

sg13g2_stdcell_typ_1p50V_25C Library

Cell Groups
A21OIx
A221OI
A22OI
AND2x
AND3x
AND4x
AO21x
BTLx
BUx
DECAPx
DFFRRx
DFRBPQx
DLHQ
DLHRQ
DLHR
DLLRQ
DLLR
DLY1
DLY2
DLY4
EINVINx
FILLx
GCLK

INx
ITL
KEEPSTATE
MUX2x
MUX4
NAND2B1
NAND2B2
NAND2x
NAND3B1
NAND3
NAND4
NOR2Bx
NOR2x
NOR3x
NOR4x
NP_ANT
O21AI
OR2x
OR3x
OR4x
SDFRBPQx
SDFRBPx
SDFRRS
SGCLK
TIE0
TIE1

XNOR2_1
XOR2_1

A21OIx



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	14.51520
sg13g2_a21oi_1	9.07200

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	Y
sg13g2_a21oi_2	0.00608	0.00645	0.00584	0.60000
sg13g2_a21oi_1	0.00315	0.00324	0.00298	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21oi_2	373.63400	717.07900	919.55300
sg13g2_a21oi_1	186.83100	358.54600	459.77800

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_2	A1->Y (FR)	0.01860	0.00100	0.03029	0.32940	0.12960	0.37973	2.50740	0.60000	1.89689
	A2->Y (FR)	0.01860	0.00100	0.03671	0.32940	0.12960	0.38585	2.50740	0.60000	1.90258
	B1->Y (FR)	0.01860	0.00100	0.02932	0.32940	0.12960	0.41551	2.50740	0.60000	2.16864
sg13g2_a21oi_1	A1->Y (FR)	0.01860	0.00100	0.03323	0.32940	0.06480	0.37935	2.50740	0.30000	1.89310
	A2->Y (FR)	0.01860	0.00100	0.03940	0.32940	0.06480	0.38635	2.50740	0.30000	1.90420
	B1->Y (FR)	0.01860	0.00100	0.03203	0.32940	0.06480	0.41608	2.50740	0.30000	2.17085

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_2	A1->Y (RF)	0.01860	0.00100	0.02582	0.32940	0.12960	0.33650	2.50740	0.60000	1.77009
	A2->Y (RF)	0.01860	0.00100	0.02862	0.32940	0.12960	0.31088	2.50740	0.60000	1.59421
	B1->Y (RF)	0.01860	0.00100	0.01478	0.32940	0.12960	0.24948	2.50740	0.60000	1.36882
sg13g2_a21oi_1	A1->Y (RF)	0.01860	0.00100	0.02820	0.32940	0.06480	0.33674	2.50740	0.30000	1.76913
	A2->Y (RF)	0.01860	0.00100	0.03070	0.32940	0.06480	0.31069	2.50740	0.30000	1.59203
	B1->Y (RF)	0.01860	0.00100	0.01647	0.32940	0.06480	0.25015	2.50740	0.30000	1.37058

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_2	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.02932	0.32940	0.12960	0.41551	2.50740	0.60000	2.16864
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.02214	0.32940	0.12960	0.40893	2.50740	0.60000	2.16536
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	0.01868	0.32940	0.12960	0.34283	2.50740	0.60000	1.85007
sg13g2_a21oi_1	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.03203	0.32940	0.06480	0.41608	2.50740	0.30000	2.17085
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.02502	0.32940	0.06480	0.40758	2.50740	0.30000	2.15653
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	0.02103	0.32940	0.06480	0.34257	2.50740	0.30000	1.84700

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_2	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.01478	0.32940	0.12960	0.24948	2.50740	0.60000	1.36882
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.01446	0.32940	0.12960	0.24802	2.50740	0.60000	1.36590
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	0.01418	0.32940	0.12960	0.24786	2.50740	0.60000	1.36823
sg13g2_a21oi_1	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.01647	0.32940	0.06480	0.25015	2.50740	0.30000	1.37058
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.01615	0.32940	0.06480	0.24871	2.50740	0.30000	1.36794
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	0.01589	0.32940	0.06480	0.24853	2.50740	0.30000	1.37054

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_2	A1	0.01860	0.00100	0.01371	0.32940	0.12960	0.01521	2.50740	0.60000	0.03610
	A2	0.01860	0.00100	0.01475	0.32940	0.12960	0.01574	2.50740	0.60000	0.03734
	B1	0.01860	0.00100	0.00777	0.32940	0.12960	0.01061	2.50740	0.60000	0.03565
sg13g2_a21oi_1	A1	0.01860	0.00100	0.00688	0.32940	0.06480	0.00757	2.50740	0.30000	0.01786
	A2	0.01860	0.00100	0.00732	0.32940	0.06480	0.00779	2.50740	0.30000	0.01860
	B1	0.01860	0.00100	0.00379	0.32940	0.06480	0.00507	2.50740	0.30000	0.01785

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_2	A1	0.01860	0.00100	0.00853	0.32940	0.12960	0.00973	2.50740	0.60000	0.03053
	A2	0.01860	0.00100	0.01411	0.32940	0.12960	0.01476	2.50740	0.60000	0.03460
	B1	0.01860	0.00100	0.00426	0.32940	0.12960	0.00746	2.50740	0.60000	0.03103
sg13g2_a21oi_1	A1	0.01860	0.00100	0.00480	0.32940	0.06480	0.00544	2.50740	0.30000	0.01582
	A2	0.01860	0.00100	0.00745	0.32940	0.06480	0.00781	2.50740	0.30000	0.01774
	B1	0.01860	0.00100	0.00266	0.32940	0.06480	0.00412	2.50740	0.30000	0.01578

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_2	B1	(A1 * !A2)	0.01860	0.00100	0.00777	0.32940	0.12960	0.01061	2.50740	0.60000	0.03565
	B1	(!A1 * A2)	0.01860	0.00100	0.00646	0.32940	0.12960	0.00958	2.50740	0.60000	0.03469
	B1	(!A1 * !A2)	0.01860	0.00100	0.00651	0.32940	0.12960	0.00967	2.50740	0.60000	0.03861
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	0.00379	0.32940	0.06480	0.00507	2.50740	0.30000	0.01785
	B1	(!A1 * A2)	0.01860	0.00100	0.00328	0.32940	0.06480	0.00482	2.50740	0.30000	0.01745
	B1	(!A1 * !A2)	0.01860	0.00100	0.00329	0.32940	0.06480	0.00483	2.50740	0.30000	0.01915

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_2	B1	(A1 * !A2)	0.01860	0.00100	0.00987	0.32940	0.12960	0.01284	2.50740	0.60000	0.03391
	B1	(!A1 * A2)	0.01860	0.00100	0.00455	0.32940	0.12960	0.00755	2.50740	0.60000	0.02936
	B1	(!A1 * !A2)	0.01860	0.00100	0.00426	0.32940	0.12960	0.00746	2.50740	0.60000	0.03103
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	0.00547	0.32940	0.06480	0.00684	2.50740	0.30000	0.01747
	B1	(!A1 * A2)	0.01860	0.00100	0.00282	0.32940	0.06480	0.00422	2.50740	0.30000	0.01499
	B1	(!A1 * !A2)	0.01860	0.00100	0.00266	0.32940	0.06480	0.00412	2.50740	0.30000	0.01578

A221OI



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	Y
sg13g2_a221oi_1	0.00310	0.00320	0.00305	0.00319	0.00295	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a221oi_1	279.72700	558.47300	725.26000

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	0.07458	0.32940	0.06480	0.52769	2.50740	0.30000	2.35254
	A2->Y (FR)	0.01860	0.00100	0.08345	0.32940	0.06480	0.53616	2.50740	0.30000	2.35828
	B1->Y (FR)	0.01860	0.00100	0.06662	0.32940	0.06480	0.54347	2.50740	0.30000	2.57697
	B2->Y (FR)	0.01860	0.00100	0.07548	0.32940	0.06480	0.55171	2.50740	0.30000	2.58557
	C1->Y (FR)	0.01860	0.00100	0.04286	0.32940	0.06480	0.48608	2.50740	0.30000	2.47479

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	0.03645	0.32940	0.06480	0.35219	2.50740	0.30000	1.78973
	A2->Y (RF)	0.01860	0.00100	0.03854	0.32940	0.06480	0.32572	2.50740	0.30000	1.61238
	B1->Y (RF)	0.01860	0.00100	0.03294	0.32940	0.06480	0.34372	2.50740	0.30000	1.77623
	B2->Y (RF)	0.01860	0.00100	0.03531	0.32940	0.06480	0.31768	2.50740	0.30000	1.59791
	C1->Y (RF)	0.01860	0.00100	0.01873	0.32940	0.06480	0.25246	2.50740	0.30000	1.37112

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	0.07458	0.32940	0.06480	0.52769	2.50740	0.30000	2.35254
	A1->Y (FR)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.06389	0.32940	0.06480	0.51778	2.50740	0.30000	2.34580
	A1->Y (FR)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.05797	0.32940	0.06480	0.45818	2.50740	0.30000	2.11758
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.08345	0.32940	0.06480	0.53616	2.50740	0.30000	2.35828
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.07308	0.32940	0.06480	0.52651	2.50740	0.30000	2.35345
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.06553	0.32940	0.06480	0.46526	2.50740	0.30000	2.12451
	B1->Y (FR)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.06662	0.32940	0.06480	0.54347	2.50740	0.30000	2.57697
	B1->Y (FR)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	0.05586	0.32940	0.06480	0.53327	2.50740	0.30000	2.56871
	B1->Y (FR)	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.04726	0.32940	0.06480	0.45961	2.50740	0.30000	2.24110
	B2->Y (FR)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.07548	0.32940	0.06480	0.55171	2.50740	0.30000	2.58557
	B2->Y (FR)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	0.06505	0.32940	0.06480	0.54163	2.50740	0.30000	2.57752
	B2->Y (FR)	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.05469	0.32940	0.06480	0.46640	2.50740	0.30000	2.24737
	C1->Y (FR)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.04068	0.32940	0.06480	0.48455	2.50740	0.30000	2.47352
	C1->Y (FR)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	0.03215	0.32940	0.06480	0.47608	2.50740	0.30000	2.46797
	C1->Y (FR)	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	0.04286	0.32940	0.06480	0.48608	2.50740	0.30000	2.47479
	C1->Y (FR)	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	0.03426	0.32940	0.06480	0.47862	2.50740	0.30000	2.47190
	C1->Y (FR)	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.02896	0.32940	0.06480	0.41164	2.50740	0.30000	2.16467

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_a221oi_1	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03582	0.32940	0.06480	0.35220	2.50740	0.30000	1.78868
	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03496	0.32940	0.06480	0.34953	2.50740	0.30000	1.78555
	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03645	0.32940	0.06480	0.35219	2.50740	0.30000	1.78973
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03792	0.32940	0.06480	0.32575	2.50740	0.30000	1.61000
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03705	0.32940	0.06480	0.32330	2.50740	0.30000	1.60831
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03854	0.32940	0.06480	0.32572	2.50740	0.30000	1.61238
	B1->Y (RF)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.03294	0.32940	0.06480	0.34372	2.50740	0.30000	1.77623
	B1->Y (RF)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	0.03230	0.32940	0.06480	0.34106	2.50740	0.30000	1.77259
	B1->Y (RF)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	0.03199	0.32940	0.06480	0.34094	2.50740	0.30000	1.77457
	B2->Y (RF)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.03531	0.32940	0.06480	0.31768	2.50740	0.30000	1.59791
	B2->Y (RF)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	0.03470	0.32940	0.06480	0.31533	2.50740	0.30000	1.59585
	B2->Y (RF)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	0.03440	0.32940	0.06480	0.31507	2.50740	0.30000	1.59790
	C1->Y (RF)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.01873	0.32940	0.06480	0.25246	2.50740	0.30000	1.37112
	C1->Y (RF)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	0.01843	0.32940	0.06480	0.25109	2.50740	0.30000	1.36838
	C1->Y (RF)	(!A1 * A2 * B1 * !B2)	0.01860	0.00100	0.01884	0.32940	0.06480	0.25246	2.50740	0.30000	1.37113
	C1->Y (RF)	(!A1 * A2 * !B1 * B2)	0.01860	0.00100	0.01855	0.32940	0.06480	0.25109	2.50740	0.30000	1.36834
	C1->Y (RF)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	0.01834	0.32940	0.06480	0.25094	2.50740	0.30000	1.37054

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	0.01285	0.32940	0.06480	0.01274	2.50740	0.30000	0.02164
	A2	0.01860	0.00100	0.01311	0.32940	0.06480	0.01294	2.50740	0.30000	0.02206
	B1	0.01860	0.00100	0.00985	0.32940	0.06480	0.01000	2.50740	0.30000	0.01815
	B2	0.01860	0.00100	0.01002	0.32940	0.06480	0.01016	2.50740	0.30000	0.01863
	C1	0.01860	0.00100	0.00617	0.32940	0.06480	0.00715	2.50740	0.30000	0.01866

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	0.00776	0.32940	0.06480	0.00785	2.50740	0.30000	0.01707
	A2	0.01860	0.00100	0.01032	0.32940	0.06480	0.01038	2.50740	0.30000	0.01923
	B1	0.01860	0.00100	0.00500	0.32940	0.06480	0.00546	2.50740	0.30000	0.01500
	B2	0.01860	0.00100	0.00770	0.32940	0.06480	0.00800	2.50740	0.30000	0.01710
	C1	0.01860	0.00100	0.00290	0.32940	0.06480	0.00420	2.50740	0.30000	0.01496

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	0.01285	0.32940	0.06480	0.01274	2.50740	0.30000	0.02164
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01235	0.32940	0.06480	0.01235	2.50740	0.30000	0.02134
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01540	0.32940	0.06480	0.01551	2.50740	0.30000	0.02444
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01311	0.32940	0.06480	0.01294	2.50740	0.30000	0.02206
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01272	0.32940	0.06480	0.01260	2.50740	0.30000	0.02177
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01572	0.32940	0.06480	0.01561	2.50740	0.30000	0.02501
	B1	(A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00985	0.32940	0.06480	0.01000	2.50740	0.30000	0.01815
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00935	0.32940	0.06480	0.00956	2.50740	0.30000	0.01780
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00935	0.32940	0.06480	0.00978	2.50740	0.30000	0.01874
	B2	(A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.01002	0.32940	0.06480	0.01016	2.50740	0.30000	0.01863
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.00965	0.32940	0.06480	0.00972	2.50740	0.30000	0.01826
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.00961	0.32940	0.06480	0.00980	2.50740	0.30000	0.01922
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00615	0.32940	0.06480	0.00729	2.50740	0.30000	0.01857
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00566	0.32940	0.06480	0.00686	2.50740	0.30000	0.01823
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00617	0.32940	0.06480	0.00715	2.50740	0.30000	0.01866
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00567	0.32940	0.06480	0.00692	2.50740	0.30000	0.01828
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00570	0.32940	0.06480	0.00713	2.50740	0.30000	0.01982

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_a221oi_1	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01038	0.32940	0.06480	0.01051	2.50740	0.30000	0.01971
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00776	0.32940	0.06480	0.00785	2.50740	0.30000	0.01707
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00638	0.32940	0.06480	0.00658	2.50740	0.30000	0.01618
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01298	0.32940	0.06480	0.01299	2.50740	0.30000	0.02171
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01032	0.32940	0.06480	0.01038	2.50740	0.30000	0.01923
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00894	0.32940	0.06480	0.00898	2.50740	0.30000	0.01824
	B1	(A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00780	0.32940	0.06480	0.00818	2.50740	0.30000	0.01702
	B1	(!A1 * * A2 * * B2 * * !C1)	0.01860	0.00100	0.00514	0.32940	0.06480	0.00562	2.50740	0.30000	0.01439
	B1	(!A1 * * !A2 * * B2 * * !C1)	0.01860	0.00100	0.00500	0.32940	0.06480	0.00546	2.50740	0.30000	0.01500
	B2	(A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.01049	0.32940	0.06480	0.01076	2.50740	0.30000	0.01900
	B2	(!A1 * * A2 * * B1 * * !C1)	0.01860	0.00100	0.00783	0.32940	0.06480	0.00810	2.50740	0.30000	0.01645
	B2	(!A1 * * !A2 * * B1 * * !C1)	0.01860	0.00100	0.00770	0.32940	0.06480	0.00800	2.50740	0.30000	0.01710
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00560	0.32940	0.06480	0.00693	2.50740	0.30000	0.01657
	C1	(!A1 * * A2 * * !B1 * * !B2)	0.01860	0.00100	0.00295	0.32940	0.06480	0.00430	2.50740	0.30000	0.01419
	C1	(!A1 * * !A2 * * B1 * * !B2)	0.01860	0.00100	0.00568	0.32940	0.06480	0.00691	2.50740	0.30000	0.01648
	C1	(!A1 * * !A2 * * !B1 * * B2)	0.01860	0.00100	0.00302	0.32940	0.06480	0.00429	2.50740	0.30000	0.01418
	C1	(!A1 * * !A2 * * !B1 * * !B2)	0.01860	0.00100	0.00290	0.32940	0.06480	0.00420	2.50740	0.30000	0.01496

A22OI



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	Y
sg13g2_a22oi_1	0.00324	0.00328	0.00317	0.00310	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a22oi_1	185.81400	432.96400	681.13400

