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__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__DECAP_1
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__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_1
GF180MCU_OSU_SC_GP9T3V3__TIEH
GF180MCU_OSU_SC_GP9T3V3__TIEL
GF180MCU_OSU_SC_GP9T3V3__TINV_1
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	SUM
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	1	1	1	0
1	0	0	0	1
1	0	1	1	0
1	1	0	1	0
1	1	1	1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__addf_1	88.90000

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	A	B	CI	CO	SUM
gf180mcu_osu_sc_gp9t3v3__addf_1	0.01753	0.01684	0.01140	15.45427	15.49831

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__addf_1	0.00000	0.00428	0.00452

Delay Information

Delay(ns) to CO rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addf_1	A->CO (RR)	0.16619	1.94532	67.98340
	B->CO (RR)	0.18243	2.23613	72.00300
	CI->CO (RR)	0.16417	1.98159	66.05660

Delay(ns) to CO falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addf_1	A->CO (FF)	0.19282	2.59817	75.87250
	B->CO (FF)	0.18762	2.92308	80.44390
	CI->CO (FF)	0.16286	2.76827	76.43470

Delay(ns) to SUM rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addf_1	A->SUM (-R)	0.33779	2.68961	77.22290
	B->SUM (-R)	0.33076	3.11293	83.92300
	CI->SUM (-R)	0.27743	2.87218	79.14740

Delay(ns) to SUM falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addf_1	A->SUM (-F)	0.19853	3.15600	85.27720
	B->SUM (-F)	0.23217	2.98286	82.54350
	CI->SUM (-F)	0.24200	2.74009	79.28210

Power Information

Internal switching power(pJ) to CO rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addf_1	A	0.02475	0.19995	3.32863
	A	0.06694	0.23644	3.36524
	B	0.03179	0.18015	3.00496
	B	0.07278	0.22140	3.04884
	CI	0.02543	0.16431	2.60811
	CI	0.05411	0.19300	2.63823

Internal switching power(pJ) to CO falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addf_1	A	0.07837	0.24780	3.36938
	A	0.04538	0.21503	3.33329
	B	0.07180	0.22540	3.02913
	B	0.02982	0.18404	2.98798
	CI	0.06534	0.20813	2.65833
	CI	0.03206	0.17502	2.62494

Internal switching power(pJ) to SUM rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addf_1	A	0.00547	0.24901	4.97856
	A	0.08990	0.33340	5.04794
	B	0.01058	0.28178	5.39131
	B	0.09180	0.36280	5.46673
	CI	0.01791	0.32511	6.10489
	CI	0.09491	0.40115	6.17698

Internal switching power(pJ) to SUM falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addf_1	A	0.09698	0.34818	5.05011
	A	0.00990	0.26160	4.97440
	B	0.09098	0.36414	5.46441
	B	0.01582	0.28903	5.40966
	CI	0.09568	0.40592	6.23518
	CI	0.03045	0.34181	6.17444

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	SUM
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	54.61000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)	
	A	B	CO	SUM
gf180mcu_osu_sc_gp9t3v3__addh_1	0.00768	0.00697	15.63292	15.55909

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__addh_1	0.00000	0.00342	0.00370

Delay Information

Delay(ns) to CO rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addh_1	A->CO (RR)	0.12992	1.98778	70.23780
	B->CO (RR)	0.12803	2.23322	73.95350

Delay(ns) to CO falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addh_1	A->CO (FF)	0.11392	2.39453	73.27020
	B->CO (FF)	0.10508	2.15561	68.80000

Delay(ns) to SUM rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addh_1	A->SUM (RR)	!B	0.13152	2.11475	72.13070
	A->SUM (FR)	B	0.19246	2.50603	76.09090
	B->SUM (RR)	!A	0.10627	1.76409	65.99510
	B->SUM (FR)	A	0.20644	2.26060	71.03440

Delay(ns) to SUM falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__addh_1	A->SUM (FF)	!B	0.13699	2.26209	71.51870
	A->SUM (RF)	B	0.20801	1.69402	56.90440
	B->SUM (FF)	!A	0.12194	2.55702	76.30660
	B->SUM (RF)	A	0.20584	2.00044	62.06920

Power Information

Internal switching power(pJ) to CO rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addh_1	A	0.03124	0.21475	3.49101
	A	0.04954	0.23292	3.51037
	B	0.03597	0.20542	3.16966
	B	0.04788	0.21641	3.18325

Internal switching power(pJ) to CO falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__addh_1	A	0.05033	0.23945	3.53397
	A	0.03197	0.22114	3.51578
	B	0.04873	0.21695	3.17362
	B	0.03753	0.20585	3.16270

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__addh_1	A	B	0.05035	0.23977	3.53743
	A	B	0.03199	0.22143	3.51967
	A	!B	0.01420	0.30532	5.62210
	A	!B	0.06632	0.35720	5.66498
	B	A	0.04876	0.21691	3.17887
	B	A	0.03756	0.20581	3.16821
	B	!A	0.00843	0.26488	4.87956
	B	!A	0.04636	0.30245	4.91193

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__addh_1	A	B	0.03121	0.21437	3.48511
	A	B	0.04951	0.23259	3.50453
	A	!B	0.06323	0.35343	5.67216
	A	!B	0.01119	0.30179	5.62349
	B	A	0.03596	0.20524	3.16611
	B	A	0.04787	0.21622	3.17849
	B	!A	0.05473	0.31139	4.90910
	B	!A	0.01620	0.27368	4.87267

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	26.03500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__and2_1	0.00404	0.00402	15.46230

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__and2_1	0.00000	0.00144	0.00205

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__and2_1	A->Y (RR)	0.09992	2.10186	72.95150
	B->Y (RR)	0.10146	1.88267	69.30150

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__and2_1	A->Y (FF)	0.08556	2.03460	67.86190
	B->Y (FF)	0.09497	2.28665	72.38090

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	A	0.01761	0.33417	5.93612
	A	0.04077	0.35700	5.95054
	B	0.01677	0.36171	6.57348
	B	0.04503	0.38970	6.59631

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	A	0.03788	0.35396	5.94659
	A	0.01472	0.33143	5.93322
	B	0.04653	0.39681	6.59413
	B	0.01822	0.36912	6.56596

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	(!B * !Y)	-0.01399	-0.01399	-0.01410
	(!B * !Y)	0.00180	0.00181	0.00173

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	(!B * !Y)	0.01426	0.01426	0.01420
	(!B * !Y)	-0.00170	-0.00168	-0.00167

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	(!A * !Y)	-0.01352	-0.01357	-0.01348
	(!A * !Y)	0.00651	0.00655	0.00642

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__and2_1	(!A * !Y)	0.01380	0.01388	0.01357
	(!A * !Y)	-0.00624	-0.00652	-0.00642

GF180MCU_OSU_SC_GP9T3V3__AOI21_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	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	24.76500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	B	Y
gf180mcu_osu_sc_gp9t3v3__aoi21_1	0.00396	0.00398	0.00405	7.79615

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__aoi21_1	0.00000	0.00094	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	A0->Y (FR)	0.09720	3.23565	85.09710
	A1->Y (FR)	0.07871	3.16934	84.48700
	B->Y (FR)	0.07648	3.92731	98.03850

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	A0->Y (RF)	0.07488	2.16940	60.56870
	A1->Y (RF)	0.07264	2.73641	72.46930
	B->Y (RF)	0.03490	1.92395	53.23420

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	A0	0.04064	0.21087	2.52993
	A0	0.00267	0.17256	2.48938
	A1	0.03148	0.18748	2.32616
	A1	-0.00134	0.15384	2.29211
	B	0.02194	0.21501	2.79248
	B	-0.00050	0.19191	2.76960

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	A0	0.00429	0.16283	2.28175
	A0	0.04215	0.20097	2.31956
	A1	0.00476	0.14963	2.00645
	A1	0.03753	0.18282	2.06764
	B	-0.00383	0.17385	2.54048
	B	0.01868	0.19654	2.60354

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(A1 * B * !Y)	-0.01272	-0.01338	-0.01322
	(A1 * B * !Y)	0.00690	0.00655	0.00652
	(!A1 * B * !Y)	-0.01352	-0.01355	-0.01351
	(!A1 * B * !Y)	0.00653	0.00648	0.00645
	(!A1 * !B * Y)	-0.01345	-0.01351	-0.01351
	(!A1 * !B * Y)	0.00643	0.00645	0.00645

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(A1 * B * !Y)	0.01333	0.01338	0.01322
	(A1 * B * !Y)	-0.00648	-0.00648	-0.00649
	(!A1 * B * !Y)	0.01352	0.01388	0.01357
	(!A1 * B * !Y)	-0.00636	-0.00648	-0.00645
	(!A1 * !B * Y)	0.01378	0.01388	0.01357
	(!A1 * !B * Y)	-0.00627	-0.00645	-0.00645

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(B * !Y)	-0.01275	-0.01339	-0.01325
	(B * !Y)	0.00688	0.00655	0.00652
	(!A0 * !B * Y)	-0.01395	-0.01399	-0.01410
	(!A0 * !B * Y)	0.00180	0.00181	0.00173

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(B * !Y)	0.01321	0.01339	0.01325
	(B * !Y)	-0.00648	-0.00648	-0.00649
	(!A0 * !B * Y)	0.01426	0.01426	0.01420
	(!A0 * !B * Y)	-0.00168	-0.00168	-0.00167

