gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs Library

Cell Groups
GF180MCU_OSU_SC_GP9T3V3__ADDF_1
GF180MCU_OSU_SC_GP9T3V3__ADDH_1
GF180MCU_OSU_SC_GP9T3V3__AND2_1
GF180MCU_OSU_SC_GP9T3V3__AOI21_1
GF180MCU_OSU_SC_GP9T3V3__AOI22_1
GF180MCU_OSU_SC_GP9T3V3__AOI31_1
GF180MCU_OSU_SC_GP9T3V3__BUF_16
GF180MCU_OSU_SC_GP9T3V3__BUF_1
GF180MCU_OSU_SC_GP9T3V3__BUF_2
GF180MCU_OSU_SC_GP9T3V3__BUF_4
GF180MCU_OSU_SC_GP9T3V3__BUF_8
GF180MCU_OSU_SC_GP9T3V3__CLKBUF_16
GF180MCU_OSU_SC_GP9T3V3__CLKBUF_1
GF180MCU_OSU_SC_GP9T3V3__CLKBUF_2
GF180MCU_OSU_SC_GP9T3V3__CLKBUF_4
GF180MCU_OSU_SC_GP9T3V3__CLKBUF_8
GF180MCU_OSU_SC_GP9T3V3__CLKINV_16
GF180MCU_OSU_SC_GP9T3V3__CLKINV_1
GF180MCU_OSU_SC_GP9T3V3__CLKINV_2
GF180MCU_OSU_SC_GP9T3V3__CLKINV_4
GF180MCU_OSU_SC_GP9T3V3__CLKINV_8
GF180MCU_OSU_SC_GP9T3V3__DFFN_1
GF180MCU_OSU_SC_GP9T3V3__DFFSR_1

GF180MCU_OSU_SC_GP9T3V3__DFF_1
GF180MCU_OSU_SC_GP9T3V3__DLATN_1
GF180MCU_OSU_SC_GP9T3V3__DLAT_1
GF180MCU_OSU_SC_GP9T3V3__INV_16
GF180MCU_OSU_SC_GP9T3V3__INV_1
GF180MCU_OSU_SC_GP9T3V3__INV_2
GF180MCU_OSU_SC_GP9T3V3__INV_4
GF180MCU_OSU_SC_GP9T3V3__INV_8
GF180MCU_OSU_SC_GP9T3V3__LSHIFDOWN
GF180MCU_OSU_SC_GP9T3V3__LSHIFUP
GF180MCU_OSU_SC_GP9T3V3__MUX2_1
GF180MCU_OSU_SC_GP9T3V3__NAND2_1
GF180MCU_OSU_SC_GP9T3V3__NOR2_1
GF180MCU_OSU_SC_GP9T3V3__OAI21_1
GF180MCU_OSU_SC_GP9T3V3__OAI22_1
GF180MCU_OSU_SC_GP9T3V3__OAI31_1
GF180MCU_OSU_SC_GP9T3V3__OR2_1
GF180MCU_OSU_SC_GP9T3V3__TBUF_16
GF180MCU_OSU_SC_GP9T3V3__TBUF_1
GF180MCU_OSU_SC_GP9T3V3__TBUF_2
GF180MCU_OSU_SC_GP9T3V3__TBUF_4
GF180MCU_OSU_SC_GP9T3V3__TBUF_8
GF180MCU_OSU_SC_GP9T3V3__TIEHI
GF180MCU_OSU_SC_GP9T3V3__TIELO
GF180MCU_OSU_SC_GP9T3V3__TINV_16
GF180MCU_OSU_SC_GP9T3V3__TINV_1

GF180MCU_OSU_SC_GP9T3V3__TINV_2
GF180MCU_OSU_SC_GP9T3V3__TINV_4
GF180MCU_OSU_SC_GP9T3V3__TINV_8
GF180MCU_OSU_SC_GP9T3V3__XNOR2_1
GF180MCU_OSU_SC_GP9T3V3__XOR2_1

GF180MCU_OSU_SC_GP9T3V3__ADDF_1

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT	
A	B	CI	CO	S
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_gp9t3v3__addf_1	86.10000

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	A	B	CI	CO	S
gf180mcu_osu_sc_gp9t3v3__addf_1	0.01543	0.01458	0.01139	1.55550	1.54990

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__addf_1	0.00000	0.00434	0.00459

Delay Information

Delay(ns) to CO rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addf_1	A->CO (RR)	0.20585	0.69708	7.28378
	B->CO (RR)	0.21739	0.80653	7.77409
	CI->CO (RR)	0.19557	0.74488	7.27903

Delay(ns) to CO falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addf_1	A->CO (FF)	0.23716	0.87562	8.06347
	B->CO (FF)	0.22283	0.98240	8.62006
	CI->CO (FF)	0.18799	0.95206	8.30552

Delay(ns) to S rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addf_1	A->S (-R)	0.41926	1.03203	8.51167
	B->S (-R)	0.40253	1.16425	9.24794
	CI->S (-R)	0.36765	1.08439	8.80527

Delay(ns) to S falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addf_1	A->S (-F)	0.24727	1.06331	9.07279
	B->S (-F)	0.29334	1.01143	8.75645
	CI->S (-F)	0.31546	0.93878	8.32990

Power Information

Internal switching power(pJ) to CO rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addf_1	A	0.04887	0.07881	0.36336
	A	0.08870	0.11843	0.40215
	B	0.04926	0.07537	0.32982
	B	0.08995	0.11667	0.37156
	CI	0.03598	0.06575	0.28970
	CI	0.07624	0.10309	0.32645

Internal switching power(pJ) to CO falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addf_1	A	0.10044	0.13016	0.41358
	A	0.06316	0.09294	0.37677
	B	0.08219	0.10990	0.36674
	B	0.04008	0.06796	0.32534
	CI	0.07598	0.10643	0.33568
	CI	0.04283	0.07338	0.30256

Internal switching power(pJ) to S rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addf_1	A	0.02661	0.06920	0.48450
	A	0.11051	0.15362	0.56919
	B	0.03099	0.08080	0.53364
	B	0.11235	0.16171	0.61364
	CI	0.04272	0.09607	0.60594
	CI	0.11962	0.17269	0.68256

Internal switching power(pJ) to S falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addf_1	A	0.10615	0.15186	0.57105
	A	0.01921	0.06505	0.48432
	B	0.10833	0.15763	0.61211
	B	0.03144	0.08092	0.53586
	CI	0.11726	0.17157	0.68970
	CI	0.05203	0.10650	0.62457

GF180MCU_OSU_SC_GP9T3V3__ADDH_1

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT		OUTPUT	
A	B	CO	S
0	0	0	0
0	1	0	1
1	0	0	1
1	1	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__addh_1	52.89000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)	
	A	B	CO	S
gf180mcu_osu_sc_gp9t3v3__addh_1	0.00767	0.00696	1.55628	1.55391

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__addh_1	0.00000	0.00347	0.00375

Delay Information

Delay(ns) to CO rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addh_1	A->CO (RR)	0.15467	0.64985	7.36131
	B->CO (RR)	0.14895	0.72422	7.77768

Delay(ns) to CO falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addh_1	A->CO (FF)	0.13279	0.75995	7.69113
	B->CO (FF)	0.12077	0.69463	7.25277

Delay(ns) to S rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addh_1	A->S (RR)	!B	0.16270	0.71195	7.61725
	A->S (FR)	B	0.23655	0.87707	8.21953
	B->S (RR)	!A	0.13015	0.60051	6.99760
	B->S (FR)	A	0.25391	0.83110	7.75742

Delay(ns) to S falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addh_1	A->S (FF)	!B	0.17120	0.73500	7.50836
	A->S (RF)	B	0.25202	0.67477	6.32892
	B->S (FF)	!A	0.14725	0.81531	8.02549
	B->S (RF)	A	0.24585	0.75724	6.87189

Power Information

Internal switching power(pJ) to CO rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addh_1	A	0.04299	0.08223	0.37997
	A	0.06130	0.10052	0.39863
	B	0.04770	0.08520	0.35633
	B	0.05977	0.09719	0.36744

Internal switching power(pJ) to CO falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addh_1	A	0.06008	0.10355	0.40474
	A	0.04178	0.08525	0.38649
	B	0.05943	0.09650	0.36742
	B	0.04816	0.08534	0.35620

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__addh_1	A	B	0.06012	0.10349	0.40495
	A	B	0.04182	0.08524	0.38660
	A	!B	0.02997	0.09205	0.56649
	A	!B	0.08213	0.14414	0.61727
	B	A	0.05948	0.09652	0.36619
	B	A	0.04820	0.08530	0.35514
	B	!A	0.02096	0.07904	0.49045
	B	!A	0.05887	0.11686	0.52826

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__addh_1	A	B	0.04297	0.08214	0.37910
	A	B	0.06128	0.10039	0.39736
	A	!B	0.07202	0.13255	0.60704
	A	!B	0.01999	0.08077	0.55544
	B	A	0.04768	0.08502	0.35523
	B	A	0.05975	0.09696	0.36673
	B	!A	0.06365	0.12211	0.53310
	B	!A	0.02516	0.08378	0.49494

GF180MCU_OSU_SC_GP9T3V3__AND2_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__and2_1	25.21500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__and2_1	0.00404	0.00402	1.54145

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__and2_1	0.00000	0.00146	0.00208

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__and2_1	A->Y (RR)	0.12091	0.65220	7.57945
	B->Y (RR)	0.12636	0.58968	7.19291

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__and2_1	A->Y (FF)	0.10143	0.62890	7.06634
	B->Y (FF)	0.11392	0.70107	7.52062

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	A	0.02791	0.10203	0.60267
	A	0.05101	0.12515	0.62581
	B	0.02663	0.10507	0.66141
	B	0.05501	0.13318	0.68909

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	A	0.04428	0.11969	0.62096
	A	0.02100	0.09659	0.60403
	B	0.05603	0.13811	0.69514
	B	0.02773	0.11005	0.66733

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	(!B * !Y)	-0.01400	-0.01412	-0.01413
	(!B * !Y)	0.00187	0.00189	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	(!B * !Y)	0.01420	0.01431	0.01418
	(!B * !Y)	-0.00176	-0.00177	-0.00175

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	(!A * !Y)	-0.01352	-0.01360	-0.01352
	(!A * !Y)	0.00648	0.00654	0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	(!A * !Y)	0.01358	0.01367	0.01355
	(!A * !Y)	-0.00640	-0.00652	-0.00646

GF180MCU_OSU_SC_GP9T3V3__AOI21_1

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_gp9t3v3__aoi21_1	23.98500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	B	Y
gf180mcu_osu_sc_gp9t3v3__aoi21_1	0.00395	0.00398	0.00404	0.78130

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__aoi21_1	0.00000	0.00095	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	A0->Y (FR)	0.12548	0.84857	8.60718
	A1->Y (FR)	0.10104	0.81316	8.52901
	B->Y (FR)	0.09169	1.00457	9.87220

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	A0->Y (RF)	0.09477	0.58210	6.15213
	A1->Y (RF)	0.08832	0.72225	7.33025
	B->Y (RF)	0.04221	0.47554	5.35620

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	A0	0.04812	0.08538	0.28720
	A0	0.01017	0.04724	0.24915
	A1	0.03578	0.07111	0.25783
	A1	0.00294	0.03791	0.22455
	B	0.02638	0.07697	0.30014
	B	0.00387	0.05445	0.27768

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	A0	0.01571	0.05307	0.23767
	A0	0.05345	0.09097	0.27532
	A1	0.01624	0.05172	0.21206
	A1	0.04889	0.08447	0.24502
	B	0.00014	0.04677	0.25198
	B	0.02266	0.06934	0.27849

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(A1 * B * !Y)	-0.01313	-0.01339	-0.01331
	(A1 * B * !Y)	0.00659	0.00658	0.00651
	(!A1 * B * !Y)	-0.01352	-0.01358	-0.01352
	(!A1 * B * !Y)	0.00649	0.00654	0.00647
	(!A1 * !B * Y)	-0.01351	-0.01352	-0.01352
	(!A1 * !B * Y)	0.00649	0.00646	0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(A1 * B * !Y)	0.01337	0.01339	0.01331
	(A1 * B * !Y)	-0.00648	-0.00652	-0.00649
	(!A1 * B * !Y)	0.01367	0.01367	0.01355
	(!A1 * B * !Y)	-0.00639	-0.00652	-0.00647
	(!A1 * !B * Y)	0.01358	0.01366	0.01355
	(!A1 * !B * Y)	-0.00639	-0.00646	-0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(B * !Y)	-0.01315	-0.01339	-0.01333
	(B * !Y)	0.00656	0.00658	0.00651
	(!A0 * !B * Y)	-0.01399	-0.01412	-0.01413
	(!A0 * !B * Y)	0.00187	0.00188	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(B * !Y)	0.01337	0.01339	0.01333
	(B * !Y)	-0.00649	-0.00651	-0.00649
	(!A0 * !B * Y)	0.01424	0.01430	0.01418
	(!A0 * !B * Y)	-0.00176	-0.00177	-0.00175

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(A0 * A1 * !Y)	-0.00461	-0.00456	-0.00451
	(A0 * A1 * !Y)	0.00790	0.00786	0.00780

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(A0 * A1 * !Y)	0.00495	0.00497	0.00463
	(A0 * A1 * !Y)	-0.00734	-0.00745	-0.00779

GF180MCU_OSU_SC_GP9T3V3__AOI22_1

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_gp9t3v3__aoi22_1	33.21000

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A0	A1	B0	B1	Y
gf180mcu_osu_sc_gp9t3v3__aoi22_1	0.00395	0.00398	0.00404	0.00402	0.77202

