

sg13g2_stdcell_typ_1p20V_25C Library

Cell Groups
A21OIx
A21Ox
A221OI
A22OI
AND2x
AND3x
AND4x
ANTENNANP
BUFx
DECAPx
DFRBPQx
DFRBPx
DLHQ
DLHRQ
DLHR
DLLRQ
DLLR
DLYGATE4SD1
DLYGATE4SD2
DLYGATE4SD3
EBUFNx
EINVNx
FILLx

INVx
LGCP
MUX2x
MUX4
NAND2Bx
NAND2x
NAND3B
NAND3
NAND4
NOR2Bx
NOR2x
NOR3x
NOR4x
O2IAI
OR2x
OR3x
OR4x
SDFBBP
SDFRBPQx
SDFRBPx
SIGHOLD
SLGCP
TIEHI
TIELO
XNOR2
XOR2

A21OIx



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
A1	A2	B1	Y
0	x	0	1
x	x	1	0
1	0	0	1
1	1	x	0

Footprint

Cell Name	Area
sg13g2_a21oi_1	9.07200
sg13g2_a21oi_2	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	Y
sg13g2_a21oi_1	0.00301	0.00305	0.00288	0.30000
sg13g2_a21oi_2	0.00581	0.00608	0.00564	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21oi_1	86.91950	114.47700	146.03000
sg13g2_a21oi_2	173.81800	228.94500	292.05800

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	A1->Y (FR)	0.01860	0.00100	0.04691	0.32940	0.06480	0.53690	2.50740	0.30000	2.69387
	A2->Y (FR)	0.01860	0.00100	0.05494	0.32940	0.06480	0.54629	2.50740	0.30000	2.70578
	B1->Y (FR)	0.01860	0.00100	0.04426	0.32940	0.06480	0.56081	2.50740	0.30000	2.91669
sg13g2_a21oi_2	A1->Y (FR)	0.01860	0.00100	0.04269	0.32940	0.12960	0.53745	2.50740	0.60000	2.69879
	A2->Y (FR)	0.01860	0.00100	0.05101	0.32940	0.12960	0.54543	2.50740	0.60000	2.70487
	B1->Y (FR)	0.01860	0.00100	0.04020	0.32940	0.12960	0.56002	2.50740	0.60000	2.91469

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	A1->Y (RF)	0.01860	0.00100	0.03949	0.32940	0.06480	0.46742	2.50740	0.30000	2.48437
	A2->Y (RF)	0.01860	0.00100	0.04373	0.32940	0.06480	0.44985	2.50740	0.30000	2.33171
	B1->Y (RF)	0.01860	0.00100	0.02226	0.32940	0.06480	0.34095	2.50740	0.30000	1.93339
sg13g2_a21oi_2	A1->Y (RF)	0.01860	0.00100	0.03610	0.32940	0.12960	0.46691	2.50740	0.60000	2.48590
	A2->Y (RF)	0.01860	0.00100	0.04072	0.32940	0.12960	0.44997	2.50740	0.60000	2.33289
	B1->Y (RF)	0.01860	0.00100	0.02004	0.32940	0.12960	0.34005	2.50740	0.60000	1.93116

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.04426	0.32940	0.06480	0.56081	2.50740	0.30000	2.91669
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.03489	0.32940	0.06480	0.54966	2.50740	0.30000	2.90085
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	0.02882	0.32940	0.06480	0.45698	2.50740	0.30000	2.48663
sg13g2_a21oi_2	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.04020	0.32940	0.12960	0.56002	2.50740	0.60000	2.91469
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.03070	0.32940	0.12960	0.55079	2.50740	0.60000	2.90933
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	0.02563	0.32940	0.12960	0.45698	2.50740	0.60000	2.48944

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.02226	0.32940	0.06480	0.34095	2.50740	0.30000	1.93339
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.02201	0.32940	0.06480	0.34025	2.50740	0.30000	1.93109
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	0.02178	0.32940	0.06480	0.33994	2.50740	0.30000	1.93077
sg13g2_a21oi_2	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.02004	0.32940	0.12960	0.34005	2.50740	0.60000	1.93116
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.01979	0.32940	0.12960	0.33970	2.50740	0.60000	1.92875
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	0.01954	0.32940	0.12960	0.33940	2.50740	0.60000	1.92861

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	A1	0.01860	0.00100	0.00445	0.32940	0.06480	0.00439	2.50740	0.30000	0.00495
	A2	0.01860	0.00100	0.00467	0.32940	0.06480	0.00448	2.50740	0.30000	0.00497
	B1	0.01860	0.00100	0.00220	0.32940	0.06480	0.00244	2.50740	0.30000	0.00312
sg13g2_a21oi_2	A1	0.01860	0.00100	0.00887	0.32940	0.12960	0.00887	2.50740	0.60000	0.00985
	A2	0.01860	0.00100	0.00943	0.32940	0.12960	0.00907	2.50740	0.60000	0.01028
	B1	0.01860	0.00100	0.00431	0.32940	0.12960	0.00486	2.50740	0.60000	0.00624

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	A1	0.01860	0.00100	0.00313	0.32940	0.06480	0.00297	2.50740	0.30000	0.00360
	A2	0.01860	0.00100	0.00473	0.32940	0.06480	0.00453	2.50740	0.30000	0.00509
	B1	0.01860	0.00100	0.00180	0.32940	0.06480	0.00204	2.50740	0.30000	0.00318
sg13g2_a21oi_2	A1	0.01860	0.00100	0.00560	0.32940	0.12960	0.00528	2.50740	0.60000	0.00688
	A2	0.01860	0.00100	0.00898	0.32940	0.12960	0.00853	2.50740	0.60000	0.00958
	B1	0.01860	0.00100	0.00286	0.32940	0.12960	0.00355	2.50740	0.60000	0.00567

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	0.00252	0.32940	0.06480	0.00248	2.50740	0.30000	0.00347
	B1	(!A1 * A2)	0.01860	0.00100	0.00221	0.32940	0.06480	0.00229	2.50740	0.30000	0.00329
	B1	(!A1 * !A2)	0.01860	0.00100	0.00220	0.32940	0.06480	0.00244	2.50740	0.30000	0.00312
sg13g2_a21oi_2	B1	(A1 * !A2)	0.01860	0.00100	0.00515	0.32940	0.12960	0.00515	2.50740	0.60000	0.00709
	B1	(!A1 * A2)	0.01860	0.00100	0.00431	0.32940	0.12960	0.00461	2.50740	0.60000	0.00666
	B1	(!A1 * !A2)	0.01860	0.00100	0.00431	0.32940	0.12960	0.00486	2.50740	0.60000	0.00624

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	0.00343	0.32940	0.06480	0.00364	2.50740	0.30000	0.00466
	B1	(!A1 * A2)	0.01860	0.00100	0.00180	0.32940	0.06480	0.00204	2.50740	0.30000	0.00318
	B1	(!A1 * !A2)	0.01860	0.00100	0.00174	0.32940	0.06480	0.00191	2.50740	0.30000	0.00322
sg13g2_a21oi_2	B1	(A1 * !A2)	0.01860	0.00100	0.00611	0.32940	0.12960	0.00660	2.50740	0.60000	0.00874
	B1	(!A1 * A2)	0.01860	0.00100	0.00286	0.32940	0.12960	0.00355	2.50740	0.60000	0.00567
	B1	(!A1 * !A2)	0.01860	0.00100	0.00273	0.32940	0.12960	0.00330	2.50740	0.60000	0.00554

A21Ox



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
A1	A2	B1	X
0	x	0	0
x	x	1	1
1	0	0	0
1	1	x	1

Footprint

Cell Name	Area
sg13g2_a21o_1	12.70080
sg13g2_a21o_2	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	
sg13g2_a21o_1	0.00272	0.00281	0.00263	0.30000
sg13g2_a21o_2	0.00290	0.00289	0.00275	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21o_1	127.38800	158.29600	178.01100
sg13g2_a21o_2	183.49100	224.28900	271.21000

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1->X (RR)	0.01860	0.00100	0.08077	0.32940	0.06480	0.36899	2.50740	0.30000	1.27636
	A2->X (RR)	0.01860	0.00100	0.08469	0.32940	0.06480	0.36880	2.50740	0.30000	1.28164
	B1->X (RR)	0.01860	0.00100	0.05289	0.32940	0.06480	0.32766	2.50740	0.30000	1.19448
sg13g2_a21o_2	A1->X (RR)	0.01860	0.00100	0.08637	0.32940	0.12960	0.39012	2.50740	0.60000	1.31165
	A2->X (RR)	0.01860	0.00100	0.09007	0.32940	0.12960	0.38720	2.50740	0.60000	1.31298
	B1->X (RR)	0.01860	0.00100	0.05595	0.32940	0.12960	0.34675	2.50740	0.60000	1.23009

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1->X (FF)	0.01860	0.00100	0.09203	0.32940	0.06480	0.33606	2.50740	0.30000	1.06228
	A2->X (FF)	0.01860	0.00100	0.10055	0.32940	0.06480	0.35094	2.50740	0.30000	1.09324
	B1->X (FF)	0.01860	0.00100	0.09014	0.32940	0.06480	0.34493	2.50740	0.30000	1.10286
sg13g2_a21o_2	A1->X (FF)	0.01860	0.00100	0.11617	0.32940	0.12960	0.38470	2.50740	0.60000	1.17771
	A2->X (FF)	0.01860	0.00100	0.12569	0.32940	0.12960	0.40004	2.50740	0.60000	1.20977
	B1->X (FF)	0.01860	0.00100	0.11574	0.32940	0.12960	0.40156	2.50740	0.60000	1.23948

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1->X (RR)	!B1	0.01860	0.00100	0.08077	0.32940	0.06480	0.36899	2.50740	0.30000	1.27636
	A2->X (RR)	!B1	0.01860	0.00100	0.08469	0.32940	0.06480	0.36880	2.50740	0.30000	1.28164
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	0.05289	0.32940	0.06480	0.32766	2.50740	0.30000	1.19448
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	0.04982	0.32940	0.06480	0.31498	2.50740	0.30000	1.15530
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	0.04961	0.32940	0.06480	0.31505	2.50740	0.30000	1.16352
sg13g2_a21o_2	A1->X (RR)	!B1	0.01860	0.00100	0.08637	0.32940	0.12960	0.39012	2.50740	0.60000	1.31165
	A2->X (RR)	!B1	0.01860	0.00100	0.09007	0.32940	0.12960	0.38720	2.50740	0.60000	1.31298
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	0.05595	0.32940	0.12960	0.34675	2.50740	0.60000	1.23009
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	0.05372	0.32940	0.12960	0.33520	2.50740	0.60000	1.19567
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	0.05354	0.32940	0.12960	0.33474	2.50740	0.60000	1.20305

Delay(ns) to X falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1->X (FF)	!B1	0.01860	0.00100	0.09203	0.32940	0.06480	0.33606	2.50740	0.30000	1.06228
	A2->X (FF)	!B1	0.01860	0.00100	0.10055	0.32940	0.06480	0.35094	2.50740	0.30000	1.09324
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	0.09014	0.32940	0.06480	0.34493	2.50740	0.30000	1.10286
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	0.08002	0.32940	0.06480	0.32648	2.50740	0.30000	1.06625
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	0.06603	0.32940	0.06480	0.30594	2.50740	0.30000	1.02256
sg13g2_a21o_2	A1->X (FF)	!B1	0.01860	0.00100	0.11617	0.32940	0.12960	0.38470	2.50740	0.60000	1.17771
	A2->X (FF)	!B1	0.01860	0.00100	0.12569	0.32940	0.12960	0.40004	2.50740	0.60000	1.20977
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	0.11574	0.32940	0.12960	0.40156	2.50740	0.60000	1.23948
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	0.10414	0.32940	0.12960	0.38321	2.50740	0.60000	1.20061
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	0.08379	0.32940	0.12960	0.35383	2.50740	0.60000	1.14554

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1	0.01860	0.00100	0.00722	0.32940	0.06480	0.00727	2.50740	0.30000	0.01252
	A2	0.01860	0.00100	0.00865	0.32940	0.06480	0.00857	2.50740	0.30000	0.01291
	B1	0.01860	0.00100	0.00614	0.32940	0.06480	0.00629	2.50740	0.30000	0.01269
sg13g2_a21o_2	A1	0.01860	0.00100	0.01112	0.32940	0.12960	0.01144	2.50740	0.60000	0.01682
	A2	0.01860	0.00100	0.01269	0.32940	0.12960	0.01299	2.50740	0.60000	0.01726
	B1	0.01860	0.00100	0.01003	0.32940	0.12960	0.01028	2.50740	0.60000	0.01698

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1	0.01860	0.00100	0.00827	0.32940	0.06480	0.00834	2.50740	0.30000	0.01312
	A2	0.01860	0.00100	0.00822	0.32940	0.06480	0.00838	2.50740	0.30000	0.01260
	B1	0.01860	0.00100	0.00631	0.32940	0.06480	0.00674	2.50740	0.30000	0.01300
sg13g2_a21o_2	A1	0.01860	0.00100	0.01205	0.32940	0.12960	0.01219	2.50740	0.60000	0.01721
	A2	0.01860	0.00100	0.01210	0.32940	0.12960	0.01239	2.50740	0.60000	0.01698
	B1	0.01860	0.00100	0.01004	0.32940	0.12960	0.01065	2.50740	0.60000	0.01703

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1	!B1	0.01860	0.00100	0.00722	0.32940	0.06480	0.00727	2.50740	0.30000	0.01252
	A2	!B1	0.01860	0.00100	0.00865	0.32940	0.06480	0.00857	2.50740	0.30000	0.01291
	B1	(A1 * !A2)	0.01860	0.00100	0.00761	0.32940	0.06480	0.00773	2.50740	0.30000	0.01391
	B1	(!A1 * A2)	0.01860	0.00100	0.00621	0.32940	0.06480	0.00624	2.50740	0.30000	0.01246
	B1	(!A1 * !A2)	0.01860	0.00100	0.00614	0.32940	0.06480	0.00629	2.50740	0.30000	0.01269
sg13g2_a21o_2	A1	!B1	0.01860	0.00100	0.01112	0.32940	0.12960	0.01144	2.50740	0.60000	0.01682
	A2	!B1	0.01860	0.00100	0.01269	0.32940	0.12960	0.01299	2.50740	0.60000	0.01726
	B1	(A1 * !A2)	0.01860	0.00100	0.01171	0.32940	0.12960	0.01218	2.50740	0.60000	0.01839
	B1	(!A1 * A2)	0.01860	0.00100	0.01009	0.32940	0.12960	0.01033	2.50740	0.60000	0.01659
	B1	(!A1 * !A2)	0.01860	0.00100	0.01003	0.32940	0.12960	0.01028	2.50740	0.60000	0.01698

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1	!B1	0.01860	0.00100	0.00827	0.32940	0.06480	0.00834	2.50740	0.30000	0.01312
	A2	!B1	0.01860	0.00100	0.00822	0.32940	0.06480	0.00838	2.50740	0.30000	0.01260
	B1	(A1 * !A2)	0.01860	0.00100	0.00641	0.32940	0.06480	0.00678	2.50740	0.30000	0.01263
	B1	(!A1 * A2)	0.01860	0.00100	0.00631	0.32940	0.06480	0.00674	2.50740	0.30000	0.01300
	B1	(!A1 * !A2)	0.01860	0.00100	0.00632	0.32940	0.06480	0.00687	2.50740	0.30000	0.01319
sg13g2_a21o_2	A1	!B1	0.01860	0.00100	0.01205	0.32940	0.12960	0.01219	2.50740	0.60000	0.01721
	A2	!B1	0.01860	0.00100	0.01210	0.32940	0.12960	0.01239	2.50740	0.60000	0.01698
	B1	(A1 * !A2)	0.01860	0.00100	0.01028	0.32940	0.12960	0.01071	2.50740	0.60000	0.01707
	B1	(!A1 * A2)	0.01860	0.00100	0.01011	0.32940	0.12960	0.01058	2.50740	0.60000	0.01702
	B1	(!A1 * !A2)	0.01860	0.00100	0.01004	0.32940	0.12960	0.01065	2.50740	0.60000	0.01703

A221OI



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT					OUTPUT
A1	A2	B1	B2	C1	Y
0	x	0	x	0	1
0	x	x	x	1	0
0	x	1	0	0	1
x	x	1	1	x	0
1	0	0	x	0	1
1	0	x	x	1	0
1	0	1	0	0	1
1	1	x	x	x	0

Footprint

Cell Name	Area
sg13g2_a221oi_1	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)					Max Cap(pf)
	A1	A2	B1	B2	C1	
sg13g2_a221oi_1	0.00297	0.00300	0.00292	0.00302	0.00286	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a221oi_1	112.17000	157.85600	191.47900

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1->Y (FR)	0.01860	0.00100	0.10679	0.32940	0.06480	0.77038	2.50740	0.30000	3.43885
	A2->Y (FR)	0.01860	0.00100	0.11862	0.32940	0.06480	0.78221	2.50740	0.30000	3.44898
	B1->Y (FR)	0.01860	0.00100	0.09544	0.32940	0.06480	0.77256	2.50740	0.30000	3.62550
	B2->Y (FR)	0.01860	0.00100	0.10734	0.32940	0.06480	0.78406	2.50740	0.30000	3.63470
	C1->Y (FR)	0.01860	0.00100	0.06084	0.32940	0.06480	0.66322	2.50740	0.30000	3.33436

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1->Y (RF)	0.01860	0.00100	0.05131	0.32940	0.06480	0.48809	2.50740	0.30000	2.51316
	A2->Y (RF)	0.01860	0.00100	0.05520	0.32940	0.06480	0.47036	2.50740	0.30000	2.35952
	B1->Y (RF)	0.01860	0.00100	0.04570	0.32940	0.06480	0.47495	2.50740	0.30000	2.49803
	B2->Y (RF)	0.01860	0.00100	0.04989	0.32940	0.06480	0.45770	2.50740	0.30000	2.34459
	C1->Y (RF)	0.01860	0.00100	0.02504	0.32940	0.06480	0.34402	2.50740	0.30000	1.93594

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last

sg13g2_a221oi_1	A1->Y (FR)	(A2 * B1 * !B2 * !C1)	0.01860	0.00100	0.10679	0.32940	0.06480	0.77038	2.50740	0.30000	3.43885
	A1->Y (FR)	(A2 * !B1 * B2 * !C1)	0.01860	0.00100	0.09232	0.32940	0.06480	0.75642	2.50740	0.30000	3.42841
	A1->Y (FR)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.08290	0.32940	0.06480	0.66136	2.50740	0.30000	3.06209
	A2->Y (FR)	(A1 * B1 * !B2 * !C1)	0.01860	0.00100	0.11862	0.32940	0.06480	0.78221	2.50740	0.30000	3.44898
	A2->Y (FR)	(A1 * !B1 * B2 * !C1)	0.01860	0.00100	0.10457	0.32940	0.06480	0.76838	2.50740	0.30000	3.43859
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.09278	0.32940	0.06480	0.67095	2.50740	0.30000	3.06945
	B1->Y (FR)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.09544	0.32940	0.06480	0.77256	2.50740	0.30000	3.62550
	B1->Y (FR)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	0.08093	0.32940	0.06480	0.75809	2.50740	0.30000	3.61398
	B1->Y (FR)	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.06770	0.32940	0.06480	0.65164	2.50740	0.30000	3.16207
	B2->Y (FR)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.10734	0.32940	0.06480	0.78406	2.50740	0.30000	3.63470
	B2->Y (FR)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	0.09318	0.32940	0.06480	0.76976	2.50740	0.30000	3.62346
	B2->Y (FR)	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.07749	0.32940	0.06480	0.66087	2.50740	0.30000	3.16880
	C1->Y (FR)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.05796	0.32940	0.06480	0.66077	2.50740	0.30000	3.33267
	C1->Y (FR)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	0.04607	0.32940	0.06480	0.64892	2.50740	0.30000	3.32405
	C1->Y (FR)	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	0.06084	0.32940	0.06480	0.66322	2.50740	0.30000	3.33436
	C1->Y (FR)	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	0.04900	0.32940	0.06480	0.65234	2.50740	0.30000	3.33034
	C1->Y (FR)	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.04069	0.32940	0.06480	0.55482	2.50740	0.30000	2.90800

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)							
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)

sg13g2_a221oi_1	A1->Y (RF)	(A2 * B1 * !B2 * !C1)	0.01860	0.00100	0.04985	0.32940	0.06480	0.48633	2.50740	0.30000	2.51313
	A1->Y (RF)	(A2 * !B1 * B2 * !C1)	0.01860	0.00100	0.04923	0.32940	0.06480	0.48490	2.50740	0.30000	2.50934
	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.05131	0.32940	0.06480	0.48809	2.50740	0.30000	2.51316
	A2->Y (RF)	(A1 * B1 * !B2 * !C1)	0.01860	0.00100	0.05376	0.32940	0.06480	0.46852	2.50740	0.30000	2.35904
	A2->Y (RF)	(A1 * !B1 * B2 * !C1)	0.01860	0.00100	0.05313	0.32940	0.06480	0.46716	2.50740	0.30000	2.35546
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.05520	0.32940	0.06480	0.47036	2.50740	0.30000	2.35952
	B1->Y (RF)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.04570	0.32940	0.06480	0.47495	2.50740	0.30000	2.49803
	B1->Y (RF)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	0.04522	0.32940	0.06480	0.47365	2.50740	0.30000	2.49412
	B1->Y (RF)	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.04489	0.32940	0.06480	0.47324	2.50740	0.30000	2.49380
	B2->Y (RF)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.04989	0.32940	0.06480	0.45770	2.50740	0.30000	2.34459
	B2->Y (RF)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	0.04942	0.32940	0.06480	0.45641	2.50740	0.30000	2.34135
	B2->Y (RF)	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.04907	0.32940	0.06480	0.45574	2.50740	0.30000	2.34104
	C1->Y (RF)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.02504	0.32940	0.06480	0.34402	2.50740	0.30000	1.93594
	C1->Y (RF)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	0.02482	0.32940	0.06480	0.34334	2.50740	0.30000	1.93434
	C1->Y (RF)	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	0.02517	0.32940	0.06480	0.34402	2.50740	0.30000	1.93593
	C1->Y (RF)	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	0.02496	0.32940	0.06480	0.34336	2.50740	0.30000	1.93421
	C1->Y (RF)	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.02478	0.32940	0.06480	0.34310	2.50740	0.30000	1.93428

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1	0.01860	0.00100	0.00815	0.32940	0.06480	0.00800	2.50740	0.30000	0.00828
	A2	0.01860	0.00100	0.00827	0.32940	0.06480	0.00808	2.50740	0.30000	0.00866
	B1	0.01860	0.00100	0.00605	0.32940	0.06480	0.00593	2.50740	0.30000	0.00683
	B2	0.01860	0.00100	0.00618	0.32940	0.06480	0.00600	2.50740	0.30000	0.00693
	C1	0.01860	0.00100	0.00379	0.32940	0.06480	0.00379	2.50740	0.30000	0.00482

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1	0.01860	0.00100	0.00492	0.32940	0.06480	0.00465	2.50740	0.30000	0.00522
	A2	0.01860	0.00100	0.00647	0.32940	0.06480	0.00619	2.50740	0.30000	0.00670
	B1	0.01860	0.00100	0.00330	0.32940	0.06480	0.00312	2.50740	0.30000	0.00364
	B2	0.01860	0.00100	0.00494	0.32940	0.06480	0.00475	2.50740	0.30000	0.00523
	C1	0.01860	0.00100	0.00193	0.32940	0.06480	0.00206	2.50740	0.30000	0.00313

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last

sg13g2_a221oi_1	A1	(A2 * B1 * !B2 * !C1)	0.01860	0.00100	0.00815	0.32940	0.06480	0.00800	2.50740	0.30000	0.00828
	A1	(A2 * !B1 * B2 * !C1)	0.01860	0.00100	0.00788	0.32940	0.06480	0.00776	2.50740	0.30000	0.00841
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00975	0.32940	0.06480	0.00962	2.50740	0.30000	0.01003
	A2	(A1 * B1 * !B2 * !C1)	0.01860	0.00100	0.00827	0.32940	0.06480	0.00808	2.50740	0.30000	0.00866
	A2	(A1 * !B1 * B2 * !C1)	0.01860	0.00100	0.00805	0.32940	0.06480	0.00790	2.50740	0.30000	0.00833
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00990	0.32940	0.06480	0.00972	2.50740	0.30000	0.01050
	B1	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.00632	0.32940	0.06480	0.00609	2.50740	0.30000	0.00664
	B1	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	0.00606	0.32940	0.06480	0.00594	2.50740	0.30000	0.00638
	B1	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.00605	0.32940	0.06480	0.00593	2.50740	0.30000	0.00683
	B2	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.00641	0.32940	0.06480	0.00621	2.50740	0.30000	0.00650
	B2	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	0.00618	0.32940	0.06480	0.00604	2.50740	0.30000	0.00643
	B2	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.00618	0.32940	0.06480	0.00600	2.50740	0.30000	0.00693
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00407	0.32940	0.06480	0.00404	2.50740	0.30000	0.00525
	C1	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	0.00379	0.32940	0.06480	0.00381	2.50740	0.30000	0.00534
	C1	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	0.00408	0.32940	0.06480	0.00405	2.50740	0.30000	0.00548
	C1	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	0.00379	0.32940	0.06480	0.00382	2.50740	0.30000	0.00533
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00379	0.32940	0.06480	0.00379	2.50740	0.30000	0.00482

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

Cell Name	Input	When	Power(pJ)						
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)

sg13g2_a221oi_1	A1	(A2 * B1 * !B2 * !C1)	0.01860	0.00100	0.00655	0.32940	0.06480	0.00626	2.50740	0.30000	0.00682
	A1	(A2 * !B1 * B2 * !C1)	0.01860	0.00100	0.00492	0.32940	0.06480	0.00465	2.50740	0.30000	0.00522
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00406	0.32940	0.06480	0.00377	2.50740	0.30000	0.00434
	A2	(A1 * B1 * !B2 * !C1)	0.01860	0.00100	0.00809	0.32940	0.06480	0.00781	2.50740	0.30000	0.00814
	A2	(A1 * !B1 * B2 * !C1)	0.01860	0.00100	0.00647	0.32940	0.06480	0.00619	2.50740	0.30000	0.00670
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00562	0.32940	0.06480	0.00532	2.50740	0.30000	0.00572
	B1	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.00492	0.32940	0.06480	0.00477	2.50740	0.30000	0.00532
	B1	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	0.00330	0.32940	0.06480	0.00312	2.50740	0.30000	0.00364
	B1	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.00324	0.32940	0.06480	0.00303	2.50740	0.30000	0.00364
	B2	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.00657	0.32940	0.06480	0.00638	2.50740	0.30000	0.00675
	B2	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	0.00494	0.32940	0.06480	0.00475	2.50740	0.30000	0.00523
	B2	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.00488	0.32940	0.06480	0.00465	2.50740	0.30000	0.00513
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00351	0.32940	0.06480	0.00371	2.50740	0.30000	0.00476
	C1	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	0.00189	0.32940	0.06480	0.00207	2.50740	0.30000	0.00314
	C1	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	0.00355	0.32940	0.06480	0.00373	2.50740	0.30000	0.00475
	C1	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	0.00193	0.32940	0.06480	0.00206	2.50740	0.30000	0.00313
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00188	0.32940	0.06480	0.00199	2.50740	0.30000	0.00316

A22OI



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT				OUTPUT
A1	A2	B1	B2	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
sg13g2_a22oi_1	10.84860

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A1	A2	B1	B2	
sg13g2_a22oi_1	0.00310	0.00310	0.00304	0.00302	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a22oi_1	86.74850	138.88500	210.36700