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(A0 * A1 * !Y)	-0.00436	-0.00445	-0.00434
	(A0 * A1 * !Y)	0.00781	0.00800	0.00781

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi21_1	(A0 * A1 * !Y)	0.00477	0.00480	0.00453
	(A0 * A1 * !Y)	-0.00720	-0.00724	-0.00761

GF180MCU_OSU_SC_GP9T3V3__AOI22_1

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

Truth Table

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

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__aoi22_1	34.29000

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A0	A1	B0	B1	Y
gf180mcu_osu_sc_gp9t3v3__aoi22_1	0.00396	0.00398	0.00404	0.00403	7.82120

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__aoi22_1	0.00000	0.00121	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	A0->Y (FR)	0.12859	3.26750	85.32590
	A1->Y (FR)	0.11098	3.20326	84.71740
	B0->Y (FR)	0.08410	3.83391	96.67700
	B1->Y (FR)	0.10054	3.88586	97.06210

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	A0->Y (RF)	0.10603	2.24104	61.27190
	A1->Y (RF)	0.10352	2.81426	73.14220
	B0->Y (RF)	0.05493	2.71836	72.81130
	B1->Y (RF)	0.05597	2.14931	60.83530

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	A0	0.05033	0.21892	2.57131
	A0	0.00269	0.17122	2.52363
	A1	0.04138	0.19636	2.35999
	A1	-0.00132	0.15246	2.31734
	B0	0.02364	0.17678	2.17919
	B0	-0.00013	0.15280	2.15130
	B1	0.03206	0.19826	2.34919
	B1	0.00323	0.16901	2.31739

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	A0	0.01349	0.18314	2.49819
	A0	0.06099	0.23078	2.54571
	A1	0.01380	0.17019	2.20708
	A1	0.05627	0.21304	2.25172
	B0	-0.00098	0.14868	2.08328
	B0	0.02280	0.17308	2.10811
	B1	-0.00191	0.15896	2.33130
	B1	0.02694	0.18804	2.36014

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)	-0.01256	-0.01332	-0.01320
	(A1 * B0 * B1 * !Y)	0.00686	0.00655	0.00652
	(!A1 * B0 * B1 * !Y)	-0.01352	-0.01357	-0.01348
	(!A1 * B0 * B1 * !Y)	0.00652	0.00655	0.00642
	(!A1 * B0 * !B1 * Y)	-0.01352	-0.01357	-0.01348
	(!A1 * B0 * !B1 * Y)	0.00653	0.00651	0.00642
	(!A1 * !B0 * Y)	-0.01352	-0.01357	-0.01348
	(!A1 * !B0 * Y)	0.00653	0.00650	0.00642

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)	0.01323	0.01332	0.01320
	(A1 * B0 * B1 * !Y)	-0.00647	-0.00648	-0.00649
	(!A1 * B0 * B1 * !Y)	0.01366	0.01388	0.01357
	(!A1 * B0 * B1 * !Y)	-0.00636	-0.00652	-0.00642
	(!A1 * B0 * !B1 * Y)	0.01380	0.01388	0.01357
	(!A1 * B0 * !B1 * Y)	-0.00624	-0.00651	-0.00642
	(!A1 * !B0 * Y)	0.01380	0.01388	0.01357
	(!A1 * !B0 * Y)	-0.00624	-0.00650	-0.00642

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(B0 * B1 * !Y)	-0.01272	-0.01331	-0.01317
	(B0 * B1 * !Y)	0.00690	0.00655	0.00652
	(!A0 * B0 * !B1 * Y)	-0.01395	-0.01399	-0.01410
	(!A0 * B0 * !B1 * Y)	0.00180	0.00181	0.00173
	(!A0 * !B0 * Y)	-0.01397	-0.01399	-0.01410
	(!A0 * !B0 * Y)	0.00180	0.00181	0.00173

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(B0 * B1 * !Y)	0.01328	0.01331	0.01317
	(B0 * B1 * !Y)	-0.00649	-0.00648	-0.00648
	(!A0 * B0 * !B1 * Y)	0.01424	0.01426	0.01420
	(!A0 * B0 * !B1 * Y)	-0.00167	-0.00168	-0.00167
	(!A0 * !B0 * Y)	0.01424	0.01426	0.01420
	(!A0 * !B0 * Y)	-0.00168	-0.00168	-0.00167

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A0 * A1 * !Y)	-0.00432	-0.00445	-0.00434
	(A0 * A1 * !Y)	0.00776	0.00800	0.00781
	(!A1 * !B1 * Y)	-0.01408	-0.01408	-0.01410
	(!A1 * !B1 * Y)	0.00182	0.00183	0.00173
	(!A0 * A1 * !B1 * Y)	-0.01407	-0.01408	-0.01410
	(!A0 * A1 * !B1 * Y)	0.00182	0.00183	0.00173

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A0 * A1 * !Y)	0.00493	0.00493	0.00458
	(A0 * A1 * !Y)	-0.00706	-0.00706	-0.00755
	(!A1 * !B1 * Y)	0.01426	0.01425	0.01420
	(!A1 * !B1 * Y)	-0.00172	-0.00168	-0.00167
	(!A0 * A1 * !B1 * Y)	0.01426	0.01425	0.01420
	(!A0 * A1 * !B1 * Y)	-0.00171	-0.00168	-0.00167

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A0 * A1 * !Y)	-0.00437	-0.00444	-0.00434
	(A0 * A1 * !Y)	0.00783	0.00800	0.00781
	(!A1 * !B0 * Y)	-0.01351	-0.01353	-0.01352
	(!A1 * !B0 * Y)	0.00645	0.00649	0.00644
	(!A0 * A1 * !B0 * Y)	-0.01355	-0.01359	-0.01348
	(!A0 * A1 * !B0 * Y)	0.00652	0.00659	0.00643

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__aoi22_1	(A0 * A1 * !Y)	0.00491	0.00493	0.00458
	(A0 * A1 * !Y)	-0.00702	-0.00706	-0.00755
	(!A1 * !B0 * Y)	0.01359	0.01360	0.01357
	(!A1 * !B0 * Y)	-0.00631	-0.00649	-0.00644
	(!A0 * A1 * !B0 * Y)	0.01360	0.01360	0.01357
	(!A0 * A1 * !B0 * Y)	-0.00630	-0.00649	-0.00643

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	100.33000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_16	0.00404	248.45212

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_16	0.00000	0.01253	0.01497

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_16	A->Y (RR)	0.33105	1.69058	69.00410

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_16	A->Y (FF)	0.35642	2.36721	75.58340

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_16	A	0.71836	1.10817	7.51146
	A	0.74034	1.12940	7.53331

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_16	A	0.77236	1.11853	7.44297
	A	0.75030	1.09720	7.47534

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	20.32000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_1	0.00405	15.60333

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_1	0.00000	0.00147	0.00147

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_1	A->Y (RR)	0.07224	1.71489	67.36110

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_1	A->Y (FF)	0.08009	2.29431	73.88930

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_1	A	0.01394	0.38729	6.93368
	A	0.03581	0.40903	6.95543

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_1	A	0.03604	0.41173	6.94970
	A	0.01419	0.38998	6.92784

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	24.76500

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_2	0.00405	31.24748

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_2	0.00000	0.00221	0.00237

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_2	A->Y (RR)	0.08733	1.40497	67.60510

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_2	A->Y (FF)	0.09582	2.02509	74.13340

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_2	A	0.03373	0.40883	6.95726
	A	0.05567	0.43056	6.97903

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_2	A	0.05414	0.43052	6.97356
	A	0.03215	0.40910	6.96379

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	36.19500

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_4	0.00404	62.37794

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_4	0.00000	0.00369	0.00417

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_4	A->Y (RR)	0.12019	1.25210	67.74940

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_4	A->Y (FF)	0.13069	1.90129	74.31160

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_4	A	0.08275	0.46666	7.00894
	A	0.10479	0.48812	7.03028

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_4	A	0.10190	0.48428	7.02004
	A	0.07977	0.46261	7.02242

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	57.46750

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__buf_8	0.00404	123.63758

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__buf_8	0.00000	0.00663	0.00777

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_8	A->Y (RR)	0.18674	1.27334	67.65870

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__buf_8	A->Y (FF)	0.20220	1.95128	74.29590

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_8	A	0.22690	0.63684	7.31047
	A	0.24886	0.65847	7.17867

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__buf_8	A	0.24823	0.64439	7.13433
	A	0.22624	0.62251	7.16156

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	100.33000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	0.00404	248.45212

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	0.00000	0.01253	0.01497

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	A->Y (RR)	0.33105	1.69058	69.00410

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	A->Y (FF)	0.35642	2.36721	75.58340

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	A	0.71836	1.10817	7.51146
	A	0.74034	1.12940	7.53331

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_16	A	0.77236	1.11853	7.44297
	A	0.75030	1.09720	7.47534

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	20.32000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	0.00405	15.60333

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	0.00000	0.00147	0.00147

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	A->Y (RR)	0.07224	1.71489	67.36110

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	A->Y (FF)	0.08009	2.29431	73.88930

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	A	0.01394	0.38729	6.93368
	A	0.03581	0.40903	6.95543

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_1	A	0.03604	0.41173	6.94970
	A	0.01419	0.38998	6.92784

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	24.76500

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	0.00405	31.24748

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	0.00000	0.00221	0.00237

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	A->Y (RR)	0.08733	1.40497	67.60510