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__aoi22_1	0.00000	0.00123	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	A0->Y (FR)	0.17213	0.89100	8.57616
	A1->Y (FR)	0.14831	0.85632	8.49813
	B0->Y (FR)	0.10389	0.98572	9.65346
	B1->Y (FR)	0.12623	1.01964	9.71440

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	A0->Y (RF)	0.13668	0.63055	6.18231
	A1->Y (RF)	0.12991	0.77413	7.35755
	B0->Y (RF)	0.06829	0.68232	7.25666
	B1->Y (RF)	0.07320	0.54700	6.07316

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	A0	0.05781	0.09406	0.30180
	A0	0.01022	0.04639	0.25415
	A1	0.04575	0.07997	0.27119
	A1	0.00309	0.03698	0.22854
	B0	0.02810	0.06829	0.24370
	B0	0.00430	0.04440	0.21941
	B1	0.03957	0.08293	0.27062
	B1	0.01079	0.05417	0.24150

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	A0	0.03098	0.06975	0.27357
	A0	0.07847	0.11725	0.32086
	A1	0.03154	0.06898	0.24727
	A1	0.07376	0.11141	0.28950
	B0	0.00664	0.04533	0.21440
	B0	0.03044	0.06925	0.24098
	B1	0.00547	0.04572	0.23691
	B1	0.03429	0.07470	0.26575

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A1 * B0 * B1 * !Y)	-0.01304	-0.01331	-0.01331
	(A1 * B0 * B1 * !Y)	0.00654	0.00658	0.00651
	(!A1 * B0 * B1 * !Y)	-0.01354	-0.01355	-0.01352
	(!A1 * B0 * B1 * !Y)	0.00649	0.00647	0.00646
	(!A1 * B0 * !B1 * Y)	-0.01353	-0.01356	-0.01352
	(!A1 * B0 * !B1 * Y)	0.00650	0.00650	0.00648
	(!A1 * !B0 * Y)	-0.01353	-0.01356	-0.01352
	(!A1 * !B0 * Y)	0.00650	0.00650	0.00648

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A1 * B0 * B1 * !Y)	0.01333	0.01331	0.01331
	(A1 * B0 * B1 * !Y)	-0.00648	-0.00649	-0.00649
	(!A1 * B0 * B1 * !Y)	0.01358	0.01367	0.01355
	(!A1 * B0 * B1 * !Y)	-0.00639	-0.00647	-0.00646
	(!A1 * B0 * !B1 * Y)	0.01358	0.01366	0.01355
	(!A1 * B0 * !B1 * Y)	-0.00641	-0.00650	-0.00647
	(!A1 * !B0 * Y)	0.01358	0.01366	0.01355
	(!A1 * !B0 * Y)	-0.00641	-0.00650	-0.00647

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(B0 * B1 * !Y)	-0.01310	-0.01337	-0.01331
	(B0 * B1 * !Y)	0.00654	0.00658	0.00651
	(!A0 * B0 * !B1 * Y)	-0.01410	-0.01412	-0.01413
	(!A0 * B0 * !B1 * Y)	0.00190	0.00188	0.00178
	(!A0 * !B0 * Y)	-0.01410	-0.01412	-0.01413
	(!A0 * !B0 * Y)	0.00190	0.00188	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(B0 * B1 * !Y)	0.01335	0.01337	0.01331
	(B0 * B1 * !Y)	-0.00649	-0.00650	-0.00649
	(!A0 * B0 * !B1 * Y)	0.01422	0.01430	0.01418
	(!A0 * B0 * !B1 * Y)	-0.00175	-0.00177	-0.00175
	(!A0 * !B0 * Y)	0.01422	0.01430	0.01418
	(!A0 * !B0 * Y)	-0.00175	-0.00177	-0.00175

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A0 * A1 * !Y)	-0.00456	-0.00456	-0.00451
	(A0 * A1 * !Y)	0.00780	0.00786	0.00780
	(!A1 * !B1 * Y)	-0.01407	-0.01403	-0.01414
	(!A1 * !B1 * Y)	0.00189	0.00187	0.00178
	(!A0 * A1 * !B1 * Y)	-0.01407	-0.01403	-0.01414
	(!A0 * A1 * !B1 * Y)	0.00189	0.00187	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A0 * A1 * !Y)	0.00509	0.00511	0.00465
	(A0 * A1 * !Y)	-0.00719	-0.00730	-0.00777
	(!A1 * !B1 * Y)	0.01422	0.01428	0.01417
	(!A1 * !B1 * Y)	-0.00178	-0.00177	-0.00175
	(!A0 * A1 * !B1 * Y)	0.01421	0.01428	0.01417
	(!A0 * A1 * !B1 * Y)	-0.00178	-0.00177	-0.00175

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A0 * A1 * !Y)	-0.00453	-0.00456	-0.00451
	(A0 * A1 * !Y)	0.00782	0.00785	0.00780
	(!A1 * !B0 * Y)	-0.01351	-0.01359	-0.01352
	(!A1 * !B0 * Y)	0.00645	0.00651	0.00644
	(!A0 * A1 * !B0 * Y)	-0.01351	-0.01359	-0.01352
	(!A0 * A1 * !B0 * Y)	0.00645	0.00651	0.00644

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A0 * A1 * !Y)	0.00509	0.00510	0.00465
	(A0 * A1 * !Y)	-0.00718	-0.00730	-0.00777
	(!A1 * !B0 * Y)	0.01355	0.01364	0.01354
	(!A1 * !B0 * Y)	-0.00642	-0.00651	-0.00644
	(!A0 * A1 * !B0 * Y)	0.01355	0.01364	0.01354
	(!A0 * A1 * !B0 * Y)	-0.00642	-0.00651	-0.00644

GF180MCU_OSU_SC_GP9T3V3__AOI31_1

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

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

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__aoi31_1	30.44250

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A0	A1	A2	B	Y
gf180mcu_osu_sc_gp9t3v3__aoi31_1	0.00395	0.00398	0.00395	0.00405	0.74982

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__aoi31_1	0.00000	0.00098	0.00194

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	A0->Y (FR)	0.13465	0.82305	8.22635
	A1->Y (FR)	0.10934	0.78987	8.16413
	A2->Y (FR)	0.15251	0.85519	8.29414
	B->Y (FR)	0.10807	1.01662	9.64281

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	A0->Y (RF)	0.13934	0.79311	7.96315
	A1->Y (RF)	0.12166	0.89351	8.81714
	A2->Y (RF)	0.14960	0.68000	7.06367
	B->Y (RF)	0.04182	0.47221	5.22496

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	A0	0.04951	0.07862	0.24580
	A0	0.01072	0.03955	0.20679
	A1	0.03710	0.06525	0.22237
	A1	0.00327	0.03119	0.18823
	A2	0.06127	0.09203	0.27109
	A2	0.01757	0.04813	0.22732
	B	0.02646	0.08031	0.32062
	B	0.00400	0.05747	0.29742

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	A0	0.02082	0.05091	0.20281
	A0	0.05953	0.08978	0.24203
	A1	0.02138	0.05084	0.19068
	A1	0.05494	0.08446	0.22443
	A2	0.02073	0.05400	0.23770
	A2	0.06436	0.09780	0.28142
	B	-0.00007	0.04923	0.27075
	B	0.02244	0.07186	0.29658

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	(A1 * B * !Y)	-0.01307	-0.01337	-0.01330
	(A1 * B * !Y)	0.00656	0.00658	0.00651
	(A1 * !A2 * !B * Y) + (!A1 * !B * Y)	-0.01359	-0.01360	-0.01350
	(A1 * !A2 * !B * Y) + (!A1 * !B * Y)	0.00238	0.00237	0.00235
	(!A1 * B * !Y)	-0.01352	-0.01353	-0.01352
	(!A1 * B * !Y)	0.00645	0.00648	0.00644

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	(A1 * B * !Y)	0.01331	0.01337	0.01330
	(A1 * B * !Y)	-0.00649	-0.00651	-0.00649
	(A1 * !A2 * !B * Y) + (!A1 * !B * Y)	0.01373	0.01378	0.01359
	(A1 * !A2 * !B * Y) + (!A1 * !B * Y)	-0.00223	-0.00225	-0.00229
	(!A1 * B * !Y)	0.01352	0.01353	0.01355
	(!A1 * B * !Y)	-0.00636	-0.00645	-0.00644

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	(A0 * B * !Y)	-0.01304	-0.01338	-0.01330
	(A0 * B * !Y)	0.00652	0.00658	0.00651
	(A0 * !A2 * !B * Y)	-0.01393	-0.01397	-0.01411
	(A0 * !A2 * !B * Y)	0.00198	0.00196	0.00175
	(!A0 * B * !Y)	-0.01355	-0.01362	-0.01352
	(!A0 * B * !Y)	0.00645	0.00650	0.00644
	(!A0 * !B * Y)	-0.01409	-0.01412	-0.01413
	(!A0 * !B * Y)	0.00190	0.00188	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	(A0 * B * !Y)	0.01349	0.01338	0.01330
	(A0 * B * !Y)	-0.00650	-0.00652	-0.00649
	(A0 * !A2 * !B * Y)	0.01423	0.01430	0.01418
	(A0 * !A2 * !B * Y)	-0.00173	-0.00174	-0.00172
	(!A0 * B * !Y)	0.01371	0.01369	0.01355
	(!A0 * B * !Y)	-0.00639	-0.00648	-0.00644
	(!A0 * !B * Y)	0.01423	0.01430	0.01418
	(!A0 * !B * Y)	-0.00175	-0.00177	-0.00175

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	(A0 * A1 * B * !Y)	-0.01303	-0.01333	-0.01329
	(A0 * A1 * B * !Y)	0.00654	0.00658	0.00651
	(A0 * !A1 * B * !Y)	-0.01352	-0.01361	-0.01352
	(A0 * !A1 * B * !Y)	0.00640	0.00644	0.00638
	(A0 * !A1 * !B * Y) + (!A0 * A1 * !B * Y)	-0.01350	-0.01361	-0.01352
	(A0 * !A1 * !B * Y) + (!A0 * A1 * !B * Y)	0.00641	0.00646	0.00640
	(!A0 * B * !Y)	-0.01354	-0.01355	-0.01352
	(!A0 * B * !Y)	0.00649	0.00647	0.00646
	(!A0 * !A1 * !B * Y)	-0.01353	-0.01358	-0.01352
	(!A0 * !A1 * !B * Y)	0.00649	0.00656	0.00648

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	(A0 * A1 * B * !Y)	0.01331	0.01333	0.01329
	(A0 * A1 * B * !Y)	-0.00649	-0.00650	-0.00649
	(A0 * !A1 * B * !Y)	0.01356	0.01367	0.01355
	(A0 * !A1 * B * !Y)	-0.00622	-0.00644	-0.00638
	(A0 * !A1 * !B * Y) + (!A0 * A1 * !B * Y)	0.01372	0.01366	0.01355
	(A0 * !A1 * !B * Y) + (!A0 * A1 * !B * Y)	-0.00623	-0.00646	-0.00640
	(!A0 * B * !Y)	0.01358	0.01367	0.01355
	(!A0 * B * !Y)	-0.00639	-0.00647	-0.00646
	(!A0 * !A1 * !B * Y)	0.01354	0.01366	0.01355
	(!A0 * !A1 * !B * Y)	-0.00640	-0.00652	-0.00647

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	(A0 * A1 * A2 * !Y)	-0.00454	-0.00457	-0.00451
	(A0 * A1 * A2 * !Y)	0.00781	0.00786	0.00780

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi31_1	(A0 * A1 * A2 * !Y)	0.00509	0.00510	0.00465
	(A0 * A1 * A2 * !Y)	-0.00719	-0.00730	-0.00777

GF180MCU_OSU_SC_GP9T3V3__BUF_16

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__buf_16	97.17000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_16	0.00404	24.76612

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_16	0.00000	0.01267	0.01499

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_16	A->Y (RR)	0.33754	0.79801	7.91918

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_16	A->Y (FF)	0.36409	0.97238	8.58056

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_16	A	0.71260	0.73169	1.14194
	A	0.73444	0.75355	1.14522

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_16	A	0.78739	0.77302	1.12733
	A	0.76551	0.75116	1.10816

GF180MCU_OSU_SC_GP9T3V3__BUF_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__buf_1	19.68000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_1	0.00405	1.55566

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_1	0.00000	0.00149	0.00149

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_1	A->Y (RR)	0.08426	0.50781	6.93348

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_1	A->Y (FF)	0.09264	0.66519	7.59185

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_1	A	0.02013	0.10920	0.69832
	A	0.04198	0.13108	0.72018

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_1	A	0.04221	0.13434	0.72073
	A	0.02040	0.11249	0.69903

GF180MCU_OSU_SC_GP9T3V3__BUF_2

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__buf_2	23.98500

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_2	0.00404	3.10294

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_2	0.00000	0.00224	0.00239

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_2	A->Y (RR)	0.10055	0.47431	7.01509

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_2	A->Y (FF)	0.10963	0.64043	7.67275

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_2	A	0.04221	0.13201	0.71774
	A	0.06414	0.15388	0.73960

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_2	A	0.06406	0.15612	0.73814
	A	0.04206	0.13431	0.71640

GF180MCU_OSU_SC_GP9T3V3__BUF_4

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__buf_4	34.74750

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_4	0.00404	6.15334

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_4	0.00000	0.00373	0.00419

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_4	A->Y (RR)	0.13464	0.50150	7.13109

