NTUEE DCLAB LAB1

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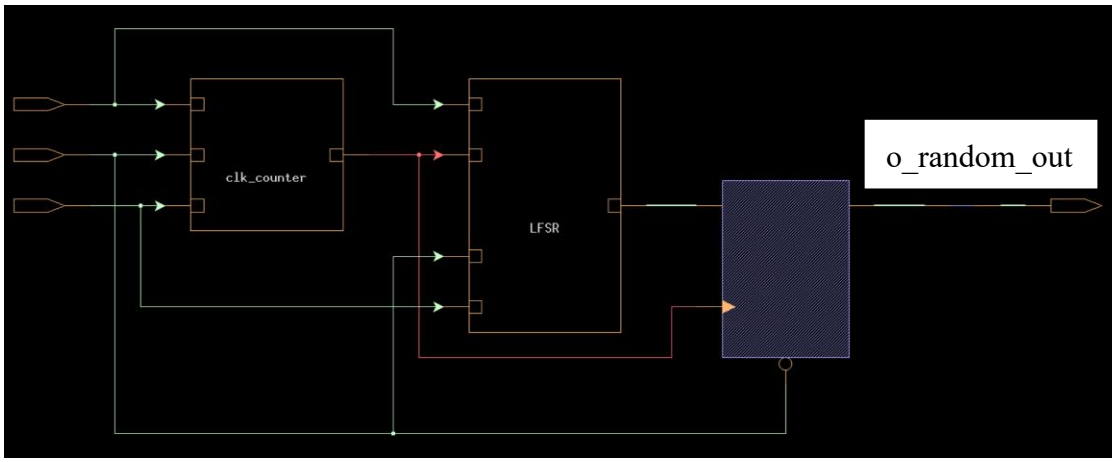
Part 1: File Structure

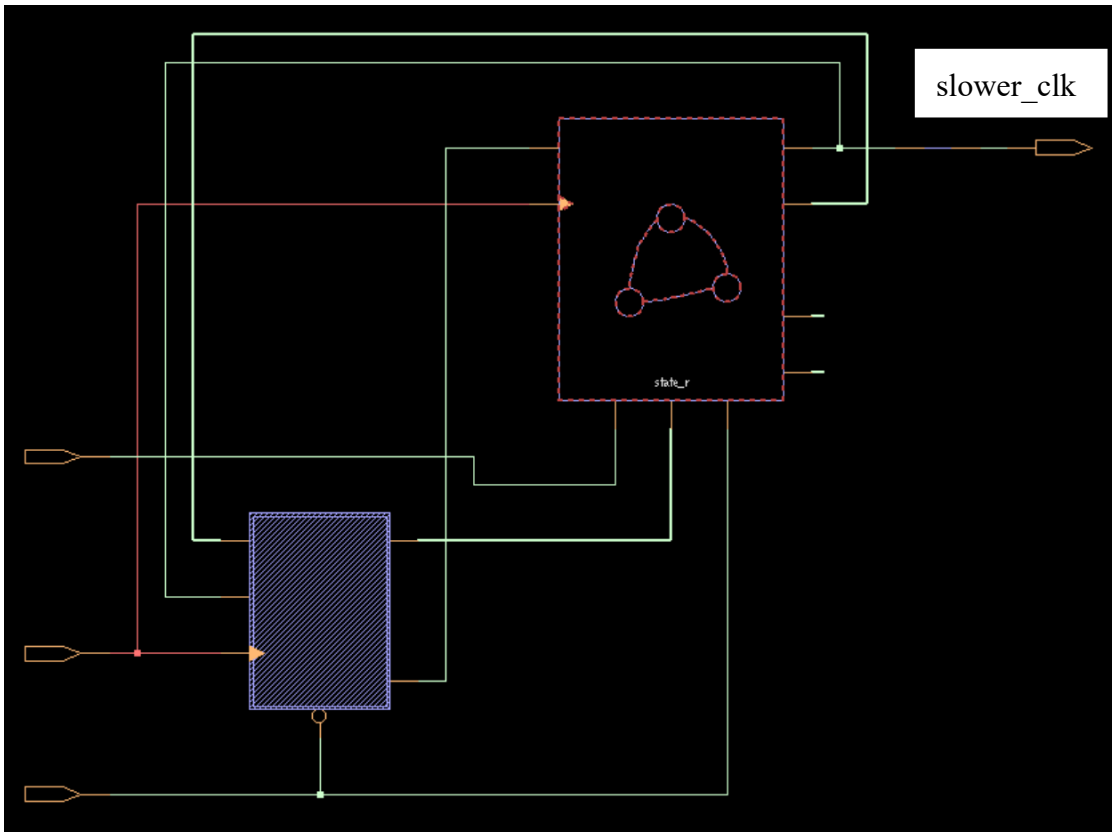
```
└─src
      │  Top.sv
      │
      └─DE2_115
            DE2_115.qsf
            DE2_115.sdc
            DE2_115.sv
            Debounce.sv
            SevenHexDecoder.sv
```

Part 2: System Architecture

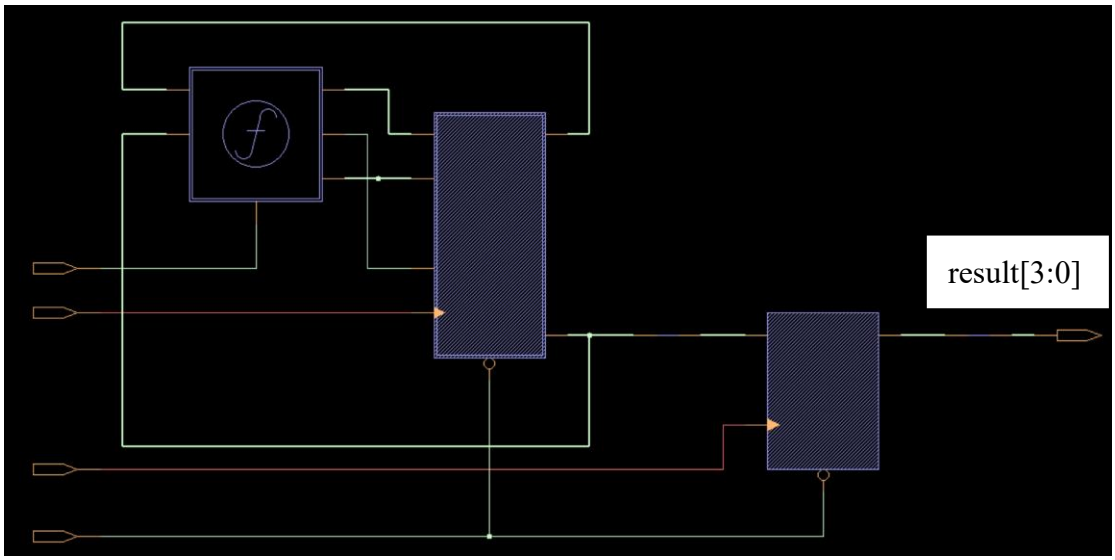
Top:



