Post-PAR Static Timing Report

Sun Aug 2 12:37:10 2020

```
--------------------------------------------------------------------------------
Release 14.7 Trace  (nt64)
Copyright (c) 1995-2013 Xilinx, Inc.  All rights reserved.
C:\Xilinx\14.7\ISE_DS\ISE\bin\nt64\unwrapped\trce.exe -intstyle ise -v 3 -s 3
-n 3 -fastpaths -xml cordic.twx cordic.ncd -o cordic.twr cordic.pcf
Design file:              cordic.ncd
Physical constraint file: cordic.pcf
Device,package,speed:     xc7a100t,csg324,C,-3 (PRODUCTION 1.10 2013-10-13)
Report level:             verbose report
Environment Variable      Effect
--------------------      ------
NONE                      No environment variables were set
--------------------------------------------------------------------------------
INFO:Timing:2698 - No timing constraints found, doing default enumeration.
INFO:Timing:3412 - To improve timing, see the Timing Closure User Guide (UG612).
INFO:Timing:2752 - To get complete path coverage, use the unconstrained paths
   option. All paths that are not constrained will be reported in the
   unconstrained paths section(s) of the report.
INFO:Timing:3339 - The clock-to-out numbers in this timing report are based on
   a 50 Ohm transmission line loading model.  For the details of this model,
   and for more information on accounting for different loading conditions,
   please see the device datasheet.
Data Sheet report:
------------------
All values displayed in nanoseconds (ns)
Setup/Hold to clock clock
```

Source	Max Setup to clk (edge)	Process Corner	Max Hold to clk (edge)	Process Corner	Internal Clock(s)	Clock Phase
op_mode	0.817(R)	FAST	2.012(R)	SLOW	clock_BUFGP	0.000
reset	3.999(R)	SLOW	1.708(R)	SLOW	clock_BUFGP	0.000
rotate_amount<0>	2.651(R)	SLOW	2.034(R)	SLOW	clock_BUFGP	0.000
rotate_amount<1>	2.410(R)	SLOW	2.002(R)	SLOW	clock_BUFGP	0.000
rotate_amount<2>	2.116(R)	SLOW	2.324(R)	SLOW	clock_BUFGP	0.000
rotate_amount<3>	2.265(R)	SLOW	2.043(R)	SLOW	clock_BUFGP	0.000
rotate_amount<4>	2.361(R)	SLOW	2.068(R)	SLOW	clock_BUFGP	0.000
rotate_amount<5>	2.222(R)	SLOW	2.126(R)	SLOW	clock_BUFGP	0.000
rotate_amount<6>	2.550(R)	SLOW	2.296(R)	SLOW	clock_BUFGP	0.000
rotate_amount<7>	2.230(R)	SLOW	1.739(R)	SLOW	clock_BUFGP	0.000
rotate_amount<8>	2.002(R)	SLOW	1.925(R)	SLOW	clock_BUFGP	0.000
rotate_amount<9>	2.408(R)	SLOW	2.383(R)	SLOW	clock_BUFGP	0.000
rotate_amount<10>	1.973(R)	SLOW	2.214(R)	SLOW	clock_BUFGP	0.000
rotate_amount<11>	2.357(R)	SLOW	2.470(R)	SLOW	clock_BUFGP	0.000
rotate_amount<12>	2.079(R)	SLOW	2.300(R)	SLOW	clock_BUFGP	0.000
rotate_amount<13>	2.207(R)	SLOW	2.402(R)	SLOW	clock_BUFGP	0.000
rotate_amount<14>	2.345(R)	SLOW	1.945(R)	SLOW	clock_BUFGP	0.000
rotate_amount<15>	0.424(R)	FAST	2.342(R)	SLOW	clock_BUFGP	0.000
x_coordinate<0>	-0.171(R)	FAST	2.001(R)	SLOW	clock_BUFGP	0.000
x_coordinate<1>	0.048(R)	FAST	1.701(R)	SLOW	clock_BUFGP	0.000
x_coordinate<2>	-0.136(R)	FAST	1.951(R)	SLOW	clock_BUFGP	0.000
x_coordinate<3>	-0.144(R)	FAST	1.954(R)	SLOW	clock_BUFGP	0.000
x_coordinate<4>	-0.067(R)	FAST	1.854(R)	SLOW	clock_BUFGP	0.000
x_coordinate<5>	0.010(R)	FAST	1.759(R)	SLOW	clock_BUFGP	0.000
x_coordinate<6>	-0.224(R)	FAST	2.087(R)	SLOW	clock_BUFGP	0.000
x_coordinate<7>	-0.129(R)	FAST	1.938(R)	SLOW	clock_BUFGP	0.000
x_coordinate<8>	-0.160(R)	FAST	1.968(R)	SLOW	clock_BUFGP	0.000
x_coordinate<9>	-0.150(R)	FAST	1.974(R)	SLOW	clock_BUFGP	0.000
x_coordinate<10>	-0.058(R)	FAST	1.852(R)	SLOW	clock_BUFGP	0.000
x_coordinate<11>	-0.051(R)	FAST	1.836(R)	SLOW	clock_BUFGP	0.000
x_coordinate<12>	-0.116(R)	FAST	1.879(R)	SLOW	clock_BUFGP	0.000
x_coordinate<13>	0.083(R)	FAST	1.620(R)	SLOW	clock_BUFGP	0.000
x_coordinate<14>	-0.076(R)	FAST	1.822(R)	SLOW	clock_BUFGP	0.000
x_coordinate<15>	1.412(R)	FAST	1.542(R)	SLOW	clock_BUFGP	0.000
y_coordinate<0>	0.137(R)	FAST	1.566(R)	SLOW	clock_BUFGP	0.000
y_coordinate<1>	0.158(R)	FAST	1.530(R)	SLOW	clock_BUFGP	0.000
y_coordinate<2>	0.311(R)	FAST	1.338(R)	SLOW	clock_BUFGP	0.000
y_coordinate<3>	0.309(R)	FAST	1.305(R)	SLOW	clock_BUFGP	0.000
y_coordinate<4>	0.146(R)	FAST	1.555(R)	SLOW	clock_BUFGP	0.000
y_coordinate<5>	0.294(R)	FAST	1.333(R)	SLOW	clock_BUFGP	0.000
y_coordinate<6>	0.261(R)	FAST	1.395(R)	SLOW	clock_BUFGP	0.000
y_coordinate<7>	0.211(R)	FAST	1.434(R)	SLOW	clock_BUFGP	0.000
y_coordinate<8>	0.307(R)	FAST	1.306(R)	SLOW	clock_BUFGP	0.000
y_coordinate<9>	0.336(R)	FAST	1.266(R)	SLOW	clock_BUFGP	0.000
y_coordinate<10>	0.207(R)	FAST	1.466(R)	SLOW	clock_BUFGP	0.000