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_4	A->Y (FF)	0.14592	0.67397	7.79491

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_4	A	0.09366	0.18701	0.76428
	A	0.11572	0.20872	0.78373

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_4	A	0.11749	0.21027	0.78112
	A	0.09536	0.18852	0.76264

GF180MCU_OSU_SC_GP9T3V3__BUF_8

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__buf_8	55.65750

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_8	0.00404	12.28096

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_8	0.00000	0.00671	0.00779

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_8	A->Y (RR)	0.20308	0.60328	7.39814

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_8	A->Y (FF)	0.21924	0.78004	8.06740

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_8	A	0.23904	0.33421	0.87603
	A	0.26101	0.35591	0.88880

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_8	A	0.27241	0.35418	0.87944
	A	0.25041	0.33282	0.86069

GF180MCU_OSU_SC_GP9T3V3__CLKBUF_16

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkbuf_16	97.17000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	0.00404	24.76612

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	0.00000	0.01267	0.01499

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	A->Y (RR)	0.33754	0.79801	7.91918

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	A->Y (FF)	0.36409	0.97238	8.58056

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	A	0.71260	0.73169	1.14194
	A	0.73444	0.75355	1.14522

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	A	0.78739	0.77302	1.12733
	A	0.76551	0.75116	1.10816

GF180MCU_OSU_SC_GP9T3V3__CLKBUF_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkbuf_1	19.68000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	0.00405	1.55566

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	0.00000	0.00149	0.00149

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	A->Y (RR)	0.08426	0.50781	6.93348

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	A->Y (FF)	0.09264	0.66519	7.59185

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	A	0.02013	0.10920	0.69832
	A	0.04198	0.13108	0.72018

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	A	0.04221	0.13434	0.72073
	A	0.02040	0.11249	0.69903

GF180MCU_OSU_SC_GP9T3V3__CLKBUF_2

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkbuf_2	23.98500

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	0.00404	3.10294

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	0.00000	0.00224	0.00239

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	A->Y (RR)	0.10055	0.47431	7.01509

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	A->Y (FF)	0.10963	0.64043	7.67275

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	A	0.04221	0.13201	0.71774
	A	0.06414	0.15388	0.73960

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	A	0.06406	0.15612	0.73814
	A	0.04206	0.13431	0.71640

GF180MCU_OSU_SC_GP9T3V3__CLKBUF_4

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkbuf_4	34.74750

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	0.00404	6.15334

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	0.00000	0.00373	0.00419

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	A->Y (RR)	0.13464	0.50150	7.13109

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	A->Y (FF)	0.14592	0.67397	7.79491

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	A	0.09366	0.18701	0.76428
	A	0.11572	0.20872	0.78373

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	A	0.11749	0.21027	0.78112
	A	0.09536	0.18852	0.76264

GF180MCU_OSU_SC_GP9T3V3__CLKBUF_8

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkbuf_8	55.65750

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	0.00404	12.28096

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	0.00000	0.00671	0.00779

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	A->Y (RR)	0.20308	0.60328	7.39814

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	A->Y (FF)	0.21924	0.78004	8.06740

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	A	0.23904	0.33421	0.87603
	A	0.26101	0.35591	0.88880

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	A	0.27241	0.35418	0.87944
	A	0.25041	0.33282	0.86069

GF180MCU_OSU_SC_GP9T3V3__CLKINV_16

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkinv_16	92.25000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_16	0.06466	23.87903

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_16	0.00000	0.01192	0.01439

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_16	A->Y (FR)	0.03956	0.49677	9.96266

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_16	A->Y (RF)	0.03092	0.29391	8.47767

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_16	A	0.35769	1.48564	4.08772
	A	0.00871	1.13458	3.73679

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_16	A	0.00389	1.07024	3.39414
	A	0.35277	1.42158	3.74746

GF180MCU_OSU_SC_GP9T3V3__CLKINV_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkinv_1	13.53000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_1	0.00404	1.50748

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_1	0.00000	0.00075	0.00090

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_1	A->Y (FR)	0.04498	0.84197	10.02570

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_1	A->Y (RF)	0.03639	0.64312	8.53517

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_1	A	0.02226	0.07404	0.25366
	A	0.00038	0.05208	0.23179

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_1	A	-0.00053	0.04771	0.21052
	A	0.02128	0.06976	0.23249

GF180MCU_OSU_SC_GP9T3V3__CLKINV_2

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkinv_2	19.68000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_2	0.00808	2.98498

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_2	0.00000	0.00149	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_2	A->Y (FR)	0.04172	0.72858	9.96233

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_2	A->Y (RF)	0.03307	0.52906	8.47738

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_2	A	0.04475	0.15897	0.51097
	A	0.00091	0.11480	0.46711

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_2	A	-0.00109	0.10609	0.42288
	A	0.04270	0.15004	0.46704

GF180MCU_OSU_SC_GP9T3V3__CLKINV_4

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkinv_4	29.52000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_4	0.01616	5.97048

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_4	0.00000	0.00298	0.00360

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_4	A->Y (FR)	0.04000	0.63574	9.96289

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_4	A->Y (RF)	0.03137	0.43650	8.47788

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_4	A	0.08959	0.33578	1.02191
	A	0.00205	0.24768	0.93418

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_4	A	-0.00200	0.23109	0.84572
	A	0.08550	0.31888	0.93405

GF180MCU_OSU_SC_GP9T3V3__CLKINV_8

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__clkinv_8	50.43000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_8	0.03232	11.94140

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_8	0.00000	0.00596	0.00720

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_8	A->Y (FR)	0.03912	0.55929	9.96313

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_8	A->Y (RF)	0.03045	0.35837	8.47809

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_8	A	0.17894	0.70851	2.04380
	A	0.00445	0.53241	1.86833

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_8	A	-0.00375	0.49690	1.69140
	A	0.17077	0.67287	1.86807

GF180MCU_OSU_SC_GP9T3V3__DFFN_1

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

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

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__dffn_1	89.17500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)	
	D	CLKN	Q	QN
gf180mcu_osu_sc_gp9t3v3__dffn_1	0.00393	0.01039	1.56141	1.56075

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dffn_1	0.00000	0.00595	0.00661

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN->Q (RR)	0.26942	1.25620	16.48390
	QN->Q (FR)	0.04498	0.85148	10.25460

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN->Q (RF)	0.35742	1.28545	16.29670
	QN->Q (RF)	0.03639	0.65226	8.74007

Delay(ns) to QN rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN->QN (RR)	0.32250	0.75813	6.99720

Delay(ns) to QN falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN->QN (RF)	0.23125	0.67320	6.16788

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	hold	CLKN (R)	-0.10101	-0.09519	0.57241
	setup	CLKN (R)	0.19078	0.25850	0.88708

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	hold	CLKN (R)	-0.20420	-0.60089	-4.76816
	setup	CLKN (R)	0.22179	0.61438	5.15952

Constraints(ns) for CLKN rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	min_pulse_width	CLKN ()	0.15531	1.45630	16.50020
	min_pulse_width	CLKN ()	0.18900	1.45630	16.50020

Constraints(ns) for CLKN falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	min_pulse_width	CLKN ()	0.25379	1.45630	16.50020
	min_pulse_width	CLKN ()	0.18123	1.45630	16.50020

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN	0.04946	0.12984	0.64377
	CLKN	0.07753	0.15803	0.67514

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN	0.05842	0.10745	0.50368
	CLKN	0.07991	0.12830	0.52377

Internal switching power(pJ) to QN rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN	0.05840	0.10719	0.50270
	CLKN	0.07989	0.12852	0.52401

Internal switching power(pJ) to QN falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN	0.04937	0.12979	0.64122
	CLKN	0.07744	0.15791	0.67139

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN	-0.01322	-0.01338	-0.01335
	CLKN	0.00655	0.00647	0.00649
	(!CLKN * Q * !QN) + (!CLKN * !Q * QN)	0.05982	0.13524	0.71342
	(!CLKN * Q * !QN) + (!CLKN * !Q * QN)	0.09138	0.16690	0.74479

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLKN	0.01350	0.01350	0.01335
	CLKN	-0.00644	-0.00647	-0.00648
	(!CLKN * Q * !QN) + (!CLKN * !Q * QN)	0.09185	0.16885	0.74724
	(!CLKN * Q * !QN) + (!CLKN * !Q * QN)	0.06027	0.13728	0.71567

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	(D * Q * !QN)	-0.00022	0.08422	0.66646
	(D * Q * !QN)	0.04664	0.13102	0.71314
	(!D * !Q * QN)	-0.00083	0.08453	0.66610
	(!D * !Q * QN)	0.05312	0.13836	0.71997

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	(D * Q * !QN)	0.04730	0.13539	0.71738
	(D * Q * !QN)	0.00048	0.08841	0.67051
	(D * !Q * QN)	0.12427	0.21430	0.99209
	(D * !Q * QN)	0.08251	0.17233	0.94983
	(!D * Q * !QN)	0.12089	0.27488	1.16805
	(!D * Q * !QN)	0.06421	0.21785	1.11108
	(!D * !Q * QN)	0.05375	0.13922	0.72024
	(!D * !Q * QN)	-0.00032	0.08498	0.66630

GF180MCU_OSU_SC_GP9T3V3__DFFSR_1

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT				OUTPUT	
D	RN	SN	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_gp9t3v3__dffsr_1	126.07500

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)	
	D	RN	SN	CLK	Q	QN
gf180mcu_osu_sc_gp9t3v3__dffsr_1	0.00393	0.00405	0.00802	0.01039	1.54794	1.55977

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dffsr_1	0.00000	0.00708	0.00862

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK->Q (RR)	0.39152	1.36998	16.45910
	QN->Q (FR)	0.04498	0.84959	10.19690
	RN->Q (RR)	0.28691	1.26458	16.47060
	SN->Q (FR)	0.26970	1.36489	17.32290

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK->Q (RF)	0.44884	1.38495	16.25880
	QN->Q (RF)	0.03639	0.65027	8.68858
	RN->Q (FF)	0.25479	1.37924	17.40650

Delay(ns) to QN rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK->QN (RR)	0.41343	0.86099	7.09321
	RN->QN (FR)	0.21980	0.85598	8.24101

Delay(ns) to QN falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK->QN (RF)	0.34947	0.79178	6.28325
	RN->QN (RF)	0.24559	0.68577	6.29256
	SN->QN (FF)	0.22847	0.78577	7.14017

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	hold	CLK (R)	-0.14469	-0.12515	0.54748
	setup	CLK (R)	0.29476	0.37169	0.69818

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	hold	CLK (R)	-0.23016	-0.60573	-5.00636
	setup	CLK (R)	0.26622	0.62665	5.14907

Constraints(ns) for D rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	hold	CLK (R)	-0.14469	-0.12515	0.54748
	setup	CLK (R)	0.29476	0.37169	0.69818

Constraints(ns) for D falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	hold	CLK (R)	-0.23016	-0.60573	-5.00636
	setup	CLK (R)	0.26622	0.62665	5.14907

Constraints(ns) for RN rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	recovery	CLK (R)	0.17521	0.29401	1.45846
	removal	CLK (R)	-0.01563	-0.01947	-0.04919
	hold	SN (R)	-0.21059	-0.41752	-0.83190
	setup	SN (R)	0.24903	0.56181	5.27872

Constraints(ns) for RN rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	recovery	CLK (R)	0.17521	0.29401	1.45846
	removal	CLK (R)	-0.01563	-0.01947	-0.04919
	hold	SN (R)	-0.21059	-0.41752	-0.83192
	hold	SN (R)	-0.21242	-0.41968	-0.83190
	setup	SN (R)	0.24614	0.55781	5.20954
	setup	SN (R)	0.24903	0.56181	5.27872

Constraints(ns) for RN falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	min_pulse_width	RN ()	0.16568	1.45630	16.50020
	min_pulse_width	RN ()	0.16568	1.45630	16.50020

Constraints(ns) for SN rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	recovery	CLK (R)	0.07717	0.17001	5.62369
	removal	CLK (R)	-0.03673	-0.08870	-0.61887

Constraints(ns) for SN rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	recovery	CLK (R)	0.07717	0.17001	5.62369
	removal	CLK (R)	-0.03673	-0.08870	-0.61887

Constraints(ns) for SN falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	min_pulse_width	SN ()	0.22788	1.45630	16.50020
	min_pulse_width	SN ()	0.23047	1.45630	16.50020

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	min_pulse_width	CLK ()	0.20714	1.45630	16.50020
	min_pulse_width	CLK ()	0.23047	1.45630	16.50020

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	min_pulse_width	CLK ()	0.35746	1.45630	16.50020
	min_pulse_width	CLK ()	0.22788	1.45630	16.50020

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.06467	0.13937	0.65038
	CLK	0.08972	0.16530	0.67768
	RN	0.10502	0.15566	0.55926
	RN	0.12178	0.17262	0.57788
	SN	0.09520	0.15571	0.62174
	SN	0.07891	0.14051	0.60644

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.06770	0.11451	0.50899
	CLK	0.09222	0.13887	0.53172
	RN	0.11637	0.17244	0.59300
	RN	0.09957	0.15467	0.57629

Internal switching power(pJ) to QN rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.06763	0.11443	0.50805
	CLK	0.09215	0.13878	0.53208
	RN	0.11635	0.17181	0.59143
	RN	0.09955	0.15509	0.57434

Internal switching power(pJ) to QN falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.06458	0.13962	0.64790
	CLK	0.08963	0.16459	0.67511
	RN	0.10495	0.15575	0.55607
	RN	0.12171	0.17250	0.57349
	SN	0.09512	0.15609	0.61949
	SN	0.07882	0.13985	0.60344