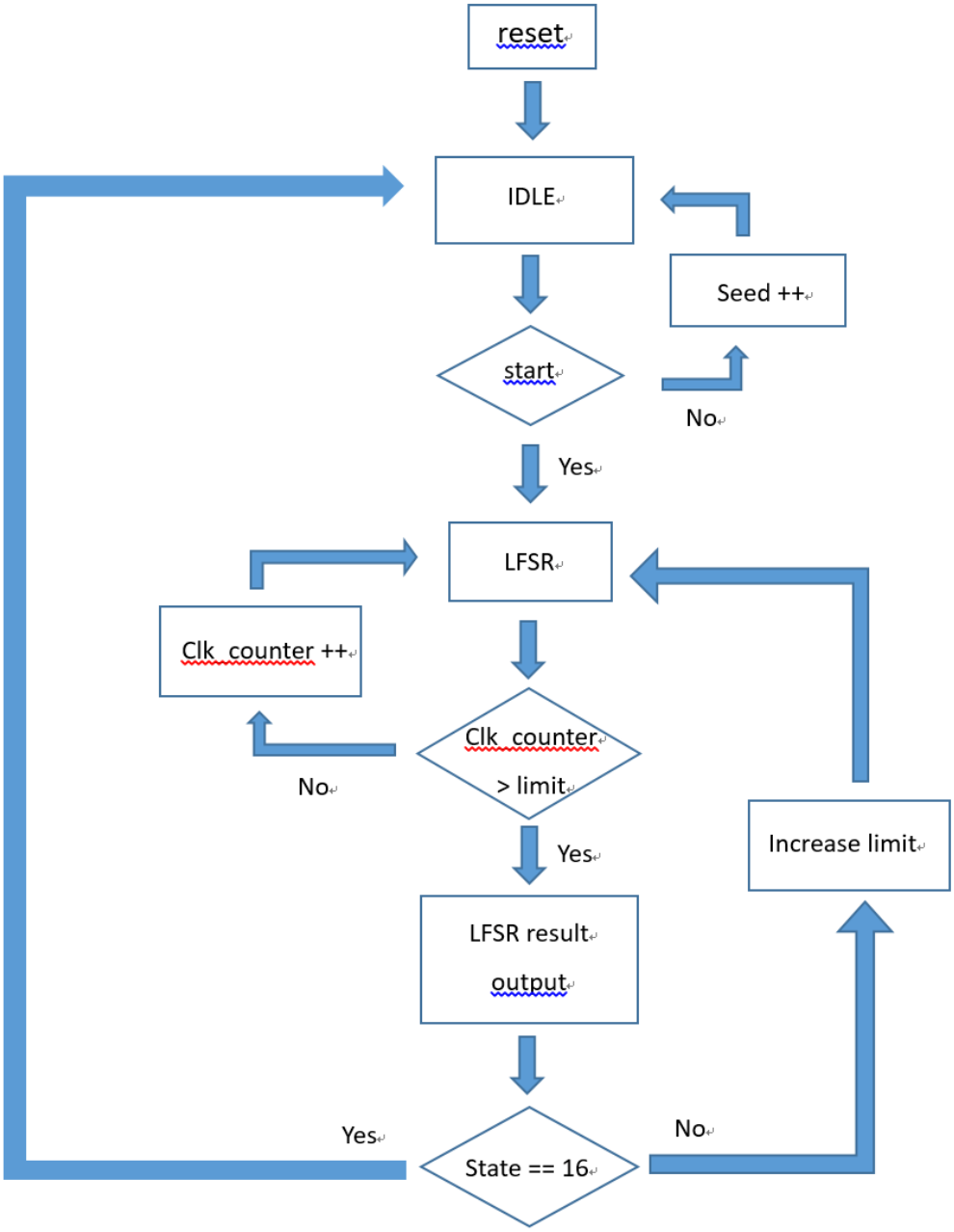
Clk_counter



LFSR



Part 3: Hardware Scheduling



Part 4: Filter Summary

Fitter Summary	
Fitter Status	Successful - Tue Mar 14 12:24:40 2023
Quartus II 64-Bit Version	15.0.0 Build 145 04/22/2015 SJ Full Version
Revision Name	DE2_115
Top-level Entity Name	DE2_115
Family	Cyclone IV E
Device	EP4CE115F29C7
Timing Models	Final
Total logic elements	174 / 114,480 (< 1 %)
Total combinational functions	162 / 114,480 (< 1 %)
Dedicated logic registers	90 / 114,480 (< 1 %)
Total registers	90
Total pins	518 / 529 (98 %)
Total virtual pins	0
Total memory bits	0 / 3,981,312 (0 %)
Embedded Multiplier 9-bit elements	0 / 532 (0 %)
Total PLLs	0 / 4 (0 %)

Part 5: Timing Analyzer

TimeQuest Timing Analyzer Summary	
Quartus II Version	Version 15.0.0 Build 145 04/22/2015 SJ Full Version
Revision Name	DE2_115
Device Family	Cyclone IV E
Device Name	EP4CE115F29C7
Timing Models	Final
Delay Model	Combined
Rise/Fall Delays	Enabled

Timing Violation (Slow 1200mV 85C Model)

Slow 1200mV 85C Model Setup Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-6.480	-320.476
2	KEY[1]	-0.232	-0.925

Slow 1200mV 85C Model Hold Summary

	Clock	Slack	End Point TNS
1	KEY[1]	-0.814	-2.602
2	CLOCK_50	0.312	0.000

Slow 1200mV 85C Model Recovery Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-3.691	-141.566
2	KEY[1]	-0.323	-2.584

Slow 1200mV 85C Model Removal Summary

	Clock	Slack	End Point TNS
1	KEY[1]	-0.664	-5.312
2	CLOCK_50	-0.458	-0.458

Slow 1200mV 85C Model Minimum Pulse Width Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-3.000	-108.370
2	KEY[1]	-3.000	-14.576

Slow 1200mV 85C Model Setup: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-6.480	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.053	7.425
2	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
3	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
4	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
5	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
6	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
7	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
8	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
9	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
10	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
11	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
12	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
13	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
14	-6.470	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.064	7.404
15	-6.361	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.082	7.277
16	-6.354	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.082	7.270
17	-6.343	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.082	7.259
18	-6.342	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.082	7.258
19	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
20	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
21	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
22	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
23	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
24	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
25	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
26	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
27	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
28	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
29	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
30	-6.309	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.051	7.256
31	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
32	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
33	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
34	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
35	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
36	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
37	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
38	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
39	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
40	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
41	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
42	-6.302	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.051	7.249
43	-6.301	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.043	7.256
44	-6.294	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.043	7.249
45	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
46	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
47	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
48	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
49	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
50	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
51	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
52	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
53	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
54	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
55	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
56	-6.291	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.051	7.238
57	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
58	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
59	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
60	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
61	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
62	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
63	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
64	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
65	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
66	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
67	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
68	-6.290	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.051	7.237
69	-6.283	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.043	7.238
70	-6.282	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.043	7.237
71	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[18]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
72	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[22]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
73	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[14]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
74	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[15]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
75	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[16]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
76	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[17]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
77	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[19]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
78	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[20]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
79	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[21]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
80	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[24]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
81	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[23]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
82	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[26]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
83	-6.261	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[25]	CLOCK_50	CLOCK_50	1.000	-0.051	7.208
84	-6.257	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.082	7.173
85	-6.253	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[27]	CLOCK_50	CLOCK_50	1.000	-0.043	7.208
86	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
87	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
88	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
89	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
90	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
91	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
92	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
93	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
94	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
95	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
96	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
97	-6.205	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.051	7.152
98	-6.197	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.043	7.152
99	-6.183	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[18]	CLOCK_50	CLOCK_50	1.000	-0.121	7.060
100	-6.183	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[22]	CLOCK_50	CLOCK_50	1.000	-0.121	7.060

Slow 1200mV 85C Model Setup: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.232	Top:top0|LFSR:LFSR1|result_r[0]	Top:top0|o_random_out_r[0]	KEY[1]	KEY[1]	1.000	-0.440	0.790
2	-0.231	Top:top0|LFSR:LFSR1|result_r[3]	Top:top0|o_random_out_r[3]	KEY[1]	KEY[1]	1.000	-0.440	0.789
3	-0.231	Top:top0|LFSR:LFSR1|result_r[2]	Top:top0|o_random_out_r[2]	KEY[1]	KEY[1]	1.000	-0.440	0.789
4	-0.231	Top:top0|LFSR:LFSR1|result_r[1]	Top:top0|o_random_out_r[1]	KEY[1]	KEY[1]	1.000	-0.440	0.789

Slow 1200mV 85C Model Hold: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.814	Top:top0|LFSR:LFSR1|processing[2]	Top:top0|LFSR:LFSR1|result_r[2]	CLOCK_50	KEY[1]	0.000	6.663	6.075
2	-0.636	Top:top0|LFSR:LFSR1|processing[1]	Top:top0|LFSR:LFSR1|result_r[1]	CLOCK_50	KEY[1]	0.000	6.663	6.253
3	-0.624	Top:top0|LFSR:LFSR1|processing[0]	Top:top0|LFSR:LFSR1|result_r[0]	CLOCK_50	KEY[1]	0.000	6.663	6.265
4	-0.528	Top:top0|LFSR:LFSR1|processing[3]	Top:top0|LFSR:LFSR1|result_r[3]	CLOCK_50	KEY[1]	0.000	6.663	6.361

Slow 1200mV 85C Model Recovery: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.323	KEY[1]	Top:top0|LFSR:LFSR1|result_r[0]	KEY[1]	KEY[1]	0.500	8.830	9.651
2	-0.323	KEY[1]	Top:top0|o_random_out_r[0]	KEY[1]	KEY[1]	0.500	8.830	9.651
3	-0.323	KEY[1]	Top:top0|LFSR:LFSR1|result_r[1]	KEY[1]	KEY[1]	0.500	8.830	9.651
4	-0.323	KEY[1]	Top:top0|o_random_out_r[1]	KEY[1]	KEY[1]	0.500	8.830	9.651
5	-0.323	KEY[1]	Top:top0|LFSR:LFSR1|result_r[2]	KEY[1]	KEY[1]	0.500	8.830	9.651
6	-0.323	KEY[1]	Top:top0|o_random_out_r[2]	KEY[1]	KEY[1]	0.500	8.830	9.651
7	-0.323	KEY[1]	Top:top0|LFSR:LFSR1|result_r[3]	KEY[1]	KEY[1]	0.500	8.830	9.651
8	-0.323	KEY[1]	Top:top0|o_random_out_r[3]	KEY[1]	KEY[1]	0.500	8.830	9.651

Slow 1200mV 85C Model Removal: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.664	KEY[1]	Top:top0|LFSR:LFSR1|result_r[0]	KEY[1]	KEY[1]	0.000	9.549	9.071
2	-0.664	KEY[1]	Top:top0|o_random_out_r[0]	KEY[1]	KEY[1]	0.000	9.549	9.071
3	-0.664	KEY[1]	Top:top0|LFSR:LFSR1|result_r[1]	KEY[1]	KEY[1]	0.000	9.549	9.071
4	-0.664	KEY[1]	Top:top0|o_random_out_r[1]	KEY[1]	KEY[1]	0.000	9.549	9.071
5	-0.664	KEY[1]	Top:top0|LFSR:LFSR1|result_r[2]	KEY[1]	KEY[1]	0.000	9.549	9.071
6	-0.664	KEY[1]	Top:top0|o_random_out_r[2]	KEY[1]	KEY[1]	0.000	9.549	9.071
7	-0.664	KEY[1]	Top:top0|LFSR:LFSR1|result_r[3]	KEY[1]	KEY[1]	0.000	9.549	9.071
8	-0.664	KEY[1]	Top:top0|o_random_out_r[3]	KEY[1]	KEY[1]	0.000	9.549	9.071
9	-0.018	KEY[1]	Top:top0|LFSR:LFSR1|result_r[0]	KEY[1]	KEY[1]	-0.500	9.549	9.237
10	-0.018	KEY[1]	Top:top0|o_random_out_r[0]	KEY[1]	KEY[1]	-0.500	9.549	9.237
11	-0.018	KEY[1]	Top:top0|LFSR:LFSR1|result_r[1]	KEY[1]	KEY[1]	-0.500	9.549	9.237
12	-0.018	KEY[1]	Top:top0|o_random_out_r[1]	KEY[1]	KEY[1]	-0.500	9.549	9.237
13	-0.018	KEY[1]	Top:top0|LFSR:LFSR1|result_r[2]	KEY[1]	KEY[1]	-0.500	9.549	9.237
14	-0.018	KEY[1]	Top:top0|o_random_out_r[2]	KEY[1]	KEY[1]	-0.500	9.549	9.237
15	-0.018	KEY[1]	Top:top0|LFSR:LFSR1|result_r[3]	KEY[1]	KEY[1]	-0.500	9.549	9.237
16	-0.018	KEY[1]	Top:top0|o_random_out_r[3]	KEY[1]	KEY[1]	-0.500	9.549	9.237