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1->Y (FR)	0.01860	0.00100	0.05405	0.32940	0.06480	0.54502	2.50740	0.30000	2.70032
	A2->Y (FR)	0.01860	0.00100	0.06142	0.32940	0.06480	0.55209	2.50740	0.30000	2.70573
	B1->Y (FR)	0.01860	0.00100	0.05703	0.32940	0.06480	0.57274	2.50740	0.30000	2.92639
	B2->Y (FR)	0.01860	0.00100	0.04888	0.32940	0.06480	0.56301	2.50740	0.30000	2.91053

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1->Y (RF)	0.01860	0.00100	0.04449	0.32940	0.06480	0.47325	2.50740	0.30000	2.49095
	A2->Y (RF)	0.01860	0.00100	0.04838	0.32940	0.06480	0.45527	2.50740	0.30000	2.33876
	B1->Y (RF)	0.01860	0.00100	0.03929	0.32940	0.06480	0.44358	2.50740	0.30000	2.32554
	B2->Y (RF)	0.01860	0.00100	0.03460	0.32940	0.06480	0.46103	2.50740	0.30000	2.47893

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1->Y (FR)	(A2 * B1)	0.01860	0.00100	0.05405	0.32940	0.06480	0.54502	2.50740	0.30000	2.70032
	A2->Y (FR)	(A1 * B1)	0.01860	0.00100	0.06142	0.32940	0.06480	0.55209	2.50740	0.30000	2.70573
	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.05703	0.32940	0.06480	0.57274	2.50740	0.30000	2.92639
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.04796	0.32940	0.06480	0.56188	2.50740	0.30000	2.90979
	B2->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.04888	0.32940	0.06480	0.56301	2.50740	0.30000	2.91053
	B2->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.03986	0.32940	0.06480	0.55468	2.50740	0.30000	2.90611

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1->Y (RF)	(A2 * B1)	0.01860	0.00100	0.04449	0.32940	0.06480	0.47325	2.50740	0.30000	2.49095
	A2->Y (RF)	(A1 * B1)	0.01860	0.00100	0.04838	0.32940	0.06480	0.45527	2.50740	0.30000	2.33876
	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.03929	0.32940	0.06480	0.44358	2.50740	0.30000	2.32554
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.03887	0.32940	0.06480	0.44233	2.50740	0.30000	2.32188
	B2->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.03460	0.32940	0.06480	0.46103	2.50740	0.30000	2.47893
	B2->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.03422	0.32940	0.06480	0.45974	2.50740	0.30000	2.47553

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1	0.01860	0.00100	0.00472	0.32940	0.06480	0.00461	2.50740	0.30000	0.00504
	A2	0.01860	0.00100	0.00486	0.32940	0.06480	0.00465	2.50740	0.30000	0.00518
	B1	0.01860	0.00100	0.00301	0.32940	0.06480	0.00285	2.50740	0.30000	0.00371
	B2	0.01860	0.00100	0.00282	0.32940	0.06480	0.00274	2.50740	0.30000	0.00358

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1	0.01860	0.00100	0.00470	0.32940	0.06480	0.00447	2.50740	0.30000	0.00512
	A2	0.01860	0.00100	0.00626	0.32940	0.06480	0.00601	2.50740	0.30000	0.00656
	B1	0.01860	0.00100	0.00600	0.32940	0.06480	0.00599	2.50740	0.30000	0.00648
	B2	0.01860	0.00100	0.00434	0.32940	0.06480	0.00444	2.50740	0.30000	0.00507

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1	(A2 * B1)	0.01860	0.00100	0.00472	0.32940	0.06480	0.00461	2.50740	0.30000	0.00504
	A2	(A1 * B1)	0.01860	0.00100	0.00486	0.32940	0.06480	0.00465	2.50740	0.30000	0.00518
	B1	(A1 * !A2)	0.01860	0.00100	0.00301	0.32940	0.06480	0.00285	2.50740	0.30000	0.00371
	B1	(!A1 * A2)	0.01860	0.00100	0.00285	0.32940	0.06480	0.00273	2.50740	0.30000	0.00367
	B2	(A1 * !A2)	0.01860	0.00100	0.00282	0.32940	0.06480	0.00274	2.50740	0.30000	0.00358
	B2	(!A1 * A2)	0.01860	0.00100	0.00259	0.32940	0.06480	0.00264	2.50740	0.30000	0.00350

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1	(A2 * B1)	0.01860	0.00100	0.00470	0.32940	0.06480	0.00447	2.50740	0.30000	0.00512
	A2	(A1 * B1)	0.01860	0.00100	0.00626	0.32940	0.06480	0.00601	2.50740	0.30000	0.00656
	B1	(A1 * !A2)	0.01860	0.00100	0.00600	0.32940	0.06480	0.00599	2.50740	0.30000	0.00648
	B1	(!A1 * A2)	0.01860	0.00100	0.00436	0.32940	0.06480	0.00439	2.50740	0.30000	0.00498
	B2	(A1 * !A2)	0.01860	0.00100	0.00434	0.32940	0.06480	0.00444	2.50740	0.30000	0.00507
	B2	(!A1 * A2)	0.01860	0.00100	0.00271	0.32940	0.06480	0.00282	2.50740	0.30000	0.00352

AND2x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT		OUTPUT
A	B	X
0	x	0
1	0	0
1	1	1

Footprint

Cell Name	Area
sg13g2_and2_1	9.07200
sg13g2_and2_2	10.88640

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	
sg13g2_and2_1	0.00254	0.00254	0.30000
sg13g2_and2_2	0.00254	0.00255	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and2_1	117.08400	137.61100	177.21900
sg13g2_and2_2	199.48800	210.32000	220.80400

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and2_1	A->X (RR)	0.01860	0.00100	0.06630	0.32940	0.06480	0.33800	2.50740	0.30000	1.20220
	B->X (RR)	0.01860	0.00100	0.07086	0.32940	0.06480	0.34198	2.50740	0.30000	1.21220
sg13g2_and2_2	A->X (RR)	0.01860	0.00100	0.08208	0.32940	0.12960	0.38244	2.50740	0.60000	1.30447
	B->X (RR)	0.01860	0.00100	0.08638	0.32940	0.12960	0.38125	2.50740	0.60000	1.30546

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and2_1	A->X (FF)	0.01860	0.00100	0.05638	0.32940	0.06480	0.29571	2.50740	0.30000	1.01289
	B->X (FF)	0.01860	0.00100	0.06144	0.32940	0.06480	0.30994	2.50740	0.30000	1.04597
sg13g2_and2_2	A->X (FF)	0.01860	0.00100	0.06972	0.32940	0.12960	0.33733	2.50740	0.60000	1.11755
	B->X (FF)	0.01860	0.00100	0.07450	0.32940	0.12960	0.34939	2.50740	0.60000	1.14748

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and2_1	A	0.01860	0.00100	0.00652	0.32940	0.06480	0.00670	2.50740	0.30000	0.01249
	B	0.01860	0.00100	0.00795	0.32940	0.06480	0.00787	2.50740	0.30000	0.01267
sg13g2_and2_2	A	0.01860	0.00100	0.01040	0.32940	0.12960	0.01062	2.50740	0.60000	0.01573
	B	0.01860	0.00100	0.01175	0.32940	0.12960	0.01200	2.50740	0.60000	0.01610

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and2_1	A	0.01860	0.00100	0.00564	0.32940	0.06480	0.00598	2.50740	0.30000	0.01169
	B	0.01860	0.00100	0.00577	0.32940	0.06480	0.00619	2.50740	0.30000	0.01155
sg13g2_and2_2	A	0.01860	0.00100	0.00925	0.32940	0.12960	0.00974	2.50740	0.60000	0.01535
	B	0.01860	0.00100	0.00935	0.32940	0.12960	0.00997	2.50740	0.60000	0.01499

AND3x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
A	B	C	X
0	x	x	0
1	0	x	0
1	1	0	0
1	1	1	1

Footprint

Cell Name	Area
sg13g2_and3_1	12.70080
sg13g2_and3_2	12.70080

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	X
sg13g2_and3_1	0.00254	0.00251	0.00252	0.30000
sg13g2_and3_2	0.00255	0.00252	0.00253	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and3_1	119.09700	146.66200	244.07100
sg13g2_and3_2	201.52900	224.22500	287.63800

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and3_1	A->X (RR)	0.01860	0.00100	0.08990	0.32940	0.06480	0.37443	2.50740	0.30000	1.27672
	B->X (RR)	0.01860	0.00100	0.09910	0.32940	0.06480	0.38374	2.50740	0.30000	1.29170
	C->X (RR)	0.01860	0.00100	0.10297	0.32940	0.06480	0.38114	2.50740	0.30000	1.27002
sg13g2_and3_2	A->X (RR)	0.01860	0.00100	0.11206	0.32940	0.12960	0.42914	2.50740	0.60000	1.39216
	B->X (RR)	0.01860	0.00100	0.12109	0.32940	0.12960	0.43350	2.50740	0.60000	1.39952
	C->X (RR)	0.01860	0.00100	0.12501	0.32940	0.12960	0.42696	2.50740	0.60000	1.36764

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and3_1	A->X (FF)	0.01860	0.00100	0.06033	0.32940	0.06480	0.30569	2.50740	0.30000	1.03049
	B->X (FF)	0.01860	0.00100	0.06566	0.32940	0.06480	0.31910	2.50740	0.30000	1.06211
	C->X (FF)	0.01860	0.00100	0.06912	0.32940	0.06480	0.32953	2.50740	0.30000	1.09372
sg13g2_and3_2	A->X (FF)	0.01860	0.00100	0.07315	0.32940	0.12960	0.34572	2.50740	0.60000	1.13512
	B->X (FF)	0.01860	0.00100	0.07830	0.32940	0.12960	0.35718	2.50740	0.60000	1.16273
	C->X (FF)	0.01860	0.00100	0.08197	0.32940	0.12960	0.36656	2.50740	0.60000	1.19032

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and3_1	A	0.01860	0.00100	0.00744	0.32940	0.06480	0.00750	2.50740	0.30000	0.01266
	B	0.01860	0.00100	0.00882	0.32940	0.06480	0.00879	2.50740	0.30000	0.01290
	C	0.01860	0.00100	0.01010	0.32940	0.06480	0.01005	2.50740	0.30000	0.01375
sg13g2_and3_2	A	0.01860	0.00100	0.01144	0.32940	0.12960	0.01165	2.50740	0.60000	0.01613
	B	0.01860	0.00100	0.01279	0.32940	0.12960	0.01298	2.50740	0.60000	0.01644
	C	0.01860	0.00100	0.01409	0.32940	0.12960	0.01425	2.50740	0.60000	0.01765

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and3_1	A	0.01860	0.00100	0.00576	0.32940	0.06480	0.00601	2.50740	0.30000	0.01135
	B	0.01860	0.00100	0.00596	0.32940	0.06480	0.00617	2.50740	0.30000	0.01133
	C	0.01860	0.00100	0.00609	0.32940	0.06480	0.00633	2.50740	0.30000	0.01128
sg13g2_and3_2	A	0.01860	0.00100	0.00934	0.32940	0.12960	0.00965	2.50740	0.60000	0.01498
	B	0.01860	0.00100	0.00952	0.32940	0.12960	0.00990	2.50740	0.60000	0.01470
	C	0.01860	0.00100	0.00968	0.32940	0.12960	0.01010	2.50740	0.60000	0.01454

AND4x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT				OUTPUT
A	B	C	D	X
0	x	x	x	0
1	0	x	x	0
1	1	0	x	0
1	1	1	0	0
1	1	1	1	1

Footprint

Cell Name	Area
sg13g2_and4_1	14.51520
sg13g2_and4_2	16.32960

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	
sg13g2_and4_1	0.00237	0.00250	0.00249	0.00250	0.30000
sg13g2_and4_2	0.00237	0.00249	0.00249	0.00250	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and4_1	121.25200	151.90900	310.93500
sg13g2_and4_2	203.66200	231.88900	354.47500

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and4_1	A->X (RR)	0.01860	0.00100	0.11378	0.32940	0.06480	0.41098	2.50740	0.30000	1.34550
	B->X (RR)	0.01860	0.00100	0.12758	0.32940	0.06480	0.42413	2.50740	0.30000	1.36555
	C->X (RR)	0.01860	0.00100	0.13568	0.32940	0.06480	0.42628	2.50740	0.30000	1.35046
	D->X (RR)	0.01860	0.00100	0.13967	0.32940	0.06480	0.42559	2.50740	0.30000	1.32368
sg13g2_and4_2	A->X (RR)	0.01860	0.00100	0.14227	0.32940	0.12960	0.47249	2.50740	0.60000	1.46315
	B->X (RR)	0.01860	0.00100	0.15585	0.32940	0.12960	0.48238	2.50740	0.60000	1.47862
	C->X (RR)	0.01860	0.00100	0.16410	0.32940	0.12960	0.48089	2.50740	0.60000	1.45368
	D->X (RR)	0.01860	0.00100	0.16799	0.32940	0.12960	0.47814	2.50740	0.60000	1.41888

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and4_1	A->X (FF)	0.01860	0.00100	0.06355	0.32940	0.06480	0.31126	2.50740	0.30000	1.03728
	B->X (FF)	0.01860	0.00100	0.06903	0.32940	0.06480	0.32478	2.50740	0.30000	1.06868
	C->X (FF)	0.01860	0.00100	0.07299	0.32940	0.06480	0.33474	2.50740	0.30000	1.09852
	D->X (FF)	0.01860	0.00100	0.07551	0.32940	0.06480	0.34353	2.50740	0.30000	1.12740
sg13g2_and4_2	A->X (FF)	0.01860	0.00100	0.07580	0.32940	0.12960	0.35058	2.50740	0.60000	1.13875
	B->X (FF)	0.01860	0.00100	0.08120	0.32940	0.12960	0.36202	2.50740	0.60000	1.16820
	C->X (FF)	0.01860	0.00100	0.08523	0.32940	0.12960	0.37112	2.50740	0.60000	1.19506
	D->X (FF)	0.01860	0.00100	0.08796	0.32940	0.12960	0.37894	2.50740	0.60000	1.22016

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and4_1	A	0.01860	0.00100	0.00808	0.32940	0.06480	0.00821	2.50740	0.30000	0.01288
	B	0.01860	0.00100	0.00958	0.32940	0.06480	0.00959	2.50740	0.30000	0.01334
	C	0.01860	0.00100	0.01086	0.32940	0.06480	0.01084	2.50740	0.30000	0.01435
	D	0.01860	0.00100	0.01214	0.32940	0.06480	0.01211	2.50740	0.30000	0.01505
sg13g2_and4_2	A	0.01860	0.00100	0.01226	0.32940	0.12960	0.01215	2.50740	0.60000	0.01618
	B	0.01860	0.00100	0.01372	0.32940	0.12960	0.01364	2.50740	0.60000	0.01656
	C	0.01860	0.00100	0.01505	0.32940	0.12960	0.01491	2.50740	0.60000	0.01780
	D	0.01860	0.00100	0.01628	0.32940	0.12960	0.01618	2.50740	0.60000	0.01869

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and4_1	A	0.01860	0.00100	0.00609	0.32940	0.06480	0.00624	2.50740	0.30000	0.01157
	B	0.01860	0.00100	0.00621	0.32940	0.06480	0.00631	2.50740	0.30000	0.01128
	C	0.01860	0.00100	0.00639	0.32940	0.06480	0.00652	2.50740	0.30000	0.01131
	D	0.01860	0.00100	0.00657	0.32940	0.06480	0.00673	2.50740	0.30000	0.01133
sg13g2_and4_2	A	0.01860	0.00100	0.00971	0.32940	0.12960	0.01007	2.50740	0.60000	0.01495
	B	0.01860	0.00100	0.00978	0.32940	0.12960	0.01018	2.50740	0.60000	0.01497
	C	0.01860	0.00100	0.01004	0.32940	0.12960	0.01034	2.50740	0.60000	0.01488
	D	0.01860	0.00100	0.01017	0.32940	0.12960	0.01061	2.50740	0.60000	0.01476

ANTENNANP



*sg13g2_stdcell_typ_1p20V_25C Cell Library:
Process sg13g2_stdcell_typ_1p20V_25C,
Voltage 1.20, Temp 25.00*

Truth Table

INPUT
A
x

Footprint

Cell Name	Area
sg13g2_antennanp	5.44320

Pin Capacitance Information

Cell Name	Pin Cap(pf)
	A
sg13g2_antennanp	0.00108

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_antennanp	4.32000	4.32001	4.32002

Passive Power Information

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_antennanp	0.01860	-0.00027	0.32940	-0.00028	2.50740	-0.00028

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_antennanp	0.01860	0.00027	0.32940	0.00028	2.50740	0.00028

BUFx



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

Footprint

Cell Name	Area
sg13g2_buf_1	7.25760
sg13g2_buf_16	45.36000
sg13g2_buf_2	9.07200
sg13g2_buf_4	14.51520
sg13g2_buf_8	23.58720

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	X
sg13g2_buf_1	0.00226	0.30000
sg13g2_buf_16	0.01705	4.80000
sg13g2_buf_2	0.00262	0.60000
sg13g2_buf_4	0.00370	1.20000
sg13g2_buf_8	0.00857	2.40000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_buf_1	106.64500	110.31700	113.99000
sg13g2_buf_16	1191.03000	1385.39000	1579.74000
sg13g2_buf_2	160.52700	181.54400	202.56200
sg13g2_buf_4	291.93000	337.35400	382.77900
sg13g2_buf_8	595.51200	692.69100	789.86900

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_buf_1	A->X (RR)	0.01860	0.00100	0.04970	0.32940	0.06480	0.31780	2.50740	0.30000	1.17860
sg13g2_buf_16	A->X (RR)	0.01860	0.00100	0.05597	0.32940	1.03680	0.35011	2.50740	4.80000	1.25873
sg13g2_buf_2	A->X (RR)	0.01860	0.00100	0.05607	0.32940	0.12960	0.34436	2.50740	0.60000	1.24889
sg13g2_buf_4	A->X (RR)	0.01860	0.00100	0.07086	0.32940	0.25920	0.38491	2.50740	1.20000	1.37520
sg13g2_buf_8	A->X (RR)	0.01860	0.00100	0.05587	0.32940	0.51840	0.34900	2.50740	2.40000	1.25452

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_buf_1	A->X (FF)	0.01860	0.00100	0.05270	0.32940	0.06480	0.28721	2.50740	0.30000	0.98534
sg13g2_buf_16	A->X (FF)	0.01860	0.00100	0.06312	0.32940	1.03680	0.32890	2.50740	4.80000	1.09220
sg13g2_buf_2	A->X (FF)	0.01860	0.00100	0.06105	0.32940	0.12960	0.31700	2.50740	0.60000	1.05872
sg13g2_buf_4	A->X (FF)	0.01860	0.00100	0.06244	0.32940	0.25920	0.32509	2.50740	1.20000	1.05667
sg13g2_buf_8	A->X (FF)	0.01860	0.00100	0.06304	0.32940	0.51840	0.32838	2.50740	2.40000	1.09411

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_buf_1	A	0.01860	0.00100	0.00571	0.32940	0.06480	0.00591	2.50740	0.30000	0.01144
sg13g2_buf_16	A	0.01860	0.00100	0.07325	0.32940	1.03680	0.07631	2.50740	4.80000	0.12151
sg13g2_buf_2	A	0.01860	0.00100	0.00971	0.32940	0.12960	0.01005	2.50740	0.60000	0.01630
sg13g2_buf_4	A	0.01860	0.00100	0.01794	0.32940	0.25920	0.01863	2.50740	1.20000	0.02643
sg13g2_buf_8	A	0.01860	0.00100	0.03691	0.32940	0.51840	0.03851	2.50740	2.40000	0.05990

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_buf_1	A	0.01860	0.00100	0.00560	0.32940	0.06480	0.00612	2.50740	0.30000	0.01169
sg13g2_buf_16	A	0.01860	0.00100	0.07064	0.32940	1.03680	0.07693	2.50740	4.80000	0.12404
sg13g2_buf_2	A	0.01860	0.00100	0.00940	0.32940	0.12960	0.01017	2.50740	0.60000	0.01688
sg13g2_buf_4	A	0.01860	0.00100	0.01792	0.32940	0.25920	0.01930	2.50740	1.20000	0.02838
sg13g2_buf_8	A	0.01860	0.00100	0.03552	0.32940	0.51840	0.03870	2.50740	2.40000	0.06175

DECAPx



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Footprint

Cell Name	Area
sg13g2_decap_4	7.25760
sg13g2_decap_8	12.70080

Pin Capacitance Information Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_decap_4	395.59000	395.59000	395.59000
sg13g2_decap_8	791.19800	791.19800	791.19800

DFRBPQx



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp
25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_dfrbpq_1	48.98880
sg13g2_dfrbpq_2	50.80320

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	CLK	D	RESET_B	Q
sg13g2_dfrbpq_1	0.00277	0.00142	0.00509	0.30000
sg13g2_dfrbpq_2	0.00278	0.00142	0.00513	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbpq_1	443.21100	510.51700	593.69200
sg13g2_dfrbpq_2	519.83400	573.12100	670.32300

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbpq_1	CLK->Q (RR)	0.01860	0.00100	0.15631	0.32940	0.06480	0.43864	2.50740	0.30000	1.32397
sg13g2_dfrbpq_2	CLK->Q (RR)	0.01860	0.00100	0.16751	0.32940	0.12960	0.45597	2.50740	0.60000	1.34157

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbpq_1	CLK->Q (RF)	0.01860	0.00100	0.15425	0.32940	0.06480	0.40046	2.50740	0.30000	1.12629
	RESET_B->Q (FF)	0.01860	0.00100	0.22146	0.32940	0.06480	0.50483	2.50740	0.30000	1.40086
sg13g2_dfrbpq_2	CLK->Q (RF)	0.01860	0.00100	0.16677	0.32940	0.12960	0.42114	2.50740	0.60000	1.14765
	RESET_B->Q (FF)	0.01860	0.00100	0.23275	0.32940	0.12960	0.52392	2.50740	0.60000	1.42082

Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.09262	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbpq_2	min_pulse_width	CLK ()	0.01860	0.00000	0.08942	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.13107	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbpq_2	min_pulse_width	CLK ()	0.01860	0.00000	0.13107	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.05868	1.26300	1.26300	-0.19968	2.50740	2.50740	-0.25973
	setup	CLK (R)	0.01860	0.01860	0.11248	1.26300	1.26300	0.24825	2.50740	2.50740	0.30696
sg13g2_dfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.06113	1.26300	1.26300	-0.20238	2.50740	2.50740	-0.25973
	setup	CLK (R)	0.01860	0.01860	0.11248	1.26300	1.26300	0.24825	2.50740	2.50740	0.30696

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.03423	1.26300	1.26300	-0.16190	2.50740	2.50740	-0.23612
	setup	CLK (R)	0.01860	0.01860	0.11248	1.26300	1.26300	0.24285	2.50740	2.50740	0.33352
sg13g2_dfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.03423	1.26300	1.26300	-0.16190	2.50740	2.50740	-0.23612
	setup	CLK (R)	0.01860	0.01860	0.11248	1.26300	1.26300	0.24285	2.50740	2.50740	0.33352

Constraints(ns) for RESET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_1	recovery	CLK (R)	0.01860	0.01860	0.11981	1.26300	1.26300	0.26984	2.50740	2.50740	0.37484
	removal	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.25634	2.50740	2.50740	-0.36304
sg13g2_dfrbpq_2	recovery	CLK (R)	0.01860	0.01860	0.11981	1.26300	1.26300	0.27254	2.50740	2.50740	0.37484
	removal	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.25634	2.50740	2.50740	-0.36009

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_1	min_pulse_width	RESET_B_0	0.01860	0.00000	0.11185	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbpq_2	min_pulse_width	RESET_B_0	0.01860	0.00000	0.10864	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbpq_1	CLK	0.01860	0.00100	0.02511	0.32940	0.06480	0.02518	2.50740	0.30000	0.03344
sg13g2_dfrbpq_2	CLK	0.01860	0.00100	0.02839	0.32940	0.12960	0.02891	2.50740	0.60000	0.03726

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbpq_1	CLK	0.01860	0.00100	0.02596	0.32940	0.06480	0.02657	2.50740	0.30000	0.03509
	RESET_B	0.01860	0.00100	0.01633	0.32940	0.06480	0.01672	2.50740	0.30000	0.02067
sg13g2_dfrbpq_2	CLK	0.01860	0.00100	0.02905	0.32940	0.12960	0.03028	2.50740	0.60000	0.03882
	RESET_B	0.01860	0.00100	0.01935	0.32940	0.12960	0.02024	2.50740	0.60000	0.02433

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	0.01104	0.32940	0.01091	2.50740	0.01899
sg13g2_dfrbpq_2	0.01860	0.01110	0.32940	0.01097	2.50740	0.01903

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	0.02069	0.32940	0.02066	2.50740	0.02913
sg13g2_dfrbpq_2	0.01860	0.02070	0.32940	0.02067	2.50740	0.02913

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	(D * RESET_B * Q)	0.01860	0.01104	0.32940	0.01091	2.50740	0.01899
	(D * !RESET_B * !Q)	0.01860	0.01159	0.32940	0.01147	2.50740	0.01949
	(!D * RESET_B * !Q)	0.01860	0.01081	0.32940	0.01069	2.50740	0.01873
	(!D * !RESET_B * !Q)	0.01860	0.01160	0.32940	0.01149	2.50740	0.01951
sg13g2_dfrbpq_2	(D * RESET_B * Q)	0.01860	0.01110	0.32940	0.01097	2.50740	0.01903
	(D * !RESET_B * !Q)	0.01860	0.01166	0.32940	0.01153	2.50740	0.01955
	(!D * RESET_B * !Q)	0.01860	0.01089	0.32940	0.01075	2.50740	0.01879
	(!D * !RESET_B * !Q)	0.01860	0.01166	0.32940	0.01155	2.50740	0.01957

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	(D * RESET_B * Q)	0.01860	0.02110	0.32940	0.02110	2.50740	0.02955
	(D * RESET_B * !Q)	0.01860	0.02069	0.32940	0.02066	2.50740	0.02913
	(D * !RESET_B * !Q)	0.01860	0.01071	0.32940	0.01076	2.50740	0.01898
	(!D * RESET_B * Q)	0.01860	0.03508	0.32940	0.03525	2.50740	0.04355
	(!D * RESET_B * !Q)	0.01860	0.01070	0.32940	0.01075	2.50740	0.01897
	(!D * !RESET_B * !Q)	0.01860	0.01069	0.32940	0.01074	2.50740	0.01897
sg13g2_dfrbpq_2	(D * RESET_B * Q)	0.01860	0.02153	0.32940	0.02153	2.50740	0.02997
	(D * RESET_B * !Q)	0.01860	0.02070	0.32940	0.02067	2.50740	0.02913
	(D * !RESET_B * !Q)	0.01860	0.01074	0.32940	0.01079	2.50740	0.01901
	(!D * RESET_B * Q)	0.01860	0.03861	0.32940	0.03872	2.50740	0.04697
	(!D * RESET_B * !Q)	0.01860	0.01073	0.32940	0.01078	2.50740	0.01900
	(!D * !RESET_B * !Q)	0.01860	0.01073	0.32940	0.01077	2.50740	0.01900

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	0.00152	0.32940	0.00160	2.50740	0.00467
sg13g2_dfrbpq_2	0.01860	0.00153	0.32940	0.00160	2.50740	0.00467

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	0.00115	0.32940	0.00126	2.50740	0.00447
sg13g2_dfrbpq_2	0.01860	0.00116	0.32940	0.00127	2.50740	0.00448