y_coordinate<11>	0.168(R)	FAST	1.502(R)	SLOW	clock_BUFGP	0.000	
y_coordinate<12>	0.303(R)	FAST	1.337(R)	SLOW	clock_BUFGP	0.000	
y_coordinate<13>	0.231(R)	FAST	1.434(R)	SLOW	clock_BUFGP	0.000	
y_coordinate<14>	0.196(R)	FAST	1.480(R)	SLOW	clock_BUFGP	0.000	
y_coordinate<15>	0.116(R)	FAST	2.019(R)	SLOW	clock_BUFGP	0.000	

Clock clock to Pad

Destination	Max (slowest) clk (edge) to PAD	Process Corner	Min (fastest) clk (edge) to PAD	Process Corner	Internal Clock(s)	Clock Phase
x_or_phase_out<0>	8.587(R)	SLOW	3.763(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<1>	7.689(R)	SLOW	3.170(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<2>	7.576(R)	SLOW	3.097(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<3>	7.645(R)	SLOW	3.145(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<4>	7.554(R)	SLOW	3.093(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<5>	7.665(R)	SLOW	3.141(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<6>	7.671(R)	SLOW	3.152(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<7>	7.545(R)	SLOW	3.088(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<8>	7.543(R)	SLOW	3.080(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<9>	7.642(R)	SLOW	3.116(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<10>	7.546(R)	SLOW	3.072(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<11>	7.555(R)	SLOW	3.072(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<12>	7.689(R)	SLOW	3.160(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<13>	7.696(R)	SLOW	3.167(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<14>	8.264(R)	SLOW	3.558(R)	FAST	clock_BUFGP	0.000
x_or_phase_out<15>	8.260(R)	SLOW	3.538(R)	FAST	clock_BUFGP	0.000
y_or_size_out<0>	8.516(R)	SLOW	3.732(R)	FAST	clock_BUFGP	0.000
y_or_size_out<1>	7.467(R)	SLOW	3.060(R)	FAST	clock_BUFGP	0.000
y_or_size_out<2>	7.577(R)	SLOW	3.105(R)	FAST	clock_BUFGP	0.000
y_or_size_out<3>	7.560(R)	SLOW	3.098(R)	FAST	clock_BUFGP	0.000
y_or_size_out<4>	8.130(R)	SLOW	3.421(R)	FAST	clock_BUFGP	0.000
y_or_size_out<5>	8.009(R)	SLOW	3.346(R)	FAST	clock_BUFGP	0.000
y_or_size_out<6>	8.122(R)	SLOW	3.413(R)	FAST	clock_BUFGP	0.000
y_or_size_out<7>	8.081(R)	SLOW	3.375(R)	FAST	clock_BUFGP	0.000
y_or_size_out<8>	8.087(R)	SLOW	3.376(R)	FAST	clock_BUFGP	0.000
y_or_size_out<9>	7.991(R)	SLOW	3.326(R)	FAST	clock_BUFGP	0.000
y_or_size_out<10>	8.051(R)	SLOW	3.376(R)	FAST	clock_BUFGP	0.000
y_or_size_out<11>	8.028(R)	SLOW	3.356(R)	FAST	clock_BUFGP	0.000
y_or_size_out<12>	8.030(R)	SLOW	3.353(R)	FAST	clock_BUFGP	0.000
y_or_size_out<13>	7.864(R)	SLOW	3.281(R)	FAST	clock_BUFGP	0.000
y_or_size_out<14>	8.165(R)	SLOW	3.514(R)	FAST	clock_BUFGP	0.000
y_or_size_out<15>	8.071(R)	SLOW	3.457(R)	FAST	clock_BUFGP	0.000

Clock to Setup on destination clock clock

Source Clock	Src:Rise|Dest:Rise	Src:Fall|Dest:Rise	Src:Rise|Dest:Fall	Src:Fall|Dest:Fall
clock	38.314			

Analysis completed Sun Aug 02 12:28:20 2020

Trace Settings:

Trace Settings

Peak Memory Usage: 5020 MB