gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs Library

Cell Groups
GF180MCU_OSU_SC_GP12T3V3__ADDF_1
GF180MCU_OSU_SC_GP12T3V3__ADDH_1
GF180MCU_OSU_SC_GP12T3V3__AND2_1
GF180MCU_OSU_SC_GP12T3V3__AOI21_1
GF180MCU_OSU_SC_GP12T3V3__AOI22_1
GF180MCU_OSU_SC_GP12T3V3__BUF_16
GF180MCU_OSU_SC_GP12T3V3__BUF_1
GF180MCU_OSU_SC_GP12T3V3__BUF_2
GF180MCU_OSU_SC_GP12T3V3__BUF_4
GF180MCU_OSU_SC_GP12T3V3__BUF_8
GF180MCU_OSU_SC_GP12T3V3__CLKBUF_16
GF180MCU_OSU_SC_GP12T3V3__CLKBUF_1
GF180MCU_OSU_SC_GP12T3V3__CLKBUF_2
GF180MCU_OSU_SC_GP12T3V3__CLKBUF_4
GF180MCU_OSU_SC_GP12T3V3__CLKBUF_8
GF180MCU_OSU_SC_GP12T3V3__CLKINV_16
GF180MCU_OSU_SC_GP12T3V3__CLKINV_1
GF180MCU_OSU_SC_GP12T3V3__CLKINV_2
GF180MCU_OSU_SC_GP12T3V3__CLKINV_4
GF180MCU_OSU_SC_GP12T3V3__CLKINV_8
GF180MCU_OSU_SC_GP12T3V3__DFFN_1
GF180MCU_OSU_SC_GP12T3V3__DFFSR_1
GF180MCU_OSU_SC_GP12T3V3__DFF_1

GF180MCU_OSU_SC_GP12T3V3__DLATN_1
GF180MCU_OSU_SC_GP12T3V3__DLAT_1
GF180MCU_OSU_SC_GP12T3V3__INV_16
GF180MCU_OSU_SC_GP12T3V3__INV_1
GF180MCU_OSU_SC_GP12T3V3__INV_2
GF180MCU_OSU_SC_GP12T3V3__INV_4
GF180MCU_OSU_SC_GP12T3V3__INV_8
GF180MCU_OSU_SC_GP12T3V3__MUX2_1
GF180MCU_OSU_SC_GP12T3V3__NAND2_1
GF180MCU_OSU_SC_GP12T3V3__NOR2_1
GF180MCU_OSU_SC_GP12T3V3__OAI21_1
GF180MCU_OSU_SC_GP12T3V3__OAI22_1
GF180MCU_OSU_SC_GP12T3V3__OAI31_1
GF180MCU_OSU_SC_GP12T3V3__OR2_1
GF180MCU_OSU_SC_GP12T3V3__TBUF_1
GF180MCU_OSU_SC_GP12T3V3__TIEH
GF180MCU_OSU_SC_GP12T3V3__TIEL
GF180MCU_OSU_SC_GP12T3V3__TINV_1
GF180MCU_OSU_SC_GP12T3V3__XNOR2_1
GF180MCU_OSU_SC_GP12T3V3__XOR2_1

GF180MCU_OSU_SC_GP12T3V3__ADDF_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT	
A	**B**	**CI**	**CO**	**SUM**
0	**0**	**0**	**0**	**0**
0	**0**	**1**	**0**	**1**
0	**1**	**0**	**0**	**1**
0	**1**	**1**	**1**	**0**
1	**0**	**0**	**0**	**1**
1	**0**	**1**	**1**	**0**
1	**1**	**0**	**1**	**0**
1	**1**	**1**	**1**	**1**

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__addf_1	116.90000

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	A	**B**	**CI**	**CO**	**SUM**
gf180mcu_osu_sc_gp12t3v3__addf_1	0.01546	0.01477	0.01140	15.45427	15.49830

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp12t3v3__addf_1	0.00000	0.00428	0.00452

Delay Information

Delay(ns) to CO rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__addf_1	A->CO (RR)	0.16623	1.94533	67.98340
	B->CO (RR)	0.18253	2.23787	72.00240
	CI->CO (RR)	0.16430	1.98141	66.05660

Delay(ns) to CO falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__addf_1	A->CO (FF)	0.19289	2.60086	75.87250
	B->CO (FF)	0.18773	2.92665	80.44350
	CI->CO (FF)	0.16302	2.77138	76.43470

Delay(ns) to SUM rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__addf_1	A->SUM (-R)	0.33780	2.69136	77.22690
	B->SUM (-R)	0.33075	3.11612	83.92300
	CI->SUM (-R)	0.27757	2.87444	79.14260

Delay(ns) to SUM falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__addf_1	A->SUM (-F)	0.19863	3.15975	85.27720
	B->SUM (-F)	0.23223	2.98521	82.54350
	CI->SUM (-F)	0.24208	2.74411	79.28210

Power Information

Internal switching power(pJ) to CO rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__addf_1	A	0.02476	0.20053	3.32863
	A	0.06695	0.23702	3.36524
	B	0.03179	0.18105	3.00361
	B	0.07278	0.22229	3.04686
	CI	0.02546	0.16486	2.60811
	CI	0.05410	0.19357	2.63823

Internal switching power(pJ) to CO falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__addf_1	A	0.08254	0.25183	3.37116
	A	0.04539	0.21528	3.33462
	B	0.07179	0.22613	3.02916
	B	0.02981	0.18477	2.98802
	CI	0.06534	0.20868	2.65833
	CI	0.03206	0.17559	2.62494

Internal switching power(pJ) to SUM rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__addf_1	A	0.00546	0.24956	4.97817
	A	0.08989	0.33414	5.04754
	B	0.01071	0.28309	5.39194
	B	0.09173	0.36380	5.46717
	CI	0.01786	0.32603	6.10489
	CI	0.09499	0.40220	6.17698

Internal switching power(pJ) to SUM falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__addf_1	A	0.09698	0.34920	5.05153
	A	0.00989	0.26272	4.97638
	B	0.09090	0.36518	5.46449
	B	0.01584	0.29027	5.40977
	CI	0.09566	0.40689	6.23518
	CI	0.03044	0.34260	6.17444

GF180MCU_OSU_SC_GP12T3V3__ADDH_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT	
A	B	CO	SUM
0	0	0	0
0	1	0	1
1	0	0	1
1	1	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__addh_1	67.23000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)	
	A	B	CO	SUM
gf180mcu_osu_sc_gp12t3v3__addh_1	0.00769	0.00697	15.63292	15.55909

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__addh_1	0.00000	0.00342	0.00370

Delay Information

Delay(ns) to CO rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__addh_1	A->CO (RR)	0.12996	1.98799	70.23780
	B->CO (RR)	0.12815	2.23265	73.94550

Delay(ns) to CO falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__addh_1	A->CO (FF)	0.11410	2.39652	73.27020
	B->CO (FF)	0.10525	2.15689	68.80000

Delay(ns) to SUM rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__addh_1	A->SUM (RR)	!B	0.13164	2.11598	72.13070
	A->SUM (FR)	B	0.19260	2.50756	76.08950
	B->SUM (RR)	!A	0.10640	1.76487	65.99510
	B->SUM (FR)	A	0.20654	2.26138	71.03440

Delay(ns) to SUM falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__addh_1	A->SUM (FF)	!B	0.13706	2.26466	71.51870
	A->SUM (RF)	B	0.20805	1.69376	56.90440
	B->SUM (FF)	!A	0.12209	2.55952	76.30660
	B->SUM (RF)	A	0.20596	1.99982	62.06990

Power Information

Internal switching power(pJ) to CO rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__addh_1	A	0.03125	0.21497	3.49101
	A	0.04955	0.23320	3.51037
	B	0.03597	0.20592	3.17373
	B	0.04788	0.21694	3.18584

Internal switching power(pJ) to CO falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__addh_1	A	0.05036	0.23985	3.53397
	A	0.03197	0.22158	3.51578
	B	0.04874	0.21752	3.17362
	B	0.03754	0.20641	3.16270

Internal switching power(pJ) to SUM rising (conditional):

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__addh_1	A	B	0.05038	0.24027	3.54248
	A	B	0.03199	0.22194	3.52405
	A	!B	0.01405	0.30597	5.62210
	A	!B	0.06642	0.35813	5.66498
	B	A	0.04876	0.21754	3.17887
	B	A	0.03756	0.20643	3.16821
	B	!A	0.00844	0.26580	4.87956
	B	!A	0.04637	0.30341	4.91193

Internal switching power(pJ) to SUM falling (conditional):

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__addh_1	A	B	0.03121	0.21496	3.48511
	A	B	0.04951	0.23318	3.50453
	A	!B	0.06322	0.35431	5.67216
	A	!B	0.01118	0.30272	5.62349
	B	A	0.03597	0.20661	3.16786
	B	A	0.04788	0.21760	3.18207
	B	!A	0.05474	0.31223	4.90910
	B	!A	0.01621	0.27462	4.87267

GF180MCU_OSU_SC_GP12T3V3__AND2_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
A	B	Y
0	x	0
1	0	0
1	1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__and2_1	32.37000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp12t3v3__and2_1	0.00404	0.00402	15.46230

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__and2_1	0.00000	0.00144	0.00205

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__and2_1	A->Y (RR)	0.10005	2.10281	72.95150
	B->Y (RR)	0.10151	1.88288	69.30150

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__and2_1	A->Y (FF)	0.08573	2.03561	67.86190
	B->Y (FF)	0.09514	2.28879	72.38090

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__and2_1	A	0.01763	0.33528	5.93613
	A	0.04079	0.35807	5.95054
	B	0.01678	0.36269	6.57348
	B	0.04504	0.39086	6.59631

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__and2_1	A	0.03790	0.35485	5.94659
	A	0.01475	0.33172	5.93322
	B	0.04653	0.39798	6.59413
	B	0.01825	0.37010	6.56596

Passive power(pJ) for A rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__and2_1	(!B * !Y)	-0.01399	-0.01399	-0.01410
	(!B * !Y)	0.00180	0.00181	0.00173

Passive power(pJ) for A falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__and2_1	(!B * !Y)	0.01426	0.01426	0.01420
	(!B * !Y)	-0.00170	-0.00168	-0.00167

Passive power(pJ) for B rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__and2_1	(!A * !Y)	-0.01352	-0.01357	-0.01348
	(!A * !Y)	0.00651	0.00655	0.00642

Passive power(pJ) for B falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__and2_1	(!A * !Y)	0.01380	0.01388	0.01357
	(!A * !Y)	-0.00625	-0.00652	-0.00642

GF180MCU_OSU_SC_GP12T3V3__AOI21_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A0	A1	B	Y
0	x	0	1
x	x	1	0
1	0	0	1
1	1	x	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__aoi21_1	32.37000

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	B	Y
gf180mcu_osu_sc_gp12t3v3__aoi21_1	0.00396	0.00398	0.00405	7.79615