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	A->Y (FF)	0.09582	2.02509	74.13340

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	A	0.03373	0.40883	6.95726
	A	0.05567	0.43056	6.97903

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_2	A	0.05414	0.43052	6.97356
	A	0.03215	0.40910	6.96379

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	36.19500

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	0.00404	62.37794

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	0.00000	0.00369	0.00417

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	A->Y (RR)	0.12019	1.25210	67.74940

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	A->Y (FF)	0.13069	1.90129	74.31160

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	A	0.08275	0.46666	7.00894
	A	0.10479	0.48812	7.03028

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_4	A	0.10190	0.48428	7.02004
	A	0.07977	0.46261	7.02242

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	57.46750

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	0.00404	123.63758

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	0.00000	0.00663	0.00777

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	A->Y (RR)	0.18674	1.27334	67.65870

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	A->Y (FF)	0.20220	1.95128	74.29590

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	A	0.22690	0.63684	7.31047
	A	0.24886	0.65847	7.17867

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkbuf_8	A	0.24823	0.64439	7.13433
	A	0.22624	0.62251	7.16156

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	95.25000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_16	0.06475	234.89906

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_16	0.00000	0.01179	0.01439

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_16	A->Y (FR)	0.03118	2.15014	98.41110

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_16	A->Y (RF)	0.02337	1.37519	83.67180

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_16	A	0.32156	4.43029	38.24140
	A	-0.02751	4.07504	37.86540

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_16	A	-0.05397	3.89248	34.47270
	A	0.29637	4.24455	34.82460

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	13.97000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_1	0.00405	14.68244

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_1	0.00000	0.00074	0.00090

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_1	A->Y (FR)	0.03870	3.38181	98.41570

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_1	A->Y (RF)	0.03096	2.61910	83.67590

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_1	A	0.01992	0.22337	2.39002
	A	-0.00196	0.20136	2.36651

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_1	A	-0.00449	0.17816	2.15348
	A	0.01738	0.20007	2.17547

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	20.32000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_2	0.00808	29.36374

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_2	0.00000	0.00147	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_2	**A->Y (FR)**	0.03414	2.91150	98.41320

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_2	**A->Y (RF)**	0.02634	2.15089	83.67370

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_2	A	0.03999	0.47014	4.78011
	A	-0.00363	0.42540	4.73310

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_2	A	-0.00881	0.39672	4.30699
	A	0.03480	0.44045	4.35098

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	30.48000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_4	0.01618	58.72635

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_4	0.00000	0.00295	0.00360

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_4	**A->Y (FR)**	0.03168	2.52837	98.41200

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_4	**A->Y (RF)**	0.02386	1.76029	83.67260

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_4	A	0.08065	1.02193	9.56029
	A	-0.00700	0.93256	9.46628

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_4	A	-0.01761	0.87521	8.61403
	A	0.06989	0.96380	8.70200

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	52.07000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__clkinv_8	0.03246	117.45156

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__clkinv_8	0.00000	0.00590	0.00720

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_8	**A->Y (FR)**	0.03034	2.20470	98.41140

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__clkinv_8	**A->Y (RF)**	0.02253	1.43039	83.67200

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_8	A	0.16152	2.18884	19.12070
	A	-0.01369	2.01198	18.93270

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__clkinv_8	A	-0.03509	1.90820	17.22810
	A	0.14004	2.08391	17.40400

GF180MCU_OSU_SC_GP9T3V3__DECAP_1

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

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__decap_1	13.97000

Pin Capacitance Information
Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp9t3v3__decap_1	0.00000	0.00000	0.00000

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	CLK	Q	QN
0	F	0	1
1	F	1	0
x	x	IQ	IQN

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__dffn_1	98.42500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)	
	D	CLK	Q	QN
gf180mcu_osu_sc_gp9t3v3__dffn_1	0.00395	0.00407	15.56757	15.73192

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dffn_1	0.00000	100780.00000	174312.00000

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLK->Q (FR)	0.34663	4.73233	169.77500
	QN->Q (FR)	0.03870	3.44910	102.18800

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLK->Q (FF)	0.63733	5.05974	169.08500
	QN->Q (RF)	0.03096	2.68470	87.05470

Delay(ns) to QN rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLK->QN (FR)	0.60938	2.85807	77.38850

Delay(ns) to QN falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLK->QN (FF)	0.31359	2.28829	67.87030

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	hold	CLK (F)	0.01411	0.11279	-16.07380
	setup	CLK (F)	0.32102	0.87535	29.08520

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	CLK (F)	-0.30205	-1.79935	46.00930
	setup	CLK (F)	0.44385	1.80239	-31.51170

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	min_pulse_width	CLK ()	D	0.38783	4.36646	287.64800
	min_pulse_width	CLK ()	!D	0.36637	4.36646	287.26500

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	min_pulse_width	CLK ()	D	0.21851	4.36646	165.00100
	min_pulse_width	CLK ()	!D	0.14220	4.36646	165.00100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLK	0.09602	0.29406	4.57538
	CLK	0.08491	0.28313	4.56496

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLK	0.14085	0.33035	4.67148
	CLK	0.12992	0.31912	4.64590

Internal switching power(pJ) to QN rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLK	0.14109	0.33044	4.66113
	CLK	0.13015	0.31850	4.63001

Internal switching power(pJ) to QN falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	CLK	0.09596	0.29576	4.55022
	CLK	0.08484	0.28473	4.55149

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	(CLK * Q * !QN) + (CLK * !Q * QN)	0.15516	0.88457	12.51980
	(CLK * Q * !QN) + (CLK * !Q * QN)	0.17664	0.90612	12.54120
	!CLK	-0.01323	-0.01350	-0.01342
	!CLK	0.00666	0.00654	0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	(CLK * Q * !QN) + (CLK * !Q * QN)	0.23036	0.98623	12.90250
	(CLK * Q * !QN) + (CLK * !Q * QN)	0.20889	0.96470	12.88110
	!CLK	0.01353	0.01364	0.01343
	!CLK	-0.00634	-0.00648	-0.00645

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	(D * Q * !QN)	0.03606	0.43296	7.27886
	(D * Q * !QN)	0.05822	0.45525	7.30110
	(D * !Q * QN)	0.20003	0.56830	19.85620
	(D * !Q * QN)	0.22298	0.59132	19.87950
	(!D * Q * !QN)	0.23245	0.53788	7.53163
	(!D * Q * !QN)	0.25381	0.55926	7.55303
	(!D * !Q * QN)	0.04547	0.44360	7.28931
	(!D * !Q * QN)	0.06724	0.46549	7.31111

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffn_1	(D * Q * !QN)	0.06209	0.46135	7.29869
	(D * Q * !QN)	0.04005	0.43915	7.27624
	(!D * !Q * QN)	0.06732	0.46709	7.30729
	(!D * !Q * QN)	0.04546	0.44522	7.28546

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	R	S	CLK	Q	QN
0	1	1	R	0	1
1	1	1	R	1	0
x	0	x	x	0	1
x	1	0	x	1	0
x	1	1	x	IQ	IQN

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__dffsr_1	130.17500

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)	
	D	R	S	CLK	Q	QN
gf180mcu_osu_sc_gp9t3v3__dffsr_1	0.00356	0.00406	0.00809	0.01419	15.67782	15.73825

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dffsr_1	0.00000	0.00694	0.00849

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK->Q (RR)	0.31831	4.12099	157.35500
	QN->Q (FR)	0.03870	3.45713	102.66000
	R->Q (RR)	0.25355	4.16179	160.47000
	S->Q (FR)	0.22711	4.63122	168.11200

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK->Q (RF)	0.36468	4.12799	156.65000
	QN->Q (RF)	0.03096	2.69312	87.48170
	R->Q (FF)	0.21405	4.74498	169.98000

Delay(ns) to QN rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK->QN (RR)	0.33455	1.90786	63.85290
	R->QN (FR)	0.18413	2.52624	77.17290

Delay(ns) to QN falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK->QN (RF)	0.28250	1.65929	54.34610
	R->QN (RF)	0.21815	1.69938	57.44750
	S->QN (FF)	0.19371	2.16860	65.11800

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	hold	CLK (R)	-0.15122	-0.21884	2.11528
	setup	CLK (R)	0.26972	0.63601	-1.94963

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)	-0.17232	-1.28872	-44.38490
	setup	CLK (R)	0.20195	1.31704	44.38920

Constraints(ns) for D rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	hold	CLK (R)	(R * S)	-0.15122	-0.21884	2.11528
	setup	CLK (R)	(R * S)	0.26972	0.63601	-1.94963

Constraints(ns) for D falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	hold	CLK (R)	(R * S)	-0.17232	-1.28872	-44.38490
	setup	CLK (R)	(R * S)	0.20195	1.31704	44.38920

Constraints(ns) for R rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	recovery	CLK (R)	0.15552	0.52979	4.02986
	removal	CLK (R)	-0.02921	-0.05471	-0.58999
	hold	S (R)	-0.18605	-0.56534	0.08186
	setup	S (R)	0.23414	1.21823	26.70130

Constraints(ns) for R rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	recovery	CLK (R)	(D * S)	0.15552	0.52979	4.02986
	removal	CLK (R)	(D * S)	-0.02921	-0.05471	-0.58999
	hold	S (R)	CLK	-0.18615	-0.56534	0.08186
	hold	S (R)	!CLK	-0.18605	-0.57749	-0.22938
	setup	S (R)	CLK	0.21032	1.19727	22.75020
	setup	S (R)	!CLK	0.23414	1.21823	26.70130