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	-0.01322	-0.01337	-0.01335
	CLK	0.00655	0.00647	0.00649
	(!CLK * RN * SN * Q * !QN) + (!CLK * RN * SN * !Q * QN)	0.08460	0.15229	0.71637
	(!CLK * RN * SN * Q * !QN) + (!CLK * RN * SN * !Q * QN)	0.11017	0.17788	0.74184
	(!CLK * RN * !SN * Q * !QN)	0.03740	0.10128	0.62199
	(!CLK * RN * !SN * Q * !QN)	0.06908	0.13307	0.65351
	(!CLK * !RN * SN * !Q * QN)	0.03715	0.10059	0.62211
	(!CLK * !RN * SN * !Q * QN)	0.06896	0.13235	0.65366
	(!CLK * !RN * !SN * !Q * QN)	0.03740	0.10128	0.62199
	(!CLK * !RN * !SN * !Q * QN)	0.06908	0.13307	0.65351

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.01350	0.01350	0.01335
	CLK	-0.00644	-0.00647	-0.00648
	(!CLK * RN * SN * Q * !QN) + (!CLK * RN * SN * !Q * QN)	0.10616	0.17651	0.74263
	(!CLK * RN * SN * Q * !QN) + (!CLK * RN * SN * !Q * QN)	0.08055	0.15087	0.71713
	(!CLK * RN * !SN * Q * !QN)	0.04832	0.11362	0.63649
	(!CLK * RN * !SN * Q * !QN)	0.01674	0.08188	0.60486
	(!CLK * !RN * SN * !Q * QN)	0.04844	0.11347	0.63632
	(!CLK * !RN * SN * !Q * QN)	0.01680	0.08179	0.60475
	(!CLK * !RN * !SN * !Q * QN)	0.04832	0.11362	0.63650
	(!CLK * !RN * !SN * !Q * QN)	0.01674	0.08186	0.60486

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(CLK * SN * !Q * QN) + (!CLK * !D * SN * !Q * QN)	0.00945	0.09340	0.67565
	(CLK * SN * !Q * QN) + (!CLK * !D * SN * !Q * QN)	0.03159	0.11551	0.69779
	(!CLK * D * SN * !Q * QN)	0.05546	0.14345	0.75218
	(!CLK * D * SN * !Q * QN)	0.07230	0.16042	0.76910

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(CLK * SN * !Q * QN) + (!CLK * !D * SN * !Q * QN)	0.03774	0.12507	0.70816
	(CLK * SN * !Q * QN) + (!CLK * !D * SN * !Q * QN)	0.01557	0.10282	0.68608
	(!CLK * D * SN * !Q * QN)	0.07901	0.17019	0.78403
	(!CLK * D * SN * !Q * QN)	0.06214	0.15344	0.76718

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(CLK * RN * Q * !QN) + (!CLK * D * RN * Q * !QN)	-0.02793	-0.02816	-0.02827
	(CLK * RN * Q * !QN) + (!CLK * D * RN * Q * !QN)	0.00386	0.00388	0.00366
	(!RN * !Q * QN)	-0.02694	-0.02702	-0.02698
	(!RN * !Q * QN)	0.01311	0.01316	0.01302
	(!CLK * !D * RN * Q * !QN)	0.02956	0.08801	0.55614
	(!CLK * !D * RN * Q * !QN)	0.06710	0.12577	0.59362

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(CLK * RN * Q * !QN) + (!CLK * D * RN * Q * !QN)	0.02846	0.02860	0.02836
	(CLK * RN * Q * !QN) + (!CLK * D * RN * Q * !QN)	-0.00361	-0.00364	-0.00359
	(!RN * !Q * QN)	0.02707	0.02702	0.02698
	(!RN * !Q * QN)	-0.01298	-0.01298	-0.01298
	(!CLK * !D * RN * Q * !QN)	0.06258	0.11848	0.58926
	(!CLK * !D * RN * Q * !QN)	0.02492	0.08071	0.55161

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(D * RN * Q * !QN)	-0.00022	0.08422	0.66646
	(D * RN * Q * !QN)	0.04664	0.13103	0.71314
	(D * !RN * SN * !Q * QN)	0.03593	0.12442	0.73405
	(D * !RN * SN * !Q * QN)	0.08031	0.16869	0.77671
	(D * !RN * !SN * !Q * QN)	0.03580	0.12436	0.73378
	(D * !RN * !SN * !Q * QN)	0.08025	0.16861	0.77637
	(!D * RN * SN * !Q * QN) + (!D * !RN * !Q * QN)	-0.00083	0.08455	0.66610
	(!D * RN * SN * !Q * QN) + (!D * !RN * !Q * QN)	0.05312	0.13834	0.71997
	(!D * RN * !SN * Q * !QN)	0.02509	0.16620	1.15806
	(!D * RN * !SN * Q * !QN)	0.08159	0.22280	1.21437

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(D * RN * SN * !Q * QN)	0.14915	0.23727	1.00237
	(D * RN * SN * !Q * QN)	0.10132	0.18958	0.95592
	(D * RN * Q * !QN)	0.04729	0.13513	0.71738
	(D * RN * Q * !QN)	0.00048	0.08852	0.67051
	(D * !RN * SN * !Q * QN)	0.09406	0.18881	0.79676
	(D * !RN * SN * !Q * QN)	0.04959	0.14470	0.75327
	(D * !RN * !SN * !Q * QN)	0.09424	0.18910	0.79678
	(D * !RN * !SN * !Q * QN)	0.04977	0.14491	0.75318
	(!D * RN * SN * Q * !QN)	0.13537	0.28452	1.17447
	(!D * RN * SN * Q * !QN)	0.08472	0.23384	1.12334
	(!D * RN * SN * !Q * QN) + (!D * !RN * !Q * QN)	0.05373	0.13922	0.72024
	(!D * RN * SN * !Q * QN) + (!D * !RN * !Q * QN)	-0.00033	0.08498	0.66631
	(!D * RN * !SN * Q * !QN)	0.06924	0.21479	1.20685
	(!D * RN * !SN * Q * !QN)	0.01269	0.15837	1.15038

GF180MCU_OSU_SC_GP9T3V3__DFF_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__dff_1	89.17500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)	
	D	CLK	Q	QN
gf180mcu_osu_sc_gp9t3v3__dff_1	0.00393	0.01039	1.56141	1.56075

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dff_1	0.00000	0.00595	0.00661

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK->Q (RR)	0.26942	1.25620	16.48390
	QN->Q (FR)	0.04498	0.85148	10.25460

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK->Q (RF)	0.35742	1.28545	16.29670
	QN->Q (RF)	0.03639	0.65226	8.74007

Delay(ns) to QN rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK->QN (RR)	0.32250	0.75813	6.99720

Delay(ns) to QN falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK->QN (RF)	0.23125	0.67320	6.16788

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	hold	CLK (R)	-0.10101	-0.09519	0.57241
	setup	CLK (R)	0.19078	0.25850	0.88708

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	hold	CLK (R)	-0.20420	-0.60089	-4.76816
	setup	CLK (R)	0.22179	0.61438	5.15952

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	min_pulse_width	CLK ()	0.15531	1.45630	16.50020
	min_pulse_width	CLK ()	0.18900	1.45630	16.50020

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	min_pulse_width	CLK ()	0.25379	1.45630	16.50020
	min_pulse_width	CLK ()	0.18123	1.45630	16.50020

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.04946	0.12984	0.64377
	CLK	0.07753	0.15803	0.67514

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.05842	0.10745	0.50368
	CLK	0.07991	0.12830	0.52377

Internal switching power(pJ) to QN rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.05840	0.10719	0.50270
	CLK	0.07989	0.12852	0.52401

Internal switching power(pJ) to QN falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.04937	0.12979	0.64122
	CLK	0.07744	0.15791	0.67139

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	-0.01322	-0.01338	-0.01335
	CLK	0.00655	0.00647	0.00649
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.05982	0.13524	0.71342
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.09138	0.16690	0.74479

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.01350	0.01350	0.01335
	CLK	-0.00644	-0.00647	-0.00648
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.09185	0.16885	0.74724
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.06027	0.13728	0.71567

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	(D * Q * !QN)	-0.00022	0.08422	0.66646
	(D * Q * !QN)	0.04664	0.13102	0.71314
	(!D * !Q * QN)	-0.00083	0.08453	0.66610
	(!D * !Q * QN)	0.05312	0.13836	0.71997

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	(D * Q * !QN)	0.04730	0.13539	0.71738
	(D * Q * !QN)	0.00048	0.08841	0.67051
	(D * !Q * QN)	0.12427	0.21430	0.99209
	(D * !Q * QN)	0.08251	0.17233	0.94983
	(!D * Q * !QN)	0.12089	0.27488	1.16805
	(!D * Q * !QN)	0.06421	0.21785	1.11108
	(!D * !Q * QN)	0.05375	0.13922	0.72024
	(!D * !Q * QN)	-0.00032	0.08498	0.66630

GF180MCU_OSU_SC_GP9T3V3__DLATN_1

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

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

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__dlatn_1	58.42500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	D	CLKN	Q
gf180mcu_osu_sc_gp9t3v3__dlatn_1	0.00395	0.00812	1.56358

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dlatn_1	0.00000	0.00418	0.00475

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLKN->Q (RR)	0.26321	0.74398	6.94335
	D->Q (RR)	0.29531	0.73056	6.96558

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLKN->Q (RF)	0.33278	0.70064	6.22097
	D->Q (FF)	0.32836	0.89642	7.70570

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	hold	CLKN (F)	-0.17417	-0.36560	-2.23157
	setup	CLKN (F)	0.18929	0.52757	6.82894

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	hold	CLKN (F)	-0.15692	-0.19037	0.12822
	setup	CLKN (F)	0.16945	0.19470	-0.12937

Constraints(ns) for CLKN rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	min_pulse_width	CLKN ()	0.15531	1.45630	16.50020
	min_pulse_width	CLKN ()	0.18123	1.45630	16.50020

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLKN	0.09253	0.24889	1.13079
	CLKN	0.13707	0.29348	1.17570
	D	0.08989	0.16843	0.75443
	D	0.11759	0.19603	0.78214

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLKN	0.11208	0.20101	0.81578
	CLKN	0.13878	0.22776	0.84295
	D	0.12857	0.20696	0.79445
	D	0.10028	0.17900	0.76670

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	!CLKN	-0.01334	-0.01350	-0.01346
	!CLKN	0.00659	0.00649	0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	!CLKN	0.01344	0.01354	0.01346
	!CLKN	-0.00639	-0.00649	-0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	(D * Q)	-0.00054	0.08676	0.67099
	(D * Q)	0.03387	0.12148	0.70541
	(!D * !Q)	-0.00068	0.08702	0.67094
	(!D * !Q)	0.03723	0.12494	0.70871

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	(D * Q)	0.03505	0.12500	0.70878
	(D * Q)	0.00046	0.09045	0.67426
	(!D * !Q)	0.03797	0.12641	0.70996
	(!D * !Q)	-0.00001	0.08839	0.67209

GF180MCU_OSU_SC_GP9T3V3__DLAT_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__dlat_1	58.42500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	D	CLK	Q
gf180mcu_osu_sc_gp9t3v3__dlat_1	0.00395	0.00812	1.56358

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dlat_1	0.00000	0.00418	0.00475

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dlat_1	CLK->Q (RR)	0.26321	0.74398	6.94335
	D->Q (RR)	0.29531	0.73056	6.96558

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dlat_1	CLK->Q (RF)	0.33278	0.70064	6.22097
	D->Q (FF)	0.32836	0.89642	7.70570

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	hold	CLK (F)	-0.17417	-0.36560	-2.23157
	setup	CLK (F)	0.18929	0.52757	6.82894

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	hold	CLK (F)	-0.15692	-0.19037	0.12822
	setup	CLK (F)	0.16945	0.19470	-0.12937

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	min_pulse_width	CLK ()	0.15531	1.45630	16.50020
	min_pulse_width	CLK ()	0.18123	1.45630	16.50020

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	CLK	0.09253	0.24889	1.13079
	CLK	0.13707	0.29348	1.17570
	D	0.08989	0.16843	0.75443
	D	0.11759	0.19603	0.78214

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	CLK	0.11208	0.20101	0.81578
	CLK	0.13878	0.22776	0.84295
	D	0.12857	0.20696	0.79445
	D	0.10028	0.17900	0.76670

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	!CLK	-0.01334	-0.01350	-0.01346
	!CLK	0.00659	0.00649	0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	!CLK	0.01344	0.01354	0.01346
	!CLK	-0.00639	-0.00649	-0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	(D * Q)	-0.00054	0.08676	0.67099
	(D * Q)	0.03387	0.12148	0.70541
	(!D * !Q)	-0.00068	0.08702	0.67094
	(!D * !Q)	0.03723	0.12494	0.70871

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	(D * Q)	0.03505	0.12500	0.70878
	(D * Q)	0.00046	0.09045	0.67426
	(!D * !Q)	0.03797	0.12641	0.70996
	(!D * !Q)	-0.00001	0.08839	0.67209

GF180MCU_OSU_SC_GP9T3V3__INV_16

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__inv_16	92.25000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_16	0.06466	23.87903

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_16	0.00000	0.01192	0.01439

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_16	A->Y (FR)	0.03956	0.49677	9.96266

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_16	A->Y (RF)	0.03092	0.29391	8.47767

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_16	A	0.35769	1.48564	4.08772
	A	0.00871	1.13458	3.73679

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_16	A	0.00389	1.07024	3.39414
	A	0.35277	1.42158	3.74746