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__aoi21_1	0.00000	0.00094	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	A0->Y (FR)	0.09728	3.24110	85.09710
	A1->Y (FR)	0.07885	3.17237	84.48700
	B->Y (FR)	0.07666	3.93274	98.03850

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	A0->Y (RF)	0.07486	2.17172	60.56870
	A1->Y (RF)	0.07276	2.73995	72.46930
	B->Y (RF)	0.03495	1.92519	53.23420

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	A0	0.04064	0.21147	2.52993
	A0	0.00266	0.17328	2.48938
	A1	0.03149	0.18840	2.32616
	A1	-0.00134	0.15475	2.29211
	B	0.02195	0.21580	2.79248
	B	-0.00049	0.19274	2.76960

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	A0	0.00431	0.16371	2.28175
	A0	0.04215	0.20194	2.31956
	A1	0.00475	0.15059	2.00645
	A1	0.03754	0.18400	2.06764
	B	-0.00382	0.17461	2.54048
	B	0.01872	0.19731	2.60354

Passive power(pJ) for A0 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	(A1 * B * !Y)	-0.01272	-0.01338	-0.01322
	(A1 * B * !Y)	0.00690	0.00656	0.00652
	(!A1 * B * !Y)	-0.01351	-0.01355	-0.01351
	(!A1 * B * !Y)	0.00653	0.00649	0.00645
	(!A1 * !B * Y)	-0.01348	-0.01351	-0.01351
	(!A1 * !B * Y)	0.00644	0.00646	0.00645

Passive power(pJ) for A0 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	(A1 * B * !Y)	0.01333	0.01338	0.01322
	(A1 * B * !Y)	-0.00648	-0.00648	-0.00649
	(!A1 * B * !Y)	0.01351	0.01388	0.01357
	(!A1 * B * !Y)	-0.00636	-0.00649	-0.00645
	(!A1 * !B * Y)	0.01378	0.01388	0.01357
	(!A1 * !B * Y)	-0.00627	-0.00646	-0.00645

Passive power(pJ) for A1 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	(B * !Y)	-0.01273	-0.01339	-0.01325
	(B * !Y)	0.00686	0.00655	0.00652
	(!A0 * !B * Y)	-0.01395	-0.01399	-0.01410
	(!A0 * !B * Y)	0.00180	0.00181	0.00173

Passive power(pJ) for A1 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	(B * !Y)	0.01322	0.01339	0.01325
	(B * !Y)	-0.00648	-0.00648	-0.00649
	(!A0 * !B * Y)	0.01426	0.01426	0.01420
	(!A0 * !B * Y)	-0.00168	-0.00168	-0.00167

Passive power(pJ) for B rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	(A0 * A1 * !Y)	-0.00436	-0.00445	-0.00434
	(A0 * A1 * !Y)	0.00781	0.00800	0.00781

Passive power(pJ) for B falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi21_1	(A0 * A1 * !Y)	0.00477	0.00480	0.00453
	(A0 * A1 * !Y)	-0.00720	-0.00724	-0.00761

GF180MCU_OSU_SC_GP12T3V3__AOI22_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT				OUTPUT
A0	A1	B0	B1	Y
0	x	0	x	1
0	x	1	0	1
x	x	1	1	0
1	0	0	x	1
1	0	1	0	1
1	1	x	x	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__aoi22_1	44.40500

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A0	A1	B0	B1	Y
gf180mcu_osu_sc_gp12t3v3__aoi22_1	0.00396	0.00398	0.00404	0.00403	7.82120

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__aoi22_1	0.00000	0.00121	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	A0->Y (FR)	0.12880	3.27010	85.32590
	A1->Y (FR)	0.11111	3.20645	84.71740
	B0->Y (FR)	0.08426	3.83875	96.67700
	B1->Y (FR)	0.10073	3.89062	97.06210

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	A0->Y (RF)	0.10595	2.24255	61.27190
	A1->Y (RF)	0.10363	2.81340	73.14220
	B0->Y (RF)	0.05502	2.72040	72.81130
	B1->Y (RF)	0.05599	2.15060	60.83530

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	A0	0.05034	0.21976	2.57131
	A0	0.00268	0.17202	2.52363
	A1	0.04138	0.19585	2.35999
	A1	-0.00133	0.15317	2.31734
	B0	0.02365	0.17858	2.17919
	B0	-0.00012	0.15443	2.15130
	B1	0.03208	0.19901	2.34919
	B1	0.00325	0.16980	2.31739

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	A0	0.01346	0.18391	2.49819
	A0	0.06095	0.23148	2.54571
	A1	0.01380	0.16997	2.20708
	A1	0.05627	0.21281	2.25172
	B0	-0.00097	0.14917	2.08328
	B0	0.02281	0.17359	2.10811
	B1	-0.00191	0.15967	2.33130
	B1	0.02695	0.18881	2.36014

Passive power(pJ) for A0 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	(A1 * B0 * B1 * !Y)	-0.01257	-0.01332	-0.01320
	(A1 * B0 * B1 * !Y)	0.00686	0.00656	0.00652
	(!A1 * B0 * B1 * !Y)	-0.01352	-0.01357	-0.01348
	(!A1 * B0 * B1 * !Y)	0.00652	0.00655	0.00642
	(!A1 * B0 * !B1 * Y)	-0.01352	-0.01357	-0.01348
	(!A1 * B0 * !B1 * Y)	0.00653	0.00651	0.00642
	(!A1 * !B0 * Y)	-0.01352	-0.01357	-0.01348
	(!A1 * !B0 * Y)	0.00653	0.00651	0.00642

Passive power(pJ) for A0 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	(A1 * B0 * B1 * !Y)	0.01323	0.01332	0.01320
	(A1 * B0 * B1 * !Y)	-0.00647	-0.00648	-0.00649
	(!A1 * B0 * B1 * !Y)	0.01366	0.01388	0.01357
	(!A1 * B0 * B1 * !Y)	-0.00636	-0.00652	-0.00642
	(!A1 * B0 * !B1 * Y)	0.01380	0.01388	0.01357
	(!A1 * B0 * !B1 * Y)	-0.00624	-0.00651	-0.00642
	(!A1 * !B0 * Y)	0.01380	0.01388	0.01357
	(!A1 * !B0 * Y)	-0.00624	-0.00651	-0.00642

Passive power(pJ) for A1 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	(B0 * B1 * !Y)	-0.01273	-0.01331	-0.01317
	(B0 * B1 * !Y)	0.00689	0.00655	0.00652
	(!A0 * B0 * !B1 * Y)	-0.01397	-0.01399	-0.01410
	(!A0 * B0 * !B1 * Y)	0.00180	0.00181	0.00173
	(!A0 * !B0 * Y)	-0.01396	-0.01399	-0.01410
	(!A0 * !B0 * Y)	0.00180	0.00181	0.00173

Passive power(pJ) for A1 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	(B0 * B1 * !Y)	0.01328	0.01331	0.01317
	(B0 * B1 * !Y)	-0.00649	-0.00648	-0.00648
	(!A0 * B0 * !B1 * Y)	0.01424	0.01426	0.01420
	(!A0 * B0 * !B1 * Y)	-0.00167	-0.00168	-0.00167
	(!A0 * !B0 * Y)	0.01424	0.01426	0.01420
	(!A0 * !B0 * Y)	-0.00168	-0.00168	-0.00167

Passive power(pJ) for B0 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	(A0 * A1 * !Y)	-0.00433	-0.00445	-0.00434
	(A0 * A1 * !Y)	0.00776	0.00800	0.00781
	(!A1 * !B1 * Y)	-0.01408	-0.01408	-0.01410
	(!A1 * !B1 * Y)	0.00182	0.00183	0.00173
	(!A0 * A1 * !B1 * Y)	-0.01407	-0.01408	-0.01410
	(!A0 * A1 * !B1 * Y)	0.00182	0.00183	0.00173

Passive power(pJ) for B0 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	(A0 * A1 * !Y)	0.00493	0.00493	0.00458
	(A0 * A1 * !Y)	-0.00706	-0.00706	-0.00755
	(!A1 * !B1 * Y)	0.01426	0.01425	0.01420
	(!A1 * !B1 * Y)	-0.00172	-0.00168	-0.00167
	(!A0 * A1 * !B1 * Y)	0.01426	0.01426	0.01420
	(!A0 * A1 * !B1 * Y)	-0.00171	-0.00168	-0.00167

Passive power(pJ) for B1 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	(A0 * A1 * !Y)	-0.00437	-0.00433	-0.00434
	(A0 * A1 * !Y)	0.00783	0.00779	0.00781
	(!A1 * !B0 * Y)	-0.01351	-0.01353	-0.01352
	(!A1 * !B0 * Y)	0.00645	0.00649	0.00644
	(!A0 * A1 * !B0 * Y)	-0.01355	-0.01360	-0.01348
	(!A0 * A1 * !B0 * Y)	0.00652	0.00659	0.00643

Passive power(pJ) for B1 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__aoi22_1	(A0 * A1 * !Y)	0.00491	0.00493	0.00458
	(A0 * A1 * !Y)	-0.00702	-0.00706	-0.00755
	(!A1 * !B0 * Y)	0.01359	0.01360	0.01357
	(!A1 * !B0 * Y)	-0.00631	-0.00649	-0.00644
	(!A0 * A1 * !B0 * Y)	0.01359	0.01360	0.01357
	(!A0 * A1 * !B0 * Y)	-0.00631	-0.00649	-0.00643

GF180MCU_OSU_SC_GP12T3V3__BUF_16

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__buf_16	131.14000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__buf_16	0.00404	248.37344

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__buf_16	0.00000	0.01253	0.01497

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_16	A->Y (RR)	0.33069	1.69009	68.97960

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_16	A->Y (FF)	0.35612	2.36879	75.56190

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_16	A	0.71743	1.10717	7.51075
	A	0.73940	1.12838	7.53263

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_16	A	0.77132	1.11985	7.44168
	A	0.74926	1.09873	7.47426

GF180MCU_OSU_SC_GP12T3V3__BUF_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__buf_1	25.73000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__buf_1	0.00405	15.60333

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__buf_1	0.00000	0.00147	0.00147

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_1	A->Y (RR)	0.07233	1.71500	67.36110

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_1	A->Y (FF)	0.08026	2.29642	73.88930

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_1	A	0.01396	0.38881	6.93368
	A	0.03584	0.41030	6.95543

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_1	A	0.03608	0.41304	6.94970
	A	0.01422	0.39150	6.92784

GF180MCU_OSU_SC_GP12T3V3__BUF_2

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__buf_2	32.37000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__buf_2	0.00405	31.24748

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__buf_2	0.00000	0.00221	0.00237

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_2	A->Y (RR)	0.08747	1.40472	67.60510

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_2	A->Y (FF)	0.09593	2.02714	74.13340

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_2	A	0.03376	0.41008	6.95726
	A	0.05570	0.43178	6.97903

