine (listed twice here, re-invoking the same run if desired).
- `load_gui` launches the GUI tabs: *Errors & Warnings*, *Marker Browser*, *ERC Summary Report*, *Histograms*.

How to Run (4)

From a shell:

```
% LVR gcd1_ERC004.cmd
```

This runs ERC and opens the GUI. Reports/markers are accessible in the GUI and logs.

Results & Screenshots (5–12)

Errors & Warnings (5–6). Figure 45 shows the key ERC findings for this scenario:

- ERC_ERR003: “Output pin X of instance `u_3338` is dangling and unconnected”,
- ERC_ERR019: “The pin X of instance `u_3338` of the layout is unconnected, this will lead to ERC mismatches”,
- plus LRF syntax errors around lines 333–339 (rule-file cleanup recommended) and an *LVS source-pin mismatch* message consistent with the removed X connection.

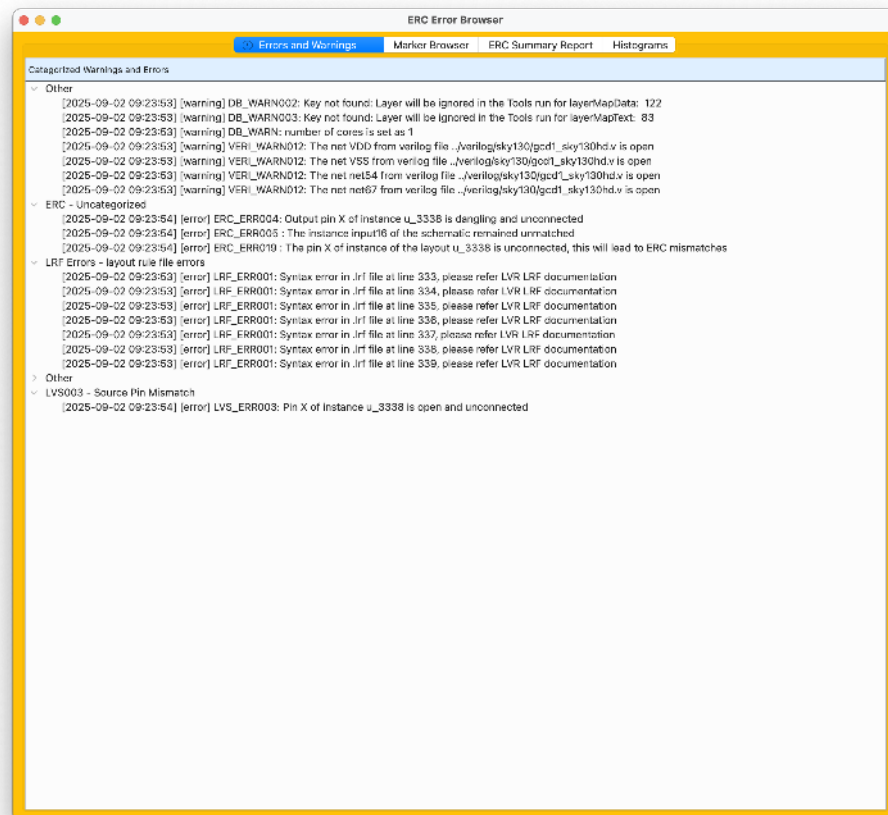


Figure 45: Errors & Warnings for gcd1_ERC004.

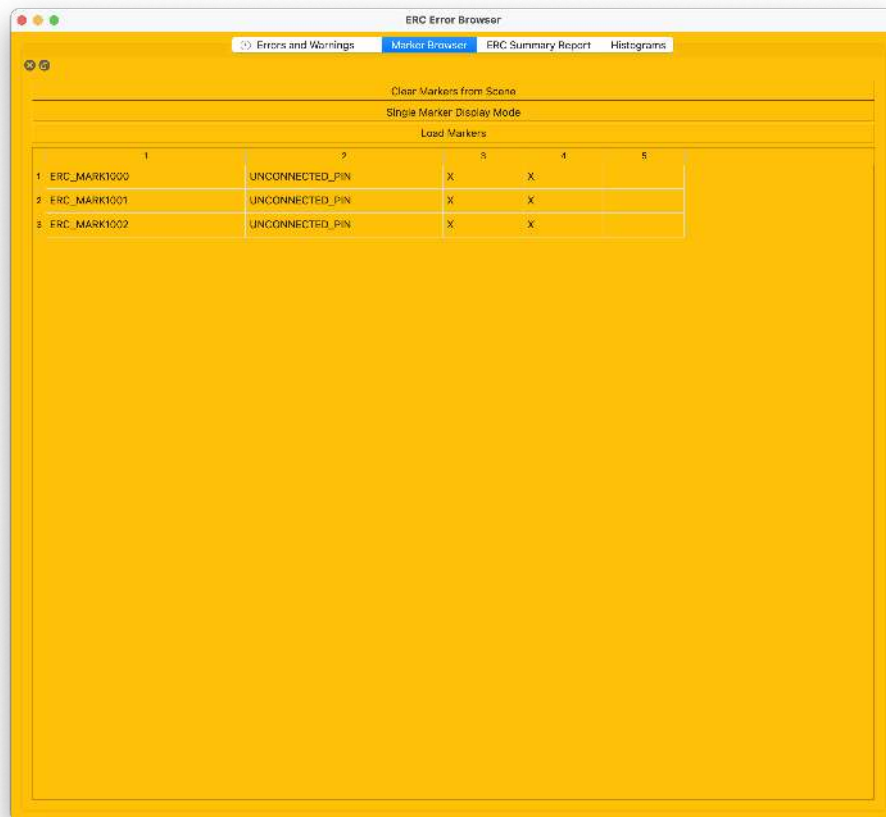


Figure 46: Marker Browser for gcd1_ERC004: multiple *UNCONNECTED_PIN* markers at pin X.

Marker Browser (7–8). As seen in Figure 46, three markers enumerate *UNCONNECTED_PIN* at X. Use single-marker mode to jump to each location in the viewer and verify the missing Metal1 stub near the top-left of *clkbuf_1*.



Figure 47: ERC Summary for gcd1_ERC004.

ERC Summary Report (9–10). Figure 47 summarizes the run: **ERC Status**=PASSED; **Short Circuits**=None Detected; **Open Circuits**=None Detected. Additional fields show Sky130HD (130 nm), flattened DB, GDSII, Full Check verification, stage timings, and counts such as Unconnected Pins (notably higher due to the removed X connection).

Debug Tip

In the GUI, enable LI, LITXT, and MET1T XT, then pan to the top-left of the `clkbuf_1` instance. The selection panel lists the cell and *UNCONNECTED_PIN* markers for pin X. Restoring the Metal1 connection (or adding a via/LI stub to the pin) clears the errors; re-run ERC to confirm the marker list is empty and the summary counts drop.

7.8 Test Case: gcd1_ERC005 (ERC)

Overview & Purpose (0, 1, 1.1)

Context identification: The tag “ERC” in `gcd1_ERC005` indicates an **Electrical Rule Check**.

Purpose of the test: This negative test demonstrates ERC short detection when a signal net is unintentionally shorted to a rail in the Sky130 GCD layout. The stated scenario is “top-mid `net24` shorted to ground (use 68/20)”. In the provided run screenshots, the engine flags a set of *power/ground shorts* involving `net24` and a rail on MET1—specifically messages of the form “VDD interacting with `net24` on MET1” appear in the Errors & Warnings view, indicating a rail tie at the top region of the cell. The objective is to verify that LVR/ERC:

- loads Sky130 rules and the modified GDS for the scenario,
- extracts connectivity and correlates it to the reference netlist/library,
- reports the short(s) through Errors & Warnings, Marker Browser, Summary, and Histograms,
- and enables quick localization of the fault in the GUI.

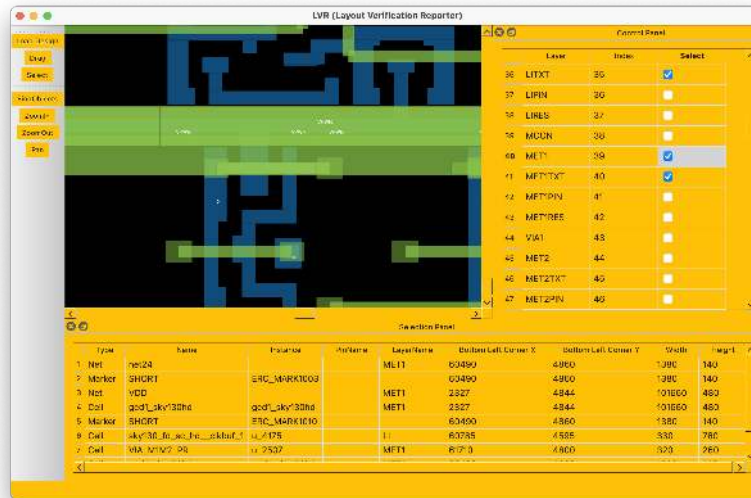


Figure 48: Use-case illustration for gcd1_ERC005: rules → GDS load → ERC run → report/GUI debug.

Command File (2, 2.1)

Verbatim listing of gcd1_ERC005.cmd; these commands run LVR in ERC mode:

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db ERC

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd
```

```

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_ERC005.gds
load_db ERC
no_compare 1

#####
# ERC settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####

```

```

erc gcd1_sky130hd
#erc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

Settings Explained (3)

Key switches and how they shape the run:

- `init_tool_db` ERC initializes the database specifically for **ERC** analysis (electrical-sanity checks).
- `set_technode sky130 +read_lrf ../rule/sky130.lrf` select the Sky130 technology rules (layers, pins, device context).
- `set_top gcd1_sky130hd` declares the hierarchical top cell for consistent correlation between layout and netlist.
- `set_num_cores 1` keeps a deterministic baseline; `set_die_area` and `set_num_regions` define the layout bounds and regioning.
- `read_gds ../gds/gcd1_ERC005.gds` loads the edited GDS that contains the top-mid net24 rail short; `load_db` ERC finalizes the ERC database. `no_compare 1` keeps the run focused on ERC rather than a polygon-vs-schematic comparison.

-
- `lvs_set_*` knobs reuse LVS infrastructure for ERC: DatC netlist handling, macro CDL for device/pin semantics, port enablement, and enabling **short/open/unconnected** checks.
 - `erc gcd1_sky130hd` executes the ERC engine for the specified top cell.
 - `load_gui` launches the GUI with tabs for *Errors & Warnings*, *Marker Browser*, *ERC Summary Report*, and *Histograms*, enabling interactive debug.

How to Run (4)

From a shell:

```
% LVR gcd1_ERC005.cmd
```

This runs ERC on the test case and opens the GUI. Reports and markers are available in the GUI tabs and the log directory.

Results & Screenshots (5–12)

Errors & Warnings (5–6). Figure 49 shows numerous `ERC_ERR001/ERC_ERR002` entries reporting **Power/Ground short** events on MET1. Examples visible include VDD interacting with `net24`, `net22`, `net20`, `net25`, `net18`, and `net6`, as well as specific *Pin X shorted with power* messages on a few buffer instances. These are consistent with a deliberate rail overlap at the top-middle region.

Marker Browser (7–8). Figure 50 lists *SHORT* markers including `VDD ↔ net24/net22/net20/net25`. Loading a marker centers the viewer at the violation; the selection panel shows the nets and layers involved (e.g., MET1) so you can confirm the top-mid tie.

ERC Summary Report (9–10). Figure 51 summarizes the run: **ERC Status=PASSED**; **Short Circuits=Short Detected**; **Open Circuits=None Detected**; **Instance Match %** $\approx 98.86\%$; **Unconnected Pins** ≈ 100 ; **Total Errors** ≈ 67 ;

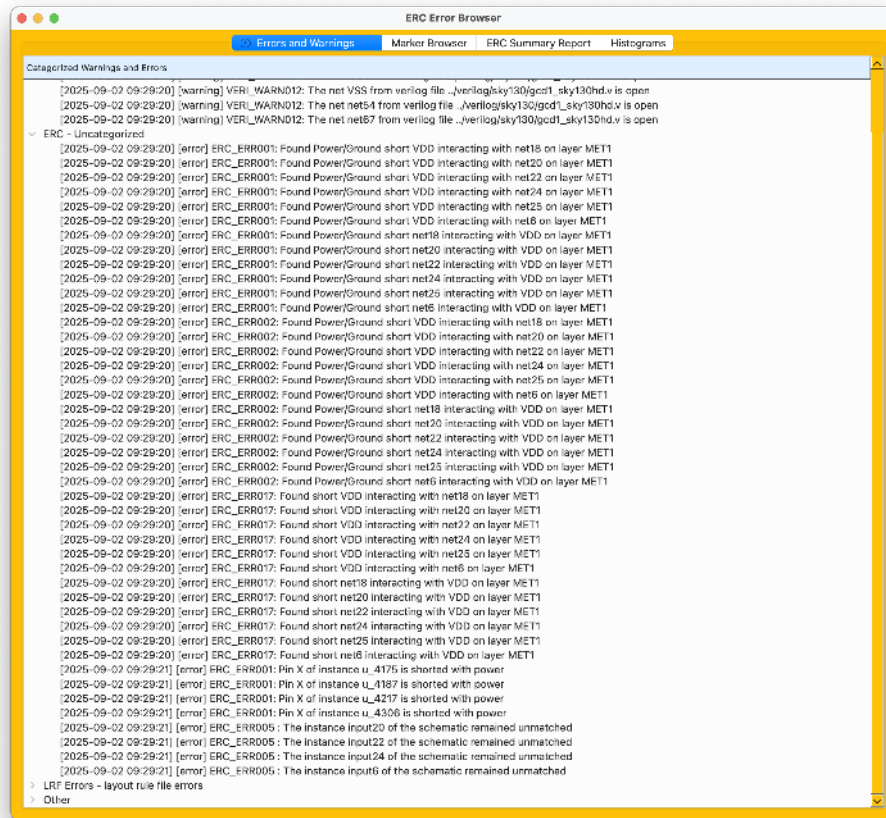


Figure 49: Errors & Warnings for gcd1_ERC005.

ERC Error Browser				
Errors and Warnings Marker Browser ERC Summary Report Histograms				
Clear Markers from Scene				
Single Marker Display Mode				
Load Markers				
	1	2	3	4
1	ERC_MARK1000	SHORT	VDD	net16
2	ERC_MARK1001	SHORT	VDD	net22
3	ERC_MARK1002	SHORT	VDD	net20
4	ERC_MARK1003	SHORT	VDD	net24
5	ERC_MARK1004	SHORT	VDD	net18
6	ERC_MARK1005	SHORT	VDD	net25
7	ERC_MARK1006	SHORT	net25	VDD
8	ERC_MARK1007	SHORT	net18	VDD
9	ERC_MARK1008	SHORT	net15	VDD
10	ERC_MARK1009	SHORT	net10	VDD
11	ERC_MARK1010	SHORT	net12	VDD
12	ERC_MARK1011	SHORT	net14	VDD

Figure 50: Marker Browser for gcd1_ERC005: SHORT markers pinpointing net24 ↔ rail overlap on MET1.



Total Warnings ≈ 118 . Technology is Sky130HD (130 nm); DB format GDSII; verification mode *Full Check*.

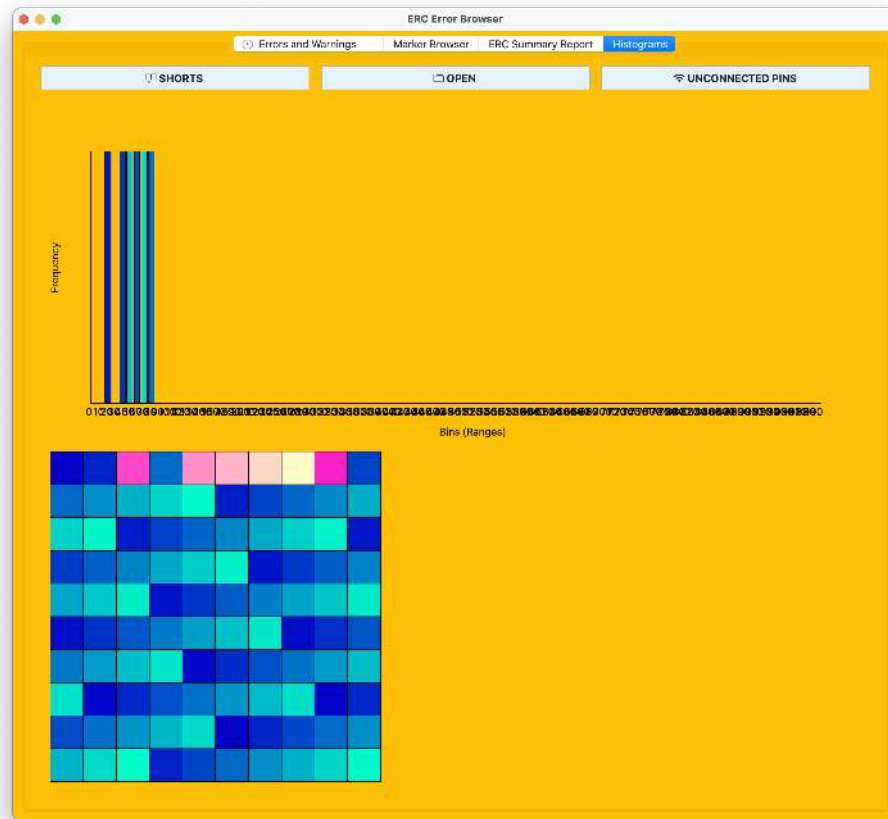


Figure 52: Histogram views for gcd1_ERC005: distribution of *SHORTS* shows clustering in early bins.

Histograms (11–12). As shown in Figure 52, the *SHORTS* histogram is concentrated in a few early bins, characteristic of multiple instances of the same root cause (a rail overlap) rather than random, scattered issues.

Debug tip

In the GUI, enable MET1 and text layers, then pan to the *top-mid* of `gcd1_sky130hd`. Select any *SHORT* entry for `net24`; the selection panel will list the two nets (signal and rail) and the exact coordinates. Separating the MET1 segment from the rail (or removing the offending stub) clears the cluster of shorts; re-run ERC to confirm the Summary shows no detected shorts.

7.9 Test Case: `gcd1_ERC006` (ERC)

Overview & Purpose (0, 1, 1.1)

Context identification: The tag “ERC” in `gcd1_ERC006` indicates an **Electrical Rule Check**.

Purpose of the test: Demonstrate ERC short detection when a functional signal is unintentionally tied to a power rail. In this negative scenario the top-right signal `req_rdy` is shorted to the `VPWR` rail using a Metal1 rectangle of size 68/20. The goal is to verify that the LVR/ERC flow:

- loads Sky130 rules and the edited GDS that injects the short,
- extracts connectivity and correlates it against the reference netlist/library,
- reports the error through the *Errors & Warnings*, *Marker Browser*, *ERC Summary*, and *Histograms* tabs,
- and localizes the issue precisely in the GUI for quick debug.

Command File (2, 2.1)

Verbatim listing of `gcd1_ERC006.cmd`; these commands run LVR in ERC mode for this test:

```
# initialize tool DB
```

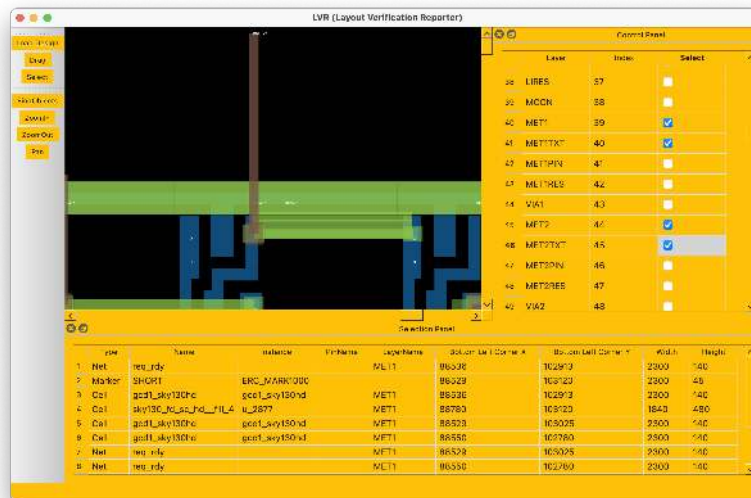


Figure 53: Use case for gcd1_ERC006: rules $\rightarrow$ GDS load $\rightarrow$ ERC run $\rightarrow$ report/GUI debug.

```
#####
#set_debug_mode_3049 0
init_tool_db ERC

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
```

```

set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_ERC006.gds
load_db ERC
no_compare 1

#####
# ERC settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####
erc gcd1_sky130hd
erc gcd1_sky130hd

#####

```

```

# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

Settings Explained (3)

Key switches and their role:

- `init_tool_db ERC` launches the engine in **ERC** mode (electrical connectivity sanity checks).
- `set_technode sky130` with `read_lrf ../rule/sky130.lrf` selects the Sky130 rule deck: layer map, device/pin semantics, ERC rules.
- `set_top gcd1_sky130hd` defines the hierarchical top cell shared by layout and netlist correlation.
- `set_num_cores 1` keeps a deterministic baseline; `set_die_area` and `set_num_regions` set standard bounds/regioning.
- `read_gds ../gds/gcd1_ERC006.gds` loads the edited GDS with the injected short; `load_db ERC` finalizes the ERC database. `no_compare 1` keeps the run focused on ERC rather than polygon-vs-schematic comparison.
- The `lvs_*` controls reuse LVS infrastructure for ERC: netlist handling, macro CDL for pin definitions, enabling **short**, **open**, and **unconnected-pin** checks.

-
- `erc gcd1_sky130hd` executes ERC; duplicated here to allow re-run in the same session if desired.
 - `load_gui` opens the GUI tabs: *Errors & Warnings*, *Marker Browser*, *ERC Summary Report*, and *Histograms*.

How to Run (4)

From a shell:

```
% LVR gcd1_ERC006.cmd
```

This executes ERC on the test case and opens the GUI. Reports and markers appear in the GUI tabs and run logs.

Results & Screenshots (5–12)

Errors & Warnings (5–6). Figure 54 shows numerous ERC short messages on MET1. Examples include “Power/Ground short req_rdy interacting with VDD on layer MET1” and many VSS ↔ req_msg[n] interactions, consistent with a rail short introduced near the top-right corner.

Marker Browser (7–8). The table in Figure 55 lists multiple *SHORT* markers. Early rows include req_rdy ↔ VDD, followed by several VSS ↔ req_msg[n] entries. Selecting any marker centers the GUI on the violation and shows the participating nets/layers (e.g., MET1) in the selection panel.

ERC Summary Report (9–10). Figure 56 summarizes the run: **ERC Status**=PASSED; **Short Circuits**=Short Detected; **Open Circuits**=None Detected; **Instance Match %** ≈ 97.15%; **Unconnected Pins** ≈ 103; **Total Errors** ≈ 149; **Total Warnings** ≈ 118. Technology is Sky130HD (130 nm); database format GDSII; verification mode *Full Check*.

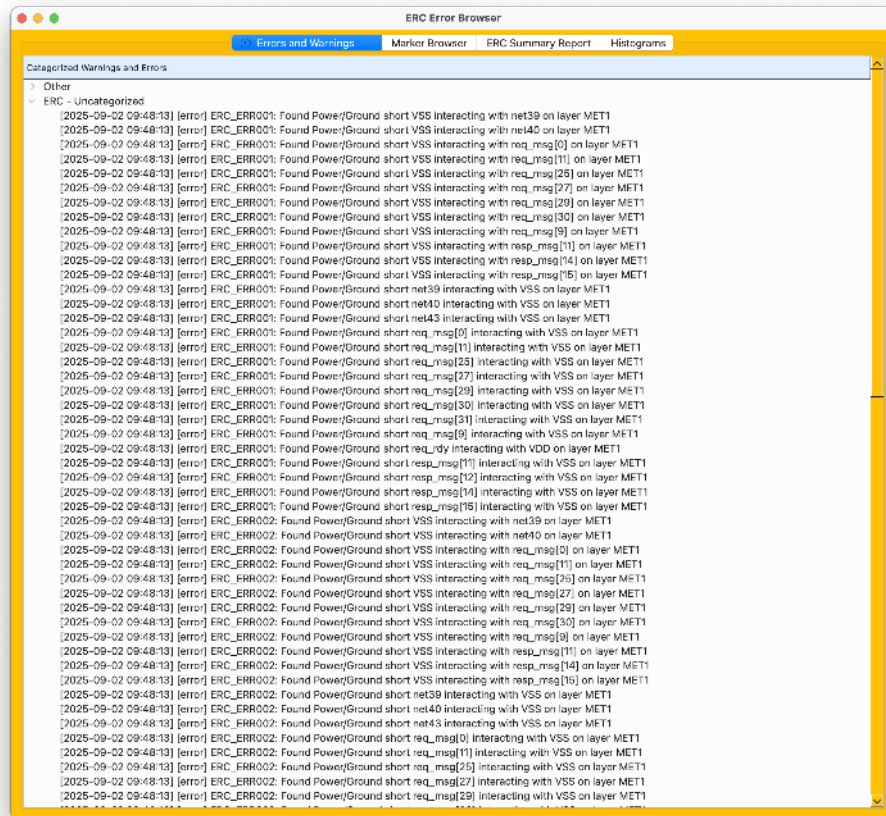


Figure 54: Errors & Warnings for gcd1_ERC006 (gcd1_ERC006_err_rpt.png).

1	2	3	4	5
1	ERC_MARK1000	SHORT	req_idy	VDD
2	ERC_MARK1001	SHORT	VSS	resp_msg[11]
3	ERC_MARK1002	SHORT	VSS	resp_msg[16]
4	ERC_MARK1003	SHORT	VSS	resp_msg[14]
5	ERC_MARK1004	SHORT	VSS	resp_msg[11]
6	ERC_MARK1005	SHORT	VSS	resp_msg[15]
7	ERC_MARK1006	SHORT	VSS	resp_msg[14]
8	ERC_MARK1007	SHORT	VSS	req_msg[9]
9	ERC_MARK1008	SHORT	VSS	req_msg[0]
10	ERC_MARK1009	SHORT	VSS	req_msg[26]
11	ERC_MARK1010	SHORT	VSS	req_msg[30]
12	ERC_MARK1011	SHORT	VSS	req_msg[11]
13	ERC_MARK1012	SHORT	VSS	net40
14	ERC_MARK1013	SHORT	VSS	req_msg[27]
15	ERC_MARK1014	SHORT	VSS	req_msg[29]
16	ERC_MARK1015	SHORT	VSS	net39
17	ERC_MARK1016	SHORT	req_msg[31]	VSS
18	ERC_MARK1017	SHORT	resp_msg[15]	VSS
19	ERC_MARK1018	SHORT	resp_msg[15]	VSS
20	ERC_MARK1019	SHORT	net43	VSS
21	ERC_MARK1020	SHORT	req_msg[0]	VSS
22	ERC_MARK1021	SHORT	req_msg[25]	VSS
23	ERC_MARK1022	SHORT	req_msg[9]	VSS
24	ERC_MARK1023	SHORT	resp_msg[14]	VSS
25	ERC_MARK1024	SHORT	resp_msg[14]	VSS
26	ERC_MARK1025	SHORT	net40	VSS

Figure 55: Marker Browser for gcd1_ERC006 (gcd1_ERC006_mrk_rpt.png).

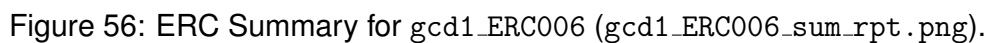




Figure 57: Histogram views for gcd1_ERC006 (gcd1_ERC006_histo_rpt.png).

Histograms (11–12). As seen in Figure 57, the SHORTS histogram is heavily concentrated in the first few bins, indicating many markers arise from a single underlying cause (the `req_rdy`→VDD tie) rather than random dispersion.

Debug Tips

Enable MET1, MET1 text, and (optionally) MET2 in the viewer. Pan to the *top-right* region of `gcd1_sky130hd` and select the first *SHORT* marker for `req_rdy`. The selection panel lists the two nets (`req_rdy`, VDD) and coordinates. Remove or separate the 68/20 MET1 patch from the VPWR rail, then re-run ERC to confirm the short disappears and the histogram collapses.

7.10 Test Case: `gcd1_ERC008` (ERC)

Overview & Purpose

Context identification: The tag “ERC” in `gcd1_ERC008` indicates an **Electrical Rule Check**.

Purpose of the test: This negative test removes the **bottom VPWR rail** on layer 68/20 (LI/M1 mapping per Sky130), causing many cell VPWR/VPB pins to lose legal power connectivity. The goal is to verify that ERC detects *un-driven/unconnected power pins* and reports them via Errors & Warnings, Marker Browser, and the Summary, while the GUI enables quick localization of the missing rail.

Command File (verbatim)

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db ERC

# set techonlogy
```



Figure 58: Use-case for gcd1_ERC008: bottom VPWR row removed (68/20).

```
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
```

```

read_gds ../gds/gcd1_ERC008.gds
load_db ERC
no_compare 1

#####
# ERC settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####
erc gcd1_sky130hd
erc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####

```

```
# load gui
#####
load_gui
```

Settings Explained

- `init_tool_db` ERC selects ERC mode; `no_compare 1` keeps checks electrical (not geometric).
- `set_technode sky130` with `read_lrf .../sky130.lrf` sets Sky130 rules; `read_gds ..._ERC008.gds` loads the edited layout.
- Netlist context via `.../gcd1_sky130hd.v` and macro CDL `.../sky130.cdl` clarifies supply/body pins.
- ERC toggles enable **short/open/unconnected** detection; `load_gui` opens the review tabs.

How to Run

```
% LVR gcd1_ERC008.cmd
```

Results & Screenshots

Explaining the results As seen in the **Errors & Warnings** view (Fig. 59), the dominant messages are:

- ERC_ERR008: Power pin VPWR is undriven — repeated across many instances because the LI VPWR rail is missing under the bottom row.
- ERC_ERR019: Pin VPB/VPWR is unconnected — body/power pins no longer reach a legal rail, producing unconnected-pin markers.

The **Marker Browser** (Fig. 60) enumerates each violation instance by net/pin, enabling rapid cross-probing into the layout. Finally, the **ERC Summary Report** (Fig. 61) aggregates counts (e.g., dozens of ERC_ERR008/ERC_ERR019)

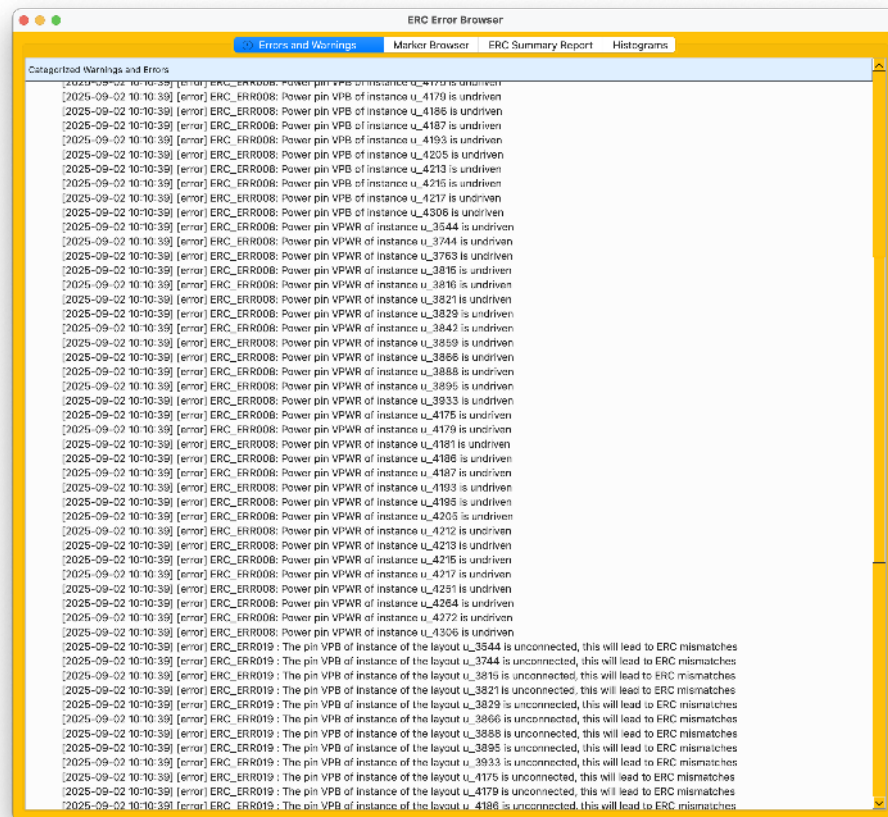


Figure 59: Errors & Warnings for gcd1_ERC008: undriven/unconnected VPWR/VPB pins dominate.

The screenshot shows the 'ERC Error Browser' window with the 'Marker Browser' tab selected. The window has a yellow background and a toolbar at the top with buttons for 'Errors and Warnings', 'Marker Browser', 'ERC Summary Report', and 'Histograms'. Below the toolbar, there are buttons for 'Clear Markers from Scene' and 'Single Marker Display Mode'. A 'Load Markers' button is also present. The main area contains a table with 5 columns and 26 rows of data.

	1	2	3	4	5
1	ERC_MARK1000	UNCONNECTED_PIN	VPB	VPB	
2	ERC_MARK1001	UNCONNECTED_PIN	VPB	VPB	
3	ERC_MARK1002	UNCONNECTED_PIN	VPB	VPB	
4	ERC_MARK1003	UNCONNECTED_PIN	VPB	VPB	
5	ERC_MARK1004	UNCONNECTED_PIN	VPB	VPB	
6	ERC_MARK1005	UNCONNECTED_PIN	VPB	VPB	
7	ERC_MARK1006	UNCONNECTED_PIN	VPB	VPB	
8	ERC_MARK1007	UNCONNECTED_PIN	VPB	VPB	
9	ERC_MARK1008	UNCONNECTED_PIN	VPB	VPB	
10	ERC_MARK1009	UNCONNECTED_PIN	VPB	VPB	
11	ERC_MARK1010	UNCONNECTED_PIN	VPB	VPB	
12	ERC_MARK1011	UNCONNECTED_PIN	VPB	VPB	
13	ERC_MARK1012	UNCONNECTED_PIN	VPB	VPB	
14	ERC_MARK1013	UNCONNECTED_PIN	VPB	VPB	
15	ERC_MARK1014	UNCONNECTED_PIN	VPB	VPB	
16	ERC_MARK1015	UNCONNECTED_PIN	VPB	VPB	
17	ERC_MARK1016	UNCONNECTED_PIN	VPB	VPB	
18	ERC_MARK1017	UNCONNECTED_PIN	VPB	VPB	
19	ERC_MARK1018	UNCONNECTED_PIN	VPB	VPB	
20	ERC_MARK1019	UNCONNECTED_PIN	VPB	VPB	
21	ERC_MARK1020	UNCONNECTED_PIN	VPWR	VPWR	
22	ERC_MARK1021	UNCONNECTED_PIN	VPWR	VPWR	
23	ERC_MARK1022	UNCONNECTED_PIN	VPWR	VPWR	
24	ERC_MARK1023	UNCONNECTED_PIN	VPWR	VPWR	
25	ERC_MARK1024	UNCONNECTED_PIN	VPWR	VPWR	
26	ERC_MARK1025	UNCONNECTED_PIN	VPWR	VPWR	

Figure 60: Marker Browser: per-instance *UNCONNECTED.PIN* entries for power/body pins.

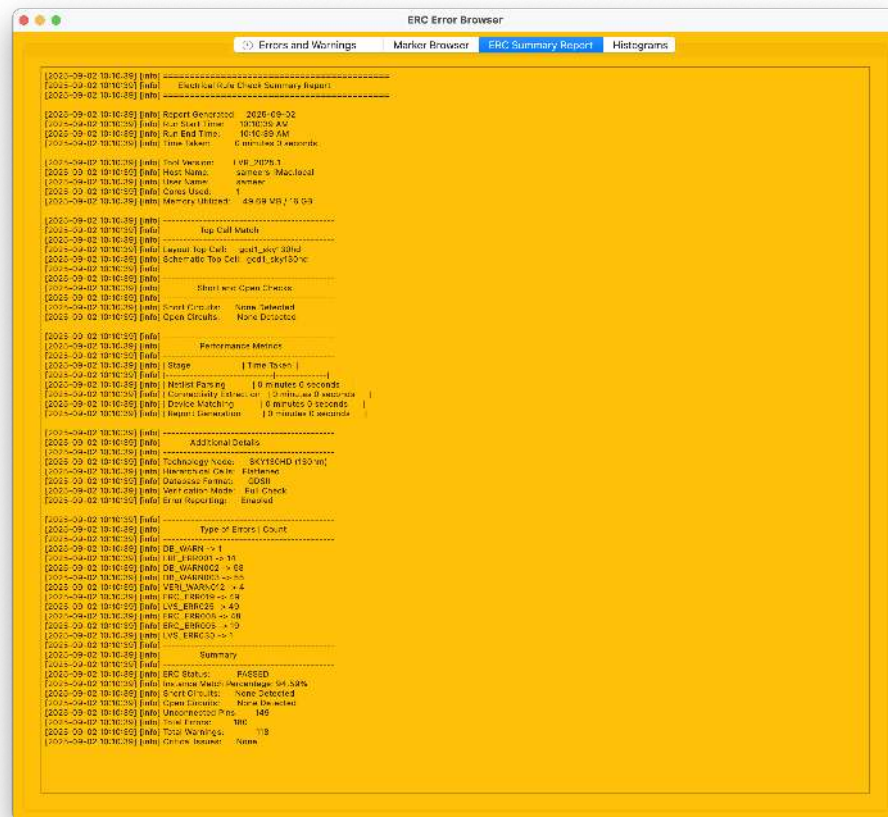


Figure 61: ERC Summary for gcd1.ERC008: counts/time breakdown; failure mode is missing VPWR rail.

and notes zero open-circuit shorts, confirming that the failure mode is *loss of VPWR connectivity*, not accidental shorts.

7.11 Test Case: gcd1_ERC009 (ERC)

Overview & Purpose

Context identification: The tag “ERC” in gcd1_ERC009 indicates an **Electrical Rule Check**.

Purpose of the test: This negative test removes the **bottom VGND rail** on layer 68/20, isolating many cell VGND/VNB pins from the global ground. The goal is to verify that ERC detects *undriven/unconnected ground pins* and reports them clearly for fast repair and re-verification.

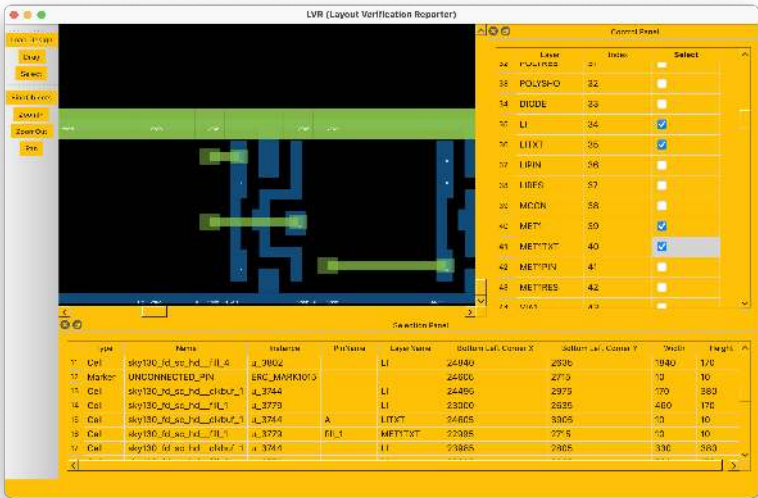


Figure 62: Use-case for gcd1_ERC009: bottom VGND row removed (68/20).

Command File (verbatim)

```
# initialize tool DB
```

```
#####
#set_debug_mode_3049 0
init_tool_db ERC

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_ERC009.gds
load_db ERC
no_compare 1

#####
# ERC settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
```

```

#lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_SVS002A.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####
erc gcd1_sky130hd
erc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

Settings Explained

- `init_tool_db ERC + no_compare 1` → ERC-only electrical checks.
- `set_technode sky130, read_lrf, read_gds` → Sky130 rules + edited layout with VGND row removed.

-
- Logical context via Verilog `...SVS002A.v` and macro CDL ensures correct supply/body pin semantics.
 - ERC toggles report **short/open/unconnected** issues; GUI opens for interactive debug.

How to Run

```
% LVR gcd1_ERC009.cmd
```

Results & Screenshots

Interpreting the viewer snapshot. When you select any `UNCONNECTED_PIN` marker in the LVR viewer and enable `MET1/MET1TXT` (and optionally `LI/LITXT`) you'll see the lower rail absent beneath the affected standard-cell row. Pins labeled `VGND/VNB` inside cells such as `clkbuf_1` are physically isolated from the global VSS spine, which is why the summary reports many undriven ground pins despite no shorts. The remedy is to restore a continuous `MET1 VGND` strap (68/20) across the row or to re-enable the power-ring/tap insertion step in P&R.

7.12 Test Case: `gcd1_LVS005` (LVS)

Purpose and scenario. This test belongs to the **LVS** (Layout Versus Schematic) category, as indicated by its name `gcd1_LVS005`. The intent is to demonstrate how LVS flags a mismatch when a *dummy* standard-cell instance is introduced only in the Verilog netlist and is absent in layout. In this case, an extra instance (e.g., `split13_dummy`) is added at the end of the synthesized netlist. During LVS, the tool extracts a connectivity netlist from the GDS and attempts to match devices and instances between the two sources. Because the dummy instance has no geometric counterpart, the run reports a *schematic-only* unmatched instance and a degraded match percentage while still confirming that there are no shorts or opens in geometry.

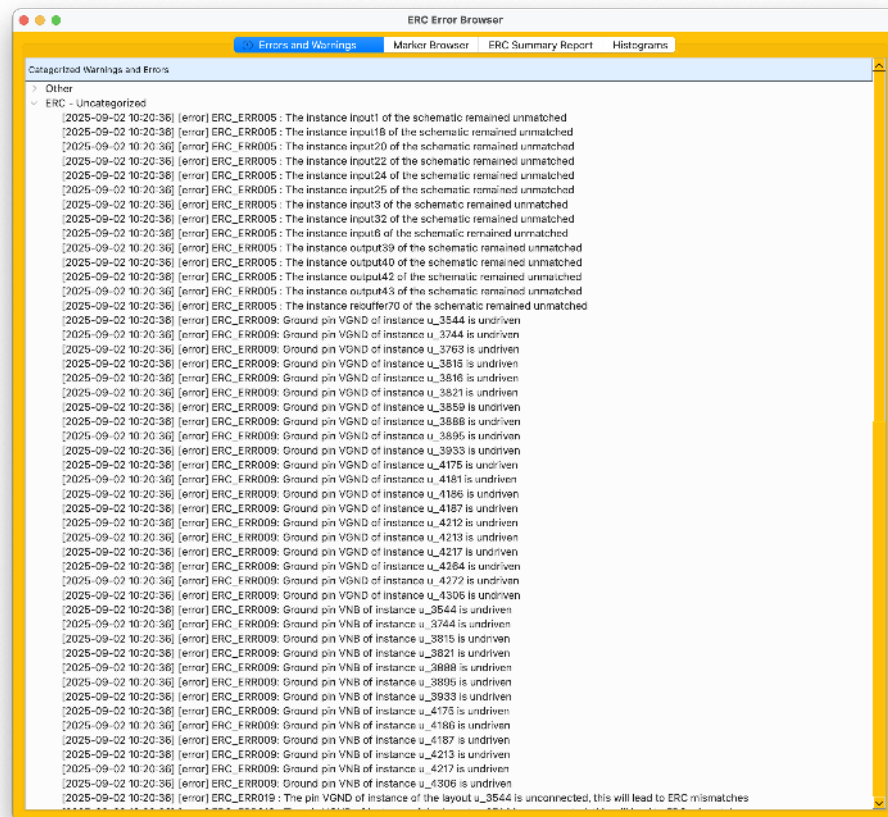


Figure 63: Errors & Warnings for gcd1_ERC009: undriven/unconnected VGND/VNB pins dominate.

	1	2	3	4	5
16	ERC_MARK1014	UNCONNECTED_PIN	clkbuf_1	clkbuf_1	
16	ERC_MARK1016	UNCONNECTED_PIN	VGND	VGND	
17	ERC_MARK1016	UNCONNECTED_PIN	clkbuf_1	clkbuf_1	
18	ERC_MARK1017	UNCONNECTED_PIN	VGND	VGND	
19	ERC_MARK1018	UNCONNECTED_PIN	tapvpwrvgnd...	tapvpwrvgnd...	
20	ERC_MARK1019	UNCONNECTED_PIN	VGND	VGND	
21	ERC_MARK1020	UNCONNECTED_PIN	clkbuf_1	clkbuf_1	
22	ERC_MARK1021	UNCONNECTED_PIN	VGND	VGND	
23	ERC_MARK1022	UNCONNECTED_PIN	tapvpwrvgnd...	tapvpwrvgnd...	
24	ERC_MARK1023	UNCONNECTED_PIN	VGND	VGND	
25	ERC_MARK1024	UNCONNECTED_PIN	clkbuf_1	clkbuf_1	
26	ERC_MARK1025	UNCONNECTED_PIN	VGND	VGND	
27	ERC_MARK1026	UNCONNECTED_PIN	tapvpwrvgnd...	tapvpwrvgnd...	
28	ERC_MARK1027	UNCONNECTED_PIN	VGND	VGND	
29	ERC_MARK1028	UNCONNECTED_PIN	clkbuf_1	clkbuf_1	
30	ERC_MARK1029	UNCONNECTED_PIN	VGND	VGND	
31	ERC_MARK1030	UNCONNECTED_PIN	clkbuf_1	clkbuf_1	
32	ERC_MARK1031	UNCONNECTED_PIN	VGND	VGND	
33	ERC_MARK1032	UNCONNECTED_PIN	clkbuf_1	clkbuf_1	
34	ERC_MARK1033	UNCONNECTED_PIN	VGND	VGND	
35	ERC_MARK1034	UNCONNECTED_PIN	clkbuf_1	clkbuf_1	
36	ERC_MARK1035	UNCONNECTED_PIN	VGND	VGND	
37	ERC_MARK1036	UNCONNECTED_PIN	tapvpwrvgnd...	tapvpwrvgnd...	
38	ERC_MARK1037	UNCONNECTED_PIN	VGND	VGND	
39	ERC_MARK1038	UNCONNECTED_PIN	clkbuf_1	clkbuf_1	
40	ERC_MARK1039	UNCONNECTED_PIN	VGND	VGND	

Figure 64: Marker Browser: *UNCONNECTED_PIN* entries localizing each affected instance.

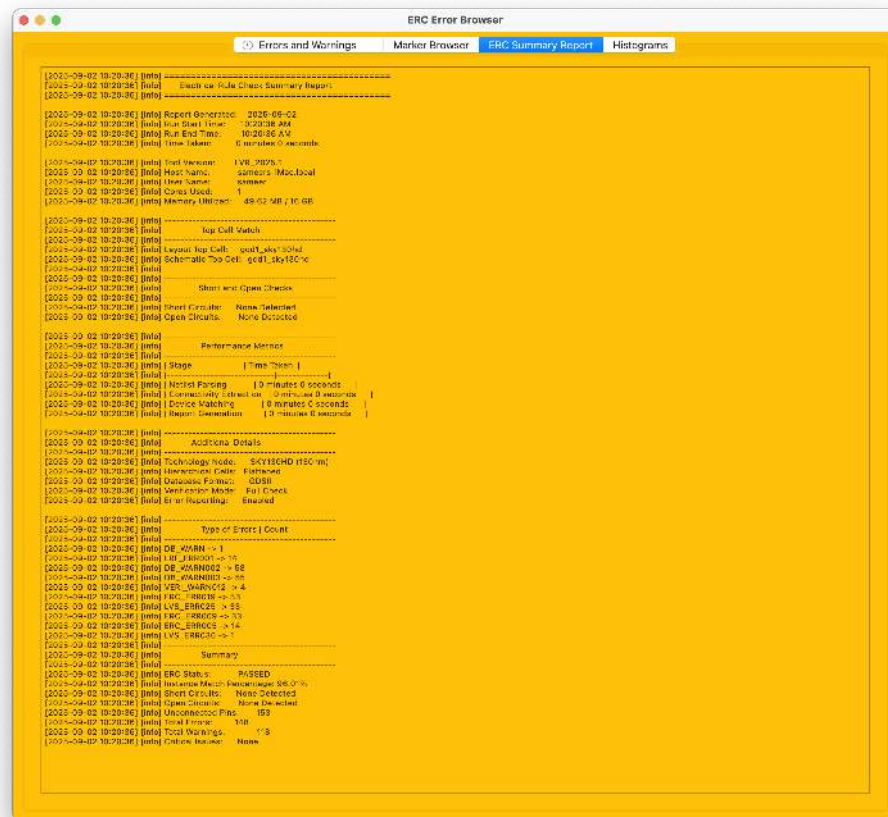


Figure 65: ERC Summary for gcd1. ERC009: counts/time breakdown; failure mode is missing VGND rail.

Figure 66 highlights the engineered difference: the Verilog (right) contains an additional buffer/split cell connected to nets dummy1/dummy2, while the layout-derived netlist (left) ends without it. This is a common negative test used to validate that the LVS deck correctly identifies extra logic in the schematic.

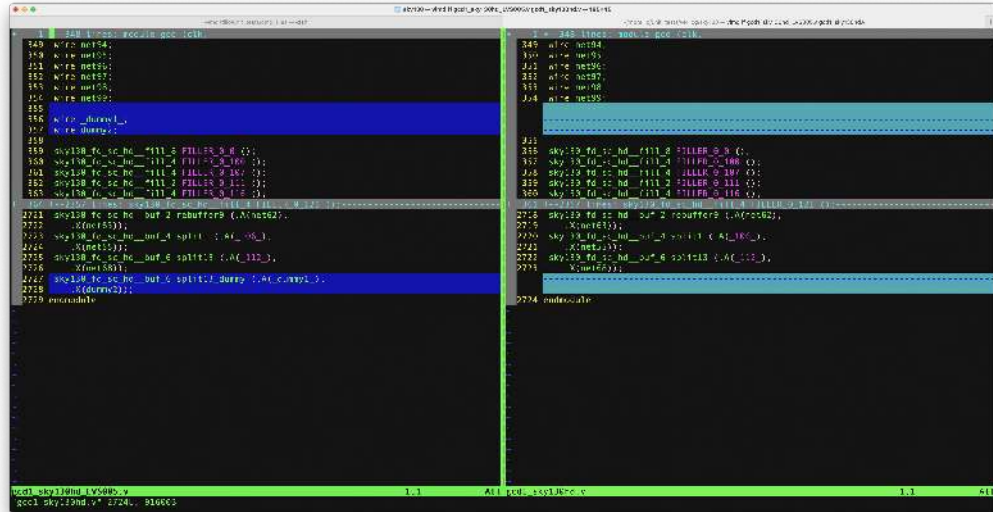


Figure 66: Use case for gcd1_LVS005: a dummy instance is appended to the Verilog only; the layout has no corresponding geometry.

Flow overview. The command file initializes the LVS flow for the SKY130 technology, loads the golden layout (gcd1_sky130hd.gds), and points LVS to a modified Verilog netlist gcd1_sky130hd_LVS005.v that contains the dummy instance. Standard checks are enabled: shorts/opens, port enablement, instance matching, unconnected pins, and macro-library CDL support for sky130 cells. The run is invoked with `lvs gcd1_sky130hd` and summarized with `report_lvs`, after which the GUI is opened for interactive debug.

Command file (gcd1_LVS005.cmd)

```
# initiate tool DB
```

```
#####
set_debug_mode_3049 0
init_tool_db LVS

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db LVS
no_compare 1

#####
# LVS settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
```

```

#lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_LVS005.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####
lvs gcd1_sky130hd
lvs gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
report_lvs

#####
# load gui
#####
load_gui

```

Settings explained (what the script does).

- `init_tool_db` LVS selects the LVS app-mode within the LVR tool.
- `set_technode sky130` chooses the SKY130 PDK context; `read_lrf ../rule/sky130.lrf` loads the LVS rule file.

-
- `set_top gcd1_sky130hd` defines the top design name consistently for layout & schematic.
 - Layout ingestion: `read_gds ../gds/gcd1_sky130hd.gds` parses GDS; `load_db` LVS builds the LVS database. `no_compare 1` skips any geometry-vs-geometry compare during DB load (faster setup for unit tests).
 - Netlist side: `lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_L` points to the *modified* Verilog that includes the dummy instance. `lvs_set_macros_cdl_file_n` provides transistor-level definitions for sky130 cells if/when needed for device recognition.
 - Check controls: ports enabled; shorts and opens checks ON; macro equivalence OFF (`lvs_check_macro 0`) to keep the focus on instance connectivity; matching and unconnected-pin checks ON so schematic-only instances are reported explicitly.
 - Execution: `lvs gcd1_sky130hd` runs the comparison. The duplicate call is harmless and often used in regression harnesses.
 - Reporting/GUI: `report_lvs` writes a textual summary; `load_gui` opens the interactive Error Browser for drill-down.

How to run. From a shell in the run directory:

```
% LVR gcd1_LVS005.cmd
```

Replace the filename as needed. After completion, open the GUI (it auto-opens via the script) to inspect errors/markers.

About Fig. 67. The Errors & Warnings tab shows the key LVS findings for this test: an **unmatched schematic instance** (LVS_ERR005) and the summary message indicating imperfect left-side matching (LVS_ERR030). No geometry shorts/opens are expected here because the layout was not modified—only the Verilog was.

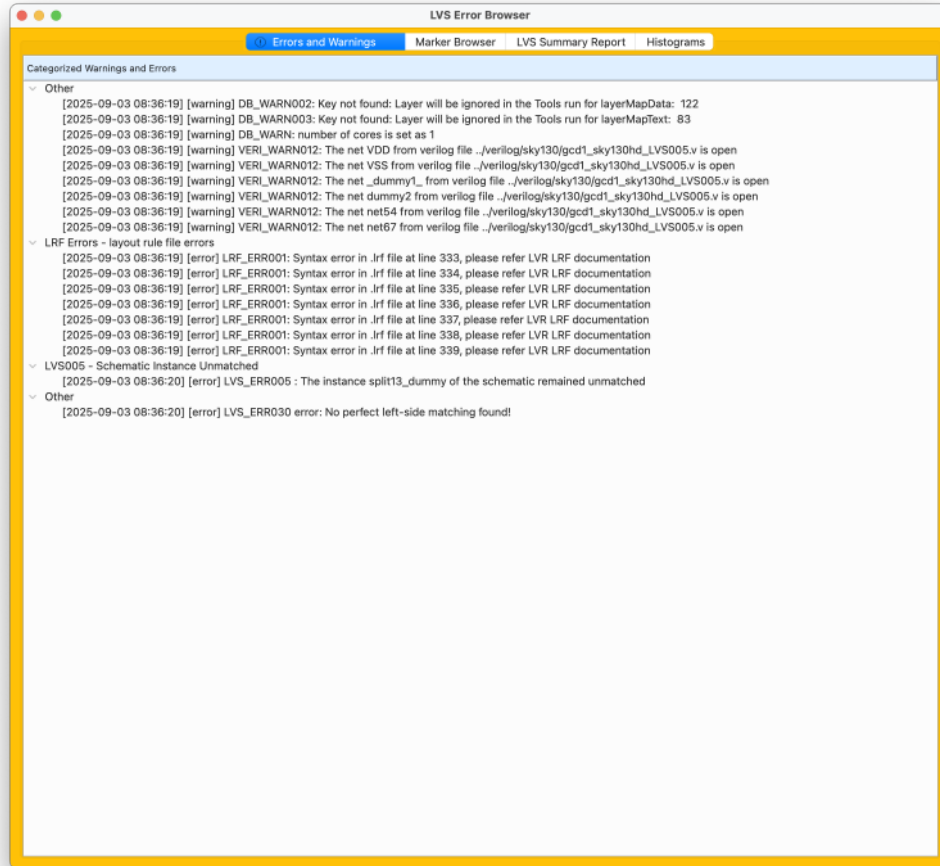


Figure 67: gcd1_LVS005 error log: schematic-only unmatched instance (e.g., split13_dummy) and a “no perfect left-side matching” message; LRF syntax warnings are unrelated to the engineered mismatch.

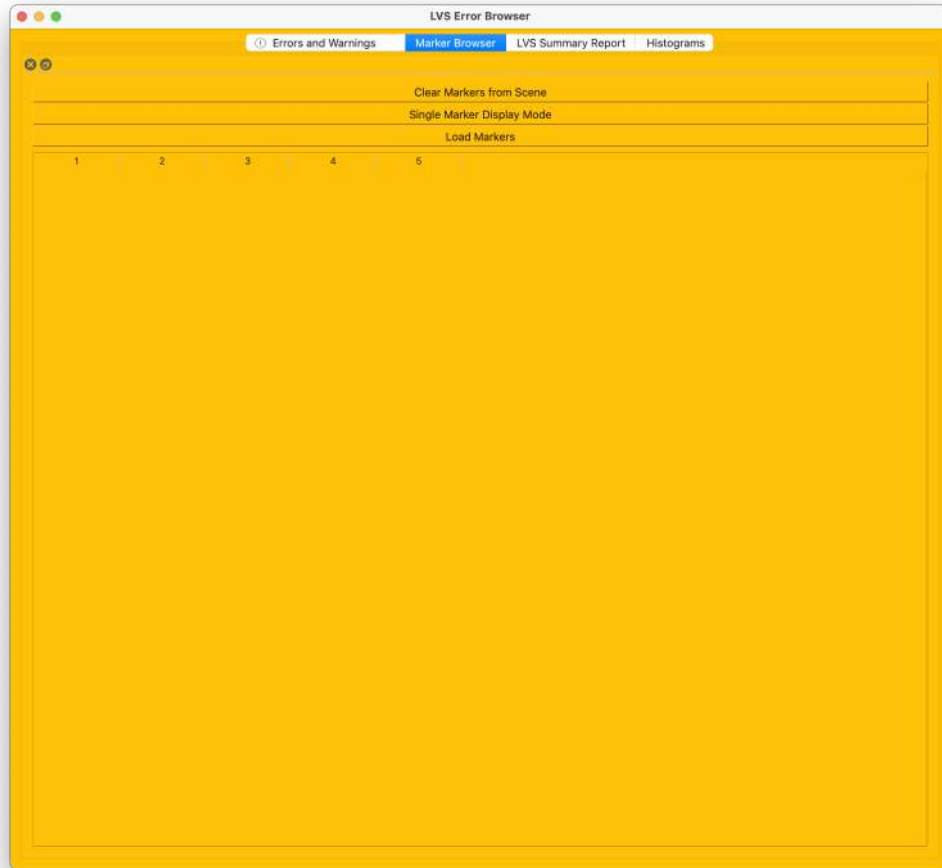


Figure 68: gcd1_LVS005 Marker Browser. For schematic-only mismatches there are typically no geometric markers; the table remains empty until device/shape-level issues are present.

About Fig. 68. Because the discrepancy is purely logical (extra instance in the netlist), no physical error polygons are produced; hence the marker table is empty.



Figure 69: gcd1_LVS005 LVS summary report: match percentage slightly below 100% due to one schematic-only instance; no shorts/opens; categories list includes the unmatched-instance class.

About Fig. 69. The summary confirms overall health of the layout (no shorts/opens) while flagging the intentional mismatch. Instance/pin counts and match per-

centage reflect the extra schematic device.

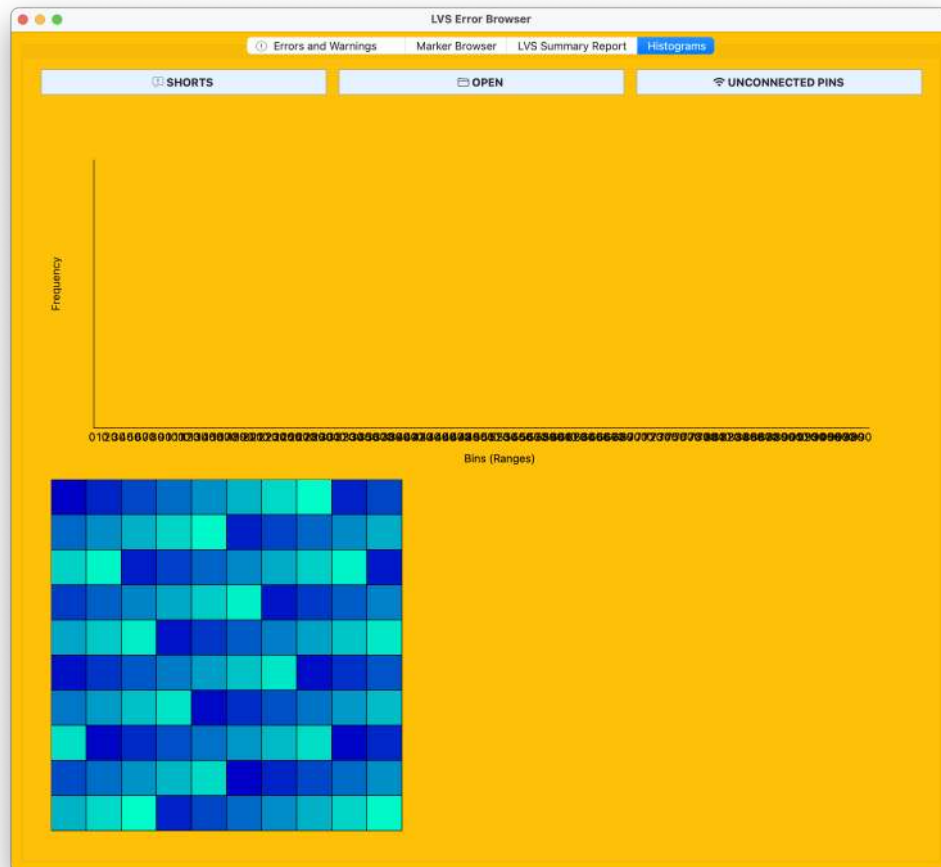


Figure 70: gcd1_LVS005 Histograms tab. With no physical shorts/opens, the distribution is sparse; this view is primarily for ERC-style metrics and remains uneventful for a schematic-only mismatch.

Takeaways. This negative test is useful to validate that the LVS deck and flow will *not* silently pass when extra logic appears in the schematic. The correct remedy is to remove the dummy cell from the Verilog, or equivalently, to ensure that layout and schematic netlists are regenerated from the same

golden source.

7.13 Test Case: gcd1_LVS020 (LVS)

Purpose and scenario This application note demonstrates how the LVS flow flags a top-level *port mismatch* when extra “dummy” ports are added to the Verilog netlist but have no corresponding pins in the layout. The test uses the SKY130 technology and the top cell gcd1_sky130hd. The modified schematic (gcd1_sky130hd_LVS020.v) introduces additional ports (_dummy1, dummy2), which expands the module interface and subsequently affects instance connections. Because the GDS layout still reflects the original interface, device and pin mapping cannot be made one-to-one, leading to LVS mismatches.

Figure 71 (usecase view) highlights the intentional changes on the Verilog side: new ports in the module header and associated internal wires. During LVS, LVR extracts connectivity from the GDS, reads the golden (modified) netlist, and then attempts instance/pin matching. With extra ports present only in the schematic, the tool reports unmatched schematic objects and a lack of perfect left-side matching.

What to expect from LVR Typical messages for this setup include schematic instance unmatched and matching failures (for example, “No perfect left-side matching found”). There are no shorts or opens in geometry; the failure is purely an interface/port-count discrepancy. The error report (Fig. 72) summarizes these violations; the markers view (Fig. 73) is empty because this is not a geometric issue; the summary report (Fig. 74) lists the run configuration and counts; and the histogram tab (Fig. 75) shows no shorts/opens distribution (as expected).

How to fix / expected outcome Restore the original module interface (remove the extra dummy ports) or update the layout to add matching pins and

routing. After the interface is consistent, rerun LVS and verify that instance/pin matching reaches 100% with no unmatched devices.

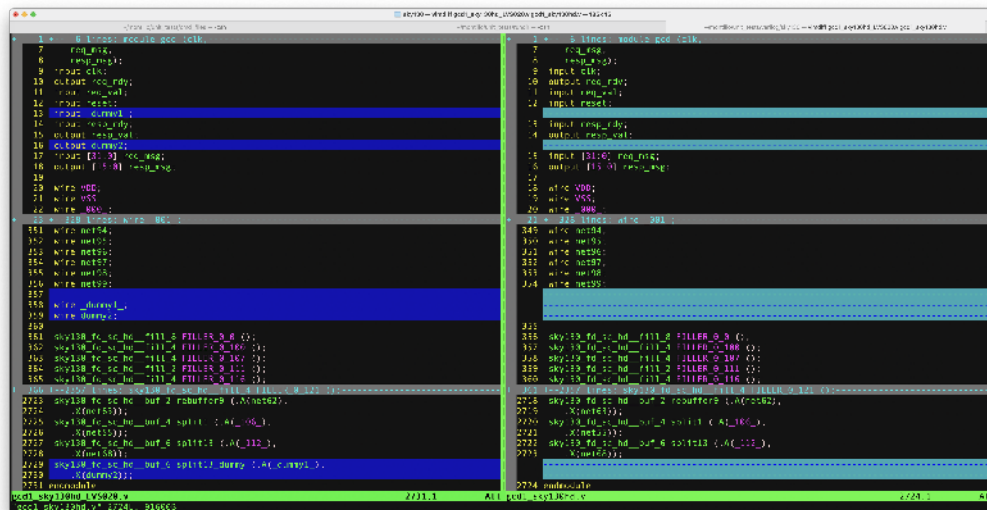


Figure 71: Use case (gcd1_LVS020): Verilog side with extra dummy ports vs. original interface.

Command file (verbatim) The following command file runs LVR in LVS mode for this case.

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db LVS

# set technonlogy
#####
set_technode sky130

# set top module
```

```
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db LVS
no_compare 1

#####
# LVS settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_LVS020.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1
```

```

# call lvs
#####
lvs gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

About the settings (what they do)

- `init_tool_db` LVS selects LVS context inside LVR.
- `set_technode sky130` loads the correct technology (layers, text layers, device defs).
- `set_top gcd1_sky130hd` sets the top cell for both layout extraction and netlist matching.
- `read_lrf` and `read_gds` load rule deck and layout; `load_db` LVS finalizes the DB in LVS mode.
- `no_compare 1` keeps the run single-top focused without secondary compares.
- `lvs_set_verilog_netlist_file_name ..._LVS020.v` points to the *modified* schematic containing extra dummy ports (the core of this test).

-
- `lvs_enable_ports 1` ensures top-level port handling is enforced during matching (critical for this port-mismatch use case).
 - Checks enabled: shorts/opens (geometry sanity), macro off (not macro-based check), matching on (device/topology matching), unconnected pins on (reports pins without mates).
 - `lvs gcd1_sky130hd` launches extraction + matching; GUI can be loaded with `load_gui` for visual inspection.

How to run Place this command file in your run directory and execute:

```
%LVR gcd1_LVS020.cmd
```

Ensure the relative paths to `../rule`, `../gds`, `../verilog/sky130`, and `../spice` are valid inside your Overleaf or local project.

About Fig. 72 This screenshot lists the LVS violations triggered by the extra dummy ports. With ports present only in the schematic, the layout side cannot supply corresponding pins, yielding unmatched schematic instances and non-perfect matching.

About Fig. 73 As this is not a geometry short/open, the marker table is typically empty; the issue is netlist-vs-layout interface disparity.

About Fig. 74 The summary confirms the flow stages, instance and pin statistics, and roll-ups of warnings/errors produced by the mismatch.

7.14 Test Case: `gcd1_LVS017` (LVS)

Context (0). From its name, `gcd1_LVS017` belongs to the **LVS** test family.

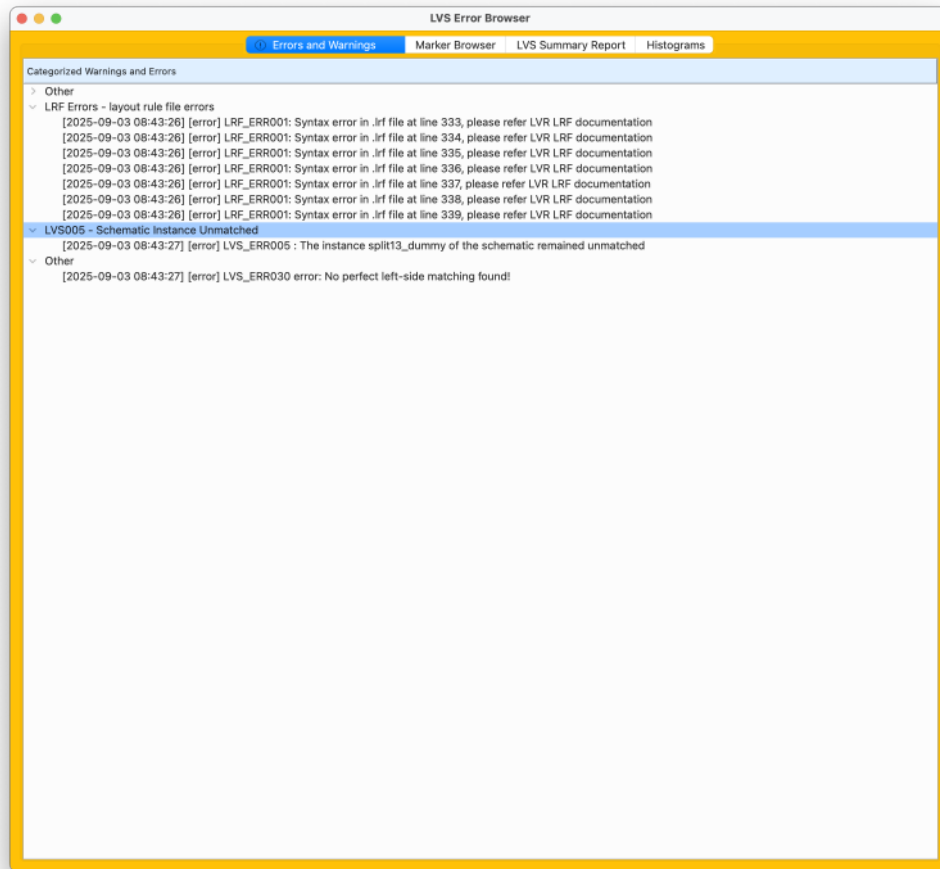


Figure 72: Error report for gcd1_LVS020. Key messages indicate unmatched schematic elements and lack of perfect left-side matching.

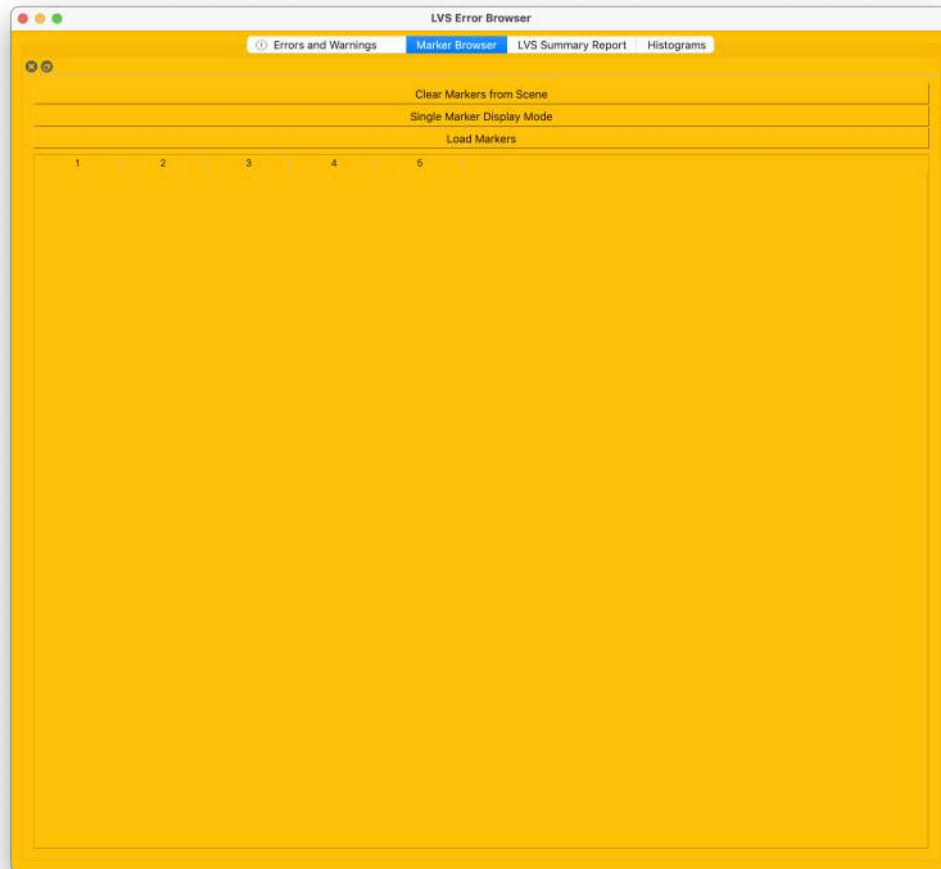


Figure 73: Marker browser for gcd1_LVS020. No geometric markers are expected for a pure port-mismatch scenario.

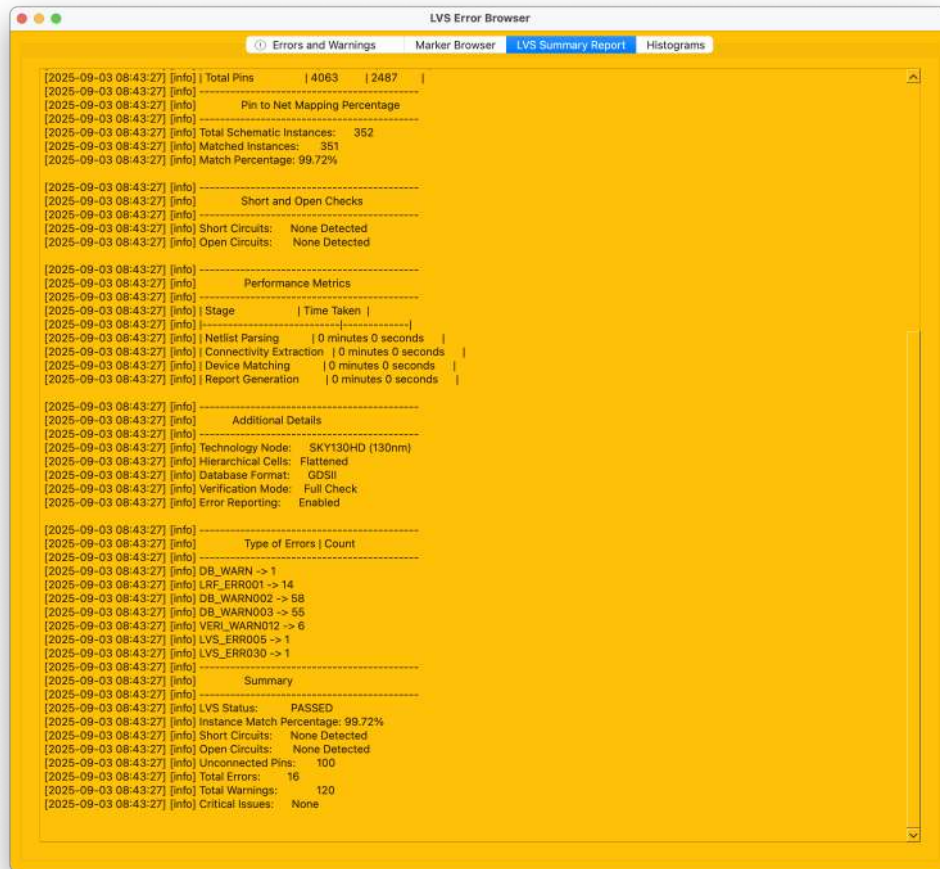


Figure 74: LVS summary report for gcd1_LVS020. Shows technology, run stages, and error counts.

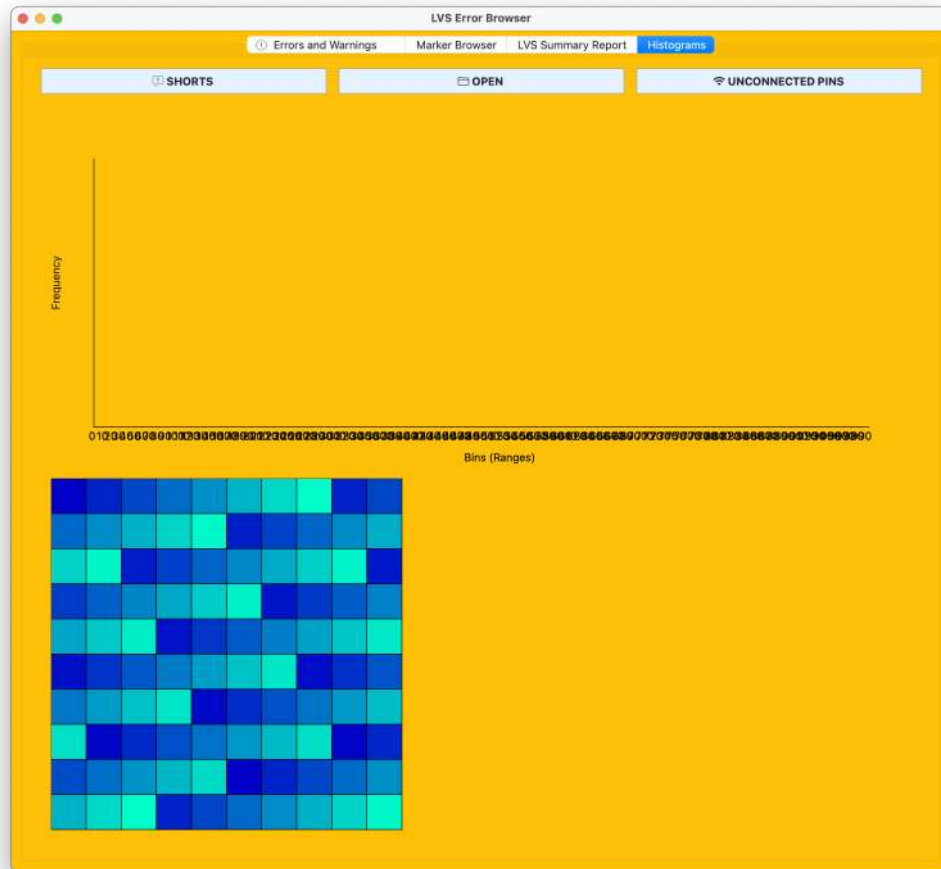


Figure 75: Histogram tab for `gcd1_LVS020`. No short/open distributions appear because the failure stems from port/interface mismatches.

1.1 Description and purpose. This scenario demonstrates an **unconnected pin** condition found by LVS: the layout pin C1 is not connected to any net. In practical terms, the metal shape that should tie the device/symbol pin C1 to a routed net is missing or broken, so the physical connectivity extracted from the GDSII cannot be matched to the logical connectivity in the Verilog/CDL. The goal of this test is to validate that the LVS flow (via the LVR GUI) correctly reports the open pin, localizes it with a marker, and summarizes its impact in the run report.

Figure 76 shows the use case view where pin C1 is visible in the layout window. During LVS, the tool parses the rule file (`sky130.lrf`), reads the design GDS (`gcd1_LVS017.gds`), extracts connectivity, and compares it with the schematic side (Verilog netlist plus macro CDL). Because C1 is floating in the layout, the comparison produces an unmatched/“open” pin diagnostic. This is then echoed in the Error Browser as an *unconnected* pin under the LVS categories and is also recorded in the summary.

To reproduce or extend this case, you can intentionally remove or isolate the C1 metal stub or via stack so that extraction cannot reach any named net. The check set (shorts/opens enabled, matching enabled, ports enabled) is kept minimal and focused so the open pin is the dominant finding. This pattern is common when:

- a pin text is present but the underlying metal is disconnected,
- a via between pin metal and route metal was deleted,
- a last-minute ECO clipped a thin segment near the pin.

1.2 Command file. The run is driven by the following `.cmd` script.

2. Verbatim copy of `gcd1_LVS017.cmd`.

```
# initiate tool DB
```

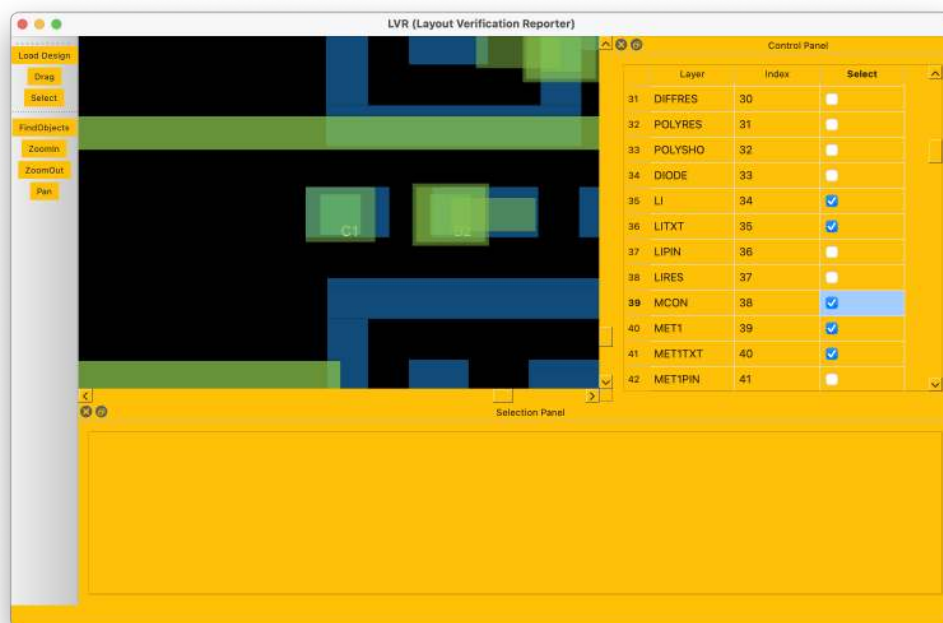


Figure 76: gcd1_LVS017 use case: layout view highlighting pin C1 (floating) that triggers the LVS open-pin error.

```
#####
#set_debug_mode_3049 0
init_tool_db LVS

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_LVS017.gds
load_db LVS
no_compare 1

#####
# LVS settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
```

```

lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####
lvs gcd1_sky130hd
lvs gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

3. Settings explained (LVR/LVS focus).

- `init_tool_db` LVS selects LVS mode in the LVR environment.
- `set_technode sky130` loads the SKY130 technology context used by `read_lrf`.

-
- `set_top gcd1_sky130hd` defines the top cell for extraction and comparison.
 - `read_lrf ../rule/sky130.lrf` provides the layer map, extraction, and comparison rules.
 - `read_gds ../gds/gcd1_LVS017.gds` loads the layout to be extracted.
 - `load_db LVS` activates the LVS database for the current session; `no_compare 1` keeps the flow single-database compare (no auxiliary DB compare modes).
 - **Netlist side:** `lvs_set_verilog_netlist_file_name` points to the gate-level Verilog for the logical reference; `lvs_set_macros_cdl_file_name` supplies transistor-level/CDL models for standard cells and macros; `lvs_set_spice_file_name` sets a run tag.
 - **Checks enabled:** `lvs_enable_ports 1` includes top-level ports in matching, `lvs_check_shorts 1` and `lvs_check_open 1` enable short/open detection, `lvs_check_matching 1` turns on device/net matching, `lvs_check_unconnected_pins 1` specifically reports floating pins—this is the key switch for the C1 finding.
 - Two `lvs gcd1_sky130hd` invocations ensure the database is up to date before GUI/report viewing.
 - `load_gui` opens the LVR GUI for browsing errors, markers, and summary.

4. How to run. Invoke the flow from your shell:

```
% LVR <cmd_file.cmd> e.g., % LVR gcd1_LVS017.cmd
```

This executes the script, generates the error/summary data, and opens the LVR GUI for interactive debug.

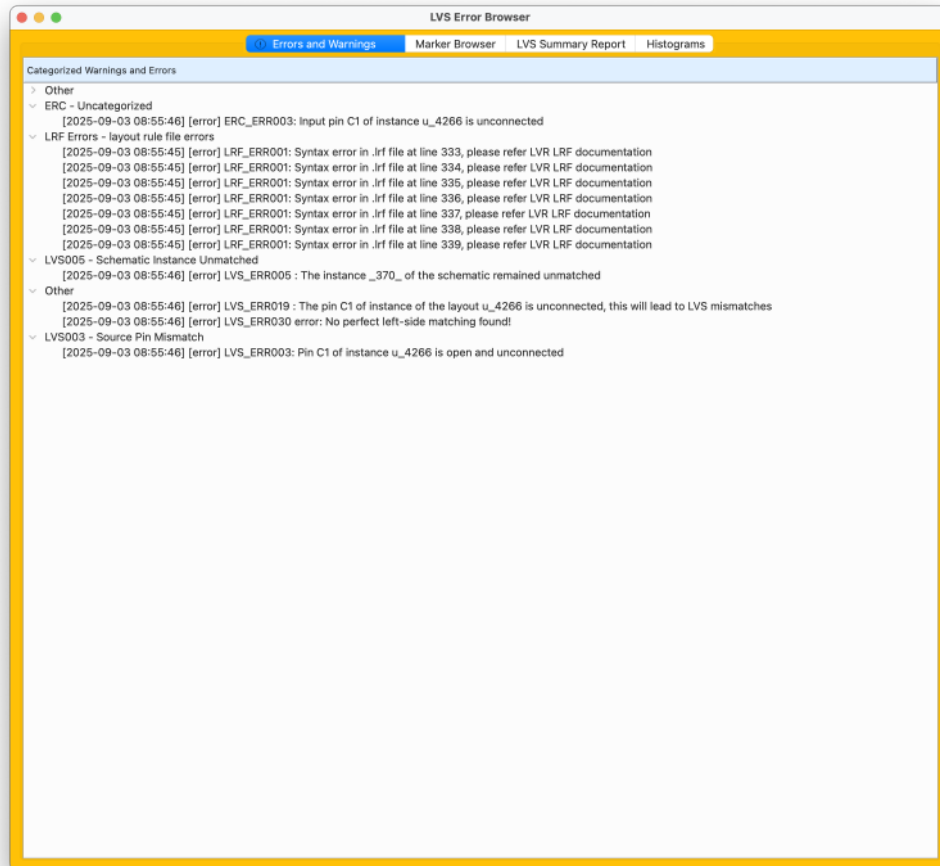


Figure 77: gcd1_LVS017 error report: the LVS Error Browser flags Input pin C1 of instance u_4266 is unconnected, and shows related “Source Pin Mismatch / open” messages.

6. Image description (Error Browser). Figure 77 shows the Error Browser categories. Under *ERC – Uncategorized* and *LVS003/005* you can see the explicit diagnostics that pin C1 is open in layout, leading to LVS mismatches and no perfect left-side matching.

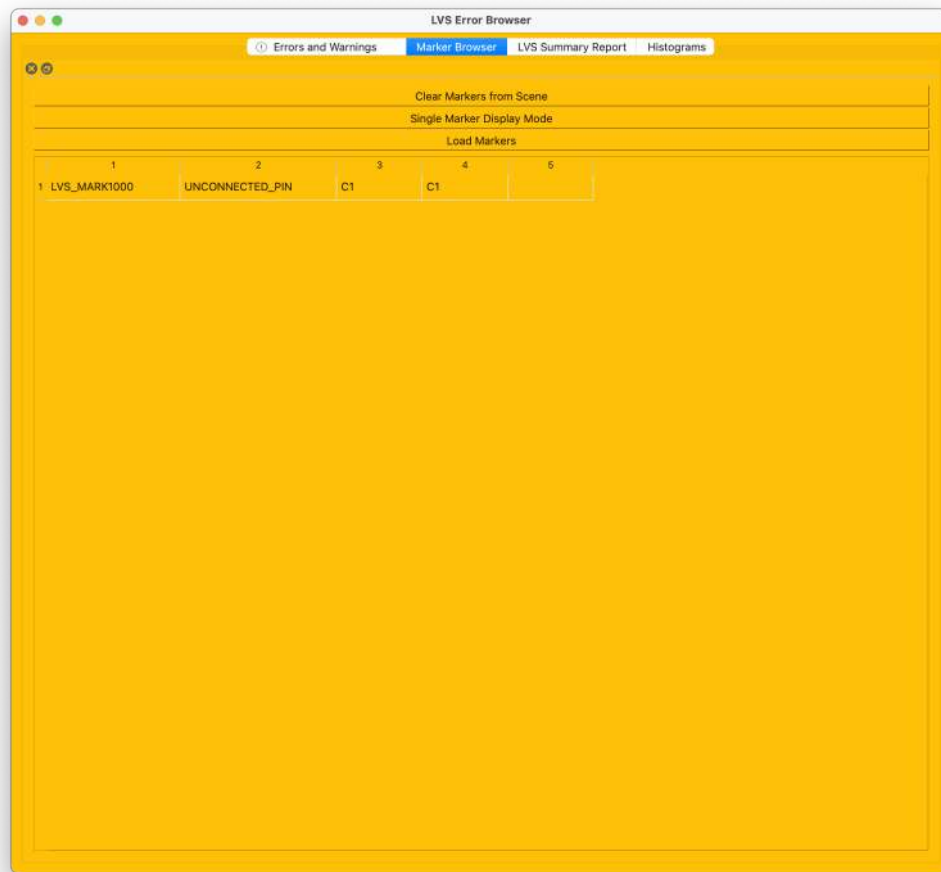


Figure 78: gcd1_LVS017 marker list: one UNCONNECTED_PIN marker for pin C1.

8. Image description (Marker Browser). Figure 78 lists the single marker generated for this case. Selecting it in the GUI centers the view on C1 so you can inspect the missing metal/via connection.

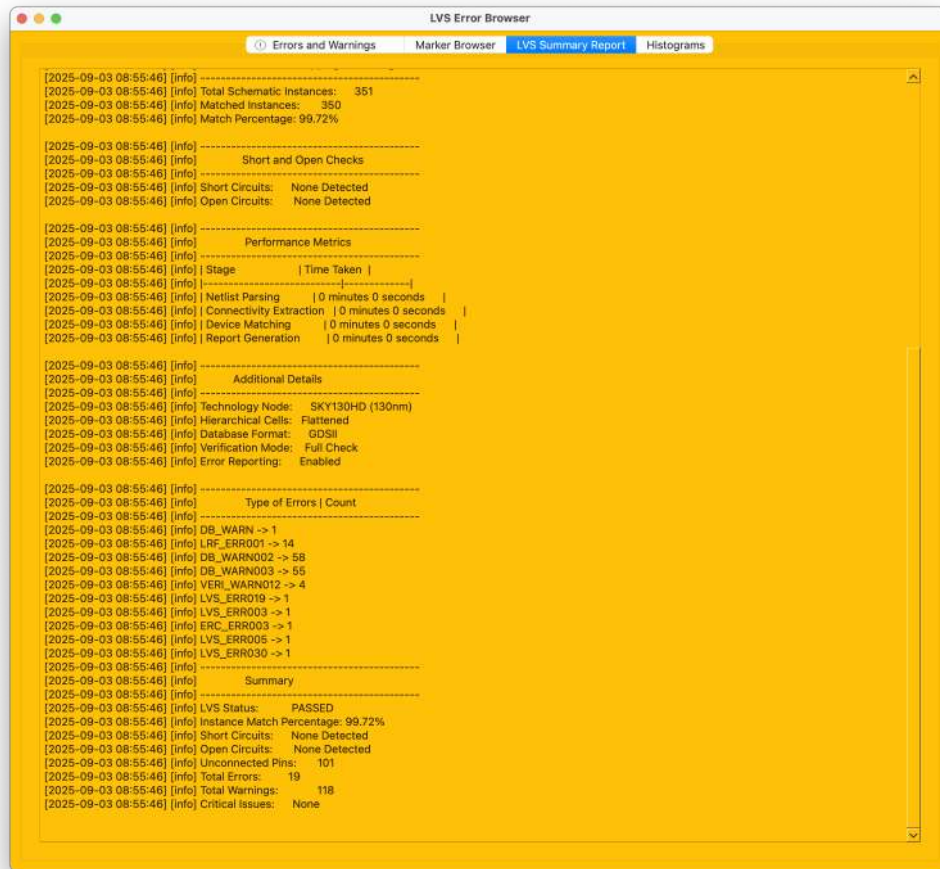


Figure 79: gcd1_LVS017 summary: run metadata, technology, and counts; shorts/opens show none global, while unconnected pins reflects the C1 issue.

10. Image description (Summary Report). Figure 79 captures the overall metrics (node, database, verification mode) and the tallies. Even when global “Short Circuits” and “Open Circuits” are none, LVS still reports the specific unconnected pin, which is the actionable detail for this testcase.

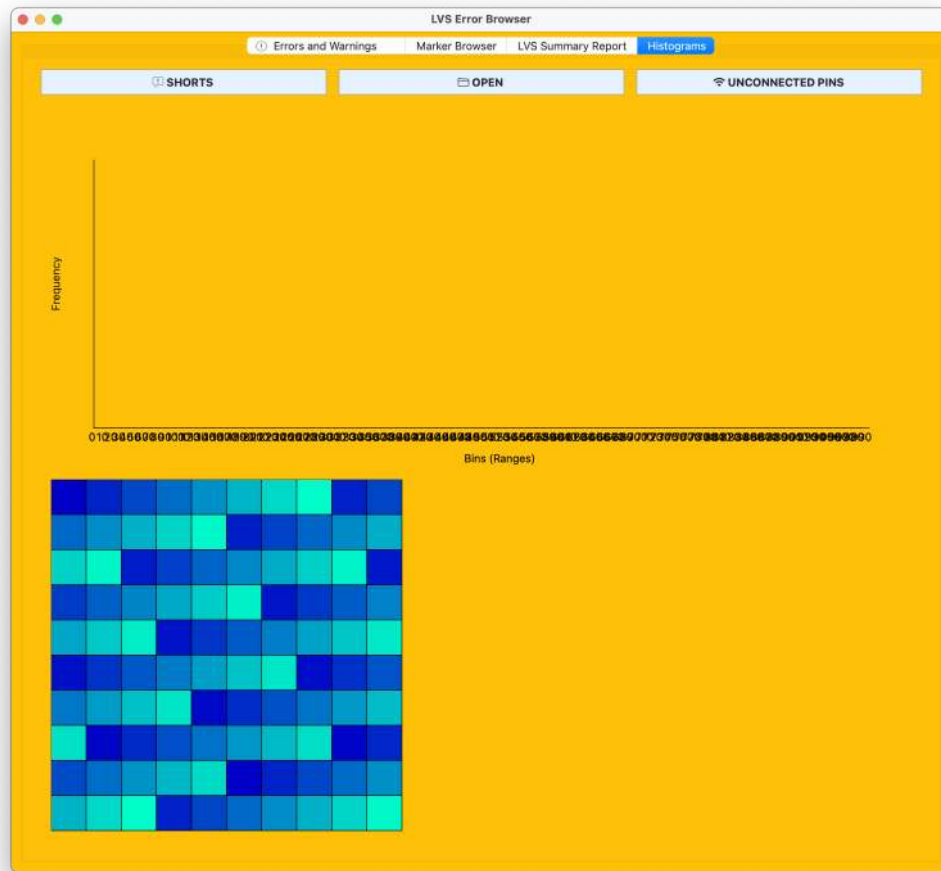


Figure 80: gcd1_LVS017 histogram: distribution widget for error classes (no shorts/opens bars; case is dominated by the single unconnected pin).

12. Image description (Histogram). Figure 80 shows the histogram/heatmap panel. As expected for an isolated open pin, there are no short/open bars; the

error population is minimal and concentrated in the unconnected-pin class.

7.15 Test Case: gcd1_LVS018 (LVS)

Purpose and use case. This experiment demonstrates an LVS “open net” condition created by intentionally deleting a short metal segment on routing layer 68/20 (SKY130 MET2) that carries the clock net `clk`. When a conductive segment is removed, the physical connectivity extracted from the GDS splits the logical net into multiple islands; LVS then reports an *open* because the schematic shows one connected net while the layout shows two (or more) disconnected parts. Figure 81 illustrates the use case: a small MET2 run between the `clk` pin of a buffer and the trunk route was deleted, breaking continuity while leaving the rest of the geometry intact.

Operationally, this check is valuable for proving your signoff flow will flag missing vias, dropped jogs, or trimmed metal stubs that often creep in during ECOs, antenna fixes, or manual edits. Because the open occurs on a high-fanout signal (`clk`), it is easy to visualize in the LVR viewer and the error propagates to a single, high-signal-integrity marker.

Test setup summary. The test runs the Layout Verification Reporter (LVR) in LVS mode on SKY130, top cell `gcd1_sky130hd`. The `.lrf` rules and edited GDS (`gcd1_LVS018.gds`) are loaded; matching is performed against the golden Verilog netlist. Core LVS options enable checks for shorts, opens, matching, and unconnected pins. The run opens the GUI for interactive debug.

Command file (`gcd1_LVS018.cmd`). **Verbatim listing:**

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db LVS
```



Figure 81: Use case for **gcd1 LVS018**: a short MET2 (68/20) segment on clk is deleted, breaking the net.

```

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_LVS018.gds
load_db LVS
no_compare 1

#####
# LVS settings
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1

```

```

lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####
lvs gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

What these settings do (LVR in LVS mode).

- `init_tool_db` LVS selects LVS context so the tool extracts connectivity from GDS and compares it to the logical netlist.
- `set_technode sky130` loads technology indices (e.g., MET2 $\equiv$ 68/20), text layers, and pin layers used later in the viewer.
- `set_top gcd1_sky130hd` defines the top cell for both extraction and device matching.
- The block with `read_lrf` and `read_gds` supplies the rule deck and the

edited layout where the MET2 gap on `clk` was introduced. `load_db` LVS finalizes database preparation.

- `no_compare 1` keeps the run single-sided for certain prechecks; the subsequent `lvs ...` commands still perform device/net comparison against the provided Verilog.
- The LVS options:
 - `lvs_check_open 1` is the key for this testcase—enables open-net detection when a layout net is fragmented.
 - `lvs_check_shorts 1`, `lvs_check_unconnected_pins 1` and `lvs_check_matching 1` provide complementary coverage.
 - `lvs_enable_ports 1` ensures top-level port matching (useful when the break is near IO pins).
 - `lvs_set_verilog_netlist_file_name ...` points at the golden RTL-to-GDS netlist used for comparison.
 - `lvs_set_macros_cdl_file_name ...` provides primitive device definitions for leaf cells.
- `lvs gcd1_sky130hd` runs extraction, device matching, and report generation.
- `load_gui` launches the interactive viewer to inspect the open marker and the broken islands.

How to run. From a shell in the directory containing this command file:

```
% LVR gcd1_LVS018.cmd
```

After the run completes, open the GUI (auto-launched by `load_gui`) and use *Marker Browser* to load the markers, then *FindObjects* to zoom to the open on `clk`.

Reports and screenshots. Figure 82 shows the Errors & Warnings panel. The key message is “*LVS_ERR018: Open detected! Net clk is broken into 2 disconnected parts*”. This confirms that the schematic contains a single `clk` net while the extracted layout has two islands.

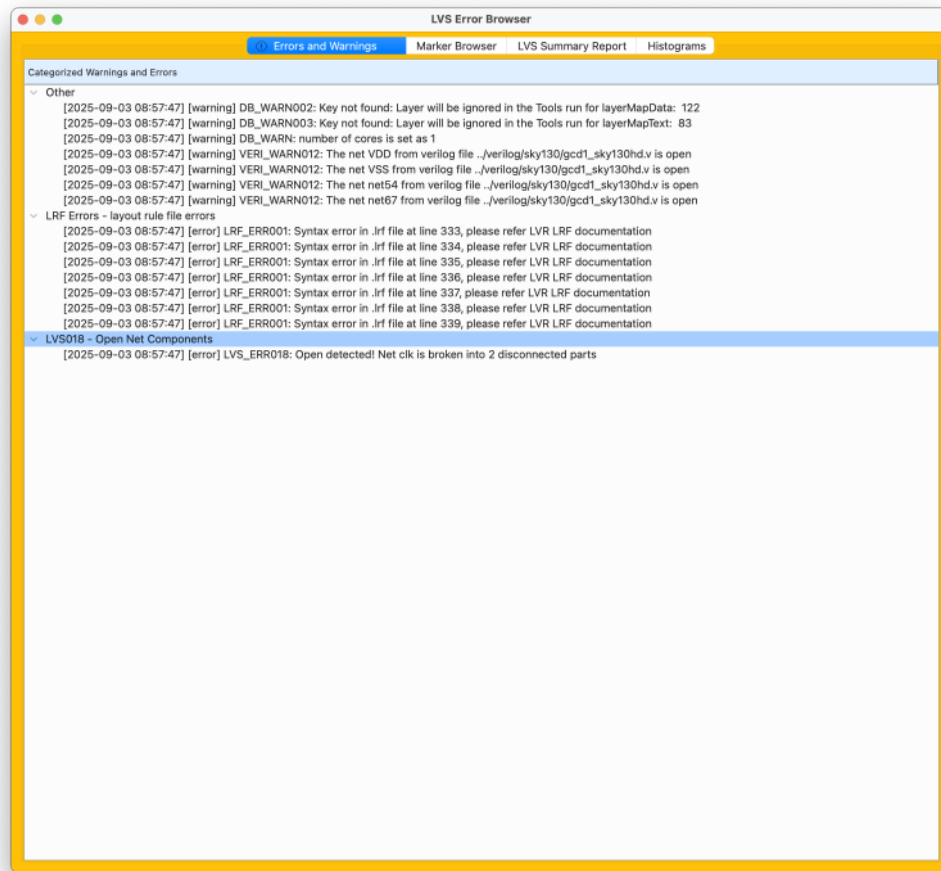


Figure 82: **gcd1_LVS018** error report. LVS flags an *open* on `clk` caused by the missing MET2 segment.

Figure 83 lists the markers found. There is a single OPEN marker (`LVS_MARK1000`) tied to net `clk`. This helps quickly navigate to the break location.

Figure 84 is the run summary. Note that *Open Circuits: Open Detected* is

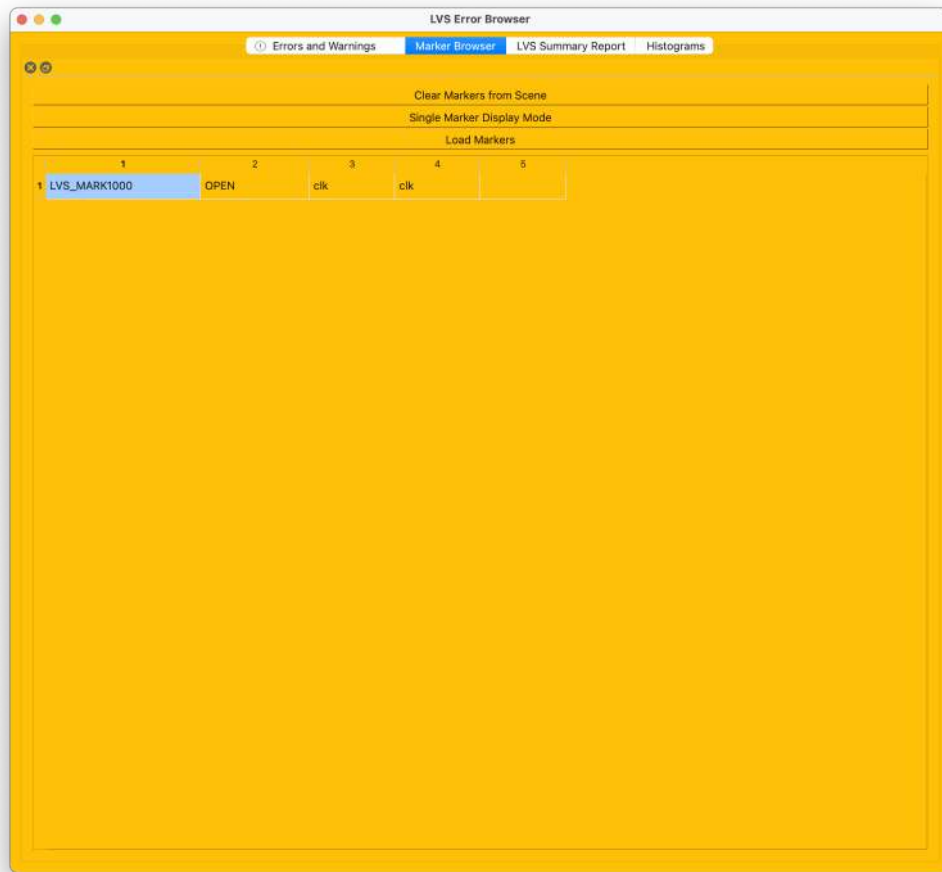


Figure 83: Marker Browser for **gcd1_LVS018**. One OPEN marker on net clk.

set, while shorts are absent. Match percentage remains 100% for instances, indicating the issue is purely net connectivity.

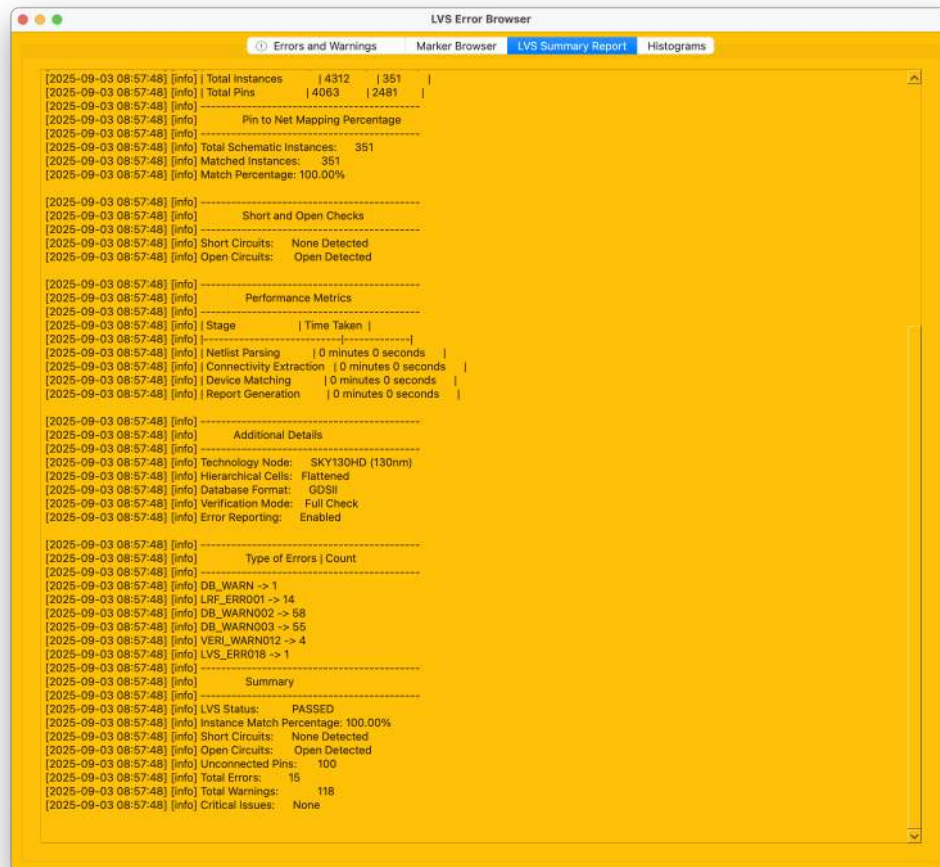


Figure 84: Summary for **gcd1_LVS018**. Instances match; an open circuit is detected.

Figure 85 shows the histogram view. As expected for a single open, the plot is sparse for the *Open* category with no activity in *Shorts*. The heatmap provides a quick qualitative check that errors are not widespread.

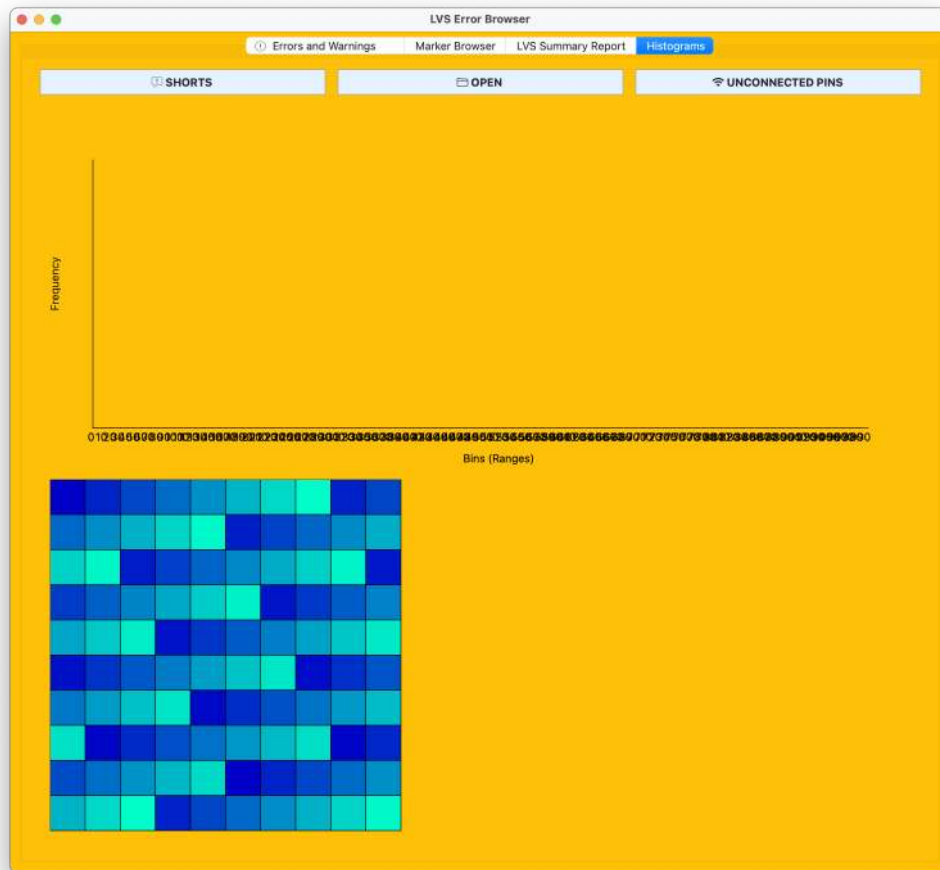


Figure 85: Histogram for **gcd1.LVS018**. One open dominates; no shorts.

Debugging tips. In the LVR viewer, enable layers LI, MET1, and MET2 (indices 34, 39, 44 in SKY130) along with MET1TXT/MET2TXT to see pin labels. Selecting the OPEN marker highlights the two disconnected `clk` islands. Restore the missing segment (or via) and re-run the script; the open should disappear and the summary will report “Open Circuits: None Detected.”

7.16 Test Case: `gcd1_LVS019` (LVS)

Purpose and Scenario

This usecase exercises the Layout Versus Schematic (LVS) flow by intentionally creating an *unconnected input pin* in the layout: the top-right pin A is not connected to any net on Metal1 (Sky130 layer 68/20). The goal is to demonstrate how the LVR/LVS engine flags an open pin and how the GUI helps you navigate to the exact physical location.

Figure 86 shows the layout view around the failing region. In this experiment, the polygon for the net that should land on pin A has been removed so the device’s A terminal is left floating. The check is run with standard LVS options enabled: shorts/opens, matching, and unconnected pin reporting. Typical signatures you should expect in the reports are:

- An “Unconnected Pin” marker for pin A.
- An error entry indicating the source pin mismatch or open pin on the layout side.
- Summary page showing LVS status *PASSED* but with “Unconnected Pins” reported (no shorts; opens refer to global connectivity, whereas an isolated floating terminal is tracked under unconnected pins).

Operationally, this scenario is valuable for signoff because floating control/data pins often slip through simulation but create undefined logic levels in silicon. The recipe below (Section 7.16) provides a minimal command file to reproduce and study the behavior.



Figure 86: gcd1_LVS019_usecase16.png

Command File (gcd1_LVS019.cmd)

The following is the exact command file used to run this test.

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db LVS

# set technology
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_LVS019.gds
load_db LVS
no_compare 1

#####
# LVS settings
```

```
#####
lvs_set_datc_flow 1
lvs_set_spice_file_name test
lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd.v
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
lvs_enable_ports 1
lvs_check_shorts 1
lvs_check_open 1
lvs_check_macro 0
lvs_check_matching 1
lvs_check_unconnected_pins 1

# call lvs
#####
lvs gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui
```

What the Settings Do (LVR/LVS Options)

The script initializes the LVS database (init_tool_db LVS) and targets the Sky130 node. The top design is gcd1_sky130hd. Layout data come from

gcd1_LVS019.gds; rules are loaded via sky130.lrf. With load_db LVS and no_compare 1, the run is configured for direct LVS without separate golden extraction comparison.

The lvs_set_* options control matching and reporting:

- lvs_set_verilog_netlist_file_name points to the schematic netlist used as the source of truth.
- lvs_check_shorts/lvs_check_open enable physical shorts/opens detection.
- lvs_check_matching performs device/topology matching between layout and schematic.
- lvs_check_unconnected_pins 1 is crucial here—it reports floating or missing connections on device pins (e.g., pin A).
- lvs_enable_ports 1 ensures top-level ports are treated as connectivity anchors for matching.

The run is invoked by lvs gcd1_sky130hd. Reports are generated (interactive GUI via load_gui) so you can browse errors and markers, then cross-probe into the layout using the LVR viewer (common layers of interest for Sky130: LI/LITXT, MET1/MET1TXT, and MCON).

How to Run

From your LVR/LVS shell, execute:

```
%LVR <gcd1_LVS019.cmd>
```

This will parse the rule and layout, load the schematic netlist, run LVS, and bring up the GUI. Use the Marker Browser to jump directly to the “UNCONNECTED_PIN A” marker.

Results and Reports

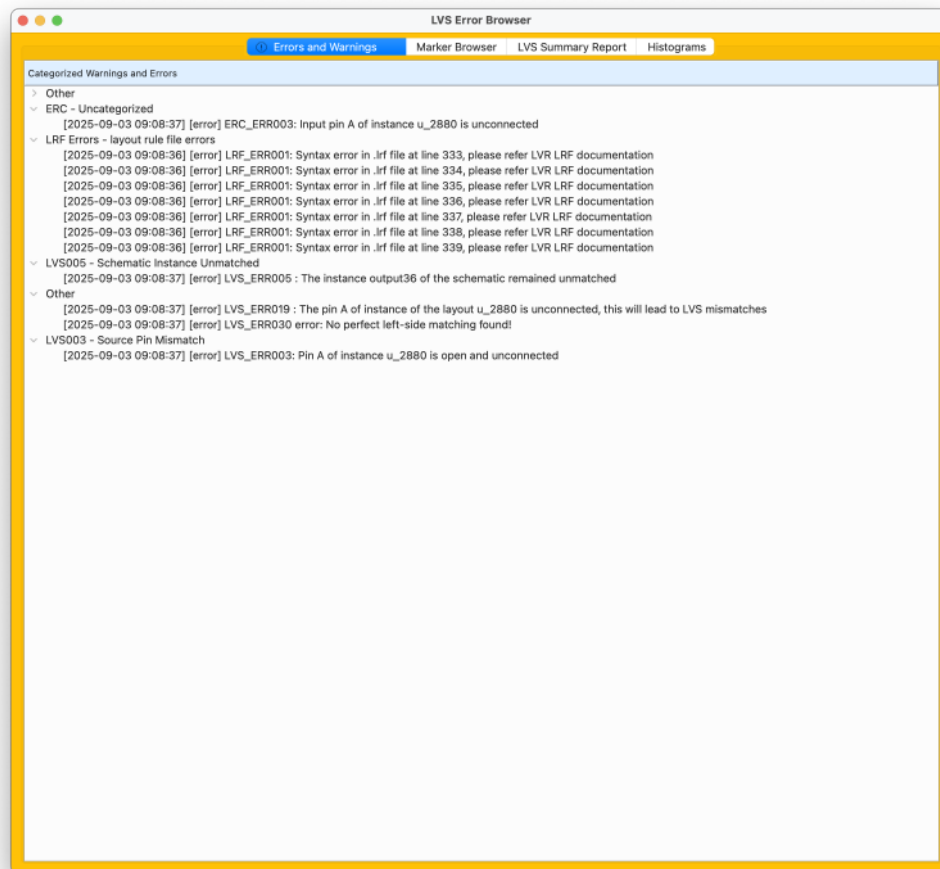


Figure 87: gcd1_LVS019_err_rpt.png

Figure 87 lists the primary issues for this run. You should see an entry indicating that pin A is open/unconnected on a layout instance (often also echoed as a source pin mismatch). No global shorts are reported.

Figure 88 shows the Marker Browser summary. There is a single marker of type UNCONNECTED_PIN for pin A, which you can double-click to navigate to in the layout.

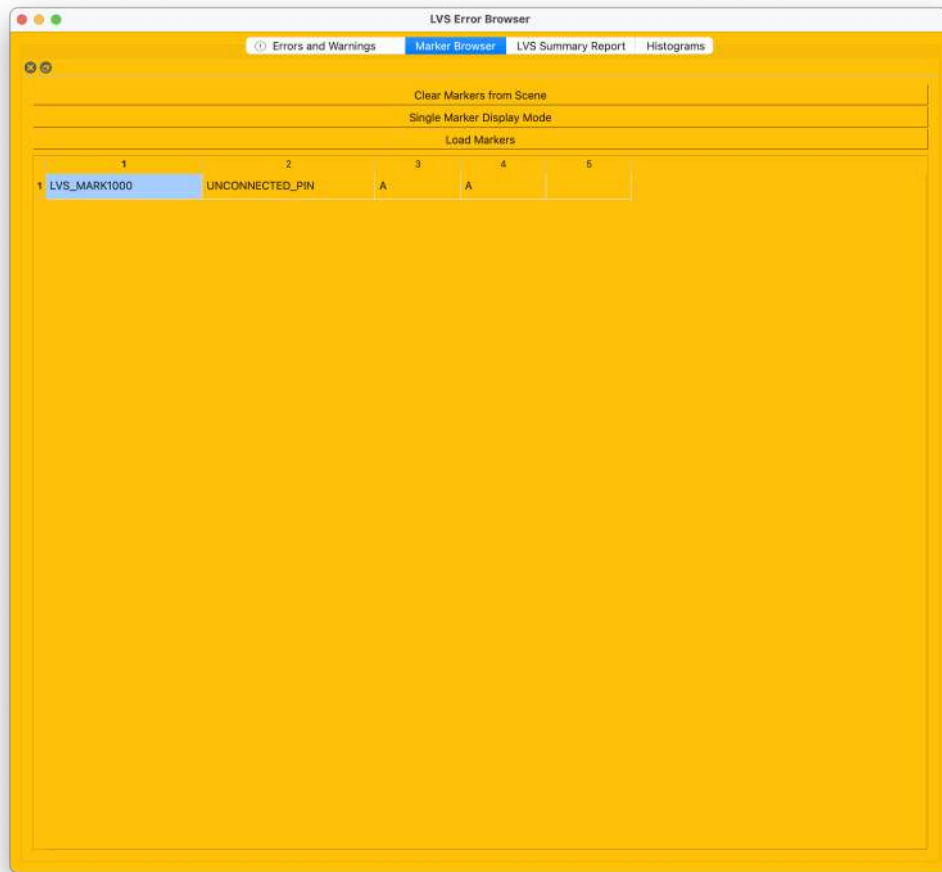


Figure 88: gcd1_LVS019_mrk_rpt.png

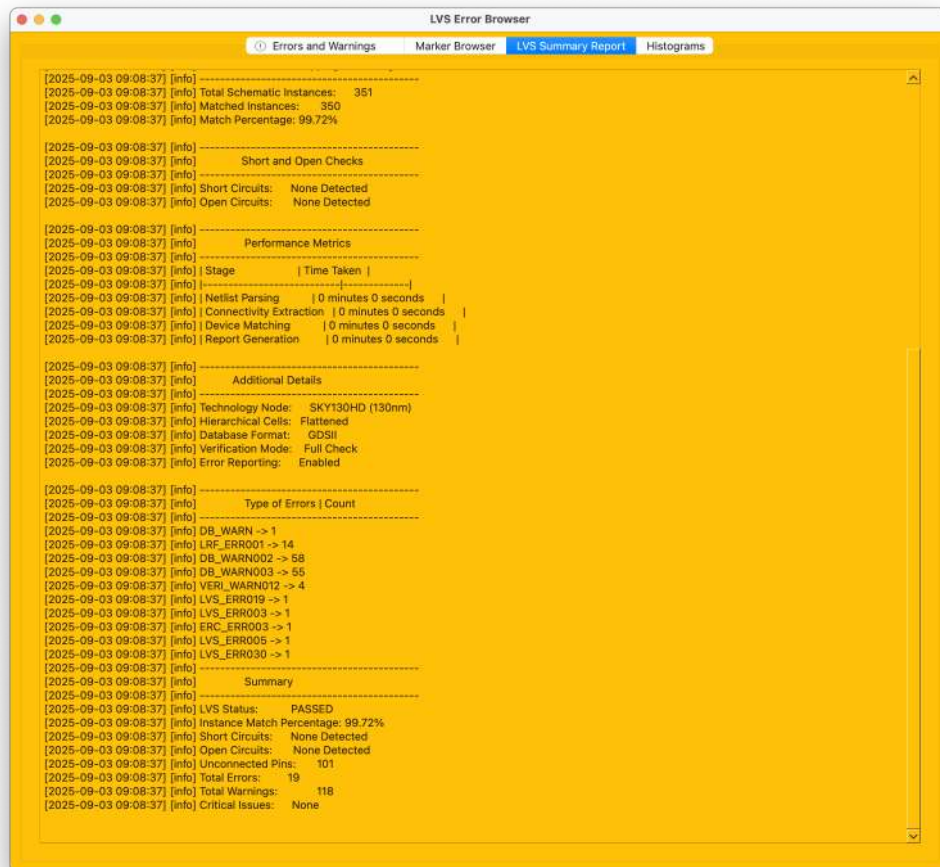


Figure 89: gcd1_LVS019_sum_rpt.png

The overall run statistics in Figure 89 show LVS status *PASSED* with very high instance match percentage. “Unconnected Pins” is non-zero due to the floating A pin; shorts/opens remain clean.

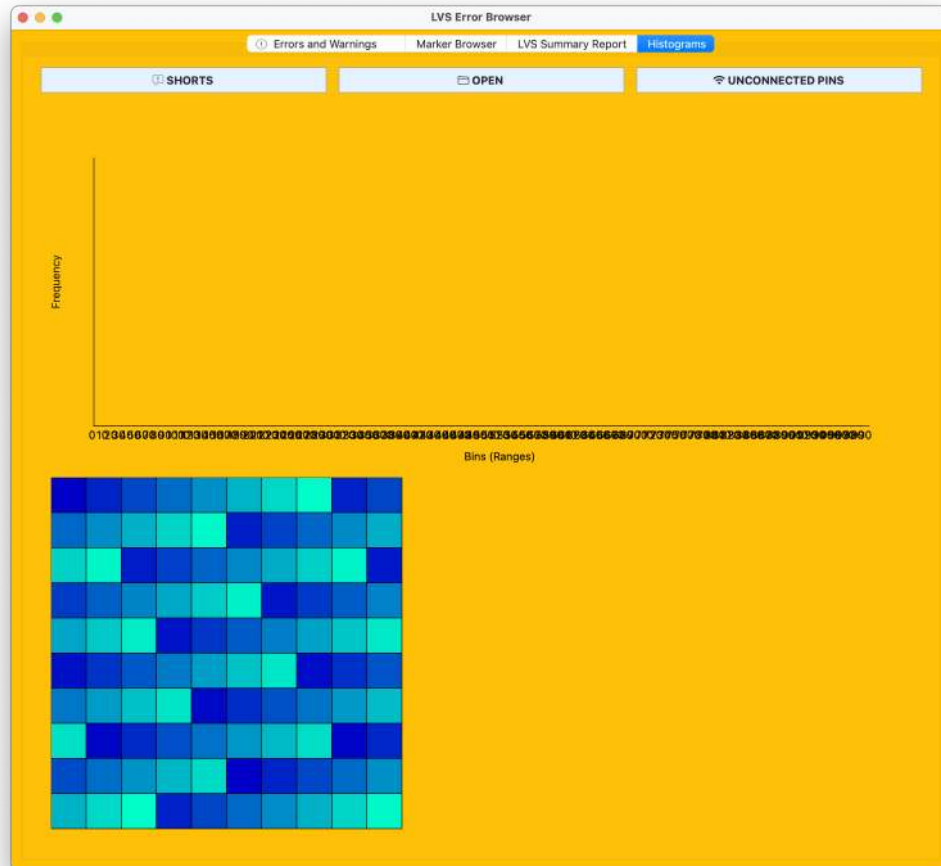


Figure 90: gcd1_LVS019_histo_rpt.png

Figure 90 presents the histogram view. Because this testcase isolates a single unconnected pin scenario, the histogram contains no shorts, and the open category reflects only the localized pin-level condition rather than a global open net.

7.17 Test Case: gcd1_XOR001 (XOR)

What this test is (Step 0). From its name *gcd1_XOR001*, this check belongs to the **XOR** category. So we set `$context = XOR`.

Purpose and scenario (Step 1 & 1.1). This application note demonstrates how an XOR check flags unintended geometry changes between two layouts. In this testcase an **extra diffusion (DIFF) polygon** is intentionally added to the “test” GDS while the “golden” GDS remains clean. The XOR engine compares both databases and reports polygons that exist in one but not the other. The added DIFF shape is therefore highlighted as a mismatch. The use-case view in Fig. 91 shows a dense layout window with DIFF selected in the layer control panel; the extra polygon is what ultimately drives the XOR error and the subsequent summary shown later.

Command file (Step 1.2, 2 & 2.1). Below is a verbatim copy of *gcd1_XOR001.cmd*. It reads the Sky130 rules, the modified GDS (*gcd1_XOR001.gds*) and the golden reference GDS (*gcd1_sky130hd.gds*), loads the XOR database, and runs `xor_check`. GUI is prepared to display XOR results.

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db XOR

# set techonlogy
#####
set_technode sky130

# set top module
#####
```




Figure 91: gcd1_X0R001_usecase17.png: Use-case snapshot—XOR visualization with DIFF layer enabled.

```

set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_XOR001.gds
read_gds2 ../gds/gcd1_sky130hd.gds
load_db XOR
no_compare 1

#####
# XOR settings
#####
lvs_set_datc_flow 1
#lvs_set_spice_file_name test
#lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_SVS001A.v
#lvs_set_verilog_netlist2_file_name ../verilog/sky130/gcd1_sky130hd_SVS001B.v
#lvs_set_macros_cdl_file_name ../spice/sky130.cdl
#lvs_enable_ports 1
#lvs_check_shorts 1
#lvs_check_open 1
#lvs_check_macro 0
#lvs_check_matching 1
#lvs_check_unconnected_pins 1

```

```

# call lvs
#####
xor_check gcd1_sky130hd
xor_check gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
set_gui_xor_result 1
#load_gui

```

How the settings drive the run (Step 3). Key points from the command file:

- **Two layouts are loaded:** `read_gds` ingests the “test” layout with the extra DIFF polygon, while `read_gds2` loads the golden reference. Using both is essential for polygon-wise comparison.
- **XOR database:** `load_db XOR` sets the database mode so subsequent operations are interpreted as XOR, not LVS/ERC/DRC.
- **Rule deck:** `read_lrf ../rule/sky130.lrf` supplies Sky130 layer map and tech context (layer names like DIFF) used to normalize both layouts before comparison.
- **Engine invocation:** `xor_check gcd1_sky130hd` runs the XOR on the

named top cell. Running it twice is harmless; many flows do this to ensure the UI is synchronized with results.

- **GUI prep:** `set_gui_xor_result 1` instructs the GUI to present XOR mismatches upon opening, making it easy to browse markers on layers such as DIFF.

Together, these settings isolate true geometric deltas. Any polygon present only in the test (e.g., the added diffusion) will be reported as an *XOR mismatch*.

How to run (Step 4). Execute the command file from your LVR/XOR shell as:

`%LVR <cmd_file.cmd>`

For this testcase: `%LVR gcd1_XOR001.cmd`. The reports and GUI will then reflect the XOR results.

Error report (Step 5 & 6). Fig. 92 shows the Errors & Warnings view listing an *XOR mismatch* on layer DIFF. This corresponds to the single-sided diffusion polygon we added; since it exists only in the test layout, the XOR comparison flags it.

Marker browser (Step 7 & 8). Fig. 93 lists the generated XOR markers (each an occurrence of a geometry mismatch). You can click a row to zoom to the exact polygonal difference in the viewer; for this testcase they concentrate on DIFF.

Summary report (Step 9 & 10). Fig. 94 is the run summary. It records the **XOR Status = MISMATCH** and lists the count of XOR errors by layer (e.g., entries for DIFF). It also captures timing/stats for parsing, layer comparison, and report generation for reproducibility.

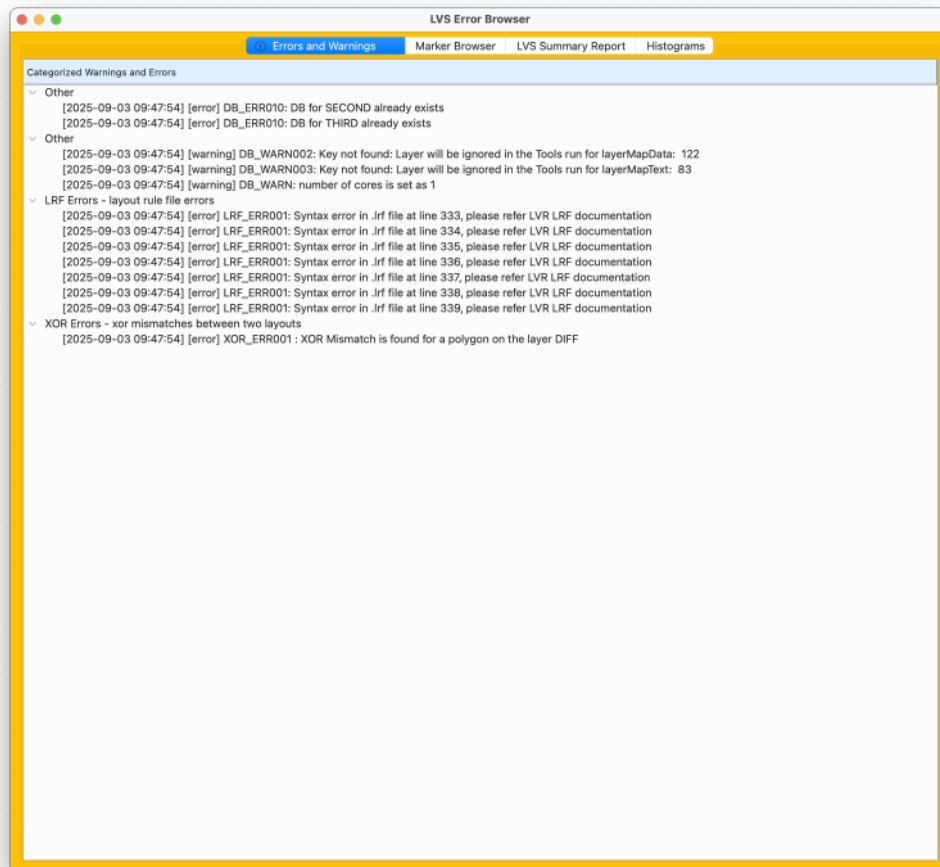


Figure 92: gcd1_X0R001_err_rpt.png

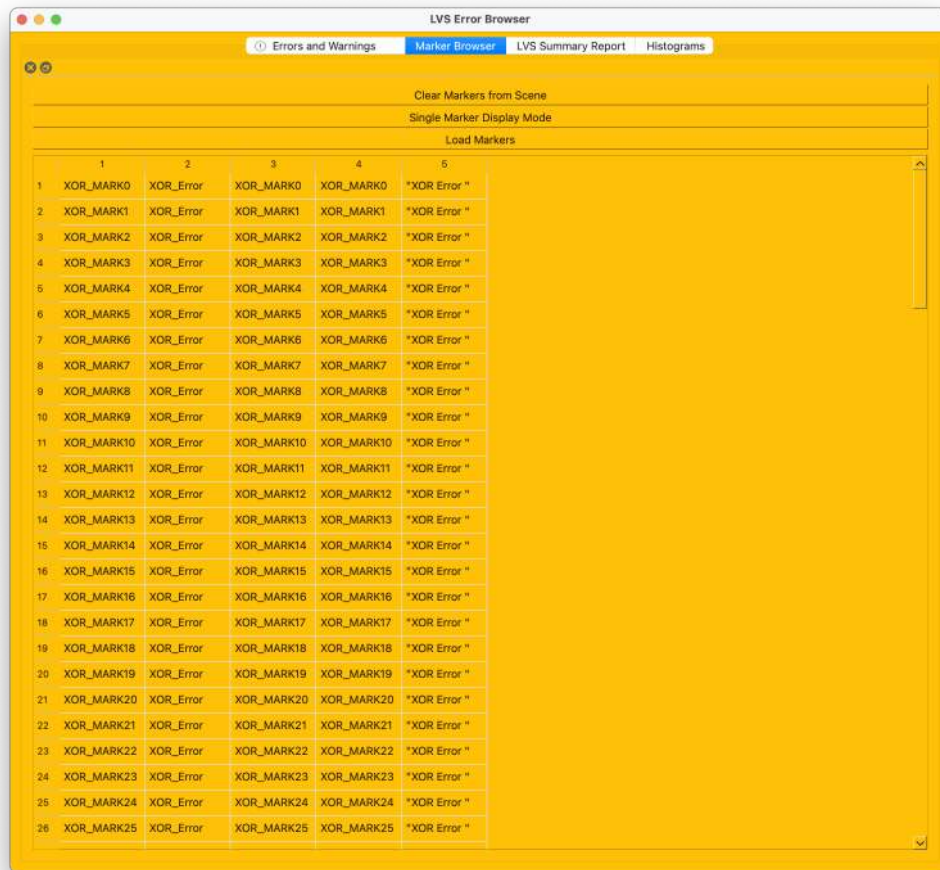


Figure 93: gcd1_XOR001_mrk_rpt.png

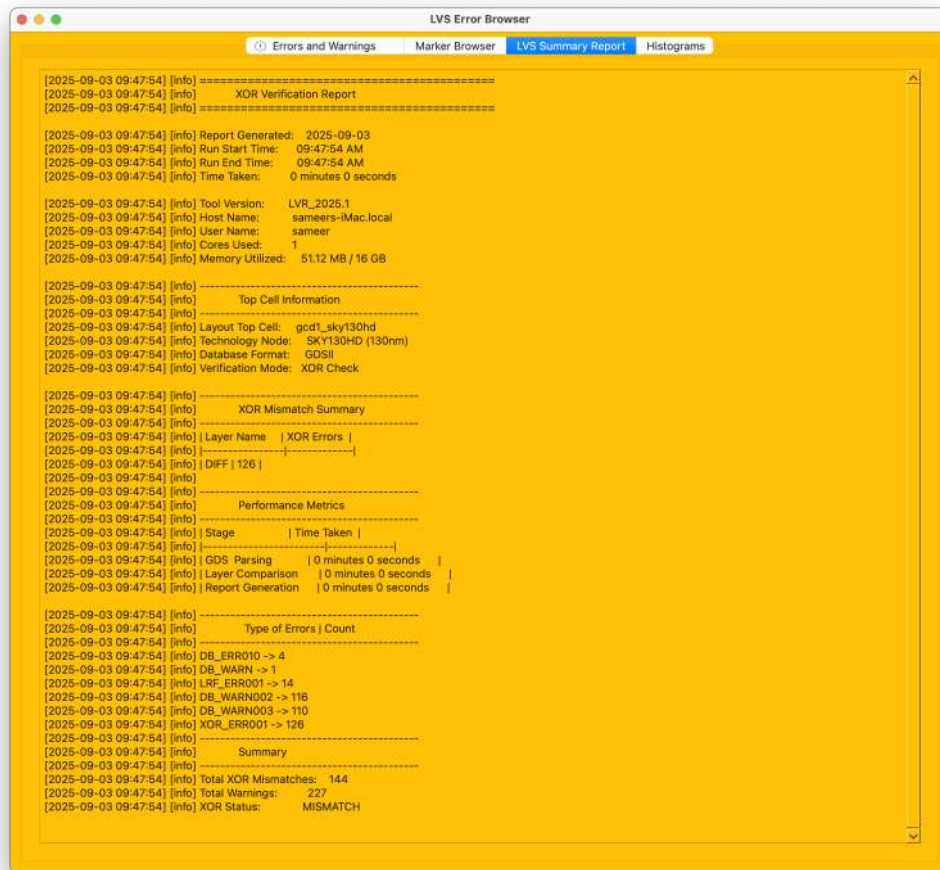


Figure 94: gcd1_XOR001_sum_rpt.png

7.18 Test Case: gcd1_XOR002 (XOR)

Purpose and scenario. This example demonstrates a geometric comparison (XOR) failure caused by intentionally *deleting a POLY polygon* in the test layout. The flow compares a *modified* GDS (gcd1_XOR002.gds) against the *golden* reference GDS (gcd1_sky130hd.gds). Any shape that exists in only one of the two layouts appears as an XOR mismatch. In this case, removing a POLY shape creates a non-overlapping region that is flagged by the tool as an XOR error on the POLY layer. The intent is to illustrate how a missing transistor gate/poly feature is caught by XOR even when LVS/DRC might not explicitly call it out.

Figure 95 shows the use-case view highlighting the POLY layer selection and the dense pattern of instances; Figures 96, 97, and 98 capture the error listing, marker table, and summary report produced by the XOR run.

Command file. The complete command file used for this run is reproduced verbatim below.

```
# initiate tool DB
#####
#set_debug_mode_3049 0
init_tool_db XOR

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd
```




Figure 95: Use case view for **gcd1_XOR002**: POLY layer selected to visualize where the deletion was made.

```
# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_XOR002.gds
read_gds2 ../gds/gcd1_sky130hd.gds
load_db XOR
```

no_compare 1

#####

XOR settings

#####

lvs_set_datc_flow 1

#lvs_set_spice_file_name test

#lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_SVS001A.v

#lvs_set_verilog_netlist2_file_name ../verilog/sky130/gcd1_sky130hd_SVS001B.v

#lvs_set_macros_cdl_file_name ../spice/sky130.cdl

#lvs_enable_ports 1

#lvs_check_shorts 1

#lvs_check_open 1

#lvs_check_macro 0

#lvs_check_matching 1

#lvs_check_unconnected_pins 1

call lvs

#####

xor_check gcd1_sky130hd

#####

set and generate report file

#####

#set_report_file_lvs lvs_summary.rpt

#report_lvs

#####

load gui

#####

```
set_gui_xor_result 1
#####load_gui
```

What the settings do (how the LVR run is configured).

- `init_tool_db XOR` selects the XOR application mode in LVR, enabling polygon-level comparisons between two layouts.
- `set_technode sky130` loads the technology mapping used for layer names/indices.
- `set_top gcd1_sky130hd` declares the top cell name shared by both layouts; the XOR engine compares shapes under this hierarchy.
- `set_num_cores 1`, `set_die_area`, and `set_num_regions` set runtime and windowing options (single core, full die window here).
- `read_lrf ../rule/sky130.lrf` loads layer/rule formatting so the GUI and reports use consistent layer labels.
- `read_gds ../gds/gcd1_XOR002.gds` loads the *test* (modified) layout; `read_gds2 ../gds/gcd1_sky130hd.gds` loads the *golden* reference.
- `load_db XOR` finalizes database construction for XOR mode; `no_compare 1` disables netlist-based logic (not needed for pure geometric XOR).
- The commented `lvs_*` lines are inert in XOR mode; they are kept for template uniformity but do not affect polygon comparison.
- `xor_check gcd1_sky130hd` runs the actual XOR comparison at the top cell.
- `set_gui_xor_result 1` tells the GUI to open directly on the XOR results for interactive review.

How to run. Place the commands above in a file, for example `gcd1_XOR002.cmd`, then invoke:

```
% LVR gcd1_XOR002.cmd
```

This executes the XOR comparison and produces the error list, marker table, and summary report. Open the GUI (if not auto-opened) to inspect markers over the layout.

Figures and interpretation.

- **Error report** (Fig. 96): lists *XOR.ERR001* entries noting that an XOR mismatch was found for polygons on layer **POLY**. This directly corresponds to the deleted POLY shape in the test layout that no longer overlaps with the reference.
- **Marker browser** (Fig. 97): shows a table of *XOR.MARK** items, each representing a non-overlapping polygon fragment. The count reflects how many distinct regions of difference exist after Boolean XOR.
- **Summary report** (Fig. 98): aggregates mismatches by layer. Here, the POLY layer shows a large non-zero mismatch count, confirming that the discrepancy is confined to POLY.

7.19 Test Case: `gcd1_XOR003` (XOR)

Use-case overview. This experiment exercises the XOR flow by intentionally shifting a set of LI (local interconnect) rectangles in the modified layout and comparing it against the golden reference. The modified database is `gcd1_XOR003.gds` and the golden is `gcd1_sky130hd.gds`. An XOR check geometrically subtracts one layout from the other and reports any polygons that do not cancel. When shapes are translated (even by one grid unit), the overlap disappears and both the “missing” area in one layout and the “extra” area in

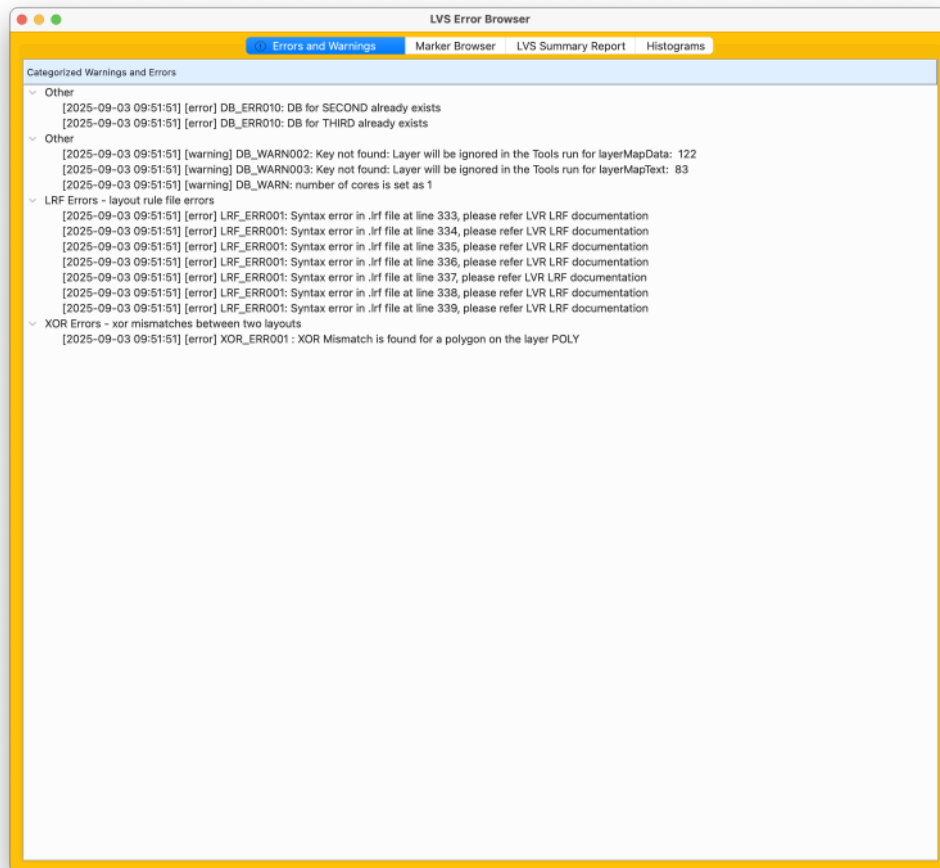


Figure 96: **gcd1_XOR002** error list: XOR mismatches reported on the POLY layer.

the other are flagged as mismatches. Figure 99 shows the *Layout Verification Reporter* with the LI layer selected to visualize the shifted rectangles.

Functionally, this scenario represents a common integration failure: a last-minute ECO that moves metal to satisfy congestion or DRC without updating the golden mask set. XOR is ideal here because LVS could still pass (no netlist change), while XOR highlights the mask deltas precisely at polygon level.

Expected results. During the run, the Error Browser will list entries under

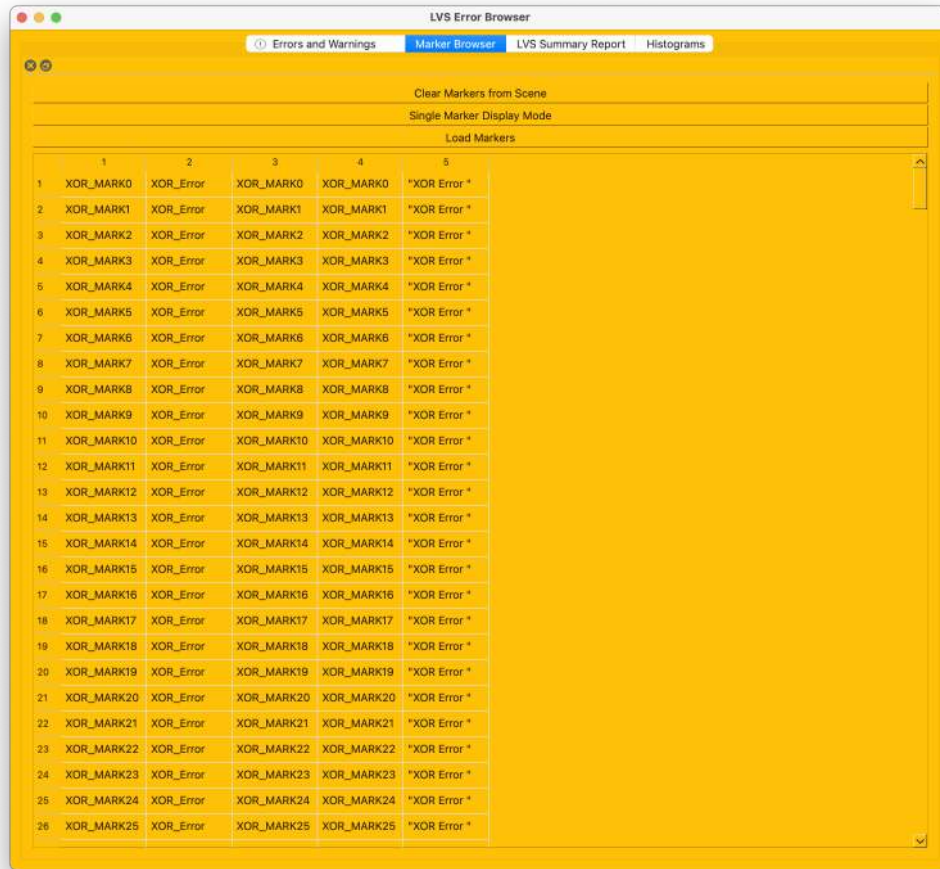


Figure 97: **gcd1_XOR002** marker browser: catalog of XOR_MARK entries (non-overlapping POLY regions).

the *XOR Errors* group (error code XOR_ERR001) indicating “XOR mismatch is found for a polygon on the layer LI”. The Marker Browser will be populated with many XOR_MARK* items—each is a clickable hotspot you can zoom to in LVR. The Summary report will enumerate the count of XOR mismatches for LI. See Figures 100–102.

Debug tips. Toggle only LI (and optionally LI-TXT) in the LVR control panel to reduce clutter; use *FindObjects* on a selected marker to highlight all

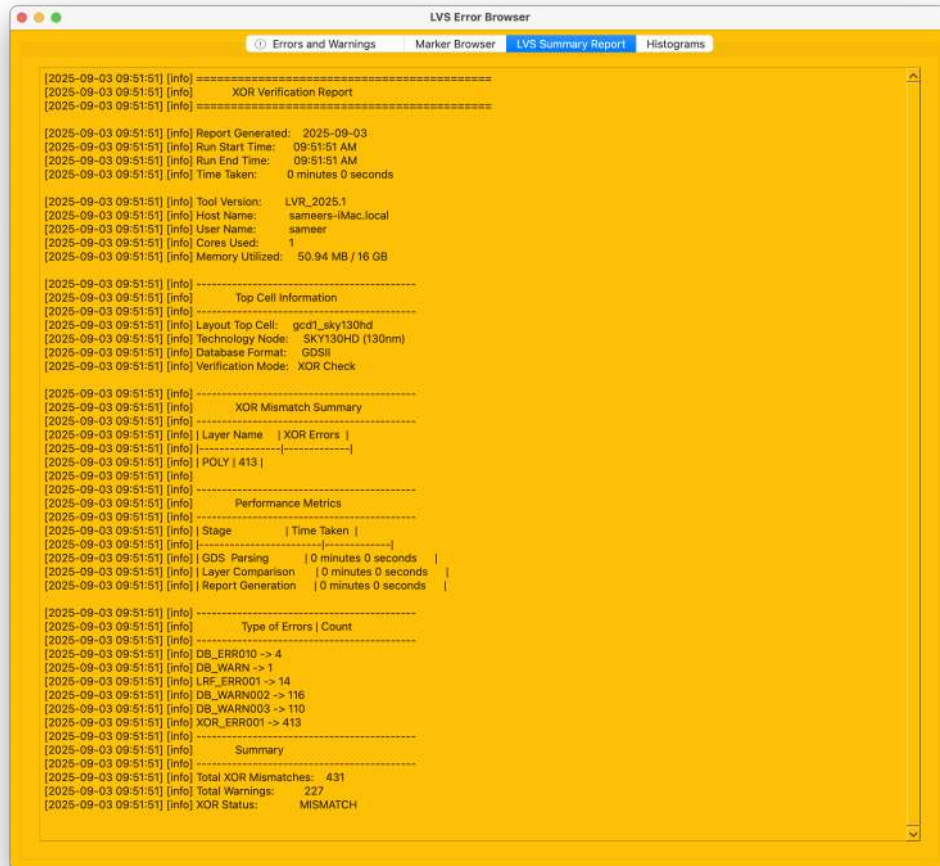


Figure 98: **gcd1_XOR002** summary: mismatch counts by layer, highlighting POLY.

related polygons. Overlaying the two layouts and stepping grid by grid often reveals uniform offsets indicative of a copy/move or alignment mishap.

Command file (verbatim). The following is the exact `gcd1_XOR003.cmd` used to run the check.

```
initiatize tool DB
```

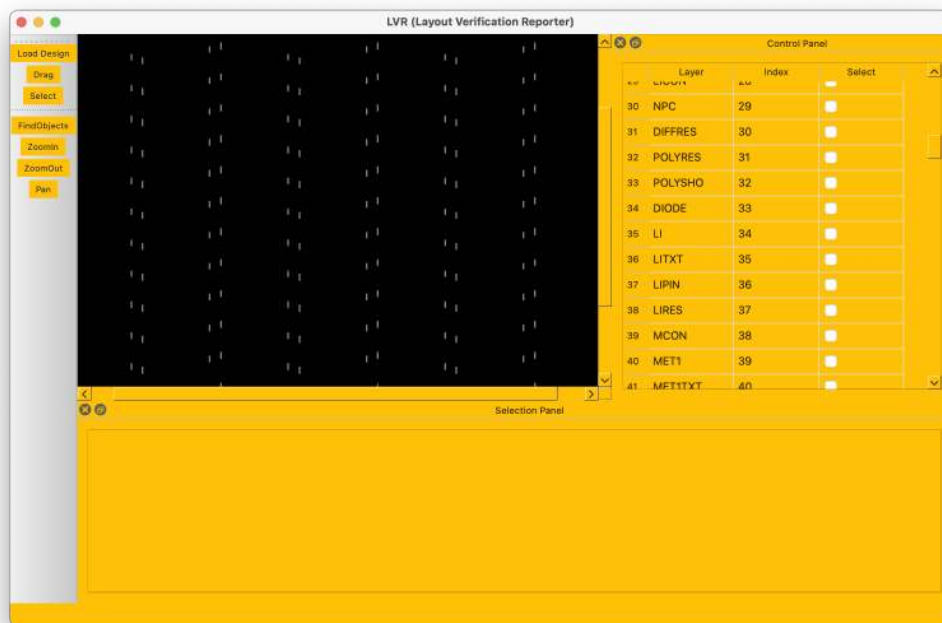


Figure 99: gcd1_XOR003_usecase19.png

```
#####
#set_debug_mode_3049 0
init_tool_db XOR

set techonlogy

#####
set_technode sky130

set top module

#####
set_top gcd1_sky130hd

set number of cores

#####
set_num_cores 1
set_die_area 0 0 106060 106060
set_num_regions 1
#set_gds_flow 1

read the rule file and gds

#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_XOR003.gds
read_gds2 ../gds/gcd1_sky130hd.gds
load_db XOR
no_compare 1
```

#####

XOR settings

#####

```
lvs_set_datc_flow 1
#lvs_set_spice_file_name test
#lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_SVS001A.v
#lvs_set_verilog_netlist2_file_name ../verilog/sky130/gcd1_sky130hd_SVS001B.v
#lvs_set_macros_cdl_file_name ../spice/sky130.cdl
#lvs_enable_ports 1
#lvs_check_shorts 1
#lvs_check_open 1
#lvs_check_macro 0
#lvs_check_matching 1
#lvs_check_unconnected_pins 1
```

call lvs

#####

xor_check gcd1_sky130hd

#####

set and generate report file

#####

```
#set_report_file_lvs lvs_summary.rpt
#report_lvs
```

```
#####
```

```
load gui
```

```
#####
```

```
#set_gui_xor_result 1
```

```
#####load_gui
```

What the settings do (and why).

- `init_tool_db XOR` selects the XOR application mode so the tool interprets subsequent commands in the geometry-diff context rather than LVS/DRC/ERC.
- `set_technode sky130` loads SkyWater 130nm tech parameters; `read_lrf` brings in layer definitions and mapping from `sky130.lrf`.
- `set_top gcd1_sky130hd` declares the top cell name common to both layouts.
- `read_gds` and `read_gds2` ingest the two GDS databases: the “modified” test case (`gcd1_XOR003.gds`) and the “golden” (`gcd1_sky130hd.gds`).
- `load_db XOR` finalizes DB creation in XOR mode; `no_compare 1` skips any schematic/netlist comparison features (not relevant for pure XOR).
- The commented LVS options (`lvs_*`) are benign here. `lvs_set_datc_flow 1` is harmless in XOR mode and can remain enabled across flows.
- `xor_check gcd1_sky130hd` launches the polygon-level comparison for the named top cell. (It is sufficient to call it once; a second call is optional and redundant.)

-
- Reporting is viewable in the Error Browser and Summary tabs; explicit `report_lvs` is not required for XOR unless you want an additional textual file.
 - GUI: leaving `set_gui_xor_result` commented means you will open the GUI and toggle to XOR results manually; enabling it pre-loads XOR markers.

How to run it. Place the CMD file alongside your `rule/`, `gds/` folders (or adjust relative paths) and invoke:

```
% LVR gcd1_XOR003.cmd
```

When the GUI opens, use the Control Panel to show only the LI layer and click markers in the Marker Browser to navigate through mismatches.

About Figure 100. This Error Browser view lists XOR_ERR001 entries under “XOR Errors — xor mismatches between two layouts”. Each item corresponds to a polygonal difference on LI, confirming that the shifted rectangles no longer overlap the golden shapes.

About Figure 101. The Marker Browser enumerates all XOR hotspots (XOR_MARK*). Selecting a row centers the LVR canvas on that mismatch so you can inspect the offending LI polygon(s).

About Figure 102. The Summary Report aggregates counts per layer; here you should see hundreds of mismatches attributed to LI, consistent with a systematic shift. Use this count as a quick sanity metric when validating fixes.

Note on histograms. No histogram image was provided for this use-case, so this subsection omits a histogram figure/description.

7.20 Test Case: gcd1_DEN001 (DENSITY)

Purpose and test idea. This example demonstrates a Density verification failure where the metal density in the bottom region of the layout violates min-

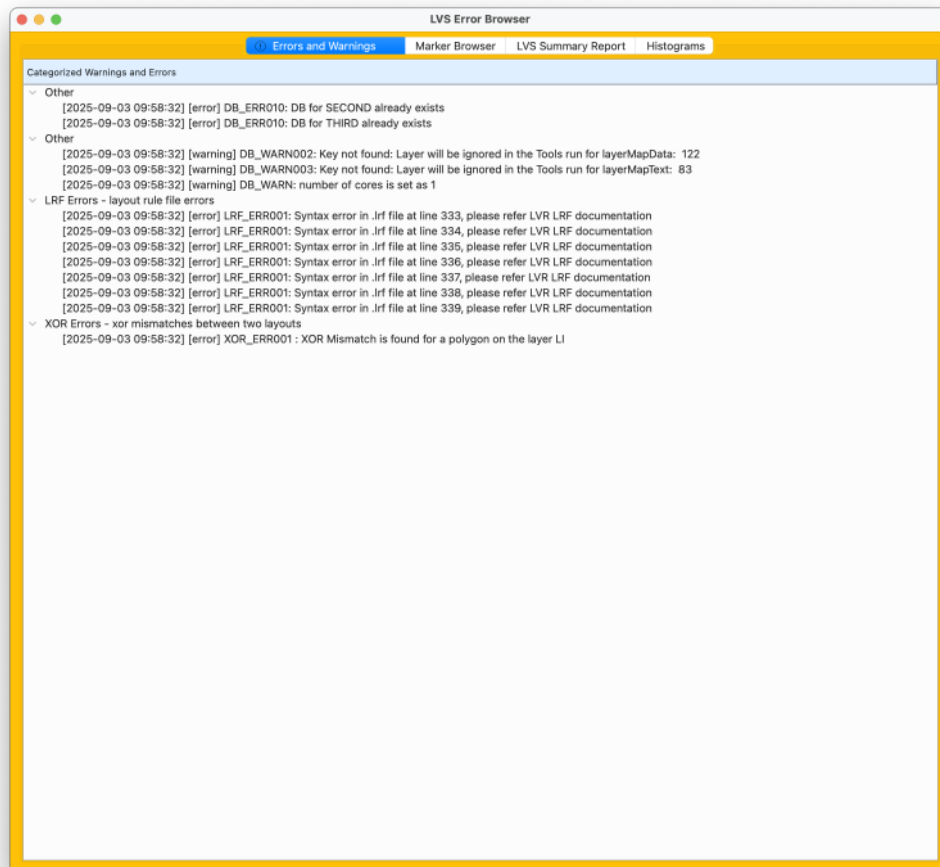


Figure 100: gcd1_XOR003_err_rpt.png

LVS Error Browser				
Errors and Warnings Marker Browser LVS Summary Report Histograms				
Clear Markers from Scene Single Marker Display Mode Load Markers				
1	2	3	4	5
1	XOR_MARK0	XOR_Error	XOR_MARK0	XOR_MARK0 "XOR Error "
2	XOR_MARK1	XOR_Error	XOR_MARK1	XOR_MARK1 "XOR Error "
3	XOR_MARK2	XOR_Error	XOR_MARK2	XOR_MARK2 "XOR Error "
4	XOR_MARK3	XOR_Error	XOR_MARK3	XOR_MARK3 "XOR Error "
5	XOR_MARK4	XOR_Error	XOR_MARK4	XOR_MARK4 "XOR Error "
6	XOR_MARK5	XOR_Error	XOR_MARK5	XOR_MARK5 "XOR Error "
7	XOR_MARK6	XOR_Error	XOR_MARK6	XOR_MARK6 "XOR Error "
8	XOR_MARK7	XOR_Error	XOR_MARK7	XOR_MARK7 "XOR Error "
9	XOR_MARK8	XOR_Error	XOR_MARK8	XOR_MARK8 "XOR Error "
10	XOR_MARK9	XOR_Error	XOR_MARK9	XOR_MARK9 "XOR Error "
11	XOR_MARK10	XOR_Error	XOR_MARK10	XOR_MARK10 "XOR Error "
12	XOR_MARK11	XOR_Error	XOR_MARK11	XOR_MARK11 "XOR Error "
13	XOR_MARK12	XOR_Error	XOR_MARK12	XOR_MARK12 "XOR Error "
14	XOR_MARK13	XOR_Error	XOR_MARK13	XOR_MARK13 "XOR Error "
15	XOR_MARK14	XOR_Error	XOR_MARK14	XOR_MARK14 "XOR Error "
16	XOR_MARK15	XOR_Error	XOR_MARK15	XOR_MARK15 "XOR Error "
17	XOR_MARK16	XOR_Error	XOR_MARK16	XOR_MARK16 "XOR Error "
18	XOR_MARK17	XOR_Error	XOR_MARK17	XOR_MARK17 "XOR Error "
19	XOR_MARK18	XOR_Error	XOR_MARK18	XOR_MARK18 "XOR Error "
20	XOR_MARK19	XOR_Error	XOR_MARK19	XOR_MARK19 "XOR Error "
21	XOR_MARK20	XOR_Error	XOR_MARK20	XOR_MARK20 "XOR Error "
22	XOR_MARK21	XOR_Error	XOR_MARK21	XOR_MARK21 "XOR Error "
23	XOR_MARK22	XOR_Error	XOR_MARK22	XOR_MARK22 "XOR Error "
24	XOR_MARK23	XOR_Error	XOR_MARK23	XOR_MARK23 "XOR Error "
25	XOR_MARK24	XOR_Error	XOR_MARK24	XOR_MARK24 "XOR Error "
26	XOR_MARK25	XOR_Error	XOR_MARK25	XOR_MARK25 "XOR Error "

Figure 101: gcd1.XOR003.mrk.rpt.png

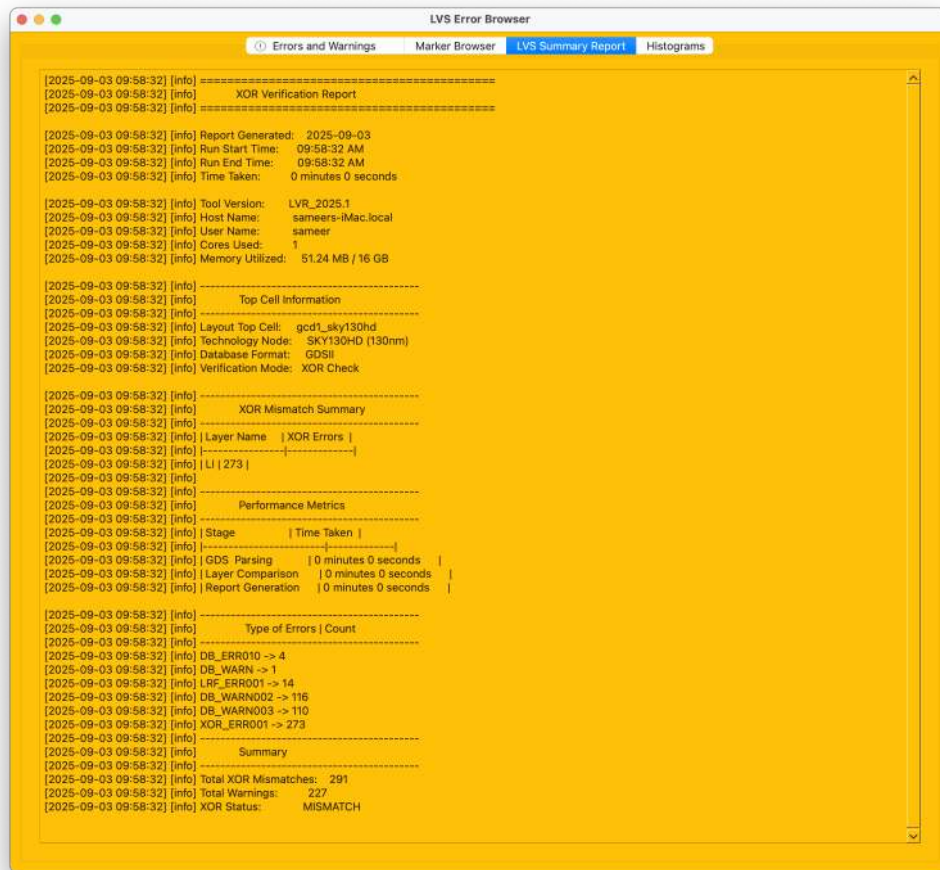


Figure 102: gcd1_XOR003_sum.rpt.png

imum density constraints. The goal of the test `gcd1_DEN001` is to run the Density engine in LVR against the `sky130` technology and report tiles that fall below (or above) configured thresholds. The use-case intentionally leaves a sparse metal pattern near the bottom of the chip area so that the Density checker flags “Min Fail” bins and summarizes them in the GUI and the text report. Figure 103 illustrates the crafted bottom region with intentionally low coverage that triggers density rule violations. During sign-off, such issues are typically addressed by inserting metal fill, adjusting routing, or modifying floorplanning to meet the foundry’s metal density windows.

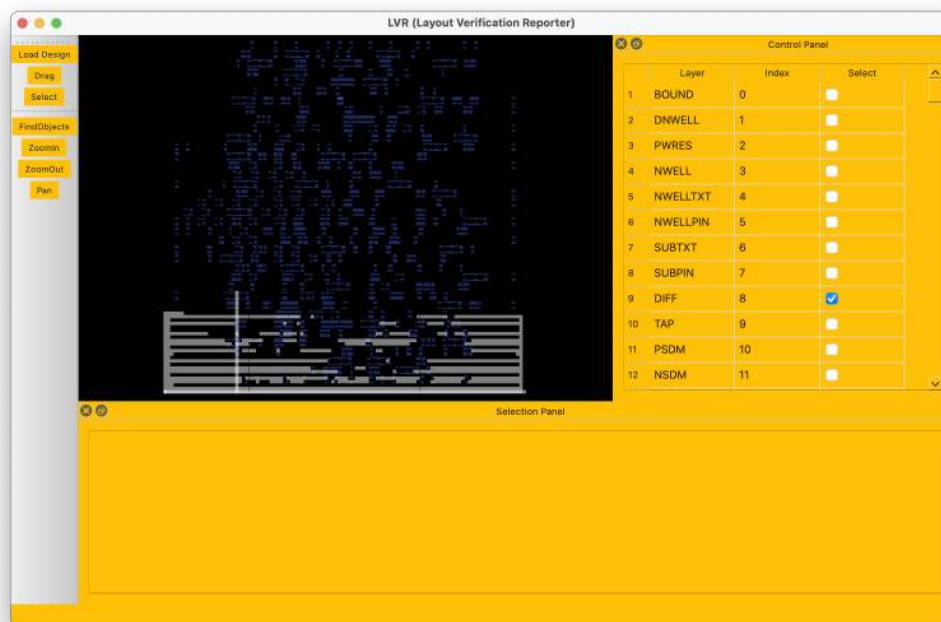


Figure 103: **Use-case layout for `gcd1_DEN001`:** bottom region is intentionally sparse to trigger metal density “Min Fail” errors.

What this test checks. The Density engine tiles the chip area into analysis windows and computes coverage for configured layers (e.g., diffusion, poly,

metals). It then compares measured coverage against minimum/maximum bounds and directional density rules (x/y). Any window out of spec is reported as a marker and summarized in the run report and histograms.

Inputs and flow. The flow initializes the Density tool database, selects the sky130 technology, loads the golden GDS layout, and invokes `density` on the top cell `gcd1_sky130hd`. Multicore and multi-region settings are enabled to parallelize the computation. Reports are produced in the LVR Error Browser (Density mode) with tabs for Errors & Warnings, Marker Browser, Density Summary Report, and Histograms.

Command file: `gcd1_DEN001.cmd` (**verbatim**)

```
# initiate tool DB
#####

#set_debug_mode_3049 0
init_tool_db DENSITY


# set techonlogy
#####

set_technode sky130


# set top module
#####

set_top gcd1_sky130hd


# set number of cores
#####

set_num_cores 4
set_num_regions 4
#set_gds_flow 1
```

```

# read the rule file and gds
#####
read_lrf ../rule/sky130.lrf
read_gds ../gds/gcd1_sky130hd.gds
#read_gds ../gds/gcd1_DEN001.gds
load_db DENSITY
no_compare 1

#####
# DENSITY settings
#####
lvs_set_datc_flow 1
#lvs_set_spice_file_name test
#lvs_set_verilog_netlist_file_name ../verilog/sky130/gcd1_sky130hd_SVS001A.v
#lvs_set_verilog_netlist2_file_name ../verilog/sky130/gcd1_sky130hd_SVS001B.v
#lvs_set_macros_cdl_file_name ../spice/sky130.cdl
#lvs_enable_ports 1
#lvs_check_shorts 1
#lvs_check_open 1
#lvs_check_macro 0
#lvs_check_matching 1
#lvs_check_unconnected_pins 1

# call lvs
#####
density gcd1_sky130hd

#####
# set and generate report file
#####

```

```
#set_report_file_lvs lvs_summary.rpt
#report_lvs
```

```
#####
# load gui
#####
#load_gui
```

Settings explained (what the command file does)

- `init_tool_db DENSITY` selects the Density verification context.
- `set_technode sky130` loads foundry rule semantics from `sky130.lrf`.
- `set_top gcd1_sky130hd` defines the layout's top cell.
- `set_num_cores 4` and `set_num_regions 4` enable parallel tiling and evaluation—useful for large designs.
- `read_lrf ../rule/sky130.lrf` points to the layout rule file; density bounds and window sizes are derived from here.
- `read_gds ../gds/gcd1_sky130hd.gds` loads the reference layout to be checked (the edited test GDS is commented out in this run).
- `load_db DENSITY` builds the LVR database in Density mode; `no_compare 1` disables netlist comparison since density is geometry-only.
- `lvs_set_datc_flow 1` keeps a unified backend flow; it is harmless here and allows consistent job setup across engines.
- `density gcd1_sky130hd` runs the Density checker over the full die, generating Errors/Markers/Summary/Histogram outputs.
- Report generation and GUI load are optional (commented). The Density Error Browser will still be populated for interactive review.

How to run

Invoke the tool with the command file:

```
%LVR gcd1_DEN001.cmd
```

After completion, open the Density Error Browser to inspect Errors & Warnings, markers, the summary, and histograms.

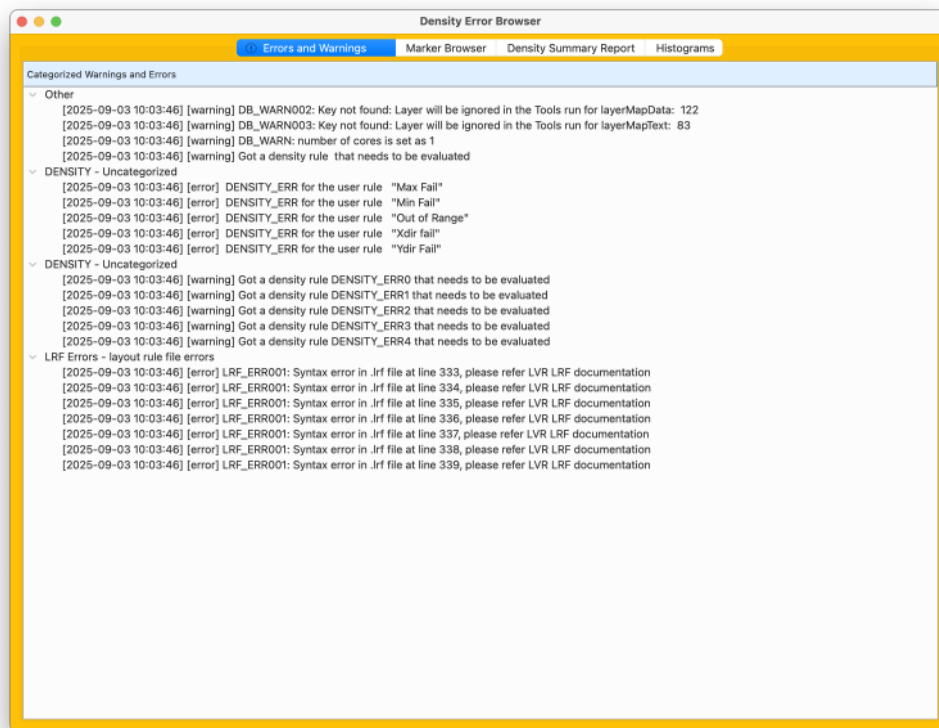
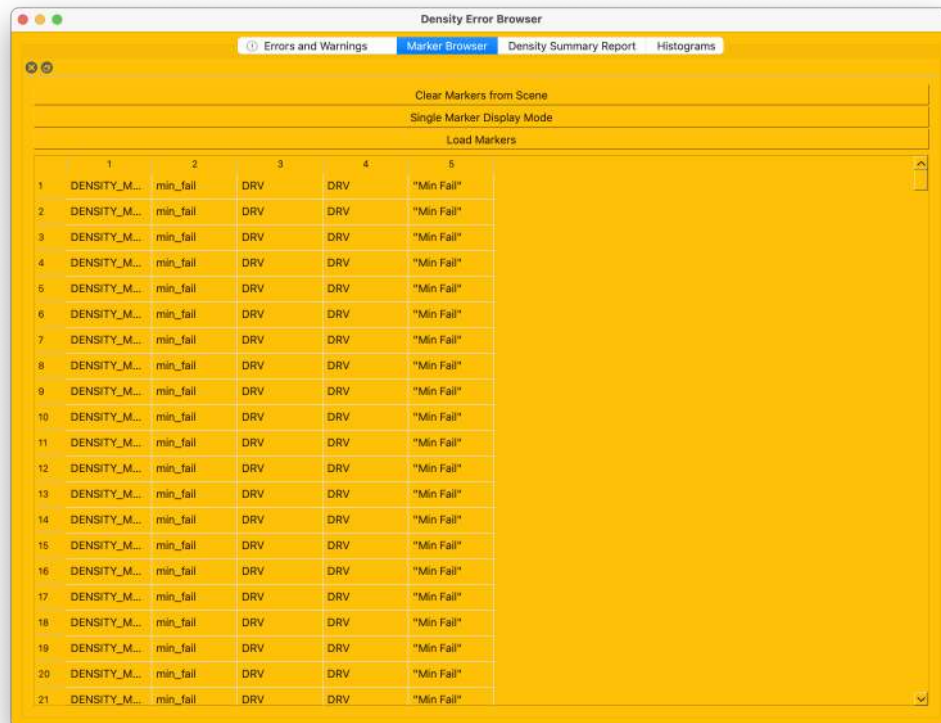


Figure 104: **Errors & Warnings** for gcd1_DEN001. Shows density rule categories received (Min/Max/OutOfRange/X/Y directional) and any LRF parser notices.

About Fig. 104. This pane lists Density rule evaluations and LRF notices. In this case, Density errors are registered for “Min Fail” (low coverage) along with

informational warnings from rule parsing. These entries corroborate that the bottom region violates minimum metal density.



The screenshot shows a window titled "Density Error Browser" with a yellow background. It has four tabs: "Errors and Warnings", "Marker Browser" (which is selected), "Density Summary Report", and "Histograms". Below the tabs, there are buttons for "Clear Markers from Scene", "Single Marker Display Mode", and "Load Markers". The main area contains a table with 21 rows and 5 columns. The columns are labeled 1 through 5. The first column contains row numbers 1 to 21. The second column contains the text "DENSITY_M...". The third column contains the text "min_fail". The fourth column contains the text "DRV". The fifth column contains the text "Min Fail".

1	2	3	4	5
1	DENSITY_M...	min_fail	DRV	Min Fail
2	DENSITY_M...	min_fail	DRV	Min Fail
3	DENSITY_M...	min_fail	DRV	Min Fail
4	DENSITY_M...	min_fail	DRV	Min Fail
5	DENSITY_M...	min_fail	DRV	Min Fail
6	DENSITY_M...	min_fail	DRV	Min Fail
7	DENSITY_M...	min_fail	DRV	Min Fail
8	DENSITY_M...	min_fail	DRV	Min Fail
9	DENSITY_M...	min_fail	DRV	Min Fail
10	DENSITY_M...	min_fail	DRV	Min Fail
11	DENSITY_M...	min_fail	DRV	Min Fail
12	DENSITY_M...	min_fail	DRV	Min Fail
13	DENSITY_M...	min_fail	DRV	Min Fail
14	DENSITY_M...	min_fail	DRV	Min Fail
15	DENSITY_M...	min_fail	DRV	Min Fail
16	DENSITY_M...	min_fail	DRV	Min Fail
17	DENSITY_M...	min_fail	DRV	Min Fail
18	DENSITY_M...	min_fail	DRV	Min Fail
19	DENSITY_M...	min_fail	DRV	Min Fail
20	DENSITY_M...	min_fail	DRV	Min Fail
21	DENSITY_M...	min_fail	DRV	Min Fail

Figure 105: **Marker Browser** for gcd1_DEN001. Each row is a density-window violation (e.g., “Min Fail”) and can be navigated to in the viewer.

About Fig. 105. The Marker Browser enumerates all failing tiles. Double-clicking a row centers the viewer on that window, allowing quick inspection of the sparse region that triggered the “Min Fail” classification.

About Fig. 106. This report summarizes violation counts per rule category and shows job details (technology, database, verification mode) plus timing.

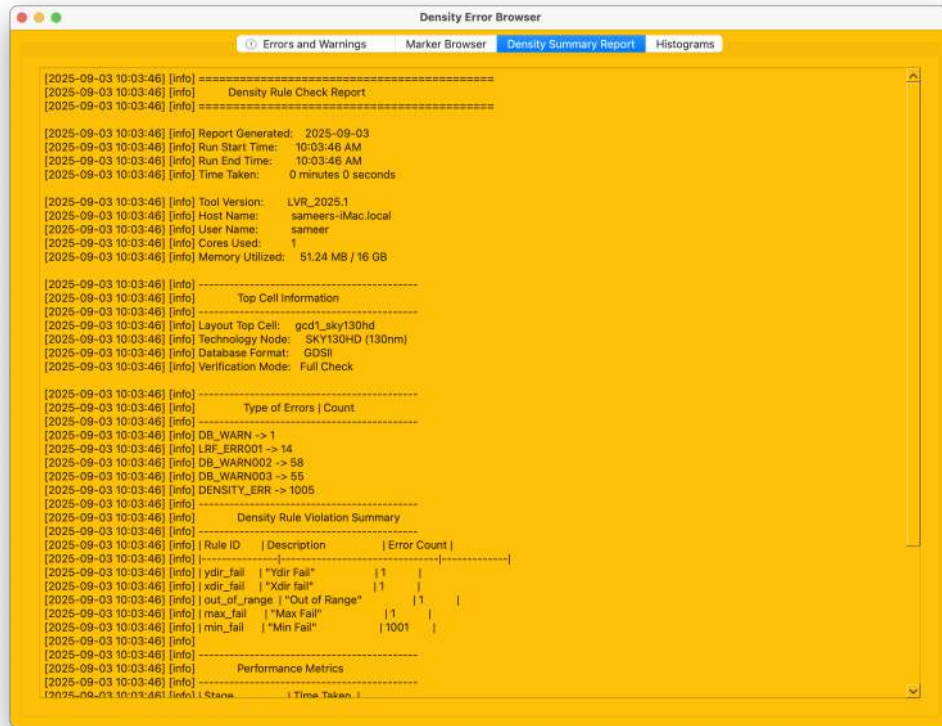


Figure 106: **Density Summary Report** for gcd1_DEN001. Aggregates counts per rule ID (min_fail, max_fail, out_of_range, xdir_fail, ydir_fail) and records performance metrics.

For this case, *min_fail* dominates, consistent with intentionally low density at the bottom.

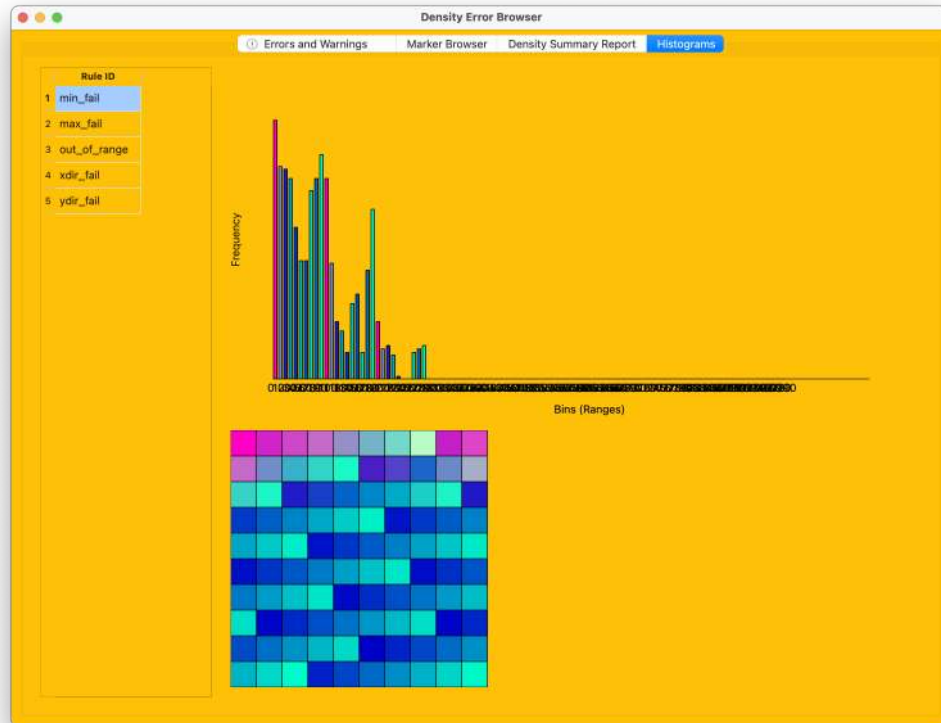


Figure 107: **Histograms** for gcd1_DEN001. Bar charts and heatmap visualize the distribution of failing bins across the die and rule categories.

About Fig. 107. The histogram view shows frequency per bin range and a spatial heatmap of violations. Concentration in the lower rows aligns with the crafted sparse bottom region of Fig. 103.

7.21 Test Case: gcd1_MLVS005 (MLVS)

Purpose and scenario. This test demonstrates a *macro-level* Layout-vs-Schematic (MLVS) run on a single standard cell (macro) rather than the full chip. The goal is to validate that the layout of the macro in the GDS matches its schematic view (SPICE/CDL), with macro pins handled explicitly by the flow. In this example, we verify the Sky130 HD library cell `sky130_fd_sc_hd__clkinv_16` wrapped by a tiny “TOP” design. Figure 108 shows the region of interest in the LVR viewer, where LI and MET1 geometry and pin text layers are toggled to visualize device/pin placement and connectivity.

At a high level, the run: (i) initializes the tool DB in MLVS mode, (ii) loads the Sky130 LRF rule file and the macro-level GDS, (iii) points MLVS to the macro’s SPICE netlist and the technology CDL (for primitive references), (iv) disables macro-pin overriding and explicit port enables (so the macro’s own pin semantics are used), and (v) executes `mlvs TOP` to compare the extracted macro layout against its schematic. The summary report indicates child-cell coverage and pass/fail status for each macro instance.

What this test checks. Unlike full-chip LVS, MLVS focuses on matching *macro cells*. It reports (1) top-cell match, (2) list of child cells (macro names), (3) coverage statistics (how many instances were verified), and (4) per-macro pass/fail. Common pitfalls caught here include missing device fingers, wrong pin text, misaligned contacts, or incorrect layer usage internal to the macro. For this run, the MLVS Summary Report (Fig. 111) shows that `sky130_fd_sc_hd__clkinv_16` instances are verified and pass, with zero shorts/opens shown in the histograms tab (Fig. 112).

Command file `gcd1_MLVS005.cmd` (verbatim).

```
# initiate tool DB
#####
```




Figure 108: **Use-case view** for gcd1_MLVS005: Macro geometry and pin text (e.g., LI, MET1, MET1TXT) are enabled to inspect the standard-cell layout used by MLVS.

```
init_tool_db MLVS
```

```
# set techonlogy
```

```
#####
```

```
set_technode sky130
```

```
# set top module
```

```
#####
```

```
set_top TOP
```

```
# set number of cores
```

```
#####
```

```
set_num_cores 1
```

```
set_num_regions 1
```

```
#set_gds_flow 1
```

```
# read the rule file and gds
```

```
#####
```

```
read_lrf ../rule/sky130.lrf
```

```
read_gds ../macro_gds/sky130_fd_sc_hd__clkinv_16_top.gds
```

```
load_db MLVS
```

```
no_compare 1
```

```
#####
```

```
# MLVS settings
```

```
#####
```

```
lvs_set_datc_flow 0
```

```
lvs_set_spice_file_name ../macro_tops/sky130_fd_sc_hd__clkinv_16_top.sp
```

```
lvs_set_macros_cdl_file_name ../spice/sky130.cdl
```

```
#lvs_enable_ports 1
```

```
#lvs_check_shorts 1
```

```

#lvs_check_open 1
#lvs_check_macro 0
#lvs_check_matching 1
#lvs_check_unconnected_pins 1
lvs_enable_ports 0
lvs_consider_macro_pins 0

# call lvs
#####
mlvs TOP

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

Settings explained (one-page overview). `init_tool_db` MLVS selects macro LVS mode, which activates macro-aware extraction and reporting. `set_technode` sky130 loads process defaults, naming, and device decks expected by the Sky130 rule file. The design under test is TOP (`set_top TOP`), a tiny wrapper that instantiates the target macro. The Sky130 LVR rule file is brought in via `read_lrf ../rule/sky130.lrf`, followed by the macro GDS: `read_gds ../macro_gds/sky130_fd`. The database is then bound to the MLVS context with `load_db MLVS`. With `no_compare 1` set earlier in many flows to defer checks, the actual compari-

son is explicitly triggered later by `mlvs TOP`.

Under “MLVS settings,” `lvs_set_datc_flow 0` disables the DATC Verilog path since we are comparing GDS vs. SPICE/CDL at macro granularity. The schematic view for the top wrapper is given by `lvs_set_spice_file_name ../macro_tops/sky130_`. Primitive devices referenced by the macro are resolved using the technology CDL: `lvs_set_macros_cdl_file_name ../spice/sky130.cdl`. We keep `lvs_enable_ports 0` so ports are not force-enabled globally (the macro’s pin text layers and the wrapper netlist govern connectivity), and `lvs_consider_macro_pins 0` avoids pin promotion across hierarchy—useful when the macro already carries correct pin text and shapes internally.

Finally, `mlvs TOP` runs the macro LVS. Reports can be dumped with `report_lvs` (optional), and the GUI is launched via `load_gui` for visual diagnosis of any cell mismatches, shorts/opens, or pin text issues.

How to run. Place the above commands in `gcd1_MLVS005.cmd` and invoke:

```
%LVR gcd1_MLVS005.cmd
```

The tool will parse the LRF, load the macro GDS and netlists/CDL, perform macro-level LVS on TOP, and generate interactive reports.

About Fig. 109. This pane groups database warnings (e.g., layer-map keys) and LRF syntax messages separately from MLVS comparison results. For this test, no macro-level mismatches are reported—useful confirmation that the macro geometry and pins are consistent with the schematic.

About Fig. 110. The marker table would enumerate each mismatch location (type, instance, pin/net, and coordinates). An empty list implies no device/pin discrepancies at macro level.

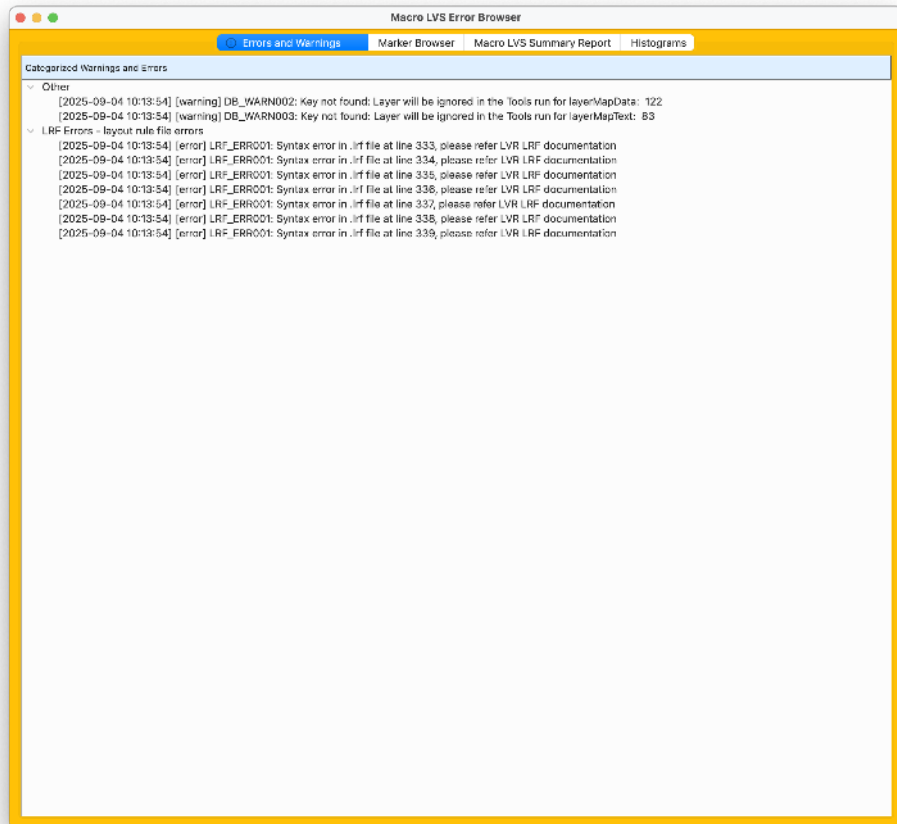


Figure 109: **Errors and Warnings** for gcd1_MLVS005. LRF parse notes and general DB warnings are listed first; macro LVS-specific errors would appear here if any.

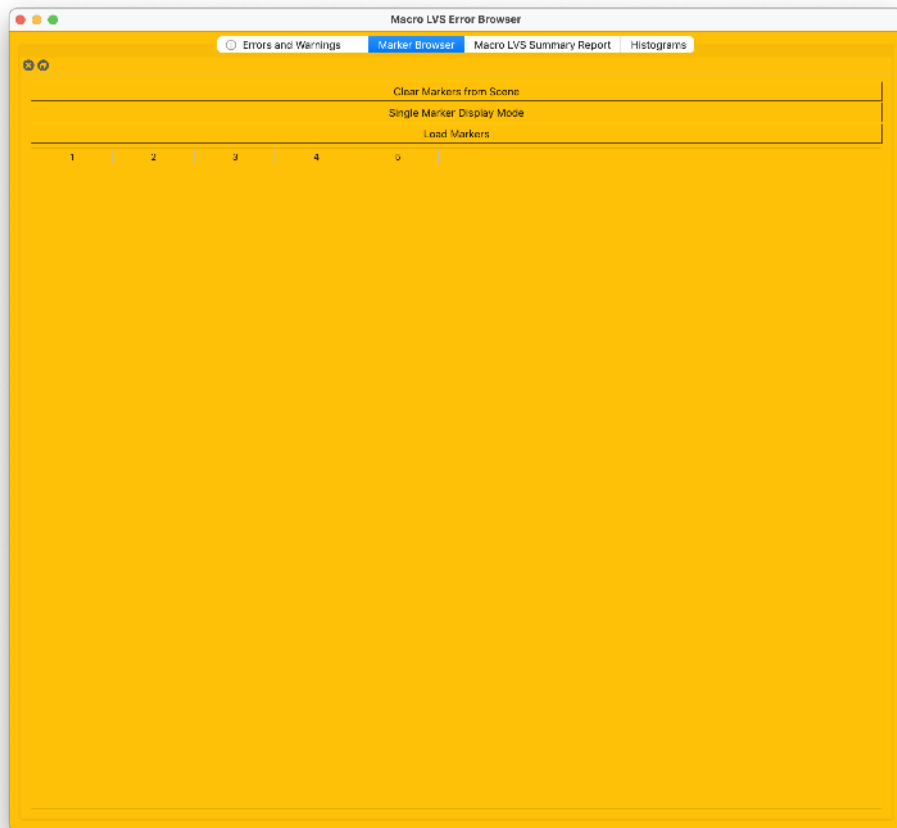


Figure 110: **Marker Browser** for gcd1_MLVS005. No MLVS error markers are present, indicating clean macro comparison.



Figure 111: **MLVS Summary Report.** Top-cell match, child-cell coverage, and per-macro pass/fail. Here sky130_fd_sc_hd__clkinv_16 instances are verified and *PASS*.

About Fig. 111. This is the primary “at-a-glance” result for macro verification—counts of layout vs. schematic occurrences for each child cell and the final result.

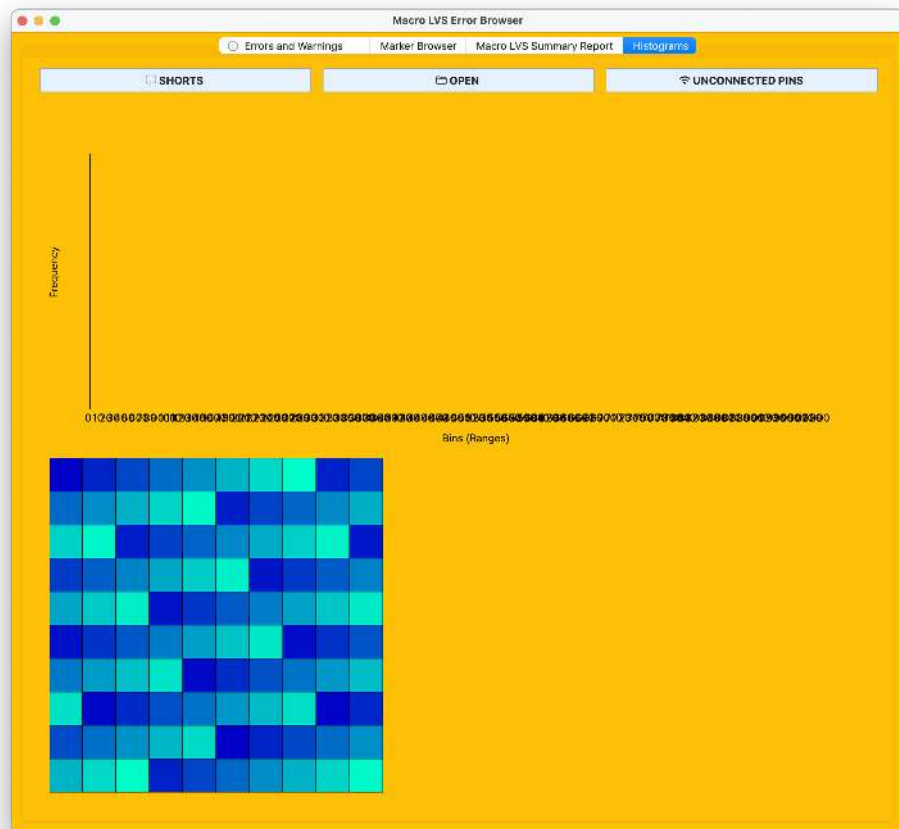


Figure 112: **Histograms.** No shorts/opens/unconnected-pin distributions are visible, consistent with a clean MLVS.

7.22 Test Case: gcd1_DRC001 (DRC)

Context. From its name, gcd1_DRC001 is a **DRC** testcase (Design Rule Check). The purpose is to validate that the LI (local interconnect) polygons in the

gcd1_sky130hd layout meet the minimum *area* requirement. This testcase intentionally injects a failing area threshold in the rule file to demonstrate how the tool reports and localizes such violations.

Use case and intent. Figure 113 illustrates the portion of the layout used for this check: repeated LI geometries in a regular pattern that make area errors easy to spot at multiple sites. The scenario exercises the rule “*li.6 : min. li area*” and shows how the DRC engine flags polygons whose area falls below the configured minimum.

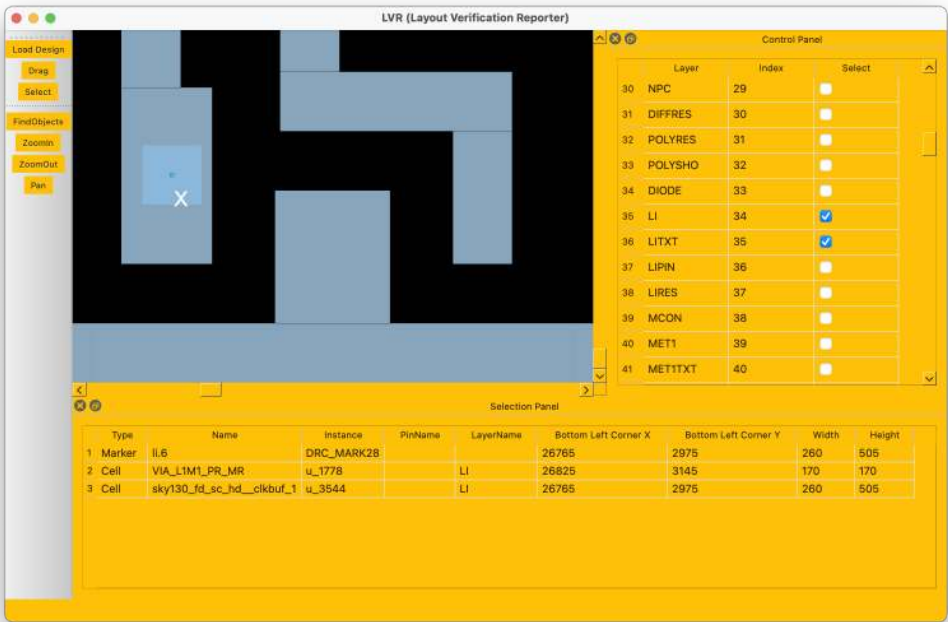


Figure 113: **gcd1_DRC001 use case.** Layout window highlighting LI shapes used to trigger the minimum-area rule.

Rule configuration (error injection). To make the behavior explicit, the rule deck is edited so that the LI area limit is enforced in a way that will intentionally

```

init_tool_db DRC

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130_DRC001.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db DRC
no_compare 1

#####
# DRC settings
#####
lvs_set_datc_flow 1

# call lvs
#####
drc gcd1_sky130hd

```

```
#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui
```

What these settings do (about one page). This testcase initializes the tool in **DRC** mode via `init_tool_db DRC`, which activates the rule-checking pipeline rather than comparison flows (e.g., LVS/XOR). The technology is set to `sky130` so the proper layer map and unit system are used. The top cell is `gcd1_sky130hd`; providing it early lets the tool pre-allocate resources and reference it consistently in later steps.

The run is single-threaded here (`set_num_cores 1`) for reproducibility; multi-core can be used for throughput. An explicit die area is registered (`set_die_area 0 0 106060 106060`). The rule file is then loaded with `read_lrf ../rule/sky130_DRC001.lrf`; this deck contains the edited *li.6* minimum-area rule (see Figure 114). The design geometry is provided through `read_gds ../gds/gcd1_sky130hd.gds` and bound to the database with `load_db DRC`.

`no_compare 1` disables any schematic/layout equivalence work so only pure rule checking runs. Although labeled “`lvs_set_*`”, `lvs_set_datc_flow 1` is a benign global toggle in this environment to use a streamlined data/tiling path for performance; it does not convert this into an LVS run.

The actual DRC is launched by `drc gcd1_sky130hd`. On completion, opening the GUI (`load_gui`) provides four coordinated views: (i) *Errors &*

Warnings to see rule text and counts, (ii) *Marker Browser* to list each violation and navigate to it, (iii) *DRC Summary Report* with environment metadata and per-rule totals, and (iv) *Histograms* to visualize spatial distribution across bins and a heat map. This test intentionally yields a large set of `li.6` markers so reviewers can practice triage, filtering, and “zoom-to-marker” workflows.

How to run. Place the command file in your run directory and execute:

```
% LVR <cmd_file.cmd>
```

For example: `% LVR gcd1_DRC001.cmd`. Results populate the report panes automatically; you can export summaries from the GUI if needed.

Description. Figure 115 shows the log categorization and the DRC section listing `li.6` failures. Each entry names the rule and provides a concise description (*min. li area*) to aid filtering.

Description. In Figure 116, the Marker Browser lists every hit for `li.6`. Double-clicking a row centers that polygon in the canvas so you can measure area and confirm the violation.

Description. Figure 117 aggregates totals, confirms node (SKY130HD), database format (GDSII), verification mode, and the number of `li.6` errors produced by the injected threshold.

Description. Figure 118 visualizes how the `li.6` area violations cluster; peaks indicate repeated small LI tiles, while the heat-map highlights regions with the highest concentration of fails.

7.23 Test Case: gcd1_DRC002 (DRC)

Intent and use-case. This testcase demonstrates how the DRC engine flags a *minimum width* violation on the POLY layer. The GDS `gcd1_sky130hd.gds` intentionally contains narrow poly fingers so that rule `poly.1a : min. poly width : 0.15um` is violated in many locations. The goal is to show end-

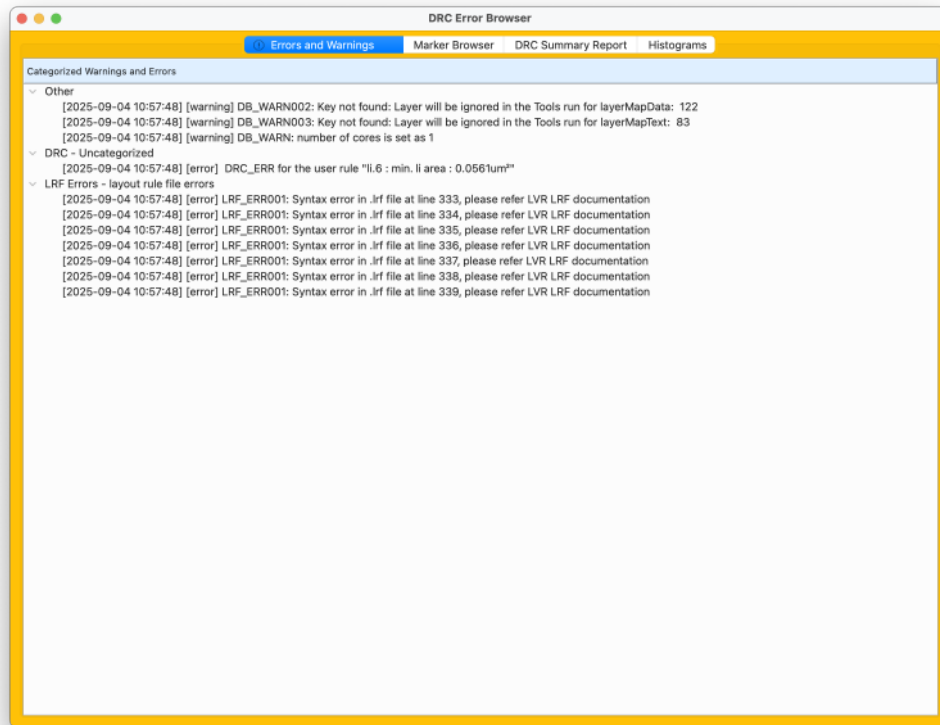


Figure 115: **Errors & Warnings.** Extract of rule messages for li.6 minimum LI area violations.

The screenshot shows a window titled "DRC Error Browser" with a yellow background. At the top, there are four tabs: "Errors and Warnings", "Marker Browser" (which is selected), "DRC Summary Report", and "Histograms". Below the tabs, there are three buttons: "Clear Markers from Scene", "Single Marker Display Mode", and "Load Markers". The main area of the window contains a table with 5 columns and 21 rows. The columns are numbered 1 to 5. The rows are numbered 1 to 21. Each row contains a rule ID, a layer, and a message. The messages are all the same: "Il.6 : min. li area : 0.0561um²".

	1	2	3	4	5
1	DRC_MARK0	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
2	DRC_MARK1	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
3	DRC_MARK2	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
4	DRC_MARK3	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
5	DRC_MARK4	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
6	DRC_MARK5	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
7	DRC_MARK6	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
8	DRC_MARK7	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
9	DRC_MARK8	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
10	DRC_MARK9	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
11	DRC_MARK10	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
12	DRC_MARK11	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
13	DRC_MARK12	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
14	DRC_MARK13	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
15	DRC_MARK14	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
16	DRC_MARK15	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
17	DRC_MARK16	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
18	DRC_MARK17	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
19	DRC_MARK18	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
20	DRC_MARK19	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"
21	DRC_MARK20	Il.6	LI	LI	"Il.6 : min. li area : 0.0561um²"

Figure 116: **Marker Browser**. One row per violation with rule ID, layer, and a short message.



Figure 117: **DRC Summary Report.** Environment details and per-rule counts for this run.

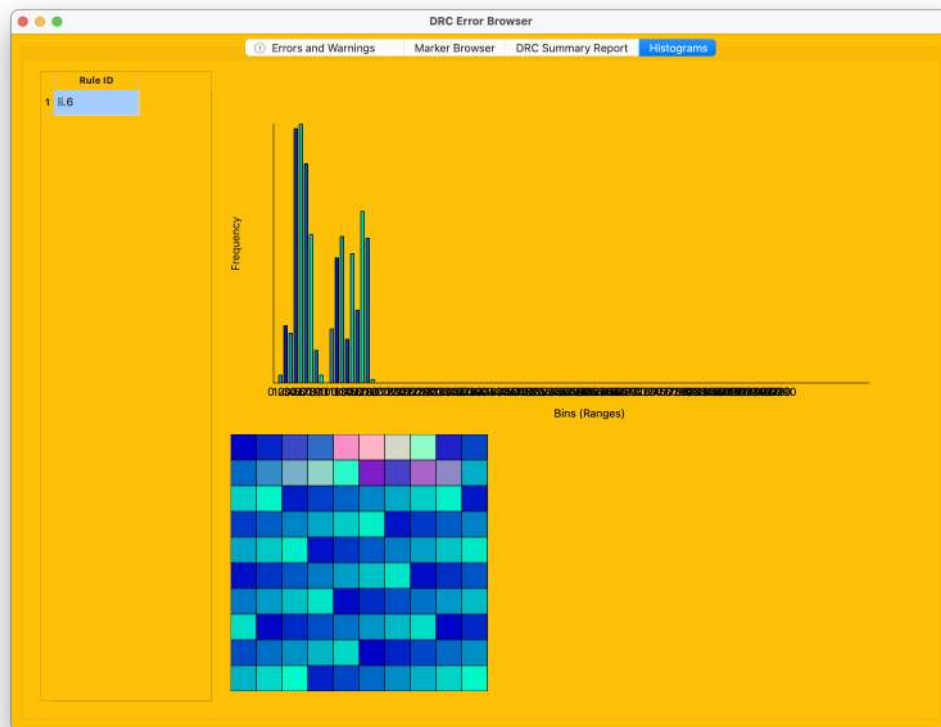


Figure 118: **Histograms.** Distribution of 11.6 markers over spatial bins with an error heat-map.

to-end flow: loading the DRC deck, running checks, browsing markers, and interpreting the summary/histogram outputs.

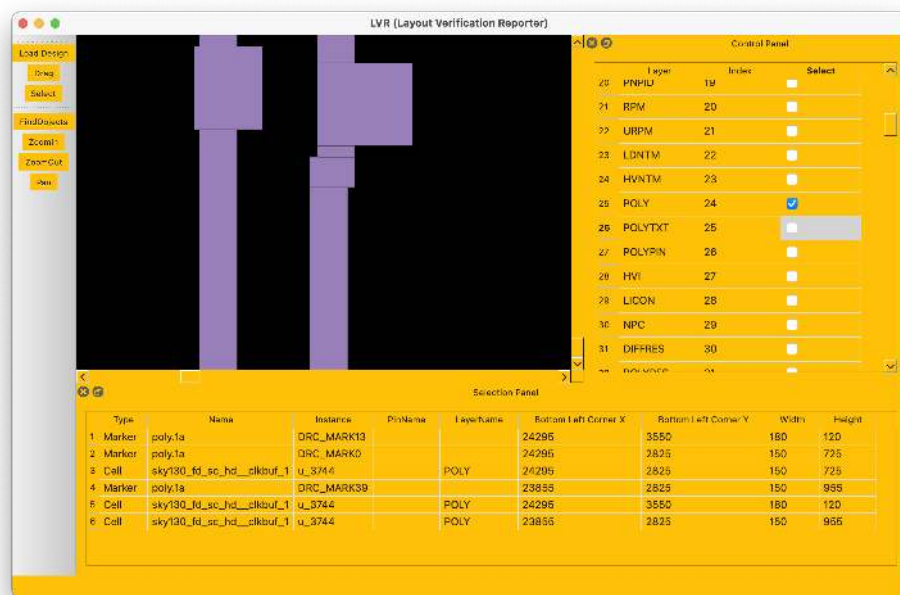


Figure 119: gcd1_DRC002_usecase23.png

Figure 119 shows representative geometry used to stress the POLY width rule: tall, slender polysilicon shapes and necked regions. These intentionally undersized features guarantee that the check trips in a dense, realistic context.

Rule deck (error insertion) for this testcase. The rule file used for this testcase (`../rule/sky130_DRC002.lrf`) purposely tightens the POLY minimum width so violations are guaranteed. The snippet in Figure 120 highlights the injected setting.

In Figure 120, rule `poly.1a` (*min. poly width*) is shown with the correct threshold commented and a stricter/easier-to-violate value enabled. This “error injection” ensures the run produces ample hits for documentation and training.

```
602 extension TUNN TUNN -eq 0
603 )
604
605 drc_rule "tunn.6a" {
606   caption "tunn.6a : tunn not allowed outside dwell"
607   and TUNN DMELL
608 }
609
610 drc_rule "tunn.7" {
611   caption "tunn.7 : min. tunn area : 0.672um^2"
612   area TUNN -lt 0.672
613 }
614
615 drc_rule "poly.1a" {
616   caption "poly.1a : min. poly width : 0.15um"
617   edge_width POLY -lt 0.15
618 }
619
620 drc_rule "poly.1b" {
621   caption "poly.1b : min. lvtn gate width : 0.35um"
622   edge_width LVIN -lt 0.35
623 }
624
625 drc_rule "poly.2" {
626   caption "poly.2 : min. poly spacing : 0.21um"
627   spacing -same_layer POLY POLY -lt 0.21
628 }
629
630 drc_rule "poly.3" {
631   caption "poly.3 : min. poly resistor width : 0.33um"
632   edge_width POLY_R5 -lt 0.33
633 }
634
635 drc_rule "poly.4" {
636   caption "poly.4 : min. poly on field spacing to diff : 0.875um"
637   spacing POLY PDIFF -lt 0.875
638 }
639
640 drc_rule "poly.5" {
641
642
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```

Figure 120: gcd1_DRC002_err_inj.png

Command file used to run the testcase. The following is the verbatim content of gcd1_DRC002.cmd; it drives the DRC flow for this test.

```
# initiatize tool DB
#####
init_tool_db DRC

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
```

```

set_num_cores 1
set_die_area 0 0 106060 106060
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130_DRC002.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db DRC
no_compare 1

#####
# DRC settings
#####
lvs_set_datc_flow 1

# call lvs
#####
drc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####
load_gui

```

What the settings do (how LVR/DRC is configured). `init_tool_db DRC` selects the DRC application mode. `set_technode sky130` loads technology assumptions and layer map for SKY130. The `set_top` specifies the top cell name in the layout database. `set_num_cores 1` fixes the run to a single CPU thread, and `set_die_area` constrains the design window (useful for tiling or region runs). The core inputs are the rule deck and the layout: `read_lrf ../rule/sky130_DRC002.lrf` brings in the DRC rules (including the injected min-width value), while `read_gds ../gds/gcd1_sky130hd.gds` supplies the test GDS. `load_db DRC` compiles these into the runtime database; `no_compare 1` confirms this is a pure DRC run (no schematic compare). `lvs_set_datc_flow 1` enables standard infrastructure used across flows. The actual check is launched by `drc gcd1_sky130hd`. Optional report lines are commented (the GUI already renders summaries). Finally, `load_gui` opens the DRC Error Browser to inspect results.

How to run. From a shell in the directory containing the command file, run:

```
% LVR gcd1_DRC002.cmd
```

This executes the flow, builds the database, performs DRC, and opens the GUI to review errors, markers, and histograms.

Reports and interpretation. Figure 121 (Errors & Warnings view) shows the fired rule `poly.1a : min. poly width : 0.15um`. It lists parser notes and categorizes issues; the key takeaway is that the POLY width rule is violated extensively, as intended.

Figure 122 (Marker Browser) enumerates individual hits (e.g., `DRC_MARK0`, `DRC_MARK1`, ...), each labeled with the same rule text. Selecting a row centers the viewer on the violating polygon so its local context (neighbor layers, necking, etc.) can be examined.

Figure 123 is the DRC Summary Report. It captures top-cell metadata, technology, verification mode, and a Rule Violation Summary. The row for

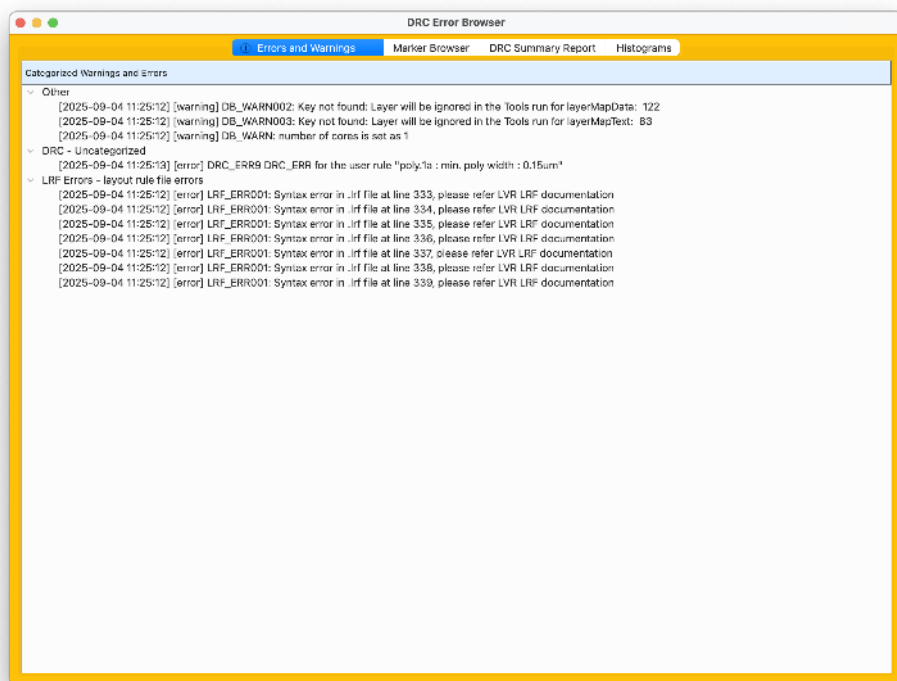


Figure 121: gcd1_DRC002_err_rpt.png

	1	2	3	4	5
1	DRC_MARK0	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
2	DRC_MARK1	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
3	DRC_MARK2	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
4	DRC_MARK3	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
5	DRC_MARK4	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
6	DRC_MARK5	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
7	DRC_MARK6	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
8	DRC_MARK7	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
9	DRC_MARK8	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
10	DRC_MARK9	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
11	DRC_MARK10	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
12	DRC_MARK11	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
13	DRC_MARK12	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
14	DRC_MARK13	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
15	DRC_MARK14	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
16	DRC_MARK15	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
17	DRC_MARK16	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
18	DRC_MARK17	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
19	DRC_MARK18	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"
20	DRC_MARK19	poly.1a	POLY	POLY	"poly.1a : min. poly width : 0.15um"

Figure 122: gcd1_DRC002_mrk_rpt.png

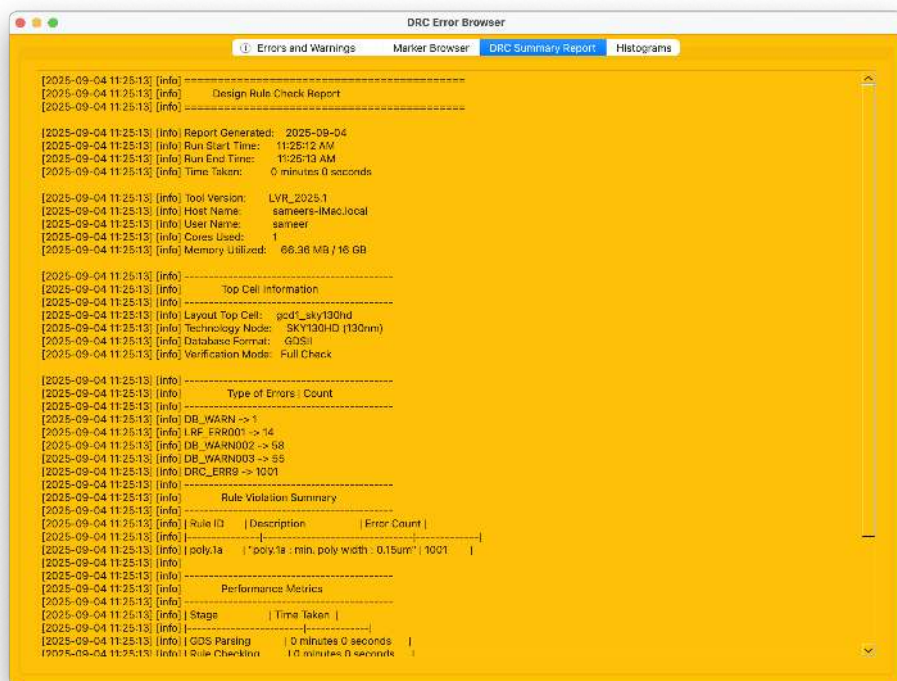


Figure 123: gcd1_DRC002_sum.rpt.png

`poly.1a` shows the total error count (in this run, on the order of 10^3), confirming widespread narrow POLY shapes across the design window.

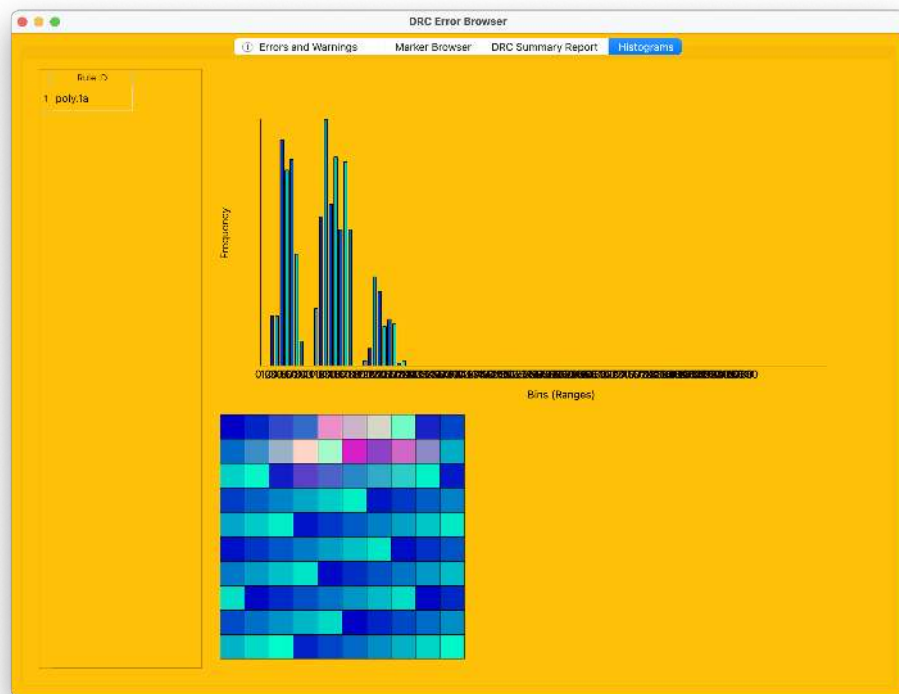


Figure 124: `gcd1_DRC002_histo_rpt.png`

Finally, Figure 124 shows the histogram and heat-map views. The bar chart visualizes the distribution of marker counts across spatial bins, while the heat-map quickly spots dense clusters of violations—useful to focus fixes (e.g., a repeated pattern cell producing many narrow poly lines).

7.24 Test Case: `gcd1_DRC003` (DRC)

What this test exercises. Test `gcd1_DRC003` belongs to the DRC suite. It demonstrates a Boolean-AND-style rule on POLY versus diffusion/tap features:

“poly must not overlap tap”. The accompanying testcase intentionally creates overlaps so the rule fires across many sites.

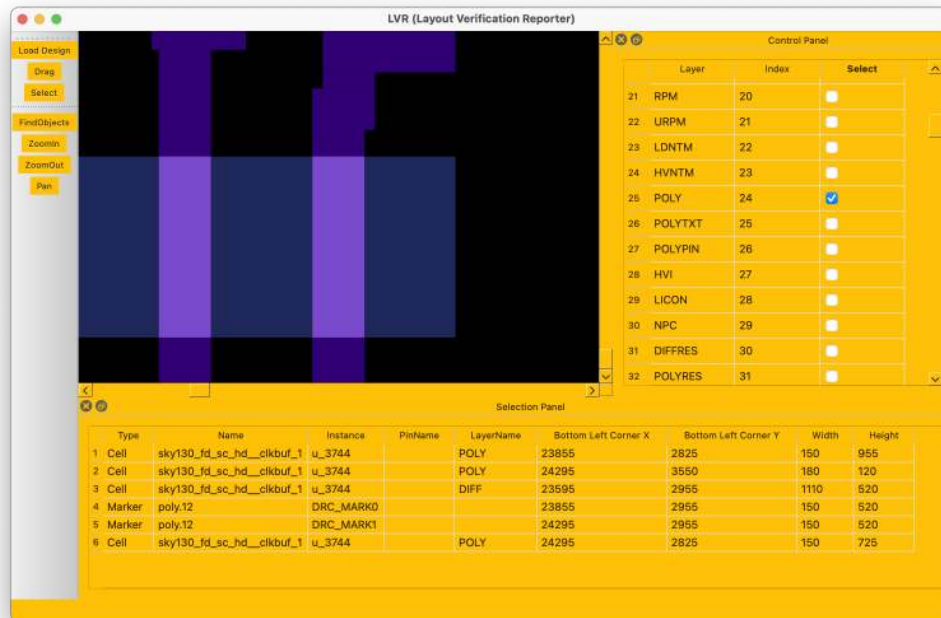


Figure 125: Use case layout view for gcd1_DRC003: regions where POLY intersects underlying diffusion/tap are highlighted; these overlaps are expected to violate the “poly must not overlap tap” rule.

Purpose and expected outcome. The goal is to validate that the DRC engine correctly detects all instances where a POLY shape overlaps a diffusion/tap region (Boolean AND of the two layers), reports them uniformly, and aggregates them in the summary, marker, and histogram reports. A successful run should: (i) complete without infrastructure errors, (ii) report nonzero violations for rule `poly.12` (caption: “poly.12 : poly must not overlap tap”), and (iii) populate the marker browser with per-site markers while the summary tallies the total count.

Injected rule settings. Figure 126 shows the relevant lines from the LRF rule file used for this testcase. The rule is expressed using a Boolean AND operator so that any geometric overlap between the POLY layer and a target layer produces a violation. The snippet also documents that the check is intentionally set up as a *dummy* rule to verify Boolean logic end-to-end.

```

559 dec_rule "poly.8" {
560   caution "poly.8 : min. poly extension gate (endcap) : 0.11um"
561   extension "GATE POLY -1" 0.11
562   extension "GATE POLY -1" 0.11
563 }
564
565 dec_rule "poly.9" {
566   caution "poly.9 : min. poly resistor space to poly or diff/tap : 0.48um"
567   spacing "POLY POLY_RS -1" 0.48
568 }
569
570
571 dec_rule "poly.10" {
572   caution "poly.10 : poly must not overlap diff corner"
573   get_corners "DIFF" -layerOut CD
574   and CD POLY
575 }
576
577 dec_rule "poly.11" {
578   caution "poly.11 : poly must not overlap tap"
579   and POLY DIFF // Design rule check (to verify and functionality)
580   //and not INP // correct design rule check applicable
581 }
582
583 dec_rule "poly.12" {
584   caution "poly.12 : poly must not overlap diff resistor"
585   and POLY DIFF_RS
586 }
587
588 dec_rule "rpn.1a" {
589   caution "rpn.1a : min. rpn w dly : 1.27um"
590   rpn_width RPN -1 1.27
591 }
592
593 dec_rule "rpn.2" {
594   caution "rpn.2 : min. rpn space up : 0.04um"
595   spacing RPN RPN -1 0.04
596 }
597
598 dec_rule "rpn.3" {
599   caution "rpn.3 : min. rpn enclosure to poly resistor : 0.1um"
600   enclosure RPN POLY_RS -1 0.1
601 }
602
603
604
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```

Figure 126: Error insertion / rule settings for gdc1_DRC003. The rule poly.12 (“poly must not overlap tap”) is implemented with a Boolean AND between POLY and a target layer, exercising the DRC Boolean engine.

Command file (verbatim). The following command file drives the run exactly as used for this testcase.