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	0.03809	0.32940	0.06480	0.38431	2.50740	0.30000	1.89840
	A2->Y (FR)	0.01860	0.00100	0.04374	0.32940	0.06480	0.38952	2.50740	0.30000	1.90151
	B1->Y (FR)	0.01860	0.00100	0.04113	0.32940	0.06480	0.42419	2.50740	0.30000	2.17155
	B2->Y (FR)	0.01860	0.00100	0.03505	0.32940	0.06480	0.41658	2.50740	0.30000	2.15707

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	0.03168	0.32940	0.06480	0.34068	2.50740	0.30000	1.77456
	A2->Y (RF)	0.01860	0.00100	0.03389	0.32940	0.06480	0.31468	2.50740	0.30000	1.59735
	B1->Y (RF)	0.01860	0.00100	0.02755	0.32940	0.06480	0.30763	2.50740	0.30000	1.58561
	B2->Y (RF)	0.01860	0.00100	0.02487	0.32940	0.06480	0.33335	2.50740	0.30000	1.76357

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	0.03809	0.32940	0.06480	0.38431	2.50740	0.30000	1.89840
	A2->Y (FR)	(A1 * B1)	0.01860	0.00100	0.04374	0.32940	0.06480	0.38952	2.50740	0.30000	1.90151
	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.04113	0.32940	0.06480	0.42419	2.50740	0.30000	2.17155
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.03436	0.32940	0.06480	0.41581	2.50740	0.30000	2.15824
	B2->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.03505	0.32940	0.06480	0.41658	2.50740	0.30000	2.15707
	B2->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.02840	0.32940	0.06480	0.41070	2.50740	0.30000	2.15435

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	0.03168	0.32940	0.06480	0.34068	2.50740	0.30000	1.77456
	A2->Y (RF)	(A1 * B1)	0.01860	0.00100	0.03389	0.32940	0.06480	0.31468	2.50740	0.30000	1.59735
	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.02755	0.32940	0.06480	0.30763	2.50740	0.30000	1.58561
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.02709	0.32940	0.06480	0.30527	2.50740	0.30000	1.58279
	B2->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.02487	0.32940	0.06480	0.33335	2.50740	0.30000	1.76357
	B2->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.02438	0.32940	0.06480	0.33088	2.50740	0.30000	1.76013

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	0.00732	0.32940	0.06480	0.00776	2.50740	0.30000	0.01814
	A2	0.01860	0.00100	0.00759	0.32940	0.06480	0.00795	2.50740	0.30000	0.01844
	B1	0.01860	0.00100	0.00456	0.32940	0.06480	0.00548	2.50740	0.30000	0.01691
	B2	0.01860	0.00100	0.00427	0.32940	0.06480	0.00528	2.50740	0.30000	0.01625

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	0.00724	0.32940	0.06480	0.00778	2.50740	0.30000	0.01814
	A2	0.01860	0.00100	0.00983	0.32940	0.06480	0.01010	2.50740	0.30000	0.02006
	B1	0.01860	0.00100	0.00943	0.32940	0.06480	0.01019	2.50740	0.30000	0.01947
	B2	0.01860	0.00100	0.00678	0.32940	0.06480	0.00783	2.50740	0.30000	0.01761

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	0.00732	0.32940	0.06480	0.00776	2.50740	0.30000	0.01814
	A2	(A1 * B1)	0.01860	0.00100	0.00759	0.32940	0.06480	0.00795	2.50740	0.30000	0.01844
	B1	(A1 * !A2)	0.01860	0.00100	0.00456	0.32940	0.06480	0.00548	2.50740	0.30000	0.01691
	B1	(!A1 * A2)	0.01860	0.00100	0.00426	0.32940	0.06480	0.00529	2.50740	0.30000	0.01687
	B2	(A1 * !A2)	0.01860	0.00100	0.00427	0.32940	0.06480	0.00528	2.50740	0.30000	0.01625
	B2	(!A1 * A2)	0.01860	0.00100	0.00385	0.32940	0.06480	0.00517	2.50740	0.30000	0.01596

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	0.00724	0.32940	0.06480	0.00778	2.50740	0.30000	0.01814
	A2	(A1 * B1)	0.01860	0.00100	0.00983	0.32940	0.06480	0.01010	2.50740	0.30000	0.02006
	B1	(A1 * !A2)	0.01860	0.00100	0.00943	0.32940	0.06480	0.01019	2.50740	0.30000	0.01947
	B1	(!A1 * A2)	0.01860	0.00100	0.00676	0.32940	0.06480	0.00752	2.50740	0.30000	0.01688
	B2	(A1 * !A2)	0.01860	0.00100	0.00678	0.32940	0.06480	0.00783	2.50740	0.30000	0.01761
	B2	(!A1 * A2)	0.01860	0.00100	0.00412	0.32940	0.06480	0.00518	2.50740	0.30000	0.01485

AND2x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	10.88640
sg13g2_and2_1	9.07200

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	X
sg13g2_and2_2	0.00266	0.00270	0.60000
sg13g2_and2_1	0.00268	0.00270	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and2_2	556.10000	597.66700	672.10500
sg13g2_and2_1	314.36700	392.85800	489.11200

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_2	A->X (RR)	0.01860	0.00100	0.05585	0.32940	0.12960	0.26304	2.50740	0.60000	0.90508
	B->X (RR)	0.01860	0.00100	0.05833	0.32940	0.12960	0.25593	2.50740	0.60000	0.87349
sg13g2_and2_1	A->X (RR)	0.01860	0.00100	0.04545	0.32940	0.06480	0.23111	2.50740	0.30000	0.84299
	B->X (RR)	0.01860	0.00100	0.04812	0.32940	0.06480	0.22835	2.50740	0.30000	0.81776

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_2	A->X (FF)	0.01860	0.00100	0.04867	0.32940	0.12960	0.23719	2.50740	0.60000	0.78183
	B->X (FF)	0.01860	0.00100	0.05234	0.32940	0.12960	0.24712	2.50740	0.60000	0.81482
sg13g2_and2_1	A->X (FF)	0.01860	0.00100	0.03981	0.32940	0.06480	0.20633	2.50740	0.30000	0.71937
	B->X (FF)	0.01860	0.00100	0.04366	0.32940	0.06480	0.21783	2.50740	0.30000	0.75559

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_2	A	0.01860	0.00100	0.01688	0.32940	0.12960	0.01931	2.50740	0.60000	0.04969
	B	0.01860	0.00100	0.01917	0.32940	0.12960	0.02072	2.50740	0.60000	0.04980
sg13g2_and2_1	A	0.01860	0.00100	0.01015	0.32940	0.06480	0.01320	2.50740	0.30000	0.04431
	B	0.01860	0.00100	0.01247	0.32940	0.06480	0.01465	2.50740	0.30000	0.04450

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_2	A	0.01860	0.00100	0.01507	0.32940	0.12960	0.01858	2.50740	0.60000	0.04849
	B	0.01860	0.00100	0.01532	0.32940	0.12960	0.01883	2.50740	0.60000	0.04935
sg13g2_and2_1	A	0.01860	0.00100	0.00879	0.32940	0.06480	0.01249	2.50740	0.30000	0.04364
	B	0.01860	0.00100	0.00903	0.32940	0.06480	0.01275	2.50740	0.30000	0.04374

AND3x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	12.70080
sg13g2_and3_1	12.70080

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	X
sg13g2_and3_2	0.00267	0.00267	0.00268	0.60000
sg13g2_and3_1	0.00267	0.00267	0.00268	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and3_2	559.35800	660.54200	787.78900
sg13g2_and3_1	317.58100	437.26200	686.73600

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_2	A->X (RR)	0.01860	0.00100	0.07389	0.32940	0.12960	0.29599	2.50740	0.60000	0.99330
	B->X (RR)	0.01860	0.00100	0.07969	0.32940	0.12960	0.29310	2.50740	0.60000	0.96942
	C->X (RR)	0.01860	0.00100	0.08215	0.32940	0.12960	0.28260	2.50740	0.60000	0.92002
sg13g2_and3_1	A->X (RR)	0.01860	0.00100	0.05924	0.32940	0.06480	0.25873	2.50740	0.30000	0.92018
	B->X (RR)	0.01860	0.00100	0.06519	0.32940	0.06480	0.25837	2.50740	0.30000	0.90262
	C->X (RR)	0.01860	0.00100	0.06768	0.32940	0.06480	0.25107	2.50740	0.30000	0.86140

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_2	A->X (FF)	0.01860	0.00100	0.05100	0.32940	0.12960	0.24221	2.50740	0.60000	0.77215
	B->X (FF)	0.01860	0.00100	0.05488	0.32940	0.12960	0.25208	2.50740	0.60000	0.80158
	C->X (FF)	0.01860	0.00100	0.05769	0.32940	0.12960	0.25997	2.50740	0.60000	0.83449
sg13g2_and3_1	A->X (FF)	0.01860	0.00100	0.04243	0.32940	0.06480	0.21122	2.50740	0.30000	0.70773
	B->X (FF)	0.01860	0.00100	0.04643	0.32940	0.06480	0.22338	2.50740	0.30000	0.74190
	C->X (FF)	0.01860	0.00100	0.04909	0.32940	0.06480	0.23224	2.50740	0.30000	0.77687

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_2	A	0.01860	0.00100	0.01931	0.32940	0.12960	0.02034	2.50740	0.60000	0.04868
	B	0.01860	0.00100	0.02148	0.32940	0.12960	0.02189	2.50740	0.60000	0.04902
	C	0.01860	0.00100	0.02361	0.32940	0.12960	0.02369	2.50740	0.60000	0.05124
sg13g2_and3_1	A	0.01860	0.00100	0.01172	0.32940	0.06480	0.01416	2.50740	0.30000	0.04302
	B	0.01860	0.00100	0.01404	0.32940	0.06480	0.01550	2.50740	0.30000	0.04313
	C	0.01860	0.00100	0.01619	0.32940	0.06480	0.01720	2.50740	0.30000	0.04584

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_2	A	0.01860	0.00100	0.01534	0.32940	0.12960	0.01836	2.50740	0.60000	0.04619
	B	0.01860	0.00100	0.01576	0.32940	0.12960	0.01868	2.50740	0.60000	0.04627
	C	0.01860	0.00100	0.01603	0.32940	0.12960	0.01886	2.50740	0.60000	0.04792
sg13g2_and3_1	A	0.01860	0.00100	0.00903	0.32940	0.06480	0.01220	2.50740	0.30000	0.04111
	B	0.01860	0.00100	0.00938	0.32940	0.06480	0.01249	2.50740	0.30000	0.04131
	C	0.01860	0.00100	0.00961	0.32940	0.06480	0.01280	2.50740	0.30000	0.04263

AND4x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	16.32960
sg13g2_and4_1	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	X
sg13g2_and4_2	0.00249	0.00264	0.00264	0.00265	0.60000
sg13g2_and4_1	0.00250	0.00265	0.00264	0.00266	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and4_2	562.78200	697.62700	978.28000
sg13g2_and4_1	321.04000	465.12500	884.37800

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_2	A->X (RR)	0.01860	0.00100	0.09204	0.32940	0.12960	0.32726	2.50740	0.60000	1.06275
	B->X (RR)	0.01860	0.00100	0.10100	0.32940	0.12960	0.32699	2.50740	0.60000	1.04812
	C->X (RR)	0.01860	0.00100	0.10638	0.32940	0.12960	0.32000	2.50740	0.60000	1.00683
	D->X (RR)	0.01860	0.00100	0.10905	0.32940	0.12960	0.31214	2.50740	0.60000	0.95737
sg13g2_and4_1	A->X (RR)	0.01860	0.00100	0.07314	0.32940	0.06480	0.28447	2.50740	0.30000	0.98640
	B->X (RR)	0.01860	0.00100	0.08223	0.32940	0.06480	0.28638	2.50740	0.30000	0.97816
	C->X (RR)	0.01860	0.00100	0.08767	0.32940	0.06480	0.28269	2.50740	0.30000	0.94391
	D->X (RR)	0.01860	0.00100	0.09033	0.32940	0.06480	0.27695	2.50740	0.30000	0.90113

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_2	A->X (FF)	0.01860	0.00100	0.05271	0.32940	0.12960	0.24457	2.50740	0.60000	0.75786
	B->X (FF)	0.01860	0.00100	0.05675	0.32940	0.12960	0.25428	2.50740	0.60000	0.78783
	C->X (FF)	0.01860	0.00100	0.05984	0.32940	0.12960	0.26227	2.50740	0.60000	0.81782
	D->X (FF)	0.01860	0.00100	0.06199	0.32940	0.12960	0.26926	2.50740	0.60000	0.84745
sg13g2_and4_1	A->X (FF)	0.01860	0.00100	0.04454	0.32940	0.06480	0.21410	2.50740	0.30000	0.69242
	B->X (FF)	0.01860	0.00100	0.04869	0.32940	0.06480	0.22583	2.50740	0.30000	0.72472
	C->X (FF)	0.01860	0.00100	0.05166	0.32940	0.06480	0.23474	2.50740	0.30000	0.75817
	D->X (FF)	0.01860	0.00100	0.05356	0.32940	0.06480	0.24270	2.50740	0.30000	0.79167

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_2	A	0.01860	0.00100	0.02119	0.32940	0.12960	0.02115	2.50740	0.60000	0.04710
	B	0.01860	0.00100	0.02363	0.32940	0.12960	0.02308	2.50740	0.60000	0.04778
	C	0.01860	0.00100	0.02577	0.32940	0.12960	0.02471	2.50740	0.60000	0.05018
	D	0.01860	0.00100	0.02789	0.32940	0.12960	0.02657	2.50740	0.60000	0.05288
sg13g2_and4_1	A	0.01860	0.00100	0.01285	0.32940	0.06480	0.01488	2.50740	0.30000	0.04160
	B	0.01860	0.00100	0.01532	0.32940	0.06480	0.01634	2.50740	0.30000	0.04228
	C	0.01860	0.00100	0.01744	0.32940	0.06480	0.01813	2.50740	0.30000	0.04472
	D	0.01860	0.00100	0.01957	0.32940	0.06480	0.02001	2.50740	0.30000	0.04722

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_2	A	0.01860	0.00100	0.01596	0.32940	0.12960	0.01869	2.50740	0.60000	0.04478
	B	0.01860	0.00100	0.01627	0.32940	0.12960	0.01870	2.50740	0.60000	0.04561
	C	0.01860	0.00100	0.01665	0.32940	0.12960	0.01897	2.50740	0.60000	0.04640
	D	0.01860	0.00100	0.01703	0.32940	0.12960	0.01920	2.50740	0.60000	0.04773
sg13g2_and4_1	A	0.01860	0.00100	0.00958	0.32940	0.06480	0.01240	2.50740	0.30000	0.03968
	B	0.01860	0.00100	0.00980	0.32940	0.06480	0.01245	2.50740	0.30000	0.03938
	C	0.01860	0.00100	0.01014	0.32940	0.06480	0.01278	2.50740	0.30000	0.04094
	D	0.01860	0.00100	0.01042	0.32940	0.06480	0.01308	2.50740	0.30000	0.04235

A021x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	14.51520
sg13g2_a21o_1	12.70080

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	X
sg13g2_a21o_2	0.00306	0.00309	0.00291	0.60000
sg13g2_a21o_1	0.00288	0.00300	0.00279	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21o_2	524.50300	642.56900	796.61200
sg13g2_a21o_1	405.29900	458.00100	521.31200

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_2	A1->X (RR)	0.01860	0.00100	0.05921	0.32940	0.12960	0.26816	2.50740	0.60000	0.89590
	A2->X (RR)	0.01860	0.00100	0.06126	0.32940	0.12960	0.26014	2.50740	0.60000	0.86277
	B1->X (RR)	0.01860	0.00100	0.04045	0.32940	0.12960	0.23488	2.50740	0.60000	0.78964
sg13g2_a21o_1	A1->X (RR)	0.01860	0.00100	0.05559	0.32940	0.06480	0.25410	2.50740	0.30000	0.89463
	A2->X (RR)	0.01860	0.00100	0.05775	0.32940	0.06480	0.24800	2.50740	0.30000	0.86177
	B1->X (RR)	0.01860	0.00100	0.03801	0.32940	0.06480	0.22106	2.50740	0.30000	0.78307

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_2	A1->X (FF)	0.01860	0.00100	0.07863	0.32940	0.12960	0.26301	2.50740	0.60000	0.83400
	A2->X (FF)	0.01860	0.00100	0.08578	0.32940	0.12960	0.27539	2.50740	0.60000	0.86681
	B1->X (FF)	0.01860	0.00100	0.07884	0.32940	0.12960	0.28968	2.50740	0.60000	0.94036
sg13g2_a21o_1	A1->X (FF)	0.01860	0.00100	0.06245	0.32940	0.06480	0.22716	2.50740	0.30000	0.74715
	A2->X (FF)	0.01860	0.00100	0.06890	0.32940	0.06480	0.23930	2.50740	0.30000	0.78064
	B1->X (FF)	0.01860	0.00100	0.06164	0.32940	0.06480	0.24742	2.50740	0.30000	0.83886