Slow 1200mV 85C Model Removal: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.458	KEY[1]	Debounce:deb0|neg_r	KEY[1]	CLOCK_50	0.000	4.290	4.058

Slow 1200mV 85C Model Minimum Pulse Width: 'KEY[1]'

	Slack	Actual Width	Required Width	Type	Clock	Clock Edge	Target
1	-3.000	1.000	4.000	Port Rate	KEY[1]	Rise	KEY[1]
2	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[0]
3	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[1]
4	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[2]
5	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[3]
6	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[0]
7	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[1]
8	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[2]
9	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[3]
10	-0.093	0.095	0.188	Low Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[0]
11	-0.093	0.095	0.188	Low Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[1]
12	-0.093	0.095	0.188	Low Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[2]
13	-0.093	0.095	0.188	Low Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[3]
14	-0.093	0.095	0.188	Low Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[0]
15	-0.093	0.095	0.188	Low Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[1]
16	-0.093	0.095	0.188	Low Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[2]
17	-0.093	0.095	0.188	Low Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[3]
18	-0.069	0.151	0.220	High Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[0]
19	-0.069	0.151	0.220	High Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[1]
20	-0.069	0.151	0.220	High Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[2]
21	-0.069	0.151	0.220	High Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[3]
22	-0.069	0.151	0.220	High Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[0]
23	-0.069	0.151	0.220	High Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[1]
24	-0.069	0.151	0.220	High Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[2]
25	-0.069	0.151	0.220	High Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[3]

Slow 1200mV 85C Model Recovery: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-3.691	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated	CLOCK_50	CLOCK_50	1.000	-1.421	3.268
2	-3.073	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated	CLOCK_50	CLOCK_50	1.000	-0.161	3.910
3	-2.444	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|slower_clk_r	CLOCK_50	CLOCK_50	1.000	-0.279	3.163
4	-2.392	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE1	CLOCK_50	CLOCK_50	1.000	-0.227	3.163
5	-2.392	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE2	CLOCK_50	CLOCK_50	1.000	-0.227	3.163
6	-2.375	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE8	CLOCK_50	CLOCK_50	1.000	-0.240	3.133
7	-2.375	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE9	CLOCK_50	CLOCK_50	1.000	-0.240	3.133
8	-2.341	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE4	CLOCK_50	CLOCK_50	1.000	-0.166	3.173
9	-2.341	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE5	CLOCK_50	CLOCK_50	1.000	-0.166	3.173
10	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[18]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
11	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[22]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
12	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[14]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
13	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[15]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
14	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[16]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
15	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[17]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
16	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[19]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
17	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[20]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
18	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[21]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
19	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[24]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
20	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[23]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
21	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[26]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
22	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[25]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
23	-2.333	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[27]	CLOCK_50	CLOCK_50	1.000	-0.264	3.067
24	-2.331	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE6	CLOCK_50	CLOCK_50	1.000	-0.196	3.133
25	-2.331	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE7	CLOCK_50	CLOCK_50	1.000	-0.196	3.133
26	-2.331	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE10	CLOCK_50	CLOCK_50	1.000	-0.196	3.133
27	-2.331	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE11	CLOCK_50	CLOCK_50	1.000	-0.196	3.133
28	-2.331	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE12	CLOCK_50	CLOCK_50	1.000	-0.196	3.133
29	-2.331	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE13	CLOCK_50	CLOCK_50	1.000	-0.196	3.133
30	-2.331	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE14	CLOCK_50	CLOCK_50	1.000	-0.239	3.090
31	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
32	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
33	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
34	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
35	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
36	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
37	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
38	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
39	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
40	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
41	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
42	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
43	-2.312	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.236	3.074
44	-2.306	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.206	3.098
45	-2.290	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE3	CLOCK_50	CLOCK_50	1.000	-0.115	3.173
46	-1.237	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated	KEY[1]	CLOCK_50	0.500	2.869	4.584
47	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[14]	KEY[1]	CLOCK_50	0.500	2.886	4.359
48	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[13]	KEY[1]	CLOCK_50	0.500	2.886	4.359
49	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[12]	KEY[1]	CLOCK_50	0.500	2.886	4.359
50	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[11]	KEY[1]	CLOCK_50	0.500	2.886	4.359
51	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[10]	KEY[1]	CLOCK_50	0.500	2.886	4.359
52	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[9]	KEY[1]	CLOCK_50	0.500	2.886	4.359
53	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[8]	KEY[1]	CLOCK_50	0.500	2.886	4.359
54	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[7]	KEY[1]	CLOCK_50	0.500	2.886	4.359
55	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[6]	KEY[1]	CLOCK_50	0.500	2.886	4.359
56	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[5]	KEY[1]	CLOCK_50	0.500	2.886	4.359
57	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[4]	KEY[1]	CLOCK_50	0.500	2.886	4.359
58	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[3]	KEY[1]	CLOCK_50	0.500	2.886	4.359
59	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[2]	KEY[1]	CLOCK_50	0.500	2.886	4.359
60	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[1]	KEY[1]	CLOCK_50	0.500	2.886	4.359
61	-0.995	KEY[1]	Top:top0|LFSR:LFSR1|processing[0]	KEY[1]	CLOCK_50	0.500	2.886	4.359
62	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[0]	KEY[1]	CLOCK_50	0.500	2.887	4.343
63	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[1]	KEY[1]	CLOCK_50	0.500	2.887	4.343
64	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[2]	KEY[1]	CLOCK_50	0.500	2.887	4.343
65	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[3]	KEY[1]	CLOCK_50	0.500	2.887	4.343
66	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[4]	KEY[1]	CLOCK_50	0.500	2.887	4.343
67	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[5]	KEY[1]	CLOCK_50	0.500	2.887	4.343
68	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[6]	KEY[1]	CLOCK_50	0.500	2.887	4.343
69	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[7]	KEY[1]	CLOCK_50	0.500	2.887	4.343
70	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[8]	KEY[1]	CLOCK_50	0.500	2.887	4.343
71	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[9]	KEY[1]	CLOCK_50	0.500	2.887	4.343
72	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[10]	KEY[1]	CLOCK_50	0.500	2.887	4.343
73	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[11]	KEY[1]	CLOCK_50	0.500	2.887	4.343
74	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[12]	KEY[1]	CLOCK_50	0.500	2.887	4.343
75	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[13]	KEY[1]	CLOCK_50	0.500	2.887	4.343
76	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[14]	KEY[1]	CLOCK_50	0.500	2.887	4.343
77	-0.978	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[15]	KEY[1]	CLOCK_50	0.500	2.887	4.343
78	-0.806	KEY[1]	Top:top0|LFSR:LFSR1|processing[15]	KEY[1]	CLOCK_50	0.500	2.886	4.170
79	-0.783	KEY[1]	Debounce:deb0|counter_r[2]	KEY[1]	CLOCK_50	0.500	3.254	4.515
80	-0.783	KEY[1]	Debounce:deb0|o_debounced_r	KEY[1]	CLOCK_50	0.500	3.254	4.515
81	-0.783	KEY[1]	Debounce:deb0|counter_r[0]	KEY[1]	CLOCK_50	0.500	3.254	4.515
82	-0.783	KEY[1]	Debounce:deb0|counter_r[1]	KEY[1]	CLOCK_50	0.500	3.254	4.515
83	-0.678	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated	KEY[1]	CLOCK_50	1.000	2.869	4.525
84	-0.579	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated	KEY[1]	CLOCK_50	0.500	4.127	5.184
85	-0.484	KEY[1]	Top:top0|clk_counter:clk_counter1|slower_clk_r	KEY[1]	CLOCK_50	0.500	4.009	4.971
86	-0.432	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE1	KEY[1]	CLOCK_50	0.500	4.061	4.971
87	-0.432	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE2	KEY[1]	CLOCK_50	0.500	4.061	4.971
88	-0.424	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE8	KEY[1]	CLOCK_50	0.500	4.048	4.950
89	-0.424	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE9	KEY[1]	CLOCK_50	0.500	4.048	4.950
90	-0.401	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE14	KEY[1]	CLOCK_50	0.500	4.049	4.928
91	-0.380	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE6	KEY[1]	CLOCK_50	0.500	4.092	4.950
92	-0.380	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE7	KEY[1]	CLOCK_50	0.500	4.092	4.950
93	-0.380	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE10	KEY[1]	CLOCK_50	0.500	4.092	4.950
94	-0.380	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE11	KEY[1]	CLOCK_50	0.500	4.092	4.950
95	-0.380	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE12	KEY[1]	CLOCK_50	0.500	4.092	4.950
96	-0.380	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE13	KEY[1]	CLOCK_50	0.500	4.092	4.950
97	-0.376	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[11]	KEY[1]	CLOCK_50	0.500	4.082	4.936
98	-0.358	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE4	KEY[1]	CLOCK_50	0.500	4.122	4.958
99	-0.358	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE5	KEY[1]	CLOCK_50	0.500	4.122	4.958
100	-0.325	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[0]	KEY[1]	CLOCK_50	1.000	2.887	4.190

Slow 1200mV 85C Model Minimum Pulse Width: 'CLOCK_50'