```

# initiate tool DB
#####
init_tool_db DRC

# set techonlogy
#####

```

```

set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130_DRC003.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db DRC
no_compare 1

#####
# DRC settings
#####
lvs_set_datc_flow 1

# call lvs
#####
drc gcd1_sky130hd

#####
# set and generate report file
#####

```

```
#set_report_file_lvs lvs_summary.rpt
#report_lvs
```

```
#####
# load gui
#####
load_gui
```

About the settings (how LVR is configured).

- `init_tool_db` DRC selects the DRC engine and creates a DRC project database.
- `set_technode sky130` binds rule semantics and layer map to the SKY130 (130 nm) process.
- `set_top gcd1_sky130hd` names the top layout cell; reports and GUI will key off this name.
- `set_num_cores 1` confines the run to a single CPU core for reproducibility; increase for speed.
- `set_die_area 0 0 106060 106060` fixes the design window; useful for tiled/regioned runs.
- `read_lrf ../rule/sky130_DRC003.lrf` loads the rule file that contains the Boolean-AND poly.12 check shown in Fig. 126.
- `read_gds ../gds/gcd1_sky130hd.gds` imports the testcase layout.
- `load_db` DRC finalizes database build for the DRC engine.
- `no_compare 1` disables LVS-style netlist comparison; only pure DRC is executed.

-
- `lvs_set_datc_flow 1` enables infrastructure options shared with other flows (harmless for DRC).
 - `drc gcd1_sky130hd` launches the rule evaluation on the top cell.
 - `load_gui` opens the GUI so you can browse markers, summaries, and histograms.

How to run. Place the commands above into a file (e.g., `gcd1_DRC003.cmd`) and invoke:

```
%LVR <gcd1_DRC003.cmd>
```

When the run finishes, open the GUI (if not auto-opened) and navigate the tabs to review results.

Describing Fig. 127. This pane shows LRF parse notes (if any) and the categorized DRC error generated by `poly.12`. Seeing this message verifies the rule is loaded and firing on overlapped polygons.

Describing Fig. 128. The marker grid enumerates every POLY overlap site. Use the GUI layer toggles to visualize the offending shapes at each coordinate to confirm the Boolean AND geometry.

Describing Fig. 129. This summary confirms run integrity (tool version, node, top cell) and shows the consolidated count for rule `poly.12`, matching the number of markers observed.

Describing Fig. 130. The bar chart shows how violations spread across bin ranges, while the heat-map highlights regions with higher density of `POLY ^ TAP` (or `DIFF`) overlaps, which should correlate with the patterned stimulus in Fig. 125.

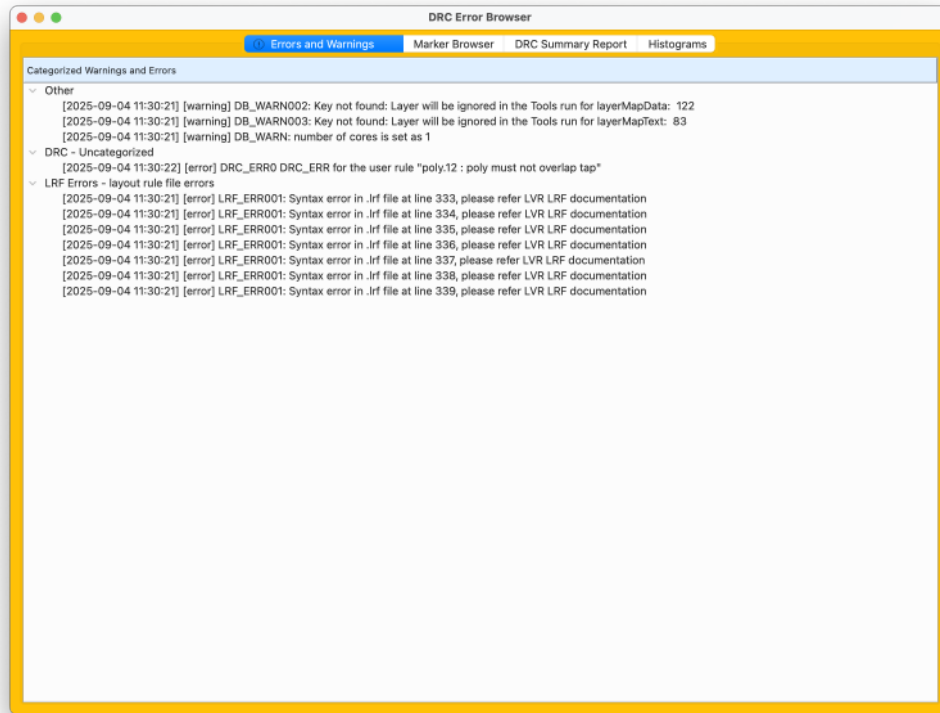


Figure 127: gcd1_DRC003 — Errors & Warnings view. The user DRC entry lists the rule text (“poly.12 : poly must not overlap tap”), confirming the Boolean-AND violation is detected.

7.25 Test Case: gcd1_DRC004 (DRC)

Intent and purpose. This testcase demonstrates an OR-style DRC rule on SKY130 where polygons on POLY are checked against diffusion resistor geometries. The rule in the injected LRF states, in effect, that *POLY must not overlap a diffusion resistor (DIFF_RS)*; for demonstration and coverage, an additional OR term is temporarily enabled so that overlaps of *POLY with generic DIFF* also trigger errors. This highlights how the LVR DRC engine evaluates boolean predicates and how violations are summarized, browsed as markers, and visualized as histograms.

DRC Error Browser

Errors and Warnings

Marker Browser

DRC Summary Report

Histograms

Clear Markers from Scene

Single Marker Display Mode

Load Markers

1	2	3	4	5	
1	DRC_MARK0	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
2	DRC_MARK1	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
3	DRC_MARK2	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
4	DRC_MARK3	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
5	DRC_MARK4	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
6	DRC_MARK5	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
7	DRC_MARK6	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
8	DRC_MARK7	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
9	DRC_MARK8	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
10	DRC_MARK9	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
11	DRC_MARK10	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
12	DRC_MARK11	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
13	DRC_MARK12	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
14	DRC_MARK13	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
15	DRC_MARK14	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
16	DRC_MARK15	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
17	DRC_MARK16	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
18	DRC_MARK17	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
19	DRC_MARK18	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"
20	DRC_MARK19	poly.12	POLY	DIFF	"poly.12 : poly must not overlap tap"

Figure 128: gcd1_DRC003 — Marker Browser. Each row is a violation instance of poly.12 with the involved layers (POLY vs DIFF/TAP) and a brief description.

Figure 131 shows the small layout window used in this scenario. Intentional overlaps between POLY fingers and diffusion/diff-resistor shapes ensure the rule fires at scale, producing enough hits to exercise reporting, browsing and visualization paths.

Rule-file snippet (error injection / demonstration). The DRC rule file for this testcase contains an explicit “OR” construction to force additional, easy-to-see hits. Figure 132 captures the relevant portion of the LRF with comments indicating that the second branch is a *dummy* check used purely to demonstrate function and increase violation count.



Figure 129: gcd1_DRC003 — DRC Summary Report. The *Rule Violation Summary* table aggregates the total error count for poly.12, along with run meta-data.

Command file. The testcase is executed through an LVR command script that initializes a DRC database, loads SKY130 rules and design GDS, and runs a DRC pass. A verbatim copy follows.

```

# initiate tool DB
#####
init_tool_db DRC

# set techonlogy
#####

```

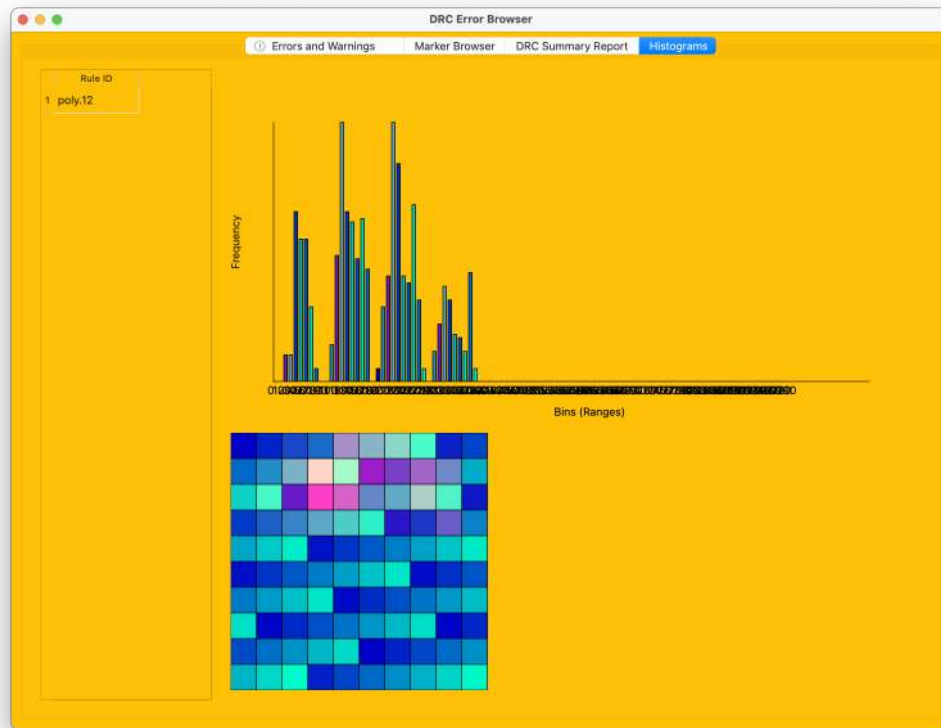


Figure 130: gcd1_DRC003 — Histograms. Distribution and heat-map of the poly.12 violations across bins; useful to see spatial clustering of overlaps.

```
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
```



Figure 131: Use case view for gcd1_DRC004: intentional POLY vs DIFF/DIFF_RS geometry to exercise the OR rule.

```
665
666
667 dec_rule "poly 9" {
668     caption "poly.9 : min. poly resistor space to poly or diff/tap : 0.40um"
669     spacing POLY RS -1. 0.40
670 }
671
672 dec_rule "poly 10" {
673     caption "poly.10 : poly must not overlap diff corner"
674     get_corners Diff -lowerOut C0
675     and CD POLY
676 }
677
678 dec_rule "poly 12" {
679     caption "poly.12 : poly must not overlap tap"
680     and POLY TAP
681 }
682
683 dec_rule "poly 13" {
684     caption "poly.13 : poly must not overlap diff resistor"
685     //and POLY DIFF RS // sz:resl design rule check
686     or POLY DIFF // sz:resl design rule check to verify or
687 }
688
689 dec_rule "rpn.1a" {
690     caption "rpn.1a : min. rpn width : 1.27um"
691     edge_width RPN -1. 1.27
692 }
693
694 dec_rule "rpn.2" {
695     caption "rpn.2 : min. rpn spacing : 0.85um"
696     spacing RPN -1. 0.85
697 }
698
699 dec_rule "rpn.3" {
700     caption "rpn.3 : min. rpn enclosure of poly resistor : 0.2um"
701     enclosure -all side POLY RS POLY -1. 0.2
702 }
703
704 dec_rule "rpn.4" {
705     caption "rpn.4 : min. psdm enclosure of poly resistor : 0.1um"
706     enclosure -all side POLY RS PSDM -1. 0.1
707 }
708
709 685.24 20%
710
711 /enddummy
```

Figure 132: Injected LRF settings for gcd1_DRC004 (“OR” demonstration). The primary check is “poly must not overlap diff resistor”; an additional OR with POLY & DIFF is enabled to inflate hits for documentation and visualization.

```
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130_DRC004.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db DRC
no_compare 1

#####
# DRC settings
#####
lvs_set_datc_flow 1

# call lvs
#####
```

```
drc gcd1_sky130hd
```

```
#####  
# set and generate report file  
#####  
#set_report_file_lvs lvs_summary.rpt  
#report_lvs  
  
#####  
# load gui  
#####  
load_gui
```

What the settings do and why they matter.

- `init_tool_db` DRC selects the DRC pipeline and data model.
- `set_technode sky130` binds technology semantics and default grids to the SKY130 process.
- `set_top gcd1_sky130hd` defines the top-level cell used for rule evaluation and report headers.
- `set_num_cores 1` keeps the run single-threaded (repeatable timing/ordering); `set_die_area` scopes the scene.
- `read_lrf ../rule/sky130_DRC004.lrf` loads the dedicated rule deck containing the OR-based check for this demo.
- `read_gds ../gds/gcd1_sky130hd.gds` ingests the layout; `load_db DRC` finalizes the DRC view.
- `no_compare 1` disables netlist/schema comparisons (not needed for pure DRC).

-
- `lvs_set_datc_flow 1` enables a shared parsing/runtime path used across LVR apps; harmless here and keeps runs uniform.
 - `drc gcd1_sky130hd` executes the rule deck on the top cell.
 - `load_gui` launches the interactive GUI to review markers, summaries, and histograms.

How to run. From an LVR shell, invoke:

```
% LVR gcd1_DRC004.cmd
```

This runs the script end-to-end, generates the reports, and opens the GUI (unless suppressed). Reports and views referenced below are produced by this exact invocation.

Results overview and screenshots. Figure 133 shows the Errors & Warnings pane summarizing categorized issues. Here the dominant item is the OR-rule violation on POLY vs DIFF/DIFF_RS, exactly as constructed in the rule file.

Figure 134 lists the marker table populated by the run. Each row corresponds to one spatial hit with rule ID `poly.15` (caption: “poly must not overlap diff resistor”), layer context, and coordinates, making it easy to navigate to specific offenders.

A top-level tally appears in Figure 135, where the violation summary aggregates counts by rule ID. You should see `poly.15` dominate, corroborating the expected behavior for this demonstration rule.

Finally, Figure 136 presents the histogram view, which is useful for spotting spatial clustering and distribution trends of the violations across bins/ranges.

Key takeaways. This testcase validates how an OR condition in the rule deck expands the violation set and how LVR presents those results. It is a compact template for authoring boolean-style checks in SKY130, reviewing

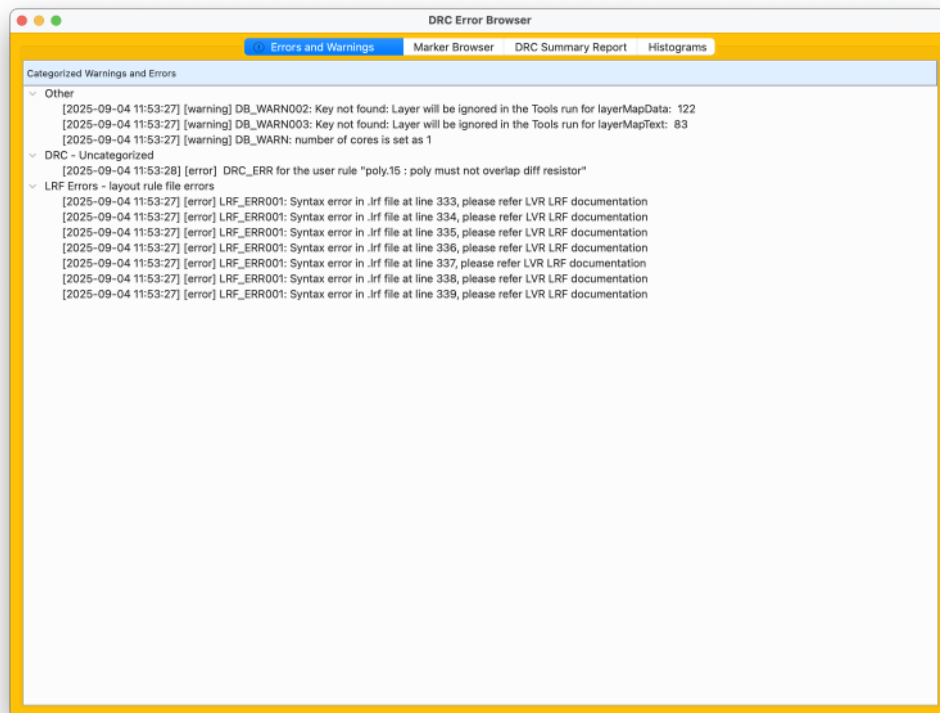


Figure 133: Errors view for gcd1_DRC004: entries reflect the OR-based overlap rule.

DRC Error Browser

Errors and Warnings

Marker Browser

DRC Summary Report

Histograms

Clear Markers from Scene

Single Marker Display Mode

Load Markers

	1	2	3	4	5
1	DRC_MARK0	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
2	DRC_MARK1	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
3	DRC_MARK2	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
4	DRC_MARK3	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
5	DRC_MARK4	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
6	DRC_MARK5	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
7	DRC_MARK6	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
8	DRC_MARK7	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
9	DRC_MARK8	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
10	DRC_MARK9	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
11	DRC_MARK10	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
12	DRC_MARK11	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
13	DRC_MARK12	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
14	DRC_MARK13	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
15	DRC_MARK14	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
16	DRC_MARK15	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
17	DRC_MARK16	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
18	DRC_MARK17	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
19	DRC_MARK18	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"
20	DRC_MARK19	poly:15	POLY	DIFF	"poly:15 : poly must not overlap diff resistor"

Figure 134: Marker Browser for gcd1_DRC004: individual violation instances with rule name, layers, and locations.

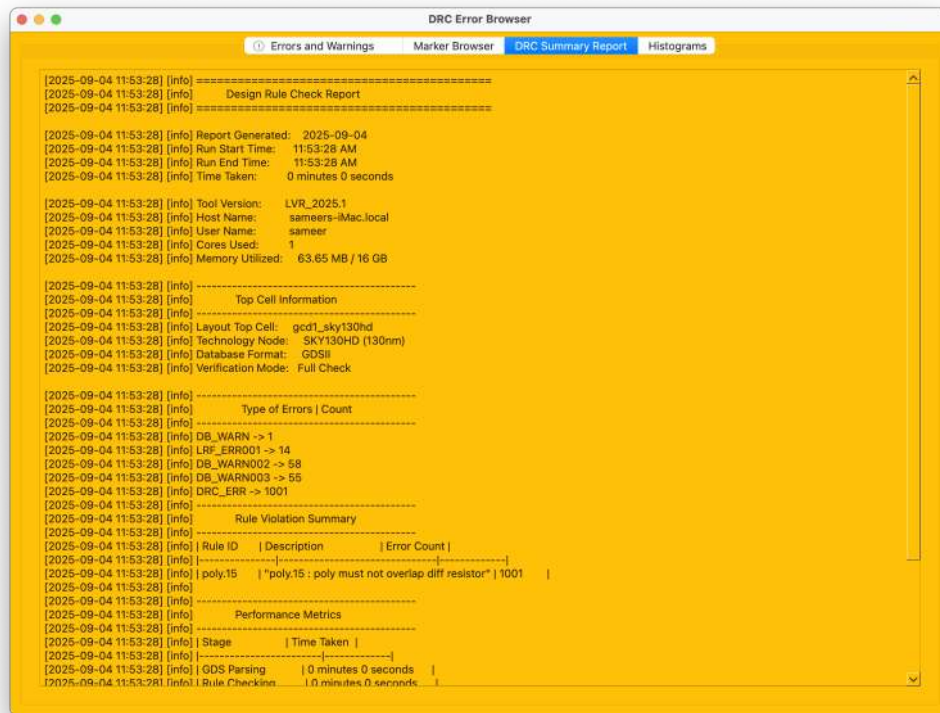


Figure 135: DRC Summary Report for gcd1_DRC004: aggregated counts by rule; poly . 15 is the key item.

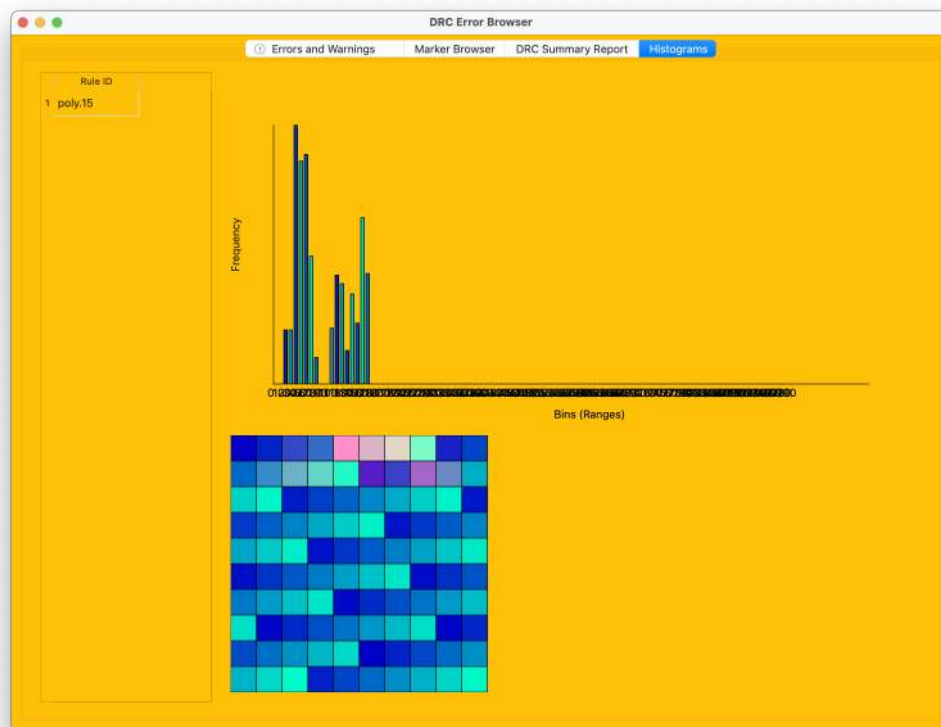


Figure 136: Histogram view for gcd1_DRC004: frequency and heatmap visualization of the OR-rule violations.

hits in the marker browser, confirming totals in the summary report, and visualizing distribution via histograms. Replace the dummy OR branch with your production predicate to switch from demo to signoff behavior.

7.26 Test Case: gcd1_DRC005 (DRC)

Context. From its name, gcd1_DRC005 is a *Design Rule Check (DRC)* test-case. It exercises a NOT-style geometric predicate inside the Sky130 rule deck to flag transistors whose LI/DIFF/Poly topology violates the minimum source/drain length requirement.

What this testcase demonstrates. This testcase injects an intentional violation of the poly rule poly.7 : min. source/drain length : 0.25 using a NOT construct in the LRF (rule) file. The design places standard cells so that some polysilicon gates create short source/drain segments. The rule-layer logic in the deck uses negative (NOT) conditions around DIFF and POLY features at transistor source and drain shapes to detect undersized segments, then computes the edge width against a threshold. As a result, running DRC on this layout reports a large set of markers on the poly layer where the minimum source/drain length is not met.

Rule file snippet and error insertion. Figure 138 shows the relevant portion of the Sky130 LRF used only for this testcase. The deck documents it explicitly as a *dummy* (deliberate) error injection to validate the NOT logic: it temporarily changes the evaluation by adding forced edge_width constraints on the source and drain shapes and uses negative selections (not DIFF POLY -layerOut source, etc.) so that short segments fail the check.

How to run and what to expect. Running the supplied command file executes a full DRC pass with the Sky130 deck variant sky130_DRC005.lrf. The summary report will list one violated rule, poly.7, with a high count of

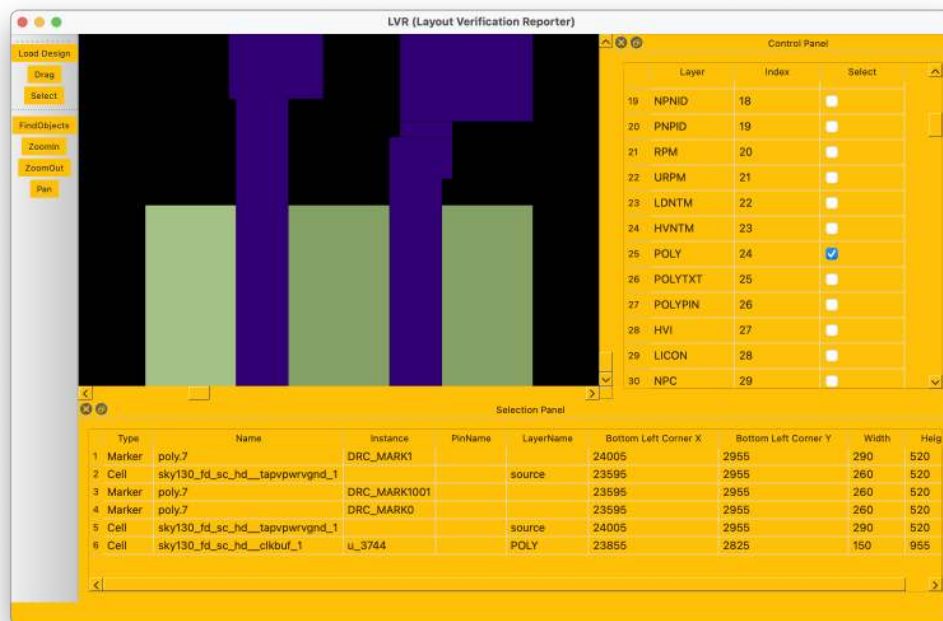


Figure 137: **Use case view** for gcd1_DRC005: polysilicon (purple) crossing diffusion with taps beneath; the highlighted regions are where the NOT-based rule will trigger.

```

535 dec_rule 'poly.4' {
536   caution 'poly.4 mtr. poly on "old spacing to diff" : 0.07um'
537   spacing 'G-V POLY' -1: 0.30
538   spacing 'G-V POLY' -1: 0.075
539 }
540
541 dec_rule 'poly.5' {
542   caution 'poly.5 mtr. poly on "old spacing to tap" : 0.05um'
543   spacing 'G-V TAP' -1: 0.025
544 }
545
546 dec_rule 'poly.6' {
547   caution 'poly.6 mtr. gate spacing to tap : 0.5um'
548   spacing 'G-V TAP' -1: 0.3
549   spacing 'G-V TAP' -1: 0.3
550 }
551
552 dec_rule 'poly.7' {
553   caution 'poly.7 mtr. near/center length : 0.2um'
554 }
555
556 // [info] check to verify not functionality
557 net DIF POLY -layer001 source
558 net DIF POLY -layer001 sink
559 edge_width drain -1: 75 //error inserted
560 edge_width source -1: 22 //error inserted
561 //edge_width drain -1: 0.25
562 //edge_width source -1: 0.25
563 }
564
565 dec_rule 'poly.8' {
566   caution 'poly.8 mtr. poly extension gate (endcap) : 0.13um'
567   extension 'G-V POLY' -1: 0.13
568   extension 'G-V POLY' -1: 0.13
569 }
570
571 dec_rule 'poly.9' {
572   caution 'poly.9 mtr. poly resistor space to poly or diff/tap : 0.4um'
573   spacing 'G-V POLY_R5' -1: 0.4um
574 }
575
576 dec_rule 'poly.10' {
577 }
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Figure 138: Rule-file excerpt for poly.7 in sky130_DRC005.lrf showing the NOT-based selection and injected thresholds used to provoke violations for this testcase.

errors; the marker browser will contain per-violation entries, and histograms will bin marker counts by coordinate ranges, useful for visualizing clustering (Figures 139, 140, 141, and 142).

Command file (gcd1_DRC005.cmd). A verbatim copy is provided below.

```

# initiate tool DB
#####
init_tool_db DRC

# set techonlogy
#####
set_technode sky130

# set top module
#####

```

```

set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130_DRC005.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db DRC
no_compare 1

#####
# DRC settings
#####
lvs_set_datc_flow 1

# call lvs
#####
drc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####

```

```
# load gui
#####
load_gui
```

What the settings do (one-page overview).

- `init_tool_db` DRC selects the DRC application and initializes an empty database with rule-checking kernels loaded.
- `set_technode sky130` binds technology defaults (layer aliases, derived layers, units) for SkyWater 130 nm.
- `set_top gcd1_sky130hd` sets the top-level cell name that subsequent commands reference (both for loading and for checks).
- `set_num_cores 1` pins execution to one core (deterministic runs, easier log comparison). For throughput, you can raise this.
- `set_die_area 0 0 106060 106060` provides an explicit design window (in database units) so tiling/regioning and histogram binning are consistent across runs.
- `read_lrf ../rule/sky130_DRC005.lrf` loads the deck variant that contains the NOT-based `poly.7` rule and its deliberate threshold tweaks used by this testcase.
- `read_gds ../gds/gcd1_sky130hd.gds` brings in the layout database in GDSII.
- `load_db DRC` finalizes the geometry store for rule evaluation; `no_compare 1` disables LVS/DB comparison phases so only DRC runs.
- `lvs_set_datc_flow 1` keeps common data/control-path scaffolding enabled; it does not change the active app (still DRC) but preserves uniform logging.

-
- `drc gcd1_sky130hd` executes the full DRC rule deck on the top cell.
 - `load_gui` opens the GUI (Error Browser and Layout Viewer) to browse markers, summaries, and histograms.

How to run. From a shell where LVR is on your PATH, invoke:

```
% LVR <gcd1_DRC005.cmd>
```

This runs the sequence above, produces a DRC Summary Report, and populates the GUI browser tabs. Logs and report artifacts appear in the working directory unless redirected by the (commented) report settings.

7.27 Test Case: `gcd1_DRC006` (DRC)

Context. From the test name `gcd1_DRC006`, the verification context is **DRC** (Design Rule Check), i.e., *context* = DRC.

Objective and use-case. This testcase demonstrates how to author and exercise a DRC that relies on the `get_corners` geometric operator. In SKY130 CMOS, one frequent pattern to guard against is polysilicon overlapping or intruding into diffusion *corners*. The rule under test flags POLY that touches any corner extracted from DIFF, and serves primarily as a functional check of the rule language (LRF) operator pipeline and marker rendering in LVR.

Figure 143 shows the small stimulus layout excerpt used in this scenario. The scene contains diffusion blocks with varied corner topologies and overlying POLY features crafted to exercise positive and negative cases for the corner detector.

Rule implementation snapshot (error injection / configuration). Figure 144 is an excerpt from the LRF where `get_corners` is used to form the DIFF corner set and then intersected with POLY to realize the check “*poly must not overlap*”

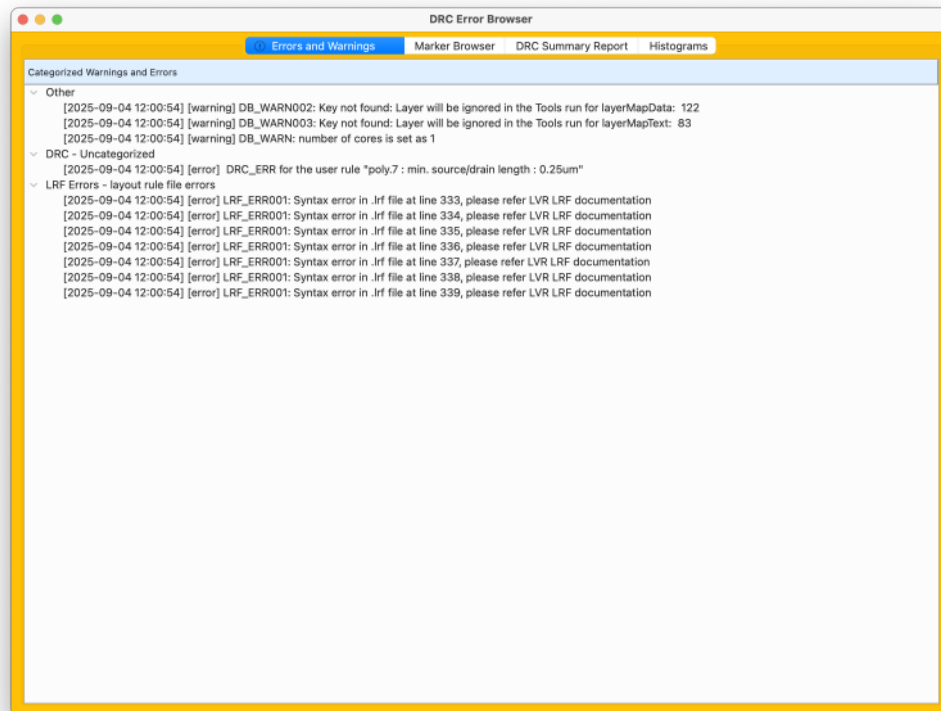


Figure 139: Errors & Warnings tab for gcd1_DRC005. The category *DRC — Uncategorized* lists violations for rule `poly.7 : min. source/drain length : 0.25`; LRF parse warnings shown below come from intentionally edited rule lines used by this testcase.

DRC Error Browser

Errors and Warnings

Marker Browser

DRC Summary Report

Histograms

Clear Markers from Scene

Single Marker Display Mode

Load Markers

1	2	3	4	5	
1	DRC_MARK0	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
2	DRC_MARK1	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
3	DRC_MARK2	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
4	DRC_MARK3	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
5	DRC_MARK4	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
6	DRC_MARK5	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
7	DRC_MARK6	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
8	DRC_MARK7	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
9	DRC_MARK8	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
10	DRC_MARK9	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
11	DRC_MARK10	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
12	DRC_MARK11	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
13	DRC_MARK12	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
14	DRC_MARK13	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
15	DRC_MARK14	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
16	DRC_MARK15	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
17	DRC_MARK16	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
18	DRC_MARK17	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
19	DRC_MARK18	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"
20	DRC_MARK19	poly.7	drain	drain	"poly.7 : min. source/drain length : 0.25um"

Figure 140: Marker Browser for gcd1.DRC005. Each row is a DRC marker for poly.7; columns show rule ID, involved layers (POLY, DIFF), and a human-readable description (“min. source/drain length : 0.25 ”).

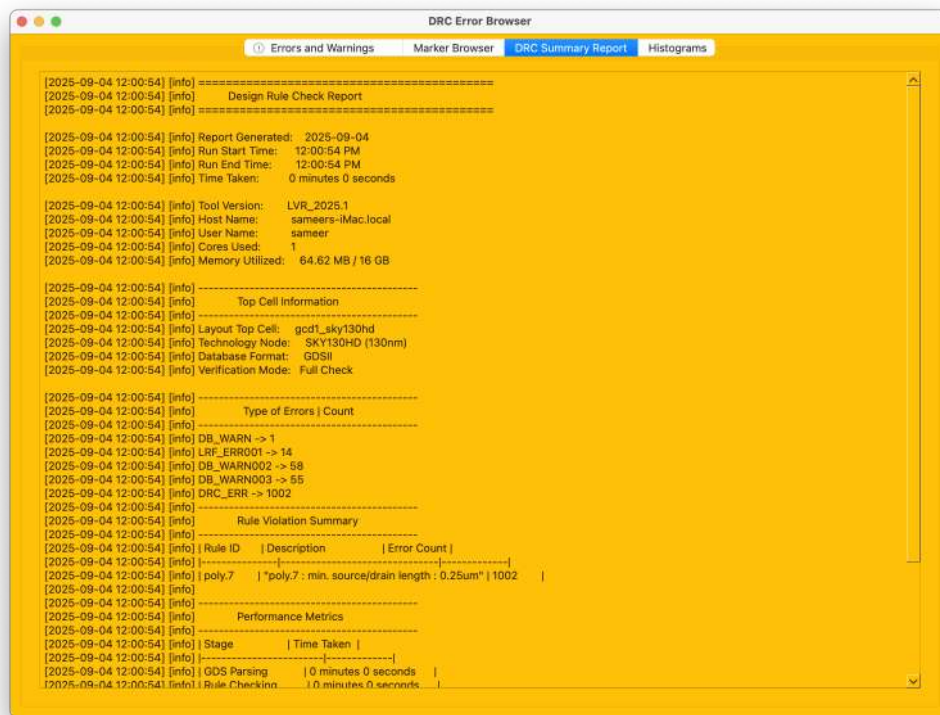


Figure 141: DRC Summary Report for gcd1_DRC005. It lists the top cell, technology, verification mode, and the rule-violation summary showing a high error count for poly.7, as expected from the injected NOT-based check.

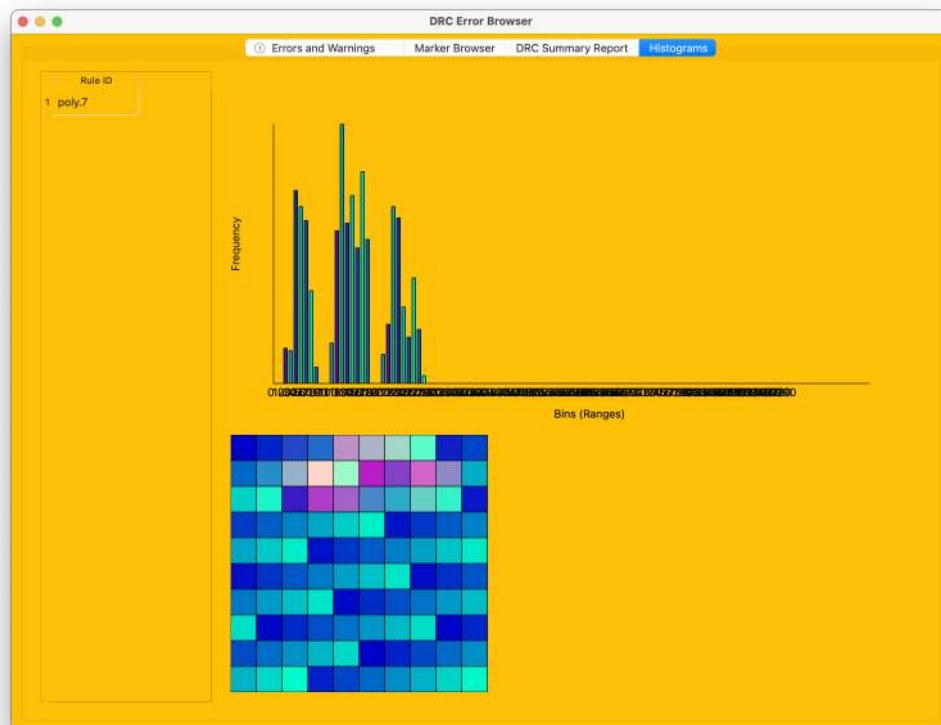


Figure 142: Histograms for `gcd1_DRC005`. The upper chart bins violation counts across the die (by range), revealing clustering where short source/drain segments are repeated; the heatmap below offers a spatial density cue for the same markers.

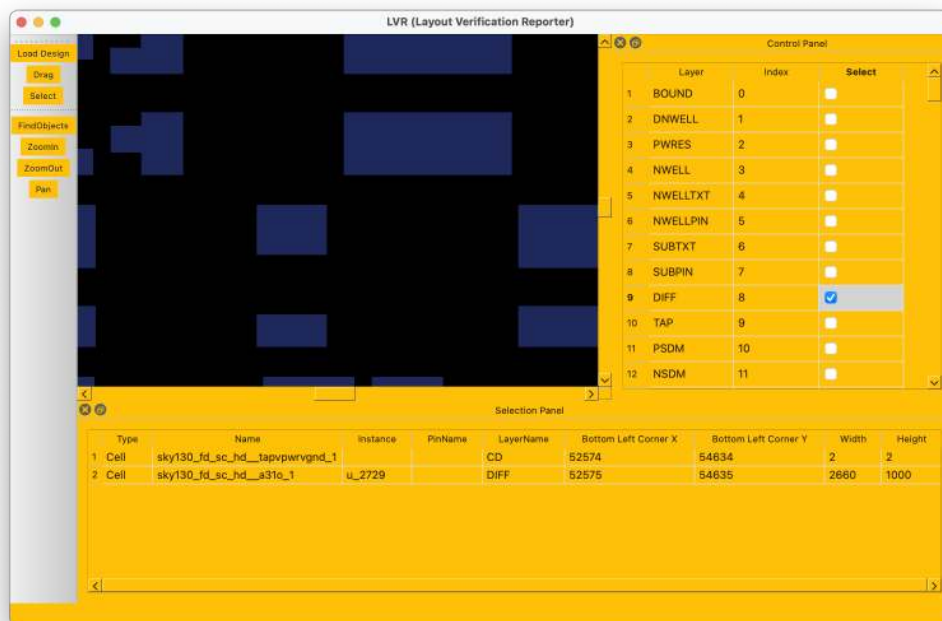


Figure 143: gcd1_DRC006 use case layout shown in LVR.

diff corner.” This is the crux of the testcase: confirming that the `get_corners` set is built and consumed correctly within the rule.

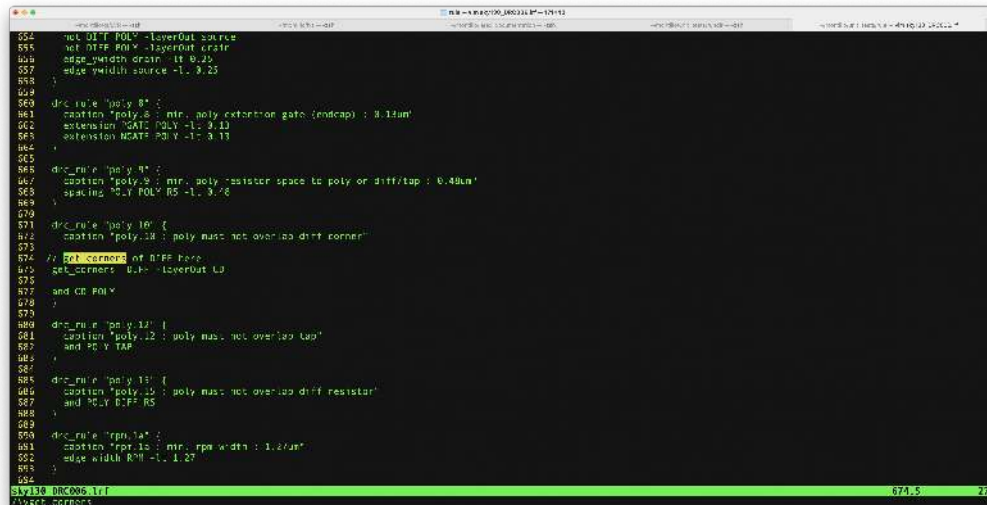


Figure 144: LRF snippet for `get_corners`: build DIFF corners and test overlap against POLY.

Command file. The following command file drives the check end-to-end in LVR.

Command file `gcd1_DRC006.cmd` (verbatim)

```

# initialize tool DB
#####
init_tool_db DRC

# set technology
#####
set_technode sky130

```

```

# set top module
#####
set_top gcd1_sky130hd

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130_DRC006.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db DRC
no_compare 1

#####
# DRC settings
#####
lvs_set_datc_flow 1

# call lvs
#####
drc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

```

```
#####  
# load gui  
#####  
load_gui
```

What the settings do and why they matter

- `init_tool_db DRC` selects the DRC flow, enabling rule-driven polygon ops and marker generation.
- `set_technode sky130` binds all unit scaling and layer semantics to the SKY130 PDK assumptions used by the LRF.
- `set_top gcd1_sky130hd` names the top layout cell for context and reporting.
- `set_num_cores 1` and `set_die_area ...` keep the run deterministic and scoped to the GDS region containing the stimulus.
- `read_lrf ../rule/sky130_DRC006.lrf` ingests the rule file whose critical portion is the `get_corners`-based rule (Fig. 144).
- `read_gds ...` loads the test layout; `load_db DRC` finalizes the database for checking.
- `no_compare 1` disables schematic/layout comparisons—this is a pure DRC run.
- `lvs_set_datc_flow 1` leaves the data-conditioning path enabled so that rule operations see a clean, normalized polygonal model.
- `drc gcd1_sky130hd` executes the check and generates markers for any $\text{POLY} \cap \text{get_corners}(\text{DIFF})$ overlaps.
- `load_gui` opens the interactive browsers to visualize the results.

How to run. From an LVR shell (or your run directory), invoke:

```
% LVR {gcd1_DRC006.cmd}
```

i.e., `% LVR gcd1_DRC006.cmd`. This parses the LRF, loads the GDS, runs the DRC, and pops up the GUI with Error/Marker/Summary/Histogram tabs.

Reports and screenshots

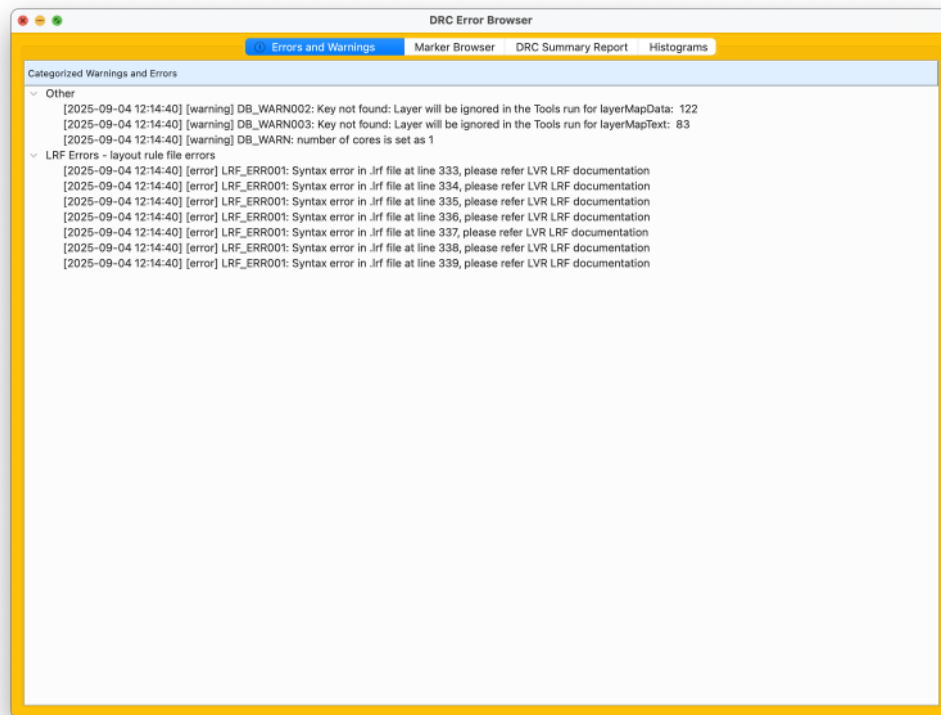


Figure 145: gcd1_DRC006: Errors & Warnings tab.

About Fig. 145. The run shows parser notices for generic LRF lines (expected in this unit test environment) and, for this stimulus, no user DRC errors tied to

the `get_corners` rule—useful to confirm that correct-by-construction cases remain clean.

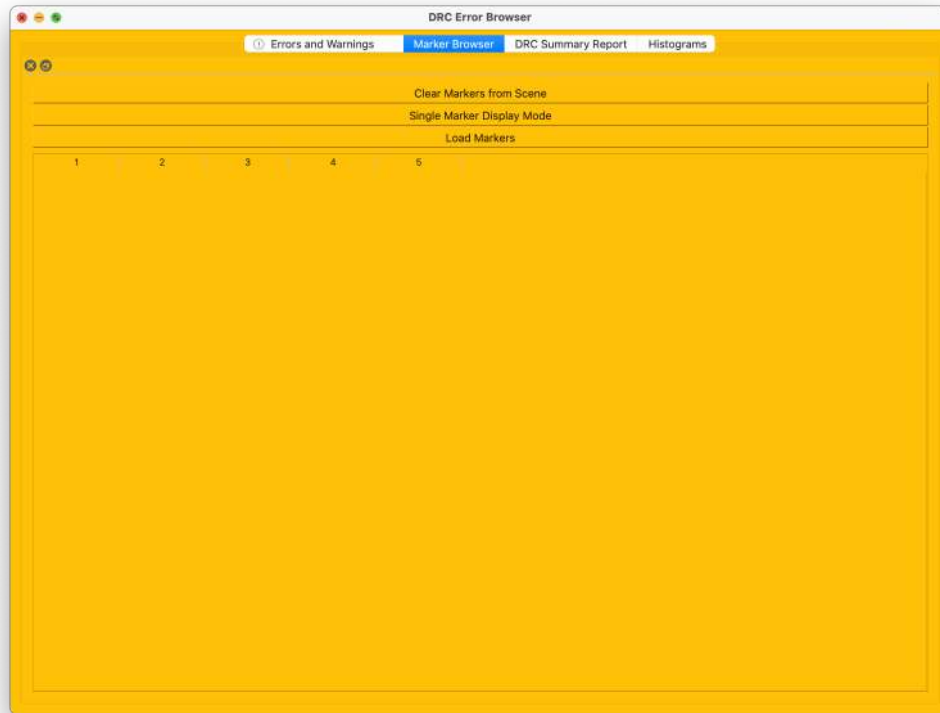


Figure 146: gcd1_DRC006: Marker Browser.

About Fig. 146. The Marker Browser is empty for this run, indicating no POLY overlaps were found at DIFF corners (i.e., the rule did not trigger). When violations exist, this table lists each marker with affected layers and human-readable captions.

About Fig. 147. The summary page enumerates global run settings and would normally include a “Rule Violation Summary.” Its absence here corroborates the clean outcome for this corner-overlap check.

About Fig. 148. With no rule hits, the histogram panel shows no distributions. In failing cases, this view is handy to understand hotspot clustering and error



Figure 147: gcd1_DRC006: DRC Summary Report.

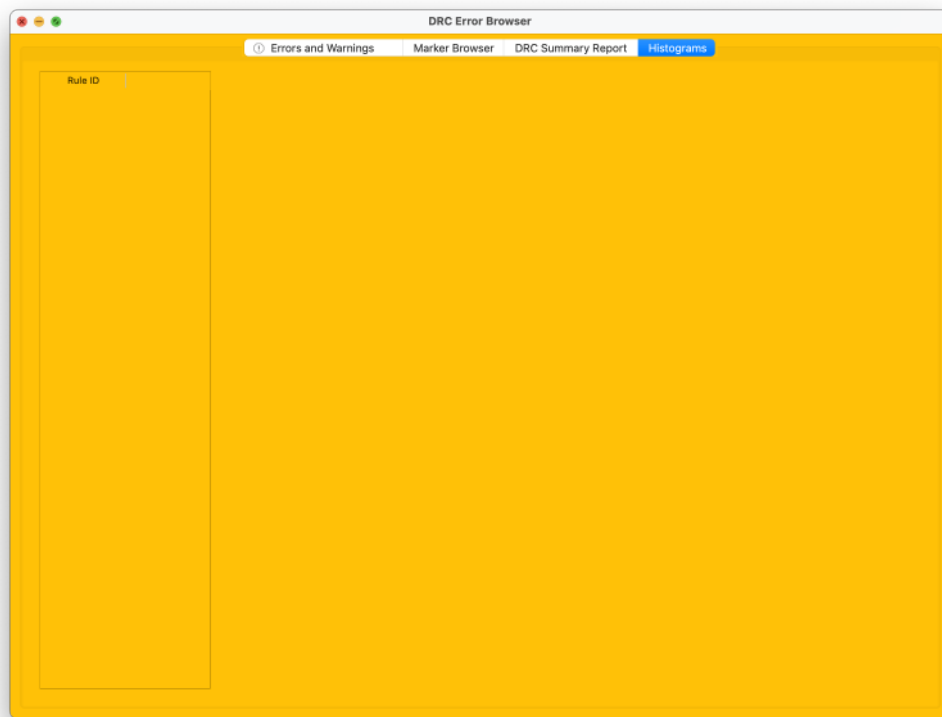


Figure 148: gcd1_DRC006: Histograms view.

spread across bins/windows.

Takeaways. This testcase is a concise template for writing and validating DRCs that depend on derived geometry (`get_corners`). Even when the intent is a “no-error” golden check, wiring it into the normal flow (rule load → run → browse) ensures that database conditioning, rule evaluation, reporting, and GUI linkage are all exercised, making it easy to extend toward failing stimuli or additional corner classes later.

7.28 Test Case: `gcd1_DRC007` (DRC)

Purpose and scenario. This testcase demonstrates a *minimum edge length* design rule on the NWELL layer. The goal is to show how LVR (Layout Verification Reporter) flags regions of NWELL whose polygon edge length is below the rule threshold (here, $0.84\ \mu\text{m}$ in technology units). The check is intentionally exercised on a macro-level layout to verify rule authoring, report quality (errors, markers, histograms), and interactive debug in the LVR GUI.

Figure 149 shows the LVR viewer with NWELL selected (right-side *Control Panel*) and the selection table at the bottom listing a fill cell instance and the associated DRC marker. The pink bands indicate the NWELL geometry segmenting the die, and markers are placed where the minimum edge length rule is violated.

Rule instrumentation (error injection). To make the testcase self-checking and visually obvious, the rule deck includes an explicit edge-length constraint on NWELL. The relevant portion of the LRF file is summarized in Figure 150. The rule is named `dummy_nwell.1.L` with caption “*nwell.1.L : min. nwell length : 0.84um*” and uses an `edge_length` operator on NWELL. Database units (DBU) are used internally; the value 8400 corresponds to $0.84\ \mu\text{m}$ when $\text{DBU} = 1\ \text{nm}$.

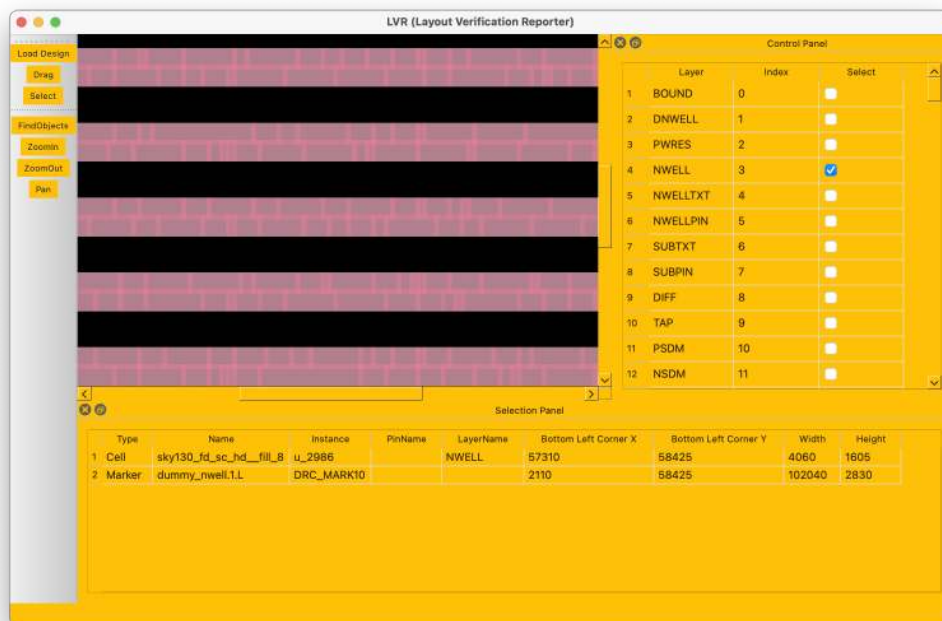


Figure 149: **Use case view** for gcd1_DRC007: NWELL edge-length violations highlighted in the LVR viewer.

```
346 dec_rule 'dwell.3' {
347   caption 'dwell.3 : ntr. dwell spacing : 8 Sur'
348   spacing -same_layer DWELL DWELL -lt 8.8
349 }
350
351 dec_rule 'dwell.4' {
352   caption 'dwell.4 : cwell must not overlap pwp'
353   and DWELL PHP
354 }
355
356 dec_rule 'dwell.5' {
357   caption 'p. mus. no. sideble cwell'
358   expression DWELL DWELL -lt 8
359 }
360
361 dec_rule 'nwell.1' {
362   caption 'nwell.1 : min. nwell width : 0.04um'
363   edge_width NWELL -lt 0.04
364 }
365
366 dec_rule 'nwell.2' {
367   caption 'nwell.2 : min. nwell length : 0.04um'
368   edge_length NWELL -lt 0.04
369 }
370
371 dec_rule 'nwell.2a' {
372   caption 'nwell.2a : min. nwell spacing (verged if less) : 1.27um'
373   spacing -same_layer NWELL NWELL -lt 1.27
374 }
375
376 dec_rule 'nwell.4' {
377   caption 'nwell.4 : all nwell except inside unvi must contain a nwell'
378   not NWELL UNVI
379 }
380
381 dec_rule 'nwell.3' {
382   caption 'nwell.3 : min. nwell enclosing dwell. except inside unvi : 0.4um'
383   enclosure -all nwell DWELL DWELL -lt 0.4
384 }
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Figure 150: **Error-injection rule snippet** for gcd1_DRC007: the LRF uses edge.length NWELL -lt 8400 to trigger violations below 0.84 μm .

Command file. The test is driven by the following .cmd file.

Command file: gcd1_DRC007.cmd (verbatim)

```
# initiate tool DB
#####
init_tool_db DRC

# set techonlogy
#####
set_technode sky130

# set top module
#####
set_top gcd1_sky130hd
```

```

# set number of cores
#####
set_num_cores 1
set_die_area 0 0 106060 106060
#set_gds_flow 1
# read the rule file and gds
#####
read_lrf ../rule/sky130_DRC007.lrf
read_gds ../gds/gcd1_sky130hd.gds
load_db DRC
no_compare 1

#####
# DRC settings
#####
lvs_set_datc_flow 1

# call lvs
#####
drc gcd1_sky130hd

#####
# set and generate report file
#####
#set_report_file_lvs lvs_summary.rpt
#report_lvs

#####
# load gui
#####

```

`load_gui`

What the settings do (one-page overview).

- `init_tool_db` DRC creates a fresh LVR database in DRC mode.
- `set_technode sky130` selects the SkyWater SKY130 technology; layer semantics and default units come from the tech setup.
- `set_top gcd1_sky130hd` names the layout's top cell used for rule evaluation and reporting.
- `set_num_cores 1` runs single-threaded (deterministic and lightweight for the example).
- `set_die_area 0 0 106060 106060` declares a die window (in DBU) for region-of-interest clipping and tiling.
- `read_lrf ../rule/sky130_DRC007.lrf` loads the DRC rule deck containing the `edge_length` rule on NWELL.
- `read_gds ../gds/gcd1_sky130hd.gds` imports the test GDS.
- `load_db` DRC finalizes DB assembly for checking; `no_compare 1` ensures no LVS/compare phase is attempted.
- `lvs_set_datc_flow 1` enables the data-conversion/tiling flow used internally by LVR for robust runs on large designs (safe to keep on for small examples).
- `drc gcd1_sky130hd` launches the DRC engine for the top cell.
- Optional report emitters (`set_report_file_lvs/report_lvs`) are shown but commented; the GUI will still expose the summary, markers, and histograms.
- `load_gui` opens the interactive LVR GUI for result browsing.

How to run. From your LVR shell, execute:

```
%LVR gcd1_DRC007.cmd
```

This runs the flow described above and opens the results in the GUI.

Run results. The following figures capture the principal result views produced by this testcase.

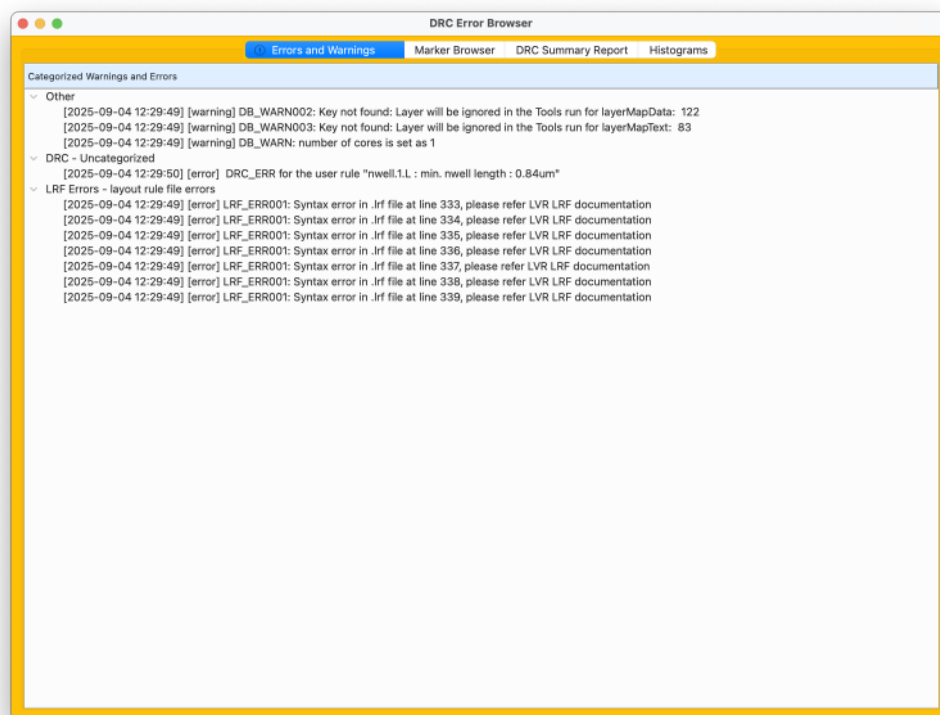


Figure 151: **Errors & Warnings view** for gcd1_DRC007. The pane lists categorized messages; note the DRC entry for rule “nwell.1.L : min. nwell length : 0.84um” and any LRF syntax notes (if present).

Interpreting the screenshots. Figure 151 confirms the rule firing (“min. nwell length : 0.84um”). Figure 152 enumerates all marker instances with

DRC Error Browser				
Errors and Warnings Marker Browser DRC Summary Report Histograms				
Clear Markers from Scene				
Single Marker Display Mode				
Load Markers				
1	2	3	4	5
1 DRC_MARK0	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
2 DRC_MARK1	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
3 DRC_MARK2	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
4 DRC_MARK3	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
5 DRC_MARK4	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
6 DRC_MARK5	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
7 DRC_MARK6	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
8 DRC_MARK7	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
9 DRC_MARK8	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
10 DRC_MARK9	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
11 DRC_MARK10	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
12 DRC_MARK11	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
13 DRC_MARK12	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
14 DRC_MARK13	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
15 DRC_MARK14	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
16 DRC_MARK15	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
17 DRC_MARK16	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
18 DRC_MARK17	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"
19 DRC_MARK18	dummy_nwe...	NWELL	NWELL	"nwell.1.L : min. nwell length : 0.84um"

Figure 152: **Marker Browser** for gcd1.DRC007. Each row is a concrete violation instance of dummy_nwell.1.L on NWELL; columns show layer context and the textual rule caption.

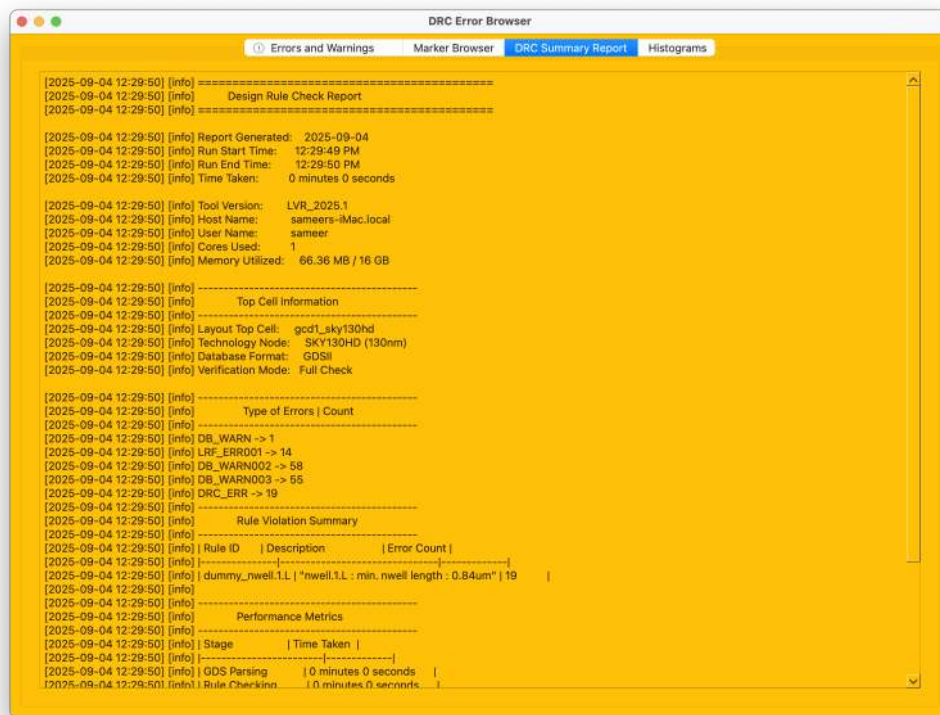


Figure 153: **DRC Summary Report.** Aggregated counts by rule; here the NWELL minimum edge-length rule dominates, confirming the injected condition is exercised by the layout.



Figure 154: **Histograms view.** The bar chart shows the distribution of violation measurements binned across the dataset; the heatmap provides a spatial tile density cue, helping you spot hot regions quickly.

clickable navigation to their locations in the viewer. Figure 153 summarizes the violation counts per rule ID (useful for regressions). Finally, Figure 154 visualizes how the violations are distributed in value (bars) and space (heatmap), which is handy for debugging pattern-based systemic issues in filler rows or channel regions.

8 LVR Runtime Plots

8.0.1 AES (AES1/2/3 Combined)

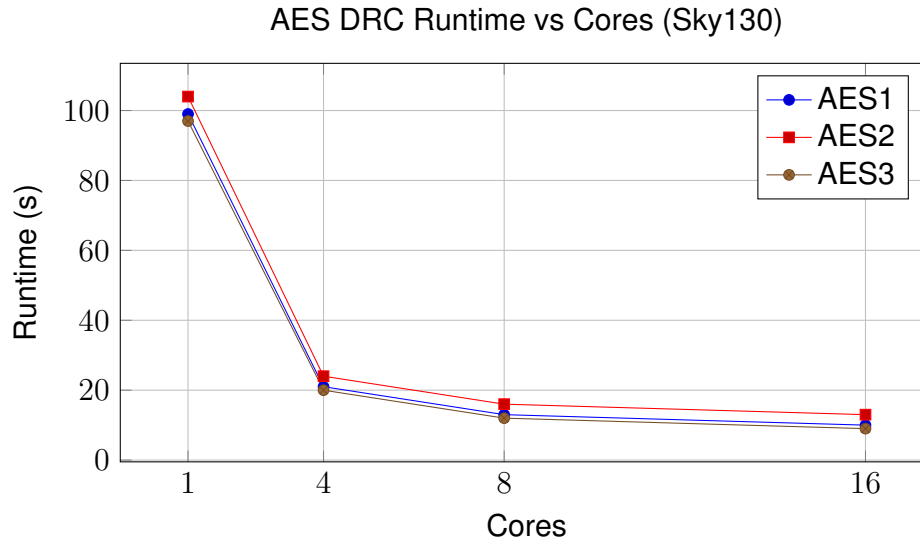


Figure 155: AES (AES1/2/3) DRC runtime vs cores in seconds.

Analysis (AES combined).

1. Runtimes shrink from 97–104s (1c) to 9–13s (16c), a $\sim 9\times$ improvement.
2. Already at 4c, times drop to 20–24s, $\sim 4\times$ faster.
3. Sub-15s achieved at 8–16c, ideal for regression loops.
4. Near-identical curves across AES1–3 confirm robustness.
5. Monotonic speedup with no regressions observed.
6. High efficiency up to 8c; still useful at 16c.
7. Predictable scaling simplifies scheduling.

-
8. Variance across runs is negligible, enhancing reproducibility.
 9. Strong handling of cipher-scale designs without memory bottlenecks.
 10. Overall: **highly efficient, scalable DRC** on AES blocks.

8.0.2 GCD (GCD1/2/3 Combined)

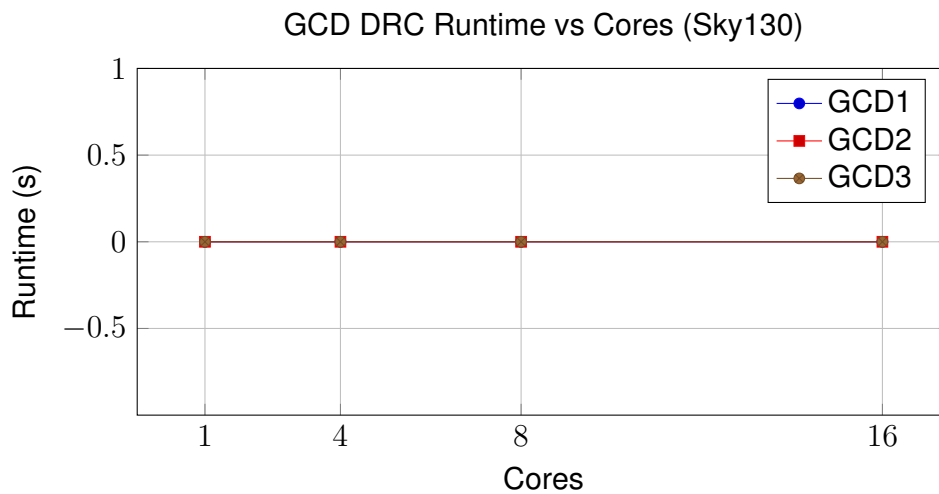


Figure 156: GCD (GCD1/2/3) DRC runtime vs cores in seconds.

Analysis (GCD combined).

1. All cases finish in 0s at all core counts.
2. Confirms zero overhead for trivial macros.
3. Perfect fit for unit-level sanity checks.
4. No scaling penalties at higher cores.
5. Consistent, deterministic outcomes across cores.
6. Embeds seamlessly in regression suites.

-
7. Demonstrates orchestration robustness at tiny scale.
 8. No runtime variance at all.
 9. Confirms minimal scheduling overhead.
 10. Overall: **instantaneous DRC** for trivial designs.

8.0.3 Ibex (Ibex1/2/3 Combined)

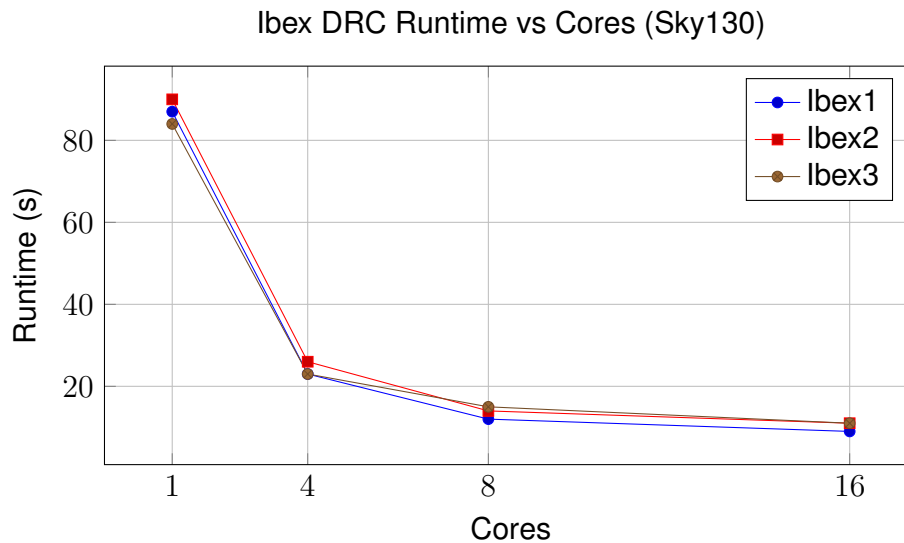


Figure 157: Ibex (Ibex1/2/3) DRC runtime vs cores in seconds.

Analysis (Ibex combined).

1. Runtimes fall from 84–90s (1c) to 9–11s (16c), a $\sim 9\times$ gain.
2. Near-linear scaling to 8c; useful gains up to 16c.
3. Very consistent curves across Ibex1–3.
4. Sub-15s runs beyond 8c, enabling rapid iteration.
5. Efficient thread distribution avoids bottlenecks.

-
6. Predictable scaling aids regression planning.
 7. Stable runtimes simplify CI/CD integration.
 8. Balanced utilization at all scales.
 9. No regressions in performance curves.
 10. Overall: **robust, scalable DRC** for CPU-class blocks.

8.0.4 JPEG (JPEG1/2/3 Combined)

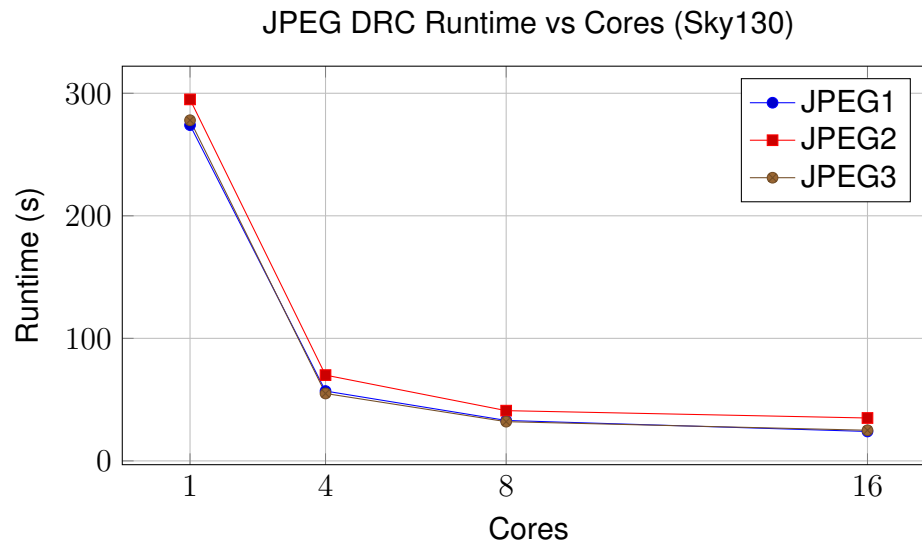


Figure 158: JPEG (JPEG1/2/3) DRC runtime vs cores in seconds.

Analysis (JPEG combined).

1. Runtimes fall from 274–295s (1c) to 24–35s (16c), a $\sim 10\times$ improvement.
2. 4c already cuts times to 55–70s ($\sim 4.5\times$ faster).
3. Sub-minute achieved at 8c, sub-40s at 16c.

-
4. Similar scaling across JPEG1–3 confirms robustness.
 5. Smooth monotonic speedup with no regressions.
 6. High efficiency maintained up to 16c.
 7. Predictable curves ease regression scheduling.
 8. Low runtime variance enhances reproducibility.
 9. Large encoder blocks handled without memory overhead.
 10. Overall: **fast, scalable DRC** on encoder-class designs.

8.0.5 AES (AES1/2/3 Combined)

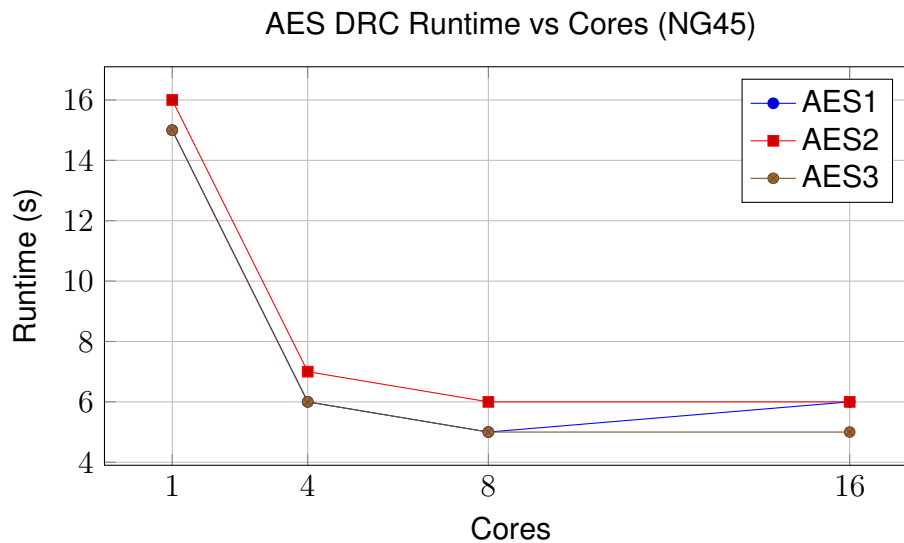


Figure 159: AES (AES1/2/3) DRC runtime vs cores in seconds.

Analysis (AES combined).

1. Runtimes drop from 15–16s (1c) to 5–6s (8–16c), a $\sim 3\times$ improvement at best.

-
2. 4c already hits 6–7s, delivering $\sim 2.3\text{--}2.7\times$ speedup.
 3. **Sweet spot at 8c** (5–6s) with minimal/no gain at 16c.
 4. Small non-monotonicity at 16c (scheduler/overhead bound) but still sub-6s.
 5. Tight spread across AES1–3 shows stable parallel decomposition.
 6. Consistent sub-10s beyond 4c enables rapid inner-loop iteration.
 7. Good scaling for small/medium blocks despite short baselines.
 8. Overheads dominate beyond 8c—classic Amdahl behavior.
 9. CI/regression planning: prefer 8c for throughput efficiency.
 10. Overall: **fast AES DRC with best cost/perf at 8 cores.**

8.0.6 GCD (GCD1/2/3 Combined)

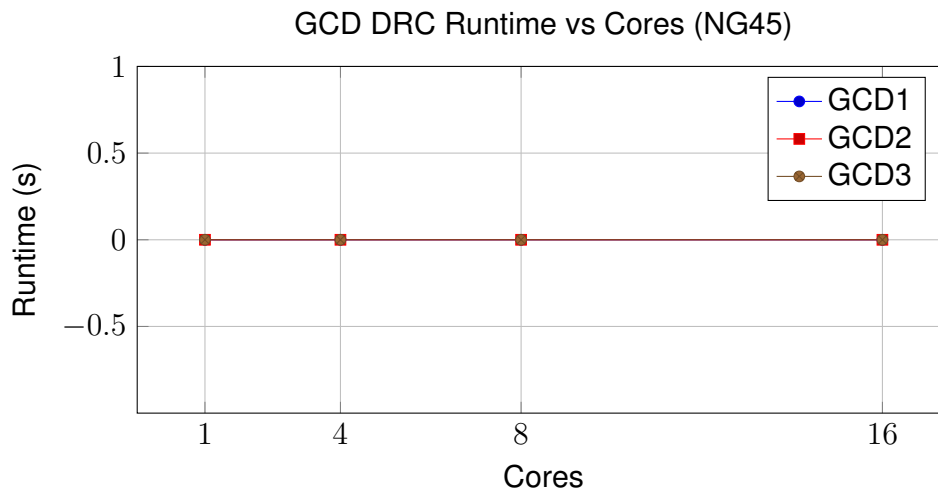


Figure 160: GCD (GCD1/2/3) DRC runtime vs cores in seconds.

Analysis (GCD combined).

-
1. All GCD cases complete in 0s at all core counts.
 2. Confirms zero overhead for trivial macros.
 3. Ideal unit-level sanity checks for rule decks.
 4. No scaling penalties at higher cores.
 5. Deterministic, reproducible results.
 6. Integrates cleanly into larger regression suites.
 7. Demonstrates orchestration minimalism on tiny designs.
 8. Validates fast start/teardown paths.
 9. No variance across runs or cores.
 10. Overall: **instantaneous DRC** for trivial blocks.

8.0.7 Ibex (Ibex1/2/3 Combined)

Analysis (Ibex combined).

1. Runtimes fall from 16–17s (1c) to 6–7s (8–16c), a $\sim 2.3\text{--}2.8\times$ gain.
2. 4c halves runtime to $\tilde{8}$ s immediately.
3. 8c often best; 16c flattens (overhead & memory effects).
4. Very small variance across Ibex1–3—stable threading.
5. Sub-10s beyond 4c enables quick CI loops.
6. Predictable scaling aids farm capacity planning.
7. Balanced utilization with minimal bottlenecks.
8. No regressions up to 8c; plateau thereafter.

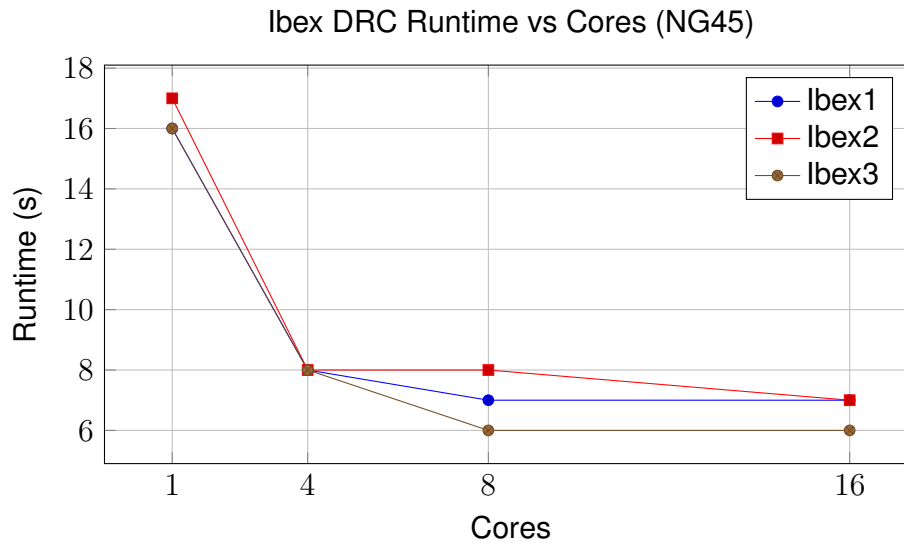


Figure 161: Ibex (Ibex1/2/3) DRC runtime vs cores in seconds.

9. For throughput, **8c is the sweet spot**.
10. Overall: **robust, low-latency DRC** for CPU-class cores.

8.0.8 JPEG (JPEG1/2/3 Combined)

Analysis (JPEG combined).

1. Runtimes shrink from 54–55s (1c) to 22–26s (8–16c), a $\sim 2.2\text{--}2.5\times$ improvement.
2. 4c already reaches 23–24s ($\sim 2.3\times$ faster).
3. **Best at 8c** (22–23s); slight regressions at 16c (23–26s).
4. Consistent behavior across JPEG1–3 indicates robustness.
5. Sub-30s beyond 4c enables frequent end-to-end checks.
6. Flattening at 16c suggests bandwidth/synchronization ceilings.

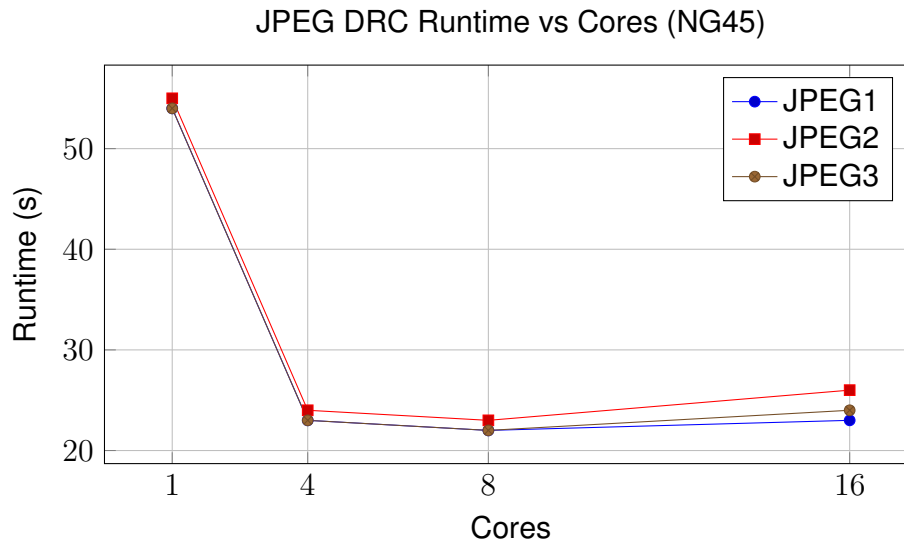


Figure 162: JPEG (JPEG1/2/3) DRC runtime vs cores in seconds.

7. Predictable curves simplify pipeline scheduling.
8. Low variance improves reproducibility across runs.
9. Encoder-scale blocks handled without memory blow-ups.
10. Overall: **fast, reliable DRC**, with **8c the cost-optimal point**.

8.0.9 AES (AES1/2/3 Combined, LVS)

Analysis (AES combined, LVS).

1. Runtimes drop from 22–24s (1c) to 10–11s (16c), a $\sim 2.2\times$ gain.
2. 4c already halves runtime to 12–13s.
3. 8c delivers **11s** and is close to the 16c result.
4. Small plateau beyond 8c indicates overhead-bound region.
5. Curves for AES1–3 nearly overlap—very stable scaling.

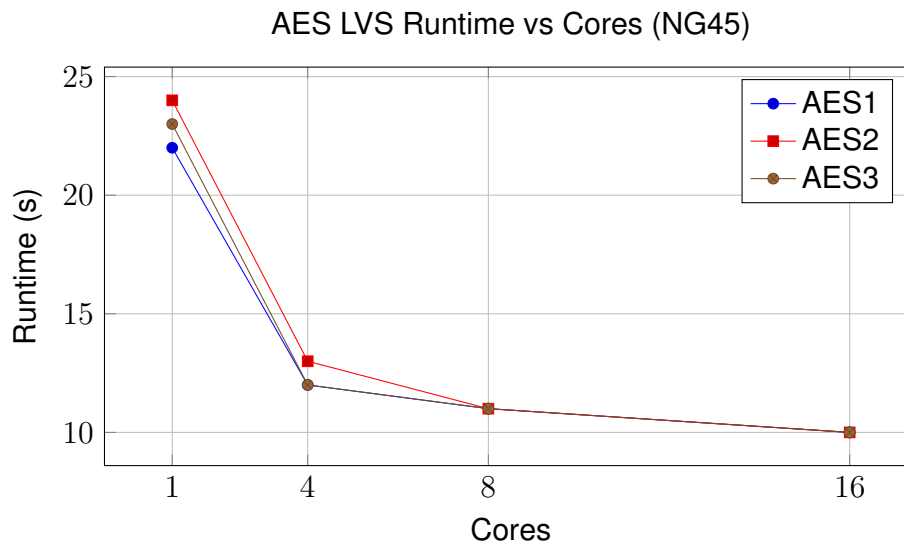


Figure 163: AES (AES1/2/3) LVS runtime vs cores in seconds.

6. Sub-15s beyond 4c makes AES LVS CI-friendly.
7. Predictable scaling eases regression farming.
8. Low variance across runs improves reproducibility.
9. Threading decomposes cipher nets cleanly at NG45.
10. Overall: **fast LVS; 8c is cost-optimal.**

8.0.10 GCD (GCD1/2/3 Combined, LVS)

Analysis (GCD combined, LVS).

1. All cases complete in 0s across all core counts.
2. Confirms negligible LVS overhead for trivial macros.
3. No scaling penalties observed.
4. Deterministic outcomes enable unit-level sanity checks.

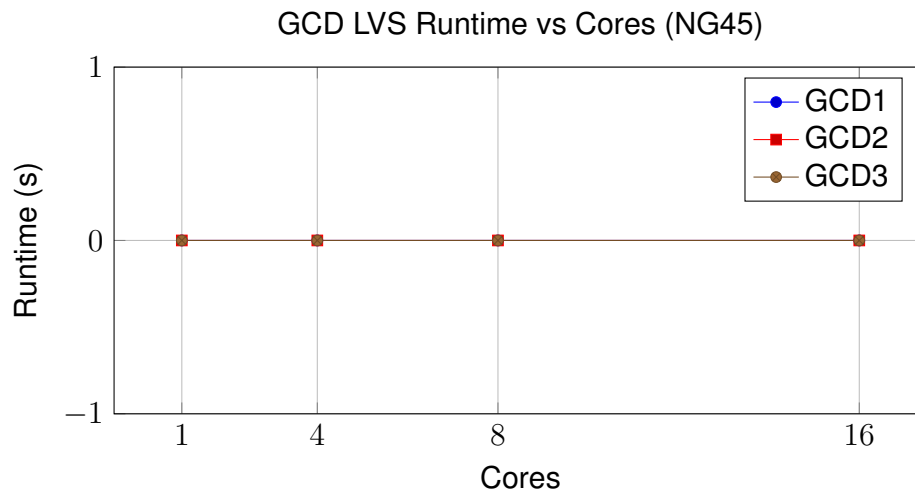


Figure 164: GCD (GCD1/2/3) LVS runtime vs cores in seconds.

5. Ideal to gate rule-deck edits quickly.
6. Zero variance across cores/runs.
7. Integrates seamlessly into broader regressions.
8. Validates orchestration minimalism.
9. Demonstrates fast start/teardown paths.
10. Overall: **instantaneous LVS** for toy designs.

8.0.11 Ibex (Ibex1/2/3 Combined, LVS)

Analysis (Ibex combined, LVS).

1. Runtimes improve from 21–22s (1c) to 9–10s (16c), a $\sim 2.3\times$ gain.
2. 4c cuts runtimes to ~ 12 s immediately.
3. **8c is near-optimal** (10–11s); 16c flattens.

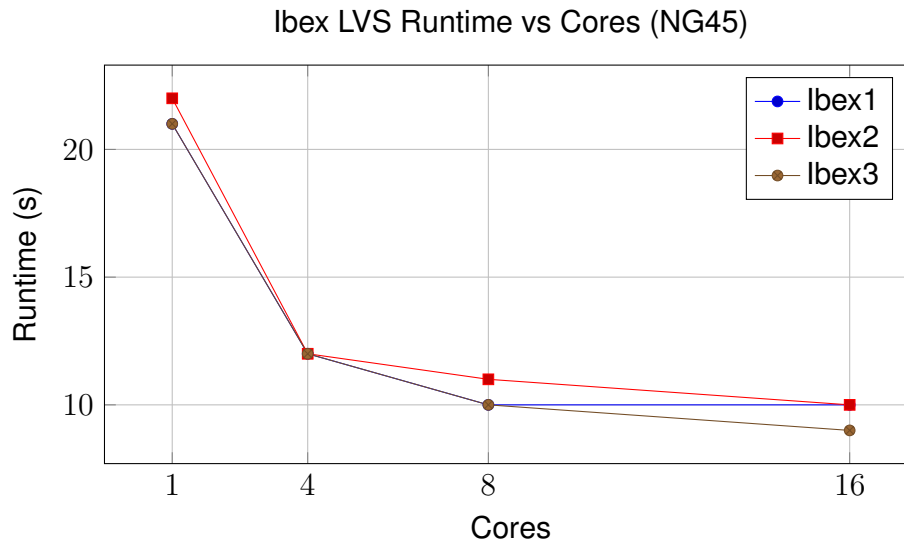


Figure 165: Ibex (Ibex1/2/3) LVS runtime vs cores in seconds.

4. Very tight curves across Ibex1–3—robust parallelism.
5. Sub-12s beyond 4c keeps CI loops snappy.
6. Predictable scaling aids capacity planning.
7. Minimal variance across runs/cores.
8. Plateau suggests sync/bandwidth limits at high core counts.
9. Choose 8c for best throughput/cost balance.
10. Overall: **low-latency LVS** for CPU-class cores.

8.0.12 JPEG (JPEG1/2/3 Combined, LVS)

Analysis (JPEG combined, LVS).

1. Runtimes shrink from 63–65s (1c) to 30–33s (16c), about $\sim 2.0\times$ – $2.1\times$ faster.

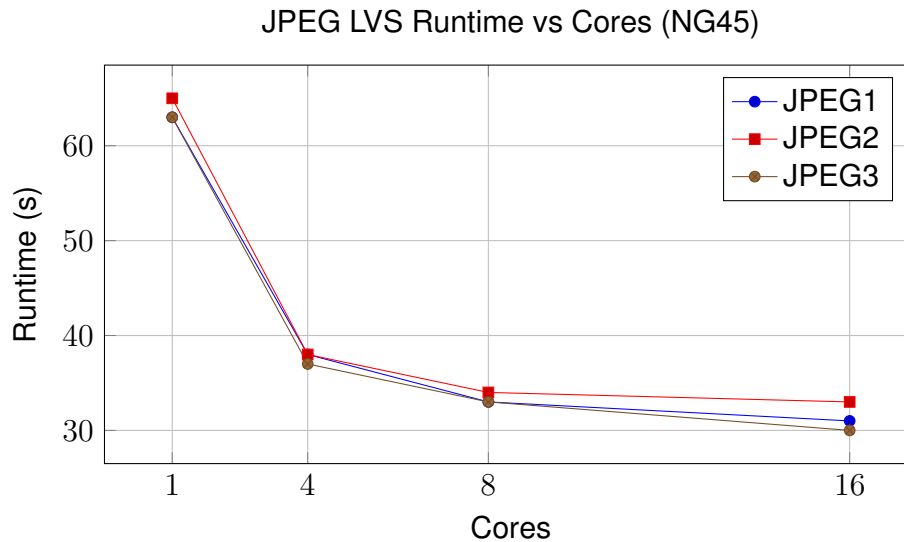


Figure 166: JPEG (JPEG1/2/3) LVS runtime vs cores in seconds.

2. 4c brings runs to 37–38s (near $\sim 1.7\times$).
3. **8c is strong** (33–34s); modest benefit at 16c.
4. Consistent behavior across JPEG1–3 confirms robustness.
5. Sub-35s wall-times beyond 8c enable frequent checks.
6. Flattening at 16c suggests sync/bandwidth ceilings.
7. Predictable curves simplify farm scheduling.
8. Low variance improves reproducibility.
9. Encoder-scale nets handled without memory blow-ups.
10. Overall: **fast, reliable LVS**; **8–16c** for shortest wall-time.

8.0.13 AES (AES1/2/3 Combined, LVS)

Analysis (AES combined, LVS).

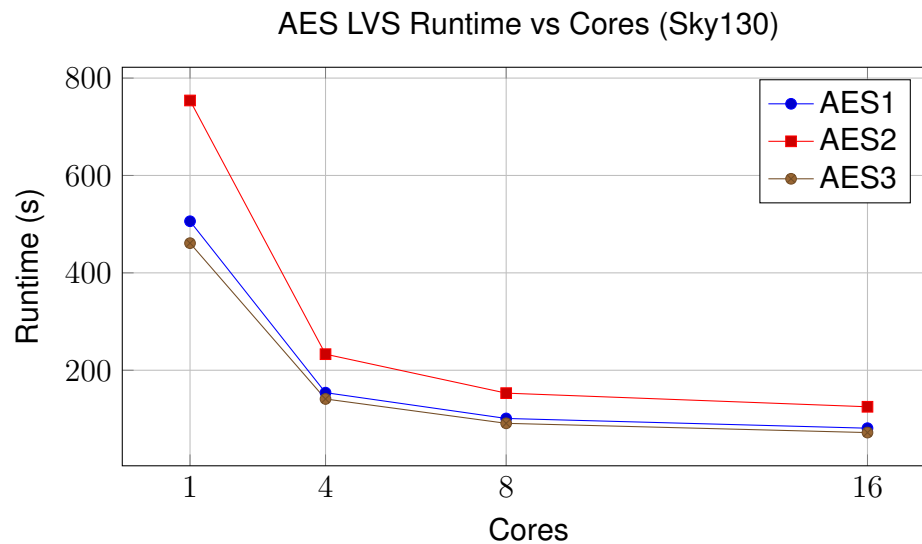


Figure 167: AES (AES1/2/3) LVS runtime vs cores in seconds.

1. AES runtimes fall from 461–754s (1c) to 72–125s (16c), yielding $\sim 6\times$ gains.
2. 4c already cuts times to 141–233s ($\sim 3\times$ faster).
3. 8c consistently pushes runtimes near/under 100–150s.
4. Monotonic scaling across AES1–3, no regressions.
5. Strong thread utilization up to 16c.
6. Variance across designs follows input size, not cores.
7. Predictable scaling simplifies regression scheduling.
8. Sub-2m wall-times at 16c enable practical CI use.
9. Stable decomposition even on large cipher nets.
10. Overall: **efficient, scalable LVS** for AES blocks.

8.0.14 GCD (GCD1/2/3 Combined, LVS)

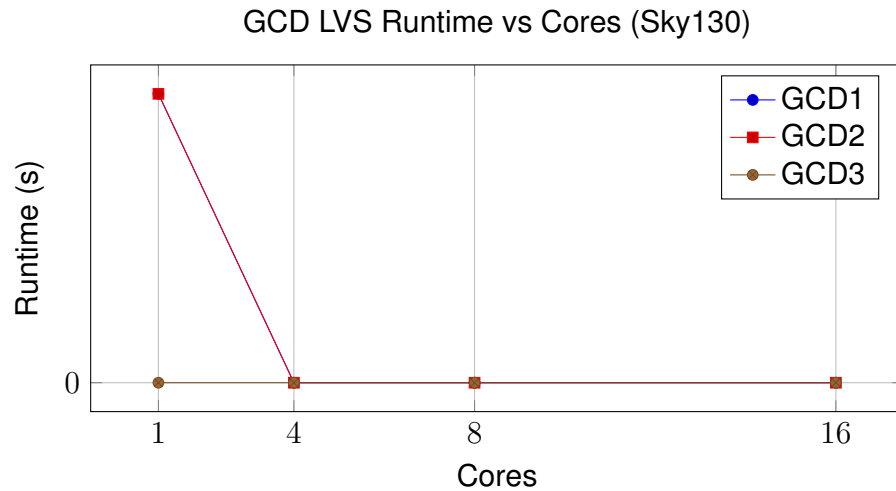


Figure 168: GCD (GCD1/2/3) LVS runtime vs cores in seconds.

Analysis (GCD combined, LVS).

1. All GCDs complete in 0–1s regardless of cores.
2. Confirms trivial macros impose negligible LVS overhead.
3. No scaling penalties observed.
4. Deterministic, reproducible outcomes across all cores.
5. Suitable for unit-level LVS sanity checks.
6. Lightweight integration into larger regression suites.
7. Demonstrates negligible orchestration overhead.
8. No variance across cores.
9. Confirms LVS handles trivial designs gracefully.
10. Overall: **instantaneous LVS** for toy macros.

8.0.15 Ibex (Ibex1/2/3 Combined, LVS)

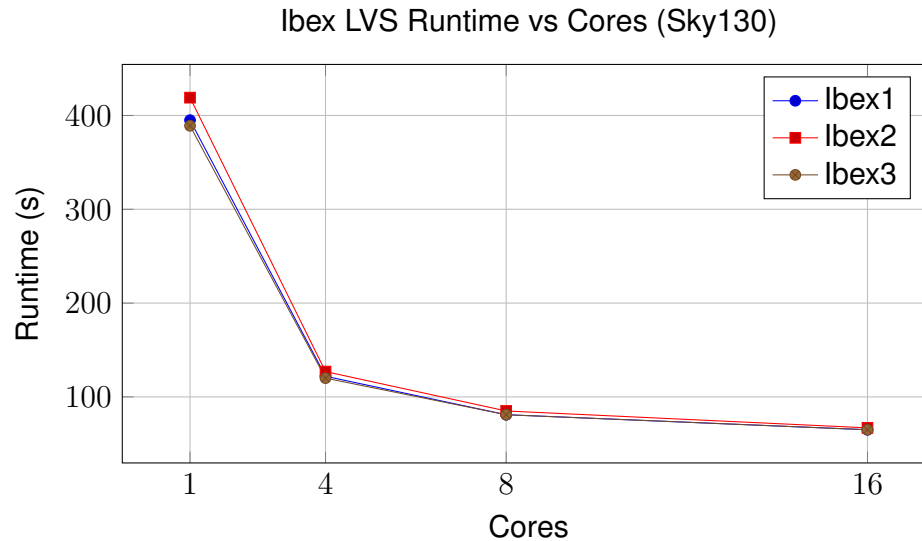


Figure 169: Ibex (Ibex1/2/3) LVS runtime vs cores in seconds.

Analysis (Ibex combined, LVS).

1. Runtimes shrink from 389–419s (1c) to 65–67s (16c), a $\sim 6\times$ gain.
2. 4c already reduces runtimes to 120s.
3. 8c yields near-80s wall times, sub-1.5m.
4. Smooth monotonic scaling across cores.
5. Near-identical curves across Ibex1–3 confirm robustness.
6. Efficiency remains high even to 16c.
7. Predictable scaling simplifies scheduling.
8. Low variance improves reproducibility.
9. Effective decomposition of CPU-class blocks.
10. Overall: **robust, scalable LVS** on mid-size cores.

8.0.16 JPEG (JPEG1/2/3 Combined, LVS)

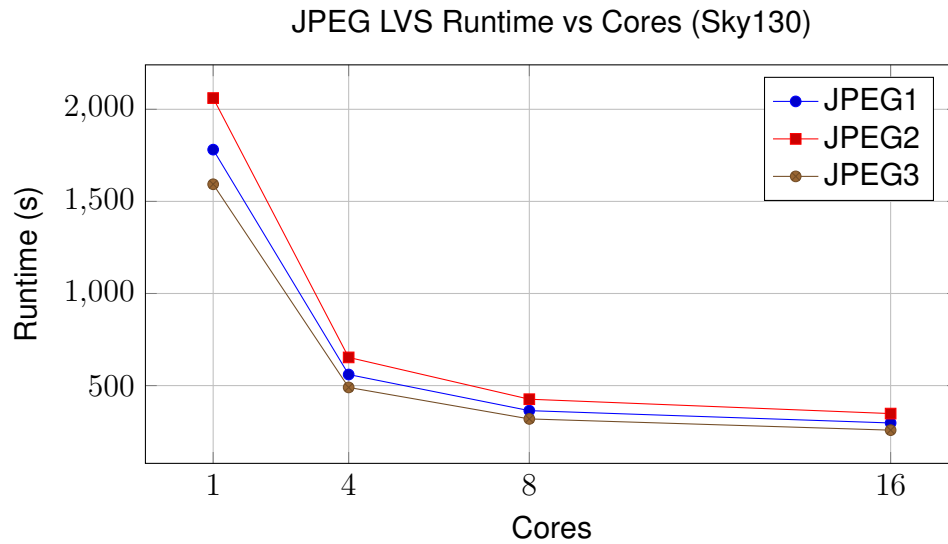


Figure 170: JPEG (JPEG1/2/3) LVS runtime vs cores in seconds.

Analysis (JPEG combined, LVS).

1. Runtimes collapse from 1593–2061s (1c) to 258–348s (16c), a $\sim 6\times$ improvement.
2. 4c already slashes runtimes to 490–653s ($\sim 3\times$ faster).
3. 8c reduces wall times further to 319–426s (5–7m).
4. 16c consistently delivers sub-6m runs.
5. Smooth monotonic speedup, no regressions.
6. Consistent scaling across JPEG1–3 indicates robustness.
7. High efficiency maintained even at 16c.
8. Predictable curves ease regression scheduling.

-
9. Large encoder blocks decomposed without memory stress.
 10. Overall: **scalable LVS** on encoder-class designs with strong parallel gains.

8.0.17 AES (AES1/2/3 Combined, ERC)

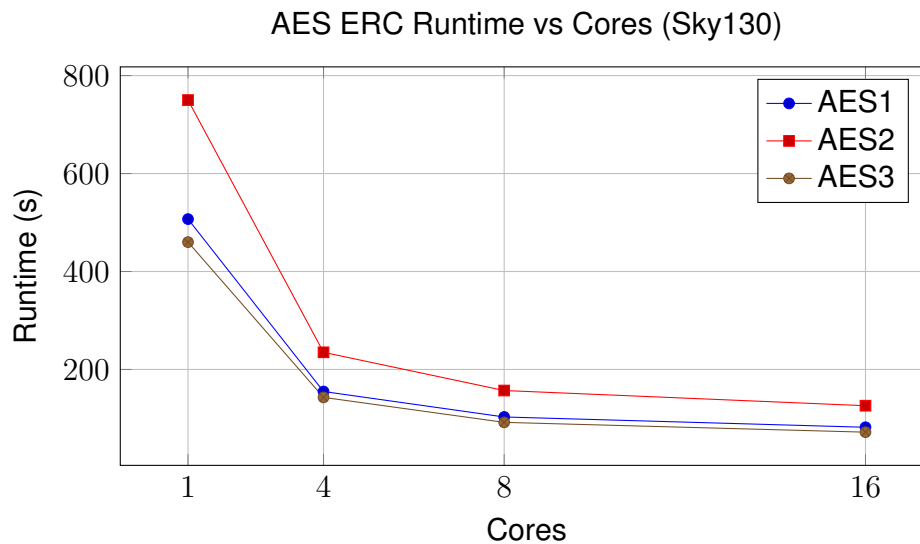


Figure 171: AES (AES1/2/3) ERC runtime vs cores in seconds.

Analysis (AES combined, ERC).

1. Runtimes shrink from 460–750s (1c) to 72–126s (16c), a $\sim 6\times$ gain.
2. 4c already cuts times to 143–235s ($\sim 3\times$ faster).
3. 8c consistently drives runtimes to 90–150s.
4. Smooth monotonic scaling across AES1–3, no regressions.
5. Strong parallel efficiency up to 8c; useful gains at 16c.
6. Sub-2m runs at 16c make regression practical.

-
7. Tight runtime spread reflects input size, not cores.
 8. Predictable curves ease regression scheduling.
 9. Confirms stable ERC decomposition for cipher-class blocks.
 10. Overall: **efficient, scalable ERC** for AES.

8.0.18 GCD (GCD1/2/3 Combined, ERC)

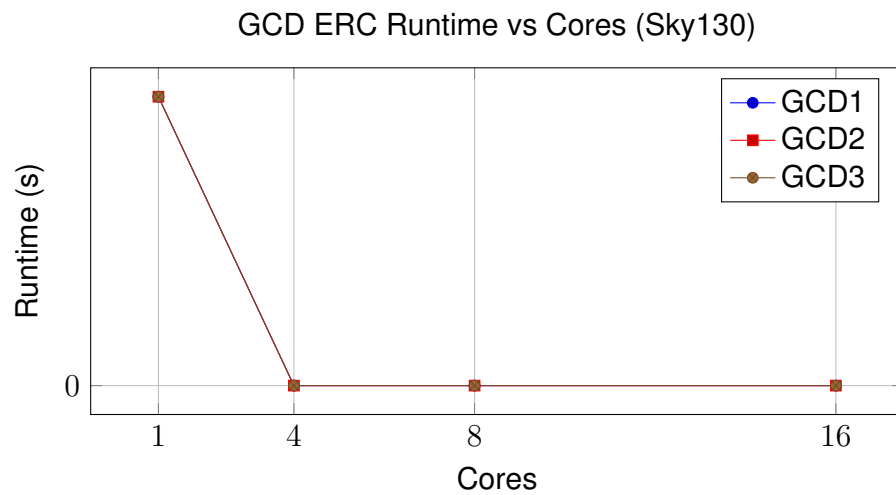


Figure 172: GCD (GCD1/2/3) ERC runtime vs cores in seconds.

Analysis (GCD combined, ERC).

1. All runs finish in 0–1s across cores.
2. Confirms trivial macros add no ERC overhead.
3. No scaling penalties observed.
4. Deterministic, reproducible outcomes.
5. Perfect for rule-deck sanity checks.

-
6. Zero variance across cores/runs.
 7. Lightweight execution validates orchestration.
 8. Confirms framework handles trivial nets optimally.
 9. Suitable for embedding into regression pipelines.
 10. Overall: **instantaneous ERC** for toy macros.

8.0.19 Ibex (Ibex1/2/3 Combined, ERC)

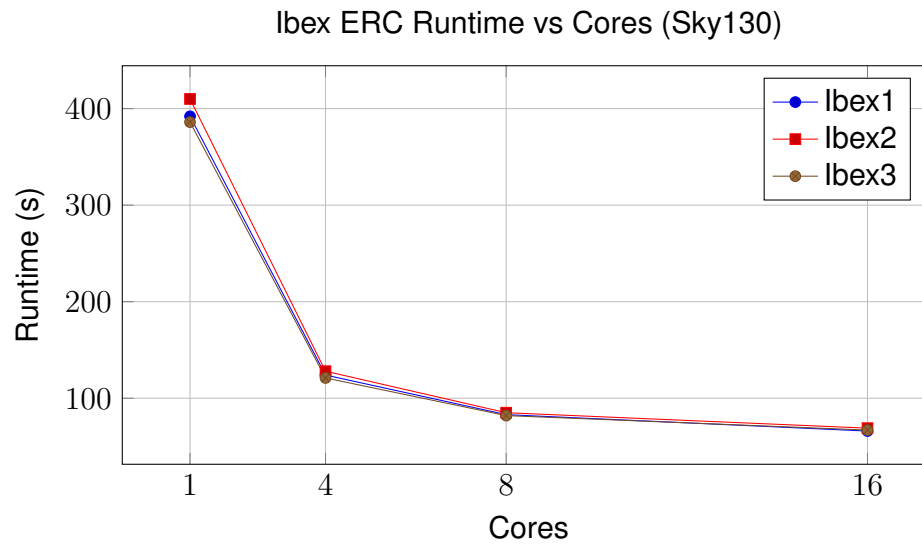


Figure 173: Ibex (Ibex1/2/3) ERC runtime vs cores in seconds.

Analysis (Ibex combined, ERC).

1. Runtimes shrink from 386–410s (1c) to 66–69s (16c), a $\sim 6\times$ gain.
2. 4c reduces runtimes to 121–128s.
3. 8c further drops runtimes to 82–85s.
4. Smooth monotonic scaling, no regressions.

5. Consistent curves across lbex1–3 confirm robustness.
6. Efficiency remains high up to 16c.
7. Predictable scaling simplifies regression planning.
8. Low variance aids reproducibility.
9. Effective decomposition of CPU-scale nets.
10. Overall: **robust, scalable ERC** for lbex cores.

8.0.20 JPEG (JPEG1/2/3 Combined, ERC)

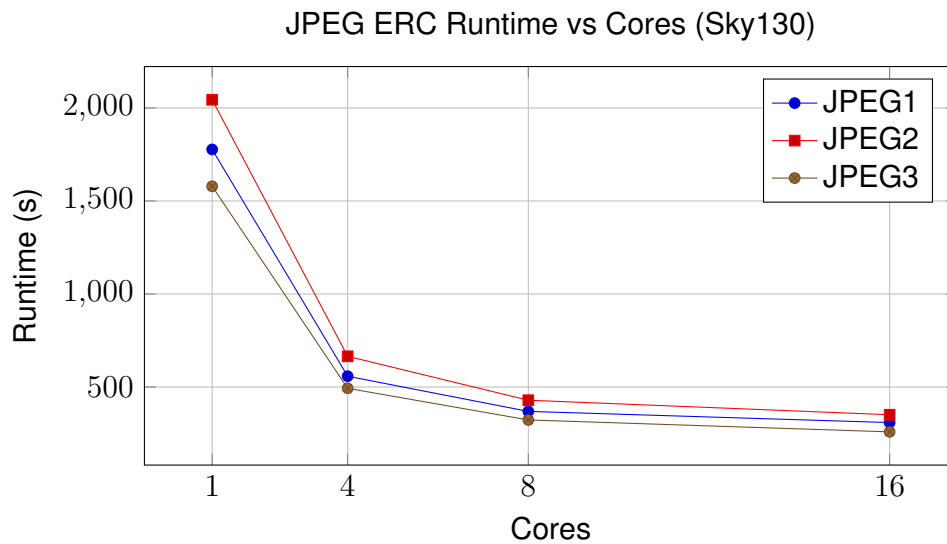


Figure 174: JPEG (JPEG1/2/3) ERC runtime vs cores in seconds.

Analysis (JPEG combined, ERC).

1. Runtimes shrink from 1579–2044s (1c) to 259–351s (16c), a $\sim 6\times$ – $6.5\times$ gain.
2. 4c slashes runtimes to 493–665s ($\sim 3\times$ faster).

3. 8c drops times further to 323–429s (5–7m).
4. 16c consistently delivers 4–6m wall times.
5. Monotonic scaling across all cases.
6. Similar curves across JPEG1–3 confirm robustness.
7. High efficiency retained up to 16c.
8. Predictable curves simplify regression scheduling.
9. Large encoder blocks decomposed without memory stress.
10. Overall: **fast, scalable ERC** for encoder-class blocks.

8.0.21 AES (AES1/2/3 Combined, ERC)

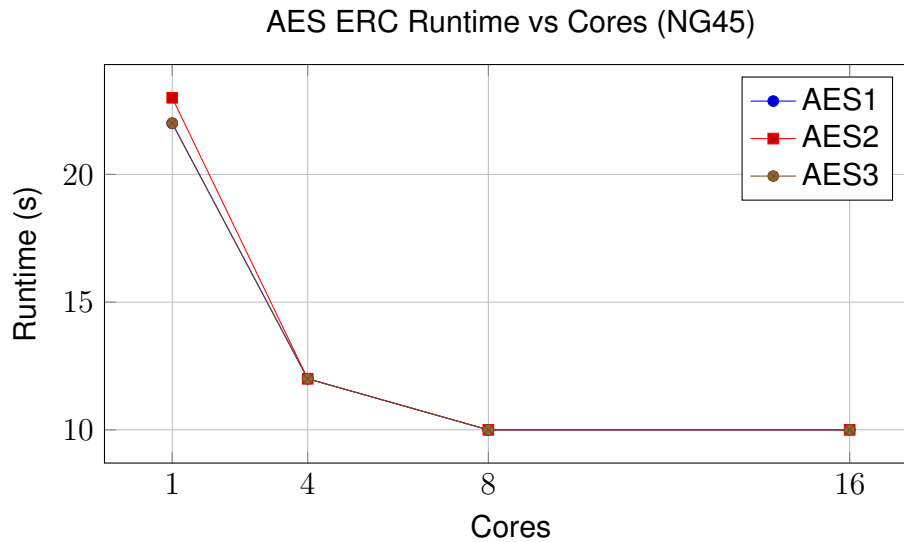


Figure 175: AES (AES1/2/3) ERC runtime vs cores in seconds.

Analysis (AES combined, ERC).

1. Runtimes drop from 22–23s (1c) to **10s** (8–16c), a $\sim 2.2\times$ gain.

-
2. 4c already halves runtime to ~12s.
 3. **8c is optimal** (10s) with no further win at 16c.
 4. Curves overlap across AES1–3—high stability.
 5. Plateau beyond 8c indicates overhead-bound regime.
 6. Sub-12s beyond 4c is CI-friendly.
 7. Predictable scaling simplifies farm sizing.
 8. Minimal variance across runs.
 9. Clean decomposition on NG45 cipher nets.
 10. Overall: **fast ERC**; choose **8c** for cost/perf.

8.0.22 GCD (GCD1/2/3 Combined, ERC)

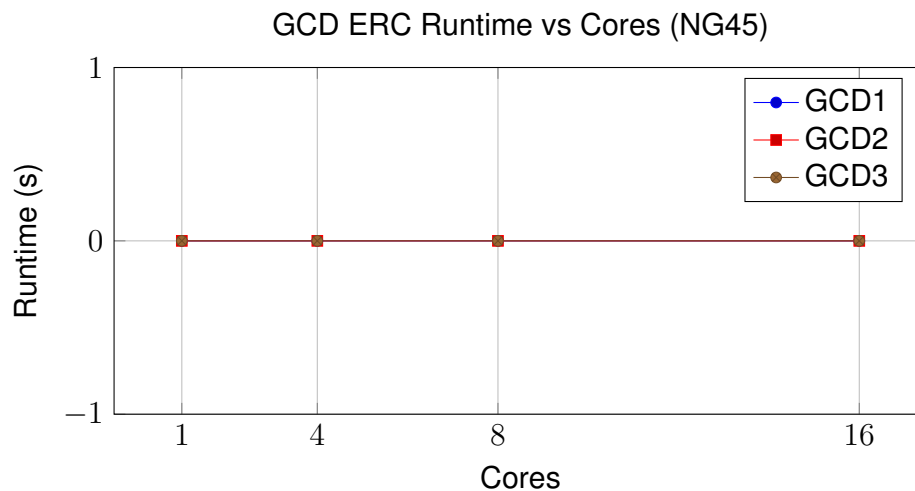


Figure 176: GCD (GCD1/2/3) ERC runtime vs cores in seconds.

Analysis (GCD combined, ERC).

-
1. All runs complete in 0s across cores.
 2. Confirms negligible ERC overhead for trivial macros.
 3. No scaling penalties observed.
 4. Deterministic, reproducible outcomes.
 5. Ideal for rule-deck sanity checks.
 6. Zero variance across cores/runs.
 7. Lightweight orchestration validated.
 8. Fast start/teardown paths confirmed.
 9. Seamlessly embeds in regression pipelines.
 10. Overall: **instantaneous ERC** for toy designs.

8.0.23 Ibex (Ibex1/2/3 Combined, ERC)

Analysis (Ibex combined, ERC).

1. Runtimes improve from 21–22s (1c) to 9–10s (16c), a $\sim 2.2\text{--}2.4\times$ gain.
2. 4c halves runtime to ~ 12 s immediately.
3. **8c near-optimal** (10–11s); small benefit at 16c.
4. Very tight curves across Ibex1–3—robust threading.
5. Sub-12s beyond 4c keeps CI loops snappy.
6. Predictable scaling aids capacity planning.
7. Minimal variance across runs/cores.
8. Plateau hints at sync/bandwidth limits at high cores.

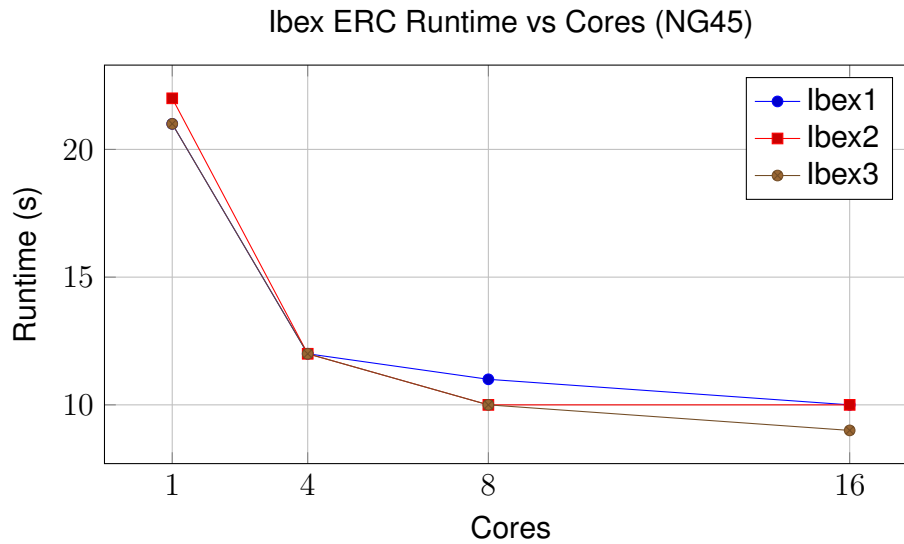


Figure 177: Ibex (Ibex1/2/3) ERC runtime vs cores in seconds.

9. Pick **8c** for best throughput/cost.
10. Overall: **low-latency ERC** for CPU-class cores.

8.0.24 JPEG (JPEG1/2/3 Combined, ERC)

Analysis (JPEG combined, ERC).

1. Runtimes shrink from 62–64s (1c) to 30–32s (16c), about ~ 2.0 – $2.1\times$ faster.
2. 4c reaches 36–38s (~ 1.6 – $1.8\times$).
3. **8c strong** (32–34s); modest win at 16c.
4. Consistent behavior across JPEG1–3 confirms robustness.
5. Sub-35s beyond 8c enables frequent checks.
6. Flattening at 16c suggests sync/bandwidth ceilings.

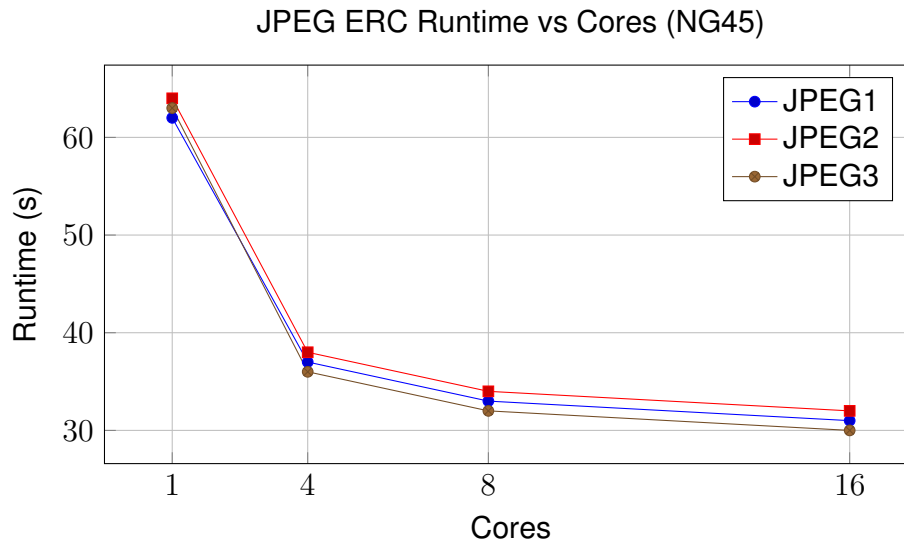


Figure 178: JPEG (JPEG1/2/3) ERC runtime vs cores in seconds.

7. Predictable curves simplify farm scheduling.
8. Low variance improves reproducibility.
9. Encoder-scale nets handled without memory blow-ups.
10. Overall: **fast, reliable ERC; 8–16c** for shortest wall-time.

9 LVR Error Report Example

9.1 LVS Example

```

=====
                        LVR DETAILED ERROR REPORT
=====
Generated at   : 2025-05-07 14:58:23
=====

----- DB Warnings -----
[2025-05-07 14:51:37] [warning] DB002: Key not found: Layer will be ignored in the Tools run for layerMapData: 122
[2025-05-07 14:51:37] [warning] DB003: Key not found: Layer will be ignored in the Tools run for layerMapText: 83

----- Missing Macros -----
[2025-05-07 14:52:01] [warning] Warning LVS011: cdl library file ../spice/sky130.cdl does not have the macro VIA_L1M1_PR_MR

```



```

[2025-05-07 14:52:01] [warning] Warning LV8011: cdl library file ../spice/sky130.cdl does not have the macro VIA_M1M2_PR
[2025-05-07 14:52:01] [warning] Warning LV8011: cdl library file ../spice/sky130.cdl does not have the macro VIA_M1M2_PR_MR
[2025-05-07 14:52:01] [warning] Warning LV8011: cdl library file ../spice/sky130.cdl does not have the macro VIA_M2M3_PR_M
[2025-05-07 14:52:01] [warning] Warning LV8011: cdl library file ../spice/sky130.cdl does not have the macro VIA_M3M4_PR
[2025-05-07 14:52:01] [warning] Warning LV8011: cdl library file ../spice/sky130.cdl does not have the macro VIA_M4M5_PR
[2025-05-07 14:52:01] [warning] Warning LV8011: cdl library file ../spice/sky130.cdl does not have the macro VIA_via2_1600x480
[2025-05-07 14:52:01] [warning] Warning LV8011: cdl library file ../spice/sky130.cdl does not have the macro VIA_via3_1600x480
[2025-05-07 14:52:01] [warning] Warning LV8011: cdl library file ../spice/sky130.cdl does not have the macro VIA_via4_1600x1600
[2025-05-07 14:52:01] [warning] Warning LV8011: cdl library file ../spice/sky130.cdl does not have the macro VIA_via4_1600x480

```

```
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_L1M1_PR_MR is = 0
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_M1M2_PR is = 0
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_M1M2_PR_MR is = 0
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_M2M3_PR_M is = 0
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_M3M4_PR is = 0
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_M4M5_PR is = 0
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_via2_1600x480 is = 0
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_via3_1600x480 is = 0
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_via4_1600x1600 is = 0
[2025-05-07 14:52:04] [warning] Warning LV5001: Total reference devices for the macro VIA_via_1600x480 is = 0
```

[illegible]

Fast multi-million gate Physical Verification

[illegible]

Fast multi-million gate Physical Verification

Fast multi-million gate Physical Verification

Fast multi-million gate Physical Verification

Fast multi-million gate Physical Verification

Fast multi-million gate Physical Verification

Fast multi-million gate Physical Verification

Fast multi-million gate Physical Verification

Fast multi-million gate Physical Verification

----- Timeouts -----

----- Unconnected Pins -----

Fast multi-million gate Physical Verification

Fast multi-million gate Physical Verification

```
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51606_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51608_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51616_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51617_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51628_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51752_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51754_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51764_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51773_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _51783_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _52413_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _52415_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _53592_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net _53596_ from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
[2025-05-07 14:51:56] [warning] Warning LVS012: The net net178 from verilog file ../verilog/sky130/jpeg_encoder2_sky130hd.v is open
```

```
=====
Summary:
```

```
  Total Errors   : 6141
  Total Warnings : 463
```

9.2 ERC Example

```
=====
                        LVR DETAILED ERROR REPORT
=====
Generated at   : 2025-08-26 05:06:07
=====

-----gds-file = ../gds/gcd1_ng45.gds-----

----- DB Warnings -----
[2025-08-26 05:06:07] [warning] DB_WARN003: Key not found: Layer will be ignored in the Tools run for layerMapText: 15
[2025-08-26 05:06:07] [warning] DB_WARN: number of cores is set as 8

----- ERC Violations -----
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin B2 of instance u_4594 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_2992 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_2993 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_2994 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_2996 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3082 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3173 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3244 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3246 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3283 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3314 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3392 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3466 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3482 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3600 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3721 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3748 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3839 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3840 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3841 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3894 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_3897 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_4120 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_4121 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_4123 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_4177 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_4270 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_4295 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_4370 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_4501 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR003: Input pin QN of instance u_4579 is unconnected
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _581_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _679_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _680_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _681_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _682_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _683_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _684_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _685_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _686_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _687_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _688_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _689_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _690_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _691_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _692_ of the schematic remained unmatched
[2025-08-26 05:06:07] [error] ERC_ERR005 : The instance _693_ of the schematic remained unmatched
```


----- Other Errors -----

----- Pin Mismatches -----

[illegible][illegible]

```
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net _341_ from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net _342_ from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net _343_ from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net _344_ from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net _345_ from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net _346_ from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net _347_ from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net net58 from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net net71 from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net net73 from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net net78 from verilog file ../verilog/ng45/gcd_1.v is open
[2025-08-26 05:06:07] [warning] VERI_WARN012: The net net88 from verilog file ../verilog/ng45/gcd_1.v is open
```

```
=====
Summary:
```

```
  Total Errors   : 136
  Total Warnings : 43
=====
```

9.3 XOR Example

```
=====
                        LVR DETAILED ERROR REPORT
=====
Generated at   : 2025-08-26 03:55:04
=====

-----gds-file = ../gds/ibex3_ng45.gds-----

----- DB Errors -----
[2025-08-26 03:54:49] [error] DB_ERR010: DB for SECOND already exists
[2025-08-26 03:54:49] [error] DB_ERR010: DB for THIRD already exists

----- DB Warnings -----
[2025-08-26 03:54:49] [warning] DB_WARN003: Key not found: Layer will be ignored in the Tools run for layerMapText: 15
[2025-08-26 03:54:49] [warning] DB_WARN: number of cores is set as 8
[2025-08-26 03:54:50] [warning] DB_WARN003: Key not found: Layer will be ignored in the Tools run for layerMapText: 15

=====
Summary:
  Total Errors   : 2
  Total Warnings : 3
=====
```

9.4 DENSITY Example

```
=====
                        LVR DETAILED ERROR REPORT
=====
Generated at   : 2025-08-26 03:26:24
=====

-----gds-file = ../gds/aes_cipher_top3_sky130hd.gds-----

----- DB Warnings -----
[2025-08-26 03:26:02] [warning] DB_WARN002: Key not found: Layer will be ignored in the Tools run for layerMapData: 122
[2025-08-26 03:26:02] [warning] DB_WARN003: Key not found: Layer will be ignored in the Tools run for layerMapText: 83
[2025-08-26 03:26:02] [warning] DB_WARN: number of cores is set as 1

----- DENSITY Violations -----
[2025-08-26 03:26:09] [warning] Got a density rule DENSITY_ERR0 that needs to be evaluated
[2025-08-26 03:26:12] [warning] Got a density rule DENSITY_ERR1 that needs to be evaluated
[2025-08-26 03:26:15] [warning] Got a density rule DENSITY_ERR2 that needs to be evaluated
[2025-08-26 03:26:18] [warning] Got a density rule DENSITY_ERR3 that needs to be evaluated
[2025-08-26 03:26:21] [warning] Got a density rule DENSITY_ERR4 that needs to be evaluated
[2025-08-26 03:26:24] [error] DENSITY_ERR for the user rule "Max Fail"
[2025-08-26 03:26:24] [error] DENSITY_ERR for the user rule "Min Fail"
[2025-08-26 03:26:24] [error] DENSITY_ERR for the user rule "Out of Range"
[2025-08-26 03:26:24] [error] DENSITY_ERR for the user rule "Xdir fail"
[2025-08-26 03:26:24] [error] DENSITY_ERR for the user rule "Ydir Fail"

----- LRF Syntax Errors -----
[2025-08-26 03:26:02] [error] LRF_ERR001: Syntax error in .lrf file at line 333, please refer LVR LRF documentation
[2025-08-26 03:26:02] [error] LRF_ERR001: Syntax error in .lrf file at line 334, please refer LVR LRF documentation
[2025-08-26 03:26:02] [error] LRF_ERR001: Syntax error in .lrf file at line 335, please refer LVR LRF documentation
[2025-08-26 03:26:02] [error] LRF_ERR001: Syntax error in .lrf file at line 336, please refer LVR LRF documentation
[2025-08-26 03:26:02] [error] LRF_ERR001: Syntax error in .lrf file at line 337, please refer LVR LRF documentation
[2025-08-26 03:26:02] [error] LRF_ERR001: Syntax error in .lrf file at line 338, please refer LVR LRF documentation
[2025-08-26 03:26:02] [error] LRF_ERR001: Syntax error in .lrf file at line 339, please refer LVR LRF documentation

----- Other Warnings -----
[2025-08-26 03:26:09] [warning] Got a density rule that needs to be evaluated
[2025-08-26 03:26:12] [warning] Got a density rule that needs to be evaluated
[2025-08-26 03:26:15] [warning] Got a density rule that needs to be evaluated
[2025-08-26 03:26:18] [warning] Got a density rule that needs to be evaluated
[2025-08-26 03:26:21] [warning] Got a density rule that needs to be evaluated

=====
Summary:
Total Errors   : 17
Total Warnings : 8
=====
```

10 Regression Summary Reports

10.1 DRC Regression Summary Reports

```
[2025-08-29 10:08:23] [info] =====
[2025-08-29 10:08:23] [info] Design Rule Check Report
[2025-08-29 10:08:23] [info] =====

[2025-08-29 10:08:23] [info] Report Generated: 2025-08-29
[2025-08-29 10:08:23] [info] Run Start Time: 10:08:20 AM
[2025-08-29 10:08:23] [info] Run End Time: 10:08:22 AM
[2025-08-29 10:08:23] [info] Time Taken: 0 minutes 6 seconds

[2025-08-29 10:08:23] [info] Tool Version: LVR_2025.1
[2025-08-29 10:08:23] [info] Host Name: kuro-Workstation
[2025-08-29 10:08:23] [info] User Name: kuro
[2025-08-29 10:08:23] [info] Cores Used: 16
[2025-08-29 10:08:23] [info] Memory Utilized: 6552.59 MB / 62.569698333740234 GB

[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] Top Cell Information
[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:08:23] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:08:23] [info] Database Format: GDSII
[2025-08-29 10:08:23] [info] Verification Mode: Full Check

[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] Type of Errors | Count
[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] DB_WARN -> 1
[2025-08-29 10:08:23] [info] DB_WARN003 -> 221
[2025-08-29 10:08:23] [info] DRC_ERR3 -> 144
[2025-08-29 10:08:23] [info] DRC_ERR9 -> 7
[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] Rule Violation Summary
[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:08:23] [info] |-----|-----|-----|
[2025-08-29 10:08:23] [info] | active.1 | "active.1 : minimum width of active : 90nm" | 3 |
[2025-08-29 10:08:23] [info] | metal7.1 | "metal7.1 : minimum width of thin global metal7 : 400nm" | 1 |
[2025-08-29 10:08:23] [info] | metal3.1 | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 3 |
[2025-08-29 10:08:23] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 72 |
[2025-08-29 10:08:23] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 72 |
[2025-08-29 10:08:23] [info]
[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] Performance Metrics
[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] | Stage | Time Taken |
[2025-08-29 10:08:23] [info] |-----|-----|
[2025-08-29 10:08:23] [info] | GDS Parsing | 0 minutes 3 seconds |
[2025-08-29 10:08:23] [info] | Rule Checking | 0 minutes 1 seconds |
[2025-08-29 10:08:23] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] Summary
[2025-08-29 10:08:23] [info] -----
[2025-08-29 10:08:23] [info] Total Errors: 151
[2025-08-29 10:08:23] [info] Total Warnings: 222
```

[2025-08-29 10:08:23] [info] DRC Status: FAILED

```
[2025-08-29 10:08:30] [info] =====
[2025-08-29 10:08:30] [info]           Design Rule Check Report
[2025-08-29 10:08:30] [info] =====
```

```
[2025-08-29 10:08:30] [info] Report Generated:    2025-08-29
[2025-08-29 10:08:30] [info] Run Start Time:      10:08:27 AM
[2025-08-29 10:08:30] [info] Run End Time:        10:08:30 AM
[2025-08-29 10:08:30] [info] Time Taken:          0 minutes 6 seconds
```

```
[2025-08-29 10:08:30] [info] Tool Version:       LVR_2025.1
[2025-08-29 10:08:30] [info] Host Name:          kuro-Workstation
[2025-08-29 10:08:30] [info] User Name:          kuro
[2025-08-29 10:08:30] [info] Cores Used:          16
[2025-08-29 10:08:30] [info] Memory Utilized:    6633.61 MB / 62.569698333740234 GB
```

```
[2025-08-29 10:08:30] [info] -----
[2025-08-29 10:08:30] [info]           Top Cell Information
[2025-08-29 10:08:30] [info] -----
[2025-08-29 10:08:30] [info] Layout Top Cell:    aes_cipher_top
[2025-08-29 10:08:30] [info] Technology Node:     Nangate45 (45nm)
[2025-08-29 10:08:30] [info] Database Format:      GDSII
[2025-08-29 10:08:30] [info] Verification Mode:   Full Check
```

```
[2025-08-29 10:08:30] [info] -----
[2025-08-29 10:08:30] [info]           Type of Errors | Count
[2025-08-29 10:08:30] [info] -----
[2025-08-29 10:08:30] [info] DB_WARN -> 1
[2025-08-29 10:08:30] [info] DB_WARN003 -> 219
[2025-08-29 10:08:30] [info] DRC_ERR3 -> 168
[2025-08-29 10:08:30] [info] DRC_ERR9 -> 9
[2025-08-29 10:08:30] [info] -----
```

```
[2025-08-29 10:08:30] [info]           Rule Violation Summary
[2025-08-29 10:08:30] [info] -----
```

[2025-08-29 10:08:30] [info]	Rule ID	Description	Error Count
[2025-08-29 10:08:30] [info]	metal3.1	"metal3.1 : minimum width of intermediate metal3 : 70nm"	6
[2025-08-29 10:08:30] [info]	metal4.1	"metal4.1 : minimum width of semi-global metal4 : 140nm"	3
[2025-08-29 10:08:30] [info]	metal7.8	"metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm"	84
[2025-08-29 10:08:30] [info]	metal7.7	"metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm"	84

```
[2025-08-29 10:08:30] [info] -----
[2025-08-29 10:08:30] [info]           Performance Metrics
[2025-08-29 10:08:30] [info] -----
```

[2025-08-29 10:08:30] [info]	Stage	Time Taken
[2025-08-29 10:08:30] [info]	GDS Parsing	0 minutes 3 seconds
[2025-08-29 10:08:30] [info]	Rule Checking	0 minutes 2 seconds
[2025-08-29 10:08:30] [info]	Report Generation	0 minutes 0 seconds

```
[2025-08-29 10:08:30] [info] -----
[2025-08-29 10:08:30] [info]           Summary
[2025-08-29 10:08:30] [info] -----
[2025-08-29 10:08:30] [info] Total Errors:    177
[2025-08-29 10:08:30] [info] Total Warnings:   220
[2025-08-29 10:08:30] [info] DRC Status:      FAILED
```


[2025-08-29 10:08:36] [info] =====
[2025-08-29 10:08:36] [info] Design Rule Check Report
[2025-08-29 10:08:36] [info] =====

[2025-08-29 10:08:36] [info] Report Generated: 2025-08-29
[2025-08-29 10:08:36] [info] Run Start Time: 10:08:34 AM
[2025-08-29 10:08:36] [info] Run End Time: 10:08:36 AM
[2025-08-29 10:08:36] [info] Time Taken: 0 minutes 5 seconds

[2025-08-29 10:08:36] [info] Tool Version: LVR_2025.1
[2025-08-29 10:08:36] [info] Host Name: kuro-Workstation
[2025-08-29 10:08:36] [info] User Name: kuro
[2025-08-29 10:08:36] [info] Cores Used: 16
[2025-08-29 10:08:36] [info] Memory Utilized: 6547.67 MB / 62.569698333740234 GB

[2025-08-29 10:08:36] [info] -----
[2025-08-29 10:08:36] [info] Top Cell Information
[2025-08-29 10:08:36] [info] -----
[2025-08-29 10:08:36] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:08:36] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:08:36] [info] Database Format: GDSII
[2025-08-29 10:08:36] [info] Verification Mode: Full Check

[2025-08-29 10:08:36] [info] -----
[2025-08-29 10:08:36] [info] Type of Errors | Count
[2025-08-29 10:08:36] [info] -----
[2025-08-29 10:08:36] [info] DB_WARN -> 1
[2025-08-29 10:08:36] [info] DB_WARN003 -> 221
[2025-08-29 10:08:36] [info] DRC_ERR9 -> 9
[2025-08-29 10:08:36] [info] DRC_ERR3 -> 128
[2025-08-29 10:08:36] [info] -----

[2025-08-29 10:08:36] [info] Rule Violation Summary
[2025-08-29 10:08:36] [info] -----
[2025-08-29 10:08:36] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:08:36] [info] |-----|-----|-----|
[2025-08-29 10:08:36] [info] | metal2.1 | "metal2.1 : minimum width of intermediate metal2 : 70nm" | 1 |
[2025-08-29 10:08:36] [info] | metal7.1 | "metal7.1 : minimum width of thin global metal7 : 400nm" | 1 |
[2025-08-29 10:08:36] [info] | metal5.1 | "metal5.1 : minimum width of semi-global metal5 : 140nm" | 1 |
[2025-08-29 10:08:36] [info] | metal4.1 | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 2 |
[2025-08-29 10:08:36] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 64 |
[2025-08-29 10:08:36] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 64 |
[2025-08-29 10:08:36] [info] | metal3.1 | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 4 |
[2025-08-29 10:08:36] [info] -----

[2025-08-29 10:08:36] [info] Performance Metrics
[2025-08-29 10:08:36] [info] -----
[2025-08-29 10:08:36] [info] | Stage | Time Taken |
[2025-08-29 10:08:36] [info] |-----|-----|
[2025-08-29 10:08:36] [info] | GDS Parsing | 0 minutes 3 seconds |
[2025-08-29 10:08:36] [info] | Rule Checking | 0 minutes 1 seconds |
[2025-08-29 10:08:36] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:08:36] [info] -----
[2025-08-29 10:08:36] [info] Summary
[2025-08-29 10:08:36] [info] -----
[2025-08-29 10:08:36] [info] Total Errors: 137
[2025-08-29 10:08:36] [info] Total Warnings: 222
[2025-08-29 10:08:36] [info] DRC Status: FAILED

```

[2025-08-29 10:08:16] [info] =====
[2025-08-29 10:08:16] [info]           Design Rule Check Report
[2025-08-29 10:08:16] [info] =====

[2025-08-29 10:08:16] [info] Report Generated:    2025-08-29
[2025-08-29 10:08:16] [info] Run Start Time:      10:08:16 AM
[2025-08-29 10:08:16] [info] Run End Time:        10:08:16 AM
[2025-08-29 10:08:16] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:08:16] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:08:16] [info] Host Name:           kuro-Workstation
[2025-08-29 10:08:16] [info] User Name:           kuro
[2025-08-29 10:08:16] [info] Cores Used:          16
[2025-08-29 10:08:16] [info] Memory Utilized:     145.59 MB / 62.569698333740234 GB

[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Top Cell Information
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] Layout Top Cell:     gcd
[2025-08-29 10:08:16] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:08:16] [info] Database Format:       GDSII
[2025-08-29 10:08:16] [info] Verification Mode:    Full Check

[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Type of Errors | Count
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] DB_WARN -> 1
[2025-08-29 10:08:16] [info] DB_WARN003 -> 24
[2025-08-29 10:08:16] [info] DRC_ERR3 -> 2
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Rule Violation Summary
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:08:16] [info] |-----|-----|-----|
[2025-08-29 10:08:16] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 1
[2025-08-29 10:08:16] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 1
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Performance Metrics
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] | Stage | Time Taken |
[2025-08-29 10:08:16] [info] |-----|-----|
[2025-08-29 10:08:16] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:08:16] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 10:08:16] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Summary
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] Total Errors: 2
[2025-08-29 10:08:16] [info] Total Warnings: 25
[2025-08-29 10:08:16] [info] DRC Status: FAILED

```

```

[2025-08-29 10:08:16] [info] =====
[2025-08-29 10:08:16] [info]           Design Rule Check Report
[2025-08-29 10:08:16] [info] =====

[2025-08-29 10:08:16] [info] Report Generated:    2025-08-29
[2025-08-29 10:08:16] [info] Run Start Time:      10:08:16 AM
[2025-08-29 10:08:16] [info] Run End Time:        10:08:16 AM
[2025-08-29 10:08:16] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:08:16] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:08:16] [info] Host Name:           kuro-Workstation
[2025-08-29 10:08:16] [info] User Name:           kuro
[2025-08-29 10:08:16] [info] Cores Used:          16
[2025-08-29 10:08:16] [info] Memory Utilized:     147.52 MB / 62.569698333740234 GB

[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Top Cell Information
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] Layout Top Cell:     gcd
[2025-08-29 10:08:16] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:08:16] [info] Database Format:       GDSII
[2025-08-29 10:08:16] [info] Verification Mode:    Full Check

[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Type of Errors | Count
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] DB_WARN -> 1
[2025-08-29 10:08:16] [info] DB_WARN003 -> 34
[2025-08-29 10:08:16] [info] DRC_ERR3 -> 4
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Rule Violation Summary
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:08:16] [info] |-----|-----|-----|
[2025-08-29 10:08:16] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 2
[2025-08-29 10:08:16] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 2
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Performance Metrics
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] | Stage | Time Taken |
[2025-08-29 10:08:16] [info] |-----|-----|
[2025-08-29 10:08:16] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:08:16] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 10:08:16] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Summary
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] Total Errors:    4
[2025-08-29 10:08:16] [info] Total Warnings:  35
[2025-08-29 10:08:16] [info] DRC Status:      FAILED

```

```

[2025-08-29 10:08:16] [info] =====
[2025-08-29 10:08:16] [info]           Design Rule Check Report
[2025-08-29 10:08:16] [info] =====

[2025-08-29 10:08:16] [info] Report Generated:    2025-08-29
[2025-08-29 10:08:16] [info] Run Start Time:      10:08:16 AM
[2025-08-29 10:08:16] [info] Run End Time:        10:08:16 AM
[2025-08-29 10:08:16] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:08:16] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:08:16] [info] Host Name:           kuro-Workstation
[2025-08-29 10:08:16] [info] User Name:           kuro
[2025-08-29 10:08:16] [info] Cores Used:          16
[2025-08-29 10:08:16] [info] Memory Utilized:     145.29 MB / 62.569698333740234 GB

[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Top Cell Information
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] Layout Top Cell:     gcd
[2025-08-29 10:08:16] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:08:16] [info] Database Format:       GDSII
[2025-08-29 10:08:16] [info] Verification Mode:    Full Check

[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Type of Errors | Count
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] DB_WARN -> 1
[2025-08-29 10:08:16] [info] DB_WARN003 -> 26
[2025-08-29 10:08:16] [info] DRC_ERR3 -> 4
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Rule Violation Summary
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:08:16] [info] |-----|-----|-----|
[2025-08-29 10:08:16] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 2
[2025-08-29 10:08:16] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 2
[2025-08-29 10:08:16] [info] |-----|-----|-----|
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Performance Metrics
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] | Stage          | Time Taken |
[2025-08-29 10:08:16] [info] |-----|-----|
[2025-08-29 10:08:16] [info] | GDS Parsing    | 0 minutes 0 seconds |
[2025-08-29 10:08:16] [info] | Rule Checking   | 0 minutes 0 seconds |
[2025-08-29 10:08:16] [info] | Report Generation | 0 minutes 0 seconds |
[2025-08-29 10:08:16] [info] |-----|-----|

[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info]           Summary
[2025-08-29 10:08:16] [info] -----
[2025-08-29 10:08:16] [info] Total Errors:      4
[2025-08-29 10:08:16] [info] Total Warnings:    27
[2025-08-29 10:08:16] [info] DRC Status:        FAILED

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[2025-08-29 10:08:44] [info] =====
[2025-08-29 10:08:44] [info]           Design Rule Check Report
[2025-08-29 10:08:44] [info] =====

[2025-08-29 10:08:44] [info] Report Generated:    2025-08-29
[2025-08-29 10:08:44] [info] Run Start Time:      10:08:41 AM
[2025-08-29 10:08:44] [info] Run End Time:        10:08:44 AM
[2025-08-29 10:08:44] [info] Time Taken:          0 minutes 7 seconds

[2025-08-29 10:08:44] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:08:44] [info] Host Name:           kuro-Workstation
[2025-08-29 10:08:44] [info] User Name:           kuro
[2025-08-29 10:08:44] [info] Cores Used:          16
[2025-08-29 10:08:44] [info] Memory Utilized:     7306.80 MB / 62.569698333740234 GB

[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info]           Top Cell Information
[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:08:44] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:08:44] [info] Database Format:       GDSII
[2025-08-29 10:08:44] [info] Verification Mode:    Full Check

[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info]           Type of Errors | Count
[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info] DB_WARN -> 1
[2025-08-29 10:08:44] [info] DB_WARN003 -> 85
[2025-08-29 10:08:44] [info] DRC_ERR3 -> 160
[2025-08-29 10:08:44] [info] DRC_ERR9 -> 3
[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info]           Rule Violation Summary
[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:08:44] [info] |-----|-----|-----|
[2025-08-29 10:08:44] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 1           |
[2025-08-29 10:08:44] [info] | metal4.1     | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 2           |
[2025-08-29 10:08:44] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 80          |
[2025-08-29 10:08:44] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 80          |
[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info]           Performance Metrics
[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info] | Stage                | Time Taken |
[2025-08-29 10:08:44] [info] |-----|-----|
[2025-08-29 10:08:44] [info] | GDS Parsing           | 0 minutes 4 seconds |
[2025-08-29 10:08:44] [info] | Rule Checking         | 0 minutes 1 seconds |
[2025-08-29 10:08:44] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info]           Summary
[2025-08-29 10:08:44] [info] -----
[2025-08-29 10:08:44] [info] Total Errors:    163
[2025-08-29 10:08:44] [info] Total Warnings:   86
[2025-08-29 10:08:44] [info] DRC Status:      FAILED

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[2025-08-29 10:08:52] [info] =====
[2025-08-29 10:08:52] [info]           Design Rule Check Report
[2025-08-29 10:08:52] [info] =====

[2025-08-29 10:08:52] [info] Report Generated:    2025-08-29
[2025-08-29 10:08:52] [info] Run Start Time:      10:08:49 AM
[2025-08-29 10:08:52] [info] Run End Time:        10:08:52 AM
[2025-08-29 10:08:52] [info] Time Taken:          0 minutes 7 seconds

[2025-08-29 10:08:52] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:08:52] [info] Host Name:           kuro-Workstation
[2025-08-29 10:08:52] [info] User Name:           kuro
[2025-08-29 10:08:52] [info] Cores Used:          16
[2025-08-29 10:08:52] [info] Memory Utilized:     7369.49 MB / 62.569698333740234 GB

[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info]           Top Cell Information
[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:08:52] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:08:52] [info] Database Format:       GDSII
[2025-08-29 10:08:52] [info] Verification Mode:    Full Check

[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info]           Type of Errors | Count
[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info] DB_WARN -> 1
[2025-08-29 10:08:52] [info] DB_WARN003 -> 85
[2025-08-29 10:08:52] [info] DRC_ERR3 -> 176
[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info]           Rule Violation Summary
[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:08:52] [info] |-----|-----|-----|
[2025-08-29 10:08:52] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 88
[2025-08-29 10:08:52] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 88
[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info]           Performance Metrics
[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info] | Stage | Time Taken |
[2025-08-29 10:08:52] [info] |-----|-----|
[2025-08-29 10:08:52] [info] | GDS Parsing | 0 minutes 4 seconds |
[2025-08-29 10:08:52] [info] | Rule Checking | 0 minutes 2 seconds |
[2025-08-29 10:08:52] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info]           Summary
[2025-08-29 10:08:52] [info] -----
[2025-08-29 10:08:52] [info] Total Errors:    176
[2025-08-29 10:08:52] [info] Total Warnings:   86
[2025-08-29 10:08:52] [info] DRC Status:      FAILED

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[2025-08-29 10:08:59] [info] =====
[2025-08-29 10:08:59] [info]           Design Rule Check Report
[2025-08-29 10:08:59] [info] =====

[2025-08-29 10:08:59] [info] Report Generated:    2025-08-29
[2025-08-29 10:08:59] [info] Run Start Time:      10:08:56 AM
[2025-08-29 10:08:59] [info] Run End Time:        10:08:59 AM
[2025-08-29 10:08:59] [info] Time Taken:          0 minutes 6 seconds

[2025-08-29 10:08:59] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:08:59] [info] Host Name:           kuro-Workstation
[2025-08-29 10:08:59] [info] User Name:           kuro
[2025-08-29 10:08:59] [info] Cores Used:          16
[2025-08-29 10:08:59] [info] Memory Utilized:     7252.89 MB / 62.569698333740234 GB

[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info]           Top Cell Information
[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:08:59] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:08:59] [info] Database Format:       GDSII
[2025-08-29 10:08:59] [info] Verification Mode:    Full Check

[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info]           Type of Errors | Count
[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info] DB_WARN -> 1
[2025-08-29 10:08:59] [info] DB_WARN003 -> 98
[2025-08-29 10:08:59] [info] DRC_ERR3 -> 144
[2025-08-29 10:08:59] [info] DRC_ERR9 -> 13
[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info]           Rule Violation Summary
[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:08:59] [info] |-----|-----|-----|
[2025-08-29 10:08:59] [info] | metal1.1     | "metal1.1 : minimum width of metal1 : 65nm" | 4           |
[2025-08-29 10:08:59] [info] | active.1     | "active.1 : minimum width of active : 90nm" | 7           |
[2025-08-29 10:08:59] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 2           |
[2025-08-29 10:08:59] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 72          |
[2025-08-29 10:08:59] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 72          |
[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info]           Performance Metrics
[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info] | Stage          | Time Taken |
[2025-08-29 10:08:59] [info] |-----|-----|
[2025-08-29 10:08:59] [info] | GDS Parsing    | 0 minutes 4 seconds |
[2025-08-29 10:08:59] [info] | Rule Checking  | 0 minutes 1 seconds |
[2025-08-29 10:08:59] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info]           Summary
[2025-08-29 10:08:59] [info] -----
[2025-08-29 10:08:59] [info] Total Errors:    157
[2025-08-29 10:08:59] [info] Total Warnings:  99
[2025-08-29 10:08:59] [info] DRC Status:      FAILED

```

[2025-08-29 10:09:23] [info] =====
[2025-08-29 10:09:23] [info] Design Rule Check Report
[2025-08-29 10:09:23] [info] =====

[2025-08-29 10:09:23] [info] Report Generated: 2025-08-29
[2025-08-29 10:09:23] [info] Run Start Time: 10:09:15 AM
[2025-08-29 10:09:23] [info] Run End Time: 10:09:23 AM
[2025-08-29 10:09:23] [info] Time Taken: 0 minutes 23 seconds

[2025-08-29 10:09:23] [info] Tool Version: LVR_2025.1
[2025-08-29 10:09:23] [info] Host Name: kuro-Workstation
[2025-08-29 10:09:23] [info] User Name: kuro
[2025-08-29 10:09:23] [info] Cores Used: 16
[2025-08-29 10:09:23] [info] Memory Utilized: 23865.24 MB / 62.569698333740234 GB

[2025-08-29 10:09:23] [info] -----
[2025-08-29 10:09:23] [info] Top Cell Information
[2025-08-29 10:09:23] [info] -----
[2025-08-29 10:09:23] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:09:23] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:09:23] [info] Database Format: GDSII
[2025-08-29 10:09:23] [info] Verification Mode: Full Check

[2025-08-29 10:09:23] [info] -----
[2025-08-29 10:09:23] [info] Type of Errors | Count
[2025-08-29 10:09:23] [info] -----
[2025-08-29 10:09:23] [info] DB_WARN -> 1
[2025-08-29 10:09:23] [info] DB_WARN003 -> 37
[2025-08-29 10:09:23] [info] DRC_ERR3 -> 280
[2025-08-29 10:09:23] [info] DRC_ERR9 -> 3
[2025-08-29 10:09:23] [info] -----

[2025-08-29 10:09:23] [info] Rule Violation Summary
[2025-08-29 10:09:23] [info] -----
[2025-08-29 10:09:23] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:09:23] [info] |-----|-----|-----|
[2025-08-29 10:09:23] [info] | metal2.1 | "metal2.1 : minimum width of intermediate metal2 : 70nm" | 2 |
[2025-08-29 10:09:23] [info] | metal4.1 | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 1 |
[2025-08-29 10:09:23] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 140 |
[2025-08-29 10:09:23] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 140 |
[2025-08-29 10:09:23] [info] |-----|-----|-----|

[2025-08-29 10:09:23] [info] Performance Metrics
[2025-08-29 10:09:23] [info] -----
[2025-08-29 10:09:23] [info] | Stage | Time Taken |
[2025-08-29 10:09:23] [info] |-----|-----|
[2025-08-29 10:09:23] [info] | GDS Parsing | 0 minutes 15 seconds |
[2025-08-29 10:09:23] [info] | Rule Checking | 0 minutes 6 seconds |
[2025-08-29 10:09:23] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:09:23] [info] -----
[2025-08-29 10:09:23] [info] Summary
[2025-08-29 10:09:23] [info] -----
[2025-08-29 10:09:23] [info] Total Errors: 283
[2025-08-29 10:09:23] [info] Total Warnings: 38
[2025-08-29 10:09:23] [info] DRC Status: FAILED

[2025-08-29 10:09:51] [info] =====
[2025-08-29 10:09:51] [info] Design Rule Check Report
[2025-08-29 10:09:51] [info] =====

[2025-08-29 10:09:51] [info] Report Generated: 2025-08-29
[2025-08-29 10:09:51] [info] Run Start Time: 10:09:40 AM
[2025-08-29 10:09:51] [info] Run End Time: 10:09:51 AM
[2025-08-29 10:09:51] [info] Time Taken: 0 minutes 26 seconds

[2025-08-29 10:09:51] [info] Tool Version: LVR_2025.1
[2025-08-29 10:09:51] [info] Host Name: kuro-Workstation
[2025-08-29 10:09:51] [info] User Name: kuro
[2025-08-29 10:09:51] [info] Cores Used: 16
[2025-08-29 10:09:51] [info] Memory Utilized: 24025.29 MB / 62.569698333740234 GB

[2025-08-29 10:09:51] [info] -----
[2025-08-29 10:09:51] [info] Top Cell Information
[2025-08-29 10:09:51] [info] -----
[2025-08-29 10:09:51] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:09:51] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:09:51] [info] Database Format: GDSII
[2025-08-29 10:09:51] [info] Verification Mode: Full Check

[2025-08-29 10:09:51] [info] -----
[2025-08-29 10:09:51] [info] Type of Errors | Count
[2025-08-29 10:09:51] [info] -----
[2025-08-29 10:09:51] [info] DB_WARN -> 1
[2025-08-29 10:09:51] [info] DB_WARN003 -> 39
[2025-08-29 10:09:51] [info] DRC_ERR3 -> 328
[2025-08-29 10:09:51] [info] DRC_ERR9 -> 29
[2025-08-29 10:09:51] [info] -----

[2025-08-29 10:09:51] [info] Rule Violation Summary
[2025-08-29 10:09:51] [info] -----

[2025-08-29 10:09:51] [info]	Rule ID	Description	Error Count
[2025-08-29 10:09:51] [info]	metal2.1	"metal2.1 : minimum width of intermediate metal2 : 70nm"	1
[2025-08-29 10:09:51] [info]	metal4.1	"metal4.1 : minimum width of semi-global metal4 : 140nm"	1
[2025-08-29 10:09:51] [info]	active.1	"active.1 : minimum width of active : 90nm"	27
[2025-08-29 10:09:51] [info]	metal7.8	"metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm"	164
[2025-08-29 10:09:51] [info]	metal7.7	"metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm"	164

[2025-08-29 10:09:51] [info] -----
[2025-08-29 10:09:51] [info] Performance Metrics
[2025-08-29 10:09:51] [info] -----

[2025-08-29 10:09:51] [info]	Stage	Time Taken
[2025-08-29 10:09:51] [info]	GDS Parsing	0 minutes 15 seconds
[2025-08-29 10:09:51] [info]	Rule Checking	0 minutes 8 seconds
[2025-08-29 10:09:51] [info]	Report Generation	0 minutes 0 seconds

[2025-08-29 10:09:51] [info] -----
[2025-08-29 10:09:51] [info] Summary
[2025-08-29 10:09:51] [info] -----
[2025-08-29 10:09:51] [info] Total Errors: 357
[2025-08-29 10:09:51] [info] Total Warnings: 40
[2025-08-29 10:09:51] [info] DRC Status: FAILED

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[2025-08-29 10:10:17] [info] =====
[2025-08-29 10:10:17] [info]           Design Rule Check Report
[2025-08-29 10:10:17] [info] =====

[2025-08-29 10:10:17] [info] Report Generated:    2025-08-29
[2025-08-29 10:10:17] [info] Run Start Time:      10:10:08 AM
[2025-08-29 10:10:17] [info] Run End Time:        10:10:17 AM
[2025-08-29 10:10:17] [info] Time Taken:          0 minutes 24 seconds

[2025-08-29 10:10:17] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:10:17] [info] Host Name:           kuro-Workstation
[2025-08-29 10:10:17] [info] User Name:           kuro
[2025-08-29 10:10:17] [info] Cores Used:          16
[2025-08-29 10:10:17] [info] Memory Utilized:     23788.51 MB / 62.569698333740234 GB

[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info]           Top Cell Information
[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:10:17] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:10:17] [info] Database Format:       GDSII
[2025-08-29 10:10:17] [info] Verification Mode:    Full Check

[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info]           Type of Errors | Count
[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info] DB_WARN -> 1
[2025-08-29 10:10:17] [info] DB_WARN003 -> 34
[2025-08-29 10:10:17] [info] DRC_ERR3 -> 256
[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info]           Rule Violation Summary
[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:10:17] [info] |-----|-----|-----|
[2025-08-29 10:10:17] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 128
[2025-08-29 10:10:17] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 128
[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info]           Performance Metrics
[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info] | Stage          | Time Taken |
[2025-08-29 10:10:17] [info] |-----|-----|
[2025-08-29 10:10:17] [info] | GDS Parsing    | 0 minutes 15 seconds |
[2025-08-29 10:10:17] [info] | Rule Checking  | 0 minutes 6 seconds  |
[2025-08-29 10:10:17] [info] | Report Generation | 0 minutes 0 seconds  |

[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info]           Summary
[2025-08-29 10:10:17] [info] -----
[2025-08-29 10:10:17] [info] Total Errors:    256
[2025-08-29 10:10:17] [info] Total Warnings:   35
[2025-08-29 10:10:17] [info] DRC Status:      FAILED

```

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[2025-08-29 10:00:05] [info] =====
[2025-08-29 10:00:05] [info]           Design Rule Check Report
[2025-08-29 10:00:05] [info] =====

[2025-08-29 10:00:05] [info] Report Generated:    2025-08-29
[2025-08-29 10:00:05] [info] Run Start Time:      09:59:52 AM
[2025-08-29 10:00:05] [info] Run End Time:        10:00:05 AM
[2025-08-29 10:00:05] [info] Time Taken:          0 minutes 15 seconds

[2025-08-29 10:00:05] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:00:05] [info] Host Name:           kuro-Workstation
[2025-08-29 10:00:05] [info] User Name:           kuro
[2025-08-29 10:00:05] [info] Cores Used:          1
[2025-08-29 10:00:05] [info] Memory Utilized:     1508.70 MB / 62.569698333740234 GB

[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info]           Top Cell Information
[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:00:05] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:00:05] [info] Database Format:       GDSII
[2025-08-29 10:00:05] [info] Verification Mode:    Full Check

[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info]           Type of Errors | Count
[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info] DB_WARN -> 1
[2025-08-29 10:00:05] [info] DB_WARN003 -> 221
[2025-08-29 10:00:05] [info] DRC_ERR9 -> 4
[2025-08-29 10:00:05] [info] DRC_ERR3 -> 34
[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info]           Rule Violation Summary
[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:00:05] [info] |-----|-----|-----|
[2025-08-29 10:00:05] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 17
[2025-08-29 10:00:05] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 17
[2025-08-29 10:00:05] [info] | metal7.1      | "metal7.1 : minimum width of thin global metal7 : 400nm" | 1
[2025-08-29 10:00:05] [info] | metal3.1      | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 3
[2025-08-29 10:00:05] [info]
[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info]           Performance Metrics
[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info] | Stage          | Time Taken |
[2025-08-29 10:00:05] [info] |-----|-----|
[2025-08-29 10:00:05] [info] | GDS Parsing    | 0 minutes 2 seconds |
[2025-08-29 10:00:05] [info] | Rule Checking  | 0 minutes 13 seconds |
[2025-08-29 10:00:05] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info]           Summary
[2025-08-29 10:00:05] [info] -----
[2025-08-29 10:00:05] [info] Total Errors:      38
[2025-08-29 10:00:05] [info] Total Warnings:    222
[2025-08-29 10:00:05] [info] DRC Status:        FAILED

```

```
[2025-08-29 10:00:22] [info] =====
[2025-08-29 10:00:22] [info]           Design Rule Check Report
[2025-08-29 10:00:22] [info] =====
```

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[2025-08-29 10:00:22] [info] Report Generated:    2025-08-29
[2025-08-29 10:00:22] [info] Run Start Time:      10:00:08 AM
[2025-08-29 10:00:22] [info] Run End Time:        10:00:22 AM
[2025-08-29 10:00:22] [info] Time Taken:          0 minutes 16 seconds

[2025-08-29 10:00:22] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:00:22] [info] Host Name:           kuro-Workstation
[2025-08-29 10:00:22] [info] User Name:           kuro
[2025-08-29 10:00:22] [info] Cores Used:          1
[2025-08-29 10:00:22] [info] Memory Utilized:     1525.65 MB / 62.569698333740234 GB
```

```
[2025-08-29 10:00:22] [info] -----
[2025-08-29 10:00:22] [info]           Top Cell Information
[2025-08-29 10:00:22] [info] -----
[2025-08-29 10:00:22] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:00:22] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:00:22] [info] Database Format:      GDSII
[2025-08-29 10:00:22] [info] Verification Mode:    Full Check
```

```
[2025-08-29 10:00:22] [info] -----
[2025-08-29 10:00:22] [info]           Type of Errors | Count
[2025-08-29 10:00:22] [info] -----
[2025-08-29 10:00:22] [info] DB_WARN -> 1
[2025-08-29 10:00:22] [info] DB_WARN003 -> 219
[2025-08-29 10:00:22] [info] DRC_ERR9 -> 9
[2025-08-29 10:00:22] [info] DRC_ERR3 -> 40
[2025-08-29 10:00:22] [info] -----
```

```
[2025-08-29 10:00:22] [info]           Rule Violation Summary
[2025-08-29 10:00:22] [info] -----
[2025-08-29 10:00:22] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:00:22] [info] |-----|-----|-----|
[2025-08-29 10:00:22] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 20
[2025-08-29 10:00:22] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 20
[2025-08-29 10:00:22] [info] | metal4.1     | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 3
[2025-08-29 10:00:22] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 6
[2025-08-29 10:00:22] [info] |-----|-----|-----|
```

```
[2025-08-29 10:00:22] [info] -----
[2025-08-29 10:00:22] [info]           Performance Metrics
[2025-08-29 10:00:22] [info] -----
[2025-08-29 10:00:22] [info] | Stage          | Time Taken |
[2025-08-29 10:00:22] [info] |-----|-----|
[2025-08-29 10:00:22] [info] | GDS Parsing    | 0 minutes 2 seconds |
[2025-08-29 10:00:22] [info] | Rule Checking  | 0 minutes 13 seconds |
[2025-08-29 10:00:22] [info] | Report Generation | 0 minutes 0 seconds |
```

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[2025-08-29 10:00:22] [info] -----
[2025-08-29 10:00:22] [info]           Summary
[2025-08-29 10:00:22] [info] -----
[2025-08-29 10:00:22] [info] Total Errors:      49
[2025-08-29 10:00:22] [info] Total Warnings:    220
[2025-08-29 10:00:22] [info] DRC Status:        FAILED
```

```

[2025-08-29 10:00:38] [info] =====
[2025-08-29 10:00:38] [info]               Design Rule Check Report
[2025-08-29 10:00:38] [info] =====

[2025-08-29 10:00:38] [info] Report Generated:    2025-08-29
[2025-08-29 10:00:38] [info] Run Start Time:      10:00:25 AM
[2025-08-29 10:00:38] [info] Run End Time:        10:00:38 AM
[2025-08-29 10:00:38] [info] Time Taken:          0 minutes 15 seconds

[2025-08-29 10:00:38] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:00:38] [info] Host Name:           kuro-Workstation
[2025-08-29 10:00:38] [info] User Name:           kuro
[2025-08-29 10:00:38] [info] Cores Used:          1
[2025-08-29 10:00:38] [info] Memory Utilized:     1504.52 MB / 62.569698333740234 GB

[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info]               Top Cell Information
[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:00:38] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:00:38] [info] Database Format:       GDSII
[2025-08-29 10:00:38] [info] Verification Mode:    Full Check

[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info]               Type of Errors | Count
[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info] DB_WARN -> 1
[2025-08-29 10:00:38] [info] DB_WARN003 -> 221
[2025-08-29 10:00:38] [info] DRC_ERR9 -> 9
[2025-08-29 10:00:38] [info] DRC_ERR3 -> 32
[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info]               Rule Violation Summary
[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info] | Rule ID      | Description                                          | Error Count |
[2025-08-29 10:00:38] [info] |-----|-----|-----|
[2025-08-29 10:00:38] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 16          |
[2025-08-29 10:00:38] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 16          |
[2025-08-29 10:00:38] [info] | metal7.1      | "metal7.1 : minimum width of thin global metal7 : 400nm" | 1          |
[2025-08-29 10:00:38] [info] | metal5.1      | "metal5.1 : minimum width of semi-global metal5 : 140nm" | 1          |
[2025-08-29 10:00:38] [info] | metal4.1      | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 2          |
[2025-08-29 10:00:38] [info] | metal3.1      | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 4          |
[2025-08-29 10:00:38] [info] | metal2.1      | "metal2.1 : minimum width of intermediate metal2 : 70nm" | 1          |
[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info]               Performance Metrics
[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info] | Stage          | Time Taken |
[2025-08-29 10:00:38] [info] |-----|-----|
[2025-08-29 10:00:38] [info] | GDS Parsing    | 0 minutes 2 seconds |
[2025-08-29 10:00:38] [info] | Rule Checking  | 0 minutes 13 seconds |
[2025-08-29 10:00:38] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info]               Summary
[2025-08-29 10:00:38] [info] -----
[2025-08-29 10:00:38] [info] Total Errors:    41
[2025-08-29 10:00:38] [info] Total Warnings:  222
[2025-08-29 10:00:38] [info] DRC Status:      FAILED

```

```

[2025-08-29 09:59:49] [info] =====
[2025-08-29 09:59:49] [info]           Design Rule Check Report
[2025-08-29 09:59:49] [info] =====

[2025-08-29 09:59:49] [info] Report Generated:    2025-08-29
[2025-08-29 09:59:49] [info] Run Start Time:      09:59:49 AM
[2025-08-29 09:59:49] [info] Run End Time:        09:59:49 AM
[2025-08-29 09:59:49] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:59:49] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:59:49] [info] Host Name:           kuro-Workstation
[2025-08-29 09:59:49] [info] User Name:           kuro
[2025-08-29 09:59:49] [info] Cores Used:          1
[2025-08-29 09:59:49] [info] Memory Utilized:     31.40 MB / 62.569698333740234 GB

[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Top Cell Information
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] Layout Top Cell:     gcd
[2025-08-29 09:59:49] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 09:59:49] [info] Database Format:       GDSII
[2025-08-29 09:59:49] [info] Verification Mode:    Full Check

[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Type of Errors | Count
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] DB_WARN -> 1
[2025-08-29 09:59:49] [info] DB_WARN003 -> 24
[2025-08-29 09:59:49] [info] DRC_ERR3 -> 2
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Rule Violation Summary
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:59:49] [info] |-----|-----|-----|
[2025-08-29 09:59:49] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 1
[2025-08-29 09:59:49] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 1
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Performance Metrics
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] | Stage | Time Taken |
[2025-08-29 09:59:49] [info] |-----|-----|
[2025-08-29 09:59:49] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:59:49] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 09:59:49] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Summary
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] Total Errors:    2
[2025-08-29 09:59:49] [info] Total Warnings:  25
[2025-08-29 09:59:49] [info] DRC Status:      FAILED

```

```

[2025-08-29 09:59:49] [info] =====
[2025-08-29 09:59:49] [info]           Design Rule Check Report
[2025-08-29 09:59:49] [info] =====

[2025-08-29 09:59:49] [info] Report Generated:    2025-08-29
[2025-08-29 09:59:49] [info] Run Start Time:      09:59:49 AM
[2025-08-29 09:59:49] [info] Run End Time:        09:59:49 AM
[2025-08-29 09:59:49] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:59:49] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:59:49] [info] Host Name:           kuro-Workstation
[2025-08-29 09:59:49] [info] User Name:           kuro
[2025-08-29 09:59:49] [info] Cores Used:          1
[2025-08-29 09:59:49] [info] Memory Utilized:     31.93 MB / 62.569698333740234 GB

[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Top Cell Information
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] Layout Top Cell:     gcd
[2025-08-29 09:59:49] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 09:59:49] [info] Database Format:       GDSII
[2025-08-29 09:59:49] [info] Verification Mode:    Full Check

[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Type of Errors | Count
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] DB_WARN -> 1
[2025-08-29 09:59:49] [info] DB_WARN003 -> 34
[2025-08-29 09:59:49] [info] DRC_ERR3 -> 2
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Rule Violation Summary
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:59:49] [info] |-----|-----|-----|
[2025-08-29 09:59:49] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 1
[2025-08-29 09:59:49] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 1
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Performance Metrics
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] | Stage | Time Taken |
[2025-08-29 09:59:49] [info] |-----|-----|
[2025-08-29 09:59:49] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:59:49] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 09:59:49] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Summary
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] Total Errors: 2
[2025-08-29 09:59:49] [info] Total Warnings: 35
[2025-08-29 09:59:49] [info] DRC Status: FAILED

```

```

[2025-08-29 09:59:49] [info] =====
[2025-08-29 09:59:49] [info]           Design Rule Check Report
[2025-08-29 09:59:49] [info] =====

[2025-08-29 09:59:49] [info] Report Generated:    2025-08-29
[2025-08-29 09:59:49] [info] Run Start Time:      09:59:49 AM
[2025-08-29 09:59:49] [info] Run End Time:        09:59:49 AM
[2025-08-29 09:59:49] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:59:49] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:59:49] [info] Host Name:           kuro-Workstation
[2025-08-29 09:59:49] [info] User Name:           kuro
[2025-08-29 09:59:49] [info] Cores Used:          1
[2025-08-29 09:59:49] [info] Memory Utilized:     31.37 MB / 62.569698333740234 GB

[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Top Cell Information
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] Layout Top Cell:     gcd
[2025-08-29 09:59:49] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 09:59:49] [info] Database Format:       GDSII
[2025-08-29 09:59:49] [info] Verification Mode:    Full Check

[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Type of Errors | Count
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] DB_WARN -> 1
[2025-08-29 09:59:49] [info] DB_WARN003 -> 26
[2025-08-29 09:59:49] [info] DRC_ERR3 -> 2
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Rule Violation Summary
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:59:49] [info] |-----|-----|-----|
[2025-08-29 09:59:49] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 1
[2025-08-29 09:59:49] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 1
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Performance Metrics
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] | Stage | Time Taken |
[2025-08-29 09:59:49] [info] |-----|-----|
[2025-08-29 09:59:49] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:59:49] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 09:59:49] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info]           Summary
[2025-08-29 09:59:49] [info] -----
[2025-08-29 09:59:49] [info] Total Errors:    2
[2025-08-29 09:59:49] [info] Total Warnings:  27
[2025-08-29 09:59:49] [info] DRC Status:      FAILED

```



```

[2025-08-29 10:00:55] [info] =====
[2025-08-29 10:00:55] [info]           Design Rule Check Report
[2025-08-29 10:00:55] [info] =====

[2025-08-29 10:00:55] [info] Report Generated:    2025-08-29
[2025-08-29 10:00:55] [info] Run Start Time:      10:00:41 AM
[2025-08-29 10:00:55] [info] Run End Time:        10:00:55 AM
[2025-08-29 10:00:55] [info] Time Taken:          0 minutes 16 seconds

[2025-08-29 10:00:55] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:00:55] [info] Host Name:           kuro-Workstation
[2025-08-29 10:00:55] [info] User Name:           kuro
[2025-08-29 10:00:55] [info] Cores Used:          1
[2025-08-29 10:00:55] [info] Memory Utilized:     1631.92 MB / 62.569698333740234 GB

[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info]           Top Cell Information
[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:00:55] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:00:55] [info] Database Format:       GDSII
[2025-08-29 10:00:55] [info] Verification Mode:    Full Check

[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info]           Type of Errors | Count
[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info] DB_WARN -> 1
[2025-08-29 10:00:55] [info] DB_WARN003 -> 85
[2025-08-29 10:00:55] [info] DRC_ERR9 -> 3
[2025-08-29 10:00:55] [info] DRC_ERR3 -> 38
[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info]           Rule Violation Summary
[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:00:55] [info] |-----|-----|-----|
[2025-08-29 10:00:55] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 19
[2025-08-29 10:00:55] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 19
[2025-08-29 10:00:55] [info] | metal4.1     | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 2
[2025-08-29 10:00:55] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 1
[2025-08-29 10:00:55] [info] |-----|-----|-----|
[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info]           Performance Metrics
[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info] | Stage          | Time Taken |
[2025-08-29 10:00:55] [info] |-----|-----|
[2025-08-29 10:00:55] [info] | GDS Parsing    | 0 minutes 2 seconds |
[2025-08-29 10:00:55] [info] | Rule Checking  | 0 minutes 13 seconds |
[2025-08-29 10:00:55] [info] | Report Generation | 0 minutes 0 seconds |
[2025-08-29 10:00:55] [info] |-----|-----|
[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info]           Summary
[2025-08-29 10:00:55] [info] -----
[2025-08-29 10:00:55] [info] Total Errors:      41
[2025-08-29 10:00:55] [info] Total Warnings:    86
[2025-08-29 10:00:55] [info] DRC Status:        FAILED

```

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[2025-08-29 10:01:13] [info] =====
[2025-08-29 10:01:13] [info]           Design Rule Check Report
[2025-08-29 10:01:13] [info] =====

[2025-08-29 10:01:13] [info] Report Generated:    2025-08-29
[2025-08-29 10:01:13] [info] Run Start Time:      10:00:59 AM
[2025-08-29 10:01:13] [info] Run End Time:        10:01:13 AM
[2025-08-29 10:01:13] [info] Time Taken:          0 minutes 17 seconds

[2025-08-29 10:01:13] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:01:13] [info] Host Name:           kuro-Workstation
[2025-08-29 10:01:13] [info] User Name:           kuro
[2025-08-29 10:01:13] [info] Cores Used:          1
[2025-08-29 10:01:13] [info] Memory Utilized:     1659.03 MB / 62.569698333740234 GB

[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info]           Top Cell Information
[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:01:13] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:01:13] [info] Database Format:       GDSII
[2025-08-29 10:01:13] [info] Verification Mode:    Full Check

[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info]           Type of Errors | Count
[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info] DB_WARN -> 1
[2025-08-29 10:01:13] [info] DB_WARN003 -> 85
[2025-08-29 10:01:13] [info] DRC_ERR3 -> 44
[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info]           Rule Violation Summary
[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:01:13] [info] |-----|-----|-----|
[2025-08-29 10:01:13] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 22
[2025-08-29 10:01:13] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 22
[2025-08-29 10:01:13] [info] |-----|-----|-----|
[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info]           Performance Metrics
[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info] | Stage          | Time Taken |
[2025-08-29 10:01:13] [info] |-----|-----|
[2025-08-29 10:01:13] [info] | GDS Parsing    | 0 minutes 2 seconds |
[2025-08-29 10:01:13] [info] | Rule Checking  | 0 minutes 13 seconds |
[2025-08-29 10:01:13] [info] | Report Generation | 0 minutes 0 seconds |
[2025-08-29 10:01:13] [info] |-----|-----|
[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info]           Summary
[2025-08-29 10:01:13] [info] -----
[2025-08-29 10:01:13] [info] Total Errors:      44
[2025-08-29 10:01:13] [info] Total Warnings:    86
[2025-08-29 10:01:13] [info] DRC Status:        FAILED

```

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[2025-08-29 10:01:30] [info] =====
[2025-08-29 10:01:30] [info]           Design Rule Check Report
[2025-08-29 10:01:30] [info] =====

[2025-08-29 10:01:30] [info] Report Generated:    2025-08-29
[2025-08-29 10:01:30] [info] Run Start Time:      10:01:16 AM
[2025-08-29 10:01:30] [info] Run End Time:        10:01:30 AM
[2025-08-29 10:01:30] [info] Time Taken:          0 minutes 16 seconds

[2025-08-29 10:01:30] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:01:30] [info] Host Name:           kuro-Workstation
[2025-08-29 10:01:30] [info] User Name:           kuro
[2025-08-29 10:01:30] [info] Cores Used:          1
[2025-08-29 10:01:30] [info] Memory Utilized:     1521.40 MB / 62.569698333740234 GB

[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info]           Top Cell Information
[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:01:30] [info] Technology Node:     Nangate45 (45nm)
[2025-08-29 10:01:30] [info] Database Format:      GDSII
[2025-08-29 10:01:30] [info] Verification Mode:    Full Check

[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info]           Type of Errors | Count
[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info] DB_WARN -> 1
[2025-08-29 10:01:30] [info] DB_WARN003 -> 98
[2025-08-29 10:01:30] [info] DRC_ERR9 -> 2
[2025-08-29 10:01:30] [info] DRC_ERR3 -> 34
[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info]           Rule Violation Summary
[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:01:30] [info] |-----|-----|-----|
[2025-08-29 10:01:30] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 17
[2025-08-29 10:01:30] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 17
[2025-08-29 10:01:30] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 2
[2025-08-29 10:01:30] [info] |-----|-----|-----|
[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info]           Performance Metrics
[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info] | Stage          | Time Taken |
[2025-08-29 10:01:30] [info] |-----|-----|
[2025-08-29 10:01:30] [info] | GDS Parsing    | 0 minutes 2 seconds |
[2025-08-29 10:01:30] [info] | Rule Checking  | 0 minutes 13 seconds |
[2025-08-29 10:01:30] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info]           Summary
[2025-08-29 10:01:30] [info] -----
[2025-08-29 10:01:30] [info] Total Errors:    36
[2025-08-29 10:01:30] [info] Total Warnings:  99
[2025-08-29 10:01:30] [info] DRC Status:      FAILED

```

[2025-08-29 10:02:25] [info] =====
[2025-08-29 10:02:25] [info] Design Rule Check Report
[2025-08-29 10:02:25] [info] =====

[2025-08-29 10:02:25] [info] Report Generated: 2025-08-29
[2025-08-29 10:02:25] [info] Run Start Time: 10:01:40 AM
[2025-08-29 10:02:25] [info] Run End Time: 10:02:25 AM
[2025-08-29 10:02:25] [info] Time Taken: 0 minutes 54 seconds

[2025-08-29 10:02:25] [info] Tool Version: LVR_2025.1
[2025-08-29 10:02:25] [info] Host Name: kuro-Workstation
[2025-08-29 10:02:25] [info] User Name: kuro
[2025-08-29 10:02:25] [info] Cores Used: 1
[2025-08-29 10:02:25] [info] Memory Utilized: 4777.16 MB / 62.569698333740234 GB

[2025-08-29 10:02:25] [info] -----
[2025-08-29 10:02:25] [info] Top Cell Information
[2025-08-29 10:02:25] [info] -----
[2025-08-29 10:02:25] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:02:25] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:02:25] [info] Database Format: GDSII
[2025-08-29 10:02:25] [info] Verification Mode: Full Check

[2025-08-29 10:02:25] [info] -----
[2025-08-29 10:02:25] [info] Type of Errors | Count
[2025-08-29 10:02:25] [info] -----
[2025-08-29 10:02:25] [info] DB_WARN -> 1
[2025-08-29 10:02:25] [info] DB_WARN003 -> 37
[2025-08-29 10:02:25] [info] DRC_ERR9 -> 3
[2025-08-29 10:02:25] [info] DRC_ERR3 -> 70
[2025-08-29 10:02:25] [info] -----

[2025-08-29 10:02:25] [info] Rule Violation Summary
[2025-08-29 10:02:25] [info] -----

[2025-08-29 10:02:25] [info]	Rule ID	Description	Error Count
[2025-08-29 10:02:25] [info]	metal7.8	"metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm"	35
[2025-08-29 10:02:25] [info]	metal7.7	"metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm"	35
[2025-08-29 10:02:25] [info]	metal4.1	"metal4.1 : minimum width of semi-global metal4 : 140nm"	1
[2025-08-29 10:02:25] [info]	metal2.1	"metal2.1 : minimum width of intermediate metal2 : 70nm"	2

[2025-08-29 10:02:25] [info] -----
[2025-08-29 10:02:25] [info] Performance Metrics
[2025-08-29 10:02:25] [info] -----
[2025-08-29 10:02:25] [info] | Stage | Time Taken |
[2025-08-29 10:02:25] [info] |-----|-----|
[2025-08-29 10:02:25] [info] | GDS Parsing | 0 minutes 9 seconds |
[2025-08-29 10:02:25] [info] | Rule Checking | 0 minutes 43 seconds |
[2025-08-29 10:02:25] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:02:25] [info] -----
[2025-08-29 10:02:25] [info] Summary
[2025-08-29 10:02:25] [info] -----
[2025-08-29 10:02:25] [info] Total Errors: 73
[2025-08-29 10:02:25] [info] Total Warnings: 38
[2025-08-29 10:02:25] [info] DRC Status: FAILED

```
[2025-08-29 10:03:21] [info] =====
[2025-08-29 10:03:21] [info]           Design Rule Check Report
[2025-08-29 10:03:21] [info] =====
```

```
[2025-08-29 10:03:21] [info] Report Generated:    2025-08-29
[2025-08-29 10:03:21] [info] Run Start Time:      10:02:36 AM
[2025-08-29 10:03:21] [info] Run End Time:        10:03:21 AM
[2025-08-29 10:03:21] [info] Time Taken:          0 minutes 55 seconds

[2025-08-29 10:03:21] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:03:21] [info] Host Name:           kuro-Workstation
[2025-08-29 10:03:21] [info] User Name:           kuro
[2025-08-29 10:03:21] [info] Cores Used:          1
[2025-08-29 10:03:21] [info] Memory Utilized:     4824.63 MB / 62.569698333740234 GB
```

```
[2025-08-29 10:03:21] [info] -----
[2025-08-29 10:03:21] [info]           Top Cell Information
[2025-08-29 10:03:21] [info] -----
[2025-08-29 10:03:21] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:03:21] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:03:21] [info] Database Format:       GDSII
[2025-08-29 10:03:21] [info] Verification Mode:    Full Check
```

```
[2025-08-29 10:03:21] [info] -----
[2025-08-29 10:03:21] [info]           Type of Errors | Count
[2025-08-29 10:03:21] [info] -----
[2025-08-29 10:03:21] [info] DB_WARN -> 1
[2025-08-29 10:03:21] [info] DB_WARN003 -> 39
[2025-08-29 10:03:21] [info] DRC_ERR9 -> 2
[2025-08-29 10:03:21] [info] DRC_ERR3 -> 82
[2025-08-29 10:03:21] [info] -----
```

```
[2025-08-29 10:03:21] [info]           Rule Violation Summary
[2025-08-29 10:03:21] [info] -----
```

[2025-08-29 10:03:21] [info]	Rule ID	Description	Error Count
[2025-08-29 10:03:21] [info]	metal7.8	"metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm"	41
[2025-08-29 10:03:21] [info]	metal7.7	"metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm"	41
[2025-08-29 10:03:21] [info]	metal4.1	"metal4.1 : minimum width of semi-global metal4 : 140nm"	1
[2025-08-29 10:03:21] [info]	metal2.1	"metal2.1 : minimum width of intermediate metal2 : 70nm"	1

```
[2025-08-29 10:03:21] [info] -----
[2025-08-29 10:03:21] [info]           Performance Metrics
[2025-08-29 10:03:21] [info] -----
```

[2025-08-29 10:03:21] [info]	Stage	Time Taken
[2025-08-29 10:03:21] [info]	GDS Parsing	0 minutes 10 seconds
[2025-08-29 10:03:21] [info]	Rule Checking	0 minutes 44 seconds
[2025-08-29 10:03:21] [info]	Report Generation	0 minutes 0 seconds

```
[2025-08-29 10:03:21] [info] -----
[2025-08-29 10:03:21] [info]           Summary
[2025-08-29 10:03:21] [info] -----
[2025-08-29 10:03:21] [info] Total Errors:      84
[2025-08-29 10:03:21] [info] Total Warnings:    40
[2025-08-29 10:03:21] [info] DRC Status:        FAILED
```

```

[2025-08-29 10:04:16] [info] =====
[2025-08-29 10:04:16] [info]           Design Rule Check Report
[2025-08-29 10:04:16] [info] =====

[2025-08-29 10:04:16] [info] Report Generated:    2025-08-29
[2025-08-29 10:04:16] [info] Run Start Time:      10:03:32 AM
[2025-08-29 10:04:16] [info] Run End Time:        10:04:16 AM
[2025-08-29 10:04:16] [info] Time Taken:          0 minutes 54 seconds

[2025-08-29 10:04:16] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:04:16] [info] Host Name:           kuro-Workstation
[2025-08-29 10:04:16] [info] User Name:           kuro
[2025-08-29 10:04:16] [info] Cores Used:          1
[2025-08-29 10:04:16] [info] Memory Utilized:     4744.36 MB / 62.569698333740234 GB

[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info]           Top Cell Information
[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:04:16] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:04:16] [info] Database Format:       GDSII
[2025-08-29 10:04:16] [info] Verification Mode:    Full Check

[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info]           Type of Errors | Count
[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info] DB_WARN -> 1
[2025-08-29 10:04:16] [info] DB_WARN003 -> 34
[2025-08-29 10:04:16] [info] DRC_ERR3 -> 64
[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info]           Rule Violation Summary
[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:04:16] [info] |-----|-----|-----|
[2025-08-29 10:04:16] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 32
[2025-08-29 10:04:16] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 32
[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info]           Performance Metrics
[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info] | Stage | Time Taken |
[2025-08-29 10:04:16] [info] |-----|-----|
[2025-08-29 10:04:16] [info] | GDS Parsing | 0 minutes 9 seconds |
[2025-08-29 10:04:16] [info] | Rule Checking | 0 minutes 43 seconds |
[2025-08-29 10:04:16] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info]           Summary
[2025-08-29 10:04:16] [info] -----
[2025-08-29 10:04:16] [info] Total Errors:    64
[2025-08-29 10:04:16] [info] Total Warnings:  35
[2025-08-29 10:04:16] [info] DRC Status:      FAILED

```

```

[2025-08-29 10:04:24] [info] =====
[2025-08-29 10:04:24] [info]           Design Rule Check Report
[2025-08-29 10:04:24] [info] =====

[2025-08-29 10:04:24] [info] Report Generated:    2025-08-29
[2025-08-29 10:04:24] [info] Run Start Time:      10:04:21 AM
[2025-08-29 10:04:24] [info] Run End Time:        10:04:24 AM
[2025-08-29 10:04:24] [info] Time Taken:          0 minutes 6 seconds

[2025-08-29 10:04:24] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:04:24] [info] Host Name:           kuro-Workstation
[2025-08-29 10:04:24] [info] User Name:           kuro
[2025-08-29 10:04:24] [info] Cores Used:          4
[2025-08-29 10:04:24] [info] Memory Utilized:     2518.07 MB / 62.569698333740234 GB

[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info]           Top Cell Information
[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:04:24] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:04:24] [info] Database Format:       GDSII
[2025-08-29 10:04:24] [info] Verification Mode:    Full Check

[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info]           Type of Errors | Count
[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info] DB_WARN -> 1
[2025-08-29 10:04:24] [info] DB_WARN003 -> 221
[2025-08-29 10:04:24] [info] DRC_ERR9 -> 7
[2025-08-29 10:04:24] [info] DRC_ERR3 -> 68
[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info]           Rule Violation Summary
[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:04:24] [info] |-----|-----|-----|
[2025-08-29 10:04:24] [info] | active.1     | "active.1 : minimum width of active : 90nm" | 3           |
[2025-08-29 10:04:24] [info] | metal7.1     | "metal7.1 : minimum width of thin global metal7 : 400nm" | 1           |
[2025-08-29 10:04:24] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 34          |
[2025-08-29 10:04:24] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 34          |
[2025-08-29 10:04:24] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 3           |
[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info]           Performance Metrics
[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info] | Stage          | Time Taken |
[2025-08-29 10:04:24] [info] |-----|-----|
[2025-08-29 10:04:24] [info] | GDS Parsing    | 0 minutes 2 seconds |
[2025-08-29 10:04:24] [info] | Rule Checking  | 0 minutes 3 seconds |
[2025-08-29 10:04:24] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info]           Summary
[2025-08-29 10:04:24] [info] -----
[2025-08-29 10:04:24] [info] Total Errors:      75
[2025-08-29 10:04:24] [info] Total Warnings:    222
[2025-08-29 10:04:24] [info] DRC Status:        FAILED

```

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[2025-08-29 10:04:32] [info] =====
[2025-08-29 10:04:32] [info]           Design Rule Check Report
[2025-08-29 10:04:32] [info] =====

[2025-08-29 10:04:32] [info] Report Generated:    2025-08-29
[2025-08-29 10:04:32] [info] Run Start Time:      10:04:28 AM
[2025-08-29 10:04:32] [info] Run End Time:        10:04:32 AM
[2025-08-29 10:04:32] [info] Time Taken:          0 minutes 7 seconds

[2025-08-29 10:04:32] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:04:32] [info] Host Name:           kuro-Workstation
[2025-08-29 10:04:32] [info] User Name:           kuro
[2025-08-29 10:04:32] [info] Cores Used:          4
[2025-08-29 10:04:32] [info] Memory Utilized:     2568.03 MB / 62.569698333740234 GB

[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info]           Top Cell Information
[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:04:32] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:04:32] [info] Database Format:       GDSII
[2025-08-29 10:04:32] [info] Verification Mode:    Full Check

[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info]           Type of Errors | Count
[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info] DB_WARN -> 1
[2025-08-29 10:04:32] [info] DB_WARN003 -> 219
[2025-08-29 10:04:32] [info] DRC_ERR9 -> 9
[2025-08-29 10:04:32] [info] DRC_ERR3 -> 84
[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info]           Rule Violation Summary
[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:04:32] [info] |-----|-----|-----|
[2025-08-29 10:04:32] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 6           |
[2025-08-29 10:04:32] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 42          |
[2025-08-29 10:04:32] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 42          |
[2025-08-29 10:04:32] [info] | metal4.1     | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 3           |
[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info]           Performance Metrics
[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info] | Stage          | Time Taken |
[2025-08-29 10:04:32] [info] |-----|-----|
[2025-08-29 10:04:32] [info] | GDS Parsing    | 0 minutes 2 seconds |
[2025-08-29 10:04:32] [info] | Rule Checking  | 0 minutes 3 seconds |
[2025-08-29 10:04:32] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info]           Summary
[2025-08-29 10:04:32] [info] -----
[2025-08-29 10:04:32] [info] Total Errors:      93
[2025-08-29 10:04:32] [info] Total Warnings:    220
[2025-08-29 10:04:32] [info] DRC Status:        FAILED

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[2025-08-29 10:04:39] [info] =====
[2025-08-29 10:04:39] [info]           Design Rule Check Report
[2025-08-29 10:04:39] [info] =====

[2025-08-29 10:04:39] [info] Report Generated:    2025-08-29
[2025-08-29 10:04:39] [info] Run Start Time:      10:04:35 AM
[2025-08-29 10:04:39] [info] Run End Time:        10:04:39 AM
[2025-08-29 10:04:39] [info] Time Taken:          0 minutes 6 seconds

[2025-08-29 10:04:39] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:04:39] [info] Host Name:           kuro-Workstation
[2025-08-29 10:04:39] [info] User Name:           kuro
[2025-08-29 10:04:39] [info] Cores Used:          4
[2025-08-29 10:04:39] [info] Memory Utilized:     2513.58 MB / 62.569698333740234 GB

[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info]           Top Cell Information
[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:04:39] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:04:39] [info] Database Format:       GDSII
[2025-08-29 10:04:39] [info] Verification Mode:    Full Check

[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info]           Type of Errors | Count
[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info] DB_WARN -> 1
[2025-08-29 10:04:39] [info] DB_WARN003 -> 221
[2025-08-29 10:04:39] [info] DRC_ERR9 -> 9
[2025-08-29 10:04:39] [info] DRC_ERR3 -> 64
[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info]           Rule Violation Summary
[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:04:39] [info] |-----|-----|-----|
[2025-08-29 10:04:39] [info] | metal2.1      | "metal2.1 : minimum width of intermediate metal2 : 70nm" | 1           |
[2025-08-29 10:04:39] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 32          |
[2025-08-29 10:04:39] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 32          |
[2025-08-29 10:04:39] [info] | metal7.1      | "metal7.1 : minimum width of thin global metal7 : 400nm" | 1           |
[2025-08-29 10:04:39] [info] | metal5.1      | "metal5.1 : minimum width of semi-global metal5 : 140nm" | 1           |
[2025-08-29 10:04:39] [info] | metal4.1      | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 2           |
[2025-08-29 10:04:39] [info] | metal3.1      | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 4           |
[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info]           Performance Metrics
[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info] | Stage          | Time Taken |
[2025-08-29 10:04:39] [info] |-----|-----|
[2025-08-29 10:04:39] [info] | GDS Parsing    | 0 minutes 2 seconds |
[2025-08-29 10:04:39] [info] | Rule Checking  | 0 minutes 3 seconds |
[2025-08-29 10:04:39] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info]           Summary
[2025-08-29 10:04:39] [info] -----
[2025-08-29 10:04:39] [info] Total Errors:      73
[2025-08-29 10:04:39] [info] Total Warnings:    222
[2025-08-29 10:04:39] [info] DRC Status:        FAILED

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[2025-08-29 10:04:17] [info] =====
[2025-08-29 10:04:17] [info]           Design Rule Check Report
[2025-08-29 10:04:17] [info] =====

[2025-08-29 10:04:17] [info] Report Generated:    2025-08-29
[2025-08-29 10:04:17] [info] Run Start Time:      10:04:17 AM
[2025-08-29 10:04:17] [info] Run End Time:        10:04:17 AM
[2025-08-29 10:04:17] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:04:17] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:04:17] [info] Host Name:           kuro-Workstation
[2025-08-29 10:04:17] [info] User Name:           kuro
[2025-08-29 10:04:17] [info] Cores Used:          4
[2025-08-29 10:04:17] [info] Memory Utilized:     56.24 MB / 62.569698333740234 GB

[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info]           Top Cell Information
[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info] Layout Top Cell:     gcd
[2025-08-29 10:04:17] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:04:17] [info] Database Format:       GDSII
[2025-08-29 10:04:17] [info] Verification Mode:    Full Check

[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info]           Type of Errors | Count
[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info] DB_WARN -> 1
[2025-08-29 10:04:17] [info] DB_WARN003 -> 24
[2025-08-29 10:04:17] [info] DRC_ERR3 -> 2
[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info]           Rule Violation Summary
[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:04:17] [info] |-----|-----|-----|
[2025-08-29 10:04:17] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 1
[2025-08-29 10:04:17] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 1
[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info]           Performance Metrics
[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info] | Stage | Time Taken |
[2025-08-29 10:04:17] [info] |-----|-----|
[2025-08-29 10:04:17] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:04:17] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 10:04:17] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info]           Summary
[2025-08-29 10:04:17] [info] -----
[2025-08-29 10:04:17] [info] Total Errors:    2
[2025-08-29 10:04:17] [info] Total Warnings:  25
[2025-08-29 10:04:17] [info] DRC Status:      FAILED

```

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[2025-08-29 10:04:18] [info] =====
[2025-08-29 10:04:18] [info]           Design Rule Check Report
[2025-08-29 10:04:18] [info] =====

[2025-08-29 10:04:18] [info] Report Generated:    2025-08-29
[2025-08-29 10:04:18] [info] Run Start Time:      10:04:17 AM
[2025-08-29 10:04:18] [info] Run End Time:        10:04:18 AM
[2025-08-29 10:04:18] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:04:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:04:18] [info] Host Name:           kuro-Workstation
[2025-08-29 10:04:18] [info] User Name:           kuro
[2025-08-29 10:04:18] [info] Cores Used:          4
[2025-08-29 10:04:18] [info] Memory Utilized:     57.65 MB / 62.569698333740234 GB

[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Top Cell Information
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] Layout Top Cell:     gcd
[2025-08-29 10:04:18] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:04:18] [info] Database Format:       GDSII
[2025-08-29 10:04:18] [info] Verification Mode:    Full Check

[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Type of Errors | Count
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] DB_WARN -> 1
[2025-08-29 10:04:18] [info] DB_WARN003 -> 34
[2025-08-29 10:04:18] [info] DRC_ERR3 -> 4
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Rule Violation Summary
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:04:18] [info] |-----|-----|-----|
[2025-08-29 10:04:18] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 2
[2025-08-29 10:04:18] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 2
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Performance Metrics
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] | Stage | Time Taken |
[2025-08-29 10:04:18] [info] |-----|-----|
[2025-08-29 10:04:18] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:04:18] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 10:04:18] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Summary
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] Total Errors:    4
[2025-08-29 10:04:18] [info] Total Warnings:  35
[2025-08-29 10:04:18] [info] DRC Status:      FAILED

```

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[2025-08-29 10:04:18] [info] =====
[2025-08-29 10:04:18] [info]           Design Rule Check Report
[2025-08-29 10:04:18] [info] =====

[2025-08-29 10:04:18] [info] Report Generated:    2025-08-29
[2025-08-29 10:04:18] [info] Run Start Time:      10:04:18 AM
[2025-08-29 10:04:18] [info] Run End Time:        10:04:18 AM
[2025-08-29 10:04:18] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:04:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:04:18] [info] Host Name:           kuro-Workstation
[2025-08-29 10:04:18] [info] User Name:           kuro
[2025-08-29 10:04:18] [info] Cores Used:          4
[2025-08-29 10:04:18] [info] Memory Utilized:     55.77 MB / 62.569698333740234 GB

[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Top Cell Information
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] Layout Top Cell:     gcd
[2025-08-29 10:04:18] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:04:18] [info] Database Format:       GDSII
[2025-08-29 10:04:18] [info] Verification Mode:    Full Check

[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Type of Errors | Count
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] DB_WARN -> 1
[2025-08-29 10:04:18] [info] DB_WARN003 -> 26
[2025-08-29 10:04:18] [info] DRC_ERR3 -> 4
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Rule Violation Summary
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:04:18] [info] |-----|-----|-----|
[2025-08-29 10:04:18] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 2
[2025-08-29 10:04:18] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 2
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Performance Metrics
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] | Stage | Time Taken |
[2025-08-29 10:04:18] [info] |-----|-----|
[2025-08-29 10:04:18] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:04:18] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 10:04:18] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info]           Summary
[2025-08-29 10:04:18] [info] -----
[2025-08-29 10:04:18] [info] Total Errors:    4
[2025-08-29 10:04:18] [info] Total Warnings:  27
[2025-08-29 10:04:18] [info] DRC Status:      FAILED

```

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[2025-08-29 10:04:47] [info] =====
[2025-08-29 10:04:47] [info]           Design Rule Check Report
[2025-08-29 10:04:47] [info] =====

[2025-08-29 10:04:47] [info] Report Generated:    2025-08-29
[2025-08-29 10:04:47] [info] Run Start Time:      10:04:42 AM
[2025-08-29 10:04:47] [info] Run End Time:        10:04:47 AM
[2025-08-29 10:04:47] [info] Time Taken:          0 minutes 8 seconds

[2025-08-29 10:04:47] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:04:47] [info] Host Name:           kuro-Workstation
[2025-08-29 10:04:47] [info] User Name:           kuro
[2025-08-29 10:04:47] [info] Cores Used:          4
[2025-08-29 10:04:47] [info] Memory Utilized:     2718.16 MB / 62.569698333740234 GB

[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info]           Top Cell Information
[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:04:47] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:04:47] [info] Database Format:       GDSII
[2025-08-29 10:04:47] [info] Verification Mode:    Full Check

[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info]           Type of Errors | Count
[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info] DB_WARN -> 1
[2025-08-29 10:04:47] [info] DB_WARN003 -> 85
[2025-08-29 10:04:47] [info] DRC_ERR3 -> 76
[2025-08-29 10:04:47] [info] DRC_ERR9 -> 3
[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info]           Rule Violation Summary
[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:04:47] [info] |-----|-----|-----|
[2025-08-29 10:04:47] [info] | metal3.1      | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 1           |
[2025-08-29 10:04:47] [info] | metal4.1      | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 2           |
[2025-08-29 10:04:47] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 38          |
[2025-08-29 10:04:47] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 38          |
[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info]           Performance Metrics
[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info] | Stage          | Time Taken |
[2025-08-29 10:04:47] [info] |-----|-----|
[2025-08-29 10:04:47] [info] | GDS Parsing    | 0 minutes 3 seconds |
[2025-08-29 10:04:47] [info] | Rule Checking  | 0 minutes 4 seconds |
[2025-08-29 10:04:47] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info]           Summary
[2025-08-29 10:04:47] [info] -----
[2025-08-29 10:04:47] [info] Total Errors:      79
[2025-08-29 10:04:47] [info] Total Warnings:    86
[2025-08-29 10:04:47] [info] DRC Status:        FAILED

```

```

[2025-08-29 10:04:56] [info] =====
[2025-08-29 10:04:56] [info]           Design Rule Check Report
[2025-08-29 10:04:56] [info] =====

[2025-08-29 10:04:56] [info] Report Generated:    2025-08-29
[2025-08-29 10:04:56] [info] Run Start Time:      10:04:51 AM
[2025-08-29 10:04:56] [info] Run End Time:        10:04:56 AM
[2025-08-29 10:04:56] [info] Time Taken:          0 minutes 8 seconds

[2025-08-29 10:04:56] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:04:56] [info] Host Name:           kuro-Workstation
[2025-08-29 10:04:56] [info] User Name:           kuro
[2025-08-29 10:04:56] [info] Cores Used:          4
[2025-08-29 10:04:56] [info] Memory Utilized:     2734.53 MB / 62.569698333740234 GB

[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info]           Top Cell Information
[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:04:56] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:04:56] [info] Database Format:       GDSII
[2025-08-29 10:04:56] [info] Verification Mode:    Full Check

[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info]           Type of Errors | Count
[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info] DB_WARN -> 1
[2025-08-29 10:04:56] [info] DB_WARN003 -> 85
[2025-08-29 10:04:56] [info] DRC_ERR3 -> 88
[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info]           Rule Violation Summary
[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:04:56] [info] |-----|-----|-----|
[2025-08-29 10:04:56] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 44
[2025-08-29 10:04:56] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 44
[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info]           Performance Metrics
[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info] | Stage | Time Taken |
[2025-08-29 10:04:56] [info] |-----|-----|
[2025-08-29 10:04:56] [info] | GDS Parsing | 0 minutes 3 seconds |
[2025-08-29 10:04:56] [info] | Rule Checking | 0 minutes 4 seconds |
[2025-08-29 10:04:56] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info]           Summary
[2025-08-29 10:04:56] [info] -----
[2025-08-29 10:04:56] [info] Total Errors:    88
[2025-08-29 10:04:56] [info] Total Warnings:  86
[2025-08-29 10:04:56] [info] DRC Status:      FAILED

```

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[2025-08-29 10:05:05] [info] =====
[2025-08-29 10:05:05] [info]           Design Rule Check Report
[2025-08-29 10:05:05] [info] =====

[2025-08-29 10:05:05] [info] Report Generated:    2025-08-29
[2025-08-29 10:05:05] [info] Run Start Time:      10:04:59 AM
[2025-08-29 10:05:05] [info] Run End Time:        10:05:05 AM
[2025-08-29 10:05:05] [info] Time Taken:          0 minutes 8 seconds

[2025-08-29 10:05:05] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:05:05] [info] Host Name:           kuro-Workstation
[2025-08-29 10:05:05] [info] User Name:           kuro
[2025-08-29 10:05:05] [info] Cores Used:          4
[2025-08-29 10:05:05] [info] Memory Utilized:     2696.76 MB / 62.569698333740234 GB

[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info]           Top Cell Information
[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:05:05] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:05:05] [info] Database Format:       GDSII
[2025-08-29 10:05:05] [info] Verification Mode:    Full Check

[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info]           Type of Errors | Count
[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info] DB_WARN -> 1
[2025-08-29 10:05:05] [info] DB_WARN003 -> 98
[2025-08-29 10:05:05] [info] DRC_ERR9 -> 9
[2025-08-29 10:05:05] [info] DRC_ERR3 -> 68
[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info]           Rule Violation Summary
[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:05:05] [info] |-----|-----|-----|
[2025-08-29 10:05:05] [info] | active.1      | "active.1 : minimum width of active : 90nm" | 7           |
[2025-08-29 10:05:05] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 34          |
[2025-08-29 10:05:05] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 34          |
[2025-08-29 10:05:05] [info] | metal3.1      | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 2           |
[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info]           Performance Metrics
[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info] | Stage          | Time Taken |
[2025-08-29 10:05:05] [info] |-----|-----|
[2025-08-29 10:05:05] [info] | GDS Parsing    | 0 minutes 3 seconds |
[2025-08-29 10:05:05] [info] | Rule Checking  | 0 minutes 5 seconds |
[2025-08-29 10:05:05] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info]           Summary
[2025-08-29 10:05:05] [info] -----
[2025-08-29 10:05:05] [info] Total Errors:      77
[2025-08-29 10:05:05] [info] Total Warnings:    99
[2025-08-29 10:05:05] [info] DRC Status:        FAILED

```

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[2025-08-29 10:05:29] [info] =====
[2025-08-29 10:05:29] [info]           Design Rule Check Report
[2025-08-29 10:05:29] [info] =====

[2025-08-29 10:05:29] [info] Report Generated:    2025-08-29
[2025-08-29 10:05:29] [info] Run Start Time:      10:05:16 AM
[2025-08-29 10:05:29] [info] Run End Time:        10:05:29 AM
[2025-08-29 10:05:29] [info] Time Taken:          0 minutes 23 seconds

[2025-08-29 10:05:29] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:05:29] [info] Host Name:           kuro-Workstation
[2025-08-29 10:05:29] [info] User Name:           kuro
[2025-08-29 10:05:29] [info] Cores Used:          4
[2025-08-29 10:05:29] [info] Memory Utilized:     8603.74 MB / 62.569698333740234 GB

[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info]           Top Cell Information
[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:05:29] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:05:29] [info] Database Format:       GDSII
[2025-08-29 10:05:29] [info] Verification Mode:    Full Check

[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info]           Type of Errors | Count
[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info] DB_WARN -> 1
[2025-08-29 10:05:29] [info] DB_WARN003 -> 37
[2025-08-29 10:05:29] [info] DRC_ERR9 -> 3
[2025-08-29 10:05:29] [info] DRC_ERR3 -> 140
[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info]           Rule Violation Summary
[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:05:29] [info] |-----|-----|-----|
[2025-08-29 10:05:29] [info] | metal4.1      | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 1           |
[2025-08-29 10:05:29] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 70          |
[2025-08-29 10:05:29] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 70          |
[2025-08-29 10:05:29] [info] | metal2.1      | "metal2.1 : minimum width of intermediate metal2 : 70nm" | 2           |
[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info]           Performance Metrics
[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info] | Stage          | Time Taken |
[2025-08-29 10:05:29] [info] |-----|-----|
[2025-08-29 10:05:29] [info] | GDS Parsing    | 0 minutes 10 seconds |
[2025-08-29 10:05:29] [info] | Rule Checking  | 0 minutes 11 seconds |
[2025-08-29 10:05:29] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info]           Summary
[2025-08-29 10:05:29] [info] -----
[2025-08-29 10:05:29] [info] Total Errors:      143
[2025-08-29 10:05:29] [info] Total Warnings:    38
[2025-08-29 10:05:29] [info] DRC Status:        FAILED

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[2025-08-29 10:05:54] [info] =====
[2025-08-29 10:05:54] [info]           Design Rule Check Report
[2025-08-29 10:05:54] [info] =====

[2025-08-29 10:05:54] [info] Report Generated:    2025-08-29
[2025-08-29 10:05:54] [info] Run Start Time:      10:05:41 AM
[2025-08-29 10:05:54] [info] Run End Time:        10:05:54 AM
[2025-08-29 10:05:54] [info] Time Taken:          0 minutes 24 seconds

[2025-08-29 10:05:54] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:05:54] [info] Host Name:           kuro-Workstation
[2025-08-29 10:05:54] [info] User Name:           kuro
[2025-08-29 10:05:54] [info] Cores Used:          4
[2025-08-29 10:05:54] [info] Memory Utilized:     8888.01 MB / 62.569698333740234 GB

[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info]           Top Cell Information
[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:05:54] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:05:54] [info] Database Format:       GDSII
[2025-08-29 10:05:54] [info] Verification Mode:    Full Check

[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info]           Type of Errors | Count
[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info] DB_WARN -> 1
[2025-08-29 10:05:54] [info] DB_WARN003 -> 39
[2025-08-29 10:05:54] [info] DRC_ERR3 -> 164
[2025-08-29 10:05:54] [info] DRC_ERR9 -> 2
[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info]           Rule Violation Summary
[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:05:54] [info] |-----|-----|-----|
[2025-08-29 10:05:54] [info] | metal2.1      | "metal2.1 : minimum width of intermediate metal2 : 70nm" | 1           |
[2025-08-29 10:05:54] [info] | metal4.1      | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 1           |
[2025-08-29 10:05:54] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 82          |
[2025-08-29 10:05:54] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 82          |
[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info]           Performance Metrics
[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info] | Stage          | Time Taken |
[2025-08-29 10:05:54] [info] |-----|-----|
[2025-08-29 10:05:54] [info] | GDS Parsing    | 0 minutes 11 seconds |
[2025-08-29 10:05:54] [info] | Rule Checking  | 0 minutes 11 seconds |
[2025-08-29 10:05:54] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info]           Summary
[2025-08-29 10:05:54] [info] -----
[2025-08-29 10:05:54] [info] Total Errors:    166
[2025-08-29 10:05:54] [info] Total Warnings:  40
[2025-08-29 10:05:54] [info] DRC Status:      FAILED

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[2025-08-29 10:06:19] [info] =====
[2025-08-29 10:06:19] [info]           Design Rule Check Report
[2025-08-29 10:06:19] [info] =====

[2025-08-29 10:06:19] [info] Report Generated:    2025-08-29
[2025-08-29 10:06:19] [info] Run Start Time:      10:06:06 AM
[2025-08-29 10:06:19] [info] Run End Time:        10:06:19 AM
[2025-08-29 10:06:19] [info] Time Taken:          0 minutes 23 seconds

[2025-08-29 10:06:19] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:06:19] [info] Host Name:           kuro-Workstation
[2025-08-29 10:06:19] [info] User Name:           kuro
[2025-08-29 10:06:19] [info] Cores Used:          4
[2025-08-29 10:06:19] [info] Memory Utilized:     8568.69 MB / 62.569698333740234 GB

[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info]           Top Cell Information
[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:06:19] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:06:19] [info] Database Format:       GDSII
[2025-08-29 10:06:19] [info] Verification Mode:    Full Check

[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info]           Type of Errors | Count
[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info] DB_WARN -> 1
[2025-08-29 10:06:19] [info] DB_WARN003 -> 34
[2025-08-29 10:06:19] [info] DRC_ERR3 -> 128
[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info]           Rule Violation Summary
[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:06:19] [info] |-----|-----|-----|
[2025-08-29 10:06:19] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 64
[2025-08-29 10:06:19] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 64
[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info]           Performance Metrics
[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info] | Stage          | Time Taken |
[2025-08-29 10:06:19] [info] |-----|-----|
[2025-08-29 10:06:19] [info] | GDS Parsing    | 0 minutes 10 seconds |
[2025-08-29 10:06:19] [info] | Rule Checking  | 0 minutes 11 seconds |
[2025-08-29 10:06:19] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info]           Summary
[2025-08-29 10:06:19] [info] -----
[2025-08-29 10:06:19] [info] Total Errors:    128
[2025-08-29 10:06:19] [info] Total Warnings:   35
[2025-08-29 10:06:19] [info] DRC Status:      FAILED

```

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[2025-08-29 10:06:26] [info] =====
[2025-08-29 10:06:26] [info]           Design Rule Check Report
[2025-08-29 10:06:26] [info] =====

[2025-08-29 10:06:26] [info] Report Generated:    2025-08-29
[2025-08-29 10:06:26] [info] Run Start Time:      10:06:23 AM
[2025-08-29 10:06:26] [info] Run End Time:        10:06:26 AM
[2025-08-29 10:06:26] [info] Time Taken:          0 minutes 5 seconds

[2025-08-29 10:06:26] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:06:26] [info] Host Name:           kuro-Workstation
[2025-08-29 10:06:26] [info] User Name:           kuro
[2025-08-29 10:06:26] [info] Cores Used:          8
[2025-08-29 10:06:26] [info] Memory Utilized:     3878.48 MB / 62.569698333740234 GB

[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info]           Top Cell Information
[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:06:26] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:06:26] [info] Database Format:       GDSII
[2025-08-29 10:06:26] [info] Verification Mode:    Full Check

[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info]           Type of Errors | Count
[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info] DB_WARN -> 1
[2025-08-29 10:06:26] [info] DB_WARN003 -> 221
[2025-08-29 10:06:26] [info] DRC_ERR9 -> 7
[2025-08-29 10:06:26] [info] DRC_ERR3 -> 136
[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info]           Rule Violation Summary
[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:06:26] [info] |-----|-----|-----|
[2025-08-29 10:06:26] [info] | active.1     | "active.1 : minimum width of active : 90nm" | 3           |
[2025-08-29 10:06:26] [info] | metal7.1     | "metal7.1 : minimum width of thin global metal7 : 400nm" | 1           |
[2025-08-29 10:06:26] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 68          |
[2025-08-29 10:06:26] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 68          |
[2025-08-29 10:06:26] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 3           |
[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info]           Performance Metrics
[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info] | Stage          | Time Taken |
[2025-08-29 10:06:26] [info] |-----|-----|
[2025-08-29 10:06:26] [info] | GDS Parsing    | 0 minutes 3 seconds |
[2025-08-29 10:06:26] [info] | Rule Checking  | 0 minutes 2 seconds |
[2025-08-29 10:06:26] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info]           Summary
[2025-08-29 10:06:26] [info] -----
[2025-08-29 10:06:26] [info] Total Errors:      143
[2025-08-29 10:06:26] [info] Total Warnings:    222
[2025-08-29 10:06:26] [info] DRC Status:        FAILED

```

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[2025-08-29 10:06:33] [info] =====
[2025-08-29 10:06:33] [info]           Design Rule Check Report
[2025-08-29 10:06:33] [info] =====

[2025-08-29 10:06:33] [info] Report Generated:    2025-08-29
[2025-08-29 10:06:33] [info] Run Start Time:      10:06:30 AM
[2025-08-29 10:06:33] [info] Run End Time:        10:06:33 AM
[2025-08-29 10:06:33] [info] Time Taken:          0 minutes 6 seconds

[2025-08-29 10:06:33] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:06:33] [info] Host Name:           kuro-Workstation
[2025-08-29 10:06:33] [info] User Name:           kuro
[2025-08-29 10:06:33] [info] Cores Used:          8
[2025-08-29 10:06:33] [info] Memory Utilized:     3908.51 MB / 62.569698333740234 GB

[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info]           Top Cell Information
[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:06:33] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:06:33] [info] Database Format:       GDSII
[2025-08-29 10:06:33] [info] Verification Mode:    Full Check

[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info]           Type of Errors | Count
[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info] DB_WARN -> 1
[2025-08-29 10:06:33] [info] DB_WARN003 -> 219
[2025-08-29 10:06:33] [info] DRC_ERR9 -> 9
[2025-08-29 10:06:33] [info] DRC_ERR3 -> 168
[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info]           Rule Violation Summary
[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:06:33] [info] |-----|-----|-----|
[2025-08-29 10:06:33] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 6           |
[2025-08-29 10:06:33] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 84          |
[2025-08-29 10:06:33] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 84          |
[2025-08-29 10:06:33] [info] | metal4.1     | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 3           |
[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info]           Performance Metrics
[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info] | Stage          | Time Taken |
[2025-08-29 10:06:33] [info] |-----|-----|
[2025-08-29 10:06:33] [info] | GDS Parsing    | 0 minutes 3 seconds |
[2025-08-29 10:06:33] [info] | Rule Checking  | 0 minutes 2 seconds |
[2025-08-29 10:06:33] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info]           Summary
[2025-08-29 10:06:33] [info] -----
[2025-08-29 10:06:33] [info] Total Errors:    177
[2025-08-29 10:06:33] [info] Total Warnings:  220
[2025-08-29 10:06:33] [info] DRC Status:      FAILED

```

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[2025-08-29 10:06:39] [info] =====
[2025-08-29 10:06:39] [info]           Design Rule Check Report
[2025-08-29 10:06:39] [info] =====

[2025-08-29 10:06:39] [info] Report Generated:    2025-08-29
[2025-08-29 10:06:39] [info] Run Start Time:      10:06:37 AM
[2025-08-29 10:06:39] [info] Run End Time:        10:06:39 AM
[2025-08-29 10:06:39] [info] Time Taken:          0 minutes 5 seconds

[2025-08-29 10:06:39] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:06:39] [info] Host Name:           kuro-Workstation
[2025-08-29 10:06:39] [info] User Name:           kuro
[2025-08-29 10:06:39] [info] Cores Used:          8
[2025-08-29 10:06:39] [info] Memory Utilized:     3871.81 MB / 62.569698333740234 GB

[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info]           Top Cell Information
[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:06:39] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:06:39] [info] Database Format:       GDSII
[2025-08-29 10:06:39] [info] Verification Mode:    Full Check

[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info]           Type of Errors | Count
[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info] DB_WARN -> 1
[2025-08-29 10:06:39] [info] DB_WARN003 -> 221
[2025-08-29 10:06:39] [info] DRC_ERR9 -> 9
[2025-08-29 10:06:39] [info] DRC_ERR3 -> 128
[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info]           Rule Violation Summary
[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:06:39] [info] |-----|-----|-----|
[2025-08-29 10:06:39] [info] | metal2.1     | "metal2.1 : minimum width of intermediate metal2 : 70nm" | 1           |
[2025-08-29 10:06:39] [info] | metal7.1     | "metal7.1 : minimum width of thin global metal7 : 400nm" | 1           |
[2025-08-29 10:06:39] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 64          |
[2025-08-29 10:06:39] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 64          |
[2025-08-29 10:06:39] [info] | metal5.1     | "metal5.1 : minimum width of semi-global metal5 : 140nm" | 1           |
[2025-08-29 10:06:39] [info] | metal4.1     | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 2           |
[2025-08-29 10:06:39] [info] | metal3.1     | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 4           |
[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info]           Performance Metrics
[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info] | Stage          | Time Taken |
[2025-08-29 10:06:39] [info] |-----|-----|
[2025-08-29 10:06:39] [info] | GDS Parsing    | 0 minutes 3 seconds |
[2025-08-29 10:06:39] [info] | Rule Checking  | 0 minutes 2 seconds |
[2025-08-29 10:06:39] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info]           Summary
[2025-08-29 10:06:39] [info] -----
[2025-08-29 10:06:39] [info] Total Errors:    137
[2025-08-29 10:06:39] [info] Total Warnings:  222
[2025-08-29 10:06:39] [info] DRC Status:      FAILED

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[2025-08-29 10:06:20] [info] =====
[2025-08-29 10:06:20] [info]           Design Rule Check Report
[2025-08-29 10:06:20] [info] =====

[2025-08-29 10:06:20] [info] Report Generated:    2025-08-29
[2025-08-29 10:06:20] [info] Run Start Time:      10:06:20 AM
[2025-08-29 10:06:20] [info] Run End Time:        10:06:20 AM
[2025-08-29 10:06:20] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:06:20] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:06:20] [info] Host Name:           kuro-Workstation
[2025-08-29 10:06:20] [info] User Name:           kuro
[2025-08-29 10:06:20] [info] Cores Used:          8
[2025-08-29 10:06:20] [info] Memory Utilized:     86.22 MB / 62.569698333740234 GB

[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Top Cell Information
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] Layout Top Cell:     gcd
[2025-08-29 10:06:20] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:06:20] [info] Database Format:       GDSII
[2025-08-29 10:06:20] [info] Verification Mode:    Full Check

[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Type of Errors | Count
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] DB_WARN -> 1
[2025-08-29 10:06:20] [info] DB_WARN003 -> 24
[2025-08-29 10:06:20] [info] DRC_ERR3 -> 2
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Rule Violation Summary
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:06:20] [info] |-----|-----|-----|
[2025-08-29 10:06:20] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 1
[2025-08-29 10:06:20] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 1
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Performance Metrics
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] | Stage | Time Taken |
[2025-08-29 10:06:20] [info] |-----|-----|
[2025-08-29 10:06:20] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:06:20] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 10:06:20] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Summary
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] Total Errors:    2
[2025-08-29 10:06:20] [info] Total Warnings:  25
[2025-08-29 10:06:20] [info] DRC Status:      FAILED

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[2025-08-29 10:06:20] [info] =====
[2025-08-29 10:06:20] [info]           Design Rule Check Report
[2025-08-29 10:06:20] [info] =====

[2025-08-29 10:06:20] [info] Report Generated:    2025-08-29
[2025-08-29 10:06:20] [info] Run Start Time:      10:06:20 AM
[2025-08-29 10:06:20] [info] Run End Time:        10:06:20 AM
[2025-08-29 10:06:20] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:06:20] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:06:20] [info] Host Name:           kuro-Workstation
[2025-08-29 10:06:20] [info] User Name:           kuro
[2025-08-29 10:06:20] [info] Cores Used:          8
[2025-08-29 10:06:20] [info] Memory Utilized:     86.78 MB / 62.569698333740234 GB

[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Top Cell Information
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] Layout Top Cell:     gcd
[2025-08-29 10:06:20] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:06:20] [info] Database Format:      GDSII
[2025-08-29 10:06:20] [info] Verification Mode:    Full Check

[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Type of Errors | Count
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] DB_WARN -> 1
[2025-08-29 10:06:20] [info] DB_WARN003 -> 34
[2025-08-29 10:06:20] [info] DRC_ERR3 -> 4
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Rule Violation Summary
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:06:20] [info] |-----|-----|-----|
[2025-08-29 10:06:20] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 2
[2025-08-29 10:06:20] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 2
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Performance Metrics
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] | Stage | Time Taken |
[2025-08-29 10:06:20] [info] |-----|-----|
[2025-08-29 10:06:20] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:06:20] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 10:06:20] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Summary
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] Total Errors:    4
[2025-08-29 10:06:20] [info] Total Warnings:  35
[2025-08-29 10:06:20] [info] DRC Status:      FAILED

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[2025-08-29 10:06:20] [info] =====
[2025-08-29 10:06:20] [info]           Design Rule Check Report
[2025-08-29 10:06:20] [info] =====

[2025-08-29 10:06:20] [info] Report Generated:    2025-08-29
[2025-08-29 10:06:20] [info] Run Start Time:      10:06:20 AM
[2025-08-29 10:06:20] [info] Run End Time:        10:06:20 AM
[2025-08-29 10:06:20] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:06:20] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:06:20] [info] Host Name:           kuro-Workstation
[2025-08-29 10:06:20] [info] User Name:           kuro
[2025-08-29 10:06:20] [info] Cores Used:          8
[2025-08-29 10:06:20] [info] Memory Utilized:     85.47 MB / 62.569698333740234 GB

[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Top Cell Information
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] Layout Top Cell:     gcd
[2025-08-29 10:06:20] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:06:20] [info] Database Format:      GDSII
[2025-08-29 10:06:20] [info] Verification Mode:    Full Check

[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Type of Errors | Count
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] DB_WARN -> 1
[2025-08-29 10:06:20] [info] DB_WARN003 -> 26
[2025-08-29 10:06:20] [info] DRC_ERR3 -> 4
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Rule Violation Summary
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:06:20] [info] |-----|-----|-----|
[2025-08-29 10:06:20] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 2
[2025-08-29 10:06:20] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 2
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Performance Metrics
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] | Stage | Time Taken |
[2025-08-29 10:06:20] [info] |-----|-----|
[2025-08-29 10:06:20] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:06:20] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 10:06:20] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info]           Summary
[2025-08-29 10:06:20] [info] -----
[2025-08-29 10:06:20] [info] Total Errors:    4
[2025-08-29 10:06:20] [info] Total Warnings:  27
[2025-08-29 10:06:20] [info] DRC Status:      FAILED

```



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[2025-08-29 10:06:47] [info] =====
[2025-08-29 10:06:47] [info]           Design Rule Check Report
[2025-08-29 10:06:47] [info] =====

[2025-08-29 10:06:47] [info] Report Generated:    2025-08-29
[2025-08-29 10:06:47] [info] Run Start Time:      10:06:43 AM
[2025-08-29 10:06:47] [info] Run End Time:        10:06:47 AM
[2025-08-29 10:06:47] [info] Time Taken:          0 minutes 7 seconds

[2025-08-29 10:06:47] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:06:47] [info] Host Name:           kuro-Workstation
[2025-08-29 10:06:47] [info] User Name:           kuro
[2025-08-29 10:06:47] [info] Cores Used:          8
[2025-08-29 10:06:47] [info] Memory Utilized:     4238.20 MB / 62.569698333740234 GB

[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info]           Top Cell Information
[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:06:47] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:06:47] [info] Database Format:       GDSII
[2025-08-29 10:06:47] [info] Verification Mode:    Full Check