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_2	A1->X (RR)	!B1	0.01860	0.00100	0.05921	0.32940	0.12960	0.26816	2.50740	0.60000	0.89590
	A2->X (RR)	!B1	0.01860	0.00100	0.06126	0.32940	0.12960	0.26014	2.50740	0.60000	0.86277
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	0.04045	0.32940	0.12960	0.23488	2.50740	0.60000	0.78964
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	0.03885	0.32940	0.12960	0.22610	2.50740	0.60000	0.76546
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	0.03863	0.32940	0.12960	0.22641	2.50740	0.60000	0.78553
sg13g2_a21o_1	A1->X (RR)	!B1	0.01860	0.00100	0.05559	0.32940	0.06480	0.25410	2.50740	0.30000	0.89463
	A2->X (RR)	!B1	0.01860	0.00100	0.05775	0.32940	0.06480	0.24800	2.50740	0.30000	0.86177
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	0.03801	0.32940	0.06480	0.22106	2.50740	0.30000	0.78307
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	0.03587	0.32940	0.06480	0.21193	2.50740	0.30000	0.75529
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	0.03566	0.32940	0.06480	0.21290	2.50740	0.30000	0.77621

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_2	A1->X (FF)	!B1	0.01860	0.00100	0.07863	0.32940	0.12960	0.26301	2.50740	0.60000	0.83400
	A2->X (FF)	!B1	0.01860	0.00100	0.08578	0.32940	0.12960	0.27539	2.50740	0.60000	0.86681
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	0.07884	0.32940	0.12960	0.28968	2.50740	0.60000	0.94036
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	0.07021	0.32940	0.12960	0.27454	2.50740	0.60000	0.91363
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	0.05728	0.32940	0.12960	0.25275	2.50740	0.60000	0.85568
sg13g2_a21o_1	A1->X (FF)	!B1	0.01860	0.00100	0.06245	0.32940	0.06480	0.22716	2.50740	0.30000	0.74715
	A2->X (FF)	!B1	0.01860	0.00100	0.06890	0.32940	0.06480	0.23930	2.50740	0.30000	0.78064
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	0.06164	0.32940	0.06480	0.24742	2.50740	0.30000	0.83886
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	0.05415	0.32940	0.06480	0.23302	2.50740	0.30000	0.81369
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	0.04564	0.32940	0.06480	0.21634	2.50740	0.30000	0.76172

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_2	A1	0.01860	0.00100	0.01819	0.32940	0.12960	0.02057	2.50740	0.60000	0.05257
	A2	0.01860	0.00100	0.02078	0.32940	0.12960	0.02238	2.50740	0.60000	0.05312
	B1	0.01860	0.00100	0.01586	0.32940	0.12960	0.01966	2.50740	0.60000	0.05533
sg13g2_a21o_1	A1	0.01860	0.00100	0.01139	0.32940	0.06480	0.01379	2.50740	0.30000	0.04418
	A2	0.01860	0.00100	0.01374	0.32940	0.06480	0.01544	2.50740	0.30000	0.04446
	B1	0.01860	0.00100	0.00952	0.32940	0.06480	0.01290	2.50740	0.30000	0.04696

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_2	A1	0.01860	0.00100	0.02059	0.32940	0.12960	0.02154	2.50740	0.60000	0.05337
	A2	0.01860	0.00100	0.02100	0.32940	0.12960	0.02171	2.50740	0.60000	0.05407
	B1	0.01860	0.00100	0.01801	0.32940	0.12960	0.02012	2.50740	0.60000	0.05431
sg13g2_a21o_1	A1	0.01860	0.00100	0.01320	0.32940	0.06480	0.01509	2.50740	0.30000	0.04546
	A2	0.01860	0.00100	0.01329	0.32940	0.06480	0.01512	2.50740	0.30000	0.04520
	B1	0.01860	0.00100	0.00992	0.32940	0.06480	0.01373	2.50740	0.30000	0.04534

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_2	A1	!B1	0.01860	0.00100	0.01819	0.32940	0.12960	0.02057	2.50740	0.60000	0.05257
	A2	!B1	0.01860	0.00100	0.02078	0.32940	0.12960	0.02238	2.50740	0.60000	0.05312
	B1	(A1 * !A2)	0.01860	0.00100	0.01872	0.32940	0.12960	0.02241	2.50740	0.60000	0.05628
	B1	(!A1 * A2)	0.01860	0.00100	0.01601	0.32940	0.12960	0.01954	2.50740	0.60000	0.05240
	B1	(!A1 * !A2)	0.01860	0.00100	0.01586	0.32940	0.12960	0.01966	2.50740	0.60000	0.05533
sg13g2_a21o_1	A1	!B1	0.01860	0.00100	0.01139	0.32940	0.06480	0.01379	2.50740	0.30000	0.04418
	A2	!B1	0.01860	0.00100	0.01374	0.32940	0.06480	0.01544	2.50740	0.30000	0.04446
	B1	(A1 * !A2)	0.01860	0.00100	0.01196	0.32940	0.06480	0.01499	2.50740	0.30000	0.04747
	B1	(!A1 * A2)	0.01860	0.00100	0.00965	0.32940	0.06480	0.01277	2.50740	0.30000	0.04474
	B1	(!A1 * !A2)	0.01860	0.00100	0.00952	0.32940	0.06480	0.01290	2.50740	0.30000	0.04696

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_2	A1	!B1	0.01860	0.00100	0.02059	0.32940	0.12960	0.02154	2.50740	0.60000	0.05337
	A2	!B1	0.01860	0.00100	0.02100	0.32940	0.12960	0.02171	2.50740	0.60000	0.05407
	B1	(A1 * !A2)	0.01860	0.00100	0.01801	0.32940	0.12960	0.02012	2.50740	0.60000	0.05431
	B1	(!A1 * A2)	0.01860	0.00100	0.01739	0.32940	0.12960	0.02019	2.50740	0.60000	0.05420
	B1	(!A1 * !A2)	0.01860	0.00100	0.01666	0.32940	0.12960	0.02052	2.50740	0.60000	0.05747
sg13g2_a21o_1	A1	!B1	0.01860	0.00100	0.01320	0.32940	0.06480	0.01509	2.50740	0.30000	0.04546
	A2	!B1	0.01860	0.00100	0.01329	0.32940	0.06480	0.01512	2.50740	0.30000	0.04520
	B1	(A1 * !A2)	0.01860	0.00100	0.01027	0.32940	0.06480	0.01358	2.50740	0.30000	0.04526
	B1	(!A1 * A2)	0.01860	0.00100	0.00992	0.32940	0.06480	0.01373	2.50740	0.30000	0.04534
	B1	(!A1 * !A2)	0.01860	0.00100	0.00985	0.32940	0.06480	0.01410	2.50740	0.30000	0.04822

BTLx



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_8	45.36000
sg13g2_ebufn_4	27.21600
sg13g2_ebufn_2	18.14400

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_ebufn_8	0.00609	0.01821	2.40000
sg13g2_ebufn_4	0.00312	0.01090	1.20000
sg13g2_ebufn_2	0.00276	0.00668	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_ebufn_8	590.33500	2069.17000	3795.96000
sg13g2_ebufn_4	416.03800	1118.49000	1944.93000
sg13g2_ebufn_2	331.83000	683.05500	1042.43000

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_8	A->Z (RR)	0.01860	0.02030	0.05214	0.32940	0.53770	0.39374	2.50740	2.41930	1.49979
	TE_B->Z (RR)	0.01860	0.02030	0.05210	0.32940	0.53770	0.12297	2.50740	2.41930	0.24540
	TE_B->Z (FR)	0.01860	0.02030	0.02548	0.32940	0.53770	0.37454	2.50740	2.41930	1.85263
sg13g2_ebufn_4	A->Z (RR)	0.01860	0.01080	0.05341	0.32940	0.26900	0.39380	2.50740	1.20980	1.49867
	TE_B->Z (RR)	0.01860	0.01080	0.04044	0.32940	0.26900	0.08930	2.50740	1.20980	0.17000
	TE_B->Z (FR)	0.01860	0.01080	0.02504	0.32940	0.26900	0.37268	2.50740	1.20980	1.84856
sg13g2_ebufn_2	A->Z (RR)	0.01860	0.00597	0.04526	0.32940	0.13457	0.36590	2.50740	0.60497	1.43756
	TE_B->Z (RR)	0.01860	0.00597	0.03437	0.32940	0.13457	0.07224	2.50740	0.60497	0.14493
	TE_B->Z (FR)	0.01860	0.00597	0.02532	0.32940	0.13457	0.36918	2.50740	0.60497	1.83751

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_8	A->Z (FF)	0.01860	0.02961	0.05867	0.32940	0.54701	0.33285	2.50740	2.42861	1.17698
	TE_B->Z (RF)	0.01860	0.02961	0.02319	0.32940	0.54701	0.05701	2.50740	2.42861	0.34468
	TE_B->Z (FF)	0.01860	0.02961	0.06334	0.32940	0.54701	0.38148	2.50740	2.42861	1.36730
sg13g2_ebufn_4	A->Z (FF)	0.01860	0.01553	0.06012	0.32940	0.27373	0.33403	2.50740	1.21453	1.17517
	TE_B->Z (RF)	0.01860	0.01553	0.02185	0.32940	0.27373	0.05571	2.50740	1.21453	0.34091
	TE_B->Z (FF)	0.01860	0.01553	0.04828	0.32940	0.27373	0.33913	2.50740	1.21453	1.27366
sg13g2_ebufn_2	A->Z (FF)	0.01860	0.00841	0.04657	0.32940	0.13701	0.29776	2.50740	0.60741	1.09881
	TE_B->Z (RF)	0.01860	0.00841	0.02072	0.32940	0.13701	0.05494	2.50740	0.60741	0.33811
	TE_B->Z (FF)	0.01860	0.00841	0.04096	0.32940	0.13701	0.31134	2.50740	0.60741	1.21099

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_8	A	0.01860	0.02030	0.05918	0.32940	0.53770	0.06551	2.50740	2.41930	0.07013
	TE_B	0.01860	0.02030	0.01003	0.32940	0.53770	0.00965	2.50740	2.41930	0.00718
sg13g2_ebufn_4	A	0.01860	0.01080	0.02971	0.32940	0.26900	0.03219	2.50740	1.20980	0.03265
	TE_B	0.01860	0.01080	0.00526	0.32940	0.26900	0.00512	2.50740	1.20980	0.00316
sg13g2_ebufn_2	A	0.01860	0.00597	0.01529	0.32940	0.13457	0.01607	2.50740	0.60497	0.01534
	TE_B	0.01860	0.00597	0.00281	0.32940	0.13457	0.00266	2.50740	0.60497	0.00182

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_8	A	0.01860	0.02961	0.05525	0.32940	0.54701	0.05604	2.50740	2.42861	0.05192
	TE_B	0.01860	0.02961	0.00883	0.32940	0.54701	0.06317	2.50740	2.42861	0.28212
sg13g2_ebufn_4	A	0.01860	0.01553	0.02753	0.32940	0.27373	0.02816	2.50740	1.21453	0.02516
	TE_B	0.01860	0.01553	0.00479	0.32940	0.27373	0.03254	2.50740	1.21453	0.14134
sg13g2_ebufn_2	A	0.01860	0.00841	0.01337	0.32940	0.13701	0.01440	2.50740	0.60741	0.01280
	TE_B	0.01860	0.00841	0.00253	0.32940	0.13701	0.01653	2.50740	0.60741	0.06996

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_8	0.01860	0.01615	0.32940	0.02382	2.50740	0.11086
sg13g2_ebufn_4	0.01860	0.00867	0.32940	0.01239	2.50740	0.05575
sg13g2_ebufn_2	0.01860	0.00511	0.32940	0.00879	2.50740	0.04729

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_8	0.01860	0.01351	0.32940	0.02244	2.50740	0.11219
sg13g2_ebufn_4	0.01860	0.00721	0.32940	0.01159	2.50740	0.05634
sg13g2_ebufn_2	0.01860	0.00451	0.32940	0.00872	2.50740	0.04815

Passive power(pJ) for TE_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_8	0.01860	-0.00492	0.32940	-0.00373	2.50740	0.03636
sg13g2_ebufn_4	0.01860	-0.00105	0.32940	0.00139	2.50740	0.04402
sg13g2_ebufn_2	0.01860	0.00027	0.32940	0.00327	2.50740	0.04134

Passive power(pJ) for TE_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_8	0.01860	0.08146	0.32940	0.08470	2.50740	0.12661
sg13g2_ebufn_4	0.01860	0.04175	0.32940	0.04612	2.50740	0.09011
sg13g2_ebufn_2	0.01860	0.02149	0.32940	0.02571	2.50740	0.06465

BU_x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

Footprint

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

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	X
sg13g2_buf_16	0.01800	4.80000
sg13g2_buf_8	0.00904	2.40000
sg13g2_buf_4	0.00390	1.20000
sg13g2_buf_2	0.00276	0.60000
sg13g2_buf_1	0.00240	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_buf_16	2952.77000	3691.98000	4431.19000
sg13g2_buf_8	1476.38000	1845.99000	2215.60000
sg13g2_buf_4	678.32100	883.10600	1087.89000
sg13g2_buf_2	397.54200	481.47400	565.40700
sg13g2_buf_1	270.74000	290.43800	310.13600

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_16	A->X (RR)	0.01860	0.00100	0.04059	0.32940	1.03680	0.24042	2.50740	4.80000	0.85638
sg13g2_buf_8	A->X (RR)	0.01860	0.00100	0.04037	0.32940	0.51840	0.23938	2.50740	2.40000	0.85418
sg13g2_buf_4	A->X (RR)	0.01860	0.00100	0.05090	0.32940	0.25920	0.26811	2.50740	1.20000	0.96818
sg13g2_buf_2	A->X (RR)	0.01860	0.00100	0.04035	0.32940	0.12960	0.23587	2.50740	0.60000	0.84915
sg13g2_buf_1	A->X (RR)	0.01860	0.00100	0.03569	0.32940	0.06480	0.21618	2.50740	0.30000	0.80520

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_16	A->X (FF)	0.01860	0.00100	0.04472	0.32940	1.03680	0.23211	2.50740	4.80000	0.78139
sg13g2_buf_8	A->X (FF)	0.01860	0.00100	0.04440	0.32940	0.51840	0.23129	2.50740	2.40000	0.78208
sg13g2_buf_4	A->X (FF)	0.01860	0.00100	0.04392	0.32940	0.25920	0.22531	2.50740	1.20000	0.71419
sg13g2_buf_2	A->X (FF)	0.01860	0.00100	0.04292	0.32940	0.12960	0.22223	2.50740	0.60000	0.75134
sg13g2_buf_1	A->X (FF)	0.01860	0.00100	0.03731	0.32940	0.06480	0.19985	2.50740	0.30000	0.71118

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_16	A	0.01860	0.00100	0.11782	0.32940	1.03680	0.14471	2.50740	4.80000	0.39628
sg13g2_buf_8	A	0.01860	0.00100	0.05907	0.32940	0.51840	0.07314	2.50740	2.40000	0.19881
sg13g2_buf_4	A	0.01860	0.00100	0.02935	0.32940	0.25920	0.03364	2.50740	1.20000	0.08571
sg13g2_buf_2	A	0.01860	0.00100	0.01536	0.32940	0.12960	0.01926	2.50740	0.60000	0.05466
sg13g2_buf_1	A	0.01860	0.00100	0.00883	0.32940	0.06480	0.01221	2.50740	0.30000	0.04254

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_16	A	0.01860	0.00100	0.11690	0.32940	1.03680	0.14978	2.50740	4.80000	0.40217
sg13g2_buf_8	A	0.01860	0.00100	0.05831	0.32940	0.51840	0.07430	2.50740	2.40000	0.20030
sg13g2_buf_4	A	0.01860	0.00100	0.02932	0.32940	0.25920	0.03629	2.50740	1.20000	0.08627
sg13g2_buf_2	A	0.01860	0.00100	0.01509	0.32940	0.12960	0.01990	2.50740	0.60000	0.05525
sg13g2_buf_1	A	0.01860	0.00100	0.00870	0.32940	0.06480	0.01257	2.50740	0.30000	0.04344

DECAP_x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	1670.69000	1670.69000	1670.69000
sg13g2_decap_8	3341.41000	3341.41000	3341.41000

DFFRRx



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_dfrbp_2	54.43200
sg13g2_dfrbp_1	52.61760

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	D	RESET_B	CLK	Q	Q_N
sg13g2_dfrbp_2	0.00162	0.00546	0.00297	0.60000	0.60000
sg13g2_dfrbp_1	0.00162	0.00541	0.00296	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbp_2	1666.44000	1912.04000	2124.31000
sg13g2_dfrbp_1	1342.76000	1595.04000	1820.69000

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_2	CLK->Q (RR)	0.01860	0.00100	0.16187	0.32940	0.12960	0.34459	2.50740	0.60000	0.93614
sg13g2_dfrbp_1	CLK->Q (RR)	0.01860	0.00100	0.12679	0.32940	0.06480	0.31266	2.50740	0.30000	0.89729

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_2	CLK->Q (RF)	0.01860	0.00100	0.14019	0.32940	0.12960	0.30484	2.50740	0.60000	0.78188
	RESET_B->Q (FF)	0.01860	0.00100	0.18821	0.32940	0.12960	0.39258	2.50740	0.60000	1.01932
sg13g2_dfrbp_1	CLK->Q (RF)	0.01860	0.00100	0.11578	0.32940	0.06480	0.27899	2.50740	0.30000	0.75208
	RESET_B->Q (FF)	0.01860	0.00100	0.16327	0.32940	0.06480	0.36635	2.50740	0.30000	0.98883