	Slack	Actual Width	Required Width	Type	Clock	Clock Edge	Target
1	-3.000	1.000	4.000	Port Rate	CLOCK_50	Rise	CLOCK_50
2	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|counter_r[0]
3	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|counter_r[1]
4	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|counter_r[2]
5	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|neg_r
6	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|o_debounced_r
7	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[0]
8	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[10]
9	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[11]
10	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[12]
11	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[13]
12	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[14]
13	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[15]
14	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[1]
15	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[2]
16	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[3]
17	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[4]
18	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[5]
19	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[6]
20	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[7]
21	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[8]
22	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[9]
23	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[0]
24	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[10]
25	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[11]
26	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[12]
27	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[13]
28	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[14]
29	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[15]
30	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[1]
31	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[2]
32	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[3]
33	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[4]
34	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[5]
35	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[6]
36	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[7]
37	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[8]
38	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[9]
39	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[0]
40	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[10]
41	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[11]
42	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[12]
43	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[13]
44	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[14]
45	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[15]
46	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[16]
47	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[17]
48	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[18]
49	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[19]
50	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[1]
51	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[20]
52	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[21]
53	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[22]
54	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[23]
55	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[24]
56	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[25]
57	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[26]
58	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[27]
59	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[2]
60	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[3]
61	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[4]
62	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[5]
63	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[6]
64	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[7]
65	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[8]
66	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[9]
67	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|slower_clk_r
68	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated
69	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated
70	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE1
71	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE10
72	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE11
73	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE12
74	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE13
75	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE14
76	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE2
77	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE3
78	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE4
79	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE5
80	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE6
81	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE7
82	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE8
83	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE9

Timing Violation (Slow 1200mV 0C Model)

Slow 1200mV 0C Model Setup Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-5.920	-288.961
2	KEY[1]	-0.124	-0.493

Slow 1200mV 0C Model Hold Summary

	Clock	Slack	End Point TNS
1	KEY[1]	-0.956	-3.275
2	CLOCK_50	0.342	0.000

Slow 1200mV 0C Model Recovery Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-3.346	-120.610
2	KEY[1]	0.068	0.000

Slow 1200mV 0C Model Removal Summary

	Clock	Slack	End Point TNS
1	KEY[1]	-0.632	-5.056
2	CLOCK_50	-0.451	-0.451

Slow 1200mV 0C Model Minimum Pulse Width Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-3.000	-108.370
2	KEY[1]	-3.000	-16.336

Slow 1200mV 0C Model Setup: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-5.920	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.048	6.871
2	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
3	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
4	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
5	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
6	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
7	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
8	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
9	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
10	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
11	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
12	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
13	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
14	-5.912	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.060	6.851
15	-5.810	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.072	6.737
16	-5.805	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.072	6.732
17	-5.786	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.072	6.713
18	-5.784	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.072	6.711
19	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
20	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
21	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
22	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
23	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
24	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
25	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
26	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
27	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
28	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
29	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
30	-5.763	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.045	6.717
31	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
32	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
33	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
34	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
35	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
36	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
37	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
38	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
39	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
40	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
41	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
42	-5.758	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.045	6.712
43	-5.757	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.039	6.717
44	-5.752	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.039	6.712
45	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
46	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
47	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
48	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
49	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
50	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
51	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
52	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
53	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
54	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
55	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
56	-5.739	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.045	6.693
57	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
58	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
59	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
60	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
61	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
62	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
63	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
64	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
65	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
66	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
67	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
68	-5.737	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.045	6.691
69	-5.733	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.039	6.693
70	-5.731	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.039	6.691
71	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[18]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
72	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[22]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
73	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[14]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
74	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[15]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
75	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[16]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
76	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[17]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
77	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[19]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
78	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[20]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
79	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[21]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
80	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[24]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
81	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[23]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
82	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[26]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
83	-5.706	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[25]	CLOCK_50	CLOCK_50	1.000	-0.045	6.660
84	-5.700	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[27]	CLOCK_50	CLOCK_50	1.000	-0.039	6.660
85	-5.685	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.072	6.612
86	-5.650	Top:top0|clk_counter:clk_counter1|count_r[5]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.072	6.577
87	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
88	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
89	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
90	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
91	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
92	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
93	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
94	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
95	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
96	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
97	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
98	-5.638	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.045	6.592
99	-5.634	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[18]	CLOCK_50	CLOCK_50	1.000	-0.107	6.526
100	-5.634	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[22]	CLOCK_50	CLOCK_50	1.000	-0.107	6.526

Slow 1200mV 0C Model Setup: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.124	Top:top0|LFSR:LFSR1|result_r[0]	Top:top0|o_random_out_r[0]	KEY[1]	KEY[1]	1.000	-0.412	0.711
2	-0.123	Top:top0|LFSR:LFSR1|result_r[3]	Top:top0|o_random_out_r[3]	KEY[1]	KEY[1]	1.000	-0.412	0.710
3	-0.123	Top:top0|LFSR:LFSR1|result_r[2]	Top:top0|o_random_out_r[2]	KEY[1]	KEY[1]	1.000	-0.412	0.710
4	-0.123	Top:top0|LFSR:LFSR1|result_r[1]	Top:top0|o_random_out_r[1]	KEY[1]	KEY[1]	1.000	-0.412	0.710

Slow 1200mV 0C Model Hold: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.956	Top:top0|LFSR:LFSR1|processing[2]	Top:top0|LFSR:LFSR1|result_r[2]	CLOCK_50	KEY[1]	0.000	6.227	5.482
2	-0.808	Top:top0|LFSR:LFSR1|processing[0]	Top:top0|LFSR:LFSR1|result_r[0]	CLOCK_50	KEY[1]	0.000	6.227	5.630
3	-0.803	Top:top0|LFSR:LFSR1|processing[1]	Top:top0|LFSR:LFSR1|result_r[1]	CLOCK_50	KEY[1]	0.000	6.227	5.635
4	-0.708	Top:top0|LFSR:LFSR1|processing[3]	Top:top0|LFSR:LFSR1|result_r[3]	CLOCK_50	KEY[1]	0.000	6.227	5.730

Slow 1200mV 0C Model Removal: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.632	KEY[1]	Top:top0|LFSR:LFSR1|result_r[0]	KEY[1]	KEY[1]	0.000	8.841	8.380
2	-0.632	KEY[1]	Top:top0|o_random_out_r[0]	KEY[1]	KEY[1]	0.000	8.841	8.380
3	-0.632	KEY[1]	Top:top0|LFSR:LFSR1|result_r[1]	KEY[1]	KEY[1]	0.000	8.841	8.380
4	-0.632	KEY[1]	Top:top0|o_random_out_r[1]	KEY[1]	KEY[1]	0.000	8.841	8.380
5	-0.632	KEY[1]	Top:top0|LFSR:LFSR1|result_r[2]	KEY[1]	KEY[1]	0.000	8.841	8.380
6	-0.632	KEY[1]	Top:top0|o_random_out_r[2]	KEY[1]	KEY[1]	0.000	8.841	8.380
7	-0.632	KEY[1]	Top:top0|LFSR:LFSR1|result_r[3]	KEY[1]	KEY[1]	0.000	8.841	8.380
8	-0.632	KEY[1]	Top:top0|o_random_out_r[3]	KEY[1]	KEY[1]	0.000	8.841	8.380
9	-0.288	KEY[1]	Top:top0|LFSR:LFSR1|result_r[0]	KEY[1]	KEY[1]	-0.500	8.841	8.244
10	-0.288	KEY[1]	Top:top0|o_random_out_r[0]	KEY[1]	KEY[1]	-0.500	8.841	8.244
11	-0.288	KEY[1]	Top:top0|LFSR:LFSR1|result_r[1]	KEY[1]	KEY[1]	-0.500	8.841	8.244
12	-0.288	KEY[1]	Top:top0|o_random_out_r[1]	KEY[1]	KEY[1]	-0.500	8.841	8.244
13	-0.288	KEY[1]	Top:top0|LFSR:LFSR1|result_r[2]	KEY[1]	KEY[1]	-0.500	8.841	8.244
14	-0.288	KEY[1]	Top:top0|o_random_out_r[2]	KEY[1]	KEY[1]	-0.500	8.841	8.244
15	-0.288	KEY[1]	Top:top0|LFSR:LFSR1|result_r[3]	KEY[1]	KEY[1]	-0.500	8.841	8.244
16	-0.288	KEY[1]	Top:top0|o_random_out_r[3]	KEY[1]	KEY[1]	-0.500	8.841	8.244

Slow 1200mV 0C Model Removal: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.451	KEY[1]	Debounce:deb0|neg_r	KEY[1]	CLOCK_50	0.000	3.908	3.668

Slow 1200mV 0C Model Minimum Pulse Width: 'KEY[1]'