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	CLK	0.01860	0.00152	0.32940	0.00160	2.50740	0.00467
	(!CLK * RESET_B)	0.01860	0.01180	0.32940	0.01183	2.50740	0.01492
	(!CLK * !RESET_B)	0.01860	-0.00003	0.32940	-0.00003	2.50740	-0.00002
sg13g2_dfrbpq_2	CLK	0.01860	0.00153	0.32940	0.00160	2.50740	0.00467
	(!CLK * RESET_B)	0.01860	0.01178	0.32940	0.01181	2.50740	0.01490
	(!CLK * !RESET_B)	0.01860	-0.00003	0.32940	-0.00002	2.50740	-0.00002

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	CLK	0.01860	0.00115	0.32940	0.00126	2.50740	0.00447
	(!CLK * RESET_B)	0.01860	0.00878	0.32940	0.00878	2.50740	0.01222
	(!CLK * !RESET_B)	0.01860	0.00025	0.32940	0.00026	2.50740	0.00026
sg13g2_dfrbpq_2	CLK	0.01860	0.00116	0.32940	0.00127	2.50740	0.00448
	(!CLK * RESET_B)	0.01860	0.00880	0.32940	0.00880	2.50740	0.01224
	(!CLK * !RESET_B)	0.01860	0.00025	0.32940	0.00026	2.50740	0.00026

Passive power(pJ) for RESET_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	0.00372	0.32940	0.00364	2.50740	0.00599
sg13g2_dfrbpq_2	0.01860	0.00375	0.32940	0.00367	2.50740	0.00601

Passive power(pJ) for RESET_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	0.00909	0.32940	0.00857	2.50740	0.01254
sg13g2_dfrbpq_2	0.01860	0.00906	0.32940	0.00855	2.50740	0.01253

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	(CLK * D * !Q)	0.01860	0.00372	0.32940	0.00364	2.50740	0.00599
	(CLK * !D * !Q)	0.01860	0.00117	0.32940	0.00117	2.50740	0.00116
	(!CLK * D * !Q)	0.01860	0.01413	0.32940	0.01392	2.50740	0.01726
	(!CLK * !D * !Q)	0.01860	0.00128	0.32940	0.00127	2.50740	0.00127
sg13g2_dfrbpq_2	(CLK * D * !Q)	0.01860	0.00375	0.32940	0.00367	2.50740	0.00601
	(CLK * !D * !Q)	0.01860	0.00120	0.32940	0.00120	2.50740	0.00120
	(!CLK * D * !Q)	0.01860	0.01414	0.32940	0.01393	2.50740	0.01727
	(!CLK * !D * !Q)	0.01860	0.00130	0.32940	0.00130	2.50740	0.00130

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	(CLK * D * !Q)	0.01860	0.02560	0.32940	0.02508	2.50740	0.03329
	(CLK * !D * !Q)	0.01860	-0.00072	0.32940	-0.00090	2.50740	-0.00097
	(!CLK * D * !Q)	0.01860	0.00909	0.32940	0.00857	2.50740	0.01254
	(!CLK * !D * !Q)	0.01860	-0.00086	0.32940	-0.00098	2.50740	-0.00102
sg13g2_dfrbpq_2	(CLK * D * !Q)	0.01860	0.02859	0.32940	0.02807	2.50740	0.03627
	(CLK * !D * !Q)	0.01860	-0.00075	0.32940	-0.00093	2.50740	-0.00100
	(!CLK * D * !Q)	0.01860	0.00906	0.32940	0.00855	2.50740	0.01253
	(!CLK * !D * !Q)	0.01860	-0.00090	0.32940	-0.00102	2.50740	-0.00106

DFRBPx



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT	
CLK	D	RESET_B	Q	Q_N
R	0	1	0	1
R	1	1	1	0
x	x	0	0	1
x	x	1	IQ	IQN

Footprint

Cell Name	Area
sg13g2_dfrbp_1	52.61760
sg13g2_dfrbp_2	54.43200

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	CLK	D	RESET_B	Q	Q_N
sg13g2_dfrbp_1	0.00280	0.00155	0.00513	0.30000	0.30000
sg13g2_dfrbp_2	0.00281	0.00155	0.00518	0.60000	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbp_1	486.74700	567.01000	652.11500
sg13g2_dfrbp_2	606.91000	686.11000	769.07900

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK->Q (RR)	0.01860	0.00100	0.18986	0.32940	0.06480	0.46523	2.50740	0.30000	1.35755
sg13g2_dfrbp_2	CLK->Q (RR)	0.01860	0.00100	0.24357	0.32940	0.12960	0.51316	2.50740	0.60000	1.41421

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK->Q (RF)	0.01860	0.00100	0.17233	0.32940	0.06480	0.41537	2.50740	0.30000	1.14342
	RESET_B->Q (FF)	0.01860	0.00100	0.24210	0.32940	0.06480	0.52184	2.50740	0.30000	1.42059
sg13g2_dfrbp_2	CLK->Q (RF)	0.01860	0.00100	0.20958	0.32940	0.12960	0.45376	2.50740	0.60000	1.18717
	RESET_B->Q (FF)	0.01860	0.00100	0.27970	0.32940	0.12960	0.56030	2.50740	0.60000	1.46468

Delay(ns) to Q_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	0.13442	0.32940	0.06480	0.43524	2.50740	0.30000	1.29570
	RESET_B->Q_N (FR)	0.01860	0.00100	0.20464	0.32940	0.06480	0.53955	2.50740	0.30000	1.57182
sg13g2_dfrbp_2	CLK->Q_N (RR)	0.01860	0.00100	0.13914	0.32940	0.12960	0.45018	2.50740	0.60000	1.31325
	RESET_B->Q_N (FR)	0.01860	0.00100	0.21075	0.32940	0.12960	0.55503	2.50740	0.60000	1.58929

Delay(ns) to Q_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	0.14607	0.32940	0.06480	0.44110	2.50740	0.30000	1.21058
sg13g2_dfrbp_2	CLK->Q_N (RF)	0.01860	0.00100	0.15810	0.32940	0.12960	0.46786	2.50740	0.60000	1.24008

Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.11185	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbp_2	min_pulse_width	CLK ()	0.01860	0.00000	0.13748	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.13107	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbp_2	min_pulse_width	CLK ()	0.01860	0.00000	0.13107	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.05624	1.26300	1.26300	-0.19968	2.50740	2.50740	-0.25678
	setup	CLK (R)	0.01860	0.01860	0.11248	1.26300	1.26300	0.24825	2.50740	2.50740	0.30696
sg13g2_dfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.05624	1.26300	1.26300	-0.19698	2.50740	2.50740	-0.25383
	setup	CLK (R)	0.01860	0.01860	0.11003	1.26300	1.26300	0.24825	2.50740	2.50740	0.30696

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.03179	1.26300	1.26300	-0.16190	2.50740	2.50740	-0.24203
	setup	CLK (R)	0.01860	0.01860	0.11492	1.26300	1.26300	0.24555	2.50740	2.50740	0.33648
sg13g2_dfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.03179	1.26300	1.26300	-0.15920	2.50740	2.50740	-0.23908
	setup	CLK (R)	0.01860	0.01860	0.11492	1.26300	1.26300	0.24555	2.50740	2.50740	0.33943

Constraints(ns) for RESET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	recovery	CLK (R)	0.01860	0.01860	0.11981	1.26300	1.26300	0.26984	2.50740	2.50740	0.37484
	removal	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.25904	2.50740	2.50740	-0.36304
sg13g2_dfrbp_2	recovery	CLK (R)	0.01860	0.01860	0.11737	1.26300	1.26300	0.27254	2.50740	2.50740	0.37484
	removal	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.26174	2.50740	2.50740	-0.36599

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	min_pulse_width	RESET_B_0	0.01860	0.00000	0.11185	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbp_2	min_pulse_width	RESET_B_0	0.01860	0.00000	0.11505	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.03007	0.32940	0.06480	0.07657	2.50740	0.30000	0.25400
sg13g2_dfrbp_2	CLK	0.01860	0.00100	0.03722	0.32940	0.12960	0.13090	2.50740	0.60000	0.47806

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.03079	0.32940	0.06480	0.07740	2.50740	0.30000	0.25534
	RESET_B	0.01860	0.00100	0.02143	0.32940	0.06480	0.06786	2.50740	0.30000	0.24101
sg13g2_dfrbp_2	CLK	0.01860	0.00100	0.03768	0.32940	0.12960	0.13162	2.50740	0.60000	0.47892
	RESET_B	0.01860	0.00100	0.02841	0.32940	0.12960	0.12219	2.50740	0.60000	0.46443

Internal switching power(pJ) to Q_N rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.03082	0.32940	0.06480	0.07767	2.50740	0.30000	0.25555
	RESET_B	0.01860	0.00100	0.02142	0.32940	0.06480	0.06825	2.50740	0.30000	0.24144
sg13g2_dfrbp_2	CLK	0.01860	0.00100	0.03773	0.32940	0.12960	0.13211	2.50740	0.60000	0.47946
	RESET_B	0.01860	0.00100	0.02845	0.32940	0.12960	0.12278	2.50740	0.60000	0.46528

Internal switching power(pJ) to Q_N falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.03009	0.32940	0.06480	0.07630	2.50740	0.30000	0.25395
sg13g2_dfrbp_2	CLK	0.01860	0.00100	0.03723	0.32940	0.12960	0.13027	2.50740	0.60000	0.47698

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	0.01107	0.32940	0.01093	2.50740	0.01898
sg13g2_dfrbp_2	0.01860	0.01113	0.32940	0.01098	2.50740	0.01903

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	0.02068	0.32940	0.02066	2.50740	0.02913
sg13g2_dfrbp_2	0.01860	0.02069	0.32940	0.02066	2.50740	0.02912

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	0.01107	0.32940	0.01093	2.50740	0.01898
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01159	0.32940	0.01148	2.50740	0.01949
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01082	0.32940	0.01070	2.50740	0.01873
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01160	0.32940	0.01150	2.50740	0.01951
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	0.01113	0.32940	0.01098	2.50740	0.01903
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01167	0.32940	0.01154	2.50740	0.01954
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01088	0.32940	0.01076	2.50740	0.01878
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01167	0.32940	0.01156	2.50740	0.01956

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	0.02072	0.32940	0.02071	2.50740	0.02916
	(D * RESET_B * !Q * Q_N)	0.01860	0.02068	0.32940	0.02066	2.50740	0.02913
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01073	0.32940	0.01076	2.50740	0.01898
	(!D * RESET_B * Q * !Q_N)	0.01860	0.04042	0.32940	0.03901	2.50740	0.04722
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01071	0.32940	0.01075	2.50740	0.01897
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01072	0.32940	0.01074	2.50740	0.01896
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	0.02078	0.32940	0.02075	2.50740	0.02919
	(D * RESET_B * !Q * Q_N)	0.01860	0.02069	0.32940	0.02066	2.50740	0.02912
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01077	0.32940	0.01079	2.50740	0.01902
	(!D * RESET_B * Q * !Q_N)	0.01860	0.04930	0.32940	0.04599	2.50740	0.05422
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01075	0.32940	0.01078	2.50740	0.01901
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01076	0.32940	0.01077	2.50740	0.01900

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	0.00152	0.32940	0.00160	2.50740	0.00467
sg13g2_dfrbp_2	0.01860	0.00152	0.32940	0.00160	2.50740	0.00467

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	0.00115	0.32940	0.00126	2.50740	0.00447
sg13g2_dfrbp_2	0.01860	0.00116	0.32940	0.00127	2.50740	0.00448

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00152	0.32940	0.00160	2.50740	0.00467
	(!CLK * RESET_B)	0.01860	0.01180	0.32940	0.01183	2.50740	0.01492
	(!CLK * !RESET_B)	0.01860	-0.00003	0.32940	-0.00003	2.50740	-0.00002
sg13g2_dfrbp_2	CLK	0.01860	0.00152	0.32940	0.00160	2.50740	0.00467
	(!CLK * RESET_B)	0.01860	0.01178	0.32940	0.01181	2.50740	0.01490
	(!CLK * !RESET_B)	0.01860	-0.00003	0.32940	-0.00003	2.50740	-0.00002

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00115	0.32940	0.00126	2.50740	0.00447
	(!CLK * RESET_B)	0.01860	0.00878	0.32940	0.00878	2.50740	0.01222
	(!CLK * !RESET_B)	0.01860	0.00025	0.32940	0.00026	2.50740	0.00026
sg13g2_dfrbp_2	CLK	0.01860	0.00116	0.32940	0.00127	2.50740	0.00448
	(!CLK * RESET_B)	0.01860	0.00880	0.32940	0.00880	2.50740	0.01226
	(!CLK * !RESET_B)	0.01860	0.00025	0.32940	0.00026	2.50740	0.00026

Passive power(pJ) for RESET_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	0.00371	0.32940	0.00364	2.50740	0.00599
sg13g2_dfrbp_2	0.01860	0.00376	0.32940	0.00368	2.50740	0.00602

Passive power(pJ) for RESET_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	0.00909	0.32940	0.00856	2.50740	0.01254
sg13g2_dfrbp_2	0.01860	0.00907	0.32940	0.00855	2.50740	0.01253

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	0.00371	0.32940	0.00364	2.50740	0.00599
	(CLK * !D * !Q * Q_N)	0.01860	0.00117	0.32940	0.00117	2.50740	0.00117
	(!CLK * D * !Q * Q_N)	0.01860	0.01413	0.32940	0.01392	2.50740	0.01726
	(!CLK * !D * !Q * Q_N)	0.01860	0.00127	0.32940	0.00127	2.50740	0.00127
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	0.00376	0.32940	0.00368	2.50740	0.00602
	(CLK * !D * !Q * Q_N)	0.01860	0.00120	0.32940	0.00121	2.50740	0.00120
	(!CLK * D * !Q * Q_N)	0.01860	0.01415	0.32940	0.01394	2.50740	0.01727
	(!CLK * !D * !Q * Q_N)	0.01860	0.00131	0.32940	0.00131	2.50740	0.00131

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	0.02994	0.32940	0.02943	2.50740	0.03772
	(CLK * !D * !Q * Q_N)	0.01860	-0.00072	0.32940	-0.00090	2.50740	-0.00097
	(!CLK * D * !Q * Q_N)	0.01860	0.00909	0.32940	0.00856	2.50740	0.01254
	(!CLK * !D * !Q * Q_N)	0.01860	-0.00086	0.32940	-0.00098	2.50740	-0.00102
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	0.03701	0.32940	0.03649	2.50740	0.04486
	(CLK * !D * !Q * Q_N)	0.01860	-0.00076	0.32940	-0.00094	2.50740	-0.00100
	(!CLK * D * !Q * Q_N)	0.01860	0.00907	0.32940	0.00855	2.50740	0.01253
	(!CLK * !D * !Q * Q_N)	0.01860	-0.00090	0.32940	-0.00102	2.50740	-0.00106

DLHQ



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_dlhq_1	30.84480

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	D	GATE	Q
sg13g2_dlhq_1	0.00228	0.00228	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhq_1	339.70200	368.53700	417.21100

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D->Q (RR)	0.01860	0.00100	0.17648	0.32940	0.06480	0.44433	2.50740	0.30000	1.28627
	GATE->Q (RR)	0.01860	0.00100	0.15050	0.32940	0.06480	0.42015	2.50740	0.30000	1.24842

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D->Q (FF)	0.01860	0.00100	0.15621	0.32940	0.06480	0.38782	2.50740	0.30000	1.06173
	GATE->Q (RF)	0.01860	0.00100	0.16055	0.32940	0.06480	0.39563	2.50740	0.30000	1.06532

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhq_1	hold	GATE (F)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.22666	2.50740	2.50740	-0.27744
	setup	GATE (F)	0.01860	0.01860	0.10270	1.26300	1.26300	0.25634	2.50740	2.50740	0.32467

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhq_1	hold	GATE (F)	0.01860	0.01860	-0.03668	1.26300	1.26300	-0.00810	2.50740	2.50740	0.02066
	setup	GATE (F)	0.01860	0.01860	0.04646	1.26300	1.26300	0.01619	2.50740	2.50740	-0.01181

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhq_1	min_pulse_width	GATE ()	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D	0.01860	0.00100	0.01444	0.32940	0.06480	0.01473	2.50740	0.30000	0.01463
	GATE	0.01860	0.00100	0.01231	0.32940	0.06480	0.01250	2.50740	0.30000	0.01278

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D	0.01860	0.00100	0.01524	0.32940	0.06480	0.01558	2.50740	0.30000	0.01541
	GATE	0.01860	0.00100	0.01345	0.32940	0.06480	0.01411	2.50740	0.30000	0.01428

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.00373	0.32940	0.00377	2.50740	0.00934

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.00375	0.32940	0.00390	2.50740	0.00971

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	(!GATE * Q)	0.01860	0.00373	0.32940	0.00377	2.50740	0.00934
	(!GATE * !Q)	0.01860	0.00368	0.32940	0.00376	2.50740	0.00937

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	(!GATE * Q)	0.01860	0.00367	0.32940	0.00389	2.50740	0.00974
	(!GATE * !Q)	0.01860	0.00375	0.32940	0.00390	2.50740	0.00971

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.00833	0.32940	0.00830	2.50740	0.01525

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.01480	0.32940	0.01522	2.50740	0.02249

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	(!D * !Q)	0.01860	0.00833	0.32940	0.00830	2.50740	0.01525

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	(!D * !Q)	0.01860	0.01480	0.32940	0.01522	2.50740	0.02249

DLHRQ



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
D	GATE	RESET_B	Q
x	x	0	0
x	0	1	IQ
0	1	1	0
1	1	1	1

Footprint

Cell Name	Area
sg13g2_dlhrq_1	27.21600

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	D	GATE	RESET_B	
sg13g2_dlhrq_1	0.00213	0.00219	0.00295	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhrq_1	350.18500	397.18900	438.99100

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_dlhrq_1	D->Q (RR)	0.01860	0.00100	0.18717	0.32940	0.06480	0.45977	2.50740	0.30000	1.29827
	GATE->Q (RR)	0.01860	0.00100	0.16842	0.32940	0.06480	0.44453	2.50740	0.30000	1.27266

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_dlhrq_1	D->Q (FF)	0.01860	0.00100	0.16499	0.32940	0.06480	0.39908	2.50740	0.30000	1.07948
	GATE->Q (RF)	0.01860	0.00100	0.17142	0.32940	0.06480	0.41168	2.50740	0.30000	1.09330
	RESET_B->Q (FF)	0.01860	0.00100	0.06543	0.32940	0.06480	0.32080	2.50740	0.30000	1.07562

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhraq_1	hold	GATE (F)	0.01860	0.01860	-0.08558	1.26300	1.26300	-0.20238	2.50740	2.50740	-0.24498
	setup	GATE (F)	0.01860	0.01860	0.09781	1.26300	1.26300	0.24015	2.50740	2.50740	0.30401

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhraq_1	hold	GATE (F)	0.01860	0.01860	-0.04157	1.26300	1.26300	-0.00540	2.50740	2.50740	0.02361
	setup	GATE (F)	0.01860	0.01860	0.05135	1.26300	1.26300	0.01349	2.50740	2.50740	-0.01476

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhraq_1	min_pulse_width	GATE ()	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for RESET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhraq_1	recovery	GATE (F)	0.01860	0.01860	-0.01467	1.26300	1.26300	-0.10794	2.50740	2.50740	-0.15053
	removal	GATE (F)	0.01860	0.01860	0.02934	1.26300	1.26300	0.12682	2.50740	2.50740	0.16824

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhraq_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.17914	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhrq_1	D	0.01860	0.00100	0.00030	0.32940	0.06480	0.00061	2.50740	0.30000	0.00056
	GATE	0.01860	0.00100	0.00925	0.32940	0.06480	0.00957	2.50740	0.30000	0.00941

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhrq_1	D	0.01860	0.00100	-0.00030	0.32940	0.06480	-0.00061	2.50740	0.30000	-0.00056
	GATE	0.01860	0.00100	0.00918	0.32940	0.06480	0.01000	2.50740	0.30000	0.00981
	RESET_B	0.01860	0.00100	0.00752	0.32940	0.06480	0.00804	2.50740	0.30000	0.01481

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.01797	0.32940	0.01799	2.50740	0.02353

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.02181	0.32940	0.02480	2.50740	0.03066

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(!GATE * RESET_B * Q)	0.01860	0.00349	0.32940	0.00355	2.50740	0.00915
	!RESET_B	0.01860	0.01797	0.32940	0.01799	2.50740	0.02353

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(!GATE * RESET_B * Q)	0.01860	0.00387	0.32940	0.00409	2.50740	0.00982
	!RESET_B	0.01860	0.02181	0.32940	0.02480	2.50740	0.03066

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.01199	0.32940	0.01178	2.50740	0.01914

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.01503	0.32940	0.01549	2.50740	0.02278

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(D * !RESET_B * !Q)	0.01860	0.01199	0.32940	0.01178	2.50740	0.01914
	(!D * !RESET_B * !Q)	0.01860	0.00873	0.32940	0.00873	2.50740	0.01561

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(D * !RESET_B * !Q)	0.01860	0.01212	0.32940	0.01212	2.50740	0.01981
	(!D * RESET_B * !Q)	0.01860	0.01503	0.32940	0.01549	2.50740	0.02278
	(!D * !RESET_B * !Q)	0.01860	0.01514	0.32940	0.01559	2.50740	0.02285

Passive power(pJ) for RESET_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	-0.00001	0.32940	0.00000	2.50740	0.00000

Passive power(pJ) for RESET_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.00005	0.32940	0.00000	2.50740	0.00000

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(D * !GATE * !Q)	0.01860	0.00011	0.32940	0.00011	2.50740	0.00010
	(!D * !GATE * !Q)	0.01860	-0.00001	0.32940	0.00000	2.50740	0.00000

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(D * !GATE * !Q)	0.01860	0.00018	0.32940	0.00007	2.50740	0.00003
	(!D * !GATE * !Q)	0.01860	0.00005	0.32940	0.00000	2.50740	0.00000

DLHR



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT	
D	GATE	RESET_B	Q	Q_N
x	x	0	0	1
x	0	1	IQ	IQN
0	1	1	0	1
1	1	1	1	0

Footprint

Cell Name	Area
sg13g2_dlhr_1	32.65920

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	D	GATE	RESET_B	Q	Q_N
sg13g2_dlhr_1	0.00208	0.00224	0.00311	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhr_1	461.80400	508.57600	562.27400

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D->Q (RR)	0.01860	0.00100	0.20228	0.32940	0.06480	0.48207	2.50740	0.30000	1.31919
	GATE->Q (RR)	0.01860	0.00100	0.18428	0.32940	0.06480	0.46834	2.50740	0.30000	1.29786

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D->Q (FF)	0.01860	0.00100	0.17116	0.32940	0.06480	0.40867	2.50740	0.30000	1.08334
	GATE->Q (RF)	0.01860	0.00100	0.17784	0.32940	0.06480	0.42235	2.50740	0.30000	1.09929
	RESET_B->Q (FF)	0.01860	0.00100	0.07131	0.32940	0.06480	0.33937	2.50740	0.30000	1.11856

Delay(ns) to Q_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D->Q_N (FR)	0.01860	0.00100	0.20944	0.32940	0.06480	0.46816	2.50740	0.30000	1.27473
	GATE->Q_N (RR)	0.01860	0.00100	0.21631	0.32940	0.06480	0.48188	2.50740	0.30000	1.29100
	RESET_B->Q_N (FR)	0.01860	0.00100	0.10937	0.32940	0.06480	0.39326	2.50740	0.30000	1.25488

Delay(ns) to Q_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D->Q_N (RF)	0.01860	0.00100	0.24631	0.32940	0.06480	0.47386	2.50740	0.30000	1.17836
	GATE->Q_N (RF)	0.01860	0.00100	0.22808	0.32940	0.06480	0.46020	2.50740	0.30000	1.15690

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	hold	GATE (F)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.20777	2.50740	2.50740	-0.25088
	setup	GATE (F)	0.01860	0.01860	0.10759	1.26300	1.26300	0.24285	2.50740	2.50740	0.30991

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	hold	GATE (F)	0.01860	0.01860	-0.04401	1.26300	1.26300	-0.00540	2.50740	2.50740	0.02656
	setup	GATE (F)	0.01860	0.01860	0.05379	1.26300	1.26300	0.01349	2.50740	2.50740	-0.01476

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	min_pulse_width	GATE 0	0.01860	0.00000	0.08942	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for RESET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	recovery	GATE (F)	0.01860	0.01860	-0.00734	1.26300	1.26300	-0.06206	2.50740	2.50740	-0.08264
	removal	GATE (F)	0.01860	0.01860	0.02201	1.26300	1.26300	0.08635	2.50740	2.50740	0.10921

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	min_pulse_width	RESET_B 0	0.01860	0.00000	0.18555	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D	0.01860	0.00100	0.00420	0.32940	0.06480	0.00464	2.50740	0.30000	0.00468
	GATE	0.01860	0.00100	0.00857	0.32940	0.06480	0.00898	2.50740	0.30000	0.00900

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D	0.01860	0.00100	0.00199	0.32940	0.06480	0.00079	2.50740	0.30000	0.00062
	GATE	0.01860	0.00100	0.00858	0.32940	0.06480	0.00906	2.50740	0.30000	0.00893
	RESET_B	0.01860	0.00100	0.00760	0.32940	0.06480	0.00786	2.50740	0.30000	0.01145

Internal switching power(pJ) to Q_N rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D	0.01860	0.00100	0.00201	0.32940	0.06480	0.00098	2.50740	0.30000	0.00084
	GATE	0.01860	0.00100	0.01441	0.32940	0.06480	0.01498	2.50740	0.30000	0.01855
	RESET_B	0.01860	0.00100	0.00759	0.32940	0.06480	0.00800	2.50740	0.30000	0.01163

Internal switching power(pJ) to Q_N falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D	0.01860	0.00100	0.00419	0.32940	0.06480	0.00451	2.50740	0.30000	0.00453
	GATE	0.01860	0.00100	0.00857	0.32940	0.06480	0.00883	2.50740	0.30000	0.00878

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.01759	0.32940	0.01762	2.50740	0.02317

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.02150	0.32940	0.02457	2.50740	0.03045

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(!GATE * RESET_B * Q)	0.01860	0.00356	0.32940	0.00363	2.50740	0.00927
	!RESET_B	0.01860	0.01759	0.32940	0.01762	2.50740	0.02317

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(!GATE * RESET_B * Q)	0.01860	0.00386	0.32940	0.00408	2.50740	0.00987
	!RESET_B	0.01860	0.02150	0.32940	0.02457	2.50740	0.03045

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.01167	0.32940	0.01147	2.50740	0.01885

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.01494	0.32940	0.01537	2.50740	0.02262

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(D * !RESET_B * !Q)	0.01860	0.01167	0.32940	0.01147	2.50740	0.01885
	(!D * !RESET_B * !Q)	0.01860	0.00842	0.32940	0.00841	2.50740	0.01532

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(D * !RESET_B * !Q)	0.01860	0.01238	0.32940	0.01240	2.50740	0.02012
	(!D * RESET_B * !Q)	0.01860	0.01494	0.32940	0.01537	2.50740	0.02262
	(!D * !RESET_B * !Q)	0.01860	0.01498	0.32940	0.01540	2.50740	0.02263

Passive power(pJ) for RESET_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	-0.00013	0.32940	-0.00005	2.50740	-0.00001

Passive power(pJ) for RESET_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.00015	0.32940	0.00005	2.50740	0.00001

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(D * !GATE * !Q)	0.01860	-0.00001	0.32940	-0.00001	2.50740	-0.00002
	(!D * !GATE * !Q)	0.01860	-0.00013	0.32940	-0.00005	2.50740	-0.00001

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(D * !GATE * !Q)	0.01860	0.00027	0.32940	0.00017	2.50740	0.00014
	(!D * !GATE * !Q)	0.01860	0.00015	0.32940	0.00005	2.50740	0.00001