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_2	A	0.05413	0.43178	6.97356
	A	0.03215	0.41048	6.96379

GF180MCU_OSU_SC_GP12T3V3__BUF_4

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__buf_4	46.48000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__buf_4	0.00404	62.37794

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__buf_4	0.00000	0.00369	0.00417

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_4	A->Y (RR)	0.12038	1.25193	67.74940

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_4	A->Y (FF)	0.13086	1.90337	74.31160

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_4	A	0.08285	0.46795	7.00894
	A	0.10489	0.48940	7.03028

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_4	A	0.10192	0.48623	7.02004
	A	0.07979	0.46440	7.02242

GF180MCU_OSU_SC_GP12T3V3__BUF_8

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__buf_8	74.70000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__buf_8	0.00405	123.63758

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__buf_8	0.00000	0.00663	0.00777

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_8	A->Y (RR)	0.18684	1.27351	67.65870

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__buf_8	A->Y (FF)	0.20239	1.95377	74.29590

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_8	A	0.22690	0.63841	7.31047
	A	0.24886	0.66025	7.17867

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__buf_8	A	0.24819	0.64614	7.13433
	A	0.22620	0.62425	7.16156

GF180MCU_OSU_SC_GP12T3V3__CLKBUF_16

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkbuf_16	131.14000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkbuf_16	0.00404	248.37344

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkbuf_16	0.00000	0.01253	0.01497

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_16	**A->Y (RR)**	0.33069	1.69009	68.97960

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_16	**A->Y (FF)**	0.35612	2.36879	75.56190

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_16	A	0.71743	1.10717	7.51075
	A	0.73940	1.12838	7.53263

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_16	A	0.77132	1.11985	7.44168
	A	0.74926	1.09873	7.47426

GF180MCU_OSU_SC_GP12T3V3__CLKBUF_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkbuf_1	25.73000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkbuf_1	0.00405	15.60333

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkbuf_1	0.00000	0.00147	0.00147

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_1	A->Y (RR)	0.07233	1.71500	67.36110

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_1	A->Y (FF)	0.08026	2.29642	73.88930

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_1	A	0.01396	0.38881	6.93368
	A	0.03584	0.41030	6.95543

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_1	A	0.03608	0.41304	6.94970
	A	0.01422	0.39150	6.92784

GF180MCU_OSU_SC_GP12T3V3__CLKBUF_2

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkbuf_2	32.37000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkbuf_2	0.00405	31.24748

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkbuf_2	0.00000	0.00221	0.00237

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_2	A->Y (RR)	0.08747	1.40472	67.60510

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_2	A->Y (FF)	0.09593	2.02714	74.13340

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_2	A	0.03376	0.41008	6.95726
	A	0.05570	0.43178	6.97903

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_2	A	0.05413	0.43178	6.97356
	A	0.03215	0.41048	6.96379

GF180MCU_OSU_SC_GP12T3V3__CLKBUF_4

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkbuf_4	46.48000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkbuf_4	0.00404	62.37794

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkbuf_4	0.00000	0.00369	0.00417

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_4	A->Y (RR)	0.12038	1.25193	67.74940

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_4	A->Y (FF)	0.13086	1.90337	74.31160

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_4	A	0.08285	0.46795	7.00894
	A	0.10489	0.48940	7.03028

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_4	A	0.10192	0.48623	7.02004
	A	0.07979	0.46440	7.02242

GF180MCU_OSU_SC_GP12T3V3__CLKBUF_8

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	0
1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkbuf_8	74.70000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkbuf_8	0.00405	123.63758

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkbuf_8	0.00000	0.00663	0.00777

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_8	A->Y (RR)	0.18684	1.27351	67.65870

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkbuf_8	A->Y (FF)	0.20239	1.95377	74.29590

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_8	A	0.22690	0.63841	7.31047
	A	0.24886	0.66025	7.17867

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkbuf_8	A	0.24819	0.64614	7.13433
	A	0.22620	0.62425	7.16156

GF180MCU_OSU_SC_GP12T3V3__CLKINV_16

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkinv_16	124.50000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkinv_16	0.06491	234.89938

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkinv_16	0.00000	0.01179	0.01439

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_16	A->Y (FR)	0.03112	2.15332	98.41110

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_16	A->Y (RF)	0.02322	1.37595	83.67180

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_16	A	0.32282	4.44629	38.24140
	A	-0.02706	4.09097	37.86540

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_16	A	-0.05535	3.90549	34.47090
	A	0.29510	4.25757	34.82270

GF180MCU_OSU_SC_GP12T3V3__CLKINV_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkinv_1	18.26000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkinv_1	0.00405	14.68244

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkinv_1	0.00000	0.00074	0.00090

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_1	A->Y (FR)	0.03881	3.38638	98.41570

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_1	A->Y (RF)	0.03100	2.61968	83.67590

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_1	A	0.01995	0.22439	2.39002
	A	-0.00193	0.20225	2.36651

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_1	A	-0.00447	0.17834	2.15348
	A	0.01741	0.20041	2.17547

GF180MCU_OSU_SC_GP12T3V3__CLKINV_2

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkinv_2	26.56000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkinv_2	0.00808	29.36374

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkinv_2	0.00000	0.00147	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_2	A->Y (FR)	0.03425	2.91985	98.41320

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_2	A->Y (RF)	0.02636	2.15135	83.67370

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_2	A	0.04011	0.47553	4.78011
	A	-0.00359	0.43085	4.73310

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_2	A	-0.00877	0.39762	4.30699
	A	0.03485	0.44135	4.35098

GF180MCU_OSU_SC_GP12T3V3__CLKINV_4

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkinv_4	39.84000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkinv_4	0.01618	58.72635

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkinv_4	0.00000	0.00295	0.00360

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_4	A->Y (FR)	0.03178	2.52720	98.41200

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_4	A->Y (RF)	0.02387	1.76101	83.67260

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_4	A	0.08081	1.01703	9.56029
	A	-0.00688	0.92904	9.46628

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_4	A	-0.01753	0.87784	8.61403
	A	0.07003	0.96652	8.70200

GF180MCU_OSU_SC_GP12T3V3__CLKINV_8

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__clkinv_8	67.64500

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__clkinv_8	0.03246	117.45156

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__clkinv_8	0.00000	0.00590	0.00720

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_8	A->Y (FR)	0.03045	2.20819	98.41140

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__clkinv_8	A->Y (RF)	0.02255	1.43137	83.67200

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_8	A	0.16182	2.19609	19.12070
	A	-0.01341	2.01919	18.93270

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__clkinv_8	A	-0.03501	1.91534	17.22810
	A	0.14044	2.09139	17.40400

GF180MCU_OSU_SC_GP12T3V3__DFFN_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT	
D	CLK	Q	QN
0	F	0	1
1	F	1	0
x	x	IQ	IQN

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__dffn_1	118.27500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)	
	D	CLK	Q	QN
gf180mcu_osu_sc_gp12t3v3__dffn_1	0.00395	0.00408	15.56757	15.73192

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__dffn_1	0.00000	100780.00000	174312.00000

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dffn_1	CLK->Q (FR)	0.34677	4.73352	169.77500
	QN->Q (FR)	0.03881	3.45376	102.18800

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dffn_1	CLK->Q (FF)	0.63784	5.06142	169.08500
	QN->Q (RF)	0.03100	2.68698	87.05470

Delay(ns) to QN rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dffn_1	CLK->QN (FR)	0.60936	2.85954	77.38850

Delay(ns) to QN falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dffn_1	CLK->QN (FF)	0.31358	2.28950	67.87030

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	hold	CLK (F)	0.01643	0.10669	-3.18209
	setup	CLK (F)	0.32287	0.88189	29.09820

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	hold	CLK (F)	-0.30385	-1.80465	46.00950
	setup	CLK (F)	0.44247	1.80770	-31.44020

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	min_pulse_width	CLK ()	D	0.38660	4.38232	287.64800
	min_pulse_width	CLK ()	!D	0.36514	4.38232	287.26500

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	min_pulse_width	CLK ()	D	0.21732	4.38232	165.00100
	min_pulse_width	CLK ()	!D	0.14103	4.38232	165.00100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	CLK	0.09602	0.29467	4.57538
	CLK	0.08491	0.28371	4.56496

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	CLK	0.14102	0.33081	4.67148
	CLK	0.13008	0.31993	4.64590

Internal switching power(pJ) to QN rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	CLK	0.14107	0.33104	4.66113
	CLK	0.13013	0.31904	4.63001

Internal switching power(pJ) to QN falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	CLK	0.09594	0.29641	4.55022
	CLK	0.08483	0.28540	4.55149

Passive power(pJ) for D rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	(CLK * Q * !QN) + (CLK * !Q * QN)	0.15465	0.88621	12.51980
	(CLK * Q * !QN) + (CLK * !Q * QN)	0.17614	0.90775	12.54120
	!CLK	-0.01323	-0.01348	-0.01342
	!CLK	0.00666	0.00649	0.00646

Passive power(pJ) for D falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	(CLK * Q * !QN) + (CLK * !Q * QN)	0.23051	0.98864	12.90250
	(CLK * Q * !QN) + (CLK * !Q * QN)	0.20904	0.96710	12.88110
	!CLK	0.01353	0.01364	0.01343
	!CLK	-0.00634	-0.00648	-0.00645

Passive power(pJ) for CLK rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	(D * Q * !QN)	0.03608	0.43488	7.27886
	(D * Q * !QN)	0.05825	0.45710	7.30110
	(D * !Q * QN)	0.19992	0.56913	19.85620
	(D * !Q * QN)	0.22288	0.59212	19.87950
	(!D * Q * !QN)	0.23288	0.53859	7.53163
	(!D * Q * !QN)	0.25424	0.55997	7.55303
	(!D * !Q * QN)	0.04551	0.44477	7.28931
	(!D * !Q * QN)	0.06729	0.46663	7.31111

Passive power(pJ) for CLK falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffn_1	(D * Q * !QN)	0.06209	0.46260	7.29869
	(D * Q * !QN)	0.04005	0.44040	7.27624
	(!D * !Q * QN)	0.06734	0.46712	7.30729
	(!D * !Q * QN)	0.04547	0.44521	7.28546

GF180MCU_OSU_SC_GP12T3V3__DFFSR_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT				OUTPUT	
D	R	S	CLK	Q	QN
0	1	1	R	0	1
1	1	1	R	1	0
x	0	x	x	0	1
x	1	0	x	1	0
x	1	1	x	IQ	IQN

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__dffsr_1	155.21001

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)	
	D	R	S	CLK	Q	QN
gf180mcu_osu_sc_gp12t3v3__dffsr_1	0.00356	0.00406	0.00810	0.01419	15.67782	15.73825

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__dffsr_1	0.00000	0.00694	0.00849

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK->Q (RR)	0.31840	4.12081	157.35500
	QN->Q (FR)	0.03881	3.46179	102.66000
	R->Q (RR)	0.25366	4.16088	160.47000
	S->Q (FR)	0.22909	4.63123	168.12600