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_2	CLK->Q_N (RR)	0.01860	0.00100	0.09432	0.32940	0.12960	0.30291	2.50740	0.60000	0.86759
	RESET_B->Q_N (FR)	0.01860	0.00100	0.14304	0.32940	0.12960	0.38937	2.50740	0.60000	1.10424
sg13g2_dfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	0.09109	0.32940	0.06480	0.29300	2.50740	0.30000	0.85581
	RESET_B->Q_N (FR)	0.01860	0.00100	0.13882	0.32940	0.06480	0.37895	2.50740	0.30000	1.09220

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_2	CLK->Q_N (RF)	0.01860	0.00100	0.10577	0.32940	0.12960	0.31506	2.50740	0.60000	0.82023
sg13g2_dfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	0.09812	0.32940	0.06480	0.29794	2.50740	0.30000	0.80113

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_dfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.03912	1.26300	1.26300	-0.13222	2.50740	2.50740	-0.17119
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.15920	2.50740	2.50740	0.19775
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.03912	1.26300	1.26300	-0.13222	2.50740	2.50740	-0.17119
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.15920	2.50740	2.50740	0.19775

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_2	hold	CLK (R)	0.01860	0.01860	-0.02690	1.26300	1.26300	-0.14031	2.50740	2.50740	-0.22137
	setup	CLK (R)	0.01860	0.01860	0.07091	1.26300	1.26300	0.18889	2.50740	2.50740	0.26859
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.02690	1.26300	1.26300	-0.14301	2.50740	2.50740	-0.22137
	setup	CLK (R)	0.01860	0.01860	0.07091	1.26300	1.26300	0.18889	2.50740	2.50740	0.27154

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_2	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.19428	2.50740	2.50740	0.28925
	removal	CLK (R)	0.01860	0.01860	-0.06602	1.26300	1.26300	-0.18889	2.50740	2.50740	-0.28630
sg13g2_dfrbp_1	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.19428	2.50740	2.50740	0.28925
	removal	CLK (R)	0.01860	0.01860	-0.06358	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.28335

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_2	min_pulse_width	RESET_B ()	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbp_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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_2	min_pulse_width	CLK ()	0.01860	0.00000	0.08942	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.07660	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_2	min_pulse_width	CLK ()	0.01860	0.00000	0.08301	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.08301	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_2	CLK	0.01860	0.00100	0.06340	0.32940	0.12960	0.21011	2.50740	0.60000	0.78750
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.04904	0.32940	0.06480	0.12501	2.50740	0.30000	0.43806

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_2	CLK	0.01860	0.00100	0.06180	0.32940	0.12960	0.21148	2.50740	0.60000	0.78568
	RESET_B	0.01860	0.00100	0.04766	0.32940	0.12960	0.19447	2.50740	0.60000	0.74399
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.04919	0.32940	0.06480	0.12635	2.50740	0.30000	0.43680
	RESET_B	0.01860	0.00100	0.03496	0.32940	0.06480	0.10975	2.50740	0.30000	0.39460

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_2	CLK	0.01860	0.00100	0.06185	0.32940	0.12960	0.21179	2.50740	0.60000	0.78831
	RESET_B	0.01860	0.00100	0.04766	0.32940	0.12960	0.19526	2.50740	0.60000	0.74486
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.04921	0.32940	0.06480	0.12628	2.50740	0.30000	0.43825
	RESET_B	0.01860	0.00100	0.03494	0.32940	0.06480	0.10995	2.50740	0.30000	0.39559

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_2	CLK	0.01860	0.00100	0.06343	0.32940	0.12960	0.21018	2.50740	0.60000	0.78432
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.04905	0.32940	0.06480	0.12488	2.50740	0.30000	0.43690

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.00209	0.32940	0.00374	2.50740	0.02068
sg13g2_dfrbp_1	0.01860	0.00208	0.32940	0.00374	2.50740	0.02069

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.00169	0.32940	0.00350	2.50740	0.02123
sg13g2_dfrbp_1	0.01860	0.00167	0.32940	0.00349	2.50740	0.02122

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	CLK	0.01860	0.00209	0.32940	0.00374	2.50740	0.02068
	(!CLK * RESET_B)	0.01860	0.01844	0.32940	0.02010	2.50740	0.03978
	(!CLK * !RESET_B)	0.01860	-0.00005	0.32940	-0.00005	2.50740	-0.00005
sg13g2_dfrbp_1	CLK	0.01860	0.00208	0.32940	0.00374	2.50740	0.02069
	(!CLK * RESET_B)	0.01860	0.01846	0.32940	0.02012	2.50740	0.03981
	(!CLK * !RESET_B)	0.01860	-0.00006	0.32940	-0.00005	2.50740	-0.00005

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	CLK	0.01860	0.00169	0.32940	0.00350	2.50740	0.02123
	(!CLK * RESET_B)	0.01860	0.01422	0.32940	0.01614	2.50740	0.03710
	(!CLK * !RESET_B)	0.01860	0.00038	0.32940	0.00038	2.50740	0.00039
sg13g2_dfrbp_1	CLK	0.01860	0.00167	0.32940	0.00349	2.50740	0.02122
	(!CLK * RESET_B)	0.01860	0.01420	0.32940	0.01611	2.50740	0.03707
	(!CLK * !RESET_B)	0.01860	0.00038	0.32940	0.00039	2.50740	0.00039

Passive power(pJ) for RESET_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.00509	0.32940	0.00599	2.50740	0.02225
sg13g2_dfrbp_1	0.01860	0.00505	0.32940	0.00593	2.50740	0.02223

Passive power(pJ) for RESET_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.01399	0.32940	0.01541	2.50740	0.04236
sg13g2_dfrbp_1	0.01860	0.01402	0.32940	0.01544	2.50740	0.04233

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	0.00509	0.32940	0.00599	2.50740	0.02225
	(CLK * !D * !Q * Q_N)	0.01860	0.00119	0.32940	0.00120	2.50740	0.00120
	(!CLK * D * !Q * Q_N)	0.01860	0.02169	0.32940	0.02284	2.50740	0.04811
	(!CLK * !D * !Q * Q_N)	0.01860	0.00133	0.32940	0.00134	2.50740	0.00134
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	0.00505	0.32940	0.00593	2.50740	0.02223
	(CLK * !D * !Q * Q_N)	0.01860	0.00114	0.32940	0.00114	2.50740	0.00114
	(!CLK * D * !Q * Q_N)	0.01860	0.02164	0.32940	0.02281	2.50740	0.04807
	(!CLK * !D * !Q * Q_N)	0.01860	0.00127	0.32940	0.00128	2.50740	0.00127

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	0.06108	0.32940	0.06519	2.50740	0.11418
	(CLK * !D * !Q * Q_N)	0.01860	-0.00119	0.32940	-0.00120	2.50740	-0.00120
	(!CLK * D * !Q * Q_N)	0.01860	0.01399	0.32940	0.01541	2.50740	0.04236
	(!CLK * !D * !Q * Q_N)	0.01860	-0.00133	0.32940	-0.00134	2.50740	-0.00134
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	0.04805	0.32940	0.05211	2.50740	0.10077
	(CLK * !D * !Q * Q_N)	0.01860	-0.00114	0.32940	-0.00114	2.50740	-0.00114
	(!CLK * D * !Q * Q_N)	0.01860	0.01402	0.32940	0.01544	2.50740	0.04233
	(!CLK * !D * !Q * Q_N)	0.01860	-0.00127	0.32940	-0.00128	2.50740	-0.00127

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.01680	0.32940	0.02084	2.50740	0.06725
sg13g2_dfrbp_1	0.01860	0.01669	0.32940	0.02076	2.50740	0.06718

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.03216	0.32940	0.03676	2.50740	0.08627
sg13g2_dfrbp_1	0.01860	0.03193	0.32940	0.03655	2.50740	0.08611

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	0.01680	0.32940	0.02084	2.50740	0.06725
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01766	0.32940	0.02167	2.50740	0.06792
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01644	0.32940	0.02048	2.50740	0.06680
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01769	0.32940	0.02169	2.50740	0.06796
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	0.01669	0.32940	0.02076	2.50740	0.06718
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01754	0.32940	0.02153	2.50740	0.06792
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01634	0.32940	0.02036	2.50740	0.06675
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01757	0.32940	0.02157	2.50740	0.06792

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	0.03216	0.32940	0.03676	2.50740	0.08627
	(D * RESET_B * !Q * Q_N)	0.01860	0.03236	0.32940	0.03695	2.50740	0.08645
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01661	0.32940	0.02114	2.50740	0.06895
	(!D * RESET_B * Q * !Q_N)	0.01860	0.08191	0.32940	0.07906	2.50740	0.12684
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01659	0.32940	0.02112	2.50740	0.06897
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01659	0.32940	0.02111	2.50740	0.06892
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	0.03193	0.32940	0.03655	2.50740	0.08611
	(D * RESET_B * !Q * Q_N)	0.01860	0.03234	0.32940	0.03695	2.50740	0.08649
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01654	0.32940	0.02109	2.50740	0.06896
	(!D * RESET_B * Q * !Q_N)	0.01860	0.06217	0.32940	0.06602	2.50740	0.11374
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01650	0.32940	0.02108	2.50740	0.06894
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01652	0.32940	0.02107	2.50740	0.06893

DFRBPQx



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp
25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_dfrbpq_2	50.80320
sg13g2_dfrbpq_1	48.98880

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	D	RESET_B	CLK	Q
sg13g2_dfrbpq_2	0.00148	0.00539	0.00294	0.60000
sg13g2_dfrbpq_1	0.00148	0.00535	0.00293	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbpq_2	1478.65000	1625.68000	1874.82000
sg13g2_dfrbpq_1	1248.86000	1451.86000	1645.02000

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_2	CLK->Q (RR)	0.01860	0.00100	0.11389	0.32940	0.12960	0.30850	2.50740	0.60000	0.88717
sg13g2_dfrbpq_1	CLK->Q (RR)	0.01860	0.00100	0.10584	0.32940	0.06480	0.29622	2.50740	0.30000	0.87536

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_2	CLK->Q (RF)	0.01860	0.00100	0.11274	0.32940	0.12960	0.28338	2.50740	0.60000	0.75506
	RESET_B->Q (FF)	0.01860	0.00100	0.15754	0.32940	0.12960	0.36818	2.50740	0.60000	0.98939
sg13g2_dfrbpq_1	CLK->Q (RF)	0.01860	0.00100	0.10431	0.32940	0.06480	0.26923	2.50740	0.30000	0.74053
	RESET_B->Q (FF)	0.01860	0.00100	0.14998	0.32940	0.06480	0.35500	2.50740	0.30000	0.97591

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_dfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.04157	1.26300	1.26300	-0.13492	2.50740	2.50740	-0.17414
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.15920	2.50740	2.50740	0.19775
sg13g2_dfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.04157	1.26300	1.26300	-0.13222	2.50740	2.50740	-0.17414
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.15920	2.50740	2.50740	0.19775

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_2	hold	CLK (R)	0.01860	0.01860	-0.02690	1.26300	1.26300	-0.14031	2.50740	2.50740	-0.22137
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.18619	2.50740	2.50740	0.26859
sg13g2_dfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.02690	1.26300	1.26300	-0.14031	2.50740	2.50740	-0.22137
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.18889	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_dfrbpq_2	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.19428	2.50740	2.50740	0.28925
	removal	CLK (R)	0.01860	0.01860	-0.06358	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.28335
sg13g2_dfrbpq_1	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.19428	2.50740	2.50740	0.28925
	removal	CLK (R)	0.01860	0.01860	-0.06358	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.28335

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_2	min_pulse_width	RESET_B ()	0.01860	0.00000	0.07660	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbpq_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.07660	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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_2	min_pulse_width	CLK ()	0.01860	0.00000	0.06058	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.06378	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_2	min_pulse_width	CLK ()	0.01860	0.00000	0.08301	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.08301	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_2	CLK	0.01860	0.00100	0.04522	0.32940	0.12960	0.05015	2.50740	0.60000	0.09914
sg13g2_dfrbpq_1	CLK	0.01860	0.00100	0.03977	0.32940	0.06480	0.04442	2.50740	0.30000	0.09344

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_2	CLK	0.01860	0.00100	0.04641	0.32940	0.12960	0.05240	2.50740	0.60000	0.09927
	RESET_B	0.01860	0.00100	0.03161	0.32940	0.12960	0.03525	2.50740	0.60000	0.05617
sg13g2_dfrbpq_1	CLK	0.01860	0.00100	0.04115	0.32940	0.06480	0.04636	2.50740	0.30000	0.09335
	RESET_B	0.01860	0.00100	0.02646	0.32940	0.06480	0.02963	2.50740	0.30000	0.05066

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.00208	0.32940	0.00374	2.50740	0.02068
sg13g2_dfrbpq_1	0.01860	0.00208	0.32940	0.00374	2.50740	0.02069

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.00169	0.32940	0.00350	2.50740	0.02123
sg13g2_dfrbpq_1	0.01860	0.00167	0.32940	0.00349	2.50740	0.02122

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	CLK	0.01860	0.00208	0.32940	0.00374	2.50740	0.02068
	(!CLK * RESET_B)	0.01860	0.01841	0.32940	0.02009	2.50740	0.03978
	(!CLK * !RESET_B)	0.01860	-0.00005	0.32940	-0.00005	2.50740	-0.00005
sg13g2_dfrbpq_1	CLK	0.01860	0.00208	0.32940	0.00374	2.50740	0.02069
	(!CLK * RESET_B)	0.01860	0.01846	0.32940	0.02012	2.50740	0.03981
	(!CLK * !RESET_B)	0.01860	-0.00006	0.32940	-0.00005	2.50740	-0.00005

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	CLK	0.01860	0.00169	0.32940	0.00350	2.50740	0.02123
	(!CLK * RESET_B)	0.01860	0.01422	0.32940	0.01614	2.50740	0.03710
	(!CLK * !RESET_B)	0.01860	0.00038	0.32940	0.00038	2.50740	0.00039
sg13g2_dfrbpq_1	CLK	0.01860	0.00167	0.32940	0.00349	2.50740	0.02122
	(!CLK * RESET_B)	0.01860	0.01420	0.32940	0.01611	2.50740	0.03707
	(!CLK * !RESET_B)	0.01860	0.00038	0.32940	0.00039	2.50740	0.00039

Passive power(pJ) for RESET_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.00510	0.32940	0.00597	2.50740	0.02224
sg13g2_dfrbpq_1	0.01860	0.00504	0.32940	0.00593	2.50740	0.02222

Passive power(pJ) for RESET_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.01401	0.32940	0.01542	2.50740	0.04235
sg13g2_dfrbpq_1	0.01860	0.01400	0.32940	0.01544	2.50740	0.04233

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	(CLK * D * !Q)	0.01860	0.00510	0.32940	0.00597	2.50740	0.02224
	(CLK * !D * !Q)	0.01860	0.00119	0.32940	0.00119	2.50740	0.00119
	(!CLK * D * !Q)	0.01860	0.02168	0.32940	0.02283	2.50740	0.04809
	(!CLK * !D * !Q)	0.01860	0.00132	0.32940	0.00133	2.50740	0.00133
sg13g2_dfrbpq_1	(CLK * D * !Q)	0.01860	0.00504	0.32940	0.00593	2.50740	0.02222
	(CLK * !D * !Q)	0.01860	0.00114	0.32940	0.00114	2.50740	0.00113
	(!CLK * D * !Q)	0.01860	0.02166	0.32940	0.02281	2.50740	0.04807
	(!CLK * !D * !Q)	0.01860	0.00127	0.32940	0.00128	2.50740	0.00127

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	(CLK * D * !Q)	0.01860	0.04583	0.32940	0.04984	2.50740	0.09803
	(CLK * !D * !Q)	0.01860	-0.00119	0.32940	-0.00119	2.50740	-0.00119
	(!CLK * D * !Q)	0.01860	0.01401	0.32940	0.01542	2.50740	0.04235
	(!CLK * !D * !Q)	0.01860	-0.00132	0.32940	-0.00133	2.50740	-0.00133
sg13g2_dfrbpq_1	(CLK * D * !Q)	0.01860	0.04055	0.32940	0.04452	2.50740	0.09273
	(CLK * !D * !Q)	0.01860	-0.00114	0.32940	-0.00114	2.50740	-0.00113
	(!CLK * D * !Q)	0.01860	0.01400	0.32940	0.01544	2.50740	0.04233
	(!CLK * !D * !Q)	0.01860	-0.00127	0.32940	-0.00128	2.50740	-0.00127

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.01676	0.32940	0.02084	2.50740	0.06721
sg13g2_dfrbpq_1	0.01860	0.01667	0.32940	0.02070	2.50740	0.06720

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.03234	0.32940	0.03696	2.50740	0.08647
sg13g2_dfrbpq_1	0.01860	0.03231	0.32940	0.03696	2.50740	0.08649

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	(D * RESET_B * Q)	0.01860	0.01676	0.32940	0.02084	2.50740	0.06721
	(D * !RESET_B * !Q)	0.01860	0.01763	0.32940	0.02166	2.50740	0.06798
	(!D * RESET_B * !Q)	0.01860	0.01641	0.32940	0.02044	2.50740	0.06687
	(!D * !RESET_B * !Q)	0.01860	0.01767	0.32940	0.02168	2.50740	0.06796
sg13g2_dfrbpq_1	(D * RESET_B * Q)	0.01860	0.01667	0.32940	0.02070	2.50740	0.06720
	(D * !RESET_B * !Q)	0.01860	0.01754	0.32940	0.02152	2.50740	0.06792
	(!D * RESET_B * !Q)	0.01860	0.01633	0.32940	0.02033	2.50740	0.06678
	(!D * !RESET_B * !Q)	0.01860	0.01757	0.32940	0.02155	2.50740	0.06794