[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info]           Type of Errors | Count
[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info] DB_WARN -> 1
[2025-08-29 10:06:47] [info] DB_WARN003 -> 85
[2025-08-29 10:06:47] [info] DRC_ERR3 -> 152
[2025-08-29 10:06:47] [info] DRC_ERR9 -> 3
[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info]           Rule Violation Summary
[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:06:47] [info] |-----|-----|-----|
[2025-08-29 10:06:47] [info] | metal3.1      | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 1           |
[2025-08-29 10:06:47] [info] | metal4.1      | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 2           |
[2025-08-29 10:06:47] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 76          |
[2025-08-29 10:06:47] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 76          |
[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info]           Performance Metrics
[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info] | Stage          | Time Taken |
[2025-08-29 10:06:47] [info] |-----|-----|
[2025-08-29 10:06:47] [info] | GDS Parsing    | 0 minutes 3 seconds |
[2025-08-29 10:06:47] [info] | Rule Checking  | 0 minutes 3 seconds |
[2025-08-29 10:06:47] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info]           Summary
[2025-08-29 10:06:47] [info] -----
[2025-08-29 10:06:47] [info] Total Errors:      155
[2025-08-29 10:06:47] [info] Total Warnings:    86
[2025-08-29 10:06:47] [info] DRC Status:        FAILED

```

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[2025-08-29 10:06:56] [info] =====
[2025-08-29 10:06:56] [info]           Design Rule Check Report
[2025-08-29 10:06:56] [info] =====

[2025-08-29 10:06:56] [info] Report Generated:    2025-08-29
[2025-08-29 10:06:56] [info] Run Start Time:      10:06:51 AM
[2025-08-29 10:06:56] [info] Run End Time:        10:06:56 AM
[2025-08-29 10:06:56] [info] Time Taken:          0 minutes 8 seconds

[2025-08-29 10:06:56] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:06:56] [info] Host Name:           kuro-Workstation
[2025-08-29 10:06:56] [info] User Name:           kuro
[2025-08-29 10:06:56] [info] Cores Used:          8
[2025-08-29 10:06:56] [info] Memory Utilized:     4333.90 MB / 62.569698333740234 GB

[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info]           Top Cell Information
[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:06:56] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:06:56] [info] Database Format:      GDSII
[2025-08-29 10:06:56] [info] Verification Mode:    Full Check

[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info]           Type of Errors | Count
[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info] DB_WARN -> 1
[2025-08-29 10:06:56] [info] DB_WARN003 -> 85
[2025-08-29 10:06:56] [info] DRC_ERR3 -> 176
[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info]           Rule Violation Summary
[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:06:56] [info] |-----|-----|-----|
[2025-08-29 10:06:56] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 88
[2025-08-29 10:06:56] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 88
[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info]           Performance Metrics
[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info] | Stage | Time Taken |
[2025-08-29 10:06:56] [info] |-----|-----|
[2025-08-29 10:06:56] [info] | GDS Parsing | 0 minutes 3 seconds |
[2025-08-29 10:06:56] [info] | Rule Checking | 0 minutes 4 seconds |
[2025-08-29 10:06:56] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info]           Summary
[2025-08-29 10:06:56] [info] -----
[2025-08-29 10:06:56] [info] Total Errors:    176
[2025-08-29 10:06:56] [info] Total Warnings:   86
[2025-08-29 10:06:56] [info] DRC Status:      FAILED

```

```

[2025-08-29 10:07:03] [info] =====
[2025-08-29 10:07:03] [info]           Design Rule Check Report
[2025-08-29 10:07:03] [info] =====

[2025-08-29 10:07:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:07:03] [info] Run Start Time:      10:07:00 AM
[2025-08-29 10:07:03] [info] Run End Time:        10:07:03 AM
[2025-08-29 10:07:03] [info] Time Taken:          0 minutes 6 seconds

[2025-08-29 10:07:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:07:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:07:03] [info] User Name:           kuro
[2025-08-29 10:07:03] [info] Cores Used:          8
[2025-08-29 10:07:03] [info] Memory Utilized:     4215.43 MB / 62.569698333740234 GB

[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info]           Top Cell Information
[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:07:03] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:07:03] [info] Database Format:       GDSII
[2025-08-29 10:07:03] [info] Verification Mode:    Full Check

[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info]           Type of Errors | Count
[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info] DB_WARN -> 1
[2025-08-29 10:07:03] [info] DB_WARN003 -> 98
[2025-08-29 10:07:03] [info] DRC_ERR9 -> 9
[2025-08-29 10:07:03] [info] DRC_ERR3 -> 136
[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info]           Rule Violation Summary
[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:07:03] [info] |-----|-----|-----|
[2025-08-29 10:07:03] [info] | active.1      | "active.1 : minimum width of active : 90nm" | 7           |
[2025-08-29 10:07:03] [info] | metal7.8      | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 68          |
[2025-08-29 10:07:03] [info] | metal7.7      | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 68          |
[2025-08-29 10:07:03] [info] | metal3.1      | "metal3.1 : minimum width of intermediate metal3 : 70nm" | 2           |
[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info]           Performance Metrics
[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info] | Stage          | Time Taken |
[2025-08-29 10:07:03] [info] |-----|-----|
[2025-08-29 10:07:03] [info] | GDS Parsing    | 0 minutes 3 seconds |
[2025-08-29 10:07:03] [info] | Rule Checking  | 0 minutes 2 seconds |
[2025-08-29 10:07:03] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info]           Summary
[2025-08-29 10:07:03] [info] -----
[2025-08-29 10:07:03] [info] Total Errors:      145
[2025-08-29 10:07:03] [info] Total Warnings:    99
[2025-08-29 10:07:03] [info] DRC Status:        FAILED

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[2025-08-29 10:07:26] [info] =====
[2025-08-29 10:07:26] [info] Design Rule Check Report
[2025-08-29 10:07:26] [info] =====

[2025-08-29 10:07:26] [info] Report Generated: 2025-08-29
[2025-08-29 10:07:26] [info] Run Start Time: 10:07:16 AM
[2025-08-29 10:07:26] [info] Run End Time: 10:07:26 AM
[2025-08-29 10:07:26] [info] Time Taken: 0 minutes 22 seconds

[2025-08-29 10:07:26] [info] Tool Version: LVR_2025.1
[2025-08-29 10:07:26] [info] Host Name: kuro-Workstation
[2025-08-29 10:07:26] [info] User Name: kuro
[2025-08-29 10:07:26] [info] Cores Used: 8
[2025-08-29 10:07:26] [info] Memory Utilized: 13786.43 MB / 62.569698333740234 GB

[2025-08-29 10:07:26] [info] -----
[2025-08-29 10:07:26] [info] Top Cell Information
[2025-08-29 10:07:26] [info] -----
[2025-08-29 10:07:26] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:07:26] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:07:26] [info] Database Format: GDSII
[2025-08-29 10:07:26] [info] Verification Mode: Full Check

[2025-08-29 10:07:26] [info] -----
[2025-08-29 10:07:26] [info] Type of Errors | Count
[2025-08-29 10:07:26] [info] -----
[2025-08-29 10:07:26] [info] DB_WARN -> 1
[2025-08-29 10:07:26] [info] DB_WARN003 -> 37
[2025-08-29 10:07:26] [info] DRC_ERR3 -> 280
[2025-08-29 10:07:26] [info] DRC_ERR9 -> 3
[2025-08-29 10:07:26] [info] -----

[2025-08-29 10:07:26] [info] Rule Violation Summary
[2025-08-29 10:07:26] [info] -----
[2025-08-29 10:07:26] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:07:26] [info] |-----|-----|-----|
[2025-08-29 10:07:26] [info] | metal4.1 | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 1 |
[2025-08-29 10:07:26] [info] | metal2.1 | "metal2.1 : minimum width of intermediate metal2 : 70nm" | 2 |
[2025-08-29 10:07:26] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 140 |
[2025-08-29 10:07:26] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 140 |
[2025-08-29 10:07:26] [info] |-----|-----|-----|

[2025-08-29 10:07:26] [info] Performance Metrics
[2025-08-29 10:07:26] [info] -----
[2025-08-29 10:07:26] [info] | Stage | Time Taken |
[2025-08-29 10:07:26] [info] |-----|-----|
[2025-08-29 10:07:26] [info] | GDS Parsing | 0 minutes 12 seconds |
[2025-08-29 10:07:26] [info] | Rule Checking | 0 minutes 8 seconds |
[2025-08-29 10:07:26] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:07:26] [info] -----
[2025-08-29 10:07:26] [info] Summary
[2025-08-29 10:07:26] [info] -----
[2025-08-29 10:07:26] [info] Total Errors: 283
[2025-08-29 10:07:26] [info] Total Warnings: 38
[2025-08-29 10:07:26] [info] DRC Status: FAILED

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[2025-08-29 10:07:51] [info] =====
[2025-08-29 10:07:51] [info]           Design Rule Check Report
[2025-08-29 10:07:51] [info] =====

[2025-08-29 10:07:51] [info] Report Generated:    2025-08-29
[2025-08-29 10:07:51] [info] Run Start Time:      10:07:40 AM
[2025-08-29 10:07:51] [info] Run End Time:        10:07:51 AM
[2025-08-29 10:07:51] [info] Time Taken:          0 minutes 23 seconds

[2025-08-29 10:07:51] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:07:51] [info] Host Name:           kuro-Workstation
[2025-08-29 10:07:51] [info] User Name:           kuro
[2025-08-29 10:07:51] [info] Cores Used:          8
[2025-08-29 10:07:51] [info] Memory Utilized:     13923.41 MB / 62.569698333740234 GB

[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info]           Top Cell Information
[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:07:51] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:07:51] [info] Database Format:       GDSII
[2025-08-29 10:07:51] [info] Verification Mode:    Full Check

[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info]           Type of Errors | Count
[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info] DB_WARN -> 1
[2025-08-29 10:07:51] [info] DB_WARN003 -> 39
[2025-08-29 10:07:51] [info] DRC_ERR3 -> 328
[2025-08-29 10:07:51] [info] DRC_ERR9 -> 2
[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info]           Rule Violation Summary
[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info] | Rule ID      | Description                                     | Error Count |
[2025-08-29 10:07:51] [info] |-----|-----|-----|
[2025-08-29 10:07:51] [info] | metal2.1     | "metal2.1 : minimum width of intermediate metal2 : 70nm" | 1           |
[2025-08-29 10:07:51] [info] | metal4.1     | "metal4.1 : minimum width of semi-global metal4 : 140nm" | 1           |
[2025-08-29 10:07:51] [info] | metal7.8     | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 164         |
[2025-08-29 10:07:51] [info] | metal7.7     | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 164         |
[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info]           Performance Metrics
[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info] | Stage          | Time Taken |
[2025-08-29 10:07:51] [info] |-----|-----|
[2025-08-29 10:07:51] [info] | GDS Parsing    | 0 minutes 12 seconds |
[2025-08-29 10:07:51] [info] | Rule Checking  | 0 minutes 9 seconds  |
[2025-08-29 10:07:51] [info] | Report Generation | 0 minutes 0 seconds  |

[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info]           Summary
[2025-08-29 10:07:51] [info] -----
[2025-08-29 10:07:51] [info] Total Errors:    330
[2025-08-29 10:07:51] [info] Total Warnings:  40
[2025-08-29 10:07:51] [info] DRC Status:      FAILED

```

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[2025-08-29 10:08:15] [info] =====
[2025-08-29 10:08:15] [info]           Design Rule Check Report
[2025-08-29 10:08:15] [info] =====

[2025-08-29 10:08:15] [info] Report Generated:    2025-08-29
[2025-08-29 10:08:15] [info] Run Start Time:      10:08:05 AM
[2025-08-29 10:08:15] [info] Run End Time:        10:08:15 AM
[2025-08-29 10:08:15] [info] Time Taken:          0 minutes 22 seconds

[2025-08-29 10:08:15] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:08:15] [info] Host Name:           kuro-Workstation
[2025-08-29 10:08:15] [info] User Name:           kuro
[2025-08-29 10:08:15] [info] Cores Used:          8
[2025-08-29 10:08:15] [info] Memory Utilized:     13706.38 MB / 62.569698333740234 GB

[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info]           Top Cell Information
[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:08:15] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:08:15] [info] Database Format:       GDSII
[2025-08-29 10:08:15] [info] Verification Mode:    Full Check

[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info]           Type of Errors | Count
[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info] DB_WARN -> 1
[2025-08-29 10:08:15] [info] DB_WARN003 -> 34
[2025-08-29 10:08:15] [info] DRC_ERR3 -> 256
[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info]           Rule Violation Summary
[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:08:15] [info] |-----|-----|-----|
[2025-08-29 10:08:15] [info] | metal7.8 | "metal7.8 : minimum spacing of thin global metal7 wider than 900 nm and longer than 2.7 um : 900nm" | 128
[2025-08-29 10:08:15] [info] | metal7.7 | "metal7.7 : minimum spacing of thin global metal7 wider than 500 nm and longer than 1.8 um : 500nm" | 128
[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info]           Performance Metrics
[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info] | Stage | Time Taken |
[2025-08-29 10:08:15] [info] |-----|-----|
[2025-08-29 10:08:15] [info] | GDS Parsing | 0 minutes 12 seconds |
[2025-08-29 10:08:15] [info] | Rule Checking | 0 minutes 8 seconds |
[2025-08-29 10:08:15] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info]           Summary
[2025-08-29 10:08:15] [info] -----
[2025-08-29 10:08:15] [info] Total Errors:    256
[2025-08-29 10:08:15] [info] Total Warnings:  35
[2025-08-29 10:08:15] [info] DRC Status:      FAILED
```

[2025-09-06 06:50:15] [info] =====
[2025-09-06 06:50:15] [info] Design Rule Check Report
[2025-09-06 06:50:15] [info] =====

[2025-09-06 06:50:15] [info] Report Generated: 2025-09-06
[2025-09-06 06:50:15] [info] Run Start Time: 06:50:08 AM
[2025-09-06 06:50:15] [info] Run End Time: 06:50:15 AM
[2025-09-06 06:50:15] [info] Time Taken: 0 minutes 10 seconds

[2025-09-06 06:50:15] [info] Tool Version: LVR_2025.1
[2025-09-06 06:50:15] [info] Host Name: kuro-Workstation
[2025-09-06 06:50:15] [info] User Name: kuro
[2025-09-06 06:50:15] [info] Cores Used: 16
[2025-09-06 06:50:15] [info] Memory Utilized: 3515.41 MB / 62.569705963134766 GB

[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info] Top Cell Information
[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info] Layout Top Cell: aes_cipher_top1_sky130hd
[2025-09-06 06:50:15] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:50:15] [info] Database Format: GDSII
[2025-09-06 06:50:15] [info] Verification Mode: Full Check

[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info] Type of Errors | Count
[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info] DB_WARN -> 1
[2025-09-06 06:50:15] [info] LRF_ERR001 -> 14
[2025-09-06 06:50:15] [info] DB_WARN002 -> 144
[2025-09-06 06:50:15] [info] DB_WARN003 -> 137
[2025-09-06 06:50:15] [info] DRC_ERR9 -> 783
[2025-09-06 06:50:15] [info] DRC_ERR2 -> 16
[2025-09-06 06:50:15] [info] DRC_ERR -> 262
[2025-09-06 06:50:15] [info] DRC_ERR5 -> 48
[2025-09-06 06:50:15] [info] DRC_ERR1 -> 16
[2025-09-06 06:50:15] [info] DRC_ERR4 -> 13

[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info] Rule Violation Summary
[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:50:15] [info] |-----|-----|-----|
[2025-09-06 06:50:15] [info] | m2.1 | "m2.1 : min. m2 width : 0.14um" | 1 |
[2025-09-06 06:50:15] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 3 |
[2025-09-06 06:50:15] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 761 |
[2025-09-06 06:50:15] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 16 |
[2025-09-06 06:50:15] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 11 |
[2025-09-06 06:50:15] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 14 |
[2025-09-06 06:50:15] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 16 |
[2025-09-06 06:50:15] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:50:15] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:50:15] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 16 |
[2025-09-06 06:50:15] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 242 |
[2025-09-06 06:50:15] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um²" | 6 |
[2025-09-06 06:50:15] [info] | m3.1 | "m3.1 : min. m3 width : 0.3um" | 1 |
[2025-09-06 06:50:15] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 13 |
[2025-09-06 06:50:15] [info] | li.1 | "li.1 : min. li width : 0.17um" | 3 |
[2025-09-06 06:50:15] [info] | m4.4 | "m4.4 : min. m4 area : 0.24um²" | 3 |
[2025-09-06 06:50:15] [info] |

[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info] Performance Metrics
[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info] | Stage | Time Taken |

```
[2025-09-06 06:50:15] [info] |-----|-----|
[2025-09-06 06:50:15] [info] | GDS Parsing          | 0 minutes 3 seconds |
[2025-09-06 06:50:15] [info] | Rule Checking         | 0 minutes 6 seconds |
[2025-09-06 06:50:15] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info]             Summary
[2025-09-06 06:50:15] [info] -----
[2025-09-06 06:50:15] [info] Total Errors:   1152
[2025-09-06 06:50:15] [info] Total Warnings:    282
[2025-09-06 06:50:15] [info] DRC Status:      FAILED
```


[2025-09-06 06:50:29] [info] =====
[2025-09-06 06:50:29] [info] Design Rule Check Report
[2025-09-06 06:50:29] [info] =====

[2025-09-06 06:50:29] [info] Report Generated: 2025-09-06
[2025-09-06 06:50:29] [info] Run Start Time: 06:50:21 AM
[2025-09-06 06:50:29] [info] Run End Time: 06:50:29 AM
[2025-09-06 06:50:29] [info] Time Taken: 0 minutes 13 seconds

[2025-09-06 06:50:29] [info] Tool Version: LVR_2025.1
[2025-09-06 06:50:29] [info] Host Name: kuro-Workstation
[2025-09-06 06:50:29] [info] User Name: kuro
[2025-09-06 06:50:29] [info] Cores Used: 16
[2025-09-06 06:50:29] [info] Memory Utilized: 4205.87 MB / 62.569705963134766 GB

[2025-09-06 06:50:29] [info] -----
[2025-09-06 06:50:29] [info] Top Cell Information
[2025-09-06 06:50:29] [info] -----
[2025-09-06 06:50:29] [info] Layout Top Cell: aes_cipher_top2_sky130hd
[2025-09-06 06:50:29] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:50:29] [info] Database Format: GDSII
[2025-09-06 06:50:29] [info] Verification Mode: Full Check

[2025-09-06 06:50:29] [info] -----
[2025-09-06 06:50:29] [info] Type of Errors | Count
[2025-09-06 06:50:29] [info] -----
[2025-09-06 06:50:29] [info] DB_WARN -> 1
[2025-09-06 06:50:29] [info] LRF_ERR001 -> 14
[2025-09-06 06:50:29] [info] DB_WARN002 -> 141
[2025-09-06 06:50:29] [info] DB_WARN003 -> 135
[2025-09-06 06:50:29] [info] DRC_ERR9 -> 868
[2025-09-06 06:50:29] [info] DRC_ERR2 -> 16
[2025-09-06 06:50:29] [info] DRC_ERR -> 190
[2025-09-06 06:50:29] [info] DRC_ERR5 -> 53
[2025-09-06 06:50:29] [info] DRC_ERR1 -> 16
[2025-09-06 06:50:29] [info] DRC_ERR4 -> 10
[2025-09-06 06:50:29] [info] -----

[2025-09-06 06:50:29] [info] Rule Violation Summary
[2025-09-06 06:50:29] [info] -----
[2025-09-06 06:50:29] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:50:29] [info] |-----|-----|-----|
[2025-09-06 06:50:29] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um²" | 4 |
[2025-09-06 06:50:29] [info] | npc.1 | "npc.1 : min. npc width : 0.27um" | 1 |
[2025-09-06 06:50:29] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 844 |
[2025-09-06 06:50:29] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 5 |
[2025-09-06 06:50:29] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 5 |
[2025-09-06 06:50:29] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 4 |
[2025-09-06 06:50:29] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 16 |
[2025-09-06 06:50:29] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 10 |
[2025-09-06 06:50:29] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 11 |
[2025-09-06 06:50:29] [info] | li.6 | "li.6 : min. li area : 0.0561um²" | 5 |
[2025-09-06 06:50:29] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 16 |
[2025-09-06 06:50:29] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:50:29] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:50:29] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 16 |
[2025-09-06 06:50:29] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 170 |
[2025-09-06 06:50:29] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 6 |
[2025-09-06 06:50:29] [info] | psdm.1 | "psdm.1 : min. psdm width : 0.38um" | 2 |
[2025-09-06 06:50:29] [info] | m4.4 | "m4.4 : min. m4 area : 0.24um²" | 1 |
[2025-09-06 06:50:29] [info] | li.1 | "li.1 : min. li width : 0.17um" | 5 |
[2025-09-06 06:50:29] [info] |
[2025-09-06 06:50:29] [info] -----

```
[2025-09-06 06:50:29] [info] Performance Metrics
[2025-09-06 06:50:29] [info] -----
[2025-09-06 06:50:29] [info] | Stage | Time Taken |
[2025-09-06 06:50:29] [info] |-----|-----|
[2025-09-06 06:50:29] [info] | GDS Parsing | 0 minutes 4 seconds |
[2025-09-06 06:50:29] [info] | Rule Checking | 0 minutes 8 seconds |
[2025-09-06 06:50:29] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:50:29] [info] -----
[2025-09-06 06:50:29] [info] Summary
[2025-09-06 06:50:29] [info] -----
[2025-09-06 06:50:29] [info] Total Errors: 1167
[2025-09-06 06:50:29] [info] Total Warnings: 277
[2025-09-06 06:50:29] [info] DRC Status: FAILED
```

[2025-09-06 06:50:40] [info] =====
[2025-09-06 06:50:40] [info] Design Rule Check Report
[2025-09-06 06:50:40] [info] =====

[2025-09-06 06:50:40] [info] Report Generated: 2025-09-06
[2025-09-06 06:50:40] [info] Run Start Time: 06:50:34 AM
[2025-09-06 06:50:40] [info] Run End Time: 06:50:40 AM
[2025-09-06 06:50:40] [info] Time Taken: 0 minutes 9 seconds

[2025-09-06 06:50:40] [info] Tool Version: LVR_2025.1
[2025-09-06 06:50:40] [info] Host Name: kuro-Workstation
[2025-09-06 06:50:40] [info] User Name: kuro
[2025-09-06 06:50:40] [info] Cores Used: 16
[2025-09-06 06:50:40] [info] Memory Utilized: 3149.83 MB / 62.569705963134766 GB

[2025-09-06 06:50:40] [info] -----
[2025-09-06 06:50:40] [info] Top Cell Information
[2025-09-06 06:50:40] [info] -----
[2025-09-06 06:50:40] [info] Layout Top Cell: aes_cipher_top3_sky130hd
[2025-09-06 06:50:40] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:50:40] [info] Database Format: GDSII
[2025-09-06 06:50:40] [info] Verification Mode: Full Check

[2025-09-06 06:50:40] [info] -----
[2025-09-06 06:50:40] [info] Type of Errors | Count
[2025-09-06 06:50:40] [info] -----
[2025-09-06 06:50:40] [info] DB_WARN -> 1
[2025-09-06 06:50:40] [info] LRF_ERR001 -> 14
[2025-09-06 06:50:40] [info] DB_WARN002 -> 138
[2025-09-06 06:50:40] [info] DB_WARN003 -> 132
[2025-09-06 06:50:40] [info] DRC_ERR -> 253
[2025-09-06 06:50:40] [info] DRC_ERR9 -> 782
[2025-09-06 06:50:40] [info] DRC_ERR2 -> 16
[2025-09-06 06:50:40] [info] DRC_ERR5 -> 61
[2025-09-06 06:50:40] [info] DRC_ERR1 -> 16
[2025-09-06 06:50:40] [info] DRC_ERR4 -> 16

[2025-09-06 06:50:40] [info] -----
[2025-09-06 06:50:40] [info] Rule Violation Summary
[2025-09-06 06:50:40] [info] -----

Rule ID	Description	Error Count
m2.1	"m2.1 : min. m2 width : 0.14um" 2	
li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 3	
licon.8a	"licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um" 10	
npc.1	"npc.1 : min. npc width : 0.27um" 16	
li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" 2	
poly.7	"poly.7 : min. source/drain length : 0.25um" 230	
m1.1	"m1.1 : min. m1 width : 0.14um" 744	
licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 5	
m1.2	"m1.2 : min. m1 spacing : 0.14um" 16	
m1.6	"m1.6 : min. m1 area : 0.083um ² " 15	
m5.1	"m5.1 : min. m5 width : 1.6um" 16	
via1.5b	"via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 16	
m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 16	
via1.5a	"via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 16	
m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 16	
m4.4	"m4.4 : min. m4 area : 0.24um ² " 2	
licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 11	
li.1	"li.1 : min. li width : 0.17um" 2	
m3.6	"m3.6 : min. m3 area : 0.24um ² " 6	

```
[2025-09-06 06:50:40] [info] Performance Metrics
[2025-09-06 06:50:40] [info] -----
[2025-09-06 06:50:40] [info] | Stage | Time Taken |
[2025-09-06 06:50:40] [info] |-----|-----|
[2025-09-06 06:50:40] [info] | GDS Parsing | 0 minutes 3 seconds |
[2025-09-06 06:50:40] [info] | Rule Checking | 0 minutes 5 seconds |
[2025-09-06 06:50:40] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:50:40] [info] -----
[2025-09-06 06:50:40] [info] Summary
[2025-09-06 06:50:40] [info] -----
[2025-09-06 06:50:40] [info] Total Errors: 1158
[2025-09-06 06:50:40] [info] Total Warnings: 271
[2025-09-06 06:50:40] [info] DRC Status: FAILED
```

[2025-09-06 06:50:04] [info] =====
[2025-09-06 06:50:04] [info] Design Rule Check Report
[2025-09-06 06:50:04] [info] =====

[2025-09-06 06:50:04] [info] Report Generated: 2025-09-06
[2025-09-06 06:50:04] [info] Run Start Time: 06:50:04 AM
[2025-09-06 06:50:04] [info] Run End Time: 06:50:04 AM
[2025-09-06 06:50:04] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 06:50:04] [info] Tool Version: LVR_2025.1
[2025-09-06 06:50:04] [info] Host Name: kuro-Workstation
[2025-09-06 06:50:04] [info] User Name: kuro
[2025-09-06 06:50:04] [info] Cores Used: 16
[2025-09-06 06:50:04] [info] Memory Utilized: 51.22 MB / 62.569705963134766 GB

[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Top Cell Information
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Layout Top Cell: gcd1_sky130hd
[2025-09-06 06:50:04] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:50:04] [info] Database Format: GDSII
[2025-09-06 06:50:04] [info] Verification Mode: Full Check

[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Type of Errors | Count
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] DB_WARN -> 1
[2025-09-06 06:50:04] [info] LRF_ERR001 -> 14
[2025-09-06 06:50:04] [info] DB_WARN002 -> 58
[2025-09-06 06:50:04] [info] DB_WARN003 -> 55
[2025-09-06 06:50:04] [info] DRC_ERR9 -> 787
[2025-09-06 06:50:04] [info] DRC_ERR2 -> 16
[2025-09-06 06:50:04] [info] DRC_ERR5 -> 238
[2025-09-06 06:50:04] [info] DRC_ERR -> 24
[2025-09-06 06:50:04] [info] DRC_ERR4 -> 8
[2025-09-06 06:50:04] [info] -----

[2025-09-06 06:50:04] [info] Rule Violation Summary
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:50:04] [info] |-----|-----|-----|
[2025-09-06 06:50:04] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 7 |
[2025-09-06 06:50:04] [info] | li.1 | "li.1 : min. li width : 0.17um" | 11 |
[2025-09-06 06:50:04] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 3 |
[2025-09-06 06:50:04] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 16 |
[2025-09-06 06:50:04] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 117 |
[2025-09-06 06:50:04] [info] | li.6 | "li.6 : min. li area : 0.0561um²" | 1 |
[2025-09-06 06:50:04] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 5 |
[2025-09-06 06:50:04] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 117 |
[2025-09-06 06:50:04] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 16 |
[2025-09-06 06:50:04] [info] | npc.1 | "npc.1 : min. npc width : 0.27um" | 2 |
[2025-09-06 06:50:04] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 11 |
[2025-09-06 06:50:04] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 4 |
[2025-09-06 06:50:04] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 763 |
[2025-09-06 06:50:04] [info] -----

[2025-09-06 06:50:04] [info] Performance Metrics
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] | Stage | Time Taken |
[2025-09-06 06:50:04] [info] |-----|-----|
[2025-09-06 06:50:04] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-09-06 06:50:04] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-09-06 06:50:04] [info] | Report Generation | 0 minutes 0 seconds |

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[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info]           Summary
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Total Errors:   1087
[2025-09-06 06:50:04] [info] Total Warnings:    114
[2025-09-06 06:50:04] [info] DRC Status:      FAILED
```

[2025-09-06 06:50:04] [info] =====
[2025-09-06 06:50:04] [info] Design Rule Check Report
[2025-09-06 06:50:04] [info] =====

[2025-09-06 06:50:04] [info] Report Generated: 2025-09-06
[2025-09-06 06:50:04] [info] Run Start Time: 06:50:04 AM
[2025-09-06 06:50:04] [info] Run End Time: 06:50:04 AM
[2025-09-06 06:50:04] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 06:50:04] [info] Tool Version: LVR_2025.1
[2025-09-06 06:50:04] [info] Host Name: kuro-Workstation
[2025-09-06 06:50:04] [info] User Name: kuro
[2025-09-06 06:50:04] [info] Cores Used: 16
[2025-09-06 06:50:04] [info] Memory Utilized: 54.65 MB / 62.569705963134766 GB

[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Top Cell Information
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Layout Top Cell: gcd2_sky130hd
[2025-09-06 06:50:04] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:50:04] [info] Database Format: GDSII
[2025-09-06 06:50:04] [info] Verification Mode: Full Check

[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Type of Errors | Count
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] DB_WARN -> 1
[2025-09-06 06:50:04] [info] LRF_ERR001 -> 14
[2025-09-06 06:50:04] [info] DB_WARN002 -> 59
[2025-09-06 06:50:04] [info] DB_WARN003 -> 56
[2025-09-06 06:50:04] [info] DRC_ERR9 -> 854
[2025-09-06 06:50:04] [info] DRC_ERR2 -> 19
[2025-09-06 06:50:04] [info] DRC_ERR5 -> 171
[2025-09-06 06:50:04] [info] DRC_ERR -> 6
[2025-09-06 06:50:04] [info] DRC_ERR1 -> 2
[2025-09-06 06:50:04] [info] DRC_ERR4 -> 4

[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Rule Violation Summary
[2025-09-06 06:50:04] [info] -----

[2025-09-06 06:50:04] [info]	Rule ID	Description	Error Count
[2025-09-06 06:50:04] [info]	m3.6	"m3.6 : min. m3 area : 0.24um ² "	1
[2025-09-06 06:50:04] [info]	m1.1	"m1.1 : min. m1 width : 0.14um"	835
[2025-09-06 06:50:04] [info]	li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um"	5
[2025-09-06 06:50:04] [info]	li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um"	8
[2025-09-06 06:50:04] [info]	npc.1	"npc.1 : min. npc width : 0.27um"	2
[2025-09-06 06:50:04] [info]	licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um"	4
[2025-09-06 06:50:04] [info]	m1.2	"m1.2 : min. m1 spacing : 0.14um"	19
[2025-09-06 06:50:04] [info]	li.6	"li.6 : min. li area : 0.0561um ² "	2
[2025-09-06 06:50:04] [info]	vial.5b	"vial.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um"	82
[2025-09-06 06:50:04] [info]	m1.6	"m1.6 : min. m1 area : 0.083um ² "	3
[2025-09-06 06:50:04] [info]	vial.5a	"vial.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um"	82
[2025-09-06 06:50:04] [info]	m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um"	2
[2025-09-06 06:50:04] [info]	m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um"	2
[2025-09-06 06:50:04] [info]	li.1	"li.1 : min. li width : 0.17um"	8
[2025-09-06 06:50:04] [info]	psdm.1	"psdm.1 : min. psdm width : 0.38um"	1

[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Performance Metrics
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] | Stage | Time Taken |
[2025-09-06 06:50:04] [info] |-----|-----|

```
[2025-09-06 06:50:04] [info] | GDS Parsing          | 0 minutes 0 seconds |
[2025-09-06 06:50:04] [info] | Rule Checking       | 0 minutes 0 seconds |
[2025-09-06 06:50:04] [info] | Report Generation   | 0 minutes 0 seconds |

[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info]                Summary
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Total Errors:    1070
[2025-09-06 06:50:04] [info] Total Warnings:      116
[2025-09-06 06:50:04] [info] DRC Status:      FAILED
```



```

[2025-09-06 06:50:04] [info] =====
[2025-09-06 06:50:04] [info] Design Rule Check Report
[2025-09-06 06:50:04] [info] =====

[2025-09-06 06:50:04] [info] Report Generated: 2025-09-06
[2025-09-06 06:50:04] [info] Run Start Time: 06:50:04 AM
[2025-09-06 06:50:04] [info] Run End Time: 06:50:04 AM
[2025-09-06 06:50:04] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 06:50:04] [info] Tool Version: LVR_2025.1
[2025-09-06 06:50:04] [info] Host Name: kuro-Workstation
[2025-09-06 06:50:04] [info] User Name: kuro
[2025-09-06 06:50:04] [info] Cores Used: 16
[2025-09-06 06:50:04] [info] Memory Utilized: 44.64 MB / 62.569705963134766 GB

[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Top Cell Information
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Layout Top Cell: gcd3_sky130hd
[2025-09-06 06:50:04] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:50:04] [info] Database Format: GDSII
[2025-09-06 06:50:04] [info] Verification Mode: Full Check

[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Type of Errors | Count
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] DB_WARN -> 1
[2025-09-06 06:50:04] [info] LRF_ERR001 -> 14
[2025-09-06 06:50:04] [info] DB_WARN002 -> 59
[2025-09-06 06:50:04] [info] DB_WARN003 -> 56
[2025-09-06 06:50:04] [info] DRC_ERR9 -> 898
[2025-09-06 06:50:04] [info] DRC_ERR2 -> 18
[2025-09-06 06:50:04] [info] DRC_ERR5 -> 133
[2025-09-06 06:50:04] [info] DRC_ERR -> 25
[2025-09-06 06:50:04] [info] DRC_ERR1 -> 3
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Rule Violation Summary
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:50:04] [info] |-----|-----|-----|
[2025-09-06 06:50:04] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 3 |
[2025-09-06 06:50:04] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 3 |
[2025-09-06 06:50:04] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um^2" | 5 |
[2025-09-06 06:50:04] [info] | li.1 | "li.1 : min. li width : 0.17um" | 11 |
[2025-09-06 06:50:04] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 20 |
[2025-09-06 06:50:04] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 62 |
[2025-09-06 06:50:04] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 62 |
[2025-09-06 06:50:04] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 18 |
[2025-09-06 06:50:04] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 6 |
[2025-09-06 06:50:04] [info] | npc.1 | "npc.1 : min. npc width : 0.27um" | 4 |
[2025-09-06 06:50:04] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvvp_hd5_* : 0.14um" | 8 |
[2025-09-06 06:50:04] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 875 |
[2025-09-06 06:50:04] [info] |
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] Performance Metrics
[2025-09-06 06:50:04] [info] -----
[2025-09-06 06:50:04] [info] | Stage | Time Taken |
[2025-09-06 06:50:04] [info] |-----|-----|
[2025-09-06 06:50:04] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-09-06 06:50:04] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-09-06 06:50:04] [info] | Report Generation | 0 minutes 0 seconds |

```

```
[2025-09-06 06:50:04] [info] -----  
[2025-09-06 06:50:04] [info] Summary  
[2025-09-06 06:50:04] [info] -----  
[2025-09-06 06:50:04] [info] Total Errors: 1091  
[2025-09-06 06:50:04] [info] Total Warnings: 116  
[2025-09-06 06:50:04] [info] DRC Status: FAILED
```

[2025-09-06 06:50:49] [info] =====
[2025-09-06 06:50:49] [info] Design Rule Check Report
[2025-09-06 06:50:49] [info] =====

[2025-09-06 06:50:49] [info] Report Generated: 2025-09-06
[2025-09-06 06:50:49] [info] Run Start Time: 06:50:44 AM
[2025-09-06 06:50:49] [info] Run End Time: 06:50:49 AM
[2025-09-06 06:50:49] [info] Time Taken: 0 minutes 9 seconds

[2025-09-06 06:50:49] [info] Tool Version: LVR_2025.1
[2025-09-06 06:50:49] [info] Host Name: kuro-Workstation
[2025-09-06 06:50:49] [info] User Name: kuro
[2025-09-06 06:50:49] [info] Cores Used: 16
[2025-09-06 06:50:49] [info] Memory Utilized: 3317.12 MB / 62.569705963134766 GB

[2025-09-06 06:50:49] [info] -----
[2025-09-06 06:50:49] [info] Top Cell Information
[2025-09-06 06:50:49] [info] -----
[2025-09-06 06:50:49] [info] Layout Top Cell: ibex_core1_sky130hd
[2025-09-06 06:50:49] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:50:49] [info] Database Format: GDSII
[2025-09-06 06:50:49] [info] Verification Mode: Full Check

[2025-09-06 06:50:49] [info] -----
[2025-09-06 06:50:49] [info] Type of Errors | Count
[2025-09-06 06:50:49] [info] -----
[2025-09-06 06:50:49] [info] DB_WARN -> 1
[2025-09-06 06:50:49] [info] LRF_ERR001 -> 14
[2025-09-06 06:50:49] [info] DB_WARN002 -> 251
[2025-09-06 06:50:49] [info] DB_WARN003 -> 251
[2025-09-06 06:50:49] [info] DRC_ERR -> 146
[2025-09-06 06:50:49] [info] DRC_ERR4 -> 152
[2025-09-06 06:50:49] [info] DRC_ERR9 -> 761
[2025-09-06 06:50:49] [info] DRC_ERR2 -> 16
[2025-09-06 06:50:49] [info] DRC_ERR5 -> 56
[2025-09-06 06:50:49] [info] DRC_ERR1 -> 16
[2025-09-06 06:50:49] [info] -----

[2025-09-06 06:50:49] [info] Rule Violation Summary
[2025-09-06 06:50:49] [info] -----
[2025-09-06 06:50:49] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:50:49] [info] |-----|-----|-----|
[2025-09-06 06:50:49] [info] | m2.6 | "m2.6 : min. m2 area : 0.0676um²" | 1 |
[2025-09-06 06:50:49] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um²" | 5 |
[2025-09-06 06:50:49] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 8 |
[2025-09-06 06:50:49] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 15 |
[2025-09-06 06:50:49] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 116 |
[2025-09-06 06:50:49] [info] | psdm.1 | "psdm.1 : min. psdm width : 0.38um" | 4 |
[2025-09-06 06:50:49] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 135 |
[2025-09-06 06:50:49] [info] | li.1 | "li.1 : min. li width : 0.17um" | 28 |
[2025-09-06 06:50:49] [info] | poly.1a | "poly.1a : min. poly width : 0.15um" | 13 |
[2025-09-06 06:50:49] [info] | li.6 | "li.6 : min. li area : 0.0561um²" | 12 |
[2025-09-06 06:50:49] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 678 |
[2025-09-06 06:50:49] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 23 |
[2025-09-06 06:50:49] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 17 |
[2025-09-06 06:50:49] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 16 |
[2025-09-06 06:50:49] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 16 |
[2025-09-06 06:50:49] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:50:49] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 16 |
[2025-09-06 06:50:49] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:50:49] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 12 |
[2025-09-06 06:50:49] [info] |
[2025-09-06 06:50:49] [info] -----

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[2025-09-06 06:50:49] [info] Performance Metrics
[2025-09-06 06:50:49] [info] -----
[2025-09-06 06:50:49] [info] | Stage | Time Taken |
[2025-09-06 06:50:49] [info] |-----|-----|
[2025-09-06 06:50:49] [info] | GDS Parsing | 0 minutes 3 seconds |
[2025-09-06 06:50:49] [info] | Rule Checking | 0 minutes 5 seconds |
[2025-09-06 06:50:49] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:50:49] [info] -----
[2025-09-06 06:50:49] [info] Summary
[2025-09-06 06:50:49] [info] -----
[2025-09-06 06:50:49] [info] Total Errors: 1161
[2025-09-06 06:50:49] [info] Total Warnings: 503
[2025-09-06 06:50:49] [info] DRC Status: FAILED
```

[2025-09-06 06:51:01] [info] =====
[2025-09-06 06:51:01] [info] Design Rule Check Report
[2025-09-06 06:51:01] [info] =====

[2025-09-06 06:51:01] [info] Report Generated: 2025-09-06
[2025-09-06 06:51:01] [info] Run Start Time: 06:50:54 AM
[2025-09-06 06:51:01] [info] Run End Time: 06:51:01 AM
[2025-09-06 06:51:01] [info] Time Taken: 0 minutes 11 seconds

[2025-09-06 06:51:01] [info] Tool Version: LVR_2025.1
[2025-09-06 06:51:01] [info] Host Name: kuro-Workstation
[2025-09-06 06:51:01] [info] User Name: kuro
[2025-09-06 06:51:01] [info] Cores Used: 16
[2025-09-06 06:51:01] [info] Memory Utilized: 3354.70 MB / 62.569705963134766 GB

[2025-09-06 06:51:01] [info] -----
[2025-09-06 06:51:01] [info] Top Cell Information
[2025-09-06 06:51:01] [info] -----
[2025-09-06 06:51:01] [info] Layout Top Cell: ibex_core2_sky130hd
[2025-09-06 06:51:01] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:51:01] [info] Database Format: GDSII
[2025-09-06 06:51:01] [info] Verification Mode: Full Check

[2025-09-06 06:51:01] [info] -----
[2025-09-06 06:51:01] [info] Type of Errors | Count
[2025-09-06 06:51:01] [info] -----
[2025-09-06 06:51:01] [info] DB_WARN -> 1
[2025-09-06 06:51:01] [info] LRF_ERR001 -> 14
[2025-09-06 06:51:01] [info] DB_WARN002 -> 249
[2025-09-06 06:51:01] [info] DB_WARN003 -> 249
[2025-09-06 06:51:01] [info] DRC_ERR9 -> 767
[2025-09-06 06:51:01] [info] DRC_ERR2 -> 16
[2025-09-06 06:51:01] [info] DRC_ERR5 -> 67
[2025-09-06 06:51:01] [info] DRC_ERR4 -> 101
[2025-09-06 06:51:01] [info] DRC_ERR -> 197
[2025-09-06 06:51:01] [info] DRC_ERR1 -> 15

[2025-09-06 06:51:01] [info] -----
[2025-09-06 06:51:01] [info] Rule Violation Summary
[2025-09-06 06:51:01] [info] -----

[2025-09-06 06:51:01] [info]	Rule ID	Description	Error Count
[2025-09-06 06:51:01] [info]	licon.8a	"licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um" 11	
[2025-09-06 06:51:01] [info]	npc.1	"npc.1 : min. npc width : 0.27um" 7	
[2025-09-06 06:51:01] [info]	m3.6	"m3.6 : min. m3 area : 0.24um ² " 2	
[2025-09-06 06:51:01] [info]	li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 7	
[2025-09-06 06:51:01] [info]	licon.8	"licon.8 : min. poly enclosure of licon : 0.05um" 2	
[2025-09-06 06:51:01] [info]	m1.1	"m1.1 : min. m1 width : 0.14um" 676	
[2025-09-06 06:51:01] [info]	li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" 13	
[2025-09-06 06:51:01] [info]	m1.2	"m1.2 : min. m1 spacing : 0.14um" 16	
[2025-09-06 06:51:01] [info]	licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 12	
[2025-09-06 06:51:01] [info]	via1.5b	"via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 17	
[2025-09-06 06:51:01] [info]	m4.4	"m4.4 : min. m4 area : 0.24um ² " 1	
[2025-09-06 06:51:01] [info]	licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 87	
[2025-09-06 06:51:01] [info]	psdm.1	"psdm.1 : min. psdm width : 0.38um" 9	
[2025-09-06 06:51:01] [info]	li.1	"li.1 : min. li width : 0.17um" 21	
[2025-09-06 06:51:01] [info]	m1.6	"m1.6 : min. m1 area : 0.083um ² " 10	
[2025-09-06 06:51:01] [info]	m5.1	"m5.1 : min. m5 width : 1.6um" 13	
[2025-09-06 06:51:01] [info]	via1.5a	"via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 17	
[2025-09-06 06:51:01] [info]	m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 15	
[2025-09-06 06:51:01] [info]	m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 15	
[2025-09-06 06:51:01] [info]	poly.7	"poly.7 : min. source/drain length : 0.25um" 178	
[2025-09-06 06:51:01] [info]	li.6	"li.6 : min. li area : 0.0561um ² " 6	

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[2025-09-06 06:51:01] [info] | poly.1a          | "poly.1a : min. poly width : 0.15um" | 28      |
[2025-09-06 06:51:01] [info]
[2025-09-06 06:51:01] [info] -----
[2025-09-06 06:51:01] [info]                      Performance Metrics
[2025-09-06 06:51:01] [info] -----
[2025-09-06 06:51:01] [info] | Stage                      | Time Taken |
[2025-09-06 06:51:01] [info] |-----|-----|
[2025-09-06 06:51:01] [info] | GDS Parsing                | 0 minutes 3 seconds |
[2025-09-06 06:51:01] [info] | Rule Checking              | 0 minutes 7 seconds |
[2025-09-06 06:51:01] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-09-06 06:51:01] [info] -----
[2025-09-06 06:51:01] [info]                      Summary
[2025-09-06 06:51:01] [info] -----
[2025-09-06 06:51:01] [info] Total Errors:      1177
[2025-09-06 06:51:01] [info] Total Warnings:    499
[2025-09-06 06:51:01] [info] DRC Status:        FAILED
```

[2025-09-06 06:51:13] [info] =====
[2025-09-06 06:51:13] [info] Design Rule Check Report
[2025-09-06 06:51:13] [info] =====

[2025-09-06 06:51:13] [info] Report Generated: 2025-09-06
[2025-09-06 06:51:13] [info] Run Start Time: 06:51:05 AM
[2025-09-06 06:51:13] [info] Run End Time: 06:51:13 AM
[2025-09-06 06:51:13] [info] Time Taken: 0 minutes 11 seconds

[2025-09-06 06:51:13] [info] Tool Version: LVR_2025.1
[2025-09-06 06:51:13] [info] Host Name: kuro-Workstation
[2025-09-06 06:51:13] [info] User Name: kuro
[2025-09-06 06:51:13] [info] Cores Used: 16
[2025-09-06 06:51:13] [info] Memory Utilized: 3315.65 MB / 62.569705963134766 GB

[2025-09-06 06:51:13] [info] -----
[2025-09-06 06:51:13] [info] Top Cell Information
[2025-09-06 06:51:13] [info] -----
[2025-09-06 06:51:13] [info] Layout Top Cell: ibex_core3_sky130hd
[2025-09-06 06:51:13] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:51:13] [info] Database Format: GDSII
[2025-09-06 06:51:13] [info] Verification Mode: Full Check

[2025-09-06 06:51:13] [info] -----
[2025-09-06 06:51:13] [info] Type of Errors | Count
[2025-09-06 06:51:13] [info] -----
[2025-09-06 06:51:13] [info] DB_WARN -> 1
[2025-09-06 06:51:13] [info] LRF_ERR001 -> 14
[2025-09-06 06:51:13] [info] DB_WARN002 -> 253
[2025-09-06 06:51:13] [info] DB_WARN003 -> 251
[2025-09-06 06:51:13] [info] DRC_ERR9 -> 999
[2025-09-06 06:51:13] [info] DRC_ERR2 -> 16
[2025-09-06 06:51:13] [info] DRC_ERR5 -> 53
[2025-09-06 06:51:13] [info] DRC_ERR -> 72
[2025-09-06 06:51:13] [info] DRC_ERR4 -> 23
[2025-09-06 06:51:13] [info] DRC_ERR1 -> 15
[2025-09-06 06:51:13] [info] -----

[2025-09-06 06:51:13] [info] Rule Violation Summary
[2025-09-06 06:51:13] [info] -----
[2025-09-06 06:51:13] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:51:13] [info] |-----|-----|-----|
[2025-09-06 06:51:13] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um²" | 4 |
[2025-09-06 06:51:13] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 11 |
[2025-09-06 06:51:13] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 10 |
[2025-09-06 06:51:13] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 12 |
[2025-09-06 06:51:13] [info] | psdm.1 | "psdm.1 : min. psdm width : 0.38um" | 1 |
[2025-09-06 06:51:13] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 16 |
[2025-09-06 06:51:13] [info] | li.1 | "li.1 : min. li width : 0.17um" | 12 |
[2025-09-06 06:51:13] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 926 |
[2025-09-06 06:51:13] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 2 |
[2025-09-06 06:51:13] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 16 |
[2025-09-06 06:51:13] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 7 |
[2025-09-06 06:51:13] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 16 |
[2025-09-06 06:51:13] [info] | npc.1 | "npc.1 : min. npc width : 0.27um" | 7 |
[2025-09-06 06:51:13] [info] | licon.8a | "licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um" | 4 |
[2025-09-06 06:51:13] [info] | li.6 | "li.6 : min. li area : 0.0561um²" | 6 |
[2025-09-06 06:51:13] [info] | poly.1a | "poly.1a : min. poly width : 0.15um" | 30 |
[2025-09-06 06:51:13] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 52 |
[2025-09-06 06:51:13] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:51:13] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 15 |
[2025-09-06 06:51:13] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 15 |
[2025-09-06 06:51:13] [info]

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[2025-09-06 06:51:13] [info] -----
[2025-09-06 06:51:13] [info]             Performance Metrics
[2025-09-06 06:51:13] [info] -----
[2025-09-06 06:51:13] [info] | Stage                | Time Taken |
[2025-09-06 06:51:13] [info] |-----|-----|
[2025-09-06 06:51:13] [info] | GDS Parsing           | 0 minutes 3 seconds |
[2025-09-06 06:51:13] [info] | Rule Checking          | 0 minutes 6 seconds |
[2025-09-06 06:51:13] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-09-06 06:51:13] [info] -----
[2025-09-06 06:51:13] [info]             Summary
[2025-09-06 06:51:13] [info] -----
[2025-09-06 06:51:13] [info] Total Errors:    1192
[2025-09-06 06:51:13] [info] Total Warnings:      505
[2025-09-06 06:51:13] [info] DRC Status:        FAILED
```


[2025-09-06 06:51:38] [info] =====
[2025-09-06 06:51:38] [info] Design Rule Check Report
[2025-09-06 06:51:38] [info] =====

[2025-09-06 06:51:38] [info] Report Generated: 2025-09-06
[2025-09-06 06:51:38] [info] Run Start Time: 06:51:22 AM
[2025-09-06 06:51:38] [info] Run End Time: 06:51:38 AM
[2025-09-06 06:51:38] [info] Time Taken: 0 minutes 24 seconds

[2025-09-06 06:51:38] [info] Tool Version: LVR_2025.1
[2025-09-06 06:51:38] [info] Host Name: kuro-Workstation
[2025-09-06 06:51:38] [info] User Name: kuro
[2025-09-06 06:51:38] [info] Cores Used: 16
[2025-09-06 06:51:38] [info] Memory Utilized: 8425.47 MB / 62.569705963134766 GB

[2025-09-06 06:51:38] [info] -----
[2025-09-06 06:51:38] [info] Top Cell Information
[2025-09-06 06:51:38] [info] -----
[2025-09-06 06:51:38] [info] Layout Top Cell: jpeg_encoder1_sky130hd
[2025-09-06 06:51:38] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:51:38] [info] Database Format: GDSII
[2025-09-06 06:51:38] [info] Verification Mode: Full Check

[2025-09-06 06:51:38] [info] -----
[2025-09-06 06:51:38] [info] Type of Errors | Count
[2025-09-06 06:51:38] [info] -----
[2025-09-06 06:51:38] [info] DB_WARN -> 1
[2025-09-06 06:51:38] [info] LRF_ERR001 -> 14
[2025-09-06 06:51:38] [info] DB_WARN002 -> 159
[2025-09-06 06:51:38] [info] DB_WARN003 -> 161
[2025-09-06 06:51:38] [info] DRC_ERR9 -> 1031
[2025-09-06 06:51:38] [info] DRC_ERR2 -> 16
[2025-09-06 06:51:38] [info] DRC_ERR -> 33
[2025-09-06 06:51:38] [info] DRC_ERR5 -> 58
[2025-09-06 06:51:38] [info] DRC_ERR1 -> 15
[2025-09-06 06:51:38] [info] DRC_ERR4 -> 15

[2025-09-06 06:51:38] [info] -----
[2025-09-06 06:51:38] [info] Rule Violation Summary
[2025-09-06 06:51:38] [info] -----

[2025-09-06 06:51:38] [info]	Rule ID	Description	Error Count
[2025-09-06 06:51:38] [info]	m5.1	"m5.1 : min. m5 width : 1.6um" 1	
[2025-09-06 06:51:38] [info]	li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 7	
[2025-09-06 06:51:38] [info]	npc.1	"npc.1 : min. npc width : 0.27um" 17	
[2025-09-06 06:51:38] [info]	licon.8a	"licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um" 4	
[2025-09-06 06:51:38] [info]	m1.1	"m1.1 : min. m1 width : 0.14um" 928	
[2025-09-06 06:51:38] [info]	li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" 16	
[2025-09-06 06:51:38] [info]	licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 8	
[2025-09-06 06:51:38] [info]	m1.2	"m1.2 : min. m1 spacing : 0.14um" 16	
[2025-09-06 06:51:38] [info]	m1.6	"m1.6 : min. m1 area : 0.083um ² " 13	
[2025-09-06 06:51:38] [info]	via1.5b	"via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 16	
[2025-09-06 06:51:38] [info]	m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 15	
[2025-09-06 06:51:38] [info]	via1.5a	"via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 16	
[2025-09-06 06:51:38] [info]	m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 15	
[2025-09-06 06:51:38] [info]	li.6	"li.6 : min. li area : 0.0561um ² " 12	
[2025-09-06 06:51:38] [info]	poly.1a	"poly.1a : min. poly width : 0.15um" 39	
[2025-09-06 06:51:38] [info]	poly.7	"poly.7 : min. source/drain length : 0.25um" 8	
[2025-09-06 06:51:38] [info]	licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 7	
[2025-09-06 06:51:38] [info]	li.1	"li.1 : min. li width : 0.17um" 16	
[2025-09-06 06:51:38] [info]	psdm.1	"psdm.1 : min. psdm width : 0.38um" 14	

[2025-09-06 06:51:38] [info] -----

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[2025-09-06 06:51:38] [info] Performance Metrics
[2025-09-06 06:51:38] [info] -----
[2025-09-06 06:51:38] [info] | Stage | Time Taken |
[2025-09-06 06:51:38] [info] |-----|-----|
[2025-09-06 06:51:38] [info] | GDS Parsing | 0 minutes 8 seconds |
[2025-09-06 06:51:38] [info] | Rule Checking | 0 minutes 14 seconds |
[2025-09-06 06:51:38] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:51:38] [info] -----
[2025-09-06 06:51:38] [info] Summary
[2025-09-06 06:51:38] [info] -----
[2025-09-06 06:51:38] [info] Total Errors: 1182
[2025-09-06 06:51:38] [info] Total Warnings: 321
[2025-09-06 06:51:38] [info] DRC Status: FAILED
```

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[2025-09-06 06:52:15] [info] =====
[2025-09-06 06:52:15] [info] Design Rule Check Report
[2025-09-06 06:52:15] [info] =====

[2025-09-06 06:52:15] [info] Report Generated: 2025-09-06
[2025-09-06 06:52:15] [info] Run Start Time: 06:51:51 AM
[2025-09-06 06:52:15] [info] Run End Time: 06:52:15 AM
[2025-09-06 06:52:15] [info] Time Taken: 0 minutes 35 seconds

[2025-09-06 06:52:15] [info] Tool Version: LVR_2025.1
[2025-09-06 06:52:15] [info] Host Name: kuro-Workstation
[2025-09-06 06:52:15] [info] User Name: kuro
[2025-09-06 06:52:15] [info] Cores Used: 16
[2025-09-06 06:52:15] [info] Memory Utilized: 10193.33 MB / 62.569705963134766 GB

[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info] Top Cell Information
[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info] Layout Top Cell: jpeg_encoder2_sky130hd
[2025-09-06 06:52:15] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:52:15] [info] Database Format: GDSII
[2025-09-06 06:52:15] [info] Verification Mode: Full Check

[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info] Type of Errors | Count
[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info] DB_WARN -> 1
[2025-09-06 06:52:15] [info] LRF_ERR001 -> 14
[2025-09-06 06:52:15] [info] DB_WARN002 -> 157
[2025-09-06 06:52:15] [info] DB_WARN003 -> 159
[2025-09-06 06:52:15] [info] DRC_ERR9 -> 774
[2025-09-06 06:52:15] [info] DRC_ERR2 -> 16
[2025-09-06 06:52:15] [info] DRC_ERR5 -> 49
[2025-09-06 06:52:15] [info] DRC_ERR -> 265
[2025-09-06 06:52:15] [info] DRC_ERR1 -> 13
[2025-09-06 06:52:15] [info] DRC_ERR4 -> 22
[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info] Rule Violation Summary
[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:52:15] [info] |-----|-----|-----|
[2025-09-06 06:52:15] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 1 |
[2025-09-06 06:52:15] [info] | npc.1 | "npc.1 : min. npc width : 0.27um" | 2 |
[2025-09-06 06:52:15] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 248 |
[2025-09-06 06:52:15] [info] | m2.1 | "m2.1 : min. m2 width : 0.14um" | 1 |
[2025-09-06 06:52:15] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 744 |
[2025-09-06 06:52:15] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5* : 0.14um" | 9 |
[2025-09-06 06:52:15] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 4 |
[2025-09-06 06:52:15] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 1 |
[2025-09-06 06:52:15] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 16 |
[2025-09-06 06:52:15] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 16 |
[2025-09-06 06:52:15] [info] | li.6 | "li.6 : min. li area : 0.0561um^2" | 5 |
[2025-09-06 06:52:15] [info] | poly.1a | "poly.1a : min. poly width : 0.15um" | 8 |
[2025-09-06 06:52:15] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um^2" | 12 |
[2025-09-06 06:52:15] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:52:15] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 13 |
[2025-09-06 06:52:15] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 13 |
[2025-09-06 06:52:15] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 21 |
[2025-09-06 06:52:15] [info] | li.1 | "li.1 : min. li width : 0.17um" | 9 |
[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info] Performance Metrics

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[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info] | Stage                | Time Taken |
[2025-09-06 06:52:15] [info] |-----|-----|
[2025-09-06 06:52:15] [info] | GDS Parsing          | 0 minutes 11 seconds |
[2025-09-06 06:52:15] [info] | Rule Checking        | 0 minutes 23 seconds |
[2025-09-06 06:52:15] [info] | Report Generation    | 0 minutes 0 seconds  |

[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info]                Summary
[2025-09-06 06:52:15] [info] -----
[2025-09-06 06:52:15] [info] Total Errors:      1153
[2025-09-06 06:52:15] [info] Total Warnings:    317
[2025-09-06 06:52:15] [info] DRC Status:        FAILED
```

[2025-09-06 06:52:43] [info] =====
[2025-09-06 06:52:43] [info] Design Rule Check Report
[2025-09-06 06:52:43] [info] =====

[2025-09-06 06:52:43] [info] Report Generated: 2025-09-06
[2025-09-06 06:52:43] [info] Run Start Time: 06:52:25 AM
[2025-09-06 06:52:43] [info] Run End Time: 06:52:43 AM
[2025-09-06 06:52:43] [info] Time Taken: 0 minutes 25 seconds

[2025-09-06 06:52:43] [info] Tool Version: LVR_2025.1
[2025-09-06 06:52:43] [info] Host Name: kuro-Workstation
[2025-09-06 06:52:43] [info] User Name: kuro
[2025-09-06 06:52:43] [info] Cores Used: 16
[2025-09-06 06:52:43] [info] Memory Utilized: 7813.02 MB / 62.569705963134766 GB

[2025-09-06 06:52:43] [info] -----
[2025-09-06 06:52:43] [info] Top Cell Information
[2025-09-06 06:52:43] [info] -----
[2025-09-06 06:52:43] [info] Layout Top Cell: jpeg_encoder3_sky130hd
[2025-09-06 06:52:43] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:52:43] [info] Database Format: GDSII
[2025-09-06 06:52:43] [info] Verification Mode: Full Check

[2025-09-06 06:52:43] [info] -----
[2025-09-06 06:52:43] [info] Type of Errors | Count
[2025-09-06 06:52:43] [info] -----
[2025-09-06 06:52:43] [info] DB_WARN -> 1
[2025-09-06 06:52:43] [info] LRF_ERR001 -> 14
[2025-09-06 06:52:43] [info] DB_WARN002 -> 152
[2025-09-06 06:52:43] [info] DB_WARN003 -> 155
[2025-09-06 06:52:43] [info] DRC_ERR9 -> 800
[2025-09-06 06:52:43] [info] DRC_ERR4 -> 23
[2025-09-06 06:52:43] [info] DRC_ERR2 -> 16
[2025-09-06 06:52:43] [info] DRC_ERR5 -> 55
[2025-09-06 06:52:43] [info] DRC_ERR1 -> 16
[2025-09-06 06:52:43] [info] DRC_ERR -> 253
[2025-09-06 06:52:43] [info] -----

[2025-09-06 06:52:43] [info] Rule Violation Summary
[2025-09-06 06:52:43] [info] -----
[2025-09-06 06:52:43] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:52:43] [info] |-----|-----|-----|
[2025-09-06 06:52:43] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 1 |
[2025-09-06 06:52:43] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 4 |
[2025-09-06 06:52:43] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 242 |
[2025-09-06 06:52:43] [info] | licon.8a | "licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um" | 3 |
[2025-09-06 06:52:43] [info] | npc.1 | "npc.1 : min. npc width : 0.27um" | 7 |
[2025-09-06 06:52:43] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 13 |
[2025-09-06 06:52:43] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 752 |
[2025-09-06 06:52:43] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 11 |
[2025-09-06 06:52:43] [info] | li.1 | "li.1 : min. li width : 0.17um" | 13 |
[2025-09-06 06:52:43] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 4 |
[2025-09-06 06:52:43] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 16 |
[2025-09-06 06:52:43] [info] | m1.4 | "m1.4 : min. m1 enclosure of mcon : 0.03um" | 8 |
[2025-09-06 06:52:43] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 16 |
[2025-09-06 06:52:43] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:52:43] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 16 |
[2025-09-06 06:52:43] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 16 |
[2025-09-06 06:52:43] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 10 |
[2025-09-06 06:52:43] [info] | li.6 | "li.6 : min. li area : 0.0561um²" | 1 |
[2025-09-06 06:52:43] [info] | poly.1a | "poly.1a : min. poly width : 0.15um" | 14 |
[2025-09-06 06:52:43] [info] |
[2025-09-06 06:52:43] [info] -----

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[2025-09-06 06:52:43] [info] Performance Metrics
[2025-09-06 06:52:43] [info] -----
[2025-09-06 06:52:43] [info] | Stage | Time Taken |
[2025-09-06 06:52:43] [info] |-----|-----|
[2025-09-06 06:52:43] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-09-06 06:52:43] [info] | Rule Checking | 0 minutes 16 seconds |
[2025-09-06 06:52:43] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:52:43] [info] -----
[2025-09-06 06:52:43] [info] Summary
[2025-09-06 06:52:43] [info] -----
[2025-09-06 06:52:43] [info] Total Errors: 1177
[2025-09-06 06:52:43] [info] Total Warnings: 308
[2025-09-06 06:52:43] [info] DRC Status: FAILED
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[2025-09-06 06:18:52] [info] =====
[2025-09-06 06:18:52] [info]                Design Rule Check Report
[2025-09-06 06:18:52] [info] =====

[2025-09-06 06:18:52] [info] Report Generated:    2025-09-06
[2025-09-06 06:18:52] [info] Run Start Time:      06:17:19 AM
[2025-09-06 06:18:52] [info] Run End Time:        06:18:51 AM
[2025-09-06 06:18:52] [info] Time Taken:          1 minutes 39 seconds

[2025-09-06 06:18:52] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:18:52] [info] Host Name:           kuro-Workstation
[2025-09-06 06:18:52] [info] User Name:           kuro
[2025-09-06 06:18:52] [info] Cores Used:          1
[2025-09-06 06:18:52] [info] Memory Utilized:     3561.22 MB / 62.569705963134766 GB

[2025-09-06 06:18:52] [info] -----
[2025-09-06 06:18:52] [info]                Top Cell Information
[2025-09-06 06:18:52] [info] -----
[2025-09-06 06:18:52] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-09-06 06:18:52] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:18:52] [info] Database Format:       GDSII
[2025-09-06 06:18:52] [info] Verification Mode:    Full Check

[2025-09-06 06:18:52] [info] -----
[2025-09-06 06:18:52] [info]                Type of Errors | Count
[2025-09-06 06:18:52] [info] -----
[2025-09-06 06:18:52] [info] DB_WARN -> 1
[2025-09-06 06:18:52] [info] LRF_ERR001 -> 14
[2025-09-06 06:18:52] [info] DB_WARN002 -> 144
[2025-09-06 06:18:52] [info] DB_WARN003 -> 137
[2025-09-06 06:18:52] [info] DRC_ERR -> 240
[2025-09-06 06:18:52] [info] DRC_ERR4 -> 11
[2025-09-06 06:18:52] [info] DRC_ERR9 -> 752
[2025-09-06 06:18:52] [info] DRC_ERR2 -> 1
[2025-09-06 06:18:52] [info] DRC_ERR5 -> 3
[2025-09-06 06:18:52] [info] DRC_ERR1 -> 1
[2025-09-06 06:18:52] [info] -----
[2025-09-06 06:18:52] [info]                Rule Violation Summary
[2025-09-06 06:18:52] [info] -----
[2025-09-06 06:18:52] [info] | Rule ID      | Description                                     | Error Count |
[2025-09-06 06:18:52] [info] |-----|-----|-----|
[2025-09-06 06:18:52] [info] | m5.1          | "m5.1 : min. m5 width : 1.6um" | 1            |
[2025-09-06 06:18:52] [info] | m4.5          | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1            |
[2025-09-06 06:18:52] [info] | m4.5ab        | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1            |
[2025-09-06 06:18:52] [info] | m2.1          | "m2.1 : min. m2 width : 0.14um" | 1            |
[2025-09-06 06:18:52] [info] | via1.5b       | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1            |
[2025-09-06 06:18:52] [info] | via1.5a       | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1            |
[2025-09-06 06:18:52] [info] | m1.2          | "m1.2 : min. m1 spacing : 0.14um" | 1            |
[2025-09-06 06:18:52] [info] | m1.1          | "m1.1 : min. m1 width : 0.14um" | 750          |
[2025-09-06 06:18:52] [info] | licon.5       | "licon.5 : min. diff enclosure of licon : 0.04um" | 11           |
[2025-09-06 06:18:52] [info] | poly.7        | "poly.7 : min. source/drain length : 0.25um" | 240          |
[2025-09-06 06:18:52] [info] -----
[2025-09-06 06:18:52] [info]                Performance Metrics
[2025-09-06 06:18:52] [info] -----
[2025-09-06 06:18:52] [info] | Stage          | Time Taken |
[2025-09-06 06:18:52] [info] |-----|-----|
[2025-09-06 06:18:52] [info] | GDS Parsing    | 0 minutes 6 seconds |
[2025-09-06 06:18:52] [info] | Rule Checking   | 1 minutes 32 seconds |
[2025-09-06 06:18:52] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:18:52] [info] -----
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[2025-09-06 06:18:52] [info] Summary
[2025-09-06 06:18:52] [info] -----
[2025-09-06 06:18:52] [info] Total Errors: 1022
[2025-09-06 06:18:52] [info] Total Warnings: 282
[2025-09-06 06:18:52] [info] DRC Status: FAILED
```



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[2025-09-06 06:20:37] [info] =====
[2025-09-06 06:20:37] [info] Design Rule Check Report
[2025-09-06 06:20:37] [info] =====

[2025-09-06 06:20:37] [info] Report Generated: 2025-09-06
[2025-09-06 06:20:37] [info] Run Start Time: 06:19:01 AM
[2025-09-06 06:20:37] [info] Run End Time: 06:20:37 AM
[2025-09-06 06:20:37] [info] Time Taken: 1 minutes 44 seconds

[2025-09-06 06:20:37] [info] Tool Version: LVR_2025.1
[2025-09-06 06:20:37] [info] Host Name: kuro-Workstation
[2025-09-06 06:20:37] [info] User Name: kuro
[2025-09-06 06:20:37] [info] Cores Used: 1
[2025-09-06 06:20:37] [info] Memory Utilized: 4163.69 MB / 62.569705963134766 GB

[2025-09-06 06:20:37] [info] -----
[2025-09-06 06:20:37] [info] Top Cell Information
[2025-09-06 06:20:37] [info] -----
[2025-09-06 06:20:37] [info] Layout Top Cell: aes_cipher_top2_sky130hd
[2025-09-06 06:20:37] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:20:37] [info] Database Format: GDSII
[2025-09-06 06:20:37] [info] Verification Mode: Full Check

[2025-09-06 06:20:37] [info] -----
[2025-09-06 06:20:37] [info] Type of Errors | Count
[2025-09-06 06:20:37] [info] -----
[2025-09-06 06:20:37] [info] DB_WARN -> 1
[2025-09-06 06:20:37] [info] LRF_ERR001 -> 14
[2025-09-06 06:20:37] [info] DB_WARN002 -> 141
[2025-09-06 06:20:37] [info] DB_WARN003 -> 135
[2025-09-06 06:20:37] [info] DRC_ERR -> 232
[2025-09-06 06:20:37] [info] DRC_ERR4 -> 12
[2025-09-06 06:20:37] [info] DRC_ERR9 -> 758
[2025-09-06 06:20:37] [info] DRC_ERR2 -> 1
[2025-09-06 06:20:37] [info] DRC_ERR5 -> 3
[2025-09-06 06:20:37] [info] DRC_ERR1 -> 1
[2025-09-06 06:20:37] [info] -----
[2025-09-06 06:20:37] [info] Rule Violation Summary
[2025-09-06 06:20:37] [info] -----
[2025-09-06 06:20:37] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:20:37] [info] |-----|-----|-----|
[2025-09-06 06:20:37] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 1 |
[2025-09-06 06:20:37] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:20:37] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1 |
[2025-09-06 06:20:37] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1 |
[2025-09-06 06:20:37] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:20:37] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 1 |
[2025-09-06 06:20:37] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 757 |
[2025-09-06 06:20:37] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 12 |
[2025-09-06 06:20:37] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 232 |
[2025-09-06 06:20:37] [info]
[2025-09-06 06:20:37] [info] -----
[2025-09-06 06:20:37] [info] Performance Metrics
[2025-09-06 06:20:37] [info] -----
[2025-09-06 06:20:37] [info] | Stage | Time Taken |
[2025-09-06 06:20:37] [info] |-----|-----|
[2025-09-06 06:20:37] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-09-06 06:20:37] [info] | Rule Checking | 1 minutes 35 seconds |
[2025-09-06 06:20:37] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:20:37] [info] -----
[2025-09-06 06:20:37] [info] Summary
```

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[2025-09-06 06:20:37] [info] -----  
[2025-09-06 06:20:37] [info] Total Errors:    1021  
[2025-09-06 06:20:37] [info] Total Warnings:      277  
[2025-09-06 06:20:37] [info] DRC Status:          FAILED
```

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[2025-09-06 06:22:17] [info] =====
[2025-09-06 06:22:17] [info]                Design Rule Check Report
[2025-09-06 06:22:17] [info] =====

[2025-09-06 06:22:17] [info] Report Generated:    2025-09-06
[2025-09-06 06:22:17] [info] Run Start Time:      06:20:45 AM
[2025-09-06 06:22:17] [info] Run End Time:        06:22:17 AM
[2025-09-06 06:22:17] [info] Time Taken:          1 minutes 37 seconds

[2025-09-06 06:22:17] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:22:17] [info] Host Name:           kuro-Workstation
[2025-09-06 06:22:17] [info] User Name:           kuro
[2025-09-06 06:22:17] [info] Cores Used:          1
[2025-09-06 06:22:17] [info] Memory Utilized:     2951.58 MB / 62.569705963134766 GB

[2025-09-06 06:22:17] [info] -----
[2025-09-06 06:22:17] [info]                Top Cell Information
[2025-09-06 06:22:17] [info] -----
[2025-09-06 06:22:17] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-09-06 06:22:17] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:22:17] [info] Database Format:       GDSII
[2025-09-06 06:22:17] [info] Verification Mode:    Full Check

[2025-09-06 06:22:17] [info] -----
[2025-09-06 06:22:17] [info]                Type of Errors | Count
[2025-09-06 06:22:17] [info] -----
[2025-09-06 06:22:17] [info] DB_WARN -> 1
[2025-09-06 06:22:17] [info] LRF_ERR001 -> 14
[2025-09-06 06:22:17] [info] DB_WARN002 -> 138
[2025-09-06 06:22:17] [info] DB_WARN003 -> 132
[2025-09-06 06:22:17] [info] DRC_ERR -> 227
[2025-09-06 06:22:17] [info] DRC_ERR4 -> 11
[2025-09-06 06:22:17] [info] DRC_ERR9 -> 766
[2025-09-06 06:22:17] [info] DRC_ERR2 -> 1
[2025-09-06 06:22:17] [info] DRC_ERR5 -> 3
[2025-09-06 06:22:17] [info] DRC_ERR1 -> 1
[2025-09-06 06:22:17] [info] -----
[2025-09-06 06:22:17] [info]                Rule Violation Summary
[2025-09-06 06:22:17] [info] -----
[2025-09-06 06:22:17] [info] | Rule ID      | Description                                     | Error Count |
[2025-09-06 06:22:17] [info] |-----|-----|-----|
[2025-09-06 06:22:17] [info] | m5.1         | "m5.1 : min. m5 width : 1.6um" | 1           |
[2025-09-06 06:22:17] [info] | m4.5         | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1           |
[2025-09-06 06:22:17] [info] | m4.5ab       | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1           |
[2025-09-06 06:22:17] [info] | m3.6         | "m3.6 : min. m3 area : 0.24um^2" | 1           |
[2025-09-06 06:22:17] [info] | m2.1         | "m2.1 : min. m2 width : 0.14um" | 1           |
[2025-09-06 06:22:17] [info] | via1.5b      | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1           |
[2025-09-06 06:22:17] [info] | via1.5a      | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1           |
[2025-09-06 06:22:17] [info] | m1.2         | "m1.2 : min. m1 spacing : 0.14um" | 1           |
[2025-09-06 06:22:17] [info] | m1.1         | "m1.1 : min. m1 width : 0.14um" | 764         |
[2025-09-06 06:22:17] [info] | licon.5      | "licon.5 : min. diff enclosure of licon : 0.04um" | 11          |
[2025-09-06 06:22:17] [info] | poly.7       | "poly.7 : min. source/drain length : 0.25um" | 226         |
[2025-09-06 06:22:17] [info] -----
[2025-09-06 06:22:17] [info]                Performance Metrics
[2025-09-06 06:22:17] [info] -----
[2025-09-06 06:22:17] [info] | Stage          | Time Taken |
[2025-09-06 06:22:17] [info] |-----|-----|
[2025-09-06 06:22:17] [info] | GDS Parsing    | 0 minutes 5 seconds |
[2025-09-06 06:22:17] [info] | Rule Checking   | 1 minutes 32 seconds |
[2025-09-06 06:22:17] [info] | Report Generation | 0 minutes 0 seconds |

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[2025-09-06 06:22:17] [info] -----  
[2025-09-06 06:22:17] [info]           Summary  
[2025-09-06 06:22:17] [info] -----  
[2025-09-06 06:22:17] [info] Total Errors:   1023  
[2025-09-06 06:22:17] [info] Total Warnings:    271  
[2025-09-06 06:22:17] [info] DRC Status:      FAILED
```

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[2025-09-06 06:17:11] [info] =====
[2025-09-06 06:17:11] [info]                Design Rule Check Report
[2025-09-06 06:17:11] [info] =====

[2025-09-06 06:17:11] [info] Report Generated:    2025-09-06
[2025-09-06 06:17:11] [info] Run Start Time:      06:17:10 AM
[2025-09-06 06:17:11] [info] Run End Time:        06:17:11 AM
[2025-09-06 06:17:11] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 06:17:11] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:17:11] [info] Host Name:           kuro-Workstation
[2025-09-06 06:17:11] [info] User Name:           kuro
[2025-09-06 06:17:11] [info] Cores Used:          1
[2025-09-06 06:17:11] [info] Memory Utilized:     48.99 MB / 62.569705963134766 GB

[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info]                Top Cell Information
[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info] Layout Top Cell:     gcd1_sky130hd
[2025-09-06 06:17:11] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:17:11] [info] Database Format:       GDSII
[2025-09-06 06:17:11] [info] Verification Mode:    Full Check

[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info]                Type of Errors | Count
[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info] DB_WARN -> 1
[2025-09-06 06:17:11] [info] LRF_ERR001 -> 14
[2025-09-06 06:17:11] [info] DB_WARN002 -> 58
[2025-09-06 06:17:11] [info] DB_WARN003 -> 55
[2025-09-06 06:17:11] [info] DRC_ERR9 -> 1001
[2025-09-06 06:17:11] [info] DRC_ERR2 -> 1
[2025-09-06 06:17:11] [info] DRC_ERR5 -> 2
[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info]                Rule Violation Summary
[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:17:11] [info] |-----|-----|-----|
[2025-09-06 06:17:11] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1 |
[2025-09-06 06:17:11] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:17:11] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 1 |
[2025-09-06 06:17:11] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 1001 |
[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info]                Performance Metrics
[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info] | Stage | Time Taken |
[2025-09-06 06:17:11] [info] |-----|-----|
[2025-09-06 06:17:11] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-09-06 06:17:11] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-09-06 06:17:11] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info]                Summary
[2025-09-06 06:17:11] [info] -----
[2025-09-06 06:17:11] [info] Total Errors:    1018
[2025-09-06 06:17:11] [info] Total Warnings:   114
[2025-09-06 06:17:11] [info] DRC Status:      FAILED

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[2025-09-06 06:17:12] [info] =====
[2025-09-06 06:17:12] [info]           Design Rule Check Report
[2025-09-06 06:17:12] [info] =====

[2025-09-06 06:17:12] [info] Report Generated:    2025-09-06
[2025-09-06 06:17:12] [info] Run Start Time:      06:17:11 AM
[2025-09-06 06:17:12] [info] Run End Time:        06:17:12 AM
[2025-09-06 06:17:12] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 06:17:12] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:17:12] [info] Host Name:           kuro-Workstation
[2025-09-06 06:17:12] [info] User Name:           kuro
[2025-09-06 06:17:12] [info] Cores Used:          1
[2025-09-06 06:17:12] [info] Memory Utilized:     53.30 MB / 62.569705963134766 GB

[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info]           Top Cell Information
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] Layout Top Cell:     gcd2_sky130hd
[2025-09-06 06:17:12] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:17:12] [info] Database Format:       GDSII
[2025-09-06 06:17:12] [info] Verification Mode:    Full Check

[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info]           Type of Errors | Count
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] DB_WARN -> 1
[2025-09-06 06:17:12] [info] LRF_ERR001 -> 14
[2025-09-06 06:17:12] [info] DB_WARN002 -> 59
[2025-09-06 06:17:12] [info] DB_WARN003 -> 56
[2025-09-06 06:17:12] [info] DRC_ERR9 -> 1001
[2025-09-06 06:17:12] [info] DRC_ERR2 -> 1
[2025-09-06 06:17:12] [info] DRC_ERR5 -> 3
[2025-09-06 06:17:12] [info] DRC_ERR1 -> 1
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info]           Rule Violation Summary
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] | Rule ID      | Description                                     | Error Count |
[2025-09-06 06:17:12] [info] |-----|-----|-----|
[2025-09-06 06:17:12] [info] | m4.5         | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1           |
[2025-09-06 06:17:12] [info] | m4.5ab       | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1           |
[2025-09-06 06:17:12] [info] | via1.5b      | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1           |
[2025-09-06 06:17:12] [info] | via1.5a      | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1           |
[2025-09-06 06:17:12] [info] | m1.2         | "m1.2 : min. m1 spacing : 0.14um" | 1           |
[2025-09-06 06:17:12] [info] | m1.1         | "m1.1 : min. m1 width : 0.14um" | 1001        |
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info]           Performance Metrics
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] | Stage          | Time Taken |
[2025-09-06 06:17:12] [info] |-----|-----|
[2025-09-06 06:17:12] [info] | GDS Parsing    | 0 minutes 0 seconds |
[2025-09-06 06:17:12] [info] | Rule Checking  | 0 minutes 0 seconds |
[2025-09-06 06:17:12] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info]           Summary
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] Total Errors:    1020
[2025-09-06 06:17:12] [info] Total Warnings:  116
[2025-09-06 06:17:12] [info] DRC Status:      FAILED
```

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[2025-09-06 06:17:12] [info] =====
[2025-09-06 06:17:12] [info] Design Rule Check Report
[2025-09-06 06:17:12] [info] =====

[2025-09-06 06:17:12] [info] Report Generated: 2025-09-06
[2025-09-06 06:17:12] [info] Run Start Time: 06:17:12 AM
[2025-09-06 06:17:12] [info] Run End Time: 06:17:12 AM
[2025-09-06 06:17:12] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 06:17:12] [info] Tool Version: LVR_2025.1
[2025-09-06 06:17:12] [info] Host Name: kuro-Workstation
[2025-09-06 06:17:12] [info] User Name: kuro
[2025-09-06 06:17:12] [info] Cores Used: 1
[2025-09-06 06:17:12] [info] Memory Utilized: 42.66 MB / 62.569705963134766 GB

[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] Top Cell Information
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] Layout Top Cell: gcd3_sky130hd
[2025-09-06 06:17:12] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:17:12] [info] Database Format: GDSII
[2025-09-06 06:17:12] [info] Verification Mode: Full Check

[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] Type of Errors | Count
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] DB_WARN -> 1
[2025-09-06 06:17:12] [info] LRF_ERR001 -> 14
[2025-09-06 06:17:12] [info] DB_WARN002 -> 59
[2025-09-06 06:17:12] [info] DB_WARN003 -> 56
[2025-09-06 06:17:12] [info] DRC_ERR9 -> 1001
[2025-09-06 06:17:12] [info] DRC_ERR2 -> 1
[2025-09-06 06:17:12] [info] DRC_ERR5 -> 3
[2025-09-06 06:17:12] [info] DRC_ERR1 -> 1
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] Rule Violation Summary
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:17:12] [info] |-----|-----|-----|
[2025-09-06 06:17:12] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:17:12] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1 |
[2025-09-06 06:17:12] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1 |
[2025-09-06 06:17:12] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:17:12] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 1 |
[2025-09-06 06:17:12] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 1001 |
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] Performance Metrics
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] | Stage | Time Taken |
[2025-09-06 06:17:12] [info] |-----|-----|
[2025-09-06 06:17:12] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-09-06 06:17:12] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-09-06 06:17:12] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] Summary
[2025-09-06 06:17:12] [info] -----
[2025-09-06 06:17:12] [info] Total Errors: 1020
[2025-09-06 06:17:12] [info] Total Warnings: 116
[2025-09-06 06:17:12] [info] DRC Status: FAILED

```

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[2025-09-06 06:23:46] [info] =====
[2025-09-06 06:23:46] [info] Design Rule Check Report
[2025-09-06 06:23:46] [info] =====

[2025-09-06 06:23:46] [info] Report Generated: 2025-09-06
[2025-09-06 06:23:46] [info] Run Start Time: 06:22:24 AM
[2025-09-06 06:23:46] [info] Run End Time: 06:23:46 AM
[2025-09-06 06:23:46] [info] Time Taken: 1 minutes 27 seconds

[2025-09-06 06:23:46] [info] Tool Version: LVR_2025.1
[2025-09-06 06:23:46] [info] Host Name: kuro-Workstation
[2025-09-06 06:23:46] [info] User Name: kuro
[2025-09-06 06:23:46] [info] Cores Used: 1
[2025-09-06 06:23:46] [info] Memory Utilized: 3377.82 MB / 62.569705963134766 GB

[2025-09-06 06:23:46] [info] -----
[2025-09-06 06:23:46] [info] Top Cell Information
[2025-09-06 06:23:46] [info] -----
[2025-09-06 06:23:46] [info] Layout Top Cell: ibex_core1_sky130hd
[2025-09-06 06:23:46] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:23:46] [info] Database Format: GDSII
[2025-09-06 06:23:46] [info] Verification Mode: Full Check

[2025-09-06 06:23:46] [info] -----
[2025-09-06 06:23:46] [info] Type of Errors | Count
[2025-09-06 06:23:46] [info] -----
[2025-09-06 06:23:46] [info] DB_WARN -> 1
[2025-09-06 06:23:46] [info] LRF_ERR001 -> 14
[2025-09-06 06:23:46] [info] DB_WARN002 -> 251
[2025-09-06 06:23:46] [info] DB_WARN003 -> 251
[2025-09-06 06:23:46] [info] DRC_ERR -> 66
[2025-09-06 06:23:46] [info] DRC_ERR4 -> 139
[2025-09-06 06:23:46] [info] DRC_ERR9 -> 797
[2025-09-06 06:23:46] [info] DRC_ERR2 -> 1
[2025-09-06 06:23:46] [info] DRC_ERR5 -> 3
[2025-09-06 06:23:46] [info] DRC_ERR1 -> 1
[2025-09-06 06:23:46] [info] -----
[2025-09-06 06:23:46] [info] Rule Violation Summary
[2025-09-06 06:23:46] [info] -----
[2025-09-06 06:23:46] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:23:46] [info] |-----|-----|-----|
[2025-09-06 06:23:46] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 1 |
[2025-09-06 06:23:46] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:23:46] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1 |
[2025-09-06 06:23:46] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1 |
[2025-09-06 06:23:46] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 1 |
[2025-09-06 06:23:46] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 796 |
[2025-09-06 06:23:46] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:23:46] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 6 |
[2025-09-06 06:23:46] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 133 |
[2025-09-06 06:23:46] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 66 |
[2025-09-06 06:23:46] [info] -----
[2025-09-06 06:23:46] [info] Performance Metrics
[2025-09-06 06:23:46] [info] -----
[2025-09-06 06:23:46] [info] | Stage | Time Taken |
[2025-09-06 06:23:46] [info] |-----|-----|
[2025-09-06 06:23:46] [info] | GDS Parsing | 0 minutes 5 seconds |
[2025-09-06 06:23:46] [info] | Rule Checking | 1 minutes 21 seconds |
[2025-09-06 06:23:46] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:23:46] [info] -----
```

```
[2025-09-06 06:23:46] [info] Summary
[2025-09-06 06:23:46] [info] -----
[2025-09-06 06:23:46] [info] Total Errors: 1021
[2025-09-06 06:23:46] [info] Total Warnings: 503
[2025-09-06 06:23:46] [info] DRC Status: FAILED
```

```

[2025-09-06 06:25:18] [info] =====
[2025-09-06 06:25:18] [info]                Design Rule Check Report
[2025-09-06 06:25:18] [info] =====

[2025-09-06 06:25:18] [info] Report Generated:    2025-09-06
[2025-09-06 06:25:18] [info] Run Start Time:      06:23:54 AM
[2025-09-06 06:25:18] [info] Run End Time:        06:25:18 AM
[2025-09-06 06:25:18] [info] Time Taken:          1 minutes 30 seconds

[2025-09-06 06:25:18] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:25:18] [info] Host Name:           kuro-Workstation
[2025-09-06 06:25:18] [info] User Name:           kuro
[2025-09-06 06:25:18] [info] Cores Used:          1
[2025-09-06 06:25:18] [info] Memory Utilized:     3422.23 MB / 62.569705963134766 GB

[2025-09-06 06:25:18] [info] -----
[2025-09-06 06:25:18] [info]                Top Cell Information
[2025-09-06 06:25:18] [info] -----
[2025-09-06 06:25:18] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-09-06 06:25:18] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:25:18] [info] Database Format:       GDSII
[2025-09-06 06:25:18] [info] Verification Mode:    Full Check

[2025-09-06 06:25:18] [info] -----
[2025-09-06 06:25:18] [info]                Type of Errors | Count
[2025-09-06 06:25:18] [info] -----
[2025-09-06 06:25:18] [info] DB_WARN -> 1
[2025-09-06 06:25:18] [info] LRF_ERR001 -> 14
[2025-09-06 06:25:18] [info] DB_WARN002 -> 249
[2025-09-06 06:25:18] [info] DB_WARN003 -> 249
[2025-09-06 06:25:18] [info] DRC_ERR -> 62
[2025-09-06 06:25:18] [info] DRC_ERR4 -> 137
[2025-09-06 06:25:18] [info] DRC_ERR9 -> 803
[2025-09-06 06:25:18] [info] DRC_ERR2 -> 1
[2025-09-06 06:25:18] [info] DRC_ERR5 -> 3
[2025-09-06 06:25:18] [info] DRC_ERR1 -> 1
[2025-09-06 06:25:18] [info] -----
[2025-09-06 06:25:18] [info]                Rule Violation Summary
[2025-09-06 06:25:18] [info] -----
[2025-09-06 06:25:18] [info] | Rule ID      | Description                                     | Error Count |
[2025-09-06 06:25:18] [info] |-----|-----|-----|
[2025-09-06 06:25:18] [info] | m5.1         | "m5.1 : min. m5 width : 1.6um" | 1           |
[2025-09-06 06:25:18] [info] | m4.5         | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1           |
[2025-09-06 06:25:18] [info] | m4.5ab       | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1           |
[2025-09-06 06:25:18] [info] | via1.5b      | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1           |
[2025-09-06 06:25:18] [info] | m1.2         | "m1.2 : min. m1 spacing : 0.14um" | 1           |
[2025-09-06 06:25:18] [info] | m1.1         | "m1.1 : min. m1 width : 0.14um" | 802         |
[2025-09-06 06:25:18] [info] | via1.5a      | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1           |
[2025-09-06 06:25:18] [info] | licon.15     | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 4           |
[2025-09-06 06:25:18] [info] | licon.5      | "licon.5 : min. diff enclosure of licon : 0.04um" | 133         |
[2025-09-06 06:25:18] [info] | poly.7       | "poly.7 : min. source/drain length : 0.25um" | 62          |
[2025-09-06 06:25:18] [info] -----
[2025-09-06 06:25:18] [info]                Performance Metrics
[2025-09-06 06:25:18] [info] -----
[2025-09-06 06:25:18] [info] | Stage          | Time Taken |
[2025-09-06 06:25:18] [info] |-----|-----|
[2025-09-06 06:25:18] [info] | GDS Parsing    | 0 minutes 5 seconds |
[2025-09-06 06:25:18] [info] | Rule Checking  | 1 minutes 23 seconds |
[2025-09-06 06:25:18] [info] | Report Generation | 0 minutes 0 seconds |
[2025-09-06 06:25:18] [info] -----

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[2025-09-06 06:25:18] [info]          Summary
[2025-09-06 06:25:18] [info] -----
[2025-09-06 06:25:18] [info] Total Errors:    1021
[2025-09-06 06:25:18] [info] Total Warnings:      499
[2025-09-06 06:25:18] [info] DRC Status:        FAILED
```

```
[2025-09-06 06:26:43] [info] =====
[2025-09-06 06:26:43] [info]                Design Rule Check Report
[2025-09-06 06:26:43] [info] =====

[2025-09-06 06:26:43] [info] Report Generated:    2025-09-06
[2025-09-06 06:26:43] [info] Run Start Time:      06:25:25 AM
[2025-09-06 06:26:43] [info] Run End Time:        06:26:43 AM
[2025-09-06 06:26:43] [info] Time Taken:          1 minutes 24 seconds

[2025-09-06 06:26:43] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:26:43] [info] Host Name:           kuro-Workstation
[2025-09-06 06:26:43] [info] User Name:           kuro
[2025-09-06 06:26:43] [info] Cores Used:          1
[2025-09-06 06:26:43] [info] Memory Utilized:     3238.87 MB / 62.569705963134766 GB

[2025-09-06 06:26:43] [info] -----
[2025-09-06 06:26:43] [info]                Top Cell Information
[2025-09-06 06:26:43] [info] -----
[2025-09-06 06:26:43] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 06:26:43] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:26:43] [info] Database Format:       GDSII
[2025-09-06 06:26:43] [info] Verification Mode:    Full Check

[2025-09-06 06:26:43] [info] -----
[2025-09-06 06:26:43] [info]                Type of Errors | Count
[2025-09-06 06:26:43] [info] -----
[2025-09-06 06:26:43] [info] DB_WARN -> 1
[2025-09-06 06:26:43] [info] LRF_ERR001 -> 14
[2025-09-06 06:26:43] [info] DB_WARN002 -> 253
[2025-09-06 06:26:43] [info] DB_WARN003 -> 251
[2025-09-06 06:26:43] [info] DRC_ERR -> 58
[2025-09-06 06:26:43] [info] DRC_ERR4 -> 140
[2025-09-06 06:26:43] [info] DRC_ERR9 -> 804
[2025-09-06 06:26:43] [info] DRC_ERR2 -> 1
[2025-09-06 06:26:43] [info] DRC_ERR5 -> 3
[2025-09-06 06:26:43] [info] DRC_ERR1 -> 1
[2025-09-06 06:26:43] [info] -----
[2025-09-06 06:26:43] [info]                Rule Violation Summary
[2025-09-06 06:26:43] [info] -----
[2025-09-06 06:26:43] [info] | Rule ID      | Description                                     | Error Count |
[2025-09-06 06:26:43] [info] |-----|-----|-----|
[2025-09-06 06:26:43] [info] | m5.1          | "m5.1 : min. m5 width : 1.6um" | 1            |
[2025-09-06 06:26:43] [info] | m4.5          | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1            |
[2025-09-06 06:26:43] [info] | m4.5ab        | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1            |
[2025-09-06 06:26:43] [info] | via1.5b       | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1            |
[2025-09-06 06:26:43] [info] | m1.2          | "m1.2 : min. m1 spacing : 0.14um" | 1            |
[2025-09-06 06:26:43] [info] | m1.1          | "m1.1 : min. m1 width : 0.14um" | 803          |
[2025-09-06 06:26:43] [info] | via1.5a       | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1            |
[2025-09-06 06:26:43] [info] | licon.15      | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 4            |
[2025-09-06 06:26:43] [info] | licon.5       | "licon.5 : min. diff enclosure of licon : 0.04um" | 136          |
[2025-09-06 06:26:43] [info] | poly.7        | "poly.7 : min. source/drain length : 0.25um" | 58           |
[2025-09-06 06:26:43] [info] -----
[2025-09-06 06:26:43] [info]                Performance Metrics
[2025-09-06 06:26:43] [info] -----
[2025-09-06 06:26:43] [info] | Stage          | Time Taken |
[2025-09-06 06:26:43] [info] |-----|-----|
[2025-09-06 06:26:43] [info] | GDS Parsing    | 0 minutes 5 seconds |
[2025-09-06 06:26:43] [info] | Rule Checking  | 1 minutes 17 seconds |
[2025-09-06 06:26:43] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:26:43] [info] -----
```

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[2025-09-06 06:26:43] [info] Summary
[2025-09-06 06:26:43] [info] -----
[2025-09-06 06:26:43] [info] Total Errors:   1021
[2025-09-06 06:26:43] [info] Total Warnings:      505
[2025-09-06 06:26:43] [info] DRC Status:         FAILED
```

```

[2025-09-06 06:31:19] [info] =====
[2025-09-06 06:31:19] [info]                Design Rule Check Report
[2025-09-06 06:31:19] [info] =====

[2025-09-06 06:31:19] [info] Report Generated:    2025-09-06
[2025-09-06 06:31:19] [info] Run Start Time:      06:27:01 AM
[2025-09-06 06:31:19] [info] Run End Time:        06:31:19 AM
[2025-09-06 06:31:19] [info] Time Taken:          4 minutes 34 seconds

[2025-09-06 06:31:19] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:31:19] [info] Host Name:           kuro-Workstation
[2025-09-06 06:31:19] [info] User Name:           kuro
[2025-09-06 06:31:19] [info] Cores Used:          1
[2025-09-06 06:31:19] [info] Memory Utilized:     8618.29 MB / 62.569705963134766 GB

[2025-09-06 06:31:19] [info] -----
[2025-09-06 06:31:19] [info]                Top Cell Information
[2025-09-06 06:31:19] [info] -----
[2025-09-06 06:31:19] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-09-06 06:31:19] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:31:19] [info] Database Format:      GDSII
[2025-09-06 06:31:19] [info] Verification Mode:    Full Check

[2025-09-06 06:31:19] [info] -----
[2025-09-06 06:31:19] [info]                Type of Errors | Count
[2025-09-06 06:31:19] [info] -----
[2025-09-06 06:31:19] [info] DB_WARN -> 1
[2025-09-06 06:31:19] [info] LRF_ERR001 -> 14
[2025-09-06 06:31:19] [info] DB_WARN002 -> 159
[2025-09-06 06:31:19] [info] DB_WARN003 -> 161
[2025-09-06 06:31:19] [info] DRC_ERR -> 4
[2025-09-06 06:31:19] [info] DRC_ERR4 -> 133
[2025-09-06 06:31:19] [info] DRC_ERR9 -> 865
[2025-09-06 06:31:19] [info] DRC_ERR2 -> 1
[2025-09-06 06:31:19] [info] DRC_ERR5 -> 3
[2025-09-06 06:31:19] [info] DRC_ERR1 -> 1
[2025-09-06 06:31:19] [info] -----
[2025-09-06 06:31:19] [info]                Rule Violation Summary
[2025-09-06 06:31:19] [info] -----
[2025-09-06 06:31:19] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:31:19] [info] |-----|-----|-----|
[2025-09-06 06:31:19] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 1 |
[2025-09-06 06:31:19] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:31:19] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1 |
[2025-09-06 06:31:19] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1 |
[2025-09-06 06:31:19] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 1 |
[2025-09-06 06:31:19] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 864 |
[2025-09-06 06:31:19] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:31:19] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 2 |
[2025-09-06 06:31:19] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 131 |
[2025-09-06 06:31:19] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 4 |
[2025-09-06 06:31:19] [info] -----
[2025-09-06 06:31:19] [info]                Performance Metrics
[2025-09-06 06:31:19] [info] -----
[2025-09-06 06:31:19] [info] | Stage | Time Taken |
[2025-09-06 06:31:19] [info] |-----|-----|
[2025-09-06 06:31:19] [info] | GDS Parsing | 0 minutes 16 seconds |
[2025-09-06 06:31:19] [info] | Rule Checking | 4 minutes 17 seconds |
[2025-09-06 06:31:19] [info] | Report Generation | 0 minutes 0 seconds |
[2025-09-06 06:31:19] [info] -----

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```
[2025-09-06 06:31:19] [info]          Summary
[2025-09-06 06:31:19] [info] -----
[2025-09-06 06:31:19] [info] Total Errors:   1021
[2025-09-06 06:31:19] [info] Total Warnings:    321
[2025-09-06 06:31:19] [info] DRC Status:      FAILED
```

```

[2025-09-06 06:36:19] [info] =====
[2025-09-06 06:36:19] [info] Design Rule Check Report
[2025-09-06 06:36:19] [info] =====

[2025-09-06 06:36:19] [info] Report Generated: 2025-09-06
[2025-09-06 06:36:19] [info] Run Start Time: 06:31:44 AM
[2025-09-06 06:36:19] [info] Run End Time: 06:36:18 AM
[2025-09-06 06:36:19] [info] Time Taken: 4 minutes 55 seconds

[2025-09-06 06:36:19] [info] Tool Version: LVR_2025.1
[2025-09-06 06:36:19] [info] Host Name: kuro-Workstation
[2025-09-06 06:36:19] [info] User Name: kuro
[2025-09-06 06:36:19] [info] Cores Used: 1
[2025-09-06 06:36:19] [info] Memory Utilized: 10185.84 MB / 62.569705963134766 GB

[2025-09-06 06:36:19] [info] -----
[2025-09-06 06:36:19] [info] Top Cell Information
[2025-09-06 06:36:19] [info] -----
[2025-09-06 06:36:19] [info] Layout Top Cell: jpeg_encoder2_sky130hd
[2025-09-06 06:36:19] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:36:19] [info] Database Format: GDSII
[2025-09-06 06:36:19] [info] Verification Mode: Full Check

[2025-09-06 06:36:19] [info] -----
[2025-09-06 06:36:19] [info] Type of Errors | Count
[2025-09-06 06:36:19] [info] -----
[2025-09-06 06:36:19] [info] DB_WARN -> 1
[2025-09-06 06:36:19] [info] LRF_ERR001 -> 14
[2025-09-06 06:36:19] [info] DB_WARN002 -> 157
[2025-09-06 06:36:19] [info] DB_WARN003 -> 159
[2025-09-06 06:36:19] [info] DRC_ERR4 -> 133
[2025-09-06 06:36:19] [info] DRC_ERR9 -> 870
[2025-09-06 06:36:19] [info] DRC_ERR2 -> 1
[2025-09-06 06:36:19] [info] DRC_ERR5 -> 3
[2025-09-06 06:36:19] [info] DRC_ERR1 -> 1
[2025-09-06 06:36:19] [info] -----
[2025-09-06 06:36:19] [info] Rule Violation Summary
[2025-09-06 06:36:19] [info] -----
[2025-09-06 06:36:19] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:36:19] [info] |-----|-----|-----|
[2025-09-06 06:36:19] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 1 |
[2025-09-06 06:36:19] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:36:19] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1 |
[2025-09-06 06:36:19] [info] | m2.1 | "m2.1 : min. m2 width : 0.14um" | 1 |
[2025-09-06 06:36:19] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1 |
[2025-09-06 06:36:19] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 1 |
[2025-09-06 06:36:19] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 868 |
[2025-09-06 06:36:19] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:36:19] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 2 |
[2025-09-06 06:36:19] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 131 |
[2025-09-06 06:36:19] [info] -----
[2025-09-06 06:36:19] [info] Performance Metrics
[2025-09-06 06:36:19] [info] -----
[2025-09-06 06:36:19] [info] | Stage | Time Taken |
[2025-09-06 06:36:19] [info] |-----|-----|
[2025-09-06 06:36:19] [info] | GDS Parsing | 0 minutes 20 seconds |
[2025-09-06 06:36:19] [info] | Rule Checking | 4 minutes 33 seconds |
[2025-09-06 06:36:19] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:36:19] [info] -----
[2025-09-06 06:36:19] [info] Summary

```

```
[2025-09-06 06:36:19] [info] -----  
[2025-09-06 06:36:19] [info] Total Errors:    1022  
[2025-09-06 06:36:19] [info] Total Warnings:    317  
[2025-09-06 06:36:19] [info] DRC Status:      FAILED
```

```
[2025-09-06 06:41:02] [info] =====
[2025-09-06 06:41:02] [info] Design Rule Check Report
[2025-09-06 06:41:02] [info] =====

[2025-09-06 06:41:02] [info] Report Generated: 2025-09-06
[2025-09-06 06:41:02] [info] Run Start Time: 06:36:37 AM
[2025-09-06 06:41:02] [info] Run End Time: 06:41:02 AM
[2025-09-06 06:41:02] [info] Time Taken: 4 minutes 38 seconds

[2025-09-06 06:41:02] [info] Tool Version: LVR_2025.1
[2025-09-06 06:41:02] [info] Host Name: kuro-Workstation
[2025-09-06 06:41:02] [info] User Name: kuro
[2025-09-06 06:41:02] [info] Cores Used: 1
[2025-09-06 06:41:02] [info] Memory Utilized: 7553.50 MB / 62.569705963134766 GB

[2025-09-06 06:41:02] [info] -----
[2025-09-06 06:41:02] [info] Top Cell Information
[2025-09-06 06:41:02] [info] -----
[2025-09-06 06:41:02] [info] Layout Top Cell: jpeg_encoder3_sky130hd
[2025-09-06 06:41:02] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:41:02] [info] Database Format: GDSII
[2025-09-06 06:41:02] [info] Verification Mode: Full Check

[2025-09-06 06:41:02] [info] -----
[2025-09-06 06:41:02] [info] Type of Errors | Count
[2025-09-06 06:41:02] [info] -----
[2025-09-06 06:41:02] [info] DB_WARN -> 1
[2025-09-06 06:41:02] [info] LRF_ERR001 -> 14
[2025-09-06 06:41:02] [info] DB_WARN002 -> 152
[2025-09-06 06:41:02] [info] DB_WARN003 -> 155
[2025-09-06 06:41:02] [info] DRC_ERR -> 2
[2025-09-06 06:41:02] [info] DRC_ERR4 -> 131
[2025-09-06 06:41:02] [info] DRC_ERR9 -> 869
[2025-09-06 06:41:02] [info] DRC_ERR2 -> 1
[2025-09-06 06:41:02] [info] DRC_ERR5 -> 3
[2025-09-06 06:41:02] [info] DRC_ERR1 -> 1
[2025-09-06 06:41:02] [info] -----
[2025-09-06 06:41:02] [info] Rule Violation Summary
[2025-09-06 06:41:02] [info] -----
[2025-09-06 06:41:02] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:41:02] [info] |-----|-----|-----|
[2025-09-06 06:41:02] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 1 |
[2025-09-06 06:41:02] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:41:02] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 1 |
[2025-09-06 06:41:02] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 1 |
[2025-09-06 06:41:02] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 1 |
[2025-09-06 06:41:02] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 1 |
[2025-09-06 06:41:02] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 868 |
[2025-09-06 06:41:02] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 131 |
[2025-09-06 06:41:02] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 2 |
[2025-09-06 06:41:02] [info]
[2025-09-06 06:41:02] [info] -----
[2025-09-06 06:41:02] [info] Performance Metrics
[2025-09-06 06:41:02] [info] -----
[2025-09-06 06:41:02] [info] | Stage | Time Taken |
[2025-09-06 06:41:02] [info] |-----|-----|
[2025-09-06 06:41:02] [info] | GDS Parsing | 0 minutes 13 seconds |
[2025-09-06 06:41:02] [info] | Rule Checking | 4 minutes 24 seconds |
[2025-09-06 06:41:02] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:41:02] [info] -----
[2025-09-06 06:41:02] [info] Summary
```

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[2025-09-06 06:41:02] [info] -----  
[2025-09-06 06:41:02] [info] Total Errors:    1021  
[2025-09-06 06:41:02] [info] Total Warnings:      308  
[2025-09-06 06:41:02] [info] DRC Status:      FAILED
```

[2025-09-06 06:41:27] [info] =====
[2025-09-06 06:41:27] [info] Design Rule Check Report
[2025-09-06 06:41:27] [info] =====

[2025-09-06 06:41:27] [info] Report Generated: 2025-09-06
[2025-09-06 06:41:27] [info] Run Start Time: 06:41:10 AM
[2025-09-06 06:41:27] [info] Run End Time: 06:41:27 AM
[2025-09-06 06:41:27] [info] Time Taken: 0 minutes 21 seconds

[2025-09-06 06:41:27] [info] Tool Version: LVR_2025.1
[2025-09-06 06:41:27] [info] Host Name: kuro-Workstation
[2025-09-06 06:41:27] [info] User Name: kuro
[2025-09-06 06:41:27] [info] Cores Used: 4
[2025-09-06 06:41:27] [info] Memory Utilized: 3601.03 MB / 62.569705963134766 GB

[2025-09-06 06:41:27] [info] -----
[2025-09-06 06:41:27] [info] Top Cell Information
[2025-09-06 06:41:27] [info] -----
[2025-09-06 06:41:27] [info] Layout Top Cell: aes_cipher_top1_sky130hd
[2025-09-06 06:41:27] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:41:27] [info] Database Format: GDSII
[2025-09-06 06:41:27] [info] Verification Mode: Full Check

[2025-09-06 06:41:27] [info] -----
[2025-09-06 06:41:27] [info] Type of Errors | Count
[2025-09-06 06:41:27] [info] -----
[2025-09-06 06:41:27] [info] DB_WARN -> 1
[2025-09-06 06:41:27] [info] LRF_ERR001 -> 14
[2025-09-06 06:41:27] [info] DB_WARN002 -> 144
[2025-09-06 06:41:27] [info] DB_WARN003 -> 137
[2025-09-06 06:41:27] [info] DRC_ERR -> 247
[2025-09-06 06:41:27] [info] DRC_ERR4 -> 11
[2025-09-06 06:41:27] [info] DRC_ERR9 -> 756
[2025-09-06 06:41:27] [info] DRC_ERR2 -> 4
[2025-09-06 06:41:27] [info] DRC_ERR5 -> 12
[2025-09-06 06:41:27] [info] DRC_ERR1 -> 4

[2025-09-06 06:41:27] [info] -----
[2025-09-06 06:41:27] [info] Rule Violation Summary
[2025-09-06 06:41:27] [info] -----
[2025-09-06 06:41:27] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:41:27] [info] |-----|-----|-----|
[2025-09-06 06:41:27] [info] | m2.1 | "m2.1 : min. m2 width : 0.14um" | 1 |
[2025-09-06 06:41:27] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 4 |
[2025-09-06 06:41:27] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 242 |
[2025-09-06 06:41:27] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 3 |
[2025-09-06 06:41:27] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 745 |
[2025-09-06 06:41:27] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 4 |
[2025-09-06 06:41:27] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 2 |
[2025-09-06 06:41:27] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 4 |
[2025-09-06 06:41:27] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um²" | 2 |
[2025-09-06 06:41:27] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:41:27] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:41:27] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 4 |
[2025-09-06 06:41:27] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 11 |
[2025-09-06 06:41:27] [info] | li.1 | "li.1 : min. li width : 0.17um" | 3 |
[2025-09-06 06:41:27] [info] | m4.4 | "m4.4 : min. m4 area : 0.24um²" | 1 |
[2025-09-06 06:41:27] [info] -----

[2025-09-06 06:41:27] [info] Performance Metrics
[2025-09-06 06:41:27] [info] -----
[2025-09-06 06:41:27] [info] | Stage | Time Taken |
[2025-09-06 06:41:27] [info] |-----|-----|

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[2025-09-06 06:41:27] [info] | GDS Parsing          | 0 minutes 3 seconds |
[2025-09-06 06:41:27] [info] | Rule Checking       | 0 minutes 16 seconds |
[2025-09-06 06:41:27] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-09-06 06:41:27] [info] -----
[2025-09-06 06:41:27] [info]                Summary
[2025-09-06 06:41:27] [info] -----
[2025-09-06 06:41:27] [info] Total Errors:    1048
[2025-09-06 06:41:27] [info] Total Warnings:    282
[2025-09-06 06:41:27] [info] DRC Status:      FAILED
```

```

[2025-09-06 06:41:52] [info] =====
[2025-09-06 06:41:52] [info] Design Rule Check Report
[2025-09-06 06:41:52] [info] =====

[2025-09-06 06:41:52] [info] Report Generated: 2025-09-06
[2025-09-06 06:41:52] [info] Run Start Time: 06:41:32 AM
[2025-09-06 06:41:52] [info] Run End Time: 06:41:52 AM
[2025-09-06 06:41:52] [info] Time Taken: 0 minutes 24 seconds

[2025-09-06 06:41:52] [info] Tool Version: LVR_2025.1
[2025-09-06 06:41:52] [info] Host Name: kuro-Workstation
[2025-09-06 06:41:52] [info] User Name: kuro
[2025-09-06 06:41:52] [info] Cores Used: 4
[2025-09-06 06:41:52] [info] Memory Utilized: 4108.47 MB / 62.569705963134766 GB

[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info] Top Cell Information
[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info] Layout Top Cell: aes_cipher_top2_sky130hd
[2025-09-06 06:41:52] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:41:52] [info] Database Format: GDSII
[2025-09-06 06:41:52] [info] Verification Mode: Full Check

[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info] Type of Errors | Count
[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info] DB_WARN -> 1
[2025-09-06 06:41:52] [info] LRF_ERR001 -> 14
[2025-09-06 06:41:52] [info] DB_WARN002 -> 141
[2025-09-06 06:41:52] [info] DB_WARN003 -> 135
[2025-09-06 06:41:52] [info] DRC_ERR -> 259
[2025-09-06 06:41:52] [info] DRC_ERR5 -> 15
[2025-09-06 06:41:52] [info] DRC_ERR9 -> 741
[2025-09-06 06:41:52] [info] DRC_ERR2 -> 4
[2025-09-06 06:41:52] [info] DRC_ERR1 -> 4
[2025-09-06 06:41:52] [info] DRC_ERR4 -> 13
[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info] Rule Violation Summary
[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:41:52] [info] |-----|-----|-----|
[2025-09-06 06:41:52] [info] | li.6 | "li.6 : min. li area : 0.0561um^2" | 12 |
[2025-09-06 06:41:52] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 242 |
[2025-09-06 06:41:52] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 3 |
[2025-09-06 06:41:52] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 737 |
[2025-09-06 06:41:52] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 4 |
[2025-09-06 06:41:52] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 4 |
[2025-09-06 06:41:52] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:41:52] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 4 |
[2025-09-06 06:41:52] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:41:52] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 4 |
[2025-09-06 06:41:52] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um^2" | 3 |
[2025-09-06 06:41:52] [info] | m4.4 | "m4.4 : min. m4 area : 0.24um^2" | 1 |
[2025-09-06 06:41:52] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 13 |
[2025-09-06 06:41:52] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um^2" | 1 |
[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info] Performance Metrics
[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info] | Stage | Time Taken |
[2025-09-06 06:41:52] [info] |-----|-----|
[2025-09-06 06:41:52] [info] | GDS Parsing | 0 minutes 4 seconds |

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[2025-09-06 06:41:52] [info] | Rule Checking          | 0 minutes 19 seconds |
[2025-09-06 06:41:52] [info] | Report Generation    | 0 minutes 0 seconds  |
```

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[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info]                      Summary
[2025-09-06 06:41:52] [info] -----
[2025-09-06 06:41:52] [info] Total Errors:      1050
[2025-09-06 06:41:52] [info] Total Warnings:    277
[2025-09-06 06:41:52] [info] DRC Status:        FAILED
```

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[2025-09-06 06:42:14] [info] =====
[2025-09-06 06:42:14] [info]           Design Rule Check Report
[2025-09-06 06:42:14] [info] =====

[2025-09-06 06:42:14] [info] Report Generated:    2025-09-06
[2025-09-06 06:42:14] [info] Run Start Time:      06:41:57 AM
[2025-09-06 06:42:14] [info] Run End Time:        06:42:14 AM
[2025-09-06 06:42:14] [info] Time Taken:          0 minutes 20 seconds

[2025-09-06 06:42:14] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:42:14] [info] Host Name:           kuro-Workstation
[2025-09-06 06:42:14] [info] User Name:           kuro
[2025-09-06 06:42:14] [info] Cores Used:          4
[2025-09-06 06:42:14] [info] Memory Utilized:     3043.93 MB / 62.569705963134766 GB

[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info]           Top Cell Information
[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-09-06 06:42:14] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:42:14] [info] Database Format:       GDSII
[2025-09-06 06:42:14] [info] Verification Mode:    Full Check

[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info]           Type of Errors | Count
[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info] DB_WARN -> 1
[2025-09-06 06:42:14] [info] LRF_ERR001 -> 14
[2025-09-06 06:42:14] [info] DB_WARN002 -> 138
[2025-09-06 06:42:14] [info] DB_WARN003 -> 132
[2025-09-06 06:42:14] [info] DRC_ERR -> 232
[2025-09-06 06:42:14] [info] DRC_ERR9 -> 773
[2025-09-06 06:42:14] [info] DRC_ERR2 -> 4
[2025-09-06 06:42:14] [info] DRC_ERR5 -> 12
[2025-09-06 06:42:14] [info] DRC_ERR1 -> 4
[2025-09-06 06:42:14] [info] DRC_ERR4 -> 11
[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info]           Rule Violation Summary
[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:42:14] [info] |-----|-----|-----|
[2025-09-06 06:42:14] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um^2" | 2 |
[2025-09-06 06:42:14] [info] | m2.1 | "m2.1 : min. m2 width : 0.14um" | 2 |
[2025-09-06 06:42:14] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 11 |
[2025-09-06 06:42:14] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 4 |
[2025-09-06 06:42:14] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 4 |
[2025-09-06 06:42:14] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:42:14] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 4 |
[2025-09-06 06:42:14] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:42:14] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um^2" | 4 |
[2025-09-06 06:42:14] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 4 |
[2025-09-06 06:42:14] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 767 |
[2025-09-06 06:42:14] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 226 |
[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info]           Performance Metrics
[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info] | Stage | Time Taken |
[2025-09-06 06:42:14] [info] |-----|-----|
[2025-09-06 06:42:14] [info] | GDS Parsing | 0 minutes 3 seconds |
[2025-09-06 06:42:14] [info] | Rule Checking | 0 minutes 16 seconds |
[2025-09-06 06:42:14] [info] | Report Generation | 0 minutes 0 seconds |

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[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info]             Summary
[2025-09-06 06:42:14] [info] -----
[2025-09-06 06:42:14] [info] Total Errors:   1050
[2025-09-06 06:42:14] [info] Total Warnings:    271
[2025-09-06 06:42:14] [info] DRC Status:      FAILED
```

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[2025-09-06 06:41:05] [info] =====
[2025-09-06 06:41:05] [info] Design Rule Check Report
[2025-09-06 06:41:05] [info] =====

[2025-09-06 06:41:05] [info] Report Generated: 2025-09-06
[2025-09-06 06:41:05] [info] Run Start Time: 06:41:05 AM
[2025-09-06 06:41:05] [info] Run End Time: 06:41:05 AM
[2025-09-06 06:41:05] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 06:41:05] [info] Tool Version: LVR_2025.1
[2025-09-06 06:41:05] [info] Host Name: kuro-Workstation
[2025-09-06 06:41:05] [info] User Name: kuro
[2025-09-06 06:41:05] [info] Cores Used: 4
[2025-09-06 06:41:05] [info] Memory Utilized: 50.06 MB / 62.569705963134766 GB

[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] Top Cell Information
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] Layout Top Cell: gcd1_sky130hd
[2025-09-06 06:41:05] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:41:05] [info] Database Format: GDSII
[2025-09-06 06:41:05] [info] Verification Mode: Full Check

[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] Type of Errors | Count
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] DB_WARN -> 1
[2025-09-06 06:41:05] [info] LRF_ERR001 -> 14
[2025-09-06 06:41:05] [info] DB_WARN002 -> 58
[2025-09-06 06:41:05] [info] DB_WARN003 -> 55
[2025-09-06 06:41:05] [info] DRC_ERR4 -> 5
[2025-09-06 06:41:05] [info] DRC_ERR9 -> 999
[2025-09-06 06:41:05] [info] DRC_ERR5 -> 10
[2025-09-06 06:41:05] [info] DRC_ERR2 -> 4
[2025-09-06 06:41:05] [info] DRC_ERR -> 1
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] Rule Violation Summary
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:41:05] [info] |-----|-----|-----|
[2025-09-06 06:41:05] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 4 |
[2025-09-06 06:41:05] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um2" | 1 |
[2025-09-06 06:41:05] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 4 |
[2025-09-06 06:41:05] [info] | npc.1 | "npc.1 : min. npc width : 0.27um" | 2 |
[2025-09-06 06:41:05] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 987 |
[2025-09-06 06:41:05] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 2 |
[2025-09-06 06:41:05] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 5 |
[2025-09-06 06:41:05] [info] | li.1 | "li.1 : min. li width : 0.17um" | 5 |
[2025-09-06 06:41:05] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:41:05] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 5 |
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] Performance Metrics
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] | Stage | Time Taken |
[2025-09-06 06:41:05] [info] |-----|-----|
[2025-09-06 06:41:05] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-09-06 06:41:05] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-09-06 06:41:05] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] Summary

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```
[2025-09-06 06:41:05] [info] -----  
[2025-09-06 06:41:05] [info] Total Errors:    1033  
[2025-09-06 06:41:05] [info] Total Warnings:      114  
[2025-09-06 06:41:05] [info] DRC Status:          FAILED
```

```
[2025-09-06 06:41:05] [info] =====
[2025-09-06 06:41:05] [info]           Design Rule Check Report
[2025-09-06 06:41:05] [info] =====

[2025-09-06 06:41:05] [info] Report Generated:    2025-09-06
[2025-09-06 06:41:05] [info] Run Start Time:      06:41:05 AM
[2025-09-06 06:41:05] [info] Run End Time:        06:41:05 AM
[2025-09-06 06:41:05] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 06:41:05] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:41:05] [info] Host Name:           kuro-Workstation
[2025-09-06 06:41:05] [info] User Name:           kuro
[2025-09-06 06:41:05] [info] Cores Used:          4
[2025-09-06 06:41:05] [info] Memory Utilized:     52.89 MB / 62.569705963134766 GB

[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info]           Top Cell Information
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] Layout Top Cell:     gcd2_sky130hd
[2025-09-06 06:41:05] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:41:05] [info] Database Format:       GDSII
[2025-09-06 06:41:05] [info] Verification Mode:    Full Check

[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info]           Type of Errors | Count
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] DB_WARN -> 1
[2025-09-06 06:41:05] [info] LRF_ERR001 -> 14
[2025-09-06 06:41:05] [info] DB_WARN002 -> 59
[2025-09-06 06:41:05] [info] DB_WARN003 -> 56
[2025-09-06 06:41:05] [info] DRC_ERR9 -> 1006
[2025-09-06 06:41:05] [info] DRC_ERR -> 3
[2025-09-06 06:41:05] [info] DRC_ERR2 -> 4
[2025-09-06 06:41:05] [info] DRC_ERR5 -> 10
[2025-09-06 06:41:05] [info] DRC_ERR1 -> 2
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info]           Rule Violation Summary
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] | Rule ID      | Description                                     | Error Count |
[2025-09-06 06:41:05] [info] |-----|-----|-----|
[2025-09-06 06:41:05] [info] | m3.6         | "m3.6 : min. m3 area : 0.24um^2" | 1           |
[2025-09-06 06:41:05] [info] | m4.5ab       | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 2           |
[2025-09-06 06:41:05] [info] | via1.5b      | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 4           |
[2025-09-06 06:41:05] [info] | m4.5         | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 2           |
[2025-09-06 06:41:05] [info] | m1.6         | "m1.6 : min. m1 area : 0.083um^2" | 1           |
[2025-09-06 06:41:05] [info] | m1.2         | "m1.2 : min. m1 spacing : 0.14um" | 4           |
[2025-09-06 06:41:05] [info] | via1.5a      | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 4           |
[2025-09-06 06:41:05] [info] | li.6         | "li.6 : min. li area : 0.0561um^2" | 1           |
[2025-09-06 06:41:05] [info] | m1.1         | "m1.1 : min. m1 width : 0.14um" | 1002        |
[2025-09-06 06:41:05] [info] | li.1a        | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 2           |
[2025-09-06 06:41:05] [info] | li.1         | "li.1 : min. li width : 0.17um" | 2           |
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info]           Performance Metrics
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] | Stage          | Time Taken |
[2025-09-06 06:41:05] [info] |-----|-----|
[2025-09-06 06:41:05] [info] | GDS Parsing    | 0 minutes 0 seconds |
[2025-09-06 06:41:05] [info] | Rule Checking  | 0 minutes 0 seconds |
[2025-09-06 06:41:05] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:41:05] [info] -----
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[2025-09-06 06:41:05] [info]          Summary
[2025-09-06 06:41:05] [info] -----
[2025-09-06 06:41:05] [info] Total Errors:   1039
[2025-09-06 06:41:05] [info] Total Warnings:    116
[2025-09-06 06:41:05] [info] DRC Status:      FAILED
```

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[2025-09-06 06:41:06] [info] =====
[2025-09-06 06:41:06] [info]                Design Rule Check Report
[2025-09-06 06:41:06] [info] =====

[2025-09-06 06:41:06] [info] Report Generated:    2025-09-06
[2025-09-06 06:41:06] [info] Run Start Time:      06:41:06 AM
[2025-09-06 06:41:06] [info] Run End Time:        06:41:06 AM
[2025-09-06 06:41:06] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 06:41:06] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:41:06] [info] Host Name:           kuro-Workstation
[2025-09-06 06:41:06] [info] User Name:           kuro
[2025-09-06 06:41:06] [info] Cores Used:          4
[2025-09-06 06:41:06] [info] Memory Utilized:     44.18 MB / 62.569705963134766 GB

[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info]                Top Cell Information
[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info] Layout Top Cell:     gcd3_sky130hd
[2025-09-06 06:41:06] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:41:06] [info] Database Format:       GDSII
[2025-09-06 06:41:06] [info] Verification Mode:    Full Check

[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info]                Type of Errors | Count
[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info] DB_WARN -> 1
[2025-09-06 06:41:06] [info] LRF_ERR001 -> 14
[2025-09-06 06:41:06] [info] DB_WARN002 -> 59
[2025-09-06 06:41:06] [info] DB_WARN003 -> 56
[2025-09-06 06:41:06] [info] DRC_ERR9 -> 1004
[2025-09-06 06:41:06] [info] DRC_ERR2 -> 4
[2025-09-06 06:41:06] [info] DRC_ERR5 -> 10
[2025-09-06 06:41:06] [info] DRC_ERR -> 2
[2025-09-06 06:41:06] [info] DRC_ERR1 -> 2
[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info]                Rule Violation Summary
[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info] | Rule ID      | Description                                     | Error Count |
[2025-09-06 06:41:06] [info] |-----|-----|-----|
[2025-09-06 06:41:06] [info] | m4.5ab       | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 2           |
[2025-09-06 06:41:06] [info] | m4.5         | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 2           |
[2025-09-06 06:41:06] [info] | m1.6         | "m1.6 : min. m1 area : 0.083um^2" | 2           |
[2025-09-06 06:41:06] [info] | via1.5b      | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 4           |
[2025-09-06 06:41:06] [info] | via1.5a      | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 4           |
[2025-09-06 06:41:06] [info] | m1.2         | "m1.2 : min. m1 spacing : 0.14um" | 4           |
[2025-09-06 06:41:06] [info] | m1.1         | "m1.1 : min. m1 width : 0.14um" | 1004        |
[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info]                Performance Metrics
[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info] | Stage          | Time Taken |
[2025-09-06 06:41:06] [info] |-----|-----|
[2025-09-06 06:41:06] [info] | GDS Parsing    | 0 minutes 0 seconds |
[2025-09-06 06:41:06] [info] | Rule Checking  | 0 minutes 0 seconds |
[2025-09-06 06:41:06] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info]                Summary
[2025-09-06 06:41:06] [info] -----
[2025-09-06 06:41:06] [info] Total Errors:    1036
[2025-09-06 06:41:06] [info] Total Warnings:  116

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[2025-09-06 06:41:06] [info] DRC Status: FAILED

[2025-09-06 06:42:38] [info] =====
[2025-09-06 06:42:38] [info] Design Rule Check Report
[2025-09-06 06:42:38] [info] =====

[2025-09-06 06:42:38] [info] Report Generated: 2025-09-06
[2025-09-06 06:42:38] [info] Run Start Time: 06:42:18 AM
[2025-09-06 06:42:38] [info] Run End Time: 06:42:38 AM
[2025-09-06 06:42:38] [info] Time Taken: 0 minutes 23 seconds

[2025-09-06 06:42:38] [info] Tool Version: LVR_2025.1
[2025-09-06 06:42:38] [info] Host Name: kuro-Workstation
[2025-09-06 06:42:38] [info] User Name: kuro
[2025-09-06 06:42:38] [info] Cores Used: 4
[2025-09-06 06:42:38] [info] Memory Utilized: 3351.39 MB / 62.569705963134766 GB

[2025-09-06 06:42:38] [info] -----
[2025-09-06 06:42:38] [info] Top Cell Information
[2025-09-06 06:42:38] [info] -----
[2025-09-06 06:42:38] [info] Layout Top Cell: ibex_core1_sky130hd
[2025-09-06 06:42:38] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:42:38] [info] Database Format: GDSII
[2025-09-06 06:42:38] [info] Verification Mode: Full Check

[2025-09-06 06:42:38] [info] -----
[2025-09-06 06:42:38] [info] Type of Errors | Count
[2025-09-06 06:42:38] [info] -----
[2025-09-06 06:42:38] [info] DB_WARN -> 1
[2025-09-06 06:42:38] [info] LRF_ERR001 -> 14
[2025-09-06 06:42:38] [info] DB_WARN002 -> 251
[2025-09-06 06:42:38] [info] DB_WARN003 -> 251
[2025-09-06 06:42:38] [info] DRC_ERR -> 84
[2025-09-06 06:42:38] [info] DRC_ERR9 -> 766
[2025-09-06 06:42:38] [info] DRC_ERR4 -> 145
[2025-09-06 06:42:38] [info] DRC_ERR5 -> 32
[2025-09-06 06:42:38] [info] DRC_ERR2 -> 4
[2025-09-06 06:42:38] [info] DRC_ERR1 -> 4

[2025-09-06 06:42:38] [info] -----
[2025-09-06 06:42:38] [info] Rule Violation Summary

[2025-09-06 06:42:38] [info] -----
[2025-09-06 06:42:38] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:42:38] [info] |-----|-----|-----|
[2025-09-06 06:42:38] [info] | li.6 | "li.6 : min. li area : 0.0561um²" | 1 |
[2025-09-06 06:42:38] [info] | m2.6 | "m2.6 : min. m2 area : 0.0676um²" | 1 |
[2025-09-06 06:42:38] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um²" | 1 |
[2025-09-06 06:42:38] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 4 |
[2025-09-06 06:42:38] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 78 |
[2025-09-06 06:42:38] [info] | psdm.1 | "psdm.1 : min. psdm width : 0.38um" | 4 |
[2025-09-06 06:42:38] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 135 |
[2025-09-06 06:42:38] [info] | li.1 | "li.1 : min. li width : 0.17um" | 7 |
[2025-09-06 06:42:38] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 6 |
[2025-09-06 06:42:38] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 20 |
[2025-09-06 06:42:38] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 745 |
[2025-09-06 06:42:38] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 10 |
[2025-09-06 06:42:38] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 4 |
[2025-09-06 06:42:38] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 3 |
[2025-09-06 06:42:38] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 4 |
[2025-09-06 06:42:38] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:42:38] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:42:38] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 4 |
[2025-09-06 06:42:38] [info] -----

[2025-09-06 06:42:38] [info] Performance Metrics

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[2025-09-06 06:42:38] [info] -----
[2025-09-06 06:42:38] [info] | Stage                | Time Taken |
[2025-09-06 06:42:38] [info] |-----|-----|
[2025-09-06 06:42:38] [info] | GDS Parsing          | 0 minutes 3 seconds |
[2025-09-06 06:42:38] [info] | Rule Checking        | 0 minutes 19 seconds |
[2025-09-06 06:42:38] [info] | Report Generation    | 0 minutes 0 seconds |

[2025-09-06 06:42:38] [info] -----
[2025-09-06 06:42:38] [info] Summary
[2025-09-06 06:42:38] [info] -----
[2025-09-06 06:42:38] [info] Total Errors: 1049
[2025-09-06 06:42:38] [info] Total Warnings: 503
[2025-09-06 06:42:38] [info] DRC Status: FAILED
```

[2025-09-06 06:43:05] [info] =====
[2025-09-06 06:43:05] [info] Design Rule Check Report
[2025-09-06 06:43:05] [info] =====

[2025-09-06 06:43:05] [info] Report Generated: 2025-09-06
[2025-09-06 06:43:05] [info] Run Start Time: 06:42:42 AM
[2025-09-06 06:43:05] [info] Run End Time: 06:43:05 AM
[2025-09-06 06:43:05] [info] Time Taken: 0 minutes 26 seconds

[2025-09-06 06:43:05] [info] Tool Version: LVR_2025.1
[2025-09-06 06:43:05] [info] Host Name: kuro-Workstation
[2025-09-06 06:43:05] [info] User Name: kuro
[2025-09-06 06:43:05] [info] Cores Used: 4
[2025-09-06 06:43:05] [info] Memory Utilized: 3366.57 MB / 62.569705963134766 GB

[2025-09-06 06:43:05] [info] -----
[2025-09-06 06:43:05] [info] Top Cell Information
[2025-09-06 06:43:05] [info] -----
[2025-09-06 06:43:05] [info] Layout Top Cell: ibex_core2_sky130hd
[2025-09-06 06:43:05] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:43:05] [info] Database Format: GDSII
[2025-09-06 06:43:05] [info] Verification Mode: Full Check

[2025-09-06 06:43:05] [info] -----
[2025-09-06 06:43:05] [info] Type of Errors | Count
[2025-09-06 06:43:05] [info] -----
[2025-09-06 06:43:05] [info] DB_WARN -> 1
[2025-09-06 06:43:05] [info] LRF_ERR001 -> 14
[2025-09-06 06:43:05] [info] DB_WARN002 -> 249
[2025-09-06 06:43:05] [info] DB_WARN003 -> 249
[2025-09-06 06:43:05] [info] DRC_ERR9 -> 703
[2025-09-06 06:43:05] [info] DRC_ERR -> 168
[2025-09-06 06:43:05] [info] DRC_ERR4 -> 137
[2025-09-06 06:43:05] [info] DRC_ERR5 -> 21
[2025-09-06 06:43:05] [info] DRC_ERR2 -> 4
[2025-09-06 06:43:05] [info] DRC_ERR1 -> 4

[2025-09-06 06:43:05] [info] -----
[2025-09-06 06:43:05] [info] Rule Violation Summary
[2025-09-06 06:43:05] [info] -----
[2025-09-06 06:43:05] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:43:05] [info] |-----|-----|-----|
[2025-09-06 06:43:05] [info] | npc.1 | "npc.1 : min. npc width : 0.27um" | 7 |
[2025-09-06 06:43:05] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 4 |
[2025-09-06 06:43:05] [info] | li.6 | "li.6 : min. li area : 0.0561um^2" | 2 |
[2025-09-06 06:43:05] [info] | poly.1a | "poly.1a : min. poly width : 0.15um" | 22 |
[2025-09-06 06:43:05] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 162 |
[2025-09-06 06:43:05] [info] | m4.4 | "m4.4 : min. m4 area : 0.24um^2" | 1 |
[2025-09-06 06:43:05] [info] | psdm.1 | "psdm.1 : min. psdm width : 0.38um" | 9 |
[2025-09-06 06:43:05] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 133 |
[2025-09-06 06:43:05] [info] | li.1 | "li.1 : min. li width : 0.17um" | 26 |
[2025-09-06 06:43:05] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:43:05] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 4 |
[2025-09-06 06:43:05] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 4 |
[2025-09-06 06:43:05] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 14 |
[2025-09-06 06:43:05] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 9 |
[2025-09-06 06:43:05] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 621 |
[2025-09-06 06:43:05] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 4 |
[2025-09-06 06:43:05] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 4 |
[2025-09-06 06:43:05] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um^2" | 3 |
[2025-09-06 06:43:05] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 4 |
[2025-09-06 06:43:05] [info] |
[2025-09-06 06:43:05] [info] -----

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[2025-09-06 06:43:05] [info] Performance Metrics
[2025-09-06 06:43:05] [info] -----
[2025-09-06 06:43:05] [info] | Stage | Time Taken |
[2025-09-06 06:43:05] [info] |-----|-----|
[2025-09-06 06:43:05] [info] | GDS Parsing | 0 minutes 3 seconds |
[2025-09-06 06:43:05] [info] | Rule Checking | 0 minutes 22 seconds |
[2025-09-06 06:43:05] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:43:05] [info] -----
[2025-09-06 06:43:05] [info] Summary
[2025-09-06 06:43:05] [info] -----
[2025-09-06 06:43:05] [info] Total Errors: 1051
[2025-09-06 06:43:05] [info] Total Warnings: 499
[2025-09-06 06:43:05] [info] DRC Status: FAILED
```

[2025-09-06 06:43:29] [info] =====
[2025-09-06 06:43:29] [info] Design Rule Check Report
[2025-09-06 06:43:29] [info] =====

[2025-09-06 06:43:29] [info] Report Generated: 2025-09-06
[2025-09-06 06:43:29] [info] Run Start Time: 06:43:10 AM
[2025-09-06 06:43:29] [info] Run End Time: 06:43:29 AM
[2025-09-06 06:43:29] [info] Time Taken: 0 minutes 23 seconds

[2025-09-06 06:43:29] [info] Tool Version: LVR_2025.1
[2025-09-06 06:43:29] [info] Host Name: kuro-Workstation
[2025-09-06 06:43:29] [info] User Name: kuro
[2025-09-06 06:43:29] [info] Cores Used: 4
[2025-09-06 06:43:29] [info] Memory Utilized: 3255.98 MB / 62.569705963134766 GB

[2025-09-06 06:43:29] [info] -----
[2025-09-06 06:43:29] [info] Top Cell Information
[2025-09-06 06:43:29] [info] -----
[2025-09-06 06:43:29] [info] Layout Top Cell: ibex_core3_sky130hd
[2025-09-06 06:43:29] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:43:29] [info] Database Format: GDSII
[2025-09-06 06:43:29] [info] Verification Mode: Full Check

[2025-09-06 06:43:29] [info] -----
[2025-09-06 06:43:29] [info] Type of Errors | Count
[2025-09-06 06:43:29] [info] -----
[2025-09-06 06:43:29] [info] DB_WARN -> 1
[2025-09-06 06:43:29] [info] LRF_ERR001 -> 14
[2025-09-06 06:43:29] [info] DB_WARN002 -> 253
[2025-09-06 06:43:29] [info] DB_WARN003 -> 251
[2025-09-06 06:43:29] [info] DRC_ERR -> 83
[2025-09-06 06:43:29] [info] DRC_ERR4 -> 140
[2025-09-06 06:43:29] [info] DRC_ERR9 -> 790
[2025-09-06 06:43:29] [info] DRC_ERR2 -> 4
[2025-09-06 06:43:29] [info] DRC_ERR5 -> 12
[2025-09-06 06:43:29] [info] DRC_ERR1 -> 4

[2025-09-06 06:43:29] [info] -----
[2025-09-06 06:43:29] [info] Rule Violation Summary
[2025-09-06 06:43:29] [info] -----

Rule ID	Description	Error Count
poly.1a	"poly.1a : min. poly width : 0.15um" 7	
m3.6	"m3.6 : min. m3 area : 0.24um²" 2	
poly.7	"poly.7 : min. source/drain length : 0.25um" 78	
licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 136	
li.1	"li.1 : min. li width : 0.17um" 14	
m1.1	"m1.1 : min. m1 width : 0.14um" 751	
li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" 14	
licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 4	
m1.2	"m1.2 : min. m1 spacing : 0.14um" 4	
via1.5b	"via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 4	
via1.5a	"via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 4	
m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 4	
m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 4	
m5.1	"m5.1 : min. m5 width : 1.6um" 4	
m1.6	"m1.6 : min. m1 area : 0.083um²" 3	

[2025-09-06 06:43:29] [info] -----
[2025-09-06 06:43:29] [info] Performance Metrics
[2025-09-06 06:43:29] [info] -----
[2025-09-06 06:43:29] [info] | Stage | Time Taken |
[2025-09-06 06:43:29] [info] |-----|-----|

```
[2025-09-06 06:43:29] [info] | GDS Parsing          | 0 minutes 3 seconds |
[2025-09-06 06:43:29] [info] | Rule Checking       | 0 minutes 19 seconds |
[2025-09-06 06:43:29] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-09-06 06:43:29] [info] -----
[2025-09-06 06:43:29] [info]                Summary
[2025-09-06 06:43:29] [info] -----
[2025-09-06 06:43:29] [info] Total Errors:    1047
[2025-09-06 06:43:29] [info] Total Warnings:      505
[2025-09-06 06:43:29] [info] DRC Status:        FAILED
```

[2025-09-06 06:44:27] [info] =====
[2025-09-06 06:44:27] [info] Design Rule Check Report
[2025-09-06 06:44:27] [info] =====

[2025-09-06 06:44:27] [info] Report Generated: 2025-09-06
[2025-09-06 06:44:27] [info] Run Start Time: 06:43:40 AM
[2025-09-06 06:44:27] [info] Run End Time: 06:44:27 AM
[2025-09-06 06:44:27] [info] Time Taken: 0 minutes 57 seconds

[2025-09-06 06:44:27] [info] Tool Version: LVR_2025.1
[2025-09-06 06:44:27] [info] Host Name: kuro-Workstation
[2025-09-06 06:44:27] [info] User Name: kuro
[2025-09-06 06:44:27] [info] Cores Used: 4
[2025-09-06 06:44:27] [info] Memory Utilized: 8549.11 MB / 62.569705963134766 GB

[2025-09-06 06:44:27] [info] -----
[2025-09-06 06:44:27] [info] Top Cell Information
[2025-09-06 06:44:27] [info] -----
[2025-09-06 06:44:27] [info] Layout Top Cell: jpeg_encoder1_sky130hd
[2025-09-06 06:44:27] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:44:27] [info] Database Format: GDSII
[2025-09-06 06:44:27] [info] Verification Mode: Full Check

[2025-09-06 06:44:27] [info] -----
[2025-09-06 06:44:27] [info] Type of Errors | Count
[2025-09-06 06:44:27] [info] -----
[2025-09-06 06:44:27] [info] DB_WARN -> 1
[2025-09-06 06:44:27] [info] LRF_ERR001 -> 14
[2025-09-06 06:44:27] [info] DB_WARN002 -> 159
[2025-09-06 06:44:27] [info] DB_WARN003 -> 161
[2025-09-06 06:44:27] [info] DRC_ERR9 -> 745
[2025-09-06 06:44:27] [info] DRC_ERR -> 9
[2025-09-06 06:44:27] [info] DRC_ERR4 -> 241
[2025-09-06 06:44:27] [info] DRC_ERR5 -> 26
[2025-09-06 06:44:27] [info] DRC_ERR2 -> 4
[2025-09-06 06:44:27] [info] DRC_ERR1 -> 4

[2025-09-06 06:44:27] [info] -----
[2025-09-06 06:44:27] [info] Rule Violation Summary

[2025-09-06 06:44:27] [info]	Rule ID	Description	Error Count
[2025-09-06 06:44:27] [info]	m5.1	"m5.1 : min. m5 width : 1.6um" 1	
[2025-09-06 06:44:27] [info]	li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 2	
[2025-09-06 06:44:27] [info]	li.1a	"li.1a : min. li width for the cells s8rf2_xcmvvp_hd5_* : 0.14um" 10	
[2025-09-06 06:44:27] [info]	poly.1a	"poly.1a : min. poly width : 0.15um" 3	
[2025-09-06 06:44:27] [info]	poly.7	"poly.7 : min. source/drain length : 0.25um" 6	
[2025-09-06 06:44:27] [info]	li.1	"li.1 : min. li width : 0.17um" 12	
[2025-09-06 06:44:27] [info]	psdm.1	"psdm.1 : min. psdm width : 0.38um" 14	
[2025-09-06 06:44:27] [info]	licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 131	
[2025-09-06 06:44:27] [info]	npc.1	"npc.1 : min. npc width : 0.27um" 17	
[2025-09-06 06:44:27] [info]	licon.8a	"licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um" 12	
[2025-09-06 06:44:27] [info]	vial.5b	"vial.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 4	
[2025-09-06 06:44:27] [info]	m1.1	"m1.1 : min. m1 width : 0.14um" 688	
[2025-09-06 06:44:27] [info]	licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 110	
[2025-09-06 06:44:27] [info]	m1.2	"m1.2 : min. m1 spacing : 0.14um" 4	
[2025-09-06 06:44:27] [info]	m1.6	"m1.6 : min. m1 area : 0.083um ² " 3	
[2025-09-06 06:44:27] [info]	vial.5a	"vial.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 4	
[2025-09-06 06:44:27] [info]	m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 4	
[2025-09-06 06:44:27] [info]	m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 4	

[2025-09-06 06:44:27] [info] -----
[2025-09-06 06:44:27] [info] Performance Metrics

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[2025-09-06 06:44:27] [info] -----
[2025-09-06 06:44:27] [info] | Stage                | Time Taken |
[2025-09-06 06:44:27] [info] |-----|-----|
[2025-09-06 06:44:27] [info] | GDS Parsing          | 0 minutes 9 seconds |
[2025-09-06 06:44:27] [info] | Rule Checking        | 0 minutes 46 seconds |
[2025-09-06 06:44:27] [info] | Report Generation    | 0 minutes 0 seconds |

[2025-09-06 06:44:27] [info] -----
[2025-09-06 06:44:27] [info]                Summary
[2025-09-06 06:44:27] [info] -----
[2025-09-06 06:44:27] [info] Total Errors:    1043
[2025-09-06 06:44:27] [info] Total Warnings:      321
[2025-09-06 06:44:27] [info] DRC Status:      FAILED
```

[2025-09-06 06:45:40] [info] =====
[2025-09-06 06:45:40] [info] Design Rule Check Report
[2025-09-06 06:45:40] [info] =====

[2025-09-06 06:45:40] [info] Report Generated: 2025-09-06
[2025-09-06 06:45:40] [info] Run Start Time: 06:44:41 AM
[2025-09-06 06:45:40] [info] Run End Time: 06:45:39 AM
[2025-09-06 06:45:40] [info] Time Taken: 1 minutes 10 seconds

[2025-09-06 06:45:40] [info] Tool Version: LVR_2025.1
[2025-09-06 06:45:40] [info] Host Name: kuro-Workstation
[2025-09-06 06:45:40] [info] User Name: kuro
[2025-09-06 06:45:40] [info] Cores Used: 4
[2025-09-06 06:45:40] [info] Memory Utilized: 10233.03 MB / 62.569705963134766 GB

[2025-09-06 06:45:40] [info] -----
[2025-09-06 06:45:40] [info] Top Cell Information
[2025-09-06 06:45:40] [info] -----
[2025-09-06 06:45:40] [info] Layout Top Cell: jpeg_encoder2_sky130hd
[2025-09-06 06:45:40] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:45:40] [info] Database Format: GDSII
[2025-09-06 06:45:40] [info] Verification Mode: Full Check

[2025-09-06 06:45:40] [info] -----
[2025-09-06 06:45:40] [info] Type of Errors | Count
[2025-09-06 06:45:40] [info] -----
[2025-09-06 06:45:40] [info] DB_WARN -> 1
[2025-09-06 06:45:40] [info] LRF_ERR001 -> 14
[2025-09-06 06:45:40] [info] DB_WARN002 -> 157
[2025-09-06 06:45:40] [info] DB_WARN003 -> 159
[2025-09-06 06:45:40] [info] DRC_ERR9 -> 858
[2025-09-06 06:45:40] [info] DRC_ERR4 -> 137
[2025-09-06 06:45:40] [info] DRC_ERR5 -> 14
[2025-09-06 06:45:40] [info] DRC_ERR -> 17
[2025-09-06 06:45:40] [info] DRC_ERR2 -> 4
[2025-09-06 06:45:40] [info] DRC_ERR1 -> 4
[2025-09-06 06:45:40] [info] -----

[2025-09-06 06:45:40] [info] Rule Violation Summary

Rule ID	Description	Error Count
m5.1	"m5.1 : min. m5 width : 1.6um" 1	1
poly.7	"poly.7 : min. source/drain length : 0.25um" 8	8
licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 135	135
li.1	"li.1 : min. li width : 0.17um" 11	11
li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" 10	10
li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 2	2
m1.1	"m1.1 : min. m1 width : 0.14um" 828	828
poly.1a	"poly.1a : min. poly width : 0.15um" 7	7
li.6	"li.6 : min. li area : 0.0561um ² " 6	6
licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 2	2
m1.2	"m1.2 : min. m1 spacing : 0.14um" 4	4
m1.6	"m1.6 : min. m1 area : 0.083um ² " 3	3
vial.5b	"vial.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 4	4
m2.1	"m2.1 : min. m2 width : 0.14um" 1	1
m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 4	4
vial.5a	"vial.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 4	4
m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 4	4

[2025-09-06 06:45:40] [info] -----
[2025-09-06 06:45:40] [info] Performance Metrics
[2025-09-06 06:45:40] [info] -----

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[2025-09-06 06:45:40] [info] | Stage           | Time Taken |
[2025-09-06 06:45:40] [info] |-----|-----|
[2025-09-06 06:45:40] [info] | GDS Parsing       | 0 minutes 11 seconds |
[2025-09-06 06:45:40] [info] | Rule Checking     | 0 minutes 57 seconds |
[2025-09-06 06:45:40] [info] | Report Generation | 0 minutes 0 seconds  |

[2025-09-06 06:45:40] [info] -----
[2025-09-06 06:45:40] [info] Summary
[2025-09-06 06:45:40] [info] -----
[2025-09-06 06:45:40] [info] Total Errors:    1048
[2025-09-06 06:45:40] [info] Total Warnings:   317
[2025-09-06 06:45:40] [info] DRC Status:      FAILED
```

[2025-09-06 06:46:38] [info] =====
[2025-09-06 06:46:38] [info] Design Rule Check Report
[2025-09-06 06:46:38] [info] =====

[2025-09-06 06:46:38] [info] Report Generated: 2025-09-06
[2025-09-06 06:46:38] [info] Run Start Time: 06:45:50 AM
[2025-09-06 06:46:38] [info] Run End Time: 06:46:38 AM
[2025-09-06 06:46:38] [info] Time Taken: 0 minutes 55 seconds

[2025-09-06 06:46:38] [info] Tool Version: LVR_2025.1
[2025-09-06 06:46:38] [info] Host Name: kuro-Workstation
[2025-09-06 06:46:38] [info] User Name: kuro
[2025-09-06 06:46:38] [info] Cores Used: 4
[2025-09-06 06:46:38] [info] Memory Utilized: 7743.24 MB / 62.569705963134766 GB

[2025-09-06 06:46:38] [info] -----
[2025-09-06 06:46:38] [info] Top Cell Information
[2025-09-06 06:46:38] [info] -----
[2025-09-06 06:46:38] [info] Layout Top Cell: jpeg_encoder3_sky130hd
[2025-09-06 06:46:38] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:46:38] [info] Database Format: GDSII
[2025-09-06 06:46:38] [info] Verification Mode: Full Check

[2025-09-06 06:46:38] [info] -----
[2025-09-06 06:46:38] [info] Type of Errors | Count
[2025-09-06 06:46:38] [info] -----
[2025-09-06 06:46:38] [info] DB_WARN -> 1
[2025-09-06 06:46:38] [info] LRF_ERR001 -> 14
[2025-09-06 06:46:38] [info] DB_WARN002 -> 152
[2025-09-06 06:46:38] [info] DB_WARN003 -> 155
[2025-09-06 06:46:38] [info] DRC_ERR9 -> 817
[2025-09-06 06:46:38] [info] DRC_ERR4 -> 178
[2025-09-06 06:46:38] [info] DRC_ERR5 -> 21
[2025-09-06 06:46:38] [info] DRC_ERR2 -> 4
[2025-09-06 06:46:38] [info] DRC_ERR -> 7
[2025-09-06 06:46:38] [info] DRC_ERR1 -> 4

[2025-09-06 06:46:38] [info] -----
[2025-09-06 06:46:38] [info] Rule Violation Summary
[2025-09-06 06:46:38] [info] -----

[2025-09-06 06:46:38] [info]	Rule ID	Description	Error Count
[2025-09-06 06:46:38] [info]	m5.1	"m5.1 : min. m5 width : 1.6um" 1	1
[2025-09-06 06:46:38] [info]	poly.7	"poly.7 : min. source/drain length : 0.25um" 2	2
[2025-09-06 06:46:38] [info]	li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 7	7
[2025-09-06 06:46:38] [info]	li.6	"li.6 : min. li area : 0.0561um ² " 1	1
[2025-09-06 06:46:38] [info]	poly.1a	"poly.1a : min. poly width : 0.15um" 6	6
[2025-09-06 06:46:38] [info]	licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 131	131
[2025-09-06 06:46:38] [info]	li.1	"li.1 : min. li width : 0.17um" 8	8
[2025-09-06 06:46:38] [info]	licon.8a	"licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um" 2	2
[2025-09-06 06:46:38] [info]	vial.5b	"vial.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 4	4
[2025-09-06 06:46:38] [info]	li.1a	"li.1a : min. li width for the cells s8rf2_xcmvvp_hd5_* : 0.14um" 8	8
[2025-09-06 06:46:38] [info]	m1.1	"m1.1 : min. m1 width : 0.14um" 794	794
[2025-09-06 06:46:38] [info]	licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 47	47
[2025-09-06 06:46:38] [info]	m1.2	"m1.2 : min. m1 spacing : 0.14um" 4	4
[2025-09-06 06:46:38] [info]	m1.6	"m1.6 : min. m1 area : 0.083um ² " 4	4
[2025-09-06 06:46:38] [info]	vial.5a	"vial.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 4	4
[2025-09-06 06:46:38] [info]	m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 4	4
[2025-09-06 06:46:38] [info]	m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 4	4

[2025-09-06 06:46:38] [info] -----
[2025-09-06 06:46:38] [info] Performance Metrics
[2025-09-06 06:46:38] [info] -----

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[2025-09-06 06:46:38] [info] | Stage | Time Taken |
[2025-09-06 06:46:38] [info] |-----|-----|
[2025-09-06 06:46:38] [info] | GDS Parsing | 0 minutes 8 seconds |
[2025-09-06 06:46:38] [info] | Rule Checking | 0 minutes 46 seconds |
[2025-09-06 06:46:38] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:46:38] [info] -----
[2025-09-06 06:46:38] [info] Summary
[2025-09-06 06:46:38] [info] -----
[2025-09-06 06:46:38] [info] Total Errors: 1045
[2025-09-06 06:46:38] [info] Total Warnings: 308
[2025-09-06 06:46:38] [info] DRC Status: FAILED
```

[2025-09-06 06:46:54] [info] =====
[2025-09-06 06:46:54] [info] Design Rule Check Report
[2025-09-06 06:46:54] [info] =====

[2025-09-06 06:46:54] [info] Report Generated: 2025-09-06
[2025-09-06 06:46:54] [info] Run Start Time: 06:46:44 AM
[2025-09-06 06:46:54] [info] Run End Time: 06:46:54 AM
[2025-09-06 06:46:54] [info] Time Taken: 0 minutes 13 seconds

[2025-09-06 06:46:54] [info] Tool Version: LVR_2025.1
[2025-09-06 06:46:54] [info] Host Name: kuro-Workstation
[2025-09-06 06:46:54] [info] User Name: kuro
[2025-09-06 06:46:54] [info] Cores Used: 8
[2025-09-06 06:46:54] [info] Memory Utilized: 3486.84 MB / 62.569705963134766 GB

[2025-09-06 06:46:54] [info] -----
[2025-09-06 06:46:54] [info] Top Cell Information
[2025-09-06 06:46:54] [info] -----
[2025-09-06 06:46:54] [info] Layout Top Cell: aes_cipher_top1_sky130hd
[2025-09-06 06:46:54] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:46:54] [info] Database Format: GDSII
[2025-09-06 06:46:54] [info] Verification Mode: Full Check

[2025-09-06 06:46:54] [info] -----
[2025-09-06 06:46:54] [info] Type of Errors | Count
[2025-09-06 06:46:54] [info] -----
[2025-09-06 06:46:54] [info] DB_WARN -> 1
[2025-09-06 06:46:54] [info] LRF_ERR001 -> 14
[2025-09-06 06:46:54] [info] DB_WARN002 -> 144
[2025-09-06 06:46:54] [info] DB_WARN003 -> 137
[2025-09-06 06:46:54] [info] DRC_ERR -> 254
[2025-09-06 06:46:54] [info] DRC_ERR9 -> 768
[2025-09-06 06:46:54] [info] DRC_ERR2 -> 8
[2025-09-06 06:46:54] [info] DRC_ERR5 -> 24
[2025-09-06 06:46:54] [info] DRC_ERR1 -> 8
[2025-09-06 06:46:54] [info] DRC_ERR4 -> 11

[2025-09-06 06:46:54] [info] -----
[2025-09-06 06:46:54] [info] Rule Violation Summary
[2025-09-06 06:46:54] [info] -----

[2025-09-06 06:46:54] [info]	Rule ID	Description	Error Count
[2025-09-06 06:46:54] [info]	m2.1	"m2.1 : min. m2 width : 0.14um"	1
[2025-09-06 06:46:54] [info]	m3.6	"m3.6 : min. m3 area : 0.24um ² "	4
[2025-09-06 06:46:54] [info]	poly.7	"poly.7 : min. source/drain length : 0.25um"	242
[2025-09-06 06:46:54] [info]	m1.1	"m1.1 : min. m1 width : 0.14um"	752
[2025-09-06 06:46:54] [info]	li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um"	3
[2025-09-06 06:46:54] [info]	m1.2	"m1.2 : min. m1 spacing : 0.14um"	8
[2025-09-06 06:46:54] [info]	m1.6	"m1.6 : min. m1 area : 0.083um ² "	6
[2025-09-06 06:46:54] [info]	m5.1	"m5.1 : min. m5 width : 1.6um"	8
[2025-09-06 06:46:54] [info]	vial.5b	"vial.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um"	8
[2025-09-06 06:46:54] [info]	m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um"	8
[2025-09-06 06:46:54] [info]	vial.5a	"vial.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um"	8
[2025-09-06 06:46:54] [info]	m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um"	8
[2025-09-06 06:46:54] [info]	m3.1	"m3.1 : min. m3 width : 0.3um"	1
[2025-09-06 06:46:54] [info]	m4.4	"m4.4 : min. m4 area : 0.24um ² "	2
[2025-09-06 06:46:54] [info]	licon.5	"licon.5 : min. diff enclosure of licon : 0.04um"	11
[2025-09-06 06:46:54] [info]	li.1	"li.1 : min. li width : 0.17um"	3

[2025-09-06 06:46:54] [info] -----
[2025-09-06 06:46:54] [info] Performance Metrics
[2025-09-06 06:46:54] [info] -----
[2025-09-06 06:46:54] [info] | Stage | Time Taken |

```
[2025-09-06 06:46:54] [info] |-----|-----|
[2025-09-06 06:46:54] [info] | GDS Parsing          | 0 minutes 3 seconds |
[2025-09-06 06:46:54] [info] | Rule Checking       | 0 minutes 9 seconds |
[2025-09-06 06:46:54] [info] | Report Generation   | 0 minutes 0 seconds |

[2025-09-06 06:46:54] [info] -----
[2025-09-06 06:46:54] [info]             Summary
[2025-09-06 06:46:54] [info] -----
[2025-09-06 06:46:54] [info] Total Errors:   1087
[2025-09-06 06:46:54] [info] Total Warnings:    282
[2025-09-06 06:46:54] [info] DRC Status:      FAILED
```

[2025-09-06 06:47:11] [info] =====
[2025-09-06 06:47:11] [info] Design Rule Check Report
[2025-09-06 06:47:11] [info] =====

[2025-09-06 06:47:11] [info] Report Generated: 2025-09-06
[2025-09-06 06:47:11] [info] Run Start Time: 06:46:59 AM
[2025-09-06 06:47:11] [info] Run End Time: 06:47:11 AM
[2025-09-06 06:47:11] [info] Time Taken: 0 minutes 16 seconds

[2025-09-06 06:47:11] [info] Tool Version: LVR_2025.1
[2025-09-06 06:47:11] [info] Host Name: kuro-Workstation
[2025-09-06 06:47:11] [info] User Name: kuro
[2025-09-06 06:47:11] [info] Cores Used: 8
[2025-09-06 06:47:11] [info] Memory Utilized: 4017.12 MB / 62.569705963134766 GB

[2025-09-06 06:47:11] [info] -----
[2025-09-06 06:47:11] [info] Top Cell Information
[2025-09-06 06:47:11] [info] -----
[2025-09-06 06:47:11] [info] Layout Top Cell: aes_cipher_top2_sky130hd
[2025-09-06 06:47:11] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:47:11] [info] Database Format: GDSII
[2025-09-06 06:47:11] [info] Verification Mode: Full Check

[2025-09-06 06:47:11] [info] -----
[2025-09-06 06:47:11] [info] Type of Errors | Count
[2025-09-06 06:47:11] [info] -----
[2025-09-06 06:47:11] [info] DB_WARN -> 1
[2025-09-06 06:47:11] [info] LRF_ERR001 -> 14
[2025-09-06 06:47:11] [info] DB_WARN002 -> 141
[2025-09-06 06:47:11] [info] DB_WARN003 -> 135
[2025-09-06 06:47:11] [info] DRC_ERR9 -> 770
[2025-09-06 06:47:11] [info] DRC_ERR2 -> 8
[2025-09-06 06:47:11] [info] DRC_ERR5 -> 27
[2025-09-06 06:47:11] [info] DRC_ERR1 -> 8
[2025-09-06 06:47:11] [info] DRC_ERR -> 256
[2025-09-06 06:47:11] [info] DRC_ERR4 -> 6
[2025-09-06 06:47:11] [info] -----

[2025-09-06 06:47:11] [info] Rule Violation Summary
[2025-09-06 06:47:11] [info] -----
[2025-09-06 06:47:11] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:47:11] [info] |-----|-----|-----|
[2025-09-06 06:47:11] [info] | li.6 | "li.6 : min. li area : 0.0561um²" | 4 |
[2025-09-06 06:47:11] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 762 |
[2025-09-06 06:47:11] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 3 |
[2025-09-06 06:47:11] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 8 |
[2025-09-06 06:47:11] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 8 |
[2025-09-06 06:47:11] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 8 |
[2025-09-06 06:47:11] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 8 |
[2025-09-06 06:47:11] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 8 |
[2025-09-06 06:47:11] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 8 |
[2025-09-06 06:47:11] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 5 |
[2025-09-06 06:47:11] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 242 |
[2025-09-06 06:47:11] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um²" | 4 |
[2025-09-06 06:47:11] [info] | m4.4 | "m4.4 : min. m4 area : 0.24um²" | 1 |
[2025-09-06 06:47:11] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 6 |
[2025-09-06 06:47:11] [info] -----

[2025-09-06 06:47:11] [info] Performance Metrics
[2025-09-06 06:47:11] [info] -----
[2025-09-06 06:47:11] [info] | Stage | Time Taken |
[2025-09-06 06:47:11] [info] |-----|-----|
[2025-09-06 06:47:11] [info] | GDS Parsing | 0 minutes 4 seconds |

```
[2025-09-06 06:47:11] [info] | Rule Checking          | 0 minutes 11 seconds |
[2025-09-06 06:47:11] [info] | Report Generation    | 0 minutes 0 seconds  |
```

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[2025-09-06 06:47:11] [info] -----
[2025-09-06 06:47:11] [info]                      Summary
[2025-09-06 06:47:11] [info] -----
[2025-09-06 06:47:11] [info] Total Errors:      1089
[2025-09-06 06:47:11] [info] Total Warnings:    277
[2025-09-06 06:47:11] [info] DRC Status:        FAILED
```

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[2025-09-06 06:47:24] [info] =====
[2025-09-06 06:47:24] [info] Design Rule Check Report
[2025-09-06 06:47:24] [info] =====

[2025-09-06 06:47:24] [info] Report Generated: 2025-09-06
[2025-09-06 06:47:24] [info] Run Start Time: 06:47:16 AM
[2025-09-06 06:47:24] [info] Run End Time: 06:47:24 AM
[2025-09-06 06:47:24] [info] Time Taken: 0 minutes 12 seconds

[2025-09-06 06:47:24] [info] Tool Version: LVR_2025.1
[2025-09-06 06:47:24] [info] Host Name: kuro-Workstation
[2025-09-06 06:47:24] [info] User Name: kuro
[2025-09-06 06:47:24] [info] Cores Used: 8
[2025-09-06 06:47:24] [info] Memory Utilized: 3114.20 MB / 62.569705963134766 GB

[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info] Top Cell Information
[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info] Layout Top Cell: aes_cipher_top3_sky130hd
[2025-09-06 06:47:24] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:47:24] [info] Database Format: GDSII
[2025-09-06 06:47:24] [info] Verification Mode: Full Check

[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info] Type of Errors | Count
[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info] DB_WARN -> 1
[2025-09-06 06:47:24] [info] LRF_ERR001 -> 14
[2025-09-06 06:47:24] [info] DB_WARN002 -> 138
[2025-09-06 06:47:24] [info] DB_WARN003 -> 132
[2025-09-06 06:47:24] [info] DRC_ERR -> 239
[2025-09-06 06:47:24] [info] DRC_ERR9 -> 781
[2025-09-06 06:47:24] [info] DRC_ERR2 -> 8
[2025-09-06 06:47:24] [info] DRC_ERR5 -> 24
[2025-09-06 06:47:24] [info] DRC_ERR1 -> 8
[2025-09-06 06:47:24] [info] DRC_ERR4 -> 11
[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info] Rule Violation Summary
[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:47:24] [info] |-----|-----|-----|
[2025-09-06 06:47:24] [info] | m2.1 | "m2.1 : min. m2 width : 0.14um" | 2 |
[2025-09-06 06:47:24] [info] | poly.7 | "poly.7 : min. source/drain length : 0.25um" | 226 |
[2025-09-06 06:47:24] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 767 |
[2025-09-06 06:47:24] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 2 |
[2025-09-06 06:47:24] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 8 |
[2025-09-06 06:47:24] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um²" | 8 |
[2025-09-06 06:47:24] [info] | m5.1 | "m5.1 : min. m5 width : 1.6um" | 8 |
[2025-09-06 06:47:24] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 8 |
[2025-09-06 06:47:24] [info] | m3.6 | "m3.6 : min. m3 area : 0.24um²" | 5 |
[2025-09-06 06:47:24] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 8 |
[2025-09-06 06:47:24] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 8 |
[2025-09-06 06:47:24] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 8 |
[2025-09-06 06:47:24] [info] | licon.5 | "licon.5 : min. diff enclosure of licon : 0.04um" | 11 |
[2025-09-06 06:47:24] [info] | li.1 | "li.1 : min. li width : 0.17um" | 2 |
[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info] Performance Metrics
[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info] | Stage | Time Taken |
[2025-09-06 06:47:24] [info] |-----|-----|
[2025-09-06 06:47:24] [info] | GDS Parsing | 0 minutes 3 seconds |

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[2025-09-06 06:47:24] [info] | Rule Checking          | 0 minutes 8 seconds |
[2025-09-06 06:47:24] [info] | Report Generation    | 0 minutes 0 seconds |
```

```
[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info]                      Summary
[2025-09-06 06:47:24] [info] -----
[2025-09-06 06:47:24] [info] Total Errors:      1085
[2025-09-06 06:47:24] [info] Total Warnings:      271
[2025-09-06 06:47:24] [info] DRC Status:        FAILED
```

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[2025-09-06 06:46:39] [info] =====
[2025-09-06 06:46:39] [info] Design Rule Check Report
[2025-09-06 06:46:39] [info] =====

[2025-09-06 06:46:39] [info] Report Generated: 2025-09-06
[2025-09-06 06:46:39] [info] Run Start Time: 06:46:39 AM
[2025-09-06 06:46:39] [info] Run End Time: 06:46:39 AM
[2025-09-06 06:46:39] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 06:46:39] [info] Tool Version: LVR_2025.1
[2025-09-06 06:46:39] [info] Host Name: kuro-Workstation
[2025-09-06 06:46:39] [info] User Name: kuro
[2025-09-06 06:46:39] [info] Cores Used: 8
[2025-09-06 06:46:39] [info] Memory Utilized: 51.86 MB / 62.569705963134766 GB

[2025-09-06 06:46:39] [info] -----
[2025-09-06 06:46:39] [info] Top Cell Information
[2025-09-06 06:46:39] [info] -----
[2025-09-06 06:46:39] [info] Layout Top Cell: gcd1_sky130hd
[2025-09-06 06:46:39] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:46:39] [info] Database Format: GDSII
[2025-09-06 06:46:39] [info] Verification Mode: Full Check

[2025-09-06 06:46:39] [info] -----
[2025-09-06 06:46:39] [info] Type of Errors | Count
[2025-09-06 06:46:39] [info] -----
[2025-09-06 06:46:39] [info] DB_WARN -> 1
[2025-09-06 06:46:39] [info] LRF_ERR001 -> 14
[2025-09-06 06:46:39] [info] DB_WARN002 -> 58
[2025-09-06 06:46:39] [info] DB_WARN003 -> 55
[2025-09-06 06:46:39] [info] DRC_ERR4 -> 5
[2025-09-06 06:46:39] [info] DRC_ERR9 -> 1009
[2025-09-06 06:46:39] [info] DRC_ERR5 -> 18
[2025-09-06 06:46:39] [info] DRC_ERR2 -> 8
[2025-09-06 06:46:39] [info] DRC_ERR -> 4
[2025-09-06 06:46:39] [info] -----
[2025-09-06 06:46:39] [info] Rule Violation Summary
[2025-09-06 06:46:39] [info] -----
[2025-09-06 06:46:39] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:46:39] [info] |-----|-----|-----|
[2025-09-06 06:46:39] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um2" | 4 |
[2025-09-06 06:46:39] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 8 |
[2025-09-06 06:46:39] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 8 |
[2025-09-06 06:46:39] [info] | npc.1 | "npc.1 : min. npc width : 0.27um" | 2 |
[2025-09-06 06:46:39] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 993 |
[2025-09-06 06:46:39] [info] | li.5 | "li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" | 2 |
[2025-09-06 06:46:39] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 7 |
[2025-09-06 06:46:39] [info] | li.1 | "li.1 : min. li width : 0.17um" | 7 |
[2025-09-06 06:46:39] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 8 |
[2025-09-06 06:46:39] [info] | licon.15 | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 5 |
[2025-09-06 06:46:39] [info] -----
[2025-09-06 06:46:39] [info] Performance Metrics
[2025-09-06 06:46:39] [info] -----
[2025-09-06 06:46:39] [info] | Stage | Time Taken |
[2025-09-06 06:46:39] [info] |-----|-----|
[2025-09-06 06:46:39] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-09-06 06:46:39] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-09-06 06:46:39] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:46:39] [info] -----
[2025-09-06 06:46:39] [info] Summary

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[2025-09-06 06:46:39] [info] -----  
[2025-09-06 06:46:39] [info] Total Errors:    1058  
[2025-09-06 06:46:39] [info] Total Warnings:      114  
[2025-09-06 06:46:39] [info] DRC Status:          FAILED
```

```

[2025-09-06 06:46:40] [info] =====
[2025-09-06 06:46:40] [info]                Design Rule Check Report
[2025-09-06 06:46:40] [info] =====

[2025-09-06 06:46:40] [info] Report Generated:    2025-09-06
[2025-09-06 06:46:40] [info] Run Start Time:      06:46:40 AM
[2025-09-06 06:46:40] [info] Run End Time:        06:46:40 AM
[2025-09-06 06:46:40] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 06:46:40] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:46:40] [info] Host Name:           kuro-Workstation
[2025-09-06 06:46:40] [info] User Name:           kuro
[2025-09-06 06:46:40] [info] Cores Used:          8
[2025-09-06 06:46:40] [info] Memory Utilized:     54.61 MB / 62.569705963134766 GB

[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info]                Top Cell Information
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] Layout Top Cell:     gcd2_sky130hd
[2025-09-06 06:46:40] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:46:40] [info] Database Format:       GDSII
[2025-09-06 06:46:40] [info] Verification Mode:    Full Check

[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info]                Type of Errors | Count
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] DB_WARN -> 1
[2025-09-06 06:46:40] [info] LRF_ERR001 -> 14
[2025-09-06 06:46:40] [info] DB_WARN002 -> 59
[2025-09-06 06:46:40] [info] DB_WARN003 -> 56
[2025-09-06 06:46:40] [info] DRC_ERR9 -> 958
[2025-09-06 06:46:40] [info] DRC_ERR2 -> 14
[2025-09-06 06:46:40] [info] DRC_ERR5 -> 56
[2025-09-06 06:46:40] [info] DRC_ERR -> 5
[2025-09-06 06:46:40] [info] DRC_ERR1 -> 2
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info]                Rule Violation Summary
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] | Rule ID      | Description                                     | Error Count |
[2025-09-06 06:46:40] [info] |-----|-----|-----|
[2025-09-06 06:46:40] [info] | m3.6         | "m3.6 : min. m3 area : 0.24um^2" | 1           |
[2025-09-06 06:46:40] [info] | m4.5ab       | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 2           |
[2025-09-06 06:46:40] [info] | m4.5         | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 2           |
[2025-09-06 06:46:40] [info] | m1.6         | "m1.6 : min. m1 area : 0.083um^2" | 3           |
[2025-09-06 06:46:40] [info] | li.1         | "li.1 : min. li width : 0.17um" | 8           |
[2025-09-06 06:46:40] [info] | via1.5b      | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 27          |
[2025-09-06 06:46:40] [info] | li.6         | "li.6 : min. li area : 0.0561um^2" | 1           |
[2025-09-06 06:46:40] [info] | via1.5a      | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 27          |
[2025-09-06 06:46:40] [info] | m1.2         | "m1.2 : min. m1 spacing : 0.14um" | 14          |
[2025-09-06 06:46:40] [info] | li.1a        | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 8           |
[2025-09-06 06:46:40] [info] | m1.1         | "m1.1 : min. m1 width : 0.14um" | 942         |
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info]                Performance Metrics
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] | Stage          | Time Taken |
[2025-09-06 06:46:40] [info] |-----|-----|
[2025-09-06 06:46:40] [info] | GDS Parsing    | 0 minutes 0 seconds |
[2025-09-06 06:46:40] [info] | Rule Checking  | 0 minutes 0 seconds |
[2025-09-06 06:46:40] [info] | Report Generation | 0 minutes 0 seconds |
[2025-09-06 06:46:40] [info] -----

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```
[2025-09-06 06:46:40] [info] Summary
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] Total Errors: 1049
[2025-09-06 06:46:40] [info] Total Warnings: 116
[2025-09-06 06:46:40] [info] DRC Status: FAILED
```

```

[2025-09-06 06:46:40] [info] =====
[2025-09-06 06:46:40] [info] Design Rule Check Report
[2025-09-06 06:46:40] [info] =====

[2025-09-06 06:46:40] [info] Report Generated: 2025-09-06
[2025-09-06 06:46:40] [info] Run Start Time: 06:46:40 AM
[2025-09-06 06:46:40] [info] Run End Time: 06:46:40 AM
[2025-09-06 06:46:40] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 06:46:40] [info] Tool Version: LVR_2025.1
[2025-09-06 06:46:40] [info] Host Name: kuro-Workstation
[2025-09-06 06:46:40] [info] User Name: kuro
[2025-09-06 06:46:40] [info] Cores Used: 8
[2025-09-06 06:46:40] [info] Memory Utilized: 43.71 MB / 62.569705963134766 GB

[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] Top Cell Information
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] Layout Top Cell: gcd3_sky130hd
[2025-09-06 06:46:40] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:46:40] [info] Database Format: GDSII
[2025-09-06 06:46:40] [info] Verification Mode: Full Check

[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] Type of Errors | Count
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] DB_WARN -> 1
[2025-09-06 06:46:40] [info] LRF_ERR001 -> 14
[2025-09-06 06:46:40] [info] DB_WARN002 -> 59
[2025-09-06 06:46:40] [info] DB_WARN003 -> 56
[2025-09-06 06:46:40] [info] DRC_ERR9 -> 1006
[2025-09-06 06:46:40] [info] DRC_ERR2 -> 8
[2025-09-06 06:46:40] [info] DRC_ERR5 -> 18
[2025-09-06 06:46:40] [info] DRC_ERR -> 4
[2025-09-06 06:46:40] [info] DRC_ERR1 -> 2
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] Rule Violation Summary
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] | Rule ID | Description | Error Count |
[2025-09-06 06:46:40] [info] |-----|-----|-----|
[2025-09-06 06:46:40] [info] | li.1 | "li.1 : min. li width : 0.17um" | 5 |
[2025-09-06 06:46:40] [info] | m4.5ab | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 2 |
[2025-09-06 06:46:40] [info] | m4.5 | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 2 |
[2025-09-06 06:46:40] [info] | m1.6 | "m1.6 : min. m1 area : 0.083um^2" | 4 |
[2025-09-06 06:46:40] [info] | via1.5b | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 8 |
[2025-09-06 06:46:40] [info] | via1.5a | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 8 |
[2025-09-06 06:46:40] [info] | m1.2 | "m1.2 : min. m1 spacing : 0.14um" | 8 |
[2025-09-06 06:46:40] [info] | li.1a | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 2 |
[2025-09-06 06:46:40] [info] | m1.1 | "m1.1 : min. m1 width : 0.14um" | 999 |
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] Performance Metrics
[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] | Stage | Time Taken |
[2025-09-06 06:46:40] [info] |-----|-----|
[2025-09-06 06:46:40] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-09-06 06:46:40] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-09-06 06:46:40] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:46:40] [info] -----
[2025-09-06 06:46:40] [info] Summary
[2025-09-06 06:46:40] [info] -----

```

```
[2025-09-06 06:46:40] [info] Total Errors: 1052
[2025-09-06 06:46:40] [info] Total Warnings: 116
[2025-09-06 06:46:40] [info] DRC Status: FAILED
```

[2025-09-06 06:47:38] [info] =====
[2025-09-06 06:47:38] [info] Design Rule Check Report
[2025-09-06 06:47:38] [info] =====

[2025-09-06 06:47:38] [info] Report Generated: 2025-09-06
[2025-09-06 06:47:38] [info] Run Start Time: 06:47:29 AM
[2025-09-06 06:47:38] [info] Run End Time: 06:47:38 AM
[2025-09-06 06:47:38] [info] Time Taken: 0 minutes 12 seconds

[2025-09-06 06:47:38] [info] Tool Version: LVR_2025.1
[2025-09-06 06:47:38] [info] Host Name: kuro-Workstation
[2025-09-06 06:47:38] [info] User Name: kuro
[2025-09-06 06:47:38] [info] Cores Used: 8
[2025-09-06 06:47:38] [info] Memory Utilized: 3318.99 MB / 62.569705963134766 GB

[2025-09-06 06:47:38] [info] -----
[2025-09-06 06:47:38] [info] Top Cell Information
[2025-09-06 06:47:38] [info] -----
[2025-09-06 06:47:38] [info] Layout Top Cell: ibex_core1_sky130hd
[2025-09-06 06:47:38] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:47:38] [info] Database Format: GDSII
[2025-09-06 06:47:38] [info] Verification Mode: Full Check

[2025-09-06 06:47:38] [info] -----
[2025-09-06 06:47:38] [info] Type of Errors | Count
[2025-09-06 06:47:38] [info] -----
[2025-09-06 06:47:38] [info] DB_WARN -> 1
[2025-09-06 06:47:38] [info] LRF_ERR001 -> 14
[2025-09-06 06:47:38] [info] DB_WARN002 -> 251
[2025-09-06 06:47:38] [info] DB_WARN003 -> 251
[2025-09-06 06:47:38] [info] DRC_ERR -> 131
[2025-09-06 06:47:38] [info] DRC_ERR9 -> 746
[2025-09-06 06:47:38] [info] DRC_ERR4 -> 145
[2025-09-06 06:47:38] [info] DRC_ERR5 -> 38
[2025-09-06 06:47:38] [info] DRC_ERR2 -> 8
[2025-09-06 06:47:38] [info] DRC_ERR1 -> 8

[2025-09-06 06:47:38] [info] -----
[2025-09-06 06:47:38] [info] Rule Violation Summary
[2025-09-06 06:47:38] [info] -----

Rule ID	Description	Error Count
m2.6	"m2.6 : min. m2 area : 0.0676um ² "	1
li.6	"li.6 : min. li area : 0.0561um ² "	3
li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um"	19
m5.1	"m5.1 : min. m5 width : 1.6um"	8
poly.7	"poly.7 : min. source/drain length : 0.25um"	116
psdm.1	"psdm.1 : min. psdm width : 0.38um"	4
licon.5	"licon.5 : min. diff enclosure of licon : 0.04um"	135
li.1	"li.1 : min. li width : 0.17um"	21
li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um"	14
m1.1	"m1.1 : min. m1 width : 0.14um"	694
licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um"	10
m1.2	"m1.2 : min. m1 spacing : 0.14um"	8
m1.6	"m1.6 : min. m1 area : 0.083um ² "	7
via1.5b	"via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um"	8
m3.6	"m3.6 : min. m3 area : 0.24um ² "	4
m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um"	8
via1.5a	"via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um"	8
m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um"	8

[2025-09-06 06:47:38] [info] -----
[2025-09-06 06:47:38] [info] Performance Metrics

```
[2025-09-06 06:47:38] [info] -----
[2025-09-06 06:47:38] [info] | Stage                | Time Taken |
[2025-09-06 06:47:38] [info] |-----|-----|
[2025-09-06 06:47:38] [info] | GDS Parsing          | 0 minutes 3 seconds |
[2025-09-06 06:47:38] [info] | Rule Checking        | 0 minutes 8 seconds |
[2025-09-06 06:47:38] [info] | Report Generation    | 0 minutes 0 seconds |

[2025-09-06 06:47:38] [info] -----
[2025-09-06 06:47:38] [info]                Summary
[2025-09-06 06:47:38] [info] -----
[2025-09-06 06:47:38] [info] Total Errors:    1090
[2025-09-06 06:47:38] [info] Total Warnings:      503
[2025-09-06 06:47:38] [info] DRC Status:      FAILED
```

[2025-09-06 06:47:53] [info] =====
[2025-09-06 06:47:53] [info] Design Rule Check Report
[2025-09-06 06:47:53] [info] =====

[2025-09-06 06:47:53] [info] Report Generated: 2025-09-06
[2025-09-06 06:47:53] [info] Run Start Time: 06:47:42 AM
[2025-09-06 06:47:53] [info] Run End Time: 06:47:53 AM
[2025-09-06 06:47:53] [info] Time Taken: 0 minutes 14 seconds

[2025-09-06 06:47:53] [info] Tool Version: LVR_2025.1
[2025-09-06 06:47:53] [info] Host Name: kuro-Workstation
[2025-09-06 06:47:53] [info] User Name: kuro
[2025-09-06 06:47:53] [info] Cores Used: 8
[2025-09-06 06:47:53] [info] Memory Utilized: 3364.09 MB / 62.569705963134766 GB

[2025-09-06 06:47:53] [info] -----
[2025-09-06 06:47:53] [info] Top Cell Information
[2025-09-06 06:47:53] [info] -----
[2025-09-06 06:47:53] [info] Layout Top Cell: ibex_core2_sky130hd
[2025-09-06 06:47:53] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:47:53] [info] Database Format: GDSII
[2025-09-06 06:47:53] [info] Verification Mode: Full Check

[2025-09-06 06:47:53] [info] -----
[2025-09-06 06:47:53] [info] Type of Errors | Count
[2025-09-06 06:47:53] [info] -----
[2025-09-06 06:47:53] [info] DB_WARN -> 1
[2025-09-06 06:47:53] [info] LRF_ERR001 -> 14
[2025-09-06 06:47:53] [info] DB_WARN002 -> 249
[2025-09-06 06:47:53] [info] DB_WARN003 -> 249
[2025-09-06 06:47:53] [info] DRC_ERR9 -> 755
[2025-09-06 06:47:53] [info] DRC_ERR -> 192
[2025-09-06 06:47:53] [info] DRC_ERR4 -> 96
[2025-09-06 06:47:53] [info] DRC_ERR5 -> 30
[2025-09-06 06:47:53] [info] DRC_ERR2 -> 8
[2025-09-06 06:47:53] [info] DRC_ERR1 -> 8
[2025-09-06 06:47:53] [info] -----

[2025-09-06 06:47:53] [info] Rule Violation Summary

Rule ID	Description	Error Count
npc.1	"npc.1 : min. npc width : 0.27um" 7	
m3.6	"m3.6 : min. m3 area : 0.24um²" 2	
li.1a	"li.1a : min. li width for the cells s8rf2_xcmvvp_hd5_* : 0.14um" 7	
m5.1	"m5.1 : min. m5 width : 1.6um" 8	
li.6	"li.6 : min. li area : 0.0561um²" 4	
poly.1a	"poly.1a : min. poly width : 0.15um" 22	
poly.7	"poly.7 : min. source/drain length : 0.25um" 178	
m4.4	"m4.4 : min. m4 area : 0.24um²" 1	
psdm.1	"psdm.1 : min. psdm width : 0.38um" 9	
licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 95	
li.1	"li.1 : min. li width : 0.17um" 16	
li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 6	
m1.1	"m1.1 : min. m1 width : 0.14um" 686	
licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 1	
m1.2	"m1.2 : min. m1 spacing : 0.14um" 8	
m1.6	"m1.6 : min. m1 area : 0.083um²" 7	
via1.5b	"via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 8	
m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 8	
via1.5a	"via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 8	
m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 8	

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[2025-09-06 06:47:53] [info] -----
[2025-09-06 06:47:53] [info]             Performance Metrics
[2025-09-06 06:47:53] [info] -----
[2025-09-06 06:47:53] [info] | Stage                | Time Taken |
[2025-09-06 06:47:53] [info] |-----|-----|
[2025-09-06 06:47:53] [info] | GDS Parsing           | 0 minutes 3 seconds |
[2025-09-06 06:47:53] [info] | Rule Checking          | 0 minutes 11 seconds |
[2025-09-06 06:47:53] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-09-06 06:47:53] [info] -----
[2025-09-06 06:47:53] [info]             Summary
[2025-09-06 06:47:53] [info] -----
[2025-09-06 06:47:53] [info] Total Errors:    1103
[2025-09-06 06:47:53] [info] Total Warnings:      499
[2025-09-06 06:47:53] [info] DRC Status:      FAILED
```

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[2025-09-06 06:48:10] [info] =====
[2025-09-06 06:48:10] [info]                Design Rule Check Report
[2025-09-06 06:48:10] [info] =====

[2025-09-06 06:48:10] [info] Report Generated:    2025-09-06
[2025-09-06 06:48:10] [info] Run Start Time:      06:47:58 AM
[2025-09-06 06:48:10] [info] Run End Time:        06:48:10 AM
[2025-09-06 06:48:10] [info] Time Taken:          0 minutes 15 seconds

[2025-09-06 06:48:10] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:48:10] [info] Host Name:           kuro-Workstation
[2025-09-06 06:48:10] [info] User Name:           kuro
[2025-09-06 06:48:10] [info] Cores Used:          8
[2025-09-06 06:48:10] [info] Memory Utilized:     3308.59 MB / 62.569705963134766 GB

[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info]                Top Cell Information
[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 06:48:10] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:48:10] [info] Database Format:       GDSII
[2025-09-06 06:48:10] [info] Verification Mode:    Full Check

[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info]                Type of Errors | Count
[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info] DB_WARN -> 1
[2025-09-06 06:48:10] [info] LRF_ERR001 -> 14
[2025-09-06 06:48:10] [info] DB_WARN002 -> 253
[2025-09-06 06:48:10] [info] DB_WARN003 -> 251
[2025-09-06 06:48:10] [info] DRC_ERR4 -> 36
[2025-09-06 06:48:10] [info] DRC_ERR9 -> 905
[2025-09-06 06:48:10] [info] DRC_ERR2 -> 8
[2025-09-06 06:48:10] [info] DRC_ERR5 -> 24
[2025-09-06 06:48:10] [info] DRC_ERR1 -> 8
[2025-09-06 06:48:10] [info] DRC_ERR -> 99
[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info]                Rule Violation Summary
[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info] | Rule ID      | Description                                | Error Count |
[2025-09-06 06:48:10] [info] |-----|-----|-----|
[2025-09-06 06:48:10] [info] | li.6         | "li.6 : min. li area : 0.0561um^2" | 1           |
[2025-09-06 06:48:10] [info] | poly.1a      | "poly.1a : min. poly width : 0.15um" | 21          |
[2025-09-06 06:48:10] [info] | m1.6         | "m1.6 : min. m1 area : 0.083um^2" | 5           |
[2025-09-06 06:48:10] [info] | licon.5      | "licon.5 : min. diff enclosure of licon : 0.04um" | 35          |
[2025-09-06 06:48:10] [info] | li.1         | "li.1 : min. li width : 0.17um" | 11          |
[2025-09-06 06:48:10] [info] | li.1a        | "li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" | 11          |
[2025-09-06 06:48:10] [info] | m1.1         | "m1.1 : min. m1 width : 0.14um" | 854         |
[2025-09-06 06:48:10] [info] | m1.2         | "m1.2 : min. m1 spacing : 0.14um" | 8           |
[2025-09-06 06:48:10] [info] | licon.15     | "licon.15 : min. npc enclosure of poly-licon : 0.1um" | 1           |
[2025-09-06 06:48:10] [info] | via1.5b      | "via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" | 8           |
[2025-09-06 06:48:10] [info] | via1.5a      | "via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" | 8           |
[2025-09-06 06:48:10] [info] | m4.5ab       | "m4.5ab : min. 3um.m4 spacing m4 : 0.4um" | 8           |
[2025-09-06 06:48:10] [info] | m4.5         | "m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" | 8           |
[2025-09-06 06:48:10] [info] | m5.1         | "m5.1 : min. m5 width : 1.6um" | 8           |
[2025-09-06 06:48:10] [info] | poly.7       | "poly.7 : min. source/drain length : 0.25um" | 90          |
[2025-09-06 06:48:10] [info] | m3.6         | "m3.6 : min. m3 area : 0.24um^2" | 3           |
[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info]                Performance Metrics
[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info] | Stage          | Time Taken |

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[2025-09-06 06:48:10] [info] |-----|-----|
[2025-09-06 06:48:10] [info] | GDS Parsing          | 0 minutes 3 seconds |
[2025-09-06 06:48:10] [info] | Rule Checking       | 0 minutes 12 seconds |
[2025-09-06 06:48:10] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info]             Summary
[2025-09-06 06:48:10] [info] -----
[2025-09-06 06:48:10] [info] Total Errors:   1094
[2025-09-06 06:48:10] [info] Total Warnings:    505
[2025-09-06 06:48:10] [info] DRC Status:      FAILED
```

[2025-09-06 06:48:44] [info] =====
[2025-09-06 06:48:44] [info] Design Rule Check Report
[2025-09-06 06:48:44] [info] =====

[2025-09-06 06:48:44] [info] Report Generated: 2025-09-06
[2025-09-06 06:48:44] [info] Run Start Time: 06:48:20 AM
[2025-09-06 06:48:44] [info] Run End Time: 06:48:44 AM
[2025-09-06 06:48:44] [info] Time Taken: 0 minutes 33 seconds

[2025-09-06 06:48:44] [info] Tool Version: LVR_2025.1
[2025-09-06 06:48:44] [info] Host Name: kuro-Workstation
[2025-09-06 06:48:44] [info] User Name: kuro
[2025-09-06 06:48:44] [info] Cores Used: 8
[2025-09-06 06:48:44] [info] Memory Utilized: 8380.65 MB / 62.569705963134766 GB

[2025-09-06 06:48:44] [info] -----
[2025-09-06 06:48:44] [info] Top Cell Information
[2025-09-06 06:48:44] [info] -----
[2025-09-06 06:48:44] [info] Layout Top Cell: jpeg_encoder1_sky130hd
[2025-09-06 06:48:44] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:48:44] [info] Database Format: GDSII
[2025-09-06 06:48:44] [info] Verification Mode: Full Check

[2025-09-06 06:48:44] [info] -----
[2025-09-06 06:48:44] [info] Type of Errors | Count
[2025-09-06 06:48:44] [info] -----
[2025-09-06 06:48:44] [info] DB_WARN -> 1
[2025-09-06 06:48:44] [info] LRF_ERR001 -> 14
[2025-09-06 06:48:44] [info] DB_WARN002 -> 159
[2025-09-06 06:48:44] [info] DB_WARN003 -> 161
[2025-09-06 06:48:44] [info] DRC_ERR9 -> 818
[2025-09-06 06:48:44] [info] DRC_ERR -> 14
[2025-09-06 06:48:44] [info] DRC_ERR5 -> 39
[2025-09-06 06:48:44] [info] DRC_ERR4 -> 181
[2025-09-06 06:48:44] [info] DRC_ERR2 -> 8
[2025-09-06 06:48:44] [info] DRC_ERR1 -> 8

[2025-09-06 06:48:44] [info] -----
[2025-09-06 06:48:44] [info] Rule Violation Summary

Rule ID	Description	Error Count
m5.1	"m5.1 : min. m5 width : 1.6um" 1	
li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 3	
li.1a	"li.1a : min. li width for the cells s8rf2_xcmvvp_hd5_* : 0.14um" 5	
poly.1a	"poly.1a : min. poly width : 0.15um" 19	
poly.7	"poly.7 : min. source/drain length : 0.25um" 8	
npc.1	"npc.1 : min. npc width : 0.27um" 17	
licon.8a	"licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um" 12	
via1.5b	"via1.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 8	
m1.1	"m1.1 : min. m1 width : 0.14um" 757	
licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 50	
m1.2	"m1.2 : min. m1 spacing : 0.14um" 8	
m1.6	"m1.6 : min. m1 area : 0.083um ² " 6	
via1.5a	"via1.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 8	
m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 8	
m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 8	
li.1	"li.1 : min. li width : 0.17um" 5	
psdm.1	"psdm.1 : min. psdm width : 0.38um" 14	
licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 131	

[2025-09-06 06:48:44] [info] -----
[2025-09-06 06:48:44] [info] Performance Metrics

```
[2025-09-06 06:48:44] [info] -----
[2025-09-06 06:48:44] [info] | Stage                | Time Taken |
[2025-09-06 06:48:44] [info] |-----|-----|
[2025-09-06 06:48:44] [info] | GDS Parsing          | 0 minutes 8 seconds |
[2025-09-06 06:48:44] [info] | Rule Checking        | 0 minutes 23 seconds |
[2025-09-06 06:48:44] [info] | Report Generation    | 0 minutes 0 seconds |

[2025-09-06 06:48:44] [info] -----
[2025-09-06 06:48:44] [info]                Summary
[2025-09-06 06:48:44] [info] -----
[2025-09-06 06:48:44] [info] Total Errors:    1082
[2025-09-06 06:48:44] [info] Total Warnings:      321
[2025-09-06 06:48:44] [info] DRC Status:      FAILED
```

[2025-09-06 06:49:28] [info] =====
[2025-09-06 06:49:28] [info] Design Rule Check Report
[2025-09-06 06:49:28] [info] =====

[2025-09-06 06:49:28] [info] Report Generated: 2025-09-06
[2025-09-06 06:49:28] [info] Run Start Time: 06:48:57 AM
[2025-09-06 06:49:28] [info] Run End Time: 06:49:28 AM
[2025-09-06 06:49:28] [info] Time Taken: 0 minutes 41 seconds

[2025-09-06 06:49:28] [info] Tool Version: LVR_2025.1
[2025-09-06 06:49:28] [info] Host Name: kuro-Workstation
[2025-09-06 06:49:28] [info] User Name: kuro
[2025-09-06 06:49:28] [info] Cores Used: 8
[2025-09-06 06:49:28] [info] Memory Utilized: 10184.58 MB / 62.569705963134766 GB

[2025-09-06 06:49:28] [info] -----
[2025-09-06 06:49:28] [info] Top Cell Information
[2025-09-06 06:49:28] [info] -----
[2025-09-06 06:49:28] [info] Layout Top Cell: jpeg_encoder2_sky130hd
[2025-09-06 06:49:28] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:49:28] [info] Database Format: GDSII
[2025-09-06 06:49:28] [info] Verification Mode: Full Check

[2025-09-06 06:49:28] [info] -----
[2025-09-06 06:49:28] [info] Type of Errors | Count
[2025-09-06 06:49:28] [info] -----
[2025-09-06 06:49:28] [info] DB_WARN -> 1
[2025-09-06 06:49:28] [info] LRF_ERR001 -> 14
[2025-09-06 06:49:28] [info] DB_WARN002 -> 157
[2025-09-06 06:49:28] [info] DB_WARN003 -> 159
[2025-09-06 06:49:28] [info] DRC_ERR9 -> 877
[2025-09-06 06:49:28] [info] DRC_ERR5 -> 27
[2025-09-06 06:49:28] [info] DRC_ERR -> 20
[2025-09-06 06:49:28] [info] DRC_ERR2 -> 8
[2025-09-06 06:49:28] [info] DRC_ERR1 -> 8
[2025-09-06 06:49:28] [info] DRC_ERR4 -> 136

[2025-09-06 06:49:28] [info] -----
[2025-09-06 06:49:28] [info] Rule Violation Summary
[2025-09-06 06:49:28] [info] -----

[2025-09-06 06:49:28] [info]	Rule ID	Description	Error Count
[2025-09-06 06:49:28] [info]	m5.1	"m5.1 : min. m5 width : 1.6um" 1	1
[2025-09-06 06:49:28] [info]	poly.7	"poly.7 : min. source/drain length : 0.25um" 8	8
[2025-09-06 06:49:28] [info]	licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 135	135
[2025-09-06 06:49:28] [info]	li.1	"li.1 : min. li width : 0.17um" 6	6
[2025-09-06 06:49:28] [info]	li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" 6	6
[2025-09-06 06:49:28] [info]	li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 3	3
[2025-09-06 06:49:28] [info]	m1.1	"m1.1 : min. m1 width : 0.14um" 855	855
[2025-09-06 06:49:28] [info]	licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 1	1
[2025-09-06 06:49:28] [info]	m1.2	"m1.2 : min. m1 spacing : 0.14um" 8	8
[2025-09-06 06:49:28] [info]	m1.6	"m1.6 : min. m1 area : 0.083um ² " 7	7
[2025-09-06 06:49:28] [info]	vial.5b	"vial.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 8	8
[2025-09-06 06:49:28] [info]	m2.1	"m2.1 : min. m2 width : 0.14um" 1	1
[2025-09-06 06:49:28] [info]	vial.5a	"vial.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 8	8
[2025-09-06 06:49:28] [info]	m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 8	8
[2025-09-06 06:49:28] [info]	m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 8	8
[2025-09-06 06:49:28] [info]	li.6	"li.6 : min. li area : 0.0561um ² " 5	5
[2025-09-06 06:49:28] [info]	poly.1a	"poly.1a : min. poly width : 0.15um" 8	8

[2025-09-06 06:49:28] [info] -----
[2025-09-06 06:49:28] [info] Performance Metrics
[2025-09-06 06:49:28] [info] -----

```
[2025-09-06 06:49:28] [info] | Stage           | Time Taken |
[2025-09-06 06:49:28] [info] |-----|-----|
[2025-09-06 06:49:28] [info] | GDS Parsing       | 0 minutes 11 seconds |
[2025-09-06 06:49:28] [info] | Rule Checking      | 0 minutes 29 seconds |
[2025-09-06 06:49:28] [info] | Report Generation  | 0 minutes 0 seconds  |

[2025-09-06 06:49:28] [info] -----
[2025-09-06 06:49:28] [info]                Summary
[2025-09-06 06:49:28] [info] -----
[2025-09-06 06:49:28] [info] Total Errors:    1090
[2025-09-06 06:49:28] [info] Total Warnings:      317
[2025-09-06 06:49:28] [info] DRC Status:      FAILED
```

[2025-09-06 06:50:02] [info] =====
[2025-09-06 06:50:02] [info] Design Rule Check Report
[2025-09-06 06:50:02] [info] =====

[2025-09-06 06:50:02] [info] Report Generated: 2025-09-06
[2025-09-06 06:50:02] [info] Run Start Time: 06:49:38 AM
[2025-09-06 06:50:02] [info] Run End Time: 06:50:02 AM
[2025-09-06 06:50:02] [info] Time Taken: 0 minutes 32 seconds

[2025-09-06 06:50:02] [info] Tool Version: LVR_2025.1
[2025-09-06 06:50:02] [info] Host Name: kuro-Workstation
[2025-09-06 06:50:02] [info] User Name: kuro
[2025-09-06 06:50:02] [info] Cores Used: 8
[2025-09-06 06:50:02] [info] Memory Utilized: 7744.98 MB / 62.569705963134766 GB

[2025-09-06 06:50:02] [info] -----
[2025-09-06 06:50:02] [info] Top Cell Information
[2025-09-06 06:50:02] [info] -----
[2025-09-06 06:50:02] [info] Layout Top Cell: jpeg_encoder3_sky130hd
[2025-09-06 06:50:02] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 06:50:02] [info] Database Format: GDSII
[2025-09-06 06:50:02] [info] Verification Mode: Full Check

[2025-09-06 06:50:02] [info] -----
[2025-09-06 06:50:02] [info] Type of Errors | Count
[2025-09-06 06:50:02] [info] -----
[2025-09-06 06:50:02] [info] DB_WARN -> 1
[2025-09-06 06:50:02] [info] LRF_ERR001 -> 14
[2025-09-06 06:50:02] [info] DB_WARN002 -> 152
[2025-09-06 06:50:02] [info] DB_WARN003 -> 155
[2025-09-06 06:50:02] [info] DRC_ERR5 -> 33
[2025-09-06 06:50:02] [info] DRC_ERR4 -> 178
[2025-09-06 06:50:02] [info] DRC_ERR9 -> 823
[2025-09-06 06:50:02] [info] DRC_ERR2 -> 8
[2025-09-06 06:50:02] [info] DRC_ERR -> 9
[2025-09-06 06:50:02] [info] DRC_ERR1 -> 8
[2025-09-06 06:50:02] [info] -----

[2025-09-06 06:50:02] [info] Rule Violation Summary

Rule ID	Description	Error Count
m5.1	"m5.1 : min. m5 width : 1.6um" 1	1
poly.7	"poly.7 : min. source/drain length : 0.25um" 2	2
li.5	"li.5 : min. li enclosure of licon of 2 opposite edges : 0.08um" 6	6
licon.8a	"licon.8a : min. poly enclosure of licon by one of 2 opposite edges : 0.08um" 3	3
vial.5b	"vial.5b : min. m1 enclosure of 0.23um via of 2 opposite edges : 0.06um" 8	8
m1.1	"m1.1 : min. m1 width : 0.14um" 765	765
li.1a	"li.1a : min. li width for the cells s8rf2_xcmvpp_hd5_* : 0.14um" 22	22
licon.15	"licon.15 : min. npc enclosure of poly-licon : 0.1um" 47	47
m1.2	"m1.2 : min. m1 spacing : 0.14um" 8	8
m1.6	"m1.6 : min. m1 area : 0.083um ² " 6	6
vial.5a	"vial.5a : min. m1 enclosure of 0.15um via of 2 opposite edges : 0.085um" 8	8
m4.5	"m4.5 : min. m4 enclosure of via3 of 2 opposite edges : 0.085um" 8	8
m4.5ab	"m4.5ab : min. 3um.m4 spacing m4 : 0.4um" 8	8
li.6	"li.6 : min. li area : 0.0561um ² " 1	1
poly.1a	"poly.1a : min. poly width : 0.15um" 13	13
licon.5	"licon.5 : min. diff enclosure of licon : 0.04um" 131	131
li.1	"li.1 : min. li width : 0.17um" 22	22

[2025-09-06 06:50:02] [info] -----
[2025-09-06 06:50:02] [info] Performance Metrics
[2025-09-06 06:50:02] [info] -----

```
[2025-09-06 06:50:02] [info] | Stage           | Time Taken |
[2025-09-06 06:50:02] [info] |-----|-----|
[2025-09-06 06:50:02] [info] | GDS Parsing       | 0 minutes 7 seconds |
[2025-09-06 06:50:02] [info] | Rule Checking     | 0 minutes 23 seconds |
[2025-09-06 06:50:02] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 06:50:02] [info] -----
[2025-09-06 06:50:02] [info] Summary
[2025-09-06 06:50:02] [info] -----
[2025-09-06 06:50:02] [info] Total Errors: 1073
[2025-09-06 06:50:02] [info] Total Warnings: 308
[2025-09-06 06:50:02] [info] DRC Status: FAILED
```

10.2 LVS Regression Summary Reports

```
[2025-08-29 10:21:09] [info] =====
[2025-08-29 10:21:09] [info]           Layout Versus Schematic Report
[2025-08-29 10:21:09] [info] =====

[2025-08-29 10:21:09] [info] Report Generated:    2025-08-29
[2025-08-29 10:21:09] [info] Run Start Time:     10:21:01 AM
[2025-08-29 10:21:09] [info] Run End Time:       10:21:08 AM
[2025-08-29 10:21:09] [info] Time Taken:         0 minutes 10 seconds

[2025-08-29 10:21:09] [info] Tool Version:       LVR_2025.1
[2025-08-29 10:21:09] [info] Host Name:          kuro-Workstation
[2025-08-29 10:21:09] [info] User Name:          kuro
[2025-08-29 10:21:09] [info] Cores Used:         16
[2025-08-29 10:21:09] [info] Memory Utilized:    1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info]           Top Cell Match
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info] Layout Top Cell:    aes_cipher_top
[2025-08-29 10:21:09] [info] Schematic Top Cell: aes_cipher_top
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info]           Netlist Statistics
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:21:09] [info] |-----|-----|-----|
[2025-08-29 10:21:09] [info] | Total Nets             | 22584       | 23090       |
[2025-08-29 10:21:09] [info] | Total Instances        | 271307      | 22275       |
[2025-08-29 10:21:09] [info] | Total Pins             | 239003      | 117070      |
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info]           Pin to Net Mapping Percentage
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info] Total Schematic Instances: 22274
[2025-08-29 10:21:09] [info] Matched Instances:       21587
[2025-08-29 10:21:09] [info] Match Percentage: 96.92%

[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info]           Short and Open Checks
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info] Short Circuits:      None Detected
[2025-08-29 10:21:09] [info] Open Circuits:       None Detected

[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info]           Performance Metrics
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info] | Stage                  | Time Taken |
[2025-08-29 10:21:09] [info] |-----|-----|
[2025-08-29 10:21:09] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:21:09] [info] | Connectivity Extraction | 0 minutes 5 seconds |
[2025-08-29 10:21:09] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:21:09] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info]           Additional Details
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:21:09] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:21:09] [info] Database Format:       GDSII
[2025-08-29 10:21:09] [info] Verification Mode:    Full Check
[2025-08-29 10:21:09] [info] Error Reporting:      Enabled
```

```

[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info]                               Type of Errors | Count
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info] DB_WARN -> 1
[2025-08-29 10:21:09] [info] DB_WARN003 -> 221
[2025-08-29 10:21:09] [info] VERI_WARN012 -> 508
[2025-08-29 10:21:09] [info] LVS_ERR019 -> 651
[2025-08-29 10:21:09] [info] LVS_ERR003 -> 649
[2025-08-29 10:21:09] [info] ERC_ERR003 -> 649
[2025-08-29 10:21:09] [info] LVS_ERR025 -> 2
[2025-08-29 10:21:09] [info] ERC_ERR008 -> 2
[2025-08-29 10:21:09] [info] LVS_ERR020 -> 1
[2025-08-29 10:21:09] [info] LVS_ERR005 -> 687
[2025-08-29 10:21:09] [info] LVS_ERR030 -> 1
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info]                               Summary
[2025-08-29 10:21:09] [info] -----
[2025-08-29 10:21:09] [info] LVS Status:                PASSED
[2025-08-29 10:21:09] [info] Instance Match Percentage: 96.92%
[2025-08-29 10:21:09] [info] Short Circuits:           None Detected
[2025-08-29 10:21:09] [info] Open Circuits:            None Detected
[2025-08-29 10:21:09] [info] Unconnected Pins:         751
[2025-08-29 10:21:09] [info] Total Errors:              2642
[2025-08-29 10:21:09] [info] Total Warnings:           730
[2025-08-29 10:21:09] [info] Critical Issues:          None

```

```

[2025-09-02 05:57:50] [info] =====
[2025-09-02 05:57:50] [info]             Layout Versus Schematic Report
[2025-09-02 05:57:50] [info] =====

[2025-09-02 05:57:50] [info] Report Generated:    2025-09-02
[2025-09-02 05:57:50] [info] Run Start Time:      05:57:42 AM
[2025-09-02 05:57:50] [info] Run End Time:        05:57:50 AM
[2025-09-02 05:57:50] [info] Time Taken:          0 minutes 10 seconds

[2025-09-02 05:57:50] [info] Tool Version:        LVR_2025.1
[2025-09-02 05:57:50] [info] Host Name:           kuro-Workstation
[2025-09-02 05:57:50] [info] User Name:           kuro
[2025-09-02 05:57:50] [info] Cores Used:          16
[2025-09-02 05:57:50] [info] Memory Utilized:     1469.68 MB / 62.569698333740234 GB

[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info]             Top Cell Match
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info] Layout Top Cell:     aes_cipher_top
[2025-09-02 05:57:50] [info] Schematic Top Cell:  aes_cipher_top
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info]             Netlist Statistics
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info] | Metric                | Layout      | Schematic   |
[2025-09-02 05:57:50] [info] |-----|-----|-----|
[2025-09-02 05:57:50] [info] | Total Nets             | 22535       | 23041       |
[2025-09-02 05:57:50] [info] | Total Instances        | 282214      | 22253       |
[2025-09-02 05:57:50] [info] | Total Pins             | 251455      | 116968      |
[2025-09-02 05:57:50] [info] |-----|-----|-----|
[2025-09-02 05:57:50] [info]             Pin to Net Mapping Percentage
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info] Total Schematic Instances: 22253
[2025-09-02 05:57:50] [info] Matched Instances:        21554
[2025-09-02 05:57:50] [info] Match Percentage: 96.86%

[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info]             Short and Open Checks
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info] Short Circuits:        None Detected
[2025-09-02 05:57:50] [info] Open Circuits:         Open Detected

[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info]             Performance Metrics
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info] | Stage                  | Time Taken |
[2025-09-02 05:57:50] [info] |-----|-----|
[2025-09-02 05:57:50] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-02 05:57:50] [info] | Connectivity Extraction  | 0 minutes 5 seconds |
[2025-09-02 05:57:50] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-02 05:57:50] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info]             Additional Details
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info] Technology Node:        Nangate45 (45nm)
[2025-09-02 05:57:50] [info] Hierarchical Cells:     Flattened
[2025-09-02 05:57:50] [info] Database Format:         GDSII
[2025-09-02 05:57:50] [info] Verification Mode:      Full Check
[2025-09-02 05:57:50] [info] Error Reporting:        Enabled

[2025-09-02 05:57:50] [info] -----

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[2025-09-02 05:57:50] [info]                                Type of Errors | Count
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info] DB_WARN -> 1
[2025-09-02 05:57:50] [info] DB_WARN003 -> 219
[2025-09-02 05:57:50] [info] VERI_WARN012 -> 508
[2025-09-02 05:57:50] [info] LVS_ERR018 -> 1
[2025-09-02 05:57:50] [info] LVS_ERR019 -> 663
[2025-09-02 05:57:50] [info] LVS_ERR003 -> 661
[2025-09-02 05:57:50] [info] ERC_ERR003 -> 661
[2025-09-02 05:57:50] [info] LVS_ERR025 -> 2
[2025-09-02 05:57:50] [info] ERC_ERR008 -> 2
[2025-09-02 05:57:50] [info] LVS_ERR005 -> 699
[2025-09-02 05:57:50] [info] LVS_ERR030 -> 1
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info]                                Summary
[2025-09-02 05:57:50] [info] -----
[2025-09-02 05:57:50] [info] LVS Status:                PASSED
[2025-09-02 05:57:50] [info] Instance Match Percentage: 96.86%
[2025-09-02 05:57:50] [info] Short Circuits:           None Detected
[2025-09-02 05:57:50] [info] Open Circuits:            Open Detected
[2025-09-02 05:57:50] [info] Unconnected Pins:         763
[2025-09-02 05:57:50] [info] Total Errors:              2690
[2025-09-02 05:57:50] [info] Total Warnings:           728
[2025-09-02 05:57:50] [info] Critical Issues:          None

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[2025-08-29 10:21:24] [info] =====
[2025-08-29 10:21:24] [info]             Layout Versus Schematic Report
[2025-08-29 10:21:24] [info] =====

[2025-08-29 10:21:24] [info] Report Generated:    2025-08-29
[2025-08-29 10:21:24] [info] Run Start Time:      10:21:16 AM
[2025-08-29 10:21:24] [info] Run End Time:        10:21:23 AM
[2025-08-29 10:21:24] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:21:24] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:21:24] [info] Host Name:           kuro-Workstation
[2025-08-29 10:21:24] [info] User Name:           kuro
[2025-08-29 10:21:24] [info] Cores Used:          16
[2025-08-29 10:21:24] [info] Memory Utilized:     1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info]             Top Cell Match
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:21:24] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info]             Netlist Statistics
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:21:24] [info] |-----|-----|-----|
[2025-08-29 10:21:24] [info] | Total Nets             | 22516       | 23022       |
[2025-08-29 10:21:24] [info] | Total Instances        | 269556      | 22222       |
[2025-08-29 10:21:24] [info] | Total Pins             | 233667      | 116862      |
[2025-08-29 10:21:24] [info] |-----|-----|-----|
[2025-08-29 10:21:24] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info] Total Schematic Instances: 22222
[2025-08-29 10:21:24] [info] Matched Instances:       21505
[2025-08-29 10:21:24] [info] Match Percentage: 96.77%

[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info]             Short and Open Checks
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info] Short Circuits:        None Detected
[2025-08-29 10:21:24] [info] Open Circuits:         None Detected

[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info]             Performance Metrics
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info] | Stage                  | Time Taken |
[2025-08-29 10:21:24] [info] |-----|-----|
[2025-08-29 10:21:24] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:21:24] [info] | Connectivity Extraction  | 0 minutes 5 seconds |
[2025-08-29 10:21:24] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:21:24] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info]             Additional Details
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:21:24] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:21:24] [info] Database Format:         GDSII
[2025-08-29 10:21:24] [info] Verification Mode:      Full Check
[2025-08-29 10:21:24] [info] Error Reporting:        Enabled

[2025-08-29 10:21:24] [info] -----

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[2025-08-29 10:21:24] [info]                                Type of Errors | Count
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info] DB_WARN -> 1
[2025-08-29 10:21:24] [info] DB_WARN003 -> 221
[2025-08-29 10:21:24] [info] VERI_WARN012 -> 508
[2025-08-29 10:21:24] [info] LVS_ERR019 -> 686
[2025-08-29 10:21:24] [info] LVS_ERR003 -> 685
[2025-08-29 10:21:24] [info] ERC_ERR003 -> 685
[2025-08-29 10:21:24] [info] LVS_ERR025 -> 1
[2025-08-29 10:21:24] [info] ERC_ERR008 -> 1
[2025-08-29 10:21:24] [info] LVS_ERR005 -> 717
[2025-08-29 10:21:24] [info] LVS_ERR030 -> 1
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info]                                Summary
[2025-08-29 10:21:24] [info] -----
[2025-08-29 10:21:24] [info] LVS Status:                PASSED
[2025-08-29 10:21:24] [info] Instance Match Percentage: 96.77%
[2025-08-29 10:21:24] [info] Short Circuits:           None Detected
[2025-08-29 10:21:24] [info] Open Circuits:            None Detected
[2025-08-29 10:21:24] [info] Unconnected Pins:         786
[2025-08-29 10:21:24] [info] Total Errors:              2776
[2025-08-29 10:21:24] [info] Total Warnings:           730
[2025-08-29 10:21:24] [info] Critical Issues:          None

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[2025-08-29 10:20:58] [info] =====
[2025-08-29 10:20:58] [info]             Layout Versus Schematic Report
[2025-08-29 10:20:58] [info] =====

[2025-08-29 10:20:58] [info] Report Generated:    2025-08-29
[2025-08-29 10:20:58] [info] Run Start Time:      10:20:58 AM
[2025-08-29 10:20:58] [info] Run End Time:        10:20:58 AM
[2025-08-29 10:20:58] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:20:58] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:20:58] [info] Host Name:           kuro-Workstation
[2025-08-29 10:20:58] [info] User Name:           kuro
[2025-08-29 10:20:58] [info] Cores Used:          16
[2025-08-29 10:20:58] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Top Cell Match
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Layout Top Cell:     gcd
[2025-08-29 10:20:58] [info] Schematic Top Cell:  gcd
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Netlist Statistics
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:20:58] [info] |-----|-----|-----|
[2025-08-29 10:20:58] [info] | Total Nets             | 485         | 519         |
[2025-08-29 10:20:58] [info] | Total Instances        | 4642        | 428         |
[2025-08-29 10:20:58] [info] | Total Pins             | 4999        | 2165        |
[2025-08-29 10:20:58] [info] |-----|-----|-----|
[2025-08-29 10:20:58] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Total Schematic Instances:    428
[2025-08-29 10:20:58] [info] Matched Instances:           392
[2025-08-29 10:20:58] [info] Match Percentage: 91.59%

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Short and Open Checks
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Short Circuits:      None Detected
[2025-08-29 10:20:58] [info] Open Circuits:       Open Detected

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Performance Metrics
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] | Stage                | Time Taken |
[2025-08-29 10:20:58] [info] |-----|-----|
[2025-08-29 10:20:58] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:20:58] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:20:58] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:20:58] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Additional Details
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:20:58] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:20:58] [info] Database Format:       GDSII
[2025-08-29 10:20:58] [info] Verification Mode:    Full Check
[2025-08-29 10:20:58] [info] Error Reporting:      Enabled

[2025-08-29 10:20:58] [info] -----

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[2025-08-29 10:20:58] [info]                                Type of Errors | Count
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] DB_WARN -> 1
[2025-08-29 10:20:58] [info] DB_WARN003 -> 24
[2025-08-29 10:20:58] [info] VERI_WARN012 -> 41
[2025-08-29 10:20:58] [info] LVS_ERR018 -> 1
[2025-08-29 10:20:58] [info] LVS_ERR019 -> 33
[2025-08-29 10:20:58] [info] LVS_ERR003 -> 31
[2025-08-29 10:20:58] [info] ERC_ERR003 -> 31
[2025-08-29 10:20:58] [info] LVS_ERR025 -> 2
[2025-08-29 10:20:58] [info] ERC_ERR008 -> 2
[2025-08-29 10:20:58] [info] LVS_ERR005 -> 36
[2025-08-29 10:20:58] [info] LVS_ERR030 -> 1
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]                                Summary
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] LVS Status:                PASSED
[2025-08-29 10:20:58] [info] Instance Match Percentage: 91.59%
[2025-08-29 10:20:58] [info] Short Circuits:           None Detected
[2025-08-29 10:20:58] [info] Open Circuits:            Open Detected
[2025-08-29 10:20:58] [info] Unconnected Pins:         133
[2025-08-29 10:20:58] [info] Total Errors:              137
[2025-08-29 10:20:58] [info] Total Warnings:           66
[2025-08-29 10:20:58] [info] Critical Issues:          None

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[2025-08-29 10:20:58] [info] =====
[2025-08-29 10:20:58] [info]             Layout Versus Schematic Report
[2025-08-29 10:20:58] [info] =====

[2025-08-29 10:20:58] [info] Report Generated:    2025-08-29
[2025-08-29 10:20:58] [info] Run Start Time:      10:20:58 AM
[2025-08-29 10:20:58] [info] Run End Time:        10:20:58 AM
[2025-08-29 10:20:58] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:20:58] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:20:58] [info] Host Name:           kuro-Workstation
[2025-08-29 10:20:58] [info] User Name:           kuro
[2025-08-29 10:20:58] [info] Cores Used:          16
[2025-08-29 10:20:58] [info] Memory Utilized:     31.00 MB / 62.569698333740234 GB

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Top Cell Match
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Layout Top Cell:     gcd
[2025-08-29 10:20:58] [info] Schematic Top Cell:  gcd
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Netlist Statistics
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:20:58] [info] |-----|-----|-----|
[2025-08-29 10:20:58] [info] | Total Nets             | 482         | 516         |
[2025-08-29 10:20:58] [info] | Total Instances        | 4922        | 427         |
[2025-08-29 10:20:58] [info] | Total Pins             | 5189        | 2161        |
[2025-08-29 10:20:58] [info] |-----|-----|-----|
[2025-08-29 10:20:58] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Total Schematic Instances:    426
[2025-08-29 10:20:58] [info] Matched Instances:           391
[2025-08-29 10:20:58] [info] Match Percentage: 91.78%

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Short and Open Checks
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Short Circuits:      None Detected
[2025-08-29 10:20:58] [info] Open Circuits:       None Detected

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Performance Metrics
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] | Stage                | Time Taken |
[2025-08-29 10:20:58] [info] |-----|-----|
[2025-08-29 10:20:58] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:20:58] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:20:58] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:20:58] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Additional Details
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:20:58] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:20:58] [info] Database Format:       GDSII
[2025-08-29 10:20:58] [info] Verification Mode:    Full Check
[2025-08-29 10:20:58] [info] Error Reporting:      Enabled

[2025-08-29 10:20:58] [info] -----

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[2025-08-29 10:20:58] [info]                                Type of Errors | Count
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] DB_WARN -> 1
[2025-08-29 10:20:58] [info] DB_WARN003 -> 34
[2025-08-29 10:20:58] [info] VERI_WARN012 -> 40
[2025-08-29 10:20:58] [info] LVS_ERR019 -> 34
[2025-08-29 10:20:58] [info] LVS_ERR003 -> 32
[2025-08-29 10:20:58] [info] ERC_ERR003 -> 32
[2025-08-29 10:20:58] [info] LVS_ERR025 -> 2
[2025-08-29 10:20:58] [info] ERC_ERR008 -> 2
[2025-08-29 10:20:58] [info] LVS_ERR020 -> 1
[2025-08-29 10:20:58] [info] LVS_ERR005 -> 35
[2025-08-29 10:20:58] [info] LVS_ERR030 -> 1
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]                                Summary
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] LVS Status:                PASSED
[2025-08-29 10:20:58] [info] Instance Match Percentage: 91.78%
[2025-08-29 10:20:58] [info] Short Circuits:           None Detected
[2025-08-29 10:20:58] [info] Open Circuits:            None Detected
[2025-08-29 10:20:58] [info] Unconnected Pins:         134
[2025-08-29 10:20:58] [info] Total Errors:              139
[2025-08-29 10:20:58] [info] Total Warnings:           75
[2025-08-29 10:20:58] [info] Critical Issues:          None

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[2025-08-29 10:20:58] [info] =====
[2025-08-29 10:20:58] [info]             Layout Versus Schematic Report
[2025-08-29 10:20:58] [info] =====

[2025-08-29 10:20:58] [info] Report Generated:    2025-08-29
[2025-08-29 10:20:58] [info] Run Start Time:      10:20:58 AM
[2025-08-29 10:20:58] [info] Run End Time:        10:20:58 AM
[2025-08-29 10:20:58] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:20:58] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:20:58] [info] Host Name:           kuro-Workstation
[2025-08-29 10:20:58] [info] User Name:           kuro
[2025-08-29 10:20:58] [info] Cores Used:          16
[2025-08-29 10:20:58] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Top Cell Match
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Layout Top Cell:     gcd
[2025-08-29 10:20:58] [info] Schematic Top Cell:  gcd
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Netlist Statistics
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:20:58] [info] |-----|-----|-----|
[2025-08-29 10:20:58] [info] | Total Nets             | 489         | 523         |
[2025-08-29 10:20:58] [info] | Total Instances        | 4681        | 427         |
[2025-08-29 10:20:58] [info] | Total Pins             | 4941        | 2165        |
[2025-08-29 10:20:58] [info] |-----|-----|-----|
[2025-08-29 10:20:58] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Total Schematic Instances:    427
[2025-08-29 10:20:58] [info] Matched Instances:           389
[2025-08-29 10:20:58] [info] Match Percentage: 91.10%

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Short and Open Checks
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Short Circuits:      None Detected
[2025-08-29 10:20:58] [info] Open Circuits:       None Detected

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Performance Metrics
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] | Stage                | Time Taken |
[2025-08-29 10:20:58] [info] |-----|-----|
[2025-08-29 10:20:58] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-08-29 10:20:58] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:20:58] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-08-29 10:20:58] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]             Additional Details
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:20:58] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:20:58] [info] Database Format:       GDSII
[2025-08-29 10:20:58] [info] Verification Mode:    Full Check
[2025-08-29 10:20:58] [info] Error Reporting:      Enabled

[2025-08-29 10:20:58] [info] -----

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[2025-08-29 10:20:58] [info]                                Type of Errors | Count
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] DB_WARN -> 1
[2025-08-29 10:20:58] [info] DB_WARN003 -> 26
[2025-08-29 10:20:58] [info] VERI_WARN012 -> 39
[2025-08-29 10:20:58] [info] LVS_ERR019 -> 38
[2025-08-29 10:20:58] [info] LVS_ERR003 -> 36
[2025-08-29 10:20:58] [info] ERC_ERR003 -> 36
[2025-08-29 10:20:58] [info] LVS_ERR025 -> 2
[2025-08-29 10:20:58] [info] ERC_ERR008 -> 2
[2025-08-29 10:20:58] [info] LVS_ERR005 -> 38
[2025-08-29 10:20:58] [info] LVS_ERR030 -> 1
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info]                                Summary
[2025-08-29 10:20:58] [info] -----
[2025-08-29 10:20:58] [info] LVS Status:                PASSED
[2025-08-29 10:20:58] [info] Instance Match Percentage: 91.10%
[2025-08-29 10:20:58] [info] Short Circuits:           None Detected
[2025-08-29 10:20:58] [info] Open Circuits:            None Detected
[2025-08-29 10:20:58] [info] Unconnected Pins:         138
[2025-08-29 10:20:58] [info] Total Errors:              153
[2025-08-29 10:20:58] [info] Total Warnings:           66
[2025-08-29 10:20:58] [info] Critical Issues:          None
```

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[2025-08-29 10:21:34] [info] =====
[2025-08-29 10:21:34] [info]             Layout Versus Schematic Report
[2025-08-29 10:21:34] [info] =====

[2025-08-29 10:21:34] [info] Report Generated:    2025-08-29
[2025-08-29 10:21:34] [info] Run Start Time:      10:21:27 AM
[2025-08-29 10:21:34] [info] Run End Time:        10:21:34 AM
[2025-08-29 10:21:34] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:21:34] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:21:34] [info] Host Name:           kuro-Workstation
[2025-08-29 10:21:34] [info] User Name:           kuro
[2025-08-29 10:21:34] [info] Cores Used:          16
[2025-08-29 10:21:34] [info] Memory Utilized:     1574.52 MB / 62.569698333740234 GB

[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info]             Top Cell Match
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:21:34] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info]             Netlist Statistics
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:21:34] [info] |-----|-----|-----|
[2025-08-29 10:21:34] [info] | Total Nets             | 20853       | 21678       |
[2025-08-29 10:21:34] [info] | Total Instances        | 235969     | 18896       |
[2025-08-29 10:21:34] [info] | Total Pins             | 219487     | 104536      |
[2025-08-29 10:21:34] [info] |-----|-----|-----|
[2025-08-29 10:21:34] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info] Total Schematic Instances: 18895
[2025-08-29 10:21:34] [info] Matched Instances:        17934
[2025-08-29 10:21:34] [info] Match Percentage: 94.91%

[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info]             Short and Open Checks
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info] Short Circuits:        None Detected
[2025-08-29 10:21:34] [info] Open Circuits:         None Detected

[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info]             Performance Metrics
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info] | Stage                | Time Taken |
[2025-08-29 10:21:34] [info] |-----|-----|
[2025-08-29 10:21:34] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:21:34] [info] | Connectivity Extraction | 0 minutes 5 seconds |
[2025-08-29 10:21:34] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:21:34] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info]             Additional Details
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:21:34] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:21:34] [info] Database Format:         GDSII
[2025-08-29 10:21:34] [info] Verification Mode:      Full Check
[2025-08-29 10:21:34] [info] Error Reporting:        Enabled