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK->Q (RF)	0.36479	4.12680	156.65000
	QN->Q (RF)	0.03100	2.69509	87.48170
	R->Q (FF)	0.21425	4.74664	169.98000

Delay(ns) to QN rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK->QN (RR)	0.33468	1.90756	63.85290
	R->QN (FR)	0.18436	2.52784	77.17290

Delay(ns) to QN falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK->QN (RF)	0.28263	1.65834	54.34610
	R->QN (RF)	0.21830	1.69881	57.44750
	S->QN (FF)	0.19378	2.17029	65.11800

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	hold	CLK (R)	-0.16333	-0.22863	2.11034
	setup	CLK (R)	0.17826	0.29265	-2.09491

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	hold	CLK (R)	-0.18604	-1.31386	-44.38390
	setup	CLK (R)	0.18911	1.31691	44.38770

Constraints(ns) for D rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	hold	CLK (R)	(R * S)	-0.16333	-0.22863	2.11034
	setup	CLK (R)	(R * S)	0.17826	0.29265	-2.09491

Constraints(ns) for D falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	hold	CLK (R)	(R * S)	-0.18604	-1.31386	-44.38390
	setup	CLK (R)	(R * S)	0.18911	1.31691	44.38770

Constraints(ns) for R rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	recovery	CLK (R)	0.05583	0.24910	0.59483
	removal	CLK (R)	-0.03037	-0.05487	-0.58988
	hold	S (R)	-0.18550	-0.56700	0.08012
	setup	S (R)	0.23489	0.72200	1.10957

Constraints(ns) for R rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	recovery	CLK (R)	(D * S)	0.05583	0.24910	0.59483
	removal	CLK (R)	(D * S)	-0.03037	-0.05487	-0.58988
	hold	S (R)	CLK	-0.18613	-0.56700	0.08012
	hold	S (R)	!CLK	-0.18550	-0.57920	-0.22761
	setup	S (R)	CLK	0.21117	0.69676	0.62333
	setup	S (R)	!CLK	0.23489	0.72200	1.10957

Constraints(ns) for R falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	min_pulse_width	R ()	(CLK * S)	0.14103	4.38232	165.00100
	min_pulse_width	R ()	(!CLK * S)	0.13626	4.38232	165.00100

Constraints(ns) for S rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	recovery	CLK (R)	0.04172	0.28686	5.82454
	removal	CLK (R)	-0.03748	-0.21644	-5.83558

Constraints(ns) for S rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	recovery	CLK (R)	(!D * R)	0.04172	0.28686	5.82454
	removal	CLK (R)	(!D * R)	-0.03748	-0.21644	-5.83558

Constraints(ns) for S falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	min_pulse_width	S ()	(CLK * R)	0.18871	4.38232	165.00100
	min_pulse_width	S ()	(!CLK * R)	0.20779	4.38232	165.00100

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	min_pulse_width	CLK ()	(D * R * S)	0.15295	4.38232	165.00100
	min_pulse_width	CLK ()	(!D * R * S)	0.16010	4.38232	165.00100

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	min_pulse_width	CLK ()	(D * R * S)	0.22924	4.38232	165.00100
	min_pulse_width	CLK ()	(!D * R * S)	0.16249	4.38232	165.00100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK	0.04677	0.34406	5.55587
	CLK	0.07171	0.36896	5.59273
	R	0.06749	0.29137	4.70304
	R	0.09917	0.32238	4.75503
	S	0.07958	0.34749	5.06848
	S	0.06339	0.33121	5.12995

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK	0.05057	0.26018	4.52387
	CLK	0.07508	0.28476	4.54822
	R	0.10016	0.33301	4.85169
	R	0.08334	0.31580	4.82412

Internal switching power(pJ) to QN rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK	0.05053	0.25944	4.50719
	CLK	0.07504	0.28380	4.53460
	R	0.10013	0.33358	4.83769
	R	0.08332	0.31567	4.80068

Internal switching power(pJ) to QN falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK	0.04667	0.34390	5.52213
	CLK	0.07161	0.36883	5.55462
	R	0.08231	0.30522	4.69229
	R	0.09907	0.32193	4.70903
	S	0.07950	0.34789	5.07347
	S	0.06331	0.33175	5.08154

Passive power(pJ) for D rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK	-0.01321	-0.01350	-0.01329
	CLK	0.00462	0.00463	0.00461
	(!CLK * R * S * Q * !QN) + (!CLK * R * S * !Q * QN)	0.06359	0.35573	5.69610
	(!CLK * R * S * Q * !QN) + (!CLK * R * S * !Q * QN)	0.08717	0.37931	5.71946
	(!CLK * R * !S * Q * !QN)	0.02346	0.29202	5.26996
	(!CLK * R * !S * Q * !QN)	0.05321	0.32183	5.29961
	(!CLK * !R * S * !Q * QN)	0.02318	0.29126	5.27033
	(!CLK * !R * S * !Q * QN)	0.05299	0.32106	5.30018
	(!CLK * !R * !S * !Q * QN)	0.02342	0.29202	5.26997
	(!CLK * !R * !S * !Q * QN)	0.05318	0.32183	5.29961

Passive power(pJ) for D falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	CLK	0.01339	0.01350	0.01329
	CLK	-0.00443	-0.00457	-0.00455
	(!CLK * R * S * Q * !QN) + (!CLK * R * S * !Q * QN)	0.08497	0.38419	5.75601
	(!CLK * R * S * Q * !QN) + (!CLK * R * S * !Q * QN)	0.06149	0.36072	5.73264
	(!CLK * R * !S * Q * !QN)	0.03874	0.30805	5.28734
	(!CLK * R * !S * Q * !QN)	0.00910	0.27832	5.25786
	(!CLK * !R * S * !Q * QN)	0.03903	0.30906	5.28778
	(!CLK * !R * S * !Q * QN)	0.00930	0.27929	5.25817
	(!CLK * !R * !S * !Q * QN)	0.03874	0.30808	5.28786
	(!CLK * !R * !S * !Q * QN)	0.00909	0.27835	5.25809

Passive power(pJ) for R rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	(CLK * S * !Q * QN) + (!CLK * !D * S * !Q * QN)	0.00540	0.37396	6.86143
	(CLK * S * !Q * QN) + (!CLK * !D * S * !Q * QN)	0.02767	0.39631	6.88370
	(!CLK * D * S * !Q * QN)	0.04423	0.43012	7.19873
	(!CLK * D * S * !Q * QN)	0.06108	0.44705	7.21577

Passive power(pJ) for R falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	(CLK * S * !Q * QN) + (!CLK * !D * S * !Q * QN)	0.03549	0.40894	6.89545
	(CLK * S * !Q * QN) + (!CLK * !D * S * !Q * QN)	0.01335	0.38663	6.87329
	(!CLK * D * S * !Q * QN)	0.07309	0.46584	7.22421
	(!CLK * D * S * !Q * QN)	0.05618	0.44909	7.20680

Passive power(pJ) for S rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	(CLK * R * Q * !QN) + (!CLK * D * R * Q * !QN)	-0.02786	-0.02797	-0.02819
	(CLK * R * Q * !QN) + (!CLK * D * R * Q * !QN)	0.00383	0.00385	0.00366
	(!R * !Q * QN)	-0.02612	-0.02709	-0.02697
	(!R * !Q * QN)	0.01374	0.01311	0.01305
	(!CLK * !D * R * Q * !QN)	0.01824	0.30574	5.57959
	(!CLK * !D * R * Q * !QN)	0.05575	0.34347	5.61713

Passive power(pJ) for S falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	(CLK * R * Q * !QN) + (!CLK * D * R * Q * !QN)	0.02857	0.02854	0.02841
	(CLK * R * Q * !QN) + (!CLK * D * R * Q * !QN)	-0.00354	-0.00352	-0.00349
	(!R * !Q * QN)	0.02716	0.02725	0.02697
	(!R * !Q * QN)	-0.01297	-0.01295	-0.01296
	(!CLK * !D * R * Q * !QN)	0.05862	0.34277	5.61922
	(!CLK * !D * R * Q * !QN)	0.02098	0.30487	5.58160

Passive power(pJ) for CLK rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	(D * R * Q * !QN)	-0.00397	0.36627	6.85435
	(D * R * Q * !QN)	0.04260	0.41253	6.90085
	(D * !R * S * !Q * QN)	0.02413	0.40275	7.11611
	(D * !R * S * !Q * QN)	0.06789	0.44485	7.15709
	(D * !R * !S * !Q * QN)	0.02385	0.40240	7.11686
	(D * !R * !S * !Q * QN)	0.06770	0.44465	7.15667
	(!D * R * S * !Q * QN) + (!D * !R * !Q * QN)	-0.00508	0.36109	6.85076
	(!D * R * S * !Q * QN) + (!D * !R * !Q * QN)	0.04872	0.41508	6.90453
	(!D * R * !S * Q * !QN)	0.01379	0.63589	11.70040
	(!D * R * !S * Q * !QN)	0.07001	0.69258	11.75680

Passive power(pJ) for CLK falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dffsr_1	(D * R * S * !Q * QN)	0.12438	0.56938	9.66702
	(D * R * S * !Q * QN)	0.07702	0.52062	9.59693
	(D * R * Q * !QN)	0.04098	0.41290	6.90247
	(D * R * Q * !QN)	-0.00530	0.36653	6.85593
	(D * !R * S * !Q * QN)	0.08041	0.45886	7.15996
	(D * !R * S * !Q * QN)	0.03664	0.41504	7.11500
	(D * !R * !S * !Q * QN)	0.08084	0.45872	7.15722
	(D * !R * !S * !Q * QN)	0.03688	0.41533	7.11333
	(!D * R * S * Q * !QN)	0.10994	0.69890	9.83628
	(!D * R * S * Q * !QN)	0.05959	0.64823	9.78469
	(!D * R * S * !Q * QN) + (!D * !R * !Q * QN)	0.05023	0.42266	6.90589
	(!D * R * S * !Q * QN) + (!D * !R * !Q * QN)	-0.00392	0.36841	6.85195
	(!D * R * !S * Q * !QN)	0.05935	0.69352	11.75010
	(!D * R * !S * Q * !QN)	0.00302	0.63698	11.69380

GF180MCU_OSU_SC_GP12T3V3__DFF_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT	
D	CLK	Q	QN
0	R	0	1
1	R	1	0
x	x	IQ	IQN

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__dff_1	107.90000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)	
	D	CLK	Q	QN
gf180mcu_osu_sc_gp12t3v3__dff_1	0.00395	0.01209	15.73103	15.73823

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__dff_1	0.00000	100780.00000	174312.00000

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK->Q (RR)	0.27148	2.34103	118.43500
	QN->Q (FR)	0.03881	3.46566	102.88800

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK->Q (RF)	0.55850	4.07092	156.99700
	QN->Q (RF)	0.03100	2.69911	87.68530