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	(D * RESET_B * Q)	0.01860	0.03510	0.32940	0.03973	2.50740	0.08925
	(D * RESET_B * !Q)	0.01860	0.03234	0.32940	0.03696	2.50740	0.08647
	(D * !RESET_B * !Q)	0.01860	0.01655	0.32940	0.02113	2.50740	0.06897
	(!D * RESET_B * Q)	0.01860	0.06337	0.32940	0.06745	2.50740	0.11530
	(!D * RESET_B * !Q)	0.01860	0.01654	0.32940	0.02112	2.50740	0.06898
	(!D * !RESET_B * !Q)	0.01860	0.01655	0.32940	0.02111	2.50740	0.06894
sg13g2_dfrbpq_1	(D * RESET_B * Q)	0.01860	0.03338	0.32940	0.03803	2.50740	0.08760
	(D * RESET_B * !Q)	0.01860	0.03231	0.32940	0.03696	2.50740	0.08649
	(D * !RESET_B * !Q)	0.01860	0.01651	0.32940	0.02109	2.50740	0.06893
	(!D * RESET_B * Q)	0.01860	0.05614	0.32940	0.06037	2.50740	0.10850
	(!D * RESET_B * !Q)	0.01860	0.01649	0.32940	0.02108	2.50740	0.06895
	(!D * !RESET_B * !Q)	0.01860	0.01650	0.32940	0.02107	2.50740	0.06891

DLHQ



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	0.00242	0.00245	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhq_1	933.36400	1024.94000	1136.46000

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	0.12072	0.32940	0.06480	0.29861	2.50740	0.30000	0.85482
	GATE->Q (RR)	0.01860	0.00100	0.10274	0.32940	0.06480	0.28120	2.50740	0.30000	0.80279

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	0.10587	0.32940	0.06480	0.26559	2.50740	0.30000	0.74036
	GATE->Q (RF)	0.01860	0.00100	0.10909	0.32940	0.06480	0.26360	2.50740	0.30000	0.68022

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	-0.06602	1.26300	1.26300	-0.10794	2.50740	2.50740	-0.10330
	setup	GATE (F)	0.01860	0.01860	0.06847	1.26300	1.26300	0.12682	2.50740	2.50740	0.14167

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	-0.02445	1.26300	1.26300	0.01619	2.50740	2.50740	0.05608
	setup	GATE (F)	0.01860	0.01860	0.02934	1.26300	1.26300	-0.01079	2.50740	2.50740	-0.05018

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	0.05417	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	0.02351	0.32940	0.06480	0.02396	2.50740	0.30000	0.02455
	GATE	0.01860	0.00100	0.02015	0.32940	0.06480	0.02074	2.50740	0.30000	0.02296

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	0.02436	0.32940	0.06480	0.02506	2.50740	0.30000	0.02589
	GATE	0.01860	0.00100	0.02187	0.32940	0.06480	0.02305	2.50740	0.30000	0.02281

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.00538	0.32940	0.00822	2.50740	0.04002

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.00572	0.32940	0.00891	2.50740	0.04141

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	0.00544	0.32940	0.00824	2.50740	0.03997
	(!GATE * !Q)	0.01860	0.00538	0.32940	0.00822	2.50740	0.04002

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	0.00558	0.32940	0.00888	2.50740	0.04140
	(!GATE * !Q)	0.01860	0.00572	0.32940	0.00891	2.50740	0.04141

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.01245	0.32940	0.01599	2.50740	0.05530

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.02339	0.32940	0.02762	2.50740	0.06996

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	0.01245	0.32940	0.01599	2.50740	0.05530

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	0.02339	0.32940	0.02762	2.50740	0.06996

DLHRQ



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

INPUT			OUTPUT
D	RESET_B	GATE	Q
x	0	x	0
x	1	0	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	RESET_B	GATE	Q
sg13g2_dlhrq_1	0.00226	0.00311	0.00235	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhrq_1	1021.81000	1155.65000	1259.72000

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_dlhrq_1	D->Q (RR)	0.01860	0.00100	0.12715	0.32940	0.06480	0.30867	2.50740	0.30000	0.86141
	GATE->Q (RR)	0.01860	0.00100	0.11415	0.32940	0.06480	0.29707	2.50740	0.30000	0.81776

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_dlhrq_1	D->Q (FF)	0.01860	0.00100	0.11150	0.32940	0.06480	0.27329	2.50740	0.30000	0.75409
	GATE->Q (RF)	0.01860	0.00100	0.11635	0.32940	0.06480	0.27469	2.50740	0.30000	0.70052
	RESET_B->Q (FF)	0.01860	0.00100	0.04621	0.32940	0.06480	0.22591	2.50740	0.30000	0.77255

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_dlhrq_1	hold	GATE (F)	0.01860	0.01860	-0.06113	1.26300	1.26300	-0.09444	2.50740	2.50740	-0.08559
	setup	GATE (F)	0.01860	0.01860	0.06602	1.26300	1.26300	0.11603	2.50740	2.50740	0.12397

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_dlhrq_1	hold	GATE (F)	0.01860	0.01860	-0.02690	1.26300	1.26300	0.01619	2.50740	2.50740	0.05313
	setup	GATE (F)	0.01860	0.01860	0.03179	1.26300	1.26300	-0.01079	2.50740	2.50740	-0.05018

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_dlhrq_1	recovery	GATE (F)	0.01860	0.01860	-0.01223	1.26300	1.26300	-0.11063	2.50740	2.50740	-0.17709
	removal	GATE (F)	0.01860	0.01860	0.01956	1.26300	1.26300	0.12143	2.50740	2.50740	0.18595

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_dlhrq_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.12787	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_dlhrq_1	min_pulse_width	GATE ()	0.01860	0.00000	0.05417	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	0.00122	0.32940	0.06480	0.00176	2.50740	0.30000	0.00172
	GATE	0.01860	0.00100	0.01537	0.32940	0.06480	0.01582	2.50740	0.30000	0.01579

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	-0.00122	0.32940	0.06480	-0.00176	2.50740	0.30000	-0.00172
	GATE	0.01860	0.00100	0.01536	0.32940	0.06480	0.01648	2.50740	0.30000	0.01383
	RESET_B	0.01860	0.00100	0.01183	0.32940	0.06480	0.01612	2.50740	0.30000	0.05356

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.02775	0.32940	0.03042	2.50740	0.06281

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.03578	0.32940	0.04189	2.50740	0.07574

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	0.00430	0.32940	0.00715	2.50740	0.03893
	!RESET_B	0.01860	0.02775	0.32940	0.03042	2.50740	0.06281

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	0.00519	0.32940	0.00849	2.50740	0.04099
	!RESET_B	0.01860	0.03578	0.32940	0.04189	2.50740	0.07574

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	-0.00008	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	0.00008	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	-0.00008	0.32940	0.00000	2.50740	0.00000
	(!D * !GATE * !Q)	0.01860	0.00000	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	0.00008	0.32940	0.00000	2.50740	0.00000
	(!D * !GATE * !Q)	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.01808	0.32940	0.02155	2.50740	0.06307

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.02382	0.32940	0.02802	2.50740	0.06996

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	0.01808	0.32940	0.02155	2.50740	0.06307
	(!D * !RESET_B * !Q)	0.01860	0.01306	0.32940	0.01654	2.50740	0.05558

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	0.01904	0.32940	0.02331	2.50740	0.06688
	(!D * RESET_B * !Q)	0.01860	0.02382	0.32940	0.02802	2.50740	0.06996
	(!D * !RESET_B * !Q)	0.01860	0.02395	0.32940	0.02823	2.50740	0.07014

DLHR



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

INPUT			OUTPUT	
D	RESET_B	GATE	Q	Q_N
x	0	x	0	1
x	1	0	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	RESET_B	GATE	Q	Q_N
sg13g2_dlhr_1	0.00221	0.00328	0.00240	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhr_1	1299.44000	1440.33000	1537.40000

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	0.13726	0.32940	0.06480	0.32277	2.50740	0.30000	0.87660
	GATE->Q (RR)	0.01860	0.00100	0.12480	0.32940	0.06480	0.31286	2.50740	0.30000	0.83506

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	0.11566	0.32940	0.06480	0.27960	2.50740	0.30000	0.75618
	GATE->Q (RF)	0.01860	0.00100	0.12060	0.32940	0.06480	0.28163	2.50740	0.30000	0.70417
	RESET_B->Q (FF)	0.01860	0.00100	0.05019	0.32940	0.06480	0.23901	2.50740	0.30000	0.78827

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	0.14154	0.32940	0.06480	0.31979	2.50740	0.30000	0.88635
	GATE->Q_N (RR)	0.01860	0.00100	0.14659	0.32940	0.06480	0.32187	2.50740	0.30000	0.83436
	RESET_B->Q_N (FR)	0.01860	0.00100	0.07614	0.32940	0.06480	0.27299	2.50740	0.30000	0.86547

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	0.16592	0.32940	0.06480	0.31681	2.50740	0.30000	0.78037
	GATE->Q_N (RF)	0.01860	0.00100	0.15326	0.32940	0.06480	0.30699	2.50740	0.30000	0.73875

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	-0.06358	1.26300	1.26300	-0.09714	2.50740	2.50740	-0.09150
	setup	GATE (F)	0.01860	0.01860	0.07336	1.26300	1.26300	0.11873	2.50740	2.50740	0.12987

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	-0.02690	1.26300	1.26300	0.01619	2.50740	2.50740	0.05313
	setup	GATE (F)	0.01860	0.01860	0.03423	1.26300	1.26300	-0.01079	2.50740	2.50740	-0.04722

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	-0.00489	1.26300	1.26300	-0.07825	2.50740	2.50740	-0.12692
	removal	GATE (F)	0.01860	0.01860	0.01467	1.26300	1.26300	0.08905	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_dlhr_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.13107	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_dlhr_1	min_pulse_width	GATE ()	0.01860	0.00000	0.06058	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	0.00719	0.32940	0.06480	0.00773	2.50740	0.30000	0.00761
	GATE	0.01860	0.00100	0.01411	0.32940	0.06480	0.01457	2.50740	0.30000	0.01441

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	0.00262	0.32940	0.06480	0.00160	2.50740	0.30000	0.00104
	GATE	0.01860	0.00100	0.01407	0.32940	0.06480	0.01486	2.50740	0.30000	0.01303
	RESET_B	0.01860	0.00100	0.01213	0.32940	0.06480	0.01452	2.50740	0.30000	0.03535

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	0.00264	0.32940	0.06480	0.00169	2.50740	0.30000	0.00131
	GATE	0.01860	0.00100	0.02288	0.32940	0.06480	0.02549	2.50740	0.30000	0.04497
	RESET_B	0.01860	0.00100	0.01217	0.32940	0.06480	0.01449	2.50740	0.30000	0.03561

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	0.00719	0.32940	0.06480	0.00771	2.50740	0.30000	0.00711
	GATE	0.01860	0.00100	0.01411	0.32940	0.06480	0.01447	2.50740	0.30000	0.01397

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.02715	0.32940	0.02987	2.50740	0.06240

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.03531	0.32940	0.04161	2.50740	0.07555

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	0.00469	0.32940	0.00755	2.50740	0.03943
	!RESET_B	0.01860	0.02715	0.32940	0.02987	2.50740	0.06240

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	0.00546	0.32940	0.00881	2.50740	0.04144
	!RESET_B	0.01860	0.03531	0.32940	0.04161	2.50740	0.07555

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	-0.00007	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_dlhr_1	0.01860	0.00007	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_dlhr_1	(D * !GATE * !Q)	0.01860	-0.00022	0.32940	-0.00008	2.50740	-0.00003
	(!D * !GATE * !Q)	0.01860	-0.00007	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_dlhr_1	(D * !GATE * !Q)	0.01860	0.00022	0.32940	0.00008	2.50740	0.00003
	(!D * !GATE * !Q)	0.01860	0.00007	0.32940	0.00000	2.50740	0.00000

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.01758	0.32940	0.02110	2.50740	0.06274

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.02361	0.32940	0.02784	2.50740	0.06914

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	0.01758	0.32940	0.02110	2.50740	0.06274
	(!D * !RESET_B * !Q)	0.01860	0.01260	0.32940	0.01612	2.50740	0.05521

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	0.01944	0.32940	0.02379	2.50740	0.06746
	(!D * RESET_B * !Q)	0.01860	0.02361	0.32940	0.02784	2.50740	0.06914
	(!D * !RESET_B * !Q)	0.01860	0.02369	0.32940	0.02792	2.50740	0.06916

DLLRQ



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_dllrq_1	29.03040

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	D	RESET_B	GATE_N	Q
sg13g2_dllrq_1	0.00217	0.00318	0.00231	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllrq_1	1021.71000	1155.63000	1259.75000

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	0.12630	0.32940	0.06480	0.30664	2.50740	0.30000	0.85985
	GATE_N->Q (FR)	0.01860	0.00100	0.14050	0.32940	0.06480	0.33814	2.50740	0.30000	0.96264
	RESET_B->Q (RR)	0.01860	0.00100	0.05722	0.32940	0.06480	0.24008	2.50740	0.30000	0.84450

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	0.11085	0.32940	0.06480	0.27127	2.50740	0.30000	0.74890
	GATE_N->Q (FF)	0.01860	0.00100	0.10649	0.32940	0.06480	0.28454	2.50740	0.30000	0.83436
	RESET_B->Q (FF)	0.01860	0.00100	0.04659	0.32940	0.06480	0.22532	2.50740	0.30000	0.77089

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	-0.04646	1.26300	1.26300	-0.06206	2.50740	2.50740	-0.08855
	setup	GATE_N (R)	0.01860	0.01860	0.05379	1.26300	1.26300	0.07016	2.50740	2.50740	0.09445

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	-0.05624	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.23908
	setup	GATE_N (R)	0.01860	0.01860	0.06113	1.26300	1.26300	0.19158	2.50740	2.50740	0.27154

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	-0.02445	1.26300	1.26300	-0.05397	2.50740	2.50740	-0.04132
	removal	GATE_N (R)	0.01860	0.01860	0.03423	1.26300	1.26300	0.05936	2.50740	2.50740	0.05018

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 ()	0.01860	0.00000	0.12787	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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 ()	0.01860	0.00000	0.07019	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	0.01073	0.32940	0.06480	0.01134	2.50740	0.30000	0.01191
	GATE_N	0.01860	0.00100	0.01063	0.32940	0.06480	0.01088	2.50740	0.30000	0.00995
	RESET_B	0.01860	0.00100	0.01572	0.32940	0.06480	0.01764	2.50740	0.30000	0.05320

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	0.00391	0.32940	0.06480	0.00070	2.50740	0.30000	0.00010
	GATE_N	0.01860	0.00100	0.00870	0.32940	0.06480	0.00950	2.50740	0.30000	0.01122
	RESET_B	0.01860	0.00100	0.01202	0.32940	0.06480	0.01625	2.50740	0.30000	0.05399

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.01807	0.32940	0.02074	2.50740	0.05265

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.02431	0.32940	0.03141	2.50740	0.06531

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	0.00420	0.32940	0.00704	2.50740	0.03890
	!RESET_B	0.01860	0.01807	0.32940	0.02074	2.50740	0.05265

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	0.00514	0.32940	0.00847	2.50740	0.04107
	!RESET_B	0.01860	0.02431	0.32940	0.03141	2.50740	0.06531

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	-0.00010	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_dllrq_1	0.01860	0.00010	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_dllrq_1	(D * GATE_N * !Q)	0.01860	-0.00010	0.32940	0.00000	2.50740	0.00000
	(!D * GATE_N * !Q)	0.01860	0.00000	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_dllrq_1	(D * GATE_N * !Q)	0.01860	0.00010	0.32940	0.00000	2.50740	0.00000
	(!D * GATE_N * !Q)	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000

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	0.02049	0.32940	0.02376	2.50740	0.06264

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	0.02386	0.32940	0.02810	2.50740	0.06964

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	0.02049	0.32940	0.02376	2.50740	0.06264
	(!D * !RESET_B * !Q)	0.01860	0.01175	0.32940	0.01526	2.50740	0.05439

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	0.01966	0.32940	0.02372	2.50740	0.06435
	(!D * RESET_B * !Q)	0.01860	0.02386	0.32940	0.02810	2.50740	0.06964
	(!D * !RESET_B * !Q)	0.01860	0.02392	0.32940	0.02824	2.50740	0.06988

DLLR



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_dllr_1	34.47360

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	D	RESET_B	GATE_N	Q	Q_N
sg13g2_dllr_1	0.00228	0.00324	0.00245	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllr_1	1299.27000	1464.85000	1537.41000

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	0.13832	0.32940	0.06480	0.32332	2.50740	0.30000	0.87620
	GATE_N->Q (FR)	0.01860	0.00100	0.15243	0.32940	0.06480	0.35544	2.50740	0.30000	0.97997