GF180MCU_OSU_SC_GP9T3V3__INV_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__inv_1	13.53000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_1	0.00404	1.50748

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_1	0.00000	0.00075	0.00090

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_1	A->Y (FR)	0.04498	0.84197	10.02570

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_1	A->Y (RF)	0.03639	0.64312	8.53517

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_1	A	0.02226	0.07404	0.25366
	A	0.00038	0.05208	0.23179

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_1	A	-0.00053	0.04771	0.21052
	A	0.02128	0.06976	0.23249

GF180MCU_OSU_SC_GP9T3V3__INV_2

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__inv_2	19.68000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_2	0.00808	2.98498

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_2	0.00000	0.00149	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_2	A->Y (FR)	0.04172	0.72858	9.96233

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_2	A->Y (RF)	0.03307	0.52906	8.47738

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_2	A	0.04475	0.15897	0.51097
	A	0.00091	0.11480	0.46711

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_2	A	-0.00109	0.10609	0.42288
	A	0.04270	0.15004	0.46704

GF180MCU_OSU_SC_GP9T3V3__INV_4

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__inv_4	29.52000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_4	0.01616	5.97048

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_4	0.00000	0.00298	0.00360

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_4	**A->Y (FR)**	0.04000	0.63574	9.96289

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_4	**A->Y (RF)**	0.03137	0.43650	8.47788

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_4	A	0.08959	0.33578	1.02191
	A	0.00205	0.24768	0.93418

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_4	A	-0.00200	0.23109	0.84572
	A	0.08550	0.31888	0.93405

GF180MCU_OSU_SC_GP9T3V3__INV_8

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__inv_8	50.43000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_8	0.03232	11.94140

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_8	0.00000	0.00596	0.00720

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_8	A->Y (FR)	0.03912	0.55929	9.96313

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_8	A->Y (RF)	0.03045	0.35837	8.47809

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_8	A	0.17894	0.70851	2.04380
	A	0.00445	0.53241	1.86833

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_8	A	-0.00375	0.49690	1.69140
	A	0.17077	0.67287	1.86807

GF180MCU_OSU_SC_GP9T3V3__LSHIFDOWN

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__lshifdown	31.98000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__lshifdown	0.00417	1.54316

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__lshifdown	0.00000	0.02964	0.03235

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__lshifdown	A->Y (RR)	0.08196	0.57581	7.63192

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__lshifdown	A->Y (FF)	0.06373	0.43692	4.85906

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__lshifdown	A	0.02605	0.02876	0.03320
	A	0.00797	0.48817	3.62597
	A	0.06535	0.38506	2.45924

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__lshifdown	A	-0.00741	-0.00449	-0.00245
	A	0.11016	0.59251	3.72804
	A	0.03113	0.35225	2.42425

GF180MCU_OSU_SC_GP9T3V3__LSHIFUP

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__lshifup	50.12250

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__lshifup	0.00542	2.02733

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__lshifup	0.00000	0.06049	0.07218

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__lshifup	A->Y (RR)	0.42189	1.57831	12.20900

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__lshifup	A->Y (FF)	0.52474	1.17812	10.41150

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__lshifup	A	-0.00066	0.08926	0.67803
	A	0.52301	1.15548	4.46166
	A	0.37401	0.88121	3.65173

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__lshifup	A	0.02978	0.12087	0.70972
	A	0.61839	0.73203	2.77048
	A	0.40414	0.15923	-3.65173

GF180MCU_OSU_SC_GP9T3V3__MUX2_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__mux2_1	31.36500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	Sel	Y
gf180mcu_osu_sc_gp9t3v3__mux2_1	0.24485	0.24485	0.00808	0.24039

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__mux2_1	0.00000	0.00201	0.00207

Delay Information

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__mux2_1	A->Y (RR)	-	0.02333	0.10898	0.80157
	B->Y (RR)	-	0.02529	0.10981	0.80245
	Sel->Y (RR)	(!A * B)	0.07429	0.23298	0.84092
	Sel->Y (FR)	(A * !B)	0.05563	0.41382	2.58659

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__mux2_1	A->Y (FF)	-	0.02811	0.11506	0.84003
	B->Y (FF)	-	0.02571	0.11405	0.83896
	Sel->Y (FF)	(!A * B)	0.08564	0.41550	2.08689
	Sel->Y (RF)	(A * !B)	0.04719	0.24437	1.46441

Power Information

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	A	-	-0.03048	-0.03051	-0.03049
	A	-	0.01297	0.01301	0.01300
	B	-	-0.02387	-0.02386	-0.02388
	B	-	0.02376	0.02377	0.02378
	Sel	(A * !B)	0.01192	0.10175	0.68712
	Sel	(A * !B)	0.00927	0.09899	0.68458
	Sel	(!A * B)	-0.01752	0.06847	0.65235
	Sel	(!A * B)	0.05188	0.13862	0.72483

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	A	-	0.03048	0.03051	0.03054
	A	-	-0.01297	-0.01301	-0.01300
	B	-	0.02387	0.02389	0.02390
	B	-	-0.02376	-0.02377	-0.02378
	Sel	(A * !B)	0.01619	0.10391	0.68925
	Sel	(A * !B)	0.01876	0.10709	0.69450
	Sel	(!A * B)	0.06024	0.14739	0.73129
	Sel	(!A * B)	-0.00917	0.07800	0.66226

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(B * Sel * Y) + (!B * Sel * !Y)	-0.00715	-0.00717	-0.00714
	(B * Sel * Y) + (!B * Sel * !Y)	0.00469	0.00472	0.00470

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(B * Sel * Y) + (!B * Sel * !Y)	0.00720	0.00717	0.00714
	(B * Sel * Y) + (!B * Sel * !Y)	-0.00469	-0.00472	-0.00470

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(A * !Sel * Y) + (!A * !Sel * !Y)	-0.00843	-0.00846	-0.00842
	(A * !Sel * Y) + (!A * !Sel * !Y)	0.00407	0.00409	0.00407

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(A * !Sel * Y) + (!A * !Sel * !Y)	0.00843	0.00846	0.00842
	(A * !Sel * Y) + (!A * !Sel * !Y)	-0.00407	-0.00409	-0.00407

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(A * B * Y)	-0.00072	0.08697	0.67095
	(A * B * Y)	0.03710	0.12490	0.70871
	(!A * !B * !Y)	-0.00068	0.08657	0.67087
	(!A * !B * !Y)	0.03358	0.12111	0.70522

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(A * B * Y)	0.03787	0.12605	0.70976
	(A * B * Y)	-0.00007	0.08814	0.67191
	(!A * !B * !Y)	0.03459	0.12426	0.70857
	(!A * !B * !Y)	0.00021	0.08986	0.67424

GF180MCU_OSU_SC_GP9T3V3__NAND2_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__nand2_1	19.06500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__nand2_1	0.00404	0.00402	1.04725

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__nand2_1	0.00000	0.00079	0.00118

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__nand2_1	A->Y (FR)	0.05391	0.73458	7.95705
	B->Y (FR)	0.06585	0.76115	7.99777

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__nand2_1	A->Y (RF)	0.06150	0.77694	9.03370
	B->Y (RF)	0.06617	0.63493	7.88183

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	A	0.02371	0.06746	0.23835
	A	0.00059	0.04432	0.21361
	B	0.03513	0.08287	0.26647
	B	0.00703	0.05453	0.23683

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	A	0.00588	0.04849	0.21421
	A	0.02905	0.07189	0.23791
	B	0.00459	0.04928	0.23854
	B	0.03280	0.07788	0.26777

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	(!B * Y)	-0.01402	-0.01412	-0.01414
	(!B * Y)	0.00188	0.00188	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	(!B * Y)	0.01426	0.01431	0.01418
	(!B * Y)	-0.00177	-0.00177	-0.00175

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	(!A * Y)	-0.01352	-0.01358	-0.01352
	(!A * Y)	0.00650	0.00654	0.00648

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	(!A * Y)	0.01367	0.01367	0.01355
	(!A * Y)	-0.00639	-0.00652	-0.00647

GF180MCU_OSU_SC_GP9T3V3__NOR2_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__nor2_1	17.22000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__nor2_1	0.00398	0.00404	0.78121

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__nor2_1	0.00000	0.00084	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__nor2_1	A->Y (FR)	0.09194	0.83618	8.71519
	B->Y (FR)	0.07001	0.97901	9.85004

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__nor2_1	A->Y (RF)	0.05934	0.50696	5.37174
	B->Y (RF)	0.04320	0.46109	5.29400

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	A	0.03440	0.08071	0.32284
	A	0.00253	0.04853	0.29057
	B	0.02602	0.07081	0.26848
	B	0.00354	0.04821	0.24589

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	A	0.01134	0.05559	0.25578
	A	0.04303	0.08747	0.29150
	B	0.00064	0.04168	0.21929
	B	0.02314	0.06435	0.24590

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	(B * !Y)	-0.01310	-0.01344	-0.01336
	(B * !Y)	0.00654	0.00659	0.00651

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	(B * !Y)	0.01341	0.01344	0.01336
	(B * !Y)	-0.00648	-0.00652	-0.00649

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	(A * !Y)	-0.00461	-0.00456	-0.00451
	(A * !Y)	0.00792	0.00785	0.00780

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	(A * !Y)	0.00488	0.00484	0.00460
	(A * !Y)	-0.00756	-0.00760	-0.00780

GF180MCU_OSU_SC_GP9T3V3__OAI21_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__oai21_1	24.60000

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	B	Y
gf180mcu_osu_sc_gp9t3v3__oai21_1	0.00395	0.00402	0.00404	0.77902

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__oai21_1	0.00000	0.00097	0.00152

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai21_1	A0->Y (FR)	0.12840	0.85377	8.59381
	A1->Y (FR)	0.10356	0.99678	9.74633
	B->Y (FR)	0.05358	0.68184	6.75524

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai21_1	A0->Y (RF)	0.10041	0.58269	6.13624
	A1->Y (RF)	0.07349	0.53463	6.04630
	B->Y (RF)	0.08984	0.73943	7.41956

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	A0	0.04753	0.08644	0.28834
	A0	0.00947	0.04817	0.25008
	A1	0.03846	0.07638	0.23966
	A1	0.00976	0.04758	0.21166
	B	0.02356	0.07591	0.30431
	B	0.00040	0.05241	0.28053

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	A0	0.01748	0.05472	0.23887
	A0	0.05552	0.09284	0.27682
	A1	0.00577	0.04052	0.20627
	A1	0.03445	0.06937	0.23499
	B	0.00617	0.05579	0.27437
	B	0.02930	0.07900	0.29751

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(A1 * B * !Y)	-0.01308	-0.01344	-0.01338
	(A1 * B * !Y)	0.00653	0.00659	0.00651
	(A1 * !B * Y)	-0.01314	-0.01344	-0.01336
	(A1 * !B * Y)	0.00651	0.00659	0.00651
	(!A1 * !B * Y)	-0.01352	-0.01357	-0.01352
	(!A1 * !B * Y)	0.00652	0.00648	0.00645

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(A1 * B * !Y)	0.01351	0.01344	0.01338
	(A1 * B * !Y)	-0.00648	-0.00652	-0.00649
	(A1 * !B * Y)	0.01349	0.01344	0.01336
	(A1 * !B * Y)	-0.00650	-0.00653	-0.00649
	(!A1 * !B * Y)	0.01358	0.01366	0.01355
	(!A1 * !B * Y)	-0.00637	-0.00648	-0.00645

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(A0 * B * !Y)	-0.00461	-0.00456	-0.00451
	(A0 * B * !Y)	0.00789	0.00785	0.00780
	(!B * Y)	-0.01311	-0.01342	-0.01331
	(!B * Y)	0.00654	0.00652	0.00651

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(A0 * B * !Y)	0.00488	0.00484	0.00460
	(A0 * B * !Y)	-0.00752	-0.00759	-0.00780
	(!B * Y)	0.01331	0.01344	0.01331
	(!B * Y)	-0.00650	-0.00652	-0.00649

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(!A0 * !A1 * Y)	-0.01396	-0.01405	-0.01413
	(!A0 * !A1 * Y)	0.00194	0.00194	0.00179

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(!A0 * !A1 * Y)	0.01413	0.01430	0.01418
	(!A0 * !A1 * Y)	-0.00174	-0.00177	-0.00175

GF180MCU_OSU_SC_GP9T3V3__OAI22_1

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

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

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__oai22_1	33.82500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A0	A1	Y
gf180mcu_osu_sc_gp9t3v3__oai22_1	0.00398	0.00404	0.74002

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__oai22_1	0.00000	0.00145	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai22_1	A0->Y (FR)	0.14597	0.86374	8.36791
	A1->Y (FR)	0.12121	1.00853	9.50550

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai22_1	A0->Y (RF)	0.17477	0.71890	7.27315
	A1->Y (RF)	0.13099	0.65830	7.15756

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	A0	0.05343	0.09465	0.32290
	A0	0.02142	0.06238	0.28961
	A1	0.04421	0.08494	0.26988
	A1	0.02177	0.06233	0.24719

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	A0	2.47139	2.41090	1.73828
	A0	2.50280	2.44232	1.76983
	A1	2.45533	2.38805	1.69936
	A1	2.47758	2.41041	1.72170

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A1 * !Y)	-0.01308	-0.01345	-0.01338
	(A1 * !Y)	0.00653	0.00659	0.00651

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A1 * !Y)	0.01342	0.01345	0.01338
	(A1 * !Y)	-0.00648	-0.00652	-0.00649