[2025-08-29 10:21:34] [info] -----

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[2025-08-29 10:21:34] [info]                                Type of Errors | Count
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info] DB_WARN -> 1
[2025-08-29 10:21:34] [info] DB_WARN003 -> 85
[2025-08-29 10:21:34] [info] VERI_WARN012 -> 828
[2025-08-29 10:21:34] [info] LVS_ERR019 -> 903
[2025-08-29 10:21:34] [info] LVS_ERR003 -> 894
[2025-08-29 10:21:34] [info] ERC_ERR003 -> 894
[2025-08-29 10:21:34] [info] LVS_ERR025 -> 1
[2025-08-29 10:21:34] [info] ERC_ERR008 -> 1
[2025-08-29 10:21:34] [info] LVS_ERR020 -> 1
[2025-08-29 10:21:34] [info] LVS_ERR005 -> 961
[2025-08-29 10:21:34] [info] LVS_ERR030 -> 1
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info]                                Summary
[2025-08-29 10:21:34] [info] -----
[2025-08-29 10:21:34] [info] LVS Status:                PASSED
[2025-08-29 10:21:34] [info] Instance Match Percentage: 94.91%
[2025-08-29 10:21:34] [info] Short Circuits:           None Detected
[2025-08-29 10:21:34] [info] Open Circuits:            None Detected
[2025-08-29 10:21:34] [info] Unconnected Pins:         1003
[2025-08-29 10:21:34] [info] Total Errors:              3656
[2025-08-29 10:21:34] [info] Total Warnings:           914
[2025-08-29 10:21:34] [info] Critical Issues:          None

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[2025-09-02 05:58:01] [info] =====
[2025-09-02 05:58:01] [info]           Layout Versus Schematic Report
[2025-09-02 05:58:01] [info] =====

[2025-09-02 05:58:01] [info] Report Generated:    2025-09-02
[2025-09-02 05:58:01] [info] Run Start Time:      05:57:54 AM
[2025-09-02 05:58:01] [info] Run End Time:        05:58:01 AM
[2025-09-02 05:58:01] [info] Time Taken:          0 minutes 10 seconds

[2025-09-02 05:58:01] [info] Tool Version:        LVR_2025.1
[2025-09-02 05:58:01] [info] Host Name:           kuro-Workstation
[2025-09-02 05:58:01] [info] User Name:           kuro
[2025-09-02 05:58:01] [info] Cores Used:          16
[2025-09-02 05:58:01] [info] Memory Utilized:     1601.60 MB / 62.569698333740234 GB

[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info]           Top Cell Match
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info] Layout Top Cell:     ibex_core
[2025-09-02 05:58:01] [info] Schematic Top Cell:  ibex_core
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info]           Netlist Statistics
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info] | Metric                | Layout      | Schematic   |
[2025-09-02 05:58:01] [info] |-----|-----|-----|
[2025-09-02 05:58:01] [info] | Total Nets             | 20853       | 21678       |
[2025-09-02 05:58:01] [info] | Total Instances        | 245499      | 18933       |
[2025-09-02 05:58:01] [info] | Total Pins             | 230379      | 104624      |
[2025-09-02 05:58:01] [info] |-----|-----|-----|
[2025-09-02 05:58:01] [info]           Pin to Net Mapping Percentage
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info] Total Schematic Instances: 18933
[2025-09-02 05:58:01] [info] Matched Instances:        13384
[2025-09-02 05:58:01] [info] Match Percentage: 70.69%

[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info]           Short and Open Checks
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info] Short Circuits:        None Detected
[2025-09-02 05:58:01] [info] Open Circuits:         None Detected

[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info]           Performance Metrics
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info] | Stage                | Time Taken |
[2025-09-02 05:58:01] [info] |-----|-----|
[2025-09-02 05:58:01] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-02 05:58:01] [info] | Connectivity Extraction | 0 minutes 5 seconds |
[2025-09-02 05:58:01] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-02 05:58:01] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info]           Additional Details
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info] Technology Node:       Nangate45 (45nm)
[2025-09-02 05:58:01] [info] Hierarchical Cells:    Flattened
[2025-09-02 05:58:01] [info] Database Format:        GDSII
[2025-09-02 05:58:01] [info] Verification Mode:     Full Check
[2025-09-02 05:58:01] [info] Error Reporting:       Enabled

[2025-09-02 05:58:01] [info] -----

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[2025-09-02 05:58:01] [info]                                Type of Errors | Count
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info] DB_WARN -> 1
[2025-09-02 05:58:01] [info] DB_WARN003 -> 85
[2025-09-02 05:58:01] [info] VERI_WARN012 -> 828
[2025-09-02 05:58:01] [info] LVS_ERR019 -> 893
[2025-09-02 05:58:01] [info] LVS_ERR003 -> 883
[2025-09-02 05:58:01] [info] ERC_ERR003 -> 883
[2025-09-02 05:58:01] [info] LVS_ERR025 -> 2
[2025-09-02 05:58:01] [info] ERC_ERR008 -> 2
[2025-09-02 05:58:01] [info] LVS_ERR005 -> 5549
[2025-09-02 05:58:01] [info] LVS_ERR030 -> 1
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info]                                Summary
[2025-09-02 05:58:01] [info] -----
[2025-09-02 05:58:01] [info] LVS Status:                PASSED
[2025-09-02 05:58:01] [info] Instance Match Percentage: 70.69%
[2025-09-02 05:58:01] [info] Short Circuits:            None Detected
[2025-09-02 05:58:01] [info] Open Circuits:             None Detected
[2025-09-02 05:58:01] [info] Unconnected Pins:          993
[2025-09-02 05:58:01] [info] Total Errors:               8213
[2025-09-02 05:58:01] [info] Total Warnings:             914
[2025-09-02 05:58:01] [info] Critical Issues:           None

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[2025-08-29 10:21:49] [info] =====
[2025-08-29 10:21:49] [info]             Layout Versus Schematic Report
[2025-08-29 10:21:49] [info] =====

[2025-08-29 10:21:49] [info] Report Generated:    2025-08-29
[2025-08-29 10:21:49] [info] Run Start Time:      10:21:42 AM
[2025-08-29 10:21:49] [info] Run End Time:        10:21:49 AM
[2025-08-29 10:21:49] [info] Time Taken:          0 minutes 9 seconds

[2025-08-29 10:21:49] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:21:49] [info] Host Name:           kuro-Workstation
[2025-08-29 10:21:49] [info] User Name:           kuro
[2025-08-29 10:21:49] [info] Cores Used:          16
[2025-08-29 10:21:49] [info] Memory Utilized:     1464.05 MB / 62.569698333740234 GB

[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info]             Top Cell Match
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:21:49] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info]             Netlist Statistics
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:21:49] [info] |-----|-----|-----|
[2025-08-29 10:21:49] [info] | Total Nets             | 20848       | 21673       |
[2025-08-29 10:21:49] [info] | Total Instances        | 231162      | 18863       |
[2025-08-29 10:21:49] [info] | Total Pins             | 210404      | 104404      |
[2025-08-29 10:21:49] [info] |-----|-----|-----|
[2025-08-29 10:21:49] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info] Total Schematic Instances: 18863
[2025-08-29 10:21:49] [info] Matched Instances:        17920
[2025-08-29 10:21:49] [info] Match Percentage: 95.00%

[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info]             Short and Open Checks
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info] Short Circuits:        None Detected
[2025-08-29 10:21:49] [info] Open Circuits:         None Detected

[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info]             Performance Metrics
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info] | Stage                  | Time Taken |
[2025-08-29 10:21:49] [info] |-----|-----|
[2025-08-29 10:21:49] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:21:49] [info] | Connectivity Extraction | 0 minutes 5 seconds |
[2025-08-29 10:21:49] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:21:49] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info]             Additional Details
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:21:49] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:21:49] [info] Database Format:         GDSII
[2025-08-29 10:21:49] [info] Verification Mode:      Full Check
[2025-08-29 10:21:49] [info] Error Reporting:        Enabled

[2025-08-29 10:21:49] [info] -----

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[2025-08-29 10:21:49] [info]                                Type of Errors | Count
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info] DB_WARN -> 1
[2025-08-29 10:21:49] [info] DB_WARN003 -> 98
[2025-08-29 10:21:49] [info] VERI_WARN012 -> 828
[2025-08-29 10:21:49] [info] LVS_ERR019 -> 880
[2025-08-29 10:21:49] [info] LVS_ERR003 -> 871
[2025-08-29 10:21:49] [info] ERC_ERR003 -> 871
[2025-08-29 10:21:49] [info] LVS_ERR025 -> 1
[2025-08-29 10:21:49] [info] ERC_ERR008 -> 1
[2025-08-29 10:21:49] [info] LVS_ERR005 -> 943
[2025-08-29 10:21:49] [info] LVS_ERR030 -> 1
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info]                                Summary
[2025-08-29 10:21:49] [info] -----
[2025-08-29 10:21:49] [info] LVS Status:                PASSED
[2025-08-29 10:21:49] [info] Instance Match Percentage: 95.00%
[2025-08-29 10:21:49] [info] Short Circuits:           None Detected
[2025-08-29 10:21:49] [info] Open Circuits:            None Detected
[2025-08-29 10:21:49] [info] Unconnected Pins:         980
[2025-08-29 10:21:49] [info] Total Errors:              3568
[2025-08-29 10:21:49] [info] Total Warnings:            927
[2025-08-29 10:21:49] [info] Critical Issues:           None

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[2025-08-29 10:22:22] [info] =====
[2025-08-29 10:22:22] [info]             Layout Versus Schematic Report
[2025-08-29 10:22:22] [info] =====

[2025-08-29 10:22:22] [info] Report Generated:    2025-08-29
[2025-08-29 10:22:22] [info] Run Start Time:      10:22:00 AM
[2025-08-29 10:22:22] [info] Run End Time:        10:22:21 AM
[2025-08-29 10:22:22] [info] Time Taken:          0 minutes 31 seconds

[2025-08-29 10:22:22] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:22:22] [info] Host Name:           kuro-Workstation
[2025-08-29 10:22:22] [info] User Name:           kuro
[2025-08-29 10:22:22] [info] Cores Used:          16
[2025-08-29 10:22:22] [info] Memory Utilized:     4551.48 MB / 62.569698333740234 GB

[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info]             Top Cell Match
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:22:22] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info]             Netlist Statistics
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:22:22] [info] |-----|-----|-----|
[2025-08-29 10:22:22] [info] | Total Nets             | 69401       | 73466       |
[2025-08-29 10:22:22] [info] | Total Instances        | 625384      | 56662       |
[2025-08-29 10:22:22] [info] | Total Pins             | 660922      | 302058      |
[2025-08-29 10:22:22] [info] |-----|-----|-----|
[2025-08-29 10:22:22] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info] Total Schematic Instances:    56662
[2025-08-29 10:22:22] [info] Matched Instances:           52362
[2025-08-29 10:22:22] [info] Match Percentage: 92.41%

[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info]             Short and Open Checks
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info] Short Circuits:      None Detected
[2025-08-29 10:22:22] [info] Open Circuits:       None Detected

[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info]             Performance Metrics
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info] | Stage                | Time Taken |
[2025-08-29 10:22:22] [info] |-----|-----|
[2025-08-29 10:22:22] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:22:22] [info] | Connectivity Extraction | 0 minutes 16 seconds |
[2025-08-29 10:22:22] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:22:22] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info]             Additional Details
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:22:22] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:22:22] [info] Database Format:       GDSII
[2025-08-29 10:22:22] [info] Verification Mode:    Full Check
[2025-08-29 10:22:22] [info] Error Reporting:      Enabled

[2025-08-29 10:22:22] [info] -----
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[2025-08-29 10:22:22] [info]                                Type of Errors | Count
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info] DB_WARN -> 1
[2025-08-29 10:22:22] [info] DB_WARN003 -> 37
[2025-08-29 10:22:22] [info] VERI_WARN012 -> 4068
[2025-08-29 10:22:22] [info] LVS_ERR019 -> 4068
[2025-08-29 10:22:22] [info] LVS_ERR003 -> 4066
[2025-08-29 10:22:22] [info] ERC_ERR003 -> 4066
[2025-08-29 10:22:22] [info] LVS_ERR025 -> 2
[2025-08-29 10:22:22] [info] ERC_ERR008 -> 2
[2025-08-29 10:22:22] [info] LVS_ERR005 -> 4300
[2025-08-29 10:22:22] [info] LVS_ERR030 -> 1
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info]                                Summary
[2025-08-29 10:22:22] [info] -----
[2025-08-29 10:22:22] [info] LVS Status:                PASSED
[2025-08-29 10:22:22] [info] Instance Match Percentage: 92.41%
[2025-08-29 10:22:22] [info] Short Circuits:           None Detected
[2025-08-29 10:22:22] [info] Open Circuits:            None Detected
[2025-08-29 10:22:22] [info] Unconnected Pins:         4168
[2025-08-29 10:22:22] [info] Total Errors:              16505
[2025-08-29 10:22:22] [info] Total Warnings:           4106
[2025-08-29 10:22:22] [info] Critical Issues:          None

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[2025-08-29 10:22:56] [info] =====
[2025-08-29 10:22:56] [info]             Layout Versus Schematic Report
[2025-08-29 10:22:56] [info] =====

[2025-08-29 10:22:56] [info] Report Generated:    2025-08-29
[2025-08-29 10:22:56] [info] Run Start Time:      10:22:33 AM
[2025-08-29 10:22:56] [info] Run End Time:        10:22:56 AM
[2025-08-29 10:22:56] [info] Time Taken:          0 minutes 33 seconds

[2025-08-29 10:22:56] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:22:56] [info] Host Name:           kuro-Workstation
[2025-08-29 10:22:56] [info] User Name:           kuro
[2025-08-29 10:22:56] [info] Cores Used:          16
[2025-08-29 10:22:56] [info] Memory Utilized:     4599.00 MB / 62.569698333740234 GB

[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info]             Top Cell Match
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:22:56] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info]             Netlist Statistics
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:22:56] [info] |-----|-----|-----|
[2025-08-29 10:22:56] [info] | Total Nets             | 69389       | 73454       |
[2025-08-29 10:22:56] [info] | Total Instances        | 657399      | 56662       |
[2025-08-29 10:22:56] [info] | Total Pins             | 701572      | 302062      |
[2025-08-29 10:22:56] [info] |-----|-----|-----|
[2025-08-29 10:22:56] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info] Total Schematic Instances:    56662
[2025-08-29 10:22:56] [info] Matched Instances:           52356
[2025-08-29 10:22:56] [info] Match Percentage: 92.40%

[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info]             Short and Open Checks
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info] Short Circuits:      None Detected
[2025-08-29 10:22:56] [info] Open Circuits:       Open Detected

[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info]             Performance Metrics
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info] | Stage                | Time Taken |
[2025-08-29 10:22:56] [info] |-----|-----|
[2025-08-29 10:22:56] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-08-29 10:22:56] [info] | Connectivity Extraction | 0 minutes 16 seconds |
[2025-08-29 10:22:56] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-08-29 10:22:56] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info]             Additional Details
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:22:56] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:22:56] [info] Database Format:       GDSII
[2025-08-29 10:22:56] [info] Verification Mode:    Full Check
[2025-08-29 10:22:56] [info] Error Reporting:      Enabled

[2025-08-29 10:22:56] [info] -----

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[2025-08-29 10:22:56] [info]                                Type of Errors | Count
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info] DB_WARN -> 1
[2025-08-29 10:22:56] [info] DB_WARN003 -> 39
[2025-08-29 10:22:56] [info] VERI_WARN012 -> 4068
[2025-08-29 10:22:56] [info] LVS_ERR018 -> 1
[2025-08-29 10:22:56] [info] LVS_ERR019 -> 4055
[2025-08-29 10:22:56] [info] LVS_ERR003 -> 4054
[2025-08-29 10:22:56] [info] ERC_ERR003 -> 4054
[2025-08-29 10:22:56] [info] LVS_ERR025 -> 1
[2025-08-29 10:22:56] [info] ERC_ERR008 -> 1
[2025-08-29 10:22:56] [info] LVS_ERR005 -> 4306
[2025-08-29 10:22:56] [info] LVS_ERR030 -> 1
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info]                                Summary
[2025-08-29 10:22:56] [info] -----
[2025-08-29 10:22:56] [info] LVS Status:                PASSED
[2025-08-29 10:22:56] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:22:56] [info] Short Circuits:           None Detected
[2025-08-29 10:22:56] [info] Open Circuits:            Open Detected
[2025-08-29 10:22:56] [info] Unconnected Pins:         4155
[2025-08-29 10:22:56] [info] Total Errors:              16473
[2025-08-29 10:22:56] [info] Total Warnings:            4108
[2025-08-29 10:22:56] [info] Critical Issues:          None

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[2025-08-29 10:23:29] [info] =====
[2025-08-29 10:23:29] [info]             Layout Versus Schematic Report
[2025-08-29 10:23:29] [info] =====

[2025-08-29 10:23:29] [info] Report Generated:    2025-08-29
[2025-08-29 10:23:29] [info] Run Start Time:      10:23:08 AM
[2025-08-29 10:23:29] [info] Run End Time:        10:23:28 AM
[2025-08-29 10:23:29] [info] Time Taken:          0 minutes 30 seconds

[2025-08-29 10:23:29] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:23:29] [info] Host Name:           kuro-Workstation
[2025-08-29 10:23:29] [info] User Name:           kuro
[2025-08-29 10:23:29] [info] Cores Used:          16
[2025-08-29 10:23:29] [info] Memory Utilized:     4518.73 MB / 62.569698333740234 GB

[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info]             Top Cell Match
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:23:29] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info]             Netlist Statistics
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:23:29] [info] |-----|-----|-----|
[2025-08-29 10:23:29] [info] | Total Nets             | 69382       | 73447       |
[2025-08-29 10:23:29] [info] | Total Instances        | 607454      | 56666       |
[2025-08-29 10:23:29] [info] | Total Pins             | 633023      | 302074      |
[2025-08-29 10:23:29] [info] |-----|-----|-----|
[2025-08-29 10:23:29] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info] Total Schematic Instances:    56665
[2025-08-29 10:23:29] [info] Matched Instances:           52360
[2025-08-29 10:23:29] [info] Match Percentage: 92.40%

[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info]             Short and Open Checks
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info] Short Circuits:      None Detected
[2025-08-29 10:23:29] [info] Open Circuits:       Open Detected

[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info]             Performance Metrics
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info] | Stage                | Time Taken |
[2025-08-29 10:23:29] [info] |-----|-----|
[2025-08-29 10:23:29] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-08-29 10:23:29] [info] | Connectivity Extraction | 0 minutes 15 seconds |
[2025-08-29 10:23:29] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-08-29 10:23:29] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info]             Additional Details
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:23:29] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:23:29] [info] Database Format:       GDSII
[2025-08-29 10:23:29] [info] Verification Mode:    Full Check
[2025-08-29 10:23:29] [info] Error Reporting:      Enabled

[2025-08-29 10:23:29] [info] -----

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[2025-08-29 10:23:29] [info]                                     Type of Errors | Count
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info] DB_WARN -> 1
[2025-08-29 10:23:29] [info] DB_WARN003 -> 34
[2025-08-29 10:23:29] [info] VERI_WARN012 -> 4068
[2025-08-29 10:23:29] [info] LVS_ERR018 -> 1
[2025-08-29 10:23:29] [info] LVS_ERR019 -> 4068
[2025-08-29 10:23:29] [info] LVS_ERR003 -> 4067
[2025-08-29 10:23:29] [info] ERC_ERR003 -> 4067
[2025-08-29 10:23:29] [info] LVS_ERR025 -> 1
[2025-08-29 10:23:29] [info] ERC_ERR008 -> 1
[2025-08-29 10:23:29] [info] LVS_ERR020 -> 1
[2025-08-29 10:23:29] [info] LVS_ERR005 -> 4305
[2025-08-29 10:23:29] [info] LVS_ERR030 -> 1
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info]                                     Summary
[2025-08-29 10:23:29] [info] -----
[2025-08-29 10:23:29] [info] LVS Status:                PASSED
[2025-08-29 10:23:29] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:23:29] [info] Short Circuits:           None Detected
[2025-08-29 10:23:29] [info] Open Circuits:            Open Detected
[2025-08-29 10:23:29] [info] Unconnected Pins:         4168
[2025-08-29 10:23:29] [info] Total Errors:              16512
[2025-08-29 10:23:29] [info] Total Warnings:            4103
[2025-08-29 10:23:29] [info] Critical Issues:           None

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[2025-08-29 10:10:43] [info] =====
[2025-08-29 10:10:43] [info]             Layout Versus Schematic Report
[2025-08-29 10:10:43] [info] =====

[2025-08-29 10:10:43] [info] Report Generated:    2025-08-29
[2025-08-29 10:10:43] [info] Run Start Time:      10:10:22 AM
[2025-08-29 10:10:43] [info] Run End Time:        10:10:43 AM
[2025-08-29 10:10:43] [info] Time Taken:          0 minutes 23 seconds

[2025-08-29 10:10:43] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:10:43] [info] Host Name:           kuro-Workstation
[2025-08-29 10:10:43] [info] User Name:           kuro
[2025-08-29 10:10:43] [info] Cores Used:          1
[2025-08-29 10:10:43] [info] Memory Utilized:     1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info]             Top Cell Match
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:10:43] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info]             Netlist Statistics
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:10:43] [info] |-----|-----|-----|
[2025-08-29 10:10:43] [info] | Total Nets             | 22584       | 23090       |
[2025-08-29 10:10:43] [info] | Total Instances        | 271307      | 22275       |
[2025-08-29 10:10:43] [info] | Total Pins             | 239003      | 117070      |
[2025-08-29 10:10:43] [info] |-----|-----|-----|
[2025-08-29 10:10:43] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info] Total Schematic Instances: 22274
[2025-08-29 10:10:43] [info] Matched Instances:       21587
[2025-08-29 10:10:43] [info] Match Percentage: 96.92%

[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info]             Short and Open Checks
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info] Short Circuits:        None Detected
[2025-08-29 10:10:43] [info] Open Circuits:         None Detected

[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info]             Performance Metrics
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info] | Stage                | Time Taken |
[2025-08-29 10:10:43] [info] |-----|-----|
[2025-08-29 10:10:43] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:10:43] [info] | Connectivity Extraction | 0 minutes 18 seconds |
[2025-08-29 10:10:43] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:10:43] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info]             Additional Details
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:10:43] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:10:43] [info] Database Format:        GDSII
[2025-08-29 10:10:43] [info] Verification Mode:     Full Check
[2025-08-29 10:10:43] [info] Error Reporting:       Enabled

[2025-08-29 10:10:43] [info] -----

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[2025-08-29 10:10:43] [info]                                Type of Errors | Count
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info] DB_WARN -> 1
[2025-08-29 10:10:43] [info] DB_WARN003 -> 221
[2025-08-29 10:10:43] [info] VERI_WARN012 -> 508
[2025-08-29 10:10:43] [info] LVS_ERR019 -> 651
[2025-08-29 10:10:43] [info] LVS_ERR003 -> 649
[2025-08-29 10:10:43] [info] ERC_ERR003 -> 649
[2025-08-29 10:10:43] [info] LVS_ERR025 -> 2
[2025-08-29 10:10:43] [info] ERC_ERR008 -> 2
[2025-08-29 10:10:43] [info] LVS_ERR020 -> 1
[2025-08-29 10:10:43] [info] LVS_ERR005 -> 687
[2025-08-29 10:10:43] [info] LVS_ERR030 -> 1
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info]                                Summary
[2025-08-29 10:10:43] [info] -----
[2025-08-29 10:10:43] [info] LVS Status:                PASSED
[2025-08-29 10:10:43] [info] Instance Match Percentage: 96.92%
[2025-08-29 10:10:43] [info] Short Circuits:            None Detected
[2025-08-29 10:10:43] [info] Open Circuits:             None Detected
[2025-08-29 10:10:43] [info] Unconnected Pins:          751
[2025-08-29 10:10:43] [info] Total Errors:               2642
[2025-08-29 10:10:43] [info] Total Warnings:             730
[2025-08-29 10:10:43] [info] Critical Issues:           None

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[2025-09-02 05:56:24] [info] =====
[2025-09-02 05:56:24] [info]             Layout Versus Schematic Report
[2025-09-02 05:56:24] [info] =====

[2025-09-02 05:56:24] [info] Report Generated:    2025-09-02
[2025-09-02 05:56:24] [info] Run Start Time:      05:56:03 AM
[2025-09-02 05:56:24] [info] Run End Time:        05:56:24 AM
[2025-09-02 05:56:24] [info] Time Taken:          0 minutes 24 seconds

[2025-09-02 05:56:24] [info] Tool Version:        LVR_2025.1
[2025-09-02 05:56:24] [info] Host Name:           kuro-Workstation
[2025-09-02 05:56:24] [info] User Name:           kuro
[2025-09-02 05:56:24] [info] Cores Used:          1
[2025-09-02 05:56:24] [info] Memory Utilized:     1469.68 MB / 62.569698333740234 GB

[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info]             Top Cell Match
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info] Layout Top Cell:     aes_cipher_top
[2025-09-02 05:56:24] [info] Schematic Top Cell:  aes_cipher_top
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info]             Netlist Statistics
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info] | Metric                | Layout      | Schematic   |
[2025-09-02 05:56:24] [info] |-----|-----|-----|
[2025-09-02 05:56:24] [info] | Total Nets             | 22535       | 23041       |
[2025-09-02 05:56:24] [info] | Total Instances        | 282214      | 22253       |
[2025-09-02 05:56:24] [info] | Total Pins             | 251455      | 116968      |
[2025-09-02 05:56:24] [info] |-----|-----|-----|
[2025-09-02 05:56:24] [info]             Pin to Net Mapping Percentage
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info] Total Schematic Instances: 22253
[2025-09-02 05:56:24] [info] Matched Instances:      21554
[2025-09-02 05:56:24] [info] Match Percentage: 96.86%

[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info]             Short and Open Checks
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info] Short Circuits:       None Detected
[2025-09-02 05:56:24] [info] Open Circuits:        Open Detected

[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info]             Performance Metrics
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info] | Stage                | Time Taken |
[2025-09-02 05:56:24] [info] |-----|-----|
[2025-09-02 05:56:24] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-02 05:56:24] [info] | Connectivity Extraction | 0 minutes 19 seconds |
[2025-09-02 05:56:24] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-02 05:56:24] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info]             Additional Details
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info] Technology Node:      Nangate45 (45nm)
[2025-09-02 05:56:24] [info] Hierarchical Cells:   Flattened
[2025-09-02 05:56:24] [info] Database Format:       GDSII
[2025-09-02 05:56:24] [info] Verification Mode:    Full Check
[2025-09-02 05:56:24] [info] Error Reporting:      Enabled

[2025-09-02 05:56:24] [info] -----

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[2025-09-02 05:56:24] [info]                                Type of Errors | Count
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info] DB_WARN -> 1
[2025-09-02 05:56:24] [info] DB_WARN003 -> 219
[2025-09-02 05:56:24] [info] VERI_WARN012 -> 508
[2025-09-02 05:56:24] [info] LVS_ERR018 -> 1
[2025-09-02 05:56:24] [info] LVS_ERR019 -> 663
[2025-09-02 05:56:24] [info] LVS_ERR003 -> 661
[2025-09-02 05:56:24] [info] ERC_ERR003 -> 661
[2025-09-02 05:56:24] [info] LVS_ERR025 -> 2
[2025-09-02 05:56:24] [info] ERC_ERR008 -> 2
[2025-09-02 05:56:24] [info] LVS_ERR005 -> 699
[2025-09-02 05:56:24] [info] LVS_ERR030 -> 1
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info]                                Summary
[2025-09-02 05:56:24] [info] -----
[2025-09-02 05:56:24] [info] LVS Status:                PASSED
[2025-09-02 05:56:24] [info] Instance Match Percentage: 96.86%
[2025-09-02 05:56:24] [info] Short Circuits:           None Detected
[2025-09-02 05:56:24] [info] Open Circuits:            Open Detected
[2025-09-02 05:56:24] [info] Unconnected Pins:         763
[2025-09-02 05:56:24] [info] Total Errors:              2690
[2025-09-02 05:56:24] [info] Total Warnings:           728
[2025-09-02 05:56:24] [info] Critical Issues:          None

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[2025-08-29 10:11:10] [info] =====
[2025-08-29 10:11:10] [info]             Layout Versus Schematic Report
[2025-08-29 10:11:10] [info] =====

[2025-08-29 10:11:10] [info] Report Generated:    2025-08-29
[2025-08-29 10:11:10] [info] Run Start Time:      10:10:50 AM
[2025-08-29 10:11:10] [info] Run End Time:        10:11:10 AM
[2025-08-29 10:11:10] [info] Time Taken:          0 minutes 22 seconds

[2025-08-29 10:11:10] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:11:10] [info] Host Name:           kuro-Workstation
[2025-08-29 10:11:10] [info] User Name:           kuro
[2025-08-29 10:11:10] [info] Cores Used:          1
[2025-08-29 10:11:10] [info] Memory Utilized:     1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info]             Top Cell Match
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:11:10] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info]             Netlist Statistics
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:11:10] [info] |-----|-----|-----|
[2025-08-29 10:11:10] [info] | Total Nets             | 22516       | 23022       |
[2025-08-29 10:11:10] [info] | Total Instances        | 269556      | 22222       |
[2025-08-29 10:11:10] [info] | Total Pins             | 233667      | 116862      |
[2025-08-29 10:11:10] [info] |-----|-----|-----|
[2025-08-29 10:11:10] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info] Total Schematic Instances:    22222
[2025-08-29 10:11:10] [info] Matched Instances:           21505
[2025-08-29 10:11:10] [info] Match Percentage: 96.77%

[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info]             Short and Open Checks
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info] Short Circuits:             None Detected
[2025-08-29 10:11:10] [info] Open Circuits:              None Detected

[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info]             Performance Metrics
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info] | Stage                    | Time Taken |
[2025-08-29 10:11:10] [info] |-----|-----|
[2025-08-29 10:11:10] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-08-29 10:11:10] [info] | Connectivity Extraction   | 0 minutes 17 seconds |
[2025-08-29 10:11:10] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-08-29 10:11:10] [info] | Report Generation         | 0 minutes 0 seconds |

[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info]             Additional Details
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info] Technology Node:           Nangate45 (45nm)
[2025-08-29 10:11:10] [info] Hierarchical Cells:        Flattened
[2025-08-29 10:11:10] [info] Database Format:            GDSII
[2025-08-29 10:11:10] [info] Verification Mode:          Full Check
[2025-08-29 10:11:10] [info] Error Reporting:           Enabled

[2025-08-29 10:11:10] [info] -----

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[2025-08-29 10:11:10] [info]                                Type of Errors | Count
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info] DB_WARN -> 1
[2025-08-29 10:11:10] [info] DB_WARN003 -> 221
[2025-08-29 10:11:10] [info] VERI_WARN012 -> 508
[2025-08-29 10:11:10] [info] LVS_ERR019 -> 686
[2025-08-29 10:11:10] [info] LVS_ERR003 -> 685
[2025-08-29 10:11:10] [info] ERC_ERR003 -> 685
[2025-08-29 10:11:10] [info] LVS_ERR025 -> 1
[2025-08-29 10:11:10] [info] ERC_ERR008 -> 1
[2025-08-29 10:11:10] [info] LVS_ERR005 -> 717
[2025-08-29 10:11:10] [info] LVS_ERR030 -> 1
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info]                                Summary
[2025-08-29 10:11:10] [info] -----
[2025-08-29 10:11:10] [info] LVS Status:                PASSED
[2025-08-29 10:11:10] [info] Instance Match Percentage: 96.77%
[2025-08-29 10:11:10] [info] Short Circuits:           None Detected
[2025-08-29 10:11:10] [info] Open Circuits:            None Detected
[2025-08-29 10:11:10] [info] Unconnected Pins:         786
[2025-08-29 10:11:10] [info] Total Errors:              2776
[2025-08-29 10:11:10] [info] Total Warnings:            730
[2025-08-29 10:11:10] [info] Critical Issues:           None

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[2025-08-29 10:10:19] [info] =====
[2025-08-29 10:10:19] [info]             Layout Versus Schematic Report
[2025-08-29 10:10:19] [info] =====

[2025-08-29 10:10:19] [info] Report Generated:    2025-08-29
[2025-08-29 10:10:19] [info] Run Start Time:      10:10:19 AM
[2025-08-29 10:10:19] [info] Run End Time:        10:10:19 AM
[2025-08-29 10:10:19] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:10:19] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:10:19] [info] Host Name:           kuro-Workstation
[2025-08-29 10:10:19] [info] User Name:           kuro
[2025-08-29 10:10:19] [info] Cores Used:          1
[2025-08-29 10:10:19] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Top Cell Match
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] Layout Top Cell:     gcd
[2025-08-29 10:10:19] [info] Schematic Top Cell:  gcd
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Netlist Statistics
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] | Metric                | Layout      | Schematic    |
[2025-08-29 10:10:19] [info] |-----|-----|-----|
[2025-08-29 10:10:19] [info] | Total Nets             | 485         | 519         |
[2025-08-29 10:10:19] [info] | Total Instances        | 4642        | 428         |
[2025-08-29 10:10:19] [info] | Total Pins             | 4999        | 2165        |
[2025-08-29 10:10:19] [info] |-----|-----|-----|
[2025-08-29 10:10:19] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] Total Schematic Instances:    428
[2025-08-29 10:10:19] [info] Matched Instances:           392
[2025-08-29 10:10:19] [info] Match Percentage: 91.59%

[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Short and Open Checks
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] Short Circuits:      None Detected
[2025-08-29 10:10:19] [info] Open Circuits:       Open Detected

[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Performance Metrics
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] | Stage                | Time Taken |
[2025-08-29 10:10:19] [info] |-----|-----|
[2025-08-29 10:10:19] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:10:19] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:10:19] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:10:19] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Additional Details
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:10:19] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:10:19] [info] Database Format:       GDSII
[2025-08-29 10:10:19] [info] Verification Mode:    Full Check
[2025-08-29 10:10:19] [info] Error Reporting:      Enabled

[2025-08-29 10:10:19] [info] -----

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[2025-08-29 10:10:19] [info]                                Type of Errors | Count
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] DB_WARN -> 1
[2025-08-29 10:10:19] [info] DB_WARN003 -> 24
[2025-08-29 10:10:19] [info] VERI_WARN012 -> 41
[2025-08-29 10:10:19] [info] LVS_ERR018 -> 1
[2025-08-29 10:10:19] [info] LVS_ERR019 -> 33
[2025-08-29 10:10:19] [info] LVS_ERR003 -> 31
[2025-08-29 10:10:19] [info] ERC_ERR003 -> 31
[2025-08-29 10:10:19] [info] LVS_ERR025 -> 2
[2025-08-29 10:10:19] [info] ERC_ERR008 -> 2
[2025-08-29 10:10:19] [info] LVS_ERR005 -> 36
[2025-08-29 10:10:19] [info] LVS_ERR030 -> 1
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]                                Summary
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] LVS Status:                PASSED
[2025-08-29 10:10:19] [info] Instance Match Percentage: 91.59%
[2025-08-29 10:10:19] [info] Short Circuits:           None Detected
[2025-08-29 10:10:19] [info] Open Circuits:            Open Detected
[2025-08-29 10:10:19] [info] Unconnected Pins:         133
[2025-08-29 10:10:19] [info] Total Errors:              137
[2025-08-29 10:10:19] [info] Total Warnings:           66
[2025-08-29 10:10:19] [info] Critical Issues:          None

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[2025-08-29 10:10:19] [info] =====
[2025-08-29 10:10:19] [info]             Layout Versus Schematic Report
[2025-08-29 10:10:19] [info] =====

[2025-08-29 10:10:19] [info] Report Generated:    2025-08-29
[2025-08-29 10:10:19] [info] Run Start Time:      10:10:19 AM
[2025-08-29 10:10:19] [info] Run End Time:        10:10:19 AM
[2025-08-29 10:10:19] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:10:19] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:10:19] [info] Host Name:           kuro-Workstation
[2025-08-29 10:10:19] [info] User Name:           kuro
[2025-08-29 10:10:19] [info] Cores Used:          1
[2025-08-29 10:10:19] [info] Memory Utilized:     31.00 MB / 62.569698333740234 GB

[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Top Cell Match
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] Layout Top Cell:     gcd
[2025-08-29 10:10:19] [info] Schematic Top Cell:  gcd
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Netlist Statistics
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:10:19] [info] |-----|-----|-----|
[2025-08-29 10:10:19] [info] | Total Nets             | 482         | 516         |
[2025-08-29 10:10:19] [info] | Total Instances        | 4922        | 427         |
[2025-08-29 10:10:19] [info] | Total Pins             | 5189        | 2161        |
[2025-08-29 10:10:19] [info] |-----|-----|-----|
[2025-08-29 10:10:19] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] Total Schematic Instances:    426
[2025-08-29 10:10:19] [info] Matched Instances:           391
[2025-08-29 10:10:19] [info] Match Percentage: 91.78%

[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Short and Open Checks
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] Short Circuits:      None Detected
[2025-08-29 10:10:19] [info] Open Circuits:       None Detected

[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Performance Metrics
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] | Stage                | Time Taken |
[2025-08-29 10:10:19] [info] |-----|-----|
[2025-08-29 10:10:19] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:10:19] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:10:19] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:10:19] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]             Additional Details
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:10:19] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:10:19] [info] Database Format:       GDSII
[2025-08-29 10:10:19] [info] Verification Mode:    Full Check
[2025-08-29 10:10:19] [info] Error Reporting:      Enabled

[2025-08-29 10:10:19] [info] -----

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[2025-08-29 10:10:19] [info]                                Type of Errors | Count
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] DB_WARN -> 1
[2025-08-29 10:10:19] [info] DB_WARN003 -> 34
[2025-08-29 10:10:19] [info] VERI_WARN012 -> 40
[2025-08-29 10:10:19] [info] LVS_ERR019 -> 34
[2025-08-29 10:10:19] [info] LVS_ERR003 -> 32
[2025-08-29 10:10:19] [info] ERC_ERR003 -> 32
[2025-08-29 10:10:19] [info] LVS_ERR025 -> 2
[2025-08-29 10:10:19] [info] ERC_ERR008 -> 2
[2025-08-29 10:10:19] [info] LVS_ERR020 -> 1
[2025-08-29 10:10:19] [info] LVS_ERR005 -> 35
[2025-08-29 10:10:19] [info] LVS_ERR030 -> 1
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info]                                Summary
[2025-08-29 10:10:19] [info] -----
[2025-08-29 10:10:19] [info] LVS Status:                PASSED
[2025-08-29 10:10:19] [info] Instance Match Percentage: 91.78%
[2025-08-29 10:10:19] [info] Short Circuits:            None Detected
[2025-08-29 10:10:19] [info] Open Circuits:             None Detected
[2025-08-29 10:10:19] [info] Unconnected Pins:          134
[2025-08-29 10:10:19] [info] Total Errors:               139
[2025-08-29 10:10:19] [info] Total Warnings:             75
[2025-08-29 10:10:19] [info] Critical Issues:           None

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[2025-08-29 10:10:20] [info] =====
[2025-08-29 10:10:20] [info]             Layout Versus Schematic Report
[2025-08-29 10:10:20] [info] =====

[2025-08-29 10:10:20] [info] Report Generated:    2025-08-29
[2025-08-29 10:10:20] [info] Run Start Time:      10:10:19 AM
[2025-08-29 10:10:20] [info] Run End Time:        10:10:20 AM
[2025-08-29 10:10:20] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:10:20] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:10:20] [info] Host Name:           kuro-Workstation
[2025-08-29 10:10:20] [info] User Name:           kuro
[2025-08-29 10:10:20] [info] Cores Used:          1
[2025-08-29 10:10:20] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info]             Top Cell Match
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info] Layout Top Cell:     gcd
[2025-08-29 10:10:20] [info] Schematic Top Cell:  gcd
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info]             Netlist Statistics
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:10:20] [info] |-----|-----|-----|
[2025-08-29 10:10:20] [info] | Total Nets             | 489         | 523         |
[2025-08-29 10:10:20] [info] | Total Instances        | 4681        | 427         |
[2025-08-29 10:10:20] [info] | Total Pins             | 4941        | 2165        |
[2025-08-29 10:10:20] [info] |-----|-----|-----|
[2025-08-29 10:10:20] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info] Total Schematic Instances:    427
[2025-08-29 10:10:20] [info] Matched Instances:           389
[2025-08-29 10:10:20] [info] Match Percentage: 91.10%

[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info]             Short and Open Checks
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info] Short Circuits:      None Detected
[2025-08-29 10:10:20] [info] Open Circuits:       None Detected

[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info]             Performance Metrics
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info] | Stage                | Time Taken |
[2025-08-29 10:10:20] [info] |-----|-----|
[2025-08-29 10:10:20] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:10:20] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:10:20] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:10:20] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info]             Additional Details
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:10:20] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:10:20] [info] Database Format:       GDSII
[2025-08-29 10:10:20] [info] Verification Mode:    Full Check
[2025-08-29 10:10:20] [info] Error Reporting:      Enabled

[2025-08-29 10:10:20] [info] -----

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[2025-08-29 10:10:20] [info]                                Type of Errors | Count
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info] DB_WARN -> 1
[2025-08-29 10:10:20] [info] DB_WARN003 -> 26
[2025-08-29 10:10:20] [info] VERI_WARN012 -> 39
[2025-08-29 10:10:20] [info] LVS_ERR019 -> 38
[2025-08-29 10:10:20] [info] LVS_ERR003 -> 36
[2025-08-29 10:10:20] [info] ERC_ERR003 -> 36
[2025-08-29 10:10:20] [info] LVS_ERR025 -> 2
[2025-08-29 10:10:20] [info] ERC_ERR008 -> 2
[2025-08-29 10:10:20] [info] LVS_ERR005 -> 38
[2025-08-29 10:10:20] [info] LVS_ERR030 -> 1
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info]                                Summary
[2025-08-29 10:10:20] [info] -----
[2025-08-29 10:10:20] [info] LVS Status:                PASSED
[2025-08-29 10:10:20] [info] Instance Match Percentage: 91.10%
[2025-08-29 10:10:20] [info] Short Circuits:           None Detected
[2025-08-29 10:10:20] [info] Open Circuits:            None Detected
[2025-08-29 10:10:20] [info] Unconnected Pins:         138
[2025-08-29 10:10:20] [info] Total Errors:              153
[2025-08-29 10:10:20] [info] Total Warnings:            66
[2025-08-29 10:10:20] [info] Critical Issues:          None

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[2025-08-29 10:11:33] [info] =====
[2025-08-29 10:11:33] [info]             Layout Versus Schematic Report
[2025-08-29 10:11:33] [info] =====

[2025-08-29 10:11:33] [info] Report Generated:    2025-08-29
[2025-08-29 10:11:33] [info] Run Start Time:      10:11:14 AM
[2025-08-29 10:11:33] [info] Run End Time:        10:11:32 AM
[2025-08-29 10:11:33] [info] Time Taken:          0 minutes 21 seconds

[2025-08-29 10:11:33] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:11:33] [info] Host Name:           kuro-Workstation
[2025-08-29 10:11:33] [info] User Name:           kuro
[2025-08-29 10:11:33] [info] Cores Used:          1
[2025-08-29 10:11:33] [info] Memory Utilized:     1574.52 MB / 62.569698333740234 GB

[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info]             Top Cell Match
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:11:33] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info]             Netlist Statistics
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:11:33] [info] |-----|-----|-----|
[2025-08-29 10:11:33] [info] | Total Nets            | 20853       | 21678       |
[2025-08-29 10:11:33] [info] | Total Instances       | 235969      | 18896       |
[2025-08-29 10:11:33] [info] | Total Pins            | 219487      | 104536      |
[2025-08-29 10:11:33] [info] |-----|-----|-----|
[2025-08-29 10:11:33] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info] Total Schematic Instances: 18895
[2025-08-29 10:11:33] [info] Matched Instances:        17934
[2025-08-29 10:11:33] [info] Match Percentage: 94.91%

[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info]             Short and Open Checks
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info] Short Circuits:        None Detected
[2025-08-29 10:11:33] [info] Open Circuits:         None Detected

[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info]             Performance Metrics
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info] | Stage                | Time Taken |
[2025-08-29 10:11:33] [info] |-----|-----|
[2025-08-29 10:11:33] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:11:33] [info] | Connectivity Extraction | 0 minutes 17 seconds |
[2025-08-29 10:11:33] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:11:33] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info]             Additional Details
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:11:33] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:11:33] [info] Database Format:         GDSII
[2025-08-29 10:11:33] [info] Verification Mode:      Full Check
[2025-08-29 10:11:33] [info] Error Reporting:        Enabled

[2025-08-29 10:11:33] [info] -----

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[2025-08-29 10:11:33] [info]                                Type of Errors | Count
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info] DB_WARN -> 1
[2025-08-29 10:11:33] [info] DB_WARN003 -> 85
[2025-08-29 10:11:33] [info] VERI_WARN012 -> 828
[2025-08-29 10:11:33] [info] LVS_ERR019 -> 903
[2025-08-29 10:11:33] [info] LVS_ERR003 -> 894
[2025-08-29 10:11:33] [info] ERC_ERR003 -> 894
[2025-08-29 10:11:33] [info] LVS_ERR025 -> 1
[2025-08-29 10:11:33] [info] ERC_ERR008 -> 1
[2025-08-29 10:11:33] [info] LVS_ERR020 -> 1
[2025-08-29 10:11:33] [info] LVS_ERR005 -> 961
[2025-08-29 10:11:33] [info] LVS_ERR030 -> 1
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info]                                Summary
[2025-08-29 10:11:33] [info] -----
[2025-08-29 10:11:33] [info] LVS Status:                PASSED
[2025-08-29 10:11:33] [info] Instance Match Percentage: 94.91%
[2025-08-29 10:11:33] [info] Short Circuits:           None Detected
[2025-08-29 10:11:33] [info] Open Circuits:            None Detected
[2025-08-29 10:11:33] [info] Unconnected Pins:         1003
[2025-08-29 10:11:33] [info] Total Errors:              3656
[2025-08-29 10:11:33] [info] Total Warnings:           914
[2025-08-29 10:11:33] [info] Critical Issues:          None

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[2025-09-02 05:56:48] [info] =====
[2025-09-02 05:56:48] [info]           Layout Versus Schematic Report
[2025-09-02 05:56:48] [info] =====

[2025-09-02 05:56:48] [info] Report Generated:    2025-09-02
[2025-09-02 05:56:48] [info] Run Start Time:      05:56:28 AM
[2025-09-02 05:56:48] [info] Run End Time:        05:56:48 AM
[2025-09-02 05:56:48] [info] Time Taken:          0 minutes 22 seconds

[2025-09-02 05:56:48] [info] Tool Version:        LVR_2025.1
[2025-09-02 05:56:48] [info] Host Name:           kuro-Workstation
[2025-09-02 05:56:48] [info] User Name:           kuro
[2025-09-02 05:56:48] [info] Cores Used:          1
[2025-09-02 05:56:48] [info] Memory Utilized:     1601.60 MB / 62.569698333740234 GB

[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info]           Top Cell Match
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info] Layout Top Cell:     ibex_core
[2025-09-02 05:56:48] [info] Schematic Top Cell:  ibex_core
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info]           Netlist Statistics
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info] | Metric                | Layout      | Schematic   |
[2025-09-02 05:56:48] [info] |-----|-----|-----|
[2025-09-02 05:56:48] [info] | Total Nets             | 20853       | 21678       |
[2025-09-02 05:56:48] [info] | Total Instances        | 245499      | 18933       |
[2025-09-02 05:56:48] [info] | Total Pins             | 230379      | 104624      |
[2025-09-02 05:56:48] [info] |-----|-----|-----|
[2025-09-02 05:56:48] [info]           Pin to Net Mapping Percentage
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info] Total Schematic Instances: 18933
[2025-09-02 05:56:48] [info] Matched Instances:        13384
[2025-09-02 05:56:48] [info] Match Percentage: 70.69%

[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info]           Short and Open Checks
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info] Short Circuits:        None Detected
[2025-09-02 05:56:48] [info] Open Circuits:         None Detected

[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info]           Performance Metrics
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info] | Stage                | Time Taken |
[2025-09-02 05:56:48] [info] |-----|-----|
[2025-09-02 05:56:48] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-02 05:56:48] [info] | Connectivity Extraction | 0 minutes 17 seconds |
[2025-09-02 05:56:48] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-02 05:56:48] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info]           Additional Details
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info] Technology Node:        Nangate45 (45nm)
[2025-09-02 05:56:48] [info] Hierarchical Cells:     Flattened
[2025-09-02 05:56:48] [info] Database Format:         GDSII
[2025-09-02 05:56:48] [info] Verification Mode:      Full Check
[2025-09-02 05:56:48] [info] Error Reporting:        Enabled

[2025-09-02 05:56:48] [info] -----

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[2025-09-02 05:56:48] [info]                                Type of Errors | Count
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info] DB_WARN -> 1
[2025-09-02 05:56:48] [info] DB_WARN003 -> 85
[2025-09-02 05:56:48] [info] VERI_WARN012 -> 828
[2025-09-02 05:56:48] [info] LVS_ERR019 -> 893
[2025-09-02 05:56:48] [info] LVS_ERR003 -> 883
[2025-09-02 05:56:48] [info] ERC_ERR003 -> 883
[2025-09-02 05:56:48] [info] LVS_ERR025 -> 2
[2025-09-02 05:56:48] [info] ERC_ERR008 -> 2
[2025-09-02 05:56:48] [info] LVS_ERR005 -> 5549
[2025-09-02 05:56:48] [info] LVS_ERR030 -> 1
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info]                                Summary
[2025-09-02 05:56:48] [info] -----
[2025-09-02 05:56:48] [info] LVS Status:                PASSED
[2025-09-02 05:56:48] [info] Instance Match Percentage: 70.69%
[2025-09-02 05:56:48] [info] Short Circuits:           None Detected
[2025-09-02 05:56:48] [info] Open Circuits:            None Detected
[2025-09-02 05:56:48] [info] Unconnected Pins:         993
[2025-09-02 05:56:48] [info] Total Errors:              8213
[2025-09-02 05:56:48] [info] Total Warnings:            914
[2025-09-02 05:56:48] [info] Critical Issues:           None

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[2025-08-29 10:11:59] [info] =====
[2025-08-29 10:11:59] [info] Layout Versus Schematic Report
[2025-08-29 10:11:59] [info] =====

[2025-08-29 10:11:59] [info] Report Generated: 2025-08-29
[2025-08-29 10:11:59] [info] Run Start Time: 10:11:40 AM
[2025-08-29 10:11:59] [info] Run End Time: 10:11:59 AM
[2025-08-29 10:11:59] [info] Time Taken: 0 minutes 21 seconds

[2025-08-29 10:11:59] [info] Tool Version: LVR_2025.1
[2025-08-29 10:11:59] [info] Host Name: kuro-Workstation
[2025-08-29 10:11:59] [info] User Name: kuro
[2025-08-29 10:11:59] [info] Cores Used: 1
[2025-08-29 10:11:59] [info] Memory Utilized: 1464.05 MB / 62.569698333740234 GB

[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Top Cell Match
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Layout Top Cell: ibex_core
[2025-08-29 10:11:59] [info] Schematic Top Cell: ibex_core
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Netlist Statistics
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] | Metric | Layout | Schematic |
[2025-08-29 10:11:59] [info] |-----|-----|-----|
[2025-08-29 10:11:59] [info] | Total Nets | 20848 | 21673 |
[2025-08-29 10:11:59] [info] | Total Instances | 231162 | 18863 |
[2025-08-29 10:11:59] [info] | Total Pins | 210404 | 104404 |
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Pin to Net Mapping Percentage
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Total Schematic Instances: 18863
[2025-08-29 10:11:59] [info] Matched Instances: 17920
[2025-08-29 10:11:59] [info] Match Percentage: 95.00%

[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Short and Open Checks
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Short Circuits: None Detected
[2025-08-29 10:11:59] [info] Open Circuits: None Detected

[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Performance Metrics
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] | Stage | Time Taken |
[2025-08-29 10:11:59] [info] |-----|-----|
[2025-08-29 10:11:59] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:11:59] [info] | Connectivity Extraction | 0 minutes 16 seconds |
[2025-08-29 10:11:59] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:11:59] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Additional Details
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:11:59] [info] Hierarchical Cells: Flattened
[2025-08-29 10:11:59] [info] Database Format: GDSII
[2025-08-29 10:11:59] [info] Verification Mode: Full Check
[2025-08-29 10:11:59] [info] Error Reporting: Enabled

[2025-08-29 10:11:59] [info] -----

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[2025-08-29 10:11:59] [info]                                Type of Errors | Count
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] DB_WARN -> 1
[2025-08-29 10:11:59] [info] DB_WARN003 -> 98
[2025-08-29 10:11:59] [info] VERI_WARN012 -> 828
[2025-08-29 10:11:59] [info] LVS_ERR019 -> 880
[2025-08-29 10:11:59] [info] LVS_ERR003 -> 871
[2025-08-29 10:11:59] [info] ERC_ERR003 -> 871
[2025-08-29 10:11:59] [info] LVS_ERR025 -> 1
[2025-08-29 10:11:59] [info] ERC_ERR008 -> 1
[2025-08-29 10:11:59] [info] LVS_ERR005 -> 943
[2025-08-29 10:11:59] [info] LVS_ERR030 -> 1
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info]                                Summary
[2025-08-29 10:11:59] [info] -----
[2025-08-29 10:11:59] [info] LVS Status:                PASSED
[2025-08-29 10:11:59] [info] Instance Match Percentage: 95.00%
[2025-08-29 10:11:59] [info] Short Circuits:           None Detected
[2025-08-29 10:11:59] [info] Open Circuits:            None Detected
[2025-08-29 10:11:59] [info] Unconnected Pins:         980
[2025-08-29 10:11:59] [info] Total Errors:              3568
[2025-08-29 10:11:59] [info] Total Warnings:           927
[2025-08-29 10:11:59] [info] Critical Issues:          None
```

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[2025-08-29 10:13:03] [info] =====
[2025-08-29 10:13:03] [info]             Layout Versus Schematic Report
[2025-08-29 10:13:03] [info] =====

[2025-08-29 10:13:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:13:03] [info] Run Start Time:      10:12:09 AM
[2025-08-29 10:13:03] [info] Run End Time:        10:13:02 AM
[2025-08-29 10:13:03] [info] Time Taken:          1 minutes 3 seconds

[2025-08-29 10:13:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:13:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:13:03] [info] User Name:           kuro
[2025-08-29 10:13:03] [info] Cores Used:          1
[2025-08-29 10:13:03] [info] Memory Utilized:     4551.48 MB / 62.569698333740234 GB

[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info]             Top Cell Match
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:13:03] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info]             Netlist Statistics
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:13:03] [info] |-----|-----|-----|
[2025-08-29 10:13:03] [info] | Total Nets            | 69401       | 73466       |
[2025-08-29 10:13:03] [info] | Total Instances       | 625384      | 56662       |
[2025-08-29 10:13:03] [info] | Total Pins            | 660922      | 302058      |
[2025-08-29 10:13:03] [info] |-----|-----|-----|
[2025-08-29 10:13:03] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info] Total Schematic Instances:    56662
[2025-08-29 10:13:03] [info] Matched Instances:           52362
[2025-08-29 10:13:03] [info] Match Percentage: 92.41%

[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info]             Short and Open Checks
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info] Short Circuits:      None Detected
[2025-08-29 10:13:03] [info] Open Circuits:       None Detected

[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info]             Performance Metrics
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info] | Stage                | Time Taken |
[2025-08-29 10:13:03] [info] |-----|-----|
[2025-08-29 10:13:03] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:13:03] [info] | Connectivity Extraction | 0 minutes 47 seconds |
[2025-08-29 10:13:03] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:13:03] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info]             Additional Details
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:13:03] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:13:03] [info] Database Format:       GDSII
[2025-08-29 10:13:03] [info] Verification Mode:    Full Check
[2025-08-29 10:13:03] [info] Error Reporting:      Enabled

[2025-08-29 10:13:03] [info] -----

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[2025-08-29 10:13:03] [info]                                Type of Errors | Count
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info] DB_WARN -> 1
[2025-08-29 10:13:03] [info] DB_WARN003 -> 37
[2025-08-29 10:13:03] [info] VERI_WARN012 -> 4068
[2025-08-29 10:13:03] [info] LVS_ERR019 -> 4068
[2025-08-29 10:13:03] [info] LVS_ERR003 -> 4066
[2025-08-29 10:13:03] [info] ERC_ERR003 -> 4066
[2025-08-29 10:13:03] [info] LVS_ERR025 -> 2
[2025-08-29 10:13:03] [info] ERC_ERR008 -> 2
[2025-08-29 10:13:03] [info] LVS_ERR005 -> 4300
[2025-08-29 10:13:03] [info] LVS_ERR030 -> 1
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info]                                Summary
[2025-08-29 10:13:03] [info] -----
[2025-08-29 10:13:03] [info] LVS Status:                PASSED
[2025-08-29 10:13:03] [info] Instance Match Percentage: 92.41%
[2025-08-29 10:13:03] [info] Short Circuits:           None Detected
[2025-08-29 10:13:03] [info] Open Circuits:            None Detected
[2025-08-29 10:13:03] [info] Unconnected Pins:         4168
[2025-08-29 10:13:03] [info] Total Errors:              16505
[2025-08-29 10:13:03] [info] Total Warnings:           4106
[2025-08-29 10:13:03] [info] Critical Issues:          None

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[2025-08-29 10:14:09] [info] =====
[2025-08-29 10:14:09] [info]             Layout Versus Schematic Report
[2025-08-29 10:14:09] [info] =====

[2025-08-29 10:14:09] [info] Report Generated:    2025-08-29
[2025-08-29 10:14:09] [info] Run Start Time:      10:13:14 AM
[2025-08-29 10:14:09] [info] Run End Time:        10:14:09 AM
[2025-08-29 10:14:09] [info] Time Taken:          1 minutes 5 seconds

[2025-08-29 10:14:09] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:14:09] [info] Host Name:           kuro-Workstation
[2025-08-29 10:14:09] [info] User Name:           kuro
[2025-08-29 10:14:09] [info] Cores Used:          1
[2025-08-29 10:14:09] [info] Memory Utilized:     4599.00 MB / 62.569698333740234 GB

[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info]             Top Cell Match
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:14:09] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info]             Netlist Statistics
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:14:09] [info] |-----|-----|-----|
[2025-08-29 10:14:09] [info] | Total Nets             | 69389       | 73454       |
[2025-08-29 10:14:09] [info] | Total Instances        | 657399      | 56662       |
[2025-08-29 10:14:09] [info] | Total Pins             | 701572      | 302062      |
[2025-08-29 10:14:09] [info] |-----|-----|-----|
[2025-08-29 10:14:09] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info] Total Schematic Instances:    56662
[2025-08-29 10:14:09] [info] Matched Instances:           52356
[2025-08-29 10:14:09] [info] Match Percentage: 92.40%

[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info]             Short and Open Checks
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info] Short Circuits:      None Detected
[2025-08-29 10:14:09] [info] Open Circuits:       Open Detected

[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info]             Performance Metrics
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info] | Stage                | Time Taken |
[2025-08-29 10:14:09] [info] |-----|-----|
[2025-08-29 10:14:09] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:14:09] [info] | Connectivity Extraction | 0 minutes 48 seconds |
[2025-08-29 10:14:09] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:14:09] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info]             Additional Details
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:14:09] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:14:09] [info] Database Format:       GDSII
[2025-08-29 10:14:09] [info] Verification Mode:    Full Check
[2025-08-29 10:14:09] [info] Error Reporting:      Enabled

[2025-08-29 10:14:09] [info] -----

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[2025-08-29 10:14:09] [info]                                Type of Errors | Count
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info] DB_WARN -> 1
[2025-08-29 10:14:09] [info] DB_WARN003 -> 39
[2025-08-29 10:14:09] [info] VERI_WARN012 -> 4068
[2025-08-29 10:14:09] [info] LVS_ERR018 -> 1
[2025-08-29 10:14:09] [info] LVS_ERR019 -> 4055
[2025-08-29 10:14:09] [info] LVS_ERR003 -> 4054
[2025-08-29 10:14:09] [info] ERC_ERR003 -> 4054
[2025-08-29 10:14:09] [info] LVS_ERR025 -> 1
[2025-08-29 10:14:09] [info] ERC_ERR008 -> 1
[2025-08-29 10:14:09] [info] LVS_ERR005 -> 4306
[2025-08-29 10:14:09] [info] LVS_ERR030 -> 1
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info]                                Summary
[2025-08-29 10:14:09] [info] -----
[2025-08-29 10:14:09] [info] LVS Status:                PASSED
[2025-08-29 10:14:09] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:14:09] [info] Short Circuits:           None Detected
[2025-08-29 10:14:09] [info] Open Circuits:            Open Detected
[2025-08-29 10:14:09] [info] Unconnected Pins:         4155
[2025-08-29 10:14:09] [info] Total Errors:              16473
[2025-08-29 10:14:09] [info] Total Warnings:           4108
[2025-08-29 10:14:09] [info] Critical Issues:          None

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[2025-08-29 10:15:15] [info] =====
[2025-08-29 10:15:15] [info]             Layout Versus Schematic Report
[2025-08-29 10:15:15] [info] =====

[2025-08-29 10:15:15] [info] Report Generated:    2025-08-29
[2025-08-29 10:15:15] [info] Run Start Time:      10:14:21 AM
[2025-08-29 10:15:15] [info] Run End Time:        10:15:15 AM
[2025-08-29 10:15:15] [info] Time Taken:          1 minutes 3 seconds

[2025-08-29 10:15:15] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:15:15] [info] Host Name:           kuro-Workstation
[2025-08-29 10:15:15] [info] User Name:           kuro
[2025-08-29 10:15:15] [info] Cores Used:          1
[2025-08-29 10:15:15] [info] Memory Utilized:     4518.73 MB / 62.569698333740234 GB

[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info]             Top Cell Match
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:15:15] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info]             Netlist Statistics
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:15:15] [info] |-----|-----|-----|
[2025-08-29 10:15:15] [info] | Total Nets            | 69382       | 73447       |
[2025-08-29 10:15:15] [info] | Total Instances       | 607454      | 56666       |
[2025-08-29 10:15:15] [info] | Total Pins            | 633023      | 302074      |
[2025-08-29 10:15:15] [info] |-----|-----|-----|
[2025-08-29 10:15:15] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info] Total Schematic Instances: 56665
[2025-08-29 10:15:15] [info] Matched Instances:      52360
[2025-08-29 10:15:15] [info] Match Percentage: 92.40%

[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info]             Short and Open Checks
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info] Short Circuits:       None Detected
[2025-08-29 10:15:15] [info] Open Circuits:        Open Detected

[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info]             Performance Metrics
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info] | Stage                | Time Taken |
[2025-08-29 10:15:15] [info] |-----|-----|
[2025-08-29 10:15:15] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-08-29 10:15:15] [info] | Connectivity Extraction | 0 minutes 48 seconds |
[2025-08-29 10:15:15] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-08-29 10:15:15] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info]             Additional Details
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:15:15] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:15:15] [info] Database Format:        GDSII
[2025-08-29 10:15:15] [info] Verification Mode:     Full Check
[2025-08-29 10:15:15] [info] Error Reporting:       Enabled

[2025-08-29 10:15:15] [info] -----

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[2025-08-29 10:15:15] [info]                                     Type of Errors | Count
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info] DB_WARN -> 1
[2025-08-29 10:15:15] [info] DB_WARN003 -> 34
[2025-08-29 10:15:15] [info] VERI_WARN012 -> 4068
[2025-08-29 10:15:15] [info] LVS_ERR018 -> 1
[2025-08-29 10:15:15] [info] LVS_ERR019 -> 4068
[2025-08-29 10:15:15] [info] LVS_ERR003 -> 4067
[2025-08-29 10:15:15] [info] ERC_ERR003 -> 4067
[2025-08-29 10:15:15] [info] LVS_ERR025 -> 1
[2025-08-29 10:15:15] [info] ERC_ERR008 -> 1
[2025-08-29 10:15:15] [info] LVS_ERR020 -> 1
[2025-08-29 10:15:15] [info] LVS_ERR005 -> 4305
[2025-08-29 10:15:15] [info] LVS_ERR030 -> 1
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info]                                     Summary
[2025-08-29 10:15:15] [info] -----
[2025-08-29 10:15:15] [info] LVS Status:                PASSED
[2025-08-29 10:15:15] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:15:15] [info] Short Circuits:           None Detected
[2025-08-29 10:15:15] [info] Open Circuits:            Open Detected
[2025-08-29 10:15:15] [info] Unconnected Pins:         4168
[2025-08-29 10:15:15] [info] Total Errors:              16512
[2025-08-29 10:15:15] [info] Total Warnings:            4103
[2025-08-29 10:15:15] [info] Critical Issues:           None

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[2025-08-29 10:15:30] [info] =====
[2025-08-29 10:15:30] [info]             Layout Versus Schematic Report
[2025-08-29 10:15:30] [info] =====

[2025-08-29 10:15:30] [info] Report Generated:    2025-08-29
[2025-08-29 10:15:30] [info] Run Start Time:      10:15:20 AM
[2025-08-29 10:15:30] [info] Run End Time:        10:15:30 AM
[2025-08-29 10:15:30] [info] Time Taken:          0 minutes 12 seconds

[2025-08-29 10:15:30] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:15:30] [info] Host Name:           kuro-Workstation
[2025-08-29 10:15:30] [info] User Name:           kuro
[2025-08-29 10:15:30] [info] Cores Used:          4
[2025-08-29 10:15:30] [info] Memory Utilized:     1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info]             Top Cell Match
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:15:30] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info]             Netlist Statistics
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:15:30] [info] |-----|-----|-----|
[2025-08-29 10:15:30] [info] | Total Nets            | 22584       | 23090       |
[2025-08-29 10:15:30] [info] | Total Instances       | 271307      | 22275       |
[2025-08-29 10:15:30] [info] | Total Pins            | 239003      | 117070      |
[2025-08-29 10:15:30] [info] |-----|-----|-----|
[2025-08-29 10:15:30] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info] Total Schematic Instances: 22274
[2025-08-29 10:15:30] [info] Matched Instances:      21587
[2025-08-29 10:15:30] [info] Match Percentage: 96.92%

[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info]             Short and Open Checks
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info] Short Circuits:       None Detected
[2025-08-29 10:15:30] [info] Open Circuits:        None Detected

[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info]             Performance Metrics
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info] | Stage                | Time Taken |
[2025-08-29 10:15:30] [info] |-----|-----|
[2025-08-29 10:15:30] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-08-29 10:15:30] [info] | Connectivity Extraction | 0 minutes 8 seconds |
[2025-08-29 10:15:30] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-08-29 10:15:30] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info]             Additional Details
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:15:30] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:15:30] [info] Database Format:        GDSII
[2025-08-29 10:15:30] [info] Verification Mode:     Full Check
[2025-08-29 10:15:30] [info] Error Reporting:       Enabled

[2025-08-29 10:15:30] [info] -----
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[2025-08-29 10:15:30] [info]                                     Type of Errors | Count
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info] DB_WARN -> 1
[2025-08-29 10:15:30] [info] DB_WARN003 -> 221
[2025-08-29 10:15:30] [info] VERI_WARN012 -> 508
[2025-08-29 10:15:30] [info] LVS_ERR019 -> 651
[2025-08-29 10:15:30] [info] LVS_ERR003 -> 649
[2025-08-29 10:15:30] [info] ERC_ERR003 -> 649
[2025-08-29 10:15:30] [info] LVS_ERR025 -> 2
[2025-08-29 10:15:30] [info] ERC_ERR008 -> 2
[2025-08-29 10:15:30] [info] LVS_ERR020 -> 1
[2025-08-29 10:15:30] [info] LVS_ERR005 -> 687
[2025-08-29 10:15:30] [info] LVS_ERR030 -> 1
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info]                                     Summary
[2025-08-29 10:15:30] [info] -----
[2025-08-29 10:15:30] [info] LVS Status:                PASSED
[2025-08-29 10:15:30] [info] Instance Match Percentage: 96.92%
[2025-08-29 10:15:30] [info] Short Circuits:           None Detected
[2025-08-29 10:15:30] [info] Open Circuits:            None Detected
[2025-08-29 10:15:30] [info] Unconnected Pins:         751
[2025-08-29 10:15:30] [info] Total Errors:              2642
[2025-08-29 10:15:30] [info] Total Warnings:           730
[2025-08-29 10:15:30] [info] Critical Issues:          None

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[2025-09-02 05:57:02] [info] =====
[2025-09-02 05:57:02] [info]             Layout Versus Schematic Report
[2025-09-02 05:57:02] [info] =====

[2025-09-02 05:57:02] [info] Report Generated:    2025-09-02
[2025-09-02 05:57:02] [info] Run Start Time:      05:56:51 AM
[2025-09-02 05:57:02] [info] Run End Time:        05:57:02 AM
[2025-09-02 05:57:02] [info] Time Taken:          0 minutes 13 seconds

[2025-09-02 05:57:02] [info] Tool Version:        LVR_2025.1
[2025-09-02 05:57:02] [info] Host Name:           kuro-Workstation
[2025-09-02 05:57:02] [info] User Name:           kuro
[2025-09-02 05:57:02] [info] Cores Used:          4
[2025-09-02 05:57:02] [info] Memory Utilized:     1469.68 MB / 62.569698333740234 GB

[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info]             Top Cell Match
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info] Layout Top Cell:     aes_cipher_top
[2025-09-02 05:57:02] [info] Schematic Top Cell:  aes_cipher_top
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info]             Netlist Statistics
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info] | Metric                | Layout      | Schematic   |
[2025-09-02 05:57:02] [info] |-----|-----|-----|
[2025-09-02 05:57:02] [info] | Total Nets             | 22535       | 23041       |
[2025-09-02 05:57:02] [info] | Total Instances        | 282214      | 22253       |
[2025-09-02 05:57:02] [info] | Total Pins             | 251455      | 116968      |
[2025-09-02 05:57:02] [info] |-----|-----|-----|
[2025-09-02 05:57:02] [info]             Pin to Net Mapping Percentage
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info] Total Schematic Instances: 22253
[2025-09-02 05:57:02] [info] Matched Instances:        21554
[2025-09-02 05:57:02] [info] Match Percentage: 96.86%

[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info]             Short and Open Checks
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info] Short Circuits:        None Detected
[2025-09-02 05:57:02] [info] Open Circuits:         Open Detected

[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info]             Performance Metrics
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info] | Stage                  | Time Taken |
[2025-09-02 05:57:02] [info] |-----|-----|
[2025-09-02 05:57:02] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-02 05:57:02] [info] | Connectivity Extraction  | 0 minutes 8 seconds |
[2025-09-02 05:57:02] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-02 05:57:02] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info]             Additional Details
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info] Technology Node:        Nangate45 (45nm)
[2025-09-02 05:57:02] [info] Hierarchical Cells:     Flattened
[2025-09-02 05:57:02] [info] Database Format:         GDSII
[2025-09-02 05:57:02] [info] Verification Mode:      Full Check
[2025-09-02 05:57:02] [info] Error Reporting:        Enabled

[2025-09-02 05:57:02] [info] -----

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[2025-09-02 05:57:02] [info] Type of Errors | Count
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info] DB_WARN -> 1
[2025-09-02 05:57:02] [info] DB_WARN003 -> 219
[2025-09-02 05:57:02] [info] VERI_WARN012 -> 508
[2025-09-02 05:57:02] [info] LVS_ERR018 -> 1
[2025-09-02 05:57:02] [info] LVS_ERR019 -> 663
[2025-09-02 05:57:02] [info] LVS_ERR003 -> 661
[2025-09-02 05:57:02] [info] ERC_ERR003 -> 661
[2025-09-02 05:57:02] [info] LVS_ERR025 -> 2
[2025-09-02 05:57:02] [info] ERC_ERR008 -> 2
[2025-09-02 05:57:02] [info] LVS_ERR005 -> 699
[2025-09-02 05:57:02] [info] LVS_ERR030 -> 1
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info] Summary
[2025-09-02 05:57:02] [info] -----
[2025-09-02 05:57:02] [info] LVS Status: PASSED
[2025-09-02 05:57:02] [info] Instance Match Percentage: 96.86%
[2025-09-02 05:57:02] [info] Short Circuits: None Detected
[2025-09-02 05:57:02] [info] Open Circuits: Open Detected
[2025-09-02 05:57:02] [info] Unconnected Pins: 763
[2025-09-02 05:57:02] [info] Total Errors: 2690
[2025-09-02 05:57:02] [info] Total Warnings: 728
[2025-09-02 05:57:02] [info] Critical Issues: None
```

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[2025-08-29 10:15:48] [info] =====
[2025-08-29 10:15:48] [info]             Layout Versus Schematic Report
[2025-08-29 10:15:48] [info] =====

[2025-08-29 10:15:48] [info] Report Generated:    2025-08-29
[2025-08-29 10:15:48] [info] Run Start Time:      10:15:38 AM
[2025-08-29 10:15:48] [info] Run End Time:        10:15:47 AM
[2025-08-29 10:15:48] [info] Time Taken:          0 minutes 12 seconds

[2025-08-29 10:15:48] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:15:48] [info] Host Name:           kuro-Workstation
[2025-08-29 10:15:48] [info] User Name:           kuro
[2025-08-29 10:15:48] [info] Cores Used:          4
[2025-08-29 10:15:48] [info] Memory Utilized:     1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info]             Top Cell Match
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:15:48] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info]             Netlist Statistics
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:15:48] [info] |-----|-----|-----|
[2025-08-29 10:15:48] [info] | Total Nets             | 22516       | 23022       |
[2025-08-29 10:15:48] [info] | Total Instances        | 269556      | 22222       |
[2025-08-29 10:15:48] [info] | Total Pins             | 233667      | 116862      |
[2025-08-29 10:15:48] [info] |-----|-----|-----|
[2025-08-29 10:15:48] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info] Total Schematic Instances: 22222
[2025-08-29 10:15:48] [info] Matched Instances:      21505
[2025-08-29 10:15:48] [info] Match Percentage: 96.77%

[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info]             Short and Open Checks
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info] Short Circuits:       None Detected
[2025-08-29 10:15:48] [info] Open Circuits:        None Detected

[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info]             Performance Metrics
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info] | Stage                  | Time Taken |
[2025-08-29 10:15:48] [info] |-----|-----|
[2025-08-29 10:15:48] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:15:48] [info] | Connectivity Extraction | 0 minutes 7 seconds |
[2025-08-29 10:15:48] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:15:48] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info]             Additional Details
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:15:48] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:15:48] [info] Database Format:       GDSII
[2025-08-29 10:15:48] [info] Verification Mode:    Full Check
[2025-08-29 10:15:48] [info] Error Reporting:      Enabled

[2025-08-29 10:15:48] [info] -----

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[2025-08-29 10:15:48] [info]                                Type of Errors | Count
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info] DB_WARN -> 1
[2025-08-29 10:15:48] [info] DB_WARN003 -> 221
[2025-08-29 10:15:48] [info] VERI_WARN012 -> 508
[2025-08-29 10:15:48] [info] LVS_ERR019 -> 686
[2025-08-29 10:15:48] [info] LVS_ERR003 -> 685
[2025-08-29 10:15:48] [info] ERC_ERR003 -> 685
[2025-08-29 10:15:48] [info] LVS_ERR025 -> 1
[2025-08-29 10:15:48] [info] ERC_ERR008 -> 1
[2025-08-29 10:15:48] [info] LVS_ERR005 -> 717
[2025-08-29 10:15:48] [info] LVS_ERR030 -> 1
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info]                                Summary
[2025-08-29 10:15:48] [info] -----
[2025-08-29 10:15:48] [info] LVS Status:                PASSED
[2025-08-29 10:15:48] [info] Instance Match Percentage: 96.77%
[2025-08-29 10:15:48] [info] Short Circuits:           None Detected
[2025-08-29 10:15:48] [info] Open Circuits:            None Detected
[2025-08-29 10:15:48] [info] Unconnected Pins:         786
[2025-08-29 10:15:48] [info] Total Errors:              2776
[2025-08-29 10:15:48] [info] Total Warnings:            730
[2025-08-29 10:15:48] [info] Critical Issues:           None
```

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[2025-08-29 10:15:17] [info] =====
[2025-08-29 10:15:17] [info]           Layout Versus Schematic Report
[2025-08-29 10:15:17] [info] =====

[2025-08-29 10:15:17] [info] Report Generated:    2025-08-29
[2025-08-29 10:15:17] [info] Run Start Time:      10:15:16 AM
[2025-08-29 10:15:17] [info] Run End Time:        10:15:17 AM
[2025-08-29 10:15:17] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:15:17] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:15:17] [info] Host Name:           kuro-Workstation
[2025-08-29 10:15:17] [info] User Name:           kuro
[2025-08-29 10:15:17] [info] Cores Used:          4
[2025-08-29 10:15:17] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Top Cell Match
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Layout Top Cell:     gcd
[2025-08-29 10:15:17] [info] Schematic Top Cell:  gcd
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Netlist Statistics
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:15:17] [info] |-----|-----|-----|
[2025-08-29 10:15:17] [info] | Total Nets             | 485         | 519         |
[2025-08-29 10:15:17] [info] | Total Instances        | 4642        | 428         |
[2025-08-29 10:15:17] [info] | Total Pins             | 4999        | 2165        |
[2025-08-29 10:15:17] [info] |-----|-----|-----|
[2025-08-29 10:15:17] [info]           Pin to Net Mapping Percentage
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Total Schematic Instances:    428
[2025-08-29 10:15:17] [info] Matched Instances:           392
[2025-08-29 10:15:17] [info] Match Percentage: 91.59%

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Short and Open Checks
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Short Circuits:      None Detected
[2025-08-29 10:15:17] [info] Open Circuits:       Open Detected

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Performance Metrics
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] | Stage                | Time Taken |
[2025-08-29 10:15:17] [info] |-----|-----|
[2025-08-29 10:15:17] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-08-29 10:15:17] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:15:17] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-08-29 10:15:17] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Additional Details
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:15:17] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:15:17] [info] Database Format:       GDSII
[2025-08-29 10:15:17] [info] Verification Mode:    Full Check
[2025-08-29 10:15:17] [info] Error Reporting:      Enabled

[2025-08-29 10:15:17] [info] -----

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[2025-08-29 10:15:17] [info]                Type of Errors | Count
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] DB_WARN -> 1
[2025-08-29 10:15:17] [info] DB_WARN003 -> 24
[2025-08-29 10:15:17] [info] VERI_WARN012 -> 41
[2025-08-29 10:15:17] [info] LVS_ERR018 -> 1
[2025-08-29 10:15:17] [info] LVS_ERR019 -> 33
[2025-08-29 10:15:17] [info] LVS_ERR003 -> 31
[2025-08-29 10:15:17] [info] ERC_ERR003 -> 31
[2025-08-29 10:15:17] [info] LVS_ERR025 -> 2
[2025-08-29 10:15:17] [info] ERC_ERR008 -> 2
[2025-08-29 10:15:17] [info] LVS_ERR005 -> 36
[2025-08-29 10:15:17] [info] LVS_ERR030 -> 1
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]                Summary
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] LVS Status:                PASSED
[2025-08-29 10:15:17] [info] Instance Match Percentage: 91.59%
[2025-08-29 10:15:17] [info] Short Circuits:            None Detected
[2025-08-29 10:15:17] [info] Open Circuits:             Open Detected
[2025-08-29 10:15:17] [info] Unconnected Pins:          133
[2025-08-29 10:15:17] [info] Total Errors:               137
[2025-08-29 10:15:17] [info] Total Warnings:             66
[2025-08-29 10:15:17] [info] Critical Issues:            None

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[2025-08-29 10:15:17] [info] =====
[2025-08-29 10:15:17] [info]           Layout Versus Schematic Report
[2025-08-29 10:15:17] [info] =====

[2025-08-29 10:15:17] [info] Report Generated:    2025-08-29
[2025-08-29 10:15:17] [info] Run Start Time:      10:15:17 AM
[2025-08-29 10:15:17] [info] Run End Time:        10:15:17 AM
[2025-08-29 10:15:17] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:15:17] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:15:17] [info] Host Name:           kuro-Workstation
[2025-08-29 10:15:17] [info] User Name:           kuro
[2025-08-29 10:15:17] [info] Cores Used:          4
[2025-08-29 10:15:17] [info] Memory Utilized:     31.00 MB / 62.569698333740234 GB

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Top Cell Match
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Layout Top Cell:     gcd
[2025-08-29 10:15:17] [info] Schematic Top Cell:  gcd
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Netlist Statistics
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:15:17] [info] |-----|-----|-----|
[2025-08-29 10:15:17] [info] | Total Nets             | 482         | 516         |
[2025-08-29 10:15:17] [info] | Total Instances        | 4922        | 427         |
[2025-08-29 10:15:17] [info] | Total Pins             | 5189        | 2161        |
[2025-08-29 10:15:17] [info] |-----|-----|-----|
[2025-08-29 10:15:17] [info]           Pin to Net Mapping Percentage
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Total Schematic Instances:    426
[2025-08-29 10:15:17] [info] Matched Instances:           391
[2025-08-29 10:15:17] [info] Match Percentage: 91.78%

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Short and Open Checks
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Short Circuits:      None Detected
[2025-08-29 10:15:17] [info] Open Circuits:       None Detected

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Performance Metrics
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] | Stage                | Time Taken |
[2025-08-29 10:15:17] [info] |-----|-----|
[2025-08-29 10:15:17] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-08-29 10:15:17] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:15:17] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-08-29 10:15:17] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]           Additional Details
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:15:17] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:15:17] [info] Database Format:       GDSII
[2025-08-29 10:15:17] [info] Verification Mode:    Full Check
[2025-08-29 10:15:17] [info] Error Reporting:      Enabled

[2025-08-29 10:15:17] [info] -----

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[2025-08-29 10:15:17] [info] Type of Errors | Count
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] DB_WARN -> 1
[2025-08-29 10:15:17] [info] DB_WARN003 -> 34
[2025-08-29 10:15:17] [info] VERI_WARN012 -> 40
[2025-08-29 10:15:17] [info] LVS_ERR019 -> 34
[2025-08-29 10:15:17] [info] LVS_ERR003 -> 32
[2025-08-29 10:15:17] [info] ERC_ERR003 -> 32
[2025-08-29 10:15:17] [info] LVS_ERR025 -> 2
[2025-08-29 10:15:17] [info] ERC_ERR008 -> 2
[2025-08-29 10:15:17] [info] LVS_ERR020 -> 1
[2025-08-29 10:15:17] [info] LVS_ERR005 -> 35
[2025-08-29 10:15:17] [info] LVS_ERR030 -> 1
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Summary
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] LVS Status: PASSED
[2025-08-29 10:15:17] [info] Instance Match Percentage: 91.78%
[2025-08-29 10:15:17] [info] Short Circuits: None Detected
[2025-08-29 10:15:17] [info] Open Circuits: None Detected
[2025-08-29 10:15:17] [info] Unconnected Pins: 134
[2025-08-29 10:15:17] [info] Total Errors: 139
[2025-08-29 10:15:17] [info] Total Warnings: 75
[2025-08-29 10:15:17] [info] Critical Issues: None
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[2025-08-29 10:15:17] [info] =====
[2025-08-29 10:15:17] [info]             Layout Versus Schematic Report
[2025-08-29 10:15:17] [info] =====

[2025-08-29 10:15:17] [info] Report Generated:    2025-08-29
[2025-08-29 10:15:17] [info] Run Start Time:      10:15:17 AM
[2025-08-29 10:15:17] [info] Run End Time:        10:15:17 AM
[2025-08-29 10:15:17] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:15:17] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:15:17] [info] Host Name:           kuro-Workstation
[2025-08-29 10:15:17] [info] User Name:           kuro
[2025-08-29 10:15:17] [info] Cores Used:          4
[2025-08-29 10:15:17] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]             Top Cell Match
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Layout Top Cell:     gcd
[2025-08-29 10:15:17] [info] Schematic Top Cell:  gcd
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]             Netlist Statistics
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:15:17] [info] |-----|-----|-----|
[2025-08-29 10:15:17] [info] | Total Nets             | 489         | 523         |
[2025-08-29 10:15:17] [info] | Total Instances        | 4681        | 427         |
[2025-08-29 10:15:17] [info] | Total Pins             | 4941        | 2165        |
[2025-08-29 10:15:17] [info] |-----|-----|-----|
[2025-08-29 10:15:17] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Total Schematic Instances:    427
[2025-08-29 10:15:17] [info] Matched Instances:           389
[2025-08-29 10:15:17] [info] Match Percentage: 91.10%

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]             Short and Open Checks
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Short Circuits:      None Detected
[2025-08-29 10:15:17] [info] Open Circuits:       None Detected

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]             Performance Metrics
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] | Stage                | Time Taken |
[2025-08-29 10:15:17] [info] |-----|-----|
[2025-08-29 10:15:17] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:15:17] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:15:17] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:15:17] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info]             Additional Details
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:15:17] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:15:17] [info] Database Format:       GDSII
[2025-08-29 10:15:17] [info] Verification Mode:    Full Check
[2025-08-29 10:15:17] [info] Error Reporting:      Enabled

[2025-08-29 10:15:17] [info] -----

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[2025-08-29 10:15:17] [info] Type of Errors | Count
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] DB_WARN -> 1
[2025-08-29 10:15:17] [info] DB_WARN003 -> 26
[2025-08-29 10:15:17] [info] VERI_WARN012 -> 39
[2025-08-29 10:15:17] [info] LVS_ERR019 -> 38
[2025-08-29 10:15:17] [info] LVS_ERR003 -> 36
[2025-08-29 10:15:17] [info] ERC_ERR003 -> 36
[2025-08-29 10:15:17] [info] LVS_ERR025 -> 2
[2025-08-29 10:15:17] [info] ERC_ERR008 -> 2
[2025-08-29 10:15:17] [info] LVS_ERR005 -> 38
[2025-08-29 10:15:17] [info] LVS_ERR030 -> 1
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] Summary
[2025-08-29 10:15:17] [info] -----
[2025-08-29 10:15:17] [info] LVS Status: PASSED
[2025-08-29 10:15:17] [info] Instance Match Percentage: 91.10%
[2025-08-29 10:15:17] [info] Short Circuits: None Detected
[2025-08-29 10:15:17] [info] Open Circuits: None Detected
[2025-08-29 10:15:17] [info] Unconnected Pins: 138
[2025-08-29 10:15:17] [info] Total Errors: 153
[2025-08-29 10:15:17] [info] Total Warnings: 66
[2025-08-29 10:15:17] [info] Critical Issues: None
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[2025-08-29 10:16:01] [info] =====
[2025-08-29 10:16:01] [info]           Layout Versus Schematic Report
[2025-08-29 10:16:01] [info] =====

[2025-08-29 10:16:01] [info] Report Generated:    2025-08-29
[2025-08-29 10:16:01] [info] Run Start Time:      10:15:51 AM
[2025-08-29 10:16:01] [info] Run End Time:        10:16:01 AM
[2025-08-29 10:16:01] [info] Time Taken:          0 minutes 12 seconds

[2025-08-29 10:16:01] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:16:01] [info] Host Name:           kuro-Workstation
[2025-08-29 10:16:01] [info] User Name:           kuro
[2025-08-29 10:16:01] [info] Cores Used:          4
[2025-08-29 10:16:01] [info] Memory Utilized:     1574.52 MB / 62.569698333740234 GB

[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info]           Top Cell Match
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:16:01] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info]           Netlist Statistics
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:16:01] [info] |-----|-----|-----|
[2025-08-29 10:16:01] [info] | Total Nets             | 20853       | 21678       |
[2025-08-29 10:16:01] [info] | Total Instances        | 235969      | 18896       |
[2025-08-29 10:16:01] [info] | Total Pins             | 219487      | 104536      |
[2025-08-29 10:16:01] [info] |-----|-----|-----|
[2025-08-29 10:16:01] [info]           Pin to Net Mapping Percentage
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info] Total Schematic Instances: 18895
[2025-08-29 10:16:01] [info] Matched Instances:        17934
[2025-08-29 10:16:01] [info] Match Percentage: 94.91%

[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info]           Short and Open Checks
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info] Short Circuits:        None Detected
[2025-08-29 10:16:01] [info] Open Circuits:         None Detected

[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info]           Performance Metrics
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info] | Stage                  | Time Taken |
[2025-08-29 10:16:01] [info] |-----|-----|
[2025-08-29 10:16:01] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:16:01] [info] | Connectivity Extraction | 0 minutes 7 seconds |
[2025-08-29 10:16:01] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:16:01] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info]           Additional Details
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:16:01] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:16:01] [info] Database Format:         GDSII
[2025-08-29 10:16:01] [info] Verification Mode:      Full Check
[2025-08-29 10:16:01] [info] Error Reporting:        Enabled

[2025-08-29 10:16:01] [info] -----

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[2025-08-29 10:16:01] [info]                Type of Errors | Count
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info] DB_WARN -> 1
[2025-08-29 10:16:01] [info] DB_WARN003 -> 85
[2025-08-29 10:16:01] [info] VERI_WARN012 -> 828
[2025-08-29 10:16:01] [info] LVS_ERR019 -> 903
[2025-08-29 10:16:01] [info] LVS_ERR003 -> 894
[2025-08-29 10:16:01] [info] ERC_ERR003 -> 894
[2025-08-29 10:16:01] [info] LVS_ERR025 -> 1
[2025-08-29 10:16:01] [info] ERC_ERR008 -> 1
[2025-08-29 10:16:01] [info] LVS_ERR020 -> 1
[2025-08-29 10:16:01] [info] LVS_ERR005 -> 961
[2025-08-29 10:16:01] [info] LVS_ERR030 -> 1
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info]                Summary
[2025-08-29 10:16:01] [info] -----
[2025-08-29 10:16:01] [info] LVS Status:                PASSED
[2025-08-29 10:16:01] [info] Instance Match Percentage: 94.91%
[2025-08-29 10:16:01] [info] Short Circuits:            None Detected
[2025-08-29 10:16:01] [info] Open Circuits:             None Detected
[2025-08-29 10:16:01] [info] Unconnected Pins:          1003
[2025-08-29 10:16:01] [info] Total Errors:               3656
[2025-08-29 10:16:01] [info] Total Warnings:             914
[2025-08-29 10:16:01] [info] Critical Issues:           None
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[2025-09-02 05:57:15] [info] =====
[2025-09-02 05:57:15] [info] Layout Versus Schematic Report
[2025-09-02 05:57:15] [info] =====

[2025-09-02 05:57:15] [info] Report Generated: 2025-09-02
[2025-09-02 05:57:15] [info] Run Start Time: 05:57:05 AM
[2025-09-02 05:57:15] [info] Run End Time: 05:57:15 AM
[2025-09-02 05:57:15] [info] Time Taken: 0 minutes 12 seconds

[2025-09-02 05:57:15] [info] Tool Version: LVR_2025.1
[2025-09-02 05:57:15] [info] Host Name: kuro-Workstation
[2025-09-02 05:57:15] [info] User Name: kuro
[2025-09-02 05:57:15] [info] Cores Used: 4
[2025-09-02 05:57:15] [info] Memory Utilized: 1601.60 MB / 62.569698333740234 GB

[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Top Cell Match
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Layout Top Cell: ibex_core
[2025-09-02 05:57:15] [info] Schematic Top Cell: ibex_core
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Netlist Statistics
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] | Metric | Layout | Schematic |
[2025-09-02 05:57:15] [info] |-----|-----|-----|
[2025-09-02 05:57:15] [info] | Total Nets | 20853 | 21678 |
[2025-09-02 05:57:15] [info] | Total Instances | 245499 | 18933 |
[2025-09-02 05:57:15] [info] | Total Pins | 230379 | 104624 |
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Pin to Net Mapping Percentage
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Total Schematic Instances: 18933
[2025-09-02 05:57:15] [info] Matched Instances: 13384
[2025-09-02 05:57:15] [info] Match Percentage: 70.69%

[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Short and Open Checks
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Short Circuits: None Detected
[2025-09-02 05:57:15] [info] Open Circuits: None Detected

[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Performance Metrics
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] | Stage | Time Taken |
[2025-09-02 05:57:15] [info] |-----|-----|
[2025-09-02 05:57:15] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-02 05:57:15] [info] | Connectivity Extraction | 0 minutes 7 seconds |
[2025-09-02 05:57:15] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-02 05:57:15] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Additional Details
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Technology Node: Nangate45 (45nm)
[2025-09-02 05:57:15] [info] Hierarchical Cells: Flattened
[2025-09-02 05:57:15] [info] Database Format: GDSII
[2025-09-02 05:57:15] [info] Verification Mode: Full Check
[2025-09-02 05:57:15] [info] Error Reporting: Enabled

[2025-09-02 05:57:15] [info] -----

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[2025-09-02 05:57:15] [info] Type of Errors | Count
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] DB_WARN -> 1
[2025-09-02 05:57:15] [info] DB_WARN003 -> 85
[2025-09-02 05:57:15] [info] VERI_WARN012 -> 828
[2025-09-02 05:57:15] [info] LVS_ERR019 -> 893
[2025-09-02 05:57:15] [info] LVS_ERR003 -> 883
[2025-09-02 05:57:15] [info] ERC_ERR003 -> 883
[2025-09-02 05:57:15] [info] LVS_ERR025 -> 2
[2025-09-02 05:57:15] [info] ERC_ERR008 -> 2
[2025-09-02 05:57:15] [info] LVS_ERR005 -> 5549
[2025-09-02 05:57:15] [info] LVS_ERR030 -> 1
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] Summary
[2025-09-02 05:57:15] [info] -----
[2025-09-02 05:57:15] [info] LVS Status: PASSED
[2025-09-02 05:57:15] [info] Instance Match Percentage: 70.69%
[2025-09-02 05:57:15] [info] Short Circuits: None Detected
[2025-09-02 05:57:15] [info] Open Circuits: None Detected
[2025-09-02 05:57:15] [info] Unconnected Pins: 993
[2025-09-02 05:57:15] [info] Total Errors: 8213
[2025-09-02 05:57:15] [info] Total Warnings: 914
[2025-09-02 05:57:15] [info] Critical Issues: None
```

```
[2025-08-29 10:16:18] [info] =====
[2025-08-29 10:16:18] [info] Layout Versus Schematic Report
[2025-08-29 10:16:18] [info] =====

[2025-08-29 10:16:18] [info] Report Generated: 2025-08-29
[2025-08-29 10:16:18] [info] Run Start Time: 10:16:09 AM
[2025-08-29 10:16:18] [info] Run End Time: 10:16:18 AM
[2025-08-29 10:16:18] [info] Time Taken: 0 minutes 12 seconds

[2025-08-29 10:16:18] [info] Tool Version: LVR_2025.1
[2025-08-29 10:16:18] [info] Host Name: kuro-Workstation
[2025-08-29 10:16:18] [info] User Name: kuro
[2025-08-29 10:16:18] [info] Cores Used: 4
[2025-08-29 10:16:18] [info] Memory Utilized: 1464.05 MB / 62.569698333740234 GB

[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Top Cell Match
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Layout Top Cell: ibex_core
[2025-08-29 10:16:18] [info] Schematic Top Cell: ibex_core
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Netlist Statistics
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] | Metric | Layout | Schematic |
[2025-08-29 10:16:18] [info] |-----|-----|-----|
[2025-08-29 10:16:18] [info] | Total Nets | 20848 | 21673 |
[2025-08-29 10:16:18] [info] | Total Instances | 231162 | 18863 |
[2025-08-29 10:16:18] [info] | Total Pins | 210404 | 104404 |
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Pin to Net Mapping Percentage
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Total Schematic Instances: 18863
[2025-08-29 10:16:18] [info] Matched Instances: 17920
[2025-08-29 10:16:18] [info] Match Percentage: 95.00%

[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Short and Open Checks
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Short Circuits: None Detected
[2025-08-29 10:16:18] [info] Open Circuits: None Detected

[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Performance Metrics
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] | Stage | Time Taken |
[2025-08-29 10:16:18] [info] |-----|-----|
[2025-08-29 10:16:18] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:16:18] [info] | Connectivity Extraction | 0 minutes 7 seconds |
[2025-08-29 10:16:18] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:16:18] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Additional Details
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:16:18] [info] Hierarchical Cells: Flattened
[2025-08-29 10:16:18] [info] Database Format: GDSII
[2025-08-29 10:16:18] [info] Verification Mode: Full Check
[2025-08-29 10:16:18] [info] Error Reporting: Enabled

[2025-08-29 10:16:18] [info] -----
```

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[2025-08-29 10:16:18] [info] Type of Errors | Count
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] DB_WARN -> 1
[2025-08-29 10:16:18] [info] DB_WARN003 -> 98
[2025-08-29 10:16:18] [info] VERI_WARN012 -> 828
[2025-08-29 10:16:18] [info] LVS_ERR019 -> 880
[2025-08-29 10:16:18] [info] LVS_ERR003 -> 871
[2025-08-29 10:16:18] [info] ERC_ERR003 -> 871
[2025-08-29 10:16:18] [info] LVS_ERR025 -> 1
[2025-08-29 10:16:18] [info] ERC_ERR008 -> 1
[2025-08-29 10:16:18] [info] LVS_ERR005 -> 943
[2025-08-29 10:16:18] [info] LVS_ERR030 -> 1
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] Summary
[2025-08-29 10:16:18] [info] -----
[2025-08-29 10:16:18] [info] LVS Status: PASSED
[2025-08-29 10:16:18] [info] Instance Match Percentage: 95.00%
[2025-08-29 10:16:18] [info] Short Circuits: None Detected
[2025-08-29 10:16:18] [info] Open Circuits: None Detected
[2025-08-29 10:16:18] [info] Unconnected Pins: 980
[2025-08-29 10:16:18] [info] Total Errors: 3568
[2025-08-29 10:16:18] [info] Total Warnings: 927
[2025-08-29 10:16:18] [info] Critical Issues: None
```

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[2025-08-29 10:16:57] [info] =====
[2025-08-29 10:16:57] [info]             Layout Versus Schematic Report
[2025-08-29 10:16:57] [info] =====

[2025-08-29 10:16:57] [info] Report Generated:    2025-08-29
[2025-08-29 10:16:57] [info] Run Start Time:      10:16:29 AM
[2025-08-29 10:16:57] [info] Run End Time:        10:16:56 AM
[2025-08-29 10:16:57] [info] Time Taken:          0 minutes 38 seconds

[2025-08-29 10:16:57] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:16:57] [info] Host Name:           kuro-Workstation
[2025-08-29 10:16:57] [info] User Name:           kuro
[2025-08-29 10:16:57] [info] Cores Used:          4
[2025-08-29 10:16:57] [info] Memory Utilized:     4551.48 MB / 62.569698333740234 GB

[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info]             Top Cell Match
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:16:57] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info]             Netlist Statistics
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:16:57] [info] |-----|-----|-----|
[2025-08-29 10:16:57] [info] | Total Nets             | 69401       | 73466       |
[2025-08-29 10:16:57] [info] | Total Instances        | 625384      | 56662       |
[2025-08-29 10:16:57] [info] | Total Pins             | 660922      | 302058      |
[2025-08-29 10:16:57] [info] |-----|-----|-----|
[2025-08-29 10:16:57] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info] Total Schematic Instances:    56662
[2025-08-29 10:16:57] [info] Matched Instances:           52362
[2025-08-29 10:16:57] [info] Match Percentage: 92.41%

[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info]             Short and Open Checks
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info] Short Circuits:      None Detected
[2025-08-29 10:16:57] [info] Open Circuits:       None Detected

[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info]             Performance Metrics
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info] | Stage                | Time Taken |
[2025-08-29 10:16:57] [info] |-----|-----|
[2025-08-29 10:16:57] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:16:57] [info] | Connectivity Extraction | 0 minutes 22 seconds |
[2025-08-29 10:16:57] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:16:57] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info]             Additional Details
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:16:57] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:16:57] [info] Database Format:       GDSII
[2025-08-29 10:16:57] [info] Verification Mode:    Full Check
[2025-08-29 10:16:57] [info] Error Reporting:      Enabled

[2025-08-29 10:16:57] [info] -----

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[2025-08-29 10:16:57] [info] Type of Errors | Count
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info] DB_WARN -> 1
[2025-08-29 10:16:57] [info] DB_WARN003 -> 37
[2025-08-29 10:16:57] [info] VERI_WARN012 -> 4068
[2025-08-29 10:16:57] [info] LVS_ERR019 -> 4068
[2025-08-29 10:16:57] [info] LVS_ERR003 -> 4066
[2025-08-29 10:16:57] [info] ERC_ERR003 -> 4066
[2025-08-29 10:16:57] [info] LVS_ERR025 -> 2
[2025-08-29 10:16:57] [info] ERC_ERR008 -> 2
[2025-08-29 10:16:57] [info] LVS_ERR005 -> 4300
[2025-08-29 10:16:57] [info] LVS_ERR030 -> 1
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info] Summary
[2025-08-29 10:16:57] [info] -----
[2025-08-29 10:16:57] [info] LVS Status: PASSED
[2025-08-29 10:16:57] [info] Instance Match Percentage: 92.41%
[2025-08-29 10:16:57] [info] Short Circuits: None Detected
[2025-08-29 10:16:57] [info] Open Circuits: None Detected
[2025-08-29 10:16:57] [info] Unconnected Pins: 4168
[2025-08-29 10:16:57] [info] Total Errors: 16505
[2025-08-29 10:16:57] [info] Total Warnings: 4106
[2025-08-29 10:16:57] [info] Critical Issues: None
```

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[2025-08-29 10:17:37] [info] =====
[2025-08-29 10:17:37] [info]             Layout Versus Schematic Report
[2025-08-29 10:17:37] [info] =====

[2025-08-29 10:17:37] [info] Report Generated:    2025-08-29
[2025-08-29 10:17:37] [info] Run Start Time:      10:17:08 AM
[2025-08-29 10:17:37] [info] Run End Time:        10:17:37 AM
[2025-08-29 10:17:37] [info] Time Taken:          0 minutes 38 seconds

[2025-08-29 10:17:37] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:17:37] [info] Host Name:           kuro-Workstation
[2025-08-29 10:17:37] [info] User Name:           kuro
[2025-08-29 10:17:37] [info] Cores Used:          4
[2025-08-29 10:17:37] [info] Memory Utilized:     4599.00 MB / 62.569698333740234 GB

[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info]             Top Cell Match
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:17:37] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info]             Netlist Statistics
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:17:37] [info] |-----|-----|-----|
[2025-08-29 10:17:37] [info] | Total Nets            | 69389       | 73454       |
[2025-08-29 10:17:37] [info] | Total Instances       | 657399      | 56662       |
[2025-08-29 10:17:37] [info] | Total Pins            | 701572      | 302062      |
[2025-08-29 10:17:37] [info] |-----|-----|-----|
[2025-08-29 10:17:37] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info] Total Schematic Instances:    56662
[2025-08-29 10:17:37] [info] Matched Instances:           52356
[2025-08-29 10:17:37] [info] Match Percentage: 92.40%

[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info]             Short and Open Checks
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info] Short Circuits:      None Detected
[2025-08-29 10:17:37] [info] Open Circuits:       Open Detected

[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info]             Performance Metrics
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info] | Stage                | Time Taken |
[2025-08-29 10:17:37] [info] |-----|-----|
[2025-08-29 10:17:37] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-08-29 10:17:37] [info] | Connectivity Extraction | 0 minutes 22 seconds |
[2025-08-29 10:17:37] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-08-29 10:17:37] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info]             Additional Details
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:17:37] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:17:37] [info] Database Format:       GDSII
[2025-08-29 10:17:37] [info] Verification Mode:    Full Check
[2025-08-29 10:17:37] [info] Error Reporting:      Enabled

[2025-08-29 10:17:37] [info] -----

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[2025-08-29 10:17:37] [info]                Type of Errors | Count
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info] DB_WARN -> 1
[2025-08-29 10:17:37] [info] DB_WARN003 -> 39
[2025-08-29 10:17:37] [info] VERI_WARN012 -> 4068
[2025-08-29 10:17:37] [info] LVS_ERR018 -> 1
[2025-08-29 10:17:37] [info] LVS_ERR019 -> 4055
[2025-08-29 10:17:37] [info] LVS_ERR003 -> 4054
[2025-08-29 10:17:37] [info] ERC_ERR003 -> 4054
[2025-08-29 10:17:37] [info] LVS_ERR025 -> 1
[2025-08-29 10:17:37] [info] ERC_ERR008 -> 1
[2025-08-29 10:17:37] [info] LVS_ERR005 -> 4306
[2025-08-29 10:17:37] [info] LVS_ERR030 -> 1
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info]                Summary
[2025-08-29 10:17:37] [info] -----
[2025-08-29 10:17:37] [info] LVS Status:                PASSED
[2025-08-29 10:17:37] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:17:37] [info] Short Circuits:            None Detected
[2025-08-29 10:17:37] [info] Open Circuits:             Open Detected
[2025-08-29 10:17:37] [info] Unconnected Pins:          4155
[2025-08-29 10:17:37] [info] Total Errors:               16473
[2025-08-29 10:17:37] [info] Total Warnings:             4108
[2025-08-29 10:17:37] [info] Critical Issues:           None
```

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[2025-08-29 10:18:16] [info] =====
[2025-08-29 10:18:16] [info]             Layout Versus Schematic Report
[2025-08-29 10:18:16] [info] =====

[2025-08-29 10:18:16] [info] Report Generated:    2025-08-29
[2025-08-29 10:18:16] [info] Run Start Time:      10:17:48 AM
[2025-08-29 10:18:16] [info] Run End Time:        10:18:16 AM
[2025-08-29 10:18:16] [info] Time Taken:          0 minutes 37 seconds

[2025-08-29 10:18:16] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:18:16] [info] Host Name:           kuro-Workstation
[2025-08-29 10:18:16] [info] User Name:           kuro
[2025-08-29 10:18:16] [info] Cores Used:          4
[2025-08-29 10:18:16] [info] Memory Utilized:     4518.73 MB / 62.569698333740234 GB

[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info]             Top Cell Match
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:18:16] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info]             Netlist Statistics
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:18:16] [info] |-----|-----|-----|
[2025-08-29 10:18:16] [info] | Total Nets             | 69382       | 73447       |
[2025-08-29 10:18:16] [info] | Total Instances        | 607454      | 56666       |
[2025-08-29 10:18:16] [info] | Total Pins             | 633023      | 302074      |
[2025-08-29 10:18:16] [info] |-----|-----|-----|
[2025-08-29 10:18:16] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info] Total Schematic Instances:    56665
[2025-08-29 10:18:16] [info] Matched Instances:           52360
[2025-08-29 10:18:16] [info] Match Percentage: 92.40%

[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info]             Short and Open Checks
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info] Short Circuits:      None Detected
[2025-08-29 10:18:16] [info] Open Circuits:       Open Detected

[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info]             Performance Metrics
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info] | Stage                | Time Taken |
[2025-08-29 10:18:16] [info] |-----|-----|
[2025-08-29 10:18:16] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:18:16] [info] | Connectivity Extraction | 0 minutes 22 seconds |
[2025-08-29 10:18:16] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:18:16] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info]             Additional Details
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:18:16] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:18:16] [info] Database Format:       GDSII
[2025-08-29 10:18:16] [info] Verification Mode:    Full Check
[2025-08-29 10:18:16] [info] Error Reporting:      Enabled

[2025-08-29 10:18:16] [info] -----

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[2025-08-29 10:18:16] [info]                                     Type of Errors | Count
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info] DB_WARN -> 1
[2025-08-29 10:18:16] [info] DB_WARN003 -> 34
[2025-08-29 10:18:16] [info] VERI_WARN012 -> 4068
[2025-08-29 10:18:16] [info] LVS_ERR018 -> 1
[2025-08-29 10:18:16] [info] LVS_ERR019 -> 4068
[2025-08-29 10:18:16] [info] LVS_ERR003 -> 4067
[2025-08-29 10:18:16] [info] ERC_ERR003 -> 4067
[2025-08-29 10:18:16] [info] LVS_ERR025 -> 1
[2025-08-29 10:18:16] [info] ERC_ERR008 -> 1
[2025-08-29 10:18:16] [info] LVS_ERR020 -> 1
[2025-08-29 10:18:16] [info] LVS_ERR005 -> 4305
[2025-08-29 10:18:16] [info] LVS_ERR030 -> 1
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info]                                     Summary
[2025-08-29 10:18:16] [info] -----
[2025-08-29 10:18:16] [info] LVS Status:                PASSED
[2025-08-29 10:18:16] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:18:16] [info] Short Circuits:           None Detected
[2025-08-29 10:18:16] [info] Open Circuits:            Open Detected
[2025-08-29 10:18:16] [info] Unconnected Pins:         4168
[2025-08-29 10:18:16] [info] Total Errors:              16512
[2025-08-29 10:18:16] [info] Total Warnings:            4103
[2025-08-29 10:18:16] [info] Critical Issues:           None
```

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[2025-08-29 10:18:29] [info] =====
[2025-08-29 10:18:29] [info]             Layout Versus Schematic Report
[2025-08-29 10:18:29] [info] =====

[2025-08-29 10:18:29] [info] Report Generated:    2025-08-29
[2025-08-29 10:18:29] [info] Run Start Time:      10:18:21 AM
[2025-08-29 10:18:29] [info] Run End Time:        10:18:29 AM
[2025-08-29 10:18:29] [info] Time Taken:          0 minutes 11 seconds

[2025-08-29 10:18:29] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:18:29] [info] Host Name:           kuro-Workstation
[2025-08-29 10:18:29] [info] User Name:           kuro
[2025-08-29 10:18:29] [info] Cores Used:          8
[2025-08-29 10:18:29] [info] Memory Utilized:     1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info]             Top Cell Match
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:18:29] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info]             Netlist Statistics
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:18:29] [info] |-----|-----|-----|
[2025-08-29 10:18:29] [info] | Total Nets             | 22584       | 23090       |
[2025-08-29 10:18:29] [info] | Total Instances        | 271307      | 22275       |
[2025-08-29 10:18:29] [info] | Total Pins             | 239003      | 117070      |
[2025-08-29 10:18:29] [info] |-----|-----|-----|
[2025-08-29 10:18:29] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info] Total Schematic Instances: 22274
[2025-08-29 10:18:29] [info] Matched Instances:       21587
[2025-08-29 10:18:29] [info] Match Percentage: 96.92%

[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info]             Short and Open Checks
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info] Short Circuits:        None Detected
[2025-08-29 10:18:29] [info] Open Circuits:         None Detected

[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info]             Performance Metrics
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info] | Stage                  | Time Taken |
[2025-08-29 10:18:29] [info] |-----|-----|
[2025-08-29 10:18:29] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:18:29] [info] | Connectivity Extraction | 0 minutes 6 seconds |
[2025-08-29 10:18:29] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:18:29] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info]             Additional Details
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:18:29] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:18:29] [info] Database Format:         GDSII
[2025-08-29 10:18:29] [info] Verification Mode:      Full Check
[2025-08-29 10:18:29] [info] Error Reporting:        Enabled

[2025-08-29 10:18:29] [info] -----

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[2025-08-29 10:18:29] [info] Type of Errors | Count
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info] DB_WARN -> 1
[2025-08-29 10:18:29] [info] DB_WARN003 -> 221
[2025-08-29 10:18:29] [info] VERI_WARN012 -> 508
[2025-08-29 10:18:29] [info] LVS_ERR019 -> 651
[2025-08-29 10:18:29] [info] LVS_ERR003 -> 649
[2025-08-29 10:18:29] [info] ERC_ERR003 -> 649
[2025-08-29 10:18:29] [info] LVS_ERR025 -> 2
[2025-08-29 10:18:29] [info] ERC_ERR008 -> 2
[2025-08-29 10:18:29] [info] LVS_ERR020 -> 1
[2025-08-29 10:18:29] [info] LVS_ERR005 -> 687
[2025-08-29 10:18:29] [info] LVS_ERR030 -> 1
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info] Summary
[2025-08-29 10:18:29] [info] -----
[2025-08-29 10:18:29] [info] LVS Status: PASSED
[2025-08-29 10:18:29] [info] Instance Match Percentage: 96.92%
[2025-08-29 10:18:29] [info] Short Circuits: None Detected
[2025-08-29 10:18:29] [info] Open Circuits: None Detected
[2025-08-29 10:18:29] [info] Unconnected Pins: 751
[2025-08-29 10:18:29] [info] Total Errors: 2642
[2025-08-29 10:18:29] [info] Total Warnings: 730
[2025-08-29 10:18:29] [info] Critical Issues: None
```

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[2025-09-02 05:57:27] [info] =====
[2025-09-02 05:57:27] [info]             Layout Versus Schematic Report
[2025-09-02 05:57:27] [info] =====

[2025-09-02 05:57:27] [info] Report Generated:    2025-09-02
[2025-09-02 05:57:27] [info] Run Start Time:      05:57:18 AM
[2025-09-02 05:57:27] [info] Run End Time:        05:57:27 AM
[2025-09-02 05:57:27] [info] Time Taken:          0 minutes 11 seconds

[2025-09-02 05:57:27] [info] Tool Version:        LVR_2025.1
[2025-09-02 05:57:27] [info] Host Name:           kuro-Workstation
[2025-09-02 05:57:27] [info] User Name:           kuro
[2025-09-02 05:57:27] [info] Cores Used:          8
[2025-09-02 05:57:27] [info] Memory Utilized:     1469.68 MB / 62.569698333740234 GB

[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info]             Top Cell Match
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info] Layout Top Cell:     aes_cipher_top
[2025-09-02 05:57:27] [info] Schematic Top Cell:  aes_cipher_top
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info]             Netlist Statistics
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info] | Metric                | Layout      | Schematic   |
[2025-09-02 05:57:27] [info] |-----|-----|-----|
[2025-09-02 05:57:27] [info] | Total Nets             | 22535       | 23041       |
[2025-09-02 05:57:27] [info] | Total Instances        | 282214      | 22253       |
[2025-09-02 05:57:27] [info] | Total Pins             | 251455      | 116968      |
[2025-09-02 05:57:27] [info] |-----|-----|-----|
[2025-09-02 05:57:27] [info]             Pin to Net Mapping Percentage
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info] Total Schematic Instances: 22253
[2025-09-02 05:57:27] [info] Matched Instances:        21554
[2025-09-02 05:57:27] [info] Match Percentage: 96.86%

[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info]             Short and Open Checks
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info] Short Circuits:        None Detected
[2025-09-02 05:57:27] [info] Open Circuits:         Open Detected

[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info]             Performance Metrics
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info] | Stage                | Time Taken |
[2025-09-02 05:57:27] [info] |-----|-----|
[2025-09-02 05:57:27] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-02 05:57:27] [info] | Connectivity Extraction | 0 minutes 6 seconds |
[2025-09-02 05:57:27] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-02 05:57:27] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info]             Additional Details
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info] Technology Node:        Nangate45 (45nm)
[2025-09-02 05:57:27] [info] Hierarchical Cells:     Flattened
[2025-09-02 05:57:27] [info] Database Format:         GDSII
[2025-09-02 05:57:27] [info] Verification Mode:      Full Check
[2025-09-02 05:57:27] [info] Error Reporting:        Enabled

[2025-09-02 05:57:27] [info] -----

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[2025-09-02 05:57:27] [info]                Type of Errors | Count
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info] DB_WARN -> 1
[2025-09-02 05:57:27] [info] DB_WARN003 -> 219
[2025-09-02 05:57:27] [info] VERI_WARN012 -> 508
[2025-09-02 05:57:27] [info] LVS_ERR018 -> 1
[2025-09-02 05:57:27] [info] LVS_ERR019 -> 663
[2025-09-02 05:57:27] [info] LVS_ERR003 -> 661
[2025-09-02 05:57:27] [info] ERC_ERR003 -> 661
[2025-09-02 05:57:27] [info] LVS_ERR025 -> 2
[2025-09-02 05:57:27] [info] ERC_ERR008 -> 2
[2025-09-02 05:57:27] [info] LVS_ERR005 -> 699
[2025-09-02 05:57:27] [info] LVS_ERR030 -> 1
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info]                Summary
[2025-09-02 05:57:27] [info] -----
[2025-09-02 05:57:27] [info] LVS Status:                PASSED
[2025-09-02 05:57:27] [info] Instance Match Percentage: 96.86%
[2025-09-02 05:57:27] [info] Short Circuits:            None Detected
[2025-09-02 05:57:27] [info] Open Circuits:             Open Detected
[2025-09-02 05:57:27] [info] Unconnected Pins:          763
[2025-09-02 05:57:27] [info] Total Errors:               2690
[2025-09-02 05:57:27] [info] Total Warnings:             728
[2025-09-02 05:57:27] [info] Critical Issues:            None

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[2025-08-29 10:18:45] [info] =====
[2025-08-29 10:18:45] [info]             Layout Versus Schematic Report
[2025-08-29 10:18:45] [info] =====

[2025-08-29 10:18:45] [info] Report Generated:    2025-08-29
[2025-08-29 10:18:45] [info] Run Start Time:      10:18:37 AM
[2025-08-29 10:18:45] [info] Run End Time:        10:18:45 AM
[2025-08-29 10:18:45] [info] Time Taken:          0 minutes 11 seconds

[2025-08-29 10:18:45] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:18:45] [info] Host Name:           kuro-Workstation
[2025-08-29 10:18:45] [info] User Name:           kuro
[2025-08-29 10:18:45] [info] Cores Used:          8
[2025-08-29 10:18:45] [info] Memory Utilized:     1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info]             Top Cell Match
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:18:45] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info]             Netlist Statistics
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:18:45] [info] |-----|-----|-----|
[2025-08-29 10:18:45] [info] | Total Nets             | 22516       | 23022       |
[2025-08-29 10:18:45] [info] | Total Instances        | 269556      | 22222       |
[2025-08-29 10:18:45] [info] | Total Pins             | 233667      | 116862      |
[2025-08-29 10:18:45] [info] |-----|-----|-----|
[2025-08-29 10:18:45] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info] Total Schematic Instances: 22222
[2025-08-29 10:18:45] [info] Matched Instances:      21505
[2025-08-29 10:18:45] [info] Match Percentage: 96.77%

[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info]             Short and Open Checks
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info] Short Circuits:       None Detected
[2025-08-29 10:18:45] [info] Open Circuits:        None Detected

[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info]             Performance Metrics
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info] | Stage                | Time Taken |
[2025-08-29 10:18:45] [info] |-----|-----|
[2025-08-29 10:18:45] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:18:45] [info] | Connectivity Extraction | 0 minutes 6 seconds |
[2025-08-29 10:18:45] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:18:45] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info]             Additional Details
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:18:45] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:18:45] [info] Database Format:       GDSII
[2025-08-29 10:18:45] [info] Verification Mode:    Full Check
[2025-08-29 10:18:45] [info] Error Reporting:      Enabled

[2025-08-29 10:18:45] [info] -----

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[2025-08-29 10:18:45] [info] Type of Errors | Count
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info] DB_WARN -> 1
[2025-08-29 10:18:45] [info] DB_WARN003 -> 221
[2025-08-29 10:18:45] [info] VERI_WARN012 -> 508
[2025-08-29 10:18:45] [info] LVS_ERR019 -> 686
[2025-08-29 10:18:45] [info] LVS_ERR003 -> 685
[2025-08-29 10:18:45] [info] ERC_ERR003 -> 685
[2025-08-29 10:18:45] [info] LVS_ERR025 -> 1
[2025-08-29 10:18:45] [info] ERC_ERR008 -> 1
[2025-08-29 10:18:45] [info] LVS_ERR005 -> 717
[2025-08-29 10:18:45] [info] LVS_ERR030 -> 1
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info] Summary
[2025-08-29 10:18:45] [info] -----
[2025-08-29 10:18:45] [info] LVS Status: PASSED
[2025-08-29 10:18:45] [info] Instance Match Percentage: 96.77%
[2025-08-29 10:18:45] [info] Short Circuits: None Detected
[2025-08-29 10:18:45] [info] Open Circuits: None Detected
[2025-08-29 10:18:45] [info] Unconnected Pins: 786
[2025-08-29 10:18:45] [info] Total Errors: 2776
[2025-08-29 10:18:45] [info] Total Warnings: 730
[2025-08-29 10:18:45] [info] Critical Issues: None
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[2025-08-29 10:18:18] [info] =====
[2025-08-29 10:18:18] [info]             Layout Versus Schematic Report
[2025-08-29 10:18:18] [info] =====

[2025-08-29 10:18:18] [info] Report Generated:    2025-08-29
[2025-08-29 10:18:18] [info] Run Start Time:      10:18:17 AM
[2025-08-29 10:18:18] [info] Run End Time:        10:18:18 AM
[2025-08-29 10:18:18] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:18:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:18:18] [info] Host Name:           kuro-Workstation
[2025-08-29 10:18:18] [info] User Name:           kuro
[2025-08-29 10:18:18] [info] Cores Used:          8
[2025-08-29 10:18:18] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Top Cell Match
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Layout Top Cell:     gcd
[2025-08-29 10:18:18] [info] Schematic Top Cell:  gcd
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Netlist Statistics
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:18:18] [info] |-----|-----|-----|
[2025-08-29 10:18:18] [info] | Total Nets             | 485         | 519        |
[2025-08-29 10:18:18] [info] | Total Instances        | 4642        | 428        |
[2025-08-29 10:18:18] [info] | Total Pins             | 4999        | 2165       |
[2025-08-29 10:18:18] [info] |-----|-----|-----|
[2025-08-29 10:18:18] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Total Schematic Instances:    428
[2025-08-29 10:18:18] [info] Matched Instances:           392
[2025-08-29 10:18:18] [info] Match Percentage: 91.59%

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Short and Open Checks
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Short Circuits:      None Detected
[2025-08-29 10:18:18] [info] Open Circuits:       Open Detected

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Performance Metrics
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] | Stage                | Time Taken |
[2025-08-29 10:18:18] [info] |-----|-----|
[2025-08-29 10:18:18] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-08-29 10:18:18] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:18:18] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-08-29 10:18:18] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Additional Details
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:18:18] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:18:18] [info] Database Format:       GDSII
[2025-08-29 10:18:18] [info] Verification Mode:    Full Check
[2025-08-29 10:18:18] [info] Error Reporting:      Enabled

[2025-08-29 10:18:18] [info] -----

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[2025-08-29 10:18:18] [info]                                Type of Errors | Count
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] DB_WARN -> 1
[2025-08-29 10:18:18] [info] DB_WARN003 -> 24
[2025-08-29 10:18:18] [info] VERI_WARN012 -> 41
[2025-08-29 10:18:18] [info] LVS_ERR018 -> 1
[2025-08-29 10:18:18] [info] LVS_ERR019 -> 33
[2025-08-29 10:18:18] [info] LVS_ERR003 -> 31
[2025-08-29 10:18:18] [info] ERC_ERR003 -> 31
[2025-08-29 10:18:18] [info] LVS_ERR025 -> 2
[2025-08-29 10:18:18] [info] ERC_ERR008 -> 2
[2025-08-29 10:18:18] [info] LVS_ERR005 -> 36
[2025-08-29 10:18:18] [info] LVS_ERR030 -> 1
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]                                Summary
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] LVS Status:                PASSED
[2025-08-29 10:18:18] [info] Instance Match Percentage: 91.59%
[2025-08-29 10:18:18] [info] Short Circuits:            None Detected
[2025-08-29 10:18:18] [info] Open Circuits:             Open Detected
[2025-08-29 10:18:18] [info] Unconnected Pins:          133
[2025-08-29 10:18:18] [info] Total Errors:               137
[2025-08-29 10:18:18] [info] Total Warnings:             66
[2025-08-29 10:18:18] [info] Critical Issues:           None

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[2025-08-29 10:18:18] [info] =====
[2025-08-29 10:18:18] [info]             Layout Versus Schematic Report
[2025-08-29 10:18:18] [info] =====

[2025-08-29 10:18:18] [info] Report Generated:    2025-08-29
[2025-08-29 10:18:18] [info] Run Start Time:      10:18:18 AM
[2025-08-29 10:18:18] [info] Run End Time:        10:18:18 AM
[2025-08-29 10:18:18] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:18:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:18:18] [info] Host Name:           kuro-Workstation
[2025-08-29 10:18:18] [info] User Name:           kuro
[2025-08-29 10:18:18] [info] Cores Used:          8
[2025-08-29 10:18:18] [info] Memory Utilized:     31.00 MB / 62.569698333740234 GB

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Top Cell Match
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Layout Top Cell:     gcd
[2025-08-29 10:18:18] [info] Schematic Top Cell:  gcd
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Netlist Statistics
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:18:18] [info] |-----|-----|-----|
[2025-08-29 10:18:18] [info] | Total Nets             | 482         | 516         |
[2025-08-29 10:18:18] [info] | Total Instances        | 4922        | 427         |
[2025-08-29 10:18:18] [info] | Total Pins             | 5189        | 2161        |
[2025-08-29 10:18:18] [info] |-----|-----|-----|
[2025-08-29 10:18:18] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Total Schematic Instances:    426
[2025-08-29 10:18:18] [info] Matched Instances:           391
[2025-08-29 10:18:18] [info] Match Percentage: 91.78%

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Short and Open Checks
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Short Circuits:      None Detected
[2025-08-29 10:18:18] [info] Open Circuits:       None Detected

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Performance Metrics
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] | Stage                | Time Taken |
[2025-08-29 10:18:18] [info] |-----|-----|
[2025-08-29 10:18:18] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:18:18] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:18:18] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:18:18] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Additional Details
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:18:18] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:18:18] [info] Database Format:       GDSII
[2025-08-29 10:18:18] [info] Verification Mode:    Full Check
[2025-08-29 10:18:18] [info] Error Reporting:      Enabled

[2025-08-29 10:18:18] [info] -----

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[2025-08-29 10:18:18] [info]                                Type of Errors | Count
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] DB_WARN -> 1
[2025-08-29 10:18:18] [info] DB_WARN003 -> 34
[2025-08-29 10:18:18] [info] VERI_WARN012 -> 40
[2025-08-29 10:18:18] [info] LVS_ERR019 -> 34
[2025-08-29 10:18:18] [info] LVS_ERR003 -> 32
[2025-08-29 10:18:18] [info] ERC_ERR003 -> 32
[2025-08-29 10:18:18] [info] LVS_ERR025 -> 2
[2025-08-29 10:18:18] [info] ERC_ERR008 -> 2
[2025-08-29 10:18:18] [info] LVS_ERR020 -> 1
[2025-08-29 10:18:18] [info] LVS_ERR005 -> 35
[2025-08-29 10:18:18] [info] LVS_ERR030 -> 1
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]                                Summary
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] LVS Status:                PASSED
[2025-08-29 10:18:18] [info] Instance Match Percentage: 91.78%
[2025-08-29 10:18:18] [info] Short Circuits:           None Detected
[2025-08-29 10:18:18] [info] Open Circuits:            None Detected
[2025-08-29 10:18:18] [info] Unconnected Pins:         134
[2025-08-29 10:18:18] [info] Total Errors:              139
[2025-08-29 10:18:18] [info] Total Warnings:            75
[2025-08-29 10:18:18] [info] Critical Issues:          None

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[2025-08-29 10:18:18] [info] =====
[2025-08-29 10:18:18] [info]             Layout Versus Schematic Report
[2025-08-29 10:18:18] [info] =====

[2025-08-29 10:18:18] [info] Report Generated:    2025-08-29
[2025-08-29 10:18:18] [info] Run Start Time:      10:18:18 AM
[2025-08-29 10:18:18] [info] Run End Time:        10:18:18 AM
[2025-08-29 10:18:18] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:18:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:18:18] [info] Host Name:           kuro-Workstation
[2025-08-29 10:18:18] [info] User Name:           kuro
[2025-08-29 10:18:18] [info] Cores Used:          8
[2025-08-29 10:18:18] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Top Cell Match
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Layout Top Cell:     gcd
[2025-08-29 10:18:18] [info] Schematic Top Cell:  gcd
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Netlist Statistics
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:18:18] [info] |-----|-----|-----|
[2025-08-29 10:18:18] [info] | Total Nets             | 489         | 523         |
[2025-08-29 10:18:18] [info] | Total Instances        | 4681        | 427         |
[2025-08-29 10:18:18] [info] | Total Pins             | 4941        | 2165        |
[2025-08-29 10:18:18] [info] |-----|-----|-----|
[2025-08-29 10:18:18] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Total Schematic Instances:    427
[2025-08-29 10:18:18] [info] Matched Instances:           389
[2025-08-29 10:18:18] [info] Match Percentage: 91.10%

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Short and Open Checks
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Short Circuits:      None Detected
[2025-08-29 10:18:18] [info] Open Circuits:       None Detected

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Performance Metrics
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] | Stage                | Time Taken |
[2025-08-29 10:18:18] [info] |-----|-----|
[2025-08-29 10:18:18] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:18:18] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:18:18] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:18:18] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]             Additional Details
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:18:18] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:18:18] [info] Database Format:       GDSII
[2025-08-29 10:18:18] [info] Verification Mode:    Full Check
[2025-08-29 10:18:18] [info] Error Reporting:      Enabled

[2025-08-29 10:18:18] [info] -----

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[2025-08-29 10:18:18] [info]                                Type of Errors | Count
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] DB_WARN -> 1
[2025-08-29 10:18:18] [info] DB_WARN003 -> 26
[2025-08-29 10:18:18] [info] VERI_WARN012 -> 39
[2025-08-29 10:18:18] [info] LVS_ERR019 -> 38
[2025-08-29 10:18:18] [info] LVS_ERR003 -> 36
[2025-08-29 10:18:18] [info] ERC_ERR003 -> 36
[2025-08-29 10:18:18] [info] LVS_ERR025 -> 2
[2025-08-29 10:18:18] [info] ERC_ERR008 -> 2
[2025-08-29 10:18:18] [info] LVS_ERR005 -> 38
[2025-08-29 10:18:18] [info] LVS_ERR030 -> 1
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info]                                Summary
[2025-08-29 10:18:18] [info] -----
[2025-08-29 10:18:18] [info] LVS Status:                PASSED
[2025-08-29 10:18:18] [info] Instance Match Percentage: 91.10%
[2025-08-29 10:18:18] [info] Short Circuits:           None Detected
[2025-08-29 10:18:18] [info] Open Circuits:            None Detected
[2025-08-29 10:18:18] [info] Unconnected Pins:         138
[2025-08-29 10:18:18] [info] Total Errors:              153
[2025-08-29 10:18:18] [info] Total Warnings:           66
[2025-08-29 10:18:18] [info] Critical Issues:          None
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[2025-08-29 10:18:56] [info] =====
[2025-08-29 10:18:56] [info]             Layout Versus Schematic Report
[2025-08-29 10:18:56] [info] =====

[2025-08-29 10:18:56] [info] Report Generated:    2025-08-29
[2025-08-29 10:18:56] [info] Run Start Time:      10:18:48 AM
[2025-08-29 10:18:56] [info] Run End Time:        10:18:56 AM
[2025-08-29 10:18:56] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:18:56] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:18:56] [info] Host Name:           kuro-Workstation
[2025-08-29 10:18:56] [info] User Name:           kuro
[2025-08-29 10:18:56] [info] Cores Used:          8
[2025-08-29 10:18:56] [info] Memory Utilized:     1574.52 MB / 62.569698333740234 GB

[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info]             Top Cell Match
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:18:56] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info]             Netlist Statistics
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:18:56] [info] |-----|-----|-----|
[2025-08-29 10:18:56] [info] | Total Nets             | 20853       | 21678       |
[2025-08-29 10:18:56] [info] | Total Instances        | 235969      | 18896       |
[2025-08-29 10:18:56] [info] | Total Pins             | 219487      | 104536      |
[2025-08-29 10:18:56] [info] |-----|-----|-----|
[2025-08-29 10:18:56] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info] Total Schematic Instances: 18895
[2025-08-29 10:18:56] [info] Matched Instances:      17934
[2025-08-29 10:18:56] [info] Match Percentage: 94.91%

[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info]             Short and Open Checks
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info] Short Circuits:       None Detected
[2025-08-29 10:18:56] [info] Open Circuits:        None Detected

[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info]             Performance Metrics
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info] | Stage                | Time Taken |
[2025-08-29 10:18:56] [info] |-----|-----|
[2025-08-29 10:18:56] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:18:56] [info] | Connectivity Extraction | 0 minutes 6 seconds |
[2025-08-29 10:18:56] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:18:56] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info]             Additional Details
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:18:56] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:18:56] [info] Database Format:        GDSII
[2025-08-29 10:18:56] [info] Verification Mode:     Full Check
[2025-08-29 10:18:56] [info] Error Reporting:       Enabled

[2025-08-29 10:18:56] [info] -----

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[2025-08-29 10:18:56] [info]                                Type of Errors | Count
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info] DB_WARN -> 1
[2025-08-29 10:18:56] [info] DB_WARN003 -> 85
[2025-08-29 10:18:56] [info] VERI_WARN012 -> 828
[2025-08-29 10:18:56] [info] LVS_ERR019 -> 903
[2025-08-29 10:18:56] [info] LVS_ERR003 -> 894
[2025-08-29 10:18:56] [info] ERC_ERR003 -> 894
[2025-08-29 10:18:56] [info] LVS_ERR025 -> 1
[2025-08-29 10:18:56] [info] ERC_ERR008 -> 1
[2025-08-29 10:18:56] [info] LVS_ERR020 -> 1
[2025-08-29 10:18:56] [info] LVS_ERR005 -> 961
[2025-08-29 10:18:56] [info] LVS_ERR030 -> 1
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info]                                Summary
[2025-08-29 10:18:56] [info] -----
[2025-08-29 10:18:56] [info] LVS Status:                PASSED
[2025-08-29 10:18:56] [info] Instance Match Percentage: 94.91%
[2025-08-29 10:18:56] [info] Short Circuits:           None Detected
[2025-08-29 10:18:56] [info] Open Circuits:            None Detected
[2025-08-29 10:18:56] [info] Unconnected Pins:         1003
[2025-08-29 10:18:56] [info] Total Errors:              3656
[2025-08-29 10:18:56] [info] Total Warnings:           914
[2025-08-29 10:18:56] [info] Critical Issues:          None

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[2025-09-02 05:57:39] [info] =====
[2025-09-02 05:57:39] [info]             Layout Versus Schematic Report
[2025-09-02 05:57:39] [info] =====

[2025-09-02 05:57:39] [info] Report Generated:    2025-09-02
[2025-09-02 05:57:39] [info] Run Start Time:      05:57:30 AM
[2025-09-02 05:57:39] [info] Run End Time:        05:57:39 AM
[2025-09-02 05:57:39] [info] Time Taken:          0 minutes 11 seconds

[2025-09-02 05:57:39] [info] Tool Version:        LVR_2025.1
[2025-09-02 05:57:39] [info] Host Name:           kuro-Workstation
[2025-09-02 05:57:39] [info] User Name:           kuro
[2025-09-02 05:57:39] [info] Cores Used:          8
[2025-09-02 05:57:39] [info] Memory Utilized:     1601.60 MB / 62.569698333740234 GB

[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info]             Top Cell Match
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info] Layout Top Cell:     ibex_core
[2025-09-02 05:57:39] [info] Schematic Top Cell:  ibex_core
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info]             Netlist Statistics
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info] | Metric                | Layout      | Schematic   |
[2025-09-02 05:57:39] [info] |-----|-----|-----|
[2025-09-02 05:57:39] [info] | Total Nets             | 20853       | 21678       |
[2025-09-02 05:57:39] [info] | Total Instances        | 245499      | 18933       |
[2025-09-02 05:57:39] [info] | Total Pins             | 230379      | 104624      |
[2025-09-02 05:57:39] [info] |-----|-----|-----|
[2025-09-02 05:57:39] [info]             Pin to Net Mapping Percentage
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info] Total Schematic Instances: 18933
[2025-09-02 05:57:39] [info] Matched Instances:        13384
[2025-09-02 05:57:39] [info] Match Percentage: 70.69%

[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info]             Short and Open Checks
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info] Short Circuits:        None Detected
[2025-09-02 05:57:39] [info] Open Circuits:         None Detected

[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info]             Performance Metrics
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info] | Stage                | Time Taken |
[2025-09-02 05:57:39] [info] |-----|-----|
[2025-09-02 05:57:39] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-02 05:57:39] [info] | Connectivity Extraction | 0 minutes 6 seconds |
[2025-09-02 05:57:39] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-02 05:57:39] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info]             Additional Details
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info] Technology Node:        Nangate45 (45nm)
[2025-09-02 05:57:39] [info] Hierarchical Cells:     Flattened
[2025-09-02 05:57:39] [info] Database Format:         GDSII
[2025-09-02 05:57:39] [info] Verification Mode:      Full Check
[2025-09-02 05:57:39] [info] Error Reporting:        Enabled

[2025-09-02 05:57:39] [info] -----

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[2025-09-02 05:57:39] [info]                                Type of Errors | Count
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info] DB_WARN -> 1
[2025-09-02 05:57:39] [info] DB_WARN003 -> 85
[2025-09-02 05:57:39] [info] VERI_WARN012 -> 828
[2025-09-02 05:57:39] [info] LVS_ERR019 -> 893
[2025-09-02 05:57:39] [info] LVS_ERR003 -> 883
[2025-09-02 05:57:39] [info] ERC_ERR003 -> 883
[2025-09-02 05:57:39] [info] LVS_ERR025 -> 2
[2025-09-02 05:57:39] [info] ERC_ERR008 -> 2
[2025-09-02 05:57:39] [info] LVS_ERR005 -> 5549
[2025-09-02 05:57:39] [info] LVS_ERR030 -> 1
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info]                                Summary
[2025-09-02 05:57:39] [info] -----
[2025-09-02 05:57:39] [info] LVS Status:                PASSED
[2025-09-02 05:57:39] [info] Instance Match Percentage: 70.69%
[2025-09-02 05:57:39] [info] Short Circuits:           None Detected
[2025-09-02 05:57:39] [info] Open Circuits:            None Detected
[2025-09-02 05:57:39] [info] Unconnected Pins:         993
[2025-09-02 05:57:39] [info] Total Errors:              8213
[2025-09-02 05:57:39] [info] Total Warnings:           914
[2025-09-02 05:57:39] [info] Critical Issues:          None

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[2025-08-29 10:19:12] [info] =====
[2025-08-29 10:19:12] [info]             Layout Versus Schematic Report
[2025-08-29 10:19:12] [info] =====

[2025-08-29 10:19:12] [info] Report Generated:    2025-08-29
[2025-08-29 10:19:12] [info] Run Start Time:      10:19:04 AM
[2025-08-29 10:19:12] [info] Run End Time:        10:19:12 AM
[2025-08-29 10:19:12] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:19:12] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:19:12] [info] Host Name:           kuro-Workstation
[2025-08-29 10:19:12] [info] User Name:           kuro
[2025-08-29 10:19:12] [info] Cores Used:          8
[2025-08-29 10:19:12] [info] Memory Utilized:     1464.05 MB / 62.569698333740234 GB

[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info]             Top Cell Match
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:19:12] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info]             Netlist Statistics
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:19:12] [info] |-----|-----|-----|
[2025-08-29 10:19:12] [info] | Total Nets             | 20848       | 21673       |
[2025-08-29 10:19:12] [info] | Total Instances        | 231162      | 18863       |
[2025-08-29 10:19:12] [info] | Total Pins             | 210404      | 104404      |
[2025-08-29 10:19:12] [info] |-----|-----|-----|
[2025-08-29 10:19:12] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info] Total Schematic Instances: 18863
[2025-08-29 10:19:12] [info] Matched Instances:        17920
[2025-08-29 10:19:12] [info] Match Percentage: 95.00%

[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info]             Short and Open Checks
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info] Short Circuits:        None Detected
[2025-08-29 10:19:12] [info] Open Circuits:         None Detected

[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info]             Performance Metrics
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info] | Stage                | Time Taken |
[2025-08-29 10:19:12] [info] |-----|-----|
[2025-08-29 10:19:12] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:19:12] [info] | Connectivity Extraction | 0 minutes 5 seconds |
[2025-08-29 10:19:12] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:19:12] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info]             Additional Details
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:19:12] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:19:12] [info] Database Format:         GDSII
[2025-08-29 10:19:12] [info] Verification Mode:      Full Check
[2025-08-29 10:19:12] [info] Error Reporting:        Enabled

[2025-08-29 10:19:12] [info] -----

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[2025-08-29 10:19:12] [info]                                Type of Errors | Count
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info] DB_WARN -> 1
[2025-08-29 10:19:12] [info] DB_WARN003 -> 98
[2025-08-29 10:19:12] [info] VERI_WARN012 -> 828
[2025-08-29 10:19:12] [info] LVS_ERR019 -> 880
[2025-08-29 10:19:12] [info] LVS_ERR003 -> 871
[2025-08-29 10:19:12] [info] ERC_ERR003 -> 871
[2025-08-29 10:19:12] [info] LVS_ERR025 -> 1
[2025-08-29 10:19:12] [info] ERC_ERR008 -> 1
[2025-08-29 10:19:12] [info] LVS_ERR005 -> 943
[2025-08-29 10:19:12] [info] LVS_ERR030 -> 1
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info]                                Summary
[2025-08-29 10:19:12] [info] -----
[2025-08-29 10:19:12] [info] LVS Status:                PASSED
[2025-08-29 10:19:12] [info] Instance Match Percentage: 95.00%
[2025-08-29 10:19:12] [info] Short Circuits:           None Detected
[2025-08-29 10:19:12] [info] Open Circuits:            None Detected
[2025-08-29 10:19:12] [info] Unconnected Pins:         980
[2025-08-29 10:19:12] [info] Total Errors:              3568
[2025-08-29 10:19:12] [info] Total Warnings:           927
[2025-08-29 10:19:12] [info] Critical Issues:          None
```

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[2025-08-29 10:19:47] [info] =====
[2025-08-29 10:19:47] [info]             Layout Versus Schematic Report
[2025-08-29 10:19:47] [info] =====

[2025-08-29 10:19:47] [info] Report Generated:    2025-08-29
[2025-08-29 10:19:47] [info] Run Start Time:      10:19:23 AM
[2025-08-29 10:19:47] [info] Run End Time:        10:19:46 AM
[2025-08-29 10:19:47] [info] Time Taken:          0 minutes 33 seconds

[2025-08-29 10:19:47] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:19:47] [info] Host Name:           kuro-Workstation
[2025-08-29 10:19:47] [info] User Name:           kuro
[2025-08-29 10:19:47] [info] Cores Used:          8
[2025-08-29 10:19:47] [info] Memory Utilized:     4551.48 MB / 62.569698333740234 GB

[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info]             Top Cell Match
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:19:47] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info]             Netlist Statistics
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:19:47] [info] |-----|-----|-----|
[2025-08-29 10:19:47] [info] | Total Nets             | 69401       | 73466       |
[2025-08-29 10:19:47] [info] | Total Instances        | 625384      | 56662       |
[2025-08-29 10:19:47] [info] | Total Pins             | 660922      | 302058      |
[2025-08-29 10:19:47] [info] |-----|-----|-----|
[2025-08-29 10:19:47] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info] Total Schematic Instances:    56662
[2025-08-29 10:19:47] [info] Matched Instances:           52362
[2025-08-29 10:19:47] [info] Match Percentage: 92.41%

[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info]             Short and Open Checks
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info] Short Circuits:      None Detected
[2025-08-29 10:19:47] [info] Open Circuits:       None Detected

[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info]             Performance Metrics
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info] | Stage                | Time Taken |
[2025-08-29 10:19:47] [info] |-----|-----|
[2025-08-29 10:19:47] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:19:47] [info] | Connectivity Extraction | 0 minutes 18 seconds |
[2025-08-29 10:19:47] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:19:47] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info]             Additional Details
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:19:47] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:19:47] [info] Database Format:       GDSII
[2025-08-29 10:19:47] [info] Verification Mode:    Full Check
[2025-08-29 10:19:47] [info] Error Reporting:      Enabled

[2025-08-29 10:19:47] [info] -----

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[2025-08-29 10:19:47] [info] Type of Errors | Count
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info] DB_WARN -> 1
[2025-08-29 10:19:47] [info] DB_WARN003 -> 37
[2025-08-29 10:19:47] [info] VERI_WARN012 -> 4068
[2025-08-29 10:19:47] [info] LVS_ERR019 -> 4068
[2025-08-29 10:19:47] [info] LVS_ERR003 -> 4066
[2025-08-29 10:19:47] [info] ERC_ERR003 -> 4066
[2025-08-29 10:19:47] [info] LVS_ERR025 -> 2
[2025-08-29 10:19:47] [info] ERC_ERR008 -> 2
[2025-08-29 10:19:47] [info] LVS_ERR005 -> 4300
[2025-08-29 10:19:47] [info] LVS_ERR030 -> 1
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info] Summary
[2025-08-29 10:19:47] [info] -----
[2025-08-29 10:19:47] [info] LVS Status: PASSED
[2025-08-29 10:19:47] [info] Instance Match Percentage: 92.41%
[2025-08-29 10:19:47] [info] Short Circuits: None Detected
[2025-08-29 10:19:47] [info] Open Circuits: None Detected
[2025-08-29 10:19:47] [info] Unconnected Pins: 4168
[2025-08-29 10:19:47] [info] Total Errors: 16505
[2025-08-29 10:19:47] [info] Total Warnings: 4106
[2025-08-29 10:19:47] [info] Critical Issues: None
```

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[2025-08-29 10:20:22] [info] =====
[2025-08-29 10:20:22] [info]             Layout Versus Schematic Report
[2025-08-29 10:20:22] [info] =====

[2025-08-29 10:20:22] [info] Report Generated:    2025-08-29
[2025-08-29 10:20:22] [info] Run Start Time:      10:19:58 AM
[2025-08-29 10:20:22] [info] Run End Time:        10:20:22 AM
[2025-08-29 10:20:22] [info] Time Taken:          0 minutes 34 seconds

[2025-08-29 10:20:22] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:20:22] [info] Host Name:           kuro-Workstation
[2025-08-29 10:20:22] [info] User Name:           kuro
[2025-08-29 10:20:22] [info] Cores Used:          8
[2025-08-29 10:20:22] [info] Memory Utilized:     4599.00 MB / 62.569698333740234 GB

[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info]             Top Cell Match
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:20:22] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info]             Netlist Statistics
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:20:22] [info] |-----|-----|-----|
[2025-08-29 10:20:22] [info] | Total Nets             | 69389       | 73454       |
[2025-08-29 10:20:22] [info] | Total Instances        | 657399      | 56662       |
[2025-08-29 10:20:22] [info] | Total Pins             | 701572      | 302062      |
[2025-08-29 10:20:22] [info] |-----|-----|-----|
[2025-08-29 10:20:22] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info] Total Schematic Instances:    56662
[2025-08-29 10:20:22] [info] Matched Instances:           52356
[2025-08-29 10:20:22] [info] Match Percentage: 92.40%

[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info]             Short and Open Checks
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info] Short Circuits:      None Detected
[2025-08-29 10:20:22] [info] Open Circuits:       Open Detected

[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info]             Performance Metrics
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info] | Stage                | Time Taken |
[2025-08-29 10:20:22] [info] |-----|-----|
[2025-08-29 10:20:22] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:20:22] [info] | Connectivity Extraction | 0 minutes 18 seconds |
[2025-08-29 10:20:22] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:20:22] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info]             Additional Details
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:20:22] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:20:22] [info] Database Format:       GDSII
[2025-08-29 10:20:22] [info] Verification Mode:    Full Check
[2025-08-29 10:20:22] [info] Error Reporting:      Enabled

[2025-08-29 10:20:22] [info] -----

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[2025-08-29 10:20:22] [info]                                Type of Errors | Count
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info] DB_WARN -> 1
[2025-08-29 10:20:22] [info] DB_WARN003 -> 39
[2025-08-29 10:20:22] [info] VERI_WARN012 -> 4068
[2025-08-29 10:20:22] [info] LVS_ERR018 -> 1
[2025-08-29 10:20:22] [info] LVS_ERR019 -> 4055
[2025-08-29 10:20:22] [info] LVS_ERR003 -> 4054
[2025-08-29 10:20:22] [info] ERC_ERR003 -> 4054
[2025-08-29 10:20:22] [info] LVS_ERR025 -> 1
[2025-08-29 10:20:22] [info] ERC_ERR008 -> 1
[2025-08-29 10:20:22] [info] LVS_ERR005 -> 4306
[2025-08-29 10:20:22] [info] LVS_ERR030 -> 1
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info]                                Summary
[2025-08-29 10:20:22] [info] -----
[2025-08-29 10:20:22] [info] LVS Status:                PASSED
[2025-08-29 10:20:22] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:20:22] [info] Short Circuits:           None Detected
[2025-08-29 10:20:22] [info] Open Circuits:            Open Detected
[2025-08-29 10:20:22] [info] Unconnected Pins:         4155
[2025-08-29 10:20:22] [info] Total Errors:              16473
[2025-08-29 10:20:22] [info] Total Warnings:           4108
[2025-08-29 10:20:22] [info] Critical Issues:          None

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[2025-08-29 10:20:56] [info] =====
[2025-08-29 10:20:56] [info]             Layout Versus Schematic Report
[2025-08-29 10:20:56] [info] =====

[2025-08-29 10:20:56] [info] Report Generated:    2025-08-29
[2025-08-29 10:20:56] [info] Run Start Time:      10:20:33 AM
[2025-08-29 10:20:56] [info] Run End Time:        10:20:56 AM
[2025-08-29 10:20:56] [info] Time Taken:          0 minutes 33 seconds

[2025-08-29 10:20:56] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:20:56] [info] Host Name:           kuro-Workstation
[2025-08-29 10:20:56] [info] User Name:           kuro
[2025-08-29 10:20:56] [info] Cores Used:          8
[2025-08-29 10:20:56] [info] Memory Utilized:     4518.73 MB / 62.569698333740234 GB

[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info]             Top Cell Match
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:20:56] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info]             Netlist Statistics
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info] | Metric                | Layout      | Schematic   |
[2025-08-29 10:20:56] [info] |-----|-----|-----|
[2025-08-29 10:20:56] [info] | Total Nets             | 69382       | 73447       |
[2025-08-29 10:20:56] [info] | Total Instances        | 607454      | 56666       |
[2025-08-29 10:20:56] [info] | Total Pins             | 633023      | 302074      |
[2025-08-29 10:20:56] [info] |-----|-----|-----|
[2025-08-29 10:20:56] [info]             Pin to Net Mapping Percentage
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info] Total Schematic Instances: 56665
[2025-08-29 10:20:56] [info] Matched Instances:      52360
[2025-08-29 10:20:56] [info] Match Percentage: 92.40%

[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info]             Short and Open Checks
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info] Short Circuits:        None Detected
[2025-08-29 10:20:56] [info] Open Circuits:         Open Detected

[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info]             Performance Metrics
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info] | Stage                | Time Taken |
[2025-08-29 10:20:56] [info] |-----|-----|
[2025-08-29 10:20:56] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-08-29 10:20:56] [info] | Connectivity Extraction | 0 minutes 17 seconds |
[2025-08-29 10:20:56] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-08-29 10:20:56] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info]             Additional Details
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:20:56] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:20:56] [info] Database Format:        GDSII
[2025-08-29 10:20:56] [info] Verification Mode:     Full Check
[2025-08-29 10:20:56] [info] Error Reporting:       Enabled

[2025-08-29 10:20:56] [info] -----

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[2025-08-29 10:20:56] [info]                                Type of Errors | Count
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info] DB_WARN -> 1
[2025-08-29 10:20:56] [info] DB_WARN003 -> 34
[2025-08-29 10:20:56] [info] VERI_WARN012 -> 4068
[2025-08-29 10:20:56] [info] LVS_ERR018 -> 1
[2025-08-29 10:20:56] [info] LVS_ERR019 -> 4068
[2025-08-29 10:20:56] [info] LVS_ERR003 -> 4067
[2025-08-29 10:20:56] [info] ERC_ERR003 -> 4067
[2025-08-29 10:20:56] [info] LVS_ERR025 -> 1
[2025-08-29 10:20:56] [info] ERC_ERR008 -> 1
[2025-08-29 10:20:56] [info] LVS_ERR020 -> 1
[2025-08-29 10:20:56] [info] LVS_ERR005 -> 4305
[2025-08-29 10:20:56] [info] LVS_ERR030 -> 1
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info]                                Summary
[2025-08-29 10:20:56] [info] -----
[2025-08-29 10:20:56] [info] LVS Status:                PASSED
[2025-08-29 10:20:56] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:20:56] [info] Short Circuits:            None Detected
[2025-08-29 10:20:56] [info] Open Circuits:             Open Detected
[2025-08-29 10:20:56] [info] Unconnected Pins:          4168
[2025-08-29 10:20:56] [info] Total Errors:               16512
[2025-08-29 10:20:56] [info] Total Warnings:             4103
[2025-08-29 10:20:56] [info] Critical Issues:           None
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[2025-09-06 10:26:49] [info] =====
[2025-09-06 10:26:49] [info]             Layout Versus Schematic Report
[2025-09-06 10:26:49] [info] =====

[2025-09-06 10:26:49] [info] Report Generated:    2025-09-06
[2025-09-06 10:26:49] [info] Run Start Time:      10:25:34 AM
[2025-09-06 10:26:49] [info] Run End Time:        10:26:49 AM
[2025-09-06 10:26:49] [info] Time Taken:          1 minutes 21 seconds

[2025-09-06 10:26:49] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:26:49] [info] Host Name:           kuro-Workstation
[2025-09-06 10:26:49] [info] User Name:           kuro
[2025-09-06 10:26:49] [info] Cores Used:          16
[2025-09-06 10:26:49] [info] Memory Utilized:     2848.86 MB / 62.569705963134766 GB

[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info]             Top Cell Match
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-09-06 10:26:49] [info] Schematic Top Cell:  aes_cipher_top1_sky130hd
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info]             Netlist Statistics
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:26:49] [info] |-----|-----|-----|
[2025-09-06 10:26:49] [info] | Total Nets             | 25673       | 25678       |
[2025-09-06 10:26:49] [info] | Total Instances        | 353042      | 25409       |
[2025-09-06 10:26:49] [info] | Total Pins             | 300090      | 183701      |
[2025-09-06 10:26:49] [info] |-----|-----|-----|
[2025-09-06 10:26:49] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info] Total Schematic Instances:    25409
[2025-09-06 10:26:49] [info] Matched Instances:           25406
[2025-09-06 10:26:49] [info] Match Percentage: 99.99%

[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info]             Short and Open Checks
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info] Short Circuits:             None Detected
[2025-09-06 10:26:49] [info] Open Circuits:              None Detected

[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info]             Performance Metrics
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info] | Stage                    | Time Taken |
[2025-09-06 10:26:49] [info] |-----|-----|
[2025-09-06 10:26:49] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 10:26:49] [info] | Connectivity Extraction   | 1 minutes 11 seconds |
[2025-09-06 10:26:49] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 10:26:49] [info] | Report Generation         | 0 minutes 0 seconds |

[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info]             Additional Details
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 10:26:49] [info] Hierarchical Cells:        Flattened
[2025-09-06 10:26:49] [info] Database Format:            GDSII
[2025-09-06 10:26:49] [info] Verification Mode:         Full Check
[2025-09-06 10:26:49] [info] Error Reporting:           Enabled

[2025-09-06 10:26:49] [info] -----

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[2025-09-06 10:26:49] [info] Type of Errors | Count
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info] DB_WARN -> 1
[2025-09-06 10:26:49] [info] LRF_ERROR01 -> 14
[2025-09-06 10:26:49] [info] DB_WARN002 -> 144
[2025-09-06 10:26:49] [info] DB_WARN003 -> 137
[2025-09-06 10:26:49] [info] VERI_WARN012 -> 41
[2025-09-06 10:26:49] [info] LVS_ERROR19 -> 18
[2025-09-06 10:26:49] [info] LVS_ERROR03 -> 18
[2025-09-06 10:26:49] [info] ERC_ERROR03 -> 18
[2025-09-06 10:26:49] [info] LVS_ERROR05 -> 3
[2025-09-06 10:26:49] [info] LVS_ERROR30 -> 1
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info] Summary
[2025-09-06 10:26:49] [info] -----
[2025-09-06 10:26:49] [info] LVS Status: PASSED
[2025-09-06 10:26:49] [info] Instance Match Percentage: 99.99%
[2025-09-06 10:26:49] [info] Short Circuits: None Detected
[2025-09-06 10:26:49] [info] Open Circuits: None Detected
[2025-09-06 10:26:49] [info] Unconnected Pins: 118
[2025-09-06 10:26:49] [info] Total Errors: 72
[2025-09-06 10:26:49] [info] Total Warnings: 323
[2025-09-06 10:26:49] [info] Critical Issues: None
```

```
[2025-09-06 10:28:57] [info] =====
[2025-09-06 10:28:57] [info]             Layout Versus Schematic Report
[2025-09-06 10:28:57] [info] =====

[2025-09-06 10:28:57] [info] Report Generated:    2025-09-06
[2025-09-06 10:28:57] [info] Run Start Time:      10:26:59 AM
[2025-09-06 10:28:57] [info] Run End Time:        10:28:57 AM
[2025-09-06 10:28:57] [info] Time Taken:          2 minutes 5 seconds

[2025-09-06 10:28:57] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:28:57] [info] Host Name:           kuro-Workstation
[2025-09-06 10:28:57] [info] User Name:           kuro
[2025-09-06 10:28:57] [info] Cores Used:          16
[2025-09-06 10:28:57] [info] Memory Utilized:     3444.20 MB / 62.569705963134766 GB

[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info]             Top Cell Match
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-09-06 10:28:57] [info] Schematic Top Cell:  aes_cipher_top2_sky130hd
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info]             Netlist Statistics
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:28:57] [info] |-----|-----|-----|
[2025-09-06 10:28:57] [info] | Total Nets             | 25660       | 25665       |
[2025-09-06 10:28:57] [info] | Total Instances        | 423815      | 25396       |
[2025-09-06 10:28:57] [info] | Total Pins             | 314679      | 183623      |
[2025-09-06 10:28:57] [info] |-----|-----|-----|
[2025-09-06 10:28:57] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info] Total Schematic Instances:    25396
[2025-09-06 10:28:57] [info] Matched Instances:           25393
[2025-09-06 10:28:57] [info] Match Percentage: 99.99%

[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info]             Short and Open Checks
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info] Short Circuits:      None Detected
[2025-09-06 10:28:57] [info] Open Circuits:       None Detected

[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info]             Performance Metrics
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info] | Stage                | Time Taken |
[2025-09-06 10:28:57] [info] |-----|-----|
[2025-09-06 10:28:57] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 10:28:57] [info] | Connectivity Extraction | 1 minutes 54 seconds |
[2025-09-06 10:28:57] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 10:28:57] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info]             Additional Details
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 10:28:57] [info] Hierarchical Cells:   Flattened
[2025-09-06 10:28:57] [info] Database Format:       GDSII
[2025-09-06 10:28:57] [info] Verification Mode:    Full Check
[2025-09-06 10:28:57] [info] Error Reporting:      Enabled

[2025-09-06 10:28:57] [info] -----
```

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[2025-09-06 10:28:57] [info] Type of Errors | Count
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info] DB_WARN -> 1
[2025-09-06 10:28:57] [info] LRF_ERROR01 -> 14
[2025-09-06 10:28:57] [info] DB_WARN002 -> 141
[2025-09-06 10:28:57] [info] DB_WARN003 -> 135
[2025-09-06 10:28:57] [info] VERI_WARN012 -> 39
[2025-09-06 10:28:57] [info] LVS_ERROR19 -> 12
[2025-09-06 10:28:57] [info] LVS_ERROR03 -> 12
[2025-09-06 10:28:57] [info] ERC_ERROR03 -> 12
[2025-09-06 10:28:57] [info] LVS_ERROR05 -> 3
[2025-09-06 10:28:57] [info] LVS_ERROR30 -> 1
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info] Summary
[2025-09-06 10:28:57] [info] -----
[2025-09-06 10:28:57] [info] LVS Status: PASSED
[2025-09-06 10:28:57] [info] Instance Match Percentage: 99.99%
[2025-09-06 10:28:57] [info] Short Circuits: None Detected
[2025-09-06 10:28:57] [info] Open Circuits: None Detected
[2025-09-06 10:28:57] [info] Unconnected Pins: 112
[2025-09-06 10:28:57] [info] Total Errors: 54
[2025-09-06 10:28:57] [info] Total Warnings: 316
[2025-09-06 10:28:57] [info] Critical Issues: None
```

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[2025-09-06 10:30:12] [info] =====
[2025-09-06 10:30:12] [info] Layout Versus Schematic Report
[2025-09-06 10:30:12] [info] =====

[2025-09-06 10:30:12] [info] Report Generated: 2025-09-06
[2025-09-06 10:30:12] [info] Run Start Time: 10:29:05 AM
[2025-09-06 10:30:12] [info] Run End Time: 10:30:12 AM
[2025-09-06 10:30:12] [info] Time Taken: 1 minutes 12 seconds

[2025-09-06 10:30:12] [info] Tool Version: LVR_2025.1
[2025-09-06 10:30:12] [info] Host Name: kuro-Workstation
[2025-09-06 10:30:12] [info] User Name: kuro
[2025-09-06 10:30:12] [info] Cores Used: 16
[2025-09-06 10:30:12] [info] Memory Utilized: 2343.92 MB / 62.569705963134766 GB

[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Top Cell Match
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Layout Top Cell: aes_cipher_top3_sky130hd
[2025-09-06 10:30:12] [info] Schematic Top Cell: aes_cipher_top3_sky130hd
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Netlist Statistics
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] | Metric | Layout | Schematic |
[2025-09-06 10:30:12] [info] |-----|-----|-----|
[2025-09-06 10:30:12] [info] | Total Nets | 25146 | 25151 |
[2025-09-06 10:30:12] [info] | Total Instances | 318921 | 24882 |
[2025-09-06 10:30:12] [info] | Total Pins | 285259 | 180539 |
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Pin to Net Mapping Percentage
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Total Schematic Instances: 24882
[2025-09-06 10:30:12] [info] Matched Instances: 24879
[2025-09-06 10:30:12] [info] Match Percentage: 99.99%

[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Short and Open Checks
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Short Circuits: None Detected
[2025-09-06 10:30:12] [info] Open Circuits: None Detected

[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Performance Metrics
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] | Stage | Time Taken |
[2025-09-06 10:30:12] [info] |-----|-----|
[2025-09-06 10:30:12] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 10:30:12] [info] | Connectivity Extraction | 1 minutes 4 seconds |
[2025-09-06 10:30:12] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 10:30:12] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Additional Details
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 10:30:12] [info] Hierarchical Cells: Flattened
[2025-09-06 10:30:12] [info] Database Format: GDSII
[2025-09-06 10:30:12] [info] Verification Mode: Full Check
[2025-09-06 10:30:12] [info] Error Reporting: Enabled

[2025-09-06 10:30:12] [info] -----

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[2025-09-06 10:30:12] [info]                                Type of Errors | Count
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] DB_WARN -> 1
[2025-09-06 10:30:12] [info] LRF_ERROR01 -> 14
[2025-09-06 10:30:12] [info] DB_WARN002 -> 138
[2025-09-06 10:30:12] [info] DB_WARN003 -> 132
[2025-09-06 10:30:12] [info] VERI_WARN012 -> 36
[2025-09-06 10:30:12] [info] LVS_ERROR19 -> 12
[2025-09-06 10:30:12] [info] LVS_ERROR03 -> 12
[2025-09-06 10:30:12] [info] ERC_ERROR03 -> 12
[2025-09-06 10:30:12] [info] LVS_ERROR05 -> 3
[2025-09-06 10:30:12] [info] LVS_ERROR30 -> 1
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info]                                Summary
[2025-09-06 10:30:12] [info] -----
[2025-09-06 10:30:12] [info] LVS Status:                PASSED
[2025-09-06 10:30:12] [info] Instance Match Percentage: 99.99%
[2025-09-06 10:30:12] [info] Short Circuits:           None Detected
[2025-09-06 10:30:12] [info] Open Circuits:            None Detected
[2025-09-06 10:30:12] [info] Unconnected Pins:         112
[2025-09-06 10:30:12] [info] Total Errors:              54
[2025-09-06 10:30:12] [info] Total Warnings:           307
[2025-09-06 10:30:12] [info] Critical Issues:          None
```

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[2025-09-06 10:25:27] [info] =====
[2025-09-06 10:25:27] [info]           Layout Versus Schematic Report
[2025-09-06 10:25:27] [info] =====

[2025-09-06 10:25:27] [info] Report Generated:    2025-09-06
[2025-09-06 10:25:27] [info] Run Start Time:      10:25:27 AM
[2025-09-06 10:25:27] [info] Run End Time:        10:25:27 AM
[2025-09-06 10:25:27] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 10:25:27] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:25:27] [info] Host Name:           kuro-Workstation
[2025-09-06 10:25:27] [info] User Name:           kuro
[2025-09-06 10:25:27] [info] Cores Used:          16
[2025-09-06 10:25:27] [info] Memory Utilized:     38.46 MB / 62.569705963134766 GB

[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info]           Top Cell Match
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info] Layout Top Cell:     gcd1_sky130hd
[2025-09-06 10:25:27] [info] Schematic Top Cell:  gcd1_sky130hd
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info]           Netlist Statistics
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:25:27] [info] |-----|-----|-----|
[2025-09-06 10:25:27] [info] | Total Nets             | 389         | 391         |
[2025-09-06 10:25:27] [info] | Total Instances        | 4312        | 351         |
[2025-09-06 10:25:27] [info] | Total Pins             | 4063        | 2481        |
[2025-09-06 10:25:27] [info] |-----|-----|-----|
[2025-09-06 10:25:27] [info]           Pin to Net Mapping Percentage
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info] Total Schematic Instances:    351
[2025-09-06 10:25:27] [info] Matched Instances:           351
[2025-09-06 10:25:27] [info] Match Percentage: 100.00%

[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info]           Short and Open Checks
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info] Short Circuits:      None Detected
[2025-09-06 10:25:27] [info] Open Circuits:       None Detected

[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info]           Performance Metrics
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info] | Stage                | Time Taken |
[2025-09-06 10:25:27] [info] |-----|-----|
[2025-09-06 10:25:27] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-09-06 10:25:27] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 10:25:27] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-09-06 10:25:27] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info]           Additional Details
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 10:25:27] [info] Hierarchical Cells:   Flattened
[2025-09-06 10:25:27] [info] Database Format:       GDSII
[2025-09-06 10:25:27] [info] Verification Mode:    Full Check
[2025-09-06 10:25:27] [info] Error Reporting:      Enabled

[2025-09-06 10:25:27] [info] -----

```

```
[2025-09-06 10:25:27] [info]                Type of Errors | Count
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info] DB_WARN -> 1
[2025-09-06 10:25:27] [info] LRF_ERR001 -> 14
[2025-09-06 10:25:27] [info] DB_WARN002 -> 58
[2025-09-06 10:25:27] [info] DB_WARN003 -> 55
[2025-09-06 10:25:27] [info] VERI_WARN012 -> 4
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info]                Summary
[2025-09-06 10:25:27] [info] -----
[2025-09-06 10:25:27] [info] LVS Status:                PASSED
[2025-09-06 10:25:27] [info] Instance Match Percentage: 100.00%
[2025-09-06 10:25:27] [info] Short Circuits:           None Detected
[2025-09-06 10:25:27] [info] Open Circuits:            None Detected
[2025-09-06 10:25:27] [info] Unconnected Pins:         100
[2025-09-06 10:25:27] [info] Total Errors:              14
[2025-09-06 10:25:27] [info] Total Warnings:            118
[2025-09-06 10:25:27] [info] Critical Issues:          None
```

```
[2025-09-06 10:25:28] [info] =====
[2025-09-06 10:25:28] [info]           Layout Versus Schematic Report
[2025-09-06 10:25:28] [info] =====

[2025-09-06 10:25:28] [info] Report Generated:    2025-09-06
[2025-09-06 10:25:28] [info] Run Start Time:      10:25:27 AM
[2025-09-06 10:25:28] [info] Run End Time:        10:25:28 AM
[2025-09-06 10:25:28] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 10:25:28] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:25:28] [info] Host Name:           kuro-Workstation
[2025-09-06 10:25:28] [info] User Name:           kuro
[2025-09-06 10:25:28] [info] Cores Used:          16
[2025-09-06 10:25:28] [info] Memory Utilized:     43.01 MB / 62.569705963134766 GB

[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]           Top Cell Match
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] Layout Top Cell:     gcd2_sky130hd
[2025-09-06 10:25:28] [info] Schematic Top Cell:  gcd2_sky130hd
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]           Netlist Statistics
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:25:28] [info] |-----|-----|-----|
[2025-09-06 10:25:28] [info] | Total Nets             | 353         | 355         |
[2025-09-06 10:25:28] [info] | Total Instances        | 4768        | 315         |
[2025-09-06 10:25:28] [info] | Total Pins             | 3854        | 2265        |
[2025-09-06 10:25:28] [info] |-----|-----|-----|
[2025-09-06 10:25:28] [info]           Pin to Net Mapping Percentage
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] Total Schematic Instances:    315
[2025-09-06 10:25:28] [info] Matched Instances:           315
[2025-09-06 10:25:28] [info] Match Percentage: 100.00%

[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]           Short and Open Checks
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] Short Circuits:      None Detected
[2025-09-06 10:25:28] [info] Open Circuits:       None Detected

[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]           Performance Metrics
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] | Stage                | Time Taken |
[2025-09-06 10:25:28] [info] |-----|-----|
[2025-09-06 10:25:28] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-09-06 10:25:28] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 10:25:28] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-09-06 10:25:28] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]           Additional Details
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 10:25:28] [info] Hierarchical Cells:   Flattened
[2025-09-06 10:25:28] [info] Database Format:       GDSII
[2025-09-06 10:25:28] [info] Verification Mode:    Full Check
[2025-09-06 10:25:28] [info] Error Reporting:      Enabled

[2025-09-06 10:25:28] [info] -----
```

```
[2025-09-06 10:25:28] [info]                Type of Errors | Count
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] DB_WARN -> 1
[2025-09-06 10:25:28] [info] LRF_ERR001 -> 14
[2025-09-06 10:25:28] [info] DB_WARN002 -> 59
[2025-09-06 10:25:28] [info] DB_WARN003 -> 56
[2025-09-06 10:25:28] [info] VERI_WARN012 -> 5
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]                Summary
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] LVS Status:                PASSED
[2025-09-06 10:25:28] [info] Instance Match Percentage: 100.00%
[2025-09-06 10:25:28] [info] Short Circuits:           None Detected
[2025-09-06 10:25:28] [info] Open Circuits:            None Detected
[2025-09-06 10:25:28] [info] Unconnected Pins:         100
[2025-09-06 10:25:28] [info] Total Errors:              14
[2025-09-06 10:25:28] [info] Total Warnings:            121
[2025-09-06 10:25:28] [info] Critical Issues:          None
```

```

[2025-09-06 10:25:28] [info] =====
[2025-09-06 10:25:28] [info]             Layout Versus Schematic Report
[2025-09-06 10:25:28] [info] =====

[2025-09-06 10:25:28] [info] Report Generated:    2025-09-06
[2025-09-06 10:25:28] [info] Run Start Time:      10:25:28 AM
[2025-09-06 10:25:28] [info] Run End Time:        10:25:28 AM
[2025-09-06 10:25:28] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 10:25:28] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:25:28] [info] Host Name:           kuro-Workstation
[2025-09-06 10:25:28] [info] User Name:           kuro
[2025-09-06 10:25:28] [info] Cores Used:          16
[2025-09-06 10:25:28] [info] Memory Utilized:     32.48 MB / 62.569705963134766 GB

[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]             Top Cell Match
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] Layout Top Cell:     gcd3_sky130hd
[2025-09-06 10:25:28] [info] Schematic Top Cell:  gcd3_sky130hd
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]             Netlist Statistics
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:25:28] [info] |-----|-----|-----|
[2025-09-06 10:25:28] [info] | Total Nets             | 360         | 362        |
[2025-09-06 10:25:28] [info] | Total Instances        | 3829        | 322        |
[2025-09-06 10:25:28] [info] | Total Pins             | 3692        | 2307       |
[2025-09-06 10:25:28] [info] |-----|-----|-----|
[2025-09-06 10:25:28] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] Total Schematic Instances:    322
[2025-09-06 10:25:28] [info] Matched Instances:           322
[2025-09-06 10:25:28] [info] Match Percentage: 100.00%

[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]             Short and Open Checks
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] Short Circuits:      None Detected
[2025-09-06 10:25:28] [info] Open Circuits:       None Detected

[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]             Performance Metrics
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] | Stage                | Time Taken |
[2025-09-06 10:25:28] [info] |-----|-----|
[2025-09-06 10:25:28] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 10:25:28] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 10:25:28] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 10:25:28] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]             Additional Details
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 10:25:28] [info] Hierarchical Cells:   Flattened
[2025-09-06 10:25:28] [info] Database Format:       GDSII
[2025-09-06 10:25:28] [info] Verification Mode:    Full Check
[2025-09-06 10:25:28] [info] Error Reporting:      Enabled

[2025-09-06 10:25:28] [info] -----

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[2025-09-06 10:25:28] [info]                Type of Errors | Count
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] DB_WARN -> 1
[2025-09-06 10:25:28] [info] LRF_ERR001 -> 14
[2025-09-06 10:25:28] [info] DB_WARN002 -> 59
[2025-09-06 10:25:28] [info] DB_WARN003 -> 56
[2025-09-06 10:25:28] [info] VERI_WARN012 -> 6
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info]                Summary
[2025-09-06 10:25:28] [info] -----
[2025-09-06 10:25:28] [info] LVS Status:                PASSED
[2025-09-06 10:25:28] [info] Instance Match Percentage: 100.00%
[2025-09-06 10:25:28] [info] Short Circuits:           None Detected
[2025-09-06 10:25:28] [info] Open Circuits:            None Detected
[2025-09-06 10:25:28] [info] Unconnected Pins:         100
[2025-09-06 10:25:28] [info] Total Errors:              14
[2025-09-06 10:25:28] [info] Total Warnings:            122
[2025-09-06 10:25:28] [info] Critical Issues:          None
```

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[2025-09-06 10:31:19] [info] =====
[2025-09-06 10:31:19] [info]             Layout Versus Schematic Report
[2025-09-06 10:31:19] [info] =====

[2025-09-06 10:31:19] [info] Report Generated:    2025-09-06
[2025-09-06 10:31:19] [info] Run Start Time:      10:30:20 AM
[2025-09-06 10:31:19] [info] Run End Time:        10:31:19 AM
[2025-09-06 10:31:19] [info] Time Taken:          1 minutes 5 seconds

[2025-09-06 10:31:19] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:31:19] [info] Host Name:           kuro-Workstation
[2025-09-06 10:31:19] [info] User Name:           kuro
[2025-09-06 10:31:19] [info] Cores Used:          16
[2025-09-06 10:31:19] [info] Memory Utilized:     2607.32 MB / 62.569705963134766 GB

[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info]             Top Cell Match
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-09-06 10:31:19] [info] Schematic Top Cell:  ibex_core1_sky130hd
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info]             Netlist Statistics
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:31:19] [info] |-----|-----|-----|
[2025-09-06 10:31:19] [info] | Total Nets             | 21317       | 21319       |
[2025-09-06 10:31:19] [info] | Total Instances        | 281049      | 21165       |
[2025-09-06 10:31:19] [info] | Total Pins             | 281287      | 153642      |
[2025-09-06 10:31:19] [info] |-----|-----|-----|
[2025-09-06 10:31:19] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info] Total Schematic Instances:    21165
[2025-09-06 10:31:19] [info] Matched Instances:           21154
[2025-09-06 10:31:19] [info] Match Percentage: 99.95%

[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info]             Short and Open Checks
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info] Short Circuits:      None Detected
[2025-09-06 10:31:19] [info] Open Circuits:       None Detected

[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info]             Performance Metrics
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info] | Stage                | Time Taken |
[2025-09-06 10:31:19] [info] |-----|-----|
[2025-09-06 10:31:19] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 10:31:19] [info] | Connectivity Extraction | 0 minutes 56 seconds |
[2025-09-06 10:31:19] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 10:31:19] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info]             Additional Details
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 10:31:19] [info] Hierarchical Cells:   Flattened
[2025-09-06 10:31:19] [info] Database Format:       GDSII
[2025-09-06 10:31:19] [info] Verification Mode:    Full Check
[2025-09-06 10:31:19] [info] Error Reporting:      Enabled

[2025-09-06 10:31:19] [info] -----

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[2025-09-06 10:31:19] [info] Type of Errors | Count
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info] DB_WARN -> 1
[2025-09-06 10:31:19] [info] LRF_ERR001 -> 14
[2025-09-06 10:31:19] [info] DB_WARN002 -> 251
[2025-09-06 10:31:19] [info] DB_WARN003 -> 251
[2025-09-06 10:31:19] [info] VERI_WARN012 -> 34
[2025-09-06 10:31:19] [info] LVS_ERR019 -> 38
[2025-09-06 10:31:19] [info] ERC_ERR001 -> 4
[2025-09-06 10:31:19] [info] LVS_ERR003 -> 13
[2025-09-06 10:31:19] [info] ERC_ERR003 -> 13
[2025-09-06 10:31:19] [info] LVS_ERR005 -> 11
[2025-09-06 10:31:19] [info] LVS_ERR030 -> 1
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info] Summary
[2025-09-06 10:31:19] [info] -----
[2025-09-06 10:31:19] [info] LVS Status: PASSED
[2025-09-06 10:31:19] [info] Instance Match Percentage: 99.95%
[2025-09-06 10:31:19] [info] Short Circuits: None Detected
[2025-09-06 10:31:19] [info] Open Circuits: None Detected
[2025-09-06 10:31:19] [info] Unconnected Pins: 138
[2025-09-06 10:31:19] [info] Total Errors: 94
[2025-09-06 10:31:19] [info] Total Warnings: 537
[2025-09-06 10:31:19] [info] Critical Issues: None
```

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[2025-09-06 10:32:29] [info] =====
[2025-09-06 10:32:29] [info]             Layout Versus Schematic Report
[2025-09-06 10:32:29] [info] =====

[2025-09-06 10:32:29] [info] Report Generated:    2025-09-06
[2025-09-06 10:32:29] [info] Run Start Time:      10:31:27 AM
[2025-09-06 10:32:29] [info] Run End Time:        10:32:29 AM
[2025-09-06 10:32:29] [info] Time Taken:          1 minutes 7 seconds

[2025-09-06 10:32:29] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:32:29] [info] Host Name:           kuro-Workstation
[2025-09-06 10:32:29] [info] User Name:           kuro
[2025-09-06 10:32:29] [info] Cores Used:          16
[2025-09-06 10:32:29] [info] Memory Utilized:     2652.30 MB / 62.569705963134766 GB

[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info]             Top Cell Match
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-09-06 10:32:29] [info] Schematic Top Cell:  ibex_core2_sky130hd
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info]             Netlist Statistics
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:32:29] [info] |-----|-----|-----|
[2025-09-06 10:32:29] [info] | Total Nets             | 21096       | 21098       |
[2025-09-06 10:32:29] [info] | Total Instances        | 293160      | 20944       |
[2025-09-06 10:32:29] [info] | Total Pins             | 281372      | 152316      |
[2025-09-06 10:32:29] [info] |-----|-----|-----|
[2025-09-06 10:32:29] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info] Total Schematic Instances: 20944
[2025-09-06 10:32:29] [info] Matched Instances:        20932
[2025-09-06 10:32:29] [info] Match Percentage: 99.94%

[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info]             Short and Open Checks
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info] Short Circuits:        None Detected
[2025-09-06 10:32:29] [info] Open Circuits:         Open Detected

[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info]             Performance Metrics
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info] | Stage                  | Time Taken |
[2025-09-06 10:32:29] [info] |-----|-----|
[2025-09-06 10:32:29] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-09-06 10:32:29] [info] | Connectivity Extraction | 0 minutes 59 seconds |
[2025-09-06 10:32:29] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-09-06 10:32:29] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info]             Additional Details
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 10:32:29] [info] Hierarchical Cells:    Flattened
[2025-09-06 10:32:29] [info] Database Format:        GDSII
[2025-09-06 10:32:29] [info] Verification Mode:     Full Check
[2025-09-06 10:32:29] [info] Error Reporting:       Enabled

[2025-09-06 10:32:29] [info] -----

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[2025-09-06 10:32:29] [info]                                     Type of Errors | Count
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info] DB_WARN -> 1
[2025-09-06 10:32:29] [info] LRF_ERR001 -> 14
[2025-09-06 10:32:29] [info] DB_WARN002 -> 249
[2025-09-06 10:32:29] [info] DB_WARN003 -> 249
[2025-09-06 10:32:29] [info] VERI_WARN012 -> 31
[2025-09-06 10:32:29] [info] LVS_ERR018 -> 2
[2025-09-06 10:32:29] [info] LVS_ERR019 -> 32
[2025-09-06 10:32:29] [info] ERC_ERR001 -> 4
[2025-09-06 10:32:29] [info] LVS_ERR003 -> 11
[2025-09-06 10:32:29] [info] ERC_ERR003 -> 11
[2025-09-06 10:32:29] [info] LVS_ERR005 -> 12
[2025-09-06 10:32:29] [info] LVS_ERR030 -> 1
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info]                                     Summary
[2025-09-06 10:32:29] [info] -----
[2025-09-06 10:32:29] [info] LVS Status:                PASSED
[2025-09-06 10:32:29] [info] Instance Match Percentage: 99.94%
[2025-09-06 10:32:29] [info] Short Circuits:            None Detected
[2025-09-06 10:32:29] [info] Open Circuits:             Open Detected
[2025-09-06 10:32:29] [info] Unconnected Pins:          132
[2025-09-06 10:32:29] [info] Total Errors:               87
[2025-09-06 10:32:29] [info] Total Warnings:              530
[2025-09-06 10:32:29] [info] Critical Issues:            None

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[2025-09-06 10:33:37] [info] =====
[2025-09-06 10:33:37] [info]           Layout Versus Schematic Report
[2025-09-06 10:33:37] [info] =====

[2025-09-06 10:33:37] [info] Report Generated:    2025-09-06
[2025-09-06 10:33:37] [info] Run Start Time:      10:32:37 AM
[2025-09-06 10:33:37] [info] Run End Time:        10:33:36 AM
[2025-09-06 10:33:37] [info] Time Taken:          1 minutes 5 seconds

[2025-09-06 10:33:37] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:33:37] [info] Host Name:           kuro-Workstation
[2025-09-06 10:33:37] [info] User Name:           kuro
[2025-09-06 10:33:37] [info] Cores Used:          16
[2025-09-06 10:33:37] [info] Memory Utilized:     2577.80 MB / 62.569705963134766 GB

[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info]           Top Cell Match
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 10:33:37] [info] Schematic Top Cell:  ibex_core3_sky130hd
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info]           Netlist Statistics
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:33:37] [info] |-----|-----|-----|
[2025-09-06 10:33:37] [info] | Total Nets             | 19194       | 19196       |
[2025-09-06 10:33:37] [info] | Total Instances        | 300437      | 19042       |
[2025-09-06 10:33:37] [info] | Total Pins             | 256833      | 140904      |
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info]           Pin to Net Mapping Percentage
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info] Total Schematic Instances: 19042
[2025-09-06 10:33:37] [info] Matched Instances:        19033
[2025-09-06 10:33:37] [info] Match Percentage: 99.95%

[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info]           Short and Open Checks
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info] Short Circuits:        None Detected
[2025-09-06 10:33:37] [info] Open Circuits:         Open Detected

[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info]           Performance Metrics
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info] | Stage                | Time Taken |
[2025-09-06 10:33:37] [info] |-----|-----|
[2025-09-06 10:33:37] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 10:33:37] [info] | Connectivity Extraction | 0 minutes 57 seconds |
[2025-09-06 10:33:37] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 10:33:37] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info]           Additional Details
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 10:33:37] [info] Hierarchical Cells:    Flattened
[2025-09-06 10:33:37] [info] Database Format:        GDSII
[2025-09-06 10:33:37] [info] Verification Mode:     Full Check
[2025-09-06 10:33:37] [info] Error Reporting:       Enabled

[2025-09-06 10:33:37] [info] -----

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[2025-09-06 10:33:37] [info]                                Type of Errors | Count
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info] DB_WARN -> 1
[2025-09-06 10:33:37] [info] LRF_ERR001 -> 14
[2025-09-06 10:33:37] [info] DB_WARN002 -> 253
[2025-09-06 10:33:37] [info] DB_WARN003 -> 251
[2025-09-06 10:33:37] [info] VERI_WARN012 -> 53
[2025-09-06 10:33:37] [info] LVS_ERR018 -> 5
[2025-09-06 10:33:37] [info] LVS_ERR019 -> 31
[2025-09-06 10:33:37] [info] LVS_ERR003 -> 11
[2025-09-06 10:33:37] [info] ERC_ERR003 -> 11
[2025-09-06 10:33:37] [info] ERC_ERR001 -> 2
[2025-09-06 10:33:37] [info] LVS_ERR005 -> 9
[2025-09-06 10:33:37] [info] LVS_ERR030 -> 1
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info]                                Summary
[2025-09-06 10:33:37] [info] -----
[2025-09-06 10:33:37] [info] LVS Status:                PASSED
[2025-09-06 10:33:37] [info] Instance Match Percentage: 99.95%
[2025-09-06 10:33:37] [info] Short Circuits:           None Detected
[2025-09-06 10:33:37] [info] Open Circuits:            Open Detected
[2025-09-06 10:33:37] [info] Unconnected Pins:         131
[2025-09-06 10:33:37] [info] Total Errors:              84
[2025-09-06 10:33:37] [info] Total Warnings:            558
[2025-09-06 10:33:37] [info] Critical Issues:          None
```

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[2025-09-06 10:38:36] [info] =====
[2025-09-06 10:38:36] [info]             Layout Versus Schematic Report
[2025-09-06 10:38:36] [info] =====

[2025-09-06 10:38:36] [info] Report Generated:    2025-09-06
[2025-09-06 10:38:36] [info] Run Start Time:      10:33:55 AM
[2025-09-06 10:38:36] [info] Run End Time:        10:38:35 AM
[2025-09-06 10:38:36] [info] Time Taken:          4 minutes 57 seconds

[2025-09-06 10:38:36] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:38:36] [info] Host Name:           kuro-Workstation
[2025-09-06 10:38:36] [info] User Name:           kuro
[2025-09-06 10:38:36] [info] Cores Used:          16
[2025-09-06 10:38:36] [info] Memory Utilized:     6934.95 MB / 62.569705963134766 GB

[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info]             Top Cell Match
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-09-06 10:38:36] [info] Schematic Top Cell:  jpeg_encoder1_sky130hd
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info]             Netlist Statistics
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:38:36] [info] |-----|-----|-----|
[2025-09-06 10:38:36] [info] | Total Nets             | 57241       | 57353       |
[2025-09-06 10:38:36] [info] | Total Instances        | 726048      | 44959       |
[2025-09-06 10:38:36] [info] | Total Pins             | 645641      | 334560      |
[2025-09-06 10:38:36] [info] |-----|-----|-----|
[2025-09-06 10:38:36] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info] Total Schematic Instances:    44959
[2025-09-06 10:38:36] [info] Matched Instances:           44846
[2025-09-06 10:38:36] [info] Match Percentage: 99.75%

[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info]             Short and Open Checks
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info] Short Circuits:             None Detected
[2025-09-06 10:38:36] [info] Open Circuits:              Open Detected

[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info]             Performance Metrics
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info] | Stage                    | Time Taken |
[2025-09-06 10:38:36] [info] |-----|-----|
[2025-09-06 10:38:36] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 10:38:36] [info] | Connectivity Extraction   | 4 minutes 33 seconds |
[2025-09-06 10:38:36] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 10:38:36] [info] | Report Generation         | 0 minutes 0 seconds |

[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info]             Additional Details
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 10:38:36] [info] Hierarchical Cells:        Flattened
[2025-09-06 10:38:36] [info] Database Format:            GDSII
[2025-09-06 10:38:36] [info] Verification Mode:         Full Check
[2025-09-06 10:38:36] [info] Error Reporting:           Enabled

[2025-09-06 10:38:36] [info] -----

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[2025-09-06 10:38:36] [info]                                Type of Errors | Count
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info] DB_WARN -> 1
[2025-09-06 10:38:36] [info] LRF_ERR001 -> 14
[2025-09-06 10:38:36] [info] DB_WARN002 -> 159
[2025-09-06 10:38:36] [info] DB_WARN003 -> 161
[2025-09-06 10:38:36] [info] VERI_WARN012 -> 113
[2025-09-06 10:38:36] [info] LVS_ERR018 -> 7
[2025-09-06 10:38:36] [info] LVS_ERR019 -> 511
[2025-09-06 10:38:36] [info] LVS_ERR003 -> 499
[2025-09-06 10:38:36] [info] ERC_ERR003 -> 499
[2025-09-06 10:38:36] [info] LVS_ERR005 -> 113
[2025-09-06 10:38:36] [info] LVS_ERR030 -> 1
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info]                                Summary
[2025-09-06 10:38:36] [info] -----
[2025-09-06 10:38:36] [info] LVS Status:                PASSED
[2025-09-06 10:38:36] [info] Instance Match Percentage: 99.75%
[2025-09-06 10:38:36] [info] Short Circuits:            None Detected
[2025-09-06 10:38:36] [info] Open Circuits:             Open Detected
[2025-09-06 10:38:36] [info] Unconnected Pins:          611
[2025-09-06 10:38:36] [info] Total Errors:               1644
[2025-09-06 10:38:36] [info] Total Warnings:             434
[2025-09-06 10:38:36] [info] Critical Issues:           None
```

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[2025-09-06 10:44:29] [info] =====
[2025-09-06 10:44:29] [info]             Layout Versus Schematic Report
[2025-09-06 10:44:29] [info] =====

[2025-09-06 10:44:29] [info] Report Generated:    2025-09-06
[2025-09-06 10:44:29] [info] Run Start Time:      10:39:02 AM
[2025-09-06 10:44:29] [info] Run End Time:        10:44:29 AM
[2025-09-06 10:44:29] [info] Time Taken:          5 minutes 48 seconds

[2025-09-06 10:44:29] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:44:29] [info] Host Name:           kuro-Workstation
[2025-09-06 10:44:29] [info] User Name:           kuro
[2025-09-06 10:44:29] [info] Cores Used:          16
[2025-09-06 10:44:29] [info] Memory Utilized:     8499.99 MB / 62.569705963134766 GB

[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info]             Top Cell Match
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-09-06 10:44:29] [info] Schematic Top Cell:  jpeg_encoder2_sky130hd
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info]             Netlist Statistics
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:44:29] [info] |-----|-----|-----|
[2025-09-06 10:44:29] [info] | Total Nets             | 57183       | 57295       |
[2025-09-06 10:44:29] [info] | Total Instances        | 857431      | 44901        |
[2025-09-06 10:44:29] [info] | Total Pins             | 674946      | 334212       |
[2025-09-06 10:44:29] [info] |-----|-----|-----|
[2025-09-06 10:44:29] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info] Total Schematic Instances:    44901
[2025-09-06 10:44:29] [info] Matched Instances:           44788
[2025-09-06 10:44:29] [info] Match Percentage: 99.75%

[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info]             Short and Open Checks
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info] Short Circuits:             None Detected
[2025-09-06 10:44:29] [info] Open Circuits:              Open Detected

[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info]             Performance Metrics
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info] | Stage                    | Time Taken |
[2025-09-06 10:44:29] [info] |-----|-----|
[2025-09-06 10:44:29] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 10:44:29] [info] | Connectivity Extraction   | 5 minutes 20 seconds |
[2025-09-06 10:44:29] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 10:44:29] [info] | Report Generation        | 0 minutes 0 seconds |

[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info]             Additional Details
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 10:44:29] [info] Hierarchical Cells:        Flattened
[2025-09-06 10:44:29] [info] Database Format:            GDSII
[2025-09-06 10:44:29] [info] Verification Mode:          Full Check
[2025-09-06 10:44:29] [info] Error Reporting:           Enabled

[2025-09-06 10:44:29] [info] -----

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[2025-09-06 10:44:29] [info]                                Type of Errors | Count
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info] DB_WARN -> 1
[2025-09-06 10:44:29] [info] LRF_ERR001 -> 14
[2025-09-06 10:44:29] [info] DB_WARN002 -> 157
[2025-09-06 10:44:29] [info] DB_WARN003 -> 159
[2025-09-06 10:44:29] [info] VERI_WARN012 -> 113
[2025-09-06 10:44:29] [info] LVS_ERR018 -> 6
[2025-09-06 10:44:29] [info] LVS_ERR019 -> 502
[2025-09-06 10:44:29] [info] LVS_ERR003 -> 490
[2025-09-06 10:44:29] [info] ERC_ERR003 -> 490
[2025-09-06 10:44:29] [info] LVS_ERR005 -> 113
[2025-09-06 10:44:29] [info] LVS_ERR030 -> 1
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info]                                Summary
[2025-09-06 10:44:29] [info] -----
[2025-09-06 10:44:29] [info] LVS Status:                PASSED
[2025-09-06 10:44:29] [info] Instance Match Percentage: 99.75%
[2025-09-06 10:44:29] [info] Short Circuits:           None Detected
[2025-09-06 10:44:29] [info] Open Circuits:            Open Detected
[2025-09-06 10:44:29] [info] Unconnected Pins:         602
[2025-09-06 10:44:29] [info] Total Errors:              1616
[2025-09-06 10:44:29] [info] Total Warnings:            430
[2025-09-06 10:44:29] [info] Critical Issues:           None
```

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[2025-09-06 10:48:54] [info] =====
[2025-09-06 10:48:54] [info]             Layout Versus Schematic Report
[2025-09-06 10:48:54] [info] =====

[2025-09-06 10:48:54] [info] Report Generated:    2025-09-06
[2025-09-06 10:48:54] [info] Run Start Time:      10:44:49 AM
[2025-09-06 10:48:54] [info] Run End Time:        10:48:54 AM
[2025-09-06 10:48:54] [info] Time Taken:          4 minutes 18 seconds

[2025-09-06 10:48:54] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:48:54] [info] Host Name:           kuro-Workstation
[2025-09-06 10:48:54] [info] User Name:           kuro
[2025-09-06 10:48:54] [info] Cores Used:          16
[2025-09-06 10:48:54] [info] Memory Utilized:     5873.45 MB / 62.569705963134766 GB

[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info]             Top Cell Match
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-09-06 10:48:54] [info] Schematic Top Cell:  jpeg_encoder3_sky130hd
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info]             Netlist Statistics
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:48:54] [info] |-----|-----|-----|
[2025-09-06 10:48:54] [info] | Total Nets             | 57107       | 57219       |
[2025-09-06 10:48:54] [info] | Total Instances        | 646154      | 44825       |
[2025-09-06 10:48:54] [info] | Total Pins             | 625409      | 333756      |
[2025-09-06 10:48:54] [info] |-----|-----|-----|
[2025-09-06 10:48:54] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info] Total Schematic Instances:    44825
[2025-09-06 10:48:54] [info] Matched Instances:           44712
[2025-09-06 10:48:54] [info] Match Percentage: 99.75%

[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info]             Short and Open Checks
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info] Short Circuits:             None Detected
[2025-09-06 10:48:54] [info] Open Circuits:              Open Detected

[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info]             Performance Metrics
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info] | Stage                  | Time Taken |
[2025-09-06 10:48:54] [info] |-----|-----|
[2025-09-06 10:48:54] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-09-06 10:48:54] [info] | Connectivity Extraction | 3 minutes 59 seconds |
[2025-09-06 10:48:54] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-09-06 10:48:54] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info]             Additional Details
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 10:48:54] [info] Hierarchical Cells:        Flattened
[2025-09-06 10:48:54] [info] Database Format:            GDSII
[2025-09-06 10:48:54] [info] Verification Mode:         Full Check
[2025-09-06 10:48:54] [info] Error Reporting:           Enabled

[2025-09-06 10:48:54] [info] -----

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[2025-09-06 10:48:54] [info]                                Type of Errors | Count
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info] DB_WARN -> 1
[2025-09-06 10:48:54] [info] LRF_ERR001 -> 14
[2025-09-06 10:48:54] [info] DB_WARN002 -> 152
[2025-09-06 10:48:54] [info] DB_WARN003 -> 155
[2025-09-06 10:48:54] [info] VERI_WARN012 -> 113
[2025-09-06 10:48:54] [info] LVS_ERR018 -> 11
[2025-09-06 10:48:54] [info] LVS_ERR019 -> 450
[2025-09-06 10:48:54] [info] LVS_ERR003 -> 438
[2025-09-06 10:48:54] [info] ERC_ERR003 -> 438
[2025-09-06 10:48:54] [info] LVS_ERR005 -> 113
[2025-09-06 10:48:54] [info] LVS_ERR030 -> 1
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info]                                Summary
[2025-09-06 10:48:54] [info] -----
[2025-09-06 10:48:54] [info] LVS Status:                PASSED
[2025-09-06 10:48:54] [info] Instance Match Percentage: 99.75%
[2025-09-06 10:48:54] [info] Short Circuits:           None Detected
[2025-09-06 10:48:54] [info] Open Circuits:            Open Detected
[2025-09-06 10:48:54] [info] Unconnected Pins:         550
[2025-09-06 10:48:54] [info] Total Errors:              1465
[2025-09-06 10:48:54] [info] Total Warnings:           421
[2025-09-06 10:48:54] [info] Critical Issues:          None

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[2025-09-06 07:01:14] [info] =====
[2025-09-06 07:01:14] [info] Layout Versus Schematic Report
[2025-09-06 07:01:14] [info] =====

[2025-09-06 07:01:14] [info] Report Generated: 2025-09-06
[2025-09-06 07:01:14] [info] Run Start Time: 06:52:54 AM
[2025-09-06 07:01:14] [info] Run End Time: 07:01:14 AM
[2025-09-06 07:01:14] [info] Time Taken: 8 minutes 26 seconds

[2025-09-06 07:01:14] [info] Tool Version: LVR_2025.1
[2025-09-06 07:01:14] [info] Host Name: kuro-Workstation
[2025-09-06 07:01:14] [info] User Name: kuro
[2025-09-06 07:01:14] [info] Cores Used: 1
[2025-09-06 07:01:14] [info] Memory Utilized: 2848.86 MB / 62.569705963134766 GB

[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Top Cell Match
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Layout Top Cell: aes_cipher_top1_sky130hd
[2025-09-06 07:01:14] [info] Schematic Top Cell: aes_cipher_top1_sky130hd
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Netlist Statistics
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] | Metric | Layout | Schematic |
[2025-09-06 07:01:14] [info] |-----|-----|-----|
[2025-09-06 07:01:14] [info] | Total Nets | 25673 | 25678 |
[2025-09-06 07:01:14] [info] | Total Instances | 353042 | 25409 |
[2025-09-06 07:01:14] [info] | Total Pins | 300090 | 183701 |
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Pin to Net Mapping Percentage
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Total Schematic Instances: 25409
[2025-09-06 07:01:14] [info] Matched Instances: 25406
[2025-09-06 07:01:14] [info] Match Percentage: 99.99%

[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Short and Open Checks
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Short Circuits: None Detected
[2025-09-06 07:01:14] [info] Open Circuits: None Detected

[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Performance Metrics
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] | Stage | Time Taken |
[2025-09-06 07:01:14] [info] |-----|-----|
[2025-09-06 07:01:14] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 07:01:14] [info] | Connectivity Extraction | 8 minutes 16 seconds |
[2025-09-06 07:01:14] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 07:01:14] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Additional Details
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 07:01:14] [info] Hierarchical Cells: Flattened
[2025-09-06 07:01:14] [info] Database Format: GDSII
[2025-09-06 07:01:14] [info] Verification Mode: Full Check
[2025-09-06 07:01:14] [info] Error Reporting: Enabled

[2025-09-06 07:01:14] [info] -----

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[2025-09-06 07:01:14] [info]                                Type of Errors | Count
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] DB_WARN -> 1
[2025-09-06 07:01:14] [info] LRF_ERROR01 -> 14
[2025-09-06 07:01:14] [info] DB_WARN002 -> 144
[2025-09-06 07:01:14] [info] DB_WARN003 -> 137
[2025-09-06 07:01:14] [info] VERI_WARN012 -> 41
[2025-09-06 07:01:14] [info] LVS_ERROR19 -> 18
[2025-09-06 07:01:14] [info] LVS_ERROR03 -> 18
[2025-09-06 07:01:14] [info] ERC_ERROR03 -> 18
[2025-09-06 07:01:14] [info] LVS_ERROR05 -> 3
[2025-09-06 07:01:14] [info] LVS_ERROR30 -> 1
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info]                                Summary
[2025-09-06 07:01:14] [info] -----
[2025-09-06 07:01:14] [info] LVS Status:                PASSED
[2025-09-06 07:01:14] [info] Instance Match Percentage: 99.99%
[2025-09-06 07:01:14] [info] Short Circuits:           None Detected
[2025-09-06 07:01:14] [info] Open Circuits:            None Detected
[2025-09-06 07:01:14] [info] Unconnected Pins:         118
[2025-09-06 07:01:14] [info] Total Errors:              72
[2025-09-06 07:01:14] [info] Total Warnings:            323
[2025-09-06 07:01:14] [info] Critical Issues:           None
```

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[2025-09-06 07:13:51] [info] =====
[2025-09-06 07:13:51] [info]             Layout Versus Schematic Report
[2025-09-06 07:13:51] [info] =====

[2025-09-06 07:13:51] [info] Report Generated:    2025-09-06
[2025-09-06 07:13:51] [info] Run Start Time:      07:01:24 AM
[2025-09-06 07:13:51] [info] Run End Time:        07:13:51 AM
[2025-09-06 07:13:51] [info] Time Taken:          12 minutes 34 seconds

[2025-09-06 07:13:51] [info] Tool Version:        LVR_2025.1
[2025-09-06 07:13:51] [info] Host Name:           kuro-Workstation
[2025-09-06 07:13:51] [info] User Name:           kuro
[2025-09-06 07:13:51] [info] Cores Used:          1
[2025-09-06 07:13:51] [info] Memory Utilized:     3444.20 MB / 62.569705963134766 GB

[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info]             Top Cell Match
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-09-06 07:13:51] [info] Schematic Top Cell:  aes_cipher_top2_sky130hd
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info]             Netlist Statistics
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 07:13:51] [info] |-----|-----|-----|
[2025-09-06 07:13:51] [info] | Total Nets             | 25660       | 25665       |
[2025-09-06 07:13:51] [info] | Total Instances        | 423815      | 25396       |
[2025-09-06 07:13:51] [info] | Total Pins             | 314679      | 183623      |
[2025-09-06 07:13:51] [info] |-----|-----|-----|
[2025-09-06 07:13:51] [info]             Pin to Net Mapping Percentage
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info] Total Schematic Instances:    25396
[2025-09-06 07:13:51] [info] Matched Instances:           25393
[2025-09-06 07:13:51] [info] Match Percentage: 99.99%

[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info]             Short and Open Checks
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info] Short Circuits:      None Detected
[2025-09-06 07:13:51] [info] Open Circuits:       None Detected

[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info]             Performance Metrics
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info] | Stage                | Time Taken |
[2025-09-06 07:13:51] [info] |-----|-----|
[2025-09-06 07:13:51] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 07:13:51] [info] | Connectivity Extraction | 12 minutes 23 seconds |
[2025-09-06 07:13:51] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 07:13:51] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info]             Additional Details
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 07:13:51] [info] Hierarchical Cells:   Flattened
[2025-09-06 07:13:51] [info] Database Format:       GDSII
[2025-09-06 07:13:51] [info] Verification Mode:    Full Check
[2025-09-06 07:13:51] [info] Error Reporting:      Enabled

[2025-09-06 07:13:51] [info] -----

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```
[2025-09-06 07:13:51] [info]                                Type of Errors | Count
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info] DB_WARN -> 1
[2025-09-06 07:13:51] [info] LRF_ERROR01 -> 14
[2025-09-06 07:13:51] [info] DB_WARN002 -> 141
[2025-09-06 07:13:51] [info] DB_WARN003 -> 135
[2025-09-06 07:13:51] [info] VERI_WARN012 -> 39
[2025-09-06 07:13:51] [info] LVS_ERROR19 -> 12
[2025-09-06 07:13:51] [info] LVS_ERROR03 -> 12
[2025-09-06 07:13:51] [info] ERC_ERROR03 -> 12
[2025-09-06 07:13:51] [info] LVS_ERROR05 -> 3
[2025-09-06 07:13:51] [info] LVS_ERROR30 -> 1
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info]                                Summary
[2025-09-06 07:13:51] [info] -----
[2025-09-06 07:13:51] [info] LVS Status:                PASSED
[2025-09-06 07:13:51] [info] Instance Match Percentage: 99.99%
[2025-09-06 07:13:51] [info] Short Circuits:            None Detected
[2025-09-06 07:13:51] [info] Open Circuits:             None Detected
[2025-09-06 07:13:51] [info] Unconnected Pins:          112
[2025-09-06 07:13:51] [info] Total Errors:               54
[2025-09-06 07:13:51] [info] Total Warnings:             316
[2025-09-06 07:13:51] [info] Critical Issues:           None
```

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[2025-09-06 07:21:35] [info] =====
[2025-09-06 07:21:35] [info]             Layout Versus Schematic Report
[2025-09-06 07:21:35] [info] =====

[2025-09-06 07:21:35] [info] Report Generated:    2025-09-06
[2025-09-06 07:21:35] [info] Run Start Time:      07:13:59 AM
[2025-09-06 07:21:35] [info] Run End Time:        07:21:35 AM
[2025-09-06 07:21:35] [info] Time Taken:          7 minutes 41 seconds

[2025-09-06 07:21:35] [info] Tool Version:        LVR_2025.1
[2025-09-06 07:21:35] [info] Host Name:           kuro-Workstation
[2025-09-06 07:21:35] [info] User Name:           kuro
[2025-09-06 07:21:35] [info] Cores Used:          1
[2025-09-06 07:21:35] [info] Memory Utilized:     2343.92 MB / 62.569705963134766 GB

[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info]             Top Cell Match
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-09-06 07:21:35] [info] Schematic Top Cell:  aes_cipher_top3_sky130hd
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info]             Netlist Statistics
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 07:21:35] [info] |-----|-----|-----|
[2025-09-06 07:21:35] [info] | Total Nets             | 25146       | 25151       |
[2025-09-06 07:21:35] [info] | Total Instances        | 318921      | 24882       |
[2025-09-06 07:21:35] [info] | Total Pins             | 285259      | 180539      |
[2025-09-06 07:21:35] [info] |-----|-----|-----|
[2025-09-06 07:21:35] [info]             Pin to Net Mapping Percentage
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info] Total Schematic Instances: 24882
[2025-09-06 07:21:35] [info] Matched Instances:       24879
[2025-09-06 07:21:35] [info] Match Percentage: 99.99%

[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info]             Short and Open Checks
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info] Short Circuits:        None Detected
[2025-09-06 07:21:35] [info] Open Circuits:         None Detected

[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info]             Performance Metrics
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info] | Stage                  | Time Taken |
[2025-09-06 07:21:35] [info] |-----|-----|
[2025-09-06 07:21:35] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-09-06 07:21:35] [info] | Connectivity Extraction | 7 minutes 33 seconds |
[2025-09-06 07:21:35] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-09-06 07:21:35] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info]             Additional Details
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 07:21:35] [info] Hierarchical Cells:    Flattened
[2025-09-06 07:21:35] [info] Database Format:        GDSII
[2025-09-06 07:21:35] [info] Verification Mode:     Full Check
[2025-09-06 07:21:35] [info] Error Reporting:       Enabled

[2025-09-06 07:21:35] [info] -----

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[2025-09-06 07:21:35] [info]                                Type of Errors | Count
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info] DB_WARN -> 1
[2025-09-06 07:21:35] [info] LRF_ERROR01 -> 14
[2025-09-06 07:21:35] [info] DB_WARN002 -> 138
[2025-09-06 07:21:35] [info] DB_WARN003 -> 132
[2025-09-06 07:21:35] [info] VERI_WARN012 -> 36
[2025-09-06 07:21:35] [info] LVS_ERROR19 -> 12
[2025-09-06 07:21:35] [info] LVS_ERROR03 -> 12
[2025-09-06 07:21:35] [info] ERC_ERROR03 -> 12
[2025-09-06 07:21:35] [info] LVS_ERROR05 -> 3
[2025-09-06 07:21:35] [info] LVS_ERROR30 -> 1
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info]                                Summary
[2025-09-06 07:21:35] [info] -----
[2025-09-06 07:21:35] [info] LVS Status:                PASSED
[2025-09-06 07:21:35] [info] Instance Match Percentage: 99.99%
[2025-09-06 07:21:35] [info] Short Circuits:           None Detected
[2025-09-06 07:21:35] [info] Open Circuits:            None Detected
[2025-09-06 07:21:35] [info] Unconnected Pins:         112
[2025-09-06 07:21:35] [info] Total Errors:              54
[2025-09-06 07:21:35] [info] Total Warnings:            307
[2025-09-06 07:21:35] [info] Critical Issues:           None
```

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[2025-09-06 06:52:45] [info] =====
[2025-09-06 06:52:45] [info]             Layout Versus Schematic Report
[2025-09-06 06:52:45] [info] =====

[2025-09-06 06:52:45] [info] Report Generated:    2025-09-06
[2025-09-06 06:52:45] [info] Run Start Time:      06:52:44 AM
[2025-09-06 06:52:45] [info] Run End Time:        06:52:45 AM
[2025-09-06 06:52:45] [info] Time Taken:          0 minutes 1 seconds

[2025-09-06 06:52:45] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:52:45] [info] Host Name:           kuro-Workstation
[2025-09-06 06:52:45] [info] User Name:           kuro
[2025-09-06 06:52:45] [info] Cores Used:          1
[2025-09-06 06:52:45] [info] Memory Utilized:     38.46 MB / 62.569705963134766 GB

[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info]             Top Cell Match
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info] Layout Top Cell:     gcd1_sky130hd
[2025-09-06 06:52:45] [info] Schematic Top Cell:  gcd1_sky130hd
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info]             Netlist Statistics
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 06:52:45] [info] |-----|-----|-----|
[2025-09-06 06:52:45] [info] | Total Nets            | 389         | 391         |
[2025-09-06 06:52:45] [info] | Total Instances       | 4312        | 351         |
[2025-09-06 06:52:45] [info] | Total Pins            | 4063        | 2481        |
[2025-09-06 06:52:45] [info] |-----|-----|-----|
[2025-09-06 06:52:45] [info]             Pin to Net Mapping Percentage
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info] Total Schematic Instances:    351
[2025-09-06 06:52:45] [info] Matched Instances:           351
[2025-09-06 06:52:45] [info] Match Percentage: 100.00%

[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info]             Short and Open Checks
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info] Short Circuits:      None Detected
[2025-09-06 06:52:45] [info] Open Circuits:       None Detected

[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info]             Performance Metrics
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info] | Stage                | Time Taken |
[2025-09-06 06:52:45] [info] |-----|-----|
[2025-09-06 06:52:45] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-09-06 06:52:45] [info] | Connectivity Extraction | 0 minutes 1 seconds |
[2025-09-06 06:52:45] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-09-06 06:52:45] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info]             Additional Details
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:52:45] [info] Hierarchical Cells:   Flattened
[2025-09-06 06:52:45] [info] Database Format:       GDSII
[2025-09-06 06:52:45] [info] Verification Mode:    Full Check
[2025-09-06 06:52:45] [info] Error Reporting:      Enabled

[2025-09-06 06:52:45] [info] -----

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[2025-09-06 06:52:45] [info]                Type of Errors | Count
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info] DB_WARN -> 1
[2025-09-06 06:52:45] [info] LRF_ERR001 -> 14
[2025-09-06 06:52:45] [info] DB_WARN002 -> 58
[2025-09-06 06:52:45] [info] DB_WARN003 -> 55
[2025-09-06 06:52:45] [info] VERI_WARN012 -> 4
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info]                Summary
[2025-09-06 06:52:45] [info] -----
[2025-09-06 06:52:45] [info] LVS Status:                PASSED
[2025-09-06 06:52:45] [info] Instance Match Percentage: 100.00%
[2025-09-06 06:52:45] [info] Short Circuits:           None Detected
[2025-09-06 06:52:45] [info] Open Circuits:            None Detected
[2025-09-06 06:52:45] [info] Unconnected Pins:         100
[2025-09-06 06:52:45] [info] Total Errors:              14
[2025-09-06 06:52:45] [info] Total Warnings:            118
[2025-09-06 06:52:45] [info] Critical Issues:          None
```

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[2025-09-06 06:52:47] [info] =====
[2025-09-06 06:52:47] [info]             Layout Versus Schematic Report
[2025-09-06 06:52:47] [info] =====

[2025-09-06 06:52:47] [info] Report Generated:    2025-09-06
[2025-09-06 06:52:47] [info] Run Start Time:      06:52:45 AM
[2025-09-06 06:52:47] [info] Run End Time:        06:52:47 AM
[2025-09-06 06:52:47] [info] Time Taken:          0 minutes 1 seconds

[2025-09-06 06:52:47] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:52:47] [info] Host Name:           kuro-Workstation
[2025-09-06 06:52:47] [info] User Name:           kuro
[2025-09-06 06:52:47] [info] Cores Used:          1
[2025-09-06 06:52:47] [info] Memory Utilized:     43.01 MB / 62.569705963134766 GB

[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info]             Top Cell Match
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info] Layout Top Cell:     gcd2_sky130hd
[2025-09-06 06:52:47] [info] Schematic Top Cell:  gcd2_sky130hd
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info]             Netlist Statistics
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 06:52:47] [info] |-----|-----|-----|
[2025-09-06 06:52:47] [info] | Total Nets             | 353         | 355         |
[2025-09-06 06:52:47] [info] | Total Instances        | 4768        | 315         |
[2025-09-06 06:52:47] [info] | Total Pins             | 3854        | 2265        |
[2025-09-06 06:52:47] [info] |-----|-----|-----|
[2025-09-06 06:52:47] [info]             Pin to Net Mapping Percentage
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info] Total Schematic Instances:    315
[2025-09-06 06:52:47] [info] Matched Instances:           315
[2025-09-06 06:52:47] [info] Match Percentage: 100.00%

[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info]             Short and Open Checks
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info] Short Circuits:      None Detected
[2025-09-06 06:52:47] [info] Open Circuits:       None Detected

[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info]             Performance Metrics
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info] | Stage                | Time Taken |
[2025-09-06 06:52:47] [info] |-----|-----|
[2025-09-06 06:52:47] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 06:52:47] [info] | Connectivity Extraction | 0 minutes 1 seconds |
[2025-09-06 06:52:47] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 06:52:47] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info]             Additional Details
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:52:47] [info] Hierarchical Cells:   Flattened
[2025-09-06 06:52:47] [info] Database Format:       GDSII
[2025-09-06 06:52:47] [info] Verification Mode:    Full Check
[2025-09-06 06:52:47] [info] Error Reporting:      Enabled

[2025-09-06 06:52:47] [info] -----

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[2025-09-06 06:52:47] [info]                Type of Errors | Count
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info] DB_WARN -> 1
[2025-09-06 06:52:47] [info] LRF_ERR001 -> 14
[2025-09-06 06:52:47] [info] DB_WARN002 -> 59
[2025-09-06 06:52:47] [info] DB_WARN003 -> 56
[2025-09-06 06:52:47] [info] VERI_WARN012 -> 5
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info]                Summary
[2025-09-06 06:52:47] [info] -----
[2025-09-06 06:52:47] [info] LVS Status:                PASSED
[2025-09-06 06:52:47] [info] Instance Match Percentage: 100.00%
[2025-09-06 06:52:47] [info] Short Circuits:           None Detected
[2025-09-06 06:52:47] [info] Open Circuits:            None Detected
[2025-09-06 06:52:47] [info] Unconnected Pins:         100
[2025-09-06 06:52:47] [info] Total Errors:              14
[2025-09-06 06:52:47] [info] Total Warnings:            121
[2025-09-06 06:52:47] [info] Critical Issues:          None
```

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[2025-09-06 06:52:48] [info] =====
[2025-09-06 06:52:48] [info]             Layout Versus Schematic Report
[2025-09-06 06:52:48] [info] =====

[2025-09-06 06:52:48] [info] Report Generated:    2025-09-06
[2025-09-06 06:52:48] [info] Run Start Time:      06:52:47 AM
[2025-09-06 06:52:48] [info] Run End Time:        06:52:48 AM
[2025-09-06 06:52:48] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 06:52:48] [info] Tool Version:        LVR_2025.1
[2025-09-06 06:52:48] [info] Host Name:           kuro-Workstation
[2025-09-06 06:52:48] [info] User Name:           kuro
[2025-09-06 06:52:48] [info] Cores Used:          1
[2025-09-06 06:52:48] [info] Memory Utilized:     32.48 MB / 62.569705963134766 GB

[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info]             Top Cell Match
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info] Layout Top Cell:     gcd3_sky130hd
[2025-09-06 06:52:48] [info] Schematic Top Cell:  gcd3_sky130hd
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info]             Netlist Statistics
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 06:52:48] [info] |-----|-----|-----|
[2025-09-06 06:52:48] [info] | Total Nets             | 360         | 362         |
[2025-09-06 06:52:48] [info] | Total Instances        | 3829        | 322         |
[2025-09-06 06:52:48] [info] | Total Pins             | 3692        | 2307        |
[2025-09-06 06:52:48] [info] |-----|-----|-----|
[2025-09-06 06:52:48] [info]             Pin to Net Mapping Percentage
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info] Total Schematic Instances:    322
[2025-09-06 06:52:48] [info] Matched Instances:           322
[2025-09-06 06:52:48] [info] Match Percentage: 100.00%

[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info]             Short and Open Checks
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info] Short Circuits:      None Detected
[2025-09-06 06:52:48] [info] Open Circuits:       None Detected

[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info]             Performance Metrics
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info] | Stage                | Time Taken |
[2025-09-06 06:52:48] [info] |-----|-----|
[2025-09-06 06:52:48] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 06:52:48] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 06:52:48] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 06:52:48] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info]             Additional Details
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 06:52:48] [info] Hierarchical Cells:   Flattened
[2025-09-06 06:52:48] [info] Database Format:       GDSII
[2025-09-06 06:52:48] [info] Verification Mode:    Full Check
[2025-09-06 06:52:48] [info] Error Reporting:      Enabled