	Slack	Actual Width	Required Width	Type	Clock	Clock Edge	Target
1	-3.000	1.000	4.000	Port Rate	KEY[1]	Rise	KEY[1]
2	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[0]
3	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[1]
4	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[2]
5	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[3]
6	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[0]
7	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[1]
8	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[2]
9	-1.285	1.000	2.285	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[3]
10	-0.313	-0.095	0.218	High Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[0]
11	-0.313	-0.095	0.218	High Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[1]
12	-0.313	-0.095	0.218	High Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[2]
13	-0.313	-0.095	0.218	High Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[3]
14	-0.313	-0.095	0.218	High Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[0]
15	-0.313	-0.095	0.218	High Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[1]
16	-0.313	-0.095	0.218	High Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[2]
17	-0.313	-0.095	0.218	High Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[3]
18	-0.057	-0.057	0.000	High Pulse Width	KEY[1]	Rise	top0|LFSR1|result_r[0]|clk
19	-0.057	-0.057	0.000	High Pulse Width	KEY[1]	Rise	top0|LFSR1|result_r[1]|clk
20	-0.057	-0.057	0.000	High Pulse Width	KEY[1]	Rise	top0|LFSR1|result_r[2]|clk
21	-0.057	-0.057	0.000	High Pulse Width	KEY[1]	Rise	top0|LFSR1|result_r[3]|clk
22	-0.057	-0.057	0.000	High Pulse Width	KEY[1]	Rise	top0|o_random_out_r[0]|clk
23	-0.057	-0.057	0.000	High Pulse Width	KEY[1]	Rise	top0|o_random_out_r[1]|clk
24	-0.057	-0.057	0.000	High Pulse Width	KEY[1]	Rise	top0|o_random_out_r[2]|clk
25	-0.057	-0.057	0.000	High Pulse Width	KEY[1]	Rise	top0|o_random_out_r[3]|clk
26	-0.048	-0.048	0.000	High Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~clkctrl|inclk[0]
27	-0.048	-0.048	0.000	High Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~clkctrl|outclk

Slow 1200mV 0C Model Recovery: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-3.346	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated	CLOCK_50	CLOCK_50	1.000	-1.312	3.033
2	-2.775	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated	CLOCK_50	CLOCK_50	1.000	-0.142	3.632
3	-2.125	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|slower_clk_r	CLOCK_50	CLOCK_50	1.000	-0.247	2.877
4	-2.080	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE1	CLOCK_50	CLOCK_50	1.000	-0.202	2.877
5	-2.080	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE2	CLOCK_50	CLOCK_50	1.000	-0.202	2.877
6	-2.057	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE8	CLOCK_50	CLOCK_50	1.000	-0.204	2.852
7	-2.057	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE9	CLOCK_50	CLOCK_50	1.000	-0.204	2.852
8	-2.057	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE14	CLOCK_50	CLOCK_50	1.000	-0.214	2.842
9	-2.035	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.184	2.850
10	-2.021	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE6	CLOCK_50	CLOCK_50	1.000	-0.168	2.852
11	-2.021	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE7	CLOCK_50	CLOCK_50	1.000	-0.168	2.852
12	-2.021	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE10	CLOCK_50	CLOCK_50	1.000	-0.168	2.852
13	-2.021	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE11	CLOCK_50	CLOCK_50	1.000	-0.168	2.852
14	-2.021	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE12	CLOCK_50	CLOCK_50	1.000	-0.168	2.852
15	-2.021	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE13	CLOCK_50	CLOCK_50	1.000	-0.168	2.852
16	-2.002	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE4	CLOCK_50	CLOCK_50	1.000	-0.146	2.855
17	-2.002	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE5	CLOCK_50	CLOCK_50	1.000	-0.146	2.855
18	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[18]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
19	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[22]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
20	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[14]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
21	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[15]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
22	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[16]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
23	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[17]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
24	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[19]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
25	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[20]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
26	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[21]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
27	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[24]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
28	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[23]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
29	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[26]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
30	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[25]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
31	-1.990	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[27]	CLOCK_50	CLOCK_50	1.000	-0.236	2.753
32	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
33	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
34	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
35	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
36	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
37	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
38	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
39	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
40	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
41	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
42	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
43	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
44	-1.979	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.213	2.765
45	-1.957	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE3	CLOCK_50	CLOCK_50	1.000	-0.101	2.855
46	-1.062	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated	KEY[1]	CLOCK_50	0.500	2.596	4.137
47	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[14]	KEY[1]	CLOCK_50	0.500	2.614	3.920
48	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[13]	KEY[1]	CLOCK_50	0.500	2.614	3.920
49	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[12]	KEY[1]	CLOCK_50	0.500	2.614	3.920
50	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[11]	KEY[1]	CLOCK_50	0.500	2.614	3.920
51	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[10]	KEY[1]	CLOCK_50	0.500	2.614	3.920
52	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[9]	KEY[1]	CLOCK_50	0.500	2.614	3.920
53	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[8]	KEY[1]	CLOCK_50	0.500	2.614	3.920
54	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[7]	KEY[1]	CLOCK_50	0.500	2.614	3.920
55	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[6]	KEY[1]	CLOCK_50	0.500	2.614	3.920
56	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[5]	KEY[1]	CLOCK_50	0.500	2.614	3.920
57	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[4]	KEY[1]	CLOCK_50	0.500	2.614	3.920
58	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[3]	KEY[1]	CLOCK_50	0.500	2.614	3.920
59	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[2]	KEY[1]	CLOCK_50	0.500	2.614	3.920
60	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[1]	KEY[1]	CLOCK_50	0.500	2.614	3.920
61	-0.827	KEY[1]	Top:top0|LFSR:LFSR1|processing[0]	KEY[1]	CLOCK_50	0.500	2.614	3.920
62	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[0]	KEY[1]	CLOCK_50	0.500	2.614	3.908
63	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[1]	KEY[1]	CLOCK_50	0.500	2.614	3.908
64	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[2]	KEY[1]	CLOCK_50	0.500	2.614	3.908
65	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[3]	KEY[1]	CLOCK_50	0.500	2.614	3.908
66	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[4]	KEY[1]	CLOCK_50	0.500	2.614	3.908
67	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[5]	KEY[1]	CLOCK_50	0.500	2.614	3.908
68	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[6]	KEY[1]	CLOCK_50	0.500	2.614	3.908
69	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[7]	KEY[1]	CLOCK_50	0.500	2.614	3.908
70	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[8]	KEY[1]	CLOCK_50	0.500	2.614	3.908
71	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[9]	KEY[1]	CLOCK_50	0.500	2.614	3.908
72	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[10]	KEY[1]	CLOCK_50	0.500	2.614	3.908
73	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[11]	KEY[1]	CLOCK_50	0.500	2.614	3.908
74	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[12]	KEY[1]	CLOCK_50	0.500	2.614	3.908
75	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[13]	KEY[1]	CLOCK_50	0.500	2.614	3.908
76	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[14]	KEY[1]	CLOCK_50	0.500	2.614	3.908
77	-0.815	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[15]	KEY[1]	CLOCK_50	0.500	2.614	3.908
78	-0.662	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated	KEY[1]	CLOCK_50	1.000	2.596	4.237
79	-0.655	KEY[1]	Top:top0|LFSR:LFSR1|processing[15]	KEY[1]	CLOCK_50	0.500	2.613	3.747
80	-0.556	KEY[1]	Debounce:deb0|counter_r[2]	KEY[1]	CLOCK_50	0.500	2.949	3.984
81	-0.556	KEY[1]	Debounce:deb0|o_debounced_r	KEY[1]	CLOCK_50	0.500	2.949	3.984
82	-0.556	KEY[1]	Debounce:deb0|counter_r[0]	KEY[1]	CLOCK_50	0.500	2.949	3.984
83	-0.556	KEY[1]	Debounce:deb0|counter_r[1]	KEY[1]	CLOCK_50	0.500	2.949	3.984
84	-0.426	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated	KEY[1]	CLOCK_50	0.500	3.764	4.669
85	-0.416	KEY[1]	Top:top0|clk_counter:clk_counter1|slower_clk_r	KEY[1]	CLOCK_50	0.500	3.659	4.554
86	-0.371	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE1	KEY[1]	CLOCK_50	0.500	3.704	4.554
87	-0.371	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE2	KEY[1]	CLOCK_50	0.500	3.704	4.554
88	-0.348	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE8	KEY[1]	CLOCK_50	0.500	3.702	4.529
89	-0.348	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE9	KEY[1]	CLOCK_50	0.500	3.702	4.529
90	-0.348	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE14	KEY[1]	CLOCK_50	0.500	3.692	4.519
91	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[14]	KEY[1]	CLOCK_50	1.000	2.614	3.927
92	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[13]	KEY[1]	CLOCK_50	1.000	2.614	3.927
93	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[12]	KEY[1]	CLOCK_50	1.000	2.614	3.927
94	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[11]	KEY[1]	CLOCK_50	1.000	2.614	3.927
95	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[10]	KEY[1]	CLOCK_50	1.000	2.614	3.927
96	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[9]	KEY[1]	CLOCK_50	1.000	2.614	3.927
97	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[8]	KEY[1]	CLOCK_50	1.000	2.614	3.927
98	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[7]	KEY[1]	CLOCK_50	1.000	2.614	3.927
99	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[6]	KEY[1]	CLOCK_50	1.000	2.614	3.927
100	-0.334	KEY[1]	Top:top0|LFSR:LFSR1|processing[5]	KEY[1]	CLOCK_50	1.000	2.614	3.927

Slow 1200mV 0C Model Minimum Pulse Width: 'CLOCK_50'

	Slack	Actual Width	Required Width	Type	Clock	Clock Edge	Target
1	-3.000	1.000	4.000	Port Rate	CLOCK_50	Rise	CLOCK_50
2	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|counter_r[0]
3	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|counter_r[1]
4	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|counter_r[2]
5	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|neg_r
6	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Debounce:deb0|o_debounced_r
7	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[0]
8	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[10]
9	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[11]
10	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[12]
11	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[13]
12	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[14]
13	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[15]
14	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[1]
15	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[2]
16	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[3]
17	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[4]
18	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[5]
19	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[6]
20	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[7]
21	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[8]
22	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[9]
23	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[0]
24	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[10]
25	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[11]
26	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[12]
27	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[13]
28	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[14]
29	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[15]
30	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[1]
31	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[2]
32	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[3]
33	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[4]
34	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[5]
35	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[6]
36	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[7]
37	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[8]
38	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[9]
39	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[0]
40	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[10]
41	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[11]
42	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[12]
43	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[13]
44	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[14]
45	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[15]
46	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[16]
47	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[17]
48	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[18]
49	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[19]
50	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[1]
51	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[20]
52	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[21]
53	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[22]
54	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[23]
55	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[24]
56	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[25]
57	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[26]
58	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[27]
59	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[2]
60	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[3]
61	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[4]
62	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[5]
63	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[6]
64	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[7]
65	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[8]
66	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[9]
67	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|slower_clk_r
68	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated
69	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated
70	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE1
71	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE10
72	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE11
73	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE12
74	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE13
75	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE14
76	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE2
77	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE3
78	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE4
79	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE5
80	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE6
81	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE7
82	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE8
83	-1.285	1.000	2.285	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE9