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A0 * !Y)	-0.00461	-0.00456	-0.00451
	(A0 * !Y)	0.00790	0.00785	0.00780

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A0 * !Y)	0.00487	0.00485	0.00460
	(A0 * !Y)	-0.00750	-0.00759	-0.00780

GF180MCU_OSU_SC_GP9T3V3__OAI31_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__oai31_1	30.13500

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A0	A1	A2	B	Y
gf180mcu_osu_sc_gp9t3v3__oai31_1	0.00395	0.00402	0.00395	0.00404	0.52736

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__oai31_1	0.00000	0.00103	0.00216

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai31_1	A0->Y (FR)	0.19501	1.03447	8.96826
	A1->Y (FR)	0.13793	1.11756	9.77263
	A2->Y (FR)	0.22160	0.94893	8.21896
	B->Y (FR)	0.05347	0.61238	5.45578

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai31_1	A0->Y (RF)	0.10829	0.48084	4.34351
	A1->Y (RF)	0.07891	0.43324	4.25359
	A2->Y (RF)	0.11836	0.51714	4.44466
	B->Y (RF)	0.10307	0.68762	5.76240

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	A0	0.05132	0.08226	0.27359
	A0	0.01280	0.04368	0.23486
	A1	0.04210	0.07622	0.24306
	A1	0.01295	0.04697	0.21392
	A2	0.06079	0.09246	0.33351
	A2	0.01280	0.04438	0.28543
	B	0.02351	0.08124	0.36876
	B	0.00035	0.05802	0.34435

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	A0	0.01898	0.04904	0.22780
	A0	0.05749	0.08768	0.26747
	A1	0.00610	0.03629	0.19824
	A1	0.03541	0.06554	0.22852
	A2	0.03002	0.06156	0.26133
	A2	0.07745	0.10917	0.31025
	B	0.00626	0.06127	0.33656
	B	0.02939	0.08444	0.36027

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	(A1 * B * !Y) + (!A1 * A2 * B * !Y)	-0.00839	-0.00849	-0.00845
	(A1 * B * !Y) + (!A1 * A2 * B * !Y)	0.00659	0.00653	0.00650
	(A1 * !B * Y)	-0.00961	-0.00972	-0.00964
	(A1 * !B * Y)	0.00658	0.00654	0.00651
	(!A1 * !B * Y)	-0.01309	-0.01339	-0.01327
	(!A1 * !B * Y)	0.00653	0.00655	0.00651

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	(A1 * B * !Y) + (!A1 * A2 * B * !Y)	0.00839	0.00849	0.00845
	(A1 * B * !Y) + (!A1 * A2 * B * !Y)	-0.00645	-0.00652	-0.00649
	(A1 * !B * Y)	0.00961	0.00972	0.00964
	(A1 * !B * Y)	-0.00646	-0.00654	-0.00649
	(!A1 * !B * Y)	0.01324	0.01339	0.01327
	(!A1 * !B * Y)	-0.00648	-0.00655	-0.00649

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	(A0 * B * !Y)	-0.00457	-0.00456	-0.00451
	(A0 * B * !Y)	0.00785	0.00785	0.00780
	(A0 * !B * Y)	-0.01303	-0.01342	-0.01333
	(A0 * !B * Y)	0.00649	0.00652	0.00651
	(!A0 * A2 * B * !Y)	-0.00454	-0.00449	-0.00442
	(!A0 * A2 * B * !Y)	0.00789	0.00785	0.00780
	(!A0 * !B * Y)	-0.01207	-0.01283	-0.01279
	(!A0 * !B * Y)	0.00652	0.00650	0.00651

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	(A0 * B * !Y)	0.00487	0.00484	0.00460
	(A0 * B * !Y)	-0.00751	-0.00759	-0.00780
	(A0 * !B * Y)	0.01327	0.01345	0.01333
	(A0 * !B * Y)	-0.00646	-0.00652	-0.00649
	(!A0 * A2 * B * !Y)	0.00498	0.00494	0.00442
	(!A0 * A2 * B * !Y)	-0.00698	-0.00709	-0.00775
	(!A0 * !B * Y)	0.01289	0.01283	0.01279
	(!A0 * !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_gp9t3v3__oai31_1	(A0 * A1 * B * !Y)	-0.01312	-0.01344	-0.01338
	(A0 * A1 * B * !Y)	0.00649	0.00659	0.00651
	(A0 * !B * Y)	-0.01322	-0.01347	-0.01339
	(A0 * !B * Y)	0.00657	0.00659	0.00651
	(A0 * !A1 * B * !Y) + (!A0 * A1 * B * !Y)	-0.01311	-0.01344	-0.01338
	(A0 * !A1 * B * !Y) + (!A0 * A1 * B * !Y)	0.00649	0.00659	0.00651
	(!A0 * A1 * !B * Y)	-0.01254	-0.01316	-0.01302
	(!A0 * A1 * !B * Y)	0.00659	0.00657	0.00651
	(!A0 * !A1 * !B * Y)	-0.01349	-0.01357	-0.01352
	(!A0 * !A1 * !B * Y)	0.00645	0.00646	0.00644

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	(A0 * A1 * B * !Y)	0.01351	0.01344	0.01338
	(A0 * A1 * B * !Y)	-0.00649	-0.00652	-0.00649
	(A0 * !B * Y)	0.01351	0.01349	0.01339
	(A0 * !B * Y)	-0.00649	-0.00654	-0.00649
	(A0 * !A1 * B * !Y) + (!A0 * A1 * B * !Y)	0.01350	0.01344	0.01338
	(A0 * !A1 * B * !Y) + (!A0 * A1 * B * !Y)	-0.00649	-0.00652	-0.00649
	(!A0 * A1 * !B * Y)	0.01302	0.01316	0.01302
	(!A0 * A1 * !B * Y)	-0.00650	-0.00653	-0.00649
	(!A0 * !A1 * !B * Y)	0.01355	0.01360	0.01355
	(!A0 * !A1 * !B * Y)	-0.00636	-0.00646	-0.00644

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	(!A0 * !A1 * !A2 * Y)	-0.01389	-0.01398	-0.01412
	(!A0 * !A1 * !A2 * Y)	0.00200	0.00200	0.00180

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	(!A0 * !A1 * !A2 * Y)	0.01413	0.01430	0.01418
	(!A0 * !A1 * !A2 * Y)	-0.00174	-0.00177	-0.00175

GF180MCU_OSU_SC_GP9T3V3__OR2_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__or2_1	23.37000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__or2_1	0.00404	0.00398	1.55634

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__or2_1	0.00000	0.00166	0.00239

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__or2_1	A->Y (RR)	0.09111	0.44583	6.27342
	B->Y (RR)	0.10926	0.54557	6.87422

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__or2_1	A->Y (FF)	0.13197	0.83526	8.44438
	B->Y (FF)	0.15549	0.76444	7.98435

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	A	0.02158	0.08977	0.55597
	A	0.04409	0.11227	0.57669
	B	0.03263	0.10988	0.66201
	B	0.06449	0.14162	0.69352

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	A	0.04804	0.11729	0.57924
	A	0.02543	0.09489	0.55677
	B	0.05681	0.13034	0.68094
	B	0.02480	0.09841	0.64951

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	(B * Y)	-0.00462	-0.00456	-0.00451
	(B * Y)	0.00789	0.00785	0.00780

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	(B * Y)	0.00488	0.00485	0.00460
	(B * Y)	-0.00753	-0.00759	-0.00780

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	(A * Y)	-0.01308	-0.01345	-0.01338
	(A * Y)	0.00653	0.00659	0.00651

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	(A * Y)	0.01349	0.01345	0.01338
	(A * Y)	-0.00649	-0.00652	-0.00649

GF180MCU_OSU_SC_GP9T3V3__TBUF_16

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	EN	EN_BAR	Y
0	x	0	0
0	x	1	1
1	x	x	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tbuf_16	103.62750

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	EN	EN_BAR	Y
gf180mcu_osu_sc_gp9t3v3__tbuf_16	0.00395	0.00132	0.00272	24.97480

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__tbuf_16	0.00000	1583270.00000	4460640.00000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	A->Y (RR)	0.55361	0.92033	8.11300
	EN->Y (RR)	0.53575	0.93744	6.16560

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	A->Y (FF)	0.68314	1.17977	8.94805
	EN_BAR->Y (FF)	0.65180	1.18358	6.77083

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	A	1.10049	0.87371	1.14055
	A	1.13674	0.90772	1.16769
	EN	1.10914	0.93883	0.74067
	EN	1.12681	0.95510	0.72587

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	A	1.34740	1.04732	1.16581
	A	1.31113	1.00988	1.12983
	EN_BAR	1.33599	1.12754	0.74701
	EN_BAR	1.31557	1.10563	0.74109

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	(EN * EN_BAR * Y)	-0.01422	-0.01411	-0.01365
	(EN * EN_BAR * Y)	0.00541	0.00542	0.00536
	(!EN * EN_BAR)	-0.01321	-0.01340	-0.01335
	(!EN * EN_BAR)	0.00653	0.00646	0.00646
	(!EN * !EN_BAR * !Y)	-0.01121	-0.01181	-0.01171
	(!EN * !EN_BAR * !Y)	0.00862	0.00750	0.00702

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	(EN * EN_BAR * Y)	0.01498	0.01411	0.01365
	(EN * EN_BAR * Y)	-0.00494	-0.00542	-0.00536
	(!EN * EN_BAR)	0.01350	0.01350	0.01335
	(!EN * EN_BAR)	-0.00639	-0.00646	-0.00646
	(!EN * !EN_BAR * !Y)	0.01184	0.01181	0.01171
	(!EN * !EN_BAR * !Y)	-0.00804	-0.00750	-0.00702

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	(EN_BAR * Y)	-0.00210	-0.00089	-0.00035
	(EN_BAR * Y)	0.00442	0.00446	0.00441
	(A * !EN_BAR * Y)	-0.00210	-0.00089	-0.00035
	(A * !EN_BAR * Y)	0.00442	0.00445	0.00441
	(!A * EN_BAR * !Y)	-0.00022	-0.00022	-0.00027
	(!A * EN_BAR * !Y)	0.00217	0.00216	0.00212
	(!A * !EN_BAR * !Y)	-0.00050	-0.00050	-0.00061
	(!A * !EN_BAR * !Y)	0.00190	0.00188	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	(EN_BAR * Y)	0.00296	0.00089	0.00035
	(EN_BAR * Y)	-0.00354	-0.00446	-0.00441
	(A * !EN_BAR * Y)	0.00296	0.00089	0.00035
	(A * !EN_BAR * Y)	-0.00354	-0.00445	-0.00441
	(!A * EN_BAR * !Y)	0.00029	0.00028	0.00028
	(!A * EN_BAR * !Y)	-0.00213	-0.00210	-0.00209
	(!A * !EN_BAR * !Y)	0.00064	0.00063	0.00063
	(!A * !EN_BAR * !Y)	-0.00179	-0.00176	-0.00174

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	(A * EN * Y)	-0.00458	-0.00454	-0.00451
	(A * EN * Y)	0.00130	0.00129	0.00129
	(A * !EN * Y)	-0.00566	-0.00561	-0.00558
	(A * !EN * Y)	0.00021	0.00021	0.00021
	(!EN * !Y)	-0.00712	-0.00715	-0.00708
	(!EN * !Y)	0.00542	0.00598	0.00613
	(!A * EN * !Y)	-0.00946	-0.01029	-0.01018
	(!A * EN * !Y)	0.00396	0.00156	0.00066

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_16	(A * EN * Y)	0.00491	0.00484	0.00460
	(A * EN * Y)	-0.00100	-0.00102	-0.00129
	(A * !EN * Y)	0.00574	0.00570	0.00570
	(A * !EN * Y)	-0.00016	-0.00016	-0.00020
	(!EN * !Y)	0.00712	0.00715	0.00708
	(!EN * !Y)	-0.00542	-0.00571	-0.00565
	(!A * EN * !Y)	0.01022	0.01029	0.01018
	(!A * EN * !Y)	-0.00333	-0.00156	-0.00066

GF180MCU_OSU_SC_GP9T3V3__TBUF_1

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	EN	EN_BAR	Y
0	x	0	0
0	x	1	1
1	x	x	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tbuf_1	25.52250

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	EN	EN_BAR	Y
gf180mcu_osu_sc_gp9t3v3__tbuf_1	0.00395	0.00132	0.00275	1.55772

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__tbuf_1	0.00000	98954.60000	278790.00000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	A->Y (RR)	0.14941	0.59417	7.13501
	EN->Y (RR)	0.13255	0.34109	3.79007

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	A->Y (FF)	0.17413	0.77127	7.90358
	EN_BAR->Y (FF)	0.14475	0.44159	3.85679

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	A	0.03337	0.10287	0.63002
	A	0.06966	0.13902	0.66557
	EN	0.04295	0.04598	0.04694
	EN	0.06065	0.06360	0.06390

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	A	0.06562	0.13353	0.66068
	A	0.02920	0.09722	0.62505
	EN_BAR	0.05508	0.05796	0.05791
	EN_BAR	0.03456	0.03753	0.03753

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	(EN * EN_BAR * Y)	-0.01343	-0.01360	-0.01348
	(EN * EN_BAR * Y)	0.00616	0.00610	0.00610
	(!EN * EN_BAR)	-0.01321	-0.01341	-0.01335
	(!EN * EN_BAR)	0.00653	0.00646	0.00646
	(!EN * !EN_BAR * !Y)	-0.01202	-0.01283	-0.01270
	(!EN * !EN_BAR * !Y)	0.00717	0.00670	0.00660