Constraints(ns) for R falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	min_pulse_width	R ()	(CLK * S)	0.14220	4.36646	165.00100
	min_pulse_width	R ()	(!CLK * S)	0.13743	4.36646	165.00100

Constraints(ns) for S rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	recovery	CLK (R)	0.06856	0.95318	11.54660
	removal	CLK (R)	-0.03967	-0.21580	-5.83566

Constraints(ns) for S rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	recovery	CLK (R)	(!D * R)	0.06856	0.95318	11.54660
	removal	CLK (R)	(!D * R)	-0.03967	-0.21580	-5.83566

Constraints(ns) for S falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	min_pulse_width	S ()	(CLK * R)	0.18751	4.36646	165.00100
	min_pulse_width	S ()	(!CLK * R)	0.20897	4.36646	165.00100

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	min_pulse_width	CLK ()	(D * R * S)	0.16128	4.36646	165.00100
	min_pulse_width	CLK ()	(!D * R * S)	0.16843	4.36646	165.00100

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	min_pulse_width	CLK ()	(D * R * S)	0.31867	4.36646	165.00100
	min_pulse_width	CLK ()	(!D * R * S)	0.17559	4.36646	165.00100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.04676	0.34346	5.55587
	CLK	0.07169	0.36839	5.59273
	R	0.06747	0.29079	4.70304
	R	0.09917	0.32170	4.75503
	S	0.07959	0.34694	5.07710
	S	0.06340	0.33071	5.12383

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.05056	0.25968	4.52387
	CLK	0.07507	0.28401	4.54822
	R	0.10018	0.33242	4.85169
	R	0.08335	0.31514	4.82412

Internal switching power(pJ) to QN rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.05053	0.25907	4.50719
	CLK	0.07503	0.28383	4.53460
	R	0.10016	0.33255	4.83769
	R	0.08334	0.31513	4.80068

Internal switching power(pJ) to QN falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.04667	0.34317	5.52212
	CLK	0.07160	0.36808	5.55460
	R	0.08230	0.30456	4.69229
	R	0.09907	0.32128	4.70903
	S	0.07951	0.34691	5.07347
	S	0.06331	0.33076	5.08153

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	-0.01321	-0.01345	-0.01329
	CLK	0.00462	0.00466	0.00461
	(!CLK * R * S * Q * !QN) + (!CLK * R * S * !Q * QN)	0.06359	0.35479	5.69610
	(!CLK * R * S * Q * !QN) + (!CLK * R * S * !Q * QN)	0.08717	0.37838	5.71946
	(!CLK * R * !S * Q * !QN)	0.02346	0.29116	5.26996
	(!CLK * R * !S * Q * !QN)	0.05321	0.32097	5.29961
	(!CLK * !R * S * !Q * QN)	0.02319	0.29028	5.27033
	(!CLK * !R * S * !Q * QN)	0.05300	0.32025	5.30018
	(!CLK * !R * !S * !Q * QN)	0.02343	0.29116	5.26997
	(!CLK * !R * !S * !Q * QN)	0.05318	0.32097	5.29961

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	CLK	0.01339	0.01350	0.01329
	CLK	-0.00442	-0.00457	-0.00455
	(!CLK * R * S * Q * !QN) + (!CLK * R * S * !Q * QN)	0.08497	0.38336	5.75601
	(!CLK * R * S * Q * !QN) + (!CLK * R * S * !Q * QN)	0.06150	0.35988	5.73264
	(!CLK * R * !S * Q * !QN)	0.03875	0.30817	5.28734
	(!CLK * R * !S * Q * !QN)	0.00910	0.27847	5.25786
	(!CLK * !R * S * !Q * QN)	0.03904	0.30817	5.28778
	(!CLK * !R * S * !Q * QN)	0.00930	0.27846	5.25817
	(!CLK * !R * !S * !Q * QN)	0.03874	0.30816	5.28786
	(!CLK * !R * !S * !Q * QN)	0.00909	0.27846	5.25809

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(CLK * S * !Q * QN) + (!CLK * !D * S * !Q * QN)	0.00539	0.37283	6.86143
	(CLK * S * !Q * QN) + (!CLK * !D * S * !Q * QN)	0.02765	0.39518	6.88370
	(!CLK * D * S * !Q * QN)	0.04422	0.42880	7.19873
	(!CLK * D * S * !Q * QN)	0.06107	0.44571	7.21577

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(CLK * S * !Q * QN) + (!CLK * !D * S * !Q * QN)	0.03545	0.40776	6.89545
	(CLK * S * !Q * QN) + (!CLK * !D * S * !Q * QN)	0.01332	0.38545	6.87329
	(!CLK * D * S * !Q * QN)	0.07284	0.46459	7.22421
	(!CLK * D * S * !Q * QN)	0.05601	0.44781	7.20680

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(CLK * R * Q * !QN) + (!CLK * D * R * Q * !QN)	-0.02786	-0.02797	-0.02819
	(CLK * R * Q * !QN) + (!CLK * D * R * Q * !QN)	0.00382	0.00385	0.00366
	(!R * !Q * QN)	-0.02611	-0.02708	-0.02697
	(!R * !Q * QN)	0.01374	0.01310	0.01305
	(!CLK * !D * R * Q * !QN)	0.01824	0.30476	5.57959
	(!CLK * !D * R * Q * !QN)	0.05575	0.34241	5.61713

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(CLK * R * Q * !QN) + (!CLK * D * R * Q * !QN)	0.02858	0.02853	0.02841
	(CLK * R * Q * !QN) + (!CLK * D * R * Q * !QN)	-0.00354	-0.00352	-0.00349
	(!R * !Q * QN)	0.02716	0.02725	0.02697
	(!R * !Q * QN)	-0.01297	-0.01295	-0.01296
	(!CLK * !D * R * Q * !QN)	0.05862	0.34176	5.61922
	(!CLK * !D * R * Q * !QN)	0.02098	0.30387	5.58160

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(D * R * Q * !QN)	-0.00398	0.36525	6.85435
	(D * R * Q * !QN)	0.04258	0.41191	6.90085
	(D * !R * S * !Q * QN)	0.02413	0.40121	7.11611
	(D * !R * S * !Q * QN)	0.06787	0.44393	7.15709
	(D * !R * !S * !Q * QN)	0.02385	0.40132	7.11686
	(D * !R * !S * !Q * QN)	0.06767	0.44377	7.15667
	(!D * R * S * !Q * QN) + (!D * !R * !Q * QN)	-0.00508	0.35992	6.85076
	(!D * R * S * !Q * QN) + (!D * !R * !Q * QN)	0.04869	0.41393	6.90453
	(!D * R * !S * Q * !QN)	0.01379	0.63395	11.70040
	(!D * R * !S * Q * !QN)	0.06996	0.69063	11.75680

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dffsr_1	(D * R * S * !Q * QN)	0.12430	0.56822	9.66702
	(D * R * S * !Q * QN)	0.07699	0.51961	9.59693
	(D * R * Q * !QN)	0.04095	0.41166	6.90247
	(D * R * Q * !QN)	-0.00532	0.36519	6.85593
	(D * !R * S * !Q * QN)	0.08037	0.45766	7.15996
	(D * !R * S * !Q * QN)	0.03664	0.41384	7.11500
	(D * !R * !S * !Q * QN)	0.08079	0.45758	7.15722
	(D * !R * !S * !Q * QN)	0.03688	0.41424	7.11333
	(!D * R * S * Q * !QN)	0.10990	0.69696	9.83628
	(!D * R * S * Q * !QN)	0.05955	0.64629	9.78469
	(!D * R * S * !Q * QN) + (!D * !R * !Q * QN)	0.05021	0.42145	6.90589
	(!D * R * S * !Q * QN) + (!D * !R * !Q * QN)	-0.00393	0.36721	6.85195
	(!D * R * !S * Q * !QN)	0.05931	0.69127	11.75010
	(!D * R * !S * Q * !QN)	0.00299	0.63473	11.69380

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	92.07500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)	
	D	CLK	Q	QN
gf180mcu_osu_sc_gp9t3v3__dff_1	0.00394	0.01204	15.73103	15.73823

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dff_1	0.00000	100780.00000	174312.00000

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK->Q (RR)	0.27143	2.34530	118.43500
	QN->Q (FR)	0.03870	3.46099	102.88800

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK->Q (RF)	0.55873	4.07012	156.99700
	QN->Q (RF)	0.03096	2.69721	87.68530

Delay(ns) to QN rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK->QN (RR)	0.53007	1.84338	63.63520

Delay(ns) to QN falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK->QN (RF)	0.23823	-0.12299	14.78590

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	hold	CLK (R)	-0.07474	-0.50540	-11.39540
	setup	CLK (R)	0.38061	1.97349	61.18620

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)	-0.38172	0.97870	81.80600
	setup	CLK (R)	0.51311	3.46511	122.23200

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	min_pulse_width	CLK ()	D	0.19943	4.36646	165.00100
	min_pulse_width	CLK ()	!D	0.11597	4.36646	165.00100

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	min_pulse_width	CLK ()	D	0.39976	4.36646	288.85400
	min_pulse_width	CLK ()	!D	0.35683	4.50999	284.04100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.06172	0.25541	4.47452
	CLK	0.08468	0.27813	4.49723

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.10669	0.26590	4.52267
	CLK	0.13219	0.29183	4.54822