Timing Violation (Fast 1200mV 0C Model)

Fast 1200mV 0C Model Setup Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-2.610	-117.682
2	KEY[1]	-0.013	-0.013

Fast 1200mV 0C Model Hold Summary

	Clock	Slack	End Point TNS
1	KEY[1]	-0.241	-0.620
2	CLOCK_50	-0.168	-3.917

Fast 1200mV 0C Model Recovery Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-1.480	-57.479
2	KEY[1]	-0.876	-7.008

Fast 1200mV 0C Model Removal Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-0.388	-3.272
2	KEY[1]	-0.158	-1.264

Fast 1200mV 0C Model Minimum Pulse Width Summary

	Clock	Slack	End Point TNS
1	CLOCK_50	-3.000	-96.266
2	KEY[1]	-3.000	-21.478

Fast 1200mV 0C Model Hold: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[14]	KEY[1]	CLOCK_50	0.000	2.203	2.159
2	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[15]	KEY[1]	CLOCK_50	0.000	2.203	2.159
3	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[16]	KEY[1]	CLOCK_50	0.000	2.203	2.159
4	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[17]	KEY[1]	CLOCK_50	0.000	2.203	2.159
5	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[19]	KEY[1]	CLOCK_50	0.000	2.203	2.159
6	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[20]	KEY[1]	CLOCK_50	0.000	2.203	2.159
7	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[21]	KEY[1]	CLOCK_50	0.000	2.203	2.159
8	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[22]	KEY[1]	CLOCK_50	0.000	2.203	2.159
9	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[23]	KEY[1]	CLOCK_50	0.000	2.203	2.159
10	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[24]	KEY[1]	CLOCK_50	0.000	2.203	2.159
11	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[25]	KEY[1]	CLOCK_50	0.000	2.203	2.159
12	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[26]	KEY[1]	CLOCK_50	0.000	2.203	2.159
13	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[27]	KEY[1]	CLOCK_50	0.000	2.203	2.159
14	-0.168	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[18]	KEY[1]	CLOCK_50	0.000	2.203	2.159
15	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[0]	KEY[1]	CLOCK_50	0.000	2.222	2.246
16	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[1]	KEY[1]	CLOCK_50	0.000	2.222	2.246
17	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[2]	KEY[1]	CLOCK_50	0.000	2.222	2.246
18	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[3]	KEY[1]	CLOCK_50	0.000	2.222	2.246
19	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[4]	KEY[1]	CLOCK_50	0.000	2.222	2.246
20	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[5]	KEY[1]	CLOCK_50	0.000	2.222	2.246
21	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[6]	KEY[1]	CLOCK_50	0.000	2.222	2.246
22	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[7]	KEY[1]	CLOCK_50	0.000	2.222	2.246
23	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[8]	KEY[1]	CLOCK_50	0.000	2.222	2.246
24	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[9]	KEY[1]	CLOCK_50	0.000	2.222	2.246
25	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[10]	KEY[1]	CLOCK_50	0.000	2.222	2.246
26	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[12]	KEY[1]	CLOCK_50	0.000	2.222	2.246
27	-0.100	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[13]	KEY[1]	CLOCK_50	0.000	2.222	2.246
28	-0.098	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[11]	KEY[1]	CLOCK_50	0.000	2.231	2.257
29	-0.089	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE1	KEY[1]	CLOCK_50	0.000	2.223	2.258
30	-0.078	KEY[1]	Top:top0|clk_counter:clk_counter1|slower_clk_r	KEY[1]	CLOCK_50	0.000	2.194	2.240

Fast 1200mV 0C Model Setup: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-2.610	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.034	3.563
2	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
3	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
4	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
5	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
6	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
7	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
8	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
9	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
10	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
11	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
12	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
13	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
14	-2.590	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.032	3.545
15	-2.569	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.053	3.503
16	-2.563	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.053	3.497
17	-2.551	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.053	3.485
18	-2.550	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.053	3.484
19	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
20	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
21	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
22	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
23	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
24	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
25	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
26	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
27	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
28	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
29	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
30	-2.524	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.026	3.485
31	-2.520	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.022	3.485
32	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
33	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
34	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
35	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
36	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
37	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
38	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
39	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
40	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
41	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
42	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
43	-2.518	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.026	3.479
44	-2.514	Top:top0|clk_counter:clk_counter1|count_r[3]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.022	3.479
45	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
46	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
47	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
48	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
49	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
50	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
51	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
52	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
53	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
54	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
55	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
56	-2.506	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.026	3.467
57	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
58	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
59	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
60	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
61	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
62	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
63	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
64	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
65	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
66	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
67	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
68	-2.505	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.026	3.466
69	-2.502	Top:top0|clk_counter:clk_counter1|count_r[6]	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.022	3.467
70	-2.501	Top:top0|clk_counter:clk_counter1|count_r[4]	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.022	3.466
71	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[18]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
72	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[22]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
73	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[14]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
74	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[15]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
75	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[16]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
76	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[17]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
77	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[19]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
78	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[20]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
79	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[21]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
80	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[24]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
81	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[23]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
82	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[26]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
83	-2.493	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[25]	CLOCK_50	CLOCK_50	1.000	-0.027	3.453
84	-2.488	Top:top0|clk_counter:clk_counter1|count_r[27]	Top:top0|clk_counter:clk_counter1|count_r[27]	CLOCK_50	CLOCK_50	1.000	-0.022	3.453
85	-2.476	Top:top0|clk_counter:clk_counter1|count_r[2]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.053	3.410
86	-2.475	Top:top0|clk_counter:clk_counter1|count_r[8]	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.053	3.409
87	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[18]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
88	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[22]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
89	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[14]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
90	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[15]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
91	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[16]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
92	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[17]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
93	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[19]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
94	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[20]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
95	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[21]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
96	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[24]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
97	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[23]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
98	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[26]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
99	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[25]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393
100	-2.474	Top:top0|clk_counter:clk_counter1|count_r[0]	Top:top0|clk_counter:clk_counter1|count_r[27]	CLOCK_50	CLOCK_50	1.000	-0.068	3.393

Fast 1200mV 0C Model Setup: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.013	Top:top0|LFSR:LFSR1|processing[3]	Top:top0|LFSR:LFSR1|result_r[3]	CLOCK_50	KEY[1]	1.000	2.713	3.693

Fast 1200mV 0C Model Hold: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.241	Top:top0|LFSR:LFSR1|processing[2]	Top:top0|LFSR:LFSR1|result_r[2]	CLOCK_50	KEY[1]	0.000	3.109	2.992
2	-0.142	Top:top0|LFSR:LFSR1|processing[0]	Top:top0|LFSR:LFSR1|result_r[0]	CLOCK_50	KEY[1]	0.000	3.109	3.091
3	-0.141	Top:top0|LFSR:LFSR1|processing[1]	Top:top0|LFSR:LFSR1|result_r[1]	CLOCK_50	KEY[1]	0.000	3.109	3.092
4	-0.096	Top:top0|LFSR:LFSR1|processing[3]	Top:top0|LFSR:LFSR1|result_r[3]	CLOCK_50	KEY[1]	0.000	3.109	3.137

Fast 1200mV 0C Model Recovery: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.876	KEY[1]	Top:top0|LFSR:LFSR1|result_r[0]	KEY[1]	KEY[1]	0.500	4.222	5.585
2	-0.876	KEY[1]	Top:top0|o_random_out_r[0]	KEY[1]	KEY[1]	0.500	4.222	5.585
3	-0.876	KEY[1]	Top:top0|LFSR:LFSR1|result_r[1]	KEY[1]	KEY[1]	0.500	4.222	5.585
4	-0.876	KEY[1]	Top:top0|o_random_out_r[1]	KEY[1]	KEY[1]	0.500	4.222	5.585
5	-0.876	KEY[1]	Top:top0|LFSR:LFSR1|result_r[2]	KEY[1]	KEY[1]	0.500	4.222	5.585
6	-0.876	KEY[1]	Top:top0|o_random_out_r[2]	KEY[1]	KEY[1]	0.500	4.222	5.585
7	-0.876	KEY[1]	Top:top0|LFSR:LFSR1|result_r[3]	KEY[1]	KEY[1]	0.500	4.222	5.585
8	-0.876	KEY[1]	Top:top0|o_random_out_r[3]	KEY[1]	KEY[1]	0.500	4.222	5.585

Fast 1200mV 0C Model Removal: 'KEY[1]'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.158	KEY[1]	Top:top0|LFSR:LFSR1|result_r[0]	KEY[1]	KEY[1]	0.000	4.558	4.484
2	-0.158	KEY[1]	Top:top0|o_random_out_r[0]	KEY[1]	KEY[1]	0.000	4.558	4.484
3	-0.158	KEY[1]	Top:top0|LFSR:LFSR1|result_r[1]	KEY[1]	KEY[1]	0.000	4.558	4.484
4	-0.158	KEY[1]	Top:top0|o_random_out_r[1]	KEY[1]	KEY[1]	0.000	4.558	4.484
5	-0.158	KEY[1]	Top:top0|LFSR:LFSR1|result_r[2]	KEY[1]	KEY[1]	0.000	4.558	4.484
6	-0.158	KEY[1]	Top:top0|o_random_out_r[2]	KEY[1]	KEY[1]	0.000	4.558	4.484
7	-0.158	KEY[1]	Top:top0|LFSR:LFSR1|result_r[3]	KEY[1]	KEY[1]	0.000	4.558	4.484
8	-0.158	KEY[1]	Top:top0|o_random_out_r[3]	KEY[1]	KEY[1]	0.000	4.558	4.484