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	(EN * EN_BAR * Y)	0.01405	0.01360	0.01348
	(EN * EN_BAR * Y)	-0.00572	-0.00610	-0.00610
	(!EN * EN_BAR)	0.01350	0.01350	0.01335
	(!EN * EN_BAR)	-0.00639	-0.00646	-0.00646
	(!EN * !EN_BAR * !Y)	0.01281	0.01283	0.01270
	(!EN * !EN_BAR * !Y)	-0.00675	-0.00670	-0.00660

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	(EN_BAR * Y)	-0.00044	-0.00022	-0.00015
	(EN_BAR * Y)	0.00612	0.00614	0.00608
	(A * !EN_BAR * Y)	-0.00044	-0.00022	-0.00015
	(A * !EN_BAR * Y)	0.00612	0.00614	0.00607
	(!A * EN_BAR * !Y)	-0.00027	-0.00027	-0.00031
	(!A * EN_BAR * !Y)	0.00214	0.00212	0.00208
	(!A * !EN_BAR * !Y)	-0.00050	-0.00051	-0.00061
	(!A * !EN_BAR * !Y)	0.00189	0.00187	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	(EN_BAR * Y)	0.00107	0.00022	0.00015
	(EN_BAR * Y)	-0.00531	-0.00614	-0.00608
	(A * !EN_BAR * Y)	0.00106	0.00022	0.00015
	(A * !EN_BAR * Y)	-0.00530	-0.00614	-0.00607
	(!A * EN_BAR * !Y)	0.00033	0.00033	0.00033
	(!A * EN_BAR * !Y)	-0.00205	-0.00202	-0.00200
	(!A * !EN_BAR * !Y)	0.00063	0.00063	0.00063
	(!A * !EN_BAR * !Y)	-0.00179	-0.00176	-0.00175

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	(A * EN * Y)	-0.00452	-0.00454	-0.00451
	(A * EN * Y)	0.00128	0.00129	0.00129
	(A * !EN * Y)	-0.00547	-0.00542	-0.00539
	(A * !EN * Y)	0.00033	0.00032	0.00032
	(!EN * !Y)	-0.00932	-0.00926	-0.00842
	(!EN * !Y)	0.00238	0.00239	0.00252
	(!A * EN * !Y)	-0.01183	-0.01272	-0.01265
	(!A * EN * !Y)	0.00140	0.00045	0.00027

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	(A * EN * Y)	0.00489	0.00483	0.00460
	(A * EN * Y)	-0.00101	-0.00103	-0.00129
	(A * !EN * Y)	0.00729	0.00798	0.01307
	(A * !EN * Y)	0.00141	0.00215	0.00721
	(!EN * !Y)	0.01253	0.01194	0.00842
	(!EN * !Y)	0.00194	0.00146	-0.00199
	(!A * EN * !Y)	0.01274	0.01272	0.01265
	(!A * EN * !Y)	-0.00078	-0.00045	-0.00027

GF180MCU_OSU_SC_GP9T3V3__TBUF_2

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	EN	EN_BAR	Y
0	x	0	0
0	x	1	1
1	x	x	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tbuf_2	30.44250

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	EN	EN_BAR	Y
gf180mcu_osu_sc_gp9t3v3__tbuf_2	0.00395	0.00133	0.00273	3.10304

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__tbuf_2	0.00000	197909.00000	557580.00000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	A->Y (RR)	0.17631	0.55897	7.18623
	EN->Y (RR)	0.15922	0.34684	4.02272

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	A->Y (FF)	0.20650	0.74722	7.96694
	EN_BAR->Y (FF)	0.17653	0.48072	4.17012

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	A	0.06111	0.12783	0.65344
	A	0.09740	0.16397	0.68834
	EN	0.07059	0.07710	0.08152
	EN	0.08828	0.09466	0.09397

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	A	0.09545	0.15983	0.68290
	A	0.05905	0.12372	0.64778
	EN_BAR	0.08458	0.09073	0.08654
	EN_BAR	0.06406	0.07037	0.06614

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	(EN * EN_BAR * Y)	-0.01352	-0.01366	-0.01350
	(EN * EN_BAR * Y)	0.00606	0.00608	0.00601
	(!EN * EN_BAR)	-0.01321	-0.01341	-0.01335
	(!EN * EN_BAR)	0.00653	0.00646	0.00646
	(!EN * !EN_BAR * !Y)	-0.01185	-0.01265	-0.01253
	(!EN * !EN_BAR * !Y)	0.00748	0.00685	0.00667

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	(EN * EN_BAR * Y)	0.01427	0.01366	0.01350
	(EN * EN_BAR * Y)	-0.00553	-0.00608	-0.00601
	(!EN * EN_BAR)	0.01350	0.01350	0.01335
	(!EN * EN_BAR)	-0.00639	-0.00646	-0.00646
	(!EN * !EN_BAR * !Y)	0.01264	0.01265	0.01253
	(!EN * !EN_BAR * !Y)	-0.00696	-0.00685	-0.00667

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	(EN_BAR * Y)	-0.00081	-0.00028	-0.00018
	(EN_BAR * Y)	0.00570	0.00570	0.00568
	(A * !EN_BAR * Y)	-0.00081	-0.00028	-0.00018
	(A * !EN_BAR * Y)	0.00570	0.00570	0.00568
	(!A * EN_BAR * !Y)	-0.00025	-0.00025	-0.00030
	(!A * EN_BAR * !Y)	0.00215	0.00213	0.00209
	(!A * !EN_BAR * !Y)	-0.00050	-0.00051	-0.00061
	(!A * !EN_BAR * !Y)	0.00189	0.00188	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	(EN_BAR * Y)	0.00143	0.00028	0.00018
	(EN_BAR * Y)	-0.00497	-0.00570	-0.00568
	(A * !EN_BAR * Y)	0.00143	0.00028	0.00018
	(A * !EN_BAR * Y)	-0.00496	-0.00570	-0.00568
	(!A * EN_BAR * !Y)	0.00031	0.00031	0.00031
	(!A * EN_BAR * !Y)	-0.00208	-0.00205	-0.00204
	(!A * !EN_BAR * !Y)	0.00063	0.00063	0.00063
	(!A * !EN_BAR * !Y)	-0.00179	-0.00176	-0.00175

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	(A * EN * Y)	-0.00459	-0.00454	-0.00451
	(A * EN * Y)	0.00129	0.00129	0.00129
	(A * !EN * Y)	-0.00555	-0.00550	-0.00547
	(A * !EN * Y)	0.00028	0.00028	0.00027
	(!EN * !Y)	-0.00830	-0.00831	-0.00784
	(!EN * !Y)	0.00326	0.00327	0.00345
	(!A * EN * !Y)	-0.01118	-0.01252	-0.01239
	(!A * EN * !Y)	0.00209	0.00057	0.00034

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_2	(A * EN * Y)	0.00490	0.00483	0.00460
	(A * EN * Y)	-0.00100	-0.00103	-0.00129
	(A * !EN * Y)	0.00572	0.00568	0.00574
	(A * !EN * Y)	-0.00017	-0.00016	-0.00015
	(!EN * !Y)	0.00830	0.00831	0.00784
	(!EN * !Y)	-0.00267	-0.00277	-0.00313
	(!A * EN * !Y)	0.01241	0.01252	0.01239
	(!A * EN * !Y)	-0.00107	-0.00057	-0.00034

GF180MCU_OSU_SC_GP9T3V3__TBUF_4

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	EN	EN_BAR	Y
0	x	0	0
0	x	1	1
1	x	x	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tbuf_4	41.20500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	EN	EN_BAR	Y
gf180mcu_osu_sc_gp9t3v3__tbuf_4	0.00395	0.00132	0.00274	6.20353

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__tbuf_4	0.00000	395818.00000	1115160.00000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	A->Y (RR)	0.23196	0.58712	7.34413
	EN->Y (RR)	0.21450	0.43768	4.45232

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	A->Y (FF)	0.27479	0.78961	8.13518
	EN_BAR->Y (FF)	0.24431	0.60733	4.71424

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	A	0.13426	0.19068	0.70528
	A	0.17051	0.22686	0.73841
	EN	0.14350	0.15373	0.14906
	EN	0.16118	0.17124	0.16006

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	A	0.17777	0.22302	0.73095
	A	0.14144	0.18673	0.69586
	EN_BAR	0.16673	0.17154	0.15544
	EN_BAR	0.14627	0.15125	0.13812

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	(EN * EN_BAR * Y)	-0.01371	-0.01379	-0.01352
	(EN * EN_BAR * Y)	0.00587	0.00589	0.00582
	(!EN * EN_BAR)	-0.01321	-0.01340	-0.01335
	(!EN * EN_BAR)	0.00653	0.00646	0.00646
	(!EN * !EN_BAR * !Y)	-0.01162	-0.01242	-0.01231
	(!EN * !EN_BAR * !Y)	0.00788	0.00701	0.00678

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	(EN * EN_BAR * Y)	0.01450	0.01379	0.01352
	(EN * EN_BAR * Y)	-0.00532	-0.00589	-0.00582
	(!EN * EN_BAR)	0.01350	0.01350	0.01335
	(!EN * EN_BAR)	-0.00639	-0.00646	-0.00646
	(!EN * !EN_BAR * !Y)	0.01242	0.01242	0.01231
	(!EN * !EN_BAR * !Y)	-0.00726	-0.00701	-0.00678

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	(EN_BAR * Y)	-0.00109	-0.00040	-0.00022
	(EN_BAR * Y)	0.00541	0.00542	0.00540
	(A * !EN_BAR * Y)	-0.00109	-0.00040	-0.00022
	(A * !EN_BAR * Y)	0.00541	0.00542	0.00540
	(!A * EN_BAR * !Y)	-0.00024	-0.00024	-0.00029
	(!A * EN_BAR * !Y)	0.00216	0.00215	0.00210
	(!A * !EN_BAR * !Y)	-0.00050	-0.00051	-0.00061
	(!A * !EN_BAR * !Y)	0.00190	0.00188	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	(EN_BAR * Y)	0.00199	0.00040	0.00022
	(EN_BAR * Y)	-0.00447	-0.00542	-0.00540
	(A * !EN_BAR * Y)	0.00199	0.00040	0.00022
	(A * !EN_BAR * Y)	-0.00447	-0.00542	-0.00540
	(!A * EN_BAR * !Y)	0.00030	0.00030	0.00030
	(!A * EN_BAR * !Y)	-0.00211	-0.00208	-0.00206
	(!A * !EN_BAR * !Y)	0.00063	0.00063	0.00063
	(!A * !EN_BAR * !Y)	-0.00179	-0.00176	-0.00174

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	(A * EN * Y)	-0.00459	-0.00454	-0.00451
	(A * EN * Y)	0.00129	0.00129	0.00129
	(A * !EN * Y)	-0.00560	-0.00556	-0.00552
	(A * !EN * Y)	0.00024	0.00024	0.00024
	(!EN * !Y)	-0.00758	-0.00756	-0.00757
	(!EN * !Y)	0.00443	0.00462	0.00462
	(!A * EN * !Y)	-0.01068	-0.01173	-0.01175
	(!A * EN * !Y)	0.00284	0.00073	0.00042

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_4	(A * EN * Y)	0.00490	0.00483	0.00460
	(A * EN * Y)	-0.00100	-0.00103	-0.00129
	(A * !EN * Y)	0.00571	0.00567	0.00566
	(A * !EN * Y)	-0.00019	-0.00019	-0.00023
	(!EN * !Y)	0.00758	0.00756	0.00757
	(!EN * !Y)	-0.00402	-0.00402	-0.00405
	(!A * EN * !Y)	0.01176	0.01173	0.01175
	(!A * EN * !Y)	-0.00172	-0.00073	-0.00042

GF180MCU_OSU_SC_GP9T3V3__TBUF_8

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	EN	EN_BAR	Y
0	x	0	0
0	x	1	1
1	x	x	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tbuf_8	62.11500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	EN	EN_BAR	Y
gf180mcu_osu_sc_gp9t3v3__tbuf_8	0.00395	0.00132	0.00273	12.46914

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__tbuf_8	0.00000	791637.00000	2230320.00000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	A->Y (RR)	0.34085	0.69793	7.64557
	EN->Y (RR)	0.32306	0.62597	5.16901

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	A->Y (FF)	0.41186	0.91656	8.44678
	EN_BAR->Y (FF)	0.38077	0.83239	5.56958

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	A	0.35506	0.35802	0.83000
	A	0.39132	0.39419	0.85406
	EN	0.36387	0.35442	0.29115
	EN	0.38154	0.37189	0.30878

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	A	0.43817	0.40355	0.84749
	A	0.40185	0.36731	0.81181
	EN_BAR	0.42685	0.40337	0.31594
	EN_BAR	0.40641	0.38384	0.29555

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	(EN * EN_BAR * Y)	-0.01395	-0.01394	-0.01359
	(EN * EN_BAR * Y)	0.00566	0.00568	0.00561
	(!EN * EN_BAR)	-0.01321	-0.01340	-0.01335
	(!EN * EN_BAR)	0.00653	0.00646	0.00646
	(!EN * !EN_BAR * !Y)	-0.01140	-0.01211	-0.01200
	(!EN * !EN_BAR * !Y)	0.00829	0.00719	0.00689

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	(EN * EN_BAR * Y)	0.01478	0.01394	0.01359
	(EN * EN_BAR * Y)	-0.00510	-0.00568	-0.00561
	(!EN * EN_BAR)	0.01350	0.01350	0.01335
	(!EN * EN_BAR)	-0.00639	-0.00646	-0.00646
	(!EN * !EN_BAR * !Y)	0.01212	0.01211	0.01200
	(!EN * !EN_BAR * !Y)	-0.00765	-0.00719	-0.00689