Internal switching power(pJ) to QN rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.10674	0.26528	4.51837
	CLK	0.13224	0.29090	4.53455

Internal switching power(pJ) to QN falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.06161	0.25615	4.46849
	CLK	0.08457	0.27791	4.49535

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	-0.01304	-0.01345	-0.01329
	CLK	0.00666	0.00654	0.00646
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.15146	0.88077	12.51460
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.19225	0.92152	12.55560

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	CLK	0.01337	0.01349	0.01329
	CLK	-0.00634	-0.00648	-0.00645
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.22903	0.98598	12.88440
	(!CLK * Q * !QN) + (!CLK * !Q * QN)	0.18849	0.94527	12.84680

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	(D * Q * !QN)	-0.00228	0.35981	6.85299
	(D * Q * !QN)	0.04256	0.40436	6.89739
	(!D * !Q * QN)	-0.00487	0.35954	6.85053
	(!D * !Q * QN)	0.04786	0.41279	6.90365

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dff_1	(D * Q * !QN)	0.04188	0.41270	6.90383
	(D * Q * !QN)	-0.00268	0.36811	6.85911
	(D * !Q * QN)	0.20322	0.60372	7.35470
	(D * !Q * QN)	0.17120	0.57462	7.31782
	(!D * Q * !QN)	0.22886	0.65778	7.53008
	(!D * Q * !QN)	0.16491	0.59277	7.46490
	(!D * !Q * QN)	0.05086	0.41268	6.90460
	(!D * !Q * QN)	-0.00211	0.35935	6.85169

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	CLK	Q
0	0	0
x	1	IQ
1	0	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__dlatn_1	71.75500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	D	CLK	Q
gf180mcu_osu_sc_gp9t3v3__dlatn_1	0.00395	0.00405	15.49329

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dlatn_1	0.00000	0.00481	0.00529

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLK->Q (FR)	0.28814	2.62218	76.23070
	D->Q (RR)	0.24486	1.79817	62.41010

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLK->Q (FF)	0.33960	2.44257	68.97380
	D->Q (FF)	0.27113	2.42536	69.80940

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	hold	CLK (R)	-0.08483	-0.24923	-4.00731
	setup	CLK (R)	0.09263	0.28779	6.98896

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	CLK (R)	-0.07586	-0.38297	-6.15850
	setup	CLK (R)	0.08619	0.38601	6.16953

Constraints(ns) for CLK falling (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	min_pulse_width	CLK ()	D	0.14458	4.36646	165.00100
	min_pulse_width	CLK ()	!D	0.15889	4.36646	165.00100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLK	0.13036	0.55938	7.68051
	CLK	0.10930	0.53767	7.65200
	D	0.07488	0.43441	6.81991
	D	0.09637	0.45557	6.80578

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLK	0.13619	0.53595	7.36956
	CLK	0.11376	0.51401	7.35564
	D	0.10349	0.46404	6.79828
	D	0.08194	0.44304	6.77862

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLK	-0.01279	-0.01360	-0.01343
	CLK	0.00707	0.00663	0.00649

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	CLK	0.01345	0.01366	0.01343
	CLK	-0.00640	-0.00648	-0.00644

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	(D * Q)	0.02705	0.42674	7.27341
	(D * Q)	0.04880	0.44847	7.29517
	(!D * !Q)	0.03005	0.43042	7.27672
	(!D * !Q)	0.05212	0.45265	7.29872

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlatn_1	(D * Q)	0.04888	0.45136	7.28847
	(D * Q)	0.02711	0.42957	7.26683
	(!D * !Q)	0.05245	0.45445	7.29354
	(!D * !Q)	0.03037	0.43234	7.27144

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	60.32500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	D	CLK	Q
gf180mcu_osu_sc_gp9t3v3__dlat_1	0.00395	0.00881	15.71026

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__dlat_1	0.00000	0.00412	0.00471

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dlat_1	CLK->Q (RR)	0.21620	1.77826	61.37890
	D->Q (RR)	0.24360	1.81123	63.36240

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__dlat_1	CLK->Q (RF)	0.27946	1.62695	56.69900
	D->Q (FF)	0.27134	2.43849	70.66860

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Reference Slew Rate(ns)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	hold	CLK (F)	-0.13876	-0.68691	-20.42280
	setup	CLK (F)	0.14763	1.27533	44.30230

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)	-0.12434	-0.14893	6.94357
	setup	CLK (F)	0.13589	0.15501	-6.94811

Constraints(ns) for CLK rising (conditional):

Cell Name	Timing Check	Ref Pin(trans)	When	Reference Slew Rate(ns)		
				first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	min_pulse_width	CLK ()	D	0.12074	4.36646	165.00100
	min_pulse_width	CLK ()	!D	0.14935	4.36646	165.00100

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	CLK	0.06712	0.64202	9.50834
	CLK	0.11167	0.68660	9.52895
	D	0.06860	0.42814	6.80558
	D	0.09639	0.45549	6.81192

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	CLK	0.08993	0.46853	7.20560
	CLK	0.11648	0.49515	7.23500
	D	0.11022	0.47017	6.80524
	D	0.08190	0.44275	6.77859

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	!CLK	-0.01279	-0.01360	-0.01343
	!CLK	0.00703	0.00659	0.00644

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	!CLK	0.01345	0.01366	0.01343
	!CLK	-0.00634	-0.00649	-0.00642

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	(D * Q)	-0.00454	0.36755	6.85868
	(D * Q)	0.02991	0.40217	6.89326
	(!D * !Q)	-0.00459	0.36429	6.85764
	(!D * !Q)	0.03317	0.40200	6.89543

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__dlat_1	(D * Q)	0.03270	0.41019	6.89759
	(D * Q)	-0.00168	0.37582	6.86298
	(!D * !Q)	0.03550	0.41039	6.89811
	(!D * !Q)	-0.00230	0.37250	6.86018

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	95.25000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_16	0.06475	234.89906

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_16	0.00000	0.01179	0.01439

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_16	A->Y (FR)	0.03118	2.15014	98.41110

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_16	A->Y (RF)	0.02337	1.37519	83.67180

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_16	A	0.32156	4.43029	38.24140
	A	-0.02751	4.07504	37.86540

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_16	A	-0.05397	3.89248	34.47270
	A	0.29637	4.24455	34.82460

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	13.97000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_1	0.00405	14.68244

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_1	0.00000	0.00074	0.00090

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_1	A->Y (FR)	0.03870	3.38181	98.41570

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_1	A->Y (RF)	0.03096	2.61910	83.67590

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_1	A	0.01992	0.22337	2.39002
	A	-0.00196	0.20136	2.36651

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_1	A	-0.00449	0.17816	2.15348
	A	0.01738	0.20007	2.17547

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	20.32000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_2	0.00808	29.36374

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_2	0.00000	0.00147	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_2	A->Y (FR)	0.03414	2.91150	98.41320

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_2	A->Y (RF)	0.02634	2.15089	83.67370

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_2	A	0.03999	0.47014	4.78011
	A	-0.00363	0.42540	4.73310

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_2	A	-0.00881	0.39672	4.30699
	A	0.03480	0.44045	4.35098

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	30.48000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_4	0.01618	58.72635

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_4	0.00000	0.00295	0.00360

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_4	**A->Y (FR)**	0.03168	2.52837	98.41200

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_4	**A->Y (RF)**	0.02386	1.76029	83.67260

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_4	A	0.08065	1.02193	9.56029
	A	-0.00700	0.93256	9.46628

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_4	A	-0.01761	0.87521	8.61403
	A	0.06989	0.96380	8.70200

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	52.07000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
gf180mcu_osu_sc_gp9t3v3__inv_8	0.03246	117.45156

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__inv_8	0.00000	0.00590	0.00720

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_8	A->Y (FR)	0.03034	2.20470	98.41140

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__inv_8	A->Y (RF)	0.02253	1.43039	83.67200

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_8	A	0.16152	2.18884	19.12070
	A	-0.01369	2.01198	18.93270

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__inv_8	A	-0.03509	1.90820	17.22810
	A	0.14004	2.08391	17.40400

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	32.38500

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	Sel	Y
gf180mcu_osu_sc_gp9t3v3__mux2_1	0.01046	0.01046	0.00808	0.00364

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__mux2_1	0.00000	0.00197	0.00201

Delay Information

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__mux2_1	A->Y (RR)	-	0.01760	0.02195	0.02576
	B->Y (RR)	-	0.01925	0.02200	0.02577
	Sel->Y (RR)	(!A * B)	0.06266	-0.04998	-5.90009
	Sel->Y (FR)	(A * !B)	0.04401	0.58700	7.30364

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)	-	0.02158	0.02204	0.02546
	B->Y (FF)	-	0.01939	0.02199	0.02545
	Sel->Y (FF)	(!A * B)	0.07300	0.67007	7.22989
	Sel->Y (RF)	(A * !B)	0.03641	-0.18077	-6.49607

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	-	-0.01951	-0.01964	-0.01961
	A	-	0.00678	0.00682	0.00681
	B	-	-0.01287	-0.01297	-0.01296
	B	-	0.01753	0.01768	0.01766
	Sel	(A * !B)	0.01688	0.39067	6.88395
	Sel	(A * !B)	0.00283	0.37733	6.88505
	Sel	(!A * B)	-0.01420	0.35468	6.84594
	Sel	(!A * B)	0.04382	0.41449	6.92876