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	0.11694	0.32940	0.06480	0.28065	2.50740	0.30000	0.75762
	GATE_N->Q (FF)	0.01860	0.00100	0.11323	0.32940	0.06480	0.29552	2.50740	0.30000	0.84652
	RESET_B->Q (FF)	0.01860	0.00100	0.05004	0.32940	0.06480	0.24187	2.50740	0.30000	0.75971

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	0.14267	0.32940	0.06480	0.32058	2.50740	0.30000	0.88678
	GATE_N->Q_N (FR)	0.01860	0.00100	0.13907	0.32940	0.06480	0.33552	2.50740	0.30000	0.97550
	RESET_B->Q_N (FR)	0.01860	0.00100	0.07638	0.32940	0.06480	0.27443	2.50740	0.30000	0.87127

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	0.16680	0.32940	0.06480	0.31740	2.50740	0.30000	0.78015
	GATE_N->Q_N (FF)	0.01860	0.00100	0.18074	0.32940	0.06480	0.34966	2.50740	0.30000	0.88416

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	-0.05135	1.26300	1.26300	-0.06746	2.50740	2.50740	-0.09150
	setup	GATE_N (R)	0.01860	0.01860	0.06113	1.26300	1.26300	0.07286	2.50740	2.50740	0.10035

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	-0.05868	1.26300	1.26300	-0.17269	2.50740	2.50740	-0.23908
	setup	GATE_N (R)	0.01860	0.01860	0.06358	1.26300	1.26300	0.19428	2.50740	2.50740	0.27744

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	-0.01956	1.26300	1.26300	-0.02159	2.50740	2.50740	0.00590
	removal	GATE_N (R)	0.01860	0.01860	0.02934	1.26300	1.26300	0.02968	2.50740	2.50740	0.00000

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	0.13107	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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	0.07660	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	0.01513	0.32940	0.06480	0.08789	2.50740	0.30000	0.35245
	GATE_N	0.01860	0.00100	0.02892	0.32940	0.06480	0.10164	2.50740	0.30000	0.36612

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	0.00800	0.32940	0.06480	0.07245	2.50740	0.30000	0.33571
	GATE_N	0.01860	0.00100	0.02623	0.32940	0.06480	0.09915	2.50740	0.30000	0.36625
	RESET_B	0.01860	0.00100	0.03764	0.32940	0.06480	0.11329	2.50740	0.30000	0.41129

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	0.00806	0.32940	0.06480	0.07263	2.50740	0.30000	0.33636
	GATE_N	0.01860	0.00100	0.04622	0.32940	0.06480	0.12341	2.50740	0.30000	0.43124
	RESET_B	0.01860	0.00100	0.03748	0.32940	0.06480	0.11310	2.50740	0.30000	0.41135

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	0.01514	0.32940	0.06480	0.08779	2.50740	0.30000	0.35106
	GATE_N	0.01860	0.00100	0.02892	0.32940	0.06480	0.10145	2.50740	0.30000	0.36567

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	0.02821	0.32940	0.03101	2.50740	0.06344

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	0.03353	0.32940	0.04511	2.50740	0.07915

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	0.00478	0.32940	0.00764	2.50740	0.03956
	!RESET_B	0.01860	0.02821	0.32940	0.03101	2.50740	0.06344

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	0.00491	0.32940	0.00825	2.50740	0.04086
	!RESET_B	0.01860	0.03353	0.32940	0.04511	2.50740	0.07915

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	-0.00012	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_dllr_1	0.01860	0.00012	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_dllr_1	(D * GATE_N * !Q)	0.01860	0.00016	0.32940	0.00016	2.50740	0.00016
	(!D * GATE_N * !Q)	0.01860	-0.00012	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_dllr_1	(D * GATE_N * !Q)	0.01860	0.00028	0.32940	0.00013	2.50740	0.00008
	(!D * GATE_N * !Q)	0.01860	0.00012	0.32940	0.00000	2.50740	0.00000

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	0.02220	0.32940	0.02747	2.50740	0.06684

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	0.01996	0.32940	0.02403	2.50740	0.06460

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	0.02061	0.32940	0.02388	2.50740	0.06261
	(!D * RESET_B * !Q)	0.01860	0.02220	0.32940	0.02747	2.50740	0.06684
	(!D * !RESET_B * !Q)	0.01860	0.02226	0.32940	0.02755	2.50740	0.06691

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	0.01996	0.32940	0.02403	2.50740	0.06460
	(!D * !RESET_B * !Q)	0.01860	0.01331	0.32940	0.01743	2.50740	0.05848

DLY1



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	0.00158	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd1_1	435.56300	473.12400	510.68500

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	0.07972	0.32940	0.06480	0.25411	2.50740	0.30000	0.74453

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	0.09213	0.32940	0.06480	0.27407	2.50740	0.30000	0.85476

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	0.01970	0.32940	0.06480	0.02190	2.50740	0.30000	0.04176

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	0.01890	0.32940	0.06480	0.02147	2.50740	0.30000	0.04222

DLY2



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	0.00157	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd2_1	515.77000	553.33000	590.89000

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	0.11935	0.32940	0.06480	0.30521	2.50740	0.30000	0.82696

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	0.13362	0.32940	0.06480	0.33298	2.50740	0.30000	0.93684

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	0.02363	0.32940	0.06480	0.02548	2.50740	0.30000	0.04408

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	0.02294	0.32940	0.06480	0.02490	2.50740	0.30000	0.04493

DLY4



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	0.00157	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd3_1	1214.88000	1252.41000	1289.95000

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	0.25699	0.32940	0.06480	0.46949	2.50740	0.30000	1.05625

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	0.26552	0.32940	0.06480	0.49959	2.50740	0.30000	1.16562

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	0.03463	0.32940	0.06480	0.03528	2.50740	0.30000	0.05240

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	0.03428	0.32940	0.06480	0.03496	2.50740	0.30000	0.05292

EINVIN_x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_4	23.58720
sg13g2_einvn_2	16.32960

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_einvn_4	0.00819	0.00955	1.20000
sg13g2_einvn_2	0.00420	0.00512	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_4	1259.66000	1555.35000	1851.03000
sg13g2_einvn_2	633.83500	781.67500	929.51500

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_4	A->Z (FR)	0.01860	0.01086	0.01855	0.32940	0.26906	0.40621	2.50740	1.20986	2.15293
	TE_B->Z (RR)	0.01860	0.01086	0.03909	0.32940	0.26906	0.08832	2.50740	1.20986	0.17598
	TE_B->Z (FR)	0.01860	0.01086	0.02357	0.32940	0.26906	0.36968	2.50740	1.20986	1.84158
sg13g2_einvn_2	A->Z (FR)	0.01860	0.00600	0.02000	0.32940	0.13460	0.40579	2.50740	0.60500	2.14937
	TE_B->Z (RR)	0.01860	0.00600	0.03791	0.32940	0.13460	0.08576	2.50740	0.60500	0.16815
	TE_B->Z (FR)	0.01860	0.00600	0.02441	0.32940	0.13460	0.36946	2.50740	0.60500	1.84298

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_4	A->Z (RF)	0.01860	0.01554	0.01602	0.32940	0.27374	0.32941	2.50740	1.21454	1.77231
sg13g2_einvn_2	A->Z (RF)	0.01860	0.00844	0.01724	0.32940	0.13704	0.32951	2.50740	0.60744	1.77200

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_4	A	0.01860	0.01086	0.00802	0.32940	0.26906	0.01471	2.50740	1.20986	0.05910
	TE_B	0.01860	0.01086	0.02510	0.32940	0.26906	0.02428	2.50740	1.20986	0.02150
sg13g2_einvn_2	A	0.01860	0.00600	0.00403	0.32940	0.13460	0.00722	2.50740	0.60500	0.02911
	TE_B	0.01860	0.00600	0.01241	0.32940	0.13460	0.01211	2.50740	0.60500	0.01094

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_4	A	0.01860	0.01554	0.00792	0.32940	0.27374	0.01366	2.50740	1.21454	0.05286
sg13g2_einvn_2	A	0.01860	0.00844	0.00417	0.32940	0.13704	0.00702	2.50740	0.60744	0.02637

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_4	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000
sg13g2_einvn_2	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_4	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000
sg13g2_einvn_2	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_4	0.01860	-0.01428	0.32940	-0.01176	2.50740	0.03100
sg13g2_einvn_2	0.01860	-0.00666	0.32940	-0.00516	2.50740	0.01792

Passive power(pJ) for TE_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_4	0.01860	0.02199	0.32940	0.02683	2.50740	0.07207
sg13g2_einvn_2	0.01860	0.01108	0.32940	0.01359	2.50740	0.03793

FILLx



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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

GCLK



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

INPUT		OUTPUT
GATE	CLK	GCLK
x	0	0
x	1	GCLK

Footprint

Cell Name	Area
sg13g2_lgcp_1	27.21600

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	GATE	CLK	GCLK
sg13g2_lgcp_1	0.00245	0.00523	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_lgcp_1	1091.66000	1127.38000	1196.16000

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	0.05052	0.32940	0.06480	0.22872	2.50740	0.30000	0.81882

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	0.04335	0.32940	0.06480	0.21686	2.50740	0.30000	0.75711

Constraint Information

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	-0.02512	1.26300	1.26300	-0.12007	2.50740	2.50740	-0.20331
	setup	CLK (R)	0.01860	0.01860	0.05247	1.26300	1.26300	0.16581	2.50740	2.50740	0.25574

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	-0.01315	1.26300	1.26300	-0.02361	2.50740	2.50740	-0.03378
	setup	CLK (R)	0.01860	0.01860	0.03582	1.26300	1.26300	0.05785	2.50740	2.50740	0.08032

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	0.15991	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	0.06699	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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	0.01450	0.32940	0.06480	0.01630	2.50740	0.30000	0.04655

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	0.00891	0.32940	0.06480	0.01277	2.50740	0.30000	0.04432

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.03051	0.32940	0.03333	2.50740	0.06612

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.02580	0.32940	0.04766	2.50740	0.08173

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	0.03051	0.32940	0.03333	2.50740	0.06612

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	0.02580	0.32940	0.04766	2.50740	0.08173

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.01034	0.32940	0.01382	2.50740	0.05294

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.01292	0.32940	0.01691	2.50740	0.05801

INx



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

Footprint

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

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
sg13g2_inv_16	0.04506	4.80000
sg13g2_inv_8	0.02333	2.40000
sg13g2_inv_4	0.01166	1.20000
sg13g2_inv_2	0.00589	0.60000
sg13g2_inv_1	0.00298	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_inv_16	1502.36000	2685.08000	3867.81000
sg13g2_inv_8	751.17700	1342.58000	1933.98000
sg13g2_inv_4	375.59100	671.27300	966.95500
sg13g2_inv_2	187.80500	335.65300	483.50100
sg13g2_inv_1	93.89730	167.86600	241.83500

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_16	A->Y (FR)	0.01860	0.00100	0.01450	0.32940	1.03680	0.27758	2.50740	4.80000	1.51795
sg13g2_inv_8	A->Y (FR)	0.01860	0.00100	0.01173	0.32940	0.51840	0.27379	2.50740	2.40000	1.51227
sg13g2_inv_4	A->Y (FR)	0.01860	0.00100	0.01204	0.32940	0.25920	0.27353	2.50740	1.20000	1.51218
sg13g2_inv_2	A->Y (FR)	0.01860	0.00100	0.01300	0.32940	0.12960	0.27323	2.50740	0.60000	1.50799
sg13g2_inv_1	A->Y (FR)	0.01860	0.00100	0.01514	0.32940	0.06480	0.27357	2.50740	0.30000	1.50884

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_16	A->Y (RF)	0.01860	0.00100	0.01428	0.32940	1.03680	0.25095	2.50740	4.80000	1.37769
sg13g2_inv_8	A->Y (RF)	0.01860	0.00100	0.01121	0.32940	0.51840	0.24759	2.50740	2.40000	1.37549
sg13g2_inv_4	A->Y (RF)	0.01860	0.00100	0.01145	0.32940	0.25920	0.24738	2.50740	1.20000	1.37490
sg13g2_inv_2	A->Y (RF)	0.01860	0.00100	0.01232	0.32940	0.12960	0.24616	2.50740	0.60000	1.36793
sg13g2_inv_1	A->Y (RF)	0.01860	0.00100	0.01437	0.32940	0.06480	0.24654	2.50740	0.30000	1.36822

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_16	A	0.01860	0.00100	0.03326	0.32940	1.03680	0.06126	2.50740	4.80000	0.32500
sg13g2_inv_8	A	0.01860	0.00100	0.01629	0.32940	0.51840	0.03077	2.50740	2.40000	0.16279
sg13g2_inv_4	A	0.01860	0.00100	0.00817	0.32940	0.25920	0.01552	2.50740	1.20000	0.08162
sg13g2_inv_2	A	0.01860	0.00100	0.00410	0.32940	0.12960	0.00759	2.50740	0.60000	0.04029
sg13g2_inv_1	A	0.01860	0.00100	0.00230	0.32940	0.06480	0.00405	2.50740	0.30000	0.02049

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_16	A	0.01860	0.00100	0.02905	0.32940	1.03680	0.05646	2.50740	4.80000	0.26971
sg13g2_inv_8	A	0.01860	0.00100	0.01412	0.32940	0.51840	0.02833	2.50740	2.40000	0.13453
sg13g2_inv_4	A	0.01860	0.00100	0.00711	0.32940	0.25920	0.01399	2.50740	1.20000	0.06777
sg13g2_inv_2	A	0.01860	0.00100	0.00371	0.32940	0.12960	0.00714	2.50740	0.60000	0.03378
sg13g2_inv_1	A	0.01860	0.00100	0.00236	0.32940	0.06480	0.00392	2.50740	0.30000	0.01746

ITL



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_8	39.91680

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_einvn_8	0.01619	0.01630	2.40000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_8	2425.43000	3016.80000	3608.16000

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_8	A->Z (FR)	0.01860	0.02052	0.01793	0.32940	0.53792	0.40772	2.50740	2.41952	2.15940
	TE_B->Z (RR)	0.01860	0.02052	0.05083	0.32940	0.53792	0.12207	2.50740	2.41952	0.24621
	TE_B->Z (FR)	0.01860	0.02052	0.02441	0.32940	0.53792	0.37197	2.50740	2.41952	1.84573

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_8	A->Z (RF)	0.01860	0.02994	0.01556	0.32940	0.54734	0.33111	2.50740	2.42894	1.78181

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_8	A	0.01860	0.02052	0.01599	0.32940	0.53792	0.02944	2.50740	2.41952	0.11556
	TE_B	0.01860	0.02052	0.05302	0.32940	0.53792	0.05061	2.50740	2.41952	0.04517

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_8	A	0.01860	0.02994	0.01543	0.32940	0.54734	0.02707	2.50740	2.42894	0.10511

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
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_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_8	0.01860	-0.03239	0.32940	-0.03115	2.50740	0.00913

Passive power(pJ) for TE_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_8	0.01860	0.03853	0.32940	0.04394	2.50740	0.08779

KEEPSTATE



*sg13g2_stdcell_typ_1p50V_25C Cell Library:
Process sg13g2_stdcell_typ_1p50V_25C,
Voltage 1.50, 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	0.02149	-

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sighold	262.39200	528.87900	795.36500

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	0.00821	0.32940	0.01935	2.50740	0.10754

Passive power(pJ) for SH falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sighold	0.01860	0.00658	0.32940	0.01661	2.50740	0.12019

MUX2x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	19.95840
sg13g2_mux2_1	18.14400

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	S	X
sg13g2_mux2_2	0.00291	0.00301	0.00540	0.60000
sg13g2_mux2_1	0.00293	0.00304	0.00541	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux2_2	755.51600	894.09800	1001.55000
sg13g2_mux2_1	622.29900	726.31000	861.44900

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_2	A0->X (RR)	0.01860	0.00100	0.05774	0.32940	0.12960	0.26844	2.50740	0.60000	0.88331
	A1->X (RR)	0.01860	0.00100	0.05798	0.32940	0.12960	0.27041	2.50740	0.60000	0.88726
	S->X (-R)	0.01860	0.00100	0.06290	0.32940	0.12960	0.26322	2.50740	0.60000	0.87277
sg13g2_mux2_1	A0->X (RR)	0.01860	0.00100	0.05027	0.32940	0.06480	0.24284	2.50740	0.30000	0.82842
	A1->X (RR)	0.01860	0.00100	0.05068	0.32940	0.06480	0.24509	2.50740	0.30000	0.83444
	S->X (-R)	0.01860	0.00100	0.07886	0.32940	0.06480	0.26352	2.50740	0.30000	0.83057

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_2	A0->X (FF)	0.01860	0.00100	0.07973	0.32940	0.12960	0.29839	2.50740	0.60000	0.94018
	A1->X (FF)	0.01860	0.00100	0.07951	0.32940	0.12960	0.29849	2.50740	0.60000	0.94149
	S->X (-F)	0.01860	0.00100	0.08808	0.32940	0.12960	0.28011	2.50740	0.60000	0.87981
sg13g2_mux2_1	A0->X (FF)	0.01860	0.00100	0.06540	0.32940	0.06480	0.26379	2.50740	0.30000	0.87848
	A1->X (FF)	0.01860	0.00100	0.06520	0.32940	0.06480	0.26397	2.50740	0.30000	0.88216
	S->X (-F)	0.01860	0.00100	0.07375	0.32940	0.06480	0.24877	2.50740	0.30000	0.82670