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	(EN_BAR * Y)	-0.00146	-0.00059	-0.00027
	(EN_BAR * Y)	0.00505	0.00509	0.00504
	(A * !EN_BAR * Y)	-0.00146	-0.00059	-0.00027
	(A * !EN_BAR * Y)	0.00505	0.00509	0.00504
	(!A * EN_BAR * !Y)	-0.00023	-0.00023	-0.00028
	(!A * EN_BAR * !Y)	0.00217	0.00216	0.00211
	(!A * !EN_BAR * !Y)	-0.00050	-0.00051	-0.00061
	(!A * !EN_BAR * !Y)	0.00190	0.00188	0.00178

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	(EN_BAR * Y)	0.00254	0.00059	0.00027
	(EN_BAR * Y)	-0.00395	-0.00509	-0.00504
	(A * !EN_BAR * Y)	0.00253	0.00059	0.00027
	(A * !EN_BAR * Y)	-0.00394	-0.00509	-0.00504
	(!A * EN_BAR * !Y)	0.00029	0.00029	0.00029
	(!A * EN_BAR * !Y)	-0.00213	-0.00209	-0.00208
	(!A * !EN_BAR * !Y)	0.00063	0.00063	0.00063
	(!A * !EN_BAR * !Y)	-0.00179	-0.00176	-0.00174

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	(A * EN * Y)	-0.00458	-0.00454	-0.00451
	(A * EN * Y)	0.00129	0.00129	0.00129
	(A * !EN * Y)	-0.00564	-0.00559	-0.00556
	(A * !EN * Y)	0.00022	0.00022	0.00022
	(!EN * !Y)	-0.00735	-0.00732	-0.00732
	(!EN * !Y)	0.00505	0.00543	0.00554
	(!A * EN * !Y)	-0.00989	-0.01106	-0.01108
	(!A * EN * !Y)	0.00348	0.00107	0.00052

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_8	(A * EN * Y)	0.00491	0.00484	0.00460
	(A * EN * Y)	-0.00100	-0.00102	-0.00129
	(A * !EN * Y)	0.00573	0.00568	0.00569
	(A * !EN * Y)	-0.00017	-0.00017	-0.00021
	(!EN * !Y)	0.00735	0.00732	0.00732
	(!EN * !Y)	-0.00491	-0.00490	-0.00492
	(!A * EN * !Y)	0.01111	0.01106	0.01108
	(!A * EN * !Y)	-0.00241	-0.00107	-0.00052

GF180MCU_OSU_SC_GP9T3V3__TIEHI

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tiehi	13.53000

Pin Capacitance Information

Cell Name	Max Cap(pf)
	Y
gf180mcu_osu_sc_gp9t3v3__tiehi	3.44214

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp9t3v3__tiehi	0.00000	0.00000	0.00000

GF180MCU_OSU_SC_GP9T3V3__TIELO

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tielo	13.53000

Pin Capacitance Information

Cell Name	Max Cap(pf)
	Y
gf180mcu_osu_sc_gp9t3v3__tielo	5.16285

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp9t3v3__tielo	0.00000	0.00000	0.00000

GF180MCU_OSU_SC_GP9T3V3__TINV_16

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	**EN**	**EN_BAR**	**Y**
0	**x**	**0**	**0**
0	**x**	**1**	**1**
1	**x**	**x**	**1**

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tinv_16	112.54500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	**EN**	**EN_BAR**	**Y**
gf180mcu_osu_sc_gp9t3v3__tinv_16	0.00237	0.00117	0.00241	10.87854

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp9t3v3__tinv_16	0.00000	4415470.00000	5510370.00000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_16	A->Y (-R)	0.04560	-0.27075	-1.03882
	EN->Y (RR)	0.03580	-0.32032	-1.45606
	EN_BAR->Y (RR)	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_16	A->Y (-F)	2.25325	4.67119	105.91100
	EN->Y (FF)	2.26061	4.77493	106.55800
	EN_BAR->Y (FF)	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_16	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_16	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

GF180MCU_OSU_SC_GP9T3V3__TINV_1

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	EN	EN_BAR	Y
0	x	0	1
0	x	1	HiZ
1	0	x	HiZ
1	1	x	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tinv_1	21.52500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	EN	EN_BAR	Y
gf180mcu_osu_sc_gp9t3v3__tinv_1	0.00413	0.00129	0.00267	0.76770

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__tinv_1	0.00000	0.00032	0.00090

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_1	A->Y (FR)	0.06327	0.93640	9.57806
	A->Y (FR)	0.05111	0.94139	6.56566
	EN->Y (FR)	0.05111	0.94139	6.56566
	EN_BAR->Y (FR)	0.08089	0.65751	7.70910

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_1	A->Y (RF)	0.05245	0.64777	7.14983
	A->Y (FF)	0.05111	0.94139	6.56566
	EN->Y (RF)	0.04490	0.39639	5.43990
	EN_BAR->Y (FF)	0.05111	0.94139	6.56566

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	A	0.02169	0.05813	0.21371
	A	-0.00014	0.03627	0.19172
	EN_BAR	0.02886	0.02908	0.02983
	EN_BAR	0.00406	0.00406	0.00406

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	A	-0.00004	0.03508	0.18263
	A	0.02178	0.05699	0.20491
	EN	0.00711	0.00711	0.00711
	EN	0.02060	0.02064	0.02258

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	(EN_BAR * !Y)	-0.00480	-0.00479	-0.00475
	(EN_BAR * !Y)	0.00747	0.00750	0.00746
	(!EN * Y)	-0.00868	-0.00873	-0.00871
	(!EN * Y)	0.00287	0.00285	0.00279

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	(EN_BAR * !Y)	0.00532	0.00500	0.00484
	(EN_BAR * !Y)	-0.00683	-0.00727	-0.00746
	(!EN * Y)	0.00868	0.00873	0.00871
	(!EN * Y)	-0.00282	-0.00284	-0.00279

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	(A * !Y)	-0.00012	-0.00005	-0.00004
	(A * !Y)	0.00619	0.00623	0.00620
	(!A * EN_BAR) + (!A * !EN_BAR * Y)	0.00000	0.00000	0.00000
	(!A * EN_BAR) + (!A * !EN_BAR * Y)	0.00651	0.00656	0.00648

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	(A * !Y)	0.00019	0.00005	0.00004
	(A * !Y)	-0.00601	-0.00623	-0.00620
	(!A * EN_BAR) + (!A * !EN_BAR * Y)	0.00000	0.00000	0.00000
	(!A * EN_BAR) + (!A * !EN_BAR * Y)	-0.00637	-0.00652	-0.00647

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	(A * EN * !Y) + (A * !EN)	-0.01308	-0.01344	-0.01339
	(A * EN * !Y) + (A * !EN)	0.00004	-0.00000	-0.00000
	(!A * Y)	-0.01226	-0.01289	-0.01288
	(!A * Y)	0.00023	0.00007	0.00005

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	(A * EN * !Y) + (A * !EN)	0.01343	0.01344	0.01339
	(A * EN * !Y) + (A * !EN)	0.00000	0.00000	0.00000
	(!A * Y)	0.01297	0.01289	0.01288
	(!A * Y)	-0.00012	-0.00007	-0.00005

GF180MCU_OSU_SC_GP9T3V3__TINV_2

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	**EN**	**EN_BAR**	**Y**
0	**x**	**0**	**0**
0	**x**	**1**	**1**
1	**x**	**x**	**1**

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tinv_2	39.97500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	**EN**	**EN_BAR**	**Y**
gf180mcu_osu_sc_gp9t3v3__tinv_2	0.00239	0.00117	0.00241	1.38657

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp9t3v3__tinv_2	0.00000	927990.00000	972297.00000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_2	A->Y (-R)	0.02773	-0.27365	-1.18187
	EN->Y (RR)	0.01635	-0.31635	-1.57604
	EN_BAR->Y (RR)	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_2	A->Y (-F)	0.68503	6.72005	106.94300
	EN->Y (FF)	0.75554	6.81965	107.63300
	EN_BAR->Y (FF)	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_2	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_2	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

GF180MCU_OSU_SC_GP9T3V3__TINV_4

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	**EN**	**EN_BAR**	**Y**
0	**x**	**0**	**0**
0	**x**	**1**	**1**
1	**x**	**x**	**1**

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tinv_4	49.81500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	**EN**	**EN_BAR**	**Y**
gf180mcu_osu_sc_gp9t3v3__tinv_4	0.00237	0.00117	0.00241	2.76800

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp9t3v3__tinv_4	0.00000	1426200.00000	1620590.00000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_4	A->Y (-R)	0.03094	-0.29191	-1.16663
	EN->Y (RR)	0.01969	-0.33458	-1.55701
	EN_BAR->Y (RR)	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_4	A->Y (-F)	0.89913	5.46740	106.89300
	EN->Y (FF)	0.93897	5.55913	107.59100
	EN_BAR->Y (FF)	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_4	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_4	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

GF180MCU_OSU_SC_GP9T3V3__TINV_8

gf180mcu_osu_sc_gp9t3v3_TT_25C.ccs
Cell Library: Process , Voltage 3.30,
Temp 25.00

Truth Table

INPUT			OUTPUT
A	**EN**	**EN_BAR**	**Y**
0	**x**	**0**	**0**
0	**x**	**1**	**1**
1	**x**	**x**	**1**

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tinv_8	70.72500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	**EN**	**EN_BAR**	**Y**
gf180mcu_osu_sc_gp9t3v3__tinv_8	0.00237	0.00117	0.00241	5.49376

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp9t3v3__tinv_8	0.00000	2422620.00000	2917180.00000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_8	A->Y (-R)	0.03637	-0.29225	-1.15570
	EN->Y (RR)	0.02575	-0.33718	-1.52531
	EN_BAR->Y (RR)	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_8	A->Y (-F)	1.34565	4.72254	106.38500
	EN->Y (FF)	1.36280	4.82278	107.05700
	EN_BAR->Y (FF)	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000	99999999999999996358962949652480.00000

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_8	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_8	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	A	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000
	EN_BAR	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000	99999999999999963589629496524 8.00000

GF180MCU_OSU_SC_GP9T3V3__XNOR2_1

gf180mcu_osu_sc_gp9t3v3_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_gp9t3v3__xnor2_1	39.36000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__xnor2_1	0.00806	0.00798	0.78925

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__xnor2_1	0.00000	0.00288	0.00353

Delay Information

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__xnor2_1	A->Y (RR)	B	0.15057	0.64067	6.49144
	A->Y (FR)	!B	0.11222	1.01224	9.84618
	B->Y (RR)	A	0.12126	0.62708	6.65943
	B->Y (FR)	!A	0.13276	0.86357	8.68525

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__xnor2_1	A->Y (FF)	B	0.16445	0.75328	6.42840
	A->Y (RF)	!B	0.07443	0.53805	6.11426
	B->Y (FF)	A	0.12382	0.70322	6.37809
	B->Y (RF)	!A	0.10564	0.59747	6.21650

Power Information

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__xnor2_1	A	B	0.03150	0.11820	0.70846
	A	B	0.06445	0.15105	0.74078
	A	!B	0.06266	0.19071	0.94275
	A	!B	0.01841	0.14620	0.89852
	B	A	0.01355	0.10133	0.69052
	B	A	0.05396	0.14182	0.73084
	B	!A	0.07188	0.19987	0.99091
	B	!A	0.01824	0.14604	0.93700

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__xnor2_1	A	B	0.07882	0.16839	0.75300
	A	B	0.04752	0.13712	0.72262
	A	!B	0.02549	0.14696	0.89953
	A	!B	0.06906	0.19082	0.94320
	B	A	0.06449	0.15440	0.74101
	B	A	0.02375	0.11386	0.70118
	B	!A	0.03665	0.16184	0.93352
	B	!A	0.08960	0.21503	0.98716

GF180MCU_OSU_SC_GP9T3V3__XOR2_1

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_gp9t3v3__xor2_1	41.20500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__xor2_1	0.00798	0.00801	0.79014

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__xor2_1	0.00000	0.00288	0.00329

Delay Information

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__xor2_1	A->Y (RR)	!B	0.12136	0.62747	6.66700
	A->Y (FR)	B	0.13483	0.86447	8.69415
	B->Y (RR)	!A	0.16005	0.66627	6.70185
	B->Y (FR)	A	0.10455	0.81826	8.60272

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__xor2_1	A->Y (FF)	!B	0.12378	0.70349	6.38493
	A->Y (RF)	B	0.10409	0.59731	6.22156
	B->Y (FF)	!A	0.13232	0.69281	6.17699
	B->Y (RF)	A	0.09892	0.74032	7.40536

Power Information

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__xor2_1	A	B	0.07710	0.20487	0.99711
	A	B	0.02851	0.15619	0.94818
	A	!B	0.01211	0.09999	0.68920
	A	!B	0.05334	0.14119	0.73024
	B	A	0.06408	0.18880	0.96462
	B	A	0.02037	0.14493	0.92084
	B	!A	0.02804	0.11392	0.70278
	B	!A	0.06403	0.15010	0.73883

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__xor2_1	A	B	0.03064	0.15579	0.92722
	A	B	0.07986	0.20538	0.97732
	A	!B	0.06577	0.15569	0.74265
	A	!B	0.02442	0.11450	0.70283
	B	A	0.03117	0.15417	0.90318
	B	A	0.07544	0.19883	0.94742
	B	!A	0.07037	0.16051	0.74752
	B	!A	0.03310	0.12339	0.71044