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

Cell Name	Input	When	Power(pJ)		
			first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	A	-	0.01951	0.01964	0.01962
	A	-	-0.00678	-0.00682	-0.00681
	B	-	0.01288	0.01297	0.01296
	B	-	-0.01753	-0.01763	-0.01761
	Sel	(A * !B)	0.00494	0.37585	6.87146
	Sel	(A * !B)	0.01900	0.39100	6.90068
	Sel	(!A * B)	0.05063	0.42024	6.91155
	Sel	(!A * B)	-0.00736	0.36330	6.87814

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)	-0.00347	-0.00350	-0.00348
	(B * Sel * Y) + (!B * Sel * !Y)	0.00262	0.00265	0.00263

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(B * Sel * Y) + (!B * Sel * !Y)	0.00350	0.00350	0.00348
	(B * Sel * Y) + (!B * Sel * !Y)	-0.00262	-0.00265	-0.00263

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(A * !Sel * Y) + (!A * !Sel * !Y)	-0.00476	-0.00480	-0.00476
	(A * !Sel * Y) + (!A * !Sel * !Y)	0.00200	0.00201	0.00200

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(A * !Sel * Y) + (!A * !Sel * !Y)	0.00476	0.00480	0.00476
	(A * !Sel * Y) + (!A * !Sel * !Y)	-0.00200	-0.00201	-0.00200

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(A * B * Y)	-0.00475	0.36735	6.85753
	(A * B * Y)	0.03304	0.40536	6.89548
	(!A * !B * !Y)	-0.00464	0.36740	6.85859
	(!A * !B * !Y)	0.02956	0.40208	6.89303

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__mux2_1	(A * B * Y)	0.03548	0.41124	6.89791
	(A * B * Y)	-0.00237	0.37336	6.85986
	(!A * !B * !Y)	0.03220	0.40973	6.89748
	(!A * !B * !Y)	-0.00204	0.37539	6.86291

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	19.68500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__nand2_1	0.00404	0.00402	10.44023

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__nand2_1	0.00000	0.00078	0.00115

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__nand2_1	A->Y (FR)	0.04424	2.93615	79.20290
	B->Y (FR)	0.05413	2.98395	79.50170

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__nand2_1	A->Y (RF)	0.05002	3.11738	89.80080
	B->Y (RF)	0.05095	2.53128	78.16810

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	A	0.02134	0.18800	2.19715
	A	-0.00176	0.16388	2.15837
	B	0.02976	0.21191	2.38040
	B	0.00156	0.18305	2.33677

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	A	-0.00169	0.15916	2.10089
	A	0.02145	0.18278	2.12769
	B	-0.00270	0.17395	2.37665
	B	0.02551	0.20326	2.41500

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	-0.01399	-0.01410
	(!B * Y)	0.00181	0.00181	0.00172

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	(!B * Y)	0.01418	0.01426	0.01420
	(!B * Y)	-0.00167	-0.00168	-0.00167

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	(!A * Y)	-0.01349	-0.01357	-0.01353
	(!A * Y)	0.00646	0.00656	0.00648

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nand2_1	(!A * Y)	0.01362	0.01388	0.01357
	(!A * Y)	-0.00630	-0.00652	-0.00646

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	20.32000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__nor2_1	0.00399	0.00405	7.76937

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__nor2_1	0.00000	0.00082	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__nor2_1	A->Y (FR)	0.07295	3.29518	86.27430
	B->Y (FR)	0.05958	3.90407	97.81030

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__nor2_1	A->Y (RF)	0.04977	1.94866	53.01870
	B->Y (RF)	0.03596	1.86786	52.46390

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	A	0.03017	0.22819	2.99726
	A	-0.00171	0.19539	2.96359
	B	0.02161	0.19105	2.46298
	B	-0.00083	0.16794	2.44022

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	A	0.00242	0.17941	2.49191
	A	0.03427	0.21151	2.53682
	B	-0.00329	0.15184	2.20967
	B	0.01916	0.17482	2.26171

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	(B * !Y)	-0.01274	-0.01341	-0.01329
	(B * !Y)	0.00712	0.00655	0.00652

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	(B * !Y)	0.01338	0.01341	0.01329
	(B * !Y)	-0.00650	-0.00649	-0.00648

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	(A * !Y)	-0.00434	-0.00445	-0.00434
	(A * !Y)	0.00778	0.00800	0.00781

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__nor2_1	(A * !Y)	0.00470	0.00467	0.00448
	(A * !Y)	-0.00745	-0.00741	-0.00767

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	25.40000

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	B	Y
gf180mcu_osu_sc_gp9t3v3__oai21_1	0.00396	0.00402	0.00404	7.88413

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__oai21_1	0.00000	0.00096	0.00152

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai21_1	A0->Y (FR)	0.09873	3.25261	85.78900
	A1->Y (FR)	0.08303	3.87877	97.57670
	B->Y (FR)	0.04391	2.71943	67.76420

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai21_1	A0->Y (RF)	0.07774	2.18149	61.12010
	A1->Y (RF)	0.05671	2.10164	60.50820
	B->Y (RF)	0.07414	2.82570	74.10740

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	A0	0.04061	0.21107	2.51348
	A0	0.00240	0.17244	2.47536
	A1	0.03138	0.17854	2.06542
	A1	0.00268	0.14920	2.03669
	B	0.02127	0.21925	2.83693
	B	-0.00192	0.19606	2.80625

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	A0	0.00506	0.16310	2.26661
	A0	0.04308	0.20165	2.30432
	A1	-0.00155	0.13870	2.02228
	A1	0.02719	0.16784	2.05100
	B	-0.00143	0.18846	2.68954
	B	0.02174	0.21171	2.71307

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(A1 * B * !Y)	-0.01268	-0.01341	-0.01329
	(A1 * B * !Y)	0.00717	0.00655	0.00652
	(A1 * !B * Y)	-0.01327	-0.01339	-0.01328
	(A1 * !B * Y)	0.00658	0.00655	0.00652
	(!A1 * !B * Y)	-0.01353	-0.01355	-0.01353
	(!A1 * !B * Y)	0.00650	0.00654	0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(A1 * B * !Y)	0.01331	0.01341	0.01329
	(A1 * B * !Y)	-0.00648	-0.00648	-0.00647
	(A1 * !B * Y)	0.01328	0.01339	0.01328
	(A1 * !B * Y)	-0.00649	-0.00650	-0.00649
	(!A1 * !B * Y)	0.01360	0.01355	0.01357
	(!A1 * !B * Y)	-0.00633	-0.00648	-0.00646

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(A0 * B * !Y)	-0.00435	-0.00444	-0.00434
	(A0 * B * !Y)	0.00781	0.00800	0.00781
	(!B * Y)	-0.01328	-0.01341	-0.01326
	(!B * Y)	0.00657	0.00661	0.00652

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(A0 * B * !Y)	0.00465	0.00468	0.00448
	(A0 * B * !Y)	-0.00737	-0.00741	-0.00767
	(!B * Y)	0.01331	0.01341	0.01326
	(!B * Y)	-0.00649	-0.00649	-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)	-0.01394	-0.01392	-0.01408
	(!A0 * !A1 * Y)	0.00187	0.00187	0.00174

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai21_1	(!A0 * !A1 * Y)	0.01420	0.01424	0.01420
	(!A0 * !A1 * Y)	-0.00168	-0.00168	-0.00167

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	B0	B1	Y
0	0	x	x	1
x	1	0	0	1
x	1	x	1	0
x	1	1	x	0
1	x	0	0	1
1	x	x	1	0
1	x	1	x	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__oai22_1	34.92500

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A0	A1	B0	B1	Y
gf180mcu_osu_sc_gp9t3v3__oai22_1	0.00396	0.00403	0.00407	0.00399	7.84087

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__oai22_1	0.00000	0.00125	0.00180

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai22_1	A0->Y (FR)	0.11934	3.30872	86.10960
	A1->Y (FR)	0.10341	3.92378	97.77950
	B0->Y (FR)	0.06684	3.86413	97.51380
	B1->Y (FR)	0.08097	3.23979	85.71610

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai22_1	A0->Y (RF)	0.11039	2.21267	60.88040
	A1->Y (RF)	0.08793	2.13401	60.27070
	B0->Y (RF)	0.08011	2.70100	72.32760
	B1->Y (RF)	0.10167	2.77798	72.78850

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	A0	0.05040	0.23241	2.74572
	A0	0.00714	0.18851	2.70089
	A1	0.04116	0.19714	2.25632
	A1	0.00735	0.16286	2.22231
	B0	0.02308	0.17442	2.16357
	B0	-0.00065	0.14996	2.13974
	B1	0.03184	0.20661	2.60981
	B1	-0.00138	0.17247	2.57660

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	A0	0.00496	0.16472	2.30038
	A0	0.04827	0.20805	2.35606
	A1	-0.00157	0.13957	2.05125
	A1	0.03239	0.17379	2.09821
	B0	-0.00016	0.14144	1.99193
	B0	0.02365	0.16522	2.02516
	B1	0.00568	0.16446	2.21341
	B1	0.03883	0.19826	2.25310