Delay(ns) to QN rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK->QN (RR)	0.52971	1.84377	63.63520

Delay(ns) to QN falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK->QN (RF)	0.23831	-0.12977	14.78590

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	hold	CLK (R)	-0.07301	-0.50582	-11.42590
	setup	CLK (R)	0.38317	1.98463	61.18610

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	hold	CLK (R)	-0.38562	0.98463	81.80680
	setup	CLK (R)	0.51526	3.47666	122.23200

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	min_pulse_width	CLK ()	D	0.19825	4.38232	165.00100
	min_pulse_width	CLK ()	!D	0.11719	4.38232	165.00100

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	min_pulse_width	CLK ()	D	0.39852	4.38232	288.85400
	min_pulse_width	CLK ()	!D	0.35799	4.50779	284.04100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK	0.06172	0.25628	4.47452
	CLK	0.08466	0.27904	4.49723

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK	0.10662	0.26618	4.52267
	CLK	0.13213	0.29174	4.54822

Internal switching power(pJ) to QN rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK	0.10665	0.26531	4.51837
	CLK	0.13216	0.29101	4.53455

Internal switching power(pJ) to QN falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK	0.06163	0.25679	4.46849
	CLK	0.08458	0.27851	4.49535

Passive power(pJ) for D rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK	-0.01304	-0.01349	-0.01329
	CLK	0.00666	0.00662	0.00646
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.15105	0.88432	12.51460
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.19185	0.92510	12.55560

Passive power(pJ) for D falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	CLK	0.01337	0.01349	0.01329
	CLK	-0.00634	-0.00648	-0.00645
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.22907	0.98392	12.88440
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.18853	0.94323	12.84680

Passive power(pJ) for CLK rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	(D * Q * !QN)	-0.00226	0.36102	6.85299
	(D * Q * !QN)	0.04259	0.40558	6.89739
	(!D * !Q * QN)	-0.00488	0.36072	6.85053
	(!D * !Q * QN)	0.04789	0.41393	6.90365

Passive power(pJ) for CLK falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dff_1	(D * Q * !QN)	0.04184	0.41368	6.90383
	(D * Q * !QN)	-0.00262	0.36931	6.85911
	(D * !Q * QN)	0.20318	0.60496	7.35470
	(D * !Q * QN)	0.17131	0.57513	7.31782
	(!D * Q * !QN)	0.22926	0.65968	7.53008
	(!D * Q * !QN)	0.16564	0.59335	7.46490
	(!D * !Q * QN)	0.05092	0.41383	6.90460
	(!D * !Q * QN)	-0.00210	0.36050	6.85169

GF180MCU_OSU_SC_GP12T3V3__DLATN_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
D	CLK	Q
0	0	0
x	1	IQ
1	0	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__dlatn_1	88.81000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	D	CLK	Q
gf180mcu_osu_sc_gp12t3v3__dlatn_1	0.00395	0.00405	15.49329

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__dlatn_1	0.00000	0.00481	0.00529

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	CLK->Q (FR)	0.28830	2.62381	76.23070
	D->Q (RR)	0.24487	1.79704	62.41010

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	CLK->Q (FF)	0.33976	2.44407	68.97380
	D->Q (FF)	0.27120	2.42696	69.80940

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	hold	CLK (R)	-0.08463	-0.24997	-4.00677
	setup	CLK (R)	0.09243	0.29265	7.00334

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	hold	CLK (R)	-0.07554	-0.38410	-6.25785
	setup	CLK (R)	0.08726	0.38715	6.16947

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	min_pulse_width	CLK ()	D	0.14341	4.38232	165.00100
	min_pulse_width	CLK ()	!D	0.16010	4.38232	165.00100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	CLK	0.13034	0.56075	7.68051
	CLK	0.10928	0.53900	7.65200
	D	0.07487	0.43553	6.81991
	D	0.09636	0.45672	6.80578

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	CLK	0.13618	0.53716	7.36956
	CLK	0.11379	0.51476	7.35564
	D	0.10348	0.46522	6.79828
	D	0.08193	0.44410	6.77862

Passive power(pJ) for D rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	CLK	-0.01280	-0.01360	-0.01343
	CLK	0.00707	0.00663	0.00649

Passive power(pJ) for D falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	CLK	0.01346	0.01366	0.01343
	CLK	-0.00640	-0.00648	-0.00644

Passive power(pJ) for CLK rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	(D * Q)	0.02707	0.42798	7.27341
	(D * Q)	0.04882	0.44970	7.29517
	(!D * !Q)	0.03008	0.43166	7.27672
	(!D * !Q)	0.05215	0.45389	7.29872

Passive power(pJ) for CLK falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlatn_1	(D * Q)	0.04890	0.45251	7.28847
	(D * Q)	0.02713	0.43087	7.26683
	(!D * !Q)	0.05251	0.45526	7.29354
	(!D * !Q)	0.03042	0.43317	7.27144

GF180MCU_OSU_SC_GP12T3V3__DLAT_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
D	CLK	Q
x	0	IQ
0	1	0
1	1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__dlat_1	74.70000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	D	CLK	Q
gf180mcu_osu_sc_gp12t3v3__dlat_1	0.00395	0.00881	15.71026

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__dlat_1	0.00000	0.00412	0.00471

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dlat_1	CLK->Q (RR)	0.21636	1.77790	61.37890
	D->Q (RR)	0.24364	1.81146	63.36240

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__dlat_1	CLK->Q (RF)	0.27944	1.62629	56.69900
	D->Q (FF)	0.27141	2.43910	70.66860

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlat_1	hold	CLK (F)	-0.14049	-0.68894	-20.42280
	setup	CLK (F)	0.14780	1.28446	44.30190

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlat_1	hold	CLK (F)	-0.12511	-0.14937	6.94451
	setup	CLK (F)	0.13613	0.15242	-6.94575

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlat_1	min_pulse_width	CLK ()	D	0.12196	4.38232	165.00100
	min_pulse_width	CLK ()	!D	0.14818	4.38232	165.00100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlat_1	CLK	0.06720	0.64372	9.50834
	CLK	0.11173	0.68836	9.52895
	D	0.06860	0.42917	6.80558
	D	0.09639	0.45667	6.81192

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlat_1	CLK	0.08999	0.47021	7.20560
	CLK	0.11650	0.49663	7.23500
	D	0.11021	0.47192	6.80523
	D	0.08189	0.44434	6.77859

Passive power(pJ) for D rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlat_1	!CLK	-0.01280	-0.01360	-0.01343
	!CLK	0.00702	0.00659	0.00644

Passive power(pJ) for D falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlat_1	!CLK	0.01345	0.01366	0.01343
	!CLK	-0.00634	-0.00649	-0.00642

Passive power(pJ) for CLK rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlat_1	(D * Q)	-0.00452	0.36861	6.85868
	(D * Q)	0.02994	0.40338	6.89326
	(!D * !Q)	-0.00454	0.36548	6.85764
	(!D * !Q)	0.03316	0.40313	6.89543

Passive power(pJ) for CLK falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__dlat_1	(D * Q)	0.03274	0.41155	6.89759
	(D * Q)	-0.00166	0.37712	6.86298
	(!D * !Q)	0.03551	0.41156	6.89811
	(!D * !Q)	-0.00227	0.37367	6.86018

GF180MCU_OSU_SC_GP12T3V3__INV_16

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__inv_16	124.50000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__inv_16	0.06491	234.89938

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__inv_16	0.00000	0.01179	0.01439

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_16	A->Y (FR)	0.03112	2.15332	98.41110

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_16	A->Y (RF)	0.02322	1.37595	83.67180

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_16	A	0.32282	4.44629	38.24140
	A	-0.02706	4.09097	37.86540

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_16	A	-0.05535	3.90549	34.47090
	A	0.29510	4.25757	34.82270

GF180MCU_OSU_SC_GP12T3V3__INV_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__inv_1	18.26000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__inv_1	0.00405	14.68244

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__inv_1	0.00000	0.00074	0.00090

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_1	A->Y (FR)	0.03881	3.38638	98.41570

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_1	A->Y (RF)	0.03100	2.61968	83.67590

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_1	A	0.01995	0.22439	2.39002
	A	-0.00193	0.20225	2.36651

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_1	A	-0.00447	0.17834	2.15348
	A	0.01741	0.20041	2.17547

GF180MCU_OSU_SC_GP12T3V3__INV_2

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__inv_2	26.56000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__inv_2	0.00808	29.36374

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__inv_2	0.00000	0.00147	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_2	A->Y (FR)	0.03425	2.91985	98.41320

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_2	A->Y (RF)	0.02636	2.15135	83.67370

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_2	A	0.04011	0.47553	4.78011
	A	-0.00359	0.43085	4.73310

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_2	A	-0.00877	0.39762	4.30699
	A	0.03485	0.44135	4.35098

GF180MCU_OSU_SC_GP12T3V3__INV_4

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__inv_4	39.84000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__inv_4	0.01618	58.72635

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__inv_4	0.00000	0.00295	0.00360

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_4	**A->Y (FR)**	0.03178	2.52720	98.41200

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_4	**A->Y (RF)**	0.02387	1.76101	83.67260

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_4	A	0.08081	1.01703	9.56029
	A	-0.00688	0.92904	9.46628

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_4	A	-0.01753	0.87784	8.61403
	A	0.07003	0.96652	8.70200

GF180MCU_OSU_SC_GP12T3V3__INV_8

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__inv_8	67.64500

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp12t3v3__inv_8	0.03246	117.45156

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__inv_8	0.00000	0.00590	0.00720

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_8	**A->Y (FR)**	0.03045	2.20819	98.41140

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__inv_8	**A->Y (RF)**	0.02255	1.43137	83.67200

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_8	A	0.16182	2.19609	19.12070
	A	-0.01341	2.01919	18.93270

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__inv_8	A	-0.03501	1.91534	17.22810
	A	0.14044	2.09139	17.40400

GF180MCU_OSU_SC_GP12T3V3__MUX2_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	B	Sel	Y
0	0	x	0
0	1	0	0
x	1	1	1
1	x	0	1
1	0	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__mux2_1	39.84000

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	Sel	Y
gf180mcu_osu_sc_gp12t3v3__mux2_1	0.01046	0.01046	0.00808	0.00364

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__mux2_1	0.00000	0.00197	0.00201

Delay Information

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__mux2_1	A->Y (RR)	-	0.01761	0.02195	0.02576
	B->Y (RR)	-	0.01925	0.02200	0.02577
	Sel->Y (RR)	(!A * B)	0.06279	-0.05071	-5.90009
	Sel->Y (FR)	(A * !B)	0.04411	0.58832	7.30364

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__mux2_1	A->Y (FF)	-	0.02158	0.02204	0.02546
	B->Y (FF)	-	0.01939	0.02199	0.02545
	Sel->Y (FF)	(!A * B)	0.07318	0.67146	7.22989
	Sel->Y (RF)	(A * !B)	0.03646	-0.18174	-6.49607