DLLRQ



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
D	GATE_N	RESET_B	Q
0	0	x	0
x	1	0	0
x	1	1	IQ
1	x	0	0
1	0	1	1

Footprint

Cell Name	Area
sg13g2_dllrq_1	29.03040

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	D	GATE_N	RESET_B	
sg13g2_dllrq_1	0.00204	0.00217	0.00298	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllrq_1	350.11100	397.16800	438.99800

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D->Q (RR)	0.01860	0.00100	0.18607	0.32940	0.06480	0.45795	2.50740	0.30000	1.29545
	GATE_N->Q (FR)	0.01860	0.00100	0.20855	0.32940	0.06480	0.49098	2.50740	0.30000	1.34731
	RESET_B->Q (RR)	0.01860	0.00100	0.08623	0.32940	0.06480	0.36088	2.50740	0.30000	1.24905

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D->Q (FF)	0.01860	0.00100	0.16410	0.32940	0.06480	0.39632	2.50740	0.30000	1.07202
	GATE_N->Q (FF)	0.01860	0.00100	0.15751	0.32940	0.06480	0.40862	2.50740	0.30000	1.16407
	RESET_B->Q (FF)	0.01860	0.00100	0.06591	0.32940	0.06480	0.32017	2.50740	0.30000	1.07220

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	hold	GATE_N (R)	0.01860	0.01860	-0.06602	1.26300	1.26300	-0.08365	2.50740	2.50740	-0.10626
	setup	GATE_N (R)	0.01860	0.01860	0.08069	1.26300	1.26300	0.09444	2.50740	2.50740	0.12101

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	hold	GATE_N (R)	0.01860	0.01860	-0.08314	1.26300	1.26300	-0.21857	2.50740	2.50740	-0.27449
	setup	GATE_N (R)	0.01860	0.01860	0.09292	1.26300	1.26300	0.24825	2.50740	2.50740	0.32467

Constraints(ns) for GATE_N falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	min_pulse_width	GATE_N_0	0.01860	0.00000	0.10864	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for RESET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	recovery	GATE_N (R)	0.01860	0.01860	-0.03423	1.26300	1.26300	-0.10254	2.50740	2.50740	-0.10921
	removal	GATE_N (R)	0.01860	0.01860	0.04890	1.26300	1.26300	0.11333	2.50740	2.50740	0.11806

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	min_pulse_width	RESET_B_0	0.01860	0.00000	0.17914	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D	0.01860	0.00100	0.00632	0.32940	0.06480	0.00672	2.50740	0.30000	0.00658
	GATE_N	0.01860	0.00100	0.00673	0.32940	0.06480	0.00680	2.50740	0.30000	0.00653
	RESET_B	0.01860	0.00100	0.00989	0.32940	0.06480	0.00984	2.50740	0.30000	0.01511

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D	0.01860	0.00100	0.00357	0.32940	0.06480	0.00027	2.50740	0.30000	0.00011
	GATE_N	0.01860	0.00100	0.00550	0.32940	0.06480	0.00544	2.50740	0.30000	0.00548
	RESET_B	0.01860	0.00100	0.00764	0.32940	0.06480	0.00820	2.50740	0.30000	0.01498

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.01184	0.32940	0.01178	2.50740	0.01744

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.01425	0.32940	0.01802	2.50740	0.02389

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(GATE_N * RESET_B * Q)	0.01860	0.00342	0.32940	0.00349	2.50740	0.00910
	!RESET_B	0.01860	0.01184	0.32940	0.01178	2.50740	0.01744

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(GATE_N * RESET_B * Q)	0.01860	0.00384	0.32940	0.00405	2.50740	0.00983
	!RESET_B	0.01860	0.01425	0.32940	0.01802	2.50740	0.02389

Passive power(pJ) for GATE_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.01342	0.32940	0.01330	2.50740	0.01994

Passive power(pJ) for GATE_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.01510	0.32940	0.01552	2.50740	0.02300

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(D * !RESET_B * !Q)	0.01860	0.01342	0.32940	0.01330	2.50740	0.01994
	(!D * !RESET_B * !Q)	0.01860	0.00790	0.32940	0.00788	2.50740	0.01478

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(D * !RESET_B * !Q)	0.01860	0.01267	0.32940	0.01273	2.50740	0.01988
	(!D * RESET_B * !Q)	0.01860	0.01510	0.32940	0.01552	2.50740	0.02300
	(!D * !RESET_B * !Q)	0.01860	0.01516	0.32940	0.01558	2.50740	0.02292

Passive power(pJ) for RESET_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.00008	0.32940	0.00008	2.50740	0.00007

Passive power(pJ) for RESET_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.00006	0.32940	-0.00004	2.50740	-0.00007

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(D * GATE_N * !Q)	0.01860	0.00020	0.32940	0.00020	2.50740	0.00020
	(!D * GATE_N * !Q)	0.01860	0.00008	0.32940	0.00008	2.50740	0.00007

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(D * GATE_N * !Q)	0.01860	0.00019	0.32940	0.00008	2.50740	0.00005
	(!D * GATE_N * !Q)	0.01860	0.00006	0.32940	-0.00004	2.50740	-0.00007

DLLR



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT	
D	GATE_N	RESET_B	Q	Q_N
0	0	x	0	1
x	1	0	0	1
x	1	1	IQ	IQN
1	x	0	0	1
1	0	1	1	0

Footprint

Cell Name	Area
sg13g2_dllr_1	34.47360

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	D	GATE_N	RESET_B	Q	Q_N
sg13g2_dllr_1	0.00215	0.00230	0.00307	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllr_1	461.77200	518.32600	562.18200

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D->Q (RR)	0.01860	0.00100	0.20391	0.32940	0.06480	0.48308	2.50740	0.30000	1.31946
	GATE_N->Q (FR)	0.01860	0.00100	0.22633	0.32940	0.06480	0.51690	2.50740	0.30000	1.37343

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D->Q (FF)	0.01860	0.00100	0.17305	0.32940	0.06480	0.41005	2.50740	0.30000	1.08415
	GATE_N->Q (FF)	0.01860	0.00100	0.16743	0.32940	0.06480	0.42465	2.50740	0.30000	1.18287
	RESET_B->Q (FF)	0.01860	0.00100	0.07126	0.32940	0.06480	0.34475	2.50740	0.30000	1.11003

Delay(ns) to Q_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D->Q_N (FR)	0.01860	0.00100	0.21116	0.32940	0.06480	0.46935	2.50740	0.30000	1.27482
	GATE_N->Q_N (FR)	0.01860	0.00100	0.20565	0.32940	0.06480	0.48399	2.50740	0.30000	1.37231
	RESET_B->Q_N (FR)	0.01860	0.00100	0.11011	0.32940	0.06480	0.39480	2.50740	0.30000	1.26301

Delay(ns) to Q_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D->Q_N (RF)	0.01860	0.00100	0.24765	0.32940	0.06480	0.47513	2.50740	0.30000	1.17886
	GATE_N->Q_N (FF)	0.01860	0.00100	0.26977	0.32940	0.06480	0.50894	2.50740	0.30000	1.23357

Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	hold	GATE_N (R)	0.01860	0.01860	-0.07580	1.26300	1.26300	-0.08905	2.50740	2.50740	-0.11216
	setup	GATE_N (R)	0.01860	0.01860	0.09292	1.26300	1.26300	0.09984	2.50740	2.50740	0.12692

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	hold	GATE_N (R)	0.01860	0.01860	-0.08558	1.26300	1.26300	-0.22127	2.50740	2.50740	-0.27744
	setup	GATE_N (R)	0.01860	0.01860	0.09781	1.26300	1.26300	0.25365	2.50740	2.50740	0.32762

Constraints(ns) for GATE_N falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	min_pulse_width	GATE_N ()	0.01860	0.00000	0.11826	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for RESET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	recovery	GATE_N (R)	0.01860	0.01860	-0.02690	1.26300	1.26300	-0.06476	2.50740	2.50740	-0.04722
	removal	GATE_N (R)	0.01860	0.01860	0.04157	1.26300	1.26300	0.07825	2.50740	2.50740	0.06198

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.18555	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D	0.01860	0.00100	0.00895	0.32940	0.06480	0.05571	2.50740	0.30000	0.22499
	GATE_N	0.01860	0.00100	0.01786	0.32940	0.06480	0.06476	2.50740	0.30000	0.23412

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D	0.01860	0.00100	0.00635	0.32940	0.06480	0.04590	2.50740	0.30000	0.21483
	GATE_N	0.01860	0.00100	0.01624	0.32940	0.06480	0.06261	2.50740	0.30000	0.23194
	RESET_B	0.01860	0.00100	0.02368	0.32940	0.06480	0.06964	2.50740	0.30000	0.24478

Internal switching power(pJ) to Q_N rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D	0.01860	0.00100	0.00638	0.32940	0.06480	0.04632	2.50740	0.30000	0.21523
	GATE_N	0.01860	0.00100	0.02911	0.32940	0.06480	0.07598	2.50740	0.30000	0.25260
	RESET_B	0.01860	0.00100	0.02353	0.32940	0.06480	0.06978	2.50740	0.30000	0.24503

Internal switching power(pJ) to Q_N falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D	0.01860	0.00100	0.00893	0.32940	0.06480	0.05539	2.50740	0.30000	0.22480
	GATE_N	0.01860	0.00100	0.01785	0.32940	0.06480	0.06448	2.50740	0.30000	0.23338

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	0.01820	0.32940	0.01830	2.50740	0.02385

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	0.01975	0.32940	0.02677	2.50740	0.03267

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(GATE_N * RESET_B * Q)	0.01860	0.00362	0.32940	0.00369	2.50740	0.00933
	!RESET_B	0.01860	0.01820	0.32940	0.01830	2.50740	0.02385

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(GATE_N * RESET_B * Q)	0.01860	0.00338	0.32940	0.00360	2.50740	0.00950
	!RESET_B	0.01860	0.01975	0.32940	0.02677	2.50740	0.03267

Passive power(pJ) for GATE_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	0.01385	0.32940	0.01567	2.50740	0.02261

Passive power(pJ) for GATE_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	0.01287	0.32940	0.01295	2.50740	0.02020

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(D * !RESET_B * !Q)	0.01860	0.01348	0.32940	0.01338	2.50740	0.02002
	(!D * RESET_B * !Q)	0.01860	0.01385	0.32940	0.01567	2.50740	0.02261
	(!D * !RESET_B * !Q)	0.01860	0.01390	0.32940	0.01572	2.50740	0.02264

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(D * !RESET_B * !Q)	0.01860	0.01287	0.32940	0.01295	2.50740	0.02020
	(!D * !RESET_B * !Q)	0.01860	0.00858	0.32940	0.00869	2.50740	0.01604

Passive power(pJ) for RESET_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	-0.00016	0.32940	-0.00008	2.50740	-0.00004

Passive power(pJ) for RESET_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	0.00018	0.32940	0.00008	2.50740	0.00004

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(D * GATE_N * !Q)	0.01860	0.00027	0.32940	0.00026	2.50740	0.00026
	(!D * GATE_N * !Q)	0.01860	-0.00016	0.32940	-0.00008	2.50740	-0.00004

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(D * GATE_N * !Q)	0.01860	0.00030	0.32940	0.00020	2.50740	0.00017
	(!D * GATE_N * !Q)	0.01860	0.00018	0.32940	0.00008	2.50740	0.00004

DLYGATE4SD1



sg13g2_stdcell_typ_1p20V_25C Cell

Library: Process

sg13g2_stdcell_typ_1p20V_25C,

Voltage 1.20, Temp 25.00

Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

Footprint

Cell Name	Area
sg13g2_dlygate4sd1_1	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	X
sg13g2_dlygate4sd1_1	0.00149	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd1_1	176.82000	186.79900	196.77800

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd1_1	A->X (RR)	0.01860	0.00100	0.11507	0.32940	0.06480	0.38342	2.50740	0.30000	1.17921

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd1_1	A->X (FF)	0.01860	0.00100	0.13504	0.32940	0.06480	0.39134	2.50740	0.30000	1.17984

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd1_1	A	0.01860	0.00100	0.01256	0.32940	0.06480	0.01269	2.50740	0.30000	0.01597

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd1_1	A	0.01860	0.00100	0.01199	0.32940	0.06480	0.01227	2.50740	0.30000	0.01572

DLYGATE4SD2



sg13g2_stdcell_typ_1p20V_25C Cell

Library: Process

sg13g2_stdcell_typ_1p20V_25C,

Voltage 1.20, Temp 25.00

Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

Footprint

Cell Name	Area
sg13g2_dlygate4sd2_1	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	X
sg13g2_dlygate4sd2_1	0.00148	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd2_1	178.59500	188.57300	198.55000

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd2_1	A->X (RR)	0.01860	0.00100	0.16703	0.32940	0.06480	0.44640	2.50740	0.30000	1.28743

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd2_1	A->X (FF)	0.01860	0.00100	0.18947	0.32940	0.06480	0.46680	2.50740	0.30000	1.29914

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd2_1	A	0.01860	0.00100	0.01481	0.32940	0.06480	0.01489	2.50740	0.30000	0.01785

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd2_1	A	0.01860	0.00100	0.01431	0.32940	0.06480	0.01453	2.50740	0.30000	0.01778

DLYGATE4SD3



*sg13g2_stdcell_typ_1p20V_25C Cell
Library: Process
sg13g2_stdcell_typ_1p20V_25C,
Voltage 1.20, Temp 25.00*

Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

Footprint

Cell Name	Area
sg13g2_dlygate4sd3_1	16.32960

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	X
sg13g2_dlygate4sd3_1	0.00150	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd3_1	389.89700	399.85800	409.81900

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd3_1	A->X (RR)	0.01860	0.00100	0.34505	0.32940	0.06480	0.65679	2.50740	0.30000	1.59155

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd3_1	A->X (FF)	0.01860	0.00100	0.35893	0.32940	0.06480	0.67703	2.50740	0.30000	1.61288

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd3_1	A	0.01860	0.00100	0.02105	0.32940	0.06480	0.02100	2.50740	0.30000	0.02356

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd3_1	A	0.01860	0.00100	0.02069	0.32940	0.06480	0.02072	2.50740	0.30000	0.02346

EBUFNx



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT		OUTPUT
A	TE_B	Z
0	0	0
1	0	1
-	1	HiZ

Footprint

Cell Name	Area
sg13g2_ebufn_2	18.14400
sg13g2_ebufn_4	27.21600
sg13g2_ebufn_8	45.36000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_ebufn_2	0.00262	0.00638	0.60000
sg13g2_ebufn_4	0.00296	0.01045	1.20000
sg13g2_ebufn_8	0.00577	0.01756	2.40000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_ebufn_2	138.42700	236.41400	331.24000
sg13g2_ebufn_4	180.47700	376.42900	598.54500
sg13g2_ebufn_8	278.54400	689.88800	1153.55000

Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_ebufn_2	A->Z (RR)	0.01860	0.00550	0.06310	0.32940	0.13410	0.53724	2.50740	0.60450	2.11741
	TE_B->Z (RR)	0.01860	0.00550	0.04607	0.32940	0.13410	0.10970	2.50740	0.60450	0.23688
	TE_B->Z (FR)	0.01860	0.00550	0.03552	0.32940	0.13410	0.52551	2.50740	0.60450	2.67268
sg13g2_ebufn_4	A->Z (RR)	0.01860	0.00984	0.07424	0.32940	0.26804	0.57513	2.50740	1.20884	2.22001
	TE_B->Z (RR)	0.01860	0.00984	0.05310	0.32940	0.26804	0.13167	2.50740	1.20884	0.28796
	TE_B->Z (FR)	0.01860	0.00984	0.03547	0.32940	0.26804	0.52953	2.50740	1.20884	2.68729
sg13g2_ebufn_8	A->Z (RR)	0.01860	0.01855	0.07227	0.32940	0.53595	0.57484	2.50740	2.41755	2.21962
	TE_B->Z (RR)	0.01860	0.01855	0.06657	0.32940	0.53595	0.17071	2.50740	2.41755	0.40164
	TE_B->Z (FR)	0.01860	0.01855	0.03559	0.32940	0.53595	0.53127	2.50740	2.41755	2.69216

Delay(ns) to Z falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_ebufn_2	A->Z (FF)	0.01860	0.00840	0.06624	0.32940	0.13700	0.43943	2.50740	0.60740	1.61152
	TE_B->Z (RF)	0.01860	0.00840	0.02757	0.32940	0.13700	0.03192	2.50740	0.60740	0.09563
	TE_B->Z (FF)	0.01860	0.00840	0.06395	0.32940	0.13700	0.59080	2.50740	0.60740	2.36703
sg13g2_ebufn_4	A->Z (FF)	0.01860	0.01550	0.08576	0.32940	0.27370	0.48641	2.50740	1.21450	1.73276
	TE_B->Z (RF)	0.01860	0.01550	0.02878	0.32940	0.27370	0.03266	2.50740	1.21450	0.09743
	TE_B->Z (FF)	0.01860	0.01550	0.07619	0.32940	0.27370	0.62990	2.50740	1.21450	2.46167
sg13g2_ebufn_8	A->Z (FF)	0.01860	0.02955	0.08349	0.32940	0.54695	0.48417	2.50740	2.42855	1.73206
	TE_B->Z (RF)	0.01860	0.02955	0.02988	0.32940	0.54695	0.03524	2.50740	2.42855	0.10263
	TE_B->Z (FF)	0.01860	0.02955	0.09984	0.32940	0.54695	0.68747	2.50740	2.42855	2.61659

Power Information

Internal switching power(pJ) to Z rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_ebufn_2	A	0.01860	0.00550	0.00931	0.32940	0.13410	0.01008	2.50740	0.60450	0.00854
	TE_B	0.01860	0.00550	0.00154	0.32940	0.13410	0.00126	2.50740	0.60450	0.00088
sg13g2_ebufn_4	A	0.01860	0.00984	0.01780	0.32940	0.26804	0.02002	2.50740	1.20884	0.01780
	TE_B	0.01860	0.00984	0.00295	0.32940	0.26804	0.00235	2.50740	1.20884	0.00155
sg13g2_ebufn_8	A	0.01860	0.01855	0.03562	0.32940	0.53595	0.04166	2.50740	2.41755	0.03895
	TE_B	0.01860	0.01855	0.00579	0.32940	0.53595	0.00471	2.50740	2.41755	0.00327

Internal switching power(pJ) to Z falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_ebufn_2	A	0.01860	0.00840	0.00813	0.32940	0.13700	0.00902	2.50740	0.60740	0.00817
	TE_B	0.01860	0.00840	0.00203	0.32940	0.13700	0.03058	2.50740	0.60740	0.13951
sg13g2_ebufn_4	A	0.01860	0.01550	0.01593	0.32940	0.27370	0.01791	2.50740	1.21450	0.01589
	TE_B	0.01860	0.01550	0.00375	0.32940	0.27370	0.06064	2.50740	1.21450	0.27555
sg13g2_ebufn_8	A	0.01860	0.02955	0.03181	0.32940	0.54695	0.03560	2.50740	2.42855	0.03227
	TE_B	0.01860	0.02955	0.00706	0.32940	0.54695	0.12093	2.50740	2.42855	0.54915

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_2	0.01860	0.00363	0.32940	0.00384	2.50740	0.01082
sg13g2_ebufn_4	0.01860	0.00601	0.32940	0.00610	2.50740	0.01378
sg13g2_ebufn_8	0.01860	0.01122	0.32940	0.01153	2.50740	0.02703

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_2	0.01860	0.00305	0.32940	0.00342	2.50740	0.01057
sg13g2_ebufn_4	0.01860	0.00482	0.32940	0.00514	2.50740	0.01299
sg13g2_ebufn_8	0.01860	0.00905	0.32940	0.00973	2.50740	0.02568

Passive power(pJ) for TE_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_2	0.01860	0.00040	0.32940	0.00018	2.50740	0.00691
sg13g2_ebufn_4	0.01860	-0.00046	0.32940	-0.00108	2.50740	0.00608
sg13g2_ebufn_8	0.01860	-0.00304	0.32940	-0.00424	2.50740	0.00179

Passive power(pJ) for TE_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_2	0.01860	0.01382	0.32940	0.01422	2.50740	0.02124
sg13g2_ebufn_4	0.01860	0.02670	0.32940	0.02700	2.50740	0.03469
sg13g2_ebufn_8	0.01860	0.05163	0.32940	0.05162	2.50740	0.05867

EINVN_x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT		OUTPUT
A	TE_B	Z
0	0	1
1	0	0
-	1	HiZ

Footprint

Cell Name	Area
sg13g2_einvn_2	16.32960
sg13g2_einvn_4	23.58720
sg13g2_einvn_8	39.91680

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_einvn_2	0.00408	0.00486	0.60000
sg13g2_einvn_4	0.00796	0.00906	1.20000
sg13g2_einvn_8	0.01575	0.01555	2.40000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_2	201.55400	240.42300	279.29300
sg13g2_einvn_4	399.52500	477.26800	555.01000
sg13g2_einvn_8	755.51500	910.99700	1066.48000

Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_einvn_2	A->Z (FR)	0.01860	0.00556	0.02760	0.32940	0.13416	0.54769	2.50740	0.60456	2.89972
	TE_B->Z (RR)	0.01860	0.00556	0.05031	0.32940	0.13416	0.12670	2.50740	0.60456	0.27911
	TE_B->Z (FR)	0.01860	0.00556	0.03353	0.32940	0.13416	0.52518	2.50740	0.60456	2.67774
sg13g2_einvn_4	A->Z (FR)	0.01860	0.01002	0.02568	0.32940	0.26822	0.54810	2.50740	1.20902	2.90223
	TE_B->Z (RR)	0.01860	0.01002	0.05136	0.32940	0.26822	0.13048	2.50740	1.20902	0.28619
	TE_B->Z (FR)	0.01860	0.01002	0.03222	0.32940	0.26822	0.52534	2.50740	1.20902	2.67768
sg13g2_einvn_8	A->Z (FR)	0.01860	0.01899	0.02480	0.32940	0.53639	0.54972	2.50740	2.41799	2.90950
	TE_B->Z (RR)	0.01860	0.01899	0.06441	0.32940	0.53639	0.16950	2.50740	2.41799	0.39661
	TE_B->Z (FR)	0.01860	0.01899	0.03303	0.32940	0.53639	0.52794	2.50740	2.41799	2.68372

Delay(ns) to Z falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_einvn_2	A->Z (RF)	0.01860	0.00843	0.02412	0.32940	0.13703	0.45682	2.50740	0.60743	2.48482
sg13g2_einvn_4	A->Z (RF)	0.01860	0.01553	0.02253	0.32940	0.27373	0.45665	2.50740	1.21453	2.48490
sg13g2_einvn_8	A->Z (RF)	0.01860	0.02992	0.02178	0.32940	0.54732	0.45829	2.50740	2.42892	2.49406

Power Information

Internal switching power(pJ) to Z rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_einvn_2	A	0.01860	0.00556	0.00265	0.32940	0.13416	0.00329	2.50740	0.60456	0.00492
	TE_B	0.01860	0.00556	0.00770	0.32940	0.13416	0.00730	2.50740	0.60456	0.00663
sg13g2_einvn_4	A	0.01860	0.01002	0.00522	0.32940	0.26822	0.00666	2.50740	1.20902	0.01002
	TE_B	0.01860	0.01002	0.01561	0.32940	0.26822	0.01476	2.50740	1.20902	0.01342
sg13g2_einvn_8	A	0.01860	0.01899	0.01031	0.32940	0.53639	0.01339	2.50740	2.41799	0.02020
	TE_B	0.01860	0.01899	0.03335	0.32940	0.53639	0.03070	2.50740	2.41799	0.02861

Internal switching power(pJ) to Z falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_einvn_2	A	0.01860	0.00843	0.00263	0.32940	0.13703	0.00340	2.50740	0.60743	0.00459
sg13g2_einvn_4	A	0.01860	0.01553	0.00493	0.32940	0.27373	0.00670	2.50740	1.21453	0.00944
sg13g2_einvn_8	A	0.01860	0.02992	0.00955	0.32940	0.54732	0.01343	2.50740	2.42892	0.01852

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_2	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000
sg13g2_einvn_4	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000
sg13g2_einvn_8	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_2	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000
sg13g2_einvn_4	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000
sg13g2_einvn_8	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000

Passive power(pJ) for TE_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_2	0.01860	-0.00183	0.32940	-0.00206	2.50740	0.00175
sg13g2_einvn_4	0.01860	-0.00430	0.32940	-0.00472	2.50740	0.00252
sg13g2_einvn_8	0.01860	-0.01088	0.32940	-0.01164	2.50740	-0.00557

Passive power(pJ) for TE_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_2	0.01860	0.00711	0.32940	0.00737	2.50740	0.01169
sg13g2_einvn_4	0.01860	0.01410	0.32940	0.01462	2.50740	0.02298
sg13g2_einvn_8	0.01860	0.02424	0.32940	0.02562	2.50740	0.03343

FILLx



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Footprint

Cell Name	Area
sg13g2_fill_1	1.81440
sg13g2_fill_2	3.62880
sg13g2_fill_4	7.25760
sg13g2_fill_8	14.51520

Pin Capacitance Information Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_fill_1	0.00000	0.00000	0.00000
sg13g2_fill_2	0.00000	0.00000	0.00000
sg13g2_fill_4	0.00000	0.00000	0.00000
sg13g2_fill_8	0.00000	0.00000	0.00000

INVX



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

Cell Name	Area
sg13g2_inv_1	5.44320
sg13g2_inv_16	34.47360
sg13g2_inv_2	7.25760
sg13g2_inv_4	10.88640
sg13g2_inv_8	18.14400

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
sg13g2_inv_1	0.00287	0.30000
sg13g2_inv_16	0.04354	4.80000
sg13g2_inv_2	0.00567	0.60000
sg13g2_inv_4	0.01122	1.20000
sg13g2_inv_8	0.02245	2.40000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_inv_1	43.53740	63.00320	82.46900
sg13g2_inv_16	696.59900	1007.55000	1318.51000
sg13g2_inv_2	87.08110	125.95600	164.83000
sg13g2_inv_4	174.15000	251.89000	329.63000
sg13g2_inv_8	348.29800	503.80300	659.30800

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_inv_1	A->Y (FR)	0.01860	0.00100	0.02056	0.32940	0.06480	0.36330	2.50740	0.30000	2.05537
sg13g2_inv_16	A->Y (FR)	0.01860	0.00100	0.01901	0.32940	1.03680	0.36723	2.50740	4.80000	2.06424
sg13g2_inv_2	A->Y (FR)	0.01860	0.00100	0.01788	0.32940	0.12960	0.36253	2.50740	0.60000	2.05379
sg13g2_inv_4	A->Y (FR)	0.01860	0.00100	0.01671	0.32940	0.25920	0.36302	2.50740	1.20000	2.05668
sg13g2_inv_8	A->Y (FR)	0.01860	0.00100	0.01633	0.32940	0.51840	0.36333	2.50740	2.40000	2.05753

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_inv_1	A->Y (RF)	0.01860	0.00100	0.01988	0.32940	0.06480	0.33725	2.50740	0.30000	1.92415
sg13g2_inv_16	A->Y (RF)	0.01860	0.00100	0.01891	0.32940	1.03680	0.34155	2.50740	4.80000	1.93422
sg13g2_inv_2	A->Y (RF)	0.01860	0.00100	0.01730	0.32940	0.12960	0.33647	2.50740	0.60000	1.92428
sg13g2_inv_4	A->Y (RF)	0.01860	0.00100	0.01626	0.32940	0.25920	0.33803	2.50740	1.20000	1.93155
sg13g2_inv_8	A->Y (RF)	0.01860	0.00100	0.01594	0.32940	0.51840	0.33825	2.50740	2.40000	1.93235