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_2	S->X (RR)	(!A0 * A1)	0.01860	0.00100	0.06290	0.32940	0.12960	0.26322	2.50740	0.60000	0.87277
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	0.08674	0.32940	0.12960	0.27795	2.50740	0.60000	0.84863
sg13g2_mux2_1	S->X (RR)	(!A0 * A1)	0.01860	0.00100	0.05518	0.32940	0.06480	0.24064	2.50740	0.30000	0.82574
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	0.07886	0.32940	0.06480	0.26352	2.50740	0.30000	0.83057

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_2	S->X (FF)	(!A0 * A1)	0.01860	0.00100	0.08808	0.32940	0.12960	0.28011	2.50740	0.60000	0.87981
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	0.10927	0.32940	0.12960	0.28406	2.50740	0.60000	0.75532
sg13g2_mux2_1	S->X (FF)	(!A0 * A1)	0.01860	0.00100	0.07375	0.32940	0.06480	0.24877	2.50740	0.30000	0.82670
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	0.09489	0.32940	0.06480	0.25954	2.50740	0.30000	0.72912

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_2	A0	0.01860	0.00100	0.02075	0.32940	0.12960	0.02297	2.50740	0.60000	0.05495
	A1	0.01860	0.00100	0.02092	0.32940	0.12960	0.02324	2.50740	0.60000	0.05483
	S	0.01860	0.00100	0.02183	0.32940	0.12960	0.02386	2.50740	0.60000	0.05464
sg13g2_mux2_1	A0	0.01860	0.00100	0.01394	0.32940	0.06480	0.01669	2.50740	0.30000	0.04895
	A1	0.01860	0.00100	0.01408	0.32940	0.06480	0.01687	2.50740	0.30000	0.04908
	S	0.01860	0.00100	0.01525	0.32940	0.06480	0.01745	2.50740	0.30000	0.04874

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_2	A0	0.01860	0.00100	0.02188	0.32940	0.12960	0.02355	2.50740	0.60000	0.05576
	A1	0.01860	0.00100	0.02175	0.32940	0.12960	0.02346	2.50740	0.60000	0.05651
	S	0.01860	0.00100	0.02174	0.32940	0.12960	0.02296	2.50740	0.60000	0.05519
sg13g2_mux2_1	A0	0.01860	0.00100	0.01403	0.32940	0.06480	0.01726	2.50740	0.30000	0.05007
	A1	0.01860	0.00100	0.01393	0.32940	0.06480	0.01714	2.50740	0.30000	0.05048
	S	0.01860	0.00100	0.01438	0.32940	0.06480	0.01665	2.50740	0.30000	0.04946

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_2	S	(A0 * !A1)	0.01860	0.00100	0.02149	0.32940	0.12960	0.02183	2.50740	0.60000	0.02236
	S	(!A0 * A1)	0.01860	0.00100	0.02183	0.32940	0.12960	0.02386	2.50740	0.60000	0.05464
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	0.01491	0.32940	0.06480	0.01516	2.50740	0.30000	0.01587
	S	(!A0 * A1)	0.01860	0.00100	0.01525	0.32940	0.06480	0.01745	2.50740	0.30000	0.04874

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_2	S	(A0 * !A1)	0.01860	0.00100	0.02345	0.32940	0.12960	0.02305	2.50740	0.60000	0.02238
	S	(!A0 * A1)	0.01860	0.00100	0.02174	0.32940	0.12960	0.02296	2.50740	0.60000	0.05519
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	0.01600	0.32940	0.06480	0.01644	2.50740	0.30000	0.01666
	S	(!A0 * A1)	0.01860	0.00100	0.01438	0.32940	0.06480	0.01665	2.50740	0.30000	0.04946

Passive power(pJ) for S rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_2	0.01860	0.00543	0.32940	0.00801	2.50740	0.03971
sg13g2_mux2_1	0.01860	0.00543	0.32940	0.00806	2.50740	0.03972

Passive power(pJ) for S falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_2	0.01860	0.00617	0.32940	0.00930	2.50740	0.04174
sg13g2_mux2_1	0.01860	0.00615	0.32940	0.00929	2.50740	0.04173

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_2	(A0 * A1)	0.01860	0.00543	0.32940	0.00801	2.50740	0.03971
	(!A0 * !A1)	0.01860	0.00500	0.32940	0.00772	2.50740	0.03931
sg13g2_mux2_1	(A0 * A1)	0.01860	0.00543	0.32940	0.00806	2.50740	0.03972
	(!A0 * !A1)	0.01860	0.00502	0.32940	0.00772	2.50740	0.03930

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_2	(A0 * A1)	0.01860	0.00584	0.32940	0.00897	2.50740	0.04128
	(!A0 * !A1)	0.01860	0.00617	0.32940	0.00930	2.50740	0.04174
sg13g2_mux2_1	(A0 * A1)	0.01860	0.00583	0.32940	0.00896	2.50740	0.04127
	(!A0 * !A1)	0.01860	0.00615	0.32940	0.00929	2.50740	0.04173

MUX4



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	X
sg13g2_mux4_1	0.00297	0.00295	0.00296	0.00303	0.00855	0.00523	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux4_1	863.95400	1307.19000	1573.90000

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	0.08952	0.32940	0.06480	0.29797	2.50740	0.30000	0.95424
	A1->X (RR)	0.01860	0.00100	0.08780	0.32940	0.06480	0.29681	2.50740	0.30000	0.95219
	A2->X (RR)	0.01860	0.00100	0.09321	0.32940	0.06480	0.30474	2.50740	0.30000	0.96753
	A3->X (RR)	0.01860	0.00100	0.09068	0.32940	0.06480	0.30369	2.50740	0.30000	0.96586
	S0->X (-R)	0.01860	0.00100	0.07963	0.32940	0.06480	0.29902	2.50740	0.30000	0.95679
	S1->X (-R)	0.01860	0.00100	0.04777	0.32940	0.06480	0.24155	2.50740	0.30000	0.83572

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	0.10496	0.32940	0.06480	0.29990	2.50740	0.30000	0.87633
	A1->X (FF)	0.01860	0.00100	0.10673	0.32940	0.06480	0.30029	2.50740	0.30000	0.87685
	A2->X (FF)	0.01860	0.00100	0.11160	0.32940	0.06480	0.30976	2.50740	0.30000	0.89312
	A3->X (FF)	0.01860	0.00100	0.11237	0.32940	0.06480	0.30946	2.50740	0.30000	0.89247
	S0->X (-F)	0.01860	0.00100	0.09686	0.32940	0.06480	0.31056	2.50740	0.30000	0.92483
	S1->X (-F)	0.01860	0.00100	0.05696	0.32940	0.06480	0.24536	2.50740	0.30000	0.82826

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	0.07963	0.32940	0.06480	0.29902	2.50740	0.30000	0.95679
	S0->X (RR)	(!A0 * A1 * !S1)	0.01860	0.00100	0.07545	0.32940	0.06480	0.28934	2.50740	0.30000	0.93800
	S0->X (FR)	(A2 * !A3 * S1)	0.01860	0.00100	0.11668	0.32940	0.06480	0.32438	2.50740	0.30000	0.93314
	S0->X (FR)	(A0 * !A1 * !S1)	0.01860	0.00100	0.11352	0.32940	0.06480	0.31931	2.50740	0.30000	0.92510
	S1->X (RR)	(!A1 * A3 * S0)	0.01860	0.00100	0.04777	0.32940	0.06480	0.24155	2.50740	0.30000	0.83572
	S1->X (RR)	(!A0 * A2 * !S0)	0.01860	0.00100	0.04768	0.32940	0.06480	0.24156	2.50740	0.30000	0.83523
	S1->X (FR)	(A1 * !A3 * S0)	0.01860	0.00100	0.06326	0.32940	0.06480	0.25609	2.50740	0.30000	0.83078
	S1->X (FR)	(A0 * !A2 * !S0)	0.01860	0.00100	0.06313	0.32940	0.06480	0.25609	2.50740	0.30000	0.83069

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	0.09686	0.32940	0.06480	0.31056	2.50740	0.30000	0.92483
	S0->X (FF)	(!A0 * A1 * !S1)	0.01860	0.00100	0.08827	0.32940	0.06480	0.29697	2.50740	0.30000	0.90182
	S0->X (RF)	(A2 * !A3 * S1)	0.01860	0.00100	0.12973	0.32940	0.06480	0.32162	2.50740	0.30000	0.83802
	S0->X (RF)	(A0 * !A1 * !S1)	0.01860	0.00100	0.12285	0.32940	0.06480	0.31299	2.50740	0.30000	0.82688
	S1->X (FF)	(!A1 * A3 * S0)	0.01860	0.00100	0.05696	0.32940	0.06480	0.24536	2.50740	0.30000	0.82826
	S1->X (FF)	(!A0 * A2 * !S0)	0.01860	0.00100	0.05683	0.32940	0.06480	0.24533	2.50740	0.30000	0.82732
	S1->X (RF)	(A1 * !A3 * S0)	0.01860	0.00100	0.06993	0.32940	0.06480	0.25073	2.50740	0.30000	0.74016
	S1->X (RF)	(A0 * !A2 * !S0)	0.01860	0.00100	0.07005	0.32940	0.06480	0.25077	2.50740	0.30000	0.74079

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	0.01922	0.32940	0.06480	0.02041	2.50740	0.30000	0.04827
	A1	0.01860	0.00100	0.02849	0.32940	0.06480	0.02950	2.50740	0.30000	0.05732
	A2	0.01860	0.00100	0.02939	0.32940	0.06480	0.03044	2.50740	0.30000	0.05796
	A3	0.01860	0.00100	0.02042	0.32940	0.06480	0.02164	2.50740	0.30000	0.04926
	S0	0.01860	0.00100	0.02297	0.32940	0.06480	0.01886	2.50740	0.30000	-0.01050
	S1	0.01860	0.00100	0.01141	0.32940	0.06480	0.01376	2.50740	0.30000	0.03386

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	0.02916	0.32940	0.06480	0.03026	2.50740	0.30000	0.05947
	A1	0.01860	0.00100	0.02077	0.32940	0.06480	0.02183	2.50740	0.30000	0.05119
	A2	0.01860	0.00100	0.03063	0.32940	0.06480	0.03161	2.50740	0.30000	0.06089
	A3	0.01860	0.00100	0.02996	0.32940	0.06480	0.03099	2.50740	0.30000	0.06003
	S0	0.01860	0.00100	0.01666	0.32940	0.06480	0.01939	2.50740	0.30000	0.04956
	S1	0.01860	0.00100	0.01299	0.32940	0.06480	0.01551	2.50740	0.30000	0.03413

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	0.02297	0.32940	0.06480	0.01886	2.50740	0.30000	-0.00308
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	0.02291	0.32940	0.06480	0.01881	2.50740	0.30000	-0.00333
	S0	(!A2 * A3 * S1)	0.01860	0.00100	0.01065	0.32940	0.06480	0.00964	2.50740	0.30000	0.00690
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	0.01522	0.32940	0.06480	0.01709	2.50740	0.30000	0.04701
	S1	(A1 * !A3 * S0)	0.01860	0.00100	0.01245	0.32940	0.06480	0.01485	2.50740	0.30000	0.03675
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	0.01141	0.32940	0.06480	0.01376	2.50740	0.30000	0.03386
	S1	(!A1 * A3 * S0)	0.01860	0.00100	0.00823	0.32940	0.06480	0.01072	2.50740	0.30000	0.03616
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	0.00720	0.32940	0.06480	0.00972	2.50740	0.30000	0.03423

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	0.03417	0.32940	0.06480	0.03215	2.50740	0.30000	0.00308
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	0.03421	0.32940	0.06480	0.03263	2.50740	0.30000	0.00333
	S0	(!A2 * A3 * S1)	0.01860	0.00100	0.01640	0.32940	0.06480	0.01866	2.50740	0.30000	0.04848
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	0.01666	0.32940	0.06480	0.01939	2.50740	0.30000	0.04956
	S1	(A1 * !A3 * S0)	0.01860	0.00100	0.01299	0.32940	0.06480	0.01551	2.50740	0.30000	0.03413
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	0.01399	0.32940	0.06480	0.01651	2.50740	0.30000	0.03591
	S1	(!A1 * A3 * S0)	0.01860	0.00100	0.00768	0.32940	0.06480	0.01034	2.50740	0.30000	0.03658
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	0.00777	0.32940	0.06480	0.01053	2.50740	0.30000	0.03838

Passive power(pJ) for S0 rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.01170	0.32940	0.01799	2.50740	0.08711

Passive power(pJ) for S0 falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.01566	0.32940	0.02312	2.50740	0.09396

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	0.01084	0.32940	0.01705	2.50740	0.08622
	(A0 * A1 * !S1)	0.01860	0.01176	0.32940	0.01759	2.50740	0.08637
	(!A2 * !A3 * S1)	0.01860	0.01170	0.32940	0.01799	2.50740	0.08711
	(!A0 * !A1 * !S1)	0.01860	0.01308	0.32940	0.01904	2.50740	0.08856

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	0.01605	0.32940	0.02364	2.50740	0.09491
	(A0 * A1 * !S1)	0.01860	0.01868	0.32940	0.02642	2.50740	0.09726
	(!A2 * !A3 * S1)	0.01860	0.01566	0.32940	0.02312	2.50740	0.09396
	(!A0 * !A1 * !S1)	0.01860	0.01115	0.32940	0.01823	2.50740	0.08885

Passive power(pJ) for S1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.00579	0.32940	0.00954	2.50740	0.04864

Passive power(pJ) for S1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.00647	0.32940	0.01100	2.50740	0.05053

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	0.00580	0.32940	0.00955	2.50740	0.04823
	(A0 * A2 * !S0)	0.01860	0.00579	0.32940	0.00954	2.50740	0.04864
	(!A1 * !A3 * S0)	0.01860	0.00642	0.32940	0.01026	2.50740	0.04887
	(!A0 * !A2 * !S0)	0.01860	0.00644	0.32940	0.01026	2.50740	0.04881

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	0.00650	0.32940	0.01090	2.50740	0.05170
	(A0 * A2 * !S0)	0.01860	0.00647	0.32940	0.01100	2.50740	0.05053
	(!A1 * !A3 * S0)	0.01860	0.00633	0.32940	0.01076	2.50740	0.05037
	(!A0 * !A2 * !S0)	0.01860	0.00636	0.32940	0.01068	2.50740	0.05122

NAND2B1



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A_N	B	Y
sg13g2_nand2b_1	0.00238	0.00318	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_1	161.31700	357.10700	551.87000

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	0.03734	0.32940	0.06480	0.21755	2.50740	0.30000	0.80981
	B->Y (FR)	0.01860	0.00100	0.01960	0.32940	0.06480	0.27896	2.50740	0.30000	1.51223

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	0.04386	0.32940	0.06480	0.27576	2.50740	0.30000	1.04790
	B->Y (RF)	0.01860	0.00100	0.02583	0.32940	0.06480	0.30464	2.50740	0.30000	1.59193

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	0.00321	0.32940	0.06480	0.00360	2.50740	0.30000	0.00258
	B	0.01860	0.00100	0.00306	0.32940	0.06480	0.00438	2.50740	0.30000	0.01900

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	0.00649	0.32940	0.06480	0.00669	2.50740	0.30000	0.00567
	B	0.01860	0.00100	0.00634	0.32940	0.06480	0.00719	2.50740	0.30000	0.01855

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	0.00606	0.32940	0.00916	2.50740	0.04113

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	0.00338	0.32940	0.00675	2.50740	0.03941

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	0.00606	0.32940	0.00916	2.50740	0.04113

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	0.00338	0.32940	0.00675	2.50740	0.03941

NAND2B2



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A_N	B	Y
sg13g2_nand2b_2	0.00232	0.00582	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_2	360.86900	583.51900	1016.76000

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_2	A_N->Y (RR)	0.01860	0.00100	0.04887	0.32940	0.12960	0.24671	2.50740	0.60000	0.86610
	B->Y (FR)	0.01860	0.00100	0.01489	0.32940	0.12960	0.27457	2.50740	0.60000	1.50375

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_2	A_N->Y (FF)	0.01860	0.00100	0.05771	0.32940	0.12960	0.31917	2.50740	0.60000	1.14956
	B->Y (RF)	0.01860	0.00100	0.01939	0.32940	0.12960	0.33775	2.50740	0.60000	1.81448

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_2	A_N	0.01860	0.00100	0.00633	0.32940	0.12960	0.00678	2.50740	0.60000	0.00651
	B	0.01860	0.00100	0.00447	0.32940	0.12960	0.00759	2.50740	0.60000	0.03513

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_2	A_N	0.01860	0.00100	0.01291	0.32940	0.12960	0.01376	2.50740	0.60000	0.01422
	B	0.01860	0.00100	0.00663	0.32940	0.12960	0.00910	2.50740	0.60000	0.03283

Passive power(pJ) for A_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_2	0.01860	0.00997	0.32940	0.01229	2.50740	0.04261

Passive power(pJ) for A_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_2	0.01860	0.00957	0.32940	0.01233	2.50740	0.04365

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_2	!B	0.01860	0.00997	0.32940	0.01229	2.50740	0.04261

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_2	!B	0.01860	0.00957	0.32940	0.01233	2.50740	0.04365

NAND2x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	10.88640
sg13g2_nand2_1	7.25760