Power Information

Internal switching power(pJ) to Y rising (conditional):

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__mux2_1	A	-	-0.01951	-0.01964	-0.01961
	A	-	0.00678	0.00682	0.00681
	B	-	-0.01286	-0.01297	-0.01296
	B	-	0.01753	0.01768	0.01766
	Sel	(A * !B)	0.01689	0.39196	6.88395
	Sel	(A * !B)	0.00284	0.37859	6.88505
	Sel	(!A * B)	-0.01418	0.35566	6.84594
	Sel	(!A * B)	0.04385	0.41552	6.92876

Internal switching power(pJ) to Y falling (conditional):

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__mux2_1	A	-	0.01951	0.01964	0.01962
	A	-	-0.00678	-0.00682	-0.00681
	B	-	0.01288	0.01297	0.01296
	B	-	-0.01753	-0.01763	-0.01761
	Sel	(A * !B)	0.00501	0.37693	6.87146
	Sel	(A * !B)	0.01899	0.39198	6.90068
	Sel	(!A * B)	0.05063	0.42146	6.91155
	Sel	(!A * B)	-0.00734	0.36452	6.87814

Passive power(pJ) for A rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__mux2_1	(B * Sel * Y) + (!B * Sel * !Y)	-0.00347	-0.00350	-0.00348
	(B * Sel * Y) + (!B * Sel * !Y)	0.00262	0.00265	0.00263

Passive power(pJ) for A falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__mux2_1	(B * Sel * Y) + (!B * Sel * !Y)	0.00350	0.00350	0.00348
	(B * Sel * Y) + (!B * Sel * !Y)	-0.00262	-0.00265	-0.00263

Passive power(pJ) for B rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__mux2_1	(A * !Sel * Y) + (!A * !Sel * !Y)	-0.00476	-0.00480	-0.00476
	(A * !Sel * Y) + (!A * !Sel * !Y)	0.00200	0.00201	0.00200

Passive power(pJ) for B falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__mux2_1	(A * !Sel * Y) + (!A * !Sel * !Y)	0.00476	0.00480	0.00476
	(A * !Sel * Y) + (!A * !Sel * !Y)	-0.00200	-0.00201	-0.00200

Passive power(pJ) for Sel rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__mux2_1	(A * B * Y)	-0.00473	0.36850	6.85753
	(A * B * Y)	0.03308	0.40650	6.89548
	(!A * !B * !Y)	-0.00464	0.36858	6.85859
	(!A * !B * !Y)	0.02960	0.40311	6.89303

Passive power(pJ) for Sel falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__mux2_1	(A * B * Y)	0.03551	0.41282	6.89791
	(A * B * Y)	-0.00235	0.37488	6.85986
	(!A * !B * !Y)	0.03224	0.41107	6.89748
	(!A * !B * !Y)	-0.00202	0.37673	6.86291

GF180MCU_OSU_SC_GP12T3V3__NAND2_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
A	B	Y
0	x	1
1	0	1
1	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__nand2_1	25.73000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp12t3v3__nand2_1	0.00404	0.00402	10.44023

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__nand2_1	0.00000	0.00078	0.00115

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__nand2_1	A->Y (FR)	0.04435	2.93865	79.20290
	B->Y (FR)	0.05428	2.98893	79.50170

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__nand2_1	A->Y (RF)	0.05010	3.12043	89.80080
	B->Y (RF)	0.05098	2.52989	78.16810

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nand2_1	A	0.02143	0.18825	2.19715
	A	-0.00176	0.16411	2.15837
	B	0.02973	0.21363	2.38040
	B	0.00159	0.18452	2.33677

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nand2_1	A	-0.00168	0.15990	2.10089
	A	0.02146	0.18307	2.12769
	B	-0.00266	0.17437	2.37665
	B	0.02550	0.20314	2.41500

Passive power(pJ) for A rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nand2_1	(!B * Y)	-0.01402	-0.01399	-0.01410
	(!B * Y)	0.00181	0.00181	0.00172

Passive power(pJ) for A falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nand2_1	(!B * Y)	0.01418	0.01426	0.01420
	(!B * Y)	-0.00167	-0.00168	-0.00167

Passive power(pJ) for B rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nand2_1	(!A * Y)	-0.01349	-0.01357	-0.01353
	(!A * Y)	0.00646	0.00656	0.00648

Passive power(pJ) for B falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nand2_1	(!A * Y)	0.01365	0.01388	0.01357
	(!A * Y)	-0.00632	-0.00652	-0.00646

GF180MCU_OSU_SC_GP12T3V3__NOR2_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
A	B	Y
0	0	1
x	1	0
1	x	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__nor2_1	23.24000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp12t3v3__nor2_1	0.00399	0.00405	7.76937

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__nor2_1	0.00000	0.00082	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__nor2_1	A->Y (FR)	0.07303	3.29883	86.27430
	B->Y (FR)	0.05976	3.90947	97.81030

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__nor2_1	A->Y (RF)	0.04987	1.95001	53.01870
	B->Y (RF)	0.03600	1.86953	52.46390

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nor2_1	A	0.03017	0.22903	2.99726
	A	-0.00171	0.19618	2.96359
	B	0.02162	0.19178	2.46298
	B	-0.00082	0.16864	2.44022

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nor2_1	A	0.00244	0.18015	2.49191
	A	0.03427	0.21227	2.53682
	B	-0.00329	0.15270	2.20967
	B	0.01920	0.17569	2.26171

Passive power(pJ) for A rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nor2_1	(B * !Y)	-0.01275	-0.01341	-0.01329
	(B * !Y)	0.00712	0.00656	0.00652

Passive power(pJ) for A falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nor2_1	(B * !Y)	0.01338	0.01341	0.01329
	(B * !Y)	-0.00650	-0.00649	-0.00648

Passive power(pJ) for B rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nor2_1	(A * !Y)	-0.00434	-0.00433	-0.00434
	(A * !Y)	0.00779	0.00779	0.00781

Passive power(pJ) for B falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__nor2_1	(A * !Y)	0.00470	0.00467	0.00448
	(A * !Y)	-0.00745	-0.00741	-0.00767

GF180MCU_OSU_SC_GP12T3V3__OAI21_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A0	A1	B	Y
0	0	x	1
x	1	0	1
x	1	1	0
1	x	0	1
1	x	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__oai21_1	32.37000

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	B	Y
gf180mcu_osu_sc_gp12t3v3__oai21_1	0.00396	0.00402	0.00404	7.88413

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__oai21_1	0.00000	0.00096	0.00152

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__oai21_1	A0->Y (FR)	0.09881	3.25448	85.78900
	A1->Y (FR)	0.08318	3.88275	97.57670
	B->Y (FR)	0.04405	2.72166	67.76420

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__oai21_1	A0->Y (RF)	0.07778	2.18618	61.12010
	A1->Y (RF)	0.05674	2.10156	60.50820
	B->Y (RF)	0.07426	2.82854	74.10740

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai21_1	A0	0.04063	0.21178	2.51348
	A0	0.00240	0.17278	2.47536
	A1	0.03136	0.17851	2.06542
	A1	0.00271	0.14950	2.03669
	B	0.02129	0.21964	2.83693
	B	-0.00190	0.19635	2.80625

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai21_1	A0	0.00502	0.16418	2.26661
	A0	0.04310	0.20275	2.30432
	A1	-0.00154	0.13912	2.02228
	A1	0.02719	0.16825	2.05100
	B	-0.00142	0.18983	2.68954
	B	0.02176	0.21315	2.71307

Passive power(pJ) for A0 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai21_1	(A1 * B * !Y)	-0.01268	-0.01341	-0.01329
	(A1 * B * !Y)	0.00716	0.00656	0.00652
	(A1 * !B * Y)	-0.01327	-0.01339	-0.01328
	(A1 * !B * Y)	0.00658	0.00656	0.00652
	(!A1 * !B * Y)	-0.01353	-0.01355	-0.01353
	(!A1 * !B * Y)	0.00650	0.00654	0.00646

Passive power(pJ) for A0 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai21_1	(A1 * B * !Y)	0.01331	0.01341	0.01329
	(A1 * B * !Y)	-0.00648	-0.00648	-0.00647
	(A1 * !B * Y)	0.01329	0.01339	0.01328
	(A1 * !B * Y)	-0.00649	-0.00650	-0.00649
	(!A1 * !B * Y)	0.01360	0.01355	0.01357
	(!A1 * !B * Y)	-0.00633	-0.00648	-0.00646

Passive power(pJ) for A1 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai21_1	(A0 * B * !Y)	-0.00435	-0.00432	-0.00434
	(A0 * B * !Y)	0.00781	0.00777	0.00781
	(!B * Y)	-0.01317	-0.01341	-0.01326
	(!B * Y)	0.00657	0.00661	0.00652

Passive power(pJ) for A1 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai21_1	(A0 * B * !Y)	0.00465	0.00468	0.00448
	(A0 * B * !Y)	-0.00737	-0.00741	-0.00767
	(!B * Y)	0.01317	0.01341	0.01326
	(!B * Y)	-0.00645	-0.00649	-0.00649

Passive power(pJ) for B rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai21_1	(!A0 * !A1 * Y)	-0.01394	-0.01392	-0.01408
	(!A0 * !A1 * Y)	0.00187	0.00187	0.00174

Passive power(pJ) for B falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai21_1	(!A0 * !A1 * Y)	0.01420	0.01424	0.01420
	(!A0 * !A1 * Y)	-0.00168	-0.00168	-0.00167

GF180MCU_OSU_SC_GP12T3V3__OAI22_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT				OUTPUT
A0	A1	B0	B1	Y
0	0	x	x	1
x	1	0	0	1
x	1	x	1	0
x	1	1	x	0
1	x	0	0	1
1	x	x	1	0
1	x	1	x	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__oai22_1	43.99000

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A0	A1	B0	B1	Y
gf180mcu_osu_sc_gp12t3v3__oai22_1	0.00396	0.00403	0.00407	0.00399	7.84087

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__oai22_1	0.00000	0.00125	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__oai22_1	A0->Y (FR)	0.11937	3.30440	86.10960
	A1->Y (FR)	0.10353	3.92902	97.77950
	B0->Y (FR)	0.06702	3.86573	97.51380
	B1->Y (FR)	0.08108	3.24061	85.71610

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__oai22_1	A0->Y (RF)	0.11045	2.21403	60.88040
	A1->Y (RF)	0.08798	2.13230	60.27070
	B0->Y (RF)	0.08023	2.70290	72.32760
	B1->Y (RF)	0.10177	2.77997	72.78850

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	A0	0.05041	0.23064	2.74572
	A0	0.00714	0.18696	2.70089
	A1	0.04117	0.19778	2.25632
	A1	0.00736	0.16350	2.22231
	B0	0.02309	0.17463	2.16357
	B0	-0.00063	0.15015	2.13974
	B1	0.03185	0.20729	2.60981
	B1	-0.00139	0.17315	2.57660