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_inv_1	A	0.01860	0.00100	0.00152	0.32940	0.06480	0.00169	2.50740	0.30000	0.00298
sg13g2_inv_16	A	0.01860	0.00100	0.02041	0.32940	1.03680	0.02497	2.50740	4.80000	0.04673
sg13g2_inv_2	A	0.01860	0.00100	0.00263	0.32940	0.12960	0.00310	2.50740	0.60000	0.00573
sg13g2_inv_4	A	0.01860	0.00100	0.00518	0.32940	0.25920	0.00622	2.50740	1.20000	0.01108
sg13g2_inv_8	A	0.01860	0.00100	0.01026	0.32940	0.51840	0.01244	2.50740	2.40000	0.02144

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_inv_1	A	0.01860	0.00100	0.00155	0.32940	0.06480	0.00172	2.50740	0.30000	0.00299
sg13g2_inv_16	A	0.01860	0.00100	0.01767	0.32940	1.03680	0.02408	2.50740	4.80000	0.04420
sg13g2_inv_2	A	0.01860	0.00100	0.00238	0.32940	0.12960	0.00297	2.50740	0.60000	0.00552
sg13g2_inv_4	A	0.01860	0.00100	0.00450	0.32940	0.25920	0.00576	2.50740	1.20000	0.01099
sg13g2_inv_8	A	0.01860	0.00100	0.00888	0.32940	0.51840	0.01177	2.50740	2.40000	0.02158

LGCP



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT		OUTPUT
CLK	GATE	GCLK
0	x	0
1	x	GCLK

Footprint

Cell Name	Area
sg13g2_lgcp_1	27.21600

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	CLK	GATE	GCLK
sg13g2_lgcp_1	0.00494	0.00230	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_lgcp_1	376.58400	389.66800	412.84000

Delay Information

Delay(ns) to GCLK rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_lgcp_1	CLK->GCLK (RR)	0.01860	0.00100	0.07506	0.32940	0.06480	0.34539	2.50740	0.30000	1.20926

Delay(ns) to GCLK falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_lgcp_1	CLK->GCLK (FF)	0.01860	0.00100	0.06102	0.32940	0.06480	0.30849	2.50740	0.30000	1.04286

Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_lgcp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.23041	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_lgcp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.10223	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_lgcp_1	hold	CLK (R)	0.01860	0.01860	-0.03683	1.26300	1.26300	-0.15850	2.50740	2.50740	-0.23763
	setup	CLK (R)	0.01860	0.01860	0.07452	1.26300	1.26300	0.23146	2.50740	2.50740	0.32659

Constraints(ns) for GATE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_lgcp_1	hold	CLK (R)	0.01860	0.01860	-0.01972	1.26300	1.26300	-0.01097	2.50740	2.50740	-0.00301
	setup	CLK (R)	0.01860	0.01860	0.05489	1.26300	1.26300	0.05603	2.50740	2.50740	0.06228

Power Information

Internal switching power(pJ) to GCLK rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_lgcp_1	CLK	0.01860	0.00100	0.00867	0.32940	0.06480	0.00865	2.50740	0.30000	0.01315

Internal switching power(pJ) to GCLK falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_lgcp_1	CLK	0.01860	0.00100	0.00517	0.32940	0.06480	0.00571	2.50740	0.30000	0.01126

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.00730	0.32940	0.00730	2.50740	0.01420

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.00878	0.32940	0.00880	2.50740	0.01599

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.01924	0.32940	0.02002	2.50740	0.02482

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.01315	0.32940	0.02863	2.50740	0.03406

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	!CLK	0.01860	0.01924	0.32940	0.02002	2.50740	0.02482

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	!CLK	0.01860	0.01315	0.32940	0.02863	2.50740	0.03406

MUX2x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
A0	A1	S	X
0	0	x	0
0	1	0	0
x	1	1	1
1	x	0	1
1	0	1	0

Footprint

Cell Name	Area
sg13g2_mux2_1	18.14400
sg13g2_mux2_2	19.95840

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	S	
sg13g2_mux2_1	0.00278	0.00288	0.00505	0.30000
sg13g2_mux2_2	0.00277	0.00288	0.00504	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux2_1	220.22500	246.33900	274.31600
sg13g2_mux2_2	279.33300	309.29200	337.39300

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	A0->X (RR)	0.01860	0.00100	0.07776	0.32940	0.06480	0.35909	2.50740	0.30000	1.23461
	A1->X (RR)	0.01860	0.00100	0.07398	0.32940	0.06480	0.35885	2.50740	0.30000	1.24421
	S->X (-R)	0.01860	0.00100	0.08087	0.32940	0.06480	0.36070	2.50740	0.30000	1.24661
sg13g2_mux2_2	A0->X (RR)	0.01860	0.00100	0.09001	0.32940	0.12960	0.39492	2.50740	0.60000	1.31798
	A1->X (RR)	0.01860	0.00100	0.08434	0.32940	0.12960	0.39378	2.50740	0.60000	1.32538
	S->X (-R)	0.01860	0.00100	0.09272	0.32940	0.12960	0.39156	2.50740	0.60000	1.32478

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	A0->X (FF)	0.01860	0.00100	0.09719	0.32940	0.06480	0.36971	2.50740	0.30000	1.17439
	A1->X (FF)	0.01860	0.00100	0.09699	0.32940	0.06480	0.37003	2.50740	0.30000	1.17651
	S->X (-F)	0.01860	0.00100	0.10823	0.32940	0.06480	0.36077	2.50740	0.30000	1.13446
sg13g2_mux2_2	A0->X (FF)	0.01860	0.00100	0.11734	0.32940	0.12960	0.41780	2.50740	0.60000	1.27385
	A1->X (FF)	0.01860	0.00100	0.11710	0.32940	0.12960	0.41802	2.50740	0.60000	1.27616
	S->X (-F)	0.01860	0.00100	0.12936	0.32940	0.12960	0.40520	2.50740	0.60000	1.22613

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	S->X (RR)	(!A0 * A1)	0.01860	0.00100	0.08087	0.32940	0.06480	0.36070	2.50740	0.30000	1.24661
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	0.11556	0.32940	0.06480	0.38381	2.50740	0.30000	1.19323
sg13g2_mux2_2	S->X (RR)	(!A0 * A1)	0.01860	0.00100	0.09272	0.32940	0.12960	0.39156	2.50740	0.60000	1.32478
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	0.12759	0.32940	0.12960	0.40535	2.50740	0.60000	1.21884

Delay(ns) to X falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	S->X (FF)	(!A0 * A1)	0.01860	0.00100	0.10823	0.32940	0.06480	0.36077	2.50740	0.30000	1.13446
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	0.13861	0.32940	0.06480	0.38437	2.50740	0.30000	1.09990
sg13g2_mux2_2	S->X (FF)	(!A0 * A1)	0.01860	0.00100	0.12936	0.32940	0.12960	0.40520	2.50740	0.60000	1.22613
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	0.15996	0.32940	0.12960	0.42102	2.50740	0.60000	1.13843

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	A0	0.01860	0.00100	0.00883	0.32940	0.06480	0.00891	2.50740	0.30000	0.01509
	A1	0.01860	0.00100	0.00893	0.32940	0.06480	0.00901	2.50740	0.30000	0.01519
	S	0.01860	0.00100	0.00908	0.32940	0.06480	0.00929	2.50740	0.30000	0.01406
sg13g2_mux2_2	A0	0.01860	0.00100	0.01268	0.32940	0.12960	0.01290	2.50740	0.60000	0.01892
	A1	0.01860	0.00100	0.01273	0.32940	0.12960	0.01302	2.50740	0.60000	0.01900
	S	0.01860	0.00100	0.01283	0.32940	0.12960	0.01343	2.50740	0.60000	0.01797

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	A0	0.01860	0.00100	0.00869	0.32940	0.06480	0.00906	2.50740	0.30000	0.01538
	A1	0.01860	0.00100	0.00862	0.32940	0.06480	0.00896	2.50740	0.30000	0.01542
	S	0.01860	0.00100	0.00872	0.32940	0.06480	0.00904	2.50740	0.30000	0.01406
sg13g2_mux2_2	A0	0.01860	0.00100	0.01253	0.32940	0.12960	0.01284	2.50740	0.60000	0.01939
	A1	0.01860	0.00100	0.01249	0.32940	0.12960	0.01275	2.50740	0.60000	0.01910
	S	0.01860	0.00100	0.01238	0.32940	0.12960	0.01293	2.50740	0.60000	0.01778

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	0.00919	0.32940	0.06480	0.00944	2.50740	0.30000	0.00941
	S	(!A0 * A1)	0.01860	0.00100	0.00908	0.32940	0.06480	0.00929	2.50740	0.30000	0.01406
sg13g2_mux2_2	S	(A0 * !A1)	0.01860	0.00100	0.01297	0.32940	0.12960	0.01372	2.50740	0.60000	0.01360
	S	(!A0 * A1)	0.01860	0.00100	0.01283	0.32940	0.12960	0.01343	2.50740	0.60000	0.01797

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	0.00932	0.32940	0.06480	0.00978	2.50740	0.30000	0.00975
	S	(!A0 * A1)	0.01860	0.00100	0.00872	0.32940	0.06480	0.00904	2.50740	0.30000	0.01406
sg13g2_mux2_2	S	(A0 * !A1)	0.01860	0.00100	0.01301	0.32940	0.12960	0.01373	2.50740	0.60000	0.01388
	S	(!A0 * A1)	0.01860	0.00100	0.01238	0.32940	0.12960	0.01293	2.50740	0.60000	0.01778

Passive power(pJ) for S rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_1	0.01860	0.00408	0.32940	0.00399	2.50740	0.00955
sg13g2_mux2_2	0.01860	0.00408	0.32940	0.00399	2.50740	0.00954

Passive power(pJ) for S falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_1	0.01860	0.00416	0.32940	0.00426	2.50740	0.00995
sg13g2_mux2_2	0.01860	0.00416	0.32940	0.00426	2.50740	0.00995

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_1	(A0 * A1)	0.01860	0.00408	0.32940	0.00399	2.50740	0.00955
	(!A0 * !A1)	0.01860	0.00378	0.32940	0.00382	2.50740	0.00935
sg13g2_mux2_2	(A0 * A1)	0.01860	0.00408	0.32940	0.00399	2.50740	0.00954
	(!A0 * !A1)	0.01860	0.00378	0.32940	0.00381	2.50740	0.00935

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_1	(A0 * A1)	0.01860	0.00391	0.32940	0.00408	2.50740	0.00974
	(!A0 * !A1)	0.01860	0.00416	0.32940	0.00426	2.50740	0.00995
sg13g2_mux2_2	(A0 * A1)	0.01860	0.00391	0.32940	0.00408	2.50740	0.00974
	(!A0 * !A1)	0.01860	0.00416	0.32940	0.00426	2.50740	0.00995

MUX4



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT						OUTPUT
A0	A1	A2	A3	S0	S1	X
0	0	0	0	x	x	0
0	x	0	1	0	x	0
x	0	x	1	1	0	0
x	x	x	1	1	1	1
0	0	1	x	x	0	0
0	x	1	x	0	1	1
0	x	1	0	1	1	0
0	1	0	x	0	x	0
0	1	x	x	1	0	1
0	1	x	0	1	1	0
0	1	1	x	0	0	0
1	0	0	x	0	0	1
1	x	0	0	x	1	0
1	0	x	0	1	x	0
1	x	0	1	0	1	0
1	x	1	x	0	x	1
1	1	0	x	x	0	1
1	1	1	x	1	0	1
1	1	1	0	1	1	0

Footprint

Cell Name	Area
sg13g2_mux4_1	38.10240

Pin Capacitance Information

Cell Name	Pin Cap(pf)						Max Cap(pf)
	A0	A1	A2	A3	S0	S1	
sg13g2_mux4_1	0.00278	0.00276	0.00278	0.00284	0.00825	0.00502	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux4_1	346.84400	464.97500	578.35800

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	A0->X (RR)	0.01860	0.00100	0.13749	0.32940	0.06480	0.44293	2.50740	0.30000	1.43168
	A1->X (RR)	0.01860	0.00100	0.13312	0.32940	0.06480	0.44143	2.50740	0.30000	1.43010
	A2->X (RR)	0.01860	0.00100	0.14247	0.32940	0.06480	0.45257	2.50740	0.30000	1.45701
	A3->X (RR)	0.01860	0.00100	0.13843	0.32940	0.06480	0.45058	2.50740	0.30000	1.45343
	S0->X (-R)	0.01860	0.00100	0.12047	0.32940	0.06480	0.43598	2.50740	0.30000	1.41562
	S1->X (-R)	0.01860	0.00100	0.07128	0.32940	0.06480	0.35437	2.50740	0.30000	1.22338

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	A0->X (FF)	0.01860	0.00100	0.16011	0.32940	0.06480	0.44049	2.50740	0.30000	1.25803
	A1->X (FF)	0.01860	0.00100	0.16178	0.32940	0.06480	0.44008	2.50740	0.30000	1.25928
	A2->X (FF)	0.01860	0.00100	0.16988	0.32940	0.06480	0.45431	2.50740	0.30000	1.28795
	A3->X (FF)	0.01860	0.00100	0.17165	0.32940	0.06480	0.45347	2.50740	0.30000	1.28630
	S0->X (-F)	0.01860	0.00100	0.14782	0.32940	0.06480	0.44059	2.50740	0.30000	1.28045
	S1->X (-F)	0.01860	0.00100	0.08710	0.32940	0.06480	0.34845	2.50740	0.30000	1.09407

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	S0->X (RR)	(!A2 * A3 * S1)	0.01860	0.00100	0.12047	0.32940	0.06480	0.43598	2.50740	0.30000	1.41562
	S0->X (RR)	(!A0 * A1 * !S1)	0.01860	0.00100	0.11358	0.32940	0.06480	0.42167	2.50740	0.30000	1.38160
	S0->X (FR)	(A2 * !A3 * S1)	0.01860	0.00100	0.17578	0.32940	0.06480	0.47372	2.50740	0.30000	1.34459
	S0->X (FR)	(A0 * !A1 * !S1)	0.01860	0.00100	0.17041	0.32940	0.06480	0.46629	2.50740	0.30000	1.33335
	S1->X (RR)	(!A1 * A3 * S0)	0.01860	0.00100	0.07149	0.32940	0.06480	0.35436	2.50740	0.30000	1.22302
	S1->X (RR)	(!A0 * A2 * !S0)	0.01860	0.00100	0.07128	0.32940	0.06480	0.35437	2.50740	0.30000	1.22338
	S1->X (FR)	(A1 * !A3 * S0)	0.01860	0.00100	0.09523	0.32940	0.06480	0.37238	2.50740	0.30000	1.16946
	S1->X (FR)	(A0 * !A2 * !S0)	0.01860	0.00100	0.09493	0.32940	0.06480	0.37254	2.50740	0.30000	1.16931

Delay(ns) to X falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	S0->X (FF)	(!A2 * A3 * S1)	0.01860	0.00100	0.14782	0.32940	0.06480	0.44059	2.50740	0.30000	1.28045
	S0->X (FF)	(!A0 * A1 * !S1)	0.01860	0.00100	0.13458	0.32940	0.06480	0.42082	2.50740	0.30000	1.23933
	S0->X (RF)	(A2 * !A3 * S1)	0.01860	0.00100	0.19484	0.32940	0.06480	0.47774	2.50740	0.30000	1.25271
	S0->X (RF)	(A0 * !A1 * !S1)	0.01860	0.00100	0.18397	0.32940	0.06480	0.46353	2.50740	0.30000	1.23520
	S1->X (FF)	(!A1 * A3 * S0)	0.01860	0.00100	0.08724	0.32940	0.06480	0.34880	2.50740	0.30000	1.09371
	S1->X (FF)	(!A0 * A2 * !S0)	0.01860	0.00100	0.08710	0.32940	0.06480	0.34845	2.50740	0.30000	1.09407
	S1->X (RF)	(A1 * !A3 * S0)	0.01860	0.00100	0.10733	0.32940	0.06480	0.37041	2.50740	0.30000	1.07779
	S1->X (RF)	(A0 * !A2 * !S0)	0.01860	0.00100	0.10757	0.32940	0.06480	0.37048	2.50740	0.30000	1.07771

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	A0	0.01860	0.00100	0.01773	0.32940	0.06480	0.01769	2.50740	0.30000	0.02139
	A1	0.01860	0.00100	0.01849	0.32940	0.06480	0.01840	2.50740	0.30000	0.02225
	A2	0.01860	0.00100	0.01903	0.32940	0.06480	0.01900	2.50740	0.30000	0.02288
	A3	0.01860	0.00100	0.01792	0.32940	0.06480	0.01786	2.50740	0.30000	0.02154
	S0	0.01860	0.00100	0.00130	0.32940	0.06480	-0.00060	2.50740	0.30000	0.01126
	S1	0.01860	0.00100	0.00744	0.32940	0.06480	0.00854	2.50740	0.30000	0.01250

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	A0	0.01860	0.00100	0.01290	0.32940	0.06480	0.01303	2.50740	0.30000	0.01706
	A1	0.01860	0.00100	0.01316	0.32940	0.06480	0.01331	2.50740	0.30000	0.01737
	A2	0.01860	0.00100	0.01814	0.32940	0.06480	0.01827	2.50740	0.30000	0.02237
	A3	0.01860	0.00100	0.01389	0.32940	0.06480	0.01398	2.50740	0.30000	0.01813
	S0	0.01860	0.00100	0.00797	0.32940	0.06480	0.00818	2.50740	0.30000	0.01379
	S1	0.01860	0.00100	0.00462	0.32940	0.06480	0.00506	2.50740	0.30000	0.01069

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	S0	(A2 * !A3 * S1)	0.01860	0.00100	0.01262	0.32940	0.06480	0.01114	2.50740	0.30000	0.00453
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	0.01262	0.32940	0.06480	0.01119	2.50740	0.30000	0.00454
	S0	(!A2 * A3 * S1)	0.01860	0.00100	0.00130	0.32940	0.06480	-0.00060	2.50740	0.30000	0.01126
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	0.00136	0.32940	0.06480	-0.00065	2.50740	0.30000	0.01083
	S1	(A1 * !A3 * S0)	0.01860	0.00100	0.00744	0.32940	0.06480	0.00854	2.50740	0.30000	0.01250
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	0.00744	0.32940	0.06480	0.00854	2.50740	0.30000	0.01257
	S1	(!A1 * A3 * S0)	0.01860	0.00100	0.00514	0.32940	0.06480	0.00536	2.50740	0.30000	0.01059
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	0.00510	0.32940	0.06480	0.00537	2.50740	0.30000	0.01063

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	S0	(A2 * !A3 * S1)	0.01860	0.00100	0.01198	0.32940	0.06480	0.01168	2.50740	0.30000	0.01184
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	0.01188	0.32940	0.06480	0.01200	2.50740	0.30000	0.01207
	S0	(!A2 * A3 * S1)	0.01860	0.00100	0.00813	0.32940	0.06480	0.00779	2.50740	0.30000	0.01368
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	0.00797	0.32940	0.06480	0.00818	2.50740	0.30000	0.01379
	S1	(A1 * !A3 * S0)	0.01860	0.00100	0.00696	0.32940	0.06480	0.00832	2.50740	0.30000	0.01208
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	0.00696	0.32940	0.06480	0.00828	2.50740	0.30000	0.01208
	S1	(!A1 * A3 * S0)	0.01860	0.00100	0.00462	0.32940	0.06480	0.00506	2.50740	0.30000	0.01069
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	0.00398	0.32940	0.06480	0.00441	2.50740	0.30000	0.00992

Passive power(pJ) for S0 rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.01568	0.32940	0.01794	2.50740	0.02456

Passive power(pJ) for S0 falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.01169	0.32940	0.01318	2.50740	0.02636

Passive power(pJ) for S0 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	(A2 * A3 * S1)	0.01860	0.01500	0.32940	0.01681	2.50740	0.02357
	(A0 * A1 * !S1)	0.01860	0.01568	0.32940	0.01794	2.50740	0.02456
	(!A2 * !A3 * S1)	0.01860	0.01529	0.32940	0.01709	2.50740	0.02394
	(!A0 * !A1 * !S1)	0.01860	0.01627	0.32940	0.01858	2.50740	0.02522

Passive power(pJ) for S0 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	(A2 * A3 * S1)	0.01860	0.01036	0.32940	0.01131	2.50740	0.02469
	(A0 * A1 * !S1)	0.01860	0.01169	0.32940	0.01318	2.50740	0.02636
	(!A2 * !A3 * S1)	0.01860	0.01019	0.32940	0.01110	2.50740	0.02437
	(!A0 * !A1 * !S1)	0.01860	0.01643	0.32940	0.01903	2.50740	0.02555

Passive power(pJ) for S1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.00441	0.32940	0.00471	2.50740	0.01176

Passive power(pJ) for S1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.00425	0.32940	0.00472	2.50740	0.01193

Passive power(pJ) for S1 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	(A1 * A3 * S0)	0.01860	0.00428	0.32940	0.00457	2.50740	0.01158
	(A0 * A2 * !S0)	0.01860	0.00427	0.32940	0.00456	2.50740	0.01158
	(!A1 * !A3 * S0)	0.01860	0.00441	0.32940	0.00471	2.50740	0.01176
	(!A0 * !A2 * !S0)	0.01860	0.00442	0.32940	0.00473	2.50740	0.01174

Passive power(pJ) for S1 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	(A1 * A3 * S0)	0.01860	0.00427	0.32940	0.00478	2.50740	0.01214
	(A0 * A2 * !S0)	0.01860	0.00426	0.32940	0.00476	2.50740	0.01209
	(!A1 * !A3 * S0)	0.01860	0.00424	0.32940	0.00472	2.50740	0.01192
	(!A0 * !A2 * !S0)	0.01860	0.00425	0.32940	0.00472	2.50740	0.01193

NAND2BX



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp
25.00*

Truth Table

INPUT		OUTPUT
A_N	B	Y
x	0	1
0	1	0
1	1	1

Footprint

Cell Name	Area
sg13g2_nand2b_1	9.07200
sg13g2_nand2b_2	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A_N	B	Y
sg13g2_nand2b_1	0.00224	0.00303	0.30000
sg13g2_nand2b_2	0.00220	0.00562	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_1	74.95490	128.61800	196.39500
sg13g2_nand2b_2	148.67300	207.93000	357.85200

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2b_1	A_N->Y (RR)	0.01860	0.00100	0.05209	0.32940	0.06480	0.32004	2.50740	0.30000	1.18183
	B->Y (FR)	0.01860	0.00100	0.02616	0.32940	0.06480	0.37044	2.50740	0.30000	2.06406
sg13g2_nand2b_2	A_N->Y (RR)	0.01860	0.00100	0.06790	0.32940	0.12960	0.35961	2.50740	0.60000	1.27610
	B->Y (FR)	0.01860	0.00100	0.02024	0.32940	0.12960	0.36516	2.50740	0.60000	2.05773

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2b_1	A_N->Y (FF)	0.01860	0.00100	0.06265	0.32940	0.06480	0.41121	2.50740	0.30000	1.53455
	B->Y (RF)	0.01860	0.00100	0.03786	0.32940	0.06480	0.44128	2.50740	0.30000	2.32408
sg13g2_nand2b_2	A_N->Y (FF)	0.01860	0.00100	0.08421	0.32940	0.12960	0.47235	2.50740	0.60000	1.71059
	B->Y (RF)	0.01860	0.00100	0.02750	0.32940	0.12960	0.46753	2.50740	0.60000	2.53376

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2b_1	A_N	0.01860	0.00100	0.00193	0.32940	0.06480	0.00194	2.50740	0.30000	0.00185
	B	0.01860	0.00100	0.00204	0.32940	0.06480	0.00202	2.50740	0.30000	0.00307
sg13g2_nand2b_2	A_N	0.01860	0.00100	0.00378	0.32940	0.12960	0.00369	2.50740	0.60000	0.00352
	B	0.01860	0.00100	0.00290	0.32940	0.12960	0.00334	2.50740	0.60000	0.00549

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2b_1	A_N	0.01860	0.00100	0.00410	0.32940	0.06480	0.00431	2.50740	0.30000	0.00405
	B	0.01860	0.00100	0.00411	0.32940	0.06480	0.00411	2.50740	0.30000	0.00478
sg13g2_nand2b_2	A_N	0.01860	0.00100	0.00819	0.32940	0.12960	0.00880	2.50740	0.60000	0.00816
	B	0.01860	0.00100	0.00441	0.32940	0.12960	0.00477	2.50740	0.60000	0.00666

Passive power(pJ) for A_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_1	0.01860	0.00407	0.32940	0.00427	2.50740	0.00998
sg13g2_nand2b_2	0.01860	0.00661	0.32940	0.00644	2.50740	0.01154

Passive power(pJ) for A_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_1	0.01860	0.00231	0.32940	0.00256	2.50740	0.00836
sg13g2_nand2b_2	0.01860	0.00618	0.32940	0.00621	2.50740	0.01148

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_1	!B	0.01860	0.00407	0.32940	0.00427	2.50740	0.00998
sg13g2_nand2b_2	!B	0.01860	0.00661	0.32940	0.00644	2.50740	0.01154

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_1	!B	0.01860	0.00231	0.32940	0.00256	2.50740	0.00836
sg13g2_nand2b_2	!B	0.01860	0.00618	0.32940	0.00621	2.50740	0.01148

NAND2x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_nand2_1	7.25760
sg13g2_nand2_2	10.88640

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_nand2_1	0.00289	0.00298	0.30000
sg13g2_nand2_2	0.00559	0.00571	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2_1	43.35500	81.24560	164.78900
sg13g2_nand2_2	85.57640	160.59500	326.29100

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2_1	A->Y (FR)	0.01860	0.00100	0.02272	0.32940	0.06480	0.36541	2.50740	0.30000	2.05647
	B->Y (FR)	0.01860	0.00100	0.02648	0.32940	0.06480	0.36985	2.50740	0.30000	2.06205
sg13g2_nand2_2	A->Y (FR)	0.01860	0.00100	0.02044	0.32940	0.12960	0.36562	2.50740	0.60000	2.05927
	B->Y (FR)	0.01860	0.00100	0.02461	0.32940	0.12960	0.37031	2.50740	0.60000	2.06489

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2_1	A->Y (RF)	0.01860	0.00100	0.03015	0.32940	0.06480	0.45549	2.50740	0.30000	2.47157
	B->Y (RF)	0.01860	0.00100	0.03506	0.32940	0.06480	0.43819	2.50740	0.30000	2.31785
sg13g2_nand2_2	A->Y (RF)	0.01860	0.00100	0.02776	0.32940	0.12960	0.46749	2.50740	0.60000	2.53313
	B->Y (RF)	0.01860	0.00100	0.03354	0.32940	0.12960	0.45089	2.50740	0.60000	2.37824

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2_1	A	0.01860	0.00100	0.00167	0.32940	0.06480	0.00183	2.50740	0.30000	0.00290
	B	0.01860	0.00100	0.00192	0.32940	0.06480	0.00188	2.50740	0.30000	0.00296
sg13g2_nand2_2	A	0.01860	0.00100	0.00294	0.32940	0.12960	0.00338	2.50740	0.60000	0.00541
	B	0.01860	0.00100	0.00384	0.32940	0.12960	0.00377	2.50740	0.60000	0.00571

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2_1	A	0.01860	0.00100	0.00235	0.32940	0.06480	0.00246	2.50740	0.30000	0.00335
	B	0.01860	0.00100	0.00409	0.32940	0.06480	0.00409	2.50740	0.30000	0.00474
sg13g2_nand2_2	A	0.01860	0.00100	0.00442	0.32940	0.12960	0.00482	2.50740	0.60000	0.00657
	B	0.01860	0.00100	0.00781	0.32940	0.12960	0.00791	2.50740	0.60000	0.00911