[2025-09-06 06:52:48] [info] -----

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[2025-09-06 06:52:48] [info] Type of Errors | Count
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info] DB_WARN -> 1
[2025-09-06 06:52:48] [info] LRF_ERR001 -> 14
[2025-09-06 06:52:48] [info] DB_WARN002 -> 59
[2025-09-06 06:52:48] [info] DB_WARN003 -> 56
[2025-09-06 06:52:48] [info] VERI_WARN012 -> 6
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info] Summary
[2025-09-06 06:52:48] [info] -----
[2025-09-06 06:52:48] [info] LVS Status: PASSED
[2025-09-06 06:52:48] [info] Instance Match Percentage: 100.00%
[2025-09-06 06:52:48] [info] Short Circuits: None Detected
[2025-09-06 06:52:48] [info] Open Circuits: None Detected
[2025-09-06 06:52:48] [info] Unconnected Pins: 100
[2025-09-06 06:52:48] [info] Total Errors: 14
[2025-09-06 06:52:48] [info] Total Warnings: 122
[2025-09-06 06:52:48] [info] Critical Issues: None
```

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[2025-09-06 07:28:12] [info] =====
[2025-09-06 07:28:12] [info]             Layout Versus Schematic Report
[2025-09-06 07:28:12] [info] =====

[2025-09-06 07:28:12] [info] Report Generated:    2025-09-06
[2025-09-06 07:28:12] [info] Run Start Time:      07:21:42 AM
[2025-09-06 07:28:12] [info] Run End Time:        07:28:12 AM
[2025-09-06 07:28:12] [info] Time Taken:          6 minutes 35 seconds

[2025-09-06 07:28:12] [info] Tool Version:        LVR_2025.1
[2025-09-06 07:28:12] [info] Host Name:           kuro-Workstation
[2025-09-06 07:28:12] [info] User Name:           kuro
[2025-09-06 07:28:12] [info] Cores Used:          1
[2025-09-06 07:28:12] [info] Memory Utilized:     2607.32 MB / 62.569705963134766 GB

[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info]             Top Cell Match
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-09-06 07:28:12] [info] Schematic Top Cell:  ibex_core1_sky130hd
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info]             Netlist Statistics
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 07:28:12] [info] |-----|-----|-----|
[2025-09-06 07:28:12] [info] | Total Nets             | 21317       | 21319       |
[2025-09-06 07:28:12] [info] | Total Instances        | 281049      | 21165       |
[2025-09-06 07:28:12] [info] | Total Pins             | 281287      | 153642      |
[2025-09-06 07:28:12] [info] |-----|-----|-----|
[2025-09-06 07:28:12] [info]             Pin to Net Mapping Percentage
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info] Total Schematic Instances:    21165
[2025-09-06 07:28:12] [info] Matched Instances:           21154
[2025-09-06 07:28:12] [info] Match Percentage: 99.95%

[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info]             Short and Open Checks
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info] Short Circuits:             None Detected
[2025-09-06 07:28:12] [info] Open Circuits:              None Detected

[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info]             Performance Metrics
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info] | Stage                    | Time Taken |
[2025-09-06 07:28:12] [info] |-----|-----|
[2025-09-06 07:28:12] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 07:28:12] [info] | Connectivity Extraction    | 6 minutes 26 seconds |
[2025-09-06 07:28:12] [info] | Device Matching           | 0 minutes 0 seconds |
[2025-09-06 07:28:12] [info] | Report Generation         | 0 minutes 0 seconds |

[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info]             Additional Details
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 07:28:12] [info] Hierarchical Cells:        Flattened
[2025-09-06 07:28:12] [info] Database Format:            GDSII
[2025-09-06 07:28:12] [info] Verification Mode:         Full Check
[2025-09-06 07:28:12] [info] Error Reporting:           Enabled

[2025-09-06 07:28:12] [info] -----

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[2025-09-06 07:28:12] [info]                                Type of Errors | Count
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info] DB_WARN -> 1
[2025-09-06 07:28:12] [info] LRF_ERR001 -> 14
[2025-09-06 07:28:12] [info] DB_WARN002 -> 251
[2025-09-06 07:28:12] [info] DB_WARN003 -> 251
[2025-09-06 07:28:12] [info] VERI_WARN012 -> 34
[2025-09-06 07:28:12] [info] LVS_ERR019 -> 38
[2025-09-06 07:28:12] [info] ERC_ERR001 -> 4
[2025-09-06 07:28:12] [info] LVS_ERR003 -> 13
[2025-09-06 07:28:12] [info] ERC_ERR003 -> 13
[2025-09-06 07:28:12] [info] LVS_ERR005 -> 11
[2025-09-06 07:28:12] [info] LVS_ERR030 -> 1
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info]                                Summary
[2025-09-06 07:28:12] [info] -----
[2025-09-06 07:28:12] [info] LVS Status:                PASSED
[2025-09-06 07:28:12] [info] Instance Match Percentage: 99.95%
[2025-09-06 07:28:12] [info] Short Circuits:           None Detected
[2025-09-06 07:28:12] [info] Open Circuits:            None Detected
[2025-09-06 07:28:12] [info] Unconnected Pins:         138
[2025-09-06 07:28:12] [info] Total Errors:              94
[2025-09-06 07:28:12] [info] Total Warnings:           537
[2025-09-06 07:28:12] [info] Critical Issues:          None

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[2025-09-06 07:35:13] [info] =====
[2025-09-06 07:35:13] [info]             Layout Versus Schematic Report
[2025-09-06 07:35:13] [info] =====

[2025-09-06 07:35:13] [info] Report Generated:    2025-09-06
[2025-09-06 07:35:13] [info] Run Start Time:      07:28:19 AM
[2025-09-06 07:35:13] [info] Run End Time:        07:35:13 AM
[2025-09-06 07:35:13] [info] Time Taken:          6 minutes 59 seconds

[2025-09-06 07:35:13] [info] Tool Version:        LVR_2025.1
[2025-09-06 07:35:13] [info] Host Name:           kuro-Workstation
[2025-09-06 07:35:13] [info] User Name:           kuro
[2025-09-06 07:35:13] [info] Cores Used:          1
[2025-09-06 07:35:13] [info] Memory Utilized:     2652.30 MB / 62.569705963134766 GB

[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info]             Top Cell Match
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-09-06 07:35:13] [info] Schematic Top Cell:  ibex_core2_sky130hd
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info]             Netlist Statistics
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 07:35:13] [info] |-----|-----|-----|
[2025-09-06 07:35:13] [info] | Total Nets             | 21096       | 21098       |
[2025-09-06 07:35:13] [info] | Total Instances        | 293160      | 20944       |
[2025-09-06 07:35:13] [info] | Total Pins             | 281372      | 152316      |
[2025-09-06 07:35:13] [info] |-----|-----|-----|
[2025-09-06 07:35:13] [info]             Pin to Net Mapping Percentage
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info] Total Schematic Instances:    20944
[2025-09-06 07:35:13] [info] Matched Instances:           20932
[2025-09-06 07:35:13] [info] Match Percentage: 99.94%

[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info]             Short and Open Checks
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info] Short Circuits:             None Detected
[2025-09-06 07:35:13] [info] Open Circuits:              Open Detected

[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info]             Performance Metrics
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info] | Stage                    | Time Taken |
[2025-09-06 07:35:13] [info] |-----|-----|
[2025-09-06 07:35:13] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 07:35:13] [info] | Connectivity Extraction   | 6 minutes 50 seconds |
[2025-09-06 07:35:13] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 07:35:13] [info] | Report Generation         | 0 minutes 0 seconds |

[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info]             Additional Details
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 07:35:13] [info] Hierarchical Cells:        Flattened
[2025-09-06 07:35:13] [info] Database Format:            GDSII
[2025-09-06 07:35:13] [info] Verification Mode:         Full Check
[2025-09-06 07:35:13] [info] Error Reporting:           Enabled

[2025-09-06 07:35:13] [info] -----

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[2025-09-06 07:35:13] [info]                                Type of Errors | Count
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info] DB_WARN -> 1
[2025-09-06 07:35:13] [info] LRF_ERR001 -> 14
[2025-09-06 07:35:13] [info] DB_WARN002 -> 249
[2025-09-06 07:35:13] [info] DB_WARN003 -> 249
[2025-09-06 07:35:13] [info] VERI_WARN012 -> 31
[2025-09-06 07:35:13] [info] LVS_ERR018 -> 2
[2025-09-06 07:35:13] [info] LVS_ERR019 -> 32
[2025-09-06 07:35:13] [info] ERC_ERR001 -> 4
[2025-09-06 07:35:13] [info] LVS_ERR003 -> 11
[2025-09-06 07:35:13] [info] ERC_ERR003 -> 11
[2025-09-06 07:35:13] [info] LVS_ERR005 -> 12
[2025-09-06 07:35:13] [info] LVS_ERR030 -> 1
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info]                                Summary
[2025-09-06 07:35:13] [info] -----
[2025-09-06 07:35:13] [info] LVS Status:                PASSED
[2025-09-06 07:35:13] [info] Instance Match Percentage: 99.94%
[2025-09-06 07:35:13] [info] Short Circuits:           None Detected
[2025-09-06 07:35:13] [info] Open Circuits:            Open Detected
[2025-09-06 07:35:13] [info] Unconnected Pins:         132
[2025-09-06 07:35:13] [info] Total Errors:              87
[2025-09-06 07:35:13] [info] Total Warnings:            530
[2025-09-06 07:35:13] [info] Critical Issues:          None

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[2025-09-06 07:41:44] [info] =====
[2025-09-06 07:41:44] [info]             Layout Versus Schematic Report
[2025-09-06 07:41:44] [info] =====

[2025-09-06 07:41:44] [info] Report Generated:    2025-09-06
[2025-09-06 07:41:44] [info] Run Start Time:      07:35:21 AM
[2025-09-06 07:41:44] [info] Run End Time:        07:41:44 AM
[2025-09-06 07:41:44] [info] Time Taken:          6 minutes 29 seconds

[2025-09-06 07:41:44] [info] Tool Version:        LVR_2025.1
[2025-09-06 07:41:44] [info] Host Name:           kuro-Workstation
[2025-09-06 07:41:44] [info] User Name:           kuro
[2025-09-06 07:41:44] [info] Cores Used:          1
[2025-09-06 07:41:44] [info] Memory Utilized:     2577.80 MB / 62.569705963134766 GB

[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info]             Top Cell Match
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 07:41:44] [info] Schematic Top Cell:  ibex_core3_sky130hd
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info]             Netlist Statistics
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 07:41:44] [info] |-----|-----|-----|
[2025-09-06 07:41:44] [info] | Total Nets             | 19194       | 19196       |
[2025-09-06 07:41:44] [info] | Total Instances        | 300437      | 19042       |
[2025-09-06 07:41:44] [info] | Total Pins             | 256833      | 140904      |
[2025-09-06 07:41:44] [info] |-----|-----|-----|
[2025-09-06 07:41:44] [info]             Pin to Net Mapping Percentage
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info] Total Schematic Instances: 19042
[2025-09-06 07:41:44] [info] Matched Instances:        19033
[2025-09-06 07:41:44] [info] Match Percentage: 99.95%

[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info]             Short and Open Checks
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info] Short Circuits:        None Detected
[2025-09-06 07:41:44] [info] Open Circuits:         Open Detected

[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info]             Performance Metrics
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info] | Stage                | Time Taken |
[2025-09-06 07:41:44] [info] |-----|-----|
[2025-09-06 07:41:44] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 07:41:44] [info] | Connectivity Extraction | 6 minutes 20 seconds |
[2025-09-06 07:41:44] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 07:41:44] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info]             Additional Details
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 07:41:44] [info] Hierarchical Cells:    Flattened
[2025-09-06 07:41:44] [info] Database Format:        GDSII
[2025-09-06 07:41:44] [info] Verification Mode:     Full Check
[2025-09-06 07:41:44] [info] Error Reporting:       Enabled

[2025-09-06 07:41:44] [info] -----

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[2025-09-06 07:41:44] [info]                                Type of Errors | Count
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info] DB_WARN -> 1
[2025-09-06 07:41:44] [info] LRF_ERR001 -> 14
[2025-09-06 07:41:44] [info] DB_WARN002 -> 253
[2025-09-06 07:41:44] [info] DB_WARN003 -> 251
[2025-09-06 07:41:44] [info] VERI_WARN012 -> 53
[2025-09-06 07:41:44] [info] LVS_ERR018 -> 5
[2025-09-06 07:41:44] [info] LVS_ERR019 -> 31
[2025-09-06 07:41:44] [info] LVS_ERR003 -> 11
[2025-09-06 07:41:44] [info] ERC_ERR003 -> 11
[2025-09-06 07:41:44] [info] ERC_ERR001 -> 2
[2025-09-06 07:41:44] [info] LVS_ERR005 -> 9
[2025-09-06 07:41:44] [info] LVS_ERR030 -> 1
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info]                                Summary
[2025-09-06 07:41:44] [info] -----
[2025-09-06 07:41:44] [info] LVS Status:                PASSED
[2025-09-06 07:41:44] [info] Instance Match Percentage: 99.95%
[2025-09-06 07:41:44] [info] Short Circuits:            None Detected
[2025-09-06 07:41:44] [info] Open Circuits:             Open Detected
[2025-09-06 07:41:44] [info] Unconnected Pins:          131
[2025-09-06 07:41:44] [info] Total Errors:               84
[2025-09-06 07:41:44] [info] Total Warnings:             558
[2025-09-06 07:41:44] [info] Critical Issues:            None
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[2025-09-06 08:11:28] [info] =====
[2025-09-06 08:11:28] [info]           Layout Versus Schematic Report
[2025-09-06 08:11:28] [info] =====

[2025-09-06 08:11:28] [info] Report Generated:    2025-09-06
[2025-09-06 08:11:28] [info] Run Start Time:      07:42:03 AM
[2025-09-06 08:11:28] [info] Run End Time:        08:11:28 AM
[2025-09-06 08:11:28] [info] Time Taken:          29 minutes 41 seconds

[2025-09-06 08:11:28] [info] Tool Version:        LVR_2025.1
[2025-09-06 08:11:28] [info] Host Name:           kuro-Workstation
[2025-09-06 08:11:28] [info] User Name:           kuro
[2025-09-06 08:11:28] [info] Cores Used:          1
[2025-09-06 08:11:28] [info] Memory Utilized:     6934.95 MB / 62.569705963134766 GB

[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info]           Top Cell Match
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-09-06 08:11:28] [info] Schematic Top Cell:  jpeg_encoder1_sky130hd
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info]           Netlist Statistics
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 08:11:28] [info] |-----|-----|-----|
[2025-09-06 08:11:28] [info] | Total Nets             | 57241       | 57353       |
[2025-09-06 08:11:28] [info] | Total Instances        | 726048      | 44959       |
[2025-09-06 08:11:28] [info] | Total Pins             | 645641      | 334560      |
[2025-09-06 08:11:28] [info] |-----|-----|-----|
[2025-09-06 08:11:28] [info]           Pin to Net Mapping Percentage
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info] Total Schematic Instances:    44959
[2025-09-06 08:11:28] [info] Matched Instances:           44846
[2025-09-06 08:11:28] [info] Match Percentage: 99.75%

[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info]           Short and Open Checks
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info] Short Circuits:             None Detected
[2025-09-06 08:11:28] [info] Open Circuits:              Open Detected

[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info]           Performance Metrics
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info] | Stage                    | Time Taken |
[2025-09-06 08:11:28] [info] |-----|-----|
[2025-09-06 08:11:28] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 08:11:28] [info] | Connectivity Extraction   | 29 minutes 17 seconds |
[2025-09-06 08:11:28] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 08:11:28] [info] | Report Generation         | 0 minutes 0 seconds |

[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info]           Additional Details
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 08:11:28] [info] Hierarchical Cells:        Flattened
[2025-09-06 08:11:28] [info] Database Format:            GDSII
[2025-09-06 08:11:28] [info] Verification Mode:          Full Check
[2025-09-06 08:11:28] [info] Error Reporting:            Enabled

[2025-09-06 08:11:28] [info] -----
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[2025-09-06 08:11:28] [info]                                Type of Errors | Count
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info] DB_WARN -> 1
[2025-09-06 08:11:28] [info] LRF_ERR001 -> 14
[2025-09-06 08:11:28] [info] DB_WARN002 -> 159
[2025-09-06 08:11:28] [info] DB_WARN003 -> 161
[2025-09-06 08:11:28] [info] VERI_WARN012 -> 113
[2025-09-06 08:11:28] [info] LVS_ERR018 -> 7
[2025-09-06 08:11:28] [info] LVS_ERR019 -> 511
[2025-09-06 08:11:28] [info] LVS_ERR003 -> 499
[2025-09-06 08:11:28] [info] ERC_ERR003 -> 499
[2025-09-06 08:11:28] [info] LVS_ERR005 -> 113
[2025-09-06 08:11:28] [info] LVS_ERR030 -> 1
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info]                                Summary
[2025-09-06 08:11:28] [info] -----
[2025-09-06 08:11:28] [info] LVS Status:                PASSED
[2025-09-06 08:11:28] [info] Instance Match Percentage: 99.75%
[2025-09-06 08:11:28] [info] Short Circuits:           None Detected
[2025-09-06 08:11:28] [info] Open Circuits:            Open Detected
[2025-09-06 08:11:28] [info] Unconnected Pins:         611
[2025-09-06 08:11:28] [info] Total Errors:              1644
[2025-09-06 08:11:28] [info] Total Warnings:           434
[2025-09-06 08:11:28] [info] Critical Issues:          None

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[2025-09-06 08:45:55] [info] =====
[2025-09-06 08:45:55] [info]             Layout Versus Schematic Report
[2025-09-06 08:45:55] [info] =====

[2025-09-06 08:45:55] [info] Report Generated:    2025-09-06
[2025-09-06 08:45:55] [info] Run Start Time:      08:11:55 AM
[2025-09-06 08:45:55] [info] Run End Time:        08:45:54 AM
[2025-09-06 08:45:55] [info] Time Taken:          34 minutes 21 seconds

[2025-09-06 08:45:55] [info] Tool Version:        LVR_2025.1
[2025-09-06 08:45:55] [info] Host Name:           kuro-Workstation
[2025-09-06 08:45:55] [info] User Name:           kuro
[2025-09-06 08:45:55] [info] Cores Used:          1
[2025-09-06 08:45:55] [info] Memory Utilized:     8499.99 MB / 62.569705963134766 GB

[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info]             Top Cell Match
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-09-06 08:45:55] [info] Schematic Top Cell:  jpeg_encoder2_sky130hd
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info]             Netlist Statistics
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 08:45:55] [info] |-----|-----|-----|
[2025-09-06 08:45:55] [info] | Total Nets             | 57183       | 57295       |
[2025-09-06 08:45:55] [info] | Total Instances        | 857431      | 44901       |
[2025-09-06 08:45:55] [info] | Total Pins             | 674946      | 334212      |
[2025-09-06 08:45:55] [info] |-----|-----|-----|
[2025-09-06 08:45:55] [info]             Pin to Net Mapping Percentage
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info] Total Schematic Instances:    44901
[2025-09-06 08:45:55] [info] Matched Instances:           44788
[2025-09-06 08:45:55] [info] Match Percentage: 99.75%

[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info]             Short and Open Checks
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info] Short Circuits:             None Detected
[2025-09-06 08:45:55] [info] Open Circuits:              Open Detected

[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info]             Performance Metrics
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info] | Stage                  | Time Taken |
[2025-09-06 08:45:55] [info] |-----|-----|
[2025-09-06 08:45:55] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-09-06 08:45:55] [info] | Connectivity Extraction | 33 minutes 52 seconds |
[2025-09-06 08:45:55] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-09-06 08:45:55] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info]             Additional Details
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 08:45:55] [info] Hierarchical Cells:        Flattened
[2025-09-06 08:45:55] [info] Database Format:            GDSII
[2025-09-06 08:45:55] [info] Verification Mode:         Full Check
[2025-09-06 08:45:55] [info] Error Reporting:           Enabled

[2025-09-06 08:45:55] [info] -----

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[2025-09-06 08:45:55] [info]                                     Type of Errors | Count
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info] DB_WARN -> 1
[2025-09-06 08:45:55] [info] LRF_ERR001 -> 14
[2025-09-06 08:45:55] [info] DB_WARN002 -> 157
[2025-09-06 08:45:55] [info] DB_WARN003 -> 159
[2025-09-06 08:45:55] [info] VERI_WARN012 -> 113
[2025-09-06 08:45:55] [info] LVS_ERR018 -> 6
[2025-09-06 08:45:55] [info] LVS_ERR019 -> 502
[2025-09-06 08:45:55] [info] LVS_ERR003 -> 490
[2025-09-06 08:45:55] [info] ERC_ERR003 -> 490
[2025-09-06 08:45:55] [info] LVS_ERR005 -> 113
[2025-09-06 08:45:55] [info] LVS_ERR030 -> 1
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info]                                     Summary
[2025-09-06 08:45:55] [info] -----
[2025-09-06 08:45:55] [info] LVS Status:                PASSED
[2025-09-06 08:45:55] [info] Instance Match Percentage: 99.75%
[2025-09-06 08:45:55] [info] Short Circuits:           None Detected
[2025-09-06 08:45:55] [info] Open Circuits:            Open Detected
[2025-09-06 08:45:55] [info] Unconnected Pins:         602
[2025-09-06 08:45:55] [info] Total Errors:              1616
[2025-09-06 08:45:55] [info] Total Warnings:           430
[2025-09-06 08:45:55] [info] Critical Issues:          None

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[2025-09-06 09:12:34] [info] =====
[2025-09-06 09:12:34] [info]             Layout Versus Schematic Report
[2025-09-06 09:12:34] [info] =====

[2025-09-06 09:12:34] [info] Report Generated:    2025-09-06
[2025-09-06 09:12:34] [info] Run Start Time:      08:46:15 AM
[2025-09-06 09:12:34] [info] Run End Time:        09:12:34 AM
[2025-09-06 09:12:34] [info] Time Taken:          26 minutes 33 seconds

[2025-09-06 09:12:34] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:12:34] [info] Host Name:           kuro-Workstation
[2025-09-06 09:12:34] [info] User Name:           kuro
[2025-09-06 09:12:34] [info] Cores Used:          1
[2025-09-06 09:12:34] [info] Memory Utilized:     5873.45 MB / 62.569705963134766 GB

[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info]             Top Cell Match
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-09-06 09:12:34] [info] Schematic Top Cell:  jpeg_encoder3_sky130hd
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info]             Netlist Statistics
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:12:34] [info] |-----|-----|-----|
[2025-09-06 09:12:34] [info] | Total Nets             | 57107       | 57219       |
[2025-09-06 09:12:34] [info] | Total Instances        | 646154      | 44825       |
[2025-09-06 09:12:34] [info] | Total Pins             | 625409      | 333756      |
[2025-09-06 09:12:34] [info] |-----|-----|-----|
[2025-09-06 09:12:34] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info] Total Schematic Instances:    44825
[2025-09-06 09:12:34] [info] Matched Instances:           44712
[2025-09-06 09:12:34] [info] Match Percentage: 99.75%

[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info]             Short and Open Checks
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info] Short Circuits:      None Detected
[2025-09-06 09:12:34] [info] Open Circuits:       Open Detected

[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info]             Performance Metrics
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info] | Stage                | Time Taken |
[2025-09-06 09:12:34] [info] |-----|-----|
[2025-09-06 09:12:34] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 09:12:34] [info] | Connectivity Extraction | 26 minutes 12 seconds |
[2025-09-06 09:12:34] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 09:12:34] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info]             Additional Details
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:12:34] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:12:34] [info] Database Format:       GDSII
[2025-09-06 09:12:34] [info] Verification Mode:    Full Check
[2025-09-06 09:12:34] [info] Error Reporting:      Enabled

[2025-09-06 09:12:34] [info] -----

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[2025-09-06 09:12:34] [info]                                Type of Errors | Count
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info] DB_WARN -> 1
[2025-09-06 09:12:34] [info] LRF_ERR001 -> 14
[2025-09-06 09:12:34] [info] DB_WARN002 -> 152
[2025-09-06 09:12:34] [info] DB_WARN003 -> 155
[2025-09-06 09:12:34] [info] VERI_WARN012 -> 113
[2025-09-06 09:12:34] [info] LVS_ERR018 -> 11
[2025-09-06 09:12:34] [info] LVS_ERR019 -> 450
[2025-09-06 09:12:34] [info] LVS_ERR003 -> 438
[2025-09-06 09:12:34] [info] ERC_ERR003 -> 438
[2025-09-06 09:12:34] [info] LVS_ERR005 -> 113
[2025-09-06 09:12:34] [info] LVS_ERR030 -> 1
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info]                                Summary
[2025-09-06 09:12:34] [info] -----
[2025-09-06 09:12:34] [info] LVS Status:                PASSED
[2025-09-06 09:12:34] [info] Instance Match Percentage: 99.75%
[2025-09-06 09:12:34] [info] Short Circuits:            None Detected
[2025-09-06 09:12:34] [info] Open Circuits:             Open Detected
[2025-09-06 09:12:34] [info] Unconnected Pins:          550
[2025-09-06 09:12:34] [info] Total Errors:               1465
[2025-09-06 09:12:34] [info] Total Warnings:             421
[2025-09-06 09:12:34] [info] Critical Issues:           None
```

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[2025-09-06 09:15:14] [info] =====
[2025-09-06 09:15:14] [info]           Layout Versus Schematic Report
[2025-09-06 09:15:14] [info] =====

[2025-09-06 09:15:14] [info] Report Generated:    2025-09-06
[2025-09-06 09:15:14] [info] Run Start Time:      09:12:47 AM
[2025-09-06 09:15:14] [info] Run End Time:        09:15:14 AM
[2025-09-06 09:15:14] [info] Time Taken:          2 minutes 34 seconds

[2025-09-06 09:15:14] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:15:14] [info] Host Name:           kuro-Workstation
[2025-09-06 09:15:14] [info] User Name:           kuro
[2025-09-06 09:15:14] [info] Cores Used:          4
[2025-09-06 09:15:14] [info] Memory Utilized:     2848.86 MB / 62.569705963134766 GB

[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info]           Top Cell Match
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-09-06 09:15:14] [info] Schematic Top Cell:  aes_cipher_top1_sky130hd
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info]           Netlist Statistics
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:15:14] [info] |-----|-----|-----|
[2025-09-06 09:15:14] [info] | Total Nets             | 25673       | 25678       |
[2025-09-06 09:15:14] [info] | Total Instances        | 353042      | 25409       |
[2025-09-06 09:15:14] [info] | Total Pins             | 300090      | 183701      |
[2025-09-06 09:15:14] [info] |-----|-----|-----|
[2025-09-06 09:15:14] [info]           Pin to Net Mapping Percentage
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info] Total Schematic Instances:    25409
[2025-09-06 09:15:14] [info] Matched Instances:           25406
[2025-09-06 09:15:14] [info] Match Percentage: 99.99%

[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info]           Short and Open Checks
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info] Short Circuits:      None Detected
[2025-09-06 09:15:14] [info] Open Circuits:       None Detected

[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info]           Performance Metrics
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info] | Stage                | Time Taken |
[2025-09-06 09:15:14] [info] |-----|-----|
[2025-09-06 09:15:14] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 09:15:14] [info] | Connectivity Extraction | 2 minutes 24 seconds |
[2025-09-06 09:15:14] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 09:15:14] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info]           Additional Details
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:15:14] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:15:14] [info] Database Format:       GDSII
[2025-09-06 09:15:14] [info] Verification Mode:    Full Check
[2025-09-06 09:15:14] [info] Error Reporting:      Enabled

[2025-09-06 09:15:14] [info] -----

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[2025-09-06 09:15:14] [info] Type of Errors | Count
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info] DB_WARN -> 1
[2025-09-06 09:15:14] [info] LRF_ERR001 -> 14
[2025-09-06 09:15:14] [info] DB_WARN002 -> 144
[2025-09-06 09:15:14] [info] DB_WARN003 -> 137
[2025-09-06 09:15:14] [info] VERI_WARN012 -> 41
[2025-09-06 09:15:14] [info] LVS_ERR019 -> 18
[2025-09-06 09:15:14] [info] LVS_ERR003 -> 18
[2025-09-06 09:15:14] [info] ERC_ERR003 -> 18
[2025-09-06 09:15:14] [info] LVS_ERR005 -> 3
[2025-09-06 09:15:14] [info] LVS_ERR030 -> 1
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info] Summary
[2025-09-06 09:15:14] [info] -----
[2025-09-06 09:15:14] [info] LVS Status: PASSED
[2025-09-06 09:15:14] [info] Instance Match Percentage: 99.99%
[2025-09-06 09:15:14] [info] Short Circuits: None Detected
[2025-09-06 09:15:14] [info] Open Circuits: None Detected
[2025-09-06 09:15:14] [info] Unconnected Pins: 118
[2025-09-06 09:15:14] [info] Total Errors: 72
[2025-09-06 09:15:14] [info] Total Warnings: 323
[2025-09-06 09:15:14] [info] Critical Issues: None
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[2025-09-06 09:19:10] [info] =====
[2025-09-06 09:19:10] [info]             Layout Versus Schematic Report
[2025-09-06 09:19:10] [info] =====

[2025-09-06 09:19:10] [info] Report Generated:    2025-09-06
[2025-09-06 09:19:10] [info] Run Start Time:      09:15:25 AM
[2025-09-06 09:19:10] [info] Run End Time:        09:19:10 AM
[2025-09-06 09:19:10] [info] Time Taken:          3 minutes 53 seconds

[2025-09-06 09:19:10] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:19:10] [info] Host Name:           kuro-Workstation
[2025-09-06 09:19:10] [info] User Name:           kuro
[2025-09-06 09:19:10] [info] Cores Used:          4
[2025-09-06 09:19:10] [info] Memory Utilized:     3444.20 MB / 62.569705963134766 GB

[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info]             Top Cell Match
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-09-06 09:19:10] [info] Schematic Top Cell:  aes_cipher_top2_sky130hd
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info]             Netlist Statistics
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:19:10] [info] |-----|-----|-----|
[2025-09-06 09:19:10] [info] | Total Nets             | 25660       | 25665       |
[2025-09-06 09:19:10] [info] | Total Instances        | 423815      | 25396        |
[2025-09-06 09:19:10] [info] | Total Pins             | 314679      | 183623       |
[2025-09-06 09:19:10] [info] |-----|-----|-----|
[2025-09-06 09:19:10] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info] Total Schematic Instances:    25396
[2025-09-06 09:19:10] [info] Matched Instances:           25393
[2025-09-06 09:19:10] [info] Match Percentage: 99.99%

[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info]             Short and Open Checks
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info] Short Circuits:      None Detected
[2025-09-06 09:19:10] [info] Open Circuits:       None Detected

[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info]             Performance Metrics
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info] | Stage                | Time Taken |
[2025-09-06 09:19:10] [info] |-----|-----|
[2025-09-06 09:19:10] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 09:19:10] [info] | Connectivity Extraction | 3 minutes 42 seconds |
[2025-09-06 09:19:10] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 09:19:10] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info]             Additional Details
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:19:10] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:19:10] [info] Database Format:       GDSII
[2025-09-06 09:19:10] [info] Verification Mode:    Full Check
[2025-09-06 09:19:10] [info] Error Reporting:      Enabled

[2025-09-06 09:19:10] [info] -----

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[2025-09-06 09:19:10] [info]                                Type of Errors | Count
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info] DB_WARN -> 1
[2025-09-06 09:19:10] [info] LRF_ERROR01 -> 14
[2025-09-06 09:19:10] [info] DB_WARN002 -> 141
[2025-09-06 09:19:10] [info] DB_WARN003 -> 135
[2025-09-06 09:19:10] [info] VERI_WARN012 -> 39
[2025-09-06 09:19:10] [info] LVS_ERROR19 -> 12
[2025-09-06 09:19:10] [info] LVS_ERROR03 -> 12
[2025-09-06 09:19:10] [info] ERC_ERROR03 -> 12
[2025-09-06 09:19:10] [info] LVS_ERROR05 -> 3
[2025-09-06 09:19:10] [info] LVS_ERROR30 -> 1
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info]                                Summary
[2025-09-06 09:19:10] [info] -----
[2025-09-06 09:19:10] [info] LVS Status:                PASSED
[2025-09-06 09:19:10] [info] Instance Match Percentage: 99.99%
[2025-09-06 09:19:10] [info] Short Circuits:            None Detected
[2025-09-06 09:19:10] [info] Open Circuits:             None Detected
[2025-09-06 09:19:10] [info] Unconnected Pins:          112
[2025-09-06 09:19:10] [info] Total Errors:               54
[2025-09-06 09:19:10] [info] Total Warnings:             316
[2025-09-06 09:19:10] [info] Critical Issues:           None
```

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[2025-09-06 09:21:35] [info] =====
[2025-09-06 09:21:35] [info]             Layout Versus Schematic Report
[2025-09-06 09:21:35] [info] =====

[2025-09-06 09:21:35] [info] Report Generated:    2025-09-06
[2025-09-06 09:21:35] [info] Run Start Time:      09:19:18 AM
[2025-09-06 09:21:35] [info] Run End Time:        09:21:34 AM
[2025-09-06 09:21:35] [info] Time Taken:          2 minutes 21 seconds

[2025-09-06 09:21:35] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:21:35] [info] Host Name:           kuro-Workstation
[2025-09-06 09:21:35] [info] User Name:           kuro
[2025-09-06 09:21:35] [info] Cores Used:          4
[2025-09-06 09:21:35] [info] Memory Utilized:     2343.92 MB / 62.569705963134766 GB

[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info]             Top Cell Match
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-09-06 09:21:35] [info] Schematic Top Cell:  aes_cipher_top3_sky130hd
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info]             Netlist Statistics
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:21:35] [info] |-----|-----|-----|
[2025-09-06 09:21:35] [info] | Total Nets             | 25146       | 25151       |
[2025-09-06 09:21:35] [info] | Total Instances        | 318921      | 24882       |
[2025-09-06 09:21:35] [info] | Total Pins             | 285259      | 180539      |
[2025-09-06 09:21:35] [info] |-----|-----|-----|
[2025-09-06 09:21:35] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info] Total Schematic Instances:    24882
[2025-09-06 09:21:35] [info] Matched Instances:           24879
[2025-09-06 09:21:35] [info] Match Percentage: 99.99%

[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info]             Short and Open Checks
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info] Short Circuits:             None Detected
[2025-09-06 09:21:35] [info] Open Circuits:              None Detected

[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info]             Performance Metrics
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info] | Stage                    | Time Taken |
[2025-09-06 09:21:35] [info] |-----|-----|
[2025-09-06 09:21:35] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 09:21:35] [info] | Connectivity Extraction   | 2 minutes 13 seconds |
[2025-09-06 09:21:35] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 09:21:35] [info] | Report Generation        | 0 minutes 0 seconds |

[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info]             Additional Details
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 09:21:35] [info] Hierarchical Cells:        Flattened
[2025-09-06 09:21:35] [info] Database Format:            GDSII
[2025-09-06 09:21:35] [info] Verification Mode:         Full Check
[2025-09-06 09:21:35] [info] Error Reporting:           Enabled

[2025-09-06 09:21:35] [info] -----
```

```
[2025-09-06 09:21:35] [info] Type of Errors | Count
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info] DB_WARN -> 1
[2025-09-06 09:21:35] [info] LRF_ERROR01 -> 14
[2025-09-06 09:21:35] [info] DB_WARN002 -> 138
[2025-09-06 09:21:35] [info] DB_WARN003 -> 132
[2025-09-06 09:21:35] [info] VERI_WARN012 -> 36
[2025-09-06 09:21:35] [info] LVS_ERROR19 -> 12
[2025-09-06 09:21:35] [info] LVS_ERROR03 -> 12
[2025-09-06 09:21:35] [info] ERC_ERROR03 -> 12
[2025-09-06 09:21:35] [info] LVS_ERROR05 -> 3
[2025-09-06 09:21:35] [info] LVS_ERROR30 -> 1
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info] Summary
[2025-09-06 09:21:35] [info] -----
[2025-09-06 09:21:35] [info] LVS Status: PASSED
[2025-09-06 09:21:35] [info] Instance Match Percentage: 99.99%
[2025-09-06 09:21:35] [info] Short Circuits: None Detected
[2025-09-06 09:21:35] [info] Open Circuits: None Detected
[2025-09-06 09:21:35] [info] Unconnected Pins: 112
[2025-09-06 09:21:35] [info] Total Errors: 54
[2025-09-06 09:21:35] [info] Total Warnings: 307
[2025-09-06 09:21:35] [info] Critical Issues: None
```

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[2025-09-06 09:12:39] [info] =====
[2025-09-06 09:12:39] [info]             Layout Versus Schematic Report
[2025-09-06 09:12:39] [info] =====

[2025-09-06 09:12:39] [info] Report Generated:    2025-09-06
[2025-09-06 09:12:39] [info] Run Start Time:      09:12:39 AM
[2025-09-06 09:12:39] [info] Run End Time:        09:12:39 AM
[2025-09-06 09:12:39] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 09:12:39] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:12:39] [info] Host Name:           kuro-Workstation
[2025-09-06 09:12:39] [info] User Name:           kuro
[2025-09-06 09:12:39] [info] Cores Used:          4
[2025-09-06 09:12:39] [info] Memory Utilized:     38.46 MB / 62.569705963134766 GB

[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info]             Top Cell Match
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info] Layout Top Cell:     gcd1_sky130hd
[2025-09-06 09:12:39] [info] Schematic Top Cell:  gcd1_sky130hd
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info]             Netlist Statistics
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:12:39] [info] |-----|-----|-----|
[2025-09-06 09:12:39] [info] | Total Nets             | 389         | 391         |
[2025-09-06 09:12:39] [info] | Total Instances        | 4312        | 351         |
[2025-09-06 09:12:39] [info] | Total Pins             | 4063        | 2481        |
[2025-09-06 09:12:39] [info] |-----|-----|-----|
[2025-09-06 09:12:39] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info] Total Schematic Instances:    351
[2025-09-06 09:12:39] [info] Matched Instances:           351
[2025-09-06 09:12:39] [info] Match Percentage: 100.00%

[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info]             Short and Open Checks
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info] Short Circuits:      None Detected
[2025-09-06 09:12:39] [info] Open Circuits:       None Detected

[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info]             Performance Metrics
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info] | Stage                | Time Taken |
[2025-09-06 09:12:39] [info] |-----|-----|
[2025-09-06 09:12:39] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 09:12:39] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 09:12:39] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 09:12:39] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info]             Additional Details
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:12:39] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:12:39] [info] Database Format:       GDSII
[2025-09-06 09:12:39] [info] Verification Mode:    Full Check
[2025-09-06 09:12:39] [info] Error Reporting:      Enabled

[2025-09-06 09:12:39] [info] -----

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[2025-09-06 09:12:39] [info]                Type of Errors | Count
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info] DB_WARN -> 1
[2025-09-06 09:12:39] [info] LRF_ERR001 -> 14
[2025-09-06 09:12:39] [info] DB_WARN002 -> 58
[2025-09-06 09:12:39] [info] DB_WARN003 -> 55
[2025-09-06 09:12:39] [info] VERI_WARN012 -> 4
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info]                Summary
[2025-09-06 09:12:39] [info] -----
[2025-09-06 09:12:39] [info] LVS Status:                PASSED
[2025-09-06 09:12:39] [info] Instance Match Percentage: 100.00%
[2025-09-06 09:12:39] [info] Short Circuits:           None Detected
[2025-09-06 09:12:39] [info] Open Circuits:            None Detected
[2025-09-06 09:12:39] [info] Unconnected Pins:         100
[2025-09-06 09:12:39] [info] Total Errors:              14
[2025-09-06 09:12:39] [info] Total Warnings:            118
[2025-09-06 09:12:39] [info] Critical Issues:          None
```

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[2025-09-06 09:12:40] [info] =====
[2025-09-06 09:12:40] [info]           Layout Versus Schematic Report
[2025-09-06 09:12:40] [info] =====

[2025-09-06 09:12:40] [info] Report Generated:    2025-09-06
[2025-09-06 09:12:40] [info] Run Start Time:      09:12:39 AM
[2025-09-06 09:12:40] [info] Run End Time:        09:12:40 AM
[2025-09-06 09:12:40] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 09:12:40] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:12:40] [info] Host Name:           kuro-Workstation
[2025-09-06 09:12:40] [info] User Name:           kuro
[2025-09-06 09:12:40] [info] Cores Used:          4
[2025-09-06 09:12:40] [info] Memory Utilized:     43.01 MB / 62.569705963134766 GB

[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]           Top Cell Match
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] Layout Top Cell:     gcd2_sky130hd
[2025-09-06 09:12:40] [info] Schematic Top Cell:  gcd2_sky130hd
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]           Netlist Statistics
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:12:40] [info] |-----|-----|-----|
[2025-09-06 09:12:40] [info] | Total Nets             | 353         | 355         |
[2025-09-06 09:12:40] [info] | Total Instances        | 4768        | 315         |
[2025-09-06 09:12:40] [info] | Total Pins             | 3854        | 2265        |
[2025-09-06 09:12:40] [info] |-----|-----|-----|
[2025-09-06 09:12:40] [info]           Pin to Net Mapping Percentage
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] Total Schematic Instances:    315
[2025-09-06 09:12:40] [info] Matched Instances:           315
[2025-09-06 09:12:40] [info] Match Percentage: 100.00%

[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]           Short and Open Checks
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] Short Circuits:      None Detected
[2025-09-06 09:12:40] [info] Open Circuits:       None Detected

[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]           Performance Metrics
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] | Stage                | Time Taken |
[2025-09-06 09:12:40] [info] |-----|-----|
[2025-09-06 09:12:40] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 09:12:40] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 09:12:40] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 09:12:40] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]           Additional Details
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:12:40] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:12:40] [info] Database Format:       GDSII
[2025-09-06 09:12:40] [info] Verification Mode:    Full Check
[2025-09-06 09:12:40] [info] Error Reporting:      Enabled

[2025-09-06 09:12:40] [info] -----
```

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[2025-09-06 09:12:40] [info]                Type of Errors | Count
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] DB_WARN -> 1
[2025-09-06 09:12:40] [info] LRF_ERR001 -> 14
[2025-09-06 09:12:40] [info] DB_WARN002 -> 59
[2025-09-06 09:12:40] [info] DB_WARN003 -> 56
[2025-09-06 09:12:40] [info] VERI_WARN012 -> 5
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]                Summary
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] LVS Status:                PASSED
[2025-09-06 09:12:40] [info] Instance Match Percentage: 100.00%
[2025-09-06 09:12:40] [info] Short Circuits:            None Detected
[2025-09-06 09:12:40] [info] Open Circuits:             None Detected
[2025-09-06 09:12:40] [info] Unconnected Pins:          100
[2025-09-06 09:12:40] [info] Total Errors:               14
[2025-09-06 09:12:40] [info] Total Warnings:             121
[2025-09-06 09:12:40] [info] Critical Issues:            None
```

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[2025-09-06 09:12:40] [info] =====
[2025-09-06 09:12:40] [info]             Layout Versus Schematic Report
[2025-09-06 09:12:40] [info] =====

[2025-09-06 09:12:40] [info] Report Generated:    2025-09-06
[2025-09-06 09:12:40] [info] Run Start Time:      09:12:40 AM
[2025-09-06 09:12:40] [info] Run End Time:        09:12:40 AM
[2025-09-06 09:12:40] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 09:12:40] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:12:40] [info] Host Name:           kuro-Workstation
[2025-09-06 09:12:40] [info] User Name:           kuro
[2025-09-06 09:12:40] [info] Cores Used:          4
[2025-09-06 09:12:40] [info] Memory Utilized:     32.48 MB / 62.569705963134766 GB

[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]             Top Cell Match
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] Layout Top Cell:     gcd3_sky130hd
[2025-09-06 09:12:40] [info] Schematic Top Cell:  gcd3_sky130hd
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]             Netlist Statistics
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:12:40] [info] |-----|-----|-----|
[2025-09-06 09:12:40] [info] | Total Nets             | 360         | 362         |
[2025-09-06 09:12:40] [info] | Total Instances        | 3829        | 322         |
[2025-09-06 09:12:40] [info] | Total Pins             | 3692        | 2307        |
[2025-09-06 09:12:40] [info] |-----|-----|-----|
[2025-09-06 09:12:40] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] Total Schematic Instances:    322
[2025-09-06 09:12:40] [info] Matched Instances:           322
[2025-09-06 09:12:40] [info] Match Percentage: 100.00%

[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]             Short and Open Checks
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] Short Circuits:      None Detected
[2025-09-06 09:12:40] [info] Open Circuits:       None Detected

[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]             Performance Metrics
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] | Stage                | Time Taken |
[2025-09-06 09:12:40] [info] |-----|-----|
[2025-09-06 09:12:40] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 09:12:40] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 09:12:40] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 09:12:40] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]             Additional Details
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:12:40] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:12:40] [info] Database Format:       GDSII
[2025-09-06 09:12:40] [info] Verification Mode:    Full Check
[2025-09-06 09:12:40] [info] Error Reporting:      Enabled

[2025-09-06 09:12:40] [info] -----

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[2025-09-06 09:12:40] [info]                Type of Errors | Count
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] DB_WARN -> 1
[2025-09-06 09:12:40] [info] LRF_ERR001 -> 14
[2025-09-06 09:12:40] [info] DB_WARN002 -> 59
[2025-09-06 09:12:40] [info] DB_WARN003 -> 56
[2025-09-06 09:12:40] [info] VERI_WARN012 -> 6
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info]                Summary
[2025-09-06 09:12:40] [info] -----
[2025-09-06 09:12:40] [info] LVS Status:                PASSED
[2025-09-06 09:12:40] [info] Instance Match Percentage: 100.00%
[2025-09-06 09:12:40] [info] Short Circuits:           None Detected
[2025-09-06 09:12:40] [info] Open Circuits:            None Detected
[2025-09-06 09:12:40] [info] Unconnected Pins:         100
[2025-09-06 09:12:40] [info] Total Errors:              14
[2025-09-06 09:12:40] [info] Total Warnings:            122
[2025-09-06 09:12:40] [info] Critical Issues:          None
```

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[2025-09-06 09:23:39] [info] =====
[2025-09-06 09:23:39] [info]           Layout Versus Schematic Report
[2025-09-06 09:23:39] [info] =====

[2025-09-06 09:23:39] [info] Report Generated:    2025-09-06
[2025-09-06 09:23:39] [info] Run Start Time:      09:21:42 AM
[2025-09-06 09:23:39] [info] Run End Time:        09:23:39 AM
[2025-09-06 09:23:39] [info] Time Taken:          2 minutes 2 seconds

[2025-09-06 09:23:39] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:23:39] [info] Host Name:           kuro-Workstation
[2025-09-06 09:23:39] [info] User Name:           kuro
[2025-09-06 09:23:39] [info] Cores Used:          4
[2025-09-06 09:23:39] [info] Memory Utilized:     2607.32 MB / 62.569705963134766 GB

[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info]           Top Cell Match
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-09-06 09:23:39] [info] Schematic Top Cell:  ibex_core1_sky130hd
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info]           Netlist Statistics
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:23:39] [info] |-----|-----|-----|
[2025-09-06 09:23:39] [info] | Total Nets             | 21317       | 21319       |
[2025-09-06 09:23:39] [info] | Total Instances        | 281049      | 21165       |
[2025-09-06 09:23:39] [info] | Total Pins             | 281287      | 153642      |
[2025-09-06 09:23:39] [info] |-----|-----|-----|
[2025-09-06 09:23:39] [info]           Pin to Net Mapping Percentage
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info] Total Schematic Instances: 21165
[2025-09-06 09:23:39] [info] Matched Instances:        21154
[2025-09-06 09:23:39] [info] Match Percentage: 99.95%

[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info]           Short and Open Checks
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info] Short Circuits:        None Detected
[2025-09-06 09:23:39] [info] Open Circuits:         None Detected

[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info]           Performance Metrics
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info] | Stage                  | Time Taken |
[2025-09-06 09:23:39] [info] |-----|-----|
[2025-09-06 09:23:39] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 09:23:39] [info] | Connectivity Extraction  | 1 minutes 54 seconds |
[2025-09-06 09:23:39] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 09:23:39] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info]           Additional Details
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 09:23:39] [info] Hierarchical Cells:    Flattened
[2025-09-06 09:23:39] [info] Database Format:        GDSII
[2025-09-06 09:23:39] [info] Verification Mode:     Full Check
[2025-09-06 09:23:39] [info] Error Reporting:       Enabled

[2025-09-06 09:23:39] [info] -----
```

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[2025-09-06 09:23:39] [info]                                Type of Errors | Count
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info] DB_WARN -> 1
[2025-09-06 09:23:39] [info] LRF_ERR001 -> 14
[2025-09-06 09:23:39] [info] DB_WARN002 -> 251
[2025-09-06 09:23:39] [info] DB_WARN003 -> 251
[2025-09-06 09:23:39] [info] VERI_WARN012 -> 34
[2025-09-06 09:23:39] [info] LVS_ERR019 -> 38
[2025-09-06 09:23:39] [info] ERC_ERR001 -> 4
[2025-09-06 09:23:39] [info] LVS_ERR003 -> 13
[2025-09-06 09:23:39] [info] ERC_ERR003 -> 13
[2025-09-06 09:23:39] [info] LVS_ERR005 -> 11
[2025-09-06 09:23:39] [info] LVS_ERR030 -> 1
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info]                                Summary
[2025-09-06 09:23:39] [info] -----
[2025-09-06 09:23:39] [info] LVS Status:                PASSED
[2025-09-06 09:23:39] [info] Instance Match Percentage: 99.95%
[2025-09-06 09:23:39] [info] Short Circuits:           None Detected
[2025-09-06 09:23:39] [info] Open Circuits:           None Detected
[2025-09-06 09:23:39] [info] Unconnected Pins:         138
[2025-09-06 09:23:39] [info] Total Errors:             94
[2025-09-06 09:23:39] [info] Total Warnings:           537
[2025-09-06 09:23:39] [info] Critical Issues:          None

```

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[2025-09-06 09:25:48] [info] =====
[2025-09-06 09:25:48] [info]             Layout Versus Schematic Report
[2025-09-06 09:25:48] [info] =====

[2025-09-06 09:25:48] [info] Report Generated:    2025-09-06
[2025-09-06 09:25:48] [info] Run Start Time:      09:23:46 AM
[2025-09-06 09:25:48] [info] Run End Time:        09:25:48 AM
[2025-09-06 09:25:48] [info] Time Taken:          2 minutes 7 seconds

[2025-09-06 09:25:48] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:25:48] [info] Host Name:           kuro-Workstation
[2025-09-06 09:25:48] [info] User Name:           kuro
[2025-09-06 09:25:48] [info] Cores Used:          4
[2025-09-06 09:25:48] [info] Memory Utilized:     2652.30 MB / 62.569705963134766 GB

[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info]             Top Cell Match
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-09-06 09:25:48] [info] Schematic Top Cell:  ibex_core2_sky130hd
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info]             Netlist Statistics
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:25:48] [info] |-----|-----|-----|
[2025-09-06 09:25:48] [info] | Total Nets             | 21096       | 21098       |
[2025-09-06 09:25:48] [info] | Total Instances        | 293160      | 20944       |
[2025-09-06 09:25:48] [info] | Total Pins             | 281372      | 152316      |
[2025-09-06 09:25:48] [info] |-----|-----|-----|
[2025-09-06 09:25:48] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info] Total Schematic Instances:    20944
[2025-09-06 09:25:48] [info] Matched Instances:           20932
[2025-09-06 09:25:48] [info] Match Percentage: 99.94%

[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info]             Short and Open Checks
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info] Short Circuits:             None Detected
[2025-09-06 09:25:48] [info] Open Circuits:              Open Detected

[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info]             Performance Metrics
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info] | Stage                    | Time Taken |
[2025-09-06 09:25:48] [info] |-----|-----|
[2025-09-06 09:25:48] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 09:25:48] [info] | Connectivity Extraction   | 1 minutes 58 seconds |
[2025-09-06 09:25:48] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 09:25:48] [info] | Report Generation         | 0 minutes 0 seconds |

[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info]             Additional Details
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 09:25:48] [info] Hierarchical Cells:        Flattened
[2025-09-06 09:25:48] [info] Database Format:            GDSII
[2025-09-06 09:25:48] [info] Verification Mode:         Full Check
[2025-09-06 09:25:48] [info] Error Reporting:           Enabled

[2025-09-06 09:25:48] [info] -----

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[2025-09-06 09:25:48] [info]                                     Type of Errors | Count
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info] DB_WARN -> 1
[2025-09-06 09:25:48] [info] LRF_ERR001 -> 14
[2025-09-06 09:25:48] [info] DB_WARN002 -> 249
[2025-09-06 09:25:48] [info] DB_WARN003 -> 249
[2025-09-06 09:25:48] [info] VERI_WARN012 -> 31
[2025-09-06 09:25:48] [info] LVS_ERR018 -> 2
[2025-09-06 09:25:48] [info] LVS_ERR019 -> 32
[2025-09-06 09:25:48] [info] ERC_ERR001 -> 4
[2025-09-06 09:25:48] [info] LVS_ERR003 -> 11
[2025-09-06 09:25:48] [info] ERC_ERR003 -> 11
[2025-09-06 09:25:48] [info] LVS_ERR005 -> 12
[2025-09-06 09:25:48] [info] LVS_ERR030 -> 1
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info]                                     Summary
[2025-09-06 09:25:48] [info] -----
[2025-09-06 09:25:48] [info] LVS Status:                PASSED
[2025-09-06 09:25:48] [info] Instance Match Percentage: 99.94%
[2025-09-06 09:25:48] [info] Short Circuits:           None Detected
[2025-09-06 09:25:48] [info] Open Circuits:            Open Detected
[2025-09-06 09:25:48] [info] Unconnected Pins:         132
[2025-09-06 09:25:48] [info] Total Errors:              87
[2025-09-06 09:25:48] [info] Total Warnings:            530
[2025-09-06 09:25:48] [info] Critical Issues:           None
```

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[2025-09-06 09:27:51] [info] =====
[2025-09-06 09:27:51] [info]           Layout Versus Schematic Report
[2025-09-06 09:27:51] [info] =====

[2025-09-06 09:27:51] [info] Report Generated:    2025-09-06
[2025-09-06 09:27:51] [info] Run Start Time:      09:25:55 AM
[2025-09-06 09:27:51] [info] Run End Time:        09:27:51 AM
[2025-09-06 09:27:51] [info] Time Taken:          2 minutes 0 seconds

[2025-09-06 09:27:51] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:27:51] [info] Host Name:           kuro-Workstation
[2025-09-06 09:27:51] [info] User Name:           kuro
[2025-09-06 09:27:51] [info] Cores Used:          4
[2025-09-06 09:27:51] [info] Memory Utilized:     2577.80 MB / 62.569705963134766 GB

[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info]           Top Cell Match
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 09:27:51] [info] Schematic Top Cell:  ibex_core3_sky130hd
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info]           Netlist Statistics
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:27:51] [info] |-----|-----|-----|
[2025-09-06 09:27:51] [info] | Total Nets             | 19194       | 19196       |
[2025-09-06 09:27:51] [info] | Total Instances        | 300437      | 19042       |
[2025-09-06 09:27:51] [info] | Total Pins             | 256833      | 140904      |
[2025-09-06 09:27:51] [info] |-----|-----|-----|
[2025-09-06 09:27:51] [info]           Pin to Net Mapping Percentage
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info] Total Schematic Instances: 19042
[2025-09-06 09:27:51] [info] Matched Instances:        19033
[2025-09-06 09:27:51] [info] Match Percentage: 99.95%

[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info]           Short and Open Checks
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info] Short Circuits:        None Detected
[2025-09-06 09:27:51] [info] Open Circuits:         Open Detected

[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info]           Performance Metrics
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info] | Stage                | Time Taken |
[2025-09-06 09:27:51] [info] |-----|-----|
[2025-09-06 09:27:51] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 09:27:51] [info] | Connectivity Extraction | 1 minutes 52 seconds |
[2025-09-06 09:27:51] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 09:27:51] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info]           Additional Details
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 09:27:51] [info] Hierarchical Cells:    Flattened
[2025-09-06 09:27:51] [info] Database Format:        GDSII
[2025-09-06 09:27:51] [info] Verification Mode:     Full Check
[2025-09-06 09:27:51] [info] Error Reporting:       Enabled

[2025-09-06 09:27:51] [info] -----
```

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[2025-09-06 09:27:51] [info]                                     Type of Errors | Count
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info] DB_WARN -> 1
[2025-09-06 09:27:51] [info] LRF_ERR001 -> 14
[2025-09-06 09:27:51] [info] DB_WARN002 -> 253
[2025-09-06 09:27:51] [info] DB_WARN003 -> 251
[2025-09-06 09:27:51] [info] VERI_WARN012 -> 53
[2025-09-06 09:27:51] [info] LVS_ERR018 -> 5
[2025-09-06 09:27:51] [info] LVS_ERR019 -> 31
[2025-09-06 09:27:51] [info] LVS_ERR003 -> 11
[2025-09-06 09:27:51] [info] ERC_ERR003 -> 11
[2025-09-06 09:27:51] [info] ERC_ERR001 -> 2
[2025-09-06 09:27:51] [info] LVS_ERR005 -> 9
[2025-09-06 09:27:51] [info] LVS_ERR030 -> 1
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info]                                     Summary
[2025-09-06 09:27:51] [info] -----
[2025-09-06 09:27:51] [info] LVS Status:                PASSED
[2025-09-06 09:27:51] [info] Instance Match Percentage: 99.95%
[2025-09-06 09:27:51] [info] Short Circuits:            None Detected
[2025-09-06 09:27:51] [info] Open Circuits:             Open Detected
[2025-09-06 09:27:51] [info] Unconnected Pins:          131
[2025-09-06 09:27:51] [info] Total Errors:               84
[2025-09-06 09:27:51] [info] Total Warnings:             558
[2025-09-06 09:27:51] [info] Critical Issues:           None
```

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[2025-09-06 09:37:13] [info] =====
[2025-09-06 09:37:13] [info]             Layout Versus Schematic Report
[2025-09-06 09:37:13] [info] =====

[2025-09-06 09:37:13] [info] Report Generated:    2025-09-06
[2025-09-06 09:37:13] [info] Run Start Time:      09:28:09 AM
[2025-09-06 09:37:13] [info] Run End Time:        09:37:13 AM
[2025-09-06 09:37:13] [info] Time Taken:          9 minutes 20 seconds

[2025-09-06 09:37:13] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:37:13] [info] Host Name:           kuro-Workstation
[2025-09-06 09:37:13] [info] User Name:           kuro
[2025-09-06 09:37:13] [info] Cores Used:          4
[2025-09-06 09:37:13] [info] Memory Utilized:     6934.95 MB / 62.569705963134766 GB

[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info]             Top Cell Match
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-09-06 09:37:13] [info] Schematic Top Cell:  jpeg_encoder1_sky130hd
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info]             Netlist Statistics
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:37:13] [info] |-----|-----|-----|
[2025-09-06 09:37:13] [info] | Total Nets            | 57241       | 57353       |
[2025-09-06 09:37:13] [info] | Total Instances       | 726048      | 44959        |
[2025-09-06 09:37:13] [info] | Total Pins            | 645641      | 334560       |
[2025-09-06 09:37:13] [info] |-----|-----|-----|
[2025-09-06 09:37:13] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info] Total Schematic Instances:    44959
[2025-09-06 09:37:13] [info] Matched Instances:           44846
[2025-09-06 09:37:13] [info] Match Percentage: 99.75%

[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info]             Short and Open Checks
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info] Short Circuits:             None Detected
[2025-09-06 09:37:13] [info] Open Circuits:              Open Detected

[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info]             Performance Metrics
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info] | Stage                | Time Taken |
[2025-09-06 09:37:13] [info] |-----|-----|
[2025-09-06 09:37:13] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-09-06 09:37:13] [info] | Connectivity Extraction | 8 minutes 57 seconds |
[2025-09-06 09:37:13] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-09-06 09:37:13] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info]             Additional Details
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 09:37:13] [info] Hierarchical Cells:        Flattened
[2025-09-06 09:37:13] [info] Database Format:            GDSII
[2025-09-06 09:37:13] [info] Verification Mode:          Full Check
[2025-09-06 09:37:13] [info] Error Reporting:            Enabled

[2025-09-06 09:37:13] [info] -----

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[2025-09-06 09:37:13] [info] Type of Errors | Count
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info] DB_WARN -> 1
[2025-09-06 09:37:13] [info] LRF_ERR001 -> 14
[2025-09-06 09:37:13] [info] DB_WARN002 -> 159
[2025-09-06 09:37:13] [info] DB_WARN003 -> 161
[2025-09-06 09:37:13] [info] VERI_WARN012 -> 113
[2025-09-06 09:37:13] [info] LVS_ERR018 -> 7
[2025-09-06 09:37:13] [info] LVS_ERR019 -> 511
[2025-09-06 09:37:13] [info] LVS_ERR003 -> 499
[2025-09-06 09:37:13] [info] ERC_ERR003 -> 499
[2025-09-06 09:37:13] [info] LVS_ERR005 -> 113
[2025-09-06 09:37:13] [info] LVS_ERR030 -> 1
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info] Summary
[2025-09-06 09:37:13] [info] -----
[2025-09-06 09:37:13] [info] LVS Status: PASSED
[2025-09-06 09:37:13] [info] Instance Match Percentage: 99.75%
[2025-09-06 09:37:13] [info] Short Circuits: None Detected
[2025-09-06 09:37:13] [info] Open Circuits: Open Detected
[2025-09-06 09:37:13] [info] Unconnected Pins: 611
[2025-09-06 09:37:13] [info] Total Errors: 1644
[2025-09-06 09:37:13] [info] Total Warnings: 434
[2025-09-06 09:37:13] [info] Critical Issues: None
```

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[2025-09-06 09:48:12] [info] =====
[2025-09-06 09:48:12] [info]             Layout Versus Schematic Report
[2025-09-06 09:48:12] [info] =====

[2025-09-06 09:48:12] [info] Report Generated:    2025-09-06
[2025-09-06 09:48:12] [info] Run Start Time:      09:37:39 AM
[2025-09-06 09:48:12] [info] Run End Time:        09:48:12 AM
[2025-09-06 09:48:12] [info] Time Taken:          10 minutes 53 seconds

[2025-09-06 09:48:12] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:48:12] [info] Host Name:           kuro-Workstation
[2025-09-06 09:48:12] [info] User Name:           kuro
[2025-09-06 09:48:12] [info] Cores Used:          4
[2025-09-06 09:48:12] [info] Memory Utilized:     8499.99 MB / 62.569705963134766 GB

[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info]             Top Cell Match
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-09-06 09:48:12] [info] Schematic Top Cell:  jpeg_encoder2_sky130hd
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info]             Netlist Statistics
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:48:12] [info] |-----|-----|-----|
[2025-09-06 09:48:12] [info] | Total Nets             | 57183       | 57295       |
[2025-09-06 09:48:12] [info] | Total Instances        | 857431      | 44901        |
[2025-09-06 09:48:12] [info] | Total Pins             | 674946      | 334212       |
[2025-09-06 09:48:12] [info] |-----|-----|-----|
[2025-09-06 09:48:12] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info] Total Schematic Instances:    44901
[2025-09-06 09:48:12] [info] Matched Instances:           44788
[2025-09-06 09:48:12] [info] Match Percentage: 99.75%

[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info]             Short and Open Checks
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info] Short Circuits:             None Detected
[2025-09-06 09:48:12] [info] Open Circuits:              Open Detected

[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info]             Performance Metrics
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info] | Stage                    | Time Taken |
[2025-09-06 09:48:12] [info] |-----|-----|
[2025-09-06 09:48:12] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 09:48:12] [info] | Connectivity Extraction   | 10 minutes 25 seconds |
[2025-09-06 09:48:12] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 09:48:12] [info] | Report Generation        | 0 minutes 0 seconds |

[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info]             Additional Details
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 09:48:12] [info] Hierarchical Cells:        Flattened
[2025-09-06 09:48:12] [info] Database Format:            GDSII
[2025-09-06 09:48:12] [info] Verification Mode:         Full Check
[2025-09-06 09:48:12] [info] Error Reporting:           Enabled

[2025-09-06 09:48:12] [info] -----

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[2025-09-06 09:48:12] [info]                                Type of Errors | Count
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info] DB_WARN -> 1
[2025-09-06 09:48:12] [info] LRF_ERR001 -> 14
[2025-09-06 09:48:12] [info] DB_WARN002 -> 157
[2025-09-06 09:48:12] [info] DB_WARN003 -> 159
[2025-09-06 09:48:12] [info] VERI_WARN012 -> 113
[2025-09-06 09:48:12] [info] LVS_ERR018 -> 6
[2025-09-06 09:48:12] [info] LVS_ERR019 -> 502
[2025-09-06 09:48:12] [info] LVS_ERR003 -> 490
[2025-09-06 09:48:12] [info] ERC_ERR003 -> 490
[2025-09-06 09:48:12] [info] LVS_ERR005 -> 113
[2025-09-06 09:48:12] [info] LVS_ERR030 -> 1
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info]                                Summary
[2025-09-06 09:48:12] [info] -----
[2025-09-06 09:48:12] [info] LVS Status:                PASSED
[2025-09-06 09:48:12] [info] Instance Match Percentage: 99.75%
[2025-09-06 09:48:12] [info] Short Circuits:            None Detected
[2025-09-06 09:48:12] [info] Open Circuits:             Open Detected
[2025-09-06 09:48:12] [info] Unconnected Pins:          602
[2025-09-06 09:48:12] [info] Total Errors:               1616
[2025-09-06 09:48:12] [info] Total Warnings:             430
[2025-09-06 09:48:12] [info] Critical Issues:           None
```

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[2025-09-06 09:56:28] [info] =====
[2025-09-06 09:56:28] [info]             Layout Versus Schematic Report
[2025-09-06 09:56:28] [info] =====

[2025-09-06 09:56:28] [info] Report Generated:    2025-09-06
[2025-09-06 09:56:28] [info] Run Start Time:      09:48:32 AM
[2025-09-06 09:56:28] [info] Run End Time:        09:56:28 AM
[2025-09-06 09:56:28] [info] Time Taken:          8 minutes 10 seconds

[2025-09-06 09:56:28] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:56:28] [info] Host Name:           kuro-Workstation
[2025-09-06 09:56:28] [info] User Name:           kuro
[2025-09-06 09:56:28] [info] Cores Used:          4
[2025-09-06 09:56:28] [info] Memory Utilized:     5873.45 MB / 62.569705963134766 GB

[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info]             Top Cell Match
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-09-06 09:56:28] [info] Schematic Top Cell:  jpeg_encoder3_sky130hd
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info]             Netlist Statistics
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:56:28] [info] |-----|-----|-----|
[2025-09-06 09:56:28] [info] | Total Nets             | 57107       | 57219       |
[2025-09-06 09:56:28] [info] | Total Instances        | 646154      | 44825       |
[2025-09-06 09:56:28] [info] | Total Pins             | 625409      | 333756      |
[2025-09-06 09:56:28] [info] |-----|-----|-----|
[2025-09-06 09:56:28] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info] Total Schematic Instances:    44825
[2025-09-06 09:56:28] [info] Matched Instances:           44712
[2025-09-06 09:56:28] [info] Match Percentage: 99.75%

[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info]             Short and Open Checks
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info] Short Circuits:             None Detected
[2025-09-06 09:56:28] [info] Open Circuits:              Open Detected

[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info]             Performance Metrics
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info] | Stage                    | Time Taken |
[2025-09-06 09:56:28] [info] |-----|-----|
[2025-09-06 09:56:28] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 09:56:28] [info] | Connectivity Extraction   | 7 minutes 50 seconds |
[2025-09-06 09:56:28] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 09:56:28] [info] | Report Generation         | 0 minutes 0 seconds |

[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info]             Additional Details
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 09:56:28] [info] Hierarchical Cells:        Flattened
[2025-09-06 09:56:28] [info] Database Format:            GDSII
[2025-09-06 09:56:28] [info] Verification Mode:         Full Check
[2025-09-06 09:56:28] [info] Error Reporting:           Enabled

[2025-09-06 09:56:28] [info] -----

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[2025-09-06 09:56:28] [info] Type of Errors | Count
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info] DB_WARN -> 1
[2025-09-06 09:56:28] [info] LRF_ERR001 -> 14
[2025-09-06 09:56:28] [info] DB_WARN002 -> 152
[2025-09-06 09:56:28] [info] DB_WARN003 -> 155
[2025-09-06 09:56:28] [info] VERI_WARN012 -> 113
[2025-09-06 09:56:28] [info] LVS_ERR018 -> 11
[2025-09-06 09:56:28] [info] LVS_ERR019 -> 450
[2025-09-06 09:56:28] [info] LVS_ERR003 -> 438
[2025-09-06 09:56:28] [info] ERC_ERR003 -> 438
[2025-09-06 09:56:28] [info] LVS_ERR005 -> 113
[2025-09-06 09:56:28] [info] LVS_ERR030 -> 1
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info] Summary
[2025-09-06 09:56:28] [info] -----
[2025-09-06 09:56:28] [info] LVS Status: PASSED
[2025-09-06 09:56:28] [info] Instance Match Percentage: 99.75%
[2025-09-06 09:56:28] [info] Short Circuits: None Detected
[2025-09-06 09:56:28] [info] Open Circuits: Open Detected
[2025-09-06 09:56:28] [info] Unconnected Pins: 550
[2025-09-06 09:56:28] [info] Total Errors: 1465
[2025-09-06 09:56:28] [info] Total Warnings: 421
[2025-09-06 09:56:28] [info] Critical Issues: None
```

```
[2025-09-06 09:58:15] [info] =====
[2025-09-06 09:58:15] [info]             Layout Versus Schematic Report
[2025-09-06 09:58:15] [info] =====

[2025-09-06 09:58:15] [info] Report Generated:    2025-09-06
[2025-09-06 09:58:15] [info] Run Start Time:      09:56:40 AM
[2025-09-06 09:58:15] [info] Run End Time:        09:58:15 AM
[2025-09-06 09:58:15] [info] Time Taken:          1 minutes 41 seconds

[2025-09-06 09:58:15] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:58:15] [info] Host Name:           kuro-Workstation
[2025-09-06 09:58:15] [info] User Name:           kuro
[2025-09-06 09:58:15] [info] Cores Used:          8
[2025-09-06 09:58:15] [info] Memory Utilized:     2848.86 MB / 62.569705963134766 GB

[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info]             Top Cell Match
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-09-06 09:58:15] [info] Schematic Top Cell:  aes_cipher_top1_sky130hd
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info]             Netlist Statistics
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:58:15] [info] |-----|-----|-----|
[2025-09-06 09:58:15] [info] | Total Nets             | 25673       | 25678       |
[2025-09-06 09:58:15] [info] | Total Instances        | 353042      | 25409       |
[2025-09-06 09:58:15] [info] | Total Pins             | 300090      | 183701      |
[2025-09-06 09:58:15] [info] |-----|-----|-----|
[2025-09-06 09:58:15] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info] Total Schematic Instances:    25409
[2025-09-06 09:58:15] [info] Matched Instances:           25406
[2025-09-06 09:58:15] [info] Match Percentage: 99.99%

[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info]             Short and Open Checks
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info] Short Circuits:      None Detected
[2025-09-06 09:58:15] [info] Open Circuits:       None Detected

[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info]             Performance Metrics
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info] | Stage                | Time Taken |
[2025-09-06 09:58:15] [info] |-----|-----|
[2025-09-06 09:58:15] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-09-06 09:58:15] [info] | Connectivity Extraction | 1 minutes 32 seconds |
[2025-09-06 09:58:15] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-09-06 09:58:15] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info]             Additional Details
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:58:15] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:58:15] [info] Database Format:       GDSII
[2025-09-06 09:58:15] [info] Verification Mode:    Full Check
[2025-09-06 09:58:15] [info] Error Reporting:      Enabled

[2025-09-06 09:58:15] [info] -----
```

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[2025-09-06 09:58:15] [info] Type of Errors | Count
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info] DB_WARN -> 1
[2025-09-06 09:58:15] [info] LRF_ERR001 -> 14
[2025-09-06 09:58:15] [info] DB_WARN002 -> 144
[2025-09-06 09:58:15] [info] DB_WARN003 -> 137
[2025-09-06 09:58:15] [info] VERI_WARN012 -> 41
[2025-09-06 09:58:15] [info] LVS_ERR019 -> 18
[2025-09-06 09:58:15] [info] LVS_ERR003 -> 18
[2025-09-06 09:58:15] [info] ERC_ERR003 -> 18
[2025-09-06 09:58:15] [info] LVS_ERR005 -> 3
[2025-09-06 09:58:15] [info] LVS_ERR030 -> 1
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info] Summary
[2025-09-06 09:58:15] [info] -----
[2025-09-06 09:58:15] [info] LVS Status: PASSED
[2025-09-06 09:58:15] [info] Instance Match Percentage: 99.99%
[2025-09-06 09:58:15] [info] Short Circuits: None Detected
[2025-09-06 09:58:15] [info] Open Circuits: None Detected
[2025-09-06 09:58:15] [info] Unconnected Pins: 118
[2025-09-06 09:58:15] [info] Total Errors: 72
[2025-09-06 09:58:15] [info] Total Warnings: 323
[2025-09-06 09:58:15] [info] Critical Issues: None
```

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[2025-09-06 10:00:51] [info] =====
[2025-09-06 10:00:51] [info] Layout Versus Schematic Report
[2025-09-06 10:00:51] [info] =====

[2025-09-06 10:00:51] [info] Report Generated: 2025-09-06
[2025-09-06 10:00:51] [info] Run Start Time: 09:58:25 AM
[2025-09-06 10:00:51] [info] Run End Time: 10:00:50 AM
[2025-09-06 10:00:51] [info] Time Taken: 2 minutes 33 seconds

[2025-09-06 10:00:51] [info] Tool Version: LVR_2025.1
[2025-09-06 10:00:51] [info] Host Name: kuro-Workstation
[2025-09-06 10:00:51] [info] User Name: kuro
[2025-09-06 10:00:51] [info] Cores Used: 8
[2025-09-06 10:00:51] [info] Memory Utilized: 3444.20 MB / 62.569705963134766 GB

[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Top Cell Match
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Layout Top Cell: aes_cipher_top2_sky130hd
[2025-09-06 10:00:51] [info] Schematic Top Cell: aes_cipher_top2_sky130hd
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Netlist Statistics
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] | Metric | Layout | Schematic |
[2025-09-06 10:00:51] [info] |-----|-----|-----|
[2025-09-06 10:00:51] [info] | Total Nets | 25660 | 25665 |
[2025-09-06 10:00:51] [info] | Total Instances | 423815 | 25396 |
[2025-09-06 10:00:51] [info] | Total Pins | 314679 | 183623 |
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Pin to Net Mapping Percentage
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Total Schematic Instances: 25396
[2025-09-06 10:00:51] [info] Matched Instances: 25393
[2025-09-06 10:00:51] [info] Match Percentage: 99.99%

[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Short and Open Checks
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Short Circuits: None Detected
[2025-09-06 10:00:51] [info] Open Circuits: None Detected

[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Performance Metrics
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] | Stage | Time Taken |
[2025-09-06 10:00:51] [info] |-----|-----|
[2025-09-06 10:00:51] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 10:00:51] [info] | Connectivity Extraction | 2 minutes 21 seconds |
[2025-09-06 10:00:51] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 10:00:51] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Additional Details
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 10:00:51] [info] Hierarchical Cells: Flattened
[2025-09-06 10:00:51] [info] Database Format: GDSII
[2025-09-06 10:00:51] [info] Verification Mode: Full Check
[2025-09-06 10:00:51] [info] Error Reporting: Enabled

[2025-09-06 10:00:51] [info] -----

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[2025-09-06 10:00:51] [info]                                Type of Errors | Count
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] DB_WARN -> 1
[2025-09-06 10:00:51] [info] LRF_ERR001 -> 14
[2025-09-06 10:00:51] [info] DB_WARN002 -> 141
[2025-09-06 10:00:51] [info] DB_WARN003 -> 135
[2025-09-06 10:00:51] [info] VERI_WARN012 -> 39
[2025-09-06 10:00:51] [info] LVS_ERR019 -> 12
[2025-09-06 10:00:51] [info] LVS_ERR003 -> 12
[2025-09-06 10:00:51] [info] ERC_ERR003 -> 12
[2025-09-06 10:00:51] [info] LVS_ERR005 -> 3
[2025-09-06 10:00:51] [info] LVS_ERR030 -> 1
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info]                                Summary
[2025-09-06 10:00:51] [info] -----
[2025-09-06 10:00:51] [info] LVS Status:                PASSED
[2025-09-06 10:00:51] [info] Instance Match Percentage: 99.99%
[2025-09-06 10:00:51] [info] Short Circuits:            None Detected
[2025-09-06 10:00:51] [info] Open Circuits:             None Detected
[2025-09-06 10:00:51] [info] Unconnected Pins:          112
[2025-09-06 10:00:51] [info] Total Errors:               54
[2025-09-06 10:00:51] [info] Total Warnings:             316
[2025-09-06 10:00:51] [info] Critical Issues:            None
```

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[2025-09-06 10:02:25] [info] =====
[2025-09-06 10:02:25] [info]             Layout Versus Schematic Report
[2025-09-06 10:02:25] [info] =====

[2025-09-06 10:02:25] [info] Report Generated:    2025-09-06
[2025-09-06 10:02:25] [info] Run Start Time:      10:00:58 AM
[2025-09-06 10:02:25] [info] Run End Time:        10:02:25 AM
[2025-09-06 10:02:25] [info] Time Taken:          1 minutes 31 seconds

[2025-09-06 10:02:25] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:02:25] [info] Host Name:           kuro-Workstation
[2025-09-06 10:02:25] [info] User Name:           kuro
[2025-09-06 10:02:25] [info] Cores Used:          8
[2025-09-06 10:02:25] [info] Memory Utilized:     2343.92 MB / 62.569705963134766 GB

[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info]             Top Cell Match
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-09-06 10:02:25] [info] Schematic Top Cell:  aes_cipher_top3_sky130hd
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info]             Netlist Statistics
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:02:25] [info] |-----|-----|-----|
[2025-09-06 10:02:25] [info] | Total Nets             | 25146       | 25151       |
[2025-09-06 10:02:25] [info] | Total Instances        | 318921      | 24882       |
[2025-09-06 10:02:25] [info] | Total Pins             | 285259      | 180539      |
[2025-09-06 10:02:25] [info] |-----|-----|-----|
[2025-09-06 10:02:25] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info] Total Schematic Instances:    24882
[2025-09-06 10:02:25] [info] Matched Instances:           24879
[2025-09-06 10:02:25] [info] Match Percentage: 99.99%

[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info]             Short and Open Checks
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info] Short Circuits:      None Detected
[2025-09-06 10:02:25] [info] Open Circuits:       None Detected

[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info]             Performance Metrics
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info] | Stage                | Time Taken |
[2025-09-06 10:02:25] [info] |-----|-----|
[2025-09-06 10:02:25] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 10:02:25] [info] | Connectivity Extraction | 1 minutes 23 seconds |
[2025-09-06 10:02:25] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 10:02:25] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info]             Additional Details
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 10:02:25] [info] Hierarchical Cells:   Flattened
[2025-09-06 10:02:25] [info] Database Format:       GDSII
[2025-09-06 10:02:25] [info] Verification Mode:    Full Check
[2025-09-06 10:02:25] [info] Error Reporting:      Enabled

[2025-09-06 10:02:25] [info] -----

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[2025-09-06 10:02:25] [info]                                Type of Errors | Count
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info] DB_WARN -> 1
[2025-09-06 10:02:25] [info] LRF_ERR001 -> 14
[2025-09-06 10:02:25] [info] DB_WARN002 -> 138
[2025-09-06 10:02:25] [info] DB_WARN003 -> 132
[2025-09-06 10:02:25] [info] VERI_WARN012 -> 36
[2025-09-06 10:02:25] [info] LVS_ERR019 -> 12
[2025-09-06 10:02:25] [info] LVS_ERR003 -> 12
[2025-09-06 10:02:25] [info] ERC_ERR003 -> 12
[2025-09-06 10:02:25] [info] LVS_ERR005 -> 3
[2025-09-06 10:02:25] [info] LVS_ERR030 -> 1
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info]                                Summary
[2025-09-06 10:02:25] [info] -----
[2025-09-06 10:02:25] [info] LVS Status:                PASSED
[2025-09-06 10:02:25] [info] Instance Match Percentage: 99.99%
[2025-09-06 10:02:25] [info] Short Circuits:           None Detected
[2025-09-06 10:02:25] [info] Open Circuits:            None Detected
[2025-09-06 10:02:25] [info] Unconnected Pins:         112
[2025-09-06 10:02:25] [info] Total Errors:              54
[2025-09-06 10:02:25] [info] Total Warnings:            307
[2025-09-06 10:02:25] [info] Critical Issues:           None
```

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[2025-09-06 09:56:33] [info] =====
[2025-09-06 09:56:33] [info]             Layout Versus Schematic Report
[2025-09-06 09:56:33] [info] =====

[2025-09-06 09:56:33] [info] Report Generated:    2025-09-06
[2025-09-06 09:56:33] [info] Run Start Time:      09:56:33 AM
[2025-09-06 09:56:33] [info] Run End Time:        09:56:33 AM
[2025-09-06 09:56:33] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 09:56:33] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:56:33] [info] Host Name:           kuro-Workstation
[2025-09-06 09:56:33] [info] User Name:           kuro
[2025-09-06 09:56:33] [info] Cores Used:          8
[2025-09-06 09:56:33] [info] Memory Utilized:     38.46 MB / 62.569705963134766 GB

[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Top Cell Match
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Layout Top Cell:     gcd1_sky130hd
[2025-09-06 09:56:33] [info] Schematic Top Cell:  gcd1_sky130hd
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Netlist Statistics
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:56:33] [info] |-----|-----|-----|
[2025-09-06 09:56:33] [info] | Total Nets             | 389         | 391         |
[2025-09-06 09:56:33] [info] | Total Instances        | 4312        | 351         |
[2025-09-06 09:56:33] [info] | Total Pins             | 4063        | 2481        |
[2025-09-06 09:56:33] [info] |-----|-----|-----|
[2025-09-06 09:56:33] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Total Schematic Instances:    351
[2025-09-06 09:56:33] [info] Matched Instances:           351
[2025-09-06 09:56:33] [info] Match Percentage: 100.00%

[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Short and Open Checks
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Short Circuits:      None Detected
[2025-09-06 09:56:33] [info] Open Circuits:       None Detected

[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Performance Metrics
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] | Stage                | Time Taken |
[2025-09-06 09:56:33] [info] |-----|-----|
[2025-09-06 09:56:33] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 09:56:33] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 09:56:33] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 09:56:33] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Additional Details
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:56:33] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:56:33] [info] Database Format:       GDSII
[2025-09-06 09:56:33] [info] Verification Mode:    Full Check
[2025-09-06 09:56:33] [info] Error Reporting:      Enabled

[2025-09-06 09:56:33] [info] -----

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[2025-09-06 09:56:33] [info] Type of Errors | Count
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] DB_WARN -> 1
[2025-09-06 09:56:33] [info] LRF_ERR001 -> 14
[2025-09-06 09:56:33] [info] DB_WARN002 -> 58
[2025-09-06 09:56:33] [info] DB_WARN003 -> 55
[2025-09-06 09:56:33] [info] VERI_WARN012 -> 4
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Summary
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] LVS Status: PASSED
[2025-09-06 09:56:33] [info] Instance Match Percentage: 100.00%
[2025-09-06 09:56:33] [info] Short Circuits: None Detected
[2025-09-06 09:56:33] [info] Open Circuits: None Detected
[2025-09-06 09:56:33] [info] Unconnected Pins: 100
[2025-09-06 09:56:33] [info] Total Errors: 14
[2025-09-06 09:56:33] [info] Total Warnings: 118
[2025-09-06 09:56:33] [info] Critical Issues: None
```

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[2025-09-06 09:56:33] [info] =====
[2025-09-06 09:56:33] [info]             Layout Versus Schematic Report
[2025-09-06 09:56:33] [info] =====

[2025-09-06 09:56:33] [info] Report Generated:    2025-09-06
[2025-09-06 09:56:33] [info] Run Start Time:      09:56:33 AM
[2025-09-06 09:56:33] [info] Run End Time:        09:56:33 AM
[2025-09-06 09:56:33] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 09:56:33] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:56:33] [info] Host Name:           kuro-Workstation
[2025-09-06 09:56:33] [info] User Name:           kuro
[2025-09-06 09:56:33] [info] Cores Used:          8
[2025-09-06 09:56:33] [info] Memory Utilized:     43.01 MB / 62.569705963134766 GB

[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Top Cell Match
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Layout Top Cell:     gcd2_sky130hd
[2025-09-06 09:56:33] [info] Schematic Top Cell:  gcd2_sky130hd
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Netlist Statistics
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:56:33] [info] |-----|-----|-----|
[2025-09-06 09:56:33] [info] | Total Nets             | 353         | 355         |
[2025-09-06 09:56:33] [info] | Total Instances        | 4768        | 315         |
[2025-09-06 09:56:33] [info] | Total Pins             | 3854        | 2265        |
[2025-09-06 09:56:33] [info] |-----|-----|-----|
[2025-09-06 09:56:33] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Total Schematic Instances:    315
[2025-09-06 09:56:33] [info] Matched Instances:           315
[2025-09-06 09:56:33] [info] Match Percentage: 100.00%

[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Short and Open Checks
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Short Circuits:      None Detected
[2025-09-06 09:56:33] [info] Open Circuits:       None Detected

[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Performance Metrics
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] | Stage                | Time Taken |
[2025-09-06 09:56:33] [info] |-----|-----|
[2025-09-06 09:56:33] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-09-06 09:56:33] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 09:56:33] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-09-06 09:56:33] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info]             Additional Details
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:56:33] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:56:33] [info] Database Format:       GDSII
[2025-09-06 09:56:33] [info] Verification Mode:    Full Check
[2025-09-06 09:56:33] [info] Error Reporting:      Enabled

[2025-09-06 09:56:33] [info] -----

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[2025-09-06 09:56:33] [info] Type of Errors | Count
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] DB_WARN -> 1
[2025-09-06 09:56:33] [info] LRF_ERR001 -> 14
[2025-09-06 09:56:33] [info] DB_WARN002 -> 59
[2025-09-06 09:56:33] [info] DB_WARN003 -> 56
[2025-09-06 09:56:33] [info] VERI_WARN012 -> 5
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] Summary
[2025-09-06 09:56:33] [info] -----
[2025-09-06 09:56:33] [info] LVS Status: PASSED
[2025-09-06 09:56:33] [info] Instance Match Percentage: 100.00%
[2025-09-06 09:56:33] [info] Short Circuits: None Detected
[2025-09-06 09:56:33] [info] Open Circuits: None Detected
[2025-09-06 09:56:33] [info] Unconnected Pins: 100
[2025-09-06 09:56:33] [info] Total Errors: 14
[2025-09-06 09:56:33] [info] Total Warnings: 121
[2025-09-06 09:56:33] [info] Critical Issues: None
```

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[2025-09-06 09:56:34] [info] =====
[2025-09-06 09:56:34] [info]             Layout Versus Schematic Report
[2025-09-06 09:56:34] [info] =====

[2025-09-06 09:56:34] [info] Report Generated:    2025-09-06
[2025-09-06 09:56:34] [info] Run Start Time:      09:56:33 AM
[2025-09-06 09:56:34] [info] Run End Time:        09:56:34 AM
[2025-09-06 09:56:34] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 09:56:34] [info] Tool Version:        LVR_2025.1
[2025-09-06 09:56:34] [info] Host Name:           kuro-Workstation
[2025-09-06 09:56:34] [info] User Name:           kuro
[2025-09-06 09:56:34] [info] Cores Used:          8
[2025-09-06 09:56:34] [info] Memory Utilized:     32.48 MB / 62.569705963134766 GB

[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info]             Top Cell Match
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info] Layout Top Cell:     gcd3_sky130hd
[2025-09-06 09:56:34] [info] Schematic Top Cell:  gcd3_sky130hd
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info]             Netlist Statistics
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 09:56:34] [info] |-----|-----|-----|
[2025-09-06 09:56:34] [info] | Total Nets             | 360         | 362         |
[2025-09-06 09:56:34] [info] | Total Instances        | 3829        | 322         |
[2025-09-06 09:56:34] [info] | Total Pins             | 3692        | 2307        |
[2025-09-06 09:56:34] [info] |-----|-----|-----|
[2025-09-06 09:56:34] [info]             Pin to Net Mapping Percentage
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info] Total Schematic Instances:    322
[2025-09-06 09:56:34] [info] Matched Instances:           322
[2025-09-06 09:56:34] [info] Match Percentage: 100.00%

[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info]             Short and Open Checks
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info] Short Circuits:      None Detected
[2025-09-06 09:56:34] [info] Open Circuits:       None Detected

[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info]             Performance Metrics
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info] | Stage                | Time Taken |
[2025-09-06 09:56:34] [info] |-----|-----|
[2025-09-06 09:56:34] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-09-06 09:56:34] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 09:56:34] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-09-06 09:56:34] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info]             Additional Details
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 09:56:34] [info] Hierarchical Cells:   Flattened
[2025-09-06 09:56:34] [info] Database Format:       GDSII
[2025-09-06 09:56:34] [info] Verification Mode:    Full Check
[2025-09-06 09:56:34] [info] Error Reporting:      Enabled

[2025-09-06 09:56:34] [info] -----

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[2025-09-06 09:56:34] [info] Type of Errors | Count
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info] DB_WARN -> 1
[2025-09-06 09:56:34] [info] LRF_ERR001 -> 14
[2025-09-06 09:56:34] [info] DB_WARN002 -> 59
[2025-09-06 09:56:34] [info] DB_WARN003 -> 56
[2025-09-06 09:56:34] [info] VERI_WARN012 -> 6
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info] Summary
[2025-09-06 09:56:34] [info] -----
[2025-09-06 09:56:34] [info] LVS Status: PASSED
[2025-09-06 09:56:34] [info] Instance Match Percentage: 100.00%
[2025-09-06 09:56:34] [info] Short Circuits: None Detected
[2025-09-06 09:56:34] [info] Open Circuits: None Detected
[2025-09-06 09:56:34] [info] Unconnected Pins: 100
[2025-09-06 09:56:34] [info] Total Errors: 14
[2025-09-06 09:56:34] [info] Total Warnings: 122
[2025-09-06 09:56:34] [info] Critical Issues: None
```

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[2025-09-06 10:03:48] [info] =====
[2025-09-06 10:03:48] [info]             Layout Versus Schematic Report
[2025-09-06 10:03:48] [info] =====

[2025-09-06 10:03:48] [info] Report Generated:    2025-09-06
[2025-09-06 10:03:48] [info] Run Start Time:      10:02:32 AM
[2025-09-06 10:03:48] [info] Run End Time:        10:03:48 AM
[2025-09-06 10:03:48] [info] Time Taken:          1 minutes 21 seconds

[2025-09-06 10:03:48] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:03:48] [info] Host Name:           kuro-Workstation
[2025-09-06 10:03:48] [info] User Name:           kuro
[2025-09-06 10:03:48] [info] Cores Used:          8
[2025-09-06 10:03:48] [info] Memory Utilized:     2607.32 MB / 62.569705963134766 GB

[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info]             Top Cell Match
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-09-06 10:03:48] [info] Schematic Top Cell:  ibex_core1_sky130hd
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info]             Netlist Statistics
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:03:48] [info] |-----|-----|-----|
[2025-09-06 10:03:48] [info] | Total Nets             | 21317       | 21319       |
[2025-09-06 10:03:48] [info] | Total Instances        | 281049      | 21165       |
[2025-09-06 10:03:48] [info] | Total Pins             | 281287      | 153642      |
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info] Total Schematic Instances:    21165
[2025-09-06 10:03:48] [info] Matched Instances:           21154
[2025-09-06 10:03:48] [info] Match Percentage: 99.95%

[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info]             Short and Open Checks
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info] Short Circuits:             None Detected
[2025-09-06 10:03:48] [info] Open Circuits:              None Detected

[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info]             Performance Metrics
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info] | Stage                    | Time Taken |
[2025-09-06 10:03:48] [info] |-----|-----|
[2025-09-06 10:03:48] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 10:03:48] [info] | Connectivity Extraction   | 1 minutes 12 seconds |
[2025-09-06 10:03:48] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 10:03:48] [info] | Report Generation         | 0 minutes 0 seconds |

[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info]             Additional Details
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 10:03:48] [info] Hierarchical Cells:        Flattened
[2025-09-06 10:03:48] [info] Database Format:            GDSII
[2025-09-06 10:03:48] [info] Verification Mode:         Full Check
[2025-09-06 10:03:48] [info] Error Reporting:           Enabled

[2025-09-06 10:03:48] [info] -----

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[2025-09-06 10:03:48] [info] Type of Errors | Count
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info] DB_WARN -> 1
[2025-09-06 10:03:48] [info] LRF_ERR001 -> 14
[2025-09-06 10:03:48] [info] DB_WARN002 -> 251
[2025-09-06 10:03:48] [info] DB_WARN003 -> 251
[2025-09-06 10:03:48] [info] VERI_WARN012 -> 34
[2025-09-06 10:03:48] [info] LVS_ERR019 -> 38
[2025-09-06 10:03:48] [info] ERC_ERR001 -> 4
[2025-09-06 10:03:48] [info] LVS_ERR003 -> 13
[2025-09-06 10:03:48] [info] ERC_ERR003 -> 13
[2025-09-06 10:03:48] [info] LVS_ERR005 -> 11
[2025-09-06 10:03:48] [info] LVS_ERR030 -> 1
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info] Summary
[2025-09-06 10:03:48] [info] -----
[2025-09-06 10:03:48] [info] LVS Status: PASSED
[2025-09-06 10:03:48] [info] Instance Match Percentage: 99.95%
[2025-09-06 10:03:48] [info] Short Circuits: None Detected
[2025-09-06 10:03:48] [info] Open Circuits: None Detected
[2025-09-06 10:03:48] [info] Unconnected Pins: 138
[2025-09-06 10:03:48] [info] Total Errors: 94
[2025-09-06 10:03:48] [info] Total Warnings: 537
[2025-09-06 10:03:48] [info] Critical Issues: None
```

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[2025-09-06 10:05:16] [info] =====
[2025-09-06 10:05:16] [info]             Layout Versus Schematic Report
[2025-09-06 10:05:16] [info] =====

[2025-09-06 10:05:16] [info] Report Generated:    2025-09-06
[2025-09-06 10:05:16] [info] Run Start Time:      10:03:55 AM
[2025-09-06 10:05:16] [info] Run End Time:        10:05:15 AM
[2025-09-06 10:05:16] [info] Time Taken:          1 minutes 25 seconds

[2025-09-06 10:05:16] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:05:16] [info] Host Name:           kuro-Workstation
[2025-09-06 10:05:16] [info] User Name:           kuro
[2025-09-06 10:05:16] [info] Cores Used:          8
[2025-09-06 10:05:16] [info] Memory Utilized:     2652.30 MB / 62.569705963134766 GB

[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info]             Top Cell Match
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-09-06 10:05:16] [info] Schematic Top Cell:  ibex_core2_sky130hd
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info]             Netlist Statistics
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:05:16] [info] |-----|-----|-----|
[2025-09-06 10:05:16] [info] | Total Nets             | 21096       | 21098       |
[2025-09-06 10:05:16] [info] | Total Instances        | 293160      | 20944       |
[2025-09-06 10:05:16] [info] | Total Pins             | 281372      | 152316      |
[2025-09-06 10:05:16] [info] |-----|-----|-----|
[2025-09-06 10:05:16] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info] Total Schematic Instances: 20944
[2025-09-06 10:05:16] [info] Matched Instances:        20932
[2025-09-06 10:05:16] [info] Match Percentage: 99.94%

[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info]             Short and Open Checks
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info] Short Circuits:        None Detected
[2025-09-06 10:05:16] [info] Open Circuits:         Open Detected

[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info]             Performance Metrics
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info] | Stage                | Time Taken |
[2025-09-06 10:05:16] [info] |-----|-----|
[2025-09-06 10:05:16] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 10:05:16] [info] | Connectivity Extraction | 1 minutes 17 seconds |
[2025-09-06 10:05:16] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 10:05:16] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info]             Additional Details
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 10:05:16] [info] Hierarchical Cells:    Flattened
[2025-09-06 10:05:16] [info] Database Format:        GDSII
[2025-09-06 10:05:16] [info] Verification Mode:     Full Check
[2025-09-06 10:05:16] [info] Error Reporting:       Enabled

[2025-09-06 10:05:16] [info] -----

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[2025-09-06 10:05:16] [info]                                     Type of Errors | Count
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info] DB_WARN -> 1
[2025-09-06 10:05:16] [info] LRF_ERR001 -> 14
[2025-09-06 10:05:16] [info] DB_WARN002 -> 249
[2025-09-06 10:05:16] [info] DB_WARN003 -> 249
[2025-09-06 10:05:16] [info] VERI_WARN012 -> 31
[2025-09-06 10:05:16] [info] LVS_ERR018 -> 2
[2025-09-06 10:05:16] [info] LVS_ERR019 -> 32
[2025-09-06 10:05:16] [info] ERC_ERR001 -> 4
[2025-09-06 10:05:16] [info] LVS_ERR003 -> 11
[2025-09-06 10:05:16] [info] ERC_ERR003 -> 11
[2025-09-06 10:05:16] [info] LVS_ERR005 -> 12
[2025-09-06 10:05:16] [info] LVS_ERR030 -> 1
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info]                                     Summary
[2025-09-06 10:05:16] [info] -----
[2025-09-06 10:05:16] [info] LVS Status:                PASSED
[2025-09-06 10:05:16] [info] Instance Match Percentage: 99.94%
[2025-09-06 10:05:16] [info] Short Circuits:           None Detected
[2025-09-06 10:05:16] [info] Open Circuits:            Open Detected
[2025-09-06 10:05:16] [info] Unconnected Pins:         132
[2025-09-06 10:05:16] [info] Total Errors:              87
[2025-09-06 10:05:16] [info] Total Warnings:            530
[2025-09-06 10:05:16] [info] Critical Issues:           None

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```

[2025-09-06 10:06:39] [info] =====
[2025-09-06 10:06:39] [info]             Layout Versus Schematic Report
[2025-09-06 10:06:39] [info] =====

[2025-09-06 10:06:39] [info] Report Generated:    2025-09-06
[2025-09-06 10:06:39] [info] Run Start Time:      10:05:23 AM
[2025-09-06 10:06:39] [info] Run End Time:        10:06:39 AM
[2025-09-06 10:06:39] [info] Time Taken:          1 minutes 21 seconds

[2025-09-06 10:06:39] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:06:39] [info] Host Name:           kuro-Workstation
[2025-09-06 10:06:39] [info] User Name:           kuro
[2025-09-06 10:06:39] [info] Cores Used:          8
[2025-09-06 10:06:39] [info] Memory Utilized:     2577.80 MB / 62.569705963134766 GB

[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info]             Top Cell Match
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 10:06:39] [info] Schematic Top Cell:  ibex_core3_sky130hd
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info]             Netlist Statistics
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:06:39] [info] |-----|-----|-----|
[2025-09-06 10:06:39] [info] | Total Nets             | 19194       | 19196       |
[2025-09-06 10:06:39] [info] | Total Instances        | 300437      | 19042       |
[2025-09-06 10:06:39] [info] | Total Pins             | 256833      | 140904      |
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info] Total Schematic Instances: 19042
[2025-09-06 10:06:39] [info] Matched Instances:       19033
[2025-09-06 10:06:39] [info] Match Percentage: 99.95%

[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info]             Short and Open Checks
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info] Short Circuits:        None Detected
[2025-09-06 10:06:39] [info] Open Circuits:         Open Detected

[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info]             Performance Metrics
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info] | Stage                  | Time Taken |
[2025-09-06 10:06:39] [info] |-----|-----|
[2025-09-06 10:06:39] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 10:06:39] [info] | Connectivity Extraction  | 1 minutes 13 seconds |
[2025-09-06 10:06:39] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 10:06:39] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info]             Additional Details
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 10:06:39] [info] Hierarchical Cells:    Flattened
[2025-09-06 10:06:39] [info] Database Format:        GDSII
[2025-09-06 10:06:39] [info] Verification Mode:     Full Check
[2025-09-06 10:06:39] [info] Error Reporting:       Enabled

[2025-09-06 10:06:39] [info] -----

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[2025-09-06 10:06:39] [info]                                Type of Errors | Count
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info] DB_WARN -> 1
[2025-09-06 10:06:39] [info] LRF_ERR001 -> 14
[2025-09-06 10:06:39] [info] DB_WARN002 -> 253
[2025-09-06 10:06:39] [info] DB_WARN003 -> 251
[2025-09-06 10:06:39] [info] VERI_WARN012 -> 53
[2025-09-06 10:06:39] [info] LVS_ERR018 -> 5
[2025-09-06 10:06:39] [info] LVS_ERR019 -> 31
[2025-09-06 10:06:39] [info] LVS_ERR003 -> 11
[2025-09-06 10:06:39] [info] ERC_ERR003 -> 11
[2025-09-06 10:06:39] [info] ERC_ERR001 -> 2
[2025-09-06 10:06:39] [info] LVS_ERR005 -> 9
[2025-09-06 10:06:39] [info] LVS_ERR030 -> 1
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info]                                Summary
[2025-09-06 10:06:39] [info] -----
[2025-09-06 10:06:39] [info] LVS Status:                PASSED
[2025-09-06 10:06:39] [info] Instance Match Percentage: 99.95%
[2025-09-06 10:06:39] [info] Short Circuits:           None Detected
[2025-09-06 10:06:39] [info] Open Circuits:            Open Detected
[2025-09-06 10:06:39] [info] Unconnected Pins:         131
[2025-09-06 10:06:39] [info] Total Errors:              84
[2025-09-06 10:06:39] [info] Total Warnings:            558
[2025-09-06 10:06:39] [info] Critical Issues:           None

```

```

[2025-09-06 10:12:46] [info] =====
[2025-09-06 10:12:46] [info]             Layout Versus Schematic Report
[2025-09-06 10:12:46] [info] =====

[2025-09-06 10:12:46] [info] Report Generated:    2025-09-06
[2025-09-06 10:12:46] [info] Run Start Time:      10:06:57 AM
[2025-09-06 10:12:46] [info] Run End Time:        10:12:45 AM
[2025-09-06 10:12:46] [info] Time Taken:          6 minutes 4 seconds

[2025-09-06 10:12:46] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:12:46] [info] Host Name:           kuro-Workstation
[2025-09-06 10:12:46] [info] User Name:           kuro
[2025-09-06 10:12:46] [info] Cores Used:          8
[2025-09-06 10:12:46] [info] Memory Utilized:     6934.95 MB / 62.569705963134766 GB

[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info]             Top Cell Match
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-09-06 10:12:46] [info] Schematic Top Cell:  jpeg_encoder1_sky130hd
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info]             Netlist Statistics
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:12:46] [info] |-----|-----|-----|
[2025-09-06 10:12:46] [info] | Total Nets            | 57241       | 57353       |
[2025-09-06 10:12:46] [info] | Total Instances       | 726048      | 44959       |
[2025-09-06 10:12:46] [info] | Total Pins            | 645641      | 334560      |
[2025-09-06 10:12:46] [info] |-----|-----|-----|
[2025-09-06 10:12:46] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info] Total Schematic Instances:    44959
[2025-09-06 10:12:46] [info] Matched Instances:           44846
[2025-09-06 10:12:46] [info] Match Percentage: 99.75%

[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info]             Short and Open Checks
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info] Short Circuits:             None Detected
[2025-09-06 10:12:46] [info] Open Circuits:              Open Detected

[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info]             Performance Metrics
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info] | Stage                | Time Taken |
[2025-09-06 10:12:46] [info] |-----|-----|
[2025-09-06 10:12:46] [info] | Netlist Parsing      | 0 minutes 0 seconds |
[2025-09-06 10:12:46] [info] | Connectivity Extraction | 5 minutes 41 seconds |
[2025-09-06 10:12:46] [info] | Device Matching      | 0 minutes 0 seconds |
[2025-09-06 10:12:46] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info]             Additional Details
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 10:12:46] [info] Hierarchical Cells:        Flattened
[2025-09-06 10:12:46] [info] Database Format:            GDSII
[2025-09-06 10:12:46] [info] Verification Mode:         Full Check
[2025-09-06 10:12:46] [info] Error Reporting:           Enabled

[2025-09-06 10:12:46] [info] -----

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[2025-09-06 10:12:46] [info]                                     Type of Errors | Count
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info] DB_WARN -> 1
[2025-09-06 10:12:46] [info] LRF_ERR001 -> 14
[2025-09-06 10:12:46] [info] DB_WARN002 -> 159
[2025-09-06 10:12:46] [info] DB_WARN003 -> 161
[2025-09-06 10:12:46] [info] VERI_WARN012 -> 113
[2025-09-06 10:12:46] [info] LVS_ERR018 -> 7
[2025-09-06 10:12:46] [info] LVS_ERR019 -> 511
[2025-09-06 10:12:46] [info] LVS_ERR003 -> 499
[2025-09-06 10:12:46] [info] ERC_ERR003 -> 499
[2025-09-06 10:12:46] [info] LVS_ERR005 -> 113
[2025-09-06 10:12:46] [info] LVS_ERR030 -> 1
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info]                                     Summary
[2025-09-06 10:12:46] [info] -----
[2025-09-06 10:12:46] [info] LVS Status:                PASSED
[2025-09-06 10:12:46] [info] Instance Match Percentage: 99.75%
[2025-09-06 10:12:46] [info] Short Circuits:           None Detected
[2025-09-06 10:12:46] [info] Open Circuits:            Open Detected
[2025-09-06 10:12:46] [info] Unconnected Pins:         611
[2025-09-06 10:12:46] [info] Total Errors:              1644
[2025-09-06 10:12:46] [info] Total Warnings:            434
[2025-09-06 10:12:46] [info] Critical Issues:           None

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[2025-09-06 10:19:57] [info] =====
[2025-09-06 10:19:57] [info]             Layout Versus Schematic Report
[2025-09-06 10:19:57] [info] =====

[2025-09-06 10:19:57] [info] Report Generated:    2025-09-06
[2025-09-06 10:19:57] [info] Run Start Time:      10:13:12 AM
[2025-09-06 10:19:57] [info] Run End Time:        10:19:56 AM
[2025-09-06 10:19:57] [info] Time Taken:          7 minutes 6 seconds

[2025-09-06 10:19:57] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:19:57] [info] Host Name:           kuro-Workstation
[2025-09-06 10:19:57] [info] User Name:           kuro
[2025-09-06 10:19:57] [info] Cores Used:          8
[2025-09-06 10:19:57] [info] Memory Utilized:     8499.99 MB / 62.569705963134766 GB

[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info]             Top Cell Match
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-09-06 10:19:57] [info] Schematic Top Cell:  jpeg_encoder2_sky130hd
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info]             Netlist Statistics
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:19:57] [info] |-----|-----|-----|
[2025-09-06 10:19:57] [info] | Total Nets             | 57183       | 57295       |
[2025-09-06 10:19:57] [info] | Total Instances        | 857431      | 44901        |
[2025-09-06 10:19:57] [info] | Total Pins             | 674946      | 334212       |
[2025-09-06 10:19:57] [info] |-----|-----|-----|
[2025-09-06 10:19:57] [info]             Pin to Net Mapping Percentage
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info] Total Schematic Instances:    44901
[2025-09-06 10:19:57] [info] Matched Instances:           44788
[2025-09-06 10:19:57] [info] Match Percentage: 99.75%

[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info]             Short and Open Checks
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info] Short Circuits:             None Detected
[2025-09-06 10:19:57] [info] Open Circuits:              Open Detected

[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info]             Performance Metrics
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info] | Stage                | Time Taken |
[2025-09-06 10:19:57] [info] |-----|-----|
[2025-09-06 10:19:57] [info] | Netlist Parsing       | 0 minutes 0 seconds |
[2025-09-06 10:19:57] [info] | Connectivity Extraction | 6 minutes 38 seconds |
[2025-09-06 10:19:57] [info] | Device Matching       | 0 minutes 0 seconds |
[2025-09-06 10:19:57] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info]             Additional Details
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 10:19:57] [info] Hierarchical Cells:       Flattened
[2025-09-06 10:19:57] [info] Database Format:           GDSII
[2025-09-06 10:19:57] [info] Verification Mode:        Full Check
[2025-09-06 10:19:57] [info] Error Reporting:          Enabled

[2025-09-06 10:19:57] [info] -----

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```
[2025-09-06 10:19:57] [info]                                Type of Errors | Count
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info] DB_WARN -> 1
[2025-09-06 10:19:57] [info] LRF_ERR001 -> 14
[2025-09-06 10:19:57] [info] DB_WARN002 -> 157
[2025-09-06 10:19:57] [info] DB_WARN003 -> 159
[2025-09-06 10:19:57] [info] VERI_WARN012 -> 113
[2025-09-06 10:19:57] [info] LVS_ERR018 -> 6
[2025-09-06 10:19:57] [info] LVS_ERR019 -> 502
[2025-09-06 10:19:57] [info] LVS_ERR003 -> 490
[2025-09-06 10:19:57] [info] ERC_ERR003 -> 490
[2025-09-06 10:19:57] [info] LVS_ERR005 -> 113
[2025-09-06 10:19:57] [info] LVS_ERR030 -> 1
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info]                                Summary
[2025-09-06 10:19:57] [info] -----
[2025-09-06 10:19:57] [info] LVS Status:                PASSED
[2025-09-06 10:19:57] [info] Instance Match Percentage: 99.75%
[2025-09-06 10:19:57] [info] Short Circuits:            None Detected
[2025-09-06 10:19:57] [info] Open Circuits:             Open Detected
[2025-09-06 10:19:57] [info] Unconnected Pins:          602
[2025-09-06 10:19:57] [info] Total Errors:               1616
[2025-09-06 10:19:57] [info] Total Warnings:             430
[2025-09-06 10:19:57] [info] Critical Issues:           None
```

```
[2025-09-06 10:25:22] [info] =====
[2025-09-06 10:25:22] [info]           Layout Versus Schematic Report
[2025-09-06 10:25:22] [info] =====

[2025-09-06 10:25:22] [info] Report Generated:    2025-09-06
[2025-09-06 10:25:22] [info] Run Start Time:      10:20:17 AM
[2025-09-06 10:25:22] [info] Run End Time:        10:25:22 AM
[2025-09-06 10:25:22] [info] Time Taken:          5 minutes 19 seconds

[2025-09-06 10:25:22] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:25:22] [info] Host Name:           kuro-Workstation
[2025-09-06 10:25:22] [info] User Name:           kuro
[2025-09-06 10:25:22] [info] Cores Used:          8
[2025-09-06 10:25:22] [info] Memory Utilized:     5873.45 MB / 62.569705963134766 GB

[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info]           Top Cell Match
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-09-06 10:25:22] [info] Schematic Top Cell:  jpeg_encoder3_sky130hd
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info]           Netlist Statistics
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info] | Metric                | Layout      | Schematic   |
[2025-09-06 10:25:22] [info] |-----|-----|-----|
[2025-09-06 10:25:22] [info] | Total Nets             | 57107       | 57219       |
[2025-09-06 10:25:22] [info] | Total Instances        | 646154      | 44825       |
[2025-09-06 10:25:22] [info] | Total Pins              | 625409      | 333756      |
[2025-09-06 10:25:22] [info] |-----|-----|-----|
[2025-09-06 10:25:22] [info]           Pin to Net Mapping Percentage
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info] Total Schematic Instances:    44825
[2025-09-06 10:25:22] [info] Matched Instances:           44712
[2025-09-06 10:25:22] [info] Match Percentage: 99.75%

[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info]           Short and Open Checks
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info] Short Circuits:             None Detected
[2025-09-06 10:25:22] [info] Open Circuits:              Open Detected

[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info]           Performance Metrics
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info] | Stage                    | Time Taken |
[2025-09-06 10:25:22] [info] |-----|-----|
[2025-09-06 10:25:22] [info] | Netlist Parsing          | 0 minutes 0 seconds |
[2025-09-06 10:25:22] [info] | Connectivity Extraction   | 4 minutes 59 seconds |
[2025-09-06 10:25:22] [info] | Device Matching          | 0 minutes 0 seconds |
[2025-09-06 10:25:22] [info] | Report Generation        | 0 minutes 0 seconds |

[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info]           Additional Details
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info] Technology Node:           SKY130HD (130nm)
[2025-09-06 10:25:22] [info] Hierarchical Cells:        Flattened
[2025-09-06 10:25:22] [info] Database Format:            GDSII
[2025-09-06 10:25:22] [info] Verification Mode:         Full Check
[2025-09-06 10:25:22] [info] Error Reporting:           Enabled

[2025-09-06 10:25:22] [info] -----
```

```
[2025-09-06 10:25:22] [info] Type of Errors | Count
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info] DB_WARN -> 1
[2025-09-06 10:25:22] [info] LRF_ERR001 -> 14
[2025-09-06 10:25:22] [info] DB_WARN002 -> 152
[2025-09-06 10:25:22] [info] DB_WARN003 -> 155
[2025-09-06 10:25:22] [info] VERI_WARN012 -> 113
[2025-09-06 10:25:22] [info] LVS_ERR018 -> 11
[2025-09-06 10:25:22] [info] LVS_ERR019 -> 450
[2025-09-06 10:25:22] [info] LVS_ERR003 -> 438
[2025-09-06 10:25:22] [info] ERC_ERR003 -> 438
[2025-09-06 10:25:22] [info] LVS_ERR005 -> 113
[2025-09-06 10:25:22] [info] LVS_ERR030 -> 1
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info] Summary
[2025-09-06 10:25:22] [info] -----
[2025-09-06 10:25:22] [info] LVS Status: PASSED
[2025-09-06 10:25:22] [info] Instance Match Percentage: 99.75%
[2025-09-06 10:25:22] [info] Short Circuits: None Detected
[2025-09-06 10:25:22] [info] Open Circuits: Open Detected
[2025-09-06 10:25:22] [info] Unconnected Pins: 550
[2025-09-06 10:25:22] [info] Total Errors: 1465
[2025-09-06 10:25:22] [info] Total Warnings: 421
[2025-09-06 10:25:22] [info] Critical Issues: None
```

10.3 ERC Regression Summary Reports

```
[2025-08-29 10:34:14] [info] =====
[2025-08-29 10:34:14] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:34:14] [info] =====

[2025-08-29 10:34:14] [info] Report Generated:    2025-08-29
[2025-08-29 10:34:14] [info] Run Start Time:      10:34:06 AM
[2025-08-29 10:34:14] [info] Run End Time:        10:34:14 AM
[2025-08-29 10:34:14] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:34:14] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:34:14] [info] Host Name:           kuro-Workstation
[2025-08-29 10:34:14] [info] User Name:           kuro
[2025-08-29 10:34:14] [info] Cores Used:          16
[2025-08-29 10:34:14] [info] Memory Utilized:     1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info]           Top Cell Match
[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:34:14] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info]           Short and Open Checks
[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info] Short Circuits:      None Detected
[2025-08-29 10:34:14] [info] Open Circuits:       None Detected

[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info]           Performance Metrics
[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info] | Stage                  | Time Taken |
[2025-08-29 10:34:14] [info] |-----|-----|
[2025-08-29 10:34:14] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:34:14] [info] | Connectivity Extraction  | 0 minutes 5 seconds |
[2025-08-29 10:34:14] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:34:14] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info]           Additional Details
[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:34:14] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:34:14] [info] Database Format:       GDSII
[2025-08-29 10:34:14] [info] Verification Mode:    Full Check
[2025-08-29 10:34:14] [info] Error Reporting:      Enabled

[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info]           Type of Errors | Count
[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info] DB_WARN -> 1
[2025-08-29 10:34:14] [info] DB_WARN003 -> 221
[2025-08-29 10:34:14] [info] VERI_WARN012 -> 508
[2025-08-29 10:34:14] [info] ERC_ERR019 -> 651
[2025-08-29 10:34:14] [info] LVS_ERR003 -> 649
[2025-08-29 10:34:14] [info] ERC_ERR003 -> 649
[2025-08-29 10:34:14] [info] LVS_ERR025 -> 2
[2025-08-29 10:34:14] [info] ERC_ERR008 -> 2
[2025-08-29 10:34:14] [info] ERC_ERR020 -> 1
[2025-08-29 10:34:14] [info] ERC_ERR005 -> 687
[2025-08-29 10:34:14] [info] LVS_ERR030 -> 1
```

```
[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info]                      Summary
[2025-08-29 10:34:14] [info] -----
[2025-08-29 10:34:14] [info] ERC Status:          PASSED
[2025-08-29 10:34:14] [info] Instance Match Percentage: 96.92%
[2025-08-29 10:34:14] [info] Short Circuits:      None Detected
[2025-08-29 10:34:14] [info] Open Circuits:       None Detected
[2025-08-29 10:34:14] [info] Unconnected Pins:    751
[2025-08-29 10:34:14] [info] Total Errors:        2642
[2025-08-29 10:34:14] [info] Total Warnings:      730
[2025-08-29 10:34:14] [info] Critical Issues:     None
```

```

[2025-08-28 06:14:16] [info] =====
[2025-08-28 06:14:16] [info] Electrical Rule Check Summary Report
[2025-08-28 06:14:16] [info] =====

[2025-08-28 06:14:16] [info] Report Generated: 2025-08-28
[2025-08-28 06:14:16] [info] Run Start Time: 06:14:08 AM
[2025-08-28 06:14:16] [info] Run End Time: 06:14:16 AM
[2025-08-28 06:14:16] [info] Time Taken: 0 minutes 10 seconds

[2025-08-28 06:14:16] [info] Tool Version: LVR_2025.1
[2025-08-28 06:14:16] [info] Host Name: kuro-Workstation
[2025-08-28 06:14:16] [info] User Name: kuro
[2025-08-28 06:14:16] [info] Cores Used: 16
[2025-08-28 06:14:16] [info] Memory Utilized: 1452.70 MB / 62.5692024230957 GB

[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] Top Cell Match
[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] Layout Top Cell: aes_cipher_top
[2025-08-28 06:14:16] [info] Schematic Top Cell: aes_cipher_top
[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] Short and Open Checks
[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] Short Circuits: None Detected
[2025-08-28 06:14:16] [info] Open Circuits: None Detected

[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] Performance Metrics
[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] | Stage | Time Taken |
[2025-08-28 06:14:16] [info] |-----|-----|
[2025-08-28 06:14:16] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-28 06:14:16] [info] | Connectivity Extraction | 0 minutes 5 seconds |
[2025-08-28 06:14:16] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-28 06:14:16] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] Additional Details
[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] Technology Node: Nangate45 (45nm)
[2025-08-28 06:14:16] [info] Hierarchical Cells: Flattened
[2025-08-28 06:14:16] [info] Database Format: GDSII
[2025-08-28 06:14:16] [info] Verification Mode: Full Check
[2025-08-28 06:14:16] [info] Error Reporting: Enabled

[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] Type of Errors | Count
[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] DB_WARN -> 1
[2025-08-28 06:14:16] [info] DB_WARN003 -> 221
[2025-08-28 06:14:16] [info] VERI_WARN012 -> 508
[2025-08-28 06:14:16] [info] ERC_ERR019 -> 651
[2025-08-28 06:14:16] [info] LVS_ERR003 -> 649
[2025-08-28 06:14:16] [info] ERC_ERR003 -> 649
[2025-08-28 06:14:16] [info] LVS_ERR025 -> 2
[2025-08-28 06:14:16] [info] ERC_ERR008 -> 2
[2025-08-28 06:14:16] [info] ERC_ERR020 -> 1
[2025-08-28 06:14:16] [info] ERC_ERR005 -> 687
[2025-08-28 06:14:16] [info] LVS_ERR030 -> 1
[2025-08-28 06:14:16] [info] -----
[2025-08-28 06:14:16] [info] Summary

```

```
[2025-08-28 06:14:16] [info] -----  
[2025-08-28 06:14:16] [info] ERC Status:          PASSED  
[2025-08-28 06:14:16] [info] Instance Match Percentage: 96.92%  
[2025-08-28 06:14:16] [info] Short Circuits:      None Detected  
[2025-08-28 06:14:16] [info] Open Circuits:       None Detected  
[2025-08-28 06:14:16] [info] Unconnected Pins:    751  
[2025-08-28 06:14:16] [info] Total Errors:        2642  
[2025-08-28 06:14:16] [info] Total Warnings:      730  
[2025-08-28 06:14:16] [info] Critical Issues:     None
```

```

[2025-08-29 10:34:29] [info] =====
[2025-08-29 10:34:29] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:34:29] [info] =====

[2025-08-29 10:34:29] [info] Report Generated:    2025-08-29
[2025-08-29 10:34:29] [info] Run Start Time:      10:34:21 AM
[2025-08-29 10:34:29] [info] Run End Time:        10:34:28 AM
[2025-08-29 10:34:29] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:34:29] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:34:29] [info] Host Name:           kuro-Workstation
[2025-08-29 10:34:29] [info] User Name:           kuro
[2025-08-29 10:34:29] [info] Cores Used:          16
[2025-08-29 10:34:29] [info] Memory Utilized:     1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info]           Top Cell Match
[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:34:29] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info]           Short and Open Checks
[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info] Short Circuits:      None Detected
[2025-08-29 10:34:29] [info] Open Circuits:       None Detected

[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info]           Performance Metrics
[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info] | Stage                  | Time Taken |
[2025-08-29 10:34:29] [info] |-----|-----|
[2025-08-29 10:34:29] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:34:29] [info] | Connectivity Extraction  | 0 minutes 5 seconds |
[2025-08-29 10:34:29] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:34:29] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info]           Additional Details
[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:34:29] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:34:29] [info] Database Format:       GDSII
[2025-08-29 10:34:29] [info] Verification Mode:    Full Check
[2025-08-29 10:34:29] [info] Error Reporting:      Enabled

[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info]           Type of Errors | Count
[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info] DB_WARN -> 1
[2025-08-29 10:34:29] [info] DB_WARN003 -> 221
[2025-08-29 10:34:29] [info] VERI_WARN012 -> 508
[2025-08-29 10:34:29] [info] ERC_ERR019 -> 686
[2025-08-29 10:34:29] [info] LVS_ERR003 -> 685
[2025-08-29 10:34:29] [info] ERC_ERR003 -> 685
[2025-08-29 10:34:29] [info] LVS_ERR025 -> 1
[2025-08-29 10:34:29] [info] ERC_ERR008 -> 1
[2025-08-29 10:34:29] [info] ERC_ERR005 -> 717
[2025-08-29 10:34:29] [info] LVS_ERR030 -> 1
[2025-08-29 10:34:29] [info] -----
[2025-08-29 10:34:29] [info]           Summary
[2025-08-29 10:34:29] [info] -----

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[2025-08-29 10:34:29] [info] ERC Status:          PASSED
[2025-08-29 10:34:29] [info] Instance Match Percentage: 96.77%
[2025-08-29 10:34:29] [info] Short Circuits:      None Detected
[2025-08-29 10:34:29] [info] Open Circuits:       None Detected
[2025-08-29 10:34:29] [info] Unconnected Pins:    786
[2025-08-29 10:34:29] [info] Total Errors:        2776
[2025-08-29 10:34:29] [info] Total Warnings:      730
[2025-08-29 10:34:29] [info] Critical Issues:     None
```

```

[2025-08-29 10:34:03] [info] =====
[2025-08-29 10:34:03] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:34:03] [info] =====

[2025-08-29 10:34:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:34:03] [info] Run Start Time:      10:34:03 AM
[2025-08-29 10:34:03] [info] Run End Time:        10:34:03 AM
[2025-08-29 10:34:03] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:34:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:34:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:34:03] [info] User Name:           kuro
[2025-08-29 10:34:03] [info] Cores Used:          16
[2025-08-29 10:34:03] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Top Cell Match
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] Layout Top Cell:     gcd
[2025-08-29 10:34:03] [info] Schematic Top Cell:  gcd
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Short and Open Checks
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] Short Circuits:      None Detected
[2025-08-29 10:34:03] [info] Open Circuits:       None Detected

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Performance Metrics
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] | Stage                  | Time Taken |
[2025-08-29 10:34:03] [info] |-----|-----|
[2025-08-29 10:34:03] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:34:03] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:34:03] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:34:03] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Additional Details
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:34:03] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:34:03] [info] Database Format:       GDSII
[2025-08-29 10:34:03] [info] Verification Mode:    Full Check
[2025-08-29 10:34:03] [info] Error Reporting:      Enabled

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Type of Errors | Count
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] DB_WARN -> 1
[2025-08-29 10:34:03] [info] DB_WARN003 -> 24
[2025-08-29 10:34:03] [info] VERI_WARN012 -> 41
[2025-08-29 10:34:03] [info] ERC_ERR019 -> 33
[2025-08-29 10:34:03] [info] LVS_ERR003 -> 31
[2025-08-29 10:34:03] [info] ERC_ERR003 -> 31
[2025-08-29 10:34:03] [info] LVS_ERR025 -> 2
[2025-08-29 10:34:03] [info] ERC_ERR008 -> 2
[2025-08-29 10:34:03] [info] ERC_ERR005 -> 36
[2025-08-29 10:34:03] [info] LVS_ERR030 -> 1
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Summary
[2025-08-29 10:34:03] [info] -----

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[2025-08-29 10:34:03] [info] ERC Status:          PASSED
[2025-08-29 10:34:03] [info] Instance Match Percentage: 91.59%
[2025-08-29 10:34:03] [info] Short Circuits:      None Detected
[2025-08-29 10:34:03] [info] Open Circuits:       None Detected
[2025-08-29 10:34:03] [info] Unconnected Pins:    133
[2025-08-29 10:34:03] [info] Total Errors:        136
[2025-08-29 10:34:03] [info] Total Warnings:      66
[2025-08-29 10:34:03] [info] Critical Issues:     None
```

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[2025-08-29 10:34:03] [info] =====
[2025-08-29 10:34:03] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:34:03] [info] =====

[2025-08-29 10:34:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:34:03] [info] Run Start Time:      10:34:03 AM
[2025-08-29 10:34:03] [info] Run End Time:        10:34:03 AM
[2025-08-29 10:34:03] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:34:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:34:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:34:03] [info] User Name:           kuro
[2025-08-29 10:34:03] [info] Cores Used:          16
[2025-08-29 10:34:03] [info] Memory Utilized:     31.00 MB / 62.569698333740234 GB

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Top Cell Match
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] Layout Top Cell:     gcd
[2025-08-29 10:34:03] [info] Schematic Top Cell:  gcd
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Short and Open Checks
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] Short Circuits:      None Detected
[2025-08-29 10:34:03] [info] Open Circuits:       None Detected

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Performance Metrics
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] | Stage                  | Time Taken |
[2025-08-29 10:34:03] [info] |-----|-----|
[2025-08-29 10:34:03] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:34:03] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:34:03] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:34:03] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Additional Details
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:34:03] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:34:03] [info] Database Format:       GDSII
[2025-08-29 10:34:03] [info] Verification Mode:    Full Check
[2025-08-29 10:34:03] [info] Error Reporting:      Enabled

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Type of Errors | Count
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] DB_WARN -> 1
[2025-08-29 10:34:03] [info] DB_WARN003 -> 34
[2025-08-29 10:34:03] [info] VERI_WARN012 -> 40
[2025-08-29 10:34:03] [info] ERC_ERR019 -> 34
[2025-08-29 10:34:03] [info] LVS_ERR003 -> 32
[2025-08-29 10:34:03] [info] ERC_ERR003 -> 32
[2025-08-29 10:34:03] [info] LVS_ERR025 -> 2
[2025-08-29 10:34:03] [info] ERC_ERR008 -> 2
[2025-08-29 10:34:03] [info] ERC_ERR020 -> 1
[2025-08-29 10:34:03] [info] ERC_ERR005 -> 35
[2025-08-29 10:34:03] [info] LVS_ERR030 -> 1
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Summary

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```
[2025-08-29 10:34:03] [info] -----  
[2025-08-29 10:34:03] [info] ERC Status:          PASSED  
[2025-08-29 10:34:03] [info] Instance Match Percentage: 91.78%  
[2025-08-29 10:34:03] [info] Short Circuits:      None Detected  
[2025-08-29 10:34:03] [info] Open Circuits:       None Detected  
[2025-08-29 10:34:03] [info] Unconnected Pins:    134  
[2025-08-29 10:34:03] [info] Total Errors:        139  
[2025-08-29 10:34:03] [info] Total Warnings:      75  
[2025-08-29 10:34:03] [info] Critical Issues:     None
```

```

[2025-08-29 10:34:03] [info] =====
[2025-08-29 10:34:03] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:34:03] [info] =====

[2025-08-29 10:34:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:34:03] [info] Run Start Time:      10:34:03 AM
[2025-08-29 10:34:03] [info] Run End Time:        10:34:03 AM
[2025-08-29 10:34:03] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:34:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:34:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:34:03] [info] User Name:           kuro
[2025-08-29 10:34:03] [info] Cores Used:          16
[2025-08-29 10:34:03] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Top Cell Match
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] Layout Top Cell:     gcd
[2025-08-29 10:34:03] [info] Schematic Top Cell:  gcd
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Short and Open Checks
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] Short Circuits:      None Detected
[2025-08-29 10:34:03] [info] Open Circuits:       None Detected

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Performance Metrics
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] | Stage                  | Time Taken |
[2025-08-29 10:34:03] [info] |-----|-----|
[2025-08-29 10:34:03] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:34:03] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:34:03] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:34:03] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Additional Details
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:34:03] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:34:03] [info] Database Format:        GDSII
[2025-08-29 10:34:03] [info] Verification Mode:     Full Check
[2025-08-29 10:34:03] [info] Error Reporting:       Enabled

[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Type of Errors | Count
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info] DB_WARN -> 1
[2025-08-29 10:34:03] [info] DB_WARN003 -> 26
[2025-08-29 10:34:03] [info] VERI_WARN012 -> 39
[2025-08-29 10:34:03] [info] ERC_ERR019 -> 38
[2025-08-29 10:34:03] [info] LVS_ERR003 -> 36
[2025-08-29 10:34:03] [info] ERC_ERR003 -> 36
[2025-08-29 10:34:03] [info] LVS_ERR025 -> 2
[2025-08-29 10:34:03] [info] ERC_ERR008 -> 2
[2025-08-29 10:34:03] [info] ERC_ERR005 -> 38
[2025-08-29 10:34:03] [info] LVS_ERR030 -> 1
[2025-08-29 10:34:03] [info] -----
[2025-08-29 10:34:03] [info]           Summary
[2025-08-29 10:34:03] [info] -----

```

```
[2025-08-29 10:34:03] [info] ERC Status:          PASSED
[2025-08-29 10:34:03] [info] Instance Match Percentage: 91.10%
[2025-08-29 10:34:03] [info] Short Circuits:      None Detected
[2025-08-29 10:34:03] [info] Open Circuits:       None Detected
[2025-08-29 10:34:03] [info] Unconnected Pins:    138
[2025-08-29 10:34:03] [info] Total Errors:        153
[2025-08-29 10:34:03] [info] Total Warnings:      66
[2025-08-29 10:34:03] [info] Critical Issues:     None
```

```

[2025-08-29 10:34:39] [info] =====
[2025-08-29 10:34:39] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:34:39] [info] =====

[2025-08-29 10:34:39] [info] Report Generated:    2025-08-29
[2025-08-29 10:34:39] [info] Run Start Time:      10:34:32 AM
[2025-08-29 10:34:39] [info] Run End Time:        10:34:39 AM
[2025-08-29 10:34:39] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:34:39] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:34:39] [info] Host Name:           kuro-Workstation
[2025-08-29 10:34:39] [info] User Name:           kuro
[2025-08-29 10:34:39] [info] Cores Used:          16
[2025-08-29 10:34:39] [info] Memory Utilized:     1574.52 MB / 62.569698333740234 GB

[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info]           Top Cell Match
[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:34:39] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info]           Short and Open Checks
[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info] Short Circuits:      None Detected
[2025-08-29 10:34:39] [info] Open Circuits:       None Detected

[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info]           Performance Metrics
[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info] | Stage                  | Time Taken |
[2025-08-29 10:34:39] [info] |-----|-----|
[2025-08-29 10:34:39] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:34:39] [info] | Connectivity Extraction  | 0 minutes 5 seconds |
[2025-08-29 10:34:39] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:34:39] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info]           Additional Details
[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:34:39] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:34:39] [info] Database Format:       GDSII
[2025-08-29 10:34:39] [info] Verification Mode:    Full Check
[2025-08-29 10:34:39] [info] Error Reporting:      Enabled

[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info]           Type of Errors | Count
[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info] DB_WARN -> 1
[2025-08-29 10:34:39] [info] DB_WARN003 -> 85
[2025-08-29 10:34:39] [info] VERI_WARN012 -> 828
[2025-08-29 10:34:39] [info] ERC_ERR019 -> 903
[2025-08-29 10:34:39] [info] LVS_ERR003 -> 894
[2025-08-29 10:34:39] [info] ERC_ERR003 -> 894
[2025-08-29 10:34:39] [info] LVS_ERR025 -> 1
[2025-08-29 10:34:39] [info] ERC_ERR008 -> 1
[2025-08-29 10:34:39] [info] ERC_ERR020 -> 1
[2025-08-29 10:34:39] [info] ERC_ERR005 -> 961
[2025-08-29 10:34:39] [info] LVS_ERR030 -> 1
[2025-08-29 10:34:39] [info] -----
[2025-08-29 10:34:39] [info]           Summary

```

```
[2025-08-29 10:34:39] [info] -----  
[2025-08-29 10:34:39] [info] ERC Status:          PASSED  
[2025-08-29 10:34:39] [info] Instance Match Percentage: 94.91%  
[2025-08-29 10:34:39] [info] Short Circuits:      None Detected  
[2025-08-29 10:34:39] [info] Open Circuits:       None Detected  
[2025-08-29 10:34:39] [info] Unconnected Pins:    1003  
[2025-08-29 10:34:39] [info] Total Errors:        3656  
[2025-08-29 10:34:39] [info] Total Warnings:      914  
[2025-08-29 10:34:39] [info] Critical Issues:     None
```

```

[2025-08-28 06:14:42] [info] =====
[2025-08-28 06:14:42] [info]           Electrical Rule Check Summary Report
[2025-08-28 06:14:42] [info] =====

[2025-08-28 06:14:42] [info] Report Generated:    2025-08-28
[2025-08-28 06:14:42] [info] Run Start Time:      06:14:35 AM
[2025-08-28 06:14:42] [info] Run End Time:        06:14:42 AM
[2025-08-28 06:14:42] [info] Time Taken:          0 minutes 10 seconds

[2025-08-28 06:14:42] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:14:42] [info] Host Name:           kuro-Workstation
[2025-08-28 06:14:42] [info] User Name:           kuro
[2025-08-28 06:14:42] [info] Cores Used:          16
[2025-08-28 06:14:42] [info] Memory Utilized:     1574.52 MB / 62.5692024230957 GB

[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info]           Top Cell Match
[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info] Layout Top Cell:     ibex_core
[2025-08-28 06:14:42] [info] Schematic Top Cell:  ibex_core
[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info]           Short and Open Checks
[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info] Short Circuits:      None Detected
[2025-08-28 06:14:42] [info] Open Circuits:       None Detected

[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info]           Performance Metrics
[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info] | Stage                  | Time Taken |
[2025-08-28 06:14:42] [info] |-----|-----|
[2025-08-28 06:14:42] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 06:14:42] [info] | Connectivity Extraction  | 0 minutes 5 seconds |
[2025-08-28 06:14:42] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 06:14:42] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info]           Additional Details
[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info] Technology Node:      Nangate45 (45nm)
[2025-08-28 06:14:42] [info] Hierarchical Cells:   Flattened
[2025-08-28 06:14:42] [info] Database Format:       GDSII
[2025-08-28 06:14:42] [info] Verification Mode:    Full Check
[2025-08-28 06:14:42] [info] Error Reporting:      Enabled

[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info]           Type of Errors | Count
[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info] DB_WARN -> 1
[2025-08-28 06:14:42] [info] DB_WARN003 -> 85
[2025-08-28 06:14:42] [info] VERI_WARN012 -> 828
[2025-08-28 06:14:42] [info] ERC_ERR019 -> 903
[2025-08-28 06:14:42] [info] LVS_ERR003 -> 894
[2025-08-28 06:14:42] [info] ERC_ERR003 -> 894
[2025-08-28 06:14:42] [info] LVS_ERR025 -> 1
[2025-08-28 06:14:42] [info] ERC_ERR008 -> 1
[2025-08-28 06:14:42] [info] ERC_ERR020 -> 1
[2025-08-28 06:14:42] [info] ERC_ERR005 -> 961
[2025-08-28 06:14:42] [info] LVS_ERR030 -> 1
[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info]           Summary

```

```
[2025-08-28 06:14:42] [info] -----
[2025-08-28 06:14:42] [info] ERC Status:          PASSED
[2025-08-28 06:14:42] [info] Instance Match Percentage: 94.91%
[2025-08-28 06:14:42] [info] Short Circuits:      None Detected
[2025-08-28 06:14:42] [info] Open Circuits:       None Detected
[2025-08-28 06:14:42] [info] Unconnected Pins:    1003
[2025-08-28 06:14:42] [info] Total Errors:        3656
[2025-08-28 06:14:42] [info] Total Warnings:      914
[2025-08-28 06:14:42] [info] Critical Issues:     None
```

```

[2025-08-29 10:34:54] [info] =====
[2025-08-29 10:34:54] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:34:54] [info] =====

[2025-08-29 10:34:54] [info] Report Generated:    2025-08-29
[2025-08-29 10:34:54] [info] Run Start Time:      10:34:47 AM
[2025-08-29 10:34:54] [info] Run End Time:        10:34:54 AM
[2025-08-29 10:34:54] [info] Time Taken:          0 minutes 9 seconds

[2025-08-29 10:34:54] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:34:54] [info] Host Name:           kuro-Workstation
[2025-08-29 10:34:54] [info] User Name:           kuro
[2025-08-29 10:34:54] [info] Cores Used:          16
[2025-08-29 10:34:54] [info] Memory Utilized:     1464.05 MB / 62.569698333740234 GB

[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info]           Top Cell Match
[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:34:54] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info]           Short and Open Checks
[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info] Short Circuits:      None Detected
[2025-08-29 10:34:54] [info] Open Circuits:       None Detected

[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info]           Performance Metrics
[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info] | Stage                  | Time Taken |
[2025-08-29 10:34:54] [info] |-----|-----|
[2025-08-29 10:34:54] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:34:54] [info] | Connectivity Extraction  | 0 minutes 5 seconds |
[2025-08-29 10:34:54] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:34:54] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info]           Additional Details
[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:34:54] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:34:54] [info] Database Format:       GDSII
[2025-08-29 10:34:54] [info] Verification Mode:    Full Check
[2025-08-29 10:34:54] [info] Error Reporting:      Enabled

[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info]           Type of Errors | Count
[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info] DB_WARN -> 1
[2025-08-29 10:34:54] [info] DB_WARN003 -> 98
[2025-08-29 10:34:54] [info] VERI_WARN012 -> 828
[2025-08-29 10:34:54] [info] ERC_ERR019 -> 880
[2025-08-29 10:34:54] [info] LVS_ERR003 -> 871
[2025-08-29 10:34:54] [info] ERC_ERR003 -> 871
[2025-08-29 10:34:54] [info] LVS_ERR025 -> 1
[2025-08-29 10:34:54] [info] ERC_ERR008 -> 1
[2025-08-29 10:34:54] [info] ERC_ERR005 -> 943
[2025-08-29 10:34:54] [info] LVS_ERR030 -> 1
[2025-08-29 10:34:54] [info] -----
[2025-08-29 10:34:54] [info]           Summary
[2025-08-29 10:34:54] [info] -----

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```
[2025-08-29 10:34:54] [info] ERC Status:          PASSED
[2025-08-29 10:34:54] [info] Instance Match Percentage: 95.00%
[2025-08-29 10:34:54] [info] Short Circuits:          None Detected
[2025-08-29 10:34:54] [info] Open Circuits:          None Detected
[2025-08-29 10:34:54] [info] Unconnected Pins:          980
[2025-08-29 10:34:54] [info] Total Errors:            3568
[2025-08-29 10:34:54] [info] Total Warnings:          927
[2025-08-29 10:34:54] [info] Critical Issues:         None
```

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[2025-08-29 10:35:26] [info] =====
[2025-08-29 10:35:26] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:35:26] [info] =====

[2025-08-29 10:35:26] [info] Report Generated:    2025-08-29
[2025-08-29 10:35:26] [info] Run Start Time:      10:35:05 AM
[2025-08-29 10:35:26] [info] Run End Time:        10:35:26 AM
[2025-08-29 10:35:26] [info] Time Taken:          0 minutes 31 seconds

[2025-08-29 10:35:26] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:35:26] [info] Host Name:           kuro-Workstation
[2025-08-29 10:35:26] [info] User Name:           kuro
[2025-08-29 10:35:26] [info] Cores Used:          16
[2025-08-29 10:35:26] [info] Memory Utilized:     4551.48 MB / 62.569698333740234 GB

[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info]           Top Cell Match
[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:35:26] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info]           Short and Open Checks
[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info] Short Circuits:      None Detected
[2025-08-29 10:35:26] [info] Open Circuits:       None Detected

[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info]           Performance Metrics
[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info] | Stage                  | Time Taken |
[2025-08-29 10:35:26] [info] |-----|-----|
[2025-08-29 10:35:26] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:35:26] [info] | Connectivity Extraction | 0 minutes 16 seconds |
[2025-08-29 10:35:26] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:35:26] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info]           Additional Details
[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:35:26] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:35:26] [info] Database Format:       GDSII
[2025-08-29 10:35:26] [info] Verification Mode:    Full Check
[2025-08-29 10:35:26] [info] Error Reporting:      Enabled

[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info]           Type of Errors | Count
[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info] DB_WARN -> 1
[2025-08-29 10:35:26] [info] DB_WARN003 -> 37
[2025-08-29 10:35:26] [info] VERI_WARN012 -> 4068
[2025-08-29 10:35:26] [info] ERC_ERR019 -> 4068
[2025-08-29 10:35:26] [info] LVS_ERR003 -> 4066
[2025-08-29 10:35:26] [info] ERC_ERR003 -> 4066
[2025-08-29 10:35:26] [info] LVS_ERR025 -> 2
[2025-08-29 10:35:26] [info] ERC_ERR008 -> 2
[2025-08-29 10:35:26] [info] ERC_ERR005 -> 4300
[2025-08-29 10:35:26] [info] LVS_ERR030 -> 1
[2025-08-29 10:35:26] [info] -----
[2025-08-29 10:35:26] [info]           Summary
[2025-08-29 10:35:26] [info] -----

```

```
[2025-08-29 10:35:26] [info] ERC Status:          PASSED
[2025-08-29 10:35:26] [info] Instance Match Percentage: 92.41%
[2025-08-29 10:35:26] [info] Short Circuits:      None Detected
[2025-08-29 10:35:26] [info] Open Circuits:       None Detected
[2025-08-29 10:35:26] [info] Unconnected Pins:    4168
[2025-08-29 10:35:26] [info] Total Errors:        16505
[2025-08-29 10:35:26] [info] Total Warnings:      4106
[2025-08-29 10:35:26] [info] Critical Issues:     None
```

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[2025-08-29 10:36:00] [info] =====
[2025-08-29 10:36:00] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:36:00] [info] =====

[2025-08-29 10:36:00] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:00] [info] Run Start Time:      10:35:38 AM
[2025-08-29 10:36:00] [info] Run End Time:        10:36:00 AM
[2025-08-29 10:36:00] [info] Time Taken:          0 minutes 32 seconds

[2025-08-29 10:36:00] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:00] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:00] [info] User Name:           kuro
[2025-08-29 10:36:00] [info] Cores Used:          16
[2025-08-29 10:36:00] [info] Memory Utilized:     4599.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info]           Top Cell Match
[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:36:00] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info]           Short and Open Checks
[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info] Short Circuits:      None Detected
[2025-08-29 10:36:00] [info] Open Circuits:       None Detected

[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info]           Performance Metrics
[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:00] [info] |-----|-----|
[2025-08-29 10:36:00] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:36:00] [info] | Connectivity Extraction  | 0 minutes 16 seconds |
[2025-08-29 10:36:00] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:36:00] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info]           Additional Details
[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:36:00] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:36:00] [info] Database Format:       GDSII
[2025-08-29 10:36:00] [info] Verification Mode:    Full Check
[2025-08-29 10:36:00] [info] Error Reporting:      Enabled

[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info]           Type of Errors | Count
[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info] DB_WARN -> 1
[2025-08-29 10:36:00] [info] DB_WARN003 -> 39
[2025-08-29 10:36:00] [info] VERI_WARN012 -> 4068
[2025-08-29 10:36:00] [info] ERC_ERR019 -> 4055
[2025-08-29 10:36:00] [info] LVS_ERR003 -> 4054
[2025-08-29 10:36:00] [info] ERC_ERR003 -> 4054
[2025-08-29 10:36:00] [info] LVS_ERR025 -> 1
[2025-08-29 10:36:00] [info] ERC_ERR008 -> 1
[2025-08-29 10:36:00] [info] ERC_ERR005 -> 4306
[2025-08-29 10:36:00] [info] LVS_ERR030 -> 1
[2025-08-29 10:36:00] [info] -----
[2025-08-29 10:36:00] [info]           Summary
[2025-08-29 10:36:00] [info] -----

```

```
[2025-08-29 10:36:00] [info] ERC Status:          PASSED
[2025-08-29 10:36:00] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:36:00] [info] Short Circuits:      None Detected
[2025-08-29 10:36:00] [info] Open Circuits:       None Detected
[2025-08-29 10:36:00] [info] Unconnected Pins:    4155
[2025-08-29 10:36:00] [info] Total Errors:        16472
[2025-08-29 10:36:00] [info] Total Warnings:      4108
[2025-08-29 10:36:00] [info] Critical Issues:     None
```

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[2025-08-29 10:36:32] [info] =====
[2025-08-29 10:36:32] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:36:32] [info] =====

[2025-08-29 10:36:32] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:32] [info] Run Start Time:      10:36:11 AM
[2025-08-29 10:36:32] [info] Run End Time:        10:36:32 AM
[2025-08-29 10:36:32] [info] Time Taken:          0 minutes 30 seconds

[2025-08-29 10:36:32] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:32] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:32] [info] User Name:           kuro
[2025-08-29 10:36:32] [info] Cores Used:          16
[2025-08-29 10:36:32] [info] Memory Utilized:     4518.73 MB / 62.569698333740234 GB

[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info]           Top Cell Match
[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:36:32] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info]           Short and Open Checks
[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info] Short Circuits:      None Detected
[2025-08-29 10:36:32] [info] Open Circuits:       None Detected

[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info]           Performance Metrics
[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:32] [info] |-----|-----|
[2025-08-29 10:36:32] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:36:32] [info] | Connectivity Extraction  | 0 minutes 15 seconds |
[2025-08-29 10:36:32] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:36:32] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info]           Additional Details
[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:36:32] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:36:32] [info] Database Format:       GDSII
[2025-08-29 10:36:32] [info] Verification Mode:    Full Check
[2025-08-29 10:36:32] [info] Error Reporting:      Enabled

[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info]           Type of Errors | Count
[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info] DB_WARN -> 1
[2025-08-29 10:36:32] [info] DB_WARN003 -> 34
[2025-08-29 10:36:32] [info] VERI_WARN012 -> 4068
[2025-08-29 10:36:32] [info] ERC_ERR019 -> 4068
[2025-08-29 10:36:32] [info] LVS_ERR003 -> 4067
[2025-08-29 10:36:32] [info] ERC_ERR003 -> 4067
[2025-08-29 10:36:32] [info] LVS_ERR025 -> 1
[2025-08-29 10:36:32] [info] ERC_ERR008 -> 1
[2025-08-29 10:36:32] [info] ERC_ERR020 -> 1
[2025-08-29 10:36:32] [info] ERC_ERR005 -> 4305
[2025-08-29 10:36:32] [info] LVS_ERR030 -> 1
[2025-08-29 10:36:32] [info] -----
[2025-08-29 10:36:32] [info]           Summary

```

```
[2025-08-29 10:36:32] [info] -----  
[2025-08-29 10:36:32] [info] ERC Status:          PASSED  
[2025-08-29 10:36:32] [info] Instance Match Percentage: 92.40%  
[2025-08-29 10:36:32] [info] Short Circuits:      None Detected  
[2025-08-29 10:36:32] [info] Open Circuits:       None Detected  
[2025-08-29 10:36:32] [info] Unconnected Pins:    4168  
[2025-08-29 10:36:32] [info] Total Errors:        16511  
[2025-08-29 10:36:32] [info] Total Warnings:      4103  
[2025-08-29 10:36:32] [info] Critical Issues:     None
```

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[2025-08-29 10:23:54] [info] =====
[2025-08-29 10:23:54] [info] Electrical Rule Check Summary Report
[2025-08-29 10:23:54] [info] =====

[2025-08-29 10:23:54] [info] Report Generated: 2025-08-29
[2025-08-29 10:23:54] [info] Run Start Time: 10:23:34 AM
[2025-08-29 10:23:54] [info] Run End Time: 10:23:54 AM
[2025-08-29 10:23:54] [info] Time Taken: 0 minutes 22 seconds

[2025-08-29 10:23:54] [info] Tool Version: LVR_2025.1
[2025-08-29 10:23:54] [info] Host Name: kuro-Workstation
[2025-08-29 10:23:54] [info] User Name: kuro
[2025-08-29 10:23:54] [info] Cores Used: 1
[2025-08-29 10:23:54] [info] Memory Utilized: 1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] Top Cell Match
[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:23:54] [info] Schematic Top Cell: aes_cipher_top
[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] Short and Open Checks
[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] Short Circuits: None Detected
[2025-08-29 10:23:54] [info] Open Circuits: None Detected

[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] Performance Metrics
[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] | Stage | Time Taken |
[2025-08-29 10:23:54] [info] |-----|-----|
[2025-08-29 10:23:54] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:23:54] [info] | Connectivity Extraction | 0 minutes 18 seconds |
[2025-08-29 10:23:54] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:23:54] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] Additional Details
[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:23:54] [info] Hierarchical Cells: Flattened
[2025-08-29 10:23:54] [info] Database Format: GDSII
[2025-08-29 10:23:54] [info] Verification Mode: Full Check
[2025-08-29 10:23:54] [info] Error Reporting: Enabled

[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] Type of Errors | Count
[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] DB_WARN -> 1
[2025-08-29 10:23:54] [info] DB_WARN003 -> 221
[2025-08-29 10:23:54] [info] VERI_WARN012 -> 508
[2025-08-29 10:23:54] [info] ERC_ERR019 -> 651
[2025-08-29 10:23:54] [info] LVS_ERR003 -> 649
[2025-08-29 10:23:54] [info] ERC_ERR003 -> 649
[2025-08-29 10:23:54] [info] LVS_ERR025 -> 2
[2025-08-29 10:23:54] [info] ERC_ERR008 -> 2
[2025-08-29 10:23:54] [info] ERC_ERR020 -> 1
[2025-08-29 10:23:54] [info] ERC_ERR005 -> 687
[2025-08-29 10:23:54] [info] LVS_ERR030 -> 1
[2025-08-29 10:23:54] [info] -----
[2025-08-29 10:23:54] [info] Summary

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[2025-08-29 10:23:54] [info] -----  
[2025-08-29 10:23:54] [info] ERC Status:          PASSED  
[2025-08-29 10:23:54] [info] Instance Match Percentage: 96.92%  
[2025-08-29 10:23:54] [info] Short Circuits:      None Detected  
[2025-08-29 10:23:54] [info] Open Circuits:       None Detected  
[2025-08-29 10:23:54] [info] Unconnected Pins:    751  
[2025-08-29 10:23:54] [info] Total Errors:        2642  
[2025-08-29 10:23:54] [info] Total Warnings:      730  
[2025-08-29 10:23:54] [info] Critical Issues:     None
```

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[2025-08-28 06:03:50] [info] =====
[2025-08-28 06:03:50] [info] Electrical Rule Check Summary Report
[2025-08-28 06:03:50] [info] =====

[2025-08-28 06:03:50] [info] Report Generated: 2025-08-28
[2025-08-28 06:03:50] [info] Run Start Time: 06:03:29 AM
[2025-08-28 06:03:50] [info] Run End Time: 06:03:50 AM
[2025-08-28 06:03:50] [info] Time Taken: 0 minutes 23 seconds

[2025-08-28 06:03:50] [info] Tool Version: LVR_2025.1
[2025-08-28 06:03:50] [info] Host Name: kuro-Workstation
[2025-08-28 06:03:50] [info] User Name: kuro
[2025-08-28 06:03:50] [info] Cores Used: 1
[2025-08-28 06:03:50] [info] Memory Utilized: 1452.70 MB / 62.5692024230957 GB

[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] Top Cell Match
[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] Layout Top Cell: aes_cipher_top
[2025-08-28 06:03:50] [info] Schematic Top Cell: aes_cipher_top
[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] Short and Open Checks
[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] Short Circuits: None Detected
[2025-08-28 06:03:50] [info] Open Circuits: None Detected

[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] Performance Metrics
[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] | Stage | Time Taken |
[2025-08-28 06:03:50] [info] |-----|-----|
[2025-08-28 06:03:50] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-28 06:03:50] [info] | Connectivity Extraction | 0 minutes 18 seconds |
[2025-08-28 06:03:50] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-28 06:03:50] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] Additional Details
[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] Technology Node: Nangate45 (45nm)
[2025-08-28 06:03:50] [info] Hierarchical Cells: Flattened
[2025-08-28 06:03:50] [info] Database Format: GDSII
[2025-08-28 06:03:50] [info] Verification Mode: Full Check
[2025-08-28 06:03:50] [info] Error Reporting: Enabled

[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] Type of Errors | Count
[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] DB_WARN -> 1
[2025-08-28 06:03:50] [info] DB_WARN003 -> 221
[2025-08-28 06:03:50] [info] VERI_WARN012 -> 508
[2025-08-28 06:03:50] [info] ERC_ERR019 -> 651
[2025-08-28 06:03:50] [info] LVS_ERR003 -> 649
[2025-08-28 06:03:50] [info] ERC_ERR003 -> 649
[2025-08-28 06:03:50] [info] LVS_ERR025 -> 2
[2025-08-28 06:03:50] [info] ERC_ERR008 -> 2
[2025-08-28 06:03:50] [info] ERC_ERR020 -> 1
[2025-08-28 06:03:50] [info] ERC_ERR005 -> 687
[2025-08-28 06:03:50] [info] LVS_ERR030 -> 1
[2025-08-28 06:03:50] [info] -----
[2025-08-28 06:03:50] [info] Summary

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[2025-08-28 06:03:50] [info] -----  
[2025-08-28 06:03:50] [info] ERC Status:          PASSED  
[2025-08-28 06:03:50] [info] Instance Match Percentage: 96.92%  
[2025-08-28 06:03:50] [info] Short Circuits:      None Detected  
[2025-08-28 06:03:50] [info] Open Circuits:       None Detected  
[2025-08-28 06:03:50] [info] Unconnected Pins:    751  
[2025-08-28 06:03:50] [info] Total Errors:        2642  
[2025-08-28 06:03:50] [info] Total Warnings:      730  
[2025-08-28 06:03:50] [info] Critical Issues:     None
```

```

[2025-08-29 10:24:21] [info] =====
[2025-08-29 10:24:21] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:24:21] [info] =====

[2025-08-29 10:24:21] [info] Report Generated:    2025-08-29
[2025-08-29 10:24:21] [info] Run Start Time:      10:24:02 AM
[2025-08-29 10:24:21] [info] Run End Time:        10:24:21 AM
[2025-08-29 10:24:21] [info] Time Taken:          0 minutes 22 seconds

[2025-08-29 10:24:21] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:24:21] [info] Host Name:           kuro-Workstation
[2025-08-29 10:24:21] [info] User Name:           kuro
[2025-08-29 10:24:21] [info] Cores Used:          1
[2025-08-29 10:24:21] [info] Memory Utilized:     1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info]           Top Cell Match
[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:24:21] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info]           Short and Open Checks
[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info] Short Circuits:      None Detected
[2025-08-29 10:24:21] [info] Open Circuits:       None Detected

[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info]           Performance Metrics
[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info] | Stage                  | Time Taken |
[2025-08-29 10:24:21] [info] |-----|-----|
[2025-08-29 10:24:21] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:24:21] [info] | Connectivity Extraction  | 0 minutes 17 seconds |
[2025-08-29 10:24:21] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:24:21] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info]           Additional Details
[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:24:21] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:24:21] [info] Database Format:       GDSII
[2025-08-29 10:24:21] [info] Verification Mode:    Full Check
[2025-08-29 10:24:21] [info] Error Reporting:      Enabled

[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info]           Type of Errors | Count
[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info] DB_WARN -> 1
[2025-08-29 10:24:21] [info] DB_WARN003 -> 221
[2025-08-29 10:24:21] [info] VERI_WARN012 -> 508
[2025-08-29 10:24:21] [info] ERC_ERR019 -> 686
[2025-08-29 10:24:21] [info] LVS_ERR003 -> 685
[2025-08-29 10:24:21] [info] ERC_ERR003 -> 685
[2025-08-29 10:24:21] [info] LVS_ERR025 -> 1
[2025-08-29 10:24:21] [info] ERC_ERR008 -> 1
[2025-08-29 10:24:21] [info] ERC_ERR005 -> 717
[2025-08-29 10:24:21] [info] LVS_ERR030 -> 1
[2025-08-29 10:24:21] [info] -----
[2025-08-29 10:24:21] [info]           Summary
[2025-08-29 10:24:21] [info] -----

```

```
[2025-08-29 10:24:21] [info] ERC Status:          PASSED
[2025-08-29 10:24:21] [info] Instance Match Percentage: 96.77%
[2025-08-29 10:24:21] [info] Short Circuits:      None Detected
[2025-08-29 10:24:21] [info] Open Circuits:       None Detected
[2025-08-29 10:24:21] [info] Unconnected Pins:    786
[2025-08-29 10:24:21] [info] Total Errors:        2776
[2025-08-29 10:24:21] [info] Total Warnings:      730
[2025-08-29 10:24:21] [info] Critical Issues:     None
```

```

[2025-08-29 10:23:30] [info] =====
[2025-08-29 10:23:30] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:23:30] [info] =====

[2025-08-29 10:23:30] [info] Report Generated:    2025-08-29
[2025-08-29 10:23:30] [info] Run Start Time:      10:23:30 AM
[2025-08-29 10:23:30] [info] Run End Time:        10:23:30 AM
[2025-08-29 10:23:30] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:23:30] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:23:30] [info] Host Name:           kuro-Workstation
[2025-08-29 10:23:30] [info] User Name:           kuro
[2025-08-29 10:23:30] [info] Cores Used:          1
[2025-08-29 10:23:30] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info]           Top Cell Match
[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info] Layout Top Cell:     gcd
[2025-08-29 10:23:30] [info] Schematic Top Cell:  gcd
[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info]           Short and Open Checks
[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info] Short Circuits:      None Detected
[2025-08-29 10:23:30] [info] Open Circuits:       None Detected

[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info]           Performance Metrics
[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info] | Stage                  | Time Taken |
[2025-08-29 10:23:30] [info] |-----|-----|
[2025-08-29 10:23:30] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:23:30] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:23:30] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:23:30] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info]           Additional Details
[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:23:30] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:23:30] [info] Database Format:       GDSII
[2025-08-29 10:23:30] [info] Verification Mode:    Full Check
[2025-08-29 10:23:30] [info] Error Reporting:      Enabled

[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info]           Type of Errors | Count
[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info] DB_WARN -> 1
[2025-08-29 10:23:30] [info] DB_WARN003 -> 24
[2025-08-29 10:23:30] [info] VERI_WARN012 -> 41
[2025-08-29 10:23:30] [info] ERC_ERR019 -> 33
[2025-08-29 10:23:30] [info] LVS_ERR003 -> 31
[2025-08-29 10:23:30] [info] ERC_ERR003 -> 31
[2025-08-29 10:23:30] [info] LVS_ERR025 -> 2
[2025-08-29 10:23:30] [info] ERC_ERR008 -> 2
[2025-08-29 10:23:30] [info] ERC_ERR005 -> 36
[2025-08-29 10:23:30] [info] LVS_ERR030 -> 1
[2025-08-29 10:23:30] [info] -----
[2025-08-29 10:23:30] [info]           Summary
[2025-08-29 10:23:30] [info] -----

```

```
[2025-08-29 10:23:30] [info] ERC Status:          PASSED
[2025-08-29 10:23:30] [info] Instance Match Percentage: 91.59%
[2025-08-29 10:23:30] [info] Short Circuits:      None Detected
[2025-08-29 10:23:30] [info] Open Circuits:       None Detected
[2025-08-29 10:23:30] [info] Unconnected Pins:    133
[2025-08-29 10:23:30] [info] Total Errors:        136
[2025-08-29 10:23:30] [info] Total Warnings:      66
[2025-08-29 10:23:30] [info] Critical Issues:     None
```

```

[2025-08-29 10:23:31] [info] =====
[2025-08-29 10:23:31] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:23:31] [info] =====

[2025-08-29 10:23:31] [info] Report Generated:    2025-08-29
[2025-08-29 10:23:31] [info] Run Start Time:      10:23:30 AM
[2025-08-29 10:23:31] [info] Run End Time:        10:23:31 AM
[2025-08-29 10:23:31] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:23:31] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:23:31] [info] Host Name:           kuro-Workstation
[2025-08-29 10:23:31] [info] User Name:           kuro
[2025-08-29 10:23:31] [info] Cores Used:          1
[2025-08-29 10:23:31] [info] Memory Utilized:     31.00 MB / 62.569698333740234 GB

[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Top Cell Match
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] Layout Top Cell:     gcd
[2025-08-29 10:23:31] [info] Schematic Top Cell:  gcd
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Short and Open Checks
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] Short Circuits:      None Detected
[2025-08-29 10:23:31] [info] Open Circuits:       None Detected

[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Performance Metrics
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] | Stage                  | Time Taken |
[2025-08-29 10:23:31] [info] |-----|-----|
[2025-08-29 10:23:31] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:23:31] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:23:31] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:23:31] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Additional Details
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:23:31] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:23:31] [info] Database Format:       GDSII
[2025-08-29 10:23:31] [info] Verification Mode:    Full Check
[2025-08-29 10:23:31] [info] Error Reporting:      Enabled

[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Type of Errors | Count
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] DB_WARN -> 1
[2025-08-29 10:23:31] [info] DB_WARN003 -> 34
[2025-08-29 10:23:31] [info] VERI_WARN012 -> 40
[2025-08-29 10:23:31] [info] ERC_ERR019 -> 34
[2025-08-29 10:23:31] [info] LVS_ERR003 -> 32
[2025-08-29 10:23:31] [info] ERC_ERR003 -> 32
[2025-08-29 10:23:31] [info] LVS_ERR025 -> 2
[2025-08-29 10:23:31] [info] ERC_ERR008 -> 2
[2025-08-29 10:23:31] [info] ERC_ERR020 -> 1
[2025-08-29 10:23:31] [info] ERC_ERR005 -> 35
[2025-08-29 10:23:31] [info] LVS_ERR030 -> 1
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Summary

```

```
[2025-08-29 10:23:31] [info] -----  
[2025-08-29 10:23:31] [info] ERC Status:          PASSED  
[2025-08-29 10:23:31] [info] Instance Match Percentage: 91.78%  
[2025-08-29 10:23:31] [info] Short Circuits:      None Detected  
[2025-08-29 10:23:31] [info] Open Circuits:       None Detected  
[2025-08-29 10:23:31] [info] Unconnected Pins:    134  
[2025-08-29 10:23:31] [info] Total Errors:        139  
[2025-08-29 10:23:31] [info] Total Warnings:      75  
[2025-08-29 10:23:31] [info] Critical Issues:     None
```

```

[2025-08-29 10:23:31] [info] =====
[2025-08-29 10:23:31] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:23:31] [info] =====

[2025-08-29 10:23:31] [info] Report Generated:    2025-08-29
[2025-08-29 10:23:31] [info] Run Start Time:      10:23:31 AM
[2025-08-29 10:23:31] [info] Run End Time:        10:23:31 AM
[2025-08-29 10:23:31] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:23:31] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:23:31] [info] Host Name:           kuro-Workstation
[2025-08-29 10:23:31] [info] User Name:           kuro
[2025-08-29 10:23:31] [info] Cores Used:          1
[2025-08-29 10:23:31] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Top Cell Match
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] Layout Top Cell:     gcd
[2025-08-29 10:23:31] [info] Schematic Top Cell:  gcd
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Short and Open Checks
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] Short Circuits:      None Detected
[2025-08-29 10:23:31] [info] Open Circuits:       None Detected

[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Performance Metrics
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] | Stage                  | Time Taken |
[2025-08-29 10:23:31] [info] |-----|-----|
[2025-08-29 10:23:31] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:23:31] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:23:31] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:23:31] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Additional Details
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:23:31] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:23:31] [info] Database Format:       GDSII
[2025-08-29 10:23:31] [info] Verification Mode:    Full Check
[2025-08-29 10:23:31] [info] Error Reporting:      Enabled

[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Type of Errors | Count
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info] DB_WARN -> 1
[2025-08-29 10:23:31] [info] DB_WARN003 -> 26
[2025-08-29 10:23:31] [info] VERI_WARN012 -> 39
[2025-08-29 10:23:31] [info] ERC_ERR019 -> 38
[2025-08-29 10:23:31] [info] LVS_ERR003 -> 36
[2025-08-29 10:23:31] [info] ERC_ERR003 -> 36
[2025-08-29 10:23:31] [info] LVS_ERR025 -> 2
[2025-08-29 10:23:31] [info] ERC_ERR008 -> 2
[2025-08-29 10:23:31] [info] ERC_ERR005 -> 38
[2025-08-29 10:23:31] [info] LVS_ERR030 -> 1
[2025-08-29 10:23:31] [info] -----
[2025-08-29 10:23:31] [info]           Summary
[2025-08-29 10:23:31] [info] -----

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[2025-08-29 10:23:31] [info] ERC Status:          PASSED
[2025-08-29 10:23:31] [info] Instance Match Percentage: 91.10%
[2025-08-29 10:23:31] [info] Short Circuits:      None Detected
[2025-08-29 10:23:31] [info] Open Circuits:       None Detected
[2025-08-29 10:23:31] [info] Unconnected Pins:    138
[2025-08-29 10:23:31] [info] Total Errors:        153
[2025-08-29 10:23:31] [info] Total Warnings:      66
[2025-08-29 10:23:31] [info] Critical Issues:     None
```

```

[2025-08-29 10:24:43] [info] =====
[2025-08-29 10:24:43] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:24:43] [info] =====

[2025-08-29 10:24:43] [info] Report Generated:    2025-08-29
[2025-08-29 10:24:43] [info] Run Start Time:      10:24:24 AM
[2025-08-29 10:24:43] [info] Run End Time:        10:24:43 AM
[2025-08-29 10:24:43] [info] Time Taken:          0 minutes 21 seconds

[2025-08-29 10:24:43] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:24:43] [info] Host Name:           kuro-Workstation
[2025-08-29 10:24:43] [info] User Name:           kuro
[2025-08-29 10:24:43] [info] Cores Used:          1
[2025-08-29 10:24:43] [info] Memory Utilized:     1574.52 MB / 62.569698333740234 GB

[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info]           Top Cell Match
[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:24:43] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info]           Short and Open Checks
[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info] Short Circuits:      None Detected
[2025-08-29 10:24:43] [info] Open Circuits:       None Detected

[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info]           Performance Metrics
[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info] | Stage                  | Time Taken |
[2025-08-29 10:24:43] [info] |-----|-----|
[2025-08-29 10:24:43] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:24:43] [info] | Connectivity Extraction  | 0 minutes 17 seconds |
[2025-08-29 10:24:43] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:24:43] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info]           Additional Details
[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:24:43] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:24:43] [info] Database Format:       GDSII
[2025-08-29 10:24:43] [info] Verification Mode:    Full Check
[2025-08-29 10:24:43] [info] Error Reporting:      Enabled

[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info]           Type of Errors | Count
[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info] DB_WARN -> 1
[2025-08-29 10:24:43] [info] DB_WARN003 -> 85
[2025-08-29 10:24:43] [info] VERI_WARN012 -> 828
[2025-08-29 10:24:43] [info] ERC_ERR019 -> 903
[2025-08-29 10:24:43] [info] LVS_ERR003 -> 894
[2025-08-29 10:24:43] [info] ERC_ERR003 -> 894
[2025-08-29 10:24:43] [info] LVS_ERR025 -> 1
[2025-08-29 10:24:43] [info] ERC_ERR008 -> 1
[2025-08-29 10:24:43] [info] ERC_ERR020 -> 1
[2025-08-29 10:24:43] [info] ERC_ERR005 -> 961
[2025-08-29 10:24:43] [info] LVS_ERR030 -> 1
[2025-08-29 10:24:43] [info] -----
[2025-08-29 10:24:43] [info]           Summary

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[2025-08-29 10:24:43] [info] -----  
[2025-08-29 10:24:43] [info] ERC Status:          PASSED  
[2025-08-29 10:24:43] [info] Instance Match Percentage: 94.91%  
[2025-08-29 10:24:43] [info] Short Circuits:      None Detected  
[2025-08-29 10:24:43] [info] Open Circuits:       None Detected  
[2025-08-29 10:24:43] [info] Unconnected Pins:    1003  
[2025-08-29 10:24:43] [info] Total Errors:        3656  
[2025-08-29 10:24:43] [info] Total Warnings:      914  
[2025-08-29 10:24:43] [info] Critical Issues:     None
```

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[2025-08-28 06:04:40] [info] =====
[2025-08-28 06:04:40] [info] Electrical Rule Check Summary Report
[2025-08-28 06:04:40] [info] =====

[2025-08-28 06:04:40] [info] Report Generated: 2025-08-28
[2025-08-28 06:04:40] [info] Run Start Time: 06:04:20 AM
[2025-08-28 06:04:40] [info] Run End Time: 06:04:39 AM
[2025-08-28 06:04:40] [info] Time Taken: 0 minutes 22 seconds

[2025-08-28 06:04:40] [info] Tool Version: LVR_2025.1
[2025-08-28 06:04:40] [info] Host Name: kuro-Workstation
[2025-08-28 06:04:40] [info] User Name: kuro
[2025-08-28 06:04:40] [info] Cores Used: 1
[2025-08-28 06:04:40] [info] Memory Utilized: 1574.52 MB / 62.5692024230957 GB

[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] Top Cell Match
[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] Layout Top Cell: ibex_core
[2025-08-28 06:04:40] [info] Schematic Top Cell: ibex_core
[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] Short and Open Checks
[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] Short Circuits: None Detected
[2025-08-28 06:04:40] [info] Open Circuits: None Detected

[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] Performance Metrics
[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] | Stage | Time Taken |
[2025-08-28 06:04:40] [info] |-----|-----|
[2025-08-28 06:04:40] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-28 06:04:40] [info] | Connectivity Extraction | 0 minutes 17 seconds |
[2025-08-28 06:04:40] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-28 06:04:40] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] Additional Details
[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] Technology Node: Nangate45 (45nm)
[2025-08-28 06:04:40] [info] Hierarchical Cells: Flattened
[2025-08-28 06:04:40] [info] Database Format: GDSII
[2025-08-28 06:04:40] [info] Verification Mode: Full Check
[2025-08-28 06:04:40] [info] Error Reporting: Enabled

[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] Type of Errors | Count
[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] DB_WARN -> 1
[2025-08-28 06:04:40] [info] DB_WARN003 -> 85
[2025-08-28 06:04:40] [info] VERI_WARN012 -> 828
[2025-08-28 06:04:40] [info] ERC_ERR019 -> 903
[2025-08-28 06:04:40] [info] LVS_ERR003 -> 894
[2025-08-28 06:04:40] [info] ERC_ERR003 -> 894
[2025-08-28 06:04:40] [info] LVS_ERR025 -> 1
[2025-08-28 06:04:40] [info] ERC_ERR008 -> 1
[2025-08-28 06:04:40] [info] ERC_ERR020 -> 1
[2025-08-28 06:04:40] [info] ERC_ERR005 -> 961
[2025-08-28 06:04:40] [info] LVS_ERR030 -> 1
[2025-08-28 06:04:40] [info] -----
[2025-08-28 06:04:40] [info] Summary

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[2025-08-28 06:04:40] [info] -----  
[2025-08-28 06:04:40] [info] ERC Status:          PASSED  
[2025-08-28 06:04:40] [info] Instance Match Percentage: 94.91%  
[2025-08-28 06:04:40] [info] Short Circuits:      None Detected  
[2025-08-28 06:04:40] [info] Open Circuits:       None Detected  
[2025-08-28 06:04:40] [info] Unconnected Pins:    1003  
[2025-08-28 06:04:40] [info] Total Errors:        3656  
[2025-08-28 06:04:40] [info] Total Warnings:      914  
[2025-08-28 06:04:40] [info] Critical Issues:     None
```

```

[2025-08-29 10:25:09] [info] =====
[2025-08-29 10:25:09] [info] Electrical Rule Check Summary Report
[2025-08-29 10:25:09] [info] =====

[2025-08-29 10:25:09] [info] Report Generated: 2025-08-29
[2025-08-29 10:25:09] [info] Run Start Time: 10:24:51 AM
[2025-08-29 10:25:09] [info] Run End Time: 10:25:09 AM
[2025-08-29 10:25:09] [info] Time Taken: 0 minutes 21 seconds

[2025-08-29 10:25:09] [info] Tool Version: LVR_2025.1
[2025-08-29 10:25:09] [info] Host Name: kuro-Workstation
[2025-08-29 10:25:09] [info] User Name: kuro
[2025-08-29 10:25:09] [info] Cores Used: 1
[2025-08-29 10:25:09] [info] Memory Utilized: 1464.05 MB / 62.569698333740234 GB

[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] Top Cell Match
[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] Layout Top Cell: ibex_core
[2025-08-29 10:25:09] [info] Schematic Top Cell: ibex_core
[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] Short and Open Checks
[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] Short Circuits: None Detected
[2025-08-29 10:25:09] [info] Open Circuits: None Detected

[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] Performance Metrics
[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] | Stage | Time Taken |
[2025-08-29 10:25:09] [info] |-----|-----|
[2025-08-29 10:25:09] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:25:09] [info] | Connectivity Extraction | 0 minutes 16 seconds |
[2025-08-29 10:25:09] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:25:09] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] Additional Details
[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:25:09] [info] Hierarchical Cells: Flattened
[2025-08-29 10:25:09] [info] Database Format: GDSII
[2025-08-29 10:25:09] [info] Verification Mode: Full Check
[2025-08-29 10:25:09] [info] Error Reporting: Enabled

[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] Type of Errors | Count
[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] DB_WARN -> 1
[2025-08-29 10:25:09] [info] DB_WARN003 -> 98
[2025-08-29 10:25:09] [info] VERI_WARN012 -> 828
[2025-08-29 10:25:09] [info] ERC_ERR019 -> 880
[2025-08-29 10:25:09] [info] LVS_ERR003 -> 871
[2025-08-29 10:25:09] [info] ERC_ERR003 -> 871
[2025-08-29 10:25:09] [info] LVS_ERR025 -> 1
[2025-08-29 10:25:09] [info] ERC_ERR008 -> 1
[2025-08-29 10:25:09] [info] ERC_ERR005 -> 943
[2025-08-29 10:25:09] [info] LVS_ERR030 -> 1
[2025-08-29 10:25:09] [info] -----
[2025-08-29 10:25:09] [info] Summary
[2025-08-29 10:25:09] [info] -----

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```
[2025-08-29 10:25:09] [info] ERC Status:          PASSED
[2025-08-29 10:25:09] [info] Instance Match Percentage: 95.00%
[2025-08-29 10:25:09] [info] Short Circuits:      None Detected
[2025-08-29 10:25:09] [info] Open Circuits:       None Detected
[2025-08-29 10:25:09] [info] Unconnected Pins:    980
[2025-08-29 10:25:09] [info] Total Errors:        3568
[2025-08-29 10:25:09] [info] Total Warnings:      927
[2025-08-29 10:25:09] [info] Critical Issues:     None
```

```

[2025-08-29 10:26:13] [info] =====
[2025-08-29 10:26:13] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:26:13] [info] =====

[2025-08-29 10:26:13] [info] Report Generated:    2025-08-29
[2025-08-29 10:26:13] [info] Run Start Time:      10:25:20 AM
[2025-08-29 10:26:13] [info] Run End Time:        10:26:13 AM
[2025-08-29 10:26:13] [info] Time Taken:          1 minutes 2 seconds

[2025-08-29 10:26:13] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:26:13] [info] Host Name:           kuro-Workstation
[2025-08-29 10:26:13] [info] User Name:           kuro
[2025-08-29 10:26:13] [info] Cores Used:          1
[2025-08-29 10:26:13] [info] Memory Utilized:     4551.48 MB / 62.569698333740234 GB

[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info]           Top Cell Match
[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:26:13] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info]           Short and Open Checks
[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info] Short Circuits:      None Detected
[2025-08-29 10:26:13] [info] Open Circuits:       None Detected

[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info]           Performance Metrics
[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info] | Stage                  | Time Taken |
[2025-08-29 10:26:13] [info] |-----|-----|
[2025-08-29 10:26:13] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:26:13] [info] | Connectivity Extraction  | 0 minutes 47 seconds |
[2025-08-29 10:26:13] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:26:13] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info]           Additional Details
[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:26:13] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:26:13] [info] Database Format:       GDSII
[2025-08-29 10:26:13] [info] Verification Mode:    Full Check
[2025-08-29 10:26:13] [info] Error Reporting:      Enabled

[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info]           Type of Errors | Count
[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info] DB_WARN -> 1
[2025-08-29 10:26:13] [info] DB_WARN003 -> 37
[2025-08-29 10:26:13] [info] VERI_WARN012 -> 4068
[2025-08-29 10:26:13] [info] ERC_ERR019 -> 4068
[2025-08-29 10:26:13] [info] LVS_ERR003 -> 4066
[2025-08-29 10:26:13] [info] ERC_ERR003 -> 4066
[2025-08-29 10:26:13] [info] LVS_ERR025 -> 2
[2025-08-29 10:26:13] [info] ERC_ERR008 -> 2
[2025-08-29 10:26:13] [info] ERC_ERR005 -> 4300
[2025-08-29 10:26:13] [info] LVS_ERR030 -> 1
[2025-08-29 10:26:13] [info] -----
[2025-08-29 10:26:13] [info]           Summary
[2025-08-29 10:26:13] [info] -----

```

```
[2025-08-29 10:26:13] [info] ERC Status:          PASSED
[2025-08-29 10:26:13] [info] Instance Match Percentage: 92.41%
[2025-08-29 10:26:13] [info] Short Circuits:      None Detected
[2025-08-29 10:26:13] [info] Open Circuits:       None Detected
[2025-08-29 10:26:13] [info] Unconnected Pins:    4168
[2025-08-29 10:26:13] [info] Total Errors:        16505
[2025-08-29 10:26:13] [info] Total Warnings:      4106
[2025-08-29 10:26:13] [info] Critical Issues:     None
```

```

[2025-08-29 10:27:19] [info] =====
[2025-08-29 10:27:19] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:27:19] [info] =====

[2025-08-29 10:27:19] [info] Report Generated:    2025-08-29
[2025-08-29 10:27:19] [info] Run Start Time:      10:26:25 AM
[2025-08-29 10:27:19] [info] Run End Time:        10:27:18 AM
[2025-08-29 10:27:19] [info] Time Taken:          1 minutes 4 seconds

[2025-08-29 10:27:19] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:27:19] [info] Host Name:           kuro-Workstation
[2025-08-29 10:27:19] [info] User Name:           kuro
[2025-08-29 10:27:19] [info] Cores Used:          1
[2025-08-29 10:27:19] [info] Memory Utilized:     4599.00 MB / 62.569698333740234 GB

[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info]           Top Cell Match
[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:27:19] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info]           Short and Open Checks
[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info] Short Circuits:      None Detected
[2025-08-29 10:27:19] [info] Open Circuits:       None Detected

[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info]           Performance Metrics
[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info] | Stage                  | Time Taken |
[2025-08-29 10:27:19] [info] |-----|-----|
[2025-08-29 10:27:19] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:27:19] [info] | Connectivity Extraction  | 0 minutes 48 seconds |
[2025-08-29 10:27:19] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:27:19] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info]           Additional Details
[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:27:19] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:27:19] [info] Database Format:       GDSII
[2025-08-29 10:27:19] [info] Verification Mode:    Full Check
[2025-08-29 10:27:19] [info] Error Reporting:      Enabled

[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info]           Type of Errors | Count
[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info] DB_WARN -> 1
[2025-08-29 10:27:19] [info] DB_WARN003 -> 39
[2025-08-29 10:27:19] [info] VERI_WARN012 -> 4068
[2025-08-29 10:27:19] [info] ERC_ERR019 -> 4055
[2025-08-29 10:27:19] [info] LVS_ERR003 -> 4054
[2025-08-29 10:27:19] [info] ERC_ERR003 -> 4054
[2025-08-29 10:27:19] [info] LVS_ERR025 -> 1
[2025-08-29 10:27:19] [info] ERC_ERR008 -> 1
[2025-08-29 10:27:19] [info] ERC_ERR005 -> 4306
[2025-08-29 10:27:19] [info] LVS_ERR030 -> 1
[2025-08-29 10:27:19] [info] -----
[2025-08-29 10:27:19] [info]           Summary
[2025-08-29 10:27:19] [info] -----

```

```
[2025-08-29 10:27:19] [info] ERC Status:          PASSED
[2025-08-29 10:27:19] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:27:19] [info] Short Circuits:      None Detected
[2025-08-29 10:27:19] [info] Open Circuits:       None Detected
[2025-08-29 10:27:19] [info] Unconnected Pins:    4155
[2025-08-29 10:27:19] [info] Total Errors:        16472
[2025-08-29 10:27:19] [info] Total Warnings:      4108
[2025-08-29 10:27:19] [info] Critical Issues:     None
```

```

[2025-08-29 10:28:24] [info] =====
[2025-08-29 10:28:24] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:28:24] [info] =====

[2025-08-29 10:28:24] [info] Report Generated:    2025-08-29
[2025-08-29 10:28:24] [info] Run Start Time:      10:27:30 AM
[2025-08-29 10:28:24] [info] Run End Time:        10:28:23 AM
[2025-08-29 10:28:24] [info] Time Taken:          1 minutes 3 seconds

[2025-08-29 10:28:24] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:28:24] [info] Host Name:           kuro-Workstation
[2025-08-29 10:28:24] [info] User Name:           kuro
[2025-08-29 10:28:24] [info] Cores Used:          1
[2025-08-29 10:28:24] [info] Memory Utilized:     4518.73 MB / 62.569698333740234 GB

[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info]           Top Cell Match
[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:28:24] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info]           Short and Open Checks
[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info] Short Circuits:      None Detected
[2025-08-29 10:28:24] [info] Open Circuits:       None Detected

[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info]           Performance Metrics
[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info] | Stage                  | Time Taken |
[2025-08-29 10:28:24] [info] |-----|-----|
[2025-08-29 10:28:24] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:28:24] [info] | Connectivity Extraction  | 0 minutes 48 seconds |
[2025-08-29 10:28:24] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:28:24] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info]           Additional Details
[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:28:24] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:28:24] [info] Database Format:       GDSII
[2025-08-29 10:28:24] [info] Verification Mode:    Full Check
[2025-08-29 10:28:24] [info] Error Reporting:      Enabled

[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info]           Type of Errors | Count
[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info] DB_WARN -> 1
[2025-08-29 10:28:24] [info] DB_WARN003 -> 34
[2025-08-29 10:28:24] [info] VERI_WARN012 -> 4068
[2025-08-29 10:28:24] [info] ERC_ERR019 -> 4068
[2025-08-29 10:28:24] [info] LVS_ERR003 -> 4067
[2025-08-29 10:28:24] [info] ERC_ERR003 -> 4067
[2025-08-29 10:28:24] [info] LVS_ERR025 -> 1
[2025-08-29 10:28:24] [info] ERC_ERR008 -> 1
[2025-08-29 10:28:24] [info] ERC_ERR020 -> 1
[2025-08-29 10:28:24] [info] ERC_ERR005 -> 4305
[2025-08-29 10:28:24] [info] LVS_ERR030 -> 1
[2025-08-29 10:28:24] [info] -----
[2025-08-29 10:28:24] [info]           Summary

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```
[2025-08-29 10:28:24] [info] -----  
[2025-08-29 10:28:24] [info] ERC Status:          PASSED  
[2025-08-29 10:28:24] [info] Instance Match Percentage: 92.40%  
[2025-08-29 10:28:24] [info] Short Circuits:      None Detected  
[2025-08-29 10:28:24] [info] Open Circuits:       None Detected  
[2025-08-29 10:28:24] [info] Unconnected Pins:    4168  
[2025-08-29 10:28:24] [info] Total Errors:        16511  
[2025-08-29 10:28:24] [info] Total Warnings:      4103  
[2025-08-29 10:28:24] [info] Critical Issues:     None
```

```

[2025-08-29 10:28:38] [info] =====
[2025-08-29 10:28:38] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:28:38] [info] =====

[2025-08-29 10:28:38] [info] Report Generated:    2025-08-29
[2025-08-29 10:28:38] [info] Run Start Time:      10:28:28 AM
[2025-08-29 10:28:38] [info] Run End Time:        10:28:38 AM
[2025-08-29 10:28:38] [info] Time Taken:          0 minutes 12 seconds

[2025-08-29 10:28:38] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:28:38] [info] Host Name:           kuro-Workstation
[2025-08-29 10:28:38] [info] User Name:           kuro
[2025-08-29 10:28:38] [info] Cores Used:          4
[2025-08-29 10:28:38] [info] Memory Utilized:     1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info]           Top Cell Match
[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:28:38] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info]           Short and Open Checks
[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info] Short Circuits:      None Detected
[2025-08-29 10:28:38] [info] Open Circuits:       None Detected

[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info]           Performance Metrics
[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info] | Stage                  | Time Taken |
[2025-08-29 10:28:38] [info] |-----|-----|
[2025-08-29 10:28:38] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:28:38] [info] | Connectivity Extraction  | 0 minutes 8 seconds |
[2025-08-29 10:28:38] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:28:38] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info]           Additional Details
[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:28:38] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:28:38] [info] Database Format:       GDSII
[2025-08-29 10:28:38] [info] Verification Mode:    Full Check
[2025-08-29 10:28:38] [info] Error Reporting:      Enabled

[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info]           Type of Errors | Count
[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info] DB_WARN -> 1
[2025-08-29 10:28:38] [info] DB_WARN003 -> 221
[2025-08-29 10:28:38] [info] VERI_WARN012 -> 508
[2025-08-29 10:28:38] [info] ERC_ERR019 -> 651
[2025-08-29 10:28:38] [info] LVS_ERR003 -> 649
[2025-08-29 10:28:38] [info] ERC_ERR003 -> 649
[2025-08-29 10:28:38] [info] LVS_ERR025 -> 2
[2025-08-29 10:28:38] [info] ERC_ERR008 -> 2
[2025-08-29 10:28:38] [info] ERC_ERR020 -> 1
[2025-08-29 10:28:38] [info] ERC_ERR005 -> 687
[2025-08-29 10:28:38] [info] LVS_ERR030 -> 1
[2025-08-29 10:28:38] [info] -----
[2025-08-29 10:28:38] [info]           Summary

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```
[2025-08-29 10:28:38] [info] -----  
[2025-08-29 10:28:38] [info] ERC Status:          PASSED  
[2025-08-29 10:28:38] [info] Instance Match Percentage: 96.92%  
[2025-08-29 10:28:38] [info] Short Circuits:      None Detected  
[2025-08-29 10:28:38] [info] Open Circuits:       None Detected  
[2025-08-29 10:28:38] [info] Unconnected Pins:    751  
[2025-08-29 10:28:38] [info] Total Errors:        2642  
[2025-08-29 10:28:38] [info] Total Warnings:      730  
[2025-08-29 10:28:38] [info] Critical Issues:     None
```

```

[2025-08-28 06:08:37] [info] =====
[2025-08-28 06:08:37] [info] Electrical Rule Check Summary Report
[2025-08-28 06:08:37] [info] =====

[2025-08-28 06:08:37] [info] Report Generated: 2025-08-28
[2025-08-28 06:08:37] [info] Run Start Time: 06:08:27 AM
[2025-08-28 06:08:37] [info] Run End Time: 06:08:37 AM
[2025-08-28 06:08:37] [info] Time Taken: 0 minutes 12 seconds

[2025-08-28 06:08:37] [info] Tool Version: LVR_2025.1
[2025-08-28 06:08:37] [info] Host Name: kuro-Workstation
[2025-08-28 06:08:37] [info] User Name: kuro
[2025-08-28 06:08:37] [info] Cores Used: 4
[2025-08-28 06:08:37] [info] Memory Utilized: 1452.70 MB / 62.5692024230957 GB

[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] Top Cell Match
[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] Layout Top Cell: aes_cipher_top
[2025-08-28 06:08:37] [info] Schematic Top Cell: aes_cipher_top
[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] Short and Open Checks
[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] Short Circuits: None Detected
[2025-08-28 06:08:37] [info] Open Circuits: None Detected

[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] Performance Metrics
[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] | Stage | Time Taken |
[2025-08-28 06:08:37] [info] |-----|-----|
[2025-08-28 06:08:37] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-28 06:08:37] [info] | Connectivity Extraction | 0 minutes 8 seconds |
[2025-08-28 06:08:37] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-28 06:08:37] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] Additional Details
[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] Technology Node: Nangate45 (45nm)
[2025-08-28 06:08:37] [info] Hierarchical Cells: Flattened
[2025-08-28 06:08:37] [info] Database Format: GDSII
[2025-08-28 06:08:37] [info] Verification Mode: Full Check
[2025-08-28 06:08:37] [info] Error Reporting: Enabled

[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] Type of Errors | Count
[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] DB_WARN -> 1
[2025-08-28 06:08:37] [info] DB_WARN003 -> 221
[2025-08-28 06:08:37] [info] VERI_WARN012 -> 508
[2025-08-28 06:08:37] [info] ERC_ERR019 -> 651
[2025-08-28 06:08:37] [info] LVS_ERR003 -> 649
[2025-08-28 06:08:37] [info] ERC_ERR003 -> 649
[2025-08-28 06:08:37] [info] LVS_ERR025 -> 2
[2025-08-28 06:08:37] [info] ERC_ERR008 -> 2
[2025-08-28 06:08:37] [info] ERC_ERR020 -> 1
[2025-08-28 06:08:37] [info] ERC_ERR005 -> 687
[2025-08-28 06:08:37] [info] LVS_ERR030 -> 1
[2025-08-28 06:08:37] [info] -----
[2025-08-28 06:08:37] [info] Summary

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```
[2025-08-28 06:08:37] [info] -----  
[2025-08-28 06:08:37] [info] ERC Status:          PASSED  
[2025-08-28 06:08:37] [info] Instance Match Percentage: 96.92%  
[2025-08-28 06:08:37] [info] Short Circuits:      None Detected  
[2025-08-28 06:08:37] [info] Open Circuits:       None Detected  
[2025-08-28 06:08:37] [info] Unconnected Pins:    751  
[2025-08-28 06:08:37] [info] Total Errors:        2642  
[2025-08-28 06:08:37] [info] Total Warnings:      730  
[2025-08-28 06:08:37] [info] Critical Issues:     None
```

```

[2025-08-29 10:28:56] [info] =====
[2025-08-29 10:28:56] [info] Electrical Rule Check Summary Report
[2025-08-29 10:28:56] [info] =====

[2025-08-29 10:28:56] [info] Report Generated: 2025-08-29
[2025-08-29 10:28:56] [info] Run Start Time: 10:28:46 AM
[2025-08-29 10:28:56] [info] Run End Time: 10:28:56 AM
[2025-08-29 10:28:56] [info] Time Taken: 0 minutes 12 seconds

[2025-08-29 10:28:56] [info] Tool Version: LVR_2025.1
[2025-08-29 10:28:56] [info] Host Name: kuro-Workstation
[2025-08-29 10:28:56] [info] User Name: kuro
[2025-08-29 10:28:56] [info] Cores Used: 4
[2025-08-29 10:28:56] [info] Memory Utilized: 1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] Top Cell Match
[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:28:56] [info] Schematic Top Cell: aes_cipher_top
[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] Short and Open Checks
[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] Short Circuits: None Detected
[2025-08-29 10:28:56] [info] Open Circuits: None Detected

[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] Performance Metrics
[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] | Stage | Time Taken |
[2025-08-29 10:28:56] [info] |-----|-----|
[2025-08-29 10:28:56] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:28:56] [info] | Connectivity Extraction | 0 minutes 7 seconds |
[2025-08-29 10:28:56] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:28:56] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] Additional Details
[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:28:56] [info] Hierarchical Cells: Flattened
[2025-08-29 10:28:56] [info] Database Format: GDSII
[2025-08-29 10:28:56] [info] Verification Mode: Full Check
[2025-08-29 10:28:56] [info] Error Reporting: Enabled

[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] Type of Errors | Count
[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] DB_WARN -> 1
[2025-08-29 10:28:56] [info] DB_WARN003 -> 221
[2025-08-29 10:28:56] [info] VERI_WARN012 -> 508
[2025-08-29 10:28:56] [info] ERC_ERR019 -> 686
[2025-08-29 10:28:56] [info] LVS_ERR003 -> 685
[2025-08-29 10:28:56] [info] ERC_ERR003 -> 685
[2025-08-29 10:28:56] [info] LVS_ERR025 -> 1
[2025-08-29 10:28:56] [info] ERC_ERR008 -> 1
[2025-08-29 10:28:56] [info] ERC_ERR005 -> 717
[2025-08-29 10:28:56] [info] LVS_ERR030 -> 1
[2025-08-29 10:28:56] [info] -----
[2025-08-29 10:28:56] [info] Summary
[2025-08-29 10:28:56] [info] -----

```

```
[2025-08-29 10:28:56] [info] ERC Status:          PASSED
[2025-08-29 10:28:56] [info] Instance Match Percentage: 96.77%
[2025-08-29 10:28:56] [info] Short Circuits:          None Detected
[2025-08-29 10:28:56] [info] Open Circuits:          None Detected
[2025-08-29 10:28:56] [info] Unconnected Pins:        786
[2025-08-29 10:28:56] [info] Total Errors:           2776
[2025-08-29 10:28:56] [info] Total Warnings:          730
[2025-08-29 10:28:56] [info] Critical Issues:         None
```

```

[2025-08-29 10:28:25] [info] =====
[2025-08-29 10:28:25] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:28:25] [info] =====

[2025-08-29 10:28:25] [info] Report Generated:    2025-08-29
[2025-08-29 10:28:25] [info] Run Start Time:      10:28:25 AM
[2025-08-29 10:28:25] [info] Run End Time:        10:28:25 AM
[2025-08-29 10:28:25] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:28:25] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:28:25] [info] Host Name:           kuro-Workstation
[2025-08-29 10:28:25] [info] User Name:           kuro
[2025-08-29 10:28:25] [info] Cores Used:          4
[2025-08-29 10:28:25] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info]           Top Cell Match
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Layout Top Cell:     gcd
[2025-08-29 10:28:25] [info] Schematic Top Cell:  gcd
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info]           Short and Open Checks
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Short Circuits:      None Detected
[2025-08-29 10:28:25] [info] Open Circuits:       None Detected

[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info]           Performance Metrics
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] | Stage                  | Time Taken |
[2025-08-29 10:28:25] [info] |-----|-----|
[2025-08-29 10:28:25] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:28:25] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:28:25] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:28:25] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info]           Additional Details
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:28:25] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:28:25] [info] Database Format:       GDSII
[2025-08-29 10:28:25] [info] Verification Mode:    Full Check
[2025-08-29 10:28:25] [info] Error Reporting:      Enabled

[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info]           Type of Errors | Count
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] DB_WARN -> 1
[2025-08-29 10:28:25] [info] DB_WARN003 -> 24
[2025-08-29 10:28:25] [info] VERI_WARN012 -> 41
[2025-08-29 10:28:25] [info] ERC_ERR019 -> 33
[2025-08-29 10:28:25] [info] LVS_ERR003 -> 31
[2025-08-29 10:28:25] [info] ERC_ERR003 -> 31
[2025-08-29 10:28:25] [info] LVS_ERR025 -> 2
[2025-08-29 10:28:25] [info] ERC_ERR008 -> 2
[2025-08-29 10:28:25] [info] ERC_ERR005 -> 36
[2025-08-29 10:28:25] [info] LVS_ERR030 -> 1
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info]           Summary
[2025-08-29 10:28:25] [info] -----

```

```
[2025-08-29 10:28:25] [info] ERC Status:          PASSED
[2025-08-29 10:28:25] [info] Instance Match Percentage: 91.59%
[2025-08-29 10:28:25] [info] Short Circuits:      None Detected
[2025-08-29 10:28:25] [info] Open Circuits:       None Detected
[2025-08-29 10:28:25] [info] Unconnected Pins:    133
[2025-08-29 10:28:25] [info] Total Errors:        136
[2025-08-29 10:28:25] [info] Total Warnings:      66
[2025-08-29 10:28:25] [info] Critical Issues:     None
```

```

[2025-08-29 10:28:25] [info] =====
[2025-08-29 10:28:25] [info] Electrical Rule Check Summary Report
[2025-08-29 10:28:25] [info] =====

[2025-08-29 10:28:25] [info] Report Generated: 2025-08-29
[2025-08-29 10:28:25] [info] Run Start Time: 10:28:25 AM
[2025-08-29 10:28:25] [info] Run End Time: 10:28:25 AM
[2025-08-29 10:28:25] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 10:28:25] [info] Tool Version: LVR_2025.1
[2025-08-29 10:28:25] [info] Host Name: kuro-Workstation
[2025-08-29 10:28:25] [info] User Name: kuro
[2025-08-29 10:28:25] [info] Cores Used: 4
[2025-08-29 10:28:25] [info] Memory Utilized: 31.00 MB / 62.569698333740234 GB

[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Top Cell Match
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Layout Top Cell: gcd
[2025-08-29 10:28:25] [info] Schematic Top Cell: gcd
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Short and Open Checks
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Short Circuits: None Detected
[2025-08-29 10:28:25] [info] Open Circuits: None Detected

[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Performance Metrics
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] | Stage | Time Taken |
[2025-08-29 10:28:25] [info] |-----|-----|
[2025-08-29 10:28:25] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:28:25] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-08-29 10:28:25] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:28:25] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Additional Details
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:28:25] [info] Hierarchical Cells: Flattened
[2025-08-29 10:28:25] [info] Database Format: GDSII
[2025-08-29 10:28:25] [info] Verification Mode: Full Check
[2025-08-29 10:28:25] [info] Error Reporting: Enabled

[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Type of Errors | Count
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] DB_WARN -> 1
[2025-08-29 10:28:25] [info] DB_WARN003 -> 34
[2025-08-29 10:28:25] [info] VERI_WARN012 -> 40
[2025-08-29 10:28:25] [info] ERC_ERR019 -> 34
[2025-08-29 10:28:25] [info] LVS_ERR003 -> 32
[2025-08-29 10:28:25] [info] ERC_ERR003 -> 32
[2025-08-29 10:28:25] [info] LVS_ERR025 -> 2
[2025-08-29 10:28:25] [info] ERC_ERR008 -> 2
[2025-08-29 10:28:25] [info] ERC_ERR020 -> 1
[2025-08-29 10:28:25] [info] ERC_ERR005 -> 35
[2025-08-29 10:28:25] [info] LVS_ERR030 -> 1
[2025-08-29 10:28:25] [info] -----
[2025-08-29 10:28:25] [info] Summary

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[2025-08-29 10:28:25] [info] -----  
[2025-08-29 10:28:25] [info] ERC Status:          PASSED  
[2025-08-29 10:28:25] [info] Instance Match Percentage: 91.78%  
[2025-08-29 10:28:25] [info] Short Circuits:      None Detected  
[2025-08-29 10:28:25] [info] Open Circuits:       None Detected  
[2025-08-29 10:28:25] [info] Unconnected Pins:    134  
[2025-08-29 10:28:25] [info] Total Errors:        139  
[2025-08-29 10:28:25] [info] Total Warnings:      75  
[2025-08-29 10:28:25] [info] Critical Issues:     None
```

```

[2025-08-29 10:28:26] [info] =====
[2025-08-29 10:28:26] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:28:26] [info] =====

[2025-08-29 10:28:26] [info] Report Generated:    2025-08-29
[2025-08-29 10:28:26] [info] Run Start Time:      10:28:26 AM
[2025-08-29 10:28:26] [info] Run End Time:        10:28:26 AM
[2025-08-29 10:28:26] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:28:26] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:28:26] [info] Host Name:           kuro-Workstation
[2025-08-29 10:28:26] [info] User Name:           kuro
[2025-08-29 10:28:26] [info] Cores Used:          4
[2025-08-29 10:28:26] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info]           Top Cell Match
[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info] Layout Top Cell:     gcd
[2025-08-29 10:28:26] [info] Schematic Top Cell:  gcd
[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info]           Short and Open Checks
[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info] Short Circuits:      None Detected
[2025-08-29 10:28:26] [info] Open Circuits:       None Detected

[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info]           Performance Metrics
[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info] | Stage                  | Time Taken |
[2025-08-29 10:28:26] [info] |-----|-----|
[2025-08-29 10:28:26] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:28:26] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:28:26] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:28:26] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info]           Additional Details
[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:28:26] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:28:26] [info] Database Format:       GDSII
[2025-08-29 10:28:26] [info] Verification Mode:    Full Check
[2025-08-29 10:28:26] [info] Error Reporting:      Enabled

[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info]           Type of Errors | Count
[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info] DB_WARN -> 1
[2025-08-29 10:28:26] [info] DB_WARN003 -> 26
[2025-08-29 10:28:26] [info] VERI_WARN012 -> 39
[2025-08-29 10:28:26] [info] ERC_ERR019 -> 38
[2025-08-29 10:28:26] [info] LVS_ERR003 -> 36
[2025-08-29 10:28:26] [info] ERC_ERR003 -> 36
[2025-08-29 10:28:26] [info] LVS_ERR025 -> 2
[2025-08-29 10:28:26] [info] ERC_ERR008 -> 2
[2025-08-29 10:28:26] [info] ERC_ERR005 -> 38
[2025-08-29 10:28:26] [info] LVS_ERR030 -> 1
[2025-08-29 10:28:26] [info] -----
[2025-08-29 10:28:26] [info]           Summary
[2025-08-29 10:28:26] [info] -----

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```
[2025-08-29 10:28:26] [info] ERC Status:          PASSED
[2025-08-29 10:28:26] [info] Instance Match Percentage: 91.10%
[2025-08-29 10:28:26] [info] Short Circuits:      None Detected
[2025-08-29 10:28:26] [info] Open Circuits:       None Detected
[2025-08-29 10:28:26] [info] Unconnected Pins:    138
[2025-08-29 10:28:26] [info] Total Errors:        153
[2025-08-29 10:28:26] [info] Total Warnings:      66
[2025-08-29 10:28:26] [info] Critical Issues:     None
```

```
[2025-08-29 10:29:09] [info] =====
[2025-08-29 10:29:09] [info] Electrical Rule Check Summary Report
[2025-08-29 10:29:09] [info] =====

[2025-08-29 10:29:09] [info] Report Generated: 2025-08-29
[2025-08-29 10:29:09] [info] Run Start Time: 10:28:59 AM
[2025-08-29 10:29:09] [info] Run End Time: 10:29:09 AM
[2025-08-29 10:29:09] [info] Time Taken: 0 minutes 12 seconds

[2025-08-29 10:29:09] [info] Tool Version: LVR_2025.1
[2025-08-29 10:29:09] [info] Host Name: kuro-Workstation
[2025-08-29 10:29:09] [info] User Name: kuro
[2025-08-29 10:29:09] [info] Cores Used: 4
[2025-08-29 10:29:09] [info] Memory Utilized: 1574.52 MB / 62.569698333740234 GB

[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] Top Cell Match
[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] Layout Top Cell: ibex_core
[2025-08-29 10:29:09] [info] Schematic Top Cell: ibex_core
[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] Short and Open Checks
[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] Short Circuits: None Detected
[2025-08-29 10:29:09] [info] Open Circuits: None Detected

[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] Performance Metrics
[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] | Stage | Time Taken |
[2025-08-29 10:29:09] [info] |-----|-----|
[2025-08-29 10:29:09] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:29:09] [info] | Connectivity Extraction | 0 minutes 7 seconds |
[2025-08-29 10:29:09] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:29:09] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] Additional Details
[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:29:09] [info] Hierarchical Cells: Flattened
[2025-08-29 10:29:09] [info] Database Format: GDSII
[2025-08-29 10:29:09] [info] Verification Mode: Full Check
[2025-08-29 10:29:09] [info] Error Reporting: Enabled

[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] Type of Errors | Count
[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] DB_WARN -> 1
[2025-08-29 10:29:09] [info] DB_WARN003 -> 85
[2025-08-29 10:29:09] [info] VERI_WARN012 -> 828
[2025-08-29 10:29:09] [info] ERC_ERR019 -> 903
[2025-08-29 10:29:09] [info] LVS_ERR003 -> 894
[2025-08-29 10:29:09] [info] ERC_ERR003 -> 894
[2025-08-29 10:29:09] [info] LVS_ERR025 -> 1
[2025-08-29 10:29:09] [info] ERC_ERR008 -> 1
[2025-08-29 10:29:09] [info] ERC_ERR020 -> 1
[2025-08-29 10:29:09] [info] ERC_ERR005 -> 961
[2025-08-29 10:29:09] [info] LVS_ERR030 -> 1
[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] Summary
```

```
[2025-08-29 10:29:09] [info] -----
[2025-08-29 10:29:09] [info] ERC Status:          PASSED
[2025-08-29 10:29:09] [info] Instance Match Percentage: 94.91%
[2025-08-29 10:29:09] [info] Short Circuits:      None Detected
[2025-08-29 10:29:09] [info] Open Circuits:       None Detected
[2025-08-29 10:29:09] [info] Unconnected Pins:    1003
[2025-08-29 10:29:09] [info] Total Errors:        3656
[2025-08-29 10:29:09] [info] Total Warnings:      914
[2025-08-29 10:29:09] [info] Critical Issues:     None
```

```

[2025-08-28 06:09:08] [info] =====
[2025-08-28 06:09:08] [info] Electrical Rule Check Summary Report
[2025-08-28 06:09:08] [info] =====

[2025-08-28 06:09:08] [info] Report Generated: 2025-08-28
[2025-08-28 06:09:08] [info] Run Start Time: 06:08:58 AM
[2025-08-28 06:09:08] [info] Run End Time: 06:09:07 AM
[2025-08-28 06:09:08] [info] Time Taken: 0 minutes 12 seconds

[2025-08-28 06:09:08] [info] Tool Version: LVR_2025.1
[2025-08-28 06:09:08] [info] Host Name: kuro-Workstation
[2025-08-28 06:09:08] [info] User Name: kuro
[2025-08-28 06:09:08] [info] Cores Used: 4
[2025-08-28 06:09:08] [info] Memory Utilized: 1574.52 MB / 62.5692024230957 GB

[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] Top Cell Match
[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] Layout Top Cell: ibex_core
[2025-08-28 06:09:08] [info] Schematic Top Cell: ibex_core
[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] Short and Open Checks
[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] Short Circuits: None Detected
[2025-08-28 06:09:08] [info] Open Circuits: None Detected

[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] Performance Metrics
[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] | Stage | Time Taken |
[2025-08-28 06:09:08] [info] |-----|-----|
[2025-08-28 06:09:08] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-28 06:09:08] [info] | Connectivity Extraction | 0 minutes 7 seconds |
[2025-08-28 06:09:08] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-28 06:09:08] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] Additional Details
[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] Technology Node: Nangate45 (45nm)
[2025-08-28 06:09:08] [info] Hierarchical Cells: Flattened
[2025-08-28 06:09:08] [info] Database Format: GDSII
[2025-08-28 06:09:08] [info] Verification Mode: Full Check
[2025-08-28 06:09:08] [info] Error Reporting: Enabled

[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] Type of Errors | Count
[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] DB_WARN -> 1
[2025-08-28 06:09:08] [info] DB_WARN003 -> 85
[2025-08-28 06:09:08] [info] VERI_WARN012 -> 828
[2025-08-28 06:09:08] [info] ERC_ERR019 -> 903
[2025-08-28 06:09:08] [info] LVS_ERR003 -> 894
[2025-08-28 06:09:08] [info] ERC_ERR003 -> 894
[2025-08-28 06:09:08] [info] LVS_ERR025 -> 1
[2025-08-28 06:09:08] [info] ERC_ERR008 -> 1
[2025-08-28 06:09:08] [info] ERC_ERR020 -> 1
[2025-08-28 06:09:08] [info] ERC_ERR005 -> 961
[2025-08-28 06:09:08] [info] LVS_ERR030 -> 1
[2025-08-28 06:09:08] [info] -----
[2025-08-28 06:09:08] [info] Summary

```

```
[2025-08-28 06:09:08] [info] -----  
[2025-08-28 06:09:08] [info] ERC Status:          PASSED  
[2025-08-28 06:09:08] [info] Instance Match Percentage: 94.91%  
[2025-08-28 06:09:08] [info] Short Circuits:      None Detected  
[2025-08-28 06:09:08] [info] Open Circuits:       None Detected  
[2025-08-28 06:09:08] [info] Unconnected Pins:    1003  
[2025-08-28 06:09:08] [info] Total Errors:        3656  
[2025-08-28 06:09:08] [info] Total Warnings:      914  
[2025-08-28 06:09:08] [info] Critical Issues:     None
```

```

[2025-08-29 10:29:26] [info] =====
[2025-08-29 10:29:26] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:29:26] [info] =====

[2025-08-29 10:29:26] [info] Report Generated:    2025-08-29
[2025-08-29 10:29:26] [info] Run Start Time:      10:29:17 AM
[2025-08-29 10:29:26] [info] Run End Time:        10:29:26 AM
[2025-08-29 10:29:26] [info] Time Taken:          0 minutes 12 seconds

[2025-08-29 10:29:26] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:29:26] [info] Host Name:           kuro-Workstation
[2025-08-29 10:29:26] [info] User Name:           kuro
[2025-08-29 10:29:26] [info] Cores Used:          4
[2025-08-29 10:29:26] [info] Memory Utilized:     1464.05 MB / 62.569698333740234 GB

[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info]           Top Cell Match
[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:29:26] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info]           Short and Open Checks
[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info] Short Circuits:      None Detected
[2025-08-29 10:29:26] [info] Open Circuits:       None Detected

[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info]           Performance Metrics
[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info] | Stage                  | Time Taken |
[2025-08-29 10:29:26] [info] |-----|-----|
[2025-08-29 10:29:26] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:29:26] [info] | Connectivity Extraction  | 0 minutes 7 seconds |
[2025-08-29 10:29:26] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:29:26] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info]           Additional Details
[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:29:26] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:29:26] [info] Database Format:       GDSII
[2025-08-29 10:29:26] [info] Verification Mode:    Full Check
[2025-08-29 10:29:26] [info] Error Reporting:      Enabled

[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info]           Type of Errors | Count
[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info] DB_WARN -> 1
[2025-08-29 10:29:26] [info] DB_WARN003 -> 98
[2025-08-29 10:29:26] [info] VERI_WARN012 -> 828
[2025-08-29 10:29:26] [info] ERC_ERR019 -> 880
[2025-08-29 10:29:26] [info] LVS_ERR003 -> 871
[2025-08-29 10:29:26] [info] ERC_ERR003 -> 871
[2025-08-29 10:29:26] [info] LVS_ERR025 -> 1
[2025-08-29 10:29:26] [info] ERC_ERR008 -> 1
[2025-08-29 10:29:26] [info] ERC_ERR005 -> 943
[2025-08-29 10:29:26] [info] LVS_ERR030 -> 1
[2025-08-29 10:29:26] [info] -----
[2025-08-29 10:29:26] [info]           Summary
[2025-08-29 10:29:26] [info] -----

```

```
[2025-08-29 10:29:26] [info] ERC Status:          PASSED
[2025-08-29 10:29:26] [info] Instance Match Percentage: 95.00%
[2025-08-29 10:29:26] [info] Short Circuits:      None Detected
[2025-08-29 10:29:26] [info] Open Circuits:       None Detected
[2025-08-29 10:29:26] [info] Unconnected Pins:    980
[2025-08-29 10:29:26] [info] Total Errors:        3568
[2025-08-29 10:29:26] [info] Total Warnings:      927
[2025-08-29 10:29:26] [info] Critical Issues:     None
```

```

[2025-08-29 10:30:03] [info] =====
[2025-08-29 10:30:03] [info] Electrical Rule Check Summary Report
[2025-08-29 10:30:03] [info] =====

[2025-08-29 10:30:03] [info] Report Generated: 2025-08-29
[2025-08-29 10:30:03] [info] Run Start Time: 10:29:36 AM
[2025-08-29 10:30:03] [info] Run End Time: 10:30:03 AM
[2025-08-29 10:30:03] [info] Time Taken: 0 minutes 37 seconds

[2025-08-29 10:30:03] [info] Tool Version: LVR_2025.1
[2025-08-29 10:30:03] [info] Host Name: kuro-Workstation
[2025-08-29 10:30:03] [info] User Name: kuro
[2025-08-29 10:30:03] [info] Cores Used: 4
[2025-08-29 10:30:03] [info] Memory Utilized: 4551.48 MB / 62.569698333740234 GB

[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] Top Cell Match
[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:30:03] [info] Schematic Top Cell: jpeg_encoder
[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] Short and Open Checks
[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] Short Circuits: None Detected
[2025-08-29 10:30:03] [info] Open Circuits: None Detected

[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] Performance Metrics
[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] | Stage | Time Taken |
[2025-08-29 10:30:03] [info] |-----|-----|
[2025-08-29 10:30:03] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:30:03] [info] | Connectivity Extraction | 0 minutes 21 seconds |
[2025-08-29 10:30:03] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:30:03] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] Additional Details
[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:30:03] [info] Hierarchical Cells: Flattened
[2025-08-29 10:30:03] [info] Database Format: GDSII
[2025-08-29 10:30:03] [info] Verification Mode: Full Check
[2025-08-29 10:30:03] [info] Error Reporting: Enabled

[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] Type of Errors | Count
[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] DB_WARN -> 1
[2025-08-29 10:30:03] [info] DB_WARN003 -> 37
[2025-08-29 10:30:03] [info] VERI_WARN012 -> 4068
[2025-08-29 10:30:03] [info] ERC_ERR019 -> 4068
[2025-08-29 10:30:03] [info] LVS_ERR003 -> 4066
[2025-08-29 10:30:03] [info] ERC_ERR003 -> 4066
[2025-08-29 10:30:03] [info] LVS_ERR025 -> 2
[2025-08-29 10:30:03] [info] ERC_ERR008 -> 2
[2025-08-29 10:30:03] [info] ERC_ERR005 -> 4300
[2025-08-29 10:30:03] [info] LVS_ERR030 -> 1
[2025-08-29 10:30:03] [info] -----
[2025-08-29 10:30:03] [info] Summary
[2025-08-29 10:30:03] [info] -----

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[2025-08-29 10:30:03] [info] ERC Status:          PASSED
[2025-08-29 10:30:03] [info] Instance Match Percentage: 92.41%
[2025-08-29 10:30:03] [info] Short Circuits:      None Detected
[2025-08-29 10:30:03] [info] Open Circuits:       None Detected
[2025-08-29 10:30:03] [info] Unconnected Pins:    4168
[2025-08-29 10:30:03] [info] Total Errors:        16505
[2025-08-29 10:30:03] [info] Total Warnings:      4106
[2025-08-29 10:30:03] [info] Critical Issues:     None
```

```
[2025-08-29 10:30:43] [info] =====
[2025-08-29 10:30:43] [info] Electrical Rule Check Summary Report
[2025-08-29 10:30:43] [info] =====

[2025-08-29 10:30:43] [info] Report Generated: 2025-08-29
[2025-08-29 10:30:43] [info] Run Start Time: 10:30:15 AM
[2025-08-29 10:30:43] [info] Run End Time: 10:30:43 AM
[2025-08-29 10:30:43] [info] Time Taken: 0 minutes 38 seconds

[2025-08-29 10:30:43] [info] Tool Version: LVR_2025.1
[2025-08-29 10:30:43] [info] Host Name: kuro-Workstation
[2025-08-29 10:30:43] [info] User Name: kuro
[2025-08-29 10:30:43] [info] Cores Used: 4
[2025-08-29 10:30:43] [info] Memory Utilized: 4599.00 MB / 62.569698333740234 GB

[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] Top Cell Match
[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:30:43] [info] Schematic Top Cell: jpeg_encoder
[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] Short and Open Checks
[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] Short Circuits: None Detected
[2025-08-29 10:30:43] [info] Open Circuits: None Detected

[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] Performance Metrics
[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] | Stage | Time Taken |
[2025-08-29 10:30:43] [info] |-----|-----|
[2025-08-29 10:30:43] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:30:43] [info] | Connectivity Extraction | 0 minutes 22 seconds |
[2025-08-29 10:30:43] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:30:43] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] Additional Details
[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:30:43] [info] Hierarchical Cells: Flattened
[2025-08-29 10:30:43] [info] Database Format: GDSII
[2025-08-29 10:30:43] [info] Verification Mode: Full Check
[2025-08-29 10:30:43] [info] Error Reporting: Enabled

[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] Type of Errors | Count
[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] DB_WARN -> 1
[2025-08-29 10:30:43] [info] DB_WARN003 -> 39
[2025-08-29 10:30:43] [info] VERI_WARN012 -> 4068
[2025-08-29 10:30:43] [info] ERC_ERR019 -> 4055
[2025-08-29 10:30:43] [info] LVS_ERR003 -> 4054
[2025-08-29 10:30:43] [info] ERC_ERR003 -> 4054
[2025-08-29 10:30:43] [info] LVS_ERR025 -> 1
[2025-08-29 10:30:43] [info] ERC_ERR008 -> 1
[2025-08-29 10:30:43] [info] ERC_ERR005 -> 4306
[2025-08-29 10:30:43] [info] LVS_ERR030 -> 1
[2025-08-29 10:30:43] [info] -----
[2025-08-29 10:30:43] [info] Summary
[2025-08-29 10:30:43] [info] -----
```

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[2025-08-29 10:30:43] [info] ERC Status:          PASSED
[2025-08-29 10:30:43] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:30:43] [info] Short Circuits:      None Detected
[2025-08-29 10:30:43] [info] Open Circuits:       None Detected
[2025-08-29 10:30:43] [info] Unconnected Pins:    4155
[2025-08-29 10:30:43] [info] Total Errors:        16472
[2025-08-29 10:30:43] [info] Total Warnings:      4108
[2025-08-29 10:30:43] [info] Critical Issues:     None
```

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[2025-08-29 10:31:22] [info] =====
[2025-08-29 10:31:22] [info] Electrical Rule Check Summary Report
[2025-08-29 10:31:22] [info] =====

[2025-08-29 10:31:22] [info] Report Generated: 2025-08-29
[2025-08-29 10:31:22] [info] Run Start Time: 10:30:55 AM
[2025-08-29 10:31:22] [info] Run End Time: 10:31:21 AM
[2025-08-29 10:31:22] [info] Time Taken: 0 minutes 36 seconds

[2025-08-29 10:31:22] [info] Tool Version: LVR_2025.1
[2025-08-29 10:31:22] [info] Host Name: kuro-Workstation
[2025-08-29 10:31:22] [info] User Name: kuro
[2025-08-29 10:31:22] [info] Cores Used: 4
[2025-08-29 10:31:22] [info] Memory Utilized: 4518.73 MB / 62.569698333740234 GB

[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] Top Cell Match
[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:31:22] [info] Schematic Top Cell: jpeg_encoder
[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] Short and Open Checks
[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] Short Circuits: None Detected
[2025-08-29 10:31:22] [info] Open Circuits: None Detected

[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] Performance Metrics
[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] | Stage | Time Taken |
[2025-08-29 10:31:22] [info] |-----|-----|
[2025-08-29 10:31:22] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:31:22] [info] | Connectivity Extraction | 0 minutes 21 seconds |
[2025-08-29 10:31:22] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:31:22] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] Additional Details
[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:31:22] [info] Hierarchical Cells: Flattened
[2025-08-29 10:31:22] [info] Database Format: GDSII
[2025-08-29 10:31:22] [info] Verification Mode: Full Check
[2025-08-29 10:31:22] [info] Error Reporting: Enabled

[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] Type of Errors | Count
[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] DB_WARN -> 1
[2025-08-29 10:31:22] [info] DB_WARN003 -> 34
[2025-08-29 10:31:22] [info] VERI_WARN012 -> 4068
[2025-08-29 10:31:22] [info] ERC_ERR019 -> 4068
[2025-08-29 10:31:22] [info] LVS_ERR003 -> 4067
[2025-08-29 10:31:22] [info] ERC_ERR003 -> 4067
[2025-08-29 10:31:22] [info] LVS_ERR025 -> 1
[2025-08-29 10:31:22] [info] ERC_ERR008 -> 1
[2025-08-29 10:31:22] [info] ERC_ERR020 -> 1
[2025-08-29 10:31:22] [info] ERC_ERR005 -> 4305
[2025-08-29 10:31:22] [info] LVS_ERR030 -> 1
[2025-08-29 10:31:22] [info] -----
[2025-08-29 10:31:22] [info] Summary

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```
[2025-08-29 10:31:22] [info] -----  
[2025-08-29 10:31:22] [info] ERC Status:          PASSED  
[2025-08-29 10:31:22] [info] Instance Match Percentage: 92.40%  
[2025-08-29 10:31:22] [info] Short Circuits:      None Detected  
[2025-08-29 10:31:22] [info] Open Circuits:       None Detected  
[2025-08-29 10:31:22] [info] Unconnected Pins:    4168  
[2025-08-29 10:31:22] [info] Total Errors:        16511  
[2025-08-29 10:31:22] [info] Total Warnings:      4103  
[2025-08-29 10:31:22] [info] Critical Issues:     None
```

```

[2025-08-29 10:31:34] [info] =====
[2025-08-29 10:31:34] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:31:34] [info] =====

[2025-08-29 10:31:34] [info] Report Generated:    2025-08-29
[2025-08-29 10:31:34] [info] Run Start Time:      10:31:26 AM
[2025-08-29 10:31:34] [info] Run End Time:        10:31:34 AM
[2025-08-29 10:31:34] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:31:34] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:31:34] [info] Host Name:           kuro-Workstation
[2025-08-29 10:31:34] [info] User Name:           kuro
[2025-08-29 10:31:34] [info] Cores Used:          8
[2025-08-29 10:31:34] [info] Memory Utilized:     1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:34] [info]           Top Cell Match
[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:34] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:31:34] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:34] [info]           Short and Open Checks
[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:34] [info] Short Circuits:      None Detected
[2025-08-29 10:31:34] [info] Open Circuits:       None Detected

[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:34] [info]           Performance Metrics
[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:34] [info] | Stage                  | Time Taken |
[2025-08-29 10:31:34] [info] |-----|-----|
[2025-08-29 10:31:34] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:31:34] [info] | Connectivity Extraction  | 0 minutes 6 seconds |
[2025-08-29 10:31:34] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:31:34] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:34] [info]           Additional Details
[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:34] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:31:34] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:31:34] [info] Database Format:       GDSII
[2025-08-29 10:31:34] [info] Verification Mode:    Full Check
[2025-08-29 10:31:34] [info] Error Reporting:      Enabled

[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:34] [info]           Type of Errors | Count
[2025-08-29 10:31:34] [info] -----
[2025-08-29 10:31:35] [info] DB_WARN -> 1
[2025-08-29 10:31:35] [info] DB_WARN003 -> 221
[2025-08-29 10:31:35] [info] VERI_WARN012 -> 508
[2025-08-29 10:31:35] [info] ERC_ERR019 -> 651
[2025-08-29 10:31:35] [info] LVS_ERR003 -> 649
[2025-08-29 10:31:35] [info] ERC_ERR003 -> 649
[2025-08-29 10:31:35] [info] LVS_ERR025 -> 2
[2025-08-29 10:31:35] [info] ERC_ERR008 -> 2
[2025-08-29 10:31:35] [info] ERC_ERR020 -> 1
[2025-08-29 10:31:35] [info] ERC_ERR005 -> 687
[2025-08-29 10:31:35] [info] LVS_ERR030 -> 1
[2025-08-29 10:31:35] [info] -----
[2025-08-29 10:31:35] [info]           Summary

```

```
[2025-08-29 10:31:35] [info] -----  
[2025-08-29 10:31:35] [info] ERC Status:          PASSED  
[2025-08-29 10:31:35] [info] Instance Match Percentage: 96.92%  
[2025-08-29 10:31:35] [info] Short Circuits:      None Detected  
[2025-08-29 10:31:35] [info] Open Circuits:       None Detected  
[2025-08-29 10:31:35] [info] Unconnected Pins:    751  
[2025-08-29 10:31:35] [info] Total Errors:        2642  
[2025-08-29 10:31:35] [info] Total Warnings:      730  
[2025-08-29 10:31:35] [info] Critical Issues:     None
```

```

[2025-08-28 06:11:35] [info] =====
[2025-08-28 06:11:35] [info]           Electrical Rule Check Summary Report
[2025-08-28 06:11:35] [info] =====

[2025-08-28 06:11:35] [info] Report Generated:    2025-08-28
[2025-08-28 06:11:35] [info] Run Start Time:      06:11:27 AM
[2025-08-28 06:11:35] [info] Run End Time:        06:11:35 AM
[2025-08-28 06:11:35] [info] Time Taken:          0 minutes 10 seconds

[2025-08-28 06:11:35] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:11:35] [info] Host Name:           kuro-Workstation
[2025-08-28 06:11:35] [info] User Name:           kuro
[2025-08-28 06:11:35] [info] Cores Used:          8
[2025-08-28 06:11:35] [info] Memory Utilized:     1452.70 MB / 62.5692024230957 GB

[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info]           Top Cell Match
[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info] Layout Top Cell:     aes_cipher_top
[2025-08-28 06:11:35] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info]           Short and Open Checks
[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info] Short Circuits:      None Detected
[2025-08-28 06:11:35] [info] Open Circuits:       None Detected

[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info]           Performance Metrics
[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info] | Stage                  | Time Taken |
[2025-08-28 06:11:35] [info] |-----|-----|
[2025-08-28 06:11:35] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 06:11:35] [info] | Connectivity Extraction  | 0 minutes 6 seconds |
[2025-08-28 06:11:35] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 06:11:35] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info]           Additional Details
[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info] Technology Node:      Nangate45 (45nm)
[2025-08-28 06:11:35] [info] Hierarchical Cells:   Flattened
[2025-08-28 06:11:35] [info] Database Format:       GDSII
[2025-08-28 06:11:35] [info] Verification Mode:    Full Check
[2025-08-28 06:11:35] [info] Error Reporting:      Enabled

[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info]           Type of Errors | Count
[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info] DB_WARN -> 1
[2025-08-28 06:11:35] [info] DB_WARN003 -> 221
[2025-08-28 06:11:35] [info] VERI_WARN012 -> 508
[2025-08-28 06:11:35] [info] ERC_ERR019 -> 651
[2025-08-28 06:11:35] [info] LVS_ERR003 -> 649
[2025-08-28 06:11:35] [info] ERC_ERR003 -> 649
[2025-08-28 06:11:35] [info] LVS_ERR025 -> 2
[2025-08-28 06:11:35] [info] ERC_ERR008 -> 2
[2025-08-28 06:11:35] [info] ERC_ERR020 -> 1
[2025-08-28 06:11:35] [info] ERC_ERR005 -> 687
[2025-08-28 06:11:35] [info] LVS_ERR030 -> 1
[2025-08-28 06:11:35] [info] -----
[2025-08-28 06:11:35] [info]           Summary

```

```
[2025-08-28 06:11:35] [info] -----  
[2025-08-28 06:11:35] [info] ERC Status:          PASSED  
[2025-08-28 06:11:35] [info] Instance Match Percentage: 96.92%  
[2025-08-28 06:11:35] [info] Short Circuits:      None Detected  
[2025-08-28 06:11:35] [info] Open Circuits:       None Detected  
[2025-08-28 06:11:35] [info] Unconnected Pins:    751  
[2025-08-28 06:11:35] [info] Total Errors:        2642  
[2025-08-28 06:11:35] [info] Total Warnings:      730  
[2025-08-28 06:11:35] [info] Critical Issues:     None
```

```

[2025-08-29 10:31:50] [info] =====
[2025-08-29 10:31:50] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:31:50] [info] =====

[2025-08-29 10:31:50] [info] Report Generated:    2025-08-29
[2025-08-29 10:31:50] [info] Run Start Time:      10:31:42 AM
[2025-08-29 10:31:50] [info] Run End Time:        10:31:50 AM
[2025-08-29 10:31:50] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:31:50] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:31:50] [info] Host Name:           kuro-Workstation
[2025-08-29 10:31:50] [info] User Name:           kuro
[2025-08-29 10:31:50] [info] Cores Used:          8
[2025-08-29 10:31:50] [info] Memory Utilized:     1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info]           Top Cell Match
[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:31:50] [info] Schematic Top Cell:  aes_cipher_top
[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info]           Short and Open Checks
[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info] Short Circuits:      None Detected
[2025-08-29 10:31:50] [info] Open Circuits:       None Detected

[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info]           Performance Metrics
[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info] | Stage                  | Time Taken |
[2025-08-29 10:31:50] [info] |-----|-----|
[2025-08-29 10:31:50] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:31:50] [info] | Connectivity Extraction  | 0 minutes 6 seconds |
[2025-08-29 10:31:50] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:31:50] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info]           Additional Details
[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:31:50] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:31:50] [info] Database Format:       GDSII
[2025-08-29 10:31:50] [info] Verification Mode:    Full Check
[2025-08-29 10:31:50] [info] Error Reporting:      Enabled

[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info]           Type of Errors | Count
[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info] DB_WARN -> 1
[2025-08-29 10:31:50] [info] DB_WARN003 -> 221
[2025-08-29 10:31:50] [info] VERI_WARN012 -> 508
[2025-08-29 10:31:50] [info] ERC_ERR019 -> 686
[2025-08-29 10:31:50] [info] LVS_ERR003 -> 685
[2025-08-29 10:31:50] [info] ERC_ERR003 -> 685
[2025-08-29 10:31:50] [info] LVS_ERR025 -> 1
[2025-08-29 10:31:50] [info] ERC_ERR008 -> 1
[2025-08-29 10:31:50] [info] ERC_ERR005 -> 717
[2025-08-29 10:31:50] [info] LVS_ERR030 -> 1
[2025-08-29 10:31:50] [info] -----
[2025-08-29 10:31:50] [info]           Summary
[2025-08-29 10:31:50] [info] -----

```

```
[2025-08-29 10:31:50] [info] ERC Status:          PASSED
[2025-08-29 10:31:50] [info] Instance Match Percentage: 96.77%
[2025-08-29 10:31:50] [info] Short Circuits:          None Detected
[2025-08-29 10:31:50] [info] Open Circuits:          None Detected
[2025-08-29 10:31:50] [info] Unconnected Pins:        786
[2025-08-29 10:31:50] [info] Total Errors:            2776
[2025-08-29 10:31:50] [info] Total Warnings:          730
[2025-08-29 10:31:50] [info] Critical Issues:         None
```

```

[2025-08-29 10:31:23] [info] =====
[2025-08-29 10:31:23] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:31:23] [info] =====

[2025-08-29 10:31:23] [info] Report Generated:    2025-08-29
[2025-08-29 10:31:23] [info] Run Start Time:      10:31:23 AM
[2025-08-29 10:31:23] [info] Run End Time:        10:31:23 AM
[2025-08-29 10:31:23] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:31:23] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:31:23] [info] Host Name:           kuro-Workstation
[2025-08-29 10:31:23] [info] User Name:           kuro
[2025-08-29 10:31:23] [info] Cores Used:           8
[2025-08-29 10:31:23] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Top Cell Match
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] Layout Top Cell:      gcd
[2025-08-29 10:31:23] [info] Schematic Top Cell:   gcd
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Short and Open Checks
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] Short Circuits:       None Detected
[2025-08-29 10:31:23] [info] Open Circuits:        None Detected

[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Performance Metrics
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] | Stage                  | Time Taken |
[2025-08-29 10:31:23] [info] |-----|-----|
[2025-08-29 10:31:23] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:31:23] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:31:23] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:31:23] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Additional Details
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:31:23] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:31:23] [info] Database Format:        GDSII
[2025-08-29 10:31:23] [info] Verification Mode:     Full Check
[2025-08-29 10:31:23] [info] Error Reporting:       Enabled

[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Type of Errors | Count
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] DB_WARN -> 1
[2025-08-29 10:31:23] [info] DB_WARN003 -> 24
[2025-08-29 10:31:23] [info] VERI_WARN012 -> 41
[2025-08-29 10:31:23] [info] ERC_ERR019 -> 33
[2025-08-29 10:31:23] [info] LVS_ERR003 -> 31
[2025-08-29 10:31:23] [info] ERC_ERR003 -> 31
[2025-08-29 10:31:23] [info] LVS_ERR025 -> 2
[2025-08-29 10:31:23] [info] ERC_ERR008 -> 2
[2025-08-29 10:31:23] [info] ERC_ERR005 -> 36
[2025-08-29 10:31:23] [info] LVS_ERR030 -> 1
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Summary
[2025-08-29 10:31:23] [info] -----

```

```
[2025-08-29 10:31:23] [info] ERC Status:          PASSED
[2025-08-29 10:31:23] [info] Instance Match Percentage: 91.59%
[2025-08-29 10:31:23] [info] Short Circuits:      None Detected
[2025-08-29 10:31:23] [info] Open Circuits:       None Detected
[2025-08-29 10:31:23] [info] Unconnected Pins:    133
[2025-08-29 10:31:23] [info] Total Errors:        136
[2025-08-29 10:31:23] [info] Total Warnings:      66
[2025-08-29 10:31:23] [info] Critical Issues:     None
```

```

[2025-08-29 10:31:23] [info] =====
[2025-08-29 10:31:23] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:31:23] [info] =====

[2025-08-29 10:31:23] [info] Report Generated:    2025-08-29
[2025-08-29 10:31:23] [info] Run Start Time:      10:31:23 AM
[2025-08-29 10:31:23] [info] Run End Time:        10:31:23 AM
[2025-08-29 10:31:23] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:31:23] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:31:23] [info] Host Name:           kuro-Workstation
[2025-08-29 10:31:23] [info] User Name:           kuro
[2025-08-29 10:31:23] [info] Cores Used:          8
[2025-08-29 10:31:23] [info] Memory Utilized:     31.00 MB / 62.569698333740234 GB

[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Top Cell Match
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] Layout Top Cell:     gcd
[2025-08-29 10:31:23] [info] Schematic Top Cell:  gcd
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Short and Open Checks
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] Short Circuits:      None Detected
[2025-08-29 10:31:23] [info] Open Circuits:       None Detected