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	A0	0.00498	0.16538	2.30038
	A0	0.04828	0.20905	2.35606
	A1	-0.00155	0.14019	2.05125
	A1	0.03237	0.17444	2.09821
	B0	-0.00015	0.14207	1.99193
	B0	0.02366	0.16598	2.02516
	B1	0.00568	0.16542	2.21341
	B1	0.03883	0.19890	2.25310

Passive power(pJ) for A0 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	(A1 * B0 * !Y)	-0.01266	-0.01352	-0.01327
	(A1 * B0 * !Y)	0.00717	0.00655	0.00652
	(A1 * !B0 * B1 * !Y)	-0.01267	-0.01352	-0.01328
	(A1 * !B0 * B1 * !Y)	0.00717	0.00656	0.00652
	(A1 * !B0 * !B1 * Y)	-0.01327	-0.01340	-0.01328
	(A1 * !B0 * !B1 * Y)	0.00658	0.00656	0.00652
	(!A1 * !B0 * !B1 * Y)	-0.01354	-0.01358	-0.01351
	(!A1 * !B0 * !B1 * Y)	0.00647	0.00655	0.00643

Passive power(pJ) for A0 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	(A1 * B0 * !Y)	0.01338	0.01352	0.01327
	(A1 * B0 * !Y)	-0.00649	-0.00648	-0.00647
	(A1 * !B0 * B1 * !Y)	0.01330	0.01352	0.01328
	(A1 * !B0 * B1 * !Y)	-0.00648	-0.00647	-0.00647
	(A1 * !B0 * !B1 * Y)	0.01338	0.01340	0.01328
	(A1 * !B0 * !B1 * Y)	-0.00651	-0.00650	-0.00649
	(!A1 * !B0 * !B1 * Y)	0.01369	0.01359	0.01357
	(!A1 * !B0 * !B1 * Y)	-0.00628	-0.00646	-0.00643

Passive power(pJ) for A1 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	(A0 * B0 * !Y)	-0.00443	-0.00433	-0.00434
	(A0 * B0 * !Y)	0.00788	0.00779	0.00781
	(A0 * !B0 * B1 * !Y)	-0.00433	-0.00433	-0.00434
	(A0 * !B0 * B1 * !Y)	0.00778	0.00779	0.00781
	(!B0 * !B1 * Y)	-0.01317	-0.01333	-0.01317
	(!B0 * !B1 * Y)	0.00656	0.00652	0.00652

Passive power(pJ) for A1 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	(A0 * B0 * !Y)	0.00469	0.00468	0.00448
	(A0 * B0 * !Y)	-0.00740	-0.00741	-0.00767
	(A0 * !B0 * B1 * !Y)	0.00464	0.00468	0.00448
	(A0 * !B0 * B1 * !Y)	-0.00737	-0.00740	-0.00767
	(!B0 * !B1 * Y)	0.01317	0.01333	0.01317
	(!B0 * !B1 * Y)	-0.00649	-0.00649	-0.00649

Passive power(pJ) for B0 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	(A1 * B1 * !Y)	-0.00438	-0.00432	-0.00434
	(A1 * B1 * !Y)	0.00780	0.00777	0.00781
	(A0 * !A1 * B1 * !Y)	-0.00438	-0.00432	-0.00434
	(A0 * !A1 * B1 * !Y)	0.00780	0.00778	0.00781
	(!A0 * !A1 * Y)	-0.01388	-0.01411	-0.01399
	(!A0 * !A1 * Y)	0.00163	0.00164	0.00163

Passive power(pJ) for B0 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	(A1 * B1 * !Y)	0.00465	0.00468	0.00448
	(A1 * B1 * !Y)	-0.00738	-0.00741	-0.00767
	(A0 * !A1 * B1 * !Y)	0.00464	0.00468	0.00449
	(A0 * !A1 * B1 * !Y)	-0.00738	-0.00741	-0.00766
	(!A0 * !A1 * Y)	0.01408	0.01430	0.01399
	(!A0 * !A1 * Y)	-0.00144	-0.00146	-0.00153

Passive power(pJ) for B1 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	(A1 * B0 * !Y)	-0.01270	-0.01343	-0.01328
	(A1 * B0 * !Y)	0.00712	0.00655	0.00652
	(A0 * !A1 * B0 * !Y)	-0.01268	-0.01341	-0.01332
	(A0 * !A1 * B0 * !Y)	0.00713	0.00655	0.00652
	(!A0 * !A1 * Y)	-0.01388	-0.01422	-0.01406
	(!A0 * !A1 * Y)	0.00163	0.00166	0.00163

Passive power(pJ) for B1 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai22_1	(A1 * B0 * !Y)	0.01332	0.01343	0.01328
	(A1 * B0 * !Y)	-0.00648	-0.00647	-0.00647
	(A0 * !A1 * B0 * !Y)	0.01340	0.01341	0.01332
	(A0 * !A1 * B0 * !Y)	-0.00650	-0.00649	-0.00648
	(!A0 * !A1 * Y)	0.01434	0.01431	0.01412
	(!A0 * !A1 * Y)	-0.00145	-0.00145	-0.00153

GF180MCU_OSU_SC_GP12T3V3__OAI31_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT				OUTPUT
A0	A1	A2	B	Y
0	0	0	x	1
0	x	1	0	1
0	x	1	1	0
x	1	x	0	1
x	1	x	1	0
1	x	x	0	1
1	x	x	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__oai31_1	39.84000

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A0	A1	A2	B	Y
gf180mcu_osu_sc_gp12t3v3__oai31_1	0.00396	0.00395	0.00403	0.00404	5.43109

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__oai31_1	0.00000	0.00101	0.00216

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__oai31_1	A0->Y (FR)	0.16631	3.46269	82.47430
	A1->Y (FR)	0.14846	3.86355	90.16140
	A2->Y (FR)	0.10807	4.29335	98.60270
	B->Y (FR)	0.04394	2.43291	55.17650

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__oai31_1	A0->Y (RF)	0.09124	1.80122	44.27920
	A1->Y (RF)	0.08385	1.72254	43.54280
	A2->Y (RF)	0.06076	1.65244	42.98220
	B->Y (RF)	0.08516	2.48708	57.61430

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	A0	0.05217	0.22414	2.92659
	A0	0.00418	0.17599	2.87695
	A1	0.04276	0.18621	2.32376
	A1	0.00413	0.14727	2.28429
	A2	0.03340	0.16475	2.04358
	A2	0.00426	0.13517	2.01398
	B	0.02124	0.24208	3.46862
	B	-0.00195	0.21863	3.43092

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	A0	0.01252	0.16315	2.39546
	A0	0.06039	0.21126	2.45671
	A1	0.00647	0.14002	2.13252
	A1	0.04513	0.17896	2.18426
	A2	-0.00102	0.12130	1.92571
	A2	0.02823	0.15075	1.96762
	B	-0.00129	0.21183	3.29681
	B	0.02186	0.23525	3.33324

Passive power(pJ) for A0 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	(A1 * A2 * B * !Y)	-0.01314	-0.01340	-0.01329
	(A1 * A2 * B * !Y)	0.00655	0.00656	0.00652
	(A1 * !B * Y)	-0.01317	-0.01351	-0.01326
	(A1 * !B * Y)	0.00652	0.00656	0.00652
	(A1 * !A2 * B * !Y) + (!A1 * A2 * B * !Y)	-0.01296	-0.01341	-0.01327
	(A1 * !A2 * B * !Y) + (!A1 * A2 * B * !Y)	0.00674	0.00656	0.00652
	(!A1 * A2 * !B * Y)	-0.01221	-0.01313	-0.01288
	(!A1 * A2 * !B * Y)	0.00654	0.00670	0.00652
	(!A1 * !A2 * !B * Y)	-0.01351	-0.01353	-0.01351
	(!A1 * !A2 * !B * Y)	0.00644	0.00650	0.00644

Passive power(pJ) for A0 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	(A1 * A2 * B * !Y)	0.01340	0.01340	0.01329
	(A1 * A2 * B * !Y)	-0.00650	-0.00650	-0.00649
	(A1 * !B * Y)	0.01329	0.01351	0.01326
	(A1 * !B * Y)	-0.00650	-0.00649	-0.00649
	(A1 * !A2 * B * !Y) + (!A1 * A2 * B * !Y)	0.01329	0.01341	0.01327
	(A1 * !A2 * B * !Y) + (!A1 * A2 * B * !Y)	-0.00649	-0.00648	-0.00649
	(!A1 * A2 * !B * Y)	0.01291	0.01313	0.01288
	(!A1 * A2 * !B * Y)	-0.00648	-0.00650	-0.00649
	(!A1 * !A2 * !B * Y)	0.01367	0.01359	0.01357
	(!A1 * !A2 * !B * Y)	-0.00629	-0.00647	-0.00644

Passive power(pJ) for A1 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	(A2 * !B * Y)	-0.00788	-0.00786	-0.00779
	(A2 * !B * Y)	0.00654	0.00656	0.00652
	(A0 * B * !Y) + (!A0 * A2 * B * !Y)	-0.00696	-0.00698	-0.00695
	(A0 * B * !Y) + (!A0 * A2 * B * !Y)	0.00734	0.00732	0.00686
	(!A2 * !B * Y)	-0.01320	-0.01346	-0.01319
	(!A2 * !B * Y)	0.00656	0.00652	0.00652

Passive power(pJ) for A1 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	(A2 * !B * Y)	0.00788	0.00786	0.00779
	(A2 * !B * Y)	-0.00647	-0.00649	-0.00649
	(A0 * B * !Y) + (!A0 * A2 * B * !Y)	0.00696	0.00698	0.00695
	(A0 * B * !Y) + (!A0 * A2 * B * !Y)	-0.00649	-0.00652	-0.00649
	(!A2 * !B * Y)	0.01320	0.01346	0.01319
	(!A2 * !B * Y)	-0.00648	-0.00650	-0.00649

Passive power(pJ) for A2 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	(A1 * B * !Y)	-0.00435	-0.00432	-0.00434
	(A1 * B * !Y)	0.00780	0.00778	0.00781
	(A1 * !B * Y)	-0.01309	-0.01346	-0.01323
	(A1 * !B * Y)	0.00655	0.00661	0.00652
	(A0 * !A1 * B * !Y)	-0.00427	-0.00424	-0.00425
	(A0 * !A1 * B * !Y)	0.00781	0.00778	0.00780
	(!A1 * !B * Y)	-0.01182	-0.01267	-0.01256
	(!A1 * !B * Y)	0.00647	0.00658	0.00652