NAND3B



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
A_N	B	C	Y
x	0	x	1
x	1	0	1
0	1	1	0
1	1	1	1

Footprint

Cell Name	Area
sg13g2_nand3b_1	12.70080

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A_N	B	C	
sg13g2_nand3b_1	0.00222	0.00297	0.00299	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3b_1	76.84160	134.52400	278.72700

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_nand3b_1	A_N->Y (RR)	0.01860	0.00100	0.05491	0.32940	0.06480	0.32172	2.50740	0.30000	1.18019
	B->Y (FR)	0.01860	0.00100	0.02918	0.32940	0.06480	0.37343	2.50740	0.30000	2.06706
	C->Y (FR)	0.01860	0.00100	0.03151	0.32940	0.06480	0.37711	2.50740	0.30000	2.07152

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_nand3b_1	A_N->Y (FF)	0.01860	0.00100	0.07615	0.32940	0.06480	0.54110	2.50740	0.30000	2.09688
	B->Y (RF)	0.01860	0.00100	0.05623	0.32940	0.06480	0.57299	2.50740	0.30000	2.89043
	C->Y (RF)	0.01860	0.00100	0.06023	0.32940	0.06480	0.55632	2.50740	0.30000	2.71271

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3b_1	A_N	0.01860	0.00100	0.00207	0.32940	0.06480	0.00203	2.50740	0.30000	0.00194
	B	0.01860	0.00100	0.00224	0.32940	0.06480	0.00218	2.50740	0.30000	0.00307
	C	0.01860	0.00100	0.00247	0.32940	0.06480	0.00231	2.50740	0.30000	0.00325

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3b_1	A_N	0.01860	0.00100	0.00539	0.32940	0.06480	0.00552	2.50740	0.30000	0.00495
	B	0.01860	0.00100	0.00538	0.32940	0.06480	0.00537	2.50740	0.30000	0.00561
	C	0.01860	0.00100	0.00687	0.32940	0.06480	0.00689	2.50740	0.30000	0.00704

Passive power(pJ) for A_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand3b_1	0.01860	0.00407	0.32940	0.00428	2.50740	0.00998

Passive power(pJ) for A_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand3b_1	0.01860	0.00229	0.32940	0.00254	2.50740	0.00834

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand3b_1	(B * !C) + (!B)	0.01860	0.00407	0.32940	0.00428	2.50740	0.00998

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand3b_1	(B * !C) + (!B)	0.01860	0.00229	0.32940	0.00254	2.50740	0.00834

NAND3



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_nand3_1	9.07200

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	Y
sg13g2_nand3_1	0.00288	0.00301	0.00298	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3_1	45.27960	87.18480	247.17300

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3_1	A->Y (FR)	0.01860	0.00100	0.02562	0.32940	0.06480	0.36850	2.50740	0.30000	2.06045
	B->Y (FR)	0.01860	0.00100	0.02954	0.32940	0.06480	0.37306	2.50740	0.30000	2.06682
	C->Y (FR)	0.01860	0.00100	0.03139	0.32940	0.06480	0.37680	2.50740	0.30000	2.07117

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3_1	A->Y (RF)	0.01860	0.00100	0.04393	0.32940	0.06480	0.57586	2.50740	0.30000	2.99382
	B->Y (RF)	0.01860	0.00100	0.05331	0.32940	0.06480	0.56988	2.50740	0.30000	2.88425
	C->Y (RF)	0.01860	0.00100	0.05715	0.32940	0.06480	0.55316	2.50740	0.30000	2.70611

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3_1	A	0.01860	0.00100	0.00183	0.32940	0.06480	0.00195	2.50740	0.30000	0.00284
	B	0.01860	0.00100	0.00208	0.32940	0.06480	0.00200	2.50740	0.30000	0.00290
	C	0.01860	0.00100	0.00233	0.32940	0.06480	0.00215	2.50740	0.30000	0.00329

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3_1	A	0.01860	0.00100	0.00365	0.32940	0.06480	0.00381	2.50740	0.30000	0.00422
	B	0.01860	0.00100	0.00541	0.32940	0.06480	0.00537	2.50740	0.30000	0.00556
	C	0.01860	0.00100	0.00688	0.32940	0.06480	0.00690	2.50740	0.30000	0.00701

NAND4



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_nand4_1	10.88640

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	
sg13g2_nand4_1	0.00287	0.00301	0.00303	0.00300	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand4_1	47.46070	91.57180	329.65400

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand4_1	A->Y (FR)	0.01860	0.00100	0.02726	0.32940	0.06480	0.37023	2.50740	0.30000	2.06166
	B->Y (FR)	0.01860	0.00100	0.03125	0.32940	0.06480	0.37490	2.50740	0.30000	2.06782
	C->Y (FR)	0.01860	0.00100	0.03342	0.32940	0.06480	0.37897	2.50740	0.30000	2.07381
	D->Y (FR)	0.01860	0.00100	0.03420	0.32940	0.06480	0.38221	2.50740	0.30000	2.07837

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand4_1	A->Y (RF)	0.01860	0.00100	0.05714	0.32940	0.06480	0.69756	2.50740	0.30000	3.51281
	B->Y (RF)	0.01860	0.00100	0.07121	0.32940	0.06480	0.70115	2.50740	0.30000	3.43739
	C->Y (RF)	0.01860	0.00100	0.07919	0.32940	0.06480	0.69230	2.50740	0.30000	3.28792
	D->Y (RF)	0.01860	0.00100	0.08296	0.32940	0.06480	0.68493	2.50740	0.30000	3.15966

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand4_1	A	0.01860	0.00100	0.00189	0.32940	0.06480	0.00201	2.50740	0.30000	0.00291
	B	0.01860	0.00100	0.00215	0.32940	0.06480	0.00206	2.50740	0.30000	0.00274
	C	0.01860	0.00100	0.00242	0.32940	0.06480	0.00222	2.50740	0.30000	0.00296
	D	0.01860	0.00100	0.00263	0.32940	0.06480	0.00242	2.50740	0.30000	0.00324

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand4_1	A	0.01860	0.00100	0.00440	0.32940	0.06480	0.00437	2.50740	0.30000	0.00523
	B	0.01860	0.00100	0.00618	0.32940	0.06480	0.00601	2.50740	0.30000	0.00658
	C	0.01860	0.00100	0.00768	0.32940	0.06480	0.00752	2.50740	0.30000	0.00807
	D	0.01860	0.00100	0.00911	0.32940	0.06480	0.00896	2.50740	0.30000	0.00933

NOR2Bx



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT		OUTPUT
A	B_N	Y
x	0	0
0	1	1
1	1	0

Footprint

Cell Name	Area
sg13g2_nor2b_1	9.07200
sg13g2_nor2b_2	12.70080

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B_N	Y
sg13g2_nor2b_1	0.00292	0.00227	0.30000
sg13g2_nor2b_2	0.00567	0.00268	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2b_1	97.25820	130.25800	166.69400
sg13g2_nor2b_2	165.68700	219.03100	278.86400

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2b_1	A->Y (FR)	0.01860	0.00100	0.03532	0.32940	0.06480	0.54959	2.50740	0.30000	2.89765
	B_N->Y (RR)	0.01860	0.00100	0.07189	0.32940	0.06480	0.52910	2.50740	0.30000	2.08124
sg13g2_nor2b_2	A->Y (FR)	0.01860	0.00100	0.03072	0.32940	0.12960	0.54838	2.50740	0.60000	2.89584
	B_N->Y (RR)	0.01860	0.00100	0.07856	0.32940	0.12960	0.55546	2.50740	0.60000	2.15312

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2b_1	A->Y (RF)	0.01860	0.00100	0.02186	0.32940	0.06480	0.33952	2.50740	0.30000	1.92662
	B_N->Y (FF)	0.01860	0.00100	0.05893	0.32940	0.06480	0.29350	2.50740	0.30000	0.99476
sg13g2_nor2b_2	A->Y (RF)	0.01860	0.00100	0.02005	0.32940	0.12960	0.34723	2.50740	0.60000	1.96978
	B_N->Y (FF)	0.01860	0.00100	0.07005	0.32940	0.12960	0.32750	2.50740	0.60000	1.08365

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2b_1	A	0.01860	0.00100	0.00214	0.32940	0.06480	0.00223	2.50740	0.30000	0.00316
	B_N	0.01860	0.00100	0.00437	0.32940	0.06480	0.00455	2.50740	0.30000	0.00397
sg13g2_nor2b_2	A	0.01860	0.00100	0.00422	0.32940	0.12960	0.00453	2.50740	0.60000	0.00647
	B_N	0.01860	0.00100	0.00842	0.32940	0.12960	0.00878	2.50740	0.60000	0.00788

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2b_1	A	0.01860	0.00100	0.00187	0.32940	0.06480	0.00208	2.50740	0.30000	0.00311
	B_N	0.01860	0.00100	0.00233	0.32940	0.06480	0.00233	2.50740	0.30000	0.00224
sg13g2_nor2b_2	A	0.01860	0.00100	0.00291	0.32940	0.12960	0.00354	2.50740	0.60000	0.00571
	B_N	0.01860	0.00100	0.00419	0.32940	0.12960	0.00419	2.50740	0.60000	0.00396

Passive power(pJ) for B_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_1	0.01860	0.00416	0.32940	0.00424	2.50740	0.00982
sg13g2_nor2b_2	0.01860	0.00738	0.32940	0.00731	2.50740	0.01367

Passive power(pJ) for B_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_1	0.01860	0.00370	0.32940	0.00389	2.50740	0.00955
sg13g2_nor2b_2	0.01860	0.00629	0.32940	0.00641	2.50740	0.01275

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_1	A	0.01860	0.00416	0.32940	0.00424	2.50740	0.00982
sg13g2_nor2b_2	A	0.01860	0.00738	0.32940	0.00731	2.50740	0.01367

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_1	A	0.01860	0.00370	0.32940	0.00389	2.50740	0.00955
sg13g2_nor2b_2	A	0.01860	0.00629	0.32940	0.00641	2.50740	0.01275

NOR2X



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_nor2_1	7.25760
sg13g2_nor2_2	10.88640

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_nor2_1	0.00304	0.00292	0.30000
sg13g2_nor2_2	0.00580	0.00560	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2_1	65.68830	82.92350	103.60100
sg13g2_nor2_2	131.42600	165.86100	207.25700

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2_1	A->Y (FR)	0.01860	0.00100	0.04195	0.32940	0.06480	0.52887	2.50740	0.30000	2.68189
	B->Y (FR)	0.01860	0.00100	0.03544	0.32940	0.06480	0.54924	2.50740	0.30000	2.89652
sg13g2_nor2_2	A->Y (FR)	0.01860	0.00100	0.03939	0.32940	0.06480	0.33802	2.50740	0.30000	1.72753
	B->Y (FR)	0.01860	0.00100	0.03106	0.32940	0.06480	0.35427	2.50740	0.30000	1.90204

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2_1	A->Y (RF)	0.01860	0.00100	0.02515	0.32940	0.06480	0.34378	2.50740	0.30000	1.93182
	B->Y (RF)	0.01860	0.00100	0.02194	0.32940	0.06480	0.33953	2.50740	0.30000	1.92656
sg13g2_nor2_2	A->Y (RF)	0.01860	0.00100	0.02364	0.32940	0.06480	0.24616	2.50740	0.30000	1.36156
	B->Y (RF)	0.01860	0.00100	0.01976	0.32940	0.06480	0.23980	2.50740	0.30000	1.35258

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2_1	A	0.01860	0.00100	0.00432	0.32940	0.06480	0.00424	2.50740	0.30000	0.00493
	B	0.01860	0.00100	0.00215	0.32940	0.06480	0.00224	2.50740	0.30000	0.00327
sg13g2_nor2_2	A	0.01860	0.00100	0.00872	0.32940	0.06480	0.00863	2.50740	0.30000	0.01174
	B	0.01860	0.00100	0.00431	0.32940	0.06480	0.00469	2.50740	0.30000	0.00883

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2_1	A	0.01860	0.00100	0.00203	0.32940	0.06480	0.00194	2.50740	0.30000	0.00310
	B	0.01860	0.00100	0.00186	0.32940	0.06480	0.00207	2.50740	0.30000	0.00312
sg13g2_nor2_2	A	0.01860	0.00100	0.00405	0.32940	0.06480	0.00403	2.50740	0.30000	0.00793
	B	0.01860	0.00100	0.00285	0.32940	0.06480	0.00341	2.50740	0.30000	0.00750

NOR3x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_nor3_1	9.07200
sg13g2_nor3_2	16.32960

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	
sg13g2_nor3_1	0.00301	0.00302	0.00290	0.30000
sg13g2_nor3_2	0.00576	0.00575	0.00557	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor3_1	69.66900	95.08410	133.66500
sg13g2_nor3_2	134.33600	185.71000	261.22200

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor3_1	A->Y (FR)	0.01860	0.00100	0.07677	0.32940	0.06480	0.73031	2.50740	0.30000	3.38852
	B->Y (FR)	0.01860	0.00100	0.07133	0.32940	0.06480	0.74307	2.50740	0.30000	3.58586
	C->Y (FR)	0.01860	0.00100	0.05497	0.32940	0.06480	0.74326	2.50740	0.30000	3.72150
sg13g2_nor3_2	A->Y (FR)	0.01860	0.00100	0.06982	0.32940	0.12960	0.73100	2.50740	0.60000	3.39595
	B->Y (FR)	0.01860	0.00100	0.06470	0.32940	0.12960	0.74456	2.50740	0.60000	3.59840
	C->Y (FR)	0.01860	0.00100	0.04630	0.32940	0.12960	0.74282	2.50740	0.60000	3.73142

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor3_1	A->Y (RF)	0.01860	0.00100	0.02780	0.32940	0.06480	0.34248	2.50740	0.30000	1.89721
	B->Y (RF)	0.01860	0.00100	0.02736	0.32940	0.06480	0.33955	2.50740	0.30000	1.89610
	C->Y (RF)	0.01860	0.00100	0.02386	0.32940	0.06480	0.33476	2.50740	0.30000	1.88945
sg13g2_nor3_2	A->Y (RF)	0.01860	0.00100	0.02627	0.32940	0.12960	0.35032	2.50740	0.60000	1.94158
	B->Y (RF)	0.01860	0.00100	0.02600	0.32940	0.12960	0.34673	2.50740	0.60000	1.93762
	C->Y (RF)	0.01860	0.00100	0.02192	0.32940	0.12960	0.34134	2.50740	0.60000	1.93061

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor3_1	A	0.01860	0.00100	0.00738	0.32940	0.06480	0.00723	2.50740	0.30000	0.00840
	B	0.01860	0.00100	0.00547	0.32940	0.06480	0.00535	2.50740	0.30000	0.00606
	C	0.01860	0.00100	0.00334	0.32940	0.06480	0.00337	2.50740	0.30000	0.00441
sg13g2_nor3_2	A	0.01860	0.00100	0.01431	0.32940	0.12960	0.01406	2.50740	0.60000	0.01564
	B	0.01860	0.00100	0.01050	0.32940	0.12960	0.01031	2.50740	0.60000	0.01162
	C	0.01860	0.00100	0.00615	0.32940	0.12960	0.00629	2.50740	0.60000	0.00834

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor3_1	A	0.01860	0.00100	0.00274	0.32940	0.06480	0.00251	2.50740	0.30000	0.00353
	B	0.01860	0.00100	0.00246	0.32940	0.06480	0.00233	2.50740	0.30000	0.00342
	C	0.01860	0.00100	0.00202	0.32940	0.06480	0.00216	2.50740	0.30000	0.00315
sg13g2_nor3_2	A	0.01860	0.00100	0.00501	0.32940	0.12960	0.00461	2.50740	0.60000	0.00670
	B	0.01860	0.00100	0.00455	0.32940	0.12960	0.00438	2.50740	0.60000	0.00636
	C	0.01860	0.00100	0.00318	0.32940	0.12960	0.00368	2.50740	0.60000	0.00569

NOR4x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_nor4_1	10.88640
sg13g2_nor4_2	21.77280

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	
sg13g2_nor4_1	0.00299	0.00300	0.00297	0.00283	0.30000
sg13g2_nor4_2	0.00576	0.00572	0.00567	0.00553	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor4_1	69.49250	99.76180	174.14900
sg13g2_nor4_2	138.96000	199.53600	348.29600

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor4_1	A->Y (FR)	0.01860	0.00100	0.11587	0.32940	0.06480	0.95079	2.50740	0.30000	4.17770
	B->Y (FR)	0.01860	0.00100	0.11097	0.32940	0.06480	0.95424	2.50740	0.30000	4.31428
	C->Y (FR)	0.01860	0.00100	0.09763	0.32940	0.06480	0.95419	2.50740	0.30000	4.46944
	D->Y (FR)	0.01860	0.00100	0.07128	0.32940	0.06480	0.93948	2.50740	0.30000	4.55137
sg13g2_nor4_2	A->Y (FR)	0.01860	0.00100	0.11119	0.32940	0.12960	0.95750	2.50740	0.60000	4.20256
	B->Y (FR)	0.01860	0.00100	0.10637	0.32940	0.12960	0.96151	2.50740	0.60000	4.33662
	C->Y (FR)	0.01860	0.00100	0.09148	0.32940	0.12960	0.95900	2.50740	0.60000	4.48938
	D->Y (FR)	0.01860	0.00100	0.06228	0.32940	0.12960	0.94177	2.50740	0.60000	4.57069

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor4_1	A->Y (RF)	0.01860	0.00100	0.02947	0.32940	0.06480	0.35568	2.50740	0.30000	1.94764
	B->Y (RF)	0.01860	0.00100	0.03021	0.32940	0.06480	0.35333	2.50740	0.30000	1.94678
	C->Y (RF)	0.01860	0.00100	0.02921	0.32940	0.06480	0.34891	2.50740	0.30000	1.94061
	D->Y (RF)	0.01860	0.00100	0.02545	0.32940	0.06480	0.34431	2.50740	0.30000	1.93492
sg13g2_nor4_2	A->Y (RF)	0.01860	0.00100	0.02763	0.32940	0.12960	0.35594	2.50740	0.60000	1.94946
	B->Y (RF)	0.01860	0.00100	0.02847	0.32940	0.12960	0.35308	2.50740	0.60000	1.94618
	C->Y (RF)	0.01860	0.00100	0.02755	0.32940	0.12960	0.34871	2.50740	0.60000	1.93899
	D->Y (RF)	0.01860	0.00100	0.02358	0.32940	0.12960	0.34293	2.50740	0.60000	1.93068

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor4_1	A	0.01860	0.00100	0.00969	0.32940	0.06480	0.00962	2.50740	0.30000	0.00981
	B	0.01860	0.00100	0.00782	0.32940	0.06480	0.00772	2.50740	0.30000	0.00802
	C	0.01860	0.00100	0.00596	0.32940	0.06480	0.00596	2.50740	0.30000	0.00619
	D	0.01860	0.00100	0.00387	0.32940	0.06480	0.00385	2.50740	0.30000	0.00471
sg13g2_nor4_2	A	0.01860	0.00100	0.01964	0.32940	0.12960	0.01964	2.50740	0.60000	0.02007
	B	0.01860	0.00100	0.01596	0.32940	0.12960	0.01593	2.50740	0.60000	0.01624
	C	0.01860	0.00100	0.01227	0.32940	0.12960	0.01202	2.50740	0.60000	0.01294
	D	0.01860	0.00100	0.00790	0.32940	0.12960	0.00813	2.50740	0.60000	0.00967

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor4_1	A	0.01860	0.00100	0.00316	0.32940	0.06480	0.00287	2.50740	0.30000	0.00372
	B	0.01860	0.00100	0.00297	0.32940	0.06480	0.00274	2.50740	0.30000	0.00362
	C	0.01860	0.00100	0.00257	0.32940	0.06480	0.00255	2.50740	0.30000	0.00337
	D	0.01860	0.00100	0.00208	0.32940	0.06480	0.00233	2.50740	0.30000	0.00322
sg13g2_nor4_2	A	0.01860	0.00100	0.00623	0.32940	0.12960	0.00570	2.50740	0.60000	0.00768
	B	0.01860	0.00100	0.00582	0.32940	0.12960	0.00535	2.50740	0.60000	0.00724
	C	0.01860	0.00100	0.00468	0.32940	0.12960	0.00463	2.50740	0.60000	0.00635
	D	0.01860	0.00100	0.00333	0.32940	0.12960	0.00387	2.50740	0.60000	0.00574

O21AI



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
A1	A2	B1	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
sg13g2_o21ai_1	9.07200

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	Y
sg13g2_o21ai_1	0.00337	0.00334	0.00321	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_o21ai_1	81.52140	126.64800	169.70000

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	A1->Y (FR)	0.01860	0.00100	0.06685	0.32940	0.06480	0.62658	2.50740	0.30000	3.04504
	A2->Y (FR)	0.01860	0.00100	0.05846	0.32940	0.06480	0.64598	2.50740	0.30000	3.28784
	B1->Y (FR)	0.01860	0.00100	0.02621	0.32940	0.06480	0.41115	2.50740	0.30000	2.29606

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	A1->Y (RF)	0.01860	0.00100	0.04632	0.32940	0.06480	0.44461	2.50740	0.30000	2.26400
	A2->Y (RF)	0.01860	0.00100	0.03934	0.32940	0.06480	0.43562	2.50740	0.30000	2.25106
	B1->Y (RF)	0.01860	0.00100	0.03053	0.32940	0.06480	0.45067	2.50740	0.30000	2.42144

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.02621	0.32940	0.06480	0.41115	2.50740	0.30000	2.29606

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.03053	0.32940	0.06480	0.45067	2.50740	0.30000	2.42144

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	A1	0.01860	0.00100	0.00513	0.32940	0.06480	0.00491	2.50740	0.30000	0.00597
	A2	0.01860	0.00100	0.00275	0.32940	0.06480	0.00262	2.50740	0.30000	0.00402
	B1	0.01860	0.00100	0.00173	0.32940	0.06480	0.00196	2.50740	0.30000	0.00299

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	A1	0.01860	0.00100	0.00478	0.32940	0.06480	0.00456	2.50740	0.30000	0.00540
	A2	0.01860	0.00100	0.00453	0.32940	0.06480	0.00461	2.50740	0.30000	0.00543
	B1	0.01860	0.00100	0.00242	0.32940	0.06480	0.00257	2.50740	0.30000	0.00373

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	B1	(!A1 * A2)	0.01860	0.00100	0.00173	0.32940	0.06480	0.00196	2.50740	0.30000	0.00299

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	B1	(!A1 * A2)	0.01860	0.00100	0.00242	0.32940	0.06480	0.00257	2.50740	0.30000	0.00373

OR2x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT		OUTPUT
A	B	X
0	0	0
x	1	1
1	x	1

Footprint

Cell Name	Area
sg13g2_or2_1	9.07200
sg13g2_or2_2	10.88640

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	
sg13g2_or2_1	0.00247	0.00230	0.30000
sg13g2_or2_2	0.00246	0.00228	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or2_1	90.37420	114.89500	145.58000
sg13g2_or2_2	133.87800	168.11900	227.96300

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or2_1	A->X (RR)	0.01860	0.00100	0.05637	0.32940	0.06480	0.33662	2.50740	0.30000	1.21571
	B->X (RR)	0.01860	0.00100	0.05219	0.32940	0.06480	0.32237	2.50740	0.30000	1.17449
sg13g2_or2_2	A->X (RR)	0.01860	0.00100	0.06658	0.32940	0.12960	0.37124	2.50740	0.60000	1.30641
	B->X (RR)	0.01860	0.00100	0.06267	0.32940	0.12960	0.35927	2.50740	0.60000	1.27516

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or2_1	A->X (FF)	0.01860	0.00100	0.09273	0.32940	0.06480	0.33811	2.50740	0.30000	1.08136
	B->X (FF)	0.01860	0.00100	0.08602	0.32940	0.06480	0.33897	2.50740	0.30000	1.09223
sg13g2_or2_2	A->X (FF)	0.01860	0.00100	0.12057	0.32940	0.12960	0.39391	2.50740	0.60000	1.19526
	B->X (FF)	0.01860	0.00100	0.11423	0.32940	0.12960	0.40104	2.50740	0.60000	1.22599

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or2_1	A	0.01860	0.00100	0.00609	0.32940	0.06480	0.00617	2.50740	0.30000	0.01087
	B	0.01860	0.00100	0.00591	0.32940	0.06480	0.00594	2.50740	0.30000	0.01100
sg13g2_or2_2	A	0.01860	0.00100	0.00995	0.32940	0.12960	0.01023	2.50740	0.60000	0.01443
	B	0.01860	0.00100	0.00983	0.32940	0.12960	0.00996	2.50740	0.60000	0.01449

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or2_1	A	0.01860	0.00100	0.00750	0.32940	0.06480	0.00768	2.50740	0.30000	0.01195
	B	0.01860	0.00100	0.00600	0.32940	0.06480	0.00637	2.50740	0.30000	0.01127
sg13g2_or2_2	A	0.01860	0.00100	0.01138	0.32940	0.12960	0.01164	2.50740	0.60000	0.01511
	B	0.01860	0.00100	0.00993	0.32940	0.12960	0.01015	2.50740	0.60000	0.01477

OR3x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
A	B	C	X
0	0	0	0
0	x	1	1
x	1	x	1
1	x	x	1

Footprint

Cell Name	Area
sg13g2_or3_1	12.70080
sg13g2_or3_2	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	
sg13g2_or3_1	0.00259	0.00253	0.00240	0.30000
sg13g2_or3_2	0.00259	0.00252	0.00240	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or3_1	93.66890	121.92300	187.05400
sg13g2_or3_2	137.31300	170.38500	269.49300

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or3_1	A->X (RR)	0.01860	0.00100	0.06456	0.32940	0.06480	0.36050	2.50740	0.30000	1.28954
	B->X (RR)	0.01860	0.00100	0.06194	0.32940	0.06480	0.34982	2.50740	0.30000	1.25198
	C->X (RR)	0.01860	0.00100	0.05640	0.32940	0.06480	0.33343	2.50740	0.30000	1.20917
sg13g2_or3_2	A->X (RR)	0.01860	0.00100	0.07447	0.32940	0.12960	0.39208	2.50740	0.60000	1.37326
	B->X (RR)	0.01860	0.00100	0.07163	0.32940	0.12960	0.38272	2.50740	0.60000	1.33879
	C->X (RR)	0.01860	0.00100	0.06623	0.32940	0.12960	0.36892	2.50740	0.60000	1.30090

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or3_1	A->X (FF)	0.01860	0.00100	0.13296	0.32940	0.06480	0.38475	2.50740	0.30000	1.11106
	B->X (FF)	0.01860	0.00100	0.12811	0.32940	0.06480	0.38830	2.50740	0.30000	1.15326
	C->X (FF)	0.01860	0.00100	0.11264	0.32940	0.06480	0.37684	2.50740	0.30000	1.14576
sg13g2_or3_2	A->X (FF)	0.01860	0.00100	0.16711	0.32940	0.12960	0.44477	2.50740	0.60000	1.21711
	B->X (FF)	0.01860	0.00100	0.16225	0.32940	0.12960	0.45225	2.50740	0.60000	1.27469
	C->X (FF)	0.01860	0.00100	0.14715	0.32940	0.12960	0.44597	2.50740	0.60000	1.28081