Fast 1200mV 0C Model Minimum Pulse Width: 'KEY[1]'

	Slack	Actual Width	Required Width	Type	Clock	Clock Edge	Target
1	-3.000	1.000	4.000	Port Rate	KEY[1]	Rise	KEY[1]
2	-1.000	1.000	2.000	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[0]
3	-1.000	1.000	2.000	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[1]
4	-1.000	1.000	2.000	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[2]
5	-1.000	1.000	2.000	Min Period	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[3]
6	-1.000	1.000	2.000	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[0]
7	-1.000	1.000	2.000	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[1]
8	-1.000	1.000	2.000	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[2]
9	-1.000	1.000	2.000	Min Period	KEY[1]	Rise	Top:top0|o_random_out_r[3]
10	-0.559	-0.375	0.184	Low Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[0]
11	-0.559	-0.375	0.184	Low Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[1]
12	-0.559	-0.375	0.184	Low Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[2]
13	-0.559	-0.375	0.184	Low Pulse Width	KEY[1]	Rise	Top:top0|LFSR:LFSR1|result_r[3]
14	-0.559	-0.375	0.184	Low Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[0]
15	-0.559	-0.375	0.184	Low Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[1]
16	-0.559	-0.375	0.184	Low Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[2]
17	-0.559	-0.375	0.184	Low Pulse Width	KEY[1]	Rise	Top:top0|o_random_out_r[3]
18	-0.379	-0.379	0.000	Low Pulse Width	KEY[1]	Rise	top0|LFSR1|result_r[0]|clk
19	-0.379	-0.379	0.000	Low Pulse Width	KEY[1]	Rise	top0|LFSR1|result_r[1]|clk
20	-0.379	-0.379	0.000	Low Pulse Width	KEY[1]	Rise	top0|LFSR1|result_r[2]|clk
21	-0.379	-0.379	0.000	Low Pulse Width	KEY[1]	Rise	top0|LFSR1|result_r[3]|clk
22	-0.379	-0.379	0.000	Low Pulse Width	KEY[1]	Rise	top0|o_random_out_r[0]|clk
23	-0.379	-0.379	0.000	Low Pulse Width	KEY[1]	Rise	top0|o_random_out_r[1]|clk
24	-0.379	-0.379	0.000	Low Pulse Width	KEY[1]	Rise	top0|o_random_out_r[2]|clk
25	-0.379	-0.379	0.000	Low Pulse Width	KEY[1]	Rise	top0|o_random_out_r[3]|clk
26	-0.367	-0.367	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~clkctrl|inclk[0]
27	-0.367	-0.367	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~clkctrl|outclk
28	-0.258	-0.258	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0|combout
29	-0.255	-0.255	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0|datac
30	-0.238	-0.238	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~8|datad
31	-0.233	-0.233	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~8|combout
32	-0.220	-0.220	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~3|combout
33	-0.209	-0.209	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~3|datab
34	-0.186	-0.186	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~0|datad
35	-0.181	-0.181	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|Selector0~0|combout
36	-0.172	-0.172	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|count_r[12]~28|datad
37	-0.167	-0.167	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|count_r[12]~28|combout
38	-0.121	-0.121	0.000	Low Pulse Width	KEY[1]	Rise	top0|clk_counter1|state_r.STATE0~2|combout

Fast 1200mV 0C Model Recovery: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-1.480	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated	CLOCK_50	CLOCK_50	1.000	-0.837	1.630
2	-1.058	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated	CLOCK_50	CLOCK_50	1.000	-0.091	1.954
3	-0.796	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|slower_clk_r	CLOCK_50	CLOCK_50	1.000	-0.161	1.622
4	-0.769	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE1	CLOCK_50	CLOCK_50	1.000	-0.134	1.622
5	-0.769	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE2	CLOCK_50	CLOCK_50	1.000	-0.134	1.622
6	-0.739	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE8	CLOCK_50	CLOCK_50	1.000	-0.126	1.600
7	-0.739	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE9	CLOCK_50	CLOCK_50	1.000	-0.126	1.600
8	-0.732	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated	KEY[1]	CLOCK_50	0.500	1.432	2.631
9	-0.724	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE4	CLOCK_50	CLOCK_50	1.000	-0.093	1.618
10	-0.724	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE5	CLOCK_50	CLOCK_50	1.000	-0.093	1.618
11	-0.722	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE14	CLOCK_50	CLOCK_50	1.000	-0.141	1.568
12	-0.717	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[11]	CLOCK_50	CLOCK_50	1.000	-0.126	1.578
13	-0.715	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE6	CLOCK_50	CLOCK_50	1.000	-0.102	1.600
14	-0.715	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE7	CLOCK_50	CLOCK_50	1.000	-0.102	1.600
15	-0.715	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE10	CLOCK_50	CLOCK_50	1.000	-0.102	1.600
16	-0.715	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE11	CLOCK_50	CLOCK_50	1.000	-0.102	1.600
17	-0.715	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE12	CLOCK_50	CLOCK_50	1.000	-0.102	1.600
18	-0.715	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE13	CLOCK_50	CLOCK_50	1.000	-0.102	1.600
19	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[18]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
20	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[22]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
21	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[14]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
22	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[15]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
23	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[16]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
24	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[17]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
25	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[19]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
26	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[20]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
27	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[21]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
28	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[24]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
29	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[23]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
30	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[26]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
31	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[25]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
32	-0.714	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[27]	CLOCK_50	CLOCK_50	1.000	-0.152	1.549
33	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[13]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
34	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[0]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
35	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[1]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
36	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[2]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
37	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[3]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
38	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[4]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
39	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[5]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
40	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[6]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
41	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[7]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
42	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[8]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
43	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[9]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
44	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[10]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
45	-0.713	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|count_r[12]	CLOCK_50	CLOCK_50	1.000	-0.135	1.565
46	-0.696	Debounce:deb0|neg_r	Top:top0|clk_counter:clk_counter1|state_r.STATE3	CLOCK_50	CLOCK_50	1.000	-0.065	1.618
47	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[14]	KEY[1]	CLOCK_50	0.500	1.449	2.600
48	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[13]	KEY[1]	CLOCK_50	0.500	1.449	2.600
49	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[12]	KEY[1]	CLOCK_50	0.500	1.449	2.600
50	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[11]	KEY[1]	CLOCK_50	0.500	1.449	2.600
51	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[10]	KEY[1]	CLOCK_50	0.500	1.449	2.600
52	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[9]	KEY[1]	CLOCK_50	0.500	1.449	2.600
53	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[8]	KEY[1]	CLOCK_50	0.500	1.449	2.600
54	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[7]	KEY[1]	CLOCK_50	0.500	1.449	2.600
55	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[6]	KEY[1]	CLOCK_50	0.500	1.449	2.600
56	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[5]	KEY[1]	CLOCK_50	0.500	1.449	2.600
57	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[4]	KEY[1]	CLOCK_50	0.500	1.449	2.600
58	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[3]	KEY[1]	CLOCK_50	0.500	1.449	2.600
59	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[2]	KEY[1]	CLOCK_50	0.500	1.449	2.600
60	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[1]	KEY[1]	CLOCK_50	0.500	1.449	2.600
61	-0.684	KEY[1]	Top:top0|LFSR:LFSR1|processing[0]	KEY[1]	CLOCK_50	0.500	1.449	2.600
62	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[0]	KEY[1]	CLOCK_50	0.500	1.449	2.591
63	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[1]	KEY[1]	CLOCK_50	0.500	1.449	2.591
64	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[2]	KEY[1]	CLOCK_50	0.500	1.449	2.591
65	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[3]	KEY[1]	CLOCK_50	0.500	1.449	2.591
66	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[4]	KEY[1]	CLOCK_50	0.500	1.449	2.591
67	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[5]	KEY[1]	CLOCK_50	0.500	1.449	2.591
68	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[6]	KEY[1]	CLOCK_50	0.500	1.449	2.591
69	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[7]	KEY[1]	CLOCK_50	0.500	1.449	2.591
70	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[8]	KEY[1]	CLOCK_50	0.500	1.449	2.591
71	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[9]	KEY[1]	CLOCK_50	0.500	1.449	2.591
72	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[10]	KEY[1]	CLOCK_50	0.500	1.449	2.591
73	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[11]	KEY[1]	CLOCK_50	0.500	1.449	2.591
74	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[12]	KEY[1]	CLOCK_50	0.500	1.449	2.591
75	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[13]	KEY[1]	CLOCK_50	0.500	1.449	2.591
76	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[14]	KEY[1]	CLOCK_50	0.500	1.449	2.591
77	-0.675	KEY[1]	Top:top0|LFSR:LFSR1|seed_r[15]	KEY[1]	CLOCK_50	0.500	1.449	2.591
78	-0.586	KEY[1]	Debounce:deb0|counter_r[2]	KEY[1]	CLOCK_50	0.500	1.614	2.667
79	-0.586	KEY[1]	Debounce:deb0|o_debounced_r	KEY[1]	CLOCK_50	0.500	1.614	2.667
80	-0.586	KEY[1]	Debounce:deb0|counter_r[0]	KEY[1]	CLOCK_50	0.500	1.614	2.667
81	-0.586	KEY[1]	Debounce:deb0|counter_r[1]	KEY[1]	CLOCK_50	0.500	1.614	2.667
82	-0.566	KEY[1]	Top:top0|LFSR:LFSR1|processing[15]	KEY[1]	CLOCK_50	0.500	1.449	2.482
83	-0.311	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated	KEY[1]	CLOCK_50	0.500	2.177	2.955
84	-0.218	KEY[1]	Top:top0|clk_counter:clk_counter1|slower_clk_r	KEY[1]	CLOCK_50	0.500	2.107	2.792
85	-0.191	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE1	KEY[1]	CLOCK_50	0.500	2.134	2.792
86	-0.191	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE2	KEY[1]	CLOCK_50	0.500	2.134	2.792
87	-0.167	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE8	KEY[1]	CLOCK_50	0.500	2.142	2.776
88	-0.167	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE9	KEY[1]	CLOCK_50	0.500	2.142	2.776
89	-0.147	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE4	KEY[1]	CLOCK_50	0.500	2.175	2.789
90	-0.147	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE5	KEY[1]	CLOCK_50	0.500	2.175	2.789
91	-0.146	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE14	KEY[1]	CLOCK_50	0.500	2.127	2.740
92	-0.143	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE6	KEY[1]	CLOCK_50	0.500	2.166	2.776
93	-0.143	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE7	KEY[1]	CLOCK_50	0.500	2.166	2.776
94	-0.143	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE10	KEY[1]	CLOCK_50	0.500	2.166	2.776
95	-0.143	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE11	KEY[1]	CLOCK_50	0.500	2.166	2.776
96	-0.143	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE12	KEY[1]	CLOCK_50	0.500	2.166	2.776
97	-0.143	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE13	KEY[1]	CLOCK_50	0.500	2.166	2.776
98	-0.139	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[11]	KEY[1]	CLOCK_50	0.500	2.142	2.748
99	-0.137	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[0]	KEY[1]	CLOCK_50	0.500	2.133	2.737
100	-0.137	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[1]	KEY[1]	CLOCK_50	0.500	2.133	2.737

