
















Coverage Report

Jacob Halsey

Code Coverage

The testbench has 89% coverage of the calc1 code:
























Verification Metrics		89.49%	8997 / 11299 (79.63%)	n/a
Types		85.4%	3803 / 4881 (77.91%)	n/a
calc1_sn		98.14%	288 / 299 (96.32%)	n/a
calc1_top		85.36%	1067 / 1250 (85.36%)	n/a
exdbin_mac		55.7%	1103 / 1633 (67.54%)	n/a
holdreg		97.14%	185 / 196 (94.39%)	n/a
alu_input_stage		83.59%	326 / 390 (83.59%)	n/a
mux_out		99.02%	101 / 102 (99.02%)	n/a
alu_output_stage		96.44%	244 / 253 (96.44%)	n/a
priority		94.4%	160 / 171 (93.57%)	n/a
shifter		58.78%	329 / 587 (56.05%)	n/a
session		n/a	0 / 0 (n/a)	n/a
instruction_output_s		n/a	0 / 0 (n/a)	n/a
Instances		93.58%	5194 / 6418 (80.93%)	n/a
calc1_sn		93.58%	5194 / 6418 (80.93%)	n/a

Functional Coverage

The functional coverage is defined in `coverage.e` as follows:

```
cover instruction_executed is {
  item cmd_in: uint (bits:4) = input.cmd_in;
  item din1_high: uint (bits:32) = input.din1 using ranges = {range([0..MAX_UINT], "", 0xFFFFFFFF, 1)};
  item din2_high: uint (bits:32) = input.din2 using ranges = {range([0..MAX_UINT], "", 0xFFFFFFFF, 1)};
  item din1_low: uint (bits:8) = input.din1 & 0xFF using ranges = {range([0..255], "", 4, 1)};
  item din2_low: uint (bits:8) = input.din2 & 0xFF using ranges = {range([0..255], "", 4, 1)};
  item port_number;
  cross cmd_in, din1_high, din2_high, din1_low, din2_low, port_number;
};
```

And has results of 99% coverage:

Type (default scope) :		 instruction_output_s		
Overall Local Grade:  99.61%		Functional Local Grade:  99.61%	CoverGroup Local Grade:  99.61%	A:
Cover Gro..		Assertions		
		Items		instruction_executed
Ex	UNR	Name	Overall Average Grade	Overall Covered
		(no filter)	(no filter)	(no filter)
		 cmd_in	  100%	16 / 16 (100%)
		 din1_high	 98.83%	254 / 257 (98.83%)
		 din2_high	 99.22%	255 / 257 (99.22%)
		 din1_low	  100%	64 / 64 (100%)
		 din2_low	  100%	64 / 64 (100%)
		 port_number	n/a	0 / 0 (n/a)
		 cross_cmd_in_din1_high_din2_high_din1_low_din2...	n/a	0 / 0 (n/a)