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or3_1	A	0.01860	0.00100	0.00644	0.32940	0.06480	0.00641	2.50740	0.30000	0.01106
	B	0.01860	0.00100	0.00629	0.32940	0.06480	0.00621	2.50740	0.30000	0.01090
	C	0.01860	0.00100	0.00599	0.32940	0.06480	0.00593	2.50740	0.30000	0.01114
sg13g2_or3_2	A	0.01860	0.00100	0.01032	0.32940	0.12960	0.01060	2.50740	0.60000	0.01470
	B	0.01860	0.00100	0.01015	0.32940	0.12960	0.01044	2.50740	0.60000	0.01447
	C	0.01860	0.00100	0.00990	0.32940	0.12960	0.01001	2.50740	0.60000	0.01466

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or3_1	A	0.01860	0.00100	0.01061	0.32940	0.06480	0.01074	2.50740	0.30000	0.01435
	B	0.01860	0.00100	0.00897	0.32940	0.06480	0.00903	2.50740	0.30000	0.01317
	C	0.01860	0.00100	0.00717	0.32940	0.06480	0.00741	2.50740	0.30000	0.01235
sg13g2_or3_2	A	0.01860	0.00100	0.01472	0.32940	0.12960	0.01479	2.50740	0.60000	0.01808
	B	0.01860	0.00100	0.01308	0.32940	0.12960	0.01310	2.50740	0.60000	0.01652
	C	0.01860	0.00100	0.01131	0.32940	0.12960	0.01147	2.50740	0.60000	0.01578

OR4x



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT				OUTPUT
A	B	C	D	X
0	0	0	0	0
0	0	x	1	1
0	x	1	x	1
x	1	x	x	1
1	x	x	x	1

Footprint

Cell Name	Area
sg13g2_or4_1	14.51520
sg13g2_or4_2	16.32960

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	
sg13g2_or4_1	0.00259	0.00250	0.00246	0.00238	0.30000
sg13g2_or4_2	0.00257	0.00250	0.00246	0.00238	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or4_1	96.02690	124.10900	221.97300
sg13g2_or4_2	139.55600	170.08500	304.38300

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or4_1	A->X (RR)	0.01860	0.00100	0.06755	0.32940	0.06480	0.37418	2.50740	0.30000	1.32518
	B->X (RR)	0.01860	0.00100	0.06677	0.32940	0.06480	0.36556	2.50740	0.30000	1.29159
	C->X (RR)	0.01860	0.00100	0.06321	0.32940	0.06480	0.35314	2.50740	0.30000	1.25189
	D->X (RR)	0.01860	0.00100	0.05748	0.32940	0.06480	0.33765	2.50740	0.30000	1.20862
sg13g2_or4_2	A->X (RR)	0.01860	0.00100	0.07771	0.32940	0.12960	0.40363	2.50740	0.60000	1.40455
	B->X (RR)	0.01860	0.00100	0.07654	0.32940	0.12960	0.39646	2.50740	0.60000	1.37727
	C->X (RR)	0.01860	0.00100	0.07271	0.32940	0.12960	0.38575	2.50740	0.60000	1.33701
	D->X (RR)	0.01860	0.00100	0.06714	0.32940	0.12960	0.37189	2.50740	0.60000	1.30030

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or4_1	A->X (FF)	0.01860	0.00100	0.18632	0.32940	0.06480	0.45415	2.50740	0.30000	1.18113
	B->X (FF)	0.01860	0.00100	0.18132	0.32940	0.06480	0.45422	2.50740	0.30000	1.22272
	C->X (FF)	0.01860	0.00100	0.16624	0.32940	0.06480	0.44377	2.50740	0.30000	1.24595
	D->X (FF)	0.01860	0.00100	0.14072	0.32940	0.06480	0.42291	2.50740	0.30000	1.22607
sg13g2_or4_2	A->X (FF)	0.01860	0.00100	0.23170	0.32940	0.12960	0.52705	2.50740	0.60000	1.29360
	B->X (FF)	0.01860	0.00100	0.22672	0.32940	0.12960	0.52853	2.50740	0.60000	1.34800
	C->X (FF)	0.01860	0.00100	0.21168	0.32940	0.12960	0.52154	2.50740	0.60000	1.38520
	D->X (FF)	0.01860	0.00100	0.18682	0.32940	0.12960	0.50502	2.50740	0.60000	1.37731

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or4_1	A	0.01860	0.00100	0.00703	0.32940	0.06480	0.00704	2.50740	0.30000	0.01109
	B	0.01860	0.00100	0.00682	0.32940	0.06480	0.00674	2.50740	0.30000	0.01084
	C	0.01860	0.00100	0.00632	0.32940	0.06480	0.00627	2.50740	0.30000	0.01051
	D	0.01860	0.00100	0.00600	0.32940	0.06480	0.00596	2.50740	0.30000	0.01069
sg13g2_or4_2	A	0.01860	0.00100	0.01092	0.32940	0.12960	0.01119	2.50740	0.60000	0.01460
	B	0.01860	0.00100	0.01071	0.32940	0.12960	0.01090	2.50740	0.60000	0.01442
	C	0.01860	0.00100	0.01020	0.32940	0.12960	0.01054	2.50740	0.60000	0.01417
	D	0.01860	0.00100	0.00991	0.32940	0.12960	0.01010	2.50740	0.60000	0.01423

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or4_1	A	0.01860	0.00100	0.01262	0.32940	0.06480	0.01271	2.50740	0.30000	0.01534
	B	0.01860	0.00100	0.01103	0.32940	0.06480	0.01113	2.50740	0.30000	0.01375
	C	0.01860	0.00100	0.00938	0.32940	0.06480	0.00945	2.50740	0.30000	0.01288
	D	0.01860	0.00100	0.00755	0.32940	0.06480	0.00776	2.50740	0.30000	0.01199
sg13g2_or4_2	A	0.01860	0.00100	0.01720	0.32940	0.12960	0.01663	2.50740	0.60000	0.01881
	B	0.01860	0.00100	0.01559	0.32940	0.12960	0.01498	2.50740	0.60000	0.01718
	C	0.01860	0.00100	0.01394	0.32940	0.12960	0.01335	2.50740	0.60000	0.01599
	D	0.01860	0.00100	0.01217	0.32940	0.12960	0.01169	2.50740	0.60000	0.01547

SDFBBP



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT						OUTPUT	
CLK	D	RESET_B	SCD	SCE	SET_B	Q	Q_N
R	0	1	0	x	1	0	1
R	0	1	1	0	1	0	1
R	x	1	1	1	1	1	0
R	1	1	x	0	1	1	0
R	1	1	0	1	1	0	1
x	x	x	x	x	0	1	0
x	x	0	x	x	1	0	1
x	x	1	x	x	1	IQ	IQN

Footprint

Cell Name	Area
sg13g2_sdfbbp_1	63.50400

Pin Capacitance Information

Cell Name	Pin Cap(pf)						Max Cap(pf)	
	CLK	D	RESET_B	SCD	SCE	SET_B	Q	Q_N
sg13g2_sdfbbp_1	0.00302	0.00198	0.00174	0.00198	0.00354	0.00525	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfbbp_1	637.85700	815.79100	928.22400

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q (RR)	0.01860	0.00100	0.30309	0.32940	0.06480	0.57988	2.50740	0.30000	1.45030
	SET_B->Q (FR)	0.01860	0.00100	0.12289	0.32940	0.06480	0.41736	2.50740	0.30000	1.32805

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q (RF)	0.01860	0.00100	0.24961	0.32940	0.06480	0.49450	2.50740	0.30000	1.24897
	RESET_B->Q (FF)	0.01860	0.00100	0.20686	0.32940	0.06480	0.46628	2.50740	0.30000	1.25333

Delay(ns) to Q rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q (RR)	SCE	0.01860	0.00100	0.30309	0.32940	0.06480	0.57988	2.50740	0.30000	1.45030

Delay(ns) to Q falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q (RF)	SCE	0.01860	0.00100	0.24961	0.32940	0.06480	0.49450	2.50740	0.30000	1.24897

Delay(ns) to Q_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q_N (RR)	0.01860	0.00100	0.20494	0.32940	0.06480	0.50350	2.50740	0.30000	1.39341
	RESET_B->Q_N (FR)	0.01860	0.00100	0.16127	0.32940	0.06480	0.48199	2.50740	0.30000	1.40905

Delay(ns) to Q_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q_N (RF)	0.01860	0.00100	0.25162	0.32940	0.06480	0.53788	2.50740	0.30000	1.28019
	SET_B->Q_N (FF)	0.01860	0.00100	0.08160	0.32940	0.06480	0.36987	2.50740	0.30000	1.18471

Delay(ns) to Q_N rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q_N (RR)	SCE	0.01860	0.00100	0.20494	0.32940	0.06480	0.50350	2.50740	0.30000	1.39341

Delay(ns) to Q_N falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q_N (RF)	SCE	0.01860	0.00100	0.25162	0.32940	0.06480	0.53788	2.50740	0.30000	1.28019

Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.09583	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.12787	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.26444	2.50740	2.50740	-0.34828
	setup	CLK (R)	0.01860	0.01860	0.12470	1.26300	1.26300	0.28603	2.50740	2.50740	0.37484

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.10514	1.26300	1.26300	-0.18079	2.50740	2.50740	-0.22432
	setup	CLK (R)	0.01860	0.01860	0.16627	1.26300	1.26300	0.23206	2.50740	2.50740	0.29515

Constraints(ns) for RESET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	recovery	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.13492	2.50740	2.50740	0.16529
	removal	CLK (R)	0.01860	0.01860	-0.04401	1.26300	1.26300	-0.10794	2.50740	2.50740	-0.13577

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.14069	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for SCD rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.11981	1.26300	1.26300	-0.32380	2.50740	2.50740	-0.43683
	setup	CLK (R)	0.01860	0.01860	0.14916	1.26300	1.26300	0.34269	2.50740	2.50740	0.45749

Constraints(ns) for SCD falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.13693	1.26300	1.26300	-0.20777	2.50740	2.50740	-0.26269
	setup	CLK (R)	0.01860	0.01860	0.19806	1.26300	1.26300	0.25634	2.50740	2.50740	0.33057

Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.27793	2.50740	2.50740	-0.37484
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.31571	2.50740	2.50740	0.41912

Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.10759	1.26300	1.26300	-0.14301	2.50740	2.50740	-0.17709
	setup	CLK (R)	0.01860	0.01860	0.16627	1.26300	1.26300	0.19428	2.50740	2.50740	0.25088

Constraints(ns) for SET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	recovery	CLK (R)	0.01860	0.01860	0.01956	1.26300	1.26300	0.08905	2.50740	2.50740	0.36894
	removal	CLK (R)	0.01860	0.01860	0.03912	1.26300	1.26300	0.10524	2.50740	2.50740	0.12397
	hold	RESET_B (R)	0.01860	0.01860	-0.07825	1.26300	1.26300	-0.21047	2.50740	2.50740	-0.27744
	setup	RESET_B (R)	0.01860	0.01860	0.09781	1.26300	1.26300	0.24015	2.50740	2.50740	0.31877

Constraints(ns) for SET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	min_pulse_width	SET_B(0)	0.01860	0.00000	0.09262	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	0.01649	0.32940	0.06480	0.01690	2.50740	0.30000	0.02099
	SET_B	0.01860	0.00100	0.03108	0.32940	0.06480	0.07720	2.50740	0.30000	0.25669

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	0.01626	0.32940	0.06480	0.01638	2.50740	0.30000	0.02047
	RESET_B	0.01860	0.00100	0.03508	0.32940	0.06480	0.08124	2.50740	0.30000	0.25405

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	0.01649	0.32940	0.06480	0.01690	2.50740	0.30000	0.02099

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	0.01626	0.32940	0.06480	0.01638	2.50740	0.30000	0.02047

Internal switching power(pJ) to Q_N rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	0.01627	0.32940	0.06480	0.01652	2.50740	0.30000	0.02060
	RESET_B	0.01860	0.00100	0.03509	0.32940	0.06480	0.08155	2.50740	0.30000	0.25477

Internal switching power(pJ) to Q_N falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	0.01649	0.32940	0.06480	0.01674	2.50740	0.30000	0.02082
	SET_B	0.01860	0.00100	0.03111	0.32940	0.06480	0.07680	2.50740	0.30000	0.25625

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	0.01627	0.32940	0.06480	0.01652	2.50740	0.30000	0.02060

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	0.01649	0.32940	0.06480	0.01674	2.50740	0.30000	0.02082

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01195	0.32940	0.01175	2.50740	0.01970

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01489	0.32940	0.01508	2.50740	0.02354

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(RESET_B * SCD * SCE * SET_B * Q * !Q_N)	0.01860	0.01187	0.32940	0.01173	2.50740	0.01960
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	0.01576	0.32940	0.01562	2.50740	0.02348
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	0.01195	0.32940	0.01175	2.50740	0.01970
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	0.01099	0.32940	0.01085	2.50740	0.01872
	(!RESET_B * !Q * Q_N)	0.01860	0.01144	0.32940	0.01127	2.50740	0.01920
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	0.01194	0.32940	0.01174	2.50740	0.01970

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(RESET_B * SCD * SCE * SET_B * Q * !Q_N)	0.01860	0.01129	0.32940	0.01132	2.50740	0.01944
	(RESET_B * SCD * SCE * SET_B * !Q * Q_N)	0.01860	0.01988	0.32940	0.01983	2.50740	0.02801
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	0.01489	0.32940	0.01508	2.50740	0.02354
	(RESET_B * !SCD * SCE * SET_B * Q * !Q_N)	0.01860	0.02165	0.32940	0.02184	2.50740	0.03036
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	0.01124	0.32940	0.01135	2.50740	0.01941
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	0.01115	0.32940	0.01117	2.50740	0.01929
	(!RESET_B * !Q * Q_N)	0.01860	0.01030	0.32940	0.01039	2.50740	0.01845
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	0.01151	0.32940	0.01160	2.50740	0.01966

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01122	0.32940	0.01107	2.50740	0.01429

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01140	0.32940	0.01128	2.50740	0.01466

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * RESET_B * !SCE * SET_B)	0.01860	0.01122	0.32940	0.01107	2.50740	0.01429
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	0.00488	0.32940	0.00473	2.50740	0.00769

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * RESET_B * !SCE * SET_B)	0.01860	0.01140	0.32940	0.01128	2.50740	0.01466
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	0.00475	0.32940	0.00461	2.50740	0.00764

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01268	0.32940	0.01258	2.50740	0.01501

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01548	0.32940	0.01528	2.50740	0.01781

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * RESET_B * SCE * SET_B)	0.01860	0.01268	0.32940	0.01258	2.50740	0.01501
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	0.00638	0.32940	0.00625	2.50740	0.00832

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * RESET_B * SCE * SET_B)	0.01860	0.01548	0.32940	0.01528	2.50740	0.01781
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	0.00728	0.32940	0.00721	2.50740	0.00936

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01320	0.32940	0.01328	2.50740	0.02079

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01479	0.32940	0.01491	2.50740	0.01891

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * D * RESET_B * !SCD * SET_B)	0.01860	0.01451	0.32940	0.01458	2.50740	0.01863
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	0.01951	0.32940	0.01905	2.50740	0.02313
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	0.01320	0.32940	0.01328	2.50740	0.02079
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	0.00675	0.32940	0.00679	2.50740	0.01396

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * D * RESET_B * !SCD * SET_B)	0.01860	0.01479	0.32940	0.01491	2.50740	0.01891
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	0.01876	0.32940	0.02417	2.50740	0.02833
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	0.00745	0.32940	0.02514	2.50740	0.03322
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	0.00703	0.32940	0.00708	2.50740	0.01380

SDFRBPQx



*sg13g2_stdcell_typ_1p20V_25C Cell Library:
Process sg13g2_stdcell_typ_1p20V_25C, Voltage
1.20, Temp 25.00*

Truth Table

INPUT					OUTPUT
CLK	D	RESET_B	SCD	SCE	Q
R	0	1	0	x	0
R	0	1	1	0	0
R	x	1	1	1	1
R	1	1	x	0	1
R	1	1	0	1	0
x	x	0	x	x	0
x	x	1	x	x	IQ

Footprint

Cell Name	Area
sg13g2_sdfrbpq_1	63.50400
sg13g2_sdfrbpq_2	72.57600

Pin Capacitance Information

Cell Name	Pin Cap(pf)					Max Cap(pf)
	CLK	D	RESET_B	SCD	SCE	
sg13g2_sdfrbpq_1	0.00294	0.00277	0.00510	0.00288	0.00484	0.30000
sg13g2_sdfrbpq_2	0.00294	0.00277	0.00511	0.00288	0.00484	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfrbpq_1	624.49100	720.77900	824.47000
sg13g2_sdfrbpq_2	706.90100	787.18400	906.87900

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_sdfrbpq_1	CLK->Q (RR)	0.01860	0.00100	0.17228	0.32940	0.06480	0.46407	2.50740	0.30000	1.32713
sg13g2_sdfrbpq_2	CLK->Q (RR)	0.01860	0.00100	0.19728	0.32940	0.12960	0.50543	2.50740	0.60000	1.37115

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_sdfrbpq_1	CLK->Q (RF)	0.01860	0.00100	0.18201	0.32940	0.06480	0.44157	2.50740	0.30000	1.16765
	RESET_B->Q (FF)	0.01860	0.00100	0.09751	0.32940	0.06480	0.40016	2.50740	0.30000	1.28522
sg13g2_sdfrbpq_2	CLK->Q (RF)	0.01860	0.00100	0.20798	0.32940	0.12960	0.48478	2.50740	0.60000	1.20959
	RESET_B->Q (FF)	0.01860	0.00100	0.12280	0.32940	0.12960	0.45358	2.50740	0.60000	1.40894

Delay(ns) to Q rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_sdfrbpq_1	CLK->Q (RR)	SCE	0.01860	0.00100	0.17223	0.32940	0.06480	0.46407	2.50740	0.30000	1.32713
	CLK->Q (RR)	!SCE	0.01860	0.00100	0.17228	0.32940	0.06480	0.46407	2.50740	0.30000	1.32713
sg13g2_sdfrbpq_2	CLK->Q (RR)	SCE	0.01860	0.00100	0.19728	0.32940	0.12960	0.50543	2.50740	0.60000	1.37115
	CLK->Q (RR)	!SCE	0.01860	0.00100	0.19724	0.32940	0.12960	0.50543	2.50740	0.60000	1.37115

Delay(ns) to Q falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_sdfrbpq_1	CLK->Q (RF)	SCE	0.01860	0.00100	0.18192	0.32940	0.06480	0.44157	2.50740	0.30000	1.16765
	CLK->Q (RF)	!SCE	0.01860	0.00100	0.18201	0.32940	0.06480	0.44157	2.50740	0.30000	1.16765
sg13g2_sdfrbpq_2	CLK->Q (RF)	SCE	0.01860	0.00100	0.20800	0.32940	0.12960	0.48478	2.50740	0.60000	1.20959
	CLK->Q (RF)	!SCE	0.01860	0.00100	0.20798	0.32940	0.12960	0.48478	2.50740	0.60000	1.20959

Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.07660	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbpq_2	min_pulse_width	CLK ()	0.01860	0.00000	0.09262	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.13107	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbpq_2	min_pulse_width	CLK ()	0.01860	0.00000	0.12787	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.14671	1.26300	1.26300	-0.27254	2.50740	2.50740	-0.31286
	setup	CLK (R)	0.01860	0.01860	0.19073	1.26300	1.26300	0.29952	2.50740	2.50740	0.34238
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.14671	1.26300	1.26300	-0.27254	2.50740	2.50740	-0.31286
	setup	CLK (R)	0.01860	0.01860	0.19073	1.26300	1.26300	0.29952	2.50740	2.50740	0.34238

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.14916	1.26300	1.26300	-0.19698	2.50740	2.50740	-0.21841
	setup	CLK (R)	0.01860	0.01860	0.21273	1.26300	1.26300	0.23746	2.50740	2.50740	0.26269
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.14916	1.26300	1.26300	-0.19698	2.50740	2.50740	-0.21841
	setup	CLK (R)	0.01860	0.01860	0.21273	1.26300	1.26300	0.23746	2.50740	2.50740	0.26269

Constraints(ns) for RESET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	recovery	CLK (R)	0.01860	0.01860	0.11981	1.26300	1.26300	0.30222	2.50740	2.50740	0.54604
	removal	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.25634	2.50740	2.50740	-0.36009
sg13g2_sdfrbpq_2	recovery	CLK (R)	0.01860	0.01860	0.11737	1.26300	1.26300	0.32110	2.50740	2.50740	0.76740
	removal	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.25634	2.50740	2.50740	-0.36009

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	min_pulse_width	RESET_B_0	0.01860	0.00000	0.11505	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbpq_2	min_pulse_width	RESET_B_0	0.01860	0.00000	0.13428	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for SCD rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.14671	1.26300	1.26300	-0.27254	2.50740	2.50740	-0.31286
	setup	CLK (R)	0.01860	0.01860	0.19073	1.26300	1.26300	0.29952	2.50740	2.50740	0.34238
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.14671	1.26300	1.26300	-0.27254	2.50740	2.50740	-0.31286
	setup	CLK (R)	0.01860	0.01860	0.19073	1.26300	1.26300	0.29952	2.50740	2.50740	0.34238

Constraints(ns) for SCD falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.14671	1.26300	1.26300	-0.19158	2.50740	2.50740	-0.21546
	setup	CLK (R)	0.01860	0.01860	0.21273	1.26300	1.26300	0.24015	2.50740	2.50740	0.26564
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.14916	1.26300	1.26300	-0.19158	2.50740	2.50740	-0.21546
	setup	CLK (R)	0.01860	0.01860	0.21273	1.26300	1.26300	0.23746	2.50740	2.50740	0.26564

Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.14916	1.26300	1.26300	-0.27254	2.50740	2.50740	-0.32172
	setup	CLK (R)	0.01860	0.01860	0.19562	1.26300	1.26300	0.30222	2.50740	2.50740	0.35123
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.14916	1.26300	1.26300	-0.27254	2.50740	2.50740	-0.32172
	setup	CLK (R)	0.01860	0.01860	0.19317	1.26300	1.26300	0.30222	2.50740	2.50740	0.35123

Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.15405	1.26300	1.26300	-0.18079	2.50740	2.50740	-0.19185
	setup	CLK (R)	0.01860	0.01860	0.22251	1.26300	1.26300	0.22666	2.50740	2.50740	0.24203
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.15649	1.26300	1.26300	-0.18079	2.50740	2.50740	-0.19185
	setup	CLK (R)	0.01860	0.01860	0.22007	1.26300	1.26300	0.22666	2.50740	2.50740	0.24203

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK	0.01860	0.00100	0.02072	0.32940	0.06480	0.02084	2.50740	0.30000	0.02939
sg13g2_sdfrbpq_2	CLK	0.01860	0.00100	0.02493	0.32940	0.12960	0.02518	2.50740	0.60000	0.03387

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK	0.01860	0.00100	0.02186	0.32940	0.06480	0.02247	2.50740	0.30000	0.03109
	RESET_B	0.01860	0.00100	0.02021	0.32940	0.06480	0.01977	2.50740	0.30000	0.02597
sg13g2_sdfrbpq_2	CLK	0.01860	0.00100	0.02575	0.32940	0.12960	0.02650	2.50740	0.60000	0.03543
	RESET_B	0.01860	0.00100	0.02401	0.32940	0.12960	0.02368	2.50740	0.60000	0.02953

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK	SCE	0.01860	0.00100	0.02072	0.32940	0.06480	0.02084	2.50740	0.30000	0.02939
	CLK	!SCE	0.01860	0.00100	0.00991	0.32940	0.06480	0.01013	2.50740	0.30000	0.01063
sg13g2_sdfrbpq_2	CLK	SCE	0.01860	0.00100	0.02493	0.32940	0.12960	0.02518	2.50740	0.60000	0.03387
	CLK	!SCE	0.01860	0.00100	0.01407	0.32940	0.12960	0.01447	2.50740	0.60000	0.01511

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK	SCE	0.01860	0.00100	0.02186	0.32940	0.06480	0.02247	2.50740	0.30000	0.03109
	CLK	!SCE	0.01860	0.00100	0.01104	0.32940	0.06480	0.01176	2.50740	0.30000	0.01233
sg13g2_sdfrbpq_2	CLK	SCE	0.01860	0.00100	0.02575	0.32940	0.12960	0.02650	2.50740	0.60000	0.03543
	CLK	!SCE	0.01860	0.00100	0.01490	0.32940	0.12960	0.01579	2.50740	0.60000	0.01666

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	0.01083	0.32940	0.01071	2.50740	0.01877
sg13g2_sdfrbpq_2	0.01860	0.01084	0.32940	0.01071	2.50740	0.01877

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	0.01103	0.32940	0.01110	2.50740	0.01935
sg13g2_sdfrbpq_2	0.01860	0.01102	0.32940	0.01111	2.50740	0.01935

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(RESET_B * SCD * SCE * Q)	0.01860	0.01107	0.32940	0.01097	2.50740	0.01903
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01084	0.32940	0.01071	2.50740	0.01876
	(D * RESET_B * !SCE * Q)	0.01860	0.01107	0.32940	0.01097	2.50740	0.01903
	(!RESET_B * !Q)	0.01860	0.01065	0.32940	0.01057	2.50740	0.01857
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01083	0.32940	0.01071	2.50740	0.01877
sg13g2_sdfrbpq_2	(RESET_B * SCD * SCE * Q)	0.01860	0.01107	0.32940	0.01098	2.50740	0.01903
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01084	0.32940	0.01071	2.50740	0.01877
	(D * RESET_B * !SCE * Q)	0.01860	0.01107	0.32940	0.01098	2.50740	0.01903
	(!RESET_B * !Q)	0.01860	0.01081	0.32940	0.01070	2.50740	0.01873
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01083	0.32940	0.01071	2.50740	0.01877

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(RESET_B * SCD * SCE * Q)	0.01860	0.01103	0.32940	0.01110	2.50740	0.01935
	(RESET_B * SCD * SCE * !Q)	0.01860	0.02067	0.32940	0.02067	2.50740	0.02914
	(RESET_B * !SCD * SCE * Q)	0.01860	0.01930	0.32940	0.01952	2.50740	0.02821
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01068	0.32940	0.01074	2.50740	0.01897
	(D * RESET_B * !SCE * Q)	0.01860	0.01103	0.32940	0.01110	2.50740	0.01935
	(!RESET_B * !Q)	0.01860	0.00984	0.32940	0.00990	2.50740	0.01812
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01067	0.32940	0.01074	2.50740	0.01897
sg13g2_sdfrbpq_2	(RESET_B * SCD * SCE * Q)	0.01860	0.01102	0.32940	0.01111	2.50740	0.01935
	(RESET_B * SCD * SCE * !Q)	0.01860	0.02067	0.32940	0.02067	2.50740	0.02914
	(RESET_B * !SCD * SCE * Q)	0.01860	0.01930	0.32940	0.01952	2.50740	0.02821
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01067	0.32940	0.01074	2.50740	0.01897
	(D * RESET_B * !SCE * Q)	0.01860	0.01102	0.32940	0.01111	2.50740	0.01935
	(!RESET_B * !Q)	0.01860	0.01000	0.32940	0.01006	2.50740	0.01828
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01067	0.32940	0.01074	2.50740	0.01897

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	0.02187	0.32940	0.02167	2.50740	0.02820
sg13g2_sdfrbpq_2	0.01860	0.02224	0.32940	0.02203	2.50740	0.02857

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	0.01896	0.32940	0.01905	2.50740	0.02654
sg13g2_sdfrbpq_2	0.01860	0.01897	0.32940	0.01905	2.50740	0.02654

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * RESET_B * !SCE)	0.01860	0.02187	0.32940	0.02167	2.50740	0.02820
sg13g2_sdfrbpq_2	(!CLK * RESET_B * !SCE)	0.01860	0.02224	0.32940	0.02203	2.50740	0.02857