[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Performance Metrics
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] | Stage                  | Time Taken |
[2025-08-29 10:31:23] [info] |-----|-----|
[2025-08-29 10:31:23] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:31:23] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:31:23] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:31:23] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Additional Details
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:31:23] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:31:23] [info] Database Format:        GDSII
[2025-08-29 10:31:23] [info] Verification Mode:     Full Check
[2025-08-29 10:31:23] [info] Error Reporting:       Enabled

[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Type of Errors | Count
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info] DB_WARN -> 1
[2025-08-29 10:31:23] [info] DB_WARN003 -> 34
[2025-08-29 10:31:23] [info] VERI_WARN012 -> 40
[2025-08-29 10:31:23] [info] ERC_ERR019 -> 34
[2025-08-29 10:31:23] [info] LVS_ERR003 -> 32
[2025-08-29 10:31:23] [info] ERC_ERR003 -> 32
[2025-08-29 10:31:23] [info] LVS_ERR025 -> 2
[2025-08-29 10:31:23] [info] ERC_ERR008 -> 2
[2025-08-29 10:31:23] [info] ERC_ERR020 -> 1
[2025-08-29 10:31:23] [info] ERC_ERR005 -> 35
[2025-08-29 10:31:23] [info] LVS_ERR030 -> 1
[2025-08-29 10:31:23] [info] -----
[2025-08-29 10:31:23] [info]           Summary

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```
[2025-08-29 10:31:23] [info] -----  
[2025-08-29 10:31:23] [info] ERC Status:          PASSED  
[2025-08-29 10:31:23] [info] Instance Match Percentage: 91.78%  
[2025-08-29 10:31:23] [info] Short Circuits:      None Detected  
[2025-08-29 10:31:23] [info] Open Circuits:       None Detected  
[2025-08-29 10:31:23] [info] Unconnected Pins:    134  
[2025-08-29 10:31:23] [info] Total Errors:        139  
[2025-08-29 10:31:23] [info] Total Warnings:      75  
[2025-08-29 10:31:23] [info] Critical Issues:     None
```

```

[2025-08-29 10:31:24] [info] =====
[2025-08-29 10:31:24] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:31:24] [info] =====

[2025-08-29 10:31:24] [info] Report Generated:    2025-08-29
[2025-08-29 10:31:24] [info] Run Start Time:      10:31:23 AM
[2025-08-29 10:31:24] [info] Run End Time:        10:31:24 AM
[2025-08-29 10:31:24] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:31:24] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:31:24] [info] Host Name:           kuro-Workstation
[2025-08-29 10:31:24] [info] User Name:           kuro
[2025-08-29 10:31:24] [info] Cores Used:          8
[2025-08-29 10:31:24] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info]           Top Cell Match
[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info] Layout Top Cell:     gcd
[2025-08-29 10:31:24] [info] Schematic Top Cell:  gcd
[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info]           Short and Open Checks
[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info] Short Circuits:      None Detected
[2025-08-29 10:31:24] [info] Open Circuits:       None Detected

[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info]           Performance Metrics
[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info] | Stage                  | Time Taken |
[2025-08-29 10:31:24] [info] |-----|-----|
[2025-08-29 10:31:24] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:31:24] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-08-29 10:31:24] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:31:24] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info]           Additional Details
[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:31:24] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:31:24] [info] Database Format:       GDSII
[2025-08-29 10:31:24] [info] Verification Mode:    Full Check
[2025-08-29 10:31:24] [info] Error Reporting:      Enabled

[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info]           Type of Errors | Count
[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info] DB_WARN -> 1
[2025-08-29 10:31:24] [info] DB_WARN003 -> 26
[2025-08-29 10:31:24] [info] VERI_WARN012 -> 39
[2025-08-29 10:31:24] [info] ERC_ERR019 -> 38
[2025-08-29 10:31:24] [info] LVS_ERR003 -> 36
[2025-08-29 10:31:24] [info] ERC_ERR003 -> 36
[2025-08-29 10:31:24] [info] LVS_ERR025 -> 2
[2025-08-29 10:31:24] [info] ERC_ERR008 -> 2
[2025-08-29 10:31:24] [info] ERC_ERR005 -> 38
[2025-08-29 10:31:24] [info] LVS_ERR030 -> 1
[2025-08-29 10:31:24] [info] -----
[2025-08-29 10:31:24] [info]           Summary
[2025-08-29 10:31:24] [info] -----

```

```
[2025-08-29 10:31:24] [info] ERC Status:          PASSED
[2025-08-29 10:31:24] [info] Instance Match Percentage: 91.10%
[2025-08-29 10:31:24] [info] Short Circuits:      None Detected
[2025-08-29 10:31:24] [info] Open Circuits:       None Detected
[2025-08-29 10:31:24] [info] Unconnected Pins:    138
[2025-08-29 10:31:24] [info] Total Errors:        153
[2025-08-29 10:31:24] [info] Total Warnings:      66
[2025-08-29 10:31:24] [info] Critical Issues:     None
```

```

[2025-08-29 10:32:02] [info] =====
[2025-08-29 10:32:02] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:32:02] [info] =====

[2025-08-29 10:32:02] [info] Report Generated:    2025-08-29
[2025-08-29 10:32:02] [info] Run Start Time:      10:31:53 AM
[2025-08-29 10:32:02] [info] Run End Time:        10:32:01 AM
[2025-08-29 10:32:02] [info] Time Taken:          0 minutes 11 seconds

[2025-08-29 10:32:02] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:32:02] [info] Host Name:           kuro-Workstation
[2025-08-29 10:32:02] [info] User Name:           kuro
[2025-08-29 10:32:02] [info] Cores Used:          8
[2025-08-29 10:32:02] [info] Memory Utilized:     1574.52 MB / 62.569698333740234 GB

[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info]           Top Cell Match
[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:32:02] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info]           Short and Open Checks
[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info] Short Circuits:      None Detected
[2025-08-29 10:32:02] [info] Open Circuits:       None Detected

[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info]           Performance Metrics
[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info] | Stage                  | Time Taken |
[2025-08-29 10:32:02] [info] |-----|-----|
[2025-08-29 10:32:02] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:32:02] [info] | Connectivity Extraction  | 0 minutes 6 seconds |
[2025-08-29 10:32:02] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:32:02] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info]           Additional Details
[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:32:02] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:32:02] [info] Database Format:       GDSII
[2025-08-29 10:32:02] [info] Verification Mode:    Full Check
[2025-08-29 10:32:02] [info] Error Reporting:      Enabled

[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info]           Type of Errors | Count
[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info] DB_WARN -> 1
[2025-08-29 10:32:02] [info] DB_WARN003 -> 85
[2025-08-29 10:32:02] [info] VERI_WARN012 -> 828
[2025-08-29 10:32:02] [info] ERC_ERR019 -> 903
[2025-08-29 10:32:02] [info] LVS_ERR003 -> 894
[2025-08-29 10:32:02] [info] ERC_ERR003 -> 894
[2025-08-29 10:32:02] [info] LVS_ERR025 -> 1
[2025-08-29 10:32:02] [info] ERC_ERR008 -> 1
[2025-08-29 10:32:02] [info] ERC_ERR020 -> 1
[2025-08-29 10:32:02] [info] ERC_ERR005 -> 961
[2025-08-29 10:32:02] [info] LVS_ERR030 -> 1
[2025-08-29 10:32:02] [info] -----
[2025-08-29 10:32:02] [info]           Summary

```

```
[2025-08-29 10:32:02] [info] -----  
[2025-08-29 10:32:02] [info] ERC Status:          PASSED  
[2025-08-29 10:32:02] [info] Instance Match Percentage: 94.91%  
[2025-08-29 10:32:02] [info] Short Circuits:      None Detected  
[2025-08-29 10:32:02] [info] Open Circuits:       None Detected  
[2025-08-29 10:32:02] [info] Unconnected Pins:    1003  
[2025-08-29 10:32:02] [info] Total Errors:        3656  
[2025-08-29 10:32:02] [info] Total Warnings:      914  
[2025-08-29 10:32:02] [info] Critical Issues:     None
```

```

[2025-08-28 06:12:03] [info] =====
[2025-08-28 06:12:03] [info]           Electrical Rule Check Summary Report
[2025-08-28 06:12:03] [info] =====

[2025-08-28 06:12:03] [info] Report Generated:    2025-08-28
[2025-08-28 06:12:03] [info] Run Start Time:      06:11:55 AM
[2025-08-28 06:12:03] [info] Run End Time:        06:12:03 AM
[2025-08-28 06:12:03] [info] Time Taken:          0 minutes 10 seconds

[2025-08-28 06:12:03] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:12:03] [info] Host Name:           kuro-Workstation
[2025-08-28 06:12:03] [info] User Name:           kuro
[2025-08-28 06:12:03] [info] Cores Used:          8
[2025-08-28 06:12:03] [info] Memory Utilized:     1574.52 MB / 62.5692024230957 GB

[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info]           Top Cell Match
[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info] Layout Top Cell:     ibex_core
[2025-08-28 06:12:03] [info] Schematic Top Cell:  ibex_core
[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info]           Short and Open Checks
[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info] Short Circuits:      None Detected
[2025-08-28 06:12:03] [info] Open Circuits:       None Detected

[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info]           Performance Metrics
[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info] | Stage                  | Time Taken |
[2025-08-28 06:12:03] [info] |-----|-----|
[2025-08-28 06:12:03] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 06:12:03] [info] | Connectivity Extraction  | 0 minutes 6 seconds |
[2025-08-28 06:12:03] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 06:12:03] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info]           Additional Details
[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info] Technology Node:      Nangate45 (45nm)
[2025-08-28 06:12:03] [info] Hierarchical Cells:   Flattened
[2025-08-28 06:12:03] [info] Database Format:       GDSII
[2025-08-28 06:12:03] [info] Verification Mode:    Full Check
[2025-08-28 06:12:03] [info] Error Reporting:      Enabled

[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info]           Type of Errors | Count
[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info] DB_WARN -> 1
[2025-08-28 06:12:03] [info] DB_WARN003 -> 85
[2025-08-28 06:12:03] [info] VERI_WARN012 -> 828
[2025-08-28 06:12:03] [info] ERC_ERR019 -> 903
[2025-08-28 06:12:03] [info] LVS_ERR003 -> 894
[2025-08-28 06:12:03] [info] ERC_ERR003 -> 894
[2025-08-28 06:12:03] [info] LVS_ERR025 -> 1
[2025-08-28 06:12:03] [info] ERC_ERR008 -> 1
[2025-08-28 06:12:03] [info] ERC_ERR020 -> 1
[2025-08-28 06:12:03] [info] ERC_ERR005 -> 961
[2025-08-28 06:12:03] [info] LVS_ERR030 -> 1
[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info]           Summary

```

```
[2025-08-28 06:12:03] [info] -----
[2025-08-28 06:12:03] [info] ERC Status:          PASSED
[2025-08-28 06:12:03] [info] Instance Match Percentage: 94.91%
[2025-08-28 06:12:03] [info] Short Circuits:      None Detected
[2025-08-28 06:12:03] [info] Open Circuits:       None Detected
[2025-08-28 06:12:03] [info] Unconnected Pins:    1003
[2025-08-28 06:12:03] [info] Total Errors:        3656
[2025-08-28 06:12:03] [info] Total Warnings:      914
[2025-08-28 06:12:03] [info] Critical Issues:     None
```

```

[2025-08-29 10:32:17] [info] =====
[2025-08-29 10:32:17] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:32:17] [info] =====

[2025-08-29 10:32:17] [info] Report Generated:    2025-08-29
[2025-08-29 10:32:17] [info] Run Start Time:      10:32:09 AM
[2025-08-29 10:32:17] [info] Run End Time:        10:32:17 AM
[2025-08-29 10:32:17] [info] Time Taken:          0 minutes 10 seconds

[2025-08-29 10:32:17] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:32:17] [info] Host Name:           kuro-Workstation
[2025-08-29 10:32:17] [info] User Name:           kuro
[2025-08-29 10:32:17] [info] Cores Used:          8
[2025-08-29 10:32:17] [info] Memory Utilized:     1464.05 MB / 62.569698333740234 GB

[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info]           Top Cell Match
[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:32:17] [info] Schematic Top Cell:  ibex_core
[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info]           Short and Open Checks
[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info] Short Circuits:      None Detected
[2025-08-29 10:32:17] [info] Open Circuits:       None Detected

[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info]           Performance Metrics
[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info] | Stage                  | Time Taken |
[2025-08-29 10:32:17] [info] |-----|-----|
[2025-08-29 10:32:17] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:32:17] [info] | Connectivity Extraction  | 0 minutes 5 seconds |
[2025-08-29 10:32:17] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:32:17] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info]           Additional Details
[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:32:17] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:32:17] [info] Database Format:       GDSII
[2025-08-29 10:32:17] [info] Verification Mode:    Full Check
[2025-08-29 10:32:17] [info] Error Reporting:      Enabled

[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info]           Type of Errors | Count
[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info] DB_WARN -> 1
[2025-08-29 10:32:17] [info] DB_WARN003 -> 98
[2025-08-29 10:32:17] [info] VERI_WARN012 -> 828
[2025-08-29 10:32:17] [info] ERC_ERR019 -> 880
[2025-08-29 10:32:17] [info] LVS_ERR003 -> 871
[2025-08-29 10:32:17] [info] ERC_ERR003 -> 871
[2025-08-29 10:32:17] [info] LVS_ERR025 -> 1
[2025-08-29 10:32:17] [info] ERC_ERR008 -> 1
[2025-08-29 10:32:17] [info] ERC_ERR005 -> 943
[2025-08-29 10:32:17] [info] LVS_ERR030 -> 1
[2025-08-29 10:32:17] [info] -----
[2025-08-29 10:32:17] [info]           Summary
[2025-08-29 10:32:17] [info] -----

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```
[2025-08-29 10:32:17] [info] ERC Status:          PASSED
[2025-08-29 10:32:17] [info] Instance Match Percentage: 95.00%
[2025-08-29 10:32:17] [info] Short Circuits:          None Detected
[2025-08-29 10:32:17] [info] Open Circuits:          None Detected
[2025-08-29 10:32:17] [info] Unconnected Pins:        980
[2025-08-29 10:32:17] [info] Total Errors:            3568
[2025-08-29 10:32:17] [info] Total Warnings:          927
[2025-08-29 10:32:17] [info] Critical Issues:         None
```

```
[2025-08-29 10:32:51] [info] =====
[2025-08-29 10:32:51] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:32:51] [info] =====

[2025-08-29 10:32:51] [info] Report Generated:    2025-08-29
[2025-08-29 10:32:51] [info] Run Start Time:      10:32:28 AM
[2025-08-29 10:32:51] [info] Run End Time:        10:32:51 AM
[2025-08-29 10:32:51] [info] Time Taken:          0 minutes 33 seconds

[2025-08-29 10:32:51] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:32:51] [info] Host Name:           kuro-Workstation
[2025-08-29 10:32:51] [info] User Name:           kuro
[2025-08-29 10:32:51] [info] Cores Used:          8
[2025-08-29 10:32:51] [info] Memory Utilized:     4551.48 MB / 62.569698333740234 GB

[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info]           Top Cell Match
[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:32:51] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info]           Short and Open Checks
[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info] Short Circuits:      None Detected
[2025-08-29 10:32:51] [info] Open Circuits:       None Detected

[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info]           Performance Metrics
[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info] | Stage                  | Time Taken |
[2025-08-29 10:32:51] [info] |-----|-----|
[2025-08-29 10:32:51] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:32:51] [info] | Connectivity Extraction  | 0 minutes 17 seconds |
[2025-08-29 10:32:51] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:32:51] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info]           Additional Details
[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:32:51] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:32:51] [info] Database Format:        GDSII
[2025-08-29 10:32:51] [info] Verification Mode:     Full Check
[2025-08-29 10:32:51] [info] Error Reporting:       Enabled

[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info]           Type of Errors | Count
[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info] DB_WARN -> 1
[2025-08-29 10:32:51] [info] DB_WARN003 -> 37
[2025-08-29 10:32:51] [info] VERI_WARN012 -> 4068
[2025-08-29 10:32:51] [info] ERC_ERR019 -> 4068
[2025-08-29 10:32:51] [info] LVS_ERR003 -> 4066
[2025-08-29 10:32:51] [info] ERC_ERR003 -> 4066
[2025-08-29 10:32:51] [info] LVS_ERR025 -> 2
[2025-08-29 10:32:51] [info] ERC_ERR008 -> 2
[2025-08-29 10:32:51] [info] ERC_ERR005 -> 4300
[2025-08-29 10:32:51] [info] LVS_ERR030 -> 1
[2025-08-29 10:32:51] [info] -----
[2025-08-29 10:32:51] [info]           Summary
[2025-08-29 10:32:51] [info] -----
```

```
[2025-08-29 10:32:51] [info] ERC Status:          PASSED
[2025-08-29 10:32:51] [info] Instance Match Percentage: 92.41%
[2025-08-29 10:32:51] [info] Short Circuits:      None Detected
[2025-08-29 10:32:51] [info] Open Circuits:       None Detected
[2025-08-29 10:32:51] [info] Unconnected Pins:    4168
[2025-08-29 10:32:51] [info] Total Errors:        16505
[2025-08-29 10:32:51] [info] Total Warnings:      4106
[2025-08-29 10:32:51] [info] Critical Issues:     None
```

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[2025-08-29 10:33:27] [info] =====
[2025-08-29 10:33:27] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:33:27] [info] =====

[2025-08-29 10:33:27] [info] Report Generated:    2025-08-29
[2025-08-29 10:33:27] [info] Run Start Time:      10:33:03 AM
[2025-08-29 10:33:27] [info] Run End Time:        10:33:26 AM
[2025-08-29 10:33:27] [info] Time Taken:          0 minutes 34 seconds

[2025-08-29 10:33:27] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:33:27] [info] Host Name:           kuro-Workstation
[2025-08-29 10:33:27] [info] User Name:           kuro
[2025-08-29 10:33:27] [info] Cores Used:          8
[2025-08-29 10:33:27] [info] Memory Utilized:     4599.00 MB / 62.569698333740234 GB

[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info]           Top Cell Match
[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:33:27] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info]           Short and Open Checks
[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info] Short Circuits:      None Detected
[2025-08-29 10:33:27] [info] Open Circuits:       None Detected

[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info]           Performance Metrics
[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info] | Stage                  | Time Taken |
[2025-08-29 10:33:27] [info] |-----|-----|
[2025-08-29 10:33:27] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:33:27] [info] | Connectivity Extraction  | 0 minutes 18 seconds |
[2025-08-29 10:33:27] [info] | Device Matching         | 0 minutes 1 seconds  |
[2025-08-29 10:33:27] [info] | Report Generation       | 0 minutes 0 seconds  |

[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info]           Additional Details
[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:33:27] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:33:27] [info] Database Format:       GDSII
[2025-08-29 10:33:27] [info] Verification Mode:    Full Check
[2025-08-29 10:33:27] [info] Error Reporting:      Enabled

[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info]           Type of Errors | Count
[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info] DB_WARN -> 1
[2025-08-29 10:33:27] [info] DB_WARN003 -> 39
[2025-08-29 10:33:27] [info] VERI_WARN012 -> 4068
[2025-08-29 10:33:27] [info] ERC_ERR019 -> 4055
[2025-08-29 10:33:27] [info] LVS_ERR003 -> 4054
[2025-08-29 10:33:27] [info] ERC_ERR003 -> 4054
[2025-08-29 10:33:27] [info] LVS_ERR025 -> 1
[2025-08-29 10:33:27] [info] ERC_ERR008 -> 1
[2025-08-29 10:33:27] [info] ERC_ERR005 -> 4306
[2025-08-29 10:33:27] [info] LVS_ERR030 -> 1
[2025-08-29 10:33:27] [info] -----
[2025-08-29 10:33:27] [info]           Summary
[2025-08-29 10:33:27] [info] -----

```

```
[2025-08-29 10:33:27] [info] ERC Status:          PASSED
[2025-08-29 10:33:27] [info] Instance Match Percentage: 92.40%
[2025-08-29 10:33:27] [info] Short Circuits:          None Detected
[2025-08-29 10:33:27] [info] Open Circuits:          None Detected
[2025-08-29 10:33:27] [info] Unconnected Pins:        4155
[2025-08-29 10:33:27] [info] Total Errors:            16472
[2025-08-29 10:33:27] [info] Total Warnings:          4108
[2025-08-29 10:33:27] [info] Critical Issues:         None
```

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[2025-08-29 10:34:01] [info] =====
[2025-08-29 10:34:01] [info]           Electrical Rule Check Summary Report
[2025-08-29 10:34:01] [info] =====

[2025-08-29 10:34:01] [info] Report Generated:    2025-08-29
[2025-08-29 10:34:01] [info] Run Start Time:      10:33:38 AM
[2025-08-29 10:34:01] [info] Run End Time:        10:34:01 AM
[2025-08-29 10:34:01] [info] Time Taken:          0 minutes 32 seconds

[2025-08-29 10:34:01] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:34:01] [info] Host Name:           kuro-Workstation
[2025-08-29 10:34:01] [info] User Name:           kuro
[2025-08-29 10:34:01] [info] Cores Used:          8
[2025-08-29 10:34:01] [info] Memory Utilized:     4518.73 MB / 62.569698333740234 GB

[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:01] [info]           Top Cell Match
[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:01] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:34:01] [info] Schematic Top Cell:  jpeg_encoder
[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:01] [info]           Short and Open Checks
[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:01] [info] Short Circuits:      None Detected
[2025-08-29 10:34:01] [info] Open Circuits:       None Detected

[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:01] [info]           Performance Metrics
[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:01] [info] | Stage                  | Time Taken |
[2025-08-29 10:34:01] [info] |-----|-----|
[2025-08-29 10:34:01] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:34:01] [info] | Connectivity Extraction  | 0 minutes 17 seconds |
[2025-08-29 10:34:01] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:34:01] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:01] [info]           Additional Details
[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:01] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:34:01] [info] Hierarchical Cells:   Flattened
[2025-08-29 10:34:01] [info] Database Format:       GDSII
[2025-08-29 10:34:01] [info] Verification Mode:    Full Check
[2025-08-29 10:34:01] [info] Error Reporting:      Enabled

[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:01] [info]           Type of Errors | Count
[2025-08-29 10:34:01] [info] -----
[2025-08-29 10:34:02] [info] DB_WARN -> 1
[2025-08-29 10:34:02] [info] DB_WARN003 -> 34
[2025-08-29 10:34:02] [info] VERI_WARN012 -> 4068
[2025-08-29 10:34:02] [info] ERC_ERR019 -> 4068
[2025-08-29 10:34:02] [info] LVS_ERR003 -> 4067
[2025-08-29 10:34:02] [info] ERC_ERR003 -> 4067
[2025-08-29 10:34:02] [info] LVS_ERR025 -> 1
[2025-08-29 10:34:02] [info] ERC_ERR008 -> 1
[2025-08-29 10:34:02] [info] ERC_ERR020 -> 1
[2025-08-29 10:34:02] [info] ERC_ERR005 -> 4305
[2025-08-29 10:34:02] [info] LVS_ERR030 -> 1
[2025-08-29 10:34:02] [info] -----
[2025-08-29 10:34:02] [info]           Summary

```

```
[2025-08-29 10:34:02] [info] -----  
[2025-08-29 10:34:02] [info] ERC Status:          PASSED  
[2025-08-29 10:34:02] [info] Instance Match Percentage: 92.40%  
[2025-08-29 10:34:02] [info] Short Circuits:      None Detected  
[2025-08-29 10:34:02] [info] Open Circuits:       None Detected  
[2025-08-29 10:34:02] [info] Unconnected Pins:    4168  
[2025-08-29 10:34:02] [info] Total Errors:        16511  
[2025-08-29 10:34:02] [info] Total Warnings:      4103  
[2025-08-29 10:34:02] [info] Critical Issues:     None
```

```

[2025-09-06 14:22:56] [info] =====
[2025-09-06 14:22:56] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:22:56] [info] =====

[2025-09-06 14:22:56] [info] Report Generated:    2025-09-06
[2025-09-06 14:22:56] [info] Run Start Time:      02:21:41 PM
[2025-09-06 14:22:56] [info] Run End Time:        02:22:56 PM
[2025-09-06 14:22:56] [info] Time Taken:          1 minutes 22 seconds

[2025-09-06 14:22:56] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:22:56] [info] Host Name:           kuro-Workstation
[2025-09-06 14:22:56] [info] User Name:           kuro
[2025-09-06 14:22:56] [info] Cores Used:          16
[2025-09-06 14:22:56] [info] Memory Utilized:     2848.86 MB / 62.569705963134766 GB

[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info]           Top Cell Match
[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-09-06 14:22:56] [info] Schematic Top Cell:  aes_cipher_top1_sky130hd
[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info]           Short and Open Checks
[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info] Short Circuits:      None Detected
[2025-09-06 14:22:56] [info] Open Circuits:       None Detected

[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info]           Performance Metrics
[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info] | Stage                  | Time Taken |
[2025-09-06 14:22:56] [info] |-----|-----|
[2025-09-06 14:22:56] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:22:56] [info] | Connectivity Extraction  | 1 minutes 12 seconds |
[2025-09-06 14:22:56] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:22:56] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info]           Additional Details
[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:22:56] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:22:56] [info] Database Format:       GDSII
[2025-09-06 14:22:56] [info] Verification Mode:    Full Check
[2025-09-06 14:22:56] [info] Error Reporting:      Enabled

[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info]           Type of Errors | Count
[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info] DB_WARN -> 1
[2025-09-06 14:22:56] [info] LRF_ERR001 -> 14
[2025-09-06 14:22:56] [info] DB_WARN002 -> 144
[2025-09-06 14:22:56] [info] DB_WARN003 -> 137
[2025-09-06 14:22:56] [info] VERI_WARN012 -> 41
[2025-09-06 14:22:56] [info] ERC_ERR019 -> 18
[2025-09-06 14:22:56] [info] LVS_ERR003 -> 18
[2025-09-06 14:22:56] [info] ERC_ERR003 -> 18
[2025-09-06 14:22:56] [info] ERC_ERR005 -> 3
[2025-09-06 14:22:56] [info] LVS_ERR030 -> 1
[2025-09-06 14:22:56] [info] -----
[2025-09-06 14:22:56] [info]           Summary
[2025-09-06 14:22:56] [info] -----

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[2025-09-06 14:22:56] [info] ERC Status:          PASSED
[2025-09-06 14:22:56] [info] Instance Match Percentage: 99.99%
[2025-09-06 14:22:56] [info] Short Circuits:          None Detected
[2025-09-06 14:22:56] [info] Open Circuits:          None Detected
[2025-09-06 14:22:56] [info] Unconnected Pins:          118
[2025-09-06 14:22:56] [info] Total Errors:            72
[2025-09-06 14:22:56] [info] Total Warnings:          323
[2025-09-06 14:22:56] [info] Critical Issues:          None
```

```

[2025-09-06 14:25:05] [info] =====
[2025-09-06 14:25:05] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:25:05] [info] =====

[2025-09-06 14:25:05] [info] Report Generated:    2025-09-06
[2025-09-06 14:25:05] [info] Run Start Time:      02:23:06 PM
[2025-09-06 14:25:05] [info] Run End Time:        02:25:04 PM
[2025-09-06 14:25:05] [info] Time Taken:          2 minutes 6 seconds

[2025-09-06 14:25:05] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:25:05] [info] Host Name:           kuro-Workstation
[2025-09-06 14:25:05] [info] User Name:           kuro
[2025-09-06 14:25:05] [info] Cores Used:          16
[2025-09-06 14:25:05] [info] Memory Utilized:     3444.20 MB / 62.569705963134766 GB

[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info]           Top Cell Match
[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-09-06 14:25:05] [info] Schematic Top Cell:  aes_cipher_top2_sky130hd
[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info]           Short and Open Checks
[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info] Short Circuits:      None Detected
[2025-09-06 14:25:05] [info] Open Circuits:       None Detected

[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info]           Performance Metrics
[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info] | Stage                  | Time Taken |
[2025-09-06 14:25:05] [info] |-----|-----|
[2025-09-06 14:25:05] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:25:05] [info] | Connectivity Extraction  | 1 minutes 55 seconds |
[2025-09-06 14:25:05] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:25:05] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info]           Additional Details
[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 14:25:05] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:25:05] [info] Database Format:       GDSII
[2025-09-06 14:25:05] [info] Verification Mode:    Full Check
[2025-09-06 14:25:05] [info] Error Reporting:      Enabled

[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info]           Type of Errors | Count
[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info] DB_WARN -> 1
[2025-09-06 14:25:05] [info] LRF_ERR001 -> 14
[2025-09-06 14:25:05] [info] DB_WARN002 -> 141
[2025-09-06 14:25:05] [info] DB_WARN003 -> 135
[2025-09-06 14:25:05] [info] VERI_WARN012 -> 39
[2025-09-06 14:25:05] [info] ERC_ERR019 -> 12
[2025-09-06 14:25:05] [info] LVS_ERR003 -> 12
[2025-09-06 14:25:05] [info] ERC_ERR003 -> 12
[2025-09-06 14:25:05] [info] ERC_ERR005 -> 3
[2025-09-06 14:25:05] [info] LVS_ERR030 -> 1
[2025-09-06 14:25:05] [info] -----
[2025-09-06 14:25:05] [info]           Summary
[2025-09-06 14:25:05] [info] -----

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[2025-09-06 14:25:05] [info] ERC Status:          PASSED
[2025-09-06 14:25:05] [info] Instance Match Percentage: 99.99%
[2025-09-06 14:25:05] [info] Short Circuits:      None Detected
[2025-09-06 14:25:05] [info] Open Circuits:      None Detected
[2025-09-06 14:25:05] [info] Unconnected Pins:    112
[2025-09-06 14:25:05] [info] Total Errors:        54
[2025-09-06 14:25:05] [info] Total Warnings:      316
[2025-09-06 14:25:05] [info] Critical Issues:     None
```

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[2025-09-06 14:26:20] [info] =====
[2025-09-06 14:26:20] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:26:20] [info] =====

[2025-09-06 14:26:20] [info] Report Generated:    2025-09-06
[2025-09-06 14:26:20] [info] Run Start Time:      02:25:13 PM
[2025-09-06 14:26:20] [info] Run End Time:        02:26:19 PM
[2025-09-06 14:26:20] [info] Time Taken:          1 minutes 12 seconds

[2025-09-06 14:26:20] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:26:20] [info] Host Name:           kuro-Workstation
[2025-09-06 14:26:20] [info] User Name:           kuro
[2025-09-06 14:26:20] [info] Cores Used:          16
[2025-09-06 14:26:20] [info] Memory Utilized:     2343.92 MB / 62.569705963134766 GB

[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info]           Top Cell Match
[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-09-06 14:26:20] [info] Schematic Top Cell:  aes_cipher_top3_sky130hd
[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info]           Short and Open Checks
[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info] Short Circuits:      None Detected
[2025-09-06 14:26:20] [info] Open Circuits:       None Detected

[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info]           Performance Metrics
[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info] | Stage                  | Time Taken |
[2025-09-06 14:26:20] [info] |-----|-----|
[2025-09-06 14:26:20] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:26:20] [info] | Connectivity Extraction  | 1 minutes 4 seconds |
[2025-09-06 14:26:20] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:26:20] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info]           Additional Details
[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:26:20] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:26:20] [info] Database Format:       GDSII
[2025-09-06 14:26:20] [info] Verification Mode:    Full Check
[2025-09-06 14:26:20] [info] Error Reporting:      Enabled

[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info]           Type of Errors | Count
[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info] DB_WARN -> 1
[2025-09-06 14:26:20] [info] LRF_ERR001 -> 14
[2025-09-06 14:26:20] [info] DB_WARN002 -> 138
[2025-09-06 14:26:20] [info] DB_WARN003 -> 132
[2025-09-06 14:26:20] [info] VERI_WARN012 -> 36
[2025-09-06 14:26:20] [info] ERC_ERR019 -> 12
[2025-09-06 14:26:20] [info] LVS_ERR003 -> 12
[2025-09-06 14:26:20] [info] ERC_ERR003 -> 12
[2025-09-06 14:26:20] [info] ERC_ERR005 -> 3
[2025-09-06 14:26:20] [info] LVS_ERR030 -> 1
[2025-09-06 14:26:20] [info] -----
[2025-09-06 14:26:20] [info]           Summary
[2025-09-06 14:26:20] [info] -----

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[2025-09-06 14:26:20] [info] ERC Status:          PASSED
[2025-09-06 14:26:20] [info] Instance Match Percentage: 99.99%
[2025-09-06 14:26:20] [info] Short Circuits:      None Detected
[2025-09-06 14:26:20] [info] Open Circuits:       None Detected
[2025-09-06 14:26:20] [info] Unconnected Pins:    112
[2025-09-06 14:26:20] [info] Total Errors:        54
[2025-09-06 14:26:20] [info] Total Warnings:      307
[2025-09-06 14:26:20] [info] Critical Issues:     None
```

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[2025-09-06 14:21:33] [info] =====
[2025-09-06 14:21:33] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:21:33] [info] =====

[2025-09-06 14:21:33] [info] Report Generated:    2025-09-06
[2025-09-06 14:21:33] [info] Run Start Time:      02:21:33 PM
[2025-09-06 14:21:33] [info] Run End Time:        02:21:33 PM
[2025-09-06 14:21:33] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 14:21:33] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:21:33] [info] Host Name:           kuro-Workstation
[2025-09-06 14:21:33] [info] User Name:           kuro
[2025-09-06 14:21:33] [info] Cores Used:          16
[2025-09-06 14:21:33] [info] Memory Utilized:     38.46 MB / 62.569705963134766 GB

[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info]           Top Cell Match
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Layout Top Cell:      gcd1_sky130hd
[2025-09-06 14:21:33] [info] Schematic Top Cell:   gcd1_sky130hd
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info]           Short and Open Checks
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Short Circuits:       None Detected
[2025-09-06 14:21:33] [info] Open Circuits:        None Detected

[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info]           Performance Metrics
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] | Stage                  | Time Taken |
[2025-09-06 14:21:33] [info] |-----|-----|
[2025-09-06 14:21:33] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:21:33] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-09-06 14:21:33] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:21:33] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info]           Additional Details
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 14:21:33] [info] Hierarchical Cells:    Flattened
[2025-09-06 14:21:33] [info] Database Format:        GDSII
[2025-09-06 14:21:33] [info] Verification Mode:     Full Check
[2025-09-06 14:21:33] [info] Error Reporting:       Enabled

[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info]           Type of Errors | Count
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] DB_WARN -> 1
[2025-09-06 14:21:33] [info] LRF_ERROR01 -> 14
[2025-09-06 14:21:33] [info] DB_WARN002 -> 58
[2025-09-06 14:21:33] [info] DB_WARN003 -> 55
[2025-09-06 14:21:33] [info] VERI_WARN012 -> 4
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info]           Summary
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] ERC Status:            PASSED
[2025-09-06 14:21:33] [info] Instance Match Percentage: 100.00%
[2025-09-06 14:21:33] [info] Short Circuits:        None Detected
[2025-09-06 14:21:33] [info] Open Circuits:         None Detected
[2025-09-06 14:21:33] [info] Unconnected Pins:      100

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```
[2025-09-06 14:21:33] [info] Total Errors:      14
[2025-09-06 14:21:33] [info] Total Warnings:    118
[2025-09-06 14:21:33] [info] Critical Issues:   None
```

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[2025-09-06 14:21:33] [info] =====
[2025-09-06 14:21:33] [info] Electrical Rule Check Summary Report
[2025-09-06 14:21:33] [info] =====

[2025-09-06 14:21:33] [info] Report Generated: 2025-09-06
[2025-09-06 14:21:33] [info] Run Start Time: 02:21:33 PM
[2025-09-06 14:21:33] [info] Run End Time: 02:21:33 PM
[2025-09-06 14:21:33] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 14:21:33] [info] Tool Version: LVR_2025.1
[2025-09-06 14:21:33] [info] Host Name: kuro-Workstation
[2025-09-06 14:21:33] [info] User Name: kuro
[2025-09-06 14:21:33] [info] Cores Used: 16
[2025-09-06 14:21:33] [info] Memory Utilized: 43.01 MB / 62.569705963134766 GB

[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Top Cell Match
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Layout Top Cell: gcd2_sky130hd
[2025-09-06 14:21:33] [info] Schematic Top Cell: gcd2_sky130hd
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Short and Open Checks
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Short Circuits: None Detected
[2025-09-06 14:21:33] [info] Open Circuits: None Detected

[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Performance Metrics
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] | Stage | Time Taken |
[2025-09-06 14:21:33] [info] |-----|-----|
[2025-09-06 14:21:33] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 14:21:33] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 14:21:33] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 14:21:33] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Additional Details
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 14:21:33] [info] Hierarchical Cells: Flattened
[2025-09-06 14:21:33] [info] Database Format: GDSII
[2025-09-06 14:21:33] [info] Verification Mode: Full Check
[2025-09-06 14:21:33] [info] Error Reporting: Enabled

[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Type of Errors | Count
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] DB_WARN -> 1
[2025-09-06 14:21:33] [info] LRF_ERROR01 -> 14
[2025-09-06 14:21:33] [info] DB_WARN002 -> 59
[2025-09-06 14:21:33] [info] DB_WARN003 -> 56
[2025-09-06 14:21:33] [info] VERI_WARN012 -> 5
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] Summary
[2025-09-06 14:21:33] [info] -----
[2025-09-06 14:21:33] [info] ERC Status: PASSED
[2025-09-06 14:21:33] [info] Instance Match Percentage: 100.00%
[2025-09-06 14:21:33] [info] Short Circuits: None Detected
[2025-09-06 14:21:33] [info] Open Circuits: None Detected
[2025-09-06 14:21:33] [info] Unconnected Pins: 100

```

```
[2025-09-06 14:21:33] [info] Total Errors:      14
[2025-09-06 14:21:33] [info] Total Warnings:    121
[2025-09-06 14:21:33] [info] Critical Issues:  None
```

```

[2025-09-06 14:21:34] [info] =====
[2025-09-06 14:21:34] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:21:34] [info] =====

[2025-09-06 14:21:34] [info] Report Generated:    2025-09-06
[2025-09-06 14:21:34] [info] Run Start Time:      02:21:34 PM
[2025-09-06 14:21:34] [info] Run End Time:        02:21:34 PM
[2025-09-06 14:21:34] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 14:21:34] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:21:34] [info] Host Name:           kuro-Workstation
[2025-09-06 14:21:34] [info] User Name:           kuro
[2025-09-06 14:21:34] [info] Cores Used:          16
[2025-09-06 14:21:34] [info] Memory Utilized:     32.48 MB / 62.569705963134766 GB

[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info]           Top Cell Match
[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info] Layout Top Cell:     gcd3_sky130hd
[2025-09-06 14:21:34] [info] Schematic Top Cell:  gcd3_sky130hd
[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info]           Short and Open Checks
[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info] Short Circuits:      None Detected
[2025-09-06 14:21:34] [info] Open Circuits:       None Detected

[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info]           Performance Metrics
[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info] | Stage                  | Time Taken |
[2025-09-06 14:21:34] [info] |-----|-----|
[2025-09-06 14:21:34] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:21:34] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-09-06 14:21:34] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:21:34] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info]           Additional Details
[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:21:34] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:21:34] [info] Database Format:       GDSII
[2025-09-06 14:21:34] [info] Verification Mode:    Full Check
[2025-09-06 14:21:34] [info] Error Reporting:      Enabled

[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info]           Type of Errors | Count
[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info] DB_WARN -> 1
[2025-09-06 14:21:34] [info] LRF_ERROR01 -> 14
[2025-09-06 14:21:34] [info] DB_WARN002 -> 59
[2025-09-06 14:21:34] [info] DB_WARN003 -> 56
[2025-09-06 14:21:34] [info] VERI_WARN012 -> 6
[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info]           Summary
[2025-09-06 14:21:34] [info] -----
[2025-09-06 14:21:34] [info] ERC Status:           PASSED
[2025-09-06 14:21:34] [info] Instance Match Percentage: 100.00%
[2025-09-06 14:21:34] [info] Short Circuits:       None Detected
[2025-09-06 14:21:34] [info] Open Circuits:        None Detected
[2025-09-06 14:21:34] [info] Unconnected Pins:     100

```

```
[2025-09-06 14:21:34] [info] Total Errors:      14
[2025-09-06 14:21:34] [info] Total Warnings:    122
[2025-09-06 14:21:34] [info] Critical Issues:   None
```

```

[2025-09-06 14:27:28] [info] =====
[2025-09-06 14:27:28] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:27:28] [info] =====

[2025-09-06 14:27:28] [info] Report Generated:    2025-09-06
[2025-09-06 14:27:28] [info] Run Start Time:      02:26:27 PM
[2025-09-06 14:27:28] [info] Run End Time:        02:27:28 PM
[2025-09-06 14:27:28] [info] Time Taken:          1 minutes 6 seconds

[2025-09-06 14:27:28] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:27:28] [info] Host Name:           kuro-Workstation
[2025-09-06 14:27:28] [info] User Name:           kuro
[2025-09-06 14:27:28] [info] Cores Used:          16
[2025-09-06 14:27:28] [info] Memory Utilized:     2607.32 MB / 62.569705963134766 GB

[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info]           Top Cell Match
[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-09-06 14:27:28] [info] Schematic Top Cell:  ibex_core1_sky130hd
[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info]           Short and Open Checks
[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info] Short Circuits:      None Detected
[2025-09-06 14:27:28] [info] Open Circuits:       None Detected

[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info]           Performance Metrics
[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info] | Stage                  | Time Taken |
[2025-09-06 14:27:28] [info] |-----|-----|
[2025-09-06 14:27:28] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-09-06 14:27:28] [info] | Connectivity Extraction | 0 minutes 58 seconds |
[2025-09-06 14:27:28] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-09-06 14:27:28] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info]           Additional Details
[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:27:28] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:27:28] [info] Database Format:       GDSII
[2025-09-06 14:27:28] [info] Verification Mode:    Full Check
[2025-09-06 14:27:28] [info] Error Reporting:      Enabled

[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info]           Type of Errors | Count
[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info] DB_WARN -> 1
[2025-09-06 14:27:28] [info] LRF_ERR001 -> 14
[2025-09-06 14:27:28] [info] DB_WARN002 -> 251
[2025-09-06 14:27:28] [info] DB_WARN003 -> 251
[2025-09-06 14:27:28] [info] VERI_WARN012 -> 34
[2025-09-06 14:27:28] [info] ERC_ERR019 -> 38
[2025-09-06 14:27:28] [info] ERC_ERR001 -> 4
[2025-09-06 14:27:28] [info] LVS_ERR003 -> 13
[2025-09-06 14:27:28] [info] ERC_ERR003 -> 13
[2025-09-06 14:27:28] [info] ERC_ERR005 -> 11
[2025-09-06 14:27:28] [info] LVS_ERR030 -> 1
[2025-09-06 14:27:28] [info] -----
[2025-09-06 14:27:28] [info]           Summary

```

```
[2025-09-06 14:27:28] [info] -----  
[2025-09-06 14:27:28] [info] ERC Status:          PASSED  
[2025-09-06 14:27:28] [info] Instance Match Percentage: 99.95%  
[2025-09-06 14:27:28] [info] Short Circuits:      None Detected  
[2025-09-06 14:27:28] [info] Open Circuits:       None Detected  
[2025-09-06 14:27:28] [info] Unconnected Pins:    138  
[2025-09-06 14:27:28] [info] Total Errors:        94  
[2025-09-06 14:27:28] [info] Total Warnings:      537  
[2025-09-06 14:27:28] [info] Critical Issues:     None
```

```

[2025-09-06 14:28:40] [info] =====
[2025-09-06 14:28:40] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:28:40] [info] =====

[2025-09-06 14:28:40] [info] Report Generated:    2025-09-06
[2025-09-06 14:28:40] [info] Run Start Time:      02:27:36 PM
[2025-09-06 14:28:40] [info] Run End Time:        02:28:39 PM
[2025-09-06 14:28:40] [info] Time Taken:          1 minutes 9 seconds

[2025-09-06 14:28:40] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:28:40] [info] Host Name:           kuro-Workstation
[2025-09-06 14:28:40] [info] User Name:           kuro
[2025-09-06 14:28:40] [info] Cores Used:          16
[2025-09-06 14:28:40] [info] Memory Utilized:     2652.30 MB / 62.569705963134766 GB

[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info]           Top Cell Match
[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info] Layout Top Cell:      ibex_core2_sky130hd
[2025-09-06 14:28:40] [info] Schematic Top Cell:   ibex_core2_sky130hd
[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info]           Short and Open Checks
[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info] Short Circuits:       None Detected
[2025-09-06 14:28:40] [info] Open Circuits:        None Detected

[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info]           Performance Metrics
[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info] | Stage                  | Time Taken |
[2025-09-06 14:28:40] [info] |-----|-----|
[2025-09-06 14:28:40] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:28:40] [info] | Connectivity Extraction  | 1 minutes 1 seconds |
[2025-09-06 14:28:40] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:28:40] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info]           Additional Details
[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 14:28:40] [info] Hierarchical Cells:    Flattened
[2025-09-06 14:28:40] [info] Database Format:        GDSII
[2025-09-06 14:28:40] [info] Verification Mode:     Full Check
[2025-09-06 14:28:40] [info] Error Reporting:       Enabled

[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info]           Type of Errors | Count
[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info] DB_WARN -> 1
[2025-09-06 14:28:40] [info] LRF_ERR001 -> 14
[2025-09-06 14:28:40] [info] DB_WARN002 -> 249
[2025-09-06 14:28:40] [info] DB_WARN003 -> 249
[2025-09-06 14:28:40] [info] VERI_WARN012 -> 31
[2025-09-06 14:28:40] [info] ERC_ERR019 -> 32
[2025-09-06 14:28:40] [info] ERC_ERR001 -> 4
[2025-09-06 14:28:40] [info] LVS_ERR003 -> 11
[2025-09-06 14:28:40] [info] ERC_ERR003 -> 11
[2025-09-06 14:28:40] [info] ERC_ERR005 -> 12
[2025-09-06 14:28:40] [info] LVS_ERR030 -> 1
[2025-09-06 14:28:40] [info] -----
[2025-09-06 14:28:40] [info]           Summary

```

```
[2025-09-06 14:28:40] [info] -----  
[2025-09-06 14:28:40] [info] ERC Status:          PASSED  
[2025-09-06 14:28:40] [info] Instance Match Percentage: 99.94%  
[2025-09-06 14:28:40] [info] Short Circuits:      None Detected  
[2025-09-06 14:28:40] [info] Open Circuits:       None Detected  
[2025-09-06 14:28:40] [info] Unconnected Pins:    132  
[2025-09-06 14:28:40] [info] Total Errors:        85  
[2025-09-06 14:28:40] [info] Total Warnings:      530  
[2025-09-06 14:28:40] [info] Critical Issues:     None
```

```
[2025-09-06 14:29:49] [info] =====
[2025-09-06 14:29:49] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:29:49] [info] =====

[2025-09-06 14:29:49] [info] Report Generated:    2025-09-06
[2025-09-06 14:29:49] [info] Run Start Time:      02:28:47 PM
[2025-09-06 14:29:49] [info] Run End Time:        02:29:49 PM
[2025-09-06 14:29:49] [info] Time Taken:          1 minutes 7 seconds

[2025-09-06 14:29:49] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:29:49] [info] Host Name:           kuro-Workstation
[2025-09-06 14:29:49] [info] User Name:           kuro
[2025-09-06 14:29:49] [info] Cores Used:          16
[2025-09-06 14:29:49] [info] Memory Utilized:     2577.80 MB / 62.569705963134766 GB

[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info]           Top Cell Match
[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 14:29:49] [info] Schematic Top Cell:  ibex_core3_sky130hd
[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info]           Short and Open Checks
[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info] Short Circuits:      None Detected
[2025-09-06 14:29:49] [info] Open Circuits:       None Detected

[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info]           Performance Metrics
[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info] | Stage                  | Time Taken |
[2025-09-06 14:29:49] [info] |-----|-----|
[2025-09-06 14:29:49] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:29:49] [info] | Connectivity Extraction  | 0 minutes 59 seconds |
[2025-09-06 14:29:49] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:29:49] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info]           Additional Details
[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:29:49] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:29:49] [info] Database Format:       GDSII
[2025-09-06 14:29:49] [info] Verification Mode:    Full Check
[2025-09-06 14:29:49] [info] Error Reporting:      Enabled

[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info]           Type of Errors | Count
[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info] DB_WARN -> 1
[2025-09-06 14:29:49] [info] LRF_ERR001 -> 14
[2025-09-06 14:29:49] [info] DB_WARN002 -> 253
[2025-09-06 14:29:49] [info] DB_WARN003 -> 251
[2025-09-06 14:29:49] [info] VERI_WARN012 -> 53
[2025-09-06 14:29:49] [info] ERC_ERR019 -> 31
[2025-09-06 14:29:49] [info] LVS_ERR003 -> 11
[2025-09-06 14:29:49] [info] ERC_ERR003 -> 11
[2025-09-06 14:29:49] [info] ERC_ERR001 -> 2
[2025-09-06 14:29:49] [info] ERC_ERR005 -> 9
[2025-09-06 14:29:49] [info] LVS_ERR030 -> 1
[2025-09-06 14:29:49] [info] -----
[2025-09-06 14:29:49] [info]           Summary
```

```
[2025-09-06 14:29:49] [info] -----  
[2025-09-06 14:29:49] [info] ERC Status:          PASSED  
[2025-09-06 14:29:49] [info] Instance Match Percentage: 99.95%  
[2025-09-06 14:29:49] [info] Short Circuits:      None Detected  
[2025-09-06 14:29:49] [info] Open Circuits:       None Detected  
[2025-09-06 14:29:49] [info] Unconnected Pins:    131  
[2025-09-06 14:29:49] [info] Total Errors:        79  
[2025-09-06 14:29:49] [info] Total Warnings:      558  
[2025-09-06 14:29:49] [info] Critical Issues:     None
```

```

[2025-09-06 14:35:00] [info] =====
[2025-09-06 14:35:00] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:35:00] [info] =====

[2025-09-06 14:35:00] [info] Report Generated:    2025-09-06
[2025-09-06 14:35:00] [info] Run Start Time:      02:30:09 PM
[2025-09-06 14:35:00] [info] Run End Time:        02:35:00 PM
[2025-09-06 14:35:00] [info] Time Taken:          5 minutes 9 seconds

[2025-09-06 14:35:00] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:35:00] [info] Host Name:           kuro-Workstation
[2025-09-06 14:35:00] [info] User Name:           kuro
[2025-09-06 14:35:00] [info] Cores Used:          16
[2025-09-06 14:35:00] [info] Memory Utilized:     6934.95 MB / 62.569705963134766 GB

[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info]           Top Cell Match
[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-09-06 14:35:00] [info] Schematic Top Cell:  jpeg_encoder1_sky130hd
[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info]           Short and Open Checks
[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info] Short Circuits:      None Detected
[2025-09-06 14:35:00] [info] Open Circuits:       None Detected

[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info]           Performance Metrics
[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info] | Stage                  | Time Taken |
[2025-09-06 14:35:00] [info] |-----|-----|
[2025-09-06 14:35:00] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:35:00] [info] | Connectivity Extraction  | 4 minutes 44 seconds |
[2025-09-06 14:35:00] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:35:00] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info]           Additional Details
[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:35:00] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:35:00] [info] Database Format:       GDSII
[2025-09-06 14:35:00] [info] Verification Mode:    Full Check
[2025-09-06 14:35:00] [info] Error Reporting:      Enabled

[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info]           Type of Errors | Count
[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info] DB_WARN -> 1
[2025-09-06 14:35:00] [info] LRF_ERR001 -> 14
[2025-09-06 14:35:00] [info] DB_WARN002 -> 159
[2025-09-06 14:35:00] [info] DB_WARN003 -> 161
[2025-09-06 14:35:00] [info] VERI_WARN012 -> 113
[2025-09-06 14:35:00] [info] ERC_ERR019 -> 511
[2025-09-06 14:35:00] [info] LVS_ERR003 -> 499
[2025-09-06 14:35:00] [info] ERC_ERR003 -> 499
[2025-09-06 14:35:00] [info] ERC_ERR005 -> 113
[2025-09-06 14:35:00] [info] LVS_ERR030 -> 1
[2025-09-06 14:35:00] [info] -----
[2025-09-06 14:35:00] [info]           Summary
[2025-09-06 14:35:00] [info] -----

```

```
[2025-09-06 14:35:00] [info] ERC Status:          PASSED
[2025-09-06 14:35:00] [info] Instance Match Percentage: 99.75%
[2025-09-06 14:35:00] [info] Short Circuits:      None Detected
[2025-09-06 14:35:00] [info] Open Circuits:      None Detected
[2025-09-06 14:35:00] [info] Unconnected Pins:    611
[2025-09-06 14:35:00] [info] Total Errors:        1637
[2025-09-06 14:35:00] [info] Total Warnings:      434
[2025-09-06 14:35:00] [info] Critical Issues:     None
```

```
[2025-09-06 14:40:57] [info] =====
[2025-09-06 14:40:57] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:40:57] [info] =====

[2025-09-06 14:40:57] [info] Report Generated:    2025-09-06
[2025-09-06 14:40:57] [info] Run Start Time:      02:35:27 PM
[2025-09-06 14:40:57] [info] Run End Time:        02:40:57 PM
[2025-09-06 14:40:57] [info] Time Taken:          5 minutes 51 seconds

[2025-09-06 14:40:57] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:40:57] [info] Host Name:           kuro-Workstation
[2025-09-06 14:40:57] [info] User Name:           kuro
[2025-09-06 14:40:57] [info] Cores Used:          16
[2025-09-06 14:40:57] [info] Memory Utilized:     8499.99 MB / 62.569705963134766 GB

[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info]           Top Cell Match
[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-09-06 14:40:57] [info] Schematic Top Cell:  jpeg_encoder2_sky130hd
[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info]           Short and Open Checks
[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info] Short Circuits:      None Detected
[2025-09-06 14:40:57] [info] Open Circuits:       None Detected

[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info]           Performance Metrics
[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info] | Stage                  | Time Taken |
[2025-09-06 14:40:57] [info] |-----|-----|
[2025-09-06 14:40:57] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-09-06 14:40:57] [info] | Connectivity Extraction | 5 minutes 23 seconds |
[2025-09-06 14:40:57] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-09-06 14:40:57] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info]           Additional Details
[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:40:57] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:40:57] [info] Database Format:       GDSII
[2025-09-06 14:40:57] [info] Verification Mode:    Full Check
[2025-09-06 14:40:57] [info] Error Reporting:      Enabled

[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info]           Type of Errors | Count
[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info] DB_WARN -> 1
[2025-09-06 14:40:57] [info] LRF_ERR001 -> 14
[2025-09-06 14:40:57] [info] DB_WARN002 -> 157
[2025-09-06 14:40:57] [info] DB_WARN003 -> 159
[2025-09-06 14:40:57] [info] VERI_WARN012 -> 113
[2025-09-06 14:40:57] [info] ERC_ERR019 -> 502
[2025-09-06 14:40:57] [info] LVS_ERR003 -> 490
[2025-09-06 14:40:57] [info] ERC_ERR003 -> 490
[2025-09-06 14:40:57] [info] ERC_ERR005 -> 113
[2025-09-06 14:40:57] [info] LVS_ERR030 -> 1
[2025-09-06 14:40:57] [info] -----
[2025-09-06 14:40:57] [info]           Summary
[2025-09-06 14:40:57] [info] -----
```

```
[2025-09-06 14:40:57] [info] ERC Status:          PASSED
[2025-09-06 14:40:57] [info] Instance Match Percentage: 99.75%
[2025-09-06 14:40:57] [info] Short Circuits:      None Detected
[2025-09-06 14:40:57] [info] Open Circuits:      None Detected
[2025-09-06 14:40:57] [info] Unconnected Pins:    602
[2025-09-06 14:40:57] [info] Total Errors:        1610
[2025-09-06 14:40:57] [info] Total Warnings:      430
[2025-09-06 14:40:57] [info] Critical Issues:     None
```

```

[2025-09-06 14:45:23] [info] =====
[2025-09-06 14:45:23] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:45:23] [info] =====

[2025-09-06 14:45:23] [info] Report Generated:    2025-09-06
[2025-09-06 14:45:23] [info] Run Start Time:      02:41:17 PM
[2025-09-06 14:45:23] [info] Run End Time:        02:45:23 PM
[2025-09-06 14:45:23] [info] Time Taken:          4 minutes 19 seconds

[2025-09-06 14:45:23] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:45:23] [info] Host Name:           kuro-Workstation
[2025-09-06 14:45:23] [info] User Name:           kuro
[2025-09-06 14:45:23] [info] Cores Used:          16
[2025-09-06 14:45:23] [info] Memory Utilized:     5873.45 MB / 62.569705963134766 GB

[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info]           Top Cell Match
[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-09-06 14:45:23] [info] Schematic Top Cell:  jpeg_encoder3_sky130hd
[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info]           Short and Open Checks
[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info] Short Circuits:      None Detected
[2025-09-06 14:45:23] [info] Open Circuits:       None Detected

[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info]           Performance Metrics
[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info] | Stage                  | Time Taken |
[2025-09-06 14:45:23] [info] |-----|-----|
[2025-09-06 14:45:23] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:45:23] [info] | Connectivity Extraction  | 4 minutes 0 seconds |
[2025-09-06 14:45:23] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:45:23] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info]           Additional Details
[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:45:23] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:45:23] [info] Database Format:       GDSII
[2025-09-06 14:45:23] [info] Verification Mode:    Full Check
[2025-09-06 14:45:23] [info] Error Reporting:      Enabled

[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info]           Type of Errors | Count
[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info] DB_WARN -> 1
[2025-09-06 14:45:23] [info] LRF_ERR001 -> 14
[2025-09-06 14:45:23] [info] DB_WARN002 -> 152
[2025-09-06 14:45:23] [info] DB_WARN003 -> 155
[2025-09-06 14:45:23] [info] VERI_WARN012 -> 113
[2025-09-06 14:45:23] [info] ERC_ERR019 -> 450
[2025-09-06 14:45:23] [info] LVS_ERR003 -> 438
[2025-09-06 14:45:23] [info] ERC_ERR003 -> 438
[2025-09-06 14:45:23] [info] ERC_ERR005 -> 113
[2025-09-06 14:45:23] [info] LVS_ERR030 -> 1
[2025-09-06 14:45:23] [info] -----
[2025-09-06 14:45:23] [info]           Summary
[2025-09-06 14:45:23] [info] -----

```

```
[2025-09-06 14:45:23] [info] ERC Status:          PASSED
[2025-09-06 14:45:23] [info] Instance Match Percentage: 99.75%
[2025-09-06 14:45:23] [info] Short Circuits:      None Detected
[2025-09-06 14:45:23] [info] Open Circuits:       None Detected
[2025-09-06 14:45:23] [info] Unconnected Pins:    550
[2025-09-06 14:45:23] [info] Total Errors:        1454
[2025-09-06 14:45:23] [info] Total Warnings:      421
[2025-09-06 14:45:23] [info] Critical Issues:     None
```

```

[2025-09-06 10:57:30] [info] =====
[2025-09-06 10:57:30] [info]           Electrical Rule Check Summary Report
[2025-09-06 10:57:30] [info] =====

[2025-09-06 10:57:30] [info] Report Generated:    2025-09-06
[2025-09-06 10:57:30] [info] Run Start Time:      10:49:09 AM
[2025-09-06 10:57:30] [info] Run End Time:        10:57:30 AM
[2025-09-06 10:57:30] [info] Time Taken:          8 minutes 27 seconds

[2025-09-06 10:57:30] [info] Tool Version:        LVR_2025.1
[2025-09-06 10:57:30] [info] Host Name:           kuro-Workstation
[2025-09-06 10:57:30] [info] User Name:           kuro
[2025-09-06 10:57:30] [info] Cores Used:          1
[2025-09-06 10:57:30] [info] Memory Utilized:     2848.86 MB / 62.569705963134766 GB

[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info]           Top Cell Match
[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-09-06 10:57:30] [info] Schematic Top Cell:  aes_cipher_top1_sky130hd
[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info]           Short and Open Checks
[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info] Short Circuits:      None Detected
[2025-09-06 10:57:30] [info] Open Circuits:       None Detected

[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info]           Performance Metrics
[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info] | Stage                  | Time Taken |
[2025-09-06 10:57:30] [info] |-----|-----|
[2025-09-06 10:57:30] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 10:57:30] [info] | Connectivity Extraction  | 8 minutes 18 seconds |
[2025-09-06 10:57:30] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 10:57:30] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info]           Additional Details
[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 10:57:30] [info] Hierarchical Cells:    Flattened
[2025-09-06 10:57:30] [info] Database Format:        GDSII
[2025-09-06 10:57:30] [info] Verification Mode:     Full Check
[2025-09-06 10:57:30] [info] Error Reporting:       Enabled

[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info]           Type of Errors | Count
[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info] DB_WARN -> 1
[2025-09-06 10:57:30] [info] LRF_ERR001 -> 14
[2025-09-06 10:57:30] [info] DB_WARN002 -> 144
[2025-09-06 10:57:30] [info] DB_WARN003 -> 137
[2025-09-06 10:57:30] [info] VERI_WARN012 -> 41
[2025-09-06 10:57:30] [info] ERC_ERR019 -> 18
[2025-09-06 10:57:30] [info] LVS_ERR003 -> 18
[2025-09-06 10:57:30] [info] ERC_ERR003 -> 18
[2025-09-06 10:57:30] [info] ERC_ERR005 -> 3
[2025-09-06 10:57:30] [info] LVS_ERR030 -> 1
[2025-09-06 10:57:30] [info] -----
[2025-09-06 10:57:30] [info]           Summary
[2025-09-06 10:57:30] [info] -----

```

```
[2025-09-06 10:57:30] [info] ERC Status:          PASSED
[2025-09-06 10:57:30] [info] Instance Match Percentage: 99.99%
[2025-09-06 10:57:30] [info] Short Circuits:      None Detected
[2025-09-06 10:57:30] [info] Open Circuits:       None Detected
[2025-09-06 10:57:30] [info] Unconnected Pins:    118
[2025-09-06 10:57:30] [info] Total Errors:        72
[2025-09-06 10:57:30] [info] Total Warnings:      323
[2025-09-06 10:57:30] [info] Critical Issues:     None
```

```

[2025-09-06 11:10:03] [info] =====
[2025-09-06 11:10:03] [info]           Electrical Rule Check Summary Report
[2025-09-06 11:10:03] [info] =====

[2025-09-06 11:10:03] [info] Report Generated:    2025-09-06
[2025-09-06 11:10:03] [info] Run Start Time:      10:57:40 AM
[2025-09-06 11:10:03] [info] Run End Time:        11:10:03 AM
[2025-09-06 11:10:03] [info] Time Taken:          12 minutes 30 seconds

[2025-09-06 11:10:03] [info] Tool Version:        LVR_2025.1
[2025-09-06 11:10:03] [info] Host Name:           kuro-Workstation
[2025-09-06 11:10:03] [info] User Name:           kuro
[2025-09-06 11:10:03] [info] Cores Used:          1
[2025-09-06 11:10:03] [info] Memory Utilized:     3444.20 MB / 62.569705963134766 GB

[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info]           Top Cell Match
[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-09-06 11:10:03] [info] Schematic Top Cell:  aes_cipher_top2_sky130hd
[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info]           Short and Open Checks
[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info] Short Circuits:      None Detected
[2025-09-06 11:10:03] [info] Open Circuits:       None Detected

[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info]           Performance Metrics
[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info] | Stage                  | Time Taken |
[2025-09-06 11:10:03] [info] |-----|-----|
[2025-09-06 11:10:03] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 11:10:03] [info] | Connectivity Extraction  | 12 minutes 19 seconds |
[2025-09-06 11:10:03] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 11:10:03] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info]           Additional Details
[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 11:10:03] [info] Hierarchical Cells:   Flattened
[2025-09-06 11:10:03] [info] Database Format:       GDSII
[2025-09-06 11:10:03] [info] Verification Mode:    Full Check
[2025-09-06 11:10:03] [info] Error Reporting:      Enabled

[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info]           Type of Errors | Count
[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info] DB_WARN -> 1
[2025-09-06 11:10:03] [info] LRF_ERR001 -> 14
[2025-09-06 11:10:03] [info] DB_WARN002 -> 141
[2025-09-06 11:10:03] [info] DB_WARN003 -> 135
[2025-09-06 11:10:03] [info] VERI_WARN012 -> 39
[2025-09-06 11:10:03] [info] ERC_ERR019 -> 12
[2025-09-06 11:10:03] [info] LVS_ERR003 -> 12
[2025-09-06 11:10:03] [info] ERC_ERR003 -> 12
[2025-09-06 11:10:03] [info] ERC_ERR005 -> 3
[2025-09-06 11:10:03] [info] LVS_ERR030 -> 1
[2025-09-06 11:10:03] [info] -----
[2025-09-06 11:10:03] [info]           Summary
[2025-09-06 11:10:03] [info] -----

```

```
[2025-09-06 11:10:03] [info] ERC Status:          PASSED
[2025-09-06 11:10:03] [info] Instance Match Percentage: 99.99%
[2025-09-06 11:10:03] [info] Short Circuits:      None Detected
[2025-09-06 11:10:03] [info] Open Circuits:      None Detected
[2025-09-06 11:10:03] [info] Unconnected Pins:    112
[2025-09-06 11:10:03] [info] Total Errors:        54
[2025-09-06 11:10:03] [info] Total Warnings:      316
[2025-09-06 11:10:03] [info] Critical Issues:     None
```

```

[2025-09-06 11:17:46] [info] =====
[2025-09-06 11:17:46] [info]           Electrical Rule Check Summary Report
[2025-09-06 11:17:46] [info] =====

[2025-09-06 11:17:46] [info] Report Generated:    2025-09-06
[2025-09-06 11:17:46] [info] Run Start Time:      11:10:11 AM
[2025-09-06 11:17:46] [info] Run End Time:        11:17:46 AM
[2025-09-06 11:17:46] [info] Time Taken:          7 minutes 40 seconds

[2025-09-06 11:17:46] [info] Tool Version:        LVR_2025.1
[2025-09-06 11:17:46] [info] Host Name:           kuro-Workstation
[2025-09-06 11:17:46] [info] User Name:           kuro
[2025-09-06 11:17:46] [info] Cores Used:          1
[2025-09-06 11:17:46] [info] Memory Utilized:     2343.92 MB / 62.569705963134766 GB

[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info]           Top Cell Match
[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-09-06 11:17:46] [info] Schematic Top Cell:  aes_cipher_top3_sky130hd
[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info]           Short and Open Checks
[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info] Short Circuits:      None Detected
[2025-09-06 11:17:46] [info] Open Circuits:       None Detected

[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info]           Performance Metrics
[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info] | Stage                  | Time Taken |
[2025-09-06 11:17:46] [info] |-----|-----|
[2025-09-06 11:17:46] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 11:17:46] [info] | Connectivity Extraction  | 7 minutes 32 seconds |
[2025-09-06 11:17:46] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 11:17:46] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info]           Additional Details
[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 11:17:46] [info] Hierarchical Cells:   Flattened
[2025-09-06 11:17:46] [info] Database Format:       GDSII
[2025-09-06 11:17:46] [info] Verification Mode:    Full Check
[2025-09-06 11:17:46] [info] Error Reporting:      Enabled

[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info]           Type of Errors | Count
[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info] DB_WARN -> 1
[2025-09-06 11:17:46] [info] LRF_ERR001 -> 14
[2025-09-06 11:17:46] [info] DB_WARN002 -> 138
[2025-09-06 11:17:46] [info] DB_WARN003 -> 132
[2025-09-06 11:17:46] [info] VERI_WARN012 -> 36
[2025-09-06 11:17:46] [info] ERC_ERR019 -> 12
[2025-09-06 11:17:46] [info] LVS_ERR003 -> 12
[2025-09-06 11:17:46] [info] ERC_ERR003 -> 12
[2025-09-06 11:17:46] [info] ERC_ERR005 -> 3
[2025-09-06 11:17:46] [info] LVS_ERR030 -> 1
[2025-09-06 11:17:46] [info] -----
[2025-09-06 11:17:46] [info]           Summary
[2025-09-06 11:17:46] [info] -----

```

```
[2025-09-06 11:17:46] [info] ERC Status:          PASSED
[2025-09-06 11:17:46] [info] Instance Match Percentage: 99.99%
[2025-09-06 11:17:46] [info] Short Circuits:          None Detected
[2025-09-06 11:17:46] [info] Open Circuits:          None Detected
[2025-09-06 11:17:46] [info] Unconnected Pins:        112
[2025-09-06 11:17:46] [info] Total Errors:           54
[2025-09-06 11:17:46] [info] Total Warnings:         307
[2025-09-06 11:17:46] [info] Critical Issues:        None
```

```

[2025-09-06 10:49:00] [info] =====
[2025-09-06 10:49:00] [info] Electrical Rule Check Summary Report
[2025-09-06 10:49:00] [info] =====

[2025-09-06 10:49:00] [info] Report Generated: 2025-09-06
[2025-09-06 10:49:00] [info] Run Start Time: 10:48:59 AM
[2025-09-06 10:49:00] [info] Run End Time: 10:49:00 AM
[2025-09-06 10:49:00] [info] Time Taken: 0 minutes 1 seconds

[2025-09-06 10:49:00] [info] Tool Version: LVR_2025.1
[2025-09-06 10:49:00] [info] Host Name: kuro-Workstation
[2025-09-06 10:49:00] [info] User Name: kuro
[2025-09-06 10:49:00] [info] Cores Used: 1
[2025-09-06 10:49:00] [info] Memory Utilized: 38.46 MB / 62.569705963134766 GB

[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] Top Cell Match
[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] Layout Top Cell: gcd1_sky130hd
[2025-09-06 10:49:00] [info] Schematic Top Cell: gcd1_sky130hd
[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] Short and Open Checks
[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] Short Circuits: None Detected
[2025-09-06 10:49:00] [info] Open Circuits: None Detected

[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] Performance Metrics
[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] | Stage | Time Taken |
[2025-09-06 10:49:00] [info] |-----|-----|
[2025-09-06 10:49:00] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 10:49:00] [info] | Connectivity Extraction | 0 minutes 1 seconds |
[2025-09-06 10:49:00] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 10:49:00] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] Additional Details
[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 10:49:00] [info] Hierarchical Cells: Flattened
[2025-09-06 10:49:00] [info] Database Format: GDSII
[2025-09-06 10:49:00] [info] Verification Mode: Full Check
[2025-09-06 10:49:00] [info] Error Reporting: Enabled

[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] Type of Errors | Count
[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] DB_WARN -> 1
[2025-09-06 10:49:00] [info] LRF_ERROR01 -> 14
[2025-09-06 10:49:00] [info] DB_WARN002 -> 58
[2025-09-06 10:49:00] [info] DB_WARN003 -> 55
[2025-09-06 10:49:00] [info] VERI_WARN012 -> 4
[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] Summary
[2025-09-06 10:49:00] [info] -----
[2025-09-06 10:49:00] [info] ERC Status: PASSED
[2025-09-06 10:49:00] [info] Instance Match Percentage: 100.00%
[2025-09-06 10:49:00] [info] Short Circuits: None Detected
[2025-09-06 10:49:00] [info] Open Circuits: None Detected
[2025-09-06 10:49:00] [info] Unconnected Pins: 100

```

```
[2025-09-06 10:49:00] [info] Total Errors:      14
[2025-09-06 10:49:00] [info] Total Warnings:    118
[2025-09-06 10:49:00] [info] Critical Issues:   None
```

```

[2025-09-06 10:49:01] [info] =====
[2025-09-06 10:49:01] [info] Electrical Rule Check Summary Report
[2025-09-06 10:49:01] [info] =====

[2025-09-06 10:49:01] [info] Report Generated: 2025-09-06
[2025-09-06 10:49:01] [info] Run Start Time: 10:49:00 AM
[2025-09-06 10:49:01] [info] Run End Time: 10:49:01 AM
[2025-09-06 10:49:01] [info] Time Taken: 0 minutes 1 seconds

[2025-09-06 10:49:01] [info] Tool Version: LVR_2025.1
[2025-09-06 10:49:01] [info] Host Name: kuro-Workstation
[2025-09-06 10:49:01] [info] User Name: kuro
[2025-09-06 10:49:01] [info] Cores Used: 1
[2025-09-06 10:49:01] [info] Memory Utilized: 43.01 MB / 62.569705963134766 GB

[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] Top Cell Match
[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] Layout Top Cell: gcd2_sky130hd
[2025-09-06 10:49:01] [info] Schematic Top Cell: gcd2_sky130hd
[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] Short and Open Checks
[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] Short Circuits: None Detected
[2025-09-06 10:49:01] [info] Open Circuits: None Detected

[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] Performance Metrics
[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] | Stage | Time Taken |
[2025-09-06 10:49:01] [info] |-----|-----|
[2025-09-06 10:49:01] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 10:49:01] [info] | Connectivity Extraction | 0 minutes 1 seconds |
[2025-09-06 10:49:01] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 10:49:01] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] Additional Details
[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 10:49:01] [info] Hierarchical Cells: Flattened
[2025-09-06 10:49:01] [info] Database Format: GDSII
[2025-09-06 10:49:01] [info] Verification Mode: Full Check
[2025-09-06 10:49:01] [info] Error Reporting: Enabled

[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] Type of Errors | Count
[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] DB_WARN -> 1
[2025-09-06 10:49:01] [info] LRF_ERROR01 -> 14
[2025-09-06 10:49:01] [info] DB_WARN002 -> 59
[2025-09-06 10:49:01] [info] DB_WARN003 -> 56
[2025-09-06 10:49:01] [info] VERI_WARN012 -> 5
[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] Summary
[2025-09-06 10:49:01] [info] -----
[2025-09-06 10:49:01] [info] ERC Status: PASSED
[2025-09-06 10:49:01] [info] Instance Match Percentage: 100.00%
[2025-09-06 10:49:01] [info] Short Circuits: None Detected
[2025-09-06 10:49:01] [info] Open Circuits: None Detected
[2025-09-06 10:49:01] [info] Unconnected Pins: 100

```

```
[2025-09-06 10:49:01] [info] Total Errors:      14
[2025-09-06 10:49:01] [info] Total Warnings:    121
[2025-09-06 10:49:01] [info] Critical Issues:  None
```

```

[2025-09-06 10:49:02] [info] =====
[2025-09-06 10:49:02] [info] Electrical Rule Check Summary Report
[2025-09-06 10:49:02] [info] =====

[2025-09-06 10:49:02] [info] Report Generated: 2025-09-06
[2025-09-06 10:49:02] [info] Run Start Time: 10:49:01 AM
[2025-09-06 10:49:02] [info] Run End Time: 10:49:02 AM
[2025-09-06 10:49:02] [info] Time Taken: 0 minutes 1 seconds

[2025-09-06 10:49:02] [info] Tool Version: LVR_2025.1
[2025-09-06 10:49:02] [info] Host Name: kuro-Workstation
[2025-09-06 10:49:02] [info] User Name: kuro
[2025-09-06 10:49:02] [info] Cores Used: 1
[2025-09-06 10:49:02] [info] Memory Utilized: 32.48 MB / 62.569705963134766 GB

[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] Top Cell Match
[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] Layout Top Cell: gcd3_sky130hd
[2025-09-06 10:49:02] [info] Schematic Top Cell: gcd3_sky130hd
[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] Short and Open Checks
[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] Short Circuits: None Detected
[2025-09-06 10:49:02] [info] Open Circuits: None Detected

[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] Performance Metrics
[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] | Stage | Time Taken |
[2025-09-06 10:49:02] [info] |-----|-----|
[2025-09-06 10:49:02] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 10:49:02] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 10:49:02] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 10:49:02] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] Additional Details
[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 10:49:02] [info] Hierarchical Cells: Flattened
[2025-09-06 10:49:02] [info] Database Format: GDSII
[2025-09-06 10:49:02] [info] Verification Mode: Full Check
[2025-09-06 10:49:02] [info] Error Reporting: Enabled

[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] Type of Errors | Count
[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] DB_WARN -> 1
[2025-09-06 10:49:02] [info] LRF_ERROR01 -> 14
[2025-09-06 10:49:02] [info] DB_WARN002 -> 59
[2025-09-06 10:49:02] [info] DB_WARN003 -> 56
[2025-09-06 10:49:02] [info] VERI_WARN012 -> 6
[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] Summary
[2025-09-06 10:49:02] [info] -----
[2025-09-06 10:49:02] [info] ERC Status: PASSED
[2025-09-06 10:49:02] [info] Instance Match Percentage: 100.00%
[2025-09-06 10:49:02] [info] Short Circuits: None Detected
[2025-09-06 10:49:02] [info] Open Circuits: None Detected
[2025-09-06 10:49:02] [info] Unconnected Pins: 100

```

```
[2025-09-06 10:49:02] [info] Total Errors:      14
[2025-09-06 10:49:02] [info] Total Warnings:    122
[2025-09-06 10:49:02] [info] Critical Issues:  None
```

```

[2025-09-06 11:24:20] [info] =====
[2025-09-06 11:24:20] [info]           Electrical Rule Check Summary Report
[2025-09-06 11:24:20] [info] =====

[2025-09-06 11:24:20] [info] Report Generated:    2025-09-06
[2025-09-06 11:24:20] [info] Run Start Time:      11:17:53 AM
[2025-09-06 11:24:20] [info] Run End Time:        11:24:20 AM
[2025-09-06 11:24:20] [info] Time Taken:          6 minutes 32 seconds

[2025-09-06 11:24:20] [info] Tool Version:        LVR_2025.1
[2025-09-06 11:24:20] [info] Host Name:           kuro-Workstation
[2025-09-06 11:24:20] [info] User Name:           kuro
[2025-09-06 11:24:20] [info] Cores Used:          1
[2025-09-06 11:24:20] [info] Memory Utilized:     2607.32 MB / 62.569705963134766 GB

[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info]           Top Cell Match
[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-09-06 11:24:20] [info] Schematic Top Cell:  ibex_core1_sky130hd
[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info]           Short and Open Checks
[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info] Short Circuits:      None Detected
[2025-09-06 11:24:20] [info] Open Circuits:       None Detected

[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info]           Performance Metrics
[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info] | Stage                  | Time Taken |
[2025-09-06 11:24:20] [info] |-----|-----|
[2025-09-06 11:24:20] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 11:24:20] [info] | Connectivity Extraction  | 6 minutes 23 seconds |
[2025-09-06 11:24:20] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 11:24:20] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info]           Additional Details
[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 11:24:20] [info] Hierarchical Cells:   Flattened
[2025-09-06 11:24:20] [info] Database Format:       GDSII
[2025-09-06 11:24:20] [info] Verification Mode:    Full Check
[2025-09-06 11:24:20] [info] Error Reporting:      Enabled

[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info]           Type of Errors | Count
[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info] DB_WARN -> 1
[2025-09-06 11:24:20] [info] LRF_ERR001 -> 14
[2025-09-06 11:24:20] [info] DB_WARN002 -> 251
[2025-09-06 11:24:20] [info] DB_WARN003 -> 251
[2025-09-06 11:24:20] [info] VERI_WARN012 -> 34
[2025-09-06 11:24:20] [info] ERC_ERR019 -> 38
[2025-09-06 11:24:20] [info] ERC_ERR001 -> 4
[2025-09-06 11:24:20] [info] LVS_ERR003 -> 13
[2025-09-06 11:24:20] [info] ERC_ERR003 -> 13
[2025-09-06 11:24:20] [info] ERC_ERR005 -> 11
[2025-09-06 11:24:20] [info] LVS_ERR030 -> 1
[2025-09-06 11:24:20] [info] -----
[2025-09-06 11:24:20] [info]           Summary

```

```
[2025-09-06 11:24:20] [info] -----  
[2025-09-06 11:24:20] [info] ERC Status:          PASSED  
[2025-09-06 11:24:20] [info] Instance Match Percentage: 99.95%  
[2025-09-06 11:24:20] [info] Short Circuits:      None Detected  
[2025-09-06 11:24:20] [info] Open Circuits:       None Detected  
[2025-09-06 11:24:20] [info] Unconnected Pins:    138  
[2025-09-06 11:24:20] [info] Total Errors:        94  
[2025-09-06 11:24:20] [info] Total Warnings:      537  
[2025-09-06 11:24:20] [info] Critical Issues:     None
```

```

[2025-09-06 11:31:12] [info] =====
[2025-09-06 11:31:12] [info]           Electrical Rule Check Summary Report
[2025-09-06 11:31:12] [info] =====

[2025-09-06 11:31:12] [info] Report Generated:    2025-09-06
[2025-09-06 11:31:12] [info] Run Start Time:      11:24:27 AM
[2025-09-06 11:31:12] [info] Run End Time:        11:31:12 AM
[2025-09-06 11:31:12] [info] Time Taken:          6 minutes 50 seconds

[2025-09-06 11:31:12] [info] Tool Version:        LVR_2025.1
[2025-09-06 11:31:12] [info] Host Name:           kuro-Workstation
[2025-09-06 11:31:12] [info] User Name:           kuro
[2025-09-06 11:31:12] [info] Cores Used:          1
[2025-09-06 11:31:12] [info] Memory Utilized:     2652.30 MB / 62.569705963134766 GB

[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info]           Top Cell Match
[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-09-06 11:31:12] [info] Schematic Top Cell:  ibex_core2_sky130hd
[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info]           Short and Open Checks
[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info] Short Circuits:      None Detected
[2025-09-06 11:31:12] [info] Open Circuits:       None Detected

[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info]           Performance Metrics
[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info] | Stage                  | Time Taken |
[2025-09-06 11:31:12] [info] |-----|-----|
[2025-09-06 11:31:12] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 11:31:12] [info] | Connectivity Extraction  | 6 minutes 42 seconds |
[2025-09-06 11:31:12] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 11:31:12] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info]           Additional Details
[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 11:31:12] [info] Hierarchical Cells:   Flattened
[2025-09-06 11:31:12] [info] Database Format:       GDSII
[2025-09-06 11:31:12] [info] Verification Mode:    Full Check
[2025-09-06 11:31:12] [info] Error Reporting:      Enabled

[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info]           Type of Errors | Count
[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info] DB_WARN -> 1
[2025-09-06 11:31:12] [info] LRF_ERR001 -> 14
[2025-09-06 11:31:12] [info] DB_WARN002 -> 249
[2025-09-06 11:31:12] [info] DB_WARN003 -> 249
[2025-09-06 11:31:12] [info] VERI_WARN012 -> 31
[2025-09-06 11:31:12] [info] ERC_ERR019 -> 32
[2025-09-06 11:31:12] [info] ERC_ERR001 -> 4
[2025-09-06 11:31:12] [info] LVS_ERR003 -> 11
[2025-09-06 11:31:12] [info] ERC_ERR003 -> 11
[2025-09-06 11:31:12] [info] ERC_ERR005 -> 12
[2025-09-06 11:31:12] [info] LVS_ERR030 -> 1
[2025-09-06 11:31:12] [info] -----
[2025-09-06 11:31:12] [info]           Summary

```

```
[2025-09-06 11:31:12] [info] -----  
[2025-09-06 11:31:12] [info] ERC Status:          PASSED  
[2025-09-06 11:31:12] [info] Instance Match Percentage: 99.94%  
[2025-09-06 11:31:12] [info] Short Circuits:      None Detected  
[2025-09-06 11:31:12] [info] Open Circuits:       None Detected  
[2025-09-06 11:31:12] [info] Unconnected Pins:    132  
[2025-09-06 11:31:12] [info] Total Errors:        85  
[2025-09-06 11:31:12] [info] Total Warnings:      530  
[2025-09-06 11:31:12] [info] Critical Issues:     None
```

```

[2025-09-06 11:37:40] [info] =====
[2025-09-06 11:37:40] [info]           Electrical Rule Check Summary Report
[2025-09-06 11:37:40] [info] =====

[2025-09-06 11:37:40] [info] Report Generated:    2025-09-06
[2025-09-06 11:37:40] [info] Run Start Time:      11:31:20 AM
[2025-09-06 11:37:40] [info] Run End Time:        11:37:40 AM
[2025-09-06 11:37:40] [info] Time Taken:          6 minutes 26 seconds

[2025-09-06 11:37:40] [info] Tool Version:        LVR_2025.1
[2025-09-06 11:37:40] [info] Host Name:           kuro-Workstation
[2025-09-06 11:37:40] [info] User Name:           kuro
[2025-09-06 11:37:40] [info] Cores Used:          1
[2025-09-06 11:37:40] [info] Memory Utilized:     2577.80 MB / 62.569705963134766 GB

[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info]           Top Cell Match
[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 11:37:40] [info] Schematic Top Cell:  ibex_core3_sky130hd
[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info]           Short and Open Checks
[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info] Short Circuits:      None Detected
[2025-09-06 11:37:40] [info] Open Circuits:       None Detected

[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info]           Performance Metrics
[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info] | Stage                  | Time Taken |
[2025-09-06 11:37:40] [info] |-----|-----|
[2025-09-06 11:37:40] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 11:37:40] [info] | Connectivity Extraction  | 6 minutes 17 seconds |
[2025-09-06 11:37:40] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 11:37:40] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info]           Additional Details
[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 11:37:40] [info] Hierarchical Cells:   Flattened
[2025-09-06 11:37:40] [info] Database Format:       GDSII
[2025-09-06 11:37:40] [info] Verification Mode:    Full Check
[2025-09-06 11:37:40] [info] Error Reporting:      Enabled

[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info]           Type of Errors | Count
[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info] DB_WARN -> 1
[2025-09-06 11:37:40] [info] LRF_ERR001 -> 14
[2025-09-06 11:37:40] [info] DB_WARN002 -> 253
[2025-09-06 11:37:40] [info] DB_WARN003 -> 251
[2025-09-06 11:37:40] [info] VERI_WARN012 -> 53
[2025-09-06 11:37:40] [info] ERC_ERR019 -> 31
[2025-09-06 11:37:40] [info] LVS_ERR003 -> 11
[2025-09-06 11:37:40] [info] ERC_ERR003 -> 11
[2025-09-06 11:37:40] [info] ERC_ERR001 -> 2
[2025-09-06 11:37:40] [info] ERC_ERR005 -> 9
[2025-09-06 11:37:40] [info] LVS_ERR030 -> 1
[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info]           Summary

```

```
[2025-09-06 11:37:40] [info] -----
[2025-09-06 11:37:40] [info] ERC Status:          PASSED
[2025-09-06 11:37:40] [info] Instance Match Percentage: 99.95%
[2025-09-06 11:37:40] [info] Short Circuits:      None Detected
[2025-09-06 11:37:40] [info] Open Circuits:       None Detected
[2025-09-06 11:37:40] [info] Unconnected Pins:    131
[2025-09-06 11:37:40] [info] Total Errors:        79
[2025-09-06 11:37:40] [info] Total Warnings:      558
[2025-09-06 11:37:40] [info] Critical Issues:     None
```

```

[2025-09-06 12:07:19] [info] =====
[2025-09-06 12:07:19] [info]           Electrical Rule Check Summary Report
[2025-09-06 12:07:19] [info] =====

[2025-09-06 12:07:19] [info] Report Generated:    2025-09-06
[2025-09-06 12:07:19] [info] Run Start Time:      11:37:59 AM
[2025-09-06 12:07:19] [info] Run End Time:        12:07:19 PM
[2025-09-06 12:07:19] [info] Time Taken:          29 minutes 37 seconds

[2025-09-06 12:07:19] [info] Tool Version:        LVR_2025.1
[2025-09-06 12:07:19] [info] Host Name:           kuro-Workstation
[2025-09-06 12:07:19] [info] User Name:           kuro
[2025-09-06 12:07:19] [info] Cores Used:          1
[2025-09-06 12:07:19] [info] Memory Utilized:     6934.95 MB / 62.569705963134766 GB

[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info]           Top Cell Match
[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-09-06 12:07:19] [info] Schematic Top Cell:  jpeg_encoder1_sky130hd
[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info]           Short and Open Checks
[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info] Short Circuits:      None Detected
[2025-09-06 12:07:19] [info] Open Circuits:       None Detected

[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info]           Performance Metrics
[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info] | Stage                  | Time Taken |
[2025-09-06 12:07:19] [info] |-----|-----|
[2025-09-06 12:07:19] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 12:07:19] [info] | Connectivity Extraction  | 29 minutes 14 seconds |
[2025-09-06 12:07:19] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 12:07:19] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info]           Additional Details
[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 12:07:19] [info] Hierarchical Cells:    Flattened
[2025-09-06 12:07:19] [info] Database Format:        GDSII
[2025-09-06 12:07:19] [info] Verification Mode:     Full Check
[2025-09-06 12:07:19] [info] Error Reporting:       Enabled

[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info]           Type of Errors | Count
[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info] DB_WARN -> 1
[2025-09-06 12:07:19] [info] LRF_ERR001 -> 14
[2025-09-06 12:07:19] [info] DB_WARN002 -> 159
[2025-09-06 12:07:19] [info] DB_WARN003 -> 161
[2025-09-06 12:07:19] [info] VERI_WARN012 -> 113
[2025-09-06 12:07:19] [info] ERC_ERR019 -> 511
[2025-09-06 12:07:19] [info] LVS_ERR003 -> 499
[2025-09-06 12:07:19] [info] ERC_ERR003 -> 499
[2025-09-06 12:07:19] [info] ERC_ERR005 -> 113
[2025-09-06 12:07:19] [info] LVS_ERR030 -> 1
[2025-09-06 12:07:19] [info] -----
[2025-09-06 12:07:19] [info]           Summary
[2025-09-06 12:07:19] [info] -----

```

```
[2025-09-06 12:07:19] [info] ERC Status:          PASSED
[2025-09-06 12:07:19] [info] Instance Match Percentage: 99.75%
[2025-09-06 12:07:19] [info] Short Circuits:          None Detected
[2025-09-06 12:07:19] [info] Open Circuits:          None Detected
[2025-09-06 12:07:19] [info] Unconnected Pins:        611
[2025-09-06 12:07:19] [info] Total Errors:           1637
[2025-09-06 12:07:19] [info] Total Warnings:          434
[2025-09-06 12:07:19] [info] Critical Issues:         None
```

```

[2025-09-06 12:41:29] [info] =====
[2025-09-06 12:41:29] [info]           Electrical Rule Check Summary Report
[2025-09-06 12:41:29] [info] =====

[2025-09-06 12:41:29] [info] Report Generated:    2025-09-06
[2025-09-06 12:41:29] [info] Run Start Time:      12:07:45 PM
[2025-09-06 12:41:29] [info] Run End Time:        12:41:29 PM
[2025-09-06 12:41:29] [info] Time Taken:          34 minutes 4 seconds

[2025-09-06 12:41:29] [info] Tool Version:        LVR_2025.1
[2025-09-06 12:41:29] [info] Host Name:           kuro-Workstation
[2025-09-06 12:41:29] [info] User Name:           kuro
[2025-09-06 12:41:29] [info] Cores Used:          1
[2025-09-06 12:41:29] [info] Memory Utilized:     8499.99 MB / 62.569705963134766 GB

[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info]           Top Cell Match
[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-09-06 12:41:29] [info] Schematic Top Cell:  jpeg_encoder2_sky130hd
[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info]           Short and Open Checks
[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info] Short Circuits:      None Detected
[2025-09-06 12:41:29] [info] Open Circuits:       None Detected

[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info]           Performance Metrics
[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info] | Stage                  | Time Taken |
[2025-09-06 12:41:29] [info] |-----|-----|
[2025-09-06 12:41:29] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 12:41:29] [info] | Connectivity Extraction  | 33 minutes 37 seconds |
[2025-09-06 12:41:29] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 12:41:29] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info]           Additional Details
[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 12:41:29] [info] Hierarchical Cells:   Flattened
[2025-09-06 12:41:29] [info] Database Format:       GDSII
[2025-09-06 12:41:29] [info] Verification Mode:    Full Check
[2025-09-06 12:41:29] [info] Error Reporting:      Enabled

[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info]           Type of Errors | Count
[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info] DB_WARN -> 1
[2025-09-06 12:41:29] [info] LRF_ERR001 -> 14
[2025-09-06 12:41:29] [info] DB_WARN002 -> 157
[2025-09-06 12:41:29] [info] DB_WARN003 -> 159
[2025-09-06 12:41:29] [info] VERI_WARN012 -> 113
[2025-09-06 12:41:29] [info] ERC_ERR019 -> 502
[2025-09-06 12:41:29] [info] LVS_ERR003 -> 490
[2025-09-06 12:41:29] [info] ERC_ERR003 -> 490
[2025-09-06 12:41:29] [info] ERC_ERR005 -> 113
[2025-09-06 12:41:29] [info] LVS_ERR030 -> 1
[2025-09-06 12:41:29] [info] -----
[2025-09-06 12:41:29] [info]           Summary
[2025-09-06 12:41:29] [info] -----

```

```
[2025-09-06 12:41:29] [info] ERC Status:          PASSED
[2025-09-06 12:41:29] [info] Instance Match Percentage: 99.75%
[2025-09-06 12:41:29] [info] Short Circuits:          None Detected
[2025-09-06 12:41:29] [info] Open Circuits:          None Detected
[2025-09-06 12:41:29] [info] Unconnected Pins:        602
[2025-09-06 12:41:29] [info] Total Errors:            1610
[2025-09-06 12:41:29] [info] Total Warnings:          430
[2025-09-06 12:41:29] [info] Critical Issues:         None
```

```

[2025-09-06 13:07:55] [info] =====
[2025-09-06 13:07:55] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:07:55] [info] =====

[2025-09-06 13:07:55] [info] Report Generated:    2025-09-06
[2025-09-06 13:07:55] [info] Run Start Time:      12:41:49 PM
[2025-09-06 13:07:55] [info] Run End Time:        01:07:54 PM
[2025-09-06 13:07:55] [info] Time Taken:          26 minutes 19 seconds

[2025-09-06 13:07:55] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:07:55] [info] Host Name:           kuro-Workstation
[2025-09-06 13:07:55] [info] User Name:           kuro
[2025-09-06 13:07:55] [info] Cores Used:          1
[2025-09-06 13:07:55] [info] Memory Utilized:     5873.45 MB / 62.569705963134766 GB

[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info]           Top Cell Match
[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-09-06 13:07:55] [info] Schematic Top Cell:  jpeg_encoder3_sky130hd
[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info]           Short and Open Checks
[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info] Short Circuits:      None Detected
[2025-09-06 13:07:55] [info] Open Circuits:       None Detected

[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info]           Performance Metrics
[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info] | Stage                  | Time Taken |
[2025-09-06 13:07:55] [info] |-----|-----|
[2025-09-06 13:07:55] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:07:55] [info] | Connectivity Extraction  | 25 minutes 59 seconds |
[2025-09-06 13:07:55] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:07:55] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info]           Additional Details
[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 13:07:55] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:07:55] [info] Database Format:       GDSII
[2025-09-06 13:07:55] [info] Verification Mode:    Full Check
[2025-09-06 13:07:55] [info] Error Reporting:      Enabled

[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info]           Type of Errors | Count
[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info] DB_WARN -> 1
[2025-09-06 13:07:55] [info] LRF_ERR001 -> 14
[2025-09-06 13:07:55] [info] DB_WARN002 -> 152
[2025-09-06 13:07:55] [info] DB_WARN003 -> 155
[2025-09-06 13:07:55] [info] VERI_WARN012 -> 113
[2025-09-06 13:07:55] [info] ERC_ERR019 -> 450
[2025-09-06 13:07:55] [info] LVS_ERR003 -> 438
[2025-09-06 13:07:55] [info] ERC_ERR003 -> 438
[2025-09-06 13:07:55] [info] ERC_ERR005 -> 113
[2025-09-06 13:07:55] [info] LVS_ERR030 -> 1
[2025-09-06 13:07:55] [info] -----
[2025-09-06 13:07:55] [info]           Summary
[2025-09-06 13:07:55] [info] -----

```

```
[2025-09-06 13:07:55] [info] ERC Status:          PASSED
[2025-09-06 13:07:55] [info] Instance Match Percentage: 99.75%
[2025-09-06 13:07:55] [info] Short Circuits:      None Detected
[2025-09-06 13:07:55] [info] Open Circuits:      None Detected
[2025-09-06 13:07:55] [info] Unconnected Pins:    550
[2025-09-06 13:07:55] [info] Total Errors:        1454
[2025-09-06 13:07:55] [info] Total Warnings:      421
[2025-09-06 13:07:55] [info] Critical Issues:     None
```

```

[2025-09-06 13:10:36] [info] =====
[2025-09-06 13:10:36] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:10:36] [info] =====

[2025-09-06 13:10:36] [info] Report Generated:    2025-09-06
[2025-09-06 13:10:36] [info] Run Start Time:      01:08:07 PM
[2025-09-06 13:10:36] [info] Run End Time:        01:10:36 PM
[2025-09-06 13:10:36] [info] Time Taken:          2 minutes 35 seconds

[2025-09-06 13:10:36] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:10:36] [info] Host Name:           kuro-Workstation
[2025-09-06 13:10:36] [info] User Name:           kuro
[2025-09-06 13:10:36] [info] Cores Used:          4
[2025-09-06 13:10:36] [info] Memory Utilized:     2848.86 MB / 62.569705963134766 GB

[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info]           Top Cell Match
[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-09-06 13:10:36] [info] Schematic Top Cell:  aes_cipher_top1_sky130hd
[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info]           Short and Open Checks
[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info] Short Circuits:      None Detected
[2025-09-06 13:10:36] [info] Open Circuits:       None Detected

[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info]           Performance Metrics
[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info] | Stage                  | Time Taken |
[2025-09-06 13:10:36] [info] |-----|-----|
[2025-09-06 13:10:36] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:10:36] [info] | Connectivity Extraction  | 2 minutes 25 seconds |
[2025-09-06 13:10:36] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:10:36] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info]           Additional Details
[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 13:10:36] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:10:36] [info] Database Format:       GDSII
[2025-09-06 13:10:36] [info] Verification Mode:    Full Check
[2025-09-06 13:10:36] [info] Error Reporting:      Enabled

[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info]           Type of Errors | Count
[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info] DB_WARN -> 1
[2025-09-06 13:10:36] [info] LRF_ERR001 -> 14
[2025-09-06 13:10:36] [info] DB_WARN002 -> 144
[2025-09-06 13:10:36] [info] DB_WARN003 -> 137
[2025-09-06 13:10:36] [info] VERI_WARN012 -> 41
[2025-09-06 13:10:36] [info] ERC_ERR019 -> 18
[2025-09-06 13:10:36] [info] LVS_ERR003 -> 18
[2025-09-06 13:10:36] [info] ERC_ERR003 -> 18
[2025-09-06 13:10:36] [info] ERC_ERR005 -> 3
[2025-09-06 13:10:36] [info] LVS_ERR030 -> 1
[2025-09-06 13:10:36] [info] -----
[2025-09-06 13:10:36] [info]           Summary
[2025-09-06 13:10:36] [info] -----

```

```
[2025-09-06 13:10:36] [info] ERC Status:          PASSED
[2025-09-06 13:10:36] [info] Instance Match Percentage: 99.99%
[2025-09-06 13:10:36] [info] Short Circuits:      None Detected
[2025-09-06 13:10:36] [info] Open Circuits:      None Detected
[2025-09-06 13:10:36] [info] Unconnected Pins:    118
[2025-09-06 13:10:36] [info] Total Errors:        72
[2025-09-06 13:10:36] [info] Total Warnings:      323
[2025-09-06 13:10:36] [info] Critical Issues:     None
```

```
[2025-09-06 13:14:34] [info] =====
[2025-09-06 13:14:34] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:14:34] [info] =====

[2025-09-06 13:14:34] [info] Report Generated:    2025-09-06
[2025-09-06 13:14:34] [info] Run Start Time:      01:10:46 PM
[2025-09-06 13:14:34] [info] Run End Time:        01:14:33 PM
[2025-09-06 13:14:34] [info] Time Taken:          3 minutes 55 seconds

[2025-09-06 13:14:34] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:14:34] [info] Host Name:           kuro-Workstation
[2025-09-06 13:14:34] [info] User Name:           kuro
[2025-09-06 13:14:34] [info] Cores Used:          4
[2025-09-06 13:14:34] [info] Memory Utilized:     3444.20 MB / 62.569705963134766 GB

[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info]           Top Cell Match
[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-09-06 13:14:34] [info] Schematic Top Cell:  aes_cipher_top2_sky130hd
[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info]           Short and Open Checks
[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info] Short Circuits:      None Detected
[2025-09-06 13:14:34] [info] Open Circuits:       None Detected

[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info]           Performance Metrics
[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info] | Stage                  | Time Taken |
[2025-09-06 13:14:34] [info] |-----|-----|
[2025-09-06 13:14:34] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:14:34] [info] | Connectivity Extraction  | 3 minutes 44 seconds |
[2025-09-06 13:14:34] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:14:34] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info]           Additional Details
[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 13:14:34] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:14:34] [info] Database Format:       GDSII
[2025-09-06 13:14:34] [info] Verification Mode:    Full Check
[2025-09-06 13:14:34] [info] Error Reporting:      Enabled

[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info]           Type of Errors | Count
[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info] DB_WARN -> 1
[2025-09-06 13:14:34] [info] LRF_ERR001 -> 14
[2025-09-06 13:14:34] [info] DB_WARN002 -> 141
[2025-09-06 13:14:34] [info] DB_WARN003 -> 135
[2025-09-06 13:14:34] [info] VERI_WARN012 -> 39
[2025-09-06 13:14:34] [info] ERC_ERR019 -> 12
[2025-09-06 13:14:34] [info] LVS_ERR003 -> 12
[2025-09-06 13:14:34] [info] ERC_ERR003 -> 12
[2025-09-06 13:14:34] [info] ERC_ERR005 -> 3
[2025-09-06 13:14:34] [info] LVS_ERR030 -> 1
[2025-09-06 13:14:34] [info] -----
[2025-09-06 13:14:34] [info]           Summary
[2025-09-06 13:14:34] [info] -----
```

```
[2025-09-06 13:14:34] [info] ERC Status:          PASSED
[2025-09-06 13:14:34] [info] Instance Match Percentage: 99.99%
[2025-09-06 13:14:34] [info] Short Circuits:      None Detected
[2025-09-06 13:14:34] [info] Open Circuits:      None Detected
[2025-09-06 13:14:34] [info] Unconnected Pins:    112
[2025-09-06 13:14:34] [info] Total Errors:        54
[2025-09-06 13:14:34] [info] Total Warnings:      316
[2025-09-06 13:14:34] [info] Critical Issues:     None
```

```

[2025-09-06 13:17:00] [info] =====
[2025-09-06 13:17:00] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:17:00] [info] =====

[2025-09-06 13:17:00] [info] Report Generated:    2025-09-06
[2025-09-06 13:17:00] [info] Run Start Time:      01:14:42 PM
[2025-09-06 13:17:00] [info] Run End Time:        01:17:00 PM
[2025-09-06 13:17:00] [info] Time Taken:          2 minutes 23 seconds

[2025-09-06 13:17:00] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:17:00] [info] Host Name:           kuro-Workstation
[2025-09-06 13:17:00] [info] User Name:           kuro
[2025-09-06 13:17:00] [info] Cores Used:          4
[2025-09-06 13:17:00] [info] Memory Utilized:     2343.92 MB / 62.569705963134766 GB

[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info]           Top Cell Match
[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-09-06 13:17:00] [info] Schematic Top Cell:  aes_cipher_top3_sky130hd
[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info]           Short and Open Checks
[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info] Short Circuits:      None Detected
[2025-09-06 13:17:00] [info] Open Circuits:       None Detected

[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info]           Performance Metrics
[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info] | Stage                  | Time Taken |
[2025-09-06 13:17:00] [info] |-----|-----|
[2025-09-06 13:17:00] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:17:00] [info] | Connectivity Extraction  | 2 minutes 15 seconds |
[2025-09-06 13:17:00] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:17:00] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info]           Additional Details
[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 13:17:00] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:17:00] [info] Database Format:       GDSII
[2025-09-06 13:17:00] [info] Verification Mode:    Full Check
[2025-09-06 13:17:00] [info] Error Reporting:      Enabled

[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info]           Type of Errors | Count
[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info] DB_WARN -> 1
[2025-09-06 13:17:00] [info] LRF_ERR001 -> 14
[2025-09-06 13:17:00] [info] DB_WARN002 -> 138
[2025-09-06 13:17:00] [info] DB_WARN003 -> 132
[2025-09-06 13:17:00] [info] VERI_WARN012 -> 36
[2025-09-06 13:17:00] [info] ERC_ERR019 -> 12
[2025-09-06 13:17:00] [info] LVS_ERR003 -> 12
[2025-09-06 13:17:00] [info] ERC_ERR003 -> 12
[2025-09-06 13:17:00] [info] ERC_ERR005 -> 3
[2025-09-06 13:17:00] [info] LVS_ERR030 -> 1
[2025-09-06 13:17:00] [info] -----
[2025-09-06 13:17:00] [info]           Summary
[2025-09-06 13:17:00] [info] -----

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[2025-09-06 13:17:00] [info] ERC Status:          PASSED
[2025-09-06 13:17:00] [info] Instance Match Percentage: 99.99%
[2025-09-06 13:17:00] [info] Short Circuits:      None Detected
[2025-09-06 13:17:00] [info] Open Circuits:      None Detected
[2025-09-06 13:17:00] [info] Unconnected Pins:    112
[2025-09-06 13:17:00] [info] Total Errors:        54
[2025-09-06 13:17:00] [info] Total Warnings:      307
[2025-09-06 13:17:00] [info] Critical Issues:     None
```

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[2025-09-06 13:08:00] [info] =====
[2025-09-06 13:08:00] [info] Electrical Rule Check Summary Report
[2025-09-06 13:08:00] [info] =====

[2025-09-06 13:08:00] [info] Report Generated: 2025-09-06
[2025-09-06 13:08:00] [info] Run Start Time: 01:07:59 PM
[2025-09-06 13:08:00] [info] Run End Time: 01:08:00 PM
[2025-09-06 13:08:00] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 13:08:00] [info] Tool Version: LVR_2025.1
[2025-09-06 13:08:00] [info] Host Name: kuro-Workstation
[2025-09-06 13:08:00] [info] User Name: kuro
[2025-09-06 13:08:00] [info] Cores Used: 4
[2025-09-06 13:08:00] [info] Memory Utilized: 38.46 MB / 62.569705963134766 GB

[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Top Cell Match
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Layout Top Cell: gcd1_sky130hd
[2025-09-06 13:08:00] [info] Schematic Top Cell: gcd1_sky130hd
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Short and Open Checks
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Short Circuits: None Detected
[2025-09-06 13:08:00] [info] Open Circuits: None Detected

[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Performance Metrics
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] | Stage | Time Taken |
[2025-09-06 13:08:00] [info] |-----|-----|
[2025-09-06 13:08:00] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 13:08:00] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 13:08:00] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 13:08:00] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Additional Details
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 13:08:00] [info] Hierarchical Cells: Flattened
[2025-09-06 13:08:00] [info] Database Format: GDSII
[2025-09-06 13:08:00] [info] Verification Mode: Full Check
[2025-09-06 13:08:00] [info] Error Reporting: Enabled

[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Type of Errors | Count
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] DB_WARN -> 1
[2025-09-06 13:08:00] [info] LRF_ERROR01 -> 14
[2025-09-06 13:08:00] [info] DB_WARN002 -> 58
[2025-09-06 13:08:00] [info] DB_WARN003 -> 55
[2025-09-06 13:08:00] [info] VERI_WARN012 -> 4
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Summary
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] ERC Status: PASSED
[2025-09-06 13:08:00] [info] Instance Match Percentage: 100.00%
[2025-09-06 13:08:00] [info] Short Circuits: None Detected
[2025-09-06 13:08:00] [info] Open Circuits: None Detected
[2025-09-06 13:08:00] [info] Unconnected Pins: 100

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[2025-09-06 13:08:00] [info] Total Errors:      14
[2025-09-06 13:08:00] [info] Total Warnings:    118
[2025-09-06 13:08:00] [info] Critical Issues:   None
```

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[2025-09-06 13:08:00] [info] =====
[2025-09-06 13:08:00] [info] Electrical Rule Check Summary Report
[2025-09-06 13:08:00] [info] =====

[2025-09-06 13:08:00] [info] Report Generated: 2025-09-06
[2025-09-06 13:08:00] [info] Run Start Time: 01:08:00 PM
[2025-09-06 13:08:00] [info] Run End Time: 01:08:00 PM
[2025-09-06 13:08:00] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 13:08:00] [info] Tool Version: LVR_2025.1
[2025-09-06 13:08:00] [info] Host Name: kuro-Workstation
[2025-09-06 13:08:00] [info] User Name: kuro
[2025-09-06 13:08:00] [info] Cores Used: 4
[2025-09-06 13:08:00] [info] Memory Utilized: 43.01 MB / 62.569705963134766 GB

[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Top Cell Match
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Layout Top Cell: gcd2_sky130hd
[2025-09-06 13:08:00] [info] Schematic Top Cell: gcd2_sky130hd
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Short and Open Checks
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Short Circuits: None Detected
[2025-09-06 13:08:00] [info] Open Circuits: None Detected

[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Performance Metrics
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] | Stage | Time Taken |
[2025-09-06 13:08:00] [info] |-----|-----|
[2025-09-06 13:08:00] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 13:08:00] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 13:08:00] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 13:08:00] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Additional Details
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 13:08:00] [info] Hierarchical Cells: Flattened
[2025-09-06 13:08:00] [info] Database Format: GDSII
[2025-09-06 13:08:00] [info] Verification Mode: Full Check
[2025-09-06 13:08:00] [info] Error Reporting: Enabled

[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Type of Errors | Count
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] DB_WARN -> 1
[2025-09-06 13:08:00] [info] LRF_ERROR01 -> 14
[2025-09-06 13:08:00] [info] DB_WARN002 -> 59
[2025-09-06 13:08:00] [info] DB_WARN003 -> 56
[2025-09-06 13:08:00] [info] VERI_WARN012 -> 5
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] Summary
[2025-09-06 13:08:00] [info] -----
[2025-09-06 13:08:00] [info] ERC Status: PASSED
[2025-09-06 13:08:00] [info] Instance Match Percentage: 100.00%
[2025-09-06 13:08:00] [info] Short Circuits: None Detected
[2025-09-06 13:08:00] [info] Open Circuits: None Detected
[2025-09-06 13:08:00] [info] Unconnected Pins: 100

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```
[2025-09-06 13:08:00] [info] Total Errors:      14
[2025-09-06 13:08:00] [info] Total Warnings:    121
[2025-09-06 13:08:00] [info] Critical Issues:   None
```

```

[2025-09-06 13:08:01] [info] =====
[2025-09-06 13:08:01] [info] Electrical Rule Check Summary Report
[2025-09-06 13:08:01] [info] =====

[2025-09-06 13:08:01] [info] Report Generated: 2025-09-06
[2025-09-06 13:08:01] [info] Run Start Time: 01:08:00 PM
[2025-09-06 13:08:01] [info] Run End Time: 01:08:01 PM
[2025-09-06 13:08:01] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 13:08:01] [info] Tool Version: LVR_2025.1
[2025-09-06 13:08:01] [info] Host Name: kuro-Workstation
[2025-09-06 13:08:01] [info] User Name: kuro
[2025-09-06 13:08:01] [info] Cores Used: 4
[2025-09-06 13:08:01] [info] Memory Utilized: 32.48 MB / 62.569705963134766 GB

[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] Top Cell Match
[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] Layout Top Cell: gcd3_sky130hd
[2025-09-06 13:08:01] [info] Schematic Top Cell: gcd3_sky130hd
[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] Short and Open Checks
[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] Short Circuits: None Detected
[2025-09-06 13:08:01] [info] Open Circuits: None Detected

[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] Performance Metrics
[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] | Stage | Time Taken |
[2025-09-06 13:08:01] [info] |-----|-----|
[2025-09-06 13:08:01] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 13:08:01] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 13:08:01] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 13:08:01] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] Additional Details
[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 13:08:01] [info] Hierarchical Cells: Flattened
[2025-09-06 13:08:01] [info] Database Format: GDSII
[2025-09-06 13:08:01] [info] Verification Mode: Full Check
[2025-09-06 13:08:01] [info] Error Reporting: Enabled

[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] Type of Errors | Count
[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] DB_WARN -> 1
[2025-09-06 13:08:01] [info] LRF_ERROR01 -> 14
[2025-09-06 13:08:01] [info] DB_WARN002 -> 59
[2025-09-06 13:08:01] [info] DB_WARN003 -> 56
[2025-09-06 13:08:01] [info] VERI_WARN012 -> 6
[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] Summary
[2025-09-06 13:08:01] [info] -----
[2025-09-06 13:08:01] [info] ERC Status: PASSED
[2025-09-06 13:08:01] [info] Instance Match Percentage: 100.00%
[2025-09-06 13:08:01] [info] Short Circuits: None Detected
[2025-09-06 13:08:01] [info] Open Circuits: None Detected
[2025-09-06 13:08:01] [info] Unconnected Pins: 100

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[2025-09-06 13:08:01] [info] Total Errors:      14
[2025-09-06 13:08:01] [info] Total Warnings:    122
[2025-09-06 13:08:01] [info] Critical Issues:   None
```

```
[2025-09-06 13:19:06] [info] =====
[2025-09-06 13:19:06] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:19:06] [info] =====

[2025-09-06 13:19:06] [info] Report Generated:    2025-09-06
[2025-09-06 13:19:06] [info] Run Start Time:      01:17:08 PM
[2025-09-06 13:19:06] [info] Run End Time:        01:19:06 PM
[2025-09-06 13:19:06] [info] Time Taken:          2 minutes 4 seconds

[2025-09-06 13:19:06] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:19:06] [info] Host Name:           kuro-Workstation
[2025-09-06 13:19:06] [info] User Name:           kuro
[2025-09-06 13:19:06] [info] Cores Used:          4
[2025-09-06 13:19:06] [info] Memory Utilized:     2607.32 MB / 62.569705963134766 GB

[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info]           Top Cell Match
[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-09-06 13:19:06] [info] Schematic Top Cell:  ibex_core1_sky130hd
[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info]           Short and Open Checks
[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info] Short Circuits:      None Detected
[2025-09-06 13:19:06] [info] Open Circuits:       None Detected

[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info]           Performance Metrics
[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info] | Stage                  | Time Taken |
[2025-09-06 13:19:06] [info] |-----|-----|
[2025-09-06 13:19:06] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:19:06] [info] | Connectivity Extraction  | 1 minutes 56 seconds |
[2025-09-06 13:19:06] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:19:06] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info]           Additional Details
[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 13:19:06] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:19:06] [info] Database Format:       GDSII
[2025-09-06 13:19:06] [info] Verification Mode:    Full Check
[2025-09-06 13:19:06] [info] Error Reporting:      Enabled

[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info]           Type of Errors | Count
[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info] DB_WARN -> 1
[2025-09-06 13:19:06] [info] LRF_ERR001 -> 14
[2025-09-06 13:19:06] [info] DB_WARN002 -> 251
[2025-09-06 13:19:06] [info] DB_WARN003 -> 251
[2025-09-06 13:19:06] [info] VERI_WARN012 -> 34
[2025-09-06 13:19:06] [info] ERC_ERR019 -> 38
[2025-09-06 13:19:06] [info] ERC_ERR001 -> 4
[2025-09-06 13:19:06] [info] LVS_ERR003 -> 13
[2025-09-06 13:19:06] [info] ERC_ERR003 -> 13
[2025-09-06 13:19:06] [info] ERC_ERR005 -> 11
[2025-09-06 13:19:06] [info] LVS_ERR030 -> 1
[2025-09-06 13:19:06] [info] -----
[2025-09-06 13:19:06] [info]           Summary
```

```
[2025-09-06 13:19:06] [info] -----  
[2025-09-06 13:19:06] [info] ERC Status:          PASSED  
[2025-09-06 13:19:06] [info] Instance Match Percentage: 99.95%  
[2025-09-06 13:19:06] [info] Short Circuits:      None Detected  
[2025-09-06 13:19:06] [info] Open Circuits:       None Detected  
[2025-09-06 13:19:06] [info] Unconnected Pins:    138  
[2025-09-06 13:19:06] [info] Total Errors:        94  
[2025-09-06 13:19:06] [info] Total Warnings:      537  
[2025-09-06 13:19:06] [info] Critical Issues:     None
```

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[2025-09-06 13:21:16] [info] =====
[2025-09-06 13:21:16] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:21:16] [info] =====

[2025-09-06 13:21:16] [info] Report Generated:    2025-09-06
[2025-09-06 13:21:16] [info] Run Start Time:      01:19:14 PM
[2025-09-06 13:21:16] [info] Run End Time:        01:21:16 PM
[2025-09-06 13:21:16] [info] Time Taken:          2 minutes 8 seconds

[2025-09-06 13:21:16] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:21:16] [info] Host Name:           kuro-Workstation
[2025-09-06 13:21:16] [info] User Name:           kuro
[2025-09-06 13:21:16] [info] Cores Used:          4
[2025-09-06 13:21:16] [info] Memory Utilized:     2652.30 MB / 62.569705963134766 GB

[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info]           Top Cell Match
[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-09-06 13:21:16] [info] Schematic Top Cell:  ibex_core2_sky130hd
[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info]           Short and Open Checks
[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info] Short Circuits:      None Detected
[2025-09-06 13:21:16] [info] Open Circuits:       None Detected

[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info]           Performance Metrics
[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info] | Stage                  | Time Taken |
[2025-09-06 13:21:16] [info] |-----|-----|
[2025-09-06 13:21:16] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:21:16] [info] | Connectivity Extraction  | 1 minutes 59 seconds |
[2025-09-06 13:21:16] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:21:16] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info]           Additional Details
[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 13:21:16] [info] Hierarchical Cells:    Flattened
[2025-09-06 13:21:16] [info] Database Format:        GDSII
[2025-09-06 13:21:16] [info] Verification Mode:     Full Check
[2025-09-06 13:21:16] [info] Error Reporting:       Enabled

[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info]           Type of Errors | Count
[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info] DB_WARN -> 1
[2025-09-06 13:21:16] [info] LRF_ERR001 -> 14
[2025-09-06 13:21:16] [info] DB_WARN002 -> 249
[2025-09-06 13:21:16] [info] DB_WARN003 -> 249
[2025-09-06 13:21:16] [info] VERI_WARN012 -> 31
[2025-09-06 13:21:16] [info] ERC_ERR019 -> 32
[2025-09-06 13:21:16] [info] ERC_ERR001 -> 4
[2025-09-06 13:21:16] [info] LVS_ERR003 -> 11
[2025-09-06 13:21:16] [info] ERC_ERR003 -> 11
[2025-09-06 13:21:16] [info] ERC_ERR005 -> 12
[2025-09-06 13:21:16] [info] LVS_ERR030 -> 1
[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info]           Summary

```

```
[2025-09-06 13:21:16] [info] -----
[2025-09-06 13:21:16] [info] ERC Status:          PASSED
[2025-09-06 13:21:16] [info] Instance Match Percentage: 99.94%
[2025-09-06 13:21:16] [info] Short Circuits:      None Detected
[2025-09-06 13:21:16] [info] Open Circuits:       None Detected
[2025-09-06 13:21:16] [info] Unconnected Pins:    132
[2025-09-06 13:21:16] [info] Total Errors:        85
[2025-09-06 13:21:16] [info] Total Warnings:      530
[2025-09-06 13:21:16] [info] Critical Issues:     None
```

```

[2025-09-06 13:23:20] [info] =====
[2025-09-06 13:23:20] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:23:20] [info] =====

[2025-09-06 13:23:20] [info] Report Generated:    2025-09-06
[2025-09-06 13:23:20] [info] Run Start Time:      01:21:24 PM
[2025-09-06 13:23:20] [info] Run End Time:        01:23:20 PM
[2025-09-06 13:23:20] [info] Time Taken:          2 minutes 1 seconds

[2025-09-06 13:23:20] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:23:20] [info] Host Name:           kuro-Workstation
[2025-09-06 13:23:20] [info] User Name:           kuro
[2025-09-06 13:23:20] [info] Cores Used:          4
[2025-09-06 13:23:20] [info] Memory Utilized:     2577.80 MB / 62.569705963134766 GB

[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info]           Top Cell Match
[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 13:23:20] [info] Schematic Top Cell:  ibex_core3_sky130hd
[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info]           Short and Open Checks
[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info] Short Circuits:      None Detected
[2025-09-06 13:23:20] [info] Open Circuits:       None Detected

[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info]           Performance Metrics
[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info] | Stage                  | Time Taken |
[2025-09-06 13:23:20] [info] |-----|-----|
[2025-09-06 13:23:20] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:23:20] [info] | Connectivity Extraction  | 1 minutes 53 seconds |
[2025-09-06 13:23:20] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:23:20] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info]           Additional Details
[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 13:23:20] [info] Hierarchical Cells:    Flattened
[2025-09-06 13:23:20] [info] Database Format:        GDSII
[2025-09-06 13:23:20] [info] Verification Mode:     Full Check
[2025-09-06 13:23:20] [info] Error Reporting:       Enabled

[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info]           Type of Errors | Count
[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info] DB_WARN -> 1
[2025-09-06 13:23:20] [info] LRF_ERR001 -> 14
[2025-09-06 13:23:20] [info] DB_WARN002 -> 253
[2025-09-06 13:23:20] [info] DB_WARN003 -> 251
[2025-09-06 13:23:20] [info] VERI_WARN012 -> 53
[2025-09-06 13:23:20] [info] ERC_ERR019 -> 31
[2025-09-06 13:23:20] [info] LVS_ERR003 -> 11
[2025-09-06 13:23:20] [info] ERC_ERR003 -> 11
[2025-09-06 13:23:20] [info] ERC_ERR001 -> 2
[2025-09-06 13:23:20] [info] ERC_ERR005 -> 9
[2025-09-06 13:23:20] [info] LVS_ERR030 -> 1
[2025-09-06 13:23:20] [info] -----
[2025-09-06 13:23:20] [info]           Summary

```

```
[2025-09-06 13:23:20] [info] -----  
[2025-09-06 13:23:20] [info] ERC Status:          PASSED  
[2025-09-06 13:23:20] [info] Instance Match Percentage: 99.95%  
[2025-09-06 13:23:20] [info] Short Circuits:      None Detected  
[2025-09-06 13:23:20] [info] Open Circuits:       None Detected  
[2025-09-06 13:23:20] [info] Unconnected Pins:    131  
[2025-09-06 13:23:20] [info] Total Errors:        79  
[2025-09-06 13:23:20] [info] Total Warnings:      558  
[2025-09-06 13:23:20] [info] Critical Issues:     None
```

```

[2025-09-06 13:32:40] [info] =====
[2025-09-06 13:32:40] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:32:40] [info] =====

[2025-09-06 13:32:40] [info] Report Generated:    2025-09-06
[2025-09-06 13:32:40] [info] Run Start Time:      01:23:39 PM
[2025-09-06 13:32:40] [info] Run End Time:        01:32:40 PM
[2025-09-06 13:32:40] [info] Time Taken:          9 minutes 18 seconds

[2025-09-06 13:32:40] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:32:40] [info] Host Name:           kuro-Workstation
[2025-09-06 13:32:40] [info] User Name:           kuro
[2025-09-06 13:32:40] [info] Cores Used:          4
[2025-09-06 13:32:40] [info] Memory Utilized:     6934.95 MB / 62.569705963134766 GB

[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info]           Top Cell Match
[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-09-06 13:32:40] [info] Schematic Top Cell:  jpeg_encoder1_sky130hd
[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info]           Short and Open Checks
[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info] Short Circuits:      None Detected
[2025-09-06 13:32:40] [info] Open Circuits:       None Detected

[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info]           Performance Metrics
[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info] | Stage                  | Time Taken |
[2025-09-06 13:32:40] [info] |-----|-----|
[2025-09-06 13:32:40] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:32:40] [info] | Connectivity Extraction  | 8 minutes 55 seconds |
[2025-09-06 13:32:40] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:32:40] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info]           Additional Details
[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 13:32:40] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:32:40] [info] Database Format:       GDSII
[2025-09-06 13:32:40] [info] Verification Mode:    Full Check
[2025-09-06 13:32:40] [info] Error Reporting:      Enabled

[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info]           Type of Errors | Count
[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info] DB_WARN -> 1
[2025-09-06 13:32:40] [info] LRF_ERR001 -> 14
[2025-09-06 13:32:40] [info] DB_WARN002 -> 159
[2025-09-06 13:32:40] [info] DB_WARN003 -> 161
[2025-09-06 13:32:40] [info] VERI_WARN012 -> 113
[2025-09-06 13:32:40] [info] ERC_ERR019 -> 511
[2025-09-06 13:32:40] [info] LVS_ERR003 -> 499
[2025-09-06 13:32:40] [info] ERC_ERR003 -> 499
[2025-09-06 13:32:40] [info] ERC_ERR005 -> 113
[2025-09-06 13:32:40] [info] LVS_ERR030 -> 1
[2025-09-06 13:32:40] [info] -----
[2025-09-06 13:32:40] [info]           Summary
[2025-09-06 13:32:40] [info] -----

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```
[2025-09-06 13:32:40] [info] ERC Status:          PASSED
[2025-09-06 13:32:40] [info] Instance Match Percentage: 99.75%
[2025-09-06 13:32:40] [info] Short Circuits:      None Detected
[2025-09-06 13:32:40] [info] Open Circuits:       None Detected
[2025-09-06 13:32:40] [info] Unconnected Pins:    611
[2025-09-06 13:32:40] [info] Total Errors:        1637
[2025-09-06 13:32:40] [info] Total Warnings:      434
[2025-09-06 13:32:40] [info] Critical Issues:     None
```

```

[2025-09-06 13:43:52] [info] =====
[2025-09-06 13:43:52] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:43:52] [info] =====

[2025-09-06 13:43:52] [info] Report Generated:    2025-09-06
[2025-09-06 13:43:52] [info] Run Start Time:      01:33:07 PM
[2025-09-06 13:43:52] [info] Run End Time:        01:43:51 PM
[2025-09-06 13:43:52] [info] Time Taken:          11 minutes 5 seconds

[2025-09-06 13:43:52] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:43:52] [info] Host Name:           kuro-Workstation
[2025-09-06 13:43:52] [info] User Name:           kuro
[2025-09-06 13:43:52] [info] Cores Used:          4
[2025-09-06 13:43:52] [info] Memory Utilized:     8499.99 MB / 62.569705963134766 GB

[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info]           Top Cell Match
[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-09-06 13:43:52] [info] Schematic Top Cell:  jpeg_encoder2_sky130hd
[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info]           Short and Open Checks
[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info] Short Circuits:      None Detected
[2025-09-06 13:43:52] [info] Open Circuits:       None Detected

[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info]           Performance Metrics
[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info] | Stage                  | Time Taken |
[2025-09-06 13:43:52] [info] |-----|-----|
[2025-09-06 13:43:52] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:43:52] [info] | Connectivity Extraction  | 10 minutes 37 seconds |
[2025-09-06 13:43:52] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:43:52] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info]           Additional Details
[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 13:43:52] [info] Hierarchical Cells:    Flattened
[2025-09-06 13:43:52] [info] Database Format:        GDSII
[2025-09-06 13:43:52] [info] Verification Mode:     Full Check
[2025-09-06 13:43:52] [info] Error Reporting:       Enabled

[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info]           Type of Errors | Count
[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info] DB_WARN -> 1
[2025-09-06 13:43:52] [info] LRF_ERR001 -> 14
[2025-09-06 13:43:52] [info] DB_WARN002 -> 157
[2025-09-06 13:43:52] [info] DB_WARN003 -> 159
[2025-09-06 13:43:52] [info] VERI_WARN012 -> 113
[2025-09-06 13:43:52] [info] ERC_ERR019 -> 502
[2025-09-06 13:43:52] [info] LVS_ERR003 -> 490
[2025-09-06 13:43:52] [info] ERC_ERR003 -> 490
[2025-09-06 13:43:52] [info] ERC_ERR005 -> 113
[2025-09-06 13:43:52] [info] LVS_ERR030 -> 1
[2025-09-06 13:43:52] [info] -----
[2025-09-06 13:43:52] [info]           Summary
[2025-09-06 13:43:52] [info] -----

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```
[2025-09-06 13:43:52] [info] ERC Status:          PASSED
[2025-09-06 13:43:52] [info] Instance Match Percentage: 99.75%
[2025-09-06 13:43:52] [info] Short Circuits:          None Detected
[2025-09-06 13:43:52] [info] Open Circuits:          None Detected
[2025-09-06 13:43:52] [info] Unconnected Pins:        602
[2025-09-06 13:43:52] [info] Total Errors:           1610
[2025-09-06 13:43:52] [info] Total Warnings:          430
[2025-09-06 13:43:52] [info] Critical Issues:         None
```

```

[2025-09-06 13:52:12] [info] =====
[2025-09-06 13:52:12] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:52:12] [info] =====

[2025-09-06 13:52:12] [info] Report Generated:    2025-09-06
[2025-09-06 13:52:12] [info] Run Start Time:      01:44:12 PM
[2025-09-06 13:52:12] [info] Run End Time:        01:52:11 PM
[2025-09-06 13:52:12] [info] Time Taken:          8 minutes 13 seconds

[2025-09-06 13:52:12] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:52:12] [info] Host Name:           kuro-Workstation
[2025-09-06 13:52:12] [info] User Name:           kuro
[2025-09-06 13:52:12] [info] Cores Used:          4
[2025-09-06 13:52:12] [info] Memory Utilized:     5873.45 MB / 62.569705963134766 GB

[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info]           Top Cell Match
[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-09-06 13:52:12] [info] Schematic Top Cell:  jpeg_encoder3_sky130hd
[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info]           Short and Open Checks
[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info] Short Circuits:      None Detected
[2025-09-06 13:52:12] [info] Open Circuits:       None Detected

[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info]           Performance Metrics
[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info] | Stage                  | Time Taken |
[2025-09-06 13:52:12] [info] |-----|-----|
[2025-09-06 13:52:12] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:52:12] [info] | Connectivity Extraction  | 7 minutes 53 seconds |
[2025-09-06 13:52:12] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:52:12] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info]           Additional Details
[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 13:52:12] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:52:12] [info] Database Format:       GDSII
[2025-09-06 13:52:12] [info] Verification Mode:    Full Check
[2025-09-06 13:52:12] [info] Error Reporting:      Enabled

[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info]           Type of Errors | Count
[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info] DB_WARN -> 1
[2025-09-06 13:52:12] [info] LRF_ERR001 -> 14
[2025-09-06 13:52:12] [info] DB_WARN002 -> 152
[2025-09-06 13:52:12] [info] DB_WARN003 -> 155
[2025-09-06 13:52:12] [info] VERI_WARN012 -> 113
[2025-09-06 13:52:12] [info] ERC_ERR019 -> 450
[2025-09-06 13:52:12] [info] LVS_ERR003 -> 438
[2025-09-06 13:52:12] [info] ERC_ERR003 -> 438
[2025-09-06 13:52:12] [info] ERC_ERR005 -> 113
[2025-09-06 13:52:12] [info] LVS_ERR030 -> 1
[2025-09-06 13:52:12] [info] -----
[2025-09-06 13:52:12] [info]           Summary
[2025-09-06 13:52:12] [info] -----

```

```
[2025-09-06 13:52:12] [info] ERC Status:          PASSED
[2025-09-06 13:52:12] [info] Instance Match Percentage: 99.75%
[2025-09-06 13:52:12] [info] Short Circuits:          None Detected
[2025-09-06 13:52:12] [info] Open Circuits:          None Detected
[2025-09-06 13:52:12] [info] Unconnected Pins:        550
[2025-09-06 13:52:12] [info] Total Errors:            1454
[2025-09-06 13:52:12] [info] Total Warnings:          421
[2025-09-06 13:52:12] [info] Critical Issues:         None
```

```

[2025-09-06 13:54:01] [info] =====
[2025-09-06 13:54:01] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:54:01] [info] =====

[2025-09-06 13:54:01] [info] Report Generated:    2025-09-06
[2025-09-06 13:54:01] [info] Run Start Time:      01:52:24 PM
[2025-09-06 13:54:01] [info] Run End Time:        01:54:00 PM
[2025-09-06 13:54:01] [info] Time Taken:          1 minutes 43 seconds

[2025-09-06 13:54:01] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:54:01] [info] Host Name:           kuro-Workstation
[2025-09-06 13:54:01] [info] User Name:           kuro
[2025-09-06 13:54:01] [info] Cores Used:          8
[2025-09-06 13:54:01] [info] Memory Utilized:     2848.86 MB / 62.569705963134766 GB

[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info]           Top Cell Match
[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-09-06 13:54:01] [info] Schematic Top Cell:  aes_cipher_top1_sky130hd
[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info]           Short and Open Checks
[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info] Short Circuits:      None Detected
[2025-09-06 13:54:01] [info] Open Circuits:       None Detected

[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info]           Performance Metrics
[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info] | Stage                  | Time Taken |
[2025-09-06 13:54:01] [info] |-----|-----|
[2025-09-06 13:54:01] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:54:01] [info] | Connectivity Extraction  | 1 minutes 33 seconds |
[2025-09-06 13:54:01] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:54:01] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info]           Additional Details
[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 13:54:01] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:54:01] [info] Database Format:       GDSII
[2025-09-06 13:54:01] [info] Verification Mode:    Full Check
[2025-09-06 13:54:01] [info] Error Reporting:      Enabled

[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info]           Type of Errors | Count
[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info] DB_WARN -> 1
[2025-09-06 13:54:01] [info] LRF_ERR001 -> 14
[2025-09-06 13:54:01] [info] DB_WARN002 -> 144
[2025-09-06 13:54:01] [info] DB_WARN003 -> 137
[2025-09-06 13:54:01] [info] VERI_WARN012 -> 41
[2025-09-06 13:54:01] [info] ERC_ERR019 -> 18
[2025-09-06 13:54:01] [info] LVS_ERR003 -> 18
[2025-09-06 13:54:01] [info] ERC_ERR003 -> 18
[2025-09-06 13:54:01] [info] ERC_ERR005 -> 3
[2025-09-06 13:54:01] [info] LVS_ERR030 -> 1
[2025-09-06 13:54:01] [info] -----
[2025-09-06 13:54:01] [info]           Summary
[2025-09-06 13:54:01] [info] -----

```

```
[2025-09-06 13:54:01] [info] ERC Status:          PASSED
[2025-09-06 13:54:01] [info] Instance Match Percentage: 99.99%
[2025-09-06 13:54:01] [info] Short Circuits:          None Detected
[2025-09-06 13:54:01] [info] Open Circuits:          None Detected
[2025-09-06 13:54:01] [info] Unconnected Pins:        118
[2025-09-06 13:54:01] [info] Total Errors:           72
[2025-09-06 13:54:01] [info] Total Warnings:          323
[2025-09-06 13:54:01] [info] Critical Issues:         None
```

```

[2025-09-06 13:56:40] [info] =====
[2025-09-06 13:56:40] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:56:40] [info] =====

[2025-09-06 13:56:40] [info] Report Generated:    2025-09-06
[2025-09-06 13:56:40] [info] Run Start Time:      01:54:11 PM
[2025-09-06 13:56:40] [info] Run End Time:        01:56:40 PM
[2025-09-06 13:56:40] [info] Time Taken:          2 minutes 37 seconds

[2025-09-06 13:56:40] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:56:40] [info] Host Name:           kuro-Workstation
[2025-09-06 13:56:40] [info] User Name:           kuro
[2025-09-06 13:56:40] [info] Cores Used:          8
[2025-09-06 13:56:40] [info] Memory Utilized:     3444.20 MB / 62.569705963134766 GB

[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info]           Top Cell Match
[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-09-06 13:56:40] [info] Schematic Top Cell:  aes_cipher_top2_sky130hd
[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info]           Short and Open Checks
[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info] Short Circuits:      None Detected
[2025-09-06 13:56:40] [info] Open Circuits:       None Detected

[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info]           Performance Metrics
[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info] | Stage                  | Time Taken |
[2025-09-06 13:56:40] [info] |-----|-----|
[2025-09-06 13:56:40] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:56:40] [info] | Connectivity Extraction  | 2 minutes 25 seconds |
[2025-09-06 13:56:40] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:56:40] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info]           Additional Details
[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 13:56:40] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:56:40] [info] Database Format:       GDSII
[2025-09-06 13:56:40] [info] Verification Mode:    Full Check
[2025-09-06 13:56:40] [info] Error Reporting:      Enabled

[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info]           Type of Errors | Count
[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info] DB_WARN -> 1
[2025-09-06 13:56:40] [info] LRF_ERR001 -> 14
[2025-09-06 13:56:40] [info] DB_WARN002 -> 141
[2025-09-06 13:56:40] [info] DB_WARN003 -> 135
[2025-09-06 13:56:40] [info] VERI_WARN012 -> 39
[2025-09-06 13:56:40] [info] ERC_ERR019 -> 12
[2025-09-06 13:56:40] [info] LVS_ERR003 -> 12
[2025-09-06 13:56:40] [info] ERC_ERR003 -> 12
[2025-09-06 13:56:40] [info] ERC_ERR005 -> 3
[2025-09-06 13:56:40] [info] LVS_ERR030 -> 1
[2025-09-06 13:56:40] [info] -----
[2025-09-06 13:56:40] [info]           Summary
[2025-09-06 13:56:40] [info] -----

```

```
[2025-09-06 13:56:40] [info] ERC Status:          PASSED
[2025-09-06 13:56:40] [info] Instance Match Percentage: 99.99%
[2025-09-06 13:56:40] [info] Short Circuits:          None Detected
[2025-09-06 13:56:40] [info] Open Circuits:          None Detected
[2025-09-06 13:56:40] [info] Unconnected Pins:          112
[2025-09-06 13:56:40] [info] Total Errors:            54
[2025-09-06 13:56:40] [info] Total Warnings:          316
[2025-09-06 13:56:40] [info] Critical Issues:          None
```

```

[2025-09-06 13:58:15] [info] =====
[2025-09-06 13:58:15] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:58:15] [info] =====

[2025-09-06 13:58:15] [info] Report Generated:    2025-09-06
[2025-09-06 13:58:15] [info] Run Start Time:      01:56:48 PM
[2025-09-06 13:58:15] [info] Run End Time:        01:58:15 PM
[2025-09-06 13:58:15] [info] Time Taken:          1 minutes 32 seconds

[2025-09-06 13:58:15] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:58:15] [info] Host Name:           kuro-Workstation
[2025-09-06 13:58:15] [info] User Name:           kuro
[2025-09-06 13:58:15] [info] Cores Used:          8
[2025-09-06 13:58:15] [info] Memory Utilized:     2343.92 MB / 62.569705963134766 GB

[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info]           Top Cell Match
[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-09-06 13:58:15] [info] Schematic Top Cell:  aes_cipher_top3_sky130hd
[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info]           Short and Open Checks
[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info] Short Circuits:      None Detected
[2025-09-06 13:58:15] [info] Open Circuits:       None Detected

[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info]           Performance Metrics
[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info] | Stage                  | Time Taken |
[2025-09-06 13:58:15] [info] |-----|-----|
[2025-09-06 13:58:15] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:58:15] [info] | Connectivity Extraction  | 1 minutes 24 seconds |
[2025-09-06 13:58:15] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:58:15] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info]           Additional Details
[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 13:58:15] [info] Hierarchical Cells:   Flattened
[2025-09-06 13:58:15] [info] Database Format:       GDSII
[2025-09-06 13:58:15] [info] Verification Mode:    Full Check
[2025-09-06 13:58:15] [info] Error Reporting:      Enabled

[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info]           Type of Errors | Count
[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info] DB_WARN -> 1
[2025-09-06 13:58:15] [info] LRF_ERR001 -> 14
[2025-09-06 13:58:15] [info] DB_WARN002 -> 138
[2025-09-06 13:58:15] [info] DB_WARN003 -> 132
[2025-09-06 13:58:15] [info] VERI_WARN012 -> 36
[2025-09-06 13:58:15] [info] ERC_ERR019 -> 12
[2025-09-06 13:58:15] [info] LVS_ERR003 -> 12
[2025-09-06 13:58:15] [info] ERC_ERR003 -> 12
[2025-09-06 13:58:15] [info] ERC_ERR005 -> 3
[2025-09-06 13:58:15] [info] LVS_ERR030 -> 1
[2025-09-06 13:58:15] [info] -----
[2025-09-06 13:58:15] [info]           Summary
[2025-09-06 13:58:15] [info] -----

```

```
[2025-09-06 13:58:15] [info] ERC Status:          PASSED
[2025-09-06 13:58:15] [info] Instance Match Percentage: 99.99%
[2025-09-06 13:58:15] [info] Short Circuits:          None Detected
[2025-09-06 13:58:15] [info] Open Circuits:          None Detected
[2025-09-06 13:58:15] [info] Unconnected Pins:          112
[2025-09-06 13:58:15] [info] Total Errors:            54
[2025-09-06 13:58:15] [info] Total Warnings:          307
[2025-09-06 13:58:15] [info] Critical Issues:         None
```

```

[2025-09-06 13:52:17] [info] =====
[2025-09-06 13:52:17] [info] Electrical Rule Check Summary Report
[2025-09-06 13:52:17] [info] =====

[2025-09-06 13:52:17] [info] Report Generated: 2025-09-06
[2025-09-06 13:52:17] [info] Run Start Time: 01:52:16 PM
[2025-09-06 13:52:17] [info] Run End Time: 01:52:17 PM
[2025-09-06 13:52:17] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 13:52:17] [info] Tool Version: LVR_2025.1
[2025-09-06 13:52:17] [info] Host Name: kuro-Workstation
[2025-09-06 13:52:17] [info] User Name: kuro
[2025-09-06 13:52:17] [info] Cores Used: 8
[2025-09-06 13:52:17] [info] Memory Utilized: 38.46 MB / 62.569705963134766 GB

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Top Cell Match
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Layout Top Cell: gcd1_sky130hd
[2025-09-06 13:52:17] [info] Schematic Top Cell: gcd1_sky130hd
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Short and Open Checks
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Short Circuits: None Detected
[2025-09-06 13:52:17] [info] Open Circuits: None Detected

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Performance Metrics
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] | Stage | Time Taken |
[2025-09-06 13:52:17] [info] |-----|-----|
[2025-09-06 13:52:17] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 13:52:17] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 13:52:17] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 13:52:17] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Additional Details
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 13:52:17] [info] Hierarchical Cells: Flattened
[2025-09-06 13:52:17] [info] Database Format: GDSII
[2025-09-06 13:52:17] [info] Verification Mode: Full Check
[2025-09-06 13:52:17] [info] Error Reporting: Enabled

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Type of Errors | Count
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] DB_WARN -> 1
[2025-09-06 13:52:17] [info] LRF_ERROR01 -> 14
[2025-09-06 13:52:17] [info] DB_WARN002 -> 58
[2025-09-06 13:52:17] [info] DB_WARN003 -> 55
[2025-09-06 13:52:17] [info] VERI_WARN012 -> 4
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Summary
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] ERC Status: PASSED
[2025-09-06 13:52:17] [info] Instance Match Percentage: 100.00%
[2025-09-06 13:52:17] [info] Short Circuits: None Detected
[2025-09-06 13:52:17] [info] Open Circuits: None Detected
[2025-09-06 13:52:17] [info] Unconnected Pins: 100

```

```
[2025-09-06 13:52:17] [info] Total Errors:      14
[2025-09-06 13:52:17] [info] Total Warnings:    118
[2025-09-06 13:52:17] [info] Critical Issues:   None
```

```

[2025-09-06 13:52:17] [info] =====
[2025-09-06 13:52:17] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:52:17] [info] =====

[2025-09-06 13:52:17] [info] Report Generated:    2025-09-06
[2025-09-06 13:52:17] [info] Run Start Time:      01:52:17 PM
[2025-09-06 13:52:17] [info] Run End Time:        01:52:17 PM
[2025-09-06 13:52:17] [info] Time Taken:          0 minutes 0 seconds

[2025-09-06 13:52:17] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:52:17] [info] Host Name:           kuro-Workstation
[2025-09-06 13:52:17] [info] User Name:           kuro
[2025-09-06 13:52:17] [info] Cores Used:          8
[2025-09-06 13:52:17] [info] Memory Utilized:     43.01 MB / 62.569705963134766 GB

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info]           Top Cell Match
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Layout Top Cell:     gcd2_sky130hd
[2025-09-06 13:52:17] [info] Schematic Top Cell:  gcd2_sky130hd
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info]           Short and Open Checks
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Short Circuits:      None Detected
[2025-09-06 13:52:17] [info] Open Circuits:       None Detected

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info]           Performance Metrics
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] | Stage                  | Time Taken |
[2025-09-06 13:52:17] [info] |-----|-----|
[2025-09-06 13:52:17] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:52:17] [info] | Connectivity Extraction  | 0 minutes 0 seconds |
[2025-09-06 13:52:17] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:52:17] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info]           Additional Details
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 13:52:17] [info] Hierarchical Cells:    Flattened
[2025-09-06 13:52:17] [info] Database Format:        GDSII
[2025-09-06 13:52:17] [info] Verification Mode:     Full Check
[2025-09-06 13:52:17] [info] Error Reporting:       Enabled

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info]           Type of Errors | Count
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] DB_WARN -> 1
[2025-09-06 13:52:17] [info] LRF_ERROR01 -> 14
[2025-09-06 13:52:17] [info] DB_WARN002 -> 59
[2025-09-06 13:52:17] [info] DB_WARN003 -> 56
[2025-09-06 13:52:17] [info] VERI_WARN012 -> 5
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info]           Summary
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] ERC Status:            PASSED
[2025-09-06 13:52:17] [info] Instance Match Percentage: 100.00%
[2025-09-06 13:52:17] [info] Short Circuits:        None Detected
[2025-09-06 13:52:17] [info] Open Circuits:         None Detected
[2025-09-06 13:52:17] [info] Unconnected Pins:      100

```

```
[2025-09-06 13:52:17] [info] Total Errors:      14
[2025-09-06 13:52:17] [info] Total Warnings:    121
[2025-09-06 13:52:17] [info] Critical Issues:   None
```

```

[2025-09-06 13:52:17] [info] =====
[2025-09-06 13:52:17] [info] Electrical Rule Check Summary Report
[2025-09-06 13:52:17] [info] =====

[2025-09-06 13:52:17] [info] Report Generated: 2025-09-06
[2025-09-06 13:52:17] [info] Run Start Time: 01:52:17 PM
[2025-09-06 13:52:17] [info] Run End Time: 01:52:17 PM
[2025-09-06 13:52:17] [info] Time Taken: 0 minutes 0 seconds

[2025-09-06 13:52:17] [info] Tool Version: LVR_2025.1
[2025-09-06 13:52:17] [info] Host Name: kuro-Workstation
[2025-09-06 13:52:17] [info] User Name: kuro
[2025-09-06 13:52:17] [info] Cores Used: 8
[2025-09-06 13:52:17] [info] Memory Utilized: 32.48 MB / 62.569705963134766 GB

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Top Cell Match
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Layout Top Cell: gcd3_sky130hd
[2025-09-06 13:52:17] [info] Schematic Top Cell: gcd3_sky130hd
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Short and Open Checks
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Short Circuits: None Detected
[2025-09-06 13:52:17] [info] Open Circuits: None Detected

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Performance Metrics
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] | Stage | Time Taken |
[2025-09-06 13:52:17] [info] |-----|-----|
[2025-09-06 13:52:17] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-09-06 13:52:17] [info] | Connectivity Extraction | 0 minutes 0 seconds |
[2025-09-06 13:52:17] [info] | Device Matching | 0 minutes 0 seconds |
[2025-09-06 13:52:17] [info] | Report Generation | 0 minutes 0 seconds |

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Additional Details
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Technology Node: SKY130HD (130nm)
[2025-09-06 13:52:17] [info] Hierarchical Cells: Flattened
[2025-09-06 13:52:17] [info] Database Format: GDSII
[2025-09-06 13:52:17] [info] Verification Mode: Full Check
[2025-09-06 13:52:17] [info] Error Reporting: Enabled

[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Type of Errors | Count
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] DB_WARN -> 1
[2025-09-06 13:52:17] [info] LRF_ERROR01 -> 14
[2025-09-06 13:52:17] [info] DB_WARN002 -> 59
[2025-09-06 13:52:17] [info] DB_WARN003 -> 56
[2025-09-06 13:52:17] [info] VERI_WARN012 -> 6
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] Summary
[2025-09-06 13:52:17] [info] -----
[2025-09-06 13:52:17] [info] ERC Status: PASSED
[2025-09-06 13:52:17] [info] Instance Match Percentage: 100.00%
[2025-09-06 13:52:17] [info] Short Circuits: None Detected
[2025-09-06 13:52:17] [info] Open Circuits: None Detected
[2025-09-06 13:52:17] [info] Unconnected Pins: 100

```

```
[2025-09-06 13:52:17] [info] Total Errors:      14
[2025-09-06 13:52:17] [info] Total Warnings:    122
[2025-09-06 13:52:17] [info] Critical Issues:   None
```

```

[2025-09-06 13:59:41] [info] =====
[2025-09-06 13:59:41] [info]           Electrical Rule Check Summary Report
[2025-09-06 13:59:41] [info] =====

[2025-09-06 13:59:41] [info] Report Generated:    2025-09-06
[2025-09-06 13:59:41] [info] Run Start Time:      01:58:23 PM
[2025-09-06 13:59:41] [info] Run End Time:        01:59:40 PM
[2025-09-06 13:59:41] [info] Time Taken:          1 minutes 23 seconds

[2025-09-06 13:59:41] [info] Tool Version:        LVR_2025.1
[2025-09-06 13:59:41] [info] Host Name:           kuro-Workstation
[2025-09-06 13:59:41] [info] User Name:           kuro
[2025-09-06 13:59:41] [info] Cores Used:          8
[2025-09-06 13:59:41] [info] Memory Utilized:     2607.32 MB / 62.569705963134766 GB

[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info]           Top Cell Match
[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-09-06 13:59:41] [info] Schematic Top Cell:  ibex_core1_sky130hd
[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info]           Short and Open Checks
[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info] Short Circuits:      None Detected
[2025-09-06 13:59:41] [info] Open Circuits:       None Detected

[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info]           Performance Metrics
[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info] | Stage                  | Time Taken |
[2025-09-06 13:59:41] [info] |-----|-----|
[2025-09-06 13:59:41] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 13:59:41] [info] | Connectivity Extraction  | 1 minutes 14 seconds |
[2025-09-06 13:59:41] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 13:59:41] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info]           Additional Details
[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 13:59:41] [info] Hierarchical Cells:    Flattened
[2025-09-06 13:59:41] [info] Database Format:        GDSII
[2025-09-06 13:59:41] [info] Verification Mode:     Full Check
[2025-09-06 13:59:41] [info] Error Reporting:       Enabled

[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info]           Type of Errors | Count
[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info] DB_WARN -> 1
[2025-09-06 13:59:41] [info] LRF_ERR001 -> 14
[2025-09-06 13:59:41] [info] DB_WARN002 -> 251
[2025-09-06 13:59:41] [info] DB_WARN003 -> 251
[2025-09-06 13:59:41] [info] VERI_WARN012 -> 34
[2025-09-06 13:59:41] [info] ERC_ERR019 -> 38
[2025-09-06 13:59:41] [info] ERC_ERR001 -> 4
[2025-09-06 13:59:41] [info] LVS_ERR003 -> 13
[2025-09-06 13:59:41] [info] ERC_ERR003 -> 13
[2025-09-06 13:59:41] [info] ERC_ERR005 -> 11
[2025-09-06 13:59:41] [info] LVS_ERR030 -> 1
[2025-09-06 13:59:41] [info] -----
[2025-09-06 13:59:41] [info]           Summary

```

```
[2025-09-06 13:59:41] [info] -----  
[2025-09-06 13:59:41] [info] ERC Status:          PASSED  
[2025-09-06 13:59:41] [info] Instance Match Percentage: 99.95%  
[2025-09-06 13:59:41] [info] Short Circuits:      None Detected  
[2025-09-06 13:59:41] [info] Open Circuits:       None Detected  
[2025-09-06 13:59:41] [info] Unconnected Pins:    138  
[2025-09-06 13:59:41] [info] Total Errors:        94  
[2025-09-06 13:59:41] [info] Total Warnings:      537  
[2025-09-06 13:59:41] [info] Critical Issues:     None
```

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[2025-09-06 14:01:08] [info] =====
[2025-09-06 14:01:08] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:01:08] [info] =====

[2025-09-06 14:01:08] [info] Report Generated:    2025-09-06
[2025-09-06 14:01:08] [info] Run Start Time:      01:59:49 PM
[2025-09-06 14:01:08] [info] Run End Time:        02:01:08 PM
[2025-09-06 14:01:08] [info] Time Taken:          1 minutes 25 seconds

[2025-09-06 14:01:08] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:01:08] [info] Host Name:           kuro-Workstation
[2025-09-06 14:01:08] [info] User Name:           kuro
[2025-09-06 14:01:08] [info] Cores Used:          8
[2025-09-06 14:01:08] [info] Memory Utilized:     2652.30 MB / 62.569705963134766 GB

[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info]           Top Cell Match
[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-09-06 14:01:08] [info] Schematic Top Cell:  ibex_core2_sky130hd
[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info]           Short and Open Checks
[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info] Short Circuits:      None Detected
[2025-09-06 14:01:08] [info] Open Circuits:       None Detected

[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info]           Performance Metrics
[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info] | Stage                  | Time Taken |
[2025-09-06 14:01:08] [info] |-----|-----|
[2025-09-06 14:01:08] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:01:08] [info] | Connectivity Extraction  | 1 minutes 16 seconds |
[2025-09-06 14:01:08] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:01:08] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info]           Additional Details
[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:01:08] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:01:08] [info] Database Format:       GDSII
[2025-09-06 14:01:08] [info] Verification Mode:    Full Check
[2025-09-06 14:01:08] [info] Error Reporting:      Enabled

[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info]           Type of Errors | Count
[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info] DB_WARN -> 1
[2025-09-06 14:01:08] [info] LRF_ERR001 -> 14
[2025-09-06 14:01:08] [info] DB_WARN002 -> 249
[2025-09-06 14:01:08] [info] DB_WARN003 -> 249
[2025-09-06 14:01:08] [info] VERI_WARN012 -> 31
[2025-09-06 14:01:08] [info] ERC_ERR019 -> 32
[2025-09-06 14:01:08] [info] ERC_ERR001 -> 4
[2025-09-06 14:01:08] [info] LVS_ERR003 -> 11
[2025-09-06 14:01:08] [info] ERC_ERR003 -> 11
[2025-09-06 14:01:08] [info] ERC_ERR005 -> 12
[2025-09-06 14:01:08] [info] LVS_ERR030 -> 1
[2025-09-06 14:01:08] [info] -----
[2025-09-06 14:01:08] [info]           Summary

```

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[2025-09-06 14:01:08] [info] -----  
[2025-09-06 14:01:08] [info] ERC Status:          PASSED  
[2025-09-06 14:01:08] [info] Instance Match Percentage: 99.94%  
[2025-09-06 14:01:08] [info] Short Circuits:      None Detected  
[2025-09-06 14:01:08] [info] Open Circuits:       None Detected  
[2025-09-06 14:01:08] [info] Unconnected Pins:    132  
[2025-09-06 14:01:08] [info] Total Errors:        85  
[2025-09-06 14:01:08] [info] Total Warnings:      530  
[2025-09-06 14:01:08] [info] Critical Issues:     None
```

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[2025-09-06 14:02:32] [info] =====
[2025-09-06 14:02:32] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:02:32] [info] =====

[2025-09-06 14:02:32] [info] Report Generated:    2025-09-06
[2025-09-06 14:02:32] [info] Run Start Time:      02:01:16 PM
[2025-09-06 14:02:32] [info] Run End Time:        02:02:32 PM
[2025-09-06 14:02:32] [info] Time Taken:          1 minutes 22 seconds

[2025-09-06 14:02:32] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:02:32] [info] Host Name:           kuro-Workstation
[2025-09-06 14:02:32] [info] User Name:           kuro
[2025-09-06 14:02:32] [info] Cores Used:          8
[2025-09-06 14:02:32] [info] Memory Utilized:     2577.80 MB / 62.569705963134766 GB

[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info]           Top Cell Match
[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-09-06 14:02:32] [info] Schematic Top Cell:  ibex_core3_sky130hd
[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info]           Short and Open Checks
[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info] Short Circuits:      None Detected
[2025-09-06 14:02:32] [info] Open Circuits:       None Detected

[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info]           Performance Metrics
[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info] | Stage                  | Time Taken |
[2025-09-06 14:02:32] [info] |-----|-----|
[2025-09-06 14:02:32] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:02:32] [info] | Connectivity Extraction  | 1 minutes 14 seconds |
[2025-09-06 14:02:32] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:02:32] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info]           Additional Details
[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:02:32] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:02:32] [info] Database Format:       GDSII
[2025-09-06 14:02:32] [info] Verification Mode:    Full Check
[2025-09-06 14:02:32] [info] Error Reporting:      Enabled

[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info]           Type of Errors | Count
[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info] DB_WARN -> 1
[2025-09-06 14:02:32] [info] LRF_ERR001 -> 14
[2025-09-06 14:02:32] [info] DB_WARN002 -> 253
[2025-09-06 14:02:32] [info] DB_WARN003 -> 251
[2025-09-06 14:02:32] [info] VERI_WARN012 -> 53
[2025-09-06 14:02:32] [info] ERC_ERR019 -> 31
[2025-09-06 14:02:32] [info] LVS_ERR003 -> 11
[2025-09-06 14:02:32] [info] ERC_ERR003 -> 11
[2025-09-06 14:02:32] [info] ERC_ERR001 -> 2
[2025-09-06 14:02:32] [info] ERC_ERR005 -> 9
[2025-09-06 14:02:32] [info] LVS_ERR030 -> 1
[2025-09-06 14:02:32] [info] -----
[2025-09-06 14:02:32] [info]           Summary

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[2025-09-06 14:02:32] [info] -----  
[2025-09-06 14:02:32] [info] ERC Status:          PASSED  
[2025-09-06 14:02:32] [info] Instance Match Percentage: 99.95%  
[2025-09-06 14:02:32] [info] Short Circuits:      None Detected  
[2025-09-06 14:02:32] [info] Open Circuits:       None Detected  
[2025-09-06 14:02:32] [info] Unconnected Pins:    131  
[2025-09-06 14:02:32] [info] Total Errors:        79  
[2025-09-06 14:02:32] [info] Total Warnings:      558  
[2025-09-06 14:02:32] [info] Critical Issues:     None
```

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[2025-09-06 14:08:44] [info] =====
[2025-09-06 14:08:44] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:08:44] [info] =====

[2025-09-06 14:08:44] [info] Report Generated:    2025-09-06
[2025-09-06 14:08:44] [info] Run Start Time:      02:02:51 PM
[2025-09-06 14:08:44] [info] Run End Time:        02:08:43 PM
[2025-09-06 14:08:44] [info] Time Taken:          6 minutes 9 seconds

[2025-09-06 14:08:44] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:08:44] [info] Host Name:           kuro-Workstation
[2025-09-06 14:08:44] [info] User Name:           kuro
[2025-09-06 14:08:44] [info] Cores Used:          8
[2025-09-06 14:08:44] [info] Memory Utilized:     6934.95 MB / 62.569705963134766 GB

[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info]           Top Cell Match
[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-09-06 14:08:44] [info] Schematic Top Cell:  jpeg_encoder1_sky130hd
[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info]           Short and Open Checks
[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info] Short Circuits:      None Detected
[2025-09-06 14:08:44] [info] Open Circuits:       None Detected

[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info]           Performance Metrics
[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info] | Stage                  | Time Taken |
[2025-09-06 14:08:44] [info] |-----|-----|
[2025-09-06 14:08:44] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:08:44] [info] | Connectivity Extraction  | 5 minutes 46 seconds |
[2025-09-06 14:08:44] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:08:44] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info]           Additional Details
[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:08:44] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:08:44] [info] Database Format:       GDSII
[2025-09-06 14:08:44] [info] Verification Mode:    Full Check
[2025-09-06 14:08:44] [info] Error Reporting:      Enabled

[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info]           Type of Errors | Count
[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info] DB_WARN -> 1
[2025-09-06 14:08:44] [info] LRF_ERR001 -> 14
[2025-09-06 14:08:44] [info] DB_WARN002 -> 159
[2025-09-06 14:08:44] [info] DB_WARN003 -> 161
[2025-09-06 14:08:44] [info] VERI_WARN012 -> 113
[2025-09-06 14:08:44] [info] ERC_ERR019 -> 511
[2025-09-06 14:08:44] [info] LVS_ERR003 -> 499
[2025-09-06 14:08:44] [info] ERC_ERR003 -> 499
[2025-09-06 14:08:44] [info] ERC_ERR005 -> 113
[2025-09-06 14:08:44] [info] LVS_ERR030 -> 1
[2025-09-06 14:08:44] [info] -----
[2025-09-06 14:08:44] [info]           Summary
[2025-09-06 14:08:44] [info] -----

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[2025-09-06 14:08:44] [info] ERC Status:          PASSED
[2025-09-06 14:08:44] [info] Instance Match Percentage: 99.75%
[2025-09-06 14:08:44] [info] Short Circuits:          None Detected
[2025-09-06 14:08:44] [info] Open Circuits:          None Detected
[2025-09-06 14:08:44] [info] Unconnected Pins:        611
[2025-09-06 14:08:44] [info] Total Errors:           1637
[2025-09-06 14:08:44] [info] Total Warnings:          434
[2025-09-06 14:08:44] [info] Critical Issues:         None
```

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[2025-09-06 14:15:58] [info] =====
[2025-09-06 14:15:58] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:15:58] [info] =====

[2025-09-06 14:15:58] [info] Report Generated:    2025-09-06
[2025-09-06 14:15:58] [info] Run Start Time:      02:09:10 PM
[2025-09-06 14:15:58] [info] Run End Time:        02:15:58 PM
[2025-09-06 14:15:58] [info] Time Taken:          7 minutes 9 seconds

[2025-09-06 14:15:58] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:15:58] [info] Host Name:           kuro-Workstation
[2025-09-06 14:15:58] [info] User Name:           kuro
[2025-09-06 14:15:58] [info] Cores Used:          8
[2025-09-06 14:15:58] [info] Memory Utilized:     8499.99 MB / 62.569705963134766 GB

[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info]           Top Cell Match
[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-09-06 14:15:58] [info] Schematic Top Cell:  jpeg_encoder2_sky130hd
[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info]           Short and Open Checks
[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info] Short Circuits:      None Detected
[2025-09-06 14:15:58] [info] Open Circuits:       None Detected

[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info]           Performance Metrics
[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info] | Stage                  | Time Taken |
[2025-09-06 14:15:58] [info] |-----|-----|
[2025-09-06 14:15:58] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:15:58] [info] | Connectivity Extraction  | 6 minutes 41 seconds |
[2025-09-06 14:15:58] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:15:58] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info]           Additional Details
[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info] Technology Node:       SKY130HD (130nm)
[2025-09-06 14:15:58] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:15:58] [info] Database Format:       GDSII
[2025-09-06 14:15:58] [info] Verification Mode:    Full Check
[2025-09-06 14:15:58] [info] Error Reporting:      Enabled

[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info]           Type of Errors | Count
[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info] DB_WARN -> 1
[2025-09-06 14:15:58] [info] LRF_ERR001 -> 14
[2025-09-06 14:15:58] [info] DB_WARN002 -> 157
[2025-09-06 14:15:58] [info] DB_WARN003 -> 159
[2025-09-06 14:15:58] [info] VERI_WARN012 -> 113
[2025-09-06 14:15:58] [info] ERC_ERR019 -> 502
[2025-09-06 14:15:58] [info] LVS_ERR003 -> 490
[2025-09-06 14:15:58] [info] ERC_ERR003 -> 490
[2025-09-06 14:15:58] [info] ERC_ERR005 -> 113
[2025-09-06 14:15:58] [info] LVS_ERR030 -> 1
[2025-09-06 14:15:58] [info] -----
[2025-09-06 14:15:58] [info]           Summary
[2025-09-06 14:15:58] [info] -----

```

```
[2025-09-06 14:15:58] [info] ERC Status:          PASSED
[2025-09-06 14:15:58] [info] Instance Match Percentage: 99.75%
[2025-09-06 14:15:58] [info] Short Circuits:      None Detected
[2025-09-06 14:15:58] [info] Open Circuits:      None Detected
[2025-09-06 14:15:58] [info] Unconnected Pins:    602
[2025-09-06 14:15:58] [info] Total Errors:       1610
[2025-09-06 14:15:58] [info] Total Warnings:      430
[2025-09-06 14:15:58] [info] Critical Issues:     None
```

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[2025-09-06 14:21:28] [info] =====
[2025-09-06 14:21:28] [info]           Electrical Rule Check Summary Report
[2025-09-06 14:21:28] [info] =====

[2025-09-06 14:21:28] [info] Report Generated:    2025-09-06
[2025-09-06 14:21:28] [info] Run Start Time:      02:16:18 PM
[2025-09-06 14:21:28] [info] Run End Time:        02:21:28 PM
[2025-09-06 14:21:28] [info] Time Taken:          5 minutes 23 seconds

[2025-09-06 14:21:28] [info] Tool Version:        LVR_2025.1
[2025-09-06 14:21:28] [info] Host Name:           kuro-Workstation
[2025-09-06 14:21:28] [info] User Name:           kuro
[2025-09-06 14:21:28] [info] Cores Used:           8
[2025-09-06 14:21:28] [info] Memory Utilized:     5873.45 MB / 62.569705963134766 GB

[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info]           Top Cell Match
[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-09-06 14:21:28] [info] Schematic Top Cell:  jpeg_encoder3_sky130hd
[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info]           Short and Open Checks
[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info] Short Circuits:      None Detected
[2025-09-06 14:21:28] [info] Open Circuits:       None Detected

[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info]           Performance Metrics
[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info] | Stage                  | Time Taken |
[2025-09-06 14:21:28] [info] |-----|-----|
[2025-09-06 14:21:28] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-09-06 14:21:28] [info] | Connectivity Extraction  | 5 minutes 4 seconds |
[2025-09-06 14:21:28] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-09-06 14:21:28] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info]           Additional Details
[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info] Technology Node:      SKY130HD (130nm)
[2025-09-06 14:21:28] [info] Hierarchical Cells:   Flattened
[2025-09-06 14:21:28] [info] Database Format:       GDSII
[2025-09-06 14:21:28] [info] Verification Mode:    Full Check
[2025-09-06 14:21:28] [info] Error Reporting:      Enabled

[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info]           Type of Errors | Count
[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info] DB_WARN -> 1
[2025-09-06 14:21:28] [info] LRF_ERR001 -> 14
[2025-09-06 14:21:28] [info] DB_WARN002 -> 152
[2025-09-06 14:21:28] [info] DB_WARN003 -> 155
[2025-09-06 14:21:28] [info] VERI_WARN012 -> 113
[2025-09-06 14:21:28] [info] ERC_ERR019 -> 450
[2025-09-06 14:21:28] [info] LVS_ERR003 -> 438
[2025-09-06 14:21:28] [info] ERC_ERR003 -> 438
[2025-09-06 14:21:28] [info] ERC_ERR005 -> 113
[2025-09-06 14:21:28] [info] LVS_ERR030 -> 1
[2025-09-06 14:21:28] [info] -----
[2025-09-06 14:21:28] [info]           Summary
[2025-09-06 14:21:28] [info] -----

```

```
[2025-09-06 14:21:28] [info] ERC Status:          PASSED
[2025-09-06 14:21:28] [info] Instance Match Percentage: 99.75%
[2025-09-06 14:21:28] [info] Short Circuits:      None Detected
[2025-09-06 14:21:28] [info] Open Circuits:      None Detected
[2025-09-06 14:21:28] [info] Unconnected Pins:    550
[2025-09-06 14:21:28] [info] Total Errors:        1454
[2025-09-06 14:21:28] [info] Total Warnings:      421
[2025-09-06 14:21:28] [info] Critical Issues:     None
```

10.4 SVS Regression Summary Reports

```
[2025-08-29 10:37:17] [info] =====
[2025-08-29 10:37:17] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:17] [info] =====

[2025-08-29 10:37:17] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:17] [info] Run Start Time:      10:37:16 AM
[2025-08-29 10:37:17] [info] Run End Time:        10:37:17 AM
[2025-08-29 10:37:17] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:17] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:17] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:17] [info] User Name:           kuro
[2025-08-29 10:37:17] [info] Cores Used:          1
[2025-08-29 10:37:17] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info]           Top Cell Match
[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-29 10:37:17] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info]           Performance Metrics
[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info] | Stage                      | Time Taken |
[2025-08-29 10:37:17] [info] |-----|-----|
[2025-08-29 10:37:17] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-29 10:37:17] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-29 10:37:17] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info]           Additional Details
[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:37:17] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:37:17] [info] Database Format:         GDSII
[2025-08-29 10:37:17] [info] Verification Mode:      Full Check
[2025-08-29 10:37:17] [info] Error Reporting:        Enabled

[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info]           Type of Errors | Count
[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info] DB_WARN -> 1
[2025-08-29 10:37:17] [info] VERI_WARN012 -> 510
[2025-08-29 10:37:17] [info] SVS_ERR020 -> 2
[2025-08-29 10:37:17] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:17] [info] SVS_ERR005 -> 13
[2025-08-29 10:37:17] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:17] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info]           Summary
[2025-08-29 10:37:17] [info] -----
[2025-08-29 10:37:17] [info] SVS Status:             PASSED
[2025-08-29 10:37:17] [info] Instance Match Percentage: 99.96%
[2025-08-29 10:37:17] [info] Unconnected Pins:       100
[2025-08-29 10:37:17] [info] Total Errors:            18
[2025-08-29 10:37:17] [info] Total Warnings:          511
[2025-08-29 10:37:17] [info] Critical Issues:         None
```

```
[2025-08-28 06:17:23] [info] =====
[2025-08-28 06:17:23] [info]           Schematic Versus Schematic Report
[2025-08-28 06:17:23] [info] =====

[2025-08-28 06:17:23] [info] Report Generated:    2025-08-28
[2025-08-28 06:17:23] [info] Run Start Time:      06:17:22 AM
[2025-08-28 06:17:23] [info] Run End Time:        06:17:23 AM
[2025-08-28 06:17:23] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 06:17:23] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:17:23] [info] Host Name:           kuro-Workstation
[2025-08-28 06:17:23] [info] User Name:           kuro
[2025-08-28 06:17:23] [info] Cores Used:          1
[2025-08-28 06:17:23] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info]           Top Cell Match
[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-28 06:17:23] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info]           Performance Metrics
[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info] | Stage                      | Time Taken |
[2025-08-28 06:17:23] [info] |-----|-----|
[2025-08-28 06:17:23] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 06:17:23] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 06:17:23] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info]           Additional Details
[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info] Technology Node:        Nangate45 (45nm)
[2025-08-28 06:17:23] [info] Hierarchical Cells:     Flattened
[2025-08-28 06:17:23] [info] Database Format:         GDSII
[2025-08-28 06:17:23] [info] Verification Mode:      Full Check
[2025-08-28 06:17:23] [info] Error Reporting:        Enabled

[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info]           Type of Errors | Count
[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info] DB_WARN -> 1
[2025-08-28 06:17:23] [info] VERI_WARN012 -> 510
[2025-08-28 06:17:23] [info] SVS_ERR020 -> 2
[2025-08-28 06:17:23] [info] SVS_ERR031 -> 1
[2025-08-28 06:17:23] [info] SVS_ERR005 -> 13
[2025-08-28 06:17:23] [info] SVS_ERR001 -> 1
[2025-08-28 06:17:23] [info] SVS_ERR002 -> 1
[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info]           Summary
[2025-08-28 06:17:23] [info] -----
[2025-08-28 06:17:23] [info] SVS Status:             PASSED
[2025-08-28 06:17:23] [info] Instance Match Percentage: 99.96%
[2025-08-28 06:17:23] [info] Unconnected Pins:       100
[2025-08-28 06:17:23] [info] Total Errors:           18
[2025-08-28 06:17:23] [info] Total Warnings:         511
[2025-08-28 06:17:23] [info] Critical Issues:        None
```

```
[2025-08-29 10:37:18] [info] =====
[2025-08-29 10:37:18] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:18] [info] =====

[2025-08-29 10:37:18] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:18] [info] Run Start Time:      10:37:17 AM
[2025-08-29 10:37:18] [info] Run End Time:        10:37:18 AM
[2025-08-29 10:37:18] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:18] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:18] [info] User Name:           kuro
[2025-08-29 10:37:18] [info] Cores Used:          1
[2025-08-29 10:37:18] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info]           Top Cell Match
[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-29 10:37:18] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info]           Performance Metrics
[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:18] [info] |-----|-----|
[2025-08-29 10:37:18] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:37:18] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:37:18] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info]           Additional Details
[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:37:18] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:37:18] [info] Database Format:        GDSII
[2025-08-29 10:37:18] [info] Verification Mode:     Full Check
[2025-08-29 10:37:18] [info] Error Reporting:       Enabled

[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info]           Type of Errors | Count
[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info] DB_WARN -> 1
[2025-08-29 10:37:18] [info] VERI_WARN012 -> 510
[2025-08-29 10:37:18] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:18] [info] SVS_ERR005 -> 14
[2025-08-29 10:37:18] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:18] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info]           Summary
[2025-08-29 10:37:18] [info] -----
[2025-08-29 10:37:18] [info] SVS Status:            PASSED
[2025-08-29 10:37:18] [info] Instance Match Percentage: 99.96%
[2025-08-29 10:37:18] [info] Unconnected Pins:      100
[2025-08-29 10:37:18] [info] Total Errors:          17
[2025-08-29 10:37:18] [info] Total Warnings:         511
[2025-08-29 10:37:18] [info] Critical Issues:       None
```

```
[2025-08-29 10:37:16] [info] =====
[2025-08-29 10:37:16] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:16] [info] =====

[2025-08-29 10:37:16] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:16] [info] Run Start Time:      10:37:16 AM
[2025-08-29 10:37:16] [info] Run End Time:        10:37:16 AM
[2025-08-29 10:37:16] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:16] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:16] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:16] [info] User Name:           kuro
[2025-08-29 10:37:16] [info] Cores Used:          1
[2025-08-29 10:37:16] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Top Cell Match
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] Schematic Top Cell1: gcd
[2025-08-29 10:37:16] [info] Schematic Top Cell2: gcd
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Performance Metrics
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:16] [info] |-----|-----|
[2025-08-29 10:37:16] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:37:16] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:37:16] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Additional Details
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:37:16] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:37:16] [info] Database Format:         GDSII
[2025-08-29 10:37:16] [info] Verification Mode:      Full Check
[2025-08-29 10:37:16] [info] Error Reporting:        Enabled

[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Type of Errors | Count
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] DB_WARN -> 1
[2025-08-29 10:37:16] [info] VERI_WARN012 -> 48
[2025-08-29 10:37:16] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:16] [info] SVS_ERR005 -> 16
[2025-08-29 10:37:16] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:16] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Summary
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] SVS Status:             PASSED
[2025-08-29 10:37:16] [info] Instance Match Percentage: 97.91%
[2025-08-29 10:37:16] [info] Unconnected Pins:       100
[2025-08-29 10:37:16] [info] Total Errors:           19
[2025-08-29 10:37:16] [info] Total Warnings:         49
[2025-08-29 10:37:16] [info] Critical Issues:        None
```

```

[2025-08-29 10:37:16] [info] =====
[2025-08-29 10:37:16] [info]             Schematic Versus Schematic Report
[2025-08-29 10:37:16] [info] =====

[2025-08-29 10:37:16] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:16] [info] Run Start Time:      10:37:16 AM
[2025-08-29 10:37:16] [info] Run End Time:        10:37:16 AM
[2025-08-29 10:37:16] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:16] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:16] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:16] [info] User Name:           kuro
[2025-08-29 10:37:16] [info] Cores Used:          1
[2025-08-29 10:37:16] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]             Top Cell Match
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] Schematic Top Cell1: gcd
[2025-08-29 10:37:16] [info] Schematic Top Cell2: gcd
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]             Performance Metrics
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:16] [info] |-----|-----|
[2025-08-29 10:37:16] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:37:16] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:37:16] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]             Additional Details
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:37:16] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:37:16] [info] Database Format:         GDSII
[2025-08-29 10:37:16] [info] Verification Mode:      Full Check
[2025-08-29 10:37:16] [info] Error Reporting:        Enabled

[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]             Type of Errors | Count
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] DB_WARN -> 1
[2025-08-29 10:37:16] [info] VERI_WARN012 -> 46
[2025-08-29 10:37:16] [info] SVS_ERR020 -> 1
[2025-08-29 10:37:16] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:16] [info] SVS_ERR005 -> 15
[2025-08-29 10:37:16] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:16] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]             Summary
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] SVS Status:             PASSED
[2025-08-29 10:37:16] [info] Instance Match Percentage: 97.90%
[2025-08-29 10:37:16] [info] Unconnected Pins:       100
[2025-08-29 10:37:16] [info] Total Errors:           19
[2025-08-29 10:37:16] [info] Total Warnings:         47
[2025-08-29 10:37:16] [info] Critical Issues:        None

```



```

[2025-08-29 10:37:16] [info] =====
[2025-08-29 10:37:16] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:16] [info] =====

[2025-08-29 10:37:16] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:16] [info] Run Start Time:      10:37:16 AM
[2025-08-29 10:37:16] [info] Run End Time:        10:37:16 AM
[2025-08-29 10:37:16] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:16] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:16] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:16] [info] User Name:           kuro
[2025-08-29 10:37:16] [info] Cores Used:          1
[2025-08-29 10:37:16] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Top Cell Match
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] Schematic Top Cell1: gcd
[2025-08-29 10:37:16] [info] Schematic Top Cell2: gcd
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Performance Metrics
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:16] [info] |-----|-----|
[2025-08-29 10:37:16] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:37:16] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:37:16] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Additional Details
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:37:16] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:37:16] [info] Database Format:         GDSII
[2025-08-29 10:37:16] [info] Verification Mode:      Full Check
[2025-08-29 10:37:16] [info] Error Reporting:        Enabled

[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Type of Errors | Count
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] DB_WARN -> 1
[2025-08-29 10:37:16] [info] VERI_WARN012 -> 44
[2025-08-29 10:37:16] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:16] [info] SVS_ERR005 -> 17
[2025-08-29 10:37:16] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:16] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info]           Summary
[2025-08-29 10:37:16] [info] -----
[2025-08-29 10:37:16] [info] SVS Status:             PASSED
[2025-08-29 10:37:16] [info] Instance Match Percentage: 97.67%
[2025-08-29 10:37:16] [info] Unconnected Pins:       100
[2025-08-29 10:37:16] [info] Total Errors:           20
[2025-08-29 10:37:16] [info] Total Warnings:         45
[2025-08-29 10:37:16] [info] Critical Issues:        None

```

```

[2025-08-29 10:37:19] [info] =====
[2025-08-29 10:37:19] [info] Schematic Versus Schematic Report
[2025-08-29 10:37:19] [info] =====

[2025-08-29 10:37:19] [info] Report Generated: 2025-08-29
[2025-08-29 10:37:19] [info] Run Start Time: 10:37:18 AM
[2025-08-29 10:37:19] [info] Run End Time: 10:37:19 AM
[2025-08-29 10:37:19] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 10:37:19] [info] Tool Version: LVR_2025.1
[2025-08-29 10:37:19] [info] Host Name: kuro-Workstation
[2025-08-29 10:37:19] [info] User Name: kuro
[2025-08-29 10:37:19] [info] Cores Used: 1
[2025-08-29 10:37:19] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] Top Cell Match
[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] Schematic Top Cell1: ibex_core
[2025-08-29 10:37:19] [info] Schematic Top Cell2: ibex_core
[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] Performance Metrics
[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] | Stage | Time Taken |
[2025-08-29 10:37:19] [info] |-----|-----|
[2025-08-29 10:37:19] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:37:19] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:37:19] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] Additional Details
[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:37:19] [info] Hierarchical Cells: Flattened
[2025-08-29 10:37:19] [info] Database Format: GDSII
[2025-08-29 10:37:19] [info] Verification Mode: Full Check
[2025-08-29 10:37:19] [info] Error Reporting: Enabled

[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] Type of Errors | Count
[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] DB_WARN -> 1
[2025-08-29 10:37:19] [info] VERI_WARN012 -> 830
[2025-08-29 10:37:19] [info] SVS_ERR020 -> 2
[2025-08-29 10:37:19] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:19] [info] SVS_ERR005 -> 56
[2025-08-29 10:37:19] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:19] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] Summary
[2025-08-29 10:37:19] [info] -----
[2025-08-29 10:37:19] [info] SVS Status: PASSED
[2025-08-29 10:37:19] [info] Instance Match Percentage: 99.84%
[2025-08-29 10:37:19] [info] Unconnected Pins: 100
[2025-08-29 10:37:19] [info] Total Errors: 61
[2025-08-29 10:37:19] [info] Total Warnings: 831
[2025-08-29 10:37:19] [info] Critical Issues: None

```

```

[2025-08-28 06:17:25] [info] =====
[2025-08-28 06:17:25] [info]           Schematic Versus Schematic Report
[2025-08-28 06:17:25] [info] =====

[2025-08-28 06:17:25] [info] Report Generated:    2025-08-28
[2025-08-28 06:17:25] [info] Run Start Time:      06:17:24 AM
[2025-08-28 06:17:25] [info] Run End Time:        06:17:25 AM
[2025-08-28 06:17:25] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 06:17:25] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:17:25] [info] Host Name:           kuro-Workstation
[2025-08-28 06:17:25] [info] User Name:           kuro
[2025-08-28 06:17:25] [info] Cores Used:          1
[2025-08-28 06:17:25] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info]           Top Cell Match
[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info] Schematic Top Cell1:  ibex_core
[2025-08-28 06:17:25] [info] Schematic Top Cell2:  ibex_core
[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info]           Performance Metrics
[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info] | Stage                  | Time Taken |
[2025-08-28 06:17:25] [info] |-----|-----|
[2025-08-28 06:17:25] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 06:17:25] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 06:17:25] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info]           Additional Details
[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info] Technology Node:       Nangate45 (45nm)
[2025-08-28 06:17:25] [info] Hierarchical Cells:    Flattened
[2025-08-28 06:17:25] [info] Database Format:        GDSII
[2025-08-28 06:17:25] [info] Verification Mode:     Full Check
[2025-08-28 06:17:25] [info] Error Reporting:       Enabled

[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info]           Type of Errors | Count
[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info] DB_WARN -> 1
[2025-08-28 06:17:25] [info] VERI_WARN012 -> 830
[2025-08-28 06:17:25] [info] SVS_ERR020 -> 2
[2025-08-28 06:17:25] [info] SVS_ERR031 -> 1
[2025-08-28 06:17:25] [info] SVS_ERR005 -> 56
[2025-08-28 06:17:25] [info] SVS_ERR001 -> 1
[2025-08-28 06:17:25] [info] SVS_ERR002 -> 1
[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info]           Summary
[2025-08-28 06:17:25] [info] -----
[2025-08-28 06:17:25] [info] SVS Status:            PASSED
[2025-08-28 06:17:25] [info] Instance Match Percentage: 99.84%
[2025-08-28 06:17:25] [info] Unconnected Pins:      100
[2025-08-28 06:17:25] [info] Total Errors:          61
[2025-08-28 06:17:25] [info] Total Warnings:        831
[2025-08-28 06:17:25] [info] Critical Issues:       None

```

```

[2025-08-29 10:37:21] [info] =====
[2025-08-29 10:37:21] [info] Schematic Versus Schematic Report
[2025-08-29 10:37:21] [info] =====

[2025-08-29 10:37:21] [info] Report Generated: 2025-08-29
[2025-08-29 10:37:21] [info] Run Start Time: 10:37:20 AM
[2025-08-29 10:37:21] [info] Run End Time: 10:37:21 AM
[2025-08-29 10:37:21] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 10:37:21] [info] Tool Version: LVR_2025.1
[2025-08-29 10:37:21] [info] Host Name: kuro-Workstation
[2025-08-29 10:37:21] [info] User Name: kuro
[2025-08-29 10:37:21] [info] Cores Used: 1
[2025-08-29 10:37:21] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] Top Cell Match
[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] Schematic Top Cell1: ibex_core
[2025-08-29 10:37:21] [info] Schematic Top Cell2: ibex_core
[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] Performance Metrics
[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] | Stage | Time Taken |
[2025-08-29 10:37:21] [info] |-----|-----|
[2025-08-29 10:37:21] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:37:21] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:37:21] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] Additional Details
[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:37:21] [info] Hierarchical Cells: Flattened
[2025-08-29 10:37:21] [info] Database Format: GDSII
[2025-08-29 10:37:21] [info] Verification Mode: Full Check
[2025-08-29 10:37:21] [info] Error Reporting: Enabled

[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] Type of Errors | Count
[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] DB_WARN -> 1
[2025-08-29 10:37:21] [info] VERI_WARN012 -> 830
[2025-08-29 10:37:21] [info] SVS_ERR020 -> 1
[2025-08-29 10:37:21] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:21] [info] SVS_ERR005 -> 55
[2025-08-29 10:37:21] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:21] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] Summary
[2025-08-29 10:37:21] [info] -----
[2025-08-29 10:37:21] [info] SVS Status: PASSED
[2025-08-29 10:37:21] [info] Instance Match Percentage: 99.71%
[2025-08-29 10:37:21] [info] Unconnected Pins: 100
[2025-08-29 10:37:21] [info] Total Errors: 59
[2025-08-29 10:37:21] [info] Total Warnings: 831
[2025-08-29 10:37:21] [info] Critical Issues: None

```

```
[2025-08-29 10:37:23] [info] =====
[2025-08-29 10:37:23] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:23] [info] =====

[2025-08-29 10:37:23] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:23] [info] Run Start Time:      10:37:21 AM
[2025-08-29 10:37:23] [info] Run End Time:        10:37:23 AM
[2025-08-29 10:37:23] [info] Time Taken:          0 minutes 2 seconds

[2025-08-29 10:37:23] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:23] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:23] [info] User Name:           kuro
[2025-08-29 10:37:23] [info] Cores Used:          1
[2025-08-29 10:37:23] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info]           Top Cell Match
[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info] Schematic Top Cell1:  jpeg_encoder
[2025-08-29 10:37:23] [info] Schematic Top Cell2:  jpeg_encoder
[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info]           Performance Metrics
[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:23] [info] |-----|-----|
[2025-08-29 10:37:23] [info] | Netlist Parsing        | 0 minutes 2 seconds |
[2025-08-29 10:37:23] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:37:23] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info]           Additional Details
[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:37:23] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:37:23] [info] Database Format:        GDSII
[2025-08-29 10:37:23] [info] Verification Mode:     Full Check
[2025-08-29 10:37:23] [info] Error Reporting:       Enabled

[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info]           Type of Errors | Count
[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info] DB_WARN -> 1
[2025-08-29 10:37:23] [info] VERI_WARN012 -> 4070
[2025-08-29 10:37:23] [info] SVS_ERR020 -> 1
[2025-08-29 10:37:23] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:23] [info] SVS_ERR005 -> 20
[2025-08-29 10:37:23] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:23] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info]           Summary
[2025-08-29 10:37:23] [info] -----
[2025-08-29 10:37:23] [info] SVS Status:            PASSED
[2025-08-29 10:37:23] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:37:23] [info] Unconnected Pins:      100
[2025-08-29 10:37:23] [info] Total Errors:          24
[2025-08-29 10:37:23] [info] Total Warnings:        4071
[2025-08-29 10:37:23] [info] Critical Issues:       None
```

```

[2025-08-29 10:37:26] [info] =====
[2025-08-29 10:37:26] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:26] [info] =====

[2025-08-29 10:37:26] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:26] [info] Run Start Time:      10:37:24 AM
[2025-08-29 10:37:26] [info] Run End Time:        10:37:26 AM
[2025-08-29 10:37:26] [info] Time Taken:          0 minutes 2 seconds

[2025-08-29 10:37:26] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:26] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:26] [info] User Name:           kuro
[2025-08-29 10:37:26] [info] Cores Used:          1
[2025-08-29 10:37:26] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info]           Top Cell Match
[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info] Schematic Top Cell1:  jpeg_encoder
[2025-08-29 10:37:26] [info] Schematic Top Cell2:  jpeg_encoder
[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info]           Performance Metrics
[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:26] [info] |-----|-----|
[2025-08-29 10:37:26] [info] | Netlist Parsing         | 0 minutes 2 seconds |
[2025-08-29 10:37:26] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:37:26] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info]           Additional Details
[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:37:26] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:37:26] [info] Database Format:         GDSII
[2025-08-29 10:37:26] [info] Verification Mode:      Full Check
[2025-08-29 10:37:26] [info] Error Reporting:        Enabled

[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info]           Type of Errors | Count
[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info] DB_WARN -> 1
[2025-08-29 10:37:26] [info] VERI_WARN012 -> 4070
[2025-08-29 10:37:26] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:26] [info] SVS_ERR005 -> 20
[2025-08-29 10:37:26] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:26] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info]           Summary
[2025-08-29 10:37:26] [info] -----
[2025-08-29 10:37:26] [info] SVS Status:             PASSED
[2025-08-29 10:37:26] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:37:26] [info] Unconnected Pins:       100
[2025-08-29 10:37:26] [info] Total Errors:           23
[2025-08-29 10:37:26] [info] Total Warnings:         4071
[2025-08-29 10:37:26] [info] Critical Issues:        None

```

```
[2025-08-29 10:37:29] [info] =====
[2025-08-29 10:37:29] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:29] [info] =====

[2025-08-29 10:37:29] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:29] [info] Run Start Time:      10:37:27 AM
[2025-08-29 10:37:29] [info] Run End Time:        10:37:29 AM
[2025-08-29 10:37:29] [info] Time Taken:          0 minutes 2 seconds

[2025-08-29 10:37:29] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:29] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:29] [info] User Name:           kuro
[2025-08-29 10:37:29] [info] Cores Used:          1
[2025-08-29 10:37:29] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info]           Top Cell Match
[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info] Schematic Top Cell1:  jpeg_encoder
[2025-08-29 10:37:29] [info] Schematic Top Cell2:  jpeg_encoder
[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info]           Performance Metrics
[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info] | Stage                      | Time Taken |
[2025-08-29 10:37:29] [info] |-----|-----|
[2025-08-29 10:37:29] [info] | Netlist Parsing            | 0 minutes 2 seconds |
[2025-08-29 10:37:29] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-29 10:37:29] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info]           Additional Details
[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info] Technology Node:         Nangate45 (45nm)
[2025-08-29 10:37:29] [info] Hierarchical Cells:      Flattened
[2025-08-29 10:37:29] [info] Database Format:          GDSII
[2025-08-29 10:37:29] [info] Verification Mode:       Full Check
[2025-08-29 10:37:29] [info] Error Reporting:         Enabled

[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info]           Type of Errors | Count
[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info] DB_WARN -> 1
[2025-08-29 10:37:29] [info] VERI_WARN012 -> 4070
[2025-08-29 10:37:29] [info] SVS_ERR020 -> 2
[2025-08-29 10:37:29] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:29] [info] SVS_ERR005 -> 21
[2025-08-29 10:37:29] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:29] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info]           Summary
[2025-08-29 10:37:29] [info] -----
[2025-08-29 10:37:29] [info] SVS Status:              PASSED
[2025-08-29 10:37:29] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:37:29] [info] Unconnected Pins:        100
[2025-08-29 10:37:29] [info] Total Errors:             26
[2025-08-29 10:37:29] [info] Total Warnings:           4071
[2025-08-29 10:37:29] [info] Critical Issues:         None
```

```

[2025-08-29 10:36:35] [info] =====
[2025-08-29 10:36:35] [info]             Schematic Versus Schematic Report
[2025-08-29 10:36:35] [info] =====

[2025-08-29 10:36:35] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:35] [info] Run Start Time:      10:36:34 AM
[2025-08-29 10:36:35] [info] Run End Time:        10:36:35 AM
[2025-08-29 10:36:35] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:35] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:35] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:35] [info] User Name:           kuro
[2025-08-29 10:36:35] [info] Cores Used:          1
[2025-08-29 10:36:35] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info]             Top Cell Match
[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-29 10:36:35] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info]             Performance Metrics
[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info] | Stage                      | Time Taken |
[2025-08-29 10:36:35] [info] |-----|-----|
[2025-08-29 10:36:35] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-29 10:36:35] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-29 10:36:35] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info]             Additional Details
[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:36:35] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:36:35] [info] Database Format:         GDSII
[2025-08-29 10:36:35] [info] Verification Mode:      Full Check
[2025-08-29 10:36:35] [info] Error Reporting:        Enabled

[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info]             Type of Errors | Count
[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info] DB_WARN -> 1
[2025-08-29 10:36:35] [info] VERI_WARN012 -> 510
[2025-08-29 10:36:35] [info] SVS_ERR020 -> 2
[2025-08-29 10:36:35] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:35] [info] SVS_ERR005 -> 13
[2025-08-29 10:36:35] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:35] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info]             Summary
[2025-08-29 10:36:35] [info] -----
[2025-08-29 10:36:35] [info] SVS Status:             PASSED
[2025-08-29 10:36:35] [info] Instance Match Percentage: 99.96%
[2025-08-29 10:36:35] [info] Unconnected Pins:       100
[2025-08-29 10:36:35] [info] Total Errors:           18
[2025-08-29 10:36:35] [info] Total Warnings:         511
[2025-08-29 10:36:35] [info] Critical Issues:        None

```

```
[2025-08-28 06:16:39] [info] =====
[2025-08-28 06:16:39] [info]           Schematic Versus Schematic Report
[2025-08-28 06:16:39] [info] =====

[2025-08-28 06:16:39] [info] Report Generated:    2025-08-28
[2025-08-28 06:16:39] [info] Run Start Time:      06:16:38 AM
[2025-08-28 06:16:39] [info] Run End Time:        06:16:39 AM
[2025-08-28 06:16:39] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 06:16:39] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:16:39] [info] Host Name:           kuro-Workstation
[2025-08-28 06:16:39] [info] User Name:           kuro
[2025-08-28 06:16:39] [info] Cores Used:          1
[2025-08-28 06:16:39] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info]           Top Cell Match
[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-28 06:16:39] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info]           Performance Metrics
[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info] | Stage                      | Time Taken |
[2025-08-28 06:16:39] [info] |-----|-----|
[2025-08-28 06:16:39] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 06:16:39] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 06:16:39] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info]           Additional Details
[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info] Technology Node:         Nangate45 (45nm)
[2025-08-28 06:16:39] [info] Hierarchical Cells:      Flattened
[2025-08-28 06:16:39] [info] Database Format:          GDSII
[2025-08-28 06:16:39] [info] Verification Mode:       Full Check
[2025-08-28 06:16:39] [info] Error Reporting:         Enabled

[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info]           Type of Errors | Count
[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info] DB_WARN -> 1
[2025-08-28 06:16:39] [info] VERI_WARN012 -> 510
[2025-08-28 06:16:39] [info] SVS_ERR020 -> 2
[2025-08-28 06:16:39] [info] SVS_ERR031 -> 1
[2025-08-28 06:16:39] [info] SVS_ERR005 -> 13
[2025-08-28 06:16:39] [info] SVS_ERR001 -> 1
[2025-08-28 06:16:39] [info] SVS_ERR002 -> 1
[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info]           Summary
[2025-08-28 06:16:39] [info] -----
[2025-08-28 06:16:39] [info] SVS Status:              PASSED
[2025-08-28 06:16:39] [info] Instance Match Percentage: 99.96%
[2025-08-28 06:16:39] [info] Unconnected Pins:        100
[2025-08-28 06:16:39] [info] Total Errors:             18
[2025-08-28 06:16:39] [info] Total Warnings:           511
[2025-08-28 06:16:39] [info] Critical Issues:         None
```

```

[2025-08-29 10:36:36] [info] =====
[2025-08-29 10:36:36] [info]             Schematic Versus Schematic Report
[2025-08-29 10:36:36] [info] =====

[2025-08-29 10:36:36] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:36] [info] Run Start Time:      10:36:35 AM
[2025-08-29 10:36:36] [info] Run End Time:        10:36:36 AM
[2025-08-29 10:36:36] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:36] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:36] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:36] [info] User Name:           kuro
[2025-08-29 10:36:36] [info] Cores Used:          1
[2025-08-29 10:36:36] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info]             Top Cell Match
[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-29 10:36:36] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info]             Performance Metrics
[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info] | Stage                      | Time Taken |
[2025-08-29 10:36:36] [info] |-----|-----|
[2025-08-29 10:36:36] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-29 10:36:36] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-29 10:36:36] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info]             Additional Details
[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info] Technology Node:         Nangate45 (45nm)
[2025-08-29 10:36:36] [info] Hierarchical Cells:      Flattened
[2025-08-29 10:36:36] [info] Database Format:          GDSII
[2025-08-29 10:36:36] [info] Verification Mode:       Full Check
[2025-08-29 10:36:36] [info] Error Reporting:         Enabled

[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info]             Type of Errors | Count
[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info] DB_WARN -> 1
[2025-08-29 10:36:36] [info] VERI_WARN012 -> 510
[2025-08-29 10:36:36] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:36] [info] SVS_ERR005 -> 14
[2025-08-29 10:36:36] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:36] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info]             Summary
[2025-08-29 10:36:36] [info] -----
[2025-08-29 10:36:36] [info] SVS Status:              PASSED
[2025-08-29 10:36:36] [info] Instance Match Percentage: 99.96%
[2025-08-29 10:36:36] [info] Unconnected Pins:        100
[2025-08-29 10:36:36] [info] Total Errors:            17
[2025-08-29 10:36:36] [info] Total Warnings:          511
[2025-08-29 10:36:36] [info] Critical Issues:         None

```

```
[2025-08-29 10:36:34] [info] =====
[2025-08-29 10:36:34] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:34] [info] =====

[2025-08-29 10:36:34] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:34] [info] Run Start Time:      10:36:34 AM
[2025-08-29 10:36:34] [info] Run End Time:        10:36:34 AM
[2025-08-29 10:36:34] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:34] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:34] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:34] [info] User Name:           kuro
[2025-08-29 10:36:34] [info] Cores Used:          1
[2025-08-29 10:36:34] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Top Cell Match
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] Schematic Top Cell1:  gcd
[2025-08-29 10:36:34] [info] Schematic Top Cell2:  gcd
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Performance Metrics
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:34] [info] |-----|-----|
[2025-08-29 10:36:34] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:36:34] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:36:34] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Additional Details
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:36:34] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:36:34] [info] Database Format:        GDSII
[2025-08-29 10:36:34] [info] Verification Mode:     Full Check
[2025-08-29 10:36:34] [info] Error Reporting:       Enabled

[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Type of Errors | Count
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] DB_WARN -> 1
[2025-08-29 10:36:34] [info] VERI_WARN012 -> 48
[2025-08-29 10:36:34] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:34] [info] SVS_ERR005 -> 16
[2025-08-29 10:36:34] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:34] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Summary
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] SVS Status:            PASSED
[2025-08-29 10:36:34] [info] Instance Match Percentage: 97.91%
[2025-08-29 10:36:34] [info] Unconnected Pins:      100
[2025-08-29 10:36:34] [info] Total Errors:          19
[2025-08-29 10:36:34] [info] Total Warnings:        49
[2025-08-29 10:36:34] [info] Critical Issues:       None
```

```
[2025-08-29 10:36:34] [info] =====
[2025-08-29 10:36:34] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:34] [info] =====

[2025-08-29 10:36:34] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:34] [info] Run Start Time:      10:36:34 AM
[2025-08-29 10:36:34] [info] Run End Time:        10:36:34 AM
[2025-08-29 10:36:34] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:34] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:34] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:34] [info] User Name:           kuro
[2025-08-29 10:36:34] [info] Cores Used:          1
[2025-08-29 10:36:34] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Top Cell Match
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] Schematic Top Cell1: gcd
[2025-08-29 10:36:34] [info] Schematic Top Cell2: gcd
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Performance Metrics
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:34] [info] |-----|-----|
[2025-08-29 10:36:34] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:36:34] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:36:34] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Additional Details
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:36:34] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:36:34] [info] Database Format:         GDSII
[2025-08-29 10:36:34] [info] Verification Mode:      Full Check
[2025-08-29 10:36:34] [info] Error Reporting:        Enabled

[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Type of Errors | Count
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] DB_WARN -> 1
[2025-08-29 10:36:34] [info] VERI_WARN012 -> 46
[2025-08-29 10:36:34] [info] SVS_ERR020 -> 1
[2025-08-29 10:36:34] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:34] [info] SVS_ERR005 -> 15
[2025-08-29 10:36:34] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:34] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Summary
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] SVS Status:             PASSED
[2025-08-29 10:36:34] [info] Instance Match Percentage: 97.90%
[2025-08-29 10:36:34] [info] Unconnected Pins:       100
[2025-08-29 10:36:34] [info] Total Errors:           19
[2025-08-29 10:36:34] [info] Total Warnings:         47
[2025-08-29 10:36:34] [info] Critical Issues:        None
```

```
[2025-08-29 10:36:34] [info] =====
[2025-08-29 10:36:34] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:34] [info] =====

[2025-08-29 10:36:34] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:34] [info] Run Start Time:      10:36:34 AM
[2025-08-29 10:36:34] [info] Run End Time:        10:36:34 AM
[2025-08-29 10:36:34] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:34] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:34] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:34] [info] User Name:           kuro
[2025-08-29 10:36:34] [info] Cores Used:          1
[2025-08-29 10:36:34] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Top Cell Match
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] Schematic Top Cell1:  gcd
[2025-08-29 10:36:34] [info] Schematic Top Cell2:  gcd
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Performance Metrics
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:34] [info] |-----|-----|
[2025-08-29 10:36:34] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:36:34] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:36:34] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Additional Details
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:36:34] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:36:34] [info] Database Format:        GDSII
[2025-08-29 10:36:34] [info] Verification Mode:     Full Check
[2025-08-29 10:36:34] [info] Error Reporting:       Enabled

[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Type of Errors | Count
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] DB_WARN -> 1
[2025-08-29 10:36:34] [info] VERI_WARN012 -> 44
[2025-08-29 10:36:34] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:34] [info] SVS_ERR005 -> 17
[2025-08-29 10:36:34] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:34] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info]           Summary
[2025-08-29 10:36:34] [info] -----
[2025-08-29 10:36:34] [info] SVS Status:            PASSED
[2025-08-29 10:36:34] [info] Instance Match Percentage: 97.67%
[2025-08-29 10:36:34] [info] Unconnected Pins:      100
[2025-08-29 10:36:34] [info] Total Errors:          20
[2025-08-29 10:36:34] [info] Total Warnings:        45
[2025-08-29 10:36:34] [info] Critical Issues:       None
```

```

[2025-08-29 10:36:37] [info] =====
[2025-08-29 10:36:37] [info] Schematic Versus Schematic Report
[2025-08-29 10:36:37] [info] =====

[2025-08-29 10:36:37] [info] Report Generated: 2025-08-29
[2025-08-29 10:36:37] [info] Run Start Time: 10:36:36 AM
[2025-08-29 10:36:37] [info] Run End Time: 10:36:37 AM
[2025-08-29 10:36:37] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 10:36:37] [info] Tool Version: LVR_2025.1
[2025-08-29 10:36:37] [info] Host Name: kuro-Workstation
[2025-08-29 10:36:37] [info] User Name: kuro
[2025-08-29 10:36:37] [info] Cores Used: 1
[2025-08-29 10:36:37] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] Top Cell Match
[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] Schematic Top Cell1: ibex_core
[2025-08-29 10:36:37] [info] Schematic Top Cell2: ibex_core
[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] Performance Metrics
[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] | Stage | Time Taken |
[2025-08-29 10:36:37] [info] |-----|-----|
[2025-08-29 10:36:37] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:36:37] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:36:37] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] Additional Details
[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:36:37] [info] Hierarchical Cells: Flattened
[2025-08-29 10:36:37] [info] Database Format: GDSII
[2025-08-29 10:36:37] [info] Verification Mode: Full Check
[2025-08-29 10:36:37] [info] Error Reporting: Enabled

[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] Type of Errors | Count
[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] DB_WARN -> 1
[2025-08-29 10:36:37] [info] VERI_WARN012 -> 830
[2025-08-29 10:36:37] [info] SVS_ERR020 -> 2
[2025-08-29 10:36:37] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:37] [info] SVS_ERR005 -> 56
[2025-08-29 10:36:37] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:37] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] Summary
[2025-08-29 10:36:37] [info] -----
[2025-08-29 10:36:37] [info] SVS Status: PASSED
[2025-08-29 10:36:37] [info] Instance Match Percentage: 99.84%
[2025-08-29 10:36:37] [info] Unconnected Pins: 100
[2025-08-29 10:36:37] [info] Total Errors: 61
[2025-08-29 10:36:37] [info] Total Warnings: 831
[2025-08-29 10:36:37] [info] Critical Issues: None

```

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[2025-08-28 06:16:42] [info] =====
[2025-08-28 06:16:42] [info]           Schematic Versus Schematic Report
[2025-08-28 06:16:42] [info] =====

[2025-08-28 06:16:42] [info] Report Generated:    2025-08-28
[2025-08-28 06:16:42] [info] Run Start Time:      06:16:41 AM
[2025-08-28 06:16:42] [info] Run End Time:        06:16:42 AM
[2025-08-28 06:16:42] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 06:16:42] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:16:42] [info] Host Name:           kuro-Workstation
[2025-08-28 06:16:42] [info] User Name:           kuro
[2025-08-28 06:16:42] [info] Cores Used:          1
[2025-08-28 06:16:42] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info]           Top Cell Match
[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info] Schematic Top Cell1:  ibex_core
[2025-08-28 06:16:42] [info] Schematic Top Cell2:  ibex_core
[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info]           Performance Metrics
[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info] | Stage                  | Time Taken |
[2025-08-28 06:16:42] [info] |-----|-----|
[2025-08-28 06:16:42] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 06:16:42] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 06:16:42] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info]           Additional Details
[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info] Technology Node:        Nangate45 (45nm)
[2025-08-28 06:16:42] [info] Hierarchical Cells:     Flattened
[2025-08-28 06:16:42] [info] Database Format:         GDSII
[2025-08-28 06:16:42] [info] Verification Mode:      Full Check
[2025-08-28 06:16:42] [info] Error Reporting:        Enabled

[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info]           Type of Errors | Count
[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info] DB_WARN -> 1
[2025-08-28 06:16:42] [info] VERI_WARN012 -> 830
[2025-08-28 06:16:42] [info] SVS_ERR020 -> 2
[2025-08-28 06:16:42] [info] SVS_ERR031 -> 1
[2025-08-28 06:16:42] [info] SVS_ERR005 -> 56
[2025-08-28 06:16:42] [info] SVS_ERR001 -> 1
[2025-08-28 06:16:42] [info] SVS_ERR002 -> 1
[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info]           Summary
[2025-08-28 06:16:42] [info] -----
[2025-08-28 06:16:42] [info] SVS Status:             PASSED
[2025-08-28 06:16:42] [info] Instance Match Percentage: 99.84%
[2025-08-28 06:16:42] [info] Unconnected Pins:       100
[2025-08-28 06:16:42] [info] Total Errors:           61
[2025-08-28 06:16:42] [info] Total Warnings:         831
[2025-08-28 06:16:42] [info] Critical Issues:        None

```

```

[2025-08-29 10:36:38] [info] =====
[2025-08-29 10:36:38] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:38] [info] =====

[2025-08-29 10:36:38] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:38] [info] Run Start Time:      10:36:38 AM
[2025-08-29 10:36:38] [info] Run End Time:        10:36:38 AM
[2025-08-29 10:36:38] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:38] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:38] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:38] [info] User Name:           kuro
[2025-08-29 10:36:38] [info] Cores Used:          1
[2025-08-29 10:36:38] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info]           Top Cell Match
[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info] Schematic Top Cell1:  ibex_core
[2025-08-29 10:36:38] [info] Schematic Top Cell2:  ibex_core
[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info]           Performance Metrics
[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:38] [info] |-----|-----|
[2025-08-29 10:36:38] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:36:38] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:36:38] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info]           Additional Details
[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:36:38] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:36:38] [info] Database Format:        GDSII
[2025-08-29 10:36:38] [info] Verification Mode:     Full Check
[2025-08-29 10:36:38] [info] Error Reporting:       Enabled

[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info]           Type of Errors | Count
[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info] DB_WARN -> 1
[2025-08-29 10:36:38] [info] VERI_WARN012 -> 830
[2025-08-29 10:36:38] [info] SVS_ERR020 -> 1
[2025-08-29 10:36:38] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:38] [info] SVS_ERR005 -> 55
[2025-08-29 10:36:38] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:38] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info]           Summary
[2025-08-29 10:36:38] [info] -----
[2025-08-29 10:36:38] [info] SVS Status:            PASSED
[2025-08-29 10:36:38] [info] Instance Match Percentage: 99.71%
[2025-08-29 10:36:38] [info] Unconnected Pins:      100
[2025-08-29 10:36:38] [info] Total Errors:          59
[2025-08-29 10:36:38] [info] Total Warnings:        831
[2025-08-29 10:36:38] [info] Critical Issues:       None

```



```
[2025-08-29 10:36:41] [info] =====
[2025-08-29 10:36:41] [info] Schematic Versus Schematic Report
[2025-08-29 10:36:41] [info] =====

[2025-08-29 10:36:41] [info] Report Generated: 2025-08-29
[2025-08-29 10:36:41] [info] Run Start Time: 10:36:39 AM
[2025-08-29 10:36:41] [info] Run End Time: 10:36:41 AM
[2025-08-29 10:36:41] [info] Time Taken: 0 minutes 2 seconds

[2025-08-29 10:36:41] [info] Tool Version: LVR_2025.1
[2025-08-29 10:36:41] [info] Host Name: kuro-Workstation
[2025-08-29 10:36:41] [info] User Name: kuro
[2025-08-29 10:36:41] [info] Cores Used: 1
[2025-08-29 10:36:41] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] Top Cell Match
[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] Schematic Top Cell1: jpeg_encoder
[2025-08-29 10:36:41] [info] Schematic Top Cell2: jpeg_encoder
[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] Performance Metrics
[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] | Stage | Time Taken |
[2025-08-29 10:36:41] [info] |-----|-----|
[2025-08-29 10:36:41] [info] | Netlist Parsing | 0 minutes 2 seconds |
[2025-08-29 10:36:41] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:36:41] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] Additional Details
[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:36:41] [info] Hierarchical Cells: Flattened
[2025-08-29 10:36:41] [info] Database Format: GDSII
[2025-08-29 10:36:41] [info] Verification Mode: Full Check
[2025-08-29 10:36:41] [info] Error Reporting: Enabled

[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] Type of Errors | Count
[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] DB_WARN -> 1
[2025-08-29 10:36:41] [info] VERI_WARN012 -> 4070
[2025-08-29 10:36:41] [info] SVS_ERR020 -> 1
[2025-08-29 10:36:41] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:41] [info] SVS_ERR005 -> 20
[2025-08-29 10:36:41] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:41] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] Summary
[2025-08-29 10:36:41] [info] -----
[2025-08-29 10:36:41] [info] SVS Status: PASSED
[2025-08-29 10:36:41] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:36:41] [info] Unconnected Pins: 100
[2025-08-29 10:36:41] [info] Total Errors: 24
[2025-08-29 10:36:41] [info] Total Warnings: 4071
[2025-08-29 10:36:41] [info] Critical Issues: None
```

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[2025-08-29 10:36:44] [info] =====
[2025-08-29 10:36:44] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:44] [info] =====

[2025-08-29 10:36:44] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:44] [info] Run Start Time:      10:36:42 AM
[2025-08-29 10:36:44] [info] Run End Time:        10:36:44 AM
[2025-08-29 10:36:44] [info] Time Taken:          0 minutes 2 seconds

[2025-08-29 10:36:44] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:44] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:44] [info] User Name:           kuro
[2025-08-29 10:36:44] [info] Cores Used:          1
[2025-08-29 10:36:44] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info]           Top Cell Match
[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info] Schematic Top Cell1:  jpeg_encoder
[2025-08-29 10:36:44] [info] Schematic Top Cell2:  jpeg_encoder
[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info]           Performance Metrics
[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:44] [info] |-----|-----|
[2025-08-29 10:36:44] [info] | Netlist Parsing        | 0 minutes 2 seconds |
[2025-08-29 10:36:44] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:36:44] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info]           Additional Details
[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:36:44] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:36:44] [info] Database Format:        GDSII
[2025-08-29 10:36:44] [info] Verification Mode:     Full Check
[2025-08-29 10:36:44] [info] Error Reporting:       Enabled

[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info]           Type of Errors | Count
[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info] DB_WARN -> 1
[2025-08-29 10:36:44] [info] VERI_WARN012 -> 4070
[2025-08-29 10:36:44] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:44] [info] SVS_ERR005 -> 20
[2025-08-29 10:36:44] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:44] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info]           Summary
[2025-08-29 10:36:44] [info] -----
[2025-08-29 10:36:44] [info] SVS Status:            PASSED
[2025-08-29 10:36:44] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:36:44] [info] Unconnected Pins:      100
[2025-08-29 10:36:44] [info] Total Errors:          23
[2025-08-29 10:36:44] [info] Total Warnings:         4071
[2025-08-29 10:36:44] [info] Critical Issues:       None

```

```

[2025-08-29 10:36:47] [info] =====
[2025-08-29 10:36:47] [info] Schematic Versus Schematic Report
[2025-08-29 10:36:47] [info] =====

[2025-08-29 10:36:47] [info] Report Generated: 2025-08-29
[2025-08-29 10:36:47] [info] Run Start Time: 10:36:45 AM
[2025-08-29 10:36:47] [info] Run End Time: 10:36:47 AM
[2025-08-29 10:36:47] [info] Time Taken: 0 minutes 2 seconds

[2025-08-29 10:36:47] [info] Tool Version: LVR_2025.1
[2025-08-29 10:36:47] [info] Host Name: kuro-Workstation
[2025-08-29 10:36:47] [info] User Name: kuro
[2025-08-29 10:36:47] [info] Cores Used: 1
[2025-08-29 10:36:47] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] Top Cell Match
[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] Schematic Top Cell1: jpeg_encoder
[2025-08-29 10:36:47] [info] Schematic Top Cell2: jpeg_encoder
[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] Performance Metrics
[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] | Stage | Time Taken |
[2025-08-29 10:36:47] [info] |-----|-----|
[2025-08-29 10:36:47] [info] | Netlist Parsing | 0 minutes 2 seconds |
[2025-08-29 10:36:47] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:36:47] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] Additional Details
[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:36:47] [info] Hierarchical Cells: Flattened
[2025-08-29 10:36:47] [info] Database Format: GDSII
[2025-08-29 10:36:47] [info] Verification Mode: Full Check
[2025-08-29 10:36:47] [info] Error Reporting: Enabled

[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] Type of Errors | Count
[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] DB_WARN -> 1
[2025-08-29 10:36:47] [info] VERI_WARN012 -> 4070
[2025-08-29 10:36:47] [info] SVS_ERR020 -> 2
[2025-08-29 10:36:47] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:47] [info] SVS_ERR005 -> 21
[2025-08-29 10:36:47] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:47] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] Summary
[2025-08-29 10:36:47] [info] -----
[2025-08-29 10:36:47] [info] SVS Status: PASSED
[2025-08-29 10:36:47] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:36:47] [info] Unconnected Pins: 100
[2025-08-29 10:36:47] [info] Total Errors: 26
[2025-08-29 10:36:47] [info] Total Warnings: 4071
[2025-08-29 10:36:47] [info] Critical Issues: None

```

```

[2025-08-29 10:36:49] [info] =====
[2025-08-29 10:36:49] [info] Schematic Versus Schematic Report
[2025-08-29 10:36:49] [info] =====

[2025-08-29 10:36:49] [info] Report Generated: 2025-08-29
[2025-08-29 10:36:49] [info] Run Start Time: 10:36:48 AM
[2025-08-29 10:36:49] [info] Run End Time: 10:36:49 AM
[2025-08-29 10:36:49] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 10:36:49] [info] Tool Version: LVR_2025.1
[2025-08-29 10:36:49] [info] Host Name: kuro-Workstation
[2025-08-29 10:36:49] [info] User Name: kuro
[2025-08-29 10:36:49] [info] Cores Used: 1
[2025-08-29 10:36:49] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] Top Cell Match
[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] Schematic Top Cell1: aes_cipher_top
[2025-08-29 10:36:49] [info] Schematic Top Cell2: aes_cipher_top
[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] Performance Metrics
[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] | Stage | Time Taken |
[2025-08-29 10:36:49] [info] |-----|-----|
[2025-08-29 10:36:49] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:36:49] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:36:49] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] Additional Details
[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:36:49] [info] Hierarchical Cells: Flattened
[2025-08-29 10:36:49] [info] Database Format: GDSII
[2025-08-29 10:36:49] [info] Verification Mode: Full Check
[2025-08-29 10:36:49] [info] Error Reporting: Enabled

[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] Type of Errors | Count
[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] DB_WARN -> 1
[2025-08-29 10:36:49] [info] VERI_WARN012 -> 510
[2025-08-29 10:36:49] [info] SVS_ERR020 -> 2
[2025-08-29 10:36:49] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:49] [info] SVS_ERR005 -> 13
[2025-08-29 10:36:49] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:49] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] Summary
[2025-08-29 10:36:49] [info] -----
[2025-08-29 10:36:49] [info] SVS Status: PASSED
[2025-08-29 10:36:49] [info] Instance Match Percentage: 99.96%
[2025-08-29 10:36:49] [info] Unconnected Pins: 100
[2025-08-29 10:36:49] [info] Total Errors: 18
[2025-08-29 10:36:49] [info] Total Warnings: 511
[2025-08-29 10:36:49] [info] Critical Issues: None

```

```

[2025-08-28 06:16:54] [info] =====
[2025-08-28 06:16:54] [info]           Schematic Versus Schematic Report
[2025-08-28 06:16:54] [info] =====

[2025-08-28 06:16:54] [info] Report Generated:    2025-08-28
[2025-08-28 06:16:54] [info] Run Start Time:      06:16:53 AM
[2025-08-28 06:16:54] [info] Run End Time:        06:16:54 AM
[2025-08-28 06:16:54] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 06:16:54] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:16:54] [info] Host Name:           kuro-Workstation
[2025-08-28 06:16:54] [info] User Name:           kuro
[2025-08-28 06:16:54] [info] Cores Used:          1
[2025-08-28 06:16:54] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info]           Top Cell Match
[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-28 06:16:54] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info]           Performance Metrics
[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info] | Stage                      | Time Taken |
[2025-08-28 06:16:54] [info] |-----|-----|
[2025-08-28 06:16:54] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 06:16:54] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 06:16:54] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info]           Additional Details
[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info] Technology Node:        Nangate45 (45nm)
[2025-08-28 06:16:54] [info] Hierarchical Cells:     Flattened
[2025-08-28 06:16:54] [info] Database Format:         GDSII
[2025-08-28 06:16:54] [info] Verification Mode:      Full Check
[2025-08-28 06:16:54] [info] Error Reporting:        Enabled

[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info]           Type of Errors | Count
[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info] DB_WARN -> 1
[2025-08-28 06:16:54] [info] VERI_WARN012 -> 510
[2025-08-28 06:16:54] [info] SVS_ERR020 -> 2
[2025-08-28 06:16:54] [info] SVS_ERR031 -> 1
[2025-08-28 06:16:54] [info] SVS_ERR005 -> 13
[2025-08-28 06:16:54] [info] SVS_ERR001 -> 1
[2025-08-28 06:16:54] [info] SVS_ERR002 -> 1
[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info]           Summary
[2025-08-28 06:16:54] [info] -----
[2025-08-28 06:16:54] [info] SVS Status:             PASSED
[2025-08-28 06:16:54] [info] Instance Match Percentage: 99.96%
[2025-08-28 06:16:54] [info] Unconnected Pins:       100
[2025-08-28 06:16:54] [info] Total Errors:           18
[2025-08-28 06:16:54] [info] Total Warnings:         511
[2025-08-28 06:16:54] [info] Critical Issues:        None

```

```

[2025-08-29 10:36:50] [info] =====
[2025-08-29 10:36:50] [info]             Schematic Versus Schematic Report
[2025-08-29 10:36:50] [info] =====

[2025-08-29 10:36:50] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:50] [info] Run Start Time:      10:36:49 AM
[2025-08-29 10:36:50] [info] Run End Time:        10:36:50 AM
[2025-08-29 10:36:50] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:50] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:50] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:50] [info] User Name:           kuro
[2025-08-29 10:36:50] [info] Cores Used:          1
[2025-08-29 10:36:50] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info]             Top Cell Match
[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info] Schematic Top Cell1: aes_cipher_top
[2025-08-29 10:36:50] [info] Schematic Top Cell2: aes_cipher_top
[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info]             Performance Metrics
[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info] | Stage                      | Time Taken |
[2025-08-29 10:36:50] [info] |-----|-----|
[2025-08-29 10:36:50] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-29 10:36:50] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-29 10:36:50] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info]             Additional Details
[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info] Technology Node:          Nangate45 (45nm)
[2025-08-29 10:36:50] [info] Hierarchical Cells:       Flattened
[2025-08-29 10:36:50] [info] Database Format:           GDSII
[2025-08-29 10:36:50] [info] Verification Mode:        Full Check
[2025-08-29 10:36:50] [info] Error Reporting:          Enabled

[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info]             Type of Errors | Count
[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info] DB_WARN -> 1
[2025-08-29 10:36:50] [info] VERI_WARN012 -> 510
[2025-08-29 10:36:50] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:50] [info] SVS_ERR005 -> 14
[2025-08-29 10:36:50] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:50] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info]             Summary
[2025-08-29 10:36:50] [info] -----
[2025-08-29 10:36:50] [info] SVS Status:               PASSED
[2025-08-29 10:36:50] [info] Instance Match Percentage: 99.96%
[2025-08-29 10:36:50] [info] Unconnected Pins:         100
[2025-08-29 10:36:50] [info] Total Errors:              17
[2025-08-29 10:36:50] [info] Total Warnings:            511
[2025-08-29 10:36:50] [info] Critical Issues:          None

```

```

[2025-08-29 10:36:48] [info] =====
[2025-08-29 10:36:48] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:48] [info] =====

[2025-08-29 10:36:48] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:48] [info] Run Start Time:      10:36:48 AM
[2025-08-29 10:36:48] [info] Run End Time:        10:36:48 AM
[2025-08-29 10:36:48] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:48] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:48] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:48] [info] User Name:           kuro
[2025-08-29 10:36:48] [info] Cores Used:          1
[2025-08-29 10:36:48] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Top Cell Match
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Schematic Top Cell1: gcd
[2025-08-29 10:36:48] [info] Schematic Top Cell2: gcd
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Performance Metrics
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:48] [info] |-----|-----|
[2025-08-29 10:36:48] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:36:48] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:36:48] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Additional Details
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:36:48] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:36:48] [info] Database Format:         GDSII
[2025-08-29 10:36:48] [info] Verification Mode:      Full Check
[2025-08-29 10:36:48] [info] Error Reporting:        Enabled

[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Type of Errors | Count
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] DB_WARN -> 1
[2025-08-29 10:36:48] [info] VERI_WARN012 -> 48
[2025-08-29 10:36:48] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:48] [info] SVS_ERR005 -> 16
[2025-08-29 10:36:48] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:48] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Summary
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] SVS Status:             PASSED
[2025-08-29 10:36:48] [info] Instance Match Percentage: 97.91%
[2025-08-29 10:36:48] [info] Unconnected Pins:       100
[2025-08-29 10:36:48] [info] Total Errors:           19
[2025-08-29 10:36:48] [info] Total Warnings:         49
[2025-08-29 10:36:48] [info] Critical Issues:        None

```

```

[2025-08-29 10:36:48] [info] =====
[2025-08-29 10:36:48] [info] Schematic Versus Schematic Report
[2025-08-29 10:36:48] [info] =====

[2025-08-29 10:36:48] [info] Report Generated: 2025-08-29
[2025-08-29 10:36:48] [info] Run Start Time: 10:36:48 AM
[2025-08-29 10:36:48] [info] Run End Time: 10:36:48 AM
[2025-08-29 10:36:48] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 10:36:48] [info] Tool Version: LVR_2025.1
[2025-08-29 10:36:48] [info] Host Name: kuro-Workstation
[2025-08-29 10:36:48] [info] User Name: kuro
[2025-08-29 10:36:48] [info] Cores Used: 1
[2025-08-29 10:36:48] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Top Cell Match
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Schematic Top Cell1: gcd
[2025-08-29 10:36:48] [info] Schematic Top Cell2: gcd
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Performance Metrics
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] | Stage | Time Taken |
[2025-08-29 10:36:48] [info] |-----|-----|
[2025-08-29 10:36:48] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:36:48] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:36:48] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Additional Details
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:36:48] [info] Hierarchical Cells: Flattened
[2025-08-29 10:36:48] [info] Database Format: GDSII
[2025-08-29 10:36:48] [info] Verification Mode: Full Check
[2025-08-29 10:36:48] [info] Error Reporting: Enabled

[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Type of Errors | Count
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] DB_WARN -> 1
[2025-08-29 10:36:48] [info] VERI_WARN012 -> 46
[2025-08-29 10:36:48] [info] SVS_ERR020 -> 1
[2025-08-29 10:36:48] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:48] [info] SVS_ERR005 -> 15
[2025-08-29 10:36:48] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:48] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Summary
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] SVS Status: PASSED
[2025-08-29 10:36:48] [info] Instance Match Percentage: 97.90%
[2025-08-29 10:36:48] [info] Unconnected Pins: 100
[2025-08-29 10:36:48] [info] Total Errors: 19
[2025-08-29 10:36:48] [info] Total Warnings: 47
[2025-08-29 10:36:48] [info] Critical Issues: None

```

```
[2025-08-29 10:36:48] [info] =====
[2025-08-29 10:36:48] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:48] [info] =====

[2025-08-29 10:36:48] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:48] [info] Run Start Time:      10:36:48 AM
[2025-08-29 10:36:48] [info] Run End Time:        10:36:48 AM
[2025-08-29 10:36:48] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:48] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:48] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:48] [info] User Name:           kuro
[2025-08-29 10:36:48] [info] Cores Used:          1
[2025-08-29 10:36:48] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Top Cell Match
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Schematic Top Cell1: gcd
[2025-08-29 10:36:48] [info] Schematic Top Cell2: gcd
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Performance Metrics
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:48] [info] |-----|-----|
[2025-08-29 10:36:48] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:36:48] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:36:48] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Additional Details
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:36:48] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:36:48] [info] Database Format:         GDSII
[2025-08-29 10:36:48] [info] Verification Mode:      Full Check
[2025-08-29 10:36:48] [info] Error Reporting:        Enabled