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A1 * B0 * !Y)	-0.01265	-0.01352	-0.01327
	(A1 * B0 * !Y)	0.00717	0.00655	0.00652
	(A1 * !B0 * B1 * !Y)	-0.01266	-0.01343	-0.01328
	(A1 * !B0 * B1 * !Y)	0.00717	0.00655	0.00652
	(A1 * !B0 * !B1 * Y)	-0.01326	-0.01339	-0.01328
	(A1 * !B0 * !B1 * Y)	0.00658	0.00655	0.00652
	(!A1 * !B0 * !B1 * Y)	-0.01354	-0.01358	-0.01351
	(!A1 * !B0 * !B1 * Y)	0.00647	0.00655	0.00643

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A1 * B0 * !Y)	0.01338	0.01352	0.01327
	(A1 * B0 * !Y)	-0.00649	-0.00648	-0.00647
	(A1 * !B0 * B1 * !Y)	0.01330	0.01343	0.01328
	(A1 * !B0 * B1 * !Y)	-0.00648	-0.00647	-0.00647
	(A1 * !B0 * !B1 * Y)	0.01338	0.01339	0.01328
	(A1 * !B0 * !B1 * Y)	-0.00651	-0.00650	-0.00649
	(!A1 * !B0 * !B1 * Y)	0.01369	0.01359	0.01357
	(!A1 * !B0 * !B1 * Y)	-0.00627	-0.00646	-0.00643

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A0 * B0 * !Y)	-0.00443	-0.00445	-0.00434
	(A0 * B0 * !Y)	0.00788	0.00800	0.00781
	(A0 * !B0 * B1 * !Y)	-0.00433	-0.00444	-0.00434
	(A0 * !B0 * B1 * !Y)	0.00778	0.00800	0.00781
	(!B0 * !B1 * Y)	-0.01317	-0.01333	-0.01317
	(!B0 * !B1 * Y)	0.00656	0.00652	0.00652

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A0 * B0 * !Y)	0.00469	0.00468	0.00448
	(A0 * B0 * !Y)	-0.00740	-0.00741	-0.00767
	(A0 * !B0 * B1 * !Y)	0.00464	0.00468	0.00448
	(A0 * !B0 * B1 * !Y)	-0.00737	-0.00740	-0.00767
	(!B0 * !B1 * Y)	0.01317	0.01333	0.01317
	(!B0 * !B1 * Y)	-0.00649	-0.00649	-0.00649

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A1 * B1 * !Y)	-0.00438	-0.00445	-0.00434
	(A1 * B1 * !Y)	0.00780	0.00800	0.00781
	(A0 * !A1 * B1 * !Y)	-0.00438	-0.00445	-0.00434
	(A0 * !A1 * B1 * !Y)	0.00780	0.00799	0.00781
	(!A0 * !A1 * Y)	-0.01387	-0.01411	-0.01399
	(!A0 * !A1 * Y)	0.00163	0.00164	0.00163

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A1 * B1 * !Y)	0.00465	0.00468	0.00448
	(A1 * B1 * !Y)	-0.00738	-0.00741	-0.00767
	(A0 * !A1 * B1 * !Y)	0.00464	0.00468	0.00449
	(A0 * !A1 * B1 * !Y)	-0.00738	-0.00741	-0.00766
	(!A0 * !A1 * Y)	0.01408	0.01430	0.01399
	(!A0 * !A1 * Y)	-0.00144	-0.00146	-0.00153

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A1 * B0 * !Y)	-0.01269	-0.01342	-0.01328
	(A1 * B0 * !Y)	0.00713	0.00654	0.00652
	(A0 * !A1 * B0 * !Y)	-0.01267	-0.01341	-0.01332
	(A0 * !A1 * B0 * !Y)	0.00714	0.00654	0.00652
	(!A0 * !A1 * Y)	-0.01388	-0.01422	-0.01406
	(!A0 * !A1 * Y)	0.00163	0.00166	0.00163

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai22_1	(A1 * B0 * !Y)	0.01332	0.01342	0.01328
	(A1 * B0 * !Y)	-0.00648	-0.00647	-0.00647
	(A0 * !A1 * B0 * !Y)	0.01340	0.01341	0.01332
	(A0 * !A1 * B0 * !Y)	-0.00650	-0.00649	-0.00648
	(!A0 * !A1 * Y)	0.01434	0.01431	0.01412
	(!A0 * !A1 * Y)	-0.00145	-0.00145	-0.00153

GF180MCU_OSU_SC_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	31.11500

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A0	A1	A2	B	Y
gf180mcu_osu_sc_gp9t3v3__oai31_1	0.00395	0.00403	0.00396	0.00404	5.43109

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__oai31_1	0.00000	0.00101	0.00216

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai31_1	A0->Y (FR)	0.14839	3.85610	90.16140
	A1->Y (FR)	0.10790	4.28724	98.60270
	A2->Y (FR)	0.16625	3.45893	82.47430
	B->Y (FR)	0.04382	2.43381	55.17650

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__oai31_1	A0->Y (RF)	0.08378	1.72215	43.54280
	A1->Y (RF)	0.06073	1.65230	42.98220
	A2->Y (RF)	0.09118	1.80044	44.27920
	B->Y (RF)	0.08503	2.47942	57.61430

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	A0	0.04279	0.18437	2.32376
	A0	0.00412	0.14557	2.28429
	A1	0.03339	0.16420	2.04358
	A1	0.00425	0.13462	2.01398
	A2	0.05218	0.22303	2.92659
	A2	0.00418	0.17485	2.87695
	B	0.02121	0.24267	3.46862
	B	-0.00198	0.21921	3.43092

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	A0	0.00647	0.13944	2.13252
	A0	0.04514	0.17838	2.18426
	A1	-0.00103	0.12080	1.92571
	A1	0.02823	0.15016	1.96762
	A2	0.01252	0.16246	2.39546
	A2	0.06040	0.21063	2.45671
	B	-0.00134	0.21096	3.29681
	B	0.02185	0.23437	3.33324

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)	-0.00696	-0.00698	-0.00695
	(A1 * B * !Y) + (!A1 * A2 * B * !Y)	0.00734	0.00732	0.00686
	(A1 * !B * Y)	-0.00788	-0.00786	-0.00779
	(A1 * !B * Y)	0.00654	0.00655	0.00652
	(!A1 * !B * Y)	-0.01319	-0.01346	-0.01319
	(!A1 * !B * Y)	0.00657	0.00652	0.00652

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)	0.00696	0.00698	0.00695
	(A1 * B * !Y) + (!A1 * A2 * B * !Y)	-0.00649	-0.00652	-0.00649
	(A1 * !B * Y)	0.00788	0.00786	0.00779
	(A1 * !B * Y)	-0.00647	-0.00649	-0.00649
	(!A1 * !B * Y)	0.01319	0.01346	0.01319
	(!A1 * !B * Y)	-0.00648	-0.00650	-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)	-0.00436	-0.00444	-0.00434
	(A0 * B * !Y)	0.00781	0.00800	0.00781
	(A0 * !B * Y)	-0.01308	-0.01346	-0.01323
	(A0 * !B * Y)	0.00655	0.00661	0.00652
	(!A0 * A2 * B * !Y)	-0.00427	-0.00432	-0.00425
	(!A0 * A2 * B * !Y)	0.00781	0.00794	0.00780
	(!A0 * !B * Y)	-0.01196	-0.01267	-0.01256
	(!A0 * !B * Y)	0.00660	0.00657	0.00652

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	(A0 * B * !Y)	0.00461	0.00468	0.00448
	(A0 * B * !Y)	-0.00734	-0.00741	-0.00767
	(A0 * !B * Y)	0.01328	0.01351	0.01323
	(A0 * !B * Y)	-0.00651	-0.00651	-0.00649
	(!A0 * A2 * B * !Y)	0.00472	0.00475	0.00435
	(!A0 * A2 * B * !Y)	-0.00667	-0.00673	-0.00739
	(!A0 * !B * Y)	0.01253	0.01267	0.01256
	(!A0 * !B * Y)	-0.00650	-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)	-0.01313	-0.01340	-0.01329
	(A0 * A1 * B * !Y)	0.00655	0.00655	0.00652
	(A0 * !B * Y)	-0.01316	-0.01341	-0.01326
	(A0 * !B * Y)	0.00652	0.00655	0.00652
	(A0 * !A1 * B * !Y) + (!A0 * A1 * B * !Y)	-0.01296	-0.01341	-0.01327
	(A0 * !A1 * B * !Y) + (!A0 * A1 * B * !Y)	0.00675	0.00655	0.00652
	(!A0 * A1 * !B * Y)	-0.01221	-0.01313	-0.01288
	(!A0 * A1 * !B * Y)	0.00654	0.00670	0.00652
	(!A0 * !A1 * !B * Y)	-0.01351	-0.01353	-0.01351
	(!A0 * !A1 * !B * Y)	0.00644	0.00650	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)	0.01340	0.01340	0.01329
	(A0 * A1 * B * !Y)	-0.00650	-0.00650	-0.00649
	(A0 * !B * Y)	0.01329	0.01341	0.01326
	(A0 * !B * Y)	-0.00650	-0.00649	-0.00649
	(A0 * !A1 * B * !Y) + (!A0 * A1 * B * !Y)	0.01329	0.01341	0.01327
	(A0 * !A1 * B * !Y) + (!A0 * A1 * B * !Y)	-0.00649	-0.00649	-0.00649
	(!A0 * A1 * !B * Y)	0.01290	0.01313	0.01288
	(!A0 * A1 * !B * Y)	-0.00648	-0.00650	-0.00649
	(!A0 * !A1 * !B * Y)	0.01367	0.01359	0.01357
	(!A0 * !A1 * !B * Y)	-0.00629	-0.00647	-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)	-0.01386	-0.01384	-0.01405
	(!A0 * !A1 * !A2 * Y)	0.00193	0.00193	0.00177