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * RESET_B * !SCE)	0.01860	0.01896	0.32940	0.01905	2.50740	0.02654
sg13g2_sdfrbpq_2	(!CLK * RESET_B * !SCE)	0.01860	0.01897	0.32940	0.01905	2.50740	0.02654

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	0.02202	0.32940	0.02184	2.50740	0.02833
sg13g2_sdfrbpq_2	0.01860	0.02239	0.32940	0.02222	2.50740	0.02871

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	0.01846	0.32940	0.01853	2.50740	0.02608
sg13g2_sdfrbpq_2	0.01860	0.01886	0.32940	0.01892	2.50740	0.02647

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * RESET_B * SCE)	0.01860	0.02202	0.32940	0.02184	2.50740	0.02833
sg13g2_sdfrbpq_2	(!CLK * RESET_B * SCE)	0.01860	0.02239	0.32940	0.02222	2.50740	0.02871

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * RESET_B * SCE)	0.01860	0.01846	0.32940	0.01853	2.50740	0.02608
sg13g2_sdfrbpq_2	(!CLK * RESET_B * SCE)	0.01860	0.01886	0.32940	0.01892	2.50740	0.02647

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	0.02571	0.32940	0.02561	2.50740	0.03641
sg13g2_sdfrbpq_2	0.01860	0.02571	0.32940	0.02559	2.50740	0.03640

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	0.02495	0.32940	0.04174	2.50740	0.05325
sg13g2_sdfrbpq_2	0.01860	0.02511	0.32940	0.04188	2.50740	0.05340

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.02317	0.32940	0.02314	2.50740	0.02863
	(!CLK * !D * RESET_B * SCD)	0.01860	0.02571	0.32940	0.02561	2.50740	0.03641
sg13g2_sdfrbpq_2	(!CLK * D * RESET_B * !SCD)	0.01860	0.02333	0.32940	0.02330	2.50740	0.02879
	(!CLK * !D * RESET_B * SCD)	0.01860	0.02571	0.32940	0.02559	2.50740	0.03640

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.02596	0.32940	0.02603	2.50740	0.03165
	(!CLK * !D * RESET_B * SCD)	0.01860	0.02495	0.32940	0.04174	2.50740	0.05325
sg13g2_sdfrbpq_2	(!CLK * D * RESET_B * !SCD)	0.01860	0.02594	0.32940	0.02602	2.50740	0.03163
	(!CLK * !D * RESET_B * SCD)	0.01860	0.02511	0.32940	0.04188	2.50740	0.05340

SDFRBPx



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT					OUTPUT	
CLK	D	RESET_B	SCD	SCE	Q	Q_N
R	0	1	0	x	0	1
R	0	1	1	0	0	1
R	x	1	1	1	1	0
R	1	1	x	0	1	0
R	1	1	0	1	0	1
x	x	0	x	x	0	1
x	x	1	x	x	IQ	IQN

Footprint

Cell Name	Area
sg13g2_sdfrbp_1	68.94720
sg13g2_sdfrbp_2	72.57600

Pin Capacitance Information

Cell Name	Pin Cap(pf)					Max Cap(pf)	
	CLK	D	RESET_B	SCD	SCE	Q	Q_N
sg13g2_sdfrbp_1	0.00294	0.00277	0.00511	0.00289	0.00484	0.30000	0.30000
sg13g2_sdfrbp_2	0.00294	0.00277	0.00511	0.00288	0.00484	0.60000	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfrbp_1	705.77900	825.02900	914.43300
sg13g2_sdfrbp_2	831.72500	950.94200	1040.34000

Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q (RR)	0.01860	0.00100	0.19037	0.32940	0.06480	0.46683	2.50740	0.30000	1.36442
sg13g2_sdfrbp_2	CLK->Q (RR)	0.01860	0.00100	0.24357	0.32940	0.12960	0.51310	2.50740	0.60000	1.41377

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q (RF)	0.01860	0.00100	0.17253	0.32940	0.06480	0.41565	2.50740	0.30000	1.14381
	RESET_B->Q (FF)	0.01860	0.00100	0.24256	0.32940	0.06480	0.52281	2.50740	0.30000	1.42622
sg13g2_sdfrbp_2	CLK->Q (RF)	0.01860	0.00100	0.20955	0.32940	0.12960	0.45365	2.50740	0.60000	1.18684
	RESET_B->Q (FF)	0.01860	0.00100	0.28082	0.32940	0.12960	0.56181	2.50740	0.60000	1.46905

Delay(ns) to Q rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q (RR)	SCE	0.01860	0.00100	0.19037	0.32940	0.06480	0.46683	2.50740	0.30000	1.36442
sg13g2_sdfrbp_2	CLK->Q (RR)	SCE	0.01860	0.00100	0.24357	0.32940	0.12960	0.51310	2.50740	0.60000	1.41377

Delay(ns) to Q falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q (RF)	SCE	0.01860	0.00100	0.17253	0.32940	0.06480	0.41565	2.50740	0.30000	1.14381
sg13g2_sdfrbp_2	CLK->Q (RF)	SCE	0.01860	0.00100	0.20955	0.32940	0.12960	0.45365	2.50740	0.60000	1.18684

Delay(ns) to Q_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	0.13246	0.32940	0.06480	0.43172	2.50740	0.30000	1.29213
	RESET_B->Q_N (FR)	0.01860	0.00100	0.20300	0.32940	0.06480	0.53706	2.50740	0.30000	1.57284
sg13g2_sdfrbp_2	CLK->Q_N (RR)	0.01860	0.00100	0.13912	0.32940	0.12960	0.45004	2.50740	0.60000	1.31279
	RESET_B->Q_N (FR)	0.01860	0.00100	0.21191	0.32940	0.12960	0.55688	2.50740	0.60000	1.59507

Delay(ns) to Q_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	0.14234	0.32940	0.06480	0.43459	2.50740	0.30000	1.20352
sg13g2_sdfrbp_2	CLK->Q_N (RF)	0.01860	0.00100	0.15808	0.32940	0.12960	0.46784	2.50740	0.60000	1.24006

Delay(ns) to Q_N rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q_N (RR)	SCE	0.01860	0.00100	0.13246	0.32940	0.06480	0.43172	2.50740	0.30000	1.29213
sg13g2_sdfrbp_2	CLK->Q_N (RR)	SCE	0.01860	0.00100	0.13912	0.32940	0.12960	0.45004	2.50740	0.60000	1.31279

Delay(ns) to Q_N falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q_N (RF)	SCE	0.01860	0.00100	0.14234	0.32940	0.06480	0.43459	2.50740	0.30000	1.20352
sg13g2_sdfrbp_2	CLK->Q_N (RF)	SCE	0.01860	0.00100	0.15808	0.32940	0.12960	0.46784	2.50740	0.60000	1.24006

Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.10864	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbp_2	min_pulse_width	CLK ()	0.01860	0.00000	0.13748	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.13938	1.26300	1.26300	-0.26714	2.50740	2.50740	-0.30696
	setup	CLK (R)	0.01860	0.01860	0.19317	1.26300	1.26300	0.29682	2.50740	2.50740	0.33352
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.13693	1.26300	1.26300	-0.26444	2.50740	2.50740	-0.30696
	setup	CLK (R)	0.01860	0.01860	0.19317	1.26300	1.26300	0.29952	2.50740	2.50740	0.33352

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.13938	1.26300	1.26300	-0.19968	2.50740	2.50740	-0.22432
	setup	CLK (R)	0.01860	0.01860	0.22007	1.26300	1.26300	0.24285	2.50740	2.50740	0.26564
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.13938	1.26300	1.26300	-0.19698	2.50740	2.50740	-0.22432
	setup	CLK (R)	0.01860	0.01860	0.22007	1.26300	1.26300	0.24285	2.50740	2.50740	0.26859

Constraints(ns) for RESET_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	recovery	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.27254	2.50740	2.50740	0.37484
	removal	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.25904	2.50740	2.50740	-0.36599
sg13g2_sdfrbp_2	recovery	CLK (R)	0.01860	0.01860	0.11981	1.26300	1.26300	0.27254	2.50740	2.50740	0.37780
	removal	CLK (R)	0.01860	0.01860	-0.10514	1.26300	1.26300	-0.26174	2.50740	2.50740	-0.36599

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	min_pulse_width	RESET_B0	0.01860	0.00000	0.11185	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbp_2	min_pulse_width	RESET_B0	0.01860	0.00000	0.11505	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for SCD rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.13938	1.26300	1.26300	-0.26714	2.50740	2.50740	-0.30696
	setup	CLK (R)	0.01860	0.01860	0.19317	1.26300	1.26300	0.29682	2.50740	2.50740	0.33648
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.13693	1.26300	1.26300	-0.26714	2.50740	2.50740	-0.30696
	setup	CLK (R)	0.01860	0.01860	0.19317	1.26300	1.26300	0.29952	2.50740	2.50740	0.33648

Constraints(ns) for SCD falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.13938	1.26300	1.26300	-0.19428	2.50740	2.50740	-0.22432
	setup	CLK (R)	0.01860	0.01860	0.22007	1.26300	1.26300	0.24285	2.50740	2.50740	0.26564
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.13938	1.26300	1.26300	-0.19158	2.50740	2.50740	-0.22432
	setup	CLK (R)	0.01860	0.01860	0.22007	1.26300	1.26300	0.24285	2.50740	2.50740	0.26859

Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.14182	1.26300	1.26300	-0.26714	2.50740	2.50740	-0.31582
	setup	CLK (R)	0.01860	0.01860	0.19562	1.26300	1.26300	0.29952	2.50740	2.50740	0.34533
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.13938	1.26300	1.26300	-0.26714	2.50740	2.50740	-0.31582
	setup	CLK (R)	0.01860	0.01860	0.19562	1.26300	1.26300	0.29952	2.50740	2.50740	0.34533

Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.14671	1.26300	1.26300	-0.18349	2.50740	2.50740	-0.20070
	setup	CLK (R)	0.01860	0.01860	0.22740	1.26300	1.26300	0.22936	2.50740	2.50740	0.24498
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.14671	1.26300	1.26300	-0.18079	2.50740	2.50740	-0.20070
	setup	CLK (R)	0.01860	0.01860	0.22740	1.26300	1.26300	0.23206	2.50740	2.50740	0.24793

Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.02936	0.32940	0.06480	0.07590	2.50740	0.30000	0.25347
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	0.03722	0.32940	0.12960	0.13086	2.50740	0.60000	0.47792

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.03045	0.32940	0.06480	0.07708	2.50740	0.30000	0.25507
	RESET_B	0.01860	0.00100	0.03127	0.32940	0.06480	0.07269	2.50740	0.30000	0.23364
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	0.03768	0.32940	0.12960	0.13160	2.50740	0.60000	0.47914
	RESET_B	0.01860	0.00100	0.03853	0.32940	0.12960	0.12256	2.50740	0.60000	0.43680

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.02936	0.32940	0.06480	0.07590	2.50740	0.30000	0.25347
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	0.03722	0.32940	0.12960	0.13086	2.50740	0.60000	0.47792

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.03045	0.32940	0.06480	0.07708	2.50740	0.30000	0.25507
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	0.03768	0.32940	0.12960	0.13160	2.50740	0.60000	0.47914

Internal switching power(pJ) to Q_N rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.03046	0.32940	0.06480	0.07737	2.50740	0.30000	0.25523
	RESET_B	0.01860	0.00100	0.03128	0.32940	0.06480	0.07304	2.50740	0.30000	0.23420
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	0.03773	0.32940	0.12960	0.13218	2.50740	0.60000	0.47983
	RESET_B	0.01860	0.00100	0.03857	0.32940	0.12960	0.12328	2.50740	0.60000	0.43782

Internal switching power(pJ) to Q_N falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.02937	0.32940	0.06480	0.07561	2.50740	0.30000	0.25313
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	0.03722	0.32940	0.12960	0.13030	2.50740	0.60000	0.47736

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.03046	0.32940	0.06480	0.07737	2.50740	0.30000	0.25523
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	0.03773	0.32940	0.12960	0.13218	2.50740	0.60000	0.47983

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.02937	0.32940	0.06480	0.07561	2.50740	0.30000	0.25313
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	0.03722	0.32940	0.12960	0.13030	2.50740	0.60000	0.47736

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	0.01086	0.32940	0.01072	2.50740	0.01875
sg13g2_sdfrbp_2	0.01860	0.01086	0.32940	0.01073	2.50740	0.01875

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	0.01084	0.32940	0.01088	2.50740	0.01910
sg13g2_sdfrbp_2	0.01860	0.01085	0.32940	0.01088	2.50740	0.01910

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01111	0.32940	0.01097	2.50740	0.01903
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01086	0.32940	0.01072	2.50740	0.01875
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01112	0.32940	0.01097	2.50740	0.01903
	(!RESET_B * !Q * Q_N)	0.01860	0.01044	0.32940	0.01032	2.50740	0.01833
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01085	0.32940	0.01072	2.50740	0.01875
sg13g2_sdfrbp_2	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01112	0.32940	0.01098	2.50740	0.01903
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01086	0.32940	0.01073	2.50740	0.01875
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01113	0.32940	0.01098	2.50740	0.01903
	(!RESET_B * !Q * Q_N)	0.01860	0.01045	0.32940	0.01033	2.50740	0.01832
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01086	0.32940	0.01073	2.50740	0.01875

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last

sg13g2_sdfrbp_1	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01064	0.32940	0.01068	2.50740	0.01890
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	0.02079	0.32940	0.02077	2.50740	0.02924
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	0.01892	0.32940	0.01913	2.50740	0.02781
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01084	0.32940	0.01088	2.50740	0.01910
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01064	0.32940	0.01068	2.50740	0.01890
	(!RESET_B * !Q * Q_N)	0.01860	0.00964	0.32940	0.00967	2.50740	0.01789
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01083	0.32940	0.01088	2.50740	0.01910
sg13g2_sdfrbp_2	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01065	0.32940	0.01068	2.50740	0.01890
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	0.02080	0.32940	0.02076	2.50740	0.02923
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	0.01893	0.32940	0.01914	2.50740	0.02781
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01084	0.32940	0.01088	2.50740	0.01910
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01065	0.32940	0.01068	2.50740	0.01890
	(!RESET_B * !Q * Q_N)	0.01860	0.00965	0.32940	0.00967	2.50740	0.01790
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01085	0.32940	0.01088	2.50740	0.01910

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	0.02103	0.32940	0.02081	2.50740	0.02736
sg13g2_sdfrbp_2	0.01860	0.02110	0.32940	0.02090	2.50740	0.02743

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	0.02028	0.32940	0.02036	2.50740	0.02785
sg13g2_sdfrbp_2	0.01860	0.02030	0.32940	0.02036	2.50740	0.02785

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * RESET_B * !SCE)	0.01860	0.02103	0.32940	0.02081	2.50740	0.02736
sg13g2_sdfrbp_2	(!CLK * RESET_B * !SCE)	0.01860	0.02110	0.32940	0.02090	2.50740	0.02743

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * RESET_B * !SCE)	0.01860	0.02028	0.32940	0.02036	2.50740	0.02785
sg13g2_sdfrbp_2	(!CLK * RESET_B * !SCE)	0.01860	0.02030	0.32940	0.02036	2.50740	0.02785

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	0.02119	0.32940	0.02100	2.50740	0.02749
sg13g2_sdfrbp_2	0.01860	0.02126	0.32940	0.02107	2.50740	0.02757

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	0.01770	0.32940	0.01778	2.50740	0.02533
sg13g2_sdfrbp_2	0.01860	0.01772	0.32940	0.01779	2.50740	0.02533

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * RESET_B * SCE)	0.01860	0.02119	0.32940	0.02100	2.50740	0.02749
sg13g2_sdfrbp_2	(!CLK * RESET_B * SCE)	0.01860	0.02126	0.32940	0.02107	2.50740	0.02757

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * RESET_B * SCE)	0.01860	0.01770	0.32940	0.01778	2.50740	0.02533
sg13g2_sdfrbp_2	(!CLK * RESET_B * SCE)	0.01860	0.01772	0.32940	0.01779	2.50740	0.02533

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	0.02572	0.32940	0.02561	2.50740	0.03641
sg13g2_sdfrbp_2	0.01860	0.02570	0.32940	0.02559	2.50740	0.03640

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	0.02473	0.32940	0.04150	2.50740	0.05302
sg13g2_sdfrbp_2	0.01860	0.02472	0.32940	0.04149	2.50740	0.05301

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.02294	0.32940	0.02291	2.50740	0.02840
	(!CLK * !D * RESET_B * SCD)	0.01860	0.02572	0.32940	0.02561	2.50740	0.03641
sg13g2_sdfrbp_2	(!CLK * D * RESET_B * !SCD)	0.01860	0.02295	0.32940	0.02292	2.50740	0.02840
	(!CLK * !D * RESET_B * SCD)	0.01860	0.02570	0.32940	0.02559	2.50740	0.03640

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.02595	0.32940	0.02603	2.50740	0.03165
	(!CLK * !D * RESET_B * SCD)	0.01860	0.02473	0.32940	0.04150	2.50740	0.05302
sg13g2_sdfrbp_2	(!CLK * D * RESET_B * !SCD)	0.01860	0.02594	0.32940	0.02602	2.50740	0.03163
	(!CLK * !D * RESET_B * SCD)	0.01860	0.02472	0.32940	0.04149	2.50740	0.05301

SIGHOLD



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp
25.00*

Truth Table

INPUT	OUTPUT
SH	SH
x	-

Footprint

Cell Name	Area
sg13g2_sighold	9.07200

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	SH	SH
sg13g2_sighold	0.01819	-

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sighold	138.90300	161.57000	184.23800

Passive Power Information

Passive power(pJ) for SH rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sighold	0.01860	0.00526	0.32940	0.01088	2.50740	0.05193

Passive power(pJ) for SH falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sighold	0.01860	0.00425	0.32940	0.00763	2.50740	0.05273

SLGCP



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT			OUTPUT
CLK	GATE	SCE	GCLK
0	x	x	0
1	x	x	GCLK

Footprint

Cell Name	Area
sg13g2_slgcp_1	30.84480

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	CLK	GATE	SCE	
sg13g2_slgcp_1	0.00498	0.00193	0.00233	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_slgcp_1	355.43900	415.61800	460.31000

Delay Information

Delay(ns) to GCLK rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_slgcp_1	CLK->GCLK (RR)	0.01860	0.00100	0.07573	0.32940	0.06480	0.34724	2.50740	0.30000	1.21453

Delay(ns) to GCLK falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_slgcp_1	CLK->GCLK (FF)	0.01860	0.00100	0.06113	0.32940	0.06480	0.30923	2.50740	0.30000	1.04620

Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.23041	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.10223	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	-0.04138	1.26300	1.26300	-0.19121	2.50740	2.50740	-0.26034
	setup	CLK (R)	0.01860	0.01860	0.06423	1.26300	1.26300	0.26165	2.50740	2.50740	0.35982

Constraints(ns) for GATE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	-0.06774	1.26300	1.26300	-0.17225	2.50740	2.50740	-0.23813
	setup	CLK (R)	0.01860	0.01860	0.11758	1.26300	1.26300	0.21969	2.50740	2.50740	0.29447

Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	-0.04379	1.26300	1.26300	-0.21888	2.50740	2.50740	-0.29952
	setup	CLK (R)	0.01860	0.01860	0.06794	1.26300	1.26300	0.28681	2.50740	2.50740	0.39723

Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	-0.07419	1.26300	1.26300	-0.15327	2.50740	2.50740	-0.20770
	setup	CLK (R)	0.01860	0.01860	0.12615	1.26300	1.26300	0.19597	2.50740	2.50740	0.26232

Power Information

Internal switching power(pJ) to GCLK rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_slgcp_1	CLK	0.01860	0.00100	0.00876	0.32940	0.06480	0.00872	2.50740	0.30000	0.01319

Internal switching power(pJ) to GCLK falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_slgcp_1	CLK	0.01860	0.00100	0.00558	0.32940	0.06480	0.00607	2.50740	0.30000	0.01168

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.00761	0.32940	0.00765	2.50740	0.01463

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.00752	0.32940	0.00759	2.50740	0.01486

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.01873	0.32940	0.01933	2.50740	0.02439

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.01589	0.32940	0.03019	2.50740	0.03571

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	!CLK	0.01860	0.01873	0.32940	0.01933	2.50740	0.02439

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	!CLK	0.01860	0.01589	0.32940	0.03019	2.50740	0.03571

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.01088	0.32940	0.01084	2.50740	0.01582

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.01615	0.32940	0.02949	2.50740	0.03384

TIEHI



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Footprint

Cell Name	Area
sg13g2_tiehi	7.25760

Pin Capacitance Information

Cell Name	Max Cap(pf)
	L_HI
sg13g2_tiehi	-

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_tiehi	58.06610	58.06610	58.06610

TIELO



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Footprint

Cell Name	Area
sg13g2_tielo	7.25760

Pin Capacitance Information

Cell Name	Max Cap(pf)
	L_LO
sg13g2_tielo	-

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_tielo	57.84800	57.84800	57.84800

XNOR2



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, 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
sg13g2_xnor2_1	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_xnor2_1	0.00562	0.00509	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xnor2_1	120.28000	194.76700	225.81200

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A->Y (-R)	0.01860	0.00100	0.05440	0.32940	0.06480	0.54428	2.50740	0.30000	2.70026
	B->Y (-R)	0.01860	0.00100	0.04714	0.32940	0.06480	0.56315	2.50740	0.30000	2.91259

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A->Y (-F)	0.01860	0.00100	0.04844	0.32940	0.06480	0.45548	2.50740	0.30000	2.34417
	B->Y (-F)	0.01860	0.00100	0.04172	0.32940	0.06480	0.44697	2.50740	0.30000	2.33010

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A->Y (RR)	B	0.01860	0.00100	0.07292	0.32940	0.06480	0.34339	2.50740	0.30000	1.21422
	A->Y (FR)	!B	0.01860	0.00100	0.05440	0.32940	0.06480	0.54428	2.50740	0.30000	2.70026
	B->Y (RR)	A	0.01860	0.00100	0.06807	0.32940	0.06480	0.33782	2.50740	0.30000	1.20327
	B->Y (FR)	!A	0.01860	0.00100	0.04714	0.32940	0.06480	0.56315	2.50740	0.30000	2.91259

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A->Y (FF)	B	0.01860	0.00100	0.07119	0.32940	0.06480	0.43271	2.50740	0.30000	1.59615
	A->Y (RF)	!B	0.01860	0.00100	0.04844	0.32940	0.06480	0.45548	2.50740	0.30000	2.34417
	B->Y (FF)	A	0.01860	0.00100	0.07194	0.32940	0.06480	0.42183	2.50740	0.30000	1.57210
	B->Y (RF)	!A	0.01860	0.00100	0.04172	0.32940	0.06480	0.44697	2.50740	0.30000	2.33010

Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A	0.01860	0.00100	0.00781	0.32940	0.06480	0.00777	2.50740	0.30000	0.01265
	B	0.01860	0.00100	0.00795	0.32940	0.06480	0.00780	2.50740	0.30000	0.01370

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A	0.01860	0.00100	0.00705	0.32940	0.06480	0.00744	2.50740	0.30000	0.01292
	B	0.01860	0.00100	0.00749	0.32940	0.06480	0.00664	2.50740	0.30000	0.01231

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A	B	0.01860	0.00100	0.00781	0.32940	0.06480	0.00777	2.50740	0.30000	0.01265
	A	!B	0.01860	0.00100	0.00496	0.32940	0.06480	0.00470	2.50740	0.30000	0.00533
	B	A	0.01860	0.00100	0.00795	0.32940	0.06480	0.00780	2.50740	0.30000	0.01370
	B	!A	0.01860	0.00100	0.00329	0.32940	0.06480	0.00324	2.50740	0.30000	0.00414

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A	B	0.01860	0.00100	0.00705	0.32940	0.06480	0.00744	2.50740	0.30000	0.01292
	A	!B	0.01860	0.00100	0.00494	0.32940	0.06480	0.00474	2.50740	0.30000	0.00522
	B	A	0.01860	0.00100	0.00749	0.32940	0.06480	0.00664	2.50740	0.30000	0.01231
	B	!A	0.01860	0.00100	0.00405	0.32940	0.06480	0.00411	2.50740	0.30000	0.00461

XOR2



*sg13g2_stdcell_typ_1p20V_25C Cell Library: Process
sg13g2_stdcell_typ_1p20V_25C, Voltage 1.20, Temp 25.00*

Truth Table

INPUT		OUTPUT
A	B	X
0	0	0
0	1	1
1	0	1
1	1	0

Footprint

Cell Name	Area
sg13g2_xor2_1	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	X
sg13g2_xor2_1	0.00575	0.00514	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xor2_1	174.79400	184.81700	194.60600

Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A->X (-R)	0.01860	0.00100	0.05873	0.32940	0.06480	0.55039	2.50740	0.30000	2.71033
	B->X (-R)	0.01860	0.00100	0.05038	0.32940	0.06480	0.54091	2.50740	0.30000	2.69711

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A->X (-F)	0.01860	0.00100	0.04425	0.32940	0.06480	0.45060	2.50740	0.30000	2.33339
	B->X (-F)	0.01860	0.00100	0.03904	0.32940	0.06480	0.46730	2.50740	0.30000	2.48411

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A->X (RR)	!B	0.01860	0.00100	0.07184	0.32940	0.06480	0.54144	2.50740	0.30000	2.13028
	A->X (FR)	B	0.01860	0.00100	0.05873	0.32940	0.06480	0.55039	2.50740	0.30000	2.71033
	B->X (RR)	!A	0.01860	0.00100	0.07486	0.32940	0.06480	0.52807	2.50740	0.30000	2.08997
	B->X (FR)	A	0.01860	0.00100	0.05038	0.32940	0.06480	0.54091	2.50740	0.30000	2.69711

Delay(ns) to X falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A->X (FF)	!B	0.01860	0.00100	0.08766	0.32940	0.06480	0.32597	2.50740	0.30000	1.03849
	A->X (RF)	B	0.01860	0.00100	0.04425	0.32940	0.06480	0.45060	2.50740	0.30000	2.33339
	B->X (FF)	!A	0.01860	0.00100	0.08096	0.32940	0.06480	0.32438	2.50740	0.30000	1.04564
	B->X (RF)	A	0.01860	0.00100	0.03904	0.32940	0.06480	0.46730	2.50740	0.30000	2.48411

Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A	0.01860	0.00100	0.00692	0.32940	0.06480	0.00725	2.50740	0.30000	0.01195
	B	0.01860	0.00100	0.00742	0.32940	0.06480	0.00655	2.50740	0.30000	0.01165

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A	0.01860	0.00100	0.00845	0.32940	0.06480	0.00861	2.50740	0.30000	0.01341
	B	0.01860	0.00100	0.00777	0.32940	0.06480	0.00783	2.50740	0.30000	0.01367

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A	B	0.01860	0.00100	0.00523	0.32940	0.06480	0.00506	2.50740	0.30000	0.00556
	A	!B	0.01860	0.00100	0.00692	0.32940	0.06480	0.00725	2.50740	0.30000	0.01195
	B	A	0.01860	0.00100	0.00416	0.32940	0.06480	0.00412	2.50740	0.30000	0.00461
	B	!A	0.01860	0.00100	0.00742	0.32940	0.06480	0.00655	2.50740	0.30000	0.01165

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A	B	0.01860	0.00100	0.00490	0.32940	0.06480	0.00455	2.50740	0.30000	0.00507
	A	!B	0.01860	0.00100	0.00845	0.32940	0.06480	0.00861	2.50740	0.30000	0.01341
	B	A	0.01860	0.00100	0.00397	0.32940	0.06480	0.00387	2.50740	0.30000	0.00454
	B	!A	0.01860	0.00100	0.00777	0.32940	0.06480	0.00783	2.50740	0.30000	0.01367