[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Type of Errors | Count
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] DB_WARN -> 1
[2025-08-29 10:36:48] [info] VERI_WARN012 -> 44
[2025-08-29 10:36:48] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:48] [info] SVS_ERR005 -> 17
[2025-08-29 10:36:48] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:48] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info]           Summary
[2025-08-29 10:36:48] [info] -----
[2025-08-29 10:36:48] [info] SVS Status:             PASSED
[2025-08-29 10:36:48] [info] Instance Match Percentage: 97.67%
[2025-08-29 10:36:48] [info] Unconnected Pins:       100
[2025-08-29 10:36:48] [info] Total Errors:           20
[2025-08-29 10:36:48] [info] Total Warnings:         45
[2025-08-29 10:36:48] [info] Critical Issues:        None
```

```

[2025-08-29 10:36:51] [info] =====
[2025-08-29 10:36:51] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:51] [info] =====

[2025-08-29 10:36:51] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:51] [info] Run Start Time:      10:36:50 AM
[2025-08-29 10:36:51] [info] Run End Time:        10:36:51 AM
[2025-08-29 10:36:51] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:51] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:51] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:51] [info] User Name:           kuro
[2025-08-29 10:36:51] [info] Cores Used:          1
[2025-08-29 10:36:51] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info]           Top Cell Match
[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info] Schematic Top Cell1:  ibex_core
[2025-08-29 10:36:51] [info] Schematic Top Cell2:  ibex_core
[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info]           Performance Metrics
[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:51] [info] |-----|-----|
[2025-08-29 10:36:51] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:36:51] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:36:51] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info]           Additional Details
[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:36:51] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:36:51] [info] Database Format:        GDSII
[2025-08-29 10:36:51] [info] Verification Mode:     Full Check
[2025-08-29 10:36:51] [info] Error Reporting:       Enabled

[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info]           Type of Errors | Count
[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info] DB_WARN -> 1
[2025-08-29 10:36:51] [info] VERI_WARN012 -> 830
[2025-08-29 10:36:51] [info] SVS_ERR020 -> 2
[2025-08-29 10:36:51] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:51] [info] SVS_ERR005 -> 56
[2025-08-29 10:36:51] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:51] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info]           Summary
[2025-08-29 10:36:51] [info] -----
[2025-08-29 10:36:51] [info] SVS Status:            PASSED
[2025-08-29 10:36:51] [info] Instance Match Percentage: 99.84%
[2025-08-29 10:36:51] [info] Unconnected Pins:      100
[2025-08-29 10:36:51] [info] Total Errors:           61
[2025-08-29 10:36:51] [info] Total Warnings:         831
[2025-08-29 10:36:51] [info] Critical Issues:        None

```

```

[2025-08-28 06:16:56] [info] =====
[2025-08-28 06:16:56] [info]           Schematic Versus Schematic Report
[2025-08-28 06:16:56] [info] =====

[2025-08-28 06:16:56] [info] Report Generated:    2025-08-28
[2025-08-28 06:16:56] [info] Run Start Time:      06:16:55 AM
[2025-08-28 06:16:56] [info] Run End Time:        06:16:56 AM
[2025-08-28 06:16:56] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 06:16:56] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:16:56] [info] Host Name:           kuro-Workstation
[2025-08-28 06:16:56] [info] User Name:           kuro
[2025-08-28 06:16:56] [info] Cores Used:          1
[2025-08-28 06:16:56] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info]           Top Cell Match
[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info] Schematic Top Cell1:  ibex_core
[2025-08-28 06:16:56] [info] Schematic Top Cell2:  ibex_core
[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info]           Performance Metrics
[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info] | Stage                  | Time Taken |
[2025-08-28 06:16:56] [info] |-----|-----|
[2025-08-28 06:16:56] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 06:16:56] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 06:16:56] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info]           Additional Details
[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info] Technology Node:        Nangate45 (45nm)
[2025-08-28 06:16:56] [info] Hierarchical Cells:     Flattened
[2025-08-28 06:16:56] [info] Database Format:         GDSII
[2025-08-28 06:16:56] [info] Verification Mode:      Full Check
[2025-08-28 06:16:56] [info] Error Reporting:        Enabled

[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info]           Type of Errors | Count
[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info] DB_WARN -> 1
[2025-08-28 06:16:56] [info] VERI_WARN012 -> 830
[2025-08-28 06:16:56] [info] SVS_ERR020 -> 2
[2025-08-28 06:16:56] [info] SVS_ERR031 -> 1
[2025-08-28 06:16:56] [info] SVS_ERR005 -> 56
[2025-08-28 06:16:56] [info] SVS_ERR001 -> 1
[2025-08-28 06:16:56] [info] SVS_ERR002 -> 1
[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info]           Summary
[2025-08-28 06:16:56] [info] -----
[2025-08-28 06:16:56] [info] SVS Status:             PASSED
[2025-08-28 06:16:56] [info] Instance Match Percentage: 99.84%
[2025-08-28 06:16:56] [info] Unconnected Pins:       100
[2025-08-28 06:16:56] [info] Total Errors:           61
[2025-08-28 06:16:56] [info] Total Warnings:         831
[2025-08-28 06:16:56] [info] Critical Issues:        None

```

```

[2025-08-29 10:36:52] [info] =====
[2025-08-29 10:36:52] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:52] [info] =====

[2025-08-29 10:36:52] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:52] [info] Run Start Time:      10:36:52 AM
[2025-08-29 10:36:52] [info] Run End Time:        10:36:52 AM
[2025-08-29 10:36:52] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:36:52] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:52] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:52] [info] User Name:           kuro
[2025-08-29 10:36:52] [info] Cores Used:          1
[2025-08-29 10:36:52] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info]           Top Cell Match
[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info] Schematic Top Cell1:  ibex_core
[2025-08-29 10:36:52] [info] Schematic Top Cell2:  ibex_core
[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info]           Performance Metrics
[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:52] [info] |-----|-----|
[2025-08-29 10:36:52] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:36:52] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:36:52] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info]           Additional Details
[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:36:52] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:36:52] [info] Database Format:         GDSII
[2025-08-29 10:36:52] [info] Verification Mode:      Full Check
[2025-08-29 10:36:52] [info] Error Reporting:        Enabled

[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info]           Type of Errors | Count
[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info] DB_WARN -> 1
[2025-08-29 10:36:52] [info] VERI_WARN012 -> 830
[2025-08-29 10:36:52] [info] SVS_ERR020 -> 1
[2025-08-29 10:36:52] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:52] [info] SVS_ERR005 -> 55
[2025-08-29 10:36:52] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:52] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info]           Summary
[2025-08-29 10:36:52] [info] -----
[2025-08-29 10:36:52] [info] SVS Status:             PASSED
[2025-08-29 10:36:52] [info] Instance Match Percentage: 99.71%
[2025-08-29 10:36:52] [info] Unconnected Pins:       100
[2025-08-29 10:36:52] [info] Total Errors:           59
[2025-08-29 10:36:52] [info] Total Warnings:         831
[2025-08-29 10:36:52] [info] Critical Issues:        None

```

```

[2025-08-29 10:36:55] [info] =====
[2025-08-29 10:36:55] [info] Schematic Versus Schematic Report
[2025-08-29 10:36:55] [info] =====

[2025-08-29 10:36:55] [info] Report Generated: 2025-08-29
[2025-08-29 10:36:55] [info] Run Start Time: 10:36:53 AM
[2025-08-29 10:36:55] [info] Run End Time: 10:36:55 AM
[2025-08-29 10:36:55] [info] Time Taken: 0 minutes 2 seconds

[2025-08-29 10:36:55] [info] Tool Version: LVR_2025.1
[2025-08-29 10:36:55] [info] Host Name: kuro-Workstation
[2025-08-29 10:36:55] [info] User Name: kuro
[2025-08-29 10:36:55] [info] Cores Used: 1
[2025-08-29 10:36:55] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] Top Cell Match
[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] Schematic Top Cell1: jpeg_encoder
[2025-08-29 10:36:55] [info] Schematic Top Cell2: jpeg_encoder
[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] Performance Metrics
[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] | Stage | Time Taken |
[2025-08-29 10:36:55] [info] |-----|-----|
[2025-08-29 10:36:55] [info] | Netlist Parsing | 0 minutes 2 seconds |
[2025-08-29 10:36:55] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:36:55] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] Additional Details
[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:36:55] [info] Hierarchical Cells: Flattened
[2025-08-29 10:36:55] [info] Database Format: GDSII
[2025-08-29 10:36:55] [info] Verification Mode: Full Check
[2025-08-29 10:36:55] [info] Error Reporting: Enabled

[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] Type of Errors | Count
[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] DB_WARN -> 1
[2025-08-29 10:36:55] [info] VERI_WARN012 -> 4070
[2025-08-29 10:36:55] [info] SVS_ERR020 -> 1
[2025-08-29 10:36:55] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:55] [info] SVS_ERR005 -> 20
[2025-08-29 10:36:55] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:55] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] Summary
[2025-08-29 10:36:55] [info] -----
[2025-08-29 10:36:55] [info] SVS Status: PASSED
[2025-08-29 10:36:55] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:36:55] [info] Unconnected Pins: 100
[2025-08-29 10:36:55] [info] Total Errors: 24
[2025-08-29 10:36:55] [info] Total Warnings: 4071
[2025-08-29 10:36:55] [info] Critical Issues: None

```

```
[2025-08-29 10:36:58] [info] =====
[2025-08-29 10:36:58] [info]           Schematic Versus Schematic Report
[2025-08-29 10:36:58] [info] =====

[2025-08-29 10:36:58] [info] Report Generated:    2025-08-29
[2025-08-29 10:36:58] [info] Run Start Time:      10:36:56 AM
[2025-08-29 10:36:58] [info] Run End Time:        10:36:58 AM
[2025-08-29 10:36:58] [info] Time Taken:          0 minutes 2 seconds

[2025-08-29 10:36:58] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:36:58] [info] Host Name:           kuro-Workstation
[2025-08-29 10:36:58] [info] User Name:           kuro
[2025-08-29 10:36:58] [info] Cores Used:          1
[2025-08-29 10:36:58] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info]           Top Cell Match
[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info] Schematic Top Cell1:  jpeg_encoder
[2025-08-29 10:36:58] [info] Schematic Top Cell2:  jpeg_encoder
[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info]           Performance Metrics
[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info] | Stage                  | Time Taken |
[2025-08-29 10:36:58] [info] |-----|-----|
[2025-08-29 10:36:58] [info] | Netlist Parsing         | 0 minutes 2 seconds |
[2025-08-29 10:36:58] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:36:58] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info]           Additional Details
[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:36:58] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:36:58] [info] Database Format:         GDSII
[2025-08-29 10:36:58] [info] Verification Mode:      Full Check
[2025-08-29 10:36:58] [info] Error Reporting:        Enabled

[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info]           Type of Errors | Count
[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info] DB_WARN -> 1
[2025-08-29 10:36:58] [info] VERI_WARN012 -> 4070
[2025-08-29 10:36:58] [info] SVS_ERR031 -> 1
[2025-08-29 10:36:58] [info] SVS_ERR005 -> 20
[2025-08-29 10:36:58] [info] SVS_ERR001 -> 1
[2025-08-29 10:36:58] [info] SVS_ERR002 -> 1
[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info]           Summary
[2025-08-29 10:36:58] [info] -----
[2025-08-29 10:36:58] [info] SVS Status:             PASSED
[2025-08-29 10:36:58] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:36:58] [info] Unconnected Pins:       100
[2025-08-29 10:36:58] [info] Total Errors:           23
[2025-08-29 10:36:58] [info] Total Warnings:         4071
[2025-08-29 10:36:58] [info] Critical Issues:        None
```

```

[2025-08-29 10:37:01] [info] =====
[2025-08-29 10:37:01] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:01] [info] =====

[2025-08-29 10:37:01] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:01] [info] Run Start Time:      10:36:59 AM
[2025-08-29 10:37:01] [info] Run End Time:        10:37:01 AM
[2025-08-29 10:37:01] [info] Time Taken:          0 minutes 2 seconds

[2025-08-29 10:37:01] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:01] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:01] [info] User Name:           kuro
[2025-08-29 10:37:01] [info] Cores Used:          1
[2025-08-29 10:37:01] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info]           Top Cell Match
[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info] Schematic Top Cell1:  jpeg_encoder
[2025-08-29 10:37:01] [info] Schematic Top Cell2:  jpeg_encoder
[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info]           Performance Metrics
[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:01] [info] |-----|-----|
[2025-08-29 10:37:01] [info] | Netlist Parsing        | 0 minutes 2 seconds |
[2025-08-29 10:37:01] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:37:01] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info]           Additional Details
[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:37:01] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:37:01] [info] Database Format:        GDSII
[2025-08-29 10:37:01] [info] Verification Mode:     Full Check
[2025-08-29 10:37:01] [info] Error Reporting:       Enabled

[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info]           Type of Errors | Count
[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info] DB_WARN -> 1
[2025-08-29 10:37:01] [info] VERI_WARN012 -> 4070
[2025-08-29 10:37:01] [info] SVS_ERR020 -> 2
[2025-08-29 10:37:01] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:01] [info] SVS_ERR005 -> 21
[2025-08-29 10:37:01] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:01] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info]           Summary
[2025-08-29 10:37:01] [info] -----
[2025-08-29 10:37:01] [info] SVS Status:            PASSED
[2025-08-29 10:37:01] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:37:01] [info] Unconnected Pins:      100
[2025-08-29 10:37:01] [info] Total Errors:          26
[2025-08-29 10:37:01] [info] Total Warnings:        4071
[2025-08-29 10:37:01] [info] Critical Issues:       None

```

```
[2025-08-29 10:37:03] [info] =====
[2025-08-29 10:37:03] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:03] [info] =====

[2025-08-29 10:37:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:03] [info] Run Start Time:      10:37:02 AM
[2025-08-29 10:37:03] [info] Run End Time:        10:37:03 AM
[2025-08-29 10:37:03] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:03] [info] User Name:           kuro
[2025-08-29 10:37:03] [info] Cores Used:          1
[2025-08-29 10:37:03] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info]           Top Cell Match
[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-29 10:37:03] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info]           Performance Metrics
[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info] | Stage                      | Time Taken |
[2025-08-29 10:37:03] [info] |-----|-----|
[2025-08-29 10:37:03] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-29 10:37:03] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-29 10:37:03] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info]           Additional Details
[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:37:03] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:37:03] [info] Database Format:         GDSII
[2025-08-29 10:37:03] [info] Verification Mode:      Full Check
[2025-08-29 10:37:03] [info] Error Reporting:        Enabled

[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info]           Type of Errors | Count
[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info] DB_WARN -> 1
[2025-08-29 10:37:03] [info] VERI_WARN012 -> 510
[2025-08-29 10:37:03] [info] SVS_ERR020 -> 2
[2025-08-29 10:37:03] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:03] [info] SVS_ERR005 -> 13
[2025-08-29 10:37:03] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:03] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info]           Summary
[2025-08-29 10:37:03] [info] -----
[2025-08-29 10:37:03] [info] SVS Status:             PASSED
[2025-08-29 10:37:03] [info] Instance Match Percentage: 99.96%
[2025-08-29 10:37:03] [info] Unconnected Pins:       100
[2025-08-29 10:37:03] [info] Total Errors:           18
[2025-08-29 10:37:03] [info] Total Warnings:         511
[2025-08-29 10:37:03] [info] Critical Issues:        None
```



```

[2025-08-28 06:17:08] [info] =====
[2025-08-28 06:17:08] [info]           Schematic Versus Schematic Report
[2025-08-28 06:17:08] [info] =====

[2025-08-28 06:17:08] [info] Report Generated:    2025-08-28
[2025-08-28 06:17:08] [info] Run Start Time:      06:17:07 AM
[2025-08-28 06:17:08] [info] Run End Time:        06:17:08 AM
[2025-08-28 06:17:08] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 06:17:08] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:17:08] [info] Host Name:           kuro-Workstation
[2025-08-28 06:17:08] [info] User Name:           kuro
[2025-08-28 06:17:08] [info] Cores Used:          1
[2025-08-28 06:17:08] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info]           Top Cell Match
[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-28 06:17:08] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info]           Performance Metrics
[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info] | Stage                      | Time Taken |
[2025-08-28 06:17:08] [info] |-----|-----|
[2025-08-28 06:17:08] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 06:17:08] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 06:17:08] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info]           Additional Details
[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info] Technology Node:        Nangate45 (45nm)
[2025-08-28 06:17:08] [info] Hierarchical Cells:     Flattened
[2025-08-28 06:17:08] [info] Database Format:         GDSII
[2025-08-28 06:17:08] [info] Verification Mode:      Full Check
[2025-08-28 06:17:08] [info] Error Reporting:        Enabled

[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info]           Type of Errors | Count
[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info] DB_WARN -> 1
[2025-08-28 06:17:08] [info] VERI_WARN012 -> 510
[2025-08-28 06:17:08] [info] SVS_ERR020 -> 2
[2025-08-28 06:17:08] [info] SVS_ERR031 -> 1
[2025-08-28 06:17:08] [info] SVS_ERR005 -> 13
[2025-08-28 06:17:08] [info] SVS_ERR001 -> 1
[2025-08-28 06:17:08] [info] SVS_ERR002 -> 1
[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info]           Summary
[2025-08-28 06:17:08] [info] -----
[2025-08-28 06:17:08] [info] SVS Status:             PASSED
[2025-08-28 06:17:08] [info] Instance Match Percentage: 99.96%
[2025-08-28 06:17:08] [info] Unconnected Pins:       100
[2025-08-28 06:17:08] [info] Total Errors:           18
[2025-08-28 06:17:08] [info] Total Warnings:         511
[2025-08-28 06:17:08] [info] Critical Issues:        None

```

```
[2025-08-29 10:37:04] [info] =====
[2025-08-29 10:37:04] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:04] [info] =====

[2025-08-29 10:37:04] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:04] [info] Run Start Time:      10:37:03 AM
[2025-08-29 10:37:04] [info] Run End Time:        10:37:04 AM
[2025-08-29 10:37:04] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:04] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:04] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:04] [info] User Name:           kuro
[2025-08-29 10:37:04] [info] Cores Used:          1
[2025-08-29 10:37:04] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info]           Top Cell Match
[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info] Schematic Top Cell1:  aes_cipher_top
[2025-08-29 10:37:04] [info] Schematic Top Cell2:  aes_cipher_top
[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info]           Performance Metrics
[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:04] [info] |-----|-----|
[2025-08-29 10:37:04] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:37:04] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:37:04] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info]           Additional Details
[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:37:04] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:37:04] [info] Database Format:        GDSII
[2025-08-29 10:37:04] [info] Verification Mode:     Full Check
[2025-08-29 10:37:04] [info] Error Reporting:       Enabled

[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info]           Type of Errors | Count
[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info] DB_WARN -> 1
[2025-08-29 10:37:04] [info] VERI_WARN012 -> 510
[2025-08-29 10:37:04] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:04] [info] SVS_ERR005 -> 14
[2025-08-29 10:37:04] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:04] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info]           Summary
[2025-08-29 10:37:04] [info] -----
[2025-08-29 10:37:04] [info] SVS Status:            PASSED
[2025-08-29 10:37:04] [info] Instance Match Percentage: 99.96%
[2025-08-29 10:37:04] [info] Unconnected Pins:      100
[2025-08-29 10:37:04] [info] Total Errors:          17
[2025-08-29 10:37:04] [info] Total Warnings:         511
[2025-08-29 10:37:04] [info] Critical Issues:       None
```

```
[2025-08-29 10:37:02] [info] =====
[2025-08-29 10:37:02] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:02] [info] =====

[2025-08-29 10:37:02] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:02] [info] Run Start Time:      10:37:02 AM
[2025-08-29 10:37:02] [info] Run End Time:        10:37:02 AM
[2025-08-29 10:37:02] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:02] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:02] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:02] [info] User Name:           kuro
[2025-08-29 10:37:02] [info] Cores Used:          1
[2025-08-29 10:37:02] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Top Cell Match
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Schematic Top Cell1: gcd
[2025-08-29 10:37:02] [info] Schematic Top Cell2: gcd
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Performance Metrics
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:02] [info] |-----|-----|
[2025-08-29 10:37:02] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:37:02] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:37:02] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Additional Details
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:37:02] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:37:02] [info] Database Format:        GDSII
[2025-08-29 10:37:02] [info] Verification Mode:     Full Check
[2025-08-29 10:37:02] [info] Error Reporting:       Enabled

[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Type of Errors | Count
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] DB_WARN -> 1
[2025-08-29 10:37:02] [info] VERI_WARN012 -> 48
[2025-08-29 10:37:02] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:02] [info] SVS_ERR005 -> 16
[2025-08-29 10:37:02] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:02] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Summary
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] SVS Status:            PASSED
[2025-08-29 10:37:02] [info] Instance Match Percentage: 97.91%
[2025-08-29 10:37:02] [info] Unconnected Pins:      100
[2025-08-29 10:37:02] [info] Total Errors:          19
[2025-08-29 10:37:02] [info] Total Warnings:         49
[2025-08-29 10:37:02] [info] Critical Issues:       None
```

```
[2025-08-29 10:37:02] [info] =====
[2025-08-29 10:37:02] [info] Schematic Versus Schematic Report
[2025-08-29 10:37:02] [info] =====

[2025-08-29 10:37:02] [info] Report Generated: 2025-08-29
[2025-08-29 10:37:02] [info] Run Start Time: 10:37:02 AM
[2025-08-29 10:37:02] [info] Run End Time: 10:37:02 AM
[2025-08-29 10:37:02] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 10:37:02] [info] Tool Version: LVR_2025.1
[2025-08-29 10:37:02] [info] Host Name: kuro-Workstation
[2025-08-29 10:37:02] [info] User Name: kuro
[2025-08-29 10:37:02] [info] Cores Used: 1
[2025-08-29 10:37:02] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Top Cell Match
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Schematic Top Cell1: gcd
[2025-08-29 10:37:02] [info] Schematic Top Cell2: gcd
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Performance Metrics
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] | Stage | Time Taken |
[2025-08-29 10:37:02] [info] |-----|-----|
[2025-08-29 10:37:02] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:37:02] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:37:02] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Additional Details
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:37:02] [info] Hierarchical Cells: Flattened
[2025-08-29 10:37:02] [info] Database Format: GDSII
[2025-08-29 10:37:02] [info] Verification Mode: Full Check
[2025-08-29 10:37:02] [info] Error Reporting: Enabled

[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Type of Errors | Count
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] DB_WARN -> 1
[2025-08-29 10:37:02] [info] VERI_WARN012 -> 46
[2025-08-29 10:37:02] [info] SVS_ERR020 -> 1
[2025-08-29 10:37:02] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:02] [info] SVS_ERR005 -> 15
[2025-08-29 10:37:02] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:02] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Summary
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] SVS Status: PASSED
[2025-08-29 10:37:02] [info] Instance Match Percentage: 97.90%
[2025-08-29 10:37:02] [info] Unconnected Pins: 100
[2025-08-29 10:37:02] [info] Total Errors: 19
[2025-08-29 10:37:02] [info] Total Warnings: 47
[2025-08-29 10:37:02] [info] Critical Issues: None
```

```
[2025-08-29 10:37:02] [info] =====
[2025-08-29 10:37:02] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:02] [info] =====

[2025-08-29 10:37:02] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:02] [info] Run Start Time:      10:37:02 AM
[2025-08-29 10:37:02] [info] Run End Time:        10:37:02 AM
[2025-08-29 10:37:02] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:02] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:02] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:02] [info] User Name:           kuro
[2025-08-29 10:37:02] [info] Cores Used:          1
[2025-08-29 10:37:02] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Top Cell Match
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Schematic Top Cell1:  gcd
[2025-08-29 10:37:02] [info] Schematic Top Cell2:  gcd
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Performance Metrics
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:02] [info] |-----|-----|
[2025-08-29 10:37:02] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-29 10:37:02] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:37:02] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Additional Details
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:37:02] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:37:02] [info] Database Format:        GDSII
[2025-08-29 10:37:02] [info] Verification Mode:     Full Check
[2025-08-29 10:37:02] [info] Error Reporting:       Enabled

[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Type of Errors | Count
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] DB_WARN -> 1
[2025-08-29 10:37:02] [info] VERI_WARN012 -> 44
[2025-08-29 10:37:02] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:02] [info] SVS_ERR005 -> 17
[2025-08-29 10:37:02] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:02] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info]           Summary
[2025-08-29 10:37:02] [info] -----
[2025-08-29 10:37:02] [info] SVS Status:            PASSED
[2025-08-29 10:37:02] [info] Instance Match Percentage: 97.67%
[2025-08-29 10:37:02] [info] Unconnected Pins:      100
[2025-08-29 10:37:02] [info] Total Errors:          20
[2025-08-29 10:37:02] [info] Total Warnings:        45
[2025-08-29 10:37:02] [info] Critical Issues:       None
```

```

[2025-08-29 10:37:05] [info] =====
[2025-08-29 10:37:05] [info] Schematic Versus Schematic Report
[2025-08-29 10:37:05] [info] =====

[2025-08-29 10:37:05] [info] Report Generated: 2025-08-29
[2025-08-29 10:37:05] [info] Run Start Time: 10:37:04 AM
[2025-08-29 10:37:05] [info] Run End Time: 10:37:05 AM
[2025-08-29 10:37:05] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 10:37:05] [info] Tool Version: LVR_2025.1
[2025-08-29 10:37:05] [info] Host Name: kuro-Workstation
[2025-08-29 10:37:05] [info] User Name: kuro
[2025-08-29 10:37:05] [info] Cores Used: 1
[2025-08-29 10:37:05] [info] Memory Utilized: 0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] Top Cell Match
[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] Schematic Top Cell1: ibex_core
[2025-08-29 10:37:05] [info] Schematic Top Cell2: ibex_core
[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] Performance Metrics
[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] | Stage | Time Taken |
[2025-08-29 10:37:05] [info] |-----|-----|
[2025-08-29 10:37:05] [info] | Netlist Parsing | 0 minutes 0 seconds |
[2025-08-29 10:37:05] [info] | Device Matching | 0 minutes 0 seconds |
[2025-08-29 10:37:05] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] Additional Details
[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:37:05] [info] Hierarchical Cells: Flattened
[2025-08-29 10:37:05] [info] Database Format: GDSII
[2025-08-29 10:37:05] [info] Verification Mode: Full Check
[2025-08-29 10:37:05] [info] Error Reporting: Enabled

[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] Type of Errors | Count
[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] DB_WARN -> 1
[2025-08-29 10:37:05] [info] VERI_WARN012 -> 830
[2025-08-29 10:37:05] [info] SVS_ERR020 -> 2
[2025-08-29 10:37:05] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:05] [info] SVS_ERR005 -> 56
[2025-08-29 10:37:05] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:05] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] Summary
[2025-08-29 10:37:05] [info] -----
[2025-08-29 10:37:05] [info] SVS Status: PASSED
[2025-08-29 10:37:05] [info] Instance Match Percentage: 99.84%
[2025-08-29 10:37:05] [info] Unconnected Pins: 100
[2025-08-29 10:37:05] [info] Total Errors: 61
[2025-08-29 10:37:05] [info] Total Warnings: 831
[2025-08-29 10:37:05] [info] Critical Issues: None

```

```

[2025-08-28 06:17:11] [info] =====
[2025-08-28 06:17:11] [info]           Schematic Versus Schematic Report
[2025-08-28 06:17:11] [info] =====

[2025-08-28 06:17:11] [info] Report Generated:    2025-08-28
[2025-08-28 06:17:11] [info] Run Start Time:      06:17:10 AM
[2025-08-28 06:17:11] [info] Run End Time:        06:17:11 AM
[2025-08-28 06:17:11] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 06:17:11] [info] Tool Version:        LVR_2025.1
[2025-08-28 06:17:11] [info] Host Name:           kuro-Workstation
[2025-08-28 06:17:11] [info] User Name:           kuro
[2025-08-28 06:17:11] [info] Cores Used:          1
[2025-08-28 06:17:11] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info]           Top Cell Match
[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info] Schematic Top Cell1:  ibex_core
[2025-08-28 06:17:11] [info] Schematic Top Cell2:  ibex_core
[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info]           Performance Metrics
[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info] | Stage                  | Time Taken |
[2025-08-28 06:17:11] [info] |-----|-----|
[2025-08-28 06:17:11] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 06:17:11] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 06:17:11] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info]           Additional Details
[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info] Technology Node:        Nangate45 (45nm)
[2025-08-28 06:17:11] [info] Hierarchical Cells:     Flattened
[2025-08-28 06:17:11] [info] Database Format:         GDSII
[2025-08-28 06:17:11] [info] Verification Mode:      Full Check
[2025-08-28 06:17:11] [info] Error Reporting:        Enabled

[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info]           Type of Errors | Count
[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info] DB_WARN -> 1
[2025-08-28 06:17:11] [info] VERI_WARN012 -> 830
[2025-08-28 06:17:11] [info] SVS_ERR020 -> 2
[2025-08-28 06:17:11] [info] SVS_ERR031 -> 1
[2025-08-28 06:17:11] [info] SVS_ERR005 -> 56
[2025-08-28 06:17:11] [info] SVS_ERR001 -> 1
[2025-08-28 06:17:11] [info] SVS_ERR002 -> 1
[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info]           Summary
[2025-08-28 06:17:11] [info] -----
[2025-08-28 06:17:11] [info] SVS Status:             PASSED
[2025-08-28 06:17:11] [info] Instance Match Percentage: 99.84%
[2025-08-28 06:17:11] [info] Unconnected Pins:       100
[2025-08-28 06:17:11] [info] Total Errors:           61
[2025-08-28 06:17:11] [info] Total Warnings:         831
[2025-08-28 06:17:11] [info] Critical Issues:        None

```

```

[2025-08-29 10:37:06] [info] =====
[2025-08-29 10:37:06] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:06] [info] =====

[2025-08-29 10:37:06] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:06] [info] Run Start Time:      10:37:06 AM
[2025-08-29 10:37:06] [info] Run End Time:        10:37:06 AM
[2025-08-29 10:37:06] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:06] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:06] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:06] [info] User Name:           kuro
[2025-08-29 10:37:06] [info] Cores Used:          1
[2025-08-29 10:37:06] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info]           Top Cell Match
[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info] Schematic Top Cell1:  ibex_core
[2025-08-29 10:37:06] [info] Schematic Top Cell2:  ibex_core
[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info]           Performance Metrics
[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:06] [info] |-----|-----|
[2025-08-29 10:37:06] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:37:06] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:37:06] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info]           Additional Details
[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:37:06] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:37:06] [info] Database Format:         GDSII
[2025-08-29 10:37:06] [info] Verification Mode:      Full Check
[2025-08-29 10:37:06] [info] Error Reporting:        Enabled

[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info]           Type of Errors | Count
[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info] DB_WARN -> 1
[2025-08-29 10:37:06] [info] VERI_WARN012 -> 830
[2025-08-29 10:37:06] [info] SVS_ERR020 -> 1
[2025-08-29 10:37:06] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:06] [info] SVS_ERR005 -> 55
[2025-08-29 10:37:06] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:06] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info]           Summary
[2025-08-29 10:37:06] [info] -----
[2025-08-29 10:37:06] [info] SVS Status:             PASSED
[2025-08-29 10:37:06] [info] Instance Match Percentage: 99.71%
[2025-08-29 10:37:06] [info] Unconnected Pins:       100
[2025-08-29 10:37:06] [info] Total Errors:           59
[2025-08-29 10:37:06] [info] Total Warnings:         831
[2025-08-29 10:37:06] [info] Critical Issues:        None

```



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[2025-08-29 10:37:09] [info] =====
[2025-08-29 10:37:09] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:09] [info] =====

[2025-08-29 10:37:09] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:09] [info] Run Start Time:      10:37:07 AM
[2025-08-29 10:37:09] [info] Run End Time:        10:37:09 AM
[2025-08-29 10:37:09] [info] Time Taken:          0 minutes 2 seconds

[2025-08-29 10:37:09] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:09] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:09] [info] User Name:           kuro
[2025-08-29 10:37:09] [info] Cores Used:          1
[2025-08-29 10:37:09] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info]           Top Cell Match
[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info] Schematic Top Cell1:  jpeg_encoder
[2025-08-29 10:37:09] [info] Schematic Top Cell2:  jpeg_encoder
[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info]           Performance Metrics
[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:09] [info] |-----|-----|
[2025-08-29 10:37:09] [info] | Netlist Parsing        | 0 minutes 2 seconds |
[2025-08-29 10:37:09] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-29 10:37:09] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info]           Additional Details
[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:37:09] [info] Hierarchical Cells:    Flattened
[2025-08-29 10:37:09] [info] Database Format:        GDSII
[2025-08-29 10:37:09] [info] Verification Mode:     Full Check
[2025-08-29 10:37:09] [info] Error Reporting:       Enabled

[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info]           Type of Errors | Count
[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info] DB_WARN -> 1
[2025-08-29 10:37:09] [info] VERI_WARN012 -> 4070
[2025-08-29 10:37:09] [info] SVS_ERR020 -> 1
[2025-08-29 10:37:09] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:09] [info] SVS_ERR005 -> 20
[2025-08-29 10:37:09] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:09] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info]           Summary
[2025-08-29 10:37:09] [info] -----
[2025-08-29 10:37:09] [info] SVS Status:            PASSED
[2025-08-29 10:37:09] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:37:09] [info] Unconnected Pins:      100
[2025-08-29 10:37:09] [info] Total Errors:          24
[2025-08-29 10:37:09] [info] Total Warnings:        4071
[2025-08-29 10:37:09] [info] Critical Issues:       None

```

```
[2025-08-29 10:37:12] [info] =====
[2025-08-29 10:37:12] [info]           Schematic Versus Schematic Report
[2025-08-29 10:37:12] [info] =====

[2025-08-29 10:37:12] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:12] [info] Run Start Time:      10:37:10 AM
[2025-08-29 10:37:12] [info] Run End Time:        10:37:12 AM
[2025-08-29 10:37:12] [info] Time Taken:          0 minutes 2 seconds

[2025-08-29 10:37:12] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:12] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:12] [info] User Name:           kuro
[2025-08-29 10:37:12] [info] Cores Used:          1
[2025-08-29 10:37:12] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info]           Top Cell Match
[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info] Schematic Top Cell1:  jpeg_encoder
[2025-08-29 10:37:12] [info] Schematic Top Cell2:  jpeg_encoder
[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info]           Performance Metrics
[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info] | Stage                  | Time Taken |
[2025-08-29 10:37:12] [info] |-----|-----|
[2025-08-29 10:37:12] [info] | Netlist Parsing         | 0 minutes 2 seconds |
[2025-08-29 10:37:12] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-29 10:37:12] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info]           Additional Details
[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info] Technology Node:        Nangate45 (45nm)
[2025-08-29 10:37:12] [info] Hierarchical Cells:     Flattened
[2025-08-29 10:37:12] [info] Database Format:         GDSII
[2025-08-29 10:37:12] [info] Verification Mode:      Full Check
[2025-08-29 10:37:12] [info] Error Reporting:        Enabled

[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info]           Type of Errors | Count
[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info] DB_WARN -> 1
[2025-08-29 10:37:12] [info] VERI_WARN012 -> 4070
[2025-08-29 10:37:12] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:12] [info] SVS_ERR005 -> 20
[2025-08-29 10:37:12] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:12] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info]           Summary
[2025-08-29 10:37:12] [info] -----
[2025-08-29 10:37:12] [info] SVS Status:             PASSED
[2025-08-29 10:37:12] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:37:12] [info] Unconnected Pins:       100
[2025-08-29 10:37:12] [info] Total Errors:           23
[2025-08-29 10:37:12] [info] Total Warnings:         4071
[2025-08-29 10:37:12] [info] Critical Issues:        None
```

```

[2025-08-29 10:37:15] [info] =====
[2025-08-29 10:37:15] [info]             Schematic Versus Schematic Report
[2025-08-29 10:37:15] [info] =====

[2025-08-29 10:37:15] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:15] [info] Run Start Time:      10:37:13 AM
[2025-08-29 10:37:15] [info] Run End Time:        10:37:15 AM
[2025-08-29 10:37:15] [info] Time Taken:          0 minutes 2 seconds

[2025-08-29 10:37:15] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:15] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:15] [info] User Name:           kuro
[2025-08-29 10:37:15] [info] Cores Used:          1
[2025-08-29 10:37:15] [info] Memory Utilized:     0.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info]             Top Cell Match
[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info] Schematic Top Cell1:  jpeg_encoder
[2025-08-29 10:37:15] [info] Schematic Top Cell2:  jpeg_encoder
[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info]             Performance Metrics
[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info] | Stage                      | Time Taken |
[2025-08-29 10:37:15] [info] |-----|-----|
[2025-08-29 10:37:15] [info] | Netlist Parsing            | 0 minutes 2 seconds |
[2025-08-29 10:37:15] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-29 10:37:15] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info]             Additional Details
[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info] Technology Node:         Nangate45 (45nm)
[2025-08-29 10:37:15] [info] Hierarchical Cells:      Flattened
[2025-08-29 10:37:15] [info] Database Format:          GDSII
[2025-08-29 10:37:15] [info] Verification Mode:       Full Check
[2025-08-29 10:37:15] [info] Error Reporting:         Enabled

[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info]             Type of Errors | Count
[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info] DB_WARN -> 1
[2025-08-29 10:37:15] [info] VERI_WARN012 -> 4070
[2025-08-29 10:37:15] [info] SVS_ERR020 -> 2
[2025-08-29 10:37:15] [info] SVS_ERR031 -> 1
[2025-08-29 10:37:15] [info] SVS_ERR005 -> 21
[2025-08-29 10:37:15] [info] SVS_ERR001 -> 1
[2025-08-29 10:37:15] [info] SVS_ERR002 -> 1
[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info]             Summary
[2025-08-29 10:37:15] [info] -----
[2025-08-29 10:37:15] [info] SVS Status:              PASSED
[2025-08-29 10:37:15] [info] Instance Match Percentage: 99.98%
[2025-08-29 10:37:15] [info] Unconnected Pins:        100
[2025-08-29 10:37:15] [info] Total Errors:             26
[2025-08-29 10:37:15] [info] Total Warnings:           4071
[2025-08-29 10:37:15] [info] Critical Issues:          None

```

```
[2025-08-28 04:59:00] [info] =====
[2025-08-28 04:59:00] [info]           Schematic Versus Schematic Report
[2025-08-28 04:59:00] [info] =====

[2025-08-28 04:59:00] [info] Report Generated:    2025-08-28
[2025-08-28 04:59:00] [info] Run Start Time:      04:59:00 AM
[2025-08-28 04:59:00] [info] Run End Time:        04:59:00 AM
[2025-08-28 04:59:00] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 04:59:00] [info] Tool Version:        LVR_2025.1
[2025-08-28 04:59:00] [info] Host Name:           kuro-Workstation
[2025-08-28 04:59:00] [info] User Name:           kuro
[2025-08-28 04:59:00] [info] Cores Used:          1
[2025-08-28 04:59:00] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info]           Top Cell Match
[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info] Schematic Top Cell1:  gcd1_sky130hd
[2025-08-28 04:59:00] [info] Schematic Top Cell2:  gcd1_sky130hd
[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info]           Performance Metrics
[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info] | Stage                  | Time Taken |
[2025-08-28 04:59:00] [info] |-----|-----|
[2025-08-28 04:59:00] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 04:59:00] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 04:59:00] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info]           Additional Details
[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 04:59:00] [info] Hierarchical Cells:    Flattened
[2025-08-28 04:59:00] [info] Database Format:        GDSII
[2025-08-28 04:59:00] [info] Verification Mode:     Full Check
[2025-08-28 04:59:00] [info] Error Reporting:       Enabled

[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info]           Type of Errors | Count
[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info] DB_WARN -> 1
[2025-08-28 04:59:00] [info] LRF_ERR001 -> 14
[2025-08-28 04:59:00] [info] VERI_WARN012 -> 8
[2025-08-28 04:59:00] [info] SVS_ERR020 -> 2
[2025-08-28 04:59:00] [info] SVS_ERR031 -> 1
[2025-08-28 04:59:00] [info] SVS_ERR005 -> 16
[2025-08-28 04:59:00] [info] SVS_ERR001 -> 1
[2025-08-28 04:59:00] [info] SVS_ERR002 -> 1
[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info]           Summary
[2025-08-28 04:59:00] [info] -----
[2025-08-28 04:59:00] [info] SVS Status:            PASSED
[2025-08-28 04:59:00] [info] Instance Match Percentage: 97.26%
[2025-08-28 04:59:00] [info] Unconnected Pins:      100
[2025-08-28 04:59:00] [info] Total Errors:           35
[2025-08-28 04:59:00] [info] Total Warnings:         9
[2025-08-28 04:59:00] [info] Critical Issues:        None
```

```
[2025-08-28 20:28:22] [info] =====
[2025-08-28 20:28:22] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:22] [info] =====

[2025-08-28 20:28:22] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:22] [info] Run Start Time:      08:28:21 PM
[2025-08-28 20:28:22] [info] Run End Time:        08:28:22 PM
[2025-08-28 20:28:22] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:22] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:22] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:22] [info] User Name:           kuro
[2025-08-28 20:28:22] [info] Cores Used:          1
[2025-08-28 20:28:22] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info]           Top Cell Match
[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info] Schematic Top Cell1: aes_cipher_top2_sky130hd
[2025-08-28 20:28:22] [info] Schematic Top Cell2: aes_cipher_top2_sky130hd
[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info]           Performance Metrics
[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:22] [info] |-----|-----|
[2025-08-28 20:28:22] [info] | Netlist Parsing        | 0 minutes 1 seconds |
[2025-08-28 20:28:22] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:22] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info]           Additional Details
[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:22] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:22] [info] Database Format:        GDSII
[2025-08-28 20:28:22] [info] Verification Mode:     Full Check
[2025-08-28 20:28:22] [info] Error Reporting:       Enabled

[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info]           Type of Errors | Count
[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info] DB_WARN -> 1
[2025-08-28 20:28:22] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:22] [info] VERI_WARN012 -> 75
[2025-08-28 20:28:22] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:22] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:22] [info] SVS_ERR005 -> 14
[2025-08-28 20:28:22] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:22] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info]           Summary
[2025-08-28 20:28:22] [info] -----
[2025-08-28 20:28:22] [info] SVS Status:           PASSED
[2025-08-28 20:28:22] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:22] [info] Unconnected Pins:     100
[2025-08-28 20:28:22] [info] Total Errors:          33
[2025-08-28 20:28:22] [info] Total Warnings:        76
[2025-08-28 20:28:22] [info] Critical Issues:       None
```

```

[2025-08-28 20:28:24] [info] =====
[2025-08-28 20:28:24] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:24] [info] =====

[2025-08-28 20:28:24] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:24] [info] Run Start Time:      08:28:23 PM
[2025-08-28 20:28:24] [info] Run End Time:        08:28:24 PM
[2025-08-28 20:28:24] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:24] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:24] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:24] [info] User Name:           kuro
[2025-08-28 20:28:24] [info] Cores Used:          1
[2025-08-28 20:28:24] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info]           Top Cell Match
[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info] Schematic Top Cell1: aes_cipher_top3_sky130hd
[2025-08-28 20:28:24] [info] Schematic Top Cell2: aes_cipher_top3_sky130hd
[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info]           Performance Metrics
[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:24] [info] |-----|-----|
[2025-08-28 20:28:24] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:28:24] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:24] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info]           Additional Details
[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:24] [info] Hierarchical Cells:   Flattened
[2025-08-28 20:28:24] [info] Database Format:       GDSII
[2025-08-28 20:28:24] [info] Verification Mode:    Full Check
[2025-08-28 20:28:24] [info] Error Reporting:      Enabled

[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info]           Type of Errors | Count
[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info] DB_WARN -> 1
[2025-08-28 20:28:24] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:24] [info] VERI_WARN012 -> 69
[2025-08-28 20:28:24] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:24] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:24] [info] SVS_ERR005 -> 13
[2025-08-28 20:28:24] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:24] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info]           Summary
[2025-08-28 20:28:24] [info] -----
[2025-08-28 20:28:24] [info] SVS Status:           PASSED
[2025-08-28 20:28:24] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:24] [info] Unconnected Pins:     100
[2025-08-28 20:28:24] [info] Total Errors:          32
[2025-08-28 20:28:24] [info] Total Warnings:        70
[2025-08-28 20:28:24] [info] Critical Issues:       None

```

```

[2025-08-28 20:28:20] [info] =====
[2025-08-28 20:28:20] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:20] [info] =====

[2025-08-28 20:28:20] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:20] [info] Run Start Time:      08:28:20 PM
[2025-08-28 20:28:20] [info] Run End Time:        08:28:20 PM
[2025-08-28 20:28:20] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:28:20] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:20] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:20] [info] User Name:           kuro
[2025-08-28 20:28:20] [info] Cores Used:          1
[2025-08-28 20:28:20] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]           Top Cell Match
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] Schematic Top Cell1:  gcd1_sky130hd
[2025-08-28 20:28:20] [info] Schematic Top Cell2:  gcd1_sky130hd
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]           Performance Metrics
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:20] [info] |-----|-----|
[2025-08-28 20:28:20] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:28:20] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:20] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]           Additional Details
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:20] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:20] [info] Database Format:        GDSII
[2025-08-28 20:28:20] [info] Verification Mode:     Full Check
[2025-08-28 20:28:20] [info] Error Reporting:       Enabled

[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]           Type of Errors | Count
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] DB_WARN -> 1
[2025-08-28 20:28:20] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:20] [info] VERI_WARN012 -> 8
[2025-08-28 20:28:20] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:20] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:20] [info] SVS_ERR005 -> 16
[2025-08-28 20:28:20] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:20] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]           Summary
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] SVS Status:           PASSED
[2025-08-28 20:28:20] [info] Instance Match Percentage: 97.26%
[2025-08-28 20:28:20] [info] Unconnected Pins:      100
[2025-08-28 20:28:20] [info] Total Errors:          35
[2025-08-28 20:28:20] [info] Total Warnings:        9
[2025-08-28 20:28:20] [info] Critical Issues:       None

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[2025-08-28 20:28:20] [info] =====
[2025-08-28 20:28:20] [info]             Schematic Versus Schematic Report
[2025-08-28 20:28:20] [info] =====

[2025-08-28 20:28:20] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:20] [info] Run Start Time:      08:28:20 PM
[2025-08-28 20:28:20] [info] Run End Time:        08:28:20 PM
[2025-08-28 20:28:20] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:28:20] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:20] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:20] [info] User Name:           kuro
[2025-08-28 20:28:20] [info] Cores Used:          1
[2025-08-28 20:28:20] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Top Cell Match
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] Schematic Top Cell1:  gcd2_sky130hd
[2025-08-28 20:28:20] [info] Schematic Top Cell2:  gcd2_sky130hd
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Performance Metrics
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:20] [info] |-----|-----|
[2025-08-28 20:28:20] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:28:20] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:20] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Additional Details
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:20] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:20] [info] Database Format:        GDSII
[2025-08-28 20:28:20] [info] Verification Mode:     Full Check
[2025-08-28 20:28:20] [info] Error Reporting:       Enabled

[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Type of Errors | Count
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] DB_WARN -> 1
[2025-08-28 20:28:20] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:20] [info] VERI_WARN012 -> 10
[2025-08-28 20:28:20] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:20] [info] SVS_ERR005 -> 17
[2025-08-28 20:28:20] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:20] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Summary
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] SVS Status:            PASSED
[2025-08-28 20:28:20] [info] Instance Match Percentage: 96.86%
[2025-08-28 20:28:20] [info] Unconnected Pins:      100
[2025-08-28 20:28:20] [info] Total Errors:          34
[2025-08-28 20:28:20] [info] Total Warnings:        11
[2025-08-28 20:28:20] [info] Critical Issues:       None

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[2025-08-28 20:28:20] [info] =====
[2025-08-28 20:28:20] [info]             Schematic Versus Schematic Report
[2025-08-28 20:28:20] [info] =====

[2025-08-28 20:28:20] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:20] [info] Run Start Time:      08:28:20 PM
[2025-08-28 20:28:20] [info] Run End Time:        08:28:20 PM
[2025-08-28 20:28:20] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:28:20] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:20] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:20] [info] User Name:           kuro
[2025-08-28 20:28:20] [info] Cores Used:          1
[2025-08-28 20:28:20] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Top Cell Match
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] Schematic Top Cell1: gcd3_sky130hd
[2025-08-28 20:28:20] [info] Schematic Top Cell2: gcd3_sky130hd
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Performance Metrics
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] | Stage                      | Time Taken |
[2025-08-28 20:28:20] [info] |-----|-----|
[2025-08-28 20:28:20] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 20:28:20] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:28:20] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Additional Details
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] Technology Node:         SKY130HD (130nm)
[2025-08-28 20:28:20] [info] Hierarchical Cells:      Flattened
[2025-08-28 20:28:20] [info] Database Format:          GDSII
[2025-08-28 20:28:20] [info] Verification Mode:       Full Check
[2025-08-28 20:28:20] [info] Error Reporting:         Enabled

[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Type of Errors | Count
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] DB_WARN -> 1
[2025-08-28 20:28:20] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:20] [info] VERI_WARN012 -> 12
[2025-08-28 20:28:20] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:20] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:20] [info] SVS_ERR005 -> 43
[2025-08-28 20:28:20] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info]             Summary
[2025-08-28 20:28:20] [info] -----
[2025-08-28 20:28:20] [info] SVS Status:              PASSED
[2025-08-28 20:28:20] [info] Instance Match Percentage: 86.89%
[2025-08-28 20:28:20] [info] Unconnected Pins:        100
[2025-08-28 20:28:20] [info] Total Errors:             61
[2025-08-28 20:28:20] [info] Total Warnings:           13
[2025-08-28 20:28:20] [info] Critical Issues:          None

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[2025-08-28 20:28:25] [info] =====
[2025-08-28 20:28:25] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:25] [info] =====

[2025-08-28 20:28:25] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:25] [info] Run Start Time:      08:28:24 PM
[2025-08-28 20:28:25] [info] Run End Time:        08:28:25 PM
[2025-08-28 20:28:25] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:25] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:25] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:25] [info] User Name:           kuro
[2025-08-28 20:28:25] [info] Cores Used:          1
[2025-08-28 20:28:25] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info]           Top Cell Match
[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info] Schematic Top Cell1:  ibex_core1_sky130hd
[2025-08-28 20:28:25] [info] Schematic Top Cell2:  ibex_core1_sky130hd
[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info]           Performance Metrics
[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:25] [info] |-----|-----|
[2025-08-28 20:28:25] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 20:28:25] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 20:28:25] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info]           Additional Details
[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:25] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:25] [info] Database Format:        GDSII
[2025-08-28 20:28:25] [info] Verification Mode:     Full Check
[2025-08-28 20:28:25] [info] Error Reporting:       Enabled

[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info]           Type of Errors | Count
[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info] DB_WARN -> 1
[2025-08-28 20:28:25] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:25] [info] VERI_WARN012 -> 67
[2025-08-28 20:28:25] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:25] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:25] [info] SVS_ERR005 -> 57
[2025-08-28 20:28:25] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:25] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info]           Summary
[2025-08-28 20:28:25] [info] -----
[2025-08-28 20:28:25] [info] SVS Status:            PASSED
[2025-08-28 20:28:25] [info] Instance Match Percentage: 99.85%
[2025-08-28 20:28:25] [info] Unconnected Pins:      100
[2025-08-28 20:28:25] [info] Total Errors:           76
[2025-08-28 20:28:25] [info] Total Warnings:         68
[2025-08-28 20:28:25] [info] Critical Issues:        None

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[2025-08-28 20:28:26] [info] =====
[2025-08-28 20:28:26] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:26] [info] =====

[2025-08-28 20:28:26] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:26] [info] Run Start Time:      08:28:25 PM
[2025-08-28 20:28:26] [info] Run End Time:        08:28:26 PM
[2025-08-28 20:28:26] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:26] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:26] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:26] [info] User Name:           kuro
[2025-08-28 20:28:26] [info] Cores Used:          1
[2025-08-28 20:28:26] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info]           Top Cell Match
[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info] Schematic Top Cell1:  ibex_core2_sky130hd
[2025-08-28 20:28:26] [info] Schematic Top Cell2:  ibex_core2_sky130hd
[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info]           Performance Metrics
[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:26] [info] |-----|-----|
[2025-08-28 20:28:26] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 20:28:26] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 20:28:26] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info]           Additional Details
[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:26] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:26] [info] Database Format:        GDSII
[2025-08-28 20:28:26] [info] Verification Mode:     Full Check
[2025-08-28 20:28:26] [info] Error Reporting:       Enabled

[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info]           Type of Errors | Count
[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info] DB_WARN -> 1
[2025-08-28 20:28:26] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:26] [info] VERI_WARN012 -> 61
[2025-08-28 20:28:26] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:26] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:26] [info] SVS_ERR005 -> 58
[2025-08-28 20:28:26] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:26] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info]           Summary
[2025-08-28 20:28:26] [info] -----
[2025-08-28 20:28:26] [info] SVS Status:            PASSED
[2025-08-28 20:28:26] [info] Instance Match Percentage: 99.85%
[2025-08-28 20:28:26] [info] Unconnected Pins:      100
[2025-08-28 20:28:26] [info] Total Errors:           77
[2025-08-28 20:28:26] [info] Total Warnings:         62
[2025-08-28 20:28:26] [info] Critical Issues:        None

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[2025-08-28 20:28:28] [info] =====
[2025-08-28 20:28:28] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:28] [info] =====

[2025-08-28 20:28:28] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:28] [info] Run Start Time:      08:28:27 PM
[2025-08-28 20:28:28] [info] Run End Time:        08:28:28 PM
[2025-08-28 20:28:28] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:28] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:28] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:28] [info] User Name:           kuro
[2025-08-28 20:28:28] [info] Cores Used:          1
[2025-08-28 20:28:28] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info]           Top Cell Match
[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info] Schematic Top Cell1:  ibex_core3_sky130hd
[2025-08-28 20:28:28] [info] Schematic Top Cell2:  ibex_core3_sky130hd
[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info]           Performance Metrics
[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:28] [info] |-----|-----|
[2025-08-28 20:28:28] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:28:28] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:28] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info]           Additional Details
[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:28] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:28] [info] Database Format:        GDSII
[2025-08-28 20:28:28] [info] Verification Mode:     Full Check
[2025-08-28 20:28:28] [info] Error Reporting:       Enabled

[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info]           Type of Errors | Count
[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info] DB_WARN -> 1
[2025-08-28 20:28:28] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:28] [info] VERI_WARN012 -> 105
[2025-08-28 20:28:28] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:28] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:28] [info] SVS_ERR005 -> 46
[2025-08-28 20:28:28] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info]           Summary
[2025-08-28 20:28:28] [info] -----
[2025-08-28 20:28:28] [info] SVS Status:            PASSED
[2025-08-28 20:28:28] [info] Instance Match Percentage: 99.76%
[2025-08-28 20:28:28] [info] Unconnected Pins:      100
[2025-08-28 20:28:28] [info] Total Errors:          64
[2025-08-28 20:28:28] [info] Total Warnings:        106
[2025-08-28 20:28:28] [info] Critical Issues:       None
```

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[2025-08-28 20:28:31] [info] =====
[2025-08-28 20:28:31] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:31] [info] =====

[2025-08-28 20:28:31] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:31] [info] Run Start Time:      08:28:28 PM
[2025-08-28 20:28:31] [info] Run End Time:        08:28:31 PM
[2025-08-28 20:28:31] [info] Time Taken:          0 minutes 3 seconds

[2025-08-28 20:28:31] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:31] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:31] [info] User Name:           kuro
[2025-08-28 20:28:31] [info] Cores Used:          1
[2025-08-28 20:28:31] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info]           Top Cell Match
[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info] Schematic Top Cell1:  jpeg_encoder1_sky130hd
[2025-08-28 20:28:31] [info] Schematic Top Cell2:  jpeg_encoder1_sky130hd
[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info]           Performance Metrics
[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info] | Stage                      | Time Taken |
[2025-08-28 20:28:31] [info] |-----|-----|
[2025-08-28 20:28:31] [info] | Netlist Parsing            | 0 minutes 2 seconds |
[2025-08-28 20:28:31] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:28:31] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info]           Additional Details
[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info] Technology Node:        SKY130HD (130nm)
[2025-08-28 20:28:31] [info] Hierarchical Cells:     Flattened
[2025-08-28 20:28:31] [info] Database Format:         GDSII
[2025-08-28 20:28:31] [info] Verification Mode:      Full Check
[2025-08-28 20:28:31] [info] Error Reporting:        Enabled

[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info]           Type of Errors | Count
[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info] DB_WARN -> 1
[2025-08-28 20:28:31] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:31] [info] VERI_WARN012 -> 115
[2025-08-28 20:28:31] [info] SVS_ERR020 -> 1
[2025-08-28 20:28:31] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:31] [info] SVS_ERR005 -> 24
[2025-08-28 20:28:31] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:31] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info]           Summary
[2025-08-28 20:28:31] [info] -----
[2025-08-28 20:28:31] [info] SVS Status:             PASSED
[2025-08-28 20:28:31] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:31] [info] Unconnected Pins:       100
[2025-08-28 20:28:31] [info] Total Errors:            42
[2025-08-28 20:28:31] [info] Total Warnings:          116
[2025-08-28 20:28:31] [info] Critical Issues:         None
```

```

[2025-08-28 20:28:36] [info] =====
[2025-08-28 20:28:36] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:36] [info] =====

[2025-08-28 20:28:36] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:36] [info] Run Start Time:      08:28:32 PM
[2025-08-28 20:28:36] [info] Run End Time:        08:28:36 PM
[2025-08-28 20:28:36] [info] Time Taken:          0 minutes 3 seconds

[2025-08-28 20:28:36] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:36] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:36] [info] User Name:           kuro
[2025-08-28 20:28:36] [info] Cores Used:          1
[2025-08-28 20:28:36] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info]           Top Cell Match
[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info] Schematic Top Cell1:  jpeg_encoder2_sky130hd
[2025-08-28 20:28:36] [info] Schematic Top Cell2:  jpeg_encoder2_sky130hd
[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info]           Performance Metrics
[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:36] [info] |-----|-----|
[2025-08-28 20:28:36] [info] | Netlist Parsing        | 0 minutes 3 seconds |
[2025-08-28 20:28:36] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:36] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info]           Additional Details
[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:36] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:36] [info] Database Format:        GDSII
[2025-08-28 20:28:36] [info] Verification Mode:     Full Check
[2025-08-28 20:28:36] [info] Error Reporting:       Enabled

[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info]           Type of Errors | Count
[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info] DB_WARN -> 1
[2025-08-28 20:28:36] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:36] [info] VERI_WARN012 -> 115
[2025-08-28 20:28:36] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:36] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:36] [info] SVS_ERR005 -> 19
[2025-08-28 20:28:36] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:36] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info]           Summary
[2025-08-28 20:28:36] [info] -----
[2025-08-28 20:28:36] [info] SVS Status:            PASSED
[2025-08-28 20:28:36] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:36] [info] Unconnected Pins:      100
[2025-08-28 20:28:36] [info] Total Errors:           38
[2025-08-28 20:28:36] [info] Total Warnings:         116
[2025-08-28 20:28:36] [info] Critical Issues:        None

```

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[2025-08-28 20:28:39] [info] =====
[2025-08-28 20:28:39] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:39] [info] =====

[2025-08-28 20:28:39] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:39] [info] Run Start Time:      08:28:36 PM
[2025-08-28 20:28:39] [info] Run End Time:        08:28:39 PM
[2025-08-28 20:28:39] [info] Time Taken:          0 minutes 2 seconds

[2025-08-28 20:28:39] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:39] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:39] [info] User Name:           kuro
[2025-08-28 20:28:39] [info] Cores Used:          1
[2025-08-28 20:28:39] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info]           Top Cell Match
[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info] Schematic Top Cell1:  jpeg_encoder3_sky130hd
[2025-08-28 20:28:39] [info] Schematic Top Cell2:  jpeg_encoder3_sky130hd
[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info]           Performance Metrics
[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:39] [info] |-----|-----|
[2025-08-28 20:28:39] [info] | Netlist Parsing        | 0 minutes 2 seconds |
[2025-08-28 20:28:39] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:39] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info]           Additional Details
[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:39] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:39] [info] Database Format:        GDSII
[2025-08-28 20:28:39] [info] Verification Mode:     Full Check
[2025-08-28 20:28:39] [info] Error Reporting:       Enabled

[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info]           Type of Errors | Count
[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info] DB_WARN -> 1
[2025-08-28 20:28:39] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:39] [info] VERI_WARN012 -> 115
[2025-08-28 20:28:39] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:39] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:39] [info] SVS_ERR005 -> 21
[2025-08-28 20:28:39] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:39] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info]           Summary
[2025-08-28 20:28:39] [info] -----
[2025-08-28 20:28:39] [info] SVS Status:            PASSED
[2025-08-28 20:28:39] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:39] [info] Unconnected Pins:      100
[2025-08-28 20:28:39] [info] Total Errors:           40
[2025-08-28 20:28:39] [info] Total Warnings:         116
[2025-08-28 20:28:39] [info] Critical Issues:        None
```

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[2025-08-28 04:58:01] [info] =====
[2025-08-28 04:58:01] [info]           Schematic Versus Schematic Report
[2025-08-28 04:58:01] [info] =====

[2025-08-28 04:58:01] [info] Report Generated:    2025-08-28
[2025-08-28 04:58:01] [info] Run Start Time:      04:58:01 AM
[2025-08-28 04:58:01] [info] Run End Time:        04:58:01 AM
[2025-08-28 04:58:01] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 04:58:01] [info] Tool Version:        LVR_2025.1
[2025-08-28 04:58:01] [info] Host Name:           kuro-Workstation
[2025-08-28 04:58:01] [info] User Name:           kuro
[2025-08-28 04:58:01] [info] Cores Used:          1
[2025-08-28 04:58:01] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info]           Top Cell Match
[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info] Schematic Top Cell1:  gcd1_sky130hd
[2025-08-28 04:58:01] [info] Schematic Top Cell2:  gcd1_sky130hd
[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info]           Performance Metrics
[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info] | Stage                  | Time Taken |
[2025-08-28 04:58:01] [info] |-----|-----|
[2025-08-28 04:58:01] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 04:58:01] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 04:58:01] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info]           Additional Details
[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 04:58:01] [info] Hierarchical Cells:    Flattened
[2025-08-28 04:58:01] [info] Database Format:        GDSII
[2025-08-28 04:58:01] [info] Verification Mode:     Full Check
[2025-08-28 04:58:01] [info] Error Reporting:       Enabled

[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info]           Type of Errors | Count
[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info] DB_WARN -> 1
[2025-08-28 04:58:01] [info] LRF_ERR001 -> 14
[2025-08-28 04:58:01] [info] VERI_WARN012 -> 8
[2025-08-28 04:58:01] [info] SVS_ERR020 -> 2
[2025-08-28 04:58:01] [info] SVS_ERR031 -> 1
[2025-08-28 04:58:01] [info] SVS_ERR005 -> 16
[2025-08-28 04:58:01] [info] SVS_ERR001 -> 1
[2025-08-28 04:58:01] [info] SVS_ERR002 -> 1
[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info]           Summary
[2025-08-28 04:58:01] [info] -----
[2025-08-28 04:58:01] [info] SVS Status:            PASSED
[2025-08-28 04:58:01] [info] Instance Match Percentage: 97.26%
[2025-08-28 04:58:01] [info] Unconnected Pins:      100
[2025-08-28 04:58:01] [info] Total Errors:           35
[2025-08-28 04:58:01] [info] Total Warnings:         9
[2025-08-28 04:58:01] [info] Critical Issues:        None

```



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[2025-08-28 20:27:23] [info] =====
[2025-08-28 20:27:23] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:23] [info] =====

[2025-08-28 20:27:23] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:23] [info] Run Start Time:      08:27:21 PM
[2025-08-28 20:27:23] [info] Run End Time:        08:27:23 PM
[2025-08-28 20:27:23] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:23] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:23] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:23] [info] User Name:           kuro
[2025-08-28 20:27:23] [info] Cores Used:          1
[2025-08-28 20:27:23] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info]           Top Cell Match
[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info] Schematic Top Cell1:  aes_cipher_top2_sky130hd
[2025-08-28 20:27:23] [info] Schematic Top Cell2:  aes_cipher_top2_sky130hd
[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info]           Performance Metrics
[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:23] [info] |-----|-----|
[2025-08-28 20:27:23] [info] | Netlist Parsing         | 0 minutes 1 seconds |
[2025-08-28 20:27:23] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 20:27:23] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info]           Additional Details
[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:23] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:23] [info] Database Format:        GDSII
[2025-08-28 20:27:23] [info] Verification Mode:     Full Check
[2025-08-28 20:27:23] [info] Error Reporting:       Enabled

[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info]           Type of Errors | Count
[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info] DB_WARN -> 1
[2025-08-28 20:27:23] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:23] [info] VERI_WARN012 -> 75
[2025-08-28 20:27:23] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:23] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:23] [info] SVS_ERR005 -> 14
[2025-08-28 20:27:23] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:23] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info]           Summary
[2025-08-28 20:27:23] [info] -----
[2025-08-28 20:27:23] [info] SVS Status:            PASSED
[2025-08-28 20:27:23] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:27:23] [info] Unconnected Pins:      100
[2025-08-28 20:27:23] [info] Total Errors:           33
[2025-08-28 20:27:23] [info] Total Warnings:         76
[2025-08-28 20:27:23] [info] Critical Issues:        None

```

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[2025-08-28 20:27:25] [info] =====
[2025-08-28 20:27:25] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:25] [info] =====

[2025-08-28 20:27:25] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:25] [info] Run Start Time:      08:27:23 PM
[2025-08-28 20:27:25] [info] Run End Time:        08:27:25 PM
[2025-08-28 20:27:25] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:25] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:25] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:25] [info] User Name:           kuro
[2025-08-28 20:27:25] [info] Cores Used:          1
[2025-08-28 20:27:25] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info]           Top Cell Match
[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info] Schematic Top Cell1:  aes_cipher_top3_sky130hd
[2025-08-28 20:27:25] [info] Schematic Top Cell2:  aes_cipher_top3_sky130hd
[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info]           Performance Metrics
[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:25] [info] |-----|-----|
[2025-08-28 20:27:25] [info] | Netlist Parsing        | 0 minutes 1 seconds |
[2025-08-28 20:27:25] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:25] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info]           Additional Details
[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:25] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:25] [info] Database Format:        GDSII
[2025-08-28 20:27:25] [info] Verification Mode:     Full Check
[2025-08-28 20:27:25] [info] Error Reporting:       Enabled

[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info]           Type of Errors | Count
[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info] DB_WARN -> 1
[2025-08-28 20:27:25] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:25] [info] VERI_WARN012 -> 69
[2025-08-28 20:27:25] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:25] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:25] [info] SVS_ERR005 -> 13
[2025-08-28 20:27:25] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:25] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info]           Summary
[2025-08-28 20:27:25] [info] -----
[2025-08-28 20:27:25] [info] SVS Status:            PASSED
[2025-08-28 20:27:25] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:27:25] [info] Unconnected Pins:      100
[2025-08-28 20:27:25] [info] Total Errors:          32
[2025-08-28 20:27:25] [info] Total Warnings:        70
[2025-08-28 20:27:25] [info] Critical Issues:       None
```

```
[2025-08-28 20:27:21] [info] =====
[2025-08-28 20:27:21] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:21] [info] =====

[2025-08-28 20:27:21] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:21] [info] Run Start Time:      08:27:21 PM
[2025-08-28 20:27:21] [info] Run End Time:        08:27:21 PM
[2025-08-28 20:27:21] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:27:21] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:21] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:21] [info] User Name:           kuro
[2025-08-28 20:27:21] [info] Cores Used:          1
[2025-08-28 20:27:21] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Top Cell Match
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] Schematic Top Cell1:  gcd1_sky130hd
[2025-08-28 20:27:21] [info] Schematic Top Cell2:  gcd1_sky130hd
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Performance Metrics
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] | Stage                      | Time Taken |
[2025-08-28 20:27:21] [info] |-----|-----|
[2025-08-28 20:27:21] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 20:27:21] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:27:21] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Additional Details
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] Technology Node:        SKY130HD (130nm)
[2025-08-28 20:27:21] [info] Hierarchical Cells:     Flattened
[2025-08-28 20:27:21] [info] Database Format:         GDSII
[2025-08-28 20:27:21] [info] Verification Mode:      Full Check
[2025-08-28 20:27:21] [info] Error Reporting:        Enabled

[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Type of Errors | Count
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] DB_WARN -> 1
[2025-08-28 20:27:21] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:21] [info] VERI_WARN012 -> 8
[2025-08-28 20:27:21] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:21] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:21] [info] SVS_ERR005 -> 16
[2025-08-28 20:27:21] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:21] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Summary
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] SVS Status:            PASSED
[2025-08-28 20:27:21] [info] Instance Match Percentage: 97.26%
[2025-08-28 20:27:21] [info] Unconnected Pins:      100
[2025-08-28 20:27:21] [info] Total Errors:           35
[2025-08-28 20:27:21] [info] Total Warnings:         9
[2025-08-28 20:27:21] [info] Critical Issues:        None
```

```

[2025-08-28 20:27:21] [info] =====
[2025-08-28 20:27:21] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:21] [info] =====

[2025-08-28 20:27:21] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:21] [info] Run Start Time:      08:27:21 PM
[2025-08-28 20:27:21] [info] Run End Time:        08:27:21 PM
[2025-08-28 20:27:21] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:27:21] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:21] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:21] [info] User Name:           kuro
[2025-08-28 20:27:21] [info] Cores Used:          1
[2025-08-28 20:27:21] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Top Cell Match
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] Schematic Top Cell1:  gcd2_sky130hd
[2025-08-28 20:27:21] [info] Schematic Top Cell2:  gcd2_sky130hd
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Performance Metrics
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] | Stage                      | Time Taken |
[2025-08-28 20:27:21] [info] |-----|-----|
[2025-08-28 20:27:21] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 20:27:21] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:27:21] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Additional Details
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] Technology Node:        SKY130HD (130nm)
[2025-08-28 20:27:21] [info] Hierarchical Cells:     Flattened
[2025-08-28 20:27:21] [info] Database Format:         GDSII
[2025-08-28 20:27:21] [info] Verification Mode:      Full Check
[2025-08-28 20:27:21] [info] Error Reporting:        Enabled

[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Type of Errors | Count
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] DB_WARN -> 1
[2025-08-28 20:27:21] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:21] [info] VERI_WARN012 -> 10
[2025-08-28 20:27:21] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:21] [info] SVS_ERR005 -> 17
[2025-08-28 20:27:21] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:21] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Summary
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] SVS Status:             PASSED
[2025-08-28 20:27:21] [info] Instance Match Percentage: 96.86%
[2025-08-28 20:27:21] [info] Unconnected Pins:       100
[2025-08-28 20:27:21] [info] Total Errors:           34
[2025-08-28 20:27:21] [info] Total Warnings:         11
[2025-08-28 20:27:21] [info] Critical Issues:        None

```

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[2025-08-28 20:27:21] [info] =====
[2025-08-28 20:27:21] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:21] [info] =====

[2025-08-28 20:27:21] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:21] [info] Run Start Time:      08:27:21 PM
[2025-08-28 20:27:21] [info] Run End Time:        08:27:21 PM
[2025-08-28 20:27:21] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:27:21] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:21] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:21] [info] User Name:           kuro
[2025-08-28 20:27:21] [info] Cores Used:          1
[2025-08-28 20:27:21] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Top Cell Match
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] Schematic Top Cell1:  gcd3_sky130hd
[2025-08-28 20:27:21] [info] Schematic Top Cell2:  gcd3_sky130hd
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Performance Metrics
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] | Stage                      | Time Taken |
[2025-08-28 20:27:21] [info] |-----|-----|
[2025-08-28 20:27:21] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 20:27:21] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:27:21] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Additional Details
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] Technology Node:        SKY130HD (130nm)
[2025-08-28 20:27:21] [info] Hierarchical Cells:     Flattened
[2025-08-28 20:27:21] [info] Database Format:         GDSII
[2025-08-28 20:27:21] [info] Verification Mode:      Full Check
[2025-08-28 20:27:21] [info] Error Reporting:        Enabled

[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Type of Errors | Count
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] DB_WARN -> 1
[2025-08-28 20:27:21] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:21] [info] VERI_WARN012 -> 12
[2025-08-28 20:27:21] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:21] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:21] [info] SVS_ERR005 -> 43
[2025-08-28 20:27:21] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info]           Summary
[2025-08-28 20:27:21] [info] -----
[2025-08-28 20:27:21] [info] SVS Status:             PASSED
[2025-08-28 20:27:21] [info] Instance Match Percentage: 86.89%
[2025-08-28 20:27:21] [info] Unconnected Pins:       100
[2025-08-28 20:27:21] [info] Total Errors:           61
[2025-08-28 20:27:21] [info] Total Warnings:         13
[2025-08-28 20:27:21] [info] Critical Issues:        None

```

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[2025-08-28 20:27:26] [info] =====
[2025-08-28 20:27:26] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:26] [info] =====

[2025-08-28 20:27:26] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:26] [info] Run Start Time:      08:27:25 PM
[2025-08-28 20:27:26] [info] Run End Time:        08:27:26 PM
[2025-08-28 20:27:26] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:26] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:26] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:26] [info] User Name:           kuro
[2025-08-28 20:27:26] [info] Cores Used:          1
[2025-08-28 20:27:26] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info]           Top Cell Match
[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info] Schematic Top Cell1:  ibex_core1_sky130hd
[2025-08-28 20:27:26] [info] Schematic Top Cell2:  ibex_core1_sky130hd
[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info]           Performance Metrics
[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:26] [info] |-----|-----|
[2025-08-28 20:27:26] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 20:27:26] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 20:27:26] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info]           Additional Details
[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:26] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:26] [info] Database Format:        GDSII
[2025-08-28 20:27:26] [info] Verification Mode:     Full Check
[2025-08-28 20:27:26] [info] Error Reporting:       Enabled

[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info]           Type of Errors | Count
[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info] DB_WARN -> 1
[2025-08-28 20:27:26] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:26] [info] VERI_WARN012 -> 67
[2025-08-28 20:27:26] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:26] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:26] [info] SVS_ERR005 -> 57
[2025-08-28 20:27:26] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:26] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info]           Summary
[2025-08-28 20:27:26] [info] -----
[2025-08-28 20:27:26] [info] SVS Status:            PASSED
[2025-08-28 20:27:26] [info] Instance Match Percentage: 99.85%
[2025-08-28 20:27:26] [info] Unconnected Pins:      100
[2025-08-28 20:27:26] [info] Total Errors:           76
[2025-08-28 20:27:26] [info] Total Warnings:         68
[2025-08-28 20:27:26] [info] Critical Issues:        None

```

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[2025-08-28 20:27:27] [info] =====
[2025-08-28 20:27:27] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:27] [info] =====

[2025-08-28 20:27:27] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:27] [info] Run Start Time:      08:27:26 PM
[2025-08-28 20:27:27] [info] Run End Time:        08:27:27 PM
[2025-08-28 20:27:27] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:27] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:27] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:27] [info] User Name:           kuro
[2025-08-28 20:27:27] [info] Cores Used:          1
[2025-08-28 20:27:27] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info]           Top Cell Match
[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info] Schematic Top Cell1:  ibex_core2_sky130hd
[2025-08-28 20:27:27] [info] Schematic Top Cell2:  ibex_core2_sky130hd
[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info]           Performance Metrics
[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:27] [info] |-----|-----|
[2025-08-28 20:27:27] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:27:27] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:27] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info]           Additional Details
[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:27] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:27] [info] Database Format:        GDSII
[2025-08-28 20:27:27] [info] Verification Mode:     Full Check
[2025-08-28 20:27:27] [info] Error Reporting:       Enabled

[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info]           Type of Errors | Count
[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info] DB_WARN -> 1
[2025-08-28 20:27:27] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:27] [info] VERI_WARN012 -> 61
[2025-08-28 20:27:27] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:27] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:27] [info] SVS_ERR005 -> 58
[2025-08-28 20:27:27] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:27] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info]           Summary
[2025-08-28 20:27:27] [info] -----
[2025-08-28 20:27:27] [info] SVS Status:           PASSED
[2025-08-28 20:27:27] [info] Instance Match Percentage: 99.85%
[2025-08-28 20:27:27] [info] Unconnected Pins:      100
[2025-08-28 20:27:27] [info] Total Errors:          77
[2025-08-28 20:27:27] [info] Total Warnings:        62
[2025-08-28 20:27:27] [info] Critical Issues:       None

```

```
[2025-08-28 20:27:29] [info] =====
[2025-08-28 20:27:29] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:29] [info] =====

[2025-08-28 20:27:29] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:29] [info] Run Start Time:      08:27:28 PM
[2025-08-28 20:27:29] [info] Run End Time:        08:27:29 PM
[2025-08-28 20:27:29] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:29] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:29] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:29] [info] User Name:           kuro
[2025-08-28 20:27:29] [info] Cores Used:          1
[2025-08-28 20:27:29] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info]           Top Cell Match
[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info] Schematic Top Cell1:  ibex_core3_sky130hd
[2025-08-28 20:27:29] [info] Schematic Top Cell2:  ibex_core3_sky130hd
[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info]           Performance Metrics
[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:29] [info] |-----|-----|
[2025-08-28 20:27:29] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:27:29] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:29] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info]           Additional Details
[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:29] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:29] [info] Database Format:        GDSII
[2025-08-28 20:27:29] [info] Verification Mode:     Full Check
[2025-08-28 20:27:29] [info] Error Reporting:       Enabled

[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info]           Type of Errors | Count
[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info] DB_WARN -> 1
[2025-08-28 20:27:29] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:29] [info] VERI_WARN012 -> 105
[2025-08-28 20:27:29] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:29] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:29] [info] SVS_ERR005 -> 46
[2025-08-28 20:27:29] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info]           Summary
[2025-08-28 20:27:29] [info] -----
[2025-08-28 20:27:29] [info] SVS Status:            PASSED
[2025-08-28 20:27:29] [info] Instance Match Percentage: 99.76%
[2025-08-28 20:27:29] [info] Unconnected Pins:      100
[2025-08-28 20:27:29] [info] Total Errors:           64
[2025-08-28 20:27:29] [info] Total Warnings:         106
[2025-08-28 20:27:29] [info] Critical Issues:        None
```



```
[2025-08-28 20:27:32] [info] =====
[2025-08-28 20:27:32] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:32] [info] =====

[2025-08-28 20:27:32] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:32] [info] Run Start Time:      08:27:29 PM
[2025-08-28 20:27:32] [info] Run End Time:        08:27:32 PM
[2025-08-28 20:27:32] [info] Time Taken:          0 minutes 3 seconds

[2025-08-28 20:27:32] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:32] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:32] [info] User Name:           kuro
[2025-08-28 20:27:32] [info] Cores Used:          1
[2025-08-28 20:27:32] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info]           Top Cell Match
[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info] Schematic Top Cell1:  jpeg_encoder1_sky130hd
[2025-08-28 20:27:32] [info] Schematic Top Cell2:  jpeg_encoder1_sky130hd
[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info]           Performance Metrics
[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info] | Stage                      | Time Taken |
[2025-08-28 20:27:32] [info] |-----|-----|
[2025-08-28 20:27:32] [info] | Netlist Parsing            | 0 minutes 2 seconds |
[2025-08-28 20:27:32] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:27:32] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info]           Additional Details
[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info] Technology Node:         SKY130HD (130nm)
[2025-08-28 20:27:32] [info] Hierarchical Cells:     Flattened
[2025-08-28 20:27:32] [info] Database Format:         GDSII
[2025-08-28 20:27:32] [info] Verification Mode:      Full Check
[2025-08-28 20:27:32] [info] Error Reporting:        Enabled

[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info]           Type of Errors | Count
[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info] DB_WARN -> 1
[2025-08-28 20:27:32] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:32] [info] VERI_WARN012 -> 115
[2025-08-28 20:27:32] [info] SVS_ERR020 -> 1
[2025-08-28 20:27:32] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:32] [info] SVS_ERR005 -> 24
[2025-08-28 20:27:32] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:32] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info]           Summary
[2025-08-28 20:27:32] [info] -----
[2025-08-28 20:27:32] [info] SVS Status:             PASSED
[2025-08-28 20:27:32] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:27:32] [info] Unconnected Pins:       100
[2025-08-28 20:27:32] [info] Total Errors:           42
[2025-08-28 20:27:32] [info] Total Warnings:         116
[2025-08-28 20:27:32] [info] Critical Issues:        None
```

```

[2025-08-28 20:27:37] [info] =====
[2025-08-28 20:27:37] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:37] [info] =====

[2025-08-28 20:27:37] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:37] [info] Run Start Time:      08:27:33 PM
[2025-08-28 20:27:37] [info] Run End Time:        08:27:37 PM
[2025-08-28 20:27:37] [info] Time Taken:          0 minutes 3 seconds

[2025-08-28 20:27:37] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:37] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:37] [info] User Name:           kuro
[2025-08-28 20:27:37] [info] Cores Used:          1
[2025-08-28 20:27:37] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info]           Top Cell Match
[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info] Schematic Top Cell1:  jpeg_encoder2_sky130hd
[2025-08-28 20:27:37] [info] Schematic Top Cell2:  jpeg_encoder2_sky130hd
[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info]           Performance Metrics
[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:37] [info] |-----|-----|
[2025-08-28 20:27:37] [info] | Netlist Parsing        | 0 minutes 3 seconds |
[2025-08-28 20:27:37] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:37] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info]           Additional Details
[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:37] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:37] [info] Database Format:        GDSII
[2025-08-28 20:27:37] [info] Verification Mode:     Full Check
[2025-08-28 20:27:37] [info] Error Reporting:       Enabled

[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info]           Type of Errors | Count
[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info] DB_WARN -> 1
[2025-08-28 20:27:37] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:37] [info] VERI_WARN012 -> 115
[2025-08-28 20:27:37] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:37] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:37] [info] SVS_ERR005 -> 19
[2025-08-28 20:27:37] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:37] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info]           Summary
[2025-08-28 20:27:37] [info] -----
[2025-08-28 20:27:37] [info] SVS Status:           PASSED
[2025-08-28 20:27:37] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:27:37] [info] Unconnected Pins:      100
[2025-08-28 20:27:37] [info] Total Errors:          38
[2025-08-28 20:27:37] [info] Total Warnings:        116
[2025-08-28 20:27:37] [info] Critical Issues:       None

```

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[2025-08-28 20:27:40] [info] =====
[2025-08-28 20:27:40] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:40] [info] =====

[2025-08-28 20:27:40] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:40] [info] Run Start Time:      08:27:37 PM
[2025-08-28 20:27:40] [info] Run End Time:        08:27:40 PM
[2025-08-28 20:27:40] [info] Time Taken:          0 minutes 2 seconds

[2025-08-28 20:27:40] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:40] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:40] [info] User Name:           kuro
[2025-08-28 20:27:40] [info] Cores Used:          1
[2025-08-28 20:27:40] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Top Cell Match
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] Schematic Top Cell1:  jpeg_encoder3_sky130hd
[2025-08-28 20:27:40] [info] Schematic Top Cell2:  jpeg_encoder3_sky130hd
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Performance Metrics
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:40] [info] |-----|-----|
[2025-08-28 20:27:40] [info] | Netlist Parsing        | 0 minutes 2 seconds |
[2025-08-28 20:27:40] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:40] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Additional Details
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:40] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:40] [info] Database Format:        GDSII
[2025-08-28 20:27:40] [info] Verification Mode:     Full Check
[2025-08-28 20:27:40] [info] Error Reporting:       Enabled

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Type of Errors | Count
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] DB_WARN -> 1
[2025-08-28 20:27:40] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:40] [info] VERI_WARN012 -> 115
[2025-08-28 20:27:40] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:40] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:40] [info] SVS_ERR005 -> 21
[2025-08-28 20:27:40] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:40] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Summary
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] SVS Status:            PASSED
[2025-08-28 20:27:40] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:27:40] [info] Unconnected Pins:      100
[2025-08-28 20:27:40] [info] Total Errors:           40
[2025-08-28 20:27:40] [info] Total Warnings:         116
[2025-08-28 20:27:40] [info] Critical Issues:        None

```

```
[2025-08-28 04:58:21] [info] =====
[2025-08-28 04:58:21] [info]           Schematic Versus Schematic Report
[2025-08-28 04:58:21] [info] =====

[2025-08-28 04:58:21] [info] Report Generated:    2025-08-28
[2025-08-28 04:58:21] [info] Run Start Time:      04:58:21 AM
[2025-08-28 04:58:21] [info] Run End Time:        04:58:21 AM
[2025-08-28 04:58:21] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 04:58:21] [info] Tool Version:        LVR_2025.1
[2025-08-28 04:58:21] [info] Host Name:           kuro-Workstation
[2025-08-28 04:58:21] [info] User Name:           kuro
[2025-08-28 04:58:21] [info] Cores Used:          1
[2025-08-28 04:58:21] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info]           Top Cell Match
[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info] Schematic Top Cell1:  gcd1_sky130hd
[2025-08-28 04:58:21] [info] Schematic Top Cell2:  gcd1_sky130hd
[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info]           Performance Metrics
[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info] | Stage                  | Time Taken |
[2025-08-28 04:58:21] [info] |-----|-----|
[2025-08-28 04:58:21] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 04:58:21] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 04:58:21] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info]           Additional Details
[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 04:58:21] [info] Hierarchical Cells:    Flattened
[2025-08-28 04:58:21] [info] Database Format:        GDSII
[2025-08-28 04:58:21] [info] Verification Mode:     Full Check
[2025-08-28 04:58:21] [info] Error Reporting:       Enabled

[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info]           Type of Errors | Count
[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info] DB_WARN -> 1
[2025-08-28 04:58:21] [info] LRF_ERR001 -> 14
[2025-08-28 04:58:21] [info] VERI_WARN012 -> 8
[2025-08-28 04:58:21] [info] SVS_ERR020 -> 2
[2025-08-28 04:58:21] [info] SVS_ERR031 -> 1
[2025-08-28 04:58:21] [info] SVS_ERR005 -> 16
[2025-08-28 04:58:21] [info] SVS_ERR001 -> 1
[2025-08-28 04:58:21] [info] SVS_ERR002 -> 1
[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info]           Summary
[2025-08-28 04:58:21] [info] -----
[2025-08-28 04:58:21] [info] SVS Status:            PASSED
[2025-08-28 04:58:21] [info] Instance Match Percentage: 97.26%
[2025-08-28 04:58:21] [info] Unconnected Pins:      100
[2025-08-28 04:58:21] [info] Total Errors:           35
[2025-08-28 04:58:21] [info] Total Warnings:         9
[2025-08-28 04:58:21] [info] Critical Issues:        None
```

```
[2025-08-28 20:27:43] [info] =====
[2025-08-28 20:27:43] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:43] [info] =====

[2025-08-28 20:27:43] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:43] [info] Run Start Time:      08:27:41 PM
[2025-08-28 20:27:43] [info] Run End Time:        08:27:43 PM
[2025-08-28 20:27:43] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:43] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:43] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:43] [info] User Name:           kuro
[2025-08-28 20:27:43] [info] Cores Used:          1
[2025-08-28 20:27:43] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info]           Top Cell Match
[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info] Schematic Top Cell1: aes_cipher_top2_sky130hd
[2025-08-28 20:27:43] [info] Schematic Top Cell2: aes_cipher_top2_sky130hd
[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info]           Performance Metrics
[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info] | Stage                      | Time Taken |
[2025-08-28 20:27:43] [info] |-----|-----|
[2025-08-28 20:27:43] [info] | Netlist Parsing            | 0 minutes 1 seconds |
[2025-08-28 20:27:43] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:27:43] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info]           Additional Details
[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info] Technology Node:          SKY130HD (130nm)
[2025-08-28 20:27:43] [info] Hierarchical Cells:       Flattened
[2025-08-28 20:27:43] [info] Database Format:           GDSII
[2025-08-28 20:27:43] [info] Verification Mode:        Full Check
[2025-08-28 20:27:43] [info] Error Reporting:          Enabled

[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info]           Type of Errors | Count
[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info] DB_WARN -> 1
[2025-08-28 20:27:43] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:43] [info] VERI_WARN012 -> 75
[2025-08-28 20:27:43] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:43] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:43] [info] SVS_ERR005 -> 14
[2025-08-28 20:27:43] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:43] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info]           Summary
[2025-08-28 20:27:43] [info] -----
[2025-08-28 20:27:43] [info] SVS Status:              PASSED
[2025-08-28 20:27:43] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:27:43] [info] Unconnected Pins:        100
[2025-08-28 20:27:43] [info] Total Errors:             33
[2025-08-28 20:27:43] [info] Total Warnings:           76
[2025-08-28 20:27:43] [info] Critical Issues:          None
```

```

[2025-08-28 20:27:44] [info] =====
[2025-08-28 20:27:44] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:44] [info] =====

[2025-08-28 20:27:44] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:44] [info] Run Start Time:      08:27:43 PM
[2025-08-28 20:27:44] [info] Run End Time:        08:27:44 PM
[2025-08-28 20:27:44] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:44] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:44] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:44] [info] User Name:           kuro
[2025-08-28 20:27:44] [info] Cores Used:          1
[2025-08-28 20:27:44] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info]           Top Cell Match
[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info] Schematic Top Cell1: aes_cipher_top3_sky130hd
[2025-08-28 20:27:44] [info] Schematic Top Cell2: aes_cipher_top3_sky130hd
[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info]           Performance Metrics
[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:44] [info] |-----|-----|
[2025-08-28 20:27:44] [info] | Netlist Parsing        | 0 minutes 1 seconds |
[2025-08-28 20:27:44] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:44] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info]           Additional Details
[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:44] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:44] [info] Database Format:        GDSII
[2025-08-28 20:27:44] [info] Verification Mode:     Full Check
[2025-08-28 20:27:44] [info] Error Reporting:       Enabled

[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info]           Type of Errors | Count
[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info] DB_WARN -> 1
[2025-08-28 20:27:44] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:44] [info] VERI_WARN012 -> 69
[2025-08-28 20:27:44] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:44] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:44] [info] SVS_ERR005 -> 13
[2025-08-28 20:27:44] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:44] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info]           Summary
[2025-08-28 20:27:44] [info] -----
[2025-08-28 20:27:44] [info] SVS Status:            PASSED
[2025-08-28 20:27:44] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:27:44] [info] Unconnected Pins:      100
[2025-08-28 20:27:44] [info] Total Errors:           32
[2025-08-28 20:27:44] [info] Total Warnings:         70
[2025-08-28 20:27:44] [info] Critical Issues:        None

```

```

[2025-08-28 20:27:40] [info] =====
[2025-08-28 20:27:40] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:40] [info] =====

[2025-08-28 20:27:40] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:40] [info] Run Start Time:      08:27:40 PM
[2025-08-28 20:27:40] [info] Run End Time:        08:27:40 PM
[2025-08-28 20:27:40] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:27:40] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:40] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:40] [info] User Name:           kuro
[2025-08-28 20:27:40] [info] Cores Used:          1
[2025-08-28 20:27:40] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Top Cell Match
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] Schematic Top Cell1: gcd1_sky130hd
[2025-08-28 20:27:40] [info] Schematic Top Cell2: gcd1_sky130hd
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Performance Metrics
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:40] [info] |-----|-----|
[2025-08-28 20:27:40] [info] | Netlist Parsing         | 0 minutes 0 seconds |
[2025-08-28 20:27:40] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 20:27:40] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Additional Details
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] Technology Node:        SKY130HD (130nm)
[2025-08-28 20:27:40] [info] Hierarchical Cells:     Flattened
[2025-08-28 20:27:40] [info] Database Format:         GDSII
[2025-08-28 20:27:40] [info] Verification Mode:      Full Check
[2025-08-28 20:27:40] [info] Error Reporting:        Enabled

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Type of Errors | Count
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] DB_WARN -> 1
[2025-08-28 20:27:40] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:40] [info] VERI_WARN012 -> 8
[2025-08-28 20:27:40] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:40] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:40] [info] SVS_ERR005 -> 16
[2025-08-28 20:27:40] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:40] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Summary
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] SVS Status:            PASSED
[2025-08-28 20:27:40] [info] Instance Match Percentage: 97.26%
[2025-08-28 20:27:40] [info] Unconnected Pins:      100
[2025-08-28 20:27:40] [info] Total Errors:          35
[2025-08-28 20:27:40] [info] Total Warnings:        9
[2025-08-28 20:27:40] [info] Critical Issues:       None

```

```
[2025-08-28 20:27:40] [info] =====
[2025-08-28 20:27:40] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:40] [info] =====

[2025-08-28 20:27:40] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:40] [info] Run Start Time:      08:27:40 PM
[2025-08-28 20:27:40] [info] Run End Time:        08:27:40 PM
[2025-08-28 20:27:40] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:27:40] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:40] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:40] [info] User Name:           kuro
[2025-08-28 20:27:40] [info] Cores Used:          1
[2025-08-28 20:27:40] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Top Cell Match
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] Schematic Top Cell1:  gcd2_sky130hd
[2025-08-28 20:27:40] [info] Schematic Top Cell2:  gcd2_sky130hd
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Performance Metrics
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] | Stage                      | Time Taken |
[2025-08-28 20:27:40] [info] |-----|-----|
[2025-08-28 20:27:40] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 20:27:40] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:27:40] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Additional Details
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] Technology Node:        SKY130HD (130nm)
[2025-08-28 20:27:40] [info] Hierarchical Cells:     Flattened
[2025-08-28 20:27:40] [info] Database Format:         GDSII
[2025-08-28 20:27:40] [info] Verification Mode:      Full Check
[2025-08-28 20:27:40] [info] Error Reporting:        Enabled

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Type of Errors | Count
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] DB_WARN -> 1
[2025-08-28 20:27:40] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:40] [info] VERI_WARN012 -> 10
[2025-08-28 20:27:40] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:40] [info] SVS_ERR005 -> 17
[2025-08-28 20:27:40] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:40] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Summary
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] SVS Status:             PASSED
[2025-08-28 20:27:40] [info] Instance Match Percentage: 96.86%
[2025-08-28 20:27:40] [info] Unconnected Pins:       100
[2025-08-28 20:27:40] [info] Total Errors:           34
[2025-08-28 20:27:40] [info] Total Warnings:         11
[2025-08-28 20:27:40] [info] Critical Issues:        None
```

```

[2025-08-28 20:27:40] [info] =====
[2025-08-28 20:27:40] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:40] [info] =====

[2025-08-28 20:27:40] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:40] [info] Run Start Time:      08:27:40 PM
[2025-08-28 20:27:40] [info] Run End Time:        08:27:40 PM
[2025-08-28 20:27:40] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:27:40] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:40] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:40] [info] User Name:           kuro
[2025-08-28 20:27:40] [info] Cores Used:          1
[2025-08-28 20:27:40] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Top Cell Match
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] Schematic Top Cell1:  gcd3_sky130hd
[2025-08-28 20:27:40] [info] Schematic Top Cell2:  gcd3_sky130hd
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Performance Metrics
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:40] [info] |-----|-----|
[2025-08-28 20:27:40] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:27:40] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:40] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Additional Details
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:40] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:40] [info] Database Format:        GDSII
[2025-08-28 20:27:40] [info] Verification Mode:     Full Check
[2025-08-28 20:27:40] [info] Error Reporting:       Enabled

[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Type of Errors | Count
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] DB_WARN -> 1
[2025-08-28 20:27:40] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:40] [info] VERI_WARN012 -> 12
[2025-08-28 20:27:40] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:40] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:40] [info] SVS_ERR005 -> 43
[2025-08-28 20:27:40] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info]           Summary
[2025-08-28 20:27:40] [info] -----
[2025-08-28 20:27:40] [info] SVS Status:            PASSED
[2025-08-28 20:27:40] [info] Instance Match Percentage: 86.89%
[2025-08-28 20:27:40] [info] Unconnected Pins:      100
[2025-08-28 20:27:40] [info] Total Errors:           61
[2025-08-28 20:27:40] [info] Total Warnings:         13
[2025-08-28 20:27:40] [info] Critical Issues:        None

```

```
[2025-08-28 20:27:46] [info] =====
[2025-08-28 20:27:46] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:46] [info] =====

[2025-08-28 20:27:46] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:46] [info] Run Start Time:      08:27:45 PM
[2025-08-28 20:27:46] [info] Run End Time:        08:27:46 PM
[2025-08-28 20:27:46] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:46] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:46] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:46] [info] User Name:           kuro
[2025-08-28 20:27:46] [info] Cores Used:          1
[2025-08-28 20:27:46] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info]           Top Cell Match
[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info] Schematic Top Cell1:  ibex_core1_sky130hd
[2025-08-28 20:27:46] [info] Schematic Top Cell2:  ibex_core1_sky130hd
[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info]           Performance Metrics
[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info] | Stage                      | Time Taken |
[2025-08-28 20:27:46] [info] |-----|-----|
[2025-08-28 20:27:46] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 20:27:46] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:27:46] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info]           Additional Details
[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info] Technology Node:        SKY130HD (130nm)
[2025-08-28 20:27:46] [info] Hierarchical Cells:     Flattened
[2025-08-28 20:27:46] [info] Database Format:         GDSII
[2025-08-28 20:27:46] [info] Verification Mode:      Full Check
[2025-08-28 20:27:46] [info] Error Reporting:        Enabled

[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info]           Type of Errors | Count
[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info] DB_WARN -> 1
[2025-08-28 20:27:46] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:46] [info] VERI_WARN012 -> 67
[2025-08-28 20:27:46] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:46] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:46] [info] SVS_ERR005 -> 57
[2025-08-28 20:27:46] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:46] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info]           Summary
[2025-08-28 20:27:46] [info] -----
[2025-08-28 20:27:46] [info] SVS Status:            PASSED
[2025-08-28 20:27:46] [info] Instance Match Percentage: 99.85%
[2025-08-28 20:27:46] [info] Unconnected Pins:      100
[2025-08-28 20:27:46] [info] Total Errors:           76
[2025-08-28 20:27:46] [info] Total Warnings:         68
[2025-08-28 20:27:46] [info] Critical Issues:        None
```

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[2025-08-28 20:27:47] [info] =====
[2025-08-28 20:27:47] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:47] [info] =====

[2025-08-28 20:27:47] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:47] [info] Run Start Time:      08:27:46 PM
[2025-08-28 20:27:47] [info] Run End Time:        08:27:47 PM
[2025-08-28 20:27:47] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:47] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:47] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:47] [info] User Name:           kuro
[2025-08-28 20:27:47] [info] Cores Used:          1
[2025-08-28 20:27:47] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info]           Top Cell Match
[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info] Schematic Top Cell1:  ibex_core2_sky130hd
[2025-08-28 20:27:47] [info] Schematic Top Cell2:  ibex_core2_sky130hd
[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info]           Performance Metrics
[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:47] [info] |-----|-----|
[2025-08-28 20:27:47] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:27:47] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:47] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info]           Additional Details
[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:47] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:47] [info] Database Format:        GDSII
[2025-08-28 20:27:47] [info] Verification Mode:     Full Check
[2025-08-28 20:27:47] [info] Error Reporting:       Enabled

[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info]           Type of Errors | Count
[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info] DB_WARN -> 1
[2025-08-28 20:27:47] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:47] [info] VERI_WARN012 -> 61
[2025-08-28 20:27:47] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:47] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:47] [info] SVS_ERR005 -> 58
[2025-08-28 20:27:47] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:47] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info]           Summary
[2025-08-28 20:27:47] [info] -----
[2025-08-28 20:27:47] [info] SVS Status:            PASSED
[2025-08-28 20:27:47] [info] Instance Match Percentage: 99.85%
[2025-08-28 20:27:47] [info] Unconnected Pins:      100
[2025-08-28 20:27:47] [info] Total Errors:           77
[2025-08-28 20:27:47] [info] Total Warnings:         62
[2025-08-28 20:27:47] [info] Critical Issues:        None

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[2025-08-28 20:27:48] [info] =====
[2025-08-28 20:27:48] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:48] [info] =====

[2025-08-28 20:27:48] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:48] [info] Run Start Time:      08:27:47 PM
[2025-08-28 20:27:48] [info] Run End Time:        08:27:48 PM
[2025-08-28 20:27:48] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:27:48] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:48] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:48] [info] User Name:           kuro
[2025-08-28 20:27:48] [info] Cores Used:          1
[2025-08-28 20:27:48] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info]           Top Cell Match
[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info] Schematic Top Cell1:  ibex_core3_sky130hd
[2025-08-28 20:27:48] [info] Schematic Top Cell2:  ibex_core3_sky130hd
[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info]           Performance Metrics
[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:48] [info] |-----|-----|
[2025-08-28 20:27:48] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:27:48] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:48] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info]           Additional Details
[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:48] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:48] [info] Database Format:        GDSII
[2025-08-28 20:27:48] [info] Verification Mode:     Full Check
[2025-08-28 20:27:48] [info] Error Reporting:       Enabled

[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info]           Type of Errors | Count
[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info] DB_WARN -> 1
[2025-08-28 20:27:48] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:48] [info] VERI_WARN012 -> 105
[2025-08-28 20:27:48] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:48] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:48] [info] SVS_ERR005 -> 46
[2025-08-28 20:27:48] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info]           Summary
[2025-08-28 20:27:48] [info] -----
[2025-08-28 20:27:48] [info] SVS Status:            PASSED
[2025-08-28 20:27:48] [info] Instance Match Percentage: 99.76%
[2025-08-28 20:27:48] [info] Unconnected Pins:      100
[2025-08-28 20:27:48] [info] Total Errors:          64
[2025-08-28 20:27:48] [info] Total Warnings:        106
[2025-08-28 20:27:48] [info] Critical Issues:       None

```

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[2025-08-28 20:27:52] [info] =====
[2025-08-28 20:27:52] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:52] [info] =====

[2025-08-28 20:27:52] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:52] [info] Run Start Time:      08:27:49 PM
[2025-08-28 20:27:52] [info] Run End Time:        08:27:52 PM
[2025-08-28 20:27:52] [info] Time Taken:          0 minutes 3 seconds

[2025-08-28 20:27:52] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:52] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:52] [info] User Name:           kuro
[2025-08-28 20:27:52] [info] Cores Used:          1
[2025-08-28 20:27:52] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info]           Top Cell Match
[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info] Schematic Top Cell1:  jpeg_encoder1_sky130hd
[2025-08-28 20:27:52] [info] Schematic Top Cell2:  jpeg_encoder1_sky130hd
[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info]           Performance Metrics
[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:52] [info] |-----|-----|
[2025-08-28 20:27:52] [info] | Netlist Parsing        | 0 minutes 2 seconds |
[2025-08-28 20:27:52] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:52] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info]           Additional Details
[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:52] [info] Hierarchical Cells:   Flattened
[2025-08-28 20:27:52] [info] Database Format:       GDSII
[2025-08-28 20:27:52] [info] Verification Mode:    Full Check
[2025-08-28 20:27:52] [info] Error Reporting:      Enabled

[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info]           Type of Errors | Count
[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info] DB_WARN -> 1
[2025-08-28 20:27:52] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:52] [info] VERI_WARN012 -> 115
[2025-08-28 20:27:52] [info] SVS_ERR020 -> 1
[2025-08-28 20:27:52] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:52] [info] SVS_ERR005 -> 24
[2025-08-28 20:27:52] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:52] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info]           Summary
[2025-08-28 20:27:52] [info] -----
[2025-08-28 20:27:52] [info] SVS Status:           PASSED
[2025-08-28 20:27:52] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:27:52] [info] Unconnected Pins:     100
[2025-08-28 20:27:52] [info] Total Errors:         42
[2025-08-28 20:27:52] [info] Total Warnings:       116
[2025-08-28 20:27:52] [info] Critical Issues:      None

```

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[2025-08-28 20:27:56] [info] =====
[2025-08-28 20:27:56] [info]           Schematic Versus Schematic Report
[2025-08-28 20:27:56] [info] =====

[2025-08-28 20:27:56] [info] Report Generated:    2025-08-28
[2025-08-28 20:27:56] [info] Run Start Time:      08:27:53 PM
[2025-08-28 20:27:56] [info] Run End Time:        08:27:56 PM
[2025-08-28 20:27:56] [info] Time Taken:          0 minutes 3 seconds

[2025-08-28 20:27:56] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:27:56] [info] Host Name:           kuro-Workstation
[2025-08-28 20:27:56] [info] User Name:           kuro
[2025-08-28 20:27:56] [info] Cores Used:          1
[2025-08-28 20:27:56] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info]           Top Cell Match
[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info] Schematic Top Cell1:  jpeg_encoder2_sky130hd
[2025-08-28 20:27:56] [info] Schematic Top Cell2:  jpeg_encoder2_sky130hd
[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info]           Performance Metrics
[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info] | Stage                  | Time Taken |
[2025-08-28 20:27:56] [info] |-----|-----|
[2025-08-28 20:27:56] [info] | Netlist Parsing        | 0 minutes 3 seconds |
[2025-08-28 20:27:56] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:27:56] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info]           Additional Details
[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:27:56] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:27:56] [info] Database Format:        GDSII
[2025-08-28 20:27:56] [info] Verification Mode:     Full Check
[2025-08-28 20:27:56] [info] Error Reporting:       Enabled

[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info]           Type of Errors | Count
[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info] DB_WARN -> 1
[2025-08-28 20:27:56] [info] LRF_ERR001 -> 14
[2025-08-28 20:27:56] [info] VERI_WARN012 -> 115
[2025-08-28 20:27:56] [info] SVS_ERR020 -> 2
[2025-08-28 20:27:56] [info] SVS_ERR031 -> 1
[2025-08-28 20:27:56] [info] SVS_ERR005 -> 19
[2025-08-28 20:27:56] [info] SVS_ERR001 -> 1
[2025-08-28 20:27:56] [info] SVS_ERR002 -> 1
[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info]           Summary
[2025-08-28 20:27:56] [info] -----
[2025-08-28 20:27:56] [info] SVS Status:           PASSED
[2025-08-28 20:27:56] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:27:56] [info] Unconnected Pins:      100
[2025-08-28 20:27:56] [info] Total Errors:          38
[2025-08-28 20:27:56] [info] Total Warnings:        116
[2025-08-28 20:27:56] [info] Critical Issues:       None

```

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[2025-08-28 20:28:00] [info] =====
[2025-08-28 20:28:00] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:00] [info] =====

[2025-08-28 20:28:00] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:00] [info] Run Start Time:      08:27:57 PM
[2025-08-28 20:28:00] [info] Run End Time:        08:28:00 PM
[2025-08-28 20:28:00] [info] Time Taken:          0 minutes 2 seconds

[2025-08-28 20:28:00] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:00] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:00] [info] User Name:           kuro
[2025-08-28 20:28:00] [info] Cores Used:          1
[2025-08-28 20:28:00] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Top Cell Match
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] Schematic Top Cell1:  jpeg_encoder3_sky130hd
[2025-08-28 20:28:00] [info] Schematic Top Cell2:  jpeg_encoder3_sky130hd
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Performance Metrics
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:00] [info] |-----|-----|
[2025-08-28 20:28:00] [info] | Netlist Parsing         | 0 minutes 2 seconds |
[2025-08-28 20:28:00] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 20:28:00] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Additional Details
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:00] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:00] [info] Database Format:        GDSII
[2025-08-28 20:28:00] [info] Verification Mode:     Full Check
[2025-08-28 20:28:00] [info] Error Reporting:       Enabled

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Type of Errors | Count
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] DB_WARN -> 1
[2025-08-28 20:28:00] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:00] [info] VERI_WARN012 -> 115
[2025-08-28 20:28:00] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:00] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:00] [info] SVS_ERR005 -> 21
[2025-08-28 20:28:00] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:00] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Summary
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] SVS Status:            PASSED
[2025-08-28 20:28:00] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:00] [info] Unconnected Pins:      100
[2025-08-28 20:28:00] [info] Total Errors:           40
[2025-08-28 20:28:00] [info] Total Warnings:         116
[2025-08-28 20:28:00] [info] Critical Issues:        None

```

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[2025-08-28 04:58:40] [info] =====
[2025-08-28 04:58:40] [info]           Schematic Versus Schematic Report
[2025-08-28 04:58:40] [info] =====

[2025-08-28 04:58:40] [info] Report Generated:    2025-08-28
[2025-08-28 04:58:40] [info] Run Start Time:      04:58:37 AM
[2025-08-28 04:58:40] [info] Run End Time:        04:58:40 AM
[2025-08-28 04:58:40] [info] Time Taken:          0 minutes 2 seconds

[2025-08-28 04:58:40] [info] Tool Version:        LVR_2025.1
[2025-08-28 04:58:40] [info] Host Name:           kuro-Workstation
[2025-08-28 04:58:40] [info] User Name:           kuro
[2025-08-28 04:58:40] [info] Cores Used:          1
[2025-08-28 04:58:40] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info]           Top Cell Match
[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info] Schematic Top Cell1:  jpeg_encoder3_sky130hd
[2025-08-28 04:58:40] [info] Schematic Top Cell2:  jpeg_encoder3_sky130hd
[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info]           Performance Metrics
[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info] | Stage                  | Time Taken |
[2025-08-28 04:58:40] [info] |-----|-----|
[2025-08-28 04:58:40] [info] | Netlist Parsing        | 0 minutes 2 seconds |
[2025-08-28 04:58:40] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 04:58:40] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info]           Additional Details
[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 04:58:40] [info] Hierarchical Cells:    Flattened
[2025-08-28 04:58:40] [info] Database Format:        GDSII
[2025-08-28 04:58:40] [info] Verification Mode:     Full Check
[2025-08-28 04:58:40] [info] Error Reporting:       Enabled

[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info]           Type of Errors | Count
[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info] DB_WARN -> 1
[2025-08-28 04:58:40] [info] LRF_ERR001 -> 14
[2025-08-28 04:58:40] [info] VERI_WARN012 -> 115
[2025-08-28 04:58:40] [info] SVS_ERR020 -> 2
[2025-08-28 04:58:40] [info] SVS_ERR031 -> 1
[2025-08-28 04:58:40] [info] SVS_ERR005 -> 21
[2025-08-28 04:58:40] [info] SVS_ERR001 -> 1
[2025-08-28 04:58:40] [info] SVS_ERR002 -> 1
[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info]           Summary
[2025-08-28 04:58:40] [info] -----
[2025-08-28 04:58:40] [info] SVS Status:           PASSED
[2025-08-28 04:58:40] [info] Instance Match Percentage: 99.97%
[2025-08-28 04:58:40] [info] Unconnected Pins:      100
[2025-08-28 04:58:40] [info] Total Errors:          40
[2025-08-28 04:58:40] [info] Total Warnings:        116
[2025-08-28 04:58:40] [info] Critical Issues:       None

```

```

[2025-08-28 20:28:03] [info] =====
[2025-08-28 20:28:03] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:03] [info] =====

[2025-08-28 20:28:03] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:03] [info] Run Start Time:      08:28:01 PM
[2025-08-28 20:28:03] [info] Run End Time:        08:28:03 PM
[2025-08-28 20:28:03] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:03] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:03] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:03] [info] User Name:           kuro
[2025-08-28 20:28:03] [info] Cores Used:          1
[2025-08-28 20:28:03] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info]           Top Cell Match
[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info] Schematic Top Cell1:  aes_cipher_top2_sky130hd
[2025-08-28 20:28:03] [info] Schematic Top Cell2:  aes_cipher_top2_sky130hd
[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info]           Performance Metrics
[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:03] [info] |-----|-----|
[2025-08-28 20:28:03] [info] | Netlist Parsing        | 0 minutes 1 seconds |
[2025-08-28 20:28:03] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:03] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info]           Additional Details
[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:03] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:03] [info] Database Format:        GDSII
[2025-08-28 20:28:03] [info] Verification Mode:     Full Check
[2025-08-28 20:28:03] [info] Error Reporting:       Enabled

[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info]           Type of Errors | Count
[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info] DB_WARN -> 1
[2025-08-28 20:28:03] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:03] [info] VERI_WARN012 -> 75
[2025-08-28 20:28:03] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:03] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:03] [info] SVS_ERR005 -> 14
[2025-08-28 20:28:03] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:03] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info]           Summary
[2025-08-28 20:28:03] [info] -----
[2025-08-28 20:28:03] [info] SVS Status:           PASSED
[2025-08-28 20:28:03] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:03] [info] Unconnected Pins:      100
[2025-08-28 20:28:03] [info] Total Errors:          33
[2025-08-28 20:28:03] [info] Total Warnings:        76
[2025-08-28 20:28:03] [info] Critical Issues:       None

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[2025-08-28 20:28:04] [info] =====
[2025-08-28 20:28:04] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:04] [info] =====

[2025-08-28 20:28:04] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:04] [info] Run Start Time:      08:28:03 PM
[2025-08-28 20:28:04] [info] Run End Time:        08:28:04 PM
[2025-08-28 20:28:04] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:04] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:04] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:04] [info] User Name:           kuro
[2025-08-28 20:28:04] [info] Cores Used:          1
[2025-08-28 20:28:04] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info]           Top Cell Match
[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info] Schematic Top Cell1:  aes_cipher_top3_sky130hd
[2025-08-28 20:28:04] [info] Schematic Top Cell2:  aes_cipher_top3_sky130hd
[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info]           Performance Metrics
[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:04] [info] |-----|-----|
[2025-08-28 20:28:04] [info] | Netlist Parsing        | 0 minutes 1 seconds |
[2025-08-28 20:28:04] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:04] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info]           Additional Details
[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:04] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:04] [info] Database Format:        GDSII
[2025-08-28 20:28:04] [info] Verification Mode:     Full Check
[2025-08-28 20:28:04] [info] Error Reporting:       Enabled

[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info]           Type of Errors | Count
[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info] DB_WARN -> 1
[2025-08-28 20:28:04] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:04] [info] VERI_WARN012 -> 69
[2025-08-28 20:28:04] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:04] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:04] [info] SVS_ERR005 -> 13
[2025-08-28 20:28:04] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:04] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info]           Summary
[2025-08-28 20:28:04] [info] -----
[2025-08-28 20:28:04] [info] SVS Status:            PASSED
[2025-08-28 20:28:04] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:04] [info] Unconnected Pins:      100
[2025-08-28 20:28:04] [info] Total Errors:           32
[2025-08-28 20:28:04] [info] Total Warnings:         70
[2025-08-28 20:28:04] [info] Critical Issues:        None

```

```

[2025-08-28 20:28:00] [info] =====
[2025-08-28 20:28:00] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:00] [info] =====

[2025-08-28 20:28:00] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:00] [info] Run Start Time:      08:28:00 PM
[2025-08-28 20:28:00] [info] Run End Time:        08:28:00 PM
[2025-08-28 20:28:00] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:28:00] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:00] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:00] [info] User Name:           kuro
[2025-08-28 20:28:00] [info] Cores Used:          1
[2025-08-28 20:28:00] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Top Cell Match
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] Schematic Top Cell1: gcd1_sky130hd
[2025-08-28 20:28:00] [info] Schematic Top Cell2: gcd1_sky130hd
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Performance Metrics
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:00] [info] |-----|-----|
[2025-08-28 20:28:00] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:28:00] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:00] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Additional Details
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:00] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:00] [info] Database Format:        GDSII
[2025-08-28 20:28:00] [info] Verification Mode:     Full Check
[2025-08-28 20:28:00] [info] Error Reporting:       Enabled

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Type of Errors | Count
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] DB_WARN -> 1
[2025-08-28 20:28:00] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:00] [info] VERI_WARN012 -> 8
[2025-08-28 20:28:00] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:00] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:00] [info] SVS_ERR005 -> 16
[2025-08-28 20:28:00] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:00] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]           Summary
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] SVS Status:            PASSED
[2025-08-28 20:28:00] [info] Instance Match Percentage: 97.26%
[2025-08-28 20:28:00] [info] Unconnected Pins:      100
[2025-08-28 20:28:00] [info] Total Errors:           35
[2025-08-28 20:28:00] [info] Total Warnings:         9
[2025-08-28 20:28:00] [info] Critical Issues:        None

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[2025-08-28 20:28:00] [info] =====
[2025-08-28 20:28:00] [info]             Schematic Versus Schematic Report
[2025-08-28 20:28:00] [info] =====

[2025-08-28 20:28:00] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:00] [info] Run Start Time:      08:28:00 PM
[2025-08-28 20:28:00] [info] Run End Time:        08:28:00 PM
[2025-08-28 20:28:00] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:28:00] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:00] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:00] [info] User Name:           kuro
[2025-08-28 20:28:00] [info] Cores Used:          1
[2025-08-28 20:28:00] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Top Cell Match
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] Schematic Top Cell1:  gcd2_sky130hd
[2025-08-28 20:28:00] [info] Schematic Top Cell2:  gcd2_sky130hd
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Performance Metrics
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:00] [info] |-----|-----|
[2025-08-28 20:28:00] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:28:00] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:00] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Additional Details
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:00] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:00] [info] Database Format:        GDSII
[2025-08-28 20:28:00] [info] Verification Mode:     Full Check
[2025-08-28 20:28:00] [info] Error Reporting:       Enabled

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Type of Errors | Count
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] DB_WARN -> 1
[2025-08-28 20:28:00] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:00] [info] VERI_WARN012 -> 10
[2025-08-28 20:28:00] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:00] [info] SVS_ERR005 -> 17
[2025-08-28 20:28:00] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:00] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Summary
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] SVS Status:            PASSED
[2025-08-28 20:28:00] [info] Instance Match Percentage: 96.86%
[2025-08-28 20:28:00] [info] Unconnected Pins:      100
[2025-08-28 20:28:00] [info] Total Errors:           34
[2025-08-28 20:28:00] [info] Total Warnings:         11
[2025-08-28 20:28:00] [info] Critical Issues:        None

```

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[2025-08-28 20:28:00] [info] =====
[2025-08-28 20:28:00] [info]             Schematic Versus Schematic Report
[2025-08-28 20:28:00] [info] =====

[2025-08-28 20:28:00] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:00] [info] Run Start Time:      08:28:00 PM
[2025-08-28 20:28:00] [info] Run End Time:        08:28:00 PM
[2025-08-28 20:28:00] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 20:28:00] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:00] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:00] [info] User Name:           kuro
[2025-08-28 20:28:00] [info] Cores Used:          1
[2025-08-28 20:28:00] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Top Cell Match
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] Schematic Top Cell1:  gcd3_sky130hd
[2025-08-28 20:28:00] [info] Schematic Top Cell2:  gcd3_sky130hd
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Performance Metrics
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:00] [info] |-----|-----|
[2025-08-28 20:28:00] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:28:00] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:00] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Additional Details
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:00] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:00] [info] Database Format:        GDSII
[2025-08-28 20:28:00] [info] Verification Mode:     Full Check
[2025-08-28 20:28:00] [info] Error Reporting:       Enabled

[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Type of Errors | Count
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] DB_WARN -> 1
[2025-08-28 20:28:00] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:00] [info] VERI_WARN012 -> 12
[2025-08-28 20:28:00] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:00] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:00] [info] SVS_ERR005 -> 43
[2025-08-28 20:28:00] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info]             Summary
[2025-08-28 20:28:00] [info] -----
[2025-08-28 20:28:00] [info] SVS Status:            PASSED
[2025-08-28 20:28:00] [info] Instance Match Percentage: 86.89%
[2025-08-28 20:28:00] [info] Unconnected Pins:      100
[2025-08-28 20:28:00] [info] Total Errors:           61
[2025-08-28 20:28:00] [info] Total Warnings:         13
[2025-08-28 20:28:00] [info] Critical Issues:        None

```

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[2025-08-28 20:28:05] [info] =====
[2025-08-28 20:28:05] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:05] [info] =====

[2025-08-28 20:28:05] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:05] [info] Run Start Time:      08:28:04 PM
[2025-08-28 20:28:05] [info] Run End Time:        08:28:05 PM
[2025-08-28 20:28:05] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:05] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:05] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:05] [info] User Name:           kuro
[2025-08-28 20:28:05] [info] Cores Used:          1
[2025-08-28 20:28:05] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info]           Top Cell Match
[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info] Schematic Top Cell1:  ibex_core1_sky130hd
[2025-08-28 20:28:05] [info] Schematic Top Cell2:  ibex_core1_sky130hd
[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info]           Performance Metrics
[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:05] [info] |-----|-----|
[2025-08-28 20:28:05] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:28:05] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:05] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info]           Additional Details
[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:05] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:05] [info] Database Format:        GDSII
[2025-08-28 20:28:05] [info] Verification Mode:     Full Check
[2025-08-28 20:28:05] [info] Error Reporting:       Enabled

[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info]           Type of Errors | Count
[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info] DB_WARN -> 1
[2025-08-28 20:28:05] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:05] [info] VERI_WARN012 -> 67
[2025-08-28 20:28:05] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:05] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:05] [info] SVS_ERR005 -> 57
[2025-08-28 20:28:05] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:05] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info]           Summary
[2025-08-28 20:28:05] [info] -----
[2025-08-28 20:28:05] [info] SVS Status:            PASSED
[2025-08-28 20:28:05] [info] Instance Match Percentage: 99.85%
[2025-08-28 20:28:05] [info] Unconnected Pins:      100
[2025-08-28 20:28:05] [info] Total Errors:          76
[2025-08-28 20:28:05] [info] Total Warnings:        68
[2025-08-28 20:28:05] [info] Critical Issues:       None

```

```
[2025-08-28 20:28:07] [info] =====
[2025-08-28 20:28:07] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:07] [info] =====

[2025-08-28 20:28:07] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:07] [info] Run Start Time:      08:28:06 PM
[2025-08-28 20:28:07] [info] Run End Time:        08:28:07 PM
[2025-08-28 20:28:07] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:07] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:07] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:07] [info] User Name:           kuro
[2025-08-28 20:28:07] [info] Cores Used:          1
[2025-08-28 20:28:07] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info]           Top Cell Match
[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info] Schematic Top Cell1:  ibex_core2_sky130hd
[2025-08-28 20:28:07] [info] Schematic Top Cell2:  ibex_core2_sky130hd
[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info]           Performance Metrics
[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info] | Stage                      | Time Taken |
[2025-08-28 20:28:07] [info] |-----|-----|
[2025-08-28 20:28:07] [info] | Netlist Parsing            | 0 minutes 0 seconds |
[2025-08-28 20:28:07] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:28:07] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info]           Additional Details
[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info] Technology Node:        SKY130HD (130nm)
[2025-08-28 20:28:07] [info] Hierarchical Cells:     Flattened
[2025-08-28 20:28:07] [info] Database Format:         GDSII
[2025-08-28 20:28:07] [info] Verification Mode:      Full Check
[2025-08-28 20:28:07] [info] Error Reporting:        Enabled

[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info]           Type of Errors | Count
[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info] DB_WARN -> 1
[2025-08-28 20:28:07] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:07] [info] VERI_WARN012 -> 61
[2025-08-28 20:28:07] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:07] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:07] [info] SVS_ERR005 -> 58
[2025-08-28 20:28:07] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:07] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info]           Summary
[2025-08-28 20:28:07] [info] -----
[2025-08-28 20:28:07] [info] SVS Status:            PASSED
[2025-08-28 20:28:07] [info] Instance Match Percentage: 99.85%
[2025-08-28 20:28:07] [info] Unconnected Pins:      100
[2025-08-28 20:28:07] [info] Total Errors:           77
[2025-08-28 20:28:07] [info] Total Warnings:         62
[2025-08-28 20:28:07] [info] Critical Issues:        None
```

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[2025-08-28 20:28:08] [info] =====
[2025-08-28 20:28:08] [info]             Schematic Versus Schematic Report
[2025-08-28 20:28:08] [info] =====

[2025-08-28 20:28:08] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:08] [info] Run Start Time:      08:28:07 PM
[2025-08-28 20:28:08] [info] Run End Time:        08:28:08 PM
[2025-08-28 20:28:08] [info] Time Taken:          0 minutes 1 seconds

[2025-08-28 20:28:08] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:08] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:08] [info] User Name:           kuro
[2025-08-28 20:28:08] [info] Cores Used:          1
[2025-08-28 20:28:08] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info]             Top Cell Match
[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info] Schematic Top Cell1:  ibex_core3_sky130hd
[2025-08-28 20:28:08] [info] Schematic Top Cell2:  ibex_core3_sky130hd
[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info]             Performance Metrics
[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:08] [info] |-----|-----|
[2025-08-28 20:28:08] [info] | Netlist Parsing        | 0 minutes 0 seconds |
[2025-08-28 20:28:08] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:08] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info]             Additional Details
[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:08] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:08] [info] Database Format:        GDSII
[2025-08-28 20:28:08] [info] Verification Mode:     Full Check
[2025-08-28 20:28:08] [info] Error Reporting:       Enabled

[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info]             Type of Errors | Count
[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info] DB_WARN -> 1
[2025-08-28 20:28:08] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:08] [info] VERI_WARN012 -> 105
[2025-08-28 20:28:08] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:08] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:08] [info] SVS_ERR005 -> 46
[2025-08-28 20:28:08] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info]             Summary
[2025-08-28 20:28:08] [info] -----
[2025-08-28 20:28:08] [info] SVS Status:            PASSED
[2025-08-28 20:28:08] [info] Instance Match Percentage: 99.76%
[2025-08-28 20:28:08] [info] Unconnected Pins:      100
[2025-08-28 20:28:08] [info] Total Errors:           64
[2025-08-28 20:28:08] [info] Total Warnings:         106
[2025-08-28 20:28:08] [info] Critical Issues:        None

```

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[2025-08-28 20:28:12] [info] =====
[2025-08-28 20:28:12] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:12] [info] =====

[2025-08-28 20:28:12] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:12] [info] Run Start Time:      08:28:08 PM
[2025-08-28 20:28:12] [info] Run End Time:        08:28:12 PM
[2025-08-28 20:28:12] [info] Time Taken:          0 minutes 3 seconds

[2025-08-28 20:28:12] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:12] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:12] [info] User Name:           kuro
[2025-08-28 20:28:12] [info] Cores Used:          1
[2025-08-28 20:28:12] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info]           Top Cell Match
[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info] Schematic Top Cell1: jpeg_encoder1_sky130hd
[2025-08-28 20:28:12] [info] Schematic Top Cell2: jpeg_encoder1_sky130hd
[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info]           Performance Metrics
[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info] | Stage                      | Time Taken |
[2025-08-28 20:28:12] [info] |-----|-----|
[2025-08-28 20:28:12] [info] | Netlist Parsing            | 0 minutes 2 seconds |
[2025-08-28 20:28:12] [info] | Device Matching            | 0 minutes 0 seconds |
[2025-08-28 20:28:12] [info] | Report Generation          | 0 minutes 0 seconds |

[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info]           Additional Details
[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info] Technology Node:          SKY130HD (130nm)
[2025-08-28 20:28:12] [info] Hierarchical Cells:       Flattened
[2025-08-28 20:28:12] [info] Database Format:           GDSII
[2025-08-28 20:28:12] [info] Verification Mode:        Full Check
[2025-08-28 20:28:12] [info] Error Reporting:          Enabled

[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info]           Type of Errors | Count
[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info] DB_WARN -> 1
[2025-08-28 20:28:12] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:12] [info] VERI_WARN012 -> 115
[2025-08-28 20:28:12] [info] SVS_ERR020 -> 1
[2025-08-28 20:28:12] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:12] [info] SVS_ERR005 -> 24
[2025-08-28 20:28:12] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:12] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info]           Summary
[2025-08-28 20:28:12] [info] -----
[2025-08-28 20:28:12] [info] SVS Status:              PASSED
[2025-08-28 20:28:12] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:12] [info] Unconnected Pins:        100
[2025-08-28 20:28:12] [info] Total Errors:             42
[2025-08-28 20:28:12] [info] Total Warnings:           116
[2025-08-28 20:28:12] [info] Critical Issues:          None
```

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[2025-08-28 20:28:16] [info] =====
[2025-08-28 20:28:16] [info]           Schematic Versus Schematic Report
[2025-08-28 20:28:16] [info] =====

[2025-08-28 20:28:16] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:16] [info] Run Start Time:      08:28:12 PM
[2025-08-28 20:28:16] [info] Run End Time:        08:28:16 PM
[2025-08-28 20:28:16] [info] Time Taken:          0 minutes 3 seconds

[2025-08-28 20:28:16] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:16] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:16] [info] User Name:           kuro
[2025-08-28 20:28:16] [info] Cores Used:          1
[2025-08-28 20:28:16] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info]           Top Cell Match
[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info] Schematic Top Cell1:  jpeg_encoder2_sky130hd
[2025-08-28 20:28:16] [info] Schematic Top Cell2:  jpeg_encoder2_sky130hd
[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info]           Performance Metrics
[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:16] [info] |-----|-----|
[2025-08-28 20:28:16] [info] | Netlist Parsing         | 0 minutes 3 seconds |
[2025-08-28 20:28:16] [info] | Device Matching         | 0 minutes 0 seconds |
[2025-08-28 20:28:16] [info] | Report Generation       | 0 minutes 0 seconds |

[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info]           Additional Details
[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:16] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:16] [info] Database Format:        GDSII
[2025-08-28 20:28:16] [info] Verification Mode:     Full Check
[2025-08-28 20:28:16] [info] Error Reporting:       Enabled

[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info]           Type of Errors | Count
[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info] DB_WARN -> 1
[2025-08-28 20:28:16] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:16] [info] VERI_WARN012 -> 115
[2025-08-28 20:28:16] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:16] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:16] [info] SVS_ERR005 -> 19
[2025-08-28 20:28:16] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:16] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info]           Summary
[2025-08-28 20:28:16] [info] -----
[2025-08-28 20:28:16] [info] SVS Status:            PASSED
[2025-08-28 20:28:16] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:16] [info] Unconnected Pins:      100
[2025-08-28 20:28:16] [info] Total Errors:           38
[2025-08-28 20:28:16] [info] Total Warnings:         116
[2025-08-28 20:28:16] [info] Critical Issues:        None

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[2025-08-28 20:28:19] [info] =====
[2025-08-28 20:28:19] [info]             Schematic Versus Schematic Report
[2025-08-28 20:28:19] [info] =====

[2025-08-28 20:28:19] [info] Report Generated:    2025-08-28
[2025-08-28 20:28:19] [info] Run Start Time:      08:28:17 PM
[2025-08-28 20:28:19] [info] Run End Time:        08:28:19 PM
[2025-08-28 20:28:19] [info] Time Taken:          0 minutes 2 seconds

[2025-08-28 20:28:19] [info] Tool Version:        LVR_2025.1
[2025-08-28 20:28:19] [info] Host Name:           kuro-Workstation
[2025-08-28 20:28:19] [info] User Name:           kuro
[2025-08-28 20:28:19] [info] Cores Used:          1
[2025-08-28 20:28:19] [info] Memory Utilized:     0.00 MB / 62.5692024230957 GB

[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info]             Top Cell Match
[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info] Schematic Top Cell1: jpeg_encoder3_sky130hd
[2025-08-28 20:28:19] [info] Schematic Top Cell2: jpeg_encoder3_sky130hd
[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info]             Performance Metrics
[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info] | Stage                  | Time Taken |
[2025-08-28 20:28:19] [info] |-----|-----|
[2025-08-28 20:28:19] [info] | Netlist Parsing        | 0 minutes 2 seconds |
[2025-08-28 20:28:19] [info] | Device Matching        | 0 minutes 0 seconds |
[2025-08-28 20:28:19] [info] | Report Generation      | 0 minutes 0 seconds |

[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info]             Additional Details
[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info] Technology Node:       SKY130HD (130nm)
[2025-08-28 20:28:19] [info] Hierarchical Cells:    Flattened
[2025-08-28 20:28:19] [info] Database Format:        GDSII
[2025-08-28 20:28:19] [info] Verification Mode:     Full Check
[2025-08-28 20:28:19] [info] Error Reporting:       Enabled

[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info]             Type of Errors | Count
[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info] DB_WARN -> 1
[2025-08-28 20:28:19] [info] LRF_ERR001 -> 14
[2025-08-28 20:28:19] [info] VERI_WARN012 -> 115
[2025-08-28 20:28:19] [info] SVS_ERR020 -> 2
[2025-08-28 20:28:19] [info] SVS_ERR031 -> 1
[2025-08-28 20:28:19] [info] SVS_ERR005 -> 21
[2025-08-28 20:28:19] [info] SVS_ERR001 -> 1
[2025-08-28 20:28:19] [info] SVS_ERR002 -> 1
[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info]             Summary
[2025-08-28 20:28:19] [info] -----
[2025-08-28 20:28:19] [info] SVS Status:            PASSED
[2025-08-28 20:28:19] [info] Instance Match Percentage: 99.97%
[2025-08-28 20:28:19] [info] Unconnected Pins:      100
[2025-08-28 20:28:19] [info] Total Errors:           40
[2025-08-28 20:28:19] [info] Total Warnings:         116
[2025-08-28 20:28:19] [info] Critical Issues:        None

```

10.5 XOR Regression Summary Reports

```
[2025-08-29 10:45:14] [info] =====
[2025-08-29 10:45:14] [info] XOR Verification Report
[2025-08-29 10:45:14] [info] =====

[2025-08-29 10:45:14] [info] Report Generated: 2025-08-29
[2025-08-29 10:45:14] [info] Run Start Time: 10:45:13 AM
[2025-08-29 10:45:14] [info] Run End Time: 10:45:14 AM
[2025-08-29 10:45:14] [info] Time Taken: 0 minutes 10 seconds

[2025-08-29 10:45:14] [info] Tool Version: LVR_2025.1
[2025-08-29 10:45:14] [info] Host Name: kuro-Workstation
[2025-08-29 10:45:14] [info] User Name: kuro
[2025-08-29 10:45:14] [info] Cores Used: 16
[2025-08-29 10:45:14] [info] Memory Utilized: 6509.79 MB / 62.569698333740234 GB

[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] Top Cell Information
[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:45:14] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:45:14] [info] Database Format: GDSII
[2025-08-29 10:45:14] [info] Verification Mode: XOR Check

[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] XOR Mismatch Summary
[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] | Layer Name | XOR Errors |
[2025-08-29 10:45:14] [info] |-----|-----|
[2025-08-29 10:45:14] [info]
[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] Performance Metrics
[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] | Stage | Time Taken |
[2025-08-29 10:45:14] [info] |-----|-----|
[2025-08-29 10:45:14] [info] | GDS Parsing | 0 minutes 9 seconds |
[2025-08-29 10:45:14] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:45:14] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] Type of Errors | Count
[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] DB_ERR010 -> 4
[2025-08-29 10:45:14] [info] DB_WARN -> 1
[2025-08-29 10:45:14] [info] DB_WARN003 -> 442
[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] Summary
[2025-08-29 10:45:14] [info] -----
[2025-08-29 10:45:14] [info] Total XOR Mismatches: 4
[2025-08-29 10:45:14] [info] Total Warnings: 443
[2025-08-29 10:45:14] [info] XOR Status: MISMATCH
```

```

[2025-08-29 10:45:26] [info] =====
[2025-08-29 10:45:26] [info] XOR Verification Report
[2025-08-29 10:45:26] [info] =====

[2025-08-29 10:45:26] [info] Report Generated: 2025-08-29
[2025-08-29 10:45:26] [info] Run Start Time: 10:45:25 AM
[2025-08-29 10:45:26] [info] Run End Time: 10:45:26 AM
[2025-08-29 10:45:26] [info] Time Taken: 0 minutes 10 seconds

[2025-08-29 10:45:26] [info] Tool Version: LVR_2025.1
[2025-08-29 10:45:26] [info] Host Name: kuro-Workstation
[2025-08-29 10:45:26] [info] User Name: kuro
[2025-08-29 10:45:26] [info] Cores Used: 16
[2025-08-29 10:45:26] [info] Memory Utilized: 6584.13 MB / 62.569698333740234 GB

[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] Top Cell Information
[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:45:26] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:45:26] [info] Database Format: GDSII
[2025-08-29 10:45:26] [info] Verification Mode: XOR Check

[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] XOR Mismatch Summary
[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] | Layer Name | XOR Errors |
[2025-08-29 10:45:26] [info] |-----|-----|
[2025-08-29 10:45:26] [info]
[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] Performance Metrics
[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] | Stage | Time Taken |
[2025-08-29 10:45:26] [info] |-----|-----|
[2025-08-29 10:45:26] [info] | GDS Parsing | 0 minutes 9 seconds |
[2025-08-29 10:45:26] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:45:26] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] Type of Errors | Count
[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] DB_ERR010 -> 4
[2025-08-29 10:45:26] [info] DB_WARN -> 1
[2025-08-29 10:45:26] [info] DB_WARN003 -> 438
[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] Summary
[2025-08-29 10:45:26] [info] -----
[2025-08-29 10:45:26] [info] Total XOR Mismatches: 4
[2025-08-29 10:45:26] [info] Total Warnings: 439
[2025-08-29 10:45:26] [info] XOR Status: MISMATCH

```

```

[2025-08-29 10:45:37] [info] =====
[2025-08-29 10:45:37] [info] XOR Verification Report
[2025-08-29 10:45:37] [info] =====

[2025-08-29 10:45:37] [info] Report Generated: 2025-08-29
[2025-08-29 10:45:37] [info] Run Start Time: 10:45:37 AM
[2025-08-29 10:45:37] [info] Run End Time: 10:45:37 AM
[2025-08-29 10:45:37] [info] Time Taken: 0 minutes 10 seconds

[2025-08-29 10:45:37] [info] Tool Version: LVR_2025.1
[2025-08-29 10:45:37] [info] Host Name: kuro-Workstation
[2025-08-29 10:45:37] [info] User Name: kuro
[2025-08-29 10:45:37] [info] Cores Used: 16
[2025-08-29 10:45:37] [info] Memory Utilized: 6502.51 MB / 62.569698333740234 GB

[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] Top Cell Information
[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:45:37] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:45:37] [info] Database Format: GDSII
[2025-08-29 10:45:37] [info] Verification Mode: XOR Check

[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] XOR Mismatch Summary
[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] | Layer Name | XOR Errors |
[2025-08-29 10:45:37] [info] |-----|-----|
[2025-08-29 10:45:37] [info]
[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] Performance Metrics
[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] | Stage | Time Taken |
[2025-08-29 10:45:37] [info] |-----|-----|
[2025-08-29 10:45:37] [info] | GDS Parsing | 0 minutes 9 seconds |
[2025-08-29 10:45:37] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:45:37] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] Type of Errors | Count
[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] DB_ERR010 -> 4
[2025-08-29 10:45:37] [info] DB_WARN -> 1
[2025-08-29 10:45:37] [info] DB_WARN003 -> 442
[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] Summary
[2025-08-29 10:45:37] [info] -----
[2025-08-29 10:45:37] [info] Total XOR Mismatches: 4
[2025-08-29 10:45:37] [info] Total Warnings: 443
[2025-08-29 10:45:37] [info] XOR Status: MISMATCH

```

```

[2025-08-29 10:45:03] [info] =====
[2025-08-29 10:45:03] [info]                      XOR Verification Report
[2025-08-29 10:45:03] [info] =====

[2025-08-29 10:45:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:45:03] [info] Run Start Time:      10:45:03 AM
[2025-08-29 10:45:03] [info] Run End Time:        10:45:03 AM
[2025-08-29 10:45:03] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:45:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:45:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:45:03] [info] User Name:           kuro
[2025-08-29 10:45:03] [info] Cores Used:          16
[2025-08-29 10:45:03] [info] Memory Utilized:     144.52 MB / 62.569698333740234 GB

[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      Top Cell Information
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] Layout Top Cell:     gcd
[2025-08-29 10:45:03] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:45:03] [info] Database Format:       GDSII
[2025-08-29 10:45:03] [info] Verification Mode:    XOR Check

[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      XOR Mismatch Summary
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] | Layer Name | XOR Errors |
[2025-08-29 10:45:03] [info] |-----|-----|
[2025-08-29 10:45:03] [info]
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      Performance Metrics
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] | Stage | Time Taken |
[2025-08-29 10:45:03] [info] |-----|-----|
[2025-08-29 10:45:03] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:45:03] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:45:03] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      Type of Errors | Count
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] DB_ERR010 -> 4
[2025-08-29 10:45:03] [info] DB_WARN -> 1
[2025-08-29 10:45:03] [info] DB_WARN003 -> 48
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      Summary
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] Total XOR Mismatches: 4
[2025-08-29 10:45:03] [info] Total Warnings: 49
[2025-08-29 10:45:03] [info] XOR Status: MISMATCH

```

```

[2025-08-29 10:45:03] [info] =====
[2025-08-29 10:45:03] [info]                      XOR Verification Report
[2025-08-29 10:45:03] [info] =====

[2025-08-29 10:45:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:45:03] [info] Run Start Time:      10:45:03 AM
[2025-08-29 10:45:03] [info] Run End Time:        10:45:03 AM
[2025-08-29 10:45:03] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:45:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:45:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:45:03] [info] User Name:           kuro
[2025-08-29 10:45:03] [info] Cores Used:           16
[2025-08-29 10:45:03] [info] Memory Utilized:     146.29 MB / 62.569698333740234 GB

[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      Top Cell Information
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] Layout Top Cell:     gcd
[2025-08-29 10:45:03] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:45:03] [info] Database Format:       GDSII
[2025-08-29 10:45:03] [info] Verification Mode:    XOR Check

[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      XOR Mismatch Summary
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] | Layer Name | XOR Errors |
[2025-08-29 10:45:03] [info] |-----|-----|
[2025-08-29 10:45:03] [info]
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      Performance Metrics
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] | Stage | Time Taken |
[2025-08-29 10:45:03] [info] |-----|-----|
[2025-08-29 10:45:03] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:45:03] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:45:03] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      Type of Errors | Count
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] DB_ERR010 -> 4
[2025-08-29 10:45:03] [info] DB_WARN -> 1
[2025-08-29 10:45:03] [info] DB_WARN003 -> 68
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info]                      Summary
[2025-08-29 10:45:03] [info] -----
[2025-08-29 10:45:03] [info] Total XOR Mismatches: 4
[2025-08-29 10:45:03] [info] Total Warnings: 69
[2025-08-29 10:45:03] [info] XOR Status: MISMATCH

```

```

[2025-08-29 10:45:04] [info] =====
[2025-08-29 10:45:04] [info]                      XOR Verification Report
[2025-08-29 10:45:04] [info] =====

[2025-08-29 10:45:04] [info] Report Generated:    2025-08-29
[2025-08-29 10:45:04] [info] Run Start Time:      10:45:04 AM
[2025-08-29 10:45:04] [info] Run End Time:        10:45:04 AM
[2025-08-29 10:45:04] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:45:04] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:45:04] [info] Host Name:           kuro-Workstation
[2025-08-29 10:45:04] [info] User Name:           kuro
[2025-08-29 10:45:04] [info] Cores Used:          16
[2025-08-29 10:45:04] [info] Memory Utilized:     144.22 MB / 62.569698333740234 GB

[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info]                      Top Cell Information
[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info] Layout Top Cell:     gcd
[2025-08-29 10:45:04] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:45:04] [info] Database Format:       GDSII
[2025-08-29 10:45:04] [info] Verification Mode:    XOR Check

[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info]                      XOR Mismatch Summary
[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info] | Layer Name | XOR Errors |
[2025-08-29 10:45:04] [info] |-----|-----|
[2025-08-29 10:45:04] [info]
[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info]                      Performance Metrics
[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info] | Stage | Time Taken |
[2025-08-29 10:45:04] [info] |-----|-----|
[2025-08-29 10:45:04] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:45:04] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:45:04] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info]                      Type of Errors | Count
[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info] DB_ERR010 -> 4
[2025-08-29 10:45:04] [info] DB_WARN -> 1
[2025-08-29 10:45:04] [info] DB_WARN003 -> 52
[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info]                      Summary
[2025-08-29 10:45:04] [info] -----
[2025-08-29 10:45:04] [info] Total XOR Mismatches: 4
[2025-08-29 10:45:04] [info] Total Warnings: 53
[2025-08-29 10:45:04] [info] XOR Status: MISMATCH

```

```

[2025-08-29 10:45:50] [info] =====
[2025-08-29 10:45:50] [info]                      XOR Verification Report
[2025-08-29 10:45:50] [info] =====

[2025-08-29 10:45:50] [info] Report Generated:    2025-08-29
[2025-08-29 10:45:50] [info] Run Start Time:      10:45:49 AM
[2025-08-29 10:45:50] [info] Run End Time:        10:45:50 AM
[2025-08-29 10:45:50] [info] Time Taken:          0 minutes 11 seconds

[2025-08-29 10:45:50] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:45:50] [info] Host Name:           kuro-Workstation
[2025-08-29 10:45:50] [info] User Name:           kuro
[2025-08-29 10:45:50] [info] Cores Used:          16
[2025-08-29 10:45:50] [info] Memory Utilized:     7248.49 MB / 62.569698333740234 GB

[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info]                      Top Cell Information
[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:45:50] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:45:50] [info] Database Format:       GDSII
[2025-08-29 10:45:50] [info] Verification Mode:    XOR Check

[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info]                      XOR Mismatch Summary
[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info] | Layer Name | XOR Errors |
[2025-08-29 10:45:50] [info] |-----|-----|
[2025-08-29 10:45:50] [info]
[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info]                      Performance Metrics
[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info] | Stage | Time Taken |
[2025-08-29 10:45:50] [info] |-----|-----|
[2025-08-29 10:45:50] [info] | GDS Parsing | 0 minutes 10 seconds |
[2025-08-29 10:45:50] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:45:50] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info]                      Type of Errors | Count
[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info] DB_ERR010 -> 4
[2025-08-29 10:45:50] [info] DB_WARN -> 1
[2025-08-29 10:45:50] [info] DB_WARN003 -> 170
[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info]                      Summary
[2025-08-29 10:45:50] [info] -----
[2025-08-29 10:45:50] [info] Total XOR Mismatches:    4
[2025-08-29 10:45:50] [info] Total Warnings:          171
[2025-08-29 10:45:50] [info] XOR Status:              MISMATCH

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[2025-08-29 10:46:03] [info] =====
[2025-08-29 10:46:03] [info]                      XOR Verification Report
[2025-08-29 10:46:03] [info] =====

[2025-08-29 10:46:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:46:03] [info] Run Start Time:      10:46:02 AM
[2025-08-29 10:46:03] [info] Run End Time:        10:46:03 AM
[2025-08-29 10:46:03] [info] Time Taken:          0 minutes 11 seconds

[2025-08-29 10:46:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:46:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:46:03] [info] User Name:           kuro
[2025-08-29 10:46:03] [info] Cores Used:          16
[2025-08-29 10:46:03] [info] Memory Utilized:     7316.97 MB / 62.569698333740234 GB

[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info]                      Top Cell Information
[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:46:03] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:46:03] [info] Database Format:       GDSII
[2025-08-29 10:46:03] [info] Verification Mode:    XOR Check

[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info]                      XOR Mismatch Summary
[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info] | Layer Name      | XOR Errors |
[2025-08-29 10:46:03] [info] |-----|-----|
[2025-08-29 10:46:03] [info]
[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info]                      Performance Metrics
[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info] | Stage              | Time Taken |
[2025-08-29 10:46:03] [info] |-----|-----|
[2025-08-29 10:46:03] [info] | GDS Parsing         | 0 minutes 11 seconds |
[2025-08-29 10:46:03] [info] | Layer Comparison     | 0 minutes 0 seconds  |
[2025-08-29 10:46:03] [info] | Report Generation    | 0 minutes 0 seconds  |

[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info]                      Type of Errors | Count
[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info] DB_ERR010 -> 4
[2025-08-29 10:46:03] [info] DB_WARN -> 1
[2025-08-29 10:46:03] [info] DB_WARN003 -> 170
[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info]                      Summary
[2025-08-29 10:46:03] [info] -----
[2025-08-29 10:46:03] [info] Total XOR Mismatches:    4
[2025-08-29 10:46:03] [info] Total Warnings:         171
[2025-08-29 10:46:03] [info] XOR Status:              MISMATCH

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[2025-08-29 10:46:15] [info] =====
[2025-08-29 10:46:15] [info]                      XOR Verification Report
[2025-08-29 10:46:15] [info] =====

[2025-08-29 10:46:15] [info] Report Generated:    2025-08-29
[2025-08-29 10:46:15] [info] Run Start Time:      10:46:15 AM
[2025-08-29 10:46:15] [info] Run End Time:        10:46:15 AM
[2025-08-29 10:46:15] [info] Time Taken:          0 minutes 11 seconds

[2025-08-29 10:46:15] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:46:15] [info] Host Name:           kuro-Workstation
[2025-08-29 10:46:15] [info] User Name:           kuro
[2025-08-29 10:46:15] [info] Cores Used:          16
[2025-08-29 10:46:15] [info] Memory Utilized:     7193.00 MB / 62.569698333740234 GB

[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info]                      Top Cell Information
[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:46:15] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:46:15] [info] Database Format:       GDSII
[2025-08-29 10:46:15] [info] Verification Mode:    XOR Check

[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info]                      XOR Mismatch Summary
[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info] | Layer Name      | XOR Errors |
[2025-08-29 10:46:15] [info] |-----|-----|
[2025-08-29 10:46:15] [info]
[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info]                      Performance Metrics
[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info] | Stage              | Time Taken |
[2025-08-29 10:46:15] [info] |-----|-----|
[2025-08-29 10:46:15] [info] | GDS Parsing        | 0 minutes 10 seconds |
[2025-08-29 10:46:15] [info] | Layer Comparison    | 0 minutes 0 seconds  |
[2025-08-29 10:46:15] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info]                      Type of Errors | Count
[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info] DB_ERR010 -> 4
[2025-08-29 10:46:15] [info] DB_WARN -> 1
[2025-08-29 10:46:15] [info] DB_WARN003 -> 196
[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info]                      Summary
[2025-08-29 10:46:15] [info] -----
[2025-08-29 10:46:15] [info] Total XOR Mismatches:    4
[2025-08-29 10:46:15] [info] Total Warnings:         197
[2025-08-29 10:46:15] [info] XOR Status:             MISMATCH

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[2025-08-29 10:46:57] [info] =====
[2025-08-29 10:46:57] [info] XOR Verification Report
[2025-08-29 10:46:57] [info] =====

[2025-08-29 10:46:57] [info] Report Generated: 2025-08-29
[2025-08-29 10:46:57] [info] Run Start Time: 10:46:54 AM
[2025-08-29 10:46:57] [info] Run End Time: 10:46:57 AM
[2025-08-29 10:46:57] [info] Time Taken: 0 minutes 41 seconds

[2025-08-29 10:46:57] [info] Tool Version: LVR_2025.1
[2025-08-29 10:46:57] [info] Host Name: kuro-Workstation
[2025-08-29 10:46:57] [info] User Name: kuro
[2025-08-29 10:46:57] [info] Cores Used: 16
[2025-08-29 10:46:57] [info] Memory Utilized: 23647.99 MB / 62.569698333740234 GB

[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] Top Cell Information
[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:46:57] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:46:57] [info] Database Format: GDSII
[2025-08-29 10:46:57] [info] Verification Mode: XOR Check

[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] XOR Mismatch Summary
[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] | Layer Name | XOR Errors |
[2025-08-29 10:46:57] [info] |-----|-----|
[2025-08-29 10:46:57] [info]
[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] Performance Metrics
[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] | Stage | Time Taken |
[2025-08-29 10:46:57] [info] |-----|-----|
[2025-08-29 10:46:57] [info] | GDS Parsing | 0 minutes 37 seconds |
[2025-08-29 10:46:57] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 10:46:57] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] Type of Errors | Count
[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] DB_ERR010 -> 4
[2025-08-29 10:46:57] [info] DB_WARN -> 1
[2025-08-29 10:46:57] [info] DB_WARN003 -> 74
[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] Summary
[2025-08-29 10:46:57] [info] -----
[2025-08-29 10:46:57] [info] Total XOR Mismatches: 4
[2025-08-29 10:46:57] [info] Total Warnings: 75
[2025-08-29 10:46:57] [info] XOR Status: MISMATCH

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[2025-08-29 10:47:42] [info] =====
[2025-08-29 10:47:42] [info]                      XOR Verification Report
[2025-08-29 10:47:42] [info] =====

[2025-08-29 10:47:42] [info] Report Generated:    2025-08-29
[2025-08-29 10:47:42] [info] Run Start Time:      10:47:39 AM
[2025-08-29 10:47:42] [info] Run End Time:        10:47:42 AM
[2025-08-29 10:47:42] [info] Time Taken:          0 minutes 41 seconds

[2025-08-29 10:47:42] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:47:42] [info] Host Name:           kuro-Workstation
[2025-08-29 10:47:42] [info] User Name:           kuro
[2025-08-29 10:47:42] [info] Cores Used:          16
[2025-08-29 10:47:42] [info] Memory Utilized:     23836.93 MB / 62.569698333740234 GB

[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info]                      Top Cell Information
[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:47:42] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:47:42] [info] Database Format:       GDSII
[2025-08-29 10:47:42] [info] Verification Mode:    XOR Check

[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info]                      XOR Mismatch Summary
[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info] | Layer Name      | XOR Errors |
[2025-08-29 10:47:42] [info] |-----|-----|
[2025-08-29 10:47:42] [info]
[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info]                      Performance Metrics
[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info] | Stage              | Time Taken |
[2025-08-29 10:47:42] [info] |-----|-----|
[2025-08-29 10:47:42] [info] | GDS Parsing        | 0 minutes 38 seconds |
[2025-08-29 10:47:42] [info] | Layer Comparison    | 0 minutes 2 seconds  |
[2025-08-29 10:47:42] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info]                      Type of Errors | Count
[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info] DB_ERR010 -> 4
[2025-08-29 10:47:42] [info] DB_WARN -> 1
[2025-08-29 10:47:42] [info] DB_WARN003 -> 78
[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info]                      Summary
[2025-08-29 10:47:42] [info] -----
[2025-08-29 10:47:42] [info] Total XOR Mismatches:    4
[2025-08-29 10:47:42] [info] Total Warnings:         79
[2025-08-29 10:47:42] [info] XOR Status:             MISMATCH
```

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[2025-08-29 10:48:26] [info] =====
[2025-08-29 10:48:26] [info]                      XOR Verification Report
[2025-08-29 10:48:26] [info] =====

[2025-08-29 10:48:26] [info] Report Generated:    2025-08-29
[2025-08-29 10:48:26] [info] Run Start Time:      10:48:23 AM
[2025-08-29 10:48:26] [info] Run End Time:        10:48:25 AM
[2025-08-29 10:48:26] [info] Time Taken:          0 minutes 40 seconds

[2025-08-29 10:48:26] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:48:26] [info] Host Name:           kuro-Workstation
[2025-08-29 10:48:26] [info] User Name:           kuro
[2025-08-29 10:48:26] [info] Cores Used:           16
[2025-08-29 10:48:26] [info] Memory Utilized:     23571.03 MB / 62.569698333740234 GB

[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info]                      Top Cell Information
[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:48:26] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:48:26] [info] Database Format:       GDSII
[2025-08-29 10:48:26] [info] Verification Mode:    XOR Check

[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info]                      XOR Mismatch Summary
[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info] | Layer Name | XOR Errors |
[2025-08-29 10:48:26] [info] |-----|-----|
[2025-08-29 10:48:26] [info]
[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info]                      Performance Metrics
[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info] | Stage | Time Taken |
[2025-08-29 10:48:26] [info] |-----|-----|
[2025-08-29 10:48:26] [info] | GDS Parsing | 0 minutes 37 seconds |
[2025-08-29 10:48:26] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 10:48:26] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info]                      Type of Errors | Count
[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info] DB_ERR010 -> 4
[2025-08-29 10:48:26] [info] DB_WARN -> 1
[2025-08-29 10:48:26] [info] DB_WARN003 -> 68
[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info]                      Summary
[2025-08-29 10:48:26] [info] -----
[2025-08-29 10:48:26] [info] Total XOR Mismatches:    4
[2025-08-29 10:48:26] [info] Total Warnings:          69
[2025-08-29 10:48:26] [info] XOR Status:              MISMATCH
```

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[2025-08-29 10:37:38] [info] =====
[2025-08-29 10:37:38] [info] XOR Verification Report
[2025-08-29 10:37:38] [info] =====

[2025-08-29 10:37:38] [info] Report Generated: 2025-08-29
[2025-08-29 10:37:38] [info] Run Start Time: 10:37:36 AM
[2025-08-29 10:37:38] [info] Run End Time: 10:37:38 AM
[2025-08-29 10:37:38] [info] Time Taken: 0 minutes 7 seconds

[2025-08-29 10:37:38] [info] Tool Version: LVR_2025.1
[2025-08-29 10:37:38] [info] Host Name: kuro-Workstation
[2025-08-29 10:37:38] [info] User Name: kuro
[2025-08-29 10:37:38] [info] Cores Used: 1
[2025-08-29 10:37:38] [info] Memory Utilized: 1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] Top Cell Information
[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:37:38] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:37:38] [info] Database Format: GDSII
[2025-08-29 10:37:38] [info] Verification Mode: XOR Check

[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] XOR Mismatch Summary
[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] | Layer Name | XOR Errors |
[2025-08-29 10:37:38] [info] |-----|-----|
[2025-08-29 10:37:38] [info]
[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] Performance Metrics
[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] | Stage | Time Taken |
[2025-08-29 10:37:38] [info] |-----|-----|
[2025-08-29 10:37:38] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-29 10:37:38] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 10:37:38] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] Type of Errors | Count
[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] DB_ERR010 -> 4
[2025-08-29 10:37:38] [info] DB_WARN -> 1
[2025-08-29 10:37:38] [info] DB_WARN003 -> 442
[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] Summary
[2025-08-29 10:37:38] [info] -----
[2025-08-29 10:37:38] [info] Total XOR Mismatches: 4
[2025-08-29 10:37:38] [info] Total Warnings: 443
[2025-08-29 10:37:38] [info] XOR Status: MISMATCH

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[2025-08-29 10:37:47] [info] =====
[2025-08-29 10:37:47] [info] XOR Verification Report
[2025-08-29 10:37:47] [info] =====

[2025-08-29 10:37:47] [info] Report Generated: 2025-08-29
[2025-08-29 10:37:47] [info] Run Start Time: 10:37:45 AM
[2025-08-29 10:37:47] [info] Run End Time: 10:37:47 AM
[2025-08-29 10:37:47] [info] Time Taken: 0 minutes 7 seconds

[2025-08-29 10:37:47] [info] Tool Version: LVR_2025.1
[2025-08-29 10:37:47] [info] Host Name: kuro-Workstation
[2025-08-29 10:37:47] [info] User Name: kuro
[2025-08-29 10:37:47] [info] Cores Used: 1
[2025-08-29 10:37:47] [info] Memory Utilized: 1469.68 MB / 62.569698333740234 GB

[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] Top Cell Information
[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:37:47] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:37:47] [info] Database Format: GDSII
[2025-08-29 10:37:47] [info] Verification Mode: XOR Check

[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] XOR Mismatch Summary
[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] | Layer Name | XOR Errors |
[2025-08-29 10:37:47] [info] |-----|-----|
[2025-08-29 10:37:47] [info]
[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] Performance Metrics
[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] | Stage | Time Taken |
[2025-08-29 10:37:47] [info] |-----|-----|
[2025-08-29 10:37:47] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-29 10:37:47] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 10:37:47] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] Type of Errors | Count
[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] DB_ERR010 -> 4
[2025-08-29 10:37:47] [info] DB_WARN -> 1
[2025-08-29 10:37:47] [info] DB_WARN003 -> 438
[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] Summary
[2025-08-29 10:37:47] [info] -----
[2025-08-29 10:37:47] [info] Total XOR Mismatches: 4
[2025-08-29 10:37:47] [info] Total Warnings: 439
[2025-08-29 10:37:47] [info] XOR Status: MISMATCH

```

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[2025-08-29 10:37:55] [info] =====
[2025-08-29 10:37:55] [info] XOR Verification Report
[2025-08-29 10:37:55] [info] =====

[2025-08-29 10:37:55] [info] Report Generated: 2025-08-29
[2025-08-29 10:37:55] [info] Run Start Time: 10:37:53 AM
[2025-08-29 10:37:55] [info] Run End Time: 10:37:55 AM
[2025-08-29 10:37:55] [info] Time Taken: 0 minutes 7 seconds

[2025-08-29 10:37:55] [info] Tool Version: LVR_2025.1
[2025-08-29 10:37:55] [info] Host Name: kuro-Workstation
[2025-08-29 10:37:55] [info] User Name: kuro
[2025-08-29 10:37:55] [info] Cores Used: 1
[2025-08-29 10:37:55] [info] Memory Utilized: 1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] Top Cell Information
[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:37:55] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:37:55] [info] Database Format: GDSII
[2025-08-29 10:37:55] [info] Verification Mode: XOR Check

[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] XOR Mismatch Summary
[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] | Layer Name | XOR Errors |
[2025-08-29 10:37:55] [info] |-----|-----|
[2025-08-29 10:37:55] [info]
[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] Performance Metrics
[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] | Stage | Time Taken |
[2025-08-29 10:37:55] [info] |-----|-----|
[2025-08-29 10:37:55] [info] | GDS Parsing | 0 minutes 5 seconds |
[2025-08-29 10:37:55] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 10:37:55] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] Type of Errors | Count
[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] DB_ERR010 -> 4
[2025-08-29 10:37:55] [info] DB_WARN -> 1
[2025-08-29 10:37:55] [info] DB_WARN003 -> 442
[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] Summary
[2025-08-29 10:37:55] [info] -----
[2025-08-29 10:37:55] [info] Total XOR Mismatches: 4
[2025-08-29 10:37:55] [info] Total Warnings: 443
[2025-08-29 10:37:55] [info] XOR Status: MISMATCH

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[2025-08-29 10:37:30] [info] =====
[2025-08-29 10:37:30] [info]                      XOR Verification Report
[2025-08-29 10:37:30] [info] =====

[2025-08-29 10:37:30] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:30] [info] Run Start Time:      10:37:30 AM
[2025-08-29 10:37:30] [info] Run End Time:        10:37:30 AM
[2025-08-29 10:37:30] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:30] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:30] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:30] [info] User Name:           kuro
[2025-08-29 10:37:30] [info] Cores Used:          1
[2025-08-29 10:37:30] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Top Cell Information
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] Layout Top Cell:     gcd
[2025-08-29 10:37:30] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:37:30] [info] Database Format:       GDSII
[2025-08-29 10:37:30] [info] Verification Mode:    XOR Check

[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      XOR Mismatch Summary
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] | Layer Name | XOR Errors |
[2025-08-29 10:37:30] [info] |-----|-----|
[2025-08-29 10:37:30] [info]
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Performance Metrics
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] | Stage | Time Taken |
[2025-08-29 10:37:30] [info] |-----|-----|
[2025-08-29 10:37:30] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:37:30] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:37:30] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Type of Errors | Count
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] DB_ERR010 -> 4
[2025-08-29 10:37:30] [info] DB_WARN -> 1
[2025-08-29 10:37:30] [info] DB_WARN003 -> 48
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Summary
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] Total XOR Mismatches: 4
[2025-08-29 10:37:30] [info] Total Warnings: 49
[2025-08-29 10:37:30] [info] XOR Status: MISMATCH

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[2025-08-29 10:37:30] [info] =====
[2025-08-29 10:37:30] [info]                      XOR Verification Report
[2025-08-29 10:37:30] [info] =====

[2025-08-29 10:37:30] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:30] [info] Run Start Time:      10:37:30 AM
[2025-08-29 10:37:30] [info] Run End Time:        10:37:30 AM
[2025-08-29 10:37:30] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:30] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:30] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:30] [info] User Name:           kuro
[2025-08-29 10:37:30] [info] Cores Used:          1
[2025-08-29 10:37:30] [info] Memory Utilized:     31.00 MB / 62.569698333740234 GB

[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Top Cell Information
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] Layout Top Cell:     gcd
[2025-08-29 10:37:30] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:37:30] [info] Database Format:       GDSII
[2025-08-29 10:37:30] [info] Verification Mode:    XOR Check

[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      XOR Mismatch Summary
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] | Layer Name | XOR Errors |
[2025-08-29 10:37:30] [info] |-----|-----|
[2025-08-29 10:37:30] [info]
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Performance Metrics
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] | Stage | Time Taken |
[2025-08-29 10:37:30] [info] |-----|-----|
[2025-08-29 10:37:30] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:37:30] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:37:30] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Type of Errors | Count
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] DB_ERR010 -> 4
[2025-08-29 10:37:30] [info] DB_WARN -> 1
[2025-08-29 10:37:30] [info] DB_WARN003 -> 68
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Summary
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] Total XOR Mismatches: 4
[2025-08-29 10:37:30] [info] Total Warnings: 69
[2025-08-29 10:37:30] [info] XOR Status: MISMATCH
```

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[2025-08-29 10:37:30] [info] =====
[2025-08-29 10:37:30] [info]                      XOR Verification Report
[2025-08-29 10:37:30] [info] =====

[2025-08-29 10:37:30] [info] Report Generated:    2025-08-29
[2025-08-29 10:37:30] [info] Run Start Time:      10:37:30 AM
[2025-08-29 10:37:30] [info] Run End Time:        10:37:30 AM
[2025-08-29 10:37:30] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:37:30] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:37:30] [info] Host Name:           kuro-Workstation
[2025-08-29 10:37:30] [info] User Name:           kuro
[2025-08-29 10:37:30] [info] Cores Used:          1
[2025-08-29 10:37:30] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Top Cell Information
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] Layout Top Cell:     gcd
[2025-08-29 10:37:30] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:37:30] [info] Database Format:       GDSII
[2025-08-29 10:37:30] [info] Verification Mode:    XOR Check

[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      XOR Mismatch Summary
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] | Layer Name | XOR Errors |
[2025-08-29 10:37:30] [info] |-----|-----|
[2025-08-29 10:37:30] [info]
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Performance Metrics
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] | Stage | Time Taken |
[2025-08-29 10:37:30] [info] |-----|-----|
[2025-08-29 10:37:30] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:37:30] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:37:30] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Type of Errors | Count
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] DB_ERR010 -> 4
[2025-08-29 10:37:30] [info] DB_WARN -> 1
[2025-08-29 10:37:30] [info] DB_WARN003 -> 52
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info]                      Summary
[2025-08-29 10:37:30] [info] -----
[2025-08-29 10:37:30] [info] Total XOR Mismatches: 4
[2025-08-29 10:37:30] [info] Total Warnings: 53
[2025-08-29 10:37:30] [info] XOR Status: MISMATCH

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[2025-08-29 10:38:04] [info] =====
[2025-08-29 10:38:04] [info]                      XOR Verification Report
[2025-08-29 10:38:04] [info] =====

[2025-08-29 10:38:04] [info] Report Generated:    2025-08-29
[2025-08-29 10:38:04] [info] Run Start Time:      10:38:02 AM
[2025-08-29 10:38:04] [info] Run End Time:        10:38:04 AM
[2025-08-29 10:38:04] [info] Time Taken:          0 minutes 8 seconds

[2025-08-29 10:38:04] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:38:04] [info] Host Name:           kuro-Workstation
[2025-08-29 10:38:04] [info] User Name:           kuro
[2025-08-29 10:38:04] [info] Cores Used:          1
[2025-08-29 10:38:04] [info] Memory Utilized:     1574.52 MB / 62.569698333740234 GB

[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info]                      Top Cell Information
[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:38:04] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:38:04] [info] Database Format:       GDSII
[2025-08-29 10:38:04] [info] Verification Mode:    XOR Check

[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info]                      XOR Mismatch Summary
[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info] | Layer Name      | XOR Errors |
[2025-08-29 10:38:04] [info] |-----|-----|
[2025-08-29 10:38:04] [info]
[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info]                      Performance Metrics
[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info] | Stage              | Time Taken |
[2025-08-29 10:38:04] [info] |-----|-----|
[2025-08-29 10:38:04] [info] | GDS Parsing        | 0 minutes 6 seconds |
[2025-08-29 10:38:04] [info] | Layer Comparison    | 0 minutes 1 seconds |
[2025-08-29 10:38:04] [info] | Report Generation   | 0 minutes 0 seconds |

[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info]                      Type of Errors | Count
[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info] DB_ERR010 -> 4
[2025-08-29 10:38:04] [info] DB_WARN -> 1
[2025-08-29 10:38:04] [info] DB_WARN003 -> 170
[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info]                      Summary
[2025-08-29 10:38:04] [info] -----
[2025-08-29 10:38:04] [info] Total XOR Mismatches:    4
[2025-08-29 10:38:04] [info] Total Warnings:         171
[2025-08-29 10:38:04] [info] XOR Status:             MISMATCH

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[2025-08-29 10:38:14] [info] =====
[2025-08-29 10:38:14] [info]                      XOR Verification Report
[2025-08-29 10:38:14] [info] =====

[2025-08-29 10:38:14] [info] Report Generated:    2025-08-29
[2025-08-29 10:38:14] [info] Run Start Time:      10:38:12 AM
[2025-08-29 10:38:14] [info] Run End Time:        10:38:14 AM
[2025-08-29 10:38:14] [info] Time Taken:          0 minutes 8 seconds

[2025-08-29 10:38:14] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:38:14] [info] Host Name:           kuro-Workstation
[2025-08-29 10:38:14] [info] User Name:           kuro
[2025-08-29 10:38:14] [info] Cores Used:          1
[2025-08-29 10:38:14] [info] Memory Utilized:     1601.60 MB / 62.569698333740234 GB

[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info]                      Top Cell Information
[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:38:14] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:38:14] [info] Database Format:       GDSII
[2025-08-29 10:38:14] [info] Verification Mode:    XOR Check

[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info]                      XOR Mismatch Summary
[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info] | Layer Name      | XOR Errors |
[2025-08-29 10:38:14] [info] |-----|-----|
[2025-08-29 10:38:14] [info]
[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info]                      Performance Metrics
[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info] | Stage              | Time Taken |
[2025-08-29 10:38:14] [info] |-----|-----|
[2025-08-29 10:38:14] [info] | GDS Parsing        | 0 minutes 6 seconds |
[2025-08-29 10:38:14] [info] | Layer Comparison    | 0 minutes 1 seconds |
[2025-08-29 10:38:14] [info] | Report Generation   | 0 minutes 0 seconds |

[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info]                      Type of Errors | Count
[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info] DB_ERR010 -> 4
[2025-08-29 10:38:14] [info] DB_WARN -> 1
[2025-08-29 10:38:14] [info] DB_WARN003 -> 170
[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info]                      Summary
[2025-08-29 10:38:14] [info] -----
[2025-08-29 10:38:14] [info] Total XOR Mismatches:    4
[2025-08-29 10:38:14] [info] Total Warnings:         171
[2025-08-29 10:38:14] [info] XOR Status:             MISMATCH

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[2025-08-29 10:38:23] [info] =====
[2025-08-29 10:38:23] [info] XOR Verification Report
[2025-08-29 10:38:23] [info] =====

[2025-08-29 10:38:23] [info] Report Generated: 2025-08-29
[2025-08-29 10:38:23] [info] Run Start Time: 10:38:21 AM
[2025-08-29 10:38:23] [info] Run End Time: 10:38:23 AM
[2025-08-29 10:38:23] [info] Time Taken: 0 minutes 8 seconds

[2025-08-29 10:38:23] [info] Tool Version: LVR_2025.1
[2025-08-29 10:38:23] [info] Host Name: kuro-Workstation
[2025-08-29 10:38:23] [info] User Name: kuro
[2025-08-29 10:38:23] [info] Cores Used: 1
[2025-08-29 10:38:23] [info] Memory Utilized: 1464.05 MB / 62.569698333740234 GB

[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] Top Cell Information
[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] Layout Top Cell: ibex_core
[2025-08-29 10:38:23] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:38:23] [info] Database Format: GDSII
[2025-08-29 10:38:23] [info] Verification Mode: XOR Check

[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] XOR Mismatch Summary
[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] | Layer Name | XOR Errors |
[2025-08-29 10:38:23] [info] |-----|-----|
[2025-08-29 10:38:23] [info]
[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] Performance Metrics
[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] | Stage | Time Taken |
[2025-08-29 10:38:23] [info] |-----|-----|
[2025-08-29 10:38:23] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-29 10:38:23] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 10:38:23] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] Type of Errors | Count
[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] DB_ERR010 -> 4
[2025-08-29 10:38:23] [info] DB_WARN -> 1
[2025-08-29 10:38:23] [info] DB_WARN003 -> 196
[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] Summary
[2025-08-29 10:38:23] [info] -----
[2025-08-29 10:38:23] [info] Total XOR Mismatches: 4
[2025-08-29 10:38:23] [info] Total Warnings: 197
[2025-08-29 10:38:23] [info] XOR Status: MISMATCH

```

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[2025-08-29 10:38:52] [info] =====
[2025-08-29 10:38:52] [info]                      XOR Verification Report
[2025-08-29 10:38:52] [info] =====

[2025-08-29 10:38:52] [info] Report Generated:    2025-08-29
[2025-08-29 10:38:52] [info] Run Start Time:      10:38:46 AM
[2025-08-29 10:38:52] [info] Run End Time:        10:38:52 AM
[2025-08-29 10:38:52] [info] Time Taken:          0 minutes 28 seconds

[2025-08-29 10:38:52] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:38:52] [info] Host Name:           kuro-Workstation
[2025-08-29 10:38:52] [info] User Name:           kuro
[2025-08-29 10:38:52] [info] Cores Used:          1
[2025-08-29 10:38:52] [info] Memory Utilized:     4551.48 MB / 62.569698333740234 GB

[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info]                      Top Cell Information
[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:38:52] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:38:52] [info] Database Format:       GDSII
[2025-08-29 10:38:52] [info] Verification Mode:    XOR Check

[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info]                      XOR Mismatch Summary
[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info] | Layer Name | XOR Errors |
[2025-08-29 10:38:52] [info] |-----|-----|
[2025-08-29 10:38:52] [info]
[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info]                      Performance Metrics
[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info] | Stage | Time Taken |
[2025-08-29 10:38:52] [info] |-----|-----|
[2025-08-29 10:38:52] [info] | GDS Parsing | 0 minutes 22 seconds |
[2025-08-29 10:38:52] [info] | Layer Comparison | 0 minutes 5 seconds |
[2025-08-29 10:38:52] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info]                      Type of Errors | Count
[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info] DB_ERR010 -> 4
[2025-08-29 10:38:52] [info] DB_WARN -> 1
[2025-08-29 10:38:52] [info] DB_WARN003 -> 74
[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info]                      Summary
[2025-08-29 10:38:52] [info] -----
[2025-08-29 10:38:52] [info] Total XOR Mismatches: 4
[2025-08-29 10:38:52] [info] Total Warnings: 75
[2025-08-29 10:38:52] [info] XOR Status: MISMATCH

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[2025-08-29 10:39:23] [info] =====
[2025-08-29 10:39:23] [info]                      XOR Verification Report
[2025-08-29 10:39:23] [info] =====

[2025-08-29 10:39:23] [info] Report Generated:    2025-08-29
[2025-08-29 10:39:23] [info] Run Start Time:      10:39:17 AM
[2025-08-29 10:39:23] [info] Run End Time:        10:39:23 AM
[2025-08-29 10:39:23] [info] Time Taken:          0 minutes 29 seconds

[2025-08-29 10:39:23] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:39:23] [info] Host Name:           kuro-Workstation
[2025-08-29 10:39:23] [info] User Name:           kuro
[2025-08-29 10:39:23] [info] Cores Used:          1
[2025-08-29 10:39:23] [info] Memory Utilized:     4599.00 MB / 62.569698333740234 GB

[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info]                      Top Cell Information
[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:39:23] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:39:23] [info] Database Format:       GDSII
[2025-08-29 10:39:23] [info] Verification Mode:    XOR Check

[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info]                      XOR Mismatch Summary
[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info] | Layer Name | XOR Errors |
[2025-08-29 10:39:23] [info] |-----|-----|
[2025-08-29 10:39:23] [info]
[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info]                      Performance Metrics
[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info] | Stage | Time Taken |
[2025-08-29 10:39:23] [info] |-----|-----|
[2025-08-29 10:39:23] [info] | GDS Parsing | 0 minutes 23 seconds |
[2025-08-29 10:39:23] [info] | Layer Comparison | 0 minutes 5 seconds |
[2025-08-29 10:39:23] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info]                      Type of Errors | Count
[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info] DB_ERR010 -> 4
[2025-08-29 10:39:23] [info] DB_WARN -> 1
[2025-08-29 10:39:23] [info] DB_WARN003 -> 78
[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info]                      Summary
[2025-08-29 10:39:23] [info] -----
[2025-08-29 10:39:23] [info] Total XOR Mismatches:    4
[2025-08-29 10:39:23] [info] Total Warnings:         79
[2025-08-29 10:39:23] [info] XOR Status:             MISMATCH

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[2025-08-29 10:39:53] [info] =====
[2025-08-29 10:39:53] [info] XOR Verification Report
[2025-08-29 10:39:53] [info] =====

[2025-08-29 10:39:53] [info] Report Generated: 2025-08-29
[2025-08-29 10:39:53] [info] Run Start Time: 10:39:48 AM
[2025-08-29 10:39:53] [info] Run End Time: 10:39:53 AM
[2025-08-29 10:39:53] [info] Time Taken: 0 minutes 28 seconds

[2025-08-29 10:39:53] [info] Tool Version: LVR_2025.1
[2025-08-29 10:39:53] [info] Host Name: kuro-Workstation
[2025-08-29 10:39:53] [info] User Name: kuro
[2025-08-29 10:39:53] [info] Cores Used: 1
[2025-08-29 10:39:53] [info] Memory Utilized: 4518.73 MB / 62.569698333740234 GB

[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] Top Cell Information
[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:39:53] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:39:53] [info] Database Format: GDSII
[2025-08-29 10:39:53] [info] Verification Mode: XOR Check

[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] XOR Mismatch Summary
[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] | Layer Name | XOR Errors |
[2025-08-29 10:39:53] [info] |-----|-----|
[2025-08-29 10:39:53] [info]
[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] Performance Metrics
[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] | Stage | Time Taken |
[2025-08-29 10:39:53] [info] |-----|-----|
[2025-08-29 10:39:53] [info] | GDS Parsing | 0 minutes 22 seconds |
[2025-08-29 10:39:53] [info] | Layer Comparison | 0 minutes 5 seconds |
[2025-08-29 10:39:53] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] Type of Errors | Count
[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] DB_ERR010 -> 4
[2025-08-29 10:39:53] [info] DB_WARN -> 1
[2025-08-29 10:39:53] [info] DB_WARN003 -> 68
[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] Summary
[2025-08-29 10:39:53] [info] -----
[2025-08-29 10:39:53] [info] Total XOR Mismatches: 4
[2025-08-29 10:39:53] [info] Total Warnings: 69
[2025-08-29 10:39:53] [info] XOR Status: MISMATCH

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[2025-08-29 10:40:03] [info] =====
[2025-08-29 10:40:03] [info]                      XOR Verification Report
[2025-08-29 10:40:03] [info] =====

[2025-08-29 10:40:03] [info] Report Generated:    2025-08-29
[2025-08-29 10:40:03] [info] Run Start Time:      10:40:02 AM
[2025-08-29 10:40:03] [info] Run End Time:        10:40:03 AM
[2025-08-29 10:40:03] [info] Time Taken:          0 minutes 7 seconds

[2025-08-29 10:40:03] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:40:03] [info] Host Name:           kuro-Workstation
[2025-08-29 10:40:03] [info] User Name:           kuro
[2025-08-29 10:40:03] [info] Cores Used:          4
[2025-08-29 10:40:03] [info] Memory Utilized:     2462.04 MB / 62.569698333740234 GB

[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info]                      Top Cell Information
[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:40:03] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:40:03] [info] Database Format:       GDSII
[2025-08-29 10:40:03] [info] Verification Mode:    XOR Check

[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info]                      XOR Mismatch Summary
[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info] | Layer Name      | XOR Errors |
[2025-08-29 10:40:03] [info] |-----|-----|
[2025-08-29 10:40:03] [info]
[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info]                      Performance Metrics
[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info] | Stage              | Time Taken |
[2025-08-29 10:40:03] [info] |-----|-----|
[2025-08-29 10:40:03] [info] | GDS Parsing        | 0 minutes 6 seconds |
[2025-08-29 10:40:03] [info] | Layer Comparison    | 0 minutes 0 seconds |
[2025-08-29 10:40:03] [info] | Report Generation   | 0 minutes 0 seconds |

[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info]                      Type of Errors | Count
[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info] DB_ERR010 -> 4
[2025-08-29 10:40:03] [info] DB_WARN -> 1
[2025-08-29 10:40:03] [info] DB_WARN003 -> 442
[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info]                      Summary
[2025-08-29 10:40:03] [info] -----
[2025-08-29 10:40:03] [info] Total XOR Mismatches:    4
[2025-08-29 10:40:03] [info] Total Warnings:         443
[2025-08-29 10:40:03] [info] XOR Status:             MISMATCH
```

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[2025-08-29 10:40:12] [info] =====
[2025-08-29 10:40:12] [info] XOR Verification Report
[2025-08-29 10:40:12] [info] =====

[2025-08-29 10:40:12] [info] Report Generated: 2025-08-29
[2025-08-29 10:40:12] [info] Run Start Time: 10:40:11 AM
[2025-08-29 10:40:12] [info] Run End Time: 10:40:12 AM
[2025-08-29 10:40:12] [info] Time Taken: 0 minutes 7 seconds

[2025-08-29 10:40:12] [info] Tool Version: LVR_2025.1
[2025-08-29 10:40:12] [info] Host Name: kuro-Workstation
[2025-08-29 10:40:12] [info] User Name: kuro
[2025-08-29 10:40:12] [info] Cores Used: 4
[2025-08-29 10:40:12] [info] Memory Utilized: 2518.29 MB / 62.569698333740234 GB

[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] Top Cell Information
[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:40:12] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:40:12] [info] Database Format: GDSII
[2025-08-29 10:40:12] [info] Verification Mode: XOR Check

[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] XOR Mismatch Summary
[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] | Layer Name | XOR Errors |
[2025-08-29 10:40:12] [info] |-----|-----|
[2025-08-29 10:40:12] [info]
[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] Performance Metrics
[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] | Stage | Time Taken |
[2025-08-29 10:40:12] [info] |-----|-----|
[2025-08-29 10:40:12] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-29 10:40:12] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:40:12] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] Type of Errors | Count
[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] DB_ERR010 -> 4
[2025-08-29 10:40:12] [info] DB_WARN -> 1
[2025-08-29 10:40:12] [info] DB_WARN003 -> 438
[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] Summary
[2025-08-29 10:40:12] [info] -----
[2025-08-29 10:40:12] [info] Total XOR Mismatches: 4
[2025-08-29 10:40:12] [info] Total Warnings: 439
[2025-08-29 10:40:12] [info] XOR Status: MISMATCH

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[2025-08-29 10:40:20] [info] =====
[2025-08-29 10:40:20] [info]                      XOR Verification Report
[2025-08-29 10:40:20] [info] =====

[2025-08-29 10:40:20] [info] Report Generated:    2025-08-29
[2025-08-29 10:40:20] [info] Run Start Time:      10:40:19 AM
[2025-08-29 10:40:20] [info] Run End Time:        10:40:20 AM
[2025-08-29 10:40:20] [info] Time Taken:          0 minutes 7 seconds

[2025-08-29 10:40:20] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:40:20] [info] Host Name:           kuro-Workstation
[2025-08-29 10:40:20] [info] User Name:           kuro
[2025-08-29 10:40:20] [info] Cores Used:           4
[2025-08-29 10:40:20] [info] Memory Utilized:      2457.56 MB / 62.569698333740234 GB

[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info]                      Top Cell Information
[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info] Layout Top Cell:      aes_cipher_top
[2025-08-29 10:40:20] [info] Technology Node:       Nangate45 (45nm)
[2025-08-29 10:40:20] [info] Database Format:        GDSII
[2025-08-29 10:40:20] [info] Verification Mode:     XOR Check

[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info]                      XOR Mismatch Summary
[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info] | Layer Name | XOR Errors |
[2025-08-29 10:40:20] [info] |-----|-----|
[2025-08-29 10:40:20] [info]
[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info]                      Performance Metrics
[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info] | Stage | Time Taken |
[2025-08-29 10:40:20] [info] |-----|-----|
[2025-08-29 10:40:20] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-29 10:40:20] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:40:20] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info]                      Type of Errors | Count
[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info] DB_ERR010 -> 4
[2025-08-29 10:40:20] [info] DB_WARN -> 1
[2025-08-29 10:40:20] [info] DB_WARN003 -> 442
[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info]                      Summary
[2025-08-29 10:40:20] [info] -----
[2025-08-29 10:40:20] [info] Total XOR Mismatches:    4
[2025-08-29 10:40:20] [info] Total Warnings:          443
[2025-08-29 10:40:20] [info] XOR Status:              MISMATCH

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[2025-08-29 10:39:55] [info] =====
[2025-08-29 10:39:55] [info]                      XOR Verification Report
[2025-08-29 10:39:55] [info] =====

[2025-08-29 10:39:55] [info] Report Generated:    2025-08-29
[2025-08-29 10:39:55] [info] Run Start Time:      10:39:55 AM
[2025-08-29 10:39:55] [info] Run End Time:        10:39:55 AM
[2025-08-29 10:39:55] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:39:55] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:39:55] [info] Host Name:           kuro-Workstation
[2025-08-29 10:39:55] [info] User Name:           kuro
[2025-08-29 10:39:55] [info] Cores Used:          4
[2025-08-29 10:39:55] [info] Memory Utilized:     55.01 MB / 62.569698333740234 GB

[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      Top Cell Information
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] Layout Top Cell:     gcd
[2025-08-29 10:39:55] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:39:55] [info] Database Format:       GDSII
[2025-08-29 10:39:55] [info] Verification Mode:    XOR Check

[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      XOR Mismatch Summary
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] | Layer Name | XOR Errors |
[2025-08-29 10:39:55] [info] |-----|-----|
[2025-08-29 10:39:55] [info]
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      Performance Metrics
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] | Stage | Time Taken |
[2025-08-29 10:39:55] [info] |-----|-----|
[2025-08-29 10:39:55] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:39:55] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:39:55] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      Type of Errors | Count
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] DB_ERR010 -> 4
[2025-08-29 10:39:55] [info] DB_WARN -> 1
[2025-08-29 10:39:55] [info] DB_WARN003 -> 48
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      Summary
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] Total XOR Mismatches: 4
[2025-08-29 10:39:55] [info] Total Warnings: 49
[2025-08-29 10:39:55] [info] XOR Status: MISMATCH

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[2025-08-29 10:39:55] [info] =====
[2025-08-29 10:39:55] [info]                      XOR Verification Report
[2025-08-29 10:39:55] [info] =====

[2025-08-29 10:39:55] [info] Report Generated:    2025-08-29
[2025-08-29 10:39:55] [info] Run Start Time:      10:39:55 AM
[2025-08-29 10:39:55] [info] Run End Time:        10:39:55 AM
[2025-08-29 10:39:55] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:39:55] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:39:55] [info] Host Name:           kuro-Workstation
[2025-08-29 10:39:55] [info] User Name:           kuro
[2025-08-29 10:39:55] [info] Cores Used:          4
[2025-08-29 10:39:55] [info] Memory Utilized:     56.52 MB / 62.569698333740234 GB

[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      Top Cell Information
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] Layout Top Cell:     gcd
[2025-08-29 10:39:55] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:39:55] [info] Database Format:       GDSII
[2025-08-29 10:39:55] [info] Verification Mode:    XOR Check

[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      XOR Mismatch Summary
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] | Layer Name | XOR Errors |
[2025-08-29 10:39:55] [info] |-----|-----|
[2025-08-29 10:39:55] [info]
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      Performance Metrics
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] | Stage | Time Taken |
[2025-08-29 10:39:55] [info] |-----|-----|
[2025-08-29 10:39:55] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:39:55] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:39:55] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      Type of Errors | Count
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] DB_ERR010 -> 4
[2025-08-29 10:39:55] [info] DB_WARN -> 1
[2025-08-29 10:39:55] [info] DB_WARN003 -> 68
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info]                      Summary
[2025-08-29 10:39:55] [info] -----
[2025-08-29 10:39:55] [info] Total XOR Mismatches: 4
[2025-08-29 10:39:55] [info] Total Warnings: 69
[2025-08-29 10:39:55] [info] XOR Status: MISMATCH

```

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[2025-08-29 10:39:56] [info] =====
[2025-08-29 10:39:56] [info]                      XOR Verification Report
[2025-08-29 10:39:56] [info] =====

[2025-08-29 10:39:56] [info] Report Generated:    2025-08-29
[2025-08-29 10:39:56] [info] Run Start Time:      10:39:56 AM
[2025-08-29 10:39:56] [info] Run End Time:        10:39:56 AM
[2025-08-29 10:39:56] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:39:56] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:39:56] [info] Host Name:           kuro-Workstation
[2025-08-29 10:39:56] [info] User Name:           kuro
[2025-08-29 10:39:56] [info] Cores Used:           4
[2025-08-29 10:39:56] [info] Memory Utilized:     54.44 MB / 62.569698333740234 GB

[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info]                      Top Cell Information
[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info] Layout Top Cell:     gcd
[2025-08-29 10:39:56] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:39:56] [info] Database Format:       GDSII
[2025-08-29 10:39:56] [info] Verification Mode:    XOR Check

[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info]                      XOR Mismatch Summary
[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info] | Layer Name | XOR Errors |
[2025-08-29 10:39:56] [info] |-----|-----|
[2025-08-29 10:39:56] [info]
[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info]                      Performance Metrics
[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info] | Stage | Time Taken |
[2025-08-29 10:39:56] [info] |-----|-----|
[2025-08-29 10:39:56] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:39:56] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:39:56] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info]                      Type of Errors | Count
[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info] DB_ERR010 -> 4
[2025-08-29 10:39:56] [info] DB_WARN -> 1
[2025-08-29 10:39:56] [info] DB_WARN003 -> 52
[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info]                      Summary
[2025-08-29 10:39:56] [info] -----
[2025-08-29 10:39:56] [info] Total XOR Mismatches: 4
[2025-08-29 10:39:56] [info] Total Warnings: 53
[2025-08-29 10:39:56] [info] XOR Status: MISMATCH

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[2025-08-29 10:40:29] [info] =====
[2025-08-29 10:40:29] [info] XOR Verification Report
[2025-08-29 10:40:29] [info] =====

[2025-08-29 10:40:29] [info] Report Generated: 2025-08-29
[2025-08-29 10:40:29] [info] Run Start Time: 10:40:28 AM
[2025-08-29 10:40:29] [info] Run End Time: 10:40:29 AM
[2025-08-29 10:40:29] [info] Time Taken: 0 minutes 8 seconds

[2025-08-29 10:40:29] [info] Tool Version: LVR_2025.1
[2025-08-29 10:40:29] [info] Host Name: kuro-Workstation
[2025-08-29 10:40:29] [info] User Name: kuro
[2025-08-29 10:40:29] [info] Cores Used: 4
[2025-08-29 10:40:29] [info] Memory Utilized: 2666.95 MB / 62.569698333740234 GB

[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] Top Cell Information
[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] Layout Top Cell: ibex_core
[2025-08-29 10:40:29] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:40:29] [info] Database Format: GDSII
[2025-08-29 10:40:29] [info] Verification Mode: XOR Check

[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] XOR Mismatch Summary
[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] | Layer Name | XOR Errors |
[2025-08-29 10:40:29] [info] |-----|-----|
[2025-08-29 10:40:29] [info]
[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] Performance Metrics
[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] | Stage | Time Taken |
[2025-08-29 10:40:29] [info] |-----|-----|
[2025-08-29 10:40:29] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-08-29 10:40:29] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:40:29] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] Type of Errors | Count
[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] DB_ERR010 -> 4
[2025-08-29 10:40:29] [info] DB_WARN -> 1
[2025-08-29 10:40:29] [info] DB_WARN003 -> 170
[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] Summary
[2025-08-29 10:40:29] [info] -----
[2025-08-29 10:40:29] [info] Total XOR Mismatches: 4
[2025-08-29 10:40:29] [info] Total Warnings: 171
[2025-08-29 10:40:29] [info] XOR Status: MISMATCH

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[2025-08-29 10:40:38] [info] =====
[2025-08-29 10:40:38] [info]                      XOR Verification Report
[2025-08-29 10:40:38] [info] =====

[2025-08-29 10:40:38] [info] Report Generated:    2025-08-29
[2025-08-29 10:40:38] [info] Run Start Time:      10:40:37 AM
[2025-08-29 10:40:38] [info] Run End Time:        10:40:38 AM
[2025-08-29 10:40:38] [info] Time Taken:          0 minutes 8 seconds

[2025-08-29 10:40:38] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:40:38] [info] Host Name:           kuro-Workstation
[2025-08-29 10:40:38] [info] User Name:           kuro
[2025-08-29 10:40:38] [info] Cores Used:           4
[2025-08-29 10:40:38] [info] Memory Utilized:     2683.30 MB / 62.569698333740234 GB

[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info]                      Top Cell Information
[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:40:38] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:40:38] [info] Database Format:       GDSII
[2025-08-29 10:40:38] [info] Verification Mode:    XOR Check

[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info]                      XOR Mismatch Summary
[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info] | Layer Name | XOR Errors |
[2025-08-29 10:40:38] [info] |-----|-----|
[2025-08-29 10:40:38] [info]
[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info]                      Performance Metrics
[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info] | Stage | Time Taken |
[2025-08-29 10:40:38] [info] |-----|-----|
[2025-08-29 10:40:38] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-08-29 10:40:38] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:40:38] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info]                      Type of Errors | Count
[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info] DB_ERR010 -> 4
[2025-08-29 10:40:38] [info] DB_WARN -> 1
[2025-08-29 10:40:38] [info] DB_WARN003 -> 170
[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info]                      Summary
[2025-08-29 10:40:38] [info] -----
[2025-08-29 10:40:38] [info] Total XOR Mismatches:    4
[2025-08-29 10:40:38] [info] Total Warnings:          171
[2025-08-29 10:40:38] [info] XOR Status:              MISMATCH

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[2025-08-29 10:40:47] [info] =====
[2025-08-29 10:40:47] [info]                      XOR Verification Report
[2025-08-29 10:40:47] [info] =====

[2025-08-29 10:40:47] [info] Report Generated:    2025-08-29
[2025-08-29 10:40:47] [info] Run Start Time:      10:40:46 AM
[2025-08-29 10:40:47] [info] Run End Time:        10:40:47 AM
[2025-08-29 10:40:47] [info] Time Taken:          0 minutes 8 seconds

[2025-08-29 10:40:47] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:40:47] [info] Host Name:           kuro-Workstation
[2025-08-29 10:40:47] [info] User Name:           kuro
[2025-08-29 10:40:47] [info] Cores Used:          4
[2025-08-29 10:40:47] [info] Memory Utilized:     2633.10 MB / 62.569698333740234 GB

[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info]                      Top Cell Information
[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:40:47] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:40:47] [info] Database Format:       GDSII
[2025-08-29 10:40:47] [info] Verification Mode:    XOR Check

[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info]                      XOR Mismatch Summary
[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info] | Layer Name | XOR Errors |
[2025-08-29 10:40:47] [info] |-----|-----|
[2025-08-29 10:40:47] [info]
[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info]                      Performance Metrics
[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info] | Stage | Time Taken |
[2025-08-29 10:40:47] [info] |-----|-----|
[2025-08-29 10:40:47] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-08-29 10:40:47] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:40:47] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info]                      Type of Errors | Count
[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info] DB_ERR010 -> 4
[2025-08-29 10:40:47] [info] DB_WARN -> 1
[2025-08-29 10:40:47] [info] DB_WARN003 -> 196
[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info]                      Summary
[2025-08-29 10:40:47] [info] -----
[2025-08-29 10:40:47] [info] Total XOR Mismatches: 4
[2025-08-29 10:40:47] [info] Total Warnings: 197
[2025-08-29 10:40:47] [info] XOR Status: MISMATCH

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[2025-08-29 10:41:16] [info] =====
[2025-08-29 10:41:16] [info] XOR Verification Report
[2025-08-29 10:41:16] [info] =====

[2025-08-29 10:41:16] [info] Report Generated: 2025-08-29
[2025-08-29 10:41:16] [info] Run Start Time: 10:41:14 AM
[2025-08-29 10:41:16] [info] Run End Time: 10:41:16 AM
[2025-08-29 10:41:16] [info] Time Taken: 0 minutes 28 seconds

[2025-08-29 10:41:16] [info] Tool Version: LVR_2025.1
[2025-08-29 10:41:16] [info] Host Name: kuro-Workstation
[2025-08-29 10:41:16] [info] User Name: kuro
[2025-08-29 10:41:16] [info] Cores Used: 4
[2025-08-29 10:41:16] [info] Memory Utilized: 8377.96 MB / 62.569698333740234 GB

[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] Top Cell Information
[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:41:16] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:41:16] [info] Database Format: GDSII
[2025-08-29 10:41:16] [info] Verification Mode: XOR Check

[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] XOR Mismatch Summary
[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] | Layer Name | XOR Errors |
[2025-08-29 10:41:16] [info] |-----|-----|
[2025-08-29 10:41:16] [info]
[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] Performance Metrics
[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] | Stage | Time Taken |
[2025-08-29 10:41:16] [info] |-----|-----|
[2025-08-29 10:41:16] [info] | GDS Parsing | 0 minutes 25 seconds |
[2025-08-29 10:41:16] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 10:41:16] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] Type of Errors | Count
[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] DB_ERR010 -> 4
[2025-08-29 10:41:16] [info] DB_WARN -> 1
[2025-08-29 10:41:16] [info] DB_WARN003 -> 74
[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] Summary
[2025-08-29 10:41:16] [info] -----
[2025-08-29 10:41:16] [info] Total XOR Mismatches: 4
[2025-08-29 10:41:16] [info] Total Warnings: 75
[2025-08-29 10:41:16] [info] XOR Status: MISMATCH

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[2025-08-29 10:41:47] [info] =====
[2025-08-29 10:41:47] [info] XOR Verification Report
[2025-08-29 10:41:47] [info] =====

[2025-08-29 10:41:47] [info] Report Generated: 2025-08-29
[2025-08-29 10:41:47] [info] Run Start Time: 10:41:44 AM
[2025-08-29 10:41:47] [info] Run End Time: 10:41:47 AM
[2025-08-29 10:41:47] [info] Time Taken: 0 minutes 28 seconds

[2025-08-29 10:41:47] [info] Tool Version: LVR_2025.1
[2025-08-29 10:41:47] [info] Host Name: kuro-Workstation
[2025-08-29 10:41:47] [info] User Name: kuro
[2025-08-29 10:41:47] [info] Cores Used: 4
[2025-08-29 10:41:47] [info] Memory Utilized: 8662.28 MB / 62.569698333740234 GB

[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] Top Cell Information
[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:41:47] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:41:47] [info] Database Format: GDSII
[2025-08-29 10:41:47] [info] Verification Mode: XOR Check

[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] XOR Mismatch Summary
[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] | Layer Name | XOR Errors |
[2025-08-29 10:41:47] [info] |-----|-----|
[2025-08-29 10:41:47] [info]
[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] Performance Metrics
[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] | Stage | Time Taken |
[2025-08-29 10:41:47] [info] |-----|-----|
[2025-08-29 10:41:47] [info] | GDS Parsing | 0 minutes 25 seconds |
[2025-08-29 10:41:47] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 10:41:47] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] Type of Errors | Count
[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] DB_ERR010 -> 4
[2025-08-29 10:41:47] [info] DB_WARN -> 1
[2025-08-29 10:41:47] [info] DB_WARN003 -> 78
[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] Summary
[2025-08-29 10:41:47] [info] -----
[2025-08-29 10:41:47] [info] Total XOR Mismatches: 4
[2025-08-29 10:41:47] [info] Total Warnings: 79
[2025-08-29 10:41:47] [info] XOR Status: MISMATCH

```

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[2025-08-29 10:42:17] [info] =====
[2025-08-29 10:42:17] [info] XOR Verification Report
[2025-08-29 10:42:17] [info] =====

[2025-08-29 10:42:17] [info] Report Generated: 2025-08-29
[2025-08-29 10:42:17] [info] Run Start Time: 10:42:14 AM
[2025-08-29 10:42:17] [info] Run End Time: 10:42:17 AM
[2025-08-29 10:42:17] [info] Time Taken: 0 minutes 28 seconds

[2025-08-29 10:42:17] [info] Tool Version: LVR_2025.1
[2025-08-29 10:42:17] [info] Host Name: kuro-Workstation
[2025-08-29 10:42:17] [info] User Name: kuro
[2025-08-29 10:42:17] [info] Cores Used: 4
[2025-08-29 10:42:17] [info] Memory Utilized: 8342.97 MB / 62.569698333740234 GB

[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] Top Cell Information
[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:42:17] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:42:17] [info] Database Format: GDSII
[2025-08-29 10:42:17] [info] Verification Mode: XOR Check

[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] XOR Mismatch Summary
[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] | Layer Name | XOR Errors |
[2025-08-29 10:42:17] [info] |-----|-----|
[2025-08-29 10:42:17] [info]
[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] Performance Metrics
[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] | Stage | Time Taken |
[2025-08-29 10:42:17] [info] |-----|-----|
[2025-08-29 10:42:17] [info] | GDS Parsing | 0 minutes 25 seconds |
[2025-08-29 10:42:17] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 10:42:17] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] Type of Errors | Count
[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] DB_ERR010 -> 4
[2025-08-29 10:42:17] [info] DB_WARN -> 1
[2025-08-29 10:42:17] [info] DB_WARN003 -> 68
[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] Summary
[2025-08-29 10:42:17] [info] -----
[2025-08-29 10:42:17] [info] Total XOR Mismatches: 4
[2025-08-29 10:42:17] [info] Total Warnings: 69
[2025-08-29 10:42:17] [info] XOR Status: MISMATCH

```

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[2025-08-29 10:42:28] [info] =====
[2025-08-29 10:42:28] [info] XOR Verification Report
[2025-08-29 10:42:28] [info] =====

[2025-08-29 10:42:28] [info] Report Generated: 2025-08-29
[2025-08-29 10:42:28] [info] Run Start Time: 10:42:27 AM
[2025-08-29 10:42:28] [info] Run End Time: 10:42:28 AM
[2025-08-29 10:42:28] [info] Time Taken: 0 minutes 8 seconds

[2025-08-29 10:42:28] [info] Tool Version: LVR_2025.1
[2025-08-29 10:42:28] [info] Host Name: kuro-Workstation
[2025-08-29 10:42:28] [info] User Name: kuro
[2025-08-29 10:42:28] [info] Cores Used: 8
[2025-08-29 10:42:28] [info] Memory Utilized: 3834.91 MB / 62.569698333740234 GB

[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] Top Cell Information
[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:42:28] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:42:28] [info] Database Format: GDSII
[2025-08-29 10:42:28] [info] Verification Mode: XOR Check

[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] XOR Mismatch Summary
[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] | Layer Name | XOR Errors |
[2025-08-29 10:42:28] [info] |-----|-----|
[2025-08-29 10:42:28] [info]
[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] Performance Metrics
[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] | Stage | Time Taken |
[2025-08-29 10:42:28] [info] |-----|-----|
[2025-08-29 10:42:28] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-08-29 10:42:28] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:42:28] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] Type of Errors | Count
[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] DB_ERR010 -> 4
[2025-08-29 10:42:28] [info] DB_WARN -> 1
[2025-08-29 10:42:28] [info] DB_WARN003 -> 442
[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] Summary
[2025-08-29 10:42:28] [info] -----
[2025-08-29 10:42:28] [info] Total XOR Mismatches: 4
[2025-08-29 10:42:28] [info] Total Warnings: 443
[2025-08-29 10:42:28] [info] XOR Status: MISMATCH

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[2025-08-29 10:42:37] [info] =====
[2025-08-29 10:42:37] [info] XOR Verification Report
[2025-08-29 10:42:37] [info] =====

[2025-08-29 10:42:37] [info] Report Generated: 2025-08-29
[2025-08-29 10:42:37] [info] Run Start Time: 10:42:37 AM
[2025-08-29 10:42:37] [info] Run End Time: 10:42:37 AM
[2025-08-29 10:42:37] [info] Time Taken: 0 minutes 8 seconds

[2025-08-29 10:42:37] [info] Tool Version: LVR_2025.1
[2025-08-29 10:42:37] [info] Host Name: kuro-Workstation
[2025-08-29 10:42:37] [info] User Name: kuro
[2025-08-29 10:42:37] [info] Cores Used: 8
[2025-08-29 10:42:37] [info] Memory Utilized: 3866.55 MB / 62.569698333740234 GB

[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] Top Cell Information
[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:42:37] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:42:37] [info] Database Format: GDSII
[2025-08-29 10:42:37] [info] Verification Mode: XOR Check

[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] XOR Mismatch Summary
[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] | Layer Name | XOR Errors |
[2025-08-29 10:42:37] [info] |-----|-----|
[2025-08-29 10:42:37] [info]
[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] Performance Metrics
[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] | Stage | Time Taken |
[2025-08-29 10:42:37] [info] |-----|-----|
[2025-08-29 10:42:37] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-08-29 10:42:37] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:42:37] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] Type of Errors | Count
[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] DB_ERR010 -> 4
[2025-08-29 10:42:37] [info] DB_WARN -> 1
[2025-08-29 10:42:37] [info] DB_WARN003 -> 438
[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] Summary
[2025-08-29 10:42:37] [info] -----
[2025-08-29 10:42:37] [info] Total XOR Mismatches: 4
[2025-08-29 10:42:37] [info] Total Warnings: 439
[2025-08-29 10:42:37] [info] XOR Status: MISMATCH

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[2025-08-29 10:42:47] [info] =====
[2025-08-29 10:42:47] [info] XOR Verification Report
[2025-08-29 10:42:47] [info] =====

[2025-08-29 10:42:47] [info] Report Generated: 2025-08-29
[2025-08-29 10:42:47] [info] Run Start Time: 10:42:46 AM
[2025-08-29 10:42:47] [info] Run End Time: 10:42:47 AM
[2025-08-29 10:42:47] [info] Time Taken: 0 minutes 8 seconds

[2025-08-29 10:42:47] [info] Tool Version: LVR_2025.1
[2025-08-29 10:42:47] [info] Host Name: kuro-Workstation
[2025-08-29 10:42:47] [info] User Name: kuro
[2025-08-29 10:42:47] [info] Cores Used: 8
[2025-08-29 10:42:47] [info] Memory Utilized: 3828.25 MB / 62.569698333740234 GB

[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] Top Cell Information
[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:42:47] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:42:47] [info] Database Format: GDSII
[2025-08-29 10:42:47] [info] Verification Mode: XOR Check

[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] XOR Mismatch Summary
[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] | Layer Name | XOR Errors |
[2025-08-29 10:42:47] [info] |-----|-----|
[2025-08-29 10:42:47] [info]
[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] Performance Metrics
[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] | Stage | Time Taken |
[2025-08-29 10:42:47] [info] |-----|-----|
[2025-08-29 10:42:47] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-08-29 10:42:47] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:42:47] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] Type of Errors | Count
[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] DB_ERR010 -> 4
[2025-08-29 10:42:47] [info] DB_WARN -> 1
[2025-08-29 10:42:47] [info] DB_WARN003 -> 442
[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] Summary
[2025-08-29 10:42:47] [info] -----
[2025-08-29 10:42:47] [info] Total XOR Mismatches: 4
[2025-08-29 10:42:47] [info] Total Warnings: 443
[2025-08-29 10:42:47] [info] XOR Status: MISMATCH

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[2025-08-29 10:42:19] [info] =====
[2025-08-29 10:42:19] [info]                XOR Verification Report
[2025-08-29 10:42:19] [info] =====

[2025-08-29 10:42:19] [info] Report Generated:    2025-08-29
[2025-08-29 10:42:19] [info] Run Start Time:      10:42:19 AM
[2025-08-29 10:42:19] [info] Run End Time:        10:42:19 AM
[2025-08-29 10:42:19] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:42:19] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:42:19] [info] Host Name:           kuro-Workstation
[2025-08-29 10:42:19] [info] User Name:           kuro
[2025-08-29 10:42:19] [info] Cores Used:          8
[2025-08-29 10:42:19] [info] Memory Utilized:     84.97 MB / 62.569698333740234 GB

[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                Top Cell Information
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] Layout Top Cell:     gcd
[2025-08-29 10:42:19] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:42:19] [info] Database Format:       GDSII
[2025-08-29 10:42:19] [info] Verification Mode:    XOR Check

[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                XOR Mismatch Summary
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] | Layer Name | XOR Errors |
[2025-08-29 10:42:19] [info] |-----|-----|
[2025-08-29 10:42:19] [info]
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                Performance Metrics
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] | Stage | Time Taken |
[2025-08-29 10:42:19] [info] |-----|-----|
[2025-08-29 10:42:19] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:42:19] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:42:19] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                Type of Errors | Count
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] DB_ERR010 -> 4
[2025-08-29 10:42:19] [info] DB_WARN -> 1
[2025-08-29 10:42:19] [info] DB_WARN003 -> 48
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                Summary
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] Total XOR Mismatches:    4
[2025-08-29 10:42:19] [info] Total Warnings:         49
[2025-08-29 10:42:19] [info] XOR Status:             MISMATCH

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[2025-08-29 10:42:19] [info] =====
[2025-08-29 10:42:19] [info]                XOR Verification Report
[2025-08-29 10:42:19] [info] =====

[2025-08-29 10:42:19] [info] Report Generated:    2025-08-29
[2025-08-29 10:42:19] [info] Run Start Time:      10:42:19 AM
[2025-08-29 10:42:19] [info] Run End Time:        10:42:19 AM
[2025-08-29 10:42:19] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:42:19] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:42:19] [info] Host Name:           kuro-Workstation
[2025-08-29 10:42:19] [info] User Name:           kuro
[2025-08-29 10:42:19] [info] Cores Used:          8
[2025-08-29 10:42:19] [info] Memory Utilized:     85.63 MB / 62.569698333740234 GB

[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                Top Cell Information
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] Layout Top Cell:     gcd
[2025-08-29 10:42:19] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:42:19] [info] Database Format:       GDSII
[2025-08-29 10:42:19] [info] Verification Mode:    XOR Check

[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                XOR Mismatch Summary
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] | Layer Name | XOR Errors |
[2025-08-29 10:42:19] [info] |-----|-----|
[2025-08-29 10:42:19] [info]
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                Performance Metrics
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] | Stage | Time Taken |
[2025-08-29 10:42:19] [info] |-----|-----|
[2025-08-29 10:42:19] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 10:42:19] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:42:19] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                Type of Errors | Count
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] DB_ERR010 -> 4
[2025-08-29 10:42:19] [info] DB_WARN -> 1
[2025-08-29 10:42:19] [info] DB_WARN003 -> 68
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info]                Summary
[2025-08-29 10:42:19] [info] -----
[2025-08-29 10:42:19] [info] Total XOR Mismatches:    4
[2025-08-29 10:42:19] [info] Total Warnings:         69
[2025-08-29 10:42:19] [info] XOR Status:             MISMATCH

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[2025-08-29 10:42:20] [info] =====
[2025-08-29 10:42:20] [info]                      XOR Verification Report
[2025-08-29 10:42:20] [info] =====

[2025-08-29 10:42:20] [info] Report Generated:    2025-08-29
[2025-08-29 10:42:20] [info] Run Start Time:      10:42:20 AM
[2025-08-29 10:42:20] [info] Run End Time:        10:42:20 AM
[2025-08-29 10:42:20] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:42:20] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:42:20] [info] Host Name:           kuro-Workstation
[2025-08-29 10:42:20] [info] User Name:           kuro
[2025-08-29 10:42:20] [info] Cores Used:          8
[2025-08-29 10:42:20] [info] Memory Utilized:     84.20 MB / 62.569698333740234 GB

[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info]                      Top Cell Information
[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info] Layout Top Cell:     gcd
[2025-08-29 10:42:20] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:42:20] [info] Database Format:       GDSII
[2025-08-29 10:42:20] [info] Verification Mode:    XOR Check

[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info]                      XOR Mismatch Summary
[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info] | Layer Name      | XOR Errors |
[2025-08-29 10:42:20] [info] |-----|-----|
[2025-08-29 10:42:20] [info]
[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info]                      Performance Metrics
[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info] | Stage              | Time Taken |
[2025-08-29 10:42:20] [info] |-----|-----|
[2025-08-29 10:42:20] [info] | GDS Parsing         | 0 minutes 0 seconds |
[2025-08-29 10:42:20] [info] | Layer Comparison     | 0 minutes 0 seconds |
[2025-08-29 10:42:20] [info] | Report Generation    | 0 minutes 0 seconds |

[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info]                      Type of Errors | Count
[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info] DB_ERR010 -> 4
[2025-08-29 10:42:20] [info] DB_WARN -> 1
[2025-08-29 10:42:20] [info] DB_WARN003 -> 52
[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info]                      Summary
[2025-08-29 10:42:20] [info] -----
[2025-08-29 10:42:20] [info] Total XOR Mismatches:    4
[2025-08-29 10:42:20] [info] Total Warnings:         53
[2025-08-29 10:42:20] [info] XOR Status:              MISMATCH

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[2025-08-29 10:42:57] [info] =====
[2025-08-29 10:42:57] [info] XOR Verification Report
[2025-08-29 10:42:57] [info] =====

[2025-08-29 10:42:57] [info] Report Generated: 2025-08-29
[2025-08-29 10:42:57] [info] Run Start Time: 10:42:56 AM
[2025-08-29 10:42:57] [info] Run End Time: 10:42:57 AM
[2025-08-29 10:42:57] [info] Time Taken: 0 minutes 9 seconds

[2025-08-29 10:42:57] [info] Tool Version: LVR_2025.1
[2025-08-29 10:42:57] [info] Host Name: kuro-Workstation
[2025-08-29 10:42:57] [info] User Name: kuro
[2025-08-29 10:42:57] [info] Cores Used: 8
[2025-08-29 10:42:57] [info] Memory Utilized: 4178.73 MB / 62.569698333740234 GB

[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] Top Cell Information
[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] Layout Top Cell: ibex_core
[2025-08-29 10:42:57] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:42:57] [info] Database Format: GDSII
[2025-08-29 10:42:57] [info] Verification Mode: XOR Check

[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] XOR Mismatch Summary
[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] | Layer Name | XOR Errors |
[2025-08-29 10:42:57] [info] |-----|-----|
[2025-08-29 10:42:57] [info]
[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] Performance Metrics
[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] | Stage | Time Taken |
[2025-08-29 10:42:57] [info] |-----|-----|
[2025-08-29 10:42:57] [info] | GDS Parsing | 0 minutes 8 seconds |
[2025-08-29 10:42:57] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:42:57] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] Type of Errors | Count
[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] DB_ERR010 -> 4
[2025-08-29 10:42:57] [info] DB_WARN -> 1
[2025-08-29 10:42:57] [info] DB_WARN003 -> 170
[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] Summary
[2025-08-29 10:42:57] [info] -----
[2025-08-29 10:42:57] [info] Total XOR Mismatches: 4
[2025-08-29 10:42:57] [info] Total Warnings: 171
[2025-08-29 10:42:57] [info] XOR Status: MISMATCH

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[2025-08-29 10:43:07] [info] =====
[2025-08-29 10:43:07] [info]                      XOR Verification Report
[2025-08-29 10:43:07] [info] =====

[2025-08-29 10:43:07] [info] Report Generated:    2025-08-29
[2025-08-29 10:43:07] [info] Run Start Time:      10:43:06 AM
[2025-08-29 10:43:07] [info] Run End Time:        10:43:07 AM
[2025-08-29 10:43:07] [info] Time Taken:          0 minutes 9 seconds

[2025-08-29 10:43:07] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:43:07] [info] Host Name:           kuro-Workstation
[2025-08-29 10:43:07] [info] User Name:           kuro
[2025-08-29 10:43:07] [info] Cores Used:           8
[2025-08-29 10:43:07] [info] Memory Utilized:     4283.35 MB / 62.569698333740234 GB

[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info]                      Top Cell Information
[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info] Layout Top Cell:     ibex_core
[2025-08-29 10:43:07] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:43:07] [info] Database Format:       GDSII
[2025-08-29 10:43:07] [info] Verification Mode:    XOR Check

[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info]                      XOR Mismatch Summary
[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info] | Layer Name | XOR Errors |
[2025-08-29 10:43:07] [info] |-----|-----|
[2025-08-29 10:43:07] [info]
[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info]                      Performance Metrics
[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info] | Stage | Time Taken |
[2025-08-29 10:43:07] [info] |-----|-----|
[2025-08-29 10:43:07] [info] | GDS Parsing | 0 minutes 8 seconds |
[2025-08-29 10:43:07] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:43:07] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info]                      Type of Errors | Count
[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info] DB_ERR010 -> 4
[2025-08-29 10:43:07] [info] DB_WARN -> 1
[2025-08-29 10:43:07] [info] DB_WARN003 -> 170
[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info]                      Summary
[2025-08-29 10:43:07] [info] -----
[2025-08-29 10:43:07] [info] Total XOR Mismatches:    4
[2025-08-29 10:43:07] [info] Total Warnings:          171
[2025-08-29 10:43:07] [info] XOR Status:              MISMATCH

```

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[2025-08-29 10:43:17] [info] =====
[2025-08-29 10:43:17] [info] XOR Verification Report
[2025-08-29 10:43:17] [info] =====

[2025-08-29 10:43:17] [info] Report Generated: 2025-08-29
[2025-08-29 10:43:17] [info] Run Start Time: 10:43:17 AM
[2025-08-29 10:43:17] [info] Run End Time: 10:43:17 AM
[2025-08-29 10:43:17] [info] Time Taken: 0 minutes 9 seconds

[2025-08-29 10:43:17] [info] Tool Version: LVR_2025.1
[2025-08-29 10:43:17] [info] Host Name: kuro-Workstation
[2025-08-29 10:43:17] [info] User Name: kuro
[2025-08-29 10:43:17] [info] Cores Used: 8
[2025-08-29 10:43:17] [info] Memory Utilized: 4160.91 MB / 62.569698333740234 GB

[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] Top Cell Information
[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] Layout Top Cell: ibex_core
[2025-08-29 10:43:17] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:43:17] [info] Database Format: GDSII
[2025-08-29 10:43:17] [info] Verification Mode: XOR Check

[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] XOR Mismatch Summary
[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] | Layer Name | XOR Errors |
[2025-08-29 10:43:17] [info] |-----|-----|
[2025-08-29 10:43:17] [info]
[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] Performance Metrics
[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] | Stage | Time Taken |
[2025-08-29 10:43:17] [info] |-----|-----|
[2025-08-29 10:43:17] [info] | GDS Parsing | 0 minutes 8 seconds |
[2025-08-29 10:43:17] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 10:43:17] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] Type of Errors | Count
[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] DB_ERR010 -> 4
[2025-08-29 10:43:17] [info] DB_WARN -> 1
[2025-08-29 10:43:17] [info] DB_WARN003 -> 196
[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] Summary
[2025-08-29 10:43:17] [info] -----
[2025-08-29 10:43:17] [info] Total XOR Mismatches: 4
[2025-08-29 10:43:17] [info] Total Warnings: 197
[2025-08-29 10:43:17] [info] XOR Status: MISMATCH

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[2025-08-29 10:43:51] [info] =====
[2025-08-29 10:43:51] [info] XOR Verification Report
[2025-08-29 10:43:51] [info] =====

[2025-08-29 10:43:51] [info] Report Generated: 2025-08-29
[2025-08-29 10:43:51] [info] Run Start Time: 10:43:48 AM
[2025-08-29 10:43:51] [info] Run End Time: 10:43:51 AM
[2025-08-29 10:43:51] [info] Time Taken: 0 minutes 32 seconds

[2025-08-29 10:43:51] [info] Tool Version: LVR_2025.1
[2025-08-29 10:43:51] [info] Host Name: kuro-Workstation
[2025-08-29 10:43:51] [info] User Name: kuro
[2025-08-29 10:43:51] [info] Cores Used: 8
[2025-08-29 10:43:51] [info] Memory Utilized: 13604.73 MB / 62.569698333740234 GB

[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] Top Cell Information
[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:43:51] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:43:51] [info] Database Format: GDSII
[2025-08-29 10:43:51] [info] Verification Mode: XOR Check

[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] XOR Mismatch Summary
[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] | Layer Name | XOR Errors |
[2025-08-29 10:43:51] [info] |-----|-----|
[2025-08-29 10:43:51] [info]
[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] Performance Metrics
[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] | Stage | Time Taken |
[2025-08-29 10:43:51] [info] |-----|-----|
[2025-08-29 10:43:51] [info] | GDS Parsing | 0 minutes 29 seconds |
[2025-08-29 10:43:51] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 10:43:51] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] Type of Errors | Count
[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] DB_ERR010 -> 4
[2025-08-29 10:43:51] [info] DB_WARN -> 1
[2025-08-29 10:43:51] [info] DB_WARN003 -> 74
[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] Summary
[2025-08-29 10:43:51] [info] -----
[2025-08-29 10:43:51] [info] Total XOR Mismatches: 4
[2025-08-29 10:43:51] [info] Total Warnings: 75
[2025-08-29 10:43:51] [info] XOR Status: MISMATCH
```

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[2025-08-29 10:44:26] [info] =====
[2025-08-29 10:44:26] [info]                      XOR Verification Report
[2025-08-29 10:44:26] [info] =====

[2025-08-29 10:44:26] [info] Report Generated:    2025-08-29
[2025-08-29 10:44:26] [info] Run Start Time:      10:44:23 AM
[2025-08-29 10:44:26] [info] Run End Time:        10:44:26 AM
[2025-08-29 10:44:26] [info] Time Taken:          0 minutes 33 seconds

[2025-08-29 10:44:26] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:44:26] [info] Host Name:           kuro-Workstation
[2025-08-29 10:44:26] [info] User Name:           kuro
[2025-08-29 10:44:26] [info] Cores Used:           8
[2025-08-29 10:44:26] [info] Memory Utilized:     13738.25 MB / 62.569698333740234 GB

[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info]                      Top Cell Information
[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 10:44:26] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:44:26] [info] Database Format:       GDSII
[2025-08-29 10:44:26] [info] Verification Mode:    XOR Check

[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info]                      XOR Mismatch Summary
[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info] | Layer Name | XOR Errors |
[2025-08-29 10:44:26] [info] |-----|-----|
[2025-08-29 10:44:26] [info]
[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info]                      Performance Metrics
[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info] | Stage | Time Taken |
[2025-08-29 10:44:26] [info] |-----|-----|
[2025-08-29 10:44:26] [info] | GDS Parsing | 0 minutes 30 seconds |
[2025-08-29 10:44:26] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 10:44:26] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info]                      Type of Errors | Count
[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info] DB_ERR010 -> 4
[2025-08-29 10:44:26] [info] DB_WARN -> 1
[2025-08-29 10:44:26] [info] DB_WARN003 -> 78
[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info]                      Summary
[2025-08-29 10:44:26] [info] -----
[2025-08-29 10:44:26] [info] Total XOR Mismatches:    4
[2025-08-29 10:44:26] [info] Total Warnings:         79
[2025-08-29 10:44:26] [info] XOR Status:             MISMATCH

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[2025-08-29 10:45:01] [info] =====
[2025-08-29 10:45:01] [info] XOR Verification Report
[2025-08-29 10:45:01] [info] =====

[2025-08-29 10:45:01] [info] Report Generated: 2025-08-29
[2025-08-29 10:45:01] [info] Run Start Time: 10:44:58 AM
[2025-08-29 10:45:01] [info] Run End Time: 10:45:00 AM
[2025-08-29 10:45:01] [info] Time Taken: 0 minutes 32 seconds

[2025-08-29 10:45:01] [info] Tool Version: LVR_2025.1
[2025-08-29 10:45:01] [info] Host Name: kuro-Workstation
[2025-08-29 10:45:01] [info] User Name: kuro
[2025-08-29 10:45:01] [info] Cores Used: 8
[2025-08-29 10:45:01] [info] Memory Utilized: 13536.80 MB / 62.569698333740234 GB

[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] Top Cell Information
[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] Layout Top Cell: jpeg_encoder
[2025-08-29 10:45:01] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:45:01] [info] Database Format: GDSII
[2025-08-29 10:45:01] [info] Verification Mode: XOR Check

[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] XOR Mismatch Summary
[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] | Layer Name | XOR Errors |
[2025-08-29 10:45:01] [info] |-----|-----|
[2025-08-29 10:45:01] [info]
[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] Performance Metrics
[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] | Stage | Time Taken |
[2025-08-29 10:45:01] [info] |-----|-----|
[2025-08-29 10:45:01] [info] | GDS Parsing | 0 minutes 29 seconds |
[2025-08-29 10:45:01] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 10:45:01] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] Type of Errors | Count
[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] DB_ERR010 -> 4
[2025-08-29 10:45:01] [info] DB_WARN -> 1
[2025-08-29 10:45:01] [info] DB_WARN003 -> 68
[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] Summary
[2025-08-29 10:45:01] [info] -----
[2025-08-29 10:45:01] [info] Total XOR Mismatches: 4
[2025-08-29 10:45:01] [info] Total Warnings: 69
[2025-08-29 10:45:01] [info] XOR Status: MISMATCH
```

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[2025-08-29 09:44:37] [info] =====
[2025-08-29 09:44:37] [info] XOR Verification Report
[2025-08-29 09:44:37] [info] =====

[2025-08-29 09:44:37] [info] Report Generated: 2025-08-29
[2025-08-29 09:44:37] [info] Run Start Time: 09:44:36 AM
[2025-08-29 09:44:37] [info] Run End Time: 09:44:37 AM
[2025-08-29 09:44:37] [info] Time Taken: 0 minutes 24 seconds

[2025-08-29 09:44:37] [info] Tool Version: LVR_2025.1
[2025-08-29 09:44:37] [info] Host Name: kuro-Workstation
[2025-08-29 09:44:37] [info] User Name: kuro
[2025-08-29 09:44:37] [info] Cores Used: 16
[2025-08-29 09:44:37] [info] Memory Utilized: 11396.38 MB / 62.569698333740234 GB

[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] Top Cell Information
[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] Layout Top Cell: aes_cipher_top1_sky130hd
[2025-08-29 09:44:37] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:44:37] [info] Database Format: GDSII
[2025-08-29 09:44:37] [info] Verification Mode: XOR Check