Passive power(pJ) for A2 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	(A1 * B * !Y)	0.00462	0.00468	0.00448
	(A1 * B * !Y)	-0.00735	-0.00741	-0.00767
	(A1 * !B * Y)	0.01328	0.01351	0.01323
	(A1 * !B * Y)	-0.00651	-0.00651	-0.00649
	(A0 * !A1 * B * !Y)	0.00472	0.00475	0.00435
	(A0 * !A1 * B * !Y)	-0.00667	-0.00673	-0.00739
	(!A1 * !B * Y)	0.01253	0.01267	0.01256
	(!A1 * !B * Y)	-0.00647	-0.00650	-0.00649

Passive power(pJ) for B rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	(!A0 * !A1 * !A2 * Y)	-0.01386	-0.01384	-0.01405
	(!A0 * !A1 * !A2 * Y)	0.00193	0.00193	0.00177

Passive power(pJ) for B falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__oai31_1	**(!A0 * !A1 * !A2 * Y)**	0.01420	0.01426	0.01420
	(!A0 * !A1 * !A2 * Y)	-0.00168	-0.00168	-0.00167

GF180MCU_OSU_SC_GP12T3V3__OR2_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
A	B	Y
0	0	0
x	1	1
1	x	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__or2_1	31.54000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp12t3v3__or2_1	0.00405	0.00399	15.52995

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__or2_1	0.00000	0.00164	0.00237

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__or2_1	A->Y (RR)	0.07716	1.35024	59.55870
	B->Y (RR)	0.09171	1.68664	65.55750

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__or2_1	A->Y (FF)	0.11272	2.77502	81.20590
	B->Y (FF)	0.12748	2.51586	76.95490

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__or2_1	A	0.01535	0.30629	5.50672
	A	0.03781	0.32865	5.50706
	B	0.02127	0.36737	6.53283
	B	0.05324	0.39922	6.55744

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__or2_1	A	0.03945	0.33283	5.49119
	A	0.01686	0.31108	5.47204
	B	0.04831	0.38789	6.53810
	B	0.01629	0.35640	6.51616

Passive power(pJ) for A rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__or2_1	(B * Y)	-0.00437	-0.00433	-0.00434
	(B * Y)	0.00781	0.00778	0.00781

Passive power(pJ) for A falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__or2_1	(B * Y)	0.00470	0.00468	0.00448
	(B * Y)	-0.00742	-0.00741	-0.00767

Passive power(pJ) for B rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__or2_1	(A * Y)	-0.01268	-0.01342	-0.01328
	(A * Y)	0.00716	0.00656	0.00652

Passive power(pJ) for B falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__or2_1	(A * Y)	0.01340	0.01342	0.01328
	(A * Y)	-0.00649	-0.00647	-0.00647

GF180MCU_OSU_SC_GP12T3V3__TBUF_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
A	EN	Y
-	0	HiZ
0	1	0
1	1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__tbuf_1	43.16000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	EN	Y
gf180mcu_osu_sc_gp12t3v3__tbuf_1	0.00404	0.00535	8.22652

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__tbuf_1	0.00000	0.00183	0.00201

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__tbuf_1	A->Y (RR)	0.12631	2.11146	64.48500
	EN->Y (FR)	0.06123	3.60270	65.65660
	EN->Y (RR)	0.07386	2.12014	66.82990

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__tbuf_1	A->Y (FF)	0.11795	2.31937	60.81760
	EN->Y (FF)	0.07408	3.60270	65.65660
	EN->Y (RF)	0.02523	2.28278	70.40980

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tbuf_1	A	0.03280	0.40508	6.96116
	A	0.04957	0.42161	6.97209
	EN	0.01582	0.38296	6.91209
	EN	0.03905	0.40600	6.93339

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tbuf_1	A	0.04281	0.41781	6.93949
	A	0.02607	0.40137	6.93222
	EN	0.00852	0.37976	6.91171
	EN	0.03758	0.40874	6.94411

Passive power(pJ) for A rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tbuf_1	!EN	0.00895	0.38068	6.86939
	!EN	0.03088	0.40277	6.89135

Passive power(pJ) for A falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tbuf_1	!EN	0.02635	0.40001	6.88807
	!EN	0.00429	0.37792	6.86607

Passive power(pJ) for EN rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tbuf_1	(A * Y)	0.00799	0.38242	6.87217
	(A * Y)	0.03231	0.40695	6.89660
	(!A * !Y)	0.00017	0.37409	6.86687
	(!A * !Y)	0.02857	0.40277	6.89527

Passive power(pJ) for EN falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tbuf_1	(A * Y)	0.02076	0.39613	6.88428
	(A * Y)	-0.00364	0.37159	6.85986
	(!A * !Y)	0.02113	0.40065	6.88887
	(!A * !Y)	-0.00726	0.37215	6.86034

GF180MCU_OSU_SC_GP12T3V3__TIEH

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__tieh	18.26000

Pin Capacitance Information

Cell Name	Max Cap(pf)
	Y
gf180mcu_osu_sc_gp12t3v3__tieh	34.42027

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp12t3v3__tieh	0.00000	0.00000	0.00000

GF180MCU_OSU_SC_GP12T3V3__TIEL

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__tiel	18.26000

Pin Capacitance Information

Cell Name	Max Cap(pf)
	Y
gf180mcu_osu_sc_gp12t3v3__tiel	51.62853

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp12t3v3__tiel	0.00000	0.00000	0.00000

GF180MCU_OSU_SC_GP12T3V3__TINV_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
A	EN	Y
-	0	HiZ
0	1	1
1	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__tinv_1	30.29500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	EN	Y
gf180mcu_osu_sc_gp12t3v3__tinv_1	0.00396	0.00535	8.01146

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__tinv_1	0.00000	0.00109	0.00144

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__tinv_1	A->Y (FR)	0.08896	3.26186	86.79460
	EN->Y (FR)	0.06123	3.60270	65.65660
	EN->Y (RR)	0.07393	2.08706	65.01830

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__tinv_1	A->Y (RF)	0.06773	2.19011	61.92080
	EN->Y (FF)	0.07397	3.60270	65.65660
	EN->Y (RF)	0.02524	2.24618	68.90440

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tinv_1	A	0.03702	0.20719	2.49375
	A	0.01040	0.18021	2.46488
	EN	0.01581	0.38305	6.91353
	EN	0.03853	0.40545	6.93032

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tinv_1	A	0.00164	0.16047	2.24365
	A	0.02817	0.18746	2.27567
	EN	0.00758	0.37884	6.90886
	EN	0.03757	0.40898	6.94765

Passive power(pJ) for A rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tinv_1	!EN	-0.01329	-0.01347	-0.01341
	!EN	0.00654	0.00642	0.00641

Passive power(pJ) for A falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tinv_1	!EN	0.01353	0.01363	0.01341
	!EN	-0.00628	-0.00642	-0.00641

Passive power(pJ) for EN rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tinv_1	(A * !Y)	-0.00008	0.37384	6.86663
	(A * !Y)	0.02857	0.40277	6.89527
	(!A * Y)	0.00799	0.38241	6.87217
	(!A * Y)	0.03220	0.40684	6.89651

Passive power(pJ) for EN falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp12t3v3__tinv_1	(A * !Y)	0.02132	0.40083	6.88906
	(A * !Y)	-0.00726	0.37212	6.86033
	(!A * Y)	0.02075	0.39611	6.88428
	(!A * Y)	-0.00356	0.37165	6.85994

GF180MCU_OSU_SC_GP12T3V3__XNOR2_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
A	B	Y
0	0	1
0	1	0
1	0	0
1	1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__xnor2_1	51.46000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp12t3v3__xnor2_1	0.00806	0.00800	7.98787

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__xnor2_1	0.00000	0.00284	0.00353

Delay Information

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__xnor2_1	A->Y (RR)	B	0.12002	2.06876	62.47440
	A->Y (FR)	!B	0.08502	3.90495	98.43540
	B->Y (RR)	A	0.09897	2.14337	64.92940
	B->Y (FR)	!A	0.09578	3.27394	86.63570

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__xnor2_1	A->Y (FF)	B	0.13110	2.41489	62.00250
	A->Y (RF)	!B	0.05709	2.11675	61.20550
	B->Y (FF)	A	0.10265	2.38259	61.95390
	B->Y (RF)	!A	0.07507	2.20424	61.80200

Power Information

Internal switching power(pJ) to Y rising (conditional):

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__xnor2_1	A	B	0.02342	0.39042	6.93915
	A	B	0.05620	0.42279	6.96092
	A	!B	0.04957	0.56563	8.99276
	A	!B	0.00544	0.52128	8.94816
	B	A	0.00515	0.37314	6.90723
	B	A	0.04559	0.41329	6.94134
	B	!A	0.05895	0.59934	9.43520
	B	!A	0.00527	0.54529	9.37954

Internal switching power(pJ) to Y falling (conditional):

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__xnor2_1	A	B	0.05934	0.42647	6.95424
	A	B	0.02813	0.39542	6.92305
	A	!B	0.01412	0.52086	8.92059
	A	!B	0.05790	0.56501	8.96430
	B	A	0.05444	0.42361	6.94532
	B	A	0.01391	0.38309	6.90813
	B	!A	0.01519	0.54255	9.15520
	B	!A	0.06831	0.59620	9.21313

GF180MCU_OSU_SC_GP12T3V3__XOR2_1

gf180mcu_osu_sc_gp12t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp12t3v3__xor2_1	51.46000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp12t3v3__xor2_1	0.00800	0.00802	7.96151

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp12t3v3__xor2_1	0.00000	0.00284	0.00327

Delay Information

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__xor2_1	A->Y (RR)	!B	0.09907	2.13926	64.70250
	A->Y (FR)	B	0.09775	3.27380	86.42150
	B->Y (RR)	!A	0.12656	2.16470	64.72720
	B->Y (FR)	A	0.07987	3.19798	85.83090

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp12t3v3__xor2_1	A->Y (FF)	!B	0.10259	2.37914	61.80080
	A->Y (RF)	B	0.07347	2.20076	61.63550
	B->Y (FF)	!A	0.10713	2.27629	59.14490
	B->Y (RF)	A	0.07302	2.77280	73.56620

Power Information

Internal switching power(pJ) to Y rising (conditional):

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__xor2_1	A	B	0.06428	0.60579	9.44541
	A	B	0.01555	0.55651	9.39487
	A	!B	0.00374	0.37181	6.91341
	A	!B	0.04497	0.41267	6.94768
	B	A	0.05753	0.58261	9.24599
	B	A	0.01379	0.53824	9.20000
	B	!A	0.01362	0.37889	6.91995
	B	!A	0.04964	0.41480	6.94914

Internal switching power(pJ) to Y falling (conditional):

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp12t3v3__xor2_1	A	B	0.00910	0.53670	9.15333
	A	B	0.05852	0.58669	9.20271
	A	!B	0.05572	0.42486	6.95424
	A	!B	0.01459	0.38374	6.91307
	B	A	0.00965	0.52870	8.87904
	B	A	0.05395	0.57340	8.92334
	B	!A	0.06065	0.42988	6.95863
	B	!A	0.02345	0.39306	6.92336