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__oai31_1	(!A0 * !A1 * !A2 * Y)	0.01420	0.01426	0.01420
	(!A0 * !A1 * !A2 * Y)	-0.00168	-0.00168	-0.00167

GF180MCU_OSU_SC_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	24.13000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__or2_1	0.00405	0.00399	15.52995

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__or2_1	0.00000	0.00164	0.00237

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__or2_1	A->Y (RR)	0.07704	1.35182	59.55870
	B->Y (RR)	0.09158	1.68721	65.55750

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__or2_1	A->Y (FF)	0.11254	2.77122	81.20590
	B->Y (FF)	0.12740	2.51332	76.95490

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	A	0.01533	0.30534	5.50672
	A	0.03779	0.32773	5.50706
	B	0.02127	0.36663	6.53283
	B	0.05323	0.39817	6.55744

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	A	0.03943	0.33174	5.49119
	A	0.01684	0.30997	5.47204
	B	0.04831	0.38681	6.53810
	B	0.01629	0.35538	6.51616

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	(B * Y)	-0.00437	-0.00445	-0.00434
	(B * Y)	0.00781	0.00800	0.00781

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	(B * Y)	0.00470	0.00468	0.00448
	(B * Y)	-0.00742	-0.00741	-0.00767

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	(A * Y)	-0.01268	-0.01342	-0.01328
	(A * Y)	0.00716	0.00655	0.00652

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__or2_1	(A * Y)	0.01340	0.01342	0.01328
	(A * Y)	-0.00649	-0.00647	-0.00647

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	Y
-	0	HiZ
0	1	0
1	1	1

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tbuf_1	33.97250

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	EN	Y
gf180mcu_osu_sc_gp9t3v3__tbuf_1	0.00404	0.00535	8.22652

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__tbuf_1	0.00000	0.00183	0.00201

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	A->Y (RR)	0.12618	2.11136	64.48500
	EN->Y (FR)	0.06098	3.59183	65.65660
	EN->Y (RR)	0.07380	2.12090	66.82990

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	A->Y (FF)	0.11778	2.31782	60.81760
	EN->Y (FF)	0.07384	3.59183	65.65660
	EN->Y (RF)	0.02527	2.28316	70.40980

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	A	0.03278	0.40409	6.96116
	A	0.04954	0.42049	6.97209
	EN	0.01583	0.38192	6.91209
	EN	0.03898	0.40482	6.93339

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	A	0.04280	0.41658	6.93949
	A	0.02605	0.40013	6.93222
	EN	0.00851	0.37906	6.91171
	EN	0.03758	0.40807	6.94411

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	!EN	0.00892	0.37961	6.86939
	!EN	0.03087	0.40166	6.89135

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	!EN	0.02632	0.39885	6.88807
	!EN	0.00426	0.37677	6.86607

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	(A * Y)	0.00798	0.38133	6.87217
	(A * Y)	0.03227	0.40587	6.89660
	(!A * !Y)	0.00014	0.37298	6.86687
	(!A * !Y)	0.02855	0.40155	6.89527

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tbuf_1	(A * Y)	0.02073	0.39495	6.88428
	(A * Y)	-0.00367	0.37041	6.85986
	(!A * !Y)	0.02110	0.39935	6.88887
	(!A * !Y)	-0.00728	0.37084	6.86034

GF180MCU_OSU_SC_GP9T3V3__TIEH

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

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tieh	13.97000

Pin Capacitance Information

Cell Name	Max Cap(pf)
	Y
gf180mcu_osu_sc_gp9t3v3__tieh	34.42027

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp9t3v3__tieh	0.00000	0.00000	0.00000

GF180MCU_OSU_SC_GP9T3V3__TIEL

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

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tiel	13.97000

Pin Capacitance Information

Cell Name	Max Cap(pf)
	Y
gf180mcu_osu_sc_gp9t3v3__tiel	51.62853

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
gf180mcu_osu_sc_gp9t3v3__tiel	0.00000	0.00000	0.00000

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	Y
-	0	HiZ
0	1	1
1	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__tinv_1	24.44750

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	EN	Y
gf180mcu_osu_sc_gp9t3v3__tinv_1	0.00396	0.00535	8.01146

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__tinv_1	0.00000	0.00109	0.00144

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_1	A->Y (FR)	0.08888	3.26326	86.79460
	EN->Y (FR)	0.06099	3.59183	65.65660
	EN->Y (RR)	0.07386	2.08765	65.01830

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__tinv_1	A->Y (RF)	0.06768	2.19256	61.92080
	EN->Y (FF)	0.07396	3.59183	65.65660
	EN->Y (RF)	0.02528	2.24631	68.90440

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	A	0.03704	0.20705	2.49375
	A	0.01040	0.18008	2.46488
	EN	0.01578	0.38177	6.91353
	EN	0.03849	0.40433	6.93032

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	A	0.00162	0.16034	2.24365
	A	0.02818	0.18738	2.27567
	EN	0.00758	0.37746	6.90886
	EN	0.03756	0.40780	6.94765

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	!EN	-0.01329	-0.01352	-0.01341
	!EN	0.00654	0.00649	0.00641

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	!EN	0.01353	0.01363	0.01341
	!EN	-0.00628	-0.00649	-0.00641

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	(A * !Y)	-0.00010	0.37273	6.86663
	(A * !Y)	0.02854	0.40154	6.89527
	(!A * Y)	0.00798	0.38133	6.87217
	(!A * Y)	0.03216	0.40576	6.89651

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

Cell Name	When	Power(pJ)		
		first	mid	last
gf180mcu_osu_sc_gp9t3v3__tinv_1	(A * !Y)	0.02129	0.39954	6.88906
	(A * !Y)	-0.00729	0.37084	6.86033
	(!A * Y)	0.02068	0.39494	6.88428
	(!A * Y)	-0.00359	0.37047	6.85994

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	40.64000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__xnor2_1	0.00806	0.00800	7.98787

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__xnor2_1	0.00000	0.00284	0.00353

Delay Information

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__xnor2_1	A->Y (RR)	B	0.11993	2.06955	62.47440
	A->Y (FR)	!B	0.08486	3.89973	98.43540
	B->Y (RR)	A	0.09887	2.14439	64.92940
	B->Y (FR)	!A	0.09569	3.27347	86.63570

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	0.13096	2.41297	62.00250
	A->Y (RF)	!B	0.05707	2.11562	61.20550
	B->Y (FF)	A	0.10249	2.38070	61.95390
	B->Y (RF)	!A	0.07502	2.20295	61.80200

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	0.02341	0.38906	6.93915
	A	B	0.05618	0.42144	6.96092
	A	!B	0.04955	0.56376	8.99276
	A	!B	0.00540	0.51947	8.94816
	B	A	0.00513	0.37171	6.90723
	B	A	0.04557	0.41196	6.94134
	B	!A	0.05892	0.59845	9.43520
	B	!A	0.00524	0.54428	9.37954

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	0.05932	0.42534	6.95424
	A	B	0.02817	0.39433	6.92305
	A	!B	0.01411	0.51901	8.92059
	A	!B	0.05786	0.56314	8.96430
	B	A	0.05442	0.42244	6.94532
	B	A	0.01389	0.38190	6.90813
	B	!A	0.01515	0.54073	9.15520
	B	!A	0.06829	0.59435	9.21313

GF180MCU_OSU_SC_GP9T3V3__XOR2_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
0	1	1
1	0	1
1	1	0

Footprint

Cell Name	Area
gf180mcu_osu_sc_gp9t3v3__xor2_1	42.54500

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
gf180mcu_osu_sc_gp9t3v3__xor2_1	0.00800	0.00802	7.96151

Leakage Information

Cell Name	Leakage(nW)		
	Min.	Avg	Max.
gf180mcu_osu_sc_gp9t3v3__xor2_1	0.00000	0.00284	0.00327

Delay Information

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)		
			First	Mid	Last
gf180mcu_osu_sc_gp9t3v3__xor2_1	A->Y (RR)	!B	0.09898	2.14028	64.70250
	A->Y (FR)	B	0.09767	3.26658	86.42150
	B->Y (RR)	!A	0.12650	2.16479	64.72720
	B->Y (FR)	A	0.07978	3.19478	85.83090

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	0.10243	2.37686	61.80080
	A->Y (RF)	B	0.07341	2.19916	61.63550
	B->Y (FF)	!A	0.10702	2.27485	59.14490
	B->Y (RF)	A	0.07289	2.77033	73.56620

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	0.06424	0.60279	9.44541
	A	B	0.01553	0.55367	9.39487
	A	!B	0.00372	0.37042	6.91341
	A	!B	0.04495	0.41135	6.94768
	B	A	0.05745	0.58078	9.24599
	B	A	0.01376	0.53643	9.20000
	B	!A	0.01356	0.37759	6.91995
	B	!A	0.04966	0.41356	6.94914

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	0.00911	0.53475	9.15333
	A	B	0.05847	0.58471	9.20271
	A	!B	0.05571	0.42353	6.95424
	A	!B	0.01457	0.38250	6.91307
	B	A	0.00960	0.52692	8.87904
	B	A	0.05392	0.57174	8.92334
	B	!A	0.06051	0.42877	6.95863
	B	!A	0.02344	0.39194	6.92336