[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] XOR Mismatch Summary
[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] | Layer Name | XOR Errors |
[2025-08-29 09:44:37] [info] |-----|-----|
[2025-08-29 09:44:37] [info]
[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] Performance Metrics
[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] | Stage | Time Taken |
[2025-08-29 09:44:37] [info] |-----|-----|
[2025-08-29 09:44:37] [info] | GDS Parsing | 0 minutes 22 seconds |
[2025-08-29 09:44:37] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:44:37] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] Type of Errors | Count
[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] DB_ERR010 -> 4
[2025-08-29 09:44:37] [info] DB_WARN -> 1
[2025-08-29 09:44:37] [info] LRF_ERR001 -> 14
[2025-08-29 09:44:37] [info] DB_WARN002 -> 288
[2025-08-29 09:44:37] [info] DB_WARN003 -> 274
[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] Summary
[2025-08-29 09:44:37] [info] -----
[2025-08-29 09:44:37] [info] Total XOR Mismatches: 18
[2025-08-29 09:44:37] [info] Total Warnings: 563
[2025-08-29 09:44:37] [info] XOR Status: MISMATCH
```

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[2025-08-29 09:45:07] [info] =====
[2025-08-29 09:45:07] [info]                      XOR Verification Report
[2025-08-29 09:45:07] [info] =====

[2025-08-29 09:45:07] [info] Report Generated:    2025-08-29
[2025-08-29 09:45:07] [info] Run Start Time:      09:45:06 AM
[2025-08-29 09:45:07] [info] Run End Time:        09:45:07 AM
[2025-08-29 09:45:07] [info] Time Taken:          0 minutes 26 seconds

[2025-08-29 09:45:07] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:45:07] [info] Host Name:           kuro-Workstation
[2025-08-29 09:45:07] [info] User Name:           kuro
[2025-08-29 09:45:07] [info] Cores Used:          16
[2025-08-29 09:45:07] [info] Memory Utilized:     12061.78 MB / 62.569698333740234 GB

[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info]                      Top Cell Information
[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-08-29 09:45:07] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:45:07] [info] Database Format:       GDSII
[2025-08-29 09:45:07] [info] Verification Mode:    XOR Check

[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info]                      XOR Mismatch Summary
[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:45:07] [info] |-----|-----|
[2025-08-29 09:45:07] [info]
[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info]                      Performance Metrics
[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info] | Stage           | Time Taken |
[2025-08-29 09:45:07] [info] |-----|-----|
[2025-08-29 09:45:07] [info] | GDS Parsing      | 0 minutes 25 seconds |
[2025-08-29 09:45:07] [info] | Layer Comparison  | 0 minutes 0 seconds  |
[2025-08-29 09:45:07] [info] | Report Generation | 0 minutes 0 seconds  |

[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info]                      Type of Errors | Count
[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info] DB_ERR010 -> 4
[2025-08-29 09:45:07] [info] DB_WARN -> 1
[2025-08-29 09:45:07] [info] LRF_ERR001 -> 14
[2025-08-29 09:45:07] [info] DB_WARN002 -> 282
[2025-08-29 09:45:07] [info] DB_WARN003 -> 270
[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info]                      Summary
[2025-08-29 09:45:07] [info] -----
[2025-08-29 09:45:07] [info] Total XOR Mismatches:    18
[2025-08-29 09:45:07] [info] Total Warnings:          553
[2025-08-29 09:45:07] [info] XOR Status:              MISMATCH

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[2025-08-29 09:45:32] [info] =====
[2025-08-29 09:45:32] [info] XOR Verification Report
[2025-08-29 09:45:32] [info] =====

[2025-08-29 09:45:32] [info] Report Generated: 2025-08-29
[2025-08-29 09:45:32] [info] Run Start Time: 09:45:31 AM
[2025-08-29 09:45:32] [info] Run End Time: 09:45:31 AM
[2025-08-29 09:45:32] [info] Time Taken: 0 minutes 20 seconds

[2025-08-29 09:45:32] [info] Tool Version: LVR_2025.1
[2025-08-29 09:45:32] [info] Host Name: kuro-Workstation
[2025-08-29 09:45:32] [info] User Name: kuro
[2025-08-29 09:45:32] [info] Cores Used: 16
[2025-08-29 09:45:32] [info] Memory Utilized: 9355.11 MB / 62.569698333740234 GB

[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] Top Cell Information
[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] Layout Top Cell: aes_cipher_top3_sky130hd
[2025-08-29 09:45:32] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:45:32] [info] Database Format: GDSII
[2025-08-29 09:45:32] [info] Verification Mode: XOR Check

[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] XOR Mismatch Summary
[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] | Layer Name | XOR Errors |
[2025-08-29 09:45:32] [info] |-----|-----|
[2025-08-29 09:45:32] [info]
[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] Performance Metrics
[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] | Stage | Time Taken |
[2025-08-29 09:45:32] [info] |-----|-----|
[2025-08-29 09:45:32] [info] | GDS Parsing | 0 minutes 19 seconds |
[2025-08-29 09:45:32] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:45:32] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] Type of Errors | Count
[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] DB_ERR010 -> 4
[2025-08-29 09:45:32] [info] DB_WARN -> 1
[2025-08-29 09:45:32] [info] LRF_ERR001 -> 14
[2025-08-29 09:45:32] [info] DB_WARN002 -> 276
[2025-08-29 09:45:32] [info] DB_WARN003 -> 264
[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] Summary
[2025-08-29 09:45:32] [info] -----
[2025-08-29 09:45:32] [info] Total XOR Mismatches: 18
[2025-08-29 09:45:32] [info] Total Warnings: 541
[2025-08-29 09:45:32] [info] XOR Status: MISMATCH

```

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[2025-08-29 09:44:12] [info] =====
[2025-08-29 09:44:12] [info]                      XOR Verification Report
[2025-08-29 09:44:12] [info] =====

[2025-08-29 09:44:12] [info] Report Generated:    2025-08-29
[2025-08-29 09:44:12] [info] Run Start Time:      09:44:12 AM
[2025-08-29 09:44:12] [info] Run End Time:        09:44:12 AM
[2025-08-29 09:44:12] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:44:12] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:44:12] [info] Host Name:           kuro-Workstation
[2025-08-29 09:44:12] [info] User Name:           kuro
[2025-08-29 09:44:12] [info] Cores Used:          16
[2025-08-29 09:44:12] [info] Memory Utilized:     185.43 MB / 62.569698333740234 GB

[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info]                      Top Cell Information
[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info] Layout Top Cell:     gcd1_sky130hd
[2025-08-29 09:44:12] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:44:12] [info] Database Format:       GDSII
[2025-08-29 09:44:12] [info] Verification Mode:    XOR Check

[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info]                      XOR Mismatch Summary
[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info] | Layer Name | XOR Errors |
[2025-08-29 09:44:12] [info] |-----|-----|
[2025-08-29 09:44:12] [info]
[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info]                      Performance Metrics
[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info] | Stage | Time Taken |
[2025-08-29 09:44:12] [info] |-----|-----|
[2025-08-29 09:44:12] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:44:12] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:44:12] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info]                      Type of Errors | Count
[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info] DB_ERR010 -> 4
[2025-08-29 09:44:12] [info] DB_WARN -> 1
[2025-08-29 09:44:12] [info] LRF_ERR001 -> 14
[2025-08-29 09:44:12] [info] DB_WARN002 -> 116
[2025-08-29 09:44:12] [info] DB_WARN003 -> 110
[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info]                      Summary
[2025-08-29 09:44:12] [info] -----
[2025-08-29 09:44:12] [info] Total XOR Mismatches:    18
[2025-08-29 09:44:12] [info] Total Warnings:          227
[2025-08-29 09:44:12] [info] XOR Status:              MISMATCH
```

```

[2025-08-29 09:44:13] [info] =====
[2025-08-29 09:44:13] [info]                      XOR Verification Report
[2025-08-29 09:44:13] [info] =====

[2025-08-29 09:44:13] [info] Report Generated:    2025-08-29
[2025-08-29 09:44:13] [info] Run Start Time:      09:44:13 AM
[2025-08-29 09:44:13] [info] Run End Time:        09:44:13 AM
[2025-08-29 09:44:13] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:44:13] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:44:13] [info] Host Name:           kuro-Workstation
[2025-08-29 09:44:13] [info] User Name:           kuro
[2025-08-29 09:44:13] [info] Cores Used:          16
[2025-08-29 09:44:13] [info] Memory Utilized:     183.51 MB / 62.569698333740234 GB

[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      Top Cell Information
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] Layout Top Cell:     gcd2_sky130hd
[2025-08-29 09:44:13] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:44:13] [info] Database Format:       GDSII
[2025-08-29 09:44:13] [info] Verification Mode:    XOR Check

[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      XOR Mismatch Summary
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] | Layer Name | XOR Errors |
[2025-08-29 09:44:13] [info] |-----|-----|
[2025-08-29 09:44:13] [info]
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      Performance Metrics
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] | Stage | Time Taken |
[2025-08-29 09:44:13] [info] |-----|-----|
[2025-08-29 09:44:13] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:44:13] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:44:13] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      Type of Errors | Count
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] DB_ERR010 -> 4
[2025-08-29 09:44:13] [info] DB_WARN -> 1
[2025-08-29 09:44:13] [info] LRF_ERR001 -> 14
[2025-08-29 09:44:13] [info] DB_WARN002 -> 118
[2025-08-29 09:44:13] [info] DB_WARN003 -> 112
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      Summary
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] Total XOR Mismatches:    18
[2025-08-29 09:44:13] [info] Total Warnings:         231
[2025-08-29 09:44:13] [info] XOR Status:             MISMATCH

```

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[2025-08-29 09:44:13] [info] =====
[2025-08-29 09:44:13] [info]                      XOR Verification Report
[2025-08-29 09:44:13] [info] =====

[2025-08-29 09:44:13] [info] Report Generated:    2025-08-29
[2025-08-29 09:44:13] [info] Run Start Time:      09:44:13 AM
[2025-08-29 09:44:13] [info] Run End Time:        09:44:13 AM
[2025-08-29 09:44:13] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:44:13] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:44:13] [info] Host Name:           kuro-Workstation
[2025-08-29 09:44:13] [info] User Name:           kuro
[2025-08-29 09:44:13] [info] Cores Used:          16
[2025-08-29 09:44:13] [info] Memory Utilized:     173.76 MB / 62.569698333740234 GB

[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      Top Cell Information
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] Layout Top Cell:     gcd3_sky130hd
[2025-08-29 09:44:13] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:44:13] [info] Database Format:       GDSII
[2025-08-29 09:44:13] [info] Verification Mode:    XOR Check

[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      XOR Mismatch Summary
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:44:13] [info] |-----|-----|
[2025-08-29 09:44:13] [info]
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      Performance Metrics
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] | Stage              | Time Taken |
[2025-08-29 09:44:13] [info] |-----|-----|
[2025-08-29 09:44:13] [info] | GDS Parsing        | 0 minutes 0 seconds |
[2025-08-29 09:44:13] [info] | Layer Comparison    | 0 minutes 0 seconds |
[2025-08-29 09:44:13] [info] | Report Generation   | 0 minutes 0 seconds |

[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      Type of Errors | Count
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] DB_ERR010 -> 4
[2025-08-29 09:44:13] [info] DB_WARN -> 1
[2025-08-29 09:44:13] [info] LRF_ERR001 -> 14
[2025-08-29 09:44:13] [info] DB_WARN002 -> 118
[2025-08-29 09:44:13] [info] DB_WARN003 -> 112
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info]                      Summary
[2025-08-29 09:44:13] [info] -----
[2025-08-29 09:44:13] [info] Total XOR Mismatches:    18
[2025-08-29 09:44:13] [info] Total Warnings:          231
[2025-08-29 09:44:13] [info] XOR Status:              MISMATCH
```

```
[2025-08-29 09:46:01] [info] =====
[2025-08-29 09:46:01] [info]                      XOR Verification Report
[2025-08-29 09:46:01] [info] =====

[2025-08-29 09:46:01] [info] Report Generated:    2025-08-29
[2025-08-29 09:46:01] [info] Run Start Time:      09:46:00 AM
[2025-08-29 09:46:01] [info] Run End Time:        09:46:01 AM
[2025-08-29 09:46:01] [info] Time Taken:          0 minutes 26 seconds

[2025-08-29 09:46:01] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:46:01] [info] Host Name:           kuro-Workstation
[2025-08-29 09:46:01] [info] User Name:           kuro
[2025-08-29 09:46:01] [info] Cores Used:          16
[2025-08-29 09:46:01] [info] Memory Utilized:     12076.29 MB / 62.569698333740234 GB

[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info]                      Top Cell Information
[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-08-29 09:46:01] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:46:01] [info] Database Format:       GDSII
[2025-08-29 09:46:01] [info] Verification Mode:    XOR Check

[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info]                      XOR Mismatch Summary
[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:46:01] [info] |-----|-----|
[2025-08-29 09:46:01] [info]
[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info]                      Performance Metrics
[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info] | Stage              | Time Taken |
[2025-08-29 09:46:01] [info] |-----|-----|
[2025-08-29 09:46:01] [info] | GDS Parsing        | 0 minutes 25 seconds |
[2025-08-29 09:46:01] [info] | Layer Comparison    | 0 minutes 1 seconds  |
[2025-08-29 09:46:01] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info]                      Type of Errors | Count
[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info] DB_ERR010 -> 4
[2025-08-29 09:46:01] [info] DB_WARN -> 1
[2025-08-29 09:46:01] [info] LRF_ERR001 -> 14
[2025-08-29 09:46:01] [info] DB_WARN002 -> 502
[2025-08-29 09:46:01] [info] DB_WARN003 -> 502
[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info]                      Summary
[2025-08-29 09:46:01] [info] -----
[2025-08-29 09:46:01] [info] Total XOR Mismatches:    18
[2025-08-29 09:46:01] [info] Total Warnings:          1005
[2025-08-29 09:46:01] [info] XOR Status:              MISMATCH
```

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[2025-08-29 09:46:32] [info] =====
[2025-08-29 09:46:32] [info]                      XOR Verification Report
[2025-08-29 09:46:32] [info] =====

[2025-08-29 09:46:32] [info] Report Generated:    2025-08-29
[2025-08-29 09:46:32] [info] Run Start Time:      09:46:31 AM
[2025-08-29 09:46:32] [info] Run End Time:        09:46:32 AM
[2025-08-29 09:46:32] [info] Time Taken:          0 minutes 26 seconds

[2025-08-29 09:46:32] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:46:32] [info] Host Name:           kuro-Workstation
[2025-08-29 09:46:32] [info] User Name:           kuro
[2025-08-29 09:46:32] [info] Cores Used:          16
[2025-08-29 09:46:32] [info] Memory Utilized:     12086.92 MB / 62.569698333740234 GB

[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info]                      Top Cell Information
[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-08-29 09:46:32] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:46:32] [info] Database Format:       GDSII
[2025-08-29 09:46:32] [info] Verification Mode:    XOR Check

[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info]                      XOR Mismatch Summary
[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info] | Layer Name          | XOR Errors |
[2025-08-29 09:46:32] [info] |-----|-----|
[2025-08-29 09:46:32] [info]
[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info]                      Performance Metrics
[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info] | Stage                | Time Taken |
[2025-08-29 09:46:32] [info] |-----|-----|
[2025-08-29 09:46:32] [info] | GDS Parsing          | 0 minutes 25 seconds |
[2025-08-29 09:46:32] [info] | Layer Comparison     | 0 minutes 1 seconds  |
[2025-08-29 09:46:32] [info] | Report Generation    | 0 minutes 0 seconds  |

[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info]                      Type of Errors | Count
[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info] DB_ERR010 -> 4
[2025-08-29 09:46:32] [info] DB_WARN -> 1
[2025-08-29 09:46:32] [info] LRF_ERR001 -> 14
[2025-08-29 09:46:32] [info] DB_WARN002 -> 498
[2025-08-29 09:46:32] [info] DB_WARN003 -> 498
[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info]                      Summary
[2025-08-29 09:46:32] [info] -----
[2025-08-29 09:46:32] [info] Total XOR Mismatches:    18
[2025-08-29 09:46:32] [info] Total Warnings:          997
[2025-08-29 09:46:32] [info] XOR Status:              MISMATCH

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[2025-08-29 09:47:02] [info] =====
[2025-08-29 09:47:02] [info]                      XOR Verification Report
[2025-08-29 09:47:02] [info] =====

[2025-08-29 09:47:02] [info] Report Generated:    2025-08-29
[2025-08-29 09:47:02] [info] Run Start Time:      09:47:00 AM
[2025-08-29 09:47:02] [info] Run End Time:        09:47:02 AM
[2025-08-29 09:47:02] [info] Time Taken:          0 minutes 25 seconds

[2025-08-29 09:47:02] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:47:02] [info] Host Name:           kuro-Workstation
[2025-08-29 09:47:02] [info] User Name:           kuro
[2025-08-29 09:47:02] [info] Cores Used:          16
[2025-08-29 09:47:02] [info] Memory Utilized:     11830.72 MB / 62.569698333740234 GB

[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info]                      Top Cell Information
[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-08-29 09:47:02] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:47:02] [info] Database Format:       GDSII
[2025-08-29 09:47:02] [info] Verification Mode:    XOR Check

[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info]                      XOR Mismatch Summary
[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:47:02] [info] |-----|-----|
[2025-08-29 09:47:02] [info]
[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info]                      Performance Metrics
[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info] | Stage              | Time Taken |
[2025-08-29 09:47:02] [info] |-----|-----|
[2025-08-29 09:47:02] [info] | GDS Parsing        | 0 minutes 24 seconds |
[2025-08-29 09:47:02] [info] | Layer Comparison    | 0 minutes 1 seconds  |
[2025-08-29 09:47:02] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info]                      Type of Errors | Count
[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info] DB_ERR010 -> 4
[2025-08-29 09:47:02] [info] DB_WARN -> 1
[2025-08-29 09:47:02] [info] LRF_ERR001 -> 14
[2025-08-29 09:47:02] [info] DB_WARN002 -> 506
[2025-08-29 09:47:02] [info] DB_WARN003 -> 502
[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info]                      Summary
[2025-08-29 09:47:02] [info] -----
[2025-08-29 09:47:02] [info] Total XOR Mismatches:    18
[2025-08-29 09:47:02] [info] Total Warnings:          1009
[2025-08-29 09:47:02] [info] XOR Status:              MISMATCH
```

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[2025-08-29 09:48:12] [info] =====
[2025-08-29 09:48:12] [info]                      XOR Verification Report
[2025-08-29 09:48:12] [info] =====

[2025-08-29 09:48:12] [info] Report Generated:    2025-08-29
[2025-08-29 09:48:12] [info] Run Start Time:      09:48:09 AM
[2025-08-29 09:48:12] [info] Run End Time:        09:48:12 AM
[2025-08-29 09:48:12] [info] Time Taken:          1 minutes 7 seconds

[2025-08-29 09:48:12] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:48:12] [info] Host Name:           kuro-Workstation
[2025-08-29 09:48:12] [info] User Name:           kuro
[2025-08-29 09:48:12] [info] Cores Used:          16
[2025-08-29 09:48:12] [info] Memory Utilized:     28598.21 MB / 62.569698333740234 GB

[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info]                      Top Cell Information
[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-08-29 09:48:12] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:48:12] [info] Database Format:       GDSII
[2025-08-29 09:48:12] [info] Verification Mode:    XOR Check

[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info]                      XOR Mismatch Summary
[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info] | Layer Name | XOR Errors |
[2025-08-29 09:48:12] [info] |-----|-----|
[2025-08-29 09:48:12] [info]
[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info]                      Performance Metrics
[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info] | Stage | Time Taken |
[2025-08-29 09:48:12] [info] |-----|-----|
[2025-08-29 09:48:12] [info] | GDS Parsing | 1 minutes 3 seconds |
[2025-08-29 09:48:12] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 09:48:12] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info]                      Type of Errors | Count
[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info] DB_ERR010 -> 4
[2025-08-29 09:48:12] [info] DB_WARN -> 1
[2025-08-29 09:48:12] [info] LRF_ERR001 -> 14
[2025-08-29 09:48:12] [info] DB_WARN002 -> 318
[2025-08-29 09:48:12] [info] DB_WARN003 -> 322
[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info]                      Summary
[2025-08-29 09:48:12] [info] -----
[2025-08-29 09:48:12] [info] Total XOR Mismatches:    18
[2025-08-29 09:48:12] [info] Total Warnings:         641
[2025-08-29 09:48:12] [info] XOR Status:             MISMATCH

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[2025-08-29 09:49:34] [info] =====
[2025-08-29 09:49:34] [info]                      XOR Verification Report
[2025-08-29 09:49:34] [info] =====

[2025-08-29 09:49:34] [info] Report Generated:    2025-08-29
[2025-08-29 09:49:34] [info] Run Start Time:      09:49:30 AM
[2025-08-29 09:49:34] [info] Run End Time:        09:49:34 AM
[2025-08-29 09:49:34] [info] Time Taken:          1 minutes 12 seconds

[2025-08-29 09:49:34] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:49:34] [info] Host Name:           kuro-Workstation
[2025-08-29 09:49:34] [info] User Name:           kuro
[2025-08-29 09:49:34] [info] Cores Used:          16
[2025-08-29 09:49:34] [info] Memory Utilized:     30376.38 MB / 62.569698333740234 GB

[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info]                      Top Cell Information
[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-08-29 09:49:34] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:49:34] [info] Database Format:       GDSII
[2025-08-29 09:49:34] [info] Verification Mode:    XOR Check

[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info]                      XOR Mismatch Summary
[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:49:34] [info] |-----|-----|
[2025-08-29 09:49:34] [info]
[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info]                      Performance Metrics
[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info] | Stage              | Time Taken |
[2025-08-29 09:49:34] [info] |-----|-----|
[2025-08-29 09:49:34] [info] | GDS Parsing         | 1 minutes 8 seconds |
[2025-08-29 09:49:34] [info] | Layer Comparison     | 0 minutes 3 seconds |
[2025-08-29 09:49:34] [info] | Report Generation    | 0 minutes 0 seconds |

[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info]                      Type of Errors | Count
[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info] DB_ERR010 -> 4
[2025-08-29 09:49:34] [info] DB_WARN -> 1
[2025-08-29 09:49:34] [info] LRF_ERR001 -> 14
[2025-08-29 09:49:34] [info] DB_WARN002 -> 314
[2025-08-29 09:49:34] [info] DB_WARN003 -> 318
[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info]                      Summary
[2025-08-29 09:49:34] [info] -----
[2025-08-29 09:49:34] [info] Total XOR Mismatches:    18
[2025-08-29 09:49:34] [info] Total Warnings:          633
[2025-08-29 09:49:34] [info] XOR Status:              MISMATCH

```

```
[2025-08-29 09:50:49] [info] =====
[2025-08-29 09:50:49] [info]                      XOR Verification Report
[2025-08-29 09:50:49] [info] =====

[2025-08-29 09:50:49] [info] Report Generated:    2025-08-29
[2025-08-29 09:50:49] [info] Run Start Time:      09:50:45 AM
[2025-08-29 09:50:49] [info] Run End Time:        09:50:49 AM
[2025-08-29 09:50:49] [info] Time Taken:          1 minutes 4 seconds

[2025-08-29 09:50:49] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:50:49] [info] Host Name:           kuro-Workstation
[2025-08-29 09:50:49] [info] User Name:           kuro
[2025-08-29 09:50:49] [info] Cores Used:          16
[2025-08-29 09:50:49] [info] Memory Utilized:     27966.32 MB / 62.569698333740234 GB

[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info]                      Top Cell Information
[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-08-29 09:50:49] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:50:49] [info] Database Format:       GDSII
[2025-08-29 09:50:49] [info] Verification Mode:    XOR Check

[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info]                      XOR Mismatch Summary
[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info] | Layer Name          | XOR Errors |
[2025-08-29 09:50:49] [info] |-----|-----|
[2025-08-29 09:50:49] [info]
[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info]                      Performance Metrics
[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info] | Stage                | Time Taken |
[2025-08-29 09:50:49] [info] |-----|-----|
[2025-08-29 09:50:49] [info] | GDS Parsing           | 1 minutes 0 seconds |
[2025-08-29 09:50:49] [info] | Layer Comparison      | 0 minutes 3 seconds |
[2025-08-29 09:50:49] [info] | Report Generation     | 0 minutes 0 seconds |

[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info]                      Type of Errors | Count
[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info] DB_ERR010 -> 4
[2025-08-29 09:50:49] [info] DB_WARN -> 1
[2025-08-29 09:50:49] [info] LRF_ERR001 -> 14
[2025-08-29 09:50:49] [info] DB_WARN002 -> 304
[2025-08-29 09:50:49] [info] DB_WARN003 -> 310
[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info]                      Summary
[2025-08-29 09:50:49] [info] -----
[2025-08-29 09:50:49] [info] Total XOR Mismatches:    18
[2025-08-29 09:50:49] [info] Total Warnings:         615
[2025-08-29 09:50:49] [info] XOR Status:              MISMATCH
```

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[2025-08-29 09:30:19] [info] =====
[2025-08-29 09:30:19] [info]                      XOR Verification Report
[2025-08-29 09:30:19] [info] =====

[2025-08-29 09:30:19] [info] Report Generated:    2025-08-29
[2025-08-29 09:30:19] [info] Run Start Time:      09:30:15 AM
[2025-08-29 09:30:19] [info] Run End Time:        09:30:19 AM
[2025-08-29 09:30:19] [info] Time Taken:          0 minutes 17 seconds

[2025-08-29 09:30:19] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:30:19] [info] Host Name:           kuro-Workstation
[2025-08-29 09:30:19] [info] User Name:           kuro
[2025-08-29 09:30:19] [info] Cores Used:          1
[2025-08-29 09:30:19] [info] Memory Utilized:     3386.38 MB / 62.569698333740234 GB

[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info]                      Top Cell Information
[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-08-29 09:30:19] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:30:19] [info] Database Format:       GDSII
[2025-08-29 09:30:19] [info] Verification Mode:    XOR Check

[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info]                      XOR Mismatch Summary
[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:30:19] [info] |-----|-----|
[2025-08-29 09:30:19] [info]
[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info]                      Performance Metrics
[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info] | Stage              | Time Taken |
[2025-08-29 09:30:19] [info] |-----|-----|
[2025-08-29 09:30:19] [info] | GDS Parsing        | 0 minutes 13 seconds |
[2025-08-29 09:30:19] [info] | Layer Comparison    | 0 minutes 3 seconds  |
[2025-08-29 09:30:19] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info]                      Type of Errors | Count
[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info] DB_ERR010 -> 4
[2025-08-29 09:30:19] [info] DB_WARN -> 1
[2025-08-29 09:30:19] [info] LRF_ERR001 -> 14
[2025-08-29 09:30:19] [info] DB_WARN002 -> 288
[2025-08-29 09:30:19] [info] DB_WARN003 -> 274
[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info]                      Summary
[2025-08-29 09:30:19] [info] -----
[2025-08-29 09:30:19] [info] Total XOR Mismatches:    18
[2025-08-29 09:30:19] [info] Total Warnings:         563
[2025-08-29 09:30:19] [info] XOR Status:              MISMATCH

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[2025-08-29 09:30:42] [info] =====
[2025-08-29 09:30:42] [info]                      XOR Verification Report
[2025-08-29 09:30:42] [info] =====

[2025-08-29 09:30:42] [info] Report Generated:    2025-08-29
[2025-08-29 09:30:42] [info] Run Start Time:      09:30:37 AM
[2025-08-29 09:30:42] [info] Run End Time:        09:30:42 AM
[2025-08-29 09:30:42] [info] Time Taken:          0 minutes 20 seconds

[2025-08-29 09:30:42] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:30:42] [info] Host Name:           kuro-Workstation
[2025-08-29 09:30:42] [info] User Name:           kuro
[2025-08-29 09:30:42] [info] Cores Used:          1
[2025-08-29 09:30:42] [info] Memory Utilized:     3980.60 MB / 62.569698333740234 GB

[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info]                      Top Cell Information
[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-08-29 09:30:42] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:30:42] [info] Database Format:       GDSII
[2025-08-29 09:30:42] [info] Verification Mode:    XOR Check

[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info]                      XOR Mismatch Summary
[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info] | Layer Name          | XOR Errors          |
[2025-08-29 09:30:42] [info] |-----|-----|
[2025-08-29 09:30:42] [info]
[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info]                      Performance Metrics
[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info] | Stage                | Time Taken          |
[2025-08-29 09:30:42] [info] |-----|-----|
[2025-08-29 09:30:42] [info] | GDS Parsing           | 0 minutes 15 seconds |
[2025-08-29 09:30:42] [info] | Layer Comparison      | 0 minutes 4 seconds  |
[2025-08-29 09:30:42] [info] | Report Generation     | 0 minutes 0 seconds  |

[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info]                      Type of Errors | Count
[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info] DB_ERR010 -> 4
[2025-08-29 09:30:42] [info] DB_WARN -> 1
[2025-08-29 09:30:42] [info] LRF_ERR001 -> 14
[2025-08-29 09:30:42] [info] DB_WARN002 -> 282
[2025-08-29 09:30:42] [info] DB_WARN003 -> 270
[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info]                      Summary
[2025-08-29 09:30:42] [info] -----
[2025-08-29 09:30:42] [info] Total XOR Mismatches:    18
[2025-08-29 09:30:42] [info] Total Warnings:         553
[2025-08-29 09:30:42] [info] XOR Status:              MISMATCH

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[2025-08-29 09:31:00] [info] =====
[2025-08-29 09:31:00] [info]                      XOR Verification Report
[2025-08-29 09:31:00] [info] =====

[2025-08-29 09:31:00] [info] Report Generated:    2025-08-29
[2025-08-29 09:31:00] [info] Run Start Time:      09:30:56 AM
[2025-08-29 09:31:00] [info] Run End Time:        09:31:00 AM
[2025-08-29 09:31:00] [info] Time Taken:          0 minutes 15 seconds

[2025-08-29 09:31:00] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:31:00] [info] Host Name:           kuro-Workstation
[2025-08-29 09:31:00] [info] User Name:           kuro
[2025-08-29 09:31:00] [info] Cores Used:          1
[2025-08-29 09:31:00] [info] Memory Utilized:     2774.09 MB / 62.569698333740234 GB

[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info]                      Top Cell Information
[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-08-29 09:31:00] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:31:00] [info] Database Format:       GDSII
[2025-08-29 09:31:00] [info] Verification Mode:    XOR Check

[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info]                      XOR Mismatch Summary
[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info] | Layer Name | XOR Errors |
[2025-08-29 09:31:00] [info] |-----|-----|
[2025-08-29 09:31:00] [info]
[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info]                      Performance Metrics
[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info] | Stage | Time Taken |
[2025-08-29 09:31:00] [info] |-----|-----|
[2025-08-29 09:31:00] [info] | GDS Parsing | 0 minutes 11 seconds |
[2025-08-29 09:31:00] [info] | Layer Comparison | 0 minutes 3 seconds |
[2025-08-29 09:31:00] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info]                      Type of Errors | Count
[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info] DB_ERR010 -> 4
[2025-08-29 09:31:00] [info] DB_WARN -> 1
[2025-08-29 09:31:00] [info] LRF_ERR001 -> 14
[2025-08-29 09:31:00] [info] DB_WARN002 -> 276
[2025-08-29 09:31:00] [info] DB_WARN003 -> 264
[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info]                      Summary
[2025-08-29 09:31:00] [info] -----
[2025-08-29 09:31:00] [info] Total XOR Mismatches:    18
[2025-08-29 09:31:00] [info] Total Warnings:          541
[2025-08-29 09:31:00] [info] XOR Status:              MISMATCH

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[2025-08-29 09:30:01] [info] =====
[2025-08-29 09:30:01] [info]                      XOR Verification Report
[2025-08-29 09:30:01] [info] =====

[2025-08-29 09:30:01] [info] Report Generated:    2025-08-29
[2025-08-29 09:30:01] [info] Run Start Time:      09:30:00 AM
[2025-08-29 09:30:01] [info] Run End Time:        09:30:01 AM
[2025-08-29 09:30:01] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:30:01] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:30:01] [info] Host Name:           kuro-Workstation
[2025-08-29 09:30:01] [info] User Name:           kuro
[2025-08-29 09:30:01] [info] Cores Used:          1
[2025-08-29 09:30:01] [info] Memory Utilized:     47.54 MB / 62.569698333740234 GB

[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Top Cell Information
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] Layout Top Cell:     gcd1_sky130hd
[2025-08-29 09:30:01] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:30:01] [info] Database Format:       GDSII
[2025-08-29 09:30:01] [info] Verification Mode:    XOR Check

[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      XOR Mismatch Summary
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] | Layer Name | XOR Errors |
[2025-08-29 09:30:01] [info] |-----|-----|
[2025-08-29 09:30:01] [info]
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Performance Metrics
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] | Stage | Time Taken |
[2025-08-29 09:30:01] [info] |-----|-----|
[2025-08-29 09:30:01] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:30:01] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:30:01] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Type of Errors | Count
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] DB_ERR010 -> 4
[2025-08-29 09:30:01] [info] DB_WARN -> 1
[2025-08-29 09:30:01] [info] LRF_ERR001 -> 14
[2025-08-29 09:30:01] [info] DB_WARN002 -> 116
[2025-08-29 09:30:01] [info] DB_WARN003 -> 110
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Summary
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] Total XOR Mismatches:    18
[2025-08-29 09:30:01] [info] Total Warnings:         227
[2025-08-29 09:30:01] [info] XOR Status:             MISMATCH

```

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[2025-08-29 09:30:01] [info] =====
[2025-08-29 09:30:01] [info]                      XOR Verification Report
[2025-08-29 09:30:01] [info] =====

[2025-08-29 09:30:01] [info] Report Generated:    2025-08-29
[2025-08-29 09:30:01] [info] Run Start Time:      09:30:01 AM
[2025-08-29 09:30:01] [info] Run End Time:        09:30:01 AM
[2025-08-29 09:30:01] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:30:01] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:30:01] [info] Host Name:           kuro-Workstation
[2025-08-29 09:30:01] [info] User Name:           kuro
[2025-08-29 09:30:01] [info] Cores Used:          1
[2025-08-29 09:30:01] [info] Memory Utilized:     51.71 MB / 62.569698333740234 GB

[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Top Cell Information
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] Layout Top Cell:     gcd2_sky130hd
[2025-08-29 09:30:01] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:30:01] [info] Database Format:       GDSII
[2025-08-29 09:30:01] [info] Verification Mode:    XOR Check

[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      XOR Mismatch Summary
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] | Layer Name | XOR Errors |
[2025-08-29 09:30:01] [info] |-----|-----|
[2025-08-29 09:30:01] [info]
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Performance Metrics
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] | Stage | Time Taken |
[2025-08-29 09:30:01] [info] |-----|-----|
[2025-08-29 09:30:01] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:30:01] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:30:01] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Type of Errors | Count
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] DB_ERR010 -> 4
[2025-08-29 09:30:01] [info] DB_WARN -> 1
[2025-08-29 09:30:01] [info] LRF_ERR001 -> 14
[2025-08-29 09:30:01] [info] DB_WARN002 -> 118
[2025-08-29 09:30:01] [info] DB_WARN003 -> 112
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Summary
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] Total XOR Mismatches:    18
[2025-08-29 09:30:01] [info] Total Warnings:          231
[2025-08-29 09:30:01] [info] XOR Status:              MISMATCH

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[2025-08-29 09:30:01] [info] =====
[2025-08-29 09:30:01] [info]                      XOR Verification Report
[2025-08-29 09:30:01] [info] =====

[2025-08-29 09:30:01] [info] Report Generated:    2025-08-29
[2025-08-29 09:30:01] [info] Run Start Time:      09:30:01 AM
[2025-08-29 09:30:01] [info] Run End Time:        09:30:01 AM
[2025-08-29 09:30:01] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:30:01] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:30:01] [info] Host Name:           kuro-Workstation
[2025-08-29 09:30:01] [info] User Name:           kuro
[2025-08-29 09:30:01] [info] Cores Used:          1
[2025-08-29 09:30:01] [info] Memory Utilized:     41.18 MB / 62.569698333740234 GB

[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Top Cell Information
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] Layout Top Cell:     gcd3_sky130hd
[2025-08-29 09:30:01] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:30:01] [info] Database Format:       GDSII
[2025-08-29 09:30:01] [info] Verification Mode:    XOR Check

[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      XOR Mismatch Summary
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] | Layer Name | XOR Errors |
[2025-08-29 09:30:01] [info] |-----|-----|
[2025-08-29 09:30:01] [info]
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Performance Metrics
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] | Stage | Time Taken |
[2025-08-29 09:30:01] [info] |-----|-----|
[2025-08-29 09:30:01] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:30:01] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:30:01] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Type of Errors | Count
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] DB_ERR010 -> 4
[2025-08-29 09:30:01] [info] DB_WARN -> 1
[2025-08-29 09:30:01] [info] LRF_ERR001 -> 14
[2025-08-29 09:30:01] [info] DB_WARN002 -> 118
[2025-08-29 09:30:01] [info] DB_WARN003 -> 112
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info]                      Summary
[2025-08-29 09:30:01] [info] -----
[2025-08-29 09:30:01] [info] Total XOR Mismatches:    18
[2025-08-29 09:30:01] [info] Total Warnings:         231
[2025-08-29 09:30:01] [info] XOR Status:             MISMATCH

```

```

[2025-08-29 09:31:19] [info] =====
[2025-08-29 09:31:19] [info]                      XOR Verification Report
[2025-08-29 09:31:19] [info] =====

[2025-08-29 09:31:19] [info] Report Generated:    2025-08-29
[2025-08-29 09:31:19] [info] Run Start Time:      09:31:16 AM
[2025-08-29 09:31:19] [info] Run End Time:        09:31:19 AM
[2025-08-29 09:31:19] [info] Time Taken:          0 minutes 18 seconds

[2025-08-29 09:31:19] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:31:19] [info] Host Name:           kuro-Workstation
[2025-08-29 09:31:19] [info] User Name:           kuro
[2025-08-29 09:31:19] [info] Cores Used:          1
[2025-08-29 09:31:19] [info] Memory Utilized:     3200.73 MB / 62.569698333740234 GB

[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info]                      Top Cell Information
[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-08-29 09:31:19] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:31:19] [info] Database Format:       GDSII
[2025-08-29 09:31:19] [info] Verification Mode:    XOR Check

[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info]                      XOR Mismatch Summary
[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:31:19] [info] |-----|-----|
[2025-08-29 09:31:19] [info]
[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info]                      Performance Metrics
[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info] | Stage              | Time Taken |
[2025-08-29 09:31:19] [info] |-----|-----|
[2025-08-29 09:31:19] [info] | GDS Parsing        | 0 minutes 14 seconds |
[2025-08-29 09:31:19] [info] | Layer Comparison    | 0 minutes 3 seconds  |
[2025-08-29 09:31:19] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info]                      Type of Errors | Count
[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info] DB_ERR010 -> 4
[2025-08-29 09:31:19] [info] DB_WARN -> 1
[2025-08-29 09:31:19] [info] LRF_ERR001 -> 14
[2025-08-29 09:31:19] [info] DB_WARN002 -> 502
[2025-08-29 09:31:19] [info] DB_WARN003 -> 502
[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info]                      Summary
[2025-08-29 09:31:19] [info] -----
[2025-08-29 09:31:19] [info] Total XOR Mismatches:    18
[2025-08-29 09:31:19] [info] Total Warnings:         1005
[2025-08-29 09:31:19] [info] XOR Status:              MISMATCH

```

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[2025-08-29 09:31:40] [info] =====
[2025-08-29 09:31:40] [info]                      XOR Verification Report
[2025-08-29 09:31:40] [info] =====

[2025-08-29 09:31:40] [info] Report Generated:    2025-08-29
[2025-08-29 09:31:40] [info] Run Start Time:      09:31:36 AM
[2025-08-29 09:31:40] [info] Run End Time:        09:31:40 AM
[2025-08-29 09:31:40] [info] Time Taken:          0 minutes 18 seconds

[2025-08-29 09:31:40] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:31:40] [info] Host Name:           kuro-Workstation
[2025-08-29 09:31:40] [info] User Name:           kuro
[2025-08-29 09:31:40] [info] Cores Used:          1
[2025-08-29 09:31:40] [info] Memory Utilized:     3244.11 MB / 62.569698333740234 GB

[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info]                      Top Cell Information
[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-08-29 09:31:40] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:31:40] [info] Database Format:       GDSII
[2025-08-29 09:31:40] [info] Verification Mode:    XOR Check

[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info]                      XOR Mismatch Summary
[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info] | Layer Name | XOR Errors |
[2025-08-29 09:31:40] [info] |-----|-----|
[2025-08-29 09:31:40] [info]
[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info]                      Performance Metrics
[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info] | Stage | Time Taken |
[2025-08-29 09:31:40] [info] |-----|-----|
[2025-08-29 09:31:40] [info] | GDS Parsing | 0 minutes 14 seconds |
[2025-08-29 09:31:40] [info] | Layer Comparison | 0 minutes 3 seconds |
[2025-08-29 09:31:40] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info]                      Type of Errors | Count
[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info] DB_ERR010 -> 4
[2025-08-29 09:31:40] [info] DB_WARN -> 1
[2025-08-29 09:31:40] [info] LRF_ERR001 -> 14
[2025-08-29 09:31:40] [info] DB_WARN002 -> 498
[2025-08-29 09:31:40] [info] DB_WARN003 -> 498
[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info]                      Summary
[2025-08-29 09:31:40] [info] -----
[2025-08-29 09:31:40] [info] Total XOR Mismatches:    18
[2025-08-29 09:31:40] [info] Total Warnings:          997
[2025-08-29 09:31:40] [info] XOR Status:              MISMATCH

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[2025-08-29 09:31:59] [info] =====
[2025-08-29 09:31:59] [info]                      XOR Verification Report
[2025-08-29 09:31:59] [info] =====

[2025-08-29 09:31:59] [info] Report Generated:    2025-08-29
[2025-08-29 09:31:59] [info] Run Start Time:      09:31:55 AM
[2025-08-29 09:31:59] [info] Run End Time:        09:31:59 AM
[2025-08-29 09:31:59] [info] Time Taken:          0 minutes 17 seconds

[2025-08-29 09:31:59] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:31:59] [info] Host Name:           kuro-Workstation
[2025-08-29 09:31:59] [info] User Name:           kuro
[2025-08-29 09:31:59] [info] Cores Used:          1
[2025-08-29 09:31:59] [info] Memory Utilized:     3152.42 MB / 62.569698333740234 GB

[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info]                      Top Cell Information
[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-08-29 09:31:59] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:31:59] [info] Database Format:       GDSII
[2025-08-29 09:31:59] [info] Verification Mode:    XOR Check

[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info]                      XOR Mismatch Summary
[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info] | Layer Name | XOR Errors |
[2025-08-29 09:31:59] [info] |-----|-----|
[2025-08-29 09:31:59] [info]
[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info]                      Performance Metrics
[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info] | Stage | Time Taken |
[2025-08-29 09:31:59] [info] |-----|-----|
[2025-08-29 09:31:59] [info] | GDS Parsing | 0 minutes 13 seconds |
[2025-08-29 09:31:59] [info] | Layer Comparison | 0 minutes 3 seconds |
[2025-08-29 09:31:59] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info]                      Type of Errors | Count
[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info] DB_ERR010 -> 4
[2025-08-29 09:31:59] [info] DB_WARN -> 1
[2025-08-29 09:31:59] [info] LRF_ERR001 -> 14
[2025-08-29 09:31:59] [info] DB_WARN002 -> 506
[2025-08-29 09:31:59] [info] DB_WARN003 -> 502
[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info]                      Summary
[2025-08-29 09:31:59] [info] -----
[2025-08-29 09:31:59] [info] Total XOR Mismatches:    18
[2025-08-29 09:31:59] [info] Total Warnings:          1009
[2025-08-29 09:31:59] [info] XOR Status:              MISMATCH
```



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[2025-08-29 09:32:50] [info] =====
[2025-08-29 09:32:50] [info]                      XOR Verification Report
[2025-08-29 09:32:50] [info] =====

[2025-08-29 09:32:50] [info] Report Generated:    2025-08-29
[2025-08-29 09:32:50] [info] Run Start Time:      09:32:39 AM
[2025-08-29 09:32:50] [info] Run End Time:        09:32:50 AM
[2025-08-29 09:32:50] [info] Time Taken:          0 minutes 49 seconds

[2025-08-29 09:32:50] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:32:50] [info] Host Name:           kuro-Workstation
[2025-08-29 09:32:50] [info] User Name:           kuro
[2025-08-29 09:32:50] [info] Cores Used:          1
[2025-08-29 09:32:50] [info] Memory Utilized:     8300.30 MB / 62.569698333740234 GB

[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info]                      Top Cell Information
[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info] Layout Top Cell:     jpeg_encoder1_sky130hd
[2025-08-29 09:32:50] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:32:50] [info] Database Format:       GDSII
[2025-08-29 09:32:50] [info] Verification Mode:    XOR Check

[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info]                      XOR Mismatch Summary
[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info] | Layer Name | XOR Errors |
[2025-08-29 09:32:50] [info] |-----|-----|
[2025-08-29 09:32:50] [info]
[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info]                      Performance Metrics
[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info] | Stage | Time Taken |
[2025-08-29 09:32:50] [info] |-----|-----|
[2025-08-29 09:32:50] [info] | GDS Parsing | 0 minutes 38 seconds |
[2025-08-29 09:32:50] [info] | Layer Comparison | 0 minutes 10 seconds |
[2025-08-29 09:32:50] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info]                      Type of Errors | Count
[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info] DB_ERR010 -> 4
[2025-08-29 09:32:50] [info] DB_WARN -> 1
[2025-08-29 09:32:50] [info] LRF_ERR001 -> 14
[2025-08-29 09:32:50] [info] DB_WARN002 -> 318
[2025-08-29 09:32:50] [info] DB_WARN003 -> 322
[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info]                      Summary
[2025-08-29 09:32:50] [info] -----
[2025-08-29 09:32:50] [info] Total XOR Mismatches:    18
[2025-08-29 09:32:50] [info] Total Warnings:         641
[2025-08-29 09:32:50] [info] XOR Status:             MISMATCH

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[2025-08-29 09:33:50] [info] =====
[2025-08-29 09:33:50] [info]                      XOR Verification Report
[2025-08-29 09:33:50] [info] =====

[2025-08-29 09:33:50] [info] Report Generated:    2025-08-29
[2025-08-29 09:33:50] [info] Run Start Time:      09:33:37 AM
[2025-08-29 09:33:50] [info] Run End Time:        09:33:49 AM
[2025-08-29 09:33:50] [info] Time Taken:          0 minutes 55 seconds

[2025-08-29 09:33:50] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:33:50] [info] Host Name:           kuro-Workstation
[2025-08-29 09:33:50] [info] User Name:           kuro
[2025-08-29 09:33:50] [info] Cores Used:          1
[2025-08-29 09:33:50] [info] Memory Utilized:     9864.41 MB / 62.569698333740234 GB

[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info]                      Top Cell Information
[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-08-29 09:33:50] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:33:50] [info] Database Format:       GDSII
[2025-08-29 09:33:50] [info] Verification Mode:    XOR Check

[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info]                      XOR Mismatch Summary
[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info] | Layer Name | XOR Errors |
[2025-08-29 09:33:50] [info] |-----|-----|
[2025-08-29 09:33:50] [info]
[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info]                      Performance Metrics
[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info] | Stage | Time Taken |
[2025-08-29 09:33:50] [info] |-----|-----|
[2025-08-29 09:33:50] [info] | GDS Parsing | 0 minutes 42 seconds |
[2025-08-29 09:33:50] [info] | Layer Comparison | 0 minutes 12 seconds |
[2025-08-29 09:33:50] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info]                      Type of Errors | Count
[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info] DB_ERR010 -> 4
[2025-08-29 09:33:50] [info] DB_WARN -> 1
[2025-08-29 09:33:50] [info] LRF_ERR001 -> 14
[2025-08-29 09:33:50] [info] DB_WARN002 -> 314
[2025-08-29 09:33:50] [info] DB_WARN003 -> 318
[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info]                      Summary
[2025-08-29 09:33:50] [info] -----
[2025-08-29 09:33:50] [info] Total XOR Mismatches:    18
[2025-08-29 09:33:50] [info] Total Warnings:         633
[2025-08-29 09:33:50] [info] XOR Status:             MISMATCH
```

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[2025-08-29 09:34:38] [info] =====
[2025-08-29 09:34:38] [info]                      XOR Verification Report
[2025-08-29 09:34:38] [info] =====

[2025-08-29 09:34:38] [info] Report Generated:    2025-08-29
[2025-08-29 09:34:38] [info] Run Start Time:      09:34:28 AM
[2025-08-29 09:34:38] [info] Run End Time:        09:34:38 AM
[2025-08-29 09:34:38] [info] Time Taken:          0 minutes 43 seconds

[2025-08-29 09:34:38] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:34:38] [info] Host Name:           kuro-Workstation
[2025-08-29 09:34:38] [info] User Name:           kuro
[2025-08-29 09:34:38] [info] Cores Used:          1
[2025-08-29 09:34:38] [info] Memory Utilized:     7236.33 MB / 62.569698333740234 GB

[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info]                      Top Cell Information
[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-08-29 09:34:38] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:34:38] [info] Database Format:       GDSII
[2025-08-29 09:34:38] [info] Verification Mode:    XOR Check

[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info]                      XOR Mismatch Summary
[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info] | Layer Name | XOR Errors |
[2025-08-29 09:34:38] [info] |-----|-----|
[2025-08-29 09:34:38] [info]
[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info]                      Performance Metrics
[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info] | Stage | Time Taken |
[2025-08-29 09:34:38] [info] |-----|-----|
[2025-08-29 09:34:38] [info] | GDS Parsing | 0 minutes 33 seconds |
[2025-08-29 09:34:38] [info] | Layer Comparison | 0 minutes 9 seconds |
[2025-08-29 09:34:38] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info]                      Type of Errors | Count
[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info] DB_ERR010 -> 4
[2025-08-29 09:34:38] [info] DB_WARN -> 1
[2025-08-29 09:34:38] [info] LRF_ERR001 -> 14
[2025-08-29 09:34:38] [info] DB_WARN002 -> 304
[2025-08-29 09:34:38] [info] DB_WARN003 -> 310
[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info]                      Summary
[2025-08-29 09:34:38] [info] -----
[2025-08-29 09:34:38] [info] Total XOR Mismatches:    18
[2025-08-29 09:34:38] [info] Total Warnings:         615
[2025-08-29 09:34:38] [info] XOR Status:             MISMATCH

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[2025-08-29 09:34:59] [info] =====
[2025-08-29 09:34:59] [info]                      XOR Verification Report
[2025-08-29 09:34:59] [info] =====

[2025-08-29 09:34:59] [info] Report Generated:    2025-08-29
[2025-08-29 09:34:59] [info] Run Start Time:      09:34:58 AM
[2025-08-29 09:34:59] [info] Run End Time:        09:34:59 AM
[2025-08-29 09:34:59] [info] Time Taken:          0 minutes 16 seconds

[2025-08-29 09:34:59] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:34:59] [info] Host Name:           kuro-Workstation
[2025-08-29 09:34:59] [info] User Name:           kuro
[2025-08-29 09:34:59] [info] Cores Used:          4
[2025-08-29 09:34:59] [info] Memory Utilized:     5025.91 MB / 62.569698333740234 GB

[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info]                      Top Cell Information
[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-08-29 09:34:59] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:34:59] [info] Database Format:       GDSII
[2025-08-29 09:34:59] [info] Verification Mode:    XOR Check

[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info]                      XOR Mismatch Summary
[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info] | Layer Name | XOR Errors |
[2025-08-29 09:34:59] [info] |-----|-----|
[2025-08-29 09:34:59] [info]
[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info]                      Performance Metrics
[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info] | Stage | Time Taken |
[2025-08-29 09:34:59] [info] |-----|-----|
[2025-08-29 09:34:59] [info] | GDS Parsing | 0 minutes 15 seconds |
[2025-08-29 09:34:59] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 09:34:59] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info]                      Type of Errors | Count
[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info] DB_ERR010 -> 4
[2025-08-29 09:34:59] [info] DB_WARN -> 1
[2025-08-29 09:34:59] [info] LRF_ERR001 -> 14
[2025-08-29 09:34:59] [info] DB_WARN002 -> 288
[2025-08-29 09:34:59] [info] DB_WARN003 -> 274
[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info]                      Summary
[2025-08-29 09:34:59] [info] -----
[2025-08-29 09:34:59] [info] Total XOR Mismatches:    18
[2025-08-29 09:34:59] [info] Total Warnings:         563
[2025-08-29 09:34:59] [info] XOR Status:             MISMATCH

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[2025-08-29 09:35:20] [info] =====
[2025-08-29 09:35:20] [info]                      XOR Verification Report
[2025-08-29 09:35:20] [info] =====

[2025-08-29 09:35:20] [info] Report Generated:    2025-08-29
[2025-08-29 09:35:20] [info] Run Start Time:      09:35:18 AM
[2025-08-29 09:35:20] [info] Run End Time:        09:35:20 AM
[2025-08-29 09:35:20] [info] Time Taken:          0 minutes 18 seconds

[2025-08-29 09:35:20] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:35:20] [info] Host Name:           kuro-Workstation
[2025-08-29 09:35:20] [info] User Name:           kuro
[2025-08-29 09:35:20] [info] Cores Used:           4
[2025-08-29 09:35:20] [info] Memory Utilized:      5534.16 MB / 62.569698333740234 GB

[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info]                      Top Cell Information
[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info] Layout Top Cell:     aes_cipher_top2_sky130hd
[2025-08-29 09:35:20] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:35:20] [info] Database Format:       GDSII
[2025-08-29 09:35:20] [info] Verification Mode:    XOR Check

[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info]                      XOR Mismatch Summary
[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:35:20] [info] |-----|-----|
[2025-08-29 09:35:20] [info]
[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info]                      Performance Metrics
[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info] | Stage              | Time Taken |
[2025-08-29 09:35:20] [info] |-----|-----|
[2025-08-29 09:35:20] [info] | GDS Parsing        | 0 minutes 16 seconds |
[2025-08-29 09:35:20] [info] | Layer Comparison    | 0 minutes 1 seconds  |
[2025-08-29 09:35:20] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info]                      Type of Errors | Count
[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info] DB_ERR010 -> 4
[2025-08-29 09:35:20] [info] DB_WARN -> 1
[2025-08-29 09:35:20] [info] LRF_ERR001 -> 14
[2025-08-29 09:35:20] [info] DB_WARN002 -> 282
[2025-08-29 09:35:20] [info] DB_WARN003 -> 270
[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info]                      Summary
[2025-08-29 09:35:20] [info] -----
[2025-08-29 09:35:20] [info] Total XOR Mismatches:    18
[2025-08-29 09:35:20] [info] Total Warnings:          553
[2025-08-29 09:35:20] [info] XOR Status:              MISMATCH
```

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[2025-08-29 09:35:37] [info] =====
[2025-08-29 09:35:37] [info]                      XOR Verification Report
[2025-08-29 09:35:37] [info] =====

[2025-08-29 09:35:37] [info] Report Generated:    2025-08-29
[2025-08-29 09:35:37] [info] Run Start Time:      09:35:35 AM
[2025-08-29 09:35:37] [info] Run End Time:        09:35:36 AM
[2025-08-29 09:35:37] [info] Time Taken:          0 minutes 14 seconds

[2025-08-29 09:35:37] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:35:37] [info] Host Name:           kuro-Workstation
[2025-08-29 09:35:37] [info] User Name:           kuro
[2025-08-29 09:35:37] [info] Cores Used:          4
[2025-08-29 09:35:37] [info] Memory Utilized:     4131.70 MB / 62.569698333740234 GB

[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info]                      Top Cell Information
[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-08-29 09:35:37] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:35:37] [info] Database Format:       GDSII
[2025-08-29 09:35:37] [info] Verification Mode:    XOR Check

[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info]                      XOR Mismatch Summary
[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:35:37] [info] |-----|-----|
[2025-08-29 09:35:37] [info]
[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info]                      Performance Metrics
[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info] | Stage              | Time Taken |
[2025-08-29 09:35:37] [info] |-----|-----|
[2025-08-29 09:35:37] [info] | GDS Parsing        | 0 minutes 13 seconds |
[2025-08-29 09:35:37] [info] | Layer Comparison    | 0 minutes 1 seconds  |
[2025-08-29 09:35:37] [info] | Report Generation   | 0 minutes 0 seconds  |

[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info]                      Type of Errors | Count
[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info] DB_ERR010 -> 4
[2025-08-29 09:35:37] [info] DB_WARN -> 1
[2025-08-29 09:35:37] [info] LRF_ERR001 -> 14
[2025-08-29 09:35:37] [info] DB_WARN002 -> 276
[2025-08-29 09:35:37] [info] DB_WARN003 -> 264
[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info]                      Summary
[2025-08-29 09:35:37] [info] -----
[2025-08-29 09:35:37] [info] Total XOR Mismatches:    18
[2025-08-29 09:35:37] [info] Total Warnings:         541
[2025-08-29 09:35:37] [info] XOR Status:              MISMATCH

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[2025-08-29 09:34:42] [info] =====
[2025-08-29 09:34:42] [info]                      XOR Verification Report
[2025-08-29 09:34:42] [info] =====

[2025-08-29 09:34:42] [info] Report Generated:    2025-08-29
[2025-08-29 09:34:42] [info] Run Start Time:      09:34:42 AM
[2025-08-29 09:34:42] [info] Run End Time:        09:34:42 AM
[2025-08-29 09:34:42] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:34:42] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:34:42] [info] Host Name:           kuro-Workstation
[2025-08-29 09:34:42] [info] User Name:           kuro
[2025-08-29 09:34:42] [info] Cores Used:          4
[2025-08-29 09:34:42] [info] Memory Utilized:     75.44 MB / 62.569698333740234 GB

[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      Top Cell Information
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] Layout Top Cell:     gcd1_sky130hd
[2025-08-29 09:34:42] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:34:42] [info] Database Format:       GDSII
[2025-08-29 09:34:42] [info] Verification Mode:    XOR Check

[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      XOR Mismatch Summary
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] | Layer Name | XOR Errors |
[2025-08-29 09:34:42] [info] |-----|-----|
[2025-08-29 09:34:42] [info]
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      Performance Metrics
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] | Stage | Time Taken |
[2025-08-29 09:34:42] [info] |-----|-----|
[2025-08-29 09:34:42] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:34:42] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:34:42] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      Type of Errors | Count
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] DB_ERR010 -> 4
[2025-08-29 09:34:42] [info] DB_WARN -> 1
[2025-08-29 09:34:42] [info] LRF_ERR001 -> 14
[2025-08-29 09:34:42] [info] DB_WARN002 -> 116
[2025-08-29 09:34:42] [info] DB_WARN003 -> 110
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      Summary
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] Total XOR Mismatches:    18
[2025-08-29 09:34:42] [info] Total Warnings:         227
[2025-08-29 09:34:42] [info] XOR Status:             MISMATCH

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[2025-08-29 09:34:42] [info] =====
[2025-08-29 09:34:42] [info]                      XOR Verification Report
[2025-08-29 09:34:42] [info] =====

[2025-08-29 09:34:42] [info] Report Generated:    2025-08-29
[2025-08-29 09:34:42] [info] Run Start Time:      09:34:42 AM
[2025-08-29 09:34:42] [info] Run End Time:        09:34:42 AM
[2025-08-29 09:34:42] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:34:42] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:34:42] [info] Host Name:           kuro-Workstation
[2025-08-29 09:34:42] [info] User Name:           kuro
[2025-08-29 09:34:42] [info] Cores Used:          4
[2025-08-29 09:34:42] [info] Memory Utilized:     78.13 MB / 62.569698333740234 GB

[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      Top Cell Information
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] Layout Top Cell:     gcd2_sky130hd
[2025-08-29 09:34:42] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:34:42] [info] Database Format:       GDSII
[2025-08-29 09:34:42] [info] Verification Mode:    XOR Check

[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      XOR Mismatch Summary
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] | Layer Name | XOR Errors |
[2025-08-29 09:34:42] [info] |-----|-----|
[2025-08-29 09:34:42] [info]
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      Performance Metrics
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] | Stage | Time Taken |
[2025-08-29 09:34:42] [info] |-----|-----|
[2025-08-29 09:34:42] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:34:42] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:34:42] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      Type of Errors | Count
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] DB_ERR010 -> 4
[2025-08-29 09:34:42] [info] DB_WARN -> 1
[2025-08-29 09:34:42] [info] LRF_ERR001 -> 14
[2025-08-29 09:34:42] [info] DB_WARN002 -> 118
[2025-08-29 09:34:42] [info] DB_WARN003 -> 112
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info]                      Summary
[2025-08-29 09:34:42] [info] -----
[2025-08-29 09:34:42] [info] Total XOR Mismatches:    18
[2025-08-29 09:34:42] [info] Total Warnings:         231
[2025-08-29 09:34:42] [info] XOR Status:             MISMATCH

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[2025-08-29 09:34:43] [info] =====
[2025-08-29 09:34:43] [info]                      XOR Verification Report
[2025-08-29 09:34:43] [info] =====

[2025-08-29 09:34:43] [info] Report Generated:    2025-08-29
[2025-08-29 09:34:43] [info] Run Start Time:      09:34:43 AM
[2025-08-29 09:34:43] [info] Run End Time:        09:34:43 AM
[2025-08-29 09:34:43] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:34:43] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:34:43] [info] Host Name:           kuro-Workstation
[2025-08-29 09:34:43] [info] User Name:           kuro
[2025-08-29 09:34:43] [info] Cores Used:          4
[2025-08-29 09:34:43] [info] Memory Utilized:     67.86 MB / 62.569698333740234 GB

[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info]                      Top Cell Information
[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info] Layout Top Cell:     gcd3_sky130hd
[2025-08-29 09:34:43] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:34:43] [info] Database Format:       GDSII
[2025-08-29 09:34:43] [info] Verification Mode:    XOR Check

[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info]                      XOR Mismatch Summary
[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info] | Layer Name | XOR Errors |
[2025-08-29 09:34:43] [info] |-----|-----|
[2025-08-29 09:34:43] [info]
[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info]                      Performance Metrics
[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info] | Stage | Time Taken |
[2025-08-29 09:34:43] [info] |-----|-----|
[2025-08-29 09:34:43] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:34:43] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:34:43] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info]                      Type of Errors | Count
[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info] DB_ERR010 -> 4
[2025-08-29 09:34:43] [info] DB_WARN -> 1
[2025-08-29 09:34:43] [info] LRF_ERR001 -> 14
[2025-08-29 09:34:43] [info] DB_WARN002 -> 118
[2025-08-29 09:34:43] [info] DB_WARN003 -> 112
[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info]                      Summary
[2025-08-29 09:34:43] [info] -----
[2025-08-29 09:34:43] [info] Total XOR Mismatches:    18
[2025-08-29 09:34:43] [info] Total Warnings:          231
[2025-08-29 09:34:43] [info] XOR Status:              MISMATCH
```

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[2025-08-29 09:35:56] [info] =====
[2025-08-29 09:35:56] [info]                      XOR Verification Report
[2025-08-29 09:35:56] [info] =====

[2025-08-29 09:35:56] [info] Report Generated:    2025-08-29
[2025-08-29 09:35:56] [info] Run Start Time:      09:35:54 AM
[2025-08-29 09:35:56] [info] Run End Time:        09:35:56 AM
[2025-08-29 09:35:56] [info] Time Taken:          0 minutes 17 seconds

[2025-08-29 09:35:56] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:35:56] [info] Host Name:           kuro-Workstation
[2025-08-29 09:35:56] [info] User Name:           kuro
[2025-08-29 09:35:56] [info] Cores Used:          4
[2025-08-29 09:35:56] [info] Memory Utilized:     4966.75 MB / 62.569698333740234 GB

[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info]                      Top Cell Information
[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-08-29 09:35:56] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:35:56] [info] Database Format:       GDSII
[2025-08-29 09:35:56] [info] Verification Mode:    XOR Check

[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info]                      XOR Mismatch Summary
[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info] | Layer Name | XOR Errors |
[2025-08-29 09:35:56] [info] |-----|-----|
[2025-08-29 09:35:56] [info]
[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info]                      Performance Metrics
[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info] | Stage | Time Taken |
[2025-08-29 09:35:56] [info] |-----|-----|
[2025-08-29 09:35:56] [info] | GDS Parsing | 0 minutes 15 seconds |
[2025-08-29 09:35:56] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 09:35:56] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info]                      Type of Errors | Count
[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info] DB_ERR010 -> 4
[2025-08-29 09:35:56] [info] DB_WARN -> 1
[2025-08-29 09:35:56] [info] LRF_ERR001 -> 14
[2025-08-29 09:35:56] [info] DB_WARN002 -> 502
[2025-08-29 09:35:56] [info] DB_WARN003 -> 502
[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info]                      Summary
[2025-08-29 09:35:56] [info] -----
[2025-08-29 09:35:56] [info] Total XOR Mismatches:    18
[2025-08-29 09:35:56] [info] Total Warnings:          1005
[2025-08-29 09:35:56] [info] XOR Status:              MISMATCH
```

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[2025-08-29 09:36:15] [info] =====
[2025-08-29 09:36:15] [info]                      XOR Verification Report
[2025-08-29 09:36:15] [info] =====

[2025-08-29 09:36:15] [info] Report Generated:    2025-08-29
[2025-08-29 09:36:15] [info] Run Start Time:      09:36:13 AM
[2025-08-29 09:36:15] [info] Run End Time:        09:36:15 AM
[2025-08-29 09:36:15] [info] Time Taken:          0 minutes 17 seconds

[2025-08-29 09:36:15] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:36:15] [info] Host Name:           kuro-Workstation
[2025-08-29 09:36:15] [info] User Name:           kuro
[2025-08-29 09:36:15] [info] Cores Used:          4
[2025-08-29 09:36:15] [info] Memory Utilized:     5001.04 MB / 62.569698333740234 GB

[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info]                      Top Cell Information
[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-08-29 09:36:15] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:36:15] [info] Database Format:       GDSII
[2025-08-29 09:36:15] [info] Verification Mode:    XOR Check

[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info]                      XOR Mismatch Summary
[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info] | Layer Name | XOR Errors |
[2025-08-29 09:36:15] [info] |-----|-----|
[2025-08-29 09:36:15] [info]
[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info]                      Performance Metrics
[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info] | Stage | Time Taken |
[2025-08-29 09:36:15] [info] |-----|-----|
[2025-08-29 09:36:15] [info] | GDS Parsing | 0 minutes 16 seconds |
[2025-08-29 09:36:15] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 09:36:15] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info]                      Type of Errors | Count
[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info] DB_ERR010 -> 4
[2025-08-29 09:36:15] [info] DB_WARN -> 1
[2025-08-29 09:36:15] [info] LRF_ERR001 -> 14
[2025-08-29 09:36:15] [info] DB_WARN002 -> 498
[2025-08-29 09:36:15] [info] DB_WARN003 -> 498
[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info]                      Summary
[2025-08-29 09:36:15] [info] -----
[2025-08-29 09:36:15] [info] Total XOR Mismatches:    18
[2025-08-29 09:36:15] [info] Total Warnings:          997
[2025-08-29 09:36:15] [info] XOR Status:              MISMATCH

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[2025-08-29 09:36:34] [info] =====
[2025-08-29 09:36:34] [info]                      XOR Verification Report
[2025-08-29 09:36:34] [info] =====

[2025-08-29 09:36:34] [info] Report Generated:    2025-08-29
[2025-08-29 09:36:34] [info] Run Start Time:      09:36:33 AM
[2025-08-29 09:36:34] [info] Run End Time:        09:36:34 AM
[2025-08-29 09:36:34] [info] Time Taken:          0 minutes 17 seconds

[2025-08-29 09:36:34] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:36:34] [info] Host Name:           kuro-Workstation
[2025-08-29 09:36:34] [info] User Name:           kuro
[2025-08-29 09:36:34] [info] Cores Used:          4
[2025-08-29 09:36:34] [info] Memory Utilized:     4905.61 MB / 62.569698333740234 GB

[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info]                      Top Cell Information
[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-08-29 09:36:34] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:36:34] [info] Database Format:       GDSII
[2025-08-29 09:36:34] [info] Verification Mode:    XOR Check

[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info]                      XOR Mismatch Summary
[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info] | Layer Name | XOR Errors |
[2025-08-29 09:36:34] [info] |-----|-----|
[2025-08-29 09:36:34] [info]
[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info]                      Performance Metrics
[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info] | Stage | Time Taken |
[2025-08-29 09:36:34] [info] |-----|-----|
[2025-08-29 09:36:34] [info] | GDS Parsing | 0 minutes 15 seconds |
[2025-08-29 09:36:34] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 09:36:34] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info]                      Type of Errors | Count
[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info] DB_ERR010 -> 4
[2025-08-29 09:36:34] [info] DB_WARN -> 1
[2025-08-29 09:36:34] [info] LRF_ERR001 -> 14
[2025-08-29 09:36:34] [info] DB_WARN002 -> 506
[2025-08-29 09:36:34] [info] DB_WARN003 -> 502
[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info]                      Summary
[2025-08-29 09:36:34] [info] -----
[2025-08-29 09:36:34] [info] Total XOR Mismatches:    18
[2025-08-29 09:36:34] [info] Total Warnings:          1009
[2025-08-29 09:36:34] [info] XOR Status:              MISMATCH

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[2025-08-29 09:37:22] [info] =====
[2025-08-29 09:37:22] [info]                      XOR Verification Report
[2025-08-29 09:37:22] [info] =====

[2025-08-29 09:37:22] [info] Report Generated:    2025-08-29
[2025-08-29 09:37:22] [info] Run Start Time:      09:37:18 AM
[2025-08-29 09:37:22] [info] Run End Time:        09:37:22 AM
[2025-08-29 09:37:22] [info] Time Taken:         0 minutes 45 seconds

[2025-08-29 09:37:22] [info] Tool Version:       LVR_2025.1
[2025-08-29 09:37:22] [info] Host Name:          kuro-Workstation
[2025-08-29 09:37:22] [info] User Name:          kuro
[2025-08-29 09:37:22] [info] Cores Used:         4
[2025-08-29 09:37:22] [info] Memory Utilized:    12351.66 MB / 62.569698333740234 GB

[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info]                      Top Cell Information
[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info] Layout Top Cell:    jpeg_encoder1_sky130hd
[2025-08-29 09:37:22] [info] Technology Node:     SKY130HD (130nm)
[2025-08-29 09:37:22] [info] Database Format:      GDSII
[2025-08-29 09:37:22] [info] Verification Mode:   XOR Check

[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info]                      XOR Mismatch Summary
[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:37:22] [info] |-----|-----|
[2025-08-29 09:37:22] [info]
[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info]                      Performance Metrics
[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info] | Stage           | Time Taken |
[2025-08-29 09:37:22] [info] |-----|-----|
[2025-08-29 09:37:22] [info] | GDS Parsing     | 0 minutes 41 seconds |
[2025-08-29 09:37:22] [info] | Layer Comparison | 0 minutes 3 seconds  |
[2025-08-29 09:37:22] [info] | Report Generation | 0 minutes 0 seconds  |

[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info]                      Type of Errors | Count
[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info] DB_ERR010 -> 4
[2025-08-29 09:37:22] [info] DB_WARN -> 1
[2025-08-29 09:37:22] [info] LRF_ERR001 -> 14
[2025-08-29 09:37:22] [info] DB_WARN002 -> 318
[2025-08-29 09:37:22] [info] DB_WARN003 -> 322
[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info]                      Summary
[2025-08-29 09:37:22] [info] -----
[2025-08-29 09:37:22] [info] Total XOR Mismatches:    18
[2025-08-29 09:37:22] [info] Total Warnings:         641
[2025-08-29 09:37:22] [info] XOR Status:             MISMATCH

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[2025-08-29 09:38:18] [info] =====
[2025-08-29 09:38:18] [info]                      XOR Verification Report
[2025-08-29 09:38:18] [info] =====

[2025-08-29 09:38:18] [info] Report Generated:    2025-08-29
[2025-08-29 09:38:18] [info] Run Start Time:      09:38:13 AM
[2025-08-29 09:38:18] [info] Run End Time:        09:38:18 AM
[2025-08-29 09:38:18] [info] Time Taken:          0 minutes 50 seconds

[2025-08-29 09:38:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:38:18] [info] Host Name:           kuro-Workstation
[2025-08-29 09:38:18] [info] User Name:           kuro
[2025-08-29 09:38:18] [info] Cores Used:          4
[2025-08-29 09:38:18] [info] Memory Utilized:     14054.19 MB / 62.569698333740234 GB

[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info]                      Top Cell Information
[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info] Layout Top Cell:     jpeg_encoder2_sky130hd
[2025-08-29 09:38:18] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:38:18] [info] Database Format:       GDSII
[2025-08-29 09:38:18] [info] Verification Mode:    XOR Check

[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info]                      XOR Mismatch Summary
[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info] | Layer Name | XOR Errors |
[2025-08-29 09:38:18] [info] |-----|-----|
[2025-08-29 09:38:18] [info]
[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info]                      Performance Metrics
[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info] | Stage | Time Taken |
[2025-08-29 09:38:18] [info] |-----|-----|
[2025-08-29 09:38:18] [info] | GDS Parsing | 0 minutes 45 seconds |
[2025-08-29 09:38:18] [info] | Layer Comparison | 0 minutes 4 seconds |
[2025-08-29 09:38:18] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info]                      Type of Errors | Count
[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info] DB_ERR010 -> 4
[2025-08-29 09:38:18] [info] DB_WARN -> 1
[2025-08-29 09:38:18] [info] LRF_ERR001 -> 14
[2025-08-29 09:38:18] [info] DB_WARN002 -> 314
[2025-08-29 09:38:18] [info] DB_WARN003 -> 318
[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info]                      Summary
[2025-08-29 09:38:18] [info] -----
[2025-08-29 09:38:18] [info] Total XOR Mismatches:    18
[2025-08-29 09:38:18] [info] Total Warnings:         633
[2025-08-29 09:38:18] [info] XOR Status:             MISMATCH
```

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[2025-08-29 09:39:06] [info] =====
[2025-08-29 09:39:06] [info]                      XOR Verification Report
[2025-08-29 09:39:06] [info] =====

[2025-08-29 09:39:06] [info] Report Generated:    2025-08-29
[2025-08-29 09:39:06] [info] Run Start Time:      09:39:02 AM
[2025-08-29 09:39:06] [info] Run End Time:        09:39:06 AM
[2025-08-29 09:39:06] [info] Time Taken:          0 minutes 42 seconds

[2025-08-29 09:39:06] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:39:06] [info] Host Name:           kuro-Workstation
[2025-08-29 09:39:06] [info] User Name:           kuro
[2025-08-29 09:39:06] [info] Cores Used:          4
[2025-08-29 09:39:06] [info] Memory Utilized:     11539.39 MB / 62.569698333740234 GB

[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info]                      Top Cell Information
[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-08-29 09:39:06] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:39:06] [info] Database Format:       GDSII
[2025-08-29 09:39:06] [info] Verification Mode:    XOR Check

[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info]                      XOR Mismatch Summary
[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info] | Layer Name          | XOR Errors |
[2025-08-29 09:39:06] [info] |-----|-----|
[2025-08-29 09:39:06] [info]
[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info]                      Performance Metrics
[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info] | Stage                | Time Taken |
[2025-08-29 09:39:06] [info] |-----|-----|
[2025-08-29 09:39:06] [info] | GDS Parsing          | 0 minutes 38 seconds |
[2025-08-29 09:39:06] [info] | Layer Comparison     | 0 minutes 3 seconds  |
[2025-08-29 09:39:06] [info] | Report Generation    | 0 minutes 0 seconds  |

[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info]                      Type of Errors | Count
[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info] DB_ERR010 -> 4
[2025-08-29 09:39:06] [info] DB_WARN -> 1
[2025-08-29 09:39:06] [info] LRF_ERR001 -> 14
[2025-08-29 09:39:06] [info] DB_WARN002 -> 304
[2025-08-29 09:39:06] [info] DB_WARN003 -> 310
[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info]                      Summary
[2025-08-29 09:39:06] [info] -----
[2025-08-29 09:39:06] [info] Total XOR Mismatches:    18
[2025-08-29 09:39:06] [info] Total Warnings:         615
[2025-08-29 09:39:06] [info] XOR Status:              MISMATCH
```

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[2025-08-29 09:39:30] [info] =====
[2025-08-29 09:39:30] [info]                      XOR Verification Report
[2025-08-29 09:39:30] [info] =====

[2025-08-29 09:39:30] [info] Report Generated:    2025-08-29
[2025-08-29 09:39:30] [info] Run Start Time:      09:39:29 AM
[2025-08-29 09:39:30] [info] Run End Time:        09:39:30 AM
[2025-08-29 09:39:30] [info] Time Taken:          0 minutes 19 seconds

[2025-08-29 09:39:30] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:39:30] [info] Host Name:           kuro-Workstation
[2025-08-29 09:39:30] [info] User Name:           kuro
[2025-08-29 09:39:30] [info] Cores Used:          8
[2025-08-29 09:39:30] [info] Memory Utilized:     7070.83 MB / 62.569698333740234 GB

[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info]                      Top Cell Information
[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info] Layout Top Cell:     aes_cipher_top1_sky130hd
[2025-08-29 09:39:30] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:39:30] [info] Database Format:       GDSII
[2025-08-29 09:39:30] [info] Verification Mode:    XOR Check

[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info]                      XOR Mismatch Summary
[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info] | Layer Name      | XOR Errors |
[2025-08-29 09:39:30] [info] |-----|-----|
[2025-08-29 09:39:30] [info]
[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info]                      Performance Metrics
[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info] | Stage           | Time Taken |
[2025-08-29 09:39:30] [info] |-----|-----|
[2025-08-29 09:39:30] [info] | GDS Parsing      | 0 minutes 17 seconds |
[2025-08-29 09:39:30] [info] | Layer Comparison  | 0 minutes 0 seconds  |
[2025-08-29 09:39:30] [info] | Report Generation | 0 minutes 0 seconds  |

[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info]                      Type of Errors | Count
[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info] DB_ERR010 -> 4
[2025-08-29 09:39:30] [info] DB_WARN -> 1
[2025-08-29 09:39:30] [info] LRF_ERR001 -> 14
[2025-08-29 09:39:30] [info] DB_WARN002 -> 288
[2025-08-29 09:39:30] [info] DB_WARN003 -> 274
[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info]                      Summary
[2025-08-29 09:39:30] [info] -----
[2025-08-29 09:39:30] [info] Total XOR Mismatches:    18
[2025-08-29 09:39:30] [info] Total Warnings:         563
[2025-08-29 09:39:30] [info] XOR Status:             MISMATCH

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[2025-08-29 09:39:53] [info] =====
[2025-08-29 09:39:53] [info] XOR Verification Report
[2025-08-29 09:39:53] [info] =====

[2025-08-29 09:39:53] [info] Report Generated: 2025-08-29
[2025-08-29 09:39:53] [info] Run Start Time: 09:39:52 AM
[2025-08-29 09:39:53] [info] Run End Time: 09:39:53 AM
[2025-08-29 09:39:53] [info] Time Taken: 0 minutes 20 seconds

[2025-08-29 09:39:53] [info] Tool Version: LVR_2025.1
[2025-08-29 09:39:53] [info] Host Name: kuro-Workstation
[2025-08-29 09:39:53] [info] User Name: kuro
[2025-08-29 09:39:53] [info] Cores Used: 8
[2025-08-29 09:39:53] [info] Memory Utilized: 7626.30 MB / 62.569698333740234 GB

[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] Top Cell Information
[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] Layout Top Cell: aes_cipher_top2_sky130hd
[2025-08-29 09:39:53] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:39:53] [info] Database Format: GDSII
[2025-08-29 09:39:53] [info] Verification Mode: XOR Check

[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] XOR Mismatch Summary
[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] | Layer Name | XOR Errors |
[2025-08-29 09:39:53] [info] |-----|-----|
[2025-08-29 09:39:53] [info]
[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] Performance Metrics
[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] | Stage | Time Taken |
[2025-08-29 09:39:53] [info] |-----|-----|
[2025-08-29 09:39:53] [info] | GDS Parsing | 0 minutes 19 seconds |
[2025-08-29 09:39:53] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 09:39:53] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] Type of Errors | Count
[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] DB_ERR010 -> 4
[2025-08-29 09:39:53] [info] DB_WARN -> 1
[2025-08-29 09:39:53] [info] LRF_ERR001 -> 14
[2025-08-29 09:39:53] [info] DB_WARN002 -> 282
[2025-08-29 09:39:53] [info] DB_WARN003 -> 270
[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] Summary
[2025-08-29 09:39:53] [info] -----
[2025-08-29 09:39:53] [info] Total XOR Mismatches: 18
[2025-08-29 09:39:53] [info] Total Warnings: 553
[2025-08-29 09:39:53] [info] XOR Status: MISMATCH

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[2025-08-29 09:40:13] [info] =====
[2025-08-29 09:40:13] [info]                XOR Verification Report
[2025-08-29 09:40:13] [info] =====

[2025-08-29 09:40:13] [info] Report Generated:    2025-08-29
[2025-08-29 09:40:13] [info] Run Start Time:      09:40:12 AM
[2025-08-29 09:40:13] [info] Run End Time:        09:40:13 AM
[2025-08-29 09:40:13] [info] Time Taken:          0 minutes 16 seconds

[2025-08-29 09:40:13] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:40:13] [info] Host Name:           kuro-Workstation
[2025-08-29 09:40:13] [info] User Name:           kuro
[2025-08-29 09:40:13] [info] Cores Used:          8
[2025-08-29 09:40:13] [info] Memory Utilized:     5922.27 MB / 62.569698333740234 GB

[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info]                Top Cell Information
[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-08-29 09:40:13] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:40:13] [info] Database Format:       GDSII
[2025-08-29 09:40:13] [info] Verification Mode:    XOR Check

[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info]                XOR Mismatch Summary
[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info] | Layer Name | XOR Errors |
[2025-08-29 09:40:13] [info] |-----|-----|
[2025-08-29 09:40:13] [info]
[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info]                Performance Metrics
[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info] | Stage | Time Taken |
[2025-08-29 09:40:13] [info] |-----|-----|
[2025-08-29 09:40:13] [info] | GDS Parsing | 0 minutes 15 seconds |
[2025-08-29 09:40:13] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:40:13] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info]                Type of Errors | Count
[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info] DB_ERR010 -> 4
[2025-08-29 09:40:13] [info] DB_WARN -> 1
[2025-08-29 09:40:13] [info] LRF_ERR001 -> 14
[2025-08-29 09:40:13] [info] DB_WARN002 -> 276
[2025-08-29 09:40:13] [info] DB_WARN003 -> 264
[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info]                Summary
[2025-08-29 09:40:13] [info] -----
[2025-08-29 09:40:13] [info] Total XOR Mismatches:    18
[2025-08-29 09:40:13] [info] Total Warnings:         541
[2025-08-29 09:40:13] [info] XOR Status:             MISMATCH

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[2025-08-29 09:39:10] [info] =====
[2025-08-29 09:39:10] [info]                      XOR Verification Report
[2025-08-29 09:39:10] [info] =====

[2025-08-29 09:39:10] [info] Report Generated:    2025-08-29
[2025-08-29 09:39:10] [info] Run Start Time:      09:39:10 AM
[2025-08-29 09:39:10] [info] Run End Time:        09:39:10 AM
[2025-08-29 09:39:10] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:39:10] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:39:10] [info] Host Name:           kuro-Workstation
[2025-08-29 09:39:10] [info] User Name:           kuro
[2025-08-29 09:39:10] [info] Cores Used:          8
[2025-08-29 09:39:10] [info] Memory Utilized:     113.08 MB / 62.569698333740234 GB

[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info]                      Top Cell Information
[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info] Layout Top Cell:     gcd1_sky130hd
[2025-08-29 09:39:10] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:39:10] [info] Database Format:       GDSII
[2025-08-29 09:39:10] [info] Verification Mode:    XOR Check

[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info]                      XOR Mismatch Summary
[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info] | Layer Name | XOR Errors |
[2025-08-29 09:39:10] [info] |-----|-----|
[2025-08-29 09:39:10] [info]
[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info]                      Performance Metrics
[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info] | Stage | Time Taken |
[2025-08-29 09:39:10] [info] |-----|-----|
[2025-08-29 09:39:10] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:39:10] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:39:10] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info]                      Type of Errors | Count
[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info] DB_ERR010 -> 4
[2025-08-29 09:39:10] [info] DB_WARN -> 1
[2025-08-29 09:39:10] [info] LRF_ERR001 -> 14
[2025-08-29 09:39:10] [info] DB_WARN002 -> 116
[2025-08-29 09:39:10] [info] DB_WARN003 -> 110
[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info]                      Summary
[2025-08-29 09:39:10] [info] -----
[2025-08-29 09:39:10] [info] Total XOR Mismatches:    18
[2025-08-29 09:39:10] [info] Total Warnings:          227
[2025-08-29 09:39:10] [info] XOR Status:              MISMATCH
```

```

[2025-08-29 09:39:11] [info] =====
[2025-08-29 09:39:11] [info]                      XOR Verification Report
[2025-08-29 09:39:11] [info] =====

[2025-08-29 09:39:11] [info] Report Generated:    2025-08-29
[2025-08-29 09:39:11] [info] Run Start Time:      09:39:11 AM
[2025-08-29 09:39:11] [info] Run End Time:        09:39:11 AM
[2025-08-29 09:39:11] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:39:11] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:39:11] [info] Host Name:           kuro-Workstation
[2025-08-29 09:39:11] [info] User Name:           kuro
[2025-08-29 09:39:11] [info] Cores Used:          8
[2025-08-29 09:39:11] [info] Memory Utilized:     114.35 MB / 62.569698333740234 GB

[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      Top Cell Information
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] Layout Top Cell:     gcd2_sky130hd
[2025-08-29 09:39:11] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:39:11] [info] Database Format:       GDSII
[2025-08-29 09:39:11] [info] Verification Mode:    XOR Check

[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      XOR Mismatch Summary
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] | Layer Name | XOR Errors |
[2025-08-29 09:39:11] [info] |-----|-----|
[2025-08-29 09:39:11] [info]
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      Performance Metrics
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] | Stage | Time Taken |
[2025-08-29 09:39:11] [info] |-----|-----|
[2025-08-29 09:39:11] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:39:11] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:39:11] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      Type of Errors | Count
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] DB_ERR010 -> 4
[2025-08-29 09:39:11] [info] DB_WARN -> 1
[2025-08-29 09:39:11] [info] LRF_ERR001 -> 14
[2025-08-29 09:39:11] [info] DB_WARN002 -> 118
[2025-08-29 09:39:11] [info] DB_WARN003 -> 112
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      Summary
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] Total XOR Mismatches:    18
[2025-08-29 09:39:11] [info] Total Warnings:          231
[2025-08-29 09:39:11] [info] XOR Status:              MISMATCH

```

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[2025-08-29 09:39:11] [info] =====
[2025-08-29 09:39:11] [info]                      XOR Verification Report
[2025-08-29 09:39:11] [info] =====

[2025-08-29 09:39:11] [info] Report Generated:    2025-08-29
[2025-08-29 09:39:11] [info] Run Start Time:      09:39:11 AM
[2025-08-29 09:39:11] [info] Run End Time:        09:39:11 AM
[2025-08-29 09:39:11] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 09:39:11] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:39:11] [info] Host Name:           kuro-Workstation
[2025-08-29 09:39:11] [info] User Name:           kuro
[2025-08-29 09:39:11] [info] Cores Used:          8
[2025-08-29 09:39:11] [info] Memory Utilized:     103.41 MB / 62.569698333740234 GB

[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      Top Cell Information
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] Layout Top Cell:     gcd3_sky130hd
[2025-08-29 09:39:11] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:39:11] [info] Database Format:       GDSII
[2025-08-29 09:39:11] [info] Verification Mode:    XOR Check

[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      XOR Mismatch Summary
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] | Layer Name | XOR Errors |
[2025-08-29 09:39:11] [info] |-----|-----|
[2025-08-29 09:39:11] [info]
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      Performance Metrics
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] | Stage | Time Taken |
[2025-08-29 09:39:11] [info] |-----|-----|
[2025-08-29 09:39:11] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:39:11] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:39:11] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      Type of Errors | Count
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] DB_ERR010 -> 4
[2025-08-29 09:39:11] [info] DB_WARN -> 1
[2025-08-29 09:39:11] [info] LRF_ERR001 -> 14
[2025-08-29 09:39:11] [info] DB_WARN002 -> 118
[2025-08-29 09:39:11] [info] DB_WARN003 -> 112
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info]                      Summary
[2025-08-29 09:39:11] [info] -----
[2025-08-29 09:39:11] [info] Total XOR Mismatches:    18
[2025-08-29 09:39:11] [info] Total Warnings:          231
[2025-08-29 09:39:11] [info] XOR Status:              MISMATCH
```

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[2025-08-29 09:40:34] [info] =====
[2025-08-29 09:40:34] [info]                      XOR Verification Report
[2025-08-29 09:40:34] [info] =====

[2025-08-29 09:40:34] [info] Report Generated:    2025-08-29
[2025-08-29 09:40:34] [info] Run Start Time:      09:40:33 AM
[2025-08-29 09:40:34] [info] Run End Time:        09:40:34 AM
[2025-08-29 09:40:34] [info] Time Taken:          0 minutes 19 seconds

[2025-08-29 09:40:34] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:40:34] [info] Host Name:           kuro-Workstation
[2025-08-29 09:40:34] [info] User Name:           kuro
[2025-08-29 09:40:34] [info] Cores Used:          8
[2025-08-29 09:40:34] [info] Memory Utilized:     7307.12 MB / 62.569698333740234 GB

[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info]                      Top Cell Information
[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info] Layout Top Cell:     ibex_core1_sky130hd
[2025-08-29 09:40:34] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:40:34] [info] Database Format:       GDSII
[2025-08-29 09:40:34] [info] Verification Mode:    XOR Check

[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info]                      XOR Mismatch Summary
[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info] | Layer Name | XOR Errors |
[2025-08-29 09:40:34] [info] |-----|-----|
[2025-08-29 09:40:34] [info]
[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info]                      Performance Metrics
[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info] | Stage | Time Taken |
[2025-08-29 09:40:34] [info] |-----|-----|
[2025-08-29 09:40:34] [info] | GDS Parsing | 0 minutes 18 seconds |
[2025-08-29 09:40:34] [info] | Layer Comparison | 0 minutes 0 seconds |
[2025-08-29 09:40:34] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info]                      Type of Errors | Count
[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info] DB_ERR010 -> 4
[2025-08-29 09:40:34] [info] DB_WARN -> 1
[2025-08-29 09:40:34] [info] LRF_ERR001 -> 14
[2025-08-29 09:40:34] [info] DB_WARN002 -> 502
[2025-08-29 09:40:34] [info] DB_WARN003 -> 502
[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info]                      Summary
[2025-08-29 09:40:34] [info] -----
[2025-08-29 09:40:34] [info] Total XOR Mismatches: 18
[2025-08-29 09:40:34] [info] Total Warnings: 1005
[2025-08-29 09:40:34] [info] XOR Status: MISMATCH

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[2025-08-29 09:40:56] [info] =====
[2025-08-29 09:40:56] [info]                      XOR Verification Report
[2025-08-29 09:40:56] [info] =====

[2025-08-29 09:40:56] [info] Report Generated:    2025-08-29
[2025-08-29 09:40:56] [info] Run Start Time:      09:40:55 AM
[2025-08-29 09:40:56] [info] Run End Time:        09:40:56 AM
[2025-08-29 09:40:56] [info] Time Taken:          0 minutes 20 seconds

[2025-08-29 09:40:56] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:40:56] [info] Host Name:           kuro-Workstation
[2025-08-29 09:40:56] [info] User Name:           kuro
[2025-08-29 09:40:56] [info] Cores Used:          8
[2025-08-29 09:40:56] [info] Memory Utilized:     7368.58 MB / 62.569698333740234 GB

[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info]                      Top Cell Information
[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info] Layout Top Cell:     ibex_core2_sky130hd
[2025-08-29 09:40:56] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:40:56] [info] Database Format:       GDSII
[2025-08-29 09:40:56] [info] Verification Mode:    XOR Check

[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info]                      XOR Mismatch Summary
[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info] | Layer Name | XOR Errors |
[2025-08-29 09:40:56] [info] |-----|-----|
[2025-08-29 09:40:56] [info]
[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info]                      Performance Metrics
[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info] | Stage | Time Taken |
[2025-08-29 09:40:56] [info] |-----|-----|
[2025-08-29 09:40:56] [info] | GDS Parsing | 0 minutes 18 seconds |
[2025-08-29 09:40:56] [info] | Layer Comparison | 0 minutes 1 seconds |
[2025-08-29 09:40:56] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info]                      Type of Errors | Count
[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info] DB_ERR010 -> 4
[2025-08-29 09:40:56] [info] DB_WARN -> 1
[2025-08-29 09:40:56] [info] LRF_ERR001 -> 14
[2025-08-29 09:40:56] [info] DB_WARN002 -> 498
[2025-08-29 09:40:56] [info] DB_WARN003 -> 498
[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info]                      Summary
[2025-08-29 09:40:56] [info] -----
[2025-08-29 09:40:56] [info] Total XOR Mismatches:    18
[2025-08-29 09:40:56] [info] Total Warnings:          997
[2025-08-29 09:40:56] [info] XOR Status:              MISMATCH

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[2025-08-29 09:41:18] [info] =====
[2025-08-29 09:41:18] [info]                      XOR Verification Report
[2025-08-29 09:41:18] [info] =====

[2025-08-29 09:41:18] [info] Report Generated:    2025-08-29
[2025-08-29 09:41:18] [info] Run Start Time:      09:41:17 AM
[2025-08-29 09:41:18] [info] Run End Time:        09:41:18 AM
[2025-08-29 09:41:18] [info] Time Taken:          0 minutes 19 seconds

[2025-08-29 09:41:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:41:18] [info] Host Name:           kuro-Workstation
[2025-08-29 09:41:18] [info] User Name:           kuro
[2025-08-29 09:41:18] [info] Cores Used:          8
[2025-08-29 09:41:18] [info] Memory Utilized:     7217.54 MB / 62.569698333740234 GB

[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info]                      Top Cell Information
[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info] Layout Top Cell:     ibex_core3_sky130hd
[2025-08-29 09:41:18] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:41:18] [info] Database Format:       GDSII
[2025-08-29 09:41:18] [info] Verification Mode:    XOR Check

[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info]                      XOR Mismatch Summary
[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info] | Layer Name          | XOR Errors |
[2025-08-29 09:41:18] [info] |-----|-----|
[2025-08-29 09:41:18] [info]
[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info]                      Performance Metrics
[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info] | Stage                | Time Taken |
[2025-08-29 09:41:18] [info] |-----|-----|
[2025-08-29 09:41:18] [info] | GDS Parsing           | 0 minutes 18 seconds |
[2025-08-29 09:41:18] [info] | Layer Comparison      | 0 minutes 1 seconds  |
[2025-08-29 09:41:18] [info] | Report Generation     | 0 minutes 0 seconds  |

[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info]                      Type of Errors | Count
[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info] DB_ERR010 -> 4
[2025-08-29 09:41:18] [info] DB_WARN -> 1
[2025-08-29 09:41:18] [info] LRF_ERR001 -> 14
[2025-08-29 09:41:18] [info] DB_WARN002 -> 506
[2025-08-29 09:41:18] [info] DB_WARN003 -> 502
[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info]                      Summary
[2025-08-29 09:41:18] [info] -----
[2025-08-29 09:41:18] [info] Total XOR Mismatches:    18
[2025-08-29 09:41:18] [info] Total Warnings:          1009
[2025-08-29 09:41:18] [info] XOR Status:              MISMATCH

```



```
[2025-08-29 09:42:11] [info] =====
[2025-08-29 09:42:11] [info] XOR Verification Report
[2025-08-29 09:42:11] [info] =====

[2025-08-29 09:42:11] [info] Report Generated: 2025-08-29
[2025-08-29 09:42:11] [info] Run Start Time: 09:42:07 AM
[2025-08-29 09:42:11] [info] Run End Time: 09:42:10 AM
[2025-08-29 09:42:11] [info] Time Taken: 0 minutes 50 seconds

[2025-08-29 09:42:11] [info] Tool Version: LVR_2025.1
[2025-08-29 09:42:11] [info] Host Name: kuro-Workstation
[2025-08-29 09:42:11] [info] User Name: kuro
[2025-08-29 09:42:11] [info] Cores Used: 8
[2025-08-29 09:42:11] [info] Memory Utilized: 17668.92 MB / 62.569698333740234 GB

[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] Top Cell Information
[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] Layout Top Cell: jpeg_encoder1_sky130hd
[2025-08-29 09:42:11] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:42:11] [info] Database Format: GDSII
[2025-08-29 09:42:11] [info] Verification Mode: XOR Check

[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] XOR Mismatch Summary
[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] | Layer Name | XOR Errors |
[2025-08-29 09:42:11] [info] |-----|-----|
[2025-08-29 09:42:11] [info]
[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] Performance Metrics
[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] | Stage | Time Taken |
[2025-08-29 09:42:11] [info] |-----|-----|
[2025-08-29 09:42:11] [info] | GDS Parsing | 0 minutes 47 seconds |
[2025-08-29 09:42:11] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 09:42:11] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] Type of Errors | Count
[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] DB_ERR010 -> 4
[2025-08-29 09:42:11] [info] DB_WARN -> 1
[2025-08-29 09:42:11] [info] LRF_ERR001 -> 14
[2025-08-29 09:42:11] [info] DB_WARN002 -> 318
[2025-08-29 09:42:11] [info] DB_WARN003 -> 322
[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] Summary
[2025-08-29 09:42:11] [info] -----
[2025-08-29 09:42:11] [info] Total XOR Mismatches: 18
[2025-08-29 09:42:11] [info] Total Warnings: 641
[2025-08-29 09:42:11] [info] XOR Status: MISMATCH
```

```
[2025-08-29 09:43:12] [info] =====
[2025-08-29 09:43:12] [info] XOR Verification Report
[2025-08-29 09:43:12] [info] =====

[2025-08-29 09:43:12] [info] Report Generated: 2025-08-29
[2025-08-29 09:43:12] [info] Run Start Time: 09:43:08 AM
[2025-08-29 09:43:12] [info] Run End Time: 09:43:12 AM
[2025-08-29 09:43:12] [info] Time Taken: 0 minutes 55 seconds

[2025-08-29 09:43:12] [info] Tool Version: LVR_2025.1
[2025-08-29 09:43:12] [info] Host Name: kuro-Workstation
[2025-08-29 09:43:12] [info] User Name: kuro
[2025-08-29 09:43:12] [info] Cores Used: 8
[2025-08-29 09:43:12] [info] Memory Utilized: 19375.27 MB / 62.569698333740234 GB

[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] Top Cell Information
[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] Layout Top Cell: jpeg_encoder2_sky130hd
[2025-08-29 09:43:12] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:43:12] [info] Database Format: GDSII
[2025-08-29 09:43:12] [info] Verification Mode: XOR Check

[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] XOR Mismatch Summary
[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] | Layer Name | XOR Errors |
[2025-08-29 09:43:12] [info] |-----|-----|
[2025-08-29 09:43:12] [info]
[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] Performance Metrics
[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] | Stage | Time Taken |
[2025-08-29 09:43:12] [info] |-----|-----|
[2025-08-29 09:43:12] [info] | GDS Parsing | 0 minutes 52 seconds |
[2025-08-29 09:43:12] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 09:43:12] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] Type of Errors | Count
[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] DB_ERR010 -> 4
[2025-08-29 09:43:12] [info] DB_WARN -> 1
[2025-08-29 09:43:12] [info] LRF_ERR001 -> 14
[2025-08-29 09:43:12] [info] DB_WARN002 -> 314
[2025-08-29 09:43:12] [info] DB_WARN003 -> 318
[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] Summary
[2025-08-29 09:43:12] [info] -----
[2025-08-29 09:43:12] [info] Total XOR Mismatches: 18
[2025-08-29 09:43:12] [info] Total Warnings: 633
[2025-08-29 09:43:12] [info] XOR Status: MISMATCH
```

```

[2025-08-29 09:44:07] [info] =====
[2025-08-29 09:44:07] [info]                      XOR Verification Report
[2025-08-29 09:44:07] [info] =====

[2025-08-29 09:44:07] [info] Report Generated:    2025-08-29
[2025-08-29 09:44:07] [info] Run Start Time:      09:44:04 AM
[2025-08-29 09:44:07] [info] Run End Time:        09:44:06 AM
[2025-08-29 09:44:07] [info] Time Taken:          0 minutes 47 seconds

[2025-08-29 09:44:07] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:44:07] [info] Host Name:           kuro-Workstation
[2025-08-29 09:44:07] [info] User Name:           kuro
[2025-08-29 09:44:07] [info] Cores Used:          8
[2025-08-29 09:44:07] [info] Memory Utilized:     17054.73 MB / 62.569698333740234 GB

[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info]                      Top Cell Information
[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info] Layout Top Cell:     jpeg_encoder3_sky130hd
[2025-08-29 09:44:07] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:44:07] [info] Database Format:       GDSII
[2025-08-29 09:44:07] [info] Verification Mode:    XOR Check

[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info]                      XOR Mismatch Summary
[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info] | Layer Name | XOR Errors |
[2025-08-29 09:44:07] [info] |-----|-----|
[2025-08-29 09:44:07] [info]
[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info]                      Performance Metrics
[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info] | Stage | Time Taken |
[2025-08-29 09:44:07] [info] |-----|-----|
[2025-08-29 09:44:07] [info] | GDS Parsing | 0 minutes 44 seconds |
[2025-08-29 09:44:07] [info] | Layer Comparison | 0 minutes 2 seconds |
[2025-08-29 09:44:07] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info]                      Type of Errors | Count
[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info] DB_ERR010 -> 4
[2025-08-29 09:44:07] [info] DB_WARN -> 1
[2025-08-29 09:44:07] [info] LRF_ERR001 -> 14
[2025-08-29 09:44:07] [info] DB_WARN002 -> 304
[2025-08-29 09:44:07] [info] DB_WARN003 -> 310
[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info]                      Summary
[2025-08-29 09:44:07] [info] -----
[2025-08-29 09:44:07] [info] Total XOR Mismatches:    18
[2025-08-29 09:44:07] [info] Total Warnings:         615
[2025-08-29 09:44:07] [info] XOR Status:             MISMATCH

```

10.6 DENSITY Regression Summary Reports

```
[2025-08-29 10:55:44] [info] =====
[2025-08-29 10:55:44] [info] Density Rule Check Report
[2025-08-29 10:55:44] [info] =====

[2025-08-29 10:55:44] [info] Report Generated: 2025-08-29
[2025-08-29 10:55:44] [info] Run Start Time: 10:54:21 AM
[2025-08-29 10:55:44] [info] Run End Time: 10:55:44 AM
[2025-08-29 10:55:44] [info] Time Taken: 1 minutes 25 seconds

[2025-08-29 10:55:44] [info] Tool Version: LVR_2025.1
[2025-08-29 10:55:44] [info] Host Name: kuro-Workstation
[2025-08-29 10:55:44] [info] User Name: kuro
[2025-08-29 10:55:44] [info] Cores Used: 1
[2025-08-29 10:55:44] [info] Memory Utilized: 1452.70 MB / 62.569698333740234 GB

[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] Top Cell Information
[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] Layout Top Cell: aes_cipher_top
[2025-08-29 10:55:44] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 10:55:44] [info] Database Format: GDSII
[2025-08-29 10:55:44] [info] Verification Mode: Full Check

[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] Type of Errors | Count
[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] DB_WARN -> 1
[2025-08-29 10:55:44] [info] DB_WARN003 -> 221
[2025-08-29 10:55:44] [info] DENSITY_ERR -> 1005
[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] Density Rule Violation Summary
[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] | Rule ID | Description | Error Count |
[2025-08-29 10:55:44] [info] |-----|-----|-----|
[2025-08-29 10:55:44] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 10:55:44] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 10:55:44] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 10:55:44] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 10:55:44] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] Performance Metrics
[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] | Stage | Time Taken |
[2025-08-29 10:55:44] [info] |-----|-----|
[2025-08-29 10:55:44] [info] | GDS Parsing | 0 minutes 2 seconds |
[2025-08-29 10:55:44] [info] | Rule Checking | 1 minutes 22 seconds |
[2025-08-29 10:55:44] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] Summary
[2025-08-29 10:55:44] [info] -----
[2025-08-29 10:55:44] [info] Total Errors: 1005
[2025-08-29 10:55:44] [info] Total Warnings: 222
[2025-08-29 10:55:44] [info] DENSITY Status: FAILED
```

```

[2025-08-29 10:57:27] [info] =====
[2025-08-29 10:57:27] [info]                      Density Rule Check Report
[2025-08-29 10:57:27] [info] =====

[2025-08-29 10:57:27] [info] Report Generated:    2025-08-29
[2025-08-29 10:57:27] [info] Run Start Time:      10:55:47 AM
[2025-08-29 10:57:27] [info] Run End Time:        10:57:27 AM
[2025-08-29 10:57:27] [info] Time Taken:          1 minutes 43 seconds

[2025-08-29 10:57:27] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:57:27] [info] Host Name:           kuro-Workstation
[2025-08-29 10:57:27] [info] User Name:           kuro
[2025-08-29 10:57:27] [info] Cores Used:          1
[2025-08-29 10:57:27] [info] Memory Utilized:     1469.68 MB / 62.569698333740234 GB

[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info]                      Top Cell Information
[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:57:27] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:57:27] [info] Database Format:       GDSII
[2025-08-29 10:57:27] [info] Verification Mode:    Full Check

[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info]                      Type of Errors | Count
[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info] DB_WARN -> 1
[2025-08-29 10:57:27] [info] DB_WARN003 -> 219
[2025-08-29 10:57:27] [info] DENSITY_ERR -> 1005
[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info]                      Density Rule Violation Summary
[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info] | Rule ID      | Description              | Error Count |
[2025-08-29 10:57:27] [info] |-----|-----|-----|
[2025-08-29 10:57:27] [info] | ydir_fail    | "Ydir Fail"              | 1           |
[2025-08-29 10:57:27] [info] | xdir_fail    | "Xdir fail"              | 1           |
[2025-08-29 10:57:27] [info] | out_of_range | "Out of Range"           | 1           |
[2025-08-29 10:57:27] [info] | max_fail     | "Max Fail"               | 1           |
[2025-08-29 10:57:27] [info] | min_fail     | "Min Fail"               | 1001        |
[2025-08-29 10:57:27] [info] |-----|-----|-----|
[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info]                      Performance Metrics
[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info] | Stage          | Time Taken              |
[2025-08-29 10:57:27] [info] |-----|-----|
[2025-08-29 10:57:27] [info] | GDS Parsing    | 0 minutes 2 seconds     |
[2025-08-29 10:57:27] [info] | Rule Checking  | 1 minutes 40 seconds    |
[2025-08-29 10:57:27] [info] | Report Generation | 0 minutes 0 seconds     |
[2025-08-29 10:57:27] [info] |-----|-----|
[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info]                      Summary
[2025-08-29 10:57:27] [info] -----
[2025-08-29 10:57:27] [info] Total Errors:      1005
[2025-08-29 10:57:27] [info] Total Warnings:    220
[2025-08-29 10:57:27] [info] DENSITY Status:    FAILED

```

```

[2025-08-29 10:58:48] [info] =====
[2025-08-29 10:58:48] [info]                      Density Rule Check Report
[2025-08-29 10:58:48] [info] =====

[2025-08-29 10:58:48] [info] Report Generated:    2025-08-29
[2025-08-29 10:58:48] [info] Run Start Time:      10:57:30 AM
[2025-08-29 10:58:48] [info] Run End Time:        10:58:48 AM
[2025-08-29 10:58:48] [info] Time Taken:          1 minutes 20 seconds

[2025-08-29 10:58:48] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:58:48] [info] Host Name:           kuro-Workstation
[2025-08-29 10:58:48] [info] User Name:           kuro
[2025-08-29 10:58:48] [info] Cores Used:          1
[2025-08-29 10:58:48] [info] Memory Utilized:     1448.54 MB / 62.569698333740234 GB

[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info]                      Top Cell Information
[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info] Layout Top Cell:     aes_cipher_top
[2025-08-29 10:58:48] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:58:48] [info] Database Format:       GDSII
[2025-08-29 10:58:48] [info] Verification Mode:    Full Check

[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info]                      Type of Errors | Count
[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info] DB_WARN -> 1
[2025-08-29 10:58:48] [info] DB_WARN003 -> 221
[2025-08-29 10:58:48] [info] DENSITY_ERR -> 1005
[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info]                      Density Rule Violation Summary
[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info] | Rule ID      | Description              | Error Count |
[2025-08-29 10:58:48] [info] |-----|-----|-----|
[2025-08-29 10:58:48] [info] | ydir_fail    | "Ydir Fail"              | 1           |
[2025-08-29 10:58:48] [info] | xdir_fail    | "Xdir fail"              | 1           |
[2025-08-29 10:58:48] [info] | out_of_range | "Out of Range"           | 1           |
[2025-08-29 10:58:48] [info] | max_fail     | "Max Fail"               | 1           |
[2025-08-29 10:58:48] [info] | min_fail     | "Min Fail"               | 1001        |
[2025-08-29 10:58:48] [info] |-----|-----|-----|
[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info]                      Performance Metrics
[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info] | Stage          | Time Taken              |
[2025-08-29 10:58:48] [info] |-----|-----|
[2025-08-29 10:58:48] [info] | GDS Parsing    | 0 minutes 2 seconds     |
[2025-08-29 10:58:48] [info] | Rule Checking  | 1 minutes 17 seconds    |
[2025-08-29 10:58:48] [info] | Report Generation | 0 minutes 0 seconds     |

[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info]                      Summary
[2025-08-29 10:58:48] [info] -----
[2025-08-29 10:58:48] [info] Total Errors:      1005
[2025-08-29 10:58:48] [info] Total Warnings:    222
[2025-08-29 10:58:48] [info] DENSITY Status:    FAILED

```

```

[2025-08-29 10:54:18] [info] =====
[2025-08-29 10:54:18] [info]                      Density Rule Check Report
[2025-08-29 10:54:18] [info] =====

[2025-08-29 10:54:18] [info] Report Generated:    2025-08-29
[2025-08-29 10:54:18] [info] Run Start Time:      10:54:17 AM
[2025-08-29 10:54:18] [info] Run End Time:        10:54:18 AM
[2025-08-29 10:54:18] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:54:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:54:18] [info] Host Name:           kuro-Workstation
[2025-08-29 10:54:18] [info] User Name:           kuro
[2025-08-29 10:54:18] [info] Cores Used:          1
[2025-08-29 10:54:18] [info] Memory Utilized:     30.48 MB / 62.569698333740234 GB

[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Top Cell Information
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] Layout Top Cell:     gcd
[2025-08-29 10:54:18] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:54:18] [info] Database Format:       GDSII
[2025-08-29 10:54:18] [info] Verification Mode:    Full Check

[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Type of Errors | Count
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] DB_WARN -> 1
[2025-08-29 10:54:18] [info] DB_WARN003 -> 24
[2025-08-29 10:54:18] [info] DENSITY_ERR -> 1005
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Density Rule Violation Summary
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] | Rule ID      | Description              | Error Count |
[2025-08-29 10:54:18] [info] |-----|-----|-----|
[2025-08-29 10:54:18] [info] | ydir_fail    | "Ydir Fail"              | 1           |
[2025-08-29 10:54:18] [info] | xdir_fail    | "Xdir fail"              | 1           |
[2025-08-29 10:54:18] [info] | out_of_range | "Out of Range"           | 1           |
[2025-08-29 10:54:18] [info] | max_fail     | "Max Fail"               | 1           |
[2025-08-29 10:54:18] [info] | min_fail     | "Min Fail"               | 1001        |
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Performance Metrics
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] | Stage          | Time Taken              |
[2025-08-29 10:54:18] [info] |-----|-----|
[2025-08-29 10:54:18] [info] | GDS Parsing    | 0 minutes 0 seconds     |
[2025-08-29 10:54:18] [info] | Rule Checking  | 0 minutes 0 seconds     |
[2025-08-29 10:54:18] [info] | Report Generation | 0 minutes 0 seconds     |

[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Summary
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] Total Errors:      1005
[2025-08-29 10:54:18] [info] Total Warnings:    25
[2025-08-29 10:54:18] [info] DENSITY Status:    FAILED

```

```

[2025-08-29 10:54:18] [info] =====
[2025-08-29 10:54:18] [info]                      Density Rule Check Report
[2025-08-29 10:54:18] [info] =====

[2025-08-29 10:54:18] [info] Report Generated:    2025-08-29
[2025-08-29 10:54:18] [info] Run Start Time:      10:54:18 AM
[2025-08-29 10:54:18] [info] Run End Time:        10:54:18 AM
[2025-08-29 10:54:18] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:54:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:54:18] [info] Host Name:           kuro-Workstation
[2025-08-29 10:54:18] [info] User Name:           kuro
[2025-08-29 10:54:18] [info] Cores Used:          1
[2025-08-29 10:54:18] [info] Memory Utilized:     31.00 MB / 62.569698333740234 GB

[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Top Cell Information
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] Layout Top Cell:     gcd
[2025-08-29 10:54:18] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:54:18] [info] Database Format:       GDSII
[2025-08-29 10:54:18] [info] Verification Mode:    Full Check

[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Type of Errors | Count
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] DB_WARN -> 1
[2025-08-29 10:54:18] [info] DB_WARN003 -> 34
[2025-08-29 10:54:18] [info] DENSITY_ERR -> 1005
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Density Rule Violation Summary
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] | Rule ID      | Description              | Error Count |
[2025-08-29 10:54:18] [info] |-----|-----|-----|
[2025-08-29 10:54:18] [info] | ydir_fail    | "Ydir Fail"              | 1           |
[2025-08-29 10:54:18] [info] | xdir_fail    | "Xdir fail"              | 1           |
[2025-08-29 10:54:18] [info] | out_of_range | "Out of Range"           | 1           |
[2025-08-29 10:54:18] [info] | max_fail     | "Max Fail"               | 1           |
[2025-08-29 10:54:18] [info] | min_fail     | "Min Fail"               | 1001        |
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Performance Metrics
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] | Stage          | Time Taken              |
[2025-08-29 10:54:18] [info] |-----|-----|
[2025-08-29 10:54:18] [info] | GDS Parsing    | 0 minutes 0 seconds     |
[2025-08-29 10:54:18] [info] | Rule Checking  | 0 minutes 0 seconds     |
[2025-08-29 10:54:18] [info] | Report Generation | 0 minutes 0 seconds     |

[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Summary
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] Total Errors:      1005
[2025-08-29 10:54:18] [info] Total Warnings:    35
[2025-08-29 10:54:18] [info] DENSITY Status:    FAILED

```



```

[2025-08-29 10:54:18] [info] =====
[2025-08-29 10:54:18] [info]                      Density Rule Check Report
[2025-08-29 10:54:18] [info] =====

[2025-08-29 10:54:18] [info] Report Generated:    2025-08-29
[2025-08-29 10:54:18] [info] Run Start Time:      10:54:18 AM
[2025-08-29 10:54:18] [info] Run End Time:        10:54:18 AM
[2025-08-29 10:54:18] [info] Time Taken:          0 minutes 0 seconds

[2025-08-29 10:54:18] [info] Tool Version:        LVR_2025.1
[2025-08-29 10:54:18] [info] Host Name:           kuro-Workstation
[2025-08-29 10:54:18] [info] User Name:           kuro
[2025-08-29 10:54:18] [info] Cores Used:          1
[2025-08-29 10:54:18] [info] Memory Utilized:     30.44 MB / 62.569698333740234 GB

[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Top Cell Information
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] Layout Top Cell:     gcd
[2025-08-29 10:54:18] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 10:54:18] [info] Database Format:       GDSII
[2025-08-29 10:54:18] [info] Verification Mode:    Full Check

[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Type of Errors | Count
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] DB_WARN -> 1
[2025-08-29 10:54:18] [info] DB_WARN003 -> 26
[2025-08-29 10:54:18] [info] DENSITY_ERR -> 1004
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Density Rule Violation Summary
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] | Rule ID      | Description              | Error Count |
[2025-08-29 10:54:18] [info] |-----|-----|-----|
[2025-08-29 10:54:18] [info] | ydir_fail    | "Ydir Fail"              | 1           |
[2025-08-29 10:54:18] [info] | xdir_fail    | "Xdir fail"              | 1           |
[2025-08-29 10:54:18] [info] | out_of_range | "Out of Range"           | 1           |
[2025-08-29 10:54:18] [info] | max_fail     | "Max Fail"               | 120         |
[2025-08-29 10:54:18] [info] | min_fail     | "Min Fail"               | 881         |
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Performance Metrics
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] | Stage          | Time Taken              |
[2025-08-29 10:54:18] [info] |-----|-----|
[2025-08-29 10:54:18] [info] | GDS Parsing    | 0 minutes 0 seconds     |
[2025-08-29 10:54:18] [info] | Rule Checking  | 0 minutes 0 seconds     |
[2025-08-29 10:54:18] [info] | Report Generation | 0 minutes 0 seconds     |

[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info]                      Summary
[2025-08-29 10:54:18] [info] -----
[2025-08-29 10:54:18] [info] Total Errors:      1004
[2025-08-29 10:54:18] [info] Total Warnings:    27
[2025-08-29 10:54:18] [info] DENSITY Status:    FAILED

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[2025-08-29 11:00:29] [info] =====
[2025-08-29 11:00:29] [info]                      Density Rule Check Report
[2025-08-29 11:00:29] [info] =====

[2025-08-29 11:00:29] [info] Report Generated:    2025-08-29
[2025-08-29 11:00:29] [info] Run Start Time:      10:58:51 AM
[2025-08-29 11:00:29] [info] Run End Time:        11:00:29 AM
[2025-08-29 11:00:29] [info] Time Taken:          1 minutes 40 seconds

[2025-08-29 11:00:29] [info] Tool Version:        LVR_2025.1
[2025-08-29 11:00:29] [info] Host Name:           kuro-Workstation
[2025-08-29 11:00:29] [info] User Name:           kuro
[2025-08-29 11:00:29] [info] Cores Used:          1
[2025-08-29 11:00:29] [info] Memory Utilized:     1574.52 MB / 62.569698333740234 GB

[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info]                      Top Cell Information
[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info] Layout Top Cell:     ibex_core
[2025-08-29 11:00:29] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 11:00:29] [info] Database Format:       GDSII
[2025-08-29 11:00:29] [info] Verification Mode:    Full Check

[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info]                      Type of Errors | Count
[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info] DB_WARN -> 1
[2025-08-29 11:00:29] [info] DB_WARN003 -> 85
[2025-08-29 11:00:29] [info] DENSITY_ERR -> 1005
[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info]                      Density Rule Violation Summary
[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info] | Rule ID      | Description              | Error Count |
[2025-08-29 11:00:29] [info] |-----|-----|-----|
[2025-08-29 11:00:29] [info] | ydir_fail    | "Ydir Fail"              | 1           |
[2025-08-29 11:00:29] [info] | xdir_fail    | "Xdir fail"              | 1           |
[2025-08-29 11:00:29] [info] | out_of_range | "Out of Range"           | 1           |
[2025-08-29 11:00:29] [info] | max_fail     | "Max Fail"               | 1           |
[2025-08-29 11:00:29] [info] | min_fail     | "Min Fail"               | 1001        |
[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info]                      Performance Metrics
[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info] | Stage          | Time Taken              |
[2025-08-29 11:00:29] [info] |-----|-----|
[2025-08-29 11:00:29] [info] | GDS Parsing    | 0 minutes 3 seconds     |
[2025-08-29 11:00:29] [info] | Rule Checking  | 1 minutes 37 seconds    |
[2025-08-29 11:00:29] [info] | Report Generation | 0 minutes 0 seconds     |

[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info]                      Summary
[2025-08-29 11:00:29] [info] -----
[2025-08-29 11:00:29] [info] Total Errors:      1005
[2025-08-29 11:00:29] [info] Total Warnings:    86
[2025-08-29 11:00:29] [info] DENSITY Status:    FAILED

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[2025-08-29 11:02:24] [info] =====
[2025-08-29 11:02:24] [info] Density Rule Check Report
[2025-08-29 11:02:24] [info] =====

[2025-08-29 11:02:24] [info] Report Generated: 2025-08-29
[2025-08-29 11:02:24] [info] Run Start Time: 11:00:32 AM
[2025-08-29 11:02:24] [info] Run End Time: 11:02:24 AM
[2025-08-29 11:02:24] [info] Time Taken: 1 minutes 54 seconds

[2025-08-29 11:02:24] [info] Tool Version: LVR_2025.1
[2025-08-29 11:02:24] [info] Host Name: kuro-Workstation
[2025-08-29 11:02:24] [info] User Name: kuro
[2025-08-29 11:02:24] [info] Cores Used: 1
[2025-08-29 11:02:24] [info] Memory Utilized: 1601.60 MB / 62.569698333740234 GB

[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] Top Cell Information
[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] Layout Top Cell: ibex_core
[2025-08-29 11:02:24] [info] Technology Node: Nangate45 (45nm)
[2025-08-29 11:02:24] [info] Database Format: GDSII
[2025-08-29 11:02:24] [info] Verification Mode: Full Check

[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] Type of Errors | Count
[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] DB_WARN -> 1
[2025-08-29 11:02:24] [info] DB_WARN003 -> 85
[2025-08-29 11:02:24] [info] DENSITY_ERR -> 1005
[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] Density Rule Violation Summary
[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] | Rule ID | Description | Error Count |
[2025-08-29 11:02:24] [info] |-----|-----|-----|
[2025-08-29 11:02:24] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 11:02:24] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 11:02:24] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 11:02:24] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 11:02:24] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] Performance Metrics
[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] | Stage | Time Taken |
[2025-08-29 11:02:24] [info] |-----|-----|
[2025-08-29 11:02:24] [info] | GDS Parsing | 0 minutes 3 seconds |
[2025-08-29 11:02:24] [info] | Rule Checking | 1 minutes 51 seconds |
[2025-08-29 11:02:24] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] Summary
[2025-08-29 11:02:24] [info] -----
[2025-08-29 11:02:24] [info] Total Errors: 1005
[2025-08-29 11:02:24] [info] Total Warnings: 86
[2025-08-29 11:02:24] [info] DENSITY Status: FAILED

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[2025-08-29 11:03:53] [info] =====
[2025-08-29 11:03:53] [info]                      Density Rule Check Report
[2025-08-29 11:03:53] [info] =====

[2025-08-29 11:03:53] [info] Report Generated:    2025-08-29
[2025-08-29 11:03:53] [info] Run Start Time:      11:02:27 AM
[2025-08-29 11:03:53] [info] Run End Time:        11:03:53 AM
[2025-08-29 11:03:53] [info] Time Taken:          1 minutes 29 seconds

[2025-08-29 11:03:53] [info] Tool Version:        LVR_2025.1
[2025-08-29 11:03:53] [info] Host Name:           kuro-Workstation
[2025-08-29 11:03:53] [info] User Name:           kuro
[2025-08-29 11:03:53] [info] Cores Used:          1
[2025-08-29 11:03:53] [info] Memory Utilized:     1464.05 MB / 62.569698333740234 GB

[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info]                      Top Cell Information
[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info] Layout Top Cell:     ibex_core
[2025-08-29 11:03:53] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 11:03:53] [info] Database Format:       GDSII
[2025-08-29 11:03:53] [info] Verification Mode:    Full Check

[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info]                      Type of Errors | Count
[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info] DB_WARN -> 1
[2025-08-29 11:03:53] [info] DB_WARN003 -> 98
[2025-08-29 11:03:53] [info] DENSITY_ERR -> 1005
[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info]                      Density Rule Violation Summary
[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info] | Rule ID      | Description              | Error Count |
[2025-08-29 11:03:53] [info] |-----|-----|-----|
[2025-08-29 11:03:53] [info] | ydir_fail    | "Ydir Fail"              | 1           |
[2025-08-29 11:03:53] [info] | xdir_fail    | "Xdir fail"              | 1           |
[2025-08-29 11:03:53] [info] | out_of_range | "Out of Range"           | 1           |
[2025-08-29 11:03:53] [info] | max_fail     | "Max Fail"               | 1           |
[2025-08-29 11:03:53] [info] | min_fail     | "Min Fail"               | 1001        |
[2025-08-29 11:03:53] [info] |-----|-----|-----|
[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info]                      Performance Metrics
[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info] | Stage          | Time Taken              |
[2025-08-29 11:03:53] [info] |-----|-----|
[2025-08-29 11:03:53] [info] | GDS Parsing    | 0 minutes 2 seconds     |
[2025-08-29 11:03:53] [info] | Rule Checking  | 1 minutes 25 seconds    |
[2025-08-29 11:03:53] [info] | Report Generation | 0 minutes 0 seconds     |
[2025-08-29 11:03:53] [info] |-----|-----|
[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info]                      Summary
[2025-08-29 11:03:53] [info] -----
[2025-08-29 11:03:53] [info] Total Errors:      1005
[2025-08-29 11:03:53] [info] Total Warnings:    99
[2025-08-29 11:03:53] [info] DENSITY Status:    FAILED

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[2025-08-29 11:14:13] [info] =====
[2025-08-29 11:14:13] [info]                      Density Rule Check Report
[2025-08-29 11:14:13] [info] =====

[2025-08-29 11:14:13] [info] Report Generated:    2025-08-29
[2025-08-29 11:14:13] [info] Run Start Time:      11:04:03 AM
[2025-08-29 11:14:13] [info] Run End Time:        11:14:13 AM
[2025-08-29 11:14:13] [info] Time Taken:          10 minutes 19 seconds

[2025-08-29 11:14:13] [info] Tool Version:        LVR_2025.1
[2025-08-29 11:14:13] [info] Host Name:           kuro-Workstation
[2025-08-29 11:14:13] [info] User Name:           kuro
[2025-08-29 11:14:13] [info] Cores Used:          1
[2025-08-29 11:14:13] [info] Memory Utilized:     4551.48 MB / 62.569698333740234 GB

[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info]                      Top Cell Information
[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 11:14:13] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 11:14:13] [info] Database Format:       GDSII
[2025-08-29 11:14:13] [info] Verification Mode:    Full Check

[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info]                      Type of Errors | Count
[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info] DB_WARN -> 1
[2025-08-29 11:14:13] [info] DB_WARN003 -> 37
[2025-08-29 11:14:13] [info] DENSITY_ERR -> 1005
[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info]                      Density Rule Violation Summary
[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info] | Rule ID      | Description                | Error Count |
[2025-08-29 11:14:13] [info] |-----|-----|-----|
[2025-08-29 11:14:13] [info] | ydir_fail    | "Ydir Fail"                | 1           |
[2025-08-29 11:14:13] [info] | xdir_fail    | "Xdir fail"                | 1           |
[2025-08-29 11:14:13] [info] | out_of_range | "Out of Range"             | 1           |
[2025-08-29 11:14:13] [info] | max_fail     | "Max Fail"                 | 1           |
[2025-08-29 11:14:13] [info] | min_fail     | "Min Fail"                 | 1001        |
[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info]                      Performance Metrics
[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info] | Stage                | Time Taken |
[2025-08-29 11:14:13] [info] |-----|-----|
[2025-08-29 11:14:13] [info] | GDS Parsing          | 0 minutes 9 seconds |
[2025-08-29 11:14:13] [info] | Rule Checking        | 10 minutes 8 seconds |
[2025-08-29 11:14:13] [info] | Report Generation    | 0 minutes 0 seconds |

[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info]                      Summary
[2025-08-29 11:14:13] [info] -----
[2025-08-29 11:14:13] [info] Total Errors:    1005
[2025-08-29 11:14:13] [info] Total Warnings:  38
[2025-08-29 11:14:13] [info] DENSITY Status:  FAILED

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[2025-08-29 11:26:15] [info] =====
[2025-08-29 11:26:15] [info]                      Density Rule Check Report
[2025-08-29 11:26:15] [info] =====

[2025-08-29 11:26:15] [info] Report Generated:    2025-08-29
[2025-08-29 11:26:15] [info] Run Start Time:      11:14:24 AM
[2025-08-29 11:26:15] [info] Run End Time:        11:26:15 AM
[2025-08-29 11:26:15] [info] Time Taken:          12 minutes 0 seconds

[2025-08-29 11:26:15] [info] Tool Version:        LVR_2025.1
[2025-08-29 11:26:15] [info] Host Name:           kuro-Workstation
[2025-08-29 11:26:15] [info] User Name:           kuro
[2025-08-29 11:26:15] [info] Cores Used:          1
[2025-08-29 11:26:15] [info] Memory Utilized:     4599.00 MB / 62.569698333740234 GB

[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info]                      Top Cell Information
[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 11:26:15] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 11:26:15] [info] Database Format:       GDSII
[2025-08-29 11:26:15] [info] Verification Mode:    Full Check

[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info]                      Type of Errors | Count
[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info] DB_WARN -> 1
[2025-08-29 11:26:15] [info] DB_WARN003 -> 39
[2025-08-29 11:26:15] [info] DENSITY_ERR -> 1005
[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info]                      Density Rule Violation Summary
[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info] | Rule ID      | Description                | Error Count |
[2025-08-29 11:26:15] [info] |-----|-----|-----|
[2025-08-29 11:26:15] [info] | ydir_fail    | "Ydir Fail"                | 1           |
[2025-08-29 11:26:15] [info] | xdir_fail    | "Xdir fail"                | 1           |
[2025-08-29 11:26:15] [info] | out_of_range | "Out of Range"            | 1           |
[2025-08-29 11:26:15] [info] | max_fail     | "Max Fail"                 | 1           |
[2025-08-29 11:26:15] [info] | min_fail     | "Min Fail"                 | 1001        |
[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info]                      Performance Metrics
[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info] | Stage                | Time Taken |
[2025-08-29 11:26:15] [info] |-----|-----|
[2025-08-29 11:26:15] [info] | GDS Parsing          | 0 minutes 10 seconds |
[2025-08-29 11:26:15] [info] | Rule Checking        | 11 minutes 49 seconds |
[2025-08-29 11:26:15] [info] | Report Generation    | 0 minutes 0 seconds  |

[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info]                      Summary
[2025-08-29 11:26:15] [info] -----
[2025-08-29 11:26:15] [info] Total Errors:    1005
[2025-08-29 11:26:15] [info] Total Warnings:  40
[2025-08-29 11:26:15] [info] DENSITY Status:  FAILED

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[2025-08-29 11:35:40] [info] =====
[2025-08-29 11:35:40] [info]                      Density Rule Check Report
[2025-08-29 11:35:40] [info] =====

[2025-08-29 11:35:40] [info] Report Generated:    2025-08-29
[2025-08-29 11:35:40] [info] Run Start Time:      11:26:25 AM
[2025-08-29 11:35:40] [info] Run End Time:        11:35:40 AM
[2025-08-29 11:35:40] [info] Time Taken:          9 minutes 25 seconds

[2025-08-29 11:35:40] [info] Tool Version:        LVR_2025.1
[2025-08-29 11:35:40] [info] Host Name:           kuro-Workstation
[2025-08-29 11:35:40] [info] User Name:           kuro
[2025-08-29 11:35:40] [info] Cores Used:          1
[2025-08-29 11:35:40] [info] Memory Utilized:     4518.73 MB / 62.569698333740234 GB

[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info]                      Top Cell Information
[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info] Layout Top Cell:     jpeg_encoder
[2025-08-29 11:35:40] [info] Technology Node:      Nangate45 (45nm)
[2025-08-29 11:35:40] [info] Database Format:       GDSII
[2025-08-29 11:35:40] [info] Verification Mode:    Full Check

[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info]                      Type of Errors | Count
[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info] DB_WARN -> 1
[2025-08-29 11:35:40] [info] DB_WARN003 -> 34
[2025-08-29 11:35:40] [info] DENSITY_ERR -> 1005
[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info]                      Density Rule Violation Summary
[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info] | Rule ID      | Description                | Error Count |
[2025-08-29 11:35:40] [info] |-----|-----|-----|
[2025-08-29 11:35:40] [info] | ydir_fail    | "Ydir Fail"                | 1           |
[2025-08-29 11:35:40] [info] | xdir_fail    | "Xdir fail"                | 1           |
[2025-08-29 11:35:40] [info] | out_of_range | "Out of Range"             | 1           |
[2025-08-29 11:35:40] [info] | max_fail     | "Max Fail"                 | 1           |
[2025-08-29 11:35:40] [info] | min_fail     | "Min Fail"                 | 1001        |
[2025-08-29 11:35:40] [info] |-----|-----|-----|
[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info]                      Performance Metrics
[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info] | Stage                | Time Taken |
[2025-08-29 11:35:40] [info] |-----|-----|
[2025-08-29 11:35:40] [info] | GDS Parsing          | 0 minutes 9 seconds |
[2025-08-29 11:35:40] [info] | Rule Checking         | 9 minutes 14 seconds |
[2025-08-29 11:35:40] [info] | Report Generation    | 0 minutes 0 seconds |
[2025-08-29 11:35:40] [info] |-----|-----|
[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info]                      Summary
[2025-08-29 11:35:40] [info] -----
[2025-08-29 11:35:40] [info] Total Errors:    1005
[2025-08-29 11:35:40] [info] Total Warnings:  35
[2025-08-29 11:35:40] [info] DENSITY Status:  FAILED
```

```

[2025-08-28 08:08:53] [info] =====
[2025-08-28 08:08:53] [info] Density Rule Check Report
[2025-08-28 08:08:53] [info] =====

[2025-08-28 08:08:53] [info] Report Generated: 2025-08-28
[2025-08-28 08:08:53] [info] Run Start Time: 08:08:39 AM
[2025-08-28 08:08:53] [info] Run End Time: 08:08:53 AM
[2025-08-28 08:08:53] [info] Time Taken: 0 minutes 20 seconds

[2025-08-28 08:08:53] [info] Tool Version: LVR_2025.1
[2025-08-28 08:08:53] [info] Host Name: kuro-Workstation
[2025-08-28 08:08:53] [info] User Name: kuro
[2025-08-28 08:08:53] [info] Cores Used: 1
[2025-08-28 08:08:53] [info] Memory Utilized: 3386.38 MB / 62.5692024230957 GB

[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] Top Cell Information
[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] Layout Top Cell: aes_cipher_top1_sky130hd
[2025-08-28 08:08:53] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 08:08:53] [info] Database Format: GDSII
[2025-08-28 08:08:53] [info] Verification Mode: Full Check

[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] Type of Errors | Count
[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] DB_WARN -> 1
[2025-08-28 08:08:53] [info] LRF_ERR001 -> 14
[2025-08-28 08:08:53] [info] DB_WARN002 -> 144
[2025-08-28 08:08:53] [info] DB_WARN003 -> 137
[2025-08-28 08:08:53] [info] DENSITY_ERR -> 1005
[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] Density Rule Violation Summary
[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] | Rule ID | Description | Error Count |
[2025-08-28 08:08:53] [info] |-----|-----|-----|
[2025-08-28 08:08:53] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 08:08:53] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 08:08:53] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 08:08:53] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 08:08:53] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 08:08:53] [info]
[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] Performance Metrics
[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] | Stage | Time Taken |
[2025-08-28 08:08:53] [info] |-----|-----|
[2025-08-28 08:08:53] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-28 08:08:53] [info] | Rule Checking | 0 minutes 14 seconds |
[2025-08-28 08:08:53] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] Summary
[2025-08-28 08:08:53] [info] -----
[2025-08-28 08:08:53] [info] Total Errors: 1019
[2025-08-28 08:08:53] [info] Total Warnings: 282
[2025-08-28 08:08:53] [info] DENSITY Status: CLEAN

```



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[2025-08-28 08:09:18] [info] =====
[2025-08-28 08:09:18] [info] Density Rule Check Report
[2025-08-28 08:09:18] [info] =====

[2025-08-28 08:09:18] [info] Report Generated: 2025-08-28
[2025-08-28 08:09:18] [info] Run Start Time: 08:09:01 AM
[2025-08-28 08:09:18] [info] Run End Time: 08:09:18 AM
[2025-08-28 08:09:18] [info] Time Taken: 0 minutes 24 seconds

[2025-08-28 08:09:18] [info] Tool Version: LVR_2025.1
[2025-08-28 08:09:18] [info] Host Name: kuro-Workstation
[2025-08-28 08:09:18] [info] User Name: kuro
[2025-08-28 08:09:18] [info] Cores Used: 1
[2025-08-28 08:09:18] [info] Memory Utilized: 3980.60 MB / 62.5692024230957 GB

[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] Top Cell Information
[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] Layout Top Cell: aes_cipher_top2_sky130hd
[2025-08-28 08:09:18] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 08:09:18] [info] Database Format: GDSII
[2025-08-28 08:09:18] [info] Verification Mode: Full Check

[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] Type of Errors | Count
[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] DB_WARN -> 1
[2025-08-28 08:09:18] [info] LRF_ERR001 -> 14
[2025-08-28 08:09:18] [info] DB_WARN002 -> 141
[2025-08-28 08:09:18] [info] DB_WARN003 -> 135
[2025-08-28 08:09:18] [info] DENSITY_ERR -> 1005
[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] Density Rule Violation Summary
[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] | Rule ID | Description | Error Count |
[2025-08-28 08:09:18] [info] |-----|-----|-----|
[2025-08-28 08:09:18] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 08:09:18] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 08:09:18] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 08:09:18] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 08:09:18] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 08:09:18] [info]
[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] Performance Metrics
[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] | Stage | Time Taken |
[2025-08-28 08:09:18] [info] |-----|-----|
[2025-08-28 08:09:18] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-08-28 08:09:18] [info] | Rule Checking | 0 minutes 16 seconds |
[2025-08-28 08:09:18] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] Summary
[2025-08-28 08:09:18] [info] -----
[2025-08-28 08:09:18] [info] Total Errors: 1019
[2025-08-28 08:09:18] [info] Total Warnings: 277
[2025-08-28 08:09:18] [info] DENSITY Status: CLEAN

```

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[2025-08-28 08:09:37] [info] =====
[2025-08-28 08:09:37] [info] Density Rule Check Report
[2025-08-28 08:09:37] [info] =====

[2025-08-28 08:09:37] [info] Report Generated: 2025-08-28
[2025-08-28 08:09:37] [info] Run Start Time: 08:09:24 AM
[2025-08-28 08:09:37] [info] Run End Time: 08:09:37 AM
[2025-08-28 08:09:37] [info] Time Taken: 0 minutes 17 seconds

[2025-08-28 08:09:37] [info] Tool Version: LVR_2025.1
[2025-08-28 08:09:37] [info] Host Name: kuro-Workstation
[2025-08-28 08:09:37] [info] User Name: kuro
[2025-08-28 08:09:37] [info] Cores Used: 1
[2025-08-28 08:09:37] [info] Memory Utilized: 2774.09 MB / 62.5692024230957 GB

[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] Top Cell Information
[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] Layout Top Cell: aes_cipher_top3_sky130hd
[2025-08-28 08:09:37] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 08:09:37] [info] Database Format: GDSII
[2025-08-28 08:09:37] [info] Verification Mode: Full Check

[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] Type of Errors | Count
[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] DB_WARN -> 1
[2025-08-28 08:09:37] [info] LRF_ERR001 -> 14
[2025-08-28 08:09:37] [info] DB_WARN002 -> 138
[2025-08-28 08:09:37] [info] DB_WARN003 -> 132
[2025-08-28 08:09:37] [info] DENSITY_ERR -> 1005
[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] Density Rule Violation Summary
[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] | Rule ID | Description | Error Count |
[2025-08-28 08:09:37] [info] |-----|-----|-----|
[2025-08-28 08:09:37] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 08:09:37] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 08:09:37] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 08:09:37] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 08:09:37] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 08:09:37] [info]
[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] Performance Metrics
[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] | Stage | Time Taken |
[2025-08-28 08:09:37] [info] |-----|-----|
[2025-08-28 08:09:37] [info] | GDS Parsing | 0 minutes 5 seconds |
[2025-08-28 08:09:37] [info] | Rule Checking | 0 minutes 12 seconds |
[2025-08-28 08:09:37] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] Summary
[2025-08-28 08:09:37] [info] -----
[2025-08-28 08:09:37] [info] Total Errors: 1019
[2025-08-28 08:09:37] [info] Total Warnings: 271
[2025-08-28 08:09:37] [info] DENSITY Status: CLEAN

```

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[2025-08-28 12:19:07] [info] =====
[2025-08-28 12:19:07] [info]                      Density Rule Check Report
[2025-08-28 12:19:07] [info] =====

[2025-08-28 12:19:07] [info] Report Generated:    2025-08-28
[2025-08-28 12:19:07] [info] Run Start Time:      12:19:07 PM
[2025-08-28 12:19:07] [info] Run End Time:        12:19:07 PM
[2025-08-28 12:19:07] [info] Time Taken:          0 minutes 0 seconds

[2025-08-28 12:19:07] [info] Tool Version:        LVR_2025.1
[2025-08-28 12:19:07] [info] Host Name:           kuro-Workstation
[2025-08-28 12:19:07] [info] User Name:           kuro
[2025-08-28 12:19:07] [info] Cores Used:           1
[2025-08-28 12:19:07] [info] Memory Utilized:     47.54 MB / 62.5692024230957 GB

[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info]                      Top Cell Information
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Layout Top Cell:     gcd1_sky130hd
[2025-08-28 12:19:07] [info] Technology Node:      SKY130HD (130nm)
[2025-08-28 12:19:07] [info] Database Format:       GDSII
[2025-08-28 12:19:07] [info] Verification Mode:    Full Check

[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info]                      Type of Errors | Count
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] DB_WARN -> 1
[2025-08-28 12:19:07] [info] LRF_ERR001 -> 14
[2025-08-28 12:19:07] [info] DB_WARN002 -> 58
[2025-08-28 12:19:07] [info] DB_WARN003 -> 55
[2025-08-28 12:19:07] [info] DENSITY_ERR -> 1005
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info]                      Density Rule Violation Summary
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] | Rule ID      | Description              | Error Count |
[2025-08-28 12:19:07] [info] |-----|-----|-----|
[2025-08-28 12:19:07] [info] | ydir_fail    | "Ydir Fail"              | 1           |
[2025-08-28 12:19:07] [info] | xdir_fail    | "Xdir fail"              | 1           |
[2025-08-28 12:19:07] [info] | out_of_range | "Out of Range"           | 1           |
[2025-08-28 12:19:07] [info] | max_fail     | "Max Fail"               | 1           |
[2025-08-28 12:19:07] [info] | min_fail     | "Min Fail"               | 1001        |
[2025-08-28 12:19:07] [info] |-----|-----|-----|
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info]                      Performance Metrics
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] | Stage          | Time Taken |
[2025-08-28 12:19:07] [info] |-----|-----|
[2025-08-28 12:19:07] [info] | GDS Parsing    | 0 minutes 0 seconds |
[2025-08-28 12:19:07] [info] | Rule Checking  | 0 minutes 0 seconds |
[2025-08-28 12:19:07] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info]                      Summary
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Total Errors:    1019
[2025-08-28 12:19:07] [info] Total Warnings:   114
[2025-08-28 12:19:07] [info] DENSITY Status:   FAILED

```

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[2025-08-28 12:19:07] [info] =====
[2025-08-28 12:19:07] [info] Density Rule Check Report
[2025-08-28 12:19:07] [info] =====

[2025-08-28 12:19:07] [info] Report Generated: 2025-08-28
[2025-08-28 12:19:07] [info] Run Start Time: 12:19:07 PM
[2025-08-28 12:19:07] [info] Run End Time: 12:19:07 PM
[2025-08-28 12:19:07] [info] Time Taken: 0 minutes 0 seconds

[2025-08-28 12:19:07] [info] Tool Version: LVR_2025.1
[2025-08-28 12:19:07] [info] Host Name: kuro-Workstation
[2025-08-28 12:19:07] [info] User Name: kuro
[2025-08-28 12:19:07] [info] Cores Used: 1
[2025-08-28 12:19:07] [info] Memory Utilized: 51.71 MB / 62.5692024230957 GB

[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Top Cell Information
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Layout Top Cell: gcd2_sky130hd
[2025-08-28 12:19:07] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 12:19:07] [info] Database Format: GDSII
[2025-08-28 12:19:07] [info] Verification Mode: Full Check

[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Type of Errors | Count
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] DB_WARN -> 1
[2025-08-28 12:19:07] [info] LRF_ERR001 -> 14
[2025-08-28 12:19:07] [info] DB_WARN002 -> 59
[2025-08-28 12:19:07] [info] DB_WARN003 -> 56
[2025-08-28 12:19:07] [info] DENSITY_ERR -> 1005
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Density Rule Violation Summary
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] | Rule ID | Description | Error Count |
[2025-08-28 12:19:07] [info] |-----|-----|-----|
[2025-08-28 12:19:07] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 12:19:07] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 12:19:07] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 12:19:07] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 12:19:07] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 12:19:07] [info]
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Performance Metrics
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] | Stage | Time Taken |
[2025-08-28 12:19:07] [info] |-----|-----|
[2025-08-28 12:19:07] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-28 12:19:07] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-28 12:19:07] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Summary
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Total Errors: 1019
[2025-08-28 12:19:07] [info] Total Warnings: 116
[2025-08-28 12:19:07] [info] DENSITY Status: FAILED

```

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[2025-08-28 12:19:07] [info] =====
[2025-08-28 12:19:07] [info] Density Rule Check Report
[2025-08-28 12:19:07] [info] =====

[2025-08-28 12:19:07] [info] Report Generated: 2025-08-28
[2025-08-28 12:19:07] [info] Run Start Time: 12:19:07 PM
[2025-08-28 12:19:07] [info] Run End Time: 12:19:07 PM
[2025-08-28 12:19:07] [info] Time Taken: 0 minutes 0 seconds

[2025-08-28 12:19:07] [info] Tool Version: LVR_2025.1
[2025-08-28 12:19:07] [info] Host Name: kuro-Workstation
[2025-08-28 12:19:07] [info] User Name: kuro
[2025-08-28 12:19:07] [info] Cores Used: 1
[2025-08-28 12:19:07] [info] Memory Utilized: 41.18 MB / 62.5692024230957 GB

[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Top Cell Information
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Layout Top Cell: gcd3_sky130hd
[2025-08-28 12:19:07] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 12:19:07] [info] Database Format: GDSII
[2025-08-28 12:19:07] [info] Verification Mode: Full Check

[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Type of Errors | Count
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] DB_WARN -> 1
[2025-08-28 12:19:07] [info] LRF_ERR001 -> 14
[2025-08-28 12:19:07] [info] DB_WARN002 -> 59
[2025-08-28 12:19:07] [info] DB_WARN003 -> 56
[2025-08-28 12:19:07] [info] DENSITY_ERR -> 1005
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Density Rule Violation Summary
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] | Rule ID | Description | Error Count |
[2025-08-28 12:19:07] [info] |-----|-----|-----|
[2025-08-28 12:19:07] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 12:19:07] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 12:19:07] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 12:19:07] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 12:19:07] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 12:19:07] [info]
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Performance Metrics
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] | Stage | Time Taken |
[2025-08-28 12:19:07] [info] |-----|-----|
[2025-08-28 12:19:07] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-28 12:19:07] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-28 12:19:07] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Summary
[2025-08-28 12:19:07] [info] -----
[2025-08-28 12:19:07] [info] Total Errors: 1019
[2025-08-28 12:19:07] [info] Total Warnings: 116
[2025-08-28 12:19:07] [info] DENSITY Status: FAILED

```

```

[2025-08-28 08:09:56] [info] =====
[2025-08-28 08:09:56] [info] Density Rule Check Report
[2025-08-28 08:09:56] [info] =====

[2025-08-28 08:09:56] [info] Report Generated: 2025-08-28
[2025-08-28 08:09:56] [info] Run Start Time: 08:09:44 AM
[2025-08-28 08:09:56] [info] Run End Time: 08:09:56 AM
[2025-08-28 08:09:56] [info] Time Taken: 0 minutes 18 seconds

[2025-08-28 08:09:56] [info] Tool Version: LVR_2025.1
[2025-08-28 08:09:56] [info] Host Name: kuro-Workstation
[2025-08-28 08:09:56] [info] User Name: kuro
[2025-08-28 08:09:56] [info] Cores Used: 1
[2025-08-28 08:09:56] [info] Memory Utilized: 3200.73 MB / 62.5692024230957 GB

[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] Top Cell Information
[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] Layout Top Cell: ibex_core1_sky130hd
[2025-08-28 08:09:56] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 08:09:56] [info] Database Format: GDSII
[2025-08-28 08:09:56] [info] Verification Mode: Full Check

[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] Type of Errors | Count
[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] DB_WARN -> 1
[2025-08-28 08:09:56] [info] LRF_ERR001 -> 14
[2025-08-28 08:09:56] [info] DB_WARN002 -> 251
[2025-08-28 08:09:56] [info] DB_WARN003 -> 251
[2025-08-28 08:09:56] [info] DENSITY_ERR -> 1005
[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] Density Rule Violation Summary
[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] | Rule ID | Description | Error Count |
[2025-08-28 08:09:56] [info] |-----|-----|-----|
[2025-08-28 08:09:56] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 08:09:56] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 08:09:56] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 08:09:56] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 08:09:56] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 08:09:56] [info]
[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] Performance Metrics
[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] | Stage | Time Taken |
[2025-08-28 08:09:56] [info] |-----|-----|
[2025-08-28 08:09:56] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-28 08:09:56] [info] | Rule Checking | 0 minutes 11 seconds |
[2025-08-28 08:09:56] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] Summary
[2025-08-28 08:09:56] [info] -----
[2025-08-28 08:09:56] [info] Total Errors: 1019
[2025-08-28 08:09:56] [info] Total Warnings: 503
[2025-08-28 08:09:56] [info] DENSITY Status: CLEAN

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[2025-08-28 08:10:15] [info] =====
[2025-08-28 08:10:15] [info] Density Rule Check Report
[2025-08-28 08:10:15] [info] =====

[2025-08-28 08:10:15] [info] Report Generated: 2025-08-28
[2025-08-28 08:10:15] [info] Run Start Time: 08:10:03 AM
[2025-08-28 08:10:15] [info] Run End Time: 08:10:15 AM
[2025-08-28 08:10:15] [info] Time Taken: 0 minutes 18 seconds

[2025-08-28 08:10:15] [info] Tool Version: LVR_2025.1
[2025-08-28 08:10:15] [info] Host Name: kuro-Workstation
[2025-08-28 08:10:15] [info] User Name: kuro
[2025-08-28 08:10:15] [info] Cores Used: 1
[2025-08-28 08:10:15] [info] Memory Utilized: 3244.11 MB / 62.5692024230957 GB

[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] Top Cell Information
[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] Layout Top Cell: ibex_core2_sky130hd
[2025-08-28 08:10:15] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 08:10:15] [info] Database Format: GDSII
[2025-08-28 08:10:15] [info] Verification Mode: Full Check

[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] Type of Errors | Count
[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] DB_WARN -> 1
[2025-08-28 08:10:15] [info] LRF_ERR001 -> 14
[2025-08-28 08:10:15] [info] DB_WARN002 -> 249
[2025-08-28 08:10:15] [info] DB_WARN003 -> 249
[2025-08-28 08:10:15] [info] DENSITY_ERR -> 1005
[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] Density Rule Violation Summary
[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] | Rule ID | Description | Error Count |
[2025-08-28 08:10:15] [info] |-----|-----|-----|
[2025-08-28 08:10:15] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 08:10:15] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 08:10:15] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 08:10:15] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 08:10:15] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 08:10:15] [info]
[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] Performance Metrics
[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] | Stage | Time Taken |
[2025-08-28 08:10:15] [info] |-----|-----|
[2025-08-28 08:10:15] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-28 08:10:15] [info] | Rule Checking | 0 minutes 11 seconds |
[2025-08-28 08:10:15] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] Summary
[2025-08-28 08:10:15] [info] -----
[2025-08-28 08:10:15] [info] Total Errors: 1019
[2025-08-28 08:10:15] [info] Total Warnings: 499
[2025-08-28 08:10:15] [info] DENSITY Status: CLEAN

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[2025-08-28 08:10:35] [info] =====
[2025-08-28 08:10:35] [info] Density Rule Check Report
[2025-08-28 08:10:35] [info] =====

[2025-08-28 08:10:35] [info] Report Generated: 2025-08-28
[2025-08-28 08:10:35] [info] Run Start Time: 08:10:22 AM
[2025-08-28 08:10:35] [info] Run End Time: 08:10:35 AM
[2025-08-28 08:10:35] [info] Time Taken: 0 minutes 18 seconds

[2025-08-28 08:10:35] [info] Tool Version: LVR_2025.1
[2025-08-28 08:10:35] [info] Host Name: kuro-Workstation
[2025-08-28 08:10:35] [info] User Name: kuro
[2025-08-28 08:10:35] [info] Cores Used: 1
[2025-08-28 08:10:35] [info] Memory Utilized: 3152.42 MB / 62.5692024230957 GB

[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] Top Cell Information
[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] Layout Top Cell: ibex_core3_sky130hd
[2025-08-28 08:10:35] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 08:10:35] [info] Database Format: GDSII
[2025-08-28 08:10:35] [info] Verification Mode: Full Check

[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] Type of Errors | Count
[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] DB_WARN -> 1
[2025-08-28 08:10:35] [info] LRF_ERR001 -> 14
[2025-08-28 08:10:35] [info] DB_WARN002 -> 253
[2025-08-28 08:10:35] [info] DB_WARN003 -> 251
[2025-08-28 08:10:35] [info] DENSITY_ERR -> 1005
[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] Density Rule Violation Summary
[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] | Rule ID | Description | Error Count |
[2025-08-28 08:10:35] [info] |-----|-----|-----|
[2025-08-28 08:10:35] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 08:10:35] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 08:10:35] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 08:10:35] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 08:10:35] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 08:10:35] [info]
[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] Performance Metrics
[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] | Stage | Time Taken |
[2025-08-28 08:10:35] [info] |-----|-----|
[2025-08-28 08:10:35] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-28 08:10:35] [info] | Rule Checking | 0 minutes 12 seconds |
[2025-08-28 08:10:35] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] Summary
[2025-08-28 08:10:35] [info] -----
[2025-08-28 08:10:35] [info] Total Errors: 1019
[2025-08-28 08:10:35] [info] Total Warnings: 505
[2025-08-28 08:10:35] [info] DENSITY Status: CLEAN

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[2025-08-28 08:11:27] [info] =====
[2025-08-28 08:11:27] [info] Density Rule Check Report
[2025-08-28 08:11:27] [info] =====

[2025-08-28 08:11:27] [info] Report Generated: 2025-08-28
[2025-08-28 08:11:27] [info] Run Start Time: 08:10:53 AM
[2025-08-28 08:11:27] [info] Run End Time: 08:11:27 AM
[2025-08-28 08:11:27] [info] Time Taken: 0 minutes 51 seconds

[2025-08-28 08:11:27] [info] Tool Version: LVR_2025.1
[2025-08-28 08:11:27] [info] Host Name: kuro-Workstation
[2025-08-28 08:11:27] [info] User Name: kuro
[2025-08-28 08:11:27] [info] Cores Used: 1
[2025-08-28 08:11:27] [info] Memory Utilized: 8300.30 MB / 62.5692024230957 GB

[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] Top Cell Information
[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] Layout Top Cell: jpeg_encoder1_sky130hd
[2025-08-28 08:11:27] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 08:11:27] [info] Database Format: GDSII
[2025-08-28 08:11:27] [info] Verification Mode: Full Check

[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] Type of Errors | Count
[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] DB_WARN -> 1
[2025-08-28 08:11:27] [info] LRF_ERR001 -> 14
[2025-08-28 08:11:27] [info] DB_WARN002 -> 159
[2025-08-28 08:11:27] [info] DB_WARN003 -> 161
[2025-08-28 08:11:27] [info] DENSITY_ERR -> 1005
[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] Density Rule Violation Summary
[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] | Rule ID | Description | Error Count |
[2025-08-28 08:11:27] [info] |-----|-----|-----|
[2025-08-28 08:11:27] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 08:11:27] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 08:11:27] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 08:11:27] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 08:11:27] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 08:11:27] [info]
[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] Performance Metrics
[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] | Stage | Time Taken |
[2025-08-28 08:11:27] [info] |-----|-----|
[2025-08-28 08:11:27] [info] | GDS Parsing | 0 minutes 16 seconds |
[2025-08-28 08:11:27] [info] | Rule Checking | 0 minutes 33 seconds |
[2025-08-28 08:11:27] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] Summary
[2025-08-28 08:11:27] [info] -----
[2025-08-28 08:11:27] [info] Total Errors: 1019
[2025-08-28 08:11:27] [info] Total Warnings: 321
[2025-08-28 08:11:27] [info] DENSITY Status: CLEAN

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[2025-08-28 08:12:27] [info] =====
[2025-08-28 08:12:27] [info] Density Rule Check Report
[2025-08-28 08:12:27] [info] =====

[2025-08-28 08:12:27] [info] Report Generated: 2025-08-28
[2025-08-28 08:12:27] [info] Run Start Time: 08:11:48 AM
[2025-08-28 08:12:27] [info] Run End Time: 08:12:27 AM
[2025-08-28 08:12:27] [info] Time Taken: 0 minutes 58 seconds

[2025-08-28 08:12:27] [info] Tool Version: LVR_2025.1
[2025-08-28 08:12:27] [info] Host Name: kuro-Workstation
[2025-08-28 08:12:27] [info] User Name: kuro
[2025-08-28 08:12:27] [info] Cores Used: 1
[2025-08-28 08:12:27] [info] Memory Utilized: 9864.41 MB / 62.5692024230957 GB

[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] Top Cell Information
[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] Layout Top Cell: jpeg_encoder2_sky130hd
[2025-08-28 08:12:27] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 08:12:27] [info] Database Format: GDSII
[2025-08-28 08:12:27] [info] Verification Mode: Full Check

[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] Type of Errors | Count
[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] DB_WARN -> 1
[2025-08-28 08:12:27] [info] LRF_ERR001 -> 14
[2025-08-28 08:12:27] [info] DB_WARN002 -> 157
[2025-08-28 08:12:27] [info] DB_WARN003 -> 159
[2025-08-28 08:12:27] [info] DENSITY_ERR -> 1005
[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] Density Rule Violation Summary
[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] | Rule ID | Description | Error Count |
[2025-08-28 08:12:27] [info] |-----|-----|-----|
[2025-08-28 08:12:27] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 08:12:27] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 08:12:27] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 08:12:27] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 08:12:27] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 08:12:27] [info]
[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] Performance Metrics
[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] | Stage | Time Taken |
[2025-08-28 08:12:27] [info] |-----|-----|
[2025-08-28 08:12:27] [info] | GDS Parsing | 0 minutes 19 seconds |
[2025-08-28 08:12:27] [info] | Rule Checking | 0 minutes 37 seconds |
[2025-08-28 08:12:27] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] Summary
[2025-08-28 08:12:27] [info] -----
[2025-08-28 08:12:27] [info] Total Errors: 1019
[2025-08-28 08:12:27] [info] Total Warnings: 317
[2025-08-28 08:12:27] [info] DENSITY Status: CLEAN

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[2025-08-28 08:13:15] [info] =====
[2025-08-28 08:13:15] [info] Density Rule Check Report
[2025-08-28 08:13:15] [info] =====

[2025-08-28 08:13:15] [info] Report Generated: 2025-08-28
[2025-08-28 08:13:15] [info] Run Start Time: 08:12:45 AM
[2025-08-28 08:13:15] [info] Run End Time: 08:13:14 AM
[2025-08-28 08:13:15] [info] Time Taken: 0 minutes 44 seconds

[2025-08-28 08:13:15] [info] Tool Version: LVR_2025.1
[2025-08-28 08:13:15] [info] Host Name: kuro-Workstation
[2025-08-28 08:13:15] [info] User Name: kuro
[2025-08-28 08:13:15] [info] Cores Used: 1
[2025-08-28 08:13:15] [info] Memory Utilized: 7236.33 MB / 62.5692024230957 GB

[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] Top Cell Information
[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] Layout Top Cell: jpeg_encoder3_sky130hd
[2025-08-28 08:13:15] [info] Technology Node: SKY130HD (130nm)
[2025-08-28 08:13:15] [info] Database Format: GDSII
[2025-08-28 08:13:15] [info] Verification Mode: Full Check

[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] Type of Errors | Count
[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] DB_WARN -> 1
[2025-08-28 08:13:15] [info] LRF_ERR001 -> 14
[2025-08-28 08:13:15] [info] DB_WARN002 -> 152
[2025-08-28 08:13:15] [info] DB_WARN003 -> 155
[2025-08-28 08:13:15] [info] DENSITY_ERR -> 1005
[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] Density Rule Violation Summary
[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] | Rule ID | Description | Error Count |
[2025-08-28 08:13:15] [info] |-----|-----|-----|
[2025-08-28 08:13:15] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-28 08:13:15] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-28 08:13:15] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-28 08:13:15] [info] | max_fail | "Max Fail" | 1 |
[2025-08-28 08:13:15] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-28 08:13:15] [info]
[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] Performance Metrics
[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] | Stage | Time Taken |
[2025-08-28 08:13:15] [info] |-----|-----|
[2025-08-28 08:13:15] [info] | GDS Parsing | 0 minutes 14 seconds |
[2025-08-28 08:13:15] [info] | Rule Checking | 0 minutes 29 seconds |
[2025-08-28 08:13:15] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] Summary
[2025-08-28 08:13:15] [info] -----
[2025-08-28 08:13:15] [info] Total Errors: 1019
[2025-08-28 08:13:15] [info] Total Warnings: 308
[2025-08-28 08:13:15] [info] DENSITY Status: CLEAN

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[2025-08-29 09:53:37] [info] =====
[2025-08-29 09:53:37] [info] Density Rule Check Report
[2025-08-29 09:53:37] [info] =====

[2025-08-29 09:53:37] [info] Report Generated: 2025-08-29
[2025-08-29 09:53:37] [info] Run Start Time: 09:53:22 AM
[2025-08-29 09:53:37] [info] Run End Time: 09:53:37 AM
[2025-08-29 09:53:37] [info] Time Taken: 0 minutes 21 seconds

[2025-08-29 09:53:37] [info] Tool Version: LVR_2025.1
[2025-08-29 09:53:37] [info] Host Name: kuro-Workstation
[2025-08-29 09:53:37] [info] User Name: kuro
[2025-08-29 09:53:37] [info] Cores Used: 1
[2025-08-29 09:53:37] [info] Memory Utilized: 3386.38 MB / 62.569698333740234 GB

[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] Top Cell Information
[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] Layout Top Cell: aes_cipher_top1_sky130hd
[2025-08-29 09:53:37] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:53:37] [info] Database Format: GDSII
[2025-08-29 09:53:37] [info] Verification Mode: Full Check

[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] Type of Errors | Count
[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] DB_WARN -> 1
[2025-08-29 09:53:37] [info] LRF_ERR001 -> 14
[2025-08-29 09:53:37] [info] DB_WARN002 -> 144
[2025-08-29 09:53:37] [info] DB_WARN003 -> 137
[2025-08-29 09:53:37] [info] DENSITY_ERR -> 1005
[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] Density Rule Violation Summary
[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:53:37] [info] |-----|-----|-----|
[2025-08-29 09:53:37] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:53:37] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:53:37] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:53:37] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:53:37] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:53:37] [info]
[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] Performance Metrics
[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] | Stage | Time Taken |
[2025-08-29 09:53:37] [info] |-----|-----|
[2025-08-29 09:53:37] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-29 09:53:37] [info] | Rule Checking | 0 minutes 14 seconds |
[2025-08-29 09:53:37] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] Summary
[2025-08-29 09:53:37] [info] -----
[2025-08-29 09:53:37] [info] Total Errors: 1019
[2025-08-29 09:53:37] [info] Total Warnings: 282
[2025-08-29 09:53:37] [info] DENSITY Status: FAILED

```

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[2025-08-29 09:54:03] [info] =====
[2025-08-29 09:54:03] [info] Density Rule Check Report
[2025-08-29 09:54:03] [info] =====

[2025-08-29 09:54:03] [info] Report Generated: 2025-08-29
[2025-08-29 09:54:03] [info] Run Start Time: 09:53:45 AM
[2025-08-29 09:54:03] [info] Run End Time: 09:54:03 AM
[2025-08-29 09:54:03] [info] Time Taken: 0 minutes 24 seconds

[2025-08-29 09:54:03] [info] Tool Version: LVR_2025.1
[2025-08-29 09:54:03] [info] Host Name: kuro-Workstation
[2025-08-29 09:54:03] [info] User Name: kuro
[2025-08-29 09:54:03] [info] Cores Used: 1
[2025-08-29 09:54:03] [info] Memory Utilized: 3980.60 MB / 62.569698333740234 GB

[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] Top Cell Information
[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] Layout Top Cell: aes_cipher_top2_sky130hd
[2025-08-29 09:54:03] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:54:03] [info] Database Format: GDSII
[2025-08-29 09:54:03] [info] Verification Mode: Full Check

[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] Type of Errors | Count
[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] DB_WARN -> 1
[2025-08-29 09:54:03] [info] LRF_ERR001 -> 14
[2025-08-29 09:54:03] [info] DB_WARN002 -> 141
[2025-08-29 09:54:03] [info] DB_WARN003 -> 135
[2025-08-29 09:54:03] [info] DENSITY_ERR -> 1005
[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] Density Rule Violation Summary
[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:54:03] [info] |-----|-----|-----|
[2025-08-29 09:54:03] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:54:03] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:54:03] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:54:03] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:54:03] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:54:03] [info]
[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] Performance Metrics
[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] | Stage | Time Taken |
[2025-08-29 09:54:03] [info] |-----|-----|
[2025-08-29 09:54:03] [info] | GDS Parsing | 0 minutes 7 seconds |
[2025-08-29 09:54:03] [info] | Rule Checking | 0 minutes 16 seconds |
[2025-08-29 09:54:03] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] Summary
[2025-08-29 09:54:03] [info] -----
[2025-08-29 09:54:03] [info] Total Errors: 1019
[2025-08-29 09:54:03] [info] Total Warnings: 277
[2025-08-29 09:54:03] [info] DENSITY Status: FAILED

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[2025-08-29 09:54:22] [info] =====
[2025-08-29 09:54:22] [info]                      Density Rule Check Report
[2025-08-29 09:54:22] [info] =====

[2025-08-29 09:54:22] [info] Report Generated:    2025-08-29
[2025-08-29 09:54:22] [info] Run Start Time:      09:54:09 AM
[2025-08-29 09:54:22] [info] Run End Time:        09:54:22 AM
[2025-08-29 09:54:22] [info] Time Taken:          0 minutes 18 seconds

[2025-08-29 09:54:22] [info] Tool Version:        LVR_2025.1
[2025-08-29 09:54:22] [info] Host Name:           kuro-Workstation
[2025-08-29 09:54:22] [info] User Name:           kuro
[2025-08-29 09:54:22] [info] Cores Used:          1
[2025-08-29 09:54:22] [info] Memory Utilized:     2774.09 MB / 62.569698333740234 GB

[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info]                      Top Cell Information
[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info] Layout Top Cell:     aes_cipher_top3_sky130hd
[2025-08-29 09:54:22] [info] Technology Node:      SKY130HD (130nm)
[2025-08-29 09:54:22] [info] Database Format:       GDSII
[2025-08-29 09:54:22] [info] Verification Mode:    Full Check

[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info]                      Type of Errors | Count
[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info] DB_WARN -> 1
[2025-08-29 09:54:22] [info] LRF_ERR001 -> 14
[2025-08-29 09:54:22] [info] DB_WARN002 -> 138
[2025-08-29 09:54:22] [info] DB_WARN003 -> 132
[2025-08-29 09:54:22] [info] DENSITY_ERR -> 1005
[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info]                      Density Rule Violation Summary
[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info] | Rule ID      | Description              | Error Count |
[2025-08-29 09:54:22] [info] |-----|-----|-----|
[2025-08-29 09:54:22] [info] | ydir_fail    | "Ydir Fail"              | 1           |
[2025-08-29 09:54:22] [info] | xdir_fail    | "Xdir fail"              | 1           |
[2025-08-29 09:54:22] [info] | out_of_range | "Out of Range"           | 1           |
[2025-08-29 09:54:22] [info] | max_fail     | "Max Fail"               | 1           |
[2025-08-29 09:54:22] [info] | min_fail     | "Min Fail"               | 1001        |
[2025-08-29 09:54:22] [info] |-----|-----|-----|
[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info]                      Performance Metrics
[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info] | Stage          | Time Taken |
[2025-08-29 09:54:22] [info] |-----|-----|
[2025-08-29 09:54:22] [info] | GDS Parsing    | 0 minutes 5 seconds |
[2025-08-29 09:54:22] [info] | Rule Checking  | 0 minutes 12 seconds |
[2025-08-29 09:54:22] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info]                      Summary
[2025-08-29 09:54:22] [info] -----
[2025-08-29 09:54:22] [info] Total Errors:    1019
[2025-08-29 09:54:22] [info] Total Warnings:  271
[2025-08-29 09:54:22] [info] DENSITY Status:  FAILED

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[2025-08-29 09:53:15] [info] =====
[2025-08-29 09:53:15] [info] Density Rule Check Report
[2025-08-29 09:53:15] [info] =====

[2025-08-29 09:53:15] [info] Report Generated: 2025-08-29
[2025-08-29 09:53:15] [info] Run Start Time: 09:53:15 AM
[2025-08-29 09:53:15] [info] Run End Time: 09:53:15 AM
[2025-08-29 09:53:15] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 09:53:15] [info] Tool Version: LVR_2025.1
[2025-08-29 09:53:15] [info] Host Name: kuro-Workstation
[2025-08-29 09:53:15] [info] User Name: kuro
[2025-08-29 09:53:15] [info] Cores Used: 1
[2025-08-29 09:53:15] [info] Memory Utilized: 47.54 MB / 62.569698333740234 GB

[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] Top Cell Information
[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] Layout Top Cell: gcd1_sky130hd
[2025-08-29 09:53:15] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:53:15] [info] Database Format: GDSII
[2025-08-29 09:53:15] [info] Verification Mode: Full Check

[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] Type of Errors | Count
[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] DB_WARN -> 1
[2025-08-29 09:53:15] [info] LRF_ERR001 -> 14
[2025-08-29 09:53:15] [info] DB_WARN002 -> 58
[2025-08-29 09:53:15] [info] DB_WARN003 -> 55
[2025-08-29 09:53:15] [info] DENSITY_ERR -> 1005
[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] Density Rule Violation Summary
[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:53:15] [info] |-----|-----|-----|
[2025-08-29 09:53:15] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:53:15] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:53:15] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:53:15] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:53:15] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:53:15] [info]
[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] Performance Metrics
[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] | Stage | Time Taken |
[2025-08-29 09:53:15] [info] |-----|-----|
[2025-08-29 09:53:15] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:53:15] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 09:53:15] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] Summary
[2025-08-29 09:53:15] [info] -----
[2025-08-29 09:53:15] [info] Total Errors: 1019
[2025-08-29 09:53:15] [info] Total Warnings: 114
[2025-08-29 09:53:15] [info] DENSITY Status: FAILED

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[2025-08-29 09:53:16] [info] =====
[2025-08-29 09:53:16] [info] Density Rule Check Report
[2025-08-29 09:53:16] [info] =====

[2025-08-29 09:53:16] [info] Report Generated: 2025-08-29
[2025-08-29 09:53:16] [info] Run Start Time: 09:53:16 AM
[2025-08-29 09:53:16] [info] Run End Time: 09:53:16 AM
[2025-08-29 09:53:16] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 09:53:16] [info] Tool Version: LVR_2025.1
[2025-08-29 09:53:16] [info] Host Name: kuro-Workstation
[2025-08-29 09:53:16] [info] User Name: kuro
[2025-08-29 09:53:16] [info] Cores Used: 1
[2025-08-29 09:53:16] [info] Memory Utilized: 51.71 MB / 62.569698333740234 GB

[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Top Cell Information
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Layout Top Cell: gcd2_sky130hd
[2025-08-29 09:53:16] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:53:16] [info] Database Format: GDSII
[2025-08-29 09:53:16] [info] Verification Mode: Full Check

[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Type of Errors | Count
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] DB_WARN -> 1
[2025-08-29 09:53:16] [info] LRF_ERR001 -> 14
[2025-08-29 09:53:16] [info] DB_WARN002 -> 59
[2025-08-29 09:53:16] [info] DB_WARN003 -> 56
[2025-08-29 09:53:16] [info] DENSITY_ERR -> 1005
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Density Rule Violation Summary
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:53:16] [info] |-----|-----|-----|
[2025-08-29 09:53:16] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:53:16] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:53:16] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:53:16] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:53:16] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:53:16] [info]
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Performance Metrics
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] | Stage | Time Taken |
[2025-08-29 09:53:16] [info] |-----|-----|
[2025-08-29 09:53:16] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:53:16] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 09:53:16] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Summary
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Total Errors: 1019
[2025-08-29 09:53:16] [info] Total Warnings: 116
[2025-08-29 09:53:16] [info] DENSITY Status: FAILED

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[2025-08-29 09:53:16] [info] =====
[2025-08-29 09:53:16] [info] Density Rule Check Report
[2025-08-29 09:53:16] [info] =====

[2025-08-29 09:53:16] [info] Report Generated: 2025-08-29
[2025-08-29 09:53:16] [info] Run Start Time: 09:53:16 AM
[2025-08-29 09:53:16] [info] Run End Time: 09:53:16 AM
[2025-08-29 09:53:16] [info] Time Taken: 0 minutes 0 seconds

[2025-08-29 09:53:16] [info] Tool Version: LVR_2025.1
[2025-08-29 09:53:16] [info] Host Name: kuro-Workstation
[2025-08-29 09:53:16] [info] User Name: kuro
[2025-08-29 09:53:16] [info] Cores Used: 1
[2025-08-29 09:53:16] [info] Memory Utilized: 41.18 MB / 62.569698333740234 GB

[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Top Cell Information
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Layout Top Cell: gcd3_sky130hd
[2025-08-29 09:53:16] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:53:16] [info] Database Format: GDSII
[2025-08-29 09:53:16] [info] Verification Mode: Full Check

[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Type of Errors | Count
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] DB_WARN -> 1
[2025-08-29 09:53:16] [info] LRF_ERR001 -> 14
[2025-08-29 09:53:16] [info] DB_WARN002 -> 59
[2025-08-29 09:53:16] [info] DB_WARN003 -> 56
[2025-08-29 09:53:16] [info] DENSITY_ERR -> 1005
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Density Rule Violation Summary
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:53:16] [info] |-----|-----|-----|
[2025-08-29 09:53:16] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:53:16] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:53:16] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:53:16] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:53:16] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:53:16] [info]
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Performance Metrics
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] | Stage | Time Taken |
[2025-08-29 09:53:16] [info] |-----|-----|
[2025-08-29 09:53:16] [info] | GDS Parsing | 0 minutes 0 seconds |
[2025-08-29 09:53:16] [info] | Rule Checking | 0 minutes 0 seconds |
[2025-08-29 09:53:16] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Summary
[2025-08-29 09:53:16] [info] -----
[2025-08-29 09:53:16] [info] Total Errors: 1019
[2025-08-29 09:53:16] [info] Total Warnings: 116
[2025-08-29 09:53:16] [info] DENSITY Status: FAILED

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[2025-08-29 09:54:41] [info] =====
[2025-08-29 09:54:41] [info] Density Rule Check Report
[2025-08-29 09:54:41] [info] =====

[2025-08-29 09:54:41] [info] Report Generated: 2025-08-29
[2025-08-29 09:54:41] [info] Run Start Time: 09:54:29 AM
[2025-08-29 09:54:41] [info] Run End Time: 09:54:41 AM
[2025-08-29 09:54:41] [info] Time Taken: 0 minutes 18 seconds

[2025-08-29 09:54:41] [info] Tool Version: LVR_2025.1
[2025-08-29 09:54:41] [info] Host Name: kuro-Workstation
[2025-08-29 09:54:41] [info] User Name: kuro
[2025-08-29 09:54:41] [info] Cores Used: 1
[2025-08-29 09:54:41] [info] Memory Utilized: 3200.73 MB / 62.569698333740234 GB

[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] Top Cell Information
[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] Layout Top Cell: ibex_core1_sky130hd
[2025-08-29 09:54:41] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:54:41] [info] Database Format: GDSII
[2025-08-29 09:54:41] [info] Verification Mode: Full Check

[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] Type of Errors | Count
[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] DB_WARN -> 1
[2025-08-29 09:54:41] [info] LRF_ERR001 -> 14
[2025-08-29 09:54:41] [info] DB_WARN002 -> 251
[2025-08-29 09:54:41] [info] DB_WARN003 -> 251
[2025-08-29 09:54:41] [info] DENSITY_ERR -> 1005
[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] Density Rule Violation Summary
[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:54:41] [info] |-----|-----|-----|
[2025-08-29 09:54:41] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:54:41] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:54:41] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:54:41] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:54:41] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:54:41] [info]
[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] Performance Metrics
[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] | Stage | Time Taken |
[2025-08-29 09:54:41] [info] |-----|-----|
[2025-08-29 09:54:41] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-29 09:54:41] [info] | Rule Checking | 0 minutes 11 seconds |
[2025-08-29 09:54:41] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] Summary
[2025-08-29 09:54:41] [info] -----
[2025-08-29 09:54:41] [info] Total Errors: 1019
[2025-08-29 09:54:41] [info] Total Warnings: 503
[2025-08-29 09:54:41] [info] DENSITY Status: FAILED

```

```

[2025-08-29 09:55:00] [info] =====
[2025-08-29 09:55:00] [info] Density Rule Check Report
[2025-08-29 09:55:00] [info] =====

[2025-08-29 09:55:00] [info] Report Generated: 2025-08-29
[2025-08-29 09:55:00] [info] Run Start Time: 09:54:48 AM
[2025-08-29 09:55:00] [info] Run End Time: 09:55:00 AM
[2025-08-29 09:55:00] [info] Time Taken: 0 minutes 18 seconds

[2025-08-29 09:55:00] [info] Tool Version: LVR_2025.1
[2025-08-29 09:55:00] [info] Host Name: kuro-Workstation
[2025-08-29 09:55:00] [info] User Name: kuro
[2025-08-29 09:55:00] [info] Cores Used: 1
[2025-08-29 09:55:00] [info] Memory Utilized: 3244.11 MB / 62.569698333740234 GB

[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] Top Cell Information
[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] Layout Top Cell: ibex_core2_sky130hd
[2025-08-29 09:55:00] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:55:00] [info] Database Format: GDSII
[2025-08-29 09:55:00] [info] Verification Mode: Full Check

[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] Type of Errors | Count
[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] DB_WARN -> 1
[2025-08-29 09:55:00] [info] LRF_ERR001 -> 14
[2025-08-29 09:55:00] [info] DB_WARN002 -> 249
[2025-08-29 09:55:00] [info] DB_WARN003 -> 249
[2025-08-29 09:55:00] [info] DENSITY_ERR -> 1005
[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] Density Rule Violation Summary
[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:55:00] [info] |-----|-----|-----|
[2025-08-29 09:55:00] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:55:00] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:55:00] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:55:00] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:55:00] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:55:00] [info]
[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] Performance Metrics
[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] | Stage | Time Taken |
[2025-08-29 09:55:00] [info] |-----|-----|
[2025-08-29 09:55:00] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-29 09:55:00] [info] | Rule Checking | 0 minutes 12 seconds |
[2025-08-29 09:55:00] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] Summary
[2025-08-29 09:55:00] [info] -----
[2025-08-29 09:55:00] [info] Total Errors: 1019
[2025-08-29 09:55:00] [info] Total Warnings: 499
[2025-08-29 09:55:00] [info] DENSITY Status: FAILED

```

```

[2025-08-29 09:55:20] [info] =====
[2025-08-29 09:55:20] [info] Density Rule Check Report
[2025-08-29 09:55:20] [info] =====

[2025-08-29 09:55:20] [info] Report Generated: 2025-08-29
[2025-08-29 09:55:20] [info] Run Start Time: 09:55:07 AM
[2025-08-29 09:55:20] [info] Run End Time: 09:55:20 AM
[2025-08-29 09:55:20] [info] Time Taken: 0 minutes 18 seconds

[2025-08-29 09:55:20] [info] Tool Version: LVR_2025.1
[2025-08-29 09:55:20] [info] Host Name: kuro-Workstation
[2025-08-29 09:55:20] [info] User Name: kuro
[2025-08-29 09:55:20] [info] Cores Used: 1
[2025-08-29 09:55:20] [info] Memory Utilized: 3152.42 MB / 62.569698333740234 GB

[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] Top Cell Information
[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] Layout Top Cell: ibex_core3_sky130hd
[2025-08-29 09:55:20] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:55:20] [info] Database Format: GDSII
[2025-08-29 09:55:20] [info] Verification Mode: Full Check

[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] Type of Errors | Count
[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] DB_WARN -> 1
[2025-08-29 09:55:20] [info] LRF_ERR001 -> 14
[2025-08-29 09:55:20] [info] DB_WARN002 -> 253
[2025-08-29 09:55:20] [info] DB_WARN003 -> 251
[2025-08-29 09:55:20] [info] DENSITY_ERR -> 1005
[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] Density Rule Violation Summary
[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:55:20] [info] |-----|-----|-----|
[2025-08-29 09:55:20] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:55:20] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:55:20] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:55:20] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:55:20] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:55:20] [info]
[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] Performance Metrics
[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] | Stage | Time Taken |
[2025-08-29 09:55:20] [info] |-----|-----|
[2025-08-29 09:55:20] [info] | GDS Parsing | 0 minutes 6 seconds |
[2025-08-29 09:55:20] [info] | Rule Checking | 0 minutes 12 seconds |
[2025-08-29 09:55:20] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] Summary
[2025-08-29 09:55:20] [info] -----
[2025-08-29 09:55:20] [info] Total Errors: 1019
[2025-08-29 09:55:20] [info] Total Warnings: 505
[2025-08-29 09:55:20] [info] DENSITY Status: FAILED

```

```

[2025-08-29 09:56:12] [info] =====
[2025-08-29 09:56:12] [info] Density Rule Check Report
[2025-08-29 09:56:12] [info] =====

[2025-08-29 09:56:12] [info] Report Generated: 2025-08-29
[2025-08-29 09:56:12] [info] Run Start Time: 09:55:37 AM
[2025-08-29 09:56:12] [info] Run End Time: 09:56:12 AM
[2025-08-29 09:56:12] [info] Time Taken: 0 minutes 51 seconds

[2025-08-29 09:56:12] [info] Tool Version: LVR_2025.1
[2025-08-29 09:56:12] [info] Host Name: kuro-Workstation
[2025-08-29 09:56:12] [info] User Name: kuro
[2025-08-29 09:56:12] [info] Cores Used: 1
[2025-08-29 09:56:12] [info] Memory Utilized: 8300.30 MB / 62.569698333740234 GB

[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] Top Cell Information
[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] Layout Top Cell: jpeg_encoder1_sky130hd
[2025-08-29 09:56:12] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:56:12] [info] Database Format: GDSII
[2025-08-29 09:56:12] [info] Verification Mode: Full Check

[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] Type of Errors | Count
[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] DB_WARN -> 1
[2025-08-29 09:56:12] [info] LRF_ERR001 -> 14
[2025-08-29 09:56:12] [info] DB_WARN002 -> 159
[2025-08-29 09:56:12] [info] DB_WARN003 -> 161
[2025-08-29 09:56:12] [info] DENSITY_ERR -> 1005
[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] Density Rule Violation Summary
[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:56:12] [info] |-----|-----|-----|
[2025-08-29 09:56:12] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:56:12] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:56:12] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:56:12] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:56:12] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:56:12] [info]
[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] Performance Metrics
[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] | Stage | Time Taken |
[2025-08-29 09:56:12] [info] |-----|-----|
[2025-08-29 09:56:12] [info] | GDS Parsing | 0 minutes 16 seconds |
[2025-08-29 09:56:12] [info] | Rule Checking | 0 minutes 33 seconds |
[2025-08-29 09:56:12] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] Summary
[2025-08-29 09:56:12] [info] -----
[2025-08-29 09:56:12] [info] Total Errors: 1019
[2025-08-29 09:56:12] [info] Total Warnings: 321
[2025-08-29 09:56:12] [info] DENSITY Status: FAILED

```

```

[2025-08-29 09:57:13] [info] =====
[2025-08-29 09:57:13] [info] Density Rule Check Report
[2025-08-29 09:57:13] [info] =====

[2025-08-29 09:57:13] [info] Report Generated: 2025-08-29
[2025-08-29 09:57:13] [info] Run Start Time: 09:56:33 AM
[2025-08-29 09:57:13] [info] Run End Time: 09:57:12 AM
[2025-08-29 09:57:13] [info] Time Taken: 0 minutes 58 seconds

[2025-08-29 09:57:13] [info] Tool Version: LVR_2025.1
[2025-08-29 09:57:13] [info] Host Name: kuro-Workstation
[2025-08-29 09:57:13] [info] User Name: kuro
[2025-08-29 09:57:13] [info] Cores Used: 1
[2025-08-29 09:57:13] [info] Memory Utilized: 9864.41 MB / 62.569698333740234 GB

[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] Top Cell Information
[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] Layout Top Cell: jpeg_encoder2_sky130hd
[2025-08-29 09:57:13] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:57:13] [info] Database Format: GDSII
[2025-08-29 09:57:13] [info] Verification Mode: Full Check

[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] Type of Errors | Count
[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] DB_WARN -> 1
[2025-08-29 09:57:13] [info] LRF_ERR001 -> 14
[2025-08-29 09:57:13] [info] DB_WARN002 -> 157
[2025-08-29 09:57:13] [info] DB_WARN003 -> 159
[2025-08-29 09:57:13] [info] DENSITY_ERR -> 1005
[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] Density Rule Violation Summary
[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:57:13] [info] |-----|-----|-----|
[2025-08-29 09:57:13] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:57:13] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:57:13] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:57:13] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:57:13] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:57:13] [info]
[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] Performance Metrics
[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] | Stage | Time Taken |
[2025-08-29 09:57:13] [info] |-----|-----|
[2025-08-29 09:57:13] [info] | GDS Parsing | 0 minutes 18 seconds |
[2025-08-29 09:57:13] [info] | Rule Checking | 0 minutes 38 seconds |
[2025-08-29 09:57:13] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] Summary
[2025-08-29 09:57:13] [info] -----
[2025-08-29 09:57:13] [info] Total Errors: 1019
[2025-08-29 09:57:13] [info] Total Warnings: 317
[2025-08-29 09:57:13] [info] DENSITY Status: FAILED

```

```

[2025-08-29 09:58:00] [info] =====
[2025-08-29 09:58:00] [info] Density Rule Check Report
[2025-08-29 09:58:00] [info] =====

[2025-08-29 09:58:00] [info] Report Generated: 2025-08-29
[2025-08-29 09:58:00] [info] Run Start Time: 09:57:30 AM
[2025-08-29 09:58:00] [info] Run End Time: 09:58:00 AM
[2025-08-29 09:58:00] [info] Time Taken: 0 minutes 44 seconds

[2025-08-29 09:58:00] [info] Tool Version: LVR_2025.1
[2025-08-29 09:58:00] [info] Host Name: kuro-Workstation
[2025-08-29 09:58:00] [info] User Name: kuro
[2025-08-29 09:58:00] [info] Cores Used: 1
[2025-08-29 09:58:00] [info] Memory Utilized: 7236.33 MB / 62.569698333740234 GB

[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] Top Cell Information
[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] Layout Top Cell: jpeg_encoder3_sky130hd
[2025-08-29 09:58:00] [info] Technology Node: SKY130HD (130nm)
[2025-08-29 09:58:00] [info] Database Format: GDSII
[2025-08-29 09:58:00] [info] Verification Mode: Full Check

[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] Type of Errors | Count
[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] DB_WARN -> 1
[2025-08-29 09:58:00] [info] LRF_ERR001 -> 14
[2025-08-29 09:58:00] [info] DB_WARN002 -> 152
[2025-08-29 09:58:00] [info] DB_WARN003 -> 155
[2025-08-29 09:58:00] [info] DENSITY_ERR -> 1005
[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] Density Rule Violation Summary
[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] | Rule ID | Description | Error Count |
[2025-08-29 09:58:00] [info] |-----|-----|-----|
[2025-08-29 09:58:00] [info] | ydir_fail | "Ydir Fail" | 1 |
[2025-08-29 09:58:00] [info] | xdir_fail | "Xdir fail" | 1 |
[2025-08-29 09:58:00] [info] | out_of_range | "Out of Range" | 1 |
[2025-08-29 09:58:00] [info] | max_fail | "Max Fail" | 1 |
[2025-08-29 09:58:00] [info] | min_fail | "Min Fail" | 1001 |
[2025-08-29 09:58:00] [info]
[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] Performance Metrics
[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] | Stage | Time Taken |
[2025-08-29 09:58:00] [info] |-----|-----|
[2025-08-29 09:58:00] [info] | GDS Parsing | 0 minutes 14 seconds |
[2025-08-29 09:58:00] [info] | Rule Checking | 0 minutes 29 seconds |
[2025-08-29 09:58:00] [info] | Report Generation | 0 minutes 0 seconds |

[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] Summary
[2025-08-29 09:58:00] [info] -----
[2025-08-29 09:58:00] [info] Total Errors: 1019
[2025-08-29 09:58:00] [info] Total Warnings: 308
[2025-08-29 09:58:00] [info] DENSITY Status: FAILED

```

10.7 Macro LVS Regression Summary Reports

Sky130 Standard Cell (with IO) Verification Results

Standard Cell	Result
sky130_fd_sc_hd__a211o_1	Fail
sky130_fd_sc_hd__a21boi_1	Pass
sky130_fd_sc_hd__a221o_4	Fail
sky130_fd_sc_hd__a222oi_1	Fail
sky130_fd_sc_hd__a22o_1	Pass
sky130_fd_sc_hd__a2bb2o_1	Fail
sky130_fd_sc_hd__a2bb2o_2	Fail
sky130_fd_sc_hd__a2bb2o_4	Pass
sky130_fd_sc_hd__a311oi_1	Fail
sky130_fd_sc_hd__a32oi_1	Fail
sky130_fd_sc_hd__a32oi_4	Fail
sky130_fd_sc_hd__a41o_1	Fail
sky130_fd_sc_hd__a41oi_1	Fail
sky130_fd_sc_hd__a41oi_2	Fail
sky130_fd_sc_hd__a41oi_4	Fail
sky130_fd_sc_hd__and2_1	Pass
sky130_fd_sc_hd__and2_2	Pass
sky130_fd_sc_hd__and2b_1	Pass
sky130_fd_sc_hd__and3_1	Pass
sky130_fd_sc_hd__and3_2	Pass
sky130_fd_sc_hd__and3b_1	Pass
sky130_fd_sc_hd__and3b_2	Pass
sky130_fd_sc_hd__and4_1	Fail
sky130_fd_sc_hd__and4b_1	Fail
sky130_fd_sc_hd__and4b_2	Fail

sky130_fd_sc_hd__and4bb_2	Fail
sky130_fd_sc_hd__buf_12	Pass
sky130_fd_sc_hd__buf_1	Pass
sky130_fd_sc_hd__buf_2	Pass
sky130_fd_sc_hd__buf_4	Pass
sky130_fd_sc_hd__buf_6	Pass
sky130_fd_sc_hd__clkbuf_16	Pass
sky130_fd_sc_hd__clkbuf_1	Pass
sky130_fd_sc_hd__clkbuf_2	Pass
sky130_fd_sc_hd__clkdlybuf4s15_1	Pass
sky130_fd_sc_hd__clkinv_16	Pass
sky130_fd_sc_hd__dfbbn_1	Fail
sky130_fd_sc_hd__dfbbn_2	Fail
sky130_fd_sc_hd__dfbbp_1	Fail
sky130_fd_sc_hd__dfrbp_1	Fail
sky130_fd_sc_hd__dfrbp_2	Fail
sky130_fd_sc_hd__dfrtp_2	Fail
sky130_fd_sc_hd__dfrtp_4	Fail
sky130_fd_sc_hd__dfsbp_1	Fail
sky130_fd_sc_hd__dfsbp_2	Fail
sky130_fd_sc_hd__dfstp_1	Fail
sky130_fd_sc_hd__dfstp_2	Fail
sky130_fd_sc_hd__dfstp_4	Fail
sky130_fd_sc_hd__dfxbp_1	Fail
sky130_fd_sc_hd__dfxbp_2	Fail
sky130_fd_sc_hd__dfxtp_1	Pass
sky130_fd_sc_hd__dfxtp_2	Pass
sky130_fd_sc_hd__dlclkp_4	Fail
sky130_fd_sc_hd__dlrbn_1	Fail
sky130_fd_sc_hd__dlrbn_2	Fail

sky130_fd_sc_hd__dlrbp_2	Fail
sky130_fd_sc_hd__dlrtn_1	Fail
sky130_fd_sc_hd__dlrtn_2	Fail
sky130_fd_sc_hd__dlrtn_4	Fail
sky130_fd_sc_hd__dlrtp_1	Fail
sky130_fd_sc_hd__dlrtp_2	Fail
sky130_fd_sc_hd__dlrtp_4	Fail
sky130_fd_sc_hd__dlxbn_1	Fail
sky130_fd_sc_hd__dlxbp_1	Fail
sky130_fd_sc_hd__dlxtn_1	Pass
sky130_fd_sc_hd__dlygate4sd1_1	Pass
sky130_fd_sc_hd__dlygate4sd2_1	Pass
sky130_fd_sc_hd__dlygate4sd3_1	Pass
sky130_fd_sc_hd__ebufn_4	Pass
sky130_fd_sc_hd__ebufn_8	Fail
sky130_fd_sc_hd__edfxbp_1	Fail
sky130_fd_sc_hd__edfxtp_1	Fail
sky130_fd_sc_hd__einvn_1	Pass
sky130_fd_sc_hd__einvn_2	Pass
sky130_fd_sc_hd__fahcin_1	Pass
sky130_fd_sc_hd__fill_1	Pass
sky130_fd_sc_hd__fill_2	Pass
sky130_fd_sc_hd__fill_4	Pass
sky130_fd_sc_hd__fill_8	Pass
sky130_fd_sc_hd__ha_2	Fail
sky130_fd_sc_hd__ha_4	Fail
sky130_fd_sc_hd__inv_12	Pass
sky130_fd_sc_hd__inv_1	Pass
sky130_fd_sc_hd__inv_6	Pass
sky130_fd_sc_hd__lpflow_bleeder_1	Pass

sky130_fd_sc_hd__lpflow_clkbufkapwr_16	Pass
sky130_fd_sc_hd__lpflow_clkbufkapwr_1	Pass
sky130_fd_sc_hd__lpflow_clkbufkapwr_2	Pass
sky130_fd_sc_hd__lpflow_clkinvkapwr_16	Pass
sky130_fd_sc_hd__lpflow_inputiso0n_1	Pass
sky130_fd_sc_hd__lpflow_inputiso0p_1	Pass
sky130_fd_sc_hd__lpflow_inputisolatch_1	Pass
sky130_fd_sc_hd__lpflow_isobufsrc_16	Pass
sky130_fd_sc_hd__lpflow_isobufsrc_8	Pass
sky130_fd_sc_hd__lpflow_isobufsrckapwr_16	Fail
sky130_fd_sc_hd__lpflow_lsbuf_lh_hl_isowell_tap_1	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_hl_isowell_tap_2	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_hl_isowell_tap_4	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_isowell_4	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_isowell_tap_1	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_isowell_tap_2	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_isowell_tap_4	Pass
sky130_fd_sc_hd__mux2_8	Pass
sky130_fd_sc_hd__mux4_2	Fail
sky130_fd_sc_hd__nand3b_2	Pass
sky130_fd_sc_hd__nand4_4	Fail
sky130_fd_sc_hd__nand4b_2	Fail
sky130_fd_sc_hd__nand4bb_2	Fail
sky130_fd_sc_hd__nor4_1	Pass
sky130_fd_sc_hd__o2111ai_4	Fail
sky130_fd_sc_hd__o211a_4	Pass
sky130_fd_sc_hd__o21ba_2	Pass
sky130_fd_sc_hd__o221a_4	Pass
sky130_fd_sc_hd__o22a_1	Pass
sky130_fd_sc_hd__o22a_2	Pass

sky130_fd_sc_hd__o2bb2a_1	Pass
sky130_fd_sc_hd__o2bb2a_4	Pass
sky130_fd_sc_hd__o311a_1	Fail
sky130_fd_sc_hd__o311a_4	Fail
sky130_fd_sc_hd__o311ai_0	Fail
sky130_fd_sc_hd__o311ai_1	Fail
sky130_fd_sc_hd__o311ai_2	Fail
sky130_fd_sc_hd__o31a_1	Fail
sky130_fd_sc_hd__or4b_1	Fail
sky130_fd_sc_hd__or4bb_1	Pass
sky130_fd_sc_hd__probec_p_8	Pass
sky130_fd_sc_hd__probe_p_8	Pass
sky130_fd_sc_hd__sdfbbn_1	Fail
sky130_fd_sc_hd__sdfbbn_2	Fail
sky130_fd_sc_hd__sdfbbp_1	Fail
sky130_fd_sc_hd__sdfrbp_1	Fail
sky130_fd_sc_hd__sdfrbp_2	Fail
sky130_fd_sc_hd__sdfrtn_1	Fail
sky130_fd_sc_hd__sdfrtp_1	Fail
sky130_fd_sc_hd__sdfrtp_2	Fail
sky130_fd_sc_hd__sdfrtp_4	Fail
sky130_fd_sc_hd__sdfsbp_1	Fail
sky130_fd_sc_hd__sdfsbp_2	Fail
sky130_fd_sc_hd__sdfstp_1	Fail
sky130_fd_sc_hd__sdfstp_2	Fail
sky130_fd_sc_hd__sdfstp_4	Fail
sky130_fd_sc_hd__sdclkp_1	Fail
sky130_fd_sc_hd__sdclkp_2	Fail
sky130_fd_sc_hd__sedfxbp_1	Fail
sky130_fd_sc_hd__sedfxbp_2	Fail

sky130_fd_sc_hd__sedfxtp_1	Fail
sky130_fd_sc_hd__sedfxtp_2	Fail
sky130_fd_sc_hd__sedfxtp_4	Fail
sky130_fd_sc_hd__tap_1	Pass
sky130_fd_sc_hd__tapvgnd2_1	Pass
sky130_fd_sc_hd__tapvpwrvgnd_1	Pass
sky130_fd_sc_hd__xnor2_1	Pass
sky130_fd_sc_hd__xnor2_2	Pass
sky130_fd_sc_hd__xnor3_2	Pass
sky130_fd_sc_hd__xnor3_4	Pass
sky130_fd_sc_hd__xor2_2	Pass
sky130_fd_sc_hd__xor3_2	Pass
sky130_fd_sc_hd__xor3_4	Pass

Summary

- Total Cells: 159
- Pass: 70
- Fail: 89
- Pass Percentage: 44.0%
- Fail Percentage: 56.0%

Sky130 Standard Cell (without IO) Verification Results

Standard Cell	Result
sky130_fd_sc_hd__a2111o_1	Pass
sky130_fd_sc_hd__a211o_1	Pass
sky130_fd_sc_hd__a21boi_1	Pass

sky130_fd_sc_hd__a221o_4	Pass
sky130_fd_sc_hd__a222oi_1	Pass
sky130_fd_sc_hd__a22o_1	Pass
sky130_fd_sc_hd__a2bb2o_1	Pass
sky130_fd_sc_hd__a2bb2o_2	Pass
sky130_fd_sc_hd__a2bb2o_4	Pass
sky130_fd_sc_hd__a311oi_1	Pass
sky130_fd_sc_hd__a32oi_1	Pass
sky130_fd_sc_hd__a32oi_4	Pass
sky130_fd_sc_hd__a41o_1	Pass
sky130_fd_sc_hd__a41oi_1	Pass
sky130_fd_sc_hd__a41oi_2	Pass
sky130_fd_sc_hd__a41oi_4	Pass
sky130_fd_sc_hd__and2_1	Pass
sky130_fd_sc_hd__and2_2	Pass
sky130_fd_sc_hd__and2b_1	Pass
sky130_fd_sc_hd__and3_1	Pass
sky130_fd_sc_hd__and3_2	Pass
sky130_fd_sc_hd__and3b_1	Pass
sky130_fd_sc_hd__and3b_2	Pass
sky130_fd_sc_hd__and4_1	Pass
sky130_fd_sc_hd__and4b_1	Pass
sky130_fd_sc_hd__and4b_2	Pass
sky130_fd_sc_hd__and4bb_2	Pass
sky130_fd_sc_hd__buf_12	Pass
sky130_fd_sc_hd__buf_1	Pass
sky130_fd_sc_hd__buf_2	Pass
sky130_fd_sc_hd__buf_4	Pass
sky130_fd_sc_hd__buf_6	Pass
sky130_fd_sc_hd__clkbuf_16	Pass

sky130_fd_sc_hd__clkbuf_1	Pass
sky130_fd_sc_hd__clkbuf_2	Pass
sky130_fd_sc_hd__clkdybuf4s15_1	Pass
sky130_fd_sc_hd__clkinv_16	Pass
sky130_fd_sc_hd__dfbbn_1	Pass
sky130_fd_sc_hd__dfbbn_2	Pass
sky130_fd_sc_hd__dfbbp_1	Pass
sky130_fd_sc_hd__dfrbp_1	Pass
sky130_fd_sc_hd__dfrbp_2	Pass
sky130_fd_sc_hd__dfrtp_2	Pass
sky130_fd_sc_hd__dfrtp_4	Pass
sky130_fd_sc_hd__dfsbp_1	Pass
sky130_fd_sc_hd__dfsbp_2	Pass
sky130_fd_sc_hd__dfstp_1	Pass
sky130_fd_sc_hd__dfstp_2	Pass
sky130_fd_sc_hd__dfstp_4	Pass
sky130_fd_sc_hd__dfxbp_1	Pass
sky130_fd_sc_hd__dfxbp_2	Pass
sky130_fd_sc_hd__dfxtp_1	Pass
sky130_fd_sc_hd__dfxtp_2	Pass
sky130_fd_sc_hd__dlclkp_4	Pass
sky130_fd_sc_hd__dlrbn_1	Pass
sky130_fd_sc_hd__dlrbn_2	Pass
sky130_fd_sc_hd__dlrbp_2	Pass
sky130_fd_sc_hd__dlrtn_1	Pass
sky130_fd_sc_hd__dlrtn_2	Pass
sky130_fd_sc_hd__dlrtn_4	Pass
sky130_fd_sc_hd__dlrtp_1	Pass
sky130_fd_sc_hd__dlrtp_2	Pass
sky130_fd_sc_hd__dlrtp_4	Pass

sky130_fd_sc_hd__dlxbn_1	Pass
sky130_fd_sc_hd__dlxbp_1	Pass
sky130_fd_sc_hd__dlxtn_1	Pass
sky130_fd_sc_hd__dlygate4sd1_1	Pass
sky130_fd_sc_hd__dlygate4sd2_1	Pass
sky130_fd_sc_hd__dlygate4sd3_1	Pass
sky130_fd_sc_hd__ebufn_4	Pass
sky130_fd_sc_hd__ebufn_8	Pass
sky130_fd_sc_hd__edfxbp_1	Pass
sky130_fd_sc_hd__edfxtp_1	Pass
sky130_fd_sc_hd__einvn_1	Pass
sky130_fd_sc_hd__einvn_2	Pass
sky130_fd_sc_hd__fahcin_1	Pass
sky130_fd_sc_hd__fill_1	Pass
sky130_fd_sc_hd__fill_2	Pass
sky130_fd_sc_hd__fill_4	Pass
sky130_fd_sc_hd__fill_8	Pass
sky130_fd_sc_hd__ha_2	Fail
sky130_fd_sc_hd__ha_4	Pass
sky130_fd_sc_hd__inv_12	Pass
sky130_fd_sc_hd__inv_1	Pass
sky130_fd_sc_hd__inv_6	Pass
sky130_fd_sc_hd__lpflow_bleeder_1	Pass
sky130_fd_sc_hd__lpflow_clkbufkapwr_16	Pass
sky130_fd_sc_hd__lpflow_clkbufkapwr_1	Pass
sky130_fd_sc_hd__lpflow_clkbufkapwr_2	Pass
sky130_fd_sc_hd__lpflow_clkinvkapwr_16	Pass
sky130_fd_sc_hd__lpflow_inputiso0n_1	Pass
sky130_fd_sc_hd__lpflow_inputiso0p_1	Pass
sky130_fd_sc_hd__lpflow_inputisolatch_1	Pass

sky130_fd_sc_hd__lpflow_isobufsrc_16	Pass
sky130_fd_sc_hd__lpflow_isobufsrc_8	Pass
sky130_fd_sc_hd__lpflow_isobufsrcapwr_16	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_hl_isowell_tap_1	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_hl_isowell_tap_2	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_hl_isowell_tap_4	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_isowell_4	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_isowell_tap_1	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_isowell_tap_2	Pass
sky130_fd_sc_hd__lpflow_lsbuf_lh_isowell_tap_4	Pass
sky130_fd_sc_hd__mux2_8	Pass
sky130_fd_sc_hd__mux4_2	Pass
sky130_fd_sc_hd__nand3b_2	Pass
sky130_fd_sc_hd__nand4_4	Pass
sky130_fd_sc_hd__nand4b_2	Pass
sky130_fd_sc_hd__nand4bb_2	Pass
sky130_fd_sc_hd__nor4_1	Pass
sky130_fd_sc_hd__o2111ai_4	Pass
sky130_fd_sc_hd__o211a_4	Pass
sky130_fd_sc_hd__o21ba_2	Pass
sky130_fd_sc_hd__o221a_4	Pass
sky130_fd_sc_hd__o22a_1	Pass
sky130_fd_sc_hd__o22a_2	Pass
sky130_fd_sc_hd__o2bb2a_1	Pass
sky130_fd_sc_hd__o2bb2a_4	Pass
sky130_fd_sc_hd__o311a_1	Pass
sky130_fd_sc_hd__o311a_4	Pass
sky130_fd_sc_hd__o311ai_0	Pass
sky130_fd_sc_hd__o311ai_1	Pass
sky130_fd_sc_hd__o311ai_2	Pass

sky130_fd_sc_hd__o31a_1	Pass
sky130_fd_sc_hd__or4b_1	Pass
sky130_fd_sc_hd__or4bb_1	Pass
sky130_fd_sc_hd__probec_p_8	Pass
sky130_fd_sc_hd__probe_p_8	Pass
sky130_fd_sc_hd__sdfbbn_1	Fail
sky130_fd_sc_hd__sdfbbn_2	Fail
sky130_fd_sc_hd__sdfbbp_1	Fail
sky130_fd_sc_hd__sdfrbp_1	Pass
sky130_fd_sc_hd__sdfrbp_2	Pass
sky130_fd_sc_hd__sdfrtn_1	Pass
sky130_fd_sc_hd__sdfrtp_1	Pass
sky130_fd_sc_hd__sdfrtp_2	Pass
sky130_fd_sc_hd__sdfrtp_4	Pass
sky130_fd_sc_hd__sdfsbp_1	Fail
sky130_fd_sc_hd__sdfsbp_2	Fail
sky130_fd_sc_hd__sdfstp_1	Pass
sky130_fd_sc_hd__sdfstp_2	Pass
sky130_fd_sc_hd__sdfstp_4	Pass
sky130_fd_sc_hd__sdlclkp_1	Pass
sky130_fd_sc_hd__sdlclkp_2	Pass
sky130_fd_sc_hd__sedfxbp_1	Pass
sky130_fd_sc_hd__sedfxbp_2	Pass
sky130_fd_sc_hd__sedfxtp_1	Pass
sky130_fd_sc_hd__sedfxtp_2	Pass
sky130_fd_sc_hd__sedfxtp_4	Pass
sky130_fd_sc_hd__tap_1	Pass
sky130_fd_sc_hd__tapvgnd2_1	Pass
sky130_fd_sc_hd__tapvpwrvgnd_1	Pass
sky130_fd_sc_hd__xnor2_1	Pass

sky130_fd_sc_hd__xnor2_2	Pass
sky130_fd_sc_hd__xnor3_2	Pass
sky130_fd_sc_hd__xnor3_4	Pass
sky130_fd_sc_hd__xor2_2	Pass
sky130_fd_sc_hd__xor3_2	Pass
sky130_fd_sc_hd__xor3_4	Pass

Summary

- Total Cells: 148
- Pass: 142
- Fail: 6
- Pass Percentage: 95.9%
- Fail Percentage: 4.1%

Ng45 Standard Cell (with IO) Verification Results

Standard Cell	Result
AND2_X1	Pass
AND2_X2	Pass
AND2_X4	Pass
AND3_X1	Pass
AND3_X2	Pass
AND3_X4	Pass
AND4_X1	Pass
AND4_X2	Pass
AND4_X4	Pass
ANTENNA_X1	Pass

AOI211_X1	Pass
AOI211_X2	Pass
AOI211_X4	Pass
AOI21_X1	Pass
AOI21_X2	Pass
AOI21_X4	Pass
AOI221_X1	Pass
AOI221_X2	Pass
AOI221_X4	Pass
AOI222_X1	Pass
AOI222_X2	Pass
AOI222_X4	Pass
AOI22_X1	Pass
AOI22_X2	Pass
AOI22_X4	Pass
BUF_X1	Pass
BUF_X16	Pass
BUF_X2	Pass
BUF_X32	Pass
BUF_X4	Pass
BUF_X8	Pass
CLKBUF_X1	Pass
CLKBUF_X2	Pass
CLKBUF_X3	Pass
CLKGATETST_X1	Pass
CLKGATETST_X2	Fail
CLKGATETST_X4	Fail
CLKGATETST_X8	Fail
CLKGATE_X1	Pass
CLKGATE_X2	Pass

CLKGATE_X4	Pass
CLKGATE_X8	Pass
DFFRS_X1	Fail
DFFRS_X2	Fail
DFFR_X1	Fail
DFFR_X2	Fail
DFFS_X1	Fail
DFFS_X2	Fail
DFF_X1	Fail
DFF_X2	Fail
DLH_X1	Pass
DLH_X2	Pass
DLL_X1	Pass
DLL_X2	Pass
FA_X1	Fail
FILLCELL_X1	Pass
TAPCELL_X1	Pass
FILLCELL_X16	Pass
FILLCELL_X2	Pass
FILLCELL_X32	Pass
FILLCELL_X4	Pass
FILLCELL_X8	Pass
HA_X1	Fail
INV_X1	Pass
INV_X16	Pass
INV_X2	Pass
INV_X32	Pass
INV_X4	Pass
INV_X8	Pass
LOGIC0_X1	Pass

LOGIC1_X1	Pass
MUX2_X1	Pass
MUX2_X2	Pass
NAND2_X1	Pass
NAND2_X2	Pass
NAND2_X4	Pass
NAND3_X1	Pass
NAND3_X2	Pass
NAND3_X4	Pass
NAND4_X1	Pass
NAND4_X2	Pass
NAND4_X4	Pass
NOR2_X1	Pass
NOR2_X2	Pass
NOR2_X4	Pass
NOR3_X1	Pass
NOR3_X2	Pass
NOR3_X4	Pass
NOR4_X1	Pass
NOR4_X2	Pass
NOR4_X4	Pass
OAI211_X1	Pass
OAI211_X2	Pass
OAI211_X4	Pass
OAI21_X1	Pass
OAI21_X2	Pass
OAI21_X4	Pass
OAI221_X1	Pass
OAI221_X2	Pass
OAI221_X4	Pass

OAI222_X1	Pass
OAI222_X2	Pass
OAI222_X4	Pass
OAI22_X1	Pass
OAI22_X2	Pass
OAI22_X4	Pass
OAI33_X1	Pass
OR2_X1	Pass
OR2_X2	Pass
OR2_X4	Pass
OR3_X1	Pass
OR3_X2	Pass
OR3_X4	Pass
OR4_X1	Pass
OR4_X2	Pass
OR4_X4	Pass
SDFFRS_X1	Fail
SDFFRS_X2	Fail
SDFFR_X1	Fail
SDFFR_X2	Fail
SDFFS_X1	Fail
SDFFS_X2	Fail
SDFF_X1	Fail
SDFF_X2	Fail
TBUF_X1	Pass
TBUF_X16	Pass
TBUF_X2	Pass
TBUF_X4	Pass
TBUF_X8	Pass
TINV_X1	Pass

TLAT_X1	Pass
XNOR2_X1	Pass
XNOR2_X2	Pass
XOR2_X1	Pass
XOR2_X2	Pass

Summary

- Total Cells: 154
- Pass: 136
- Fail: 18
- Pass Percentage: 88.3%
- Fail Percentage: 11.7%

Ng45 Standard Cell (without IO) Verification Results

Standard Cell	Result
AND2_X1	Pass
AND2_X2	Pass
AND2_X4	Pass
AND3_X1	Pass
AND3_X2	Pass
AND3_X4	Pass
AND4_X1	Pass
AND4_X2	Pass
AND4_X4	Pass
ANTENNA_X1	Pass
AOI211_X1	Pass

AOI211_X2	Pass
AOI211_X4	Pass
AOI21_X1	Pass
AOI21_X2	Pass
AOI21_X4	Pass
AOI221_X1	Pass
AOI221_X2	Pass
AOI221_X4	Pass
AOI222_X1	Pass
AOI222_X2	Pass
AOI222_X4	Pass
AOI22_X1	Pass
AOI22_X2	Pass
AOI22_X4	Pass
BUF_X1	Pass
BUF_X16	Pass
BUF_X2	Pass
BUF_X32	Pass
BUF_X4	Pass
BUF_X8	Pass
CLKBUF_X1	Pass
CLKBUF_X2	Pass
CLKBUF_X3	Pass
CLKGATETST_X1	Pass
CLKGATETST_X2	Fail
CLKGATETST_X4	Fail
CLKGATETST_X8	Fail
CLKGATE_X1	Pass
CLKGATE_X2	Pass
CLKGATE_X4	Fail

CLKGATE_X8	Fail
DFFRS_X1	Pass
DFFRS_X2	Pass
DFFR_X1	Fail
DFFR_X2	Fail
DFFS_X1	Fail
DFFS_X2	Fail
DFF_X1	Pass
DFF_X2	Pass
DLH_X1	Pass
DLH_X2	Pass
DLL_X1	Pass
DLL_X2	Pass
FA_X1	Pass
FILLCELL_X1	Pass
TAPCELL_X1	Pass
FILLCELL_X16	Pass
FILLCELL_X2	Pass
FILLCELL_X32	Pass
FILLCELL_X4	Pass
FILLCELL_X8	Pass
HA_X1	Pass
INV_X1	Pass
INV_X16	Pass
INV_X2	Pass
INV_X32	Pass
INV_X4	Pass
INV_X8	Pass
LOGIC0_X1	Pass
LOGIC1_X1	Pass

MUX2_X1	Pass
MUX2_X2	Pass
NAND2_X1	Pass
NAND2_X2	Pass
NAND2_X4	Pass
NAND3_X1	Pass
NAND3_X2	Pass
NAND3_X4	Pass
NAND4_X1	Pass
NAND4_X2	Pass
NAND4_X4	Pass
NOR2_X1	Pass
NOR2_X2	Pass
NOR2_X4	Pass
NOR3_X1	Pass
NOR3_X2	Pass
NOR3_X4	Pass
NOR4_X1	Pass
NOR4_X2	Pass
NOR4_X4	Pass
OAI211_X1	Pass
OAI211_X2	Pass
OAI211_X4	Pass
OAI21_X1	Pass
OAI21_X2	Pass
OAI21_X4	Pass
OAI221_X1	Pass
OAI221_X2	Pass
OAI221_X4	Pass
OAI222_X1	Pass

OAI222_X2	Pass
OAI222_X4	Pass
OAI22_X1	Pass
OAI22_X2	Pass
OAI22_X4	Pass
OAI33_X1	Pass
OR2_X1	Pass
OR2_X2	Pass
OR2_X4	Pass
OR3_X1	Pass
OR3_X2	Pass
OR3_X4	Pass
OR4_X1	Pass
OR4_X2	Pass
OR4_X4	Pass
SDFFRS_X1	Fail
SDFFRS_X2	Fail
SDFFR_X1	Pass
SDFFR_X2	Pass
SDFFS_X1	Fail
SDFFS_X2	Fail
SDFF_X1	Pass
SDFF_X2	Pass
TBUF_X1	Pass
TBUF_X16	Pass
TBUF_X2	Pass
TBUF_X4	Pass
TBUF_X8	Pass
TINV_X1	Pass
TLAT_X1	Pass

XNOR2_X1	Pass
XNOR2_X2	Pass
XOR2_X1	Pass
XOR2_X2	Pass

Summary

- Total Cells: 154
- Pass: 142
- Fail: 12
- Pass Percentage: 92.2%
- Fail Percentage: 7.8%

11 Supported Operating Systems

LVR is designed to operate efficiently across major Linux distributions widely adopted in enterprise environments. This is made possible due to its static linking approach and Docker-based build that uses the CentOS 7.0 kernel as a baseline for maximum compatibility. The choice of CentOS 7.0 ensures backward compatibility and support for glibc 2.17, which is commonly present in most enterprise-grade Linux distributions released over the last decade.

1. CentOS 7

CentOS 7 is the primary environment used for building and validating the LVR binaries. With glibc 2.17 and kernel 3.10.x, it provides a stable foundation compatible with many downstream and upstream distributions.

- LVR is compiled inside a CentOS 7.0 Docker image.

-
- Static binary linking ensures that the resulting executable does not rely on the host's dynamic libraries.
 - Most enterprise users still maintain CentOS 7 due to its LTS support.
 - Ideal for running in server farms and cloud containers.

2. Red Hat Enterprise Linux (RHEL) 7 and 8

Red Hat Enterprise Linux is the de facto standard in the semiconductor and EDA industry. Because RHEL 7 shares its lineage with CentOS 7, LVR runs natively without modification on:

- **RHEL 7.x:** Fully compatible due to identical glibc and kernel versions.
- **RHEL 8.x:** Although it uses a newer kernel (4.x) and glibc (2.28+), LVR's statically linked binaries operate without runtime issues.
- Verified on both command-line and graphical server installations.
- Ideal for secure and managed deployments in foundry and client data centers.

3. Rocky Linux 8 and 9

Rocky Linux has emerged as the successor to CentOS in many data centers after CentOS transitioned to CentOS Stream. LVR has been tested on:

- **Rocky Linux 8:** Offers binary compatibility with RHEL 8.
- **Rocky Linux 9:** Although based on newer glibc and kernel versions, the static nature of LVR ensures seamless execution.
- Commonly used in cloud-native EDA flows due to its active maintenance and community support.
- GUI-based debugging and headless runs are both supported.

4. SUSE Linux Enterprise Server (SLES) 12 and 15

SUSE is another widely used OS in European foundries and automotive chip vendors.

- **SLES 12:** Compatible via glibc 2.19 and tested for LVR DRC and LVS flows.
- **SLES 15:** Newer kernel and toolchains supported via static linking.
- Static binary approach allows bypassing SUSE's libtool chain constraints.
- Recommended for setups with systemd and zypper-based deployments.

5. Ubuntu 18.04 LTS and Ubuntu 20.04 LTS

While not an enterprise-first OS, Ubuntu is increasingly used in design startups and academic research.

- LVR binaries built on CentOS 7 run reliably on Ubuntu LTS versions.
- Verified on:
 - **Ubuntu 18.04 (Bionic):** glibc 2.27
 - **Ubuntu 20.04 (Focal):** glibc 2.31
- GUI support works with GNOME, KDE, and Xfce.
- Ideal for local development, debugging, and testing flows.

In conclusion, LVR has been developed with portability in mind. By targeting CentOS 7 as the baseline and using static builds, it ensures consistent performance and compatibility across major Linux distributions used in EDA workflows.

12 LVR Installation Flow

This section describes the complete installation process for the LVR tool using the graphical installer built with the Qt Installer Framework. Each step is illustrated with corresponding screenshots to assist the user in navigating the process seamlessly.

The installation consists of the following sequential steps:

Step 1: Welcome Page

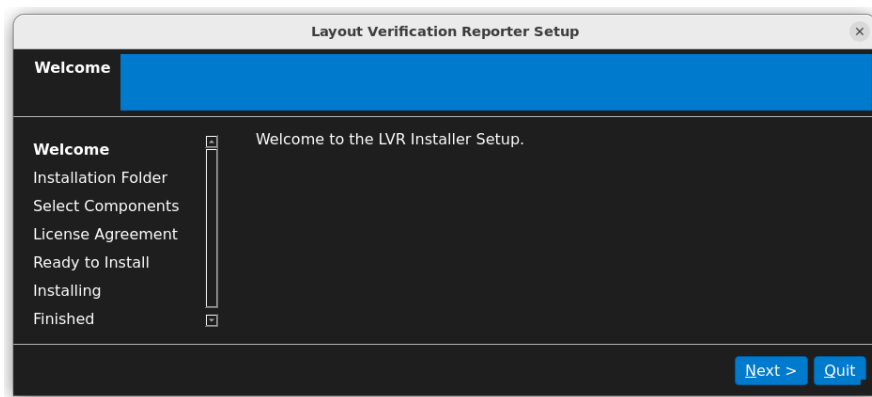


Figure 179: LVR Installer - Welcome screen

The installer begins with a branded welcome screen featuring the Ramtera logo and LVR title. The user clicks **Next** to proceed.

Step 2: License Agreement



Figure 180: License Agreement for using LVR

The user must accept the terms of the software license agreement to continue. This is shown using a scrollable text area. Click **I accept the license** and then **Next**.

Step 3: Target Installation Directory

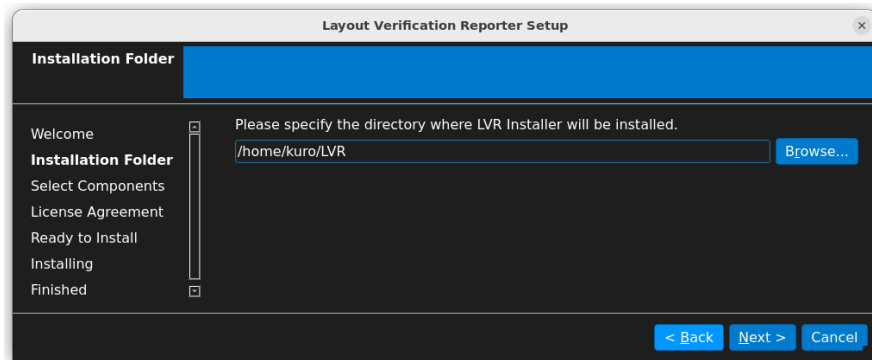


Figure 181: Selecting the target directory for installation

Users select the directory where LVR will be installed. The default is typically /opt/lvr or \$HOME/LVR. Ensure the user has write permission to the selected path.

Step 4: Dependency Installation (Red Hat only)

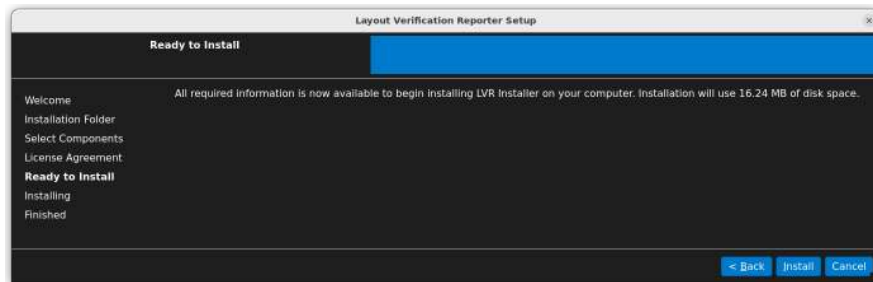


Figure 182: Automatic dependency installation on Red Hat systems

On Red Hat-based systems, the installer executes `dnf` or `yum` to install required packages:

- `qt5-qtbase`, `qt5-qtbase-gui`, `qt5-qtsvg`
- `tcl`, `perl`

A progress window appears while these commands are run via `'installer.execute()'`.

Step 5: Component Selection

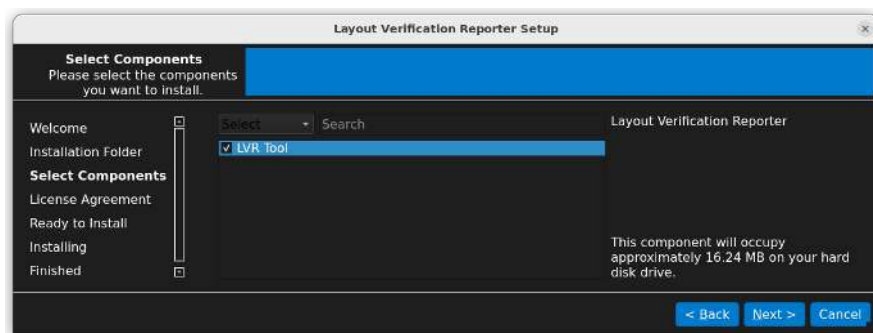


Figure 183: Component selection screen

This step shows optional modules (if multiple components are defined). In the LVR installer, this typically proceeds with all components pre-selected. Click **Next** to continue.

Step 6: Completion Screen

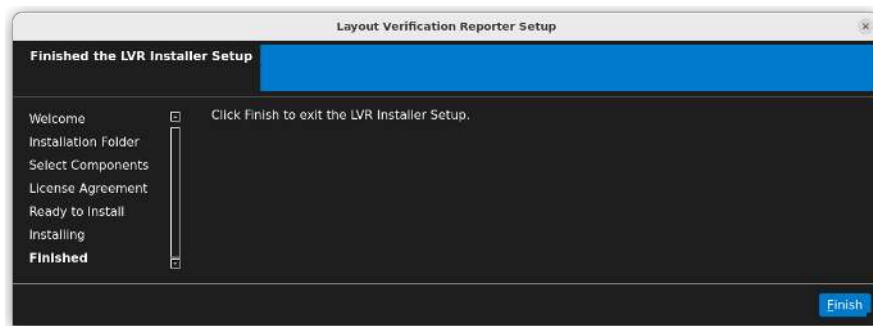


Figure 184: Installation complete message

Once installation completes successfully, the user is shown a confirmation screen. Clicking **Finish** closes the installer.

The LVR tool is now ready to use via the installed path:

```
/opt/lvr/bin/LVR
```

Optional environment setup can be sourced via:

```
/opt/lvr/setup_env.sh
```