Fast 1200mV 0C Model Removal: 'CLOCK_50'

	Slack	From Node	To Node	Launch Clock	Latch Clock	Relationship	Clock Skew	Data Delay
1	-0.388	KEY[1]	Debounce:deb0|neg_r	KEY[1]	CLOCK_50	0.000	2.269	2.005
2	-0.112	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated	KEY[1]	CLOCK_50	0.000	2.267	2.279
3	-0.092	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE3	KEY[1]	CLOCK_50	0.000	2.294	2.326
4	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[0]	KEY[1]	CLOCK_50	0.000	2.222	2.275
5	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[1]	KEY[1]	CLOCK_50	0.000	2.222	2.275
6	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[2]	KEY[1]	CLOCK_50	0.000	2.222	2.275
7	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[3]	KEY[1]	CLOCK_50	0.000	2.222	2.275
8	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[4]	KEY[1]	CLOCK_50	0.000	2.222	2.275
9	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[5]	KEY[1]	CLOCK_50	0.000	2.222	2.275
10	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[6]	KEY[1]	CLOCK_50	0.000	2.222	2.275
11	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[7]	KEY[1]	CLOCK_50	0.000	2.222	2.275
12	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[8]	KEY[1]	CLOCK_50	0.000	2.222	2.275
13	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[9]	KEY[1]	CLOCK_50	0.000	2.222	2.275
14	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[10]	KEY[1]	CLOCK_50	0.000	2.222	2.275
15	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[12]	KEY[1]	CLOCK_50	0.000	2.222	2.275
16	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[13]	KEY[1]	CLOCK_50	0.000	2.222	2.275
17	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE6	KEY[1]	CLOCK_50	0.000	2.256	2.309
18	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE7	KEY[1]	CLOCK_50	0.000	2.256	2.309
19	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE10	KEY[1]	CLOCK_50	0.000	2.256	2.309
20	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE11	KEY[1]	CLOCK_50	0.000	2.256	2.309
21	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE12	KEY[1]	CLOCK_50	0.000	2.256	2.309
22	-0.071	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE13	KEY[1]	CLOCK_50	0.000	2.256	2.309
23	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[11]	KEY[1]	CLOCK_50	0.000	2.231	2.287
24	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[14]	KEY[1]	CLOCK_50	0.000	2.203	2.259
25	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[15]	KEY[1]	CLOCK_50	0.000	2.203	2.259
26	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[16]	KEY[1]	CLOCK_50	0.000	2.203	2.259
27	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[17]	KEY[1]	CLOCK_50	0.000	2.203	2.259
28	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[19]	KEY[1]	CLOCK_50	0.000	2.203	2.259
29	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[20]	KEY[1]	CLOCK_50	0.000	2.203	2.259
30	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[21]	KEY[1]	CLOCK_50	0.000	2.203	2.259
31	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[22]	KEY[1]	CLOCK_50	0.000	2.203	2.259
32	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[23]	KEY[1]	CLOCK_50	0.000	2.203	2.259
33	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[24]	KEY[1]	CLOCK_50	0.000	2.203	2.259
34	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[25]	KEY[1]	CLOCK_50	0.000	2.203	2.259
35	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[26]	KEY[1]	CLOCK_50	0.000	2.203	2.259
36	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[27]	KEY[1]	CLOCK_50	0.000	2.203	2.259
37	-0.068	KEY[1]	Top:top0|clk_counter:clk_counter1|count_r[18]	KEY[1]	CLOCK_50	0.000	2.203	2.259
38	-0.063	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE4	KEY[1]	CLOCK_50	0.000	2.265	2.326
39	-0.063	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE5	KEY[1]	CLOCK_50	0.000	2.265	2.326
40	-0.061	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE14	KEY[1]	CLOCK_50	0.000	2.215	2.278
41	-0.045	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE8	KEY[1]	CLOCK_50	0.000	2.230	2.309
42	-0.045	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE9	KEY[1]	CLOCK_50	0.000	2.230	2.309
43	-0.017	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE1	KEY[1]	CLOCK_50	0.000	2.223	2.330
44	-0.017	KEY[1]	Top:top0|clk_counter:clk_counter1|state_r.STATE2	KEY[1]	CLOCK_50	0.000	2.223	2.330

Fast 1200mV 0C Model Minimum Pulse Width: 'CLOCK_50'

	Slack	Actual Width	Required Width	Type	Clock	Clock Edge	Target
1	-3.000	1.000	4.000	Port Rate	CLOCK_50	Rise	CLOCK_50
2	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Debounce:deb0|counter_r[0]
3	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Debounce:deb0|counter_r[1]
4	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Debounce:deb0|counter_r[2]
5	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Debounce:deb0|neg_r
6	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Debounce:deb0|o_debounced_r
7	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[0]
8	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[10]
9	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[11]
10	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[12]
11	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[13]
12	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[14]
13	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[15]
14	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[1]
15	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[2]
16	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[3]
17	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[4]
18	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[5]
19	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[6]
20	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[7]
21	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[8]
22	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[9]
23	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[0]
24	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[10]
25	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[11]
26	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[12]
27	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[13]
28	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[14]
29	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[15]
30	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[1]
31	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[2]
32	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[3]
33	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[4]
34	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[5]
35	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[6]
36	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[7]
37	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[8]
38	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|seed_r[9]
39	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[0]
40	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[10]
41	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[11]
42	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[12]
43	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[13]
44	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[14]
45	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[15]
46	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[16]
47	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[17]
48	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[18]
49	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[19]
50	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[1]
51	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[20]
52	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[21]
53	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[22]
54	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[23]
55	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[24]
56	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[25]
57	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[26]
58	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[27]
59	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[2]
60	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[3]
61	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[4]
62	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[5]
63	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[6]
64	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[7]
65	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[8]
66	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|count_r[9]
67	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|slower_clk_r
68	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.IDLE~_emulated
69	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE0~_emulated
70	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE1
71	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE10
72	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE11
73	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE12
74	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE13
75	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE14
76	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE2
77	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE3
78	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE4
79	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE5
80	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE6

Fast 1200mV 0C Model Minimum Pulse Width: 'CLOCK_50'

81	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE7
82	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE8
83	-1.000	1.000	2.000	Min Period	CLOCK_50	Rise	Top:top0|clk_counter:clk_counter1|state_r.STATE9
84	-0.249	-0.065	0.184	Low Pulse Width	CLOCK_50	Rise	Debounce:deb0|counter_r[0]
85	-0.249	-0.065	0.184	Low Pulse Width	CLOCK_50	Rise	Debounce:deb0|counter_r[1]
86	-0.249	-0.065	0.184	Low Pulse Width	CLOCK_50	Rise	Debounce:deb0|counter_r[2]
87	-0.249	-0.065	0.184	Low Pulse Width	CLOCK_50	Rise	Debounce:deb0|o_debounced_r
88	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[0]
89	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[10]
90	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[11]
91	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[12]
92	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[13]
93	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[14]
94	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[15]
95	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[1]
96	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[2]
97	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[3]
98	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[4]
99	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[5]
100	-0.234	-0.050	0.184	Low Pulse Width	CLOCK_50	Rise	Top:top0|LFSR:LFSR1|processing[6]

Part 6: Thoughts

這次 Lab 由於我們部分組員對 Verilog 還在熟悉階段，因此對於許多的硬體設計還沒有很深刻的了解（看看我們 timing violation 有多少便知），再加上光舞的忙碌情形，使得這次 Lab 仍有許多改進的地方。我們遇到的最大問題應當是一個值不能同時在兩個不同的 always 被賦值，以及在一個 always 當中必須要保證每個 state 賦值的對稱性。總而言之，這次的 Lab 讓我們對於硬體的 verilog 設計有了基本概念，能夠讓下一次的實驗更加順手。