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_nand2_2	0.00579	0.00600	0.60000
sg13g2_nand2_1	0.00299	0.00313	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2_2	184.04200	460.91400	948.39100
sg13g2_nand2_1	92.89230	234.44300	483.43600

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_2	A->Y (FR)	0.01860	0.00100	0.01505	0.32940	0.12960	0.27487	2.50740	0.60000	1.50555
	B->Y (FR)	0.01860	0.00100	0.01852	0.32940	0.12960	0.27883	2.50740	0.60000	1.51217
sg13g2_nand2_1	A->Y (FR)	0.01860	0.00100	0.01680	0.32940	0.06480	0.27476	2.50740	0.30000	1.50446
	B->Y (FR)	0.01860	0.00100	0.01998	0.32940	0.06480	0.27849	2.50740	0.30000	1.51006

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_2	A->Y (RF)	0.01860	0.00100	0.01960	0.32940	0.12960	0.33746	2.50740	0.60000	1.81364
	B->Y (RF)	0.01860	0.00100	0.02331	0.32940	0.12960	0.31216	2.50740	0.60000	1.63185
sg13g2_nand2_1	A->Y (RF)	0.01860	0.00100	0.02128	0.32940	0.06480	0.32814	2.50740	0.30000	1.76421
	B->Y (RF)	0.01860	0.00100	0.02434	0.32940	0.06480	0.30261	2.50740	0.30000	1.58647

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_2	A	0.01860	0.00100	0.00451	0.32940	0.12960	0.00760	2.50740	0.60000	0.03497
	B	0.01860	0.00100	0.00579	0.32940	0.12960	0.00839	2.50740	0.60000	0.03670
sg13g2_nand2_1	A	0.01860	0.00100	0.00252	0.32940	0.06480	0.00402	2.50740	0.30000	0.01826
	B	0.01860	0.00100	0.00287	0.32940	0.06480	0.00419	2.50740	0.30000	0.01867

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_2	A	0.01860	0.00100	0.00665	0.32940	0.12960	0.00919	2.50740	0.60000	0.03267
	B	0.01860	0.00100	0.01203	0.32940	0.12960	0.01383	2.50740	0.60000	0.03562
sg13g2_nand2_1	A	0.01860	0.00100	0.00352	0.32940	0.06480	0.00469	2.50740	0.30000	0.01683
	B	0.01860	0.00100	0.00631	0.32940	0.06480	0.00708	2.50740	0.30000	0.01852

NAND3B1



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	Y
sg13g2_nand3b_1	0.00236	0.00311	0.00315	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3b_1	164.33400	390.86100	793.49100

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_nand3b_1	A_N->Y (RR)	0.01860	0.00100	0.03930	0.32940	0.06480	0.21855	2.50740	0.30000	0.80821
	B->Y (FR)	0.01860	0.00100	0.02189	0.32940	0.06480	0.28088	2.50740	0.30000	1.51035
	C->Y (FR)	0.01860	0.00100	0.02382	0.32940	0.06480	0.28414	2.50740	0.30000	1.51499

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_nand3b_1	A_N->Y (FF)	0.01860	0.00100	0.05231	0.32940	0.06480	0.35535	2.50740	0.30000	1.39175
	B->Y (RF)	0.01860	0.00100	0.03767	0.32940	0.06480	0.39191	2.50740	0.30000	1.98980
	C->Y (RF)	0.01860	0.00100	0.04039	0.32940	0.06480	0.36843	2.50740	0.30000	1.79526

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	0.00346	0.32940	0.06480	0.00379	2.50740	0.30000	0.00274
	B	0.01860	0.00100	0.00341	0.32940	0.06480	0.00446	2.50740	0.30000	0.01734
	C	0.01860	0.00100	0.00374	0.32940	0.06480	0.00473	2.50740	0.30000	0.01806

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	0.00843	0.32940	0.06480	0.00867	2.50740	0.30000	0.00773
	B	0.01860	0.00100	0.00826	0.32940	0.06480	0.00881	2.50740	0.30000	0.01857
	C	0.01860	0.00100	0.01075	0.32940	0.06480	0.01117	2.50740	0.30000	0.02160

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	0.00606	0.32940	0.00914	2.50740	0.04117

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	0.00335	0.32940	0.00673	2.50740	0.03938

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	0.00606	0.32940	0.00914	2.50740	0.04117

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	0.00335	0.32940	0.00673	2.50740	0.03938

NAND3



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	0.00298	0.00315	0.00313	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3_1	95.96920	268.25000	725.13700

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	0.01907	0.32940	0.06480	0.27687	2.50740	0.30000	1.50355
	B->Y (FR)	0.01860	0.00100	0.02223	0.32940	0.06480	0.28068	2.50740	0.30000	1.50970
	C->Y (FR)	0.01860	0.00100	0.02384	0.32940	0.06480	0.28388	2.50740	0.30000	1.51571

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	0.03003	0.32940	0.06480	0.40696	2.50740	0.30000	2.13065
	B->Y (RF)	0.01860	0.00100	0.03600	0.32940	0.06480	0.38986	2.50740	0.30000	1.98451
	C->Y (RF)	0.01860	0.00100	0.03851	0.32940	0.06480	0.36605	2.50740	0.30000	1.78936

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	0.00278	0.32940	0.06480	0.00410	2.50740	0.30000	0.01651
	B	0.01860	0.00100	0.00313	0.32940	0.06480	0.00418	2.50740	0.30000	0.01700
	C	0.01860	0.00100	0.00352	0.32940	0.06480	0.00441	2.50740	0.30000	0.01797

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	0.00544	0.32940	0.06480	0.00641	2.50740	0.30000	0.01688
	B	0.01860	0.00100	0.00830	0.32940	0.06480	0.00886	2.50740	0.30000	0.01861
	C	0.01860	0.00100	0.01073	0.32940	0.06480	0.01113	2.50740	0.30000	0.02163

NAND4



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	Y
sg13g2_nand4_1	0.00297	0.00315	0.00318	0.00316	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand4_1	99.47250	293.44200	966.99000

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	0.02034	0.32940	0.06480	0.27809	2.50740	0.30000	1.50208
	B->Y (FR)	0.01860	0.00100	0.02354	0.32940	0.06480	0.28186	2.50740	0.30000	1.50834
	C->Y (FR)	0.01860	0.00100	0.02536	0.32940	0.06480	0.28543	2.50740	0.30000	1.51411
	D->Y (FR)	0.01860	0.00100	0.02611	0.32940	0.06480	0.28832	2.50740	0.30000	1.51834

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	0.03780	0.32940	0.06480	0.48401	2.50740	0.30000	2.48134
	B->Y (RF)	0.01860	0.00100	0.04690	0.32940	0.06480	0.47365	2.50740	0.30000	2.35985
	C->Y (RF)	0.01860	0.00100	0.05225	0.32940	0.06480	0.45642	2.50740	0.30000	2.19101
	D->Y (RF)	0.01860	0.00100	0.05480	0.32940	0.06480	0.44177	2.50740	0.30000	2.04075

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	0.00291	0.32940	0.06480	0.00412	2.50740	0.30000	0.01539
	B	0.01860	0.00100	0.00329	0.32940	0.06480	0.00418	2.50740	0.30000	0.01575
	C	0.01860	0.00100	0.00370	0.32940	0.06480	0.00449	2.50740	0.30000	0.01648
	D	0.01860	0.00100	0.00404	0.32940	0.06480	0.00471	2.50740	0.30000	0.01706

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	0.00660	0.32940	0.06480	0.00757	2.50740	0.30000	0.01637
	B	0.01860	0.00100	0.00948	0.32940	0.06480	0.00998	2.50740	0.30000	0.01804
	C	0.01860	0.00100	0.01197	0.32940	0.06480	0.01229	2.50740	0.30000	0.02083
	D	0.01860	0.00100	0.01437	0.32940	0.06480	0.01469	2.50740	0.30000	0.02371

NOR2Bx



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	12.70080
sg13g2_nor2b_1	9.07200

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B_N	Y
sg13g2_nor2b_2	0.00587	0.00282	0.60000
sg13g2_nor2b_1	0.00302	0.00240	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2b_2	514.85600	644.29700	801.10800
sg13g2_nor2b_1	289.50900	377.05800	477.23600

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_2	A->Y (FR)	0.01860	0.00100	0.02215	0.32940	0.12960	0.40642	2.50740	0.60000	2.15093
	B_N->Y (RR)	0.01860	0.00100	0.05528	0.32940	0.12960	0.37610	2.50740	0.60000	1.44488
sg13g2_nor2b_1	A->Y (FR)	0.01860	0.00100	0.02540	0.32940	0.06480	0.40736	2.50740	0.30000	2.15363
	B_N->Y (RR)	0.01860	0.00100	0.05059	0.32940	0.06480	0.35627	2.50740	0.30000	1.39800

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_2	A->Y (RF)	0.01860	0.00100	0.01466	0.32940	0.12960	0.25442	2.50740	0.60000	1.40171
	B_N->Y (FF)	0.01860	0.00100	0.04945	0.32940	0.12960	0.22956	2.50740	0.60000	0.77101
sg13g2_nor2b_1	A->Y (RF)	0.01860	0.00100	0.01602	0.32940	0.06480	0.24792	2.50740	0.30000	1.36371
	B_N->Y (FF)	0.01860	0.00100	0.04197	0.32940	0.06480	0.20432	2.50740	0.30000	0.71664

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_2	A	0.01860	0.00100	0.00631	0.32940	0.12960	0.00943	2.50740	0.60000	0.03364
	B_N	0.01860	0.00100	0.01357	0.32940	0.12960	0.01405	2.50740	0.60000	0.01409
sg13g2_nor2b_1	A	0.01860	0.00100	0.00316	0.32940	0.06480	0.00464	2.50740	0.30000	0.01734
	B_N	0.01860	0.00100	0.00714	0.32940	0.06480	0.00728	2.50740	0.30000	0.00675

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_2	A	0.01860	0.00100	0.00456	0.32940	0.12960	0.00749	2.50740	0.60000	0.02831
	B_N	0.01860	0.00100	0.00683	0.32940	0.12960	0.00732	2.50740	0.60000	0.00552
sg13g2_nor2b_1	A	0.01860	0.00100	0.00289	0.32940	0.06480	0.00432	2.50740	0.30000	0.01520
	B_N	0.01860	0.00100	0.00371	0.32940	0.06480	0.00391	2.50740	0.30000	0.00234

Passive power(pJ) for B_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_2	0.01860	0.01110	0.32940	0.01406	2.50740	0.05083
sg13g2_nor2b_1	0.01860	0.00613	0.32940	0.00894	2.50740	0.04066

Passive power(pJ) for B_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_2	0.01860	0.00968	0.32940	0.01304	2.50740	0.05106
sg13g2_nor2b_1	0.01860	0.00564	0.32940	0.00881	2.50740	0.04125

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_2	A	0.01860	0.01110	0.32940	0.01406	2.50740	0.05083
sg13g2_nor2b_1	A	0.01860	0.00613	0.32940	0.00894	2.50740	0.04066

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_2	A	0.01860	0.00968	0.32940	0.01304	2.50740	0.05106
sg13g2_nor2b_1	A	0.01860	0.00564	0.32940	0.00881	2.50740	0.04125

NOR2x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	10.88640
sg13g2_nor2_1	7.25760

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_nor2_2	0.00612	0.00584	0.30000
sg13g2_nor2_1	0.00319	0.00302	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2_2	375.58700	508.93000	617.01400
sg13g2_nor2_1	187.81100	254.45500	308.46900

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_2	A->Y (FR)	0.01860	0.00100	0.02805	0.32940	0.06480	0.23622	2.50740	0.30000	1.19599
	B->Y (FR)	0.01860	0.00100	0.02239	0.32940	0.06480	0.26340	2.50740	0.30000	1.39803
sg13g2_nor2_1	A->Y (FR)	0.01860	0.00100	0.02978	0.32940	0.06480	0.37402	2.50740	0.30000	1.89243
	B->Y (FR)	0.01860	0.00100	0.02548	0.32940	0.06480	0.40713	2.50740	0.30000	2.15292

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_2	A->Y (RF)	0.01860	0.00100	0.01755	0.32940	0.06480	0.17252	2.50740	0.30000	0.91471
	B->Y (RF)	0.01860	0.00100	0.01442	0.32940	0.06480	0.16722	2.50740	0.30000	0.90396
sg13g2_nor2_1	A->Y (RF)	0.01860	0.00100	0.01874	0.32940	0.06480	0.25133	2.50740	0.30000	1.37037
	B->Y (RF)	0.01860	0.00100	0.01607	0.32940	0.06480	0.24792	2.50740	0.30000	1.36366

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_2	A	0.01860	0.00100	0.01352	0.32940	0.06480	0.01563	2.50740	0.30000	0.05198
	B	0.01860	0.00100	0.00645	0.32940	0.06480	0.01051	2.50740	0.30000	0.04788
sg13g2_nor2_1	A	0.01860	0.00100	0.00669	0.32940	0.06480	0.00751	2.50740	0.30000	0.02009
	B	0.01860	0.00100	0.00318	0.32940	0.06480	0.00465	2.50740	0.30000	0.01741

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_2	A	0.01860	0.00100	0.00616	0.32940	0.06480	0.00910	2.50740	0.30000	0.04312
	B	0.01860	0.00100	0.00451	0.32940	0.06480	0.00809	2.50740	0.30000	0.03974
sg13g2_nor2_1	A	0.01860	0.00100	0.00307	0.32940	0.06480	0.00411	2.50740	0.30000	0.01548
	B	0.01860	0.00100	0.00288	0.32940	0.06480	0.00430	2.50740	0.30000	0.01510

NOR3x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	16.32960
sg13g2_nor3_1	9.07200

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	Y
sg13g2_nor3_2	0.00607	0.00602	0.00577	0.60000
sg13g2_nor3_1	0.00317	0.00316	0.00300	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor3_2	445.72300	630.67200	878.32100
sg13g2_nor3_1	229.81900	325.97500	460.07100

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_2	A->Y (FR)	0.01860	0.00100	0.04853	0.32940	0.12960	0.50071	2.50740	0.60000	2.33083
	B->Y (FR)	0.01860	0.00100	0.04507	0.32940	0.12960	0.52460	2.50740	0.60000	2.56442
	C->Y (FR)	0.01860	0.00100	0.03218	0.32940	0.12960	0.53963	2.50740	0.60000	2.75758
sg13g2_nor3_1	A->Y (FR)	0.01860	0.00100	0.05325	0.32940	0.06480	0.49972	2.50740	0.30000	2.32603
	B->Y (FR)	0.01860	0.00100	0.04953	0.32940	0.06480	0.52292	2.50740	0.30000	2.55716
	C->Y (FR)	0.01860	0.00100	0.03791	0.32940	0.06480	0.53943	2.50740	0.30000	2.74914

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_2	A->Y (RF)	0.01860	0.00100	0.01982	0.32940	0.12960	0.25659	2.50740	0.60000	1.37541
	B->Y (RF)	0.01860	0.00100	0.01954	0.32940	0.12960	0.25377	2.50740	0.60000	1.37029
	C->Y (RF)	0.01860	0.00100	0.01618	0.32940	0.12960	0.24955	2.50740	0.60000	1.36419
sg13g2_nor3_1	A->Y (RF)	0.01860	0.00100	0.02097	0.32940	0.06480	0.25029	2.50740	0.30000	1.33870
	B->Y (RF)	0.01860	0.00100	0.02058	0.32940	0.06480	0.24796	2.50740	0.30000	1.33649
	C->Y (RF)	0.01860	0.00100	0.01772	0.32940	0.06480	0.24421	2.50740	0.30000	1.33029

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_2	A	0.01860	0.00100	0.02248	0.32940	0.12960	0.02280	2.50740	0.60000	0.04453
	B	0.01860	0.00100	0.01625	0.32940	0.12960	0.01699	2.50740	0.60000	0.03653
	C	0.01860	0.00100	0.00919	0.32940	0.12960	0.01154	2.50740	0.60000	0.03303
sg13g2_nor3_1	A	0.01860	0.00100	0.01155	0.32940	0.06480	0.01169	2.50740	0.30000	0.02306
	B	0.01860	0.00100	0.00845	0.32940	0.06480	0.00878	2.50740	0.30000	0.01926
	C	0.01860	0.00100	0.00496	0.32940	0.06480	0.00611	2.50740	0.30000	0.01735

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_2	A	0.01860	0.00100	0.00771	0.32940	0.12960	0.00901	2.50740	0.60000	0.02924
	B	0.01860	0.00100	0.00706	0.32940	0.12960	0.00867	2.50740	0.60000	0.02772
	C	0.01860	0.00100	0.00510	0.32940	0.12960	0.00782	2.50740	0.60000	0.02620
sg13g2_nor3_1	A	0.01860	0.00100	0.00419	0.32940	0.06480	0.00494	2.50740	0.30000	0.01572
	B	0.01860	0.00100	0.00381	0.32940	0.06480	0.00471	2.50740	0.30000	0.01474
	C	0.01860	0.00100	0.00318	0.32940	0.06480	0.00446	2.50740	0.30000	0.01423

NOR4x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	21.77280
sg13g2_nor4_1	10.88640

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	Y
sg13g2_nor4_2	0.00608	0.00600	0.00594	0.00574	0.60000
sg13g2_nor4_1	0.00315	0.00314	0.00310	0.00293	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor4_2	451.00100	771.79100	1149.93000
sg13g2_nor4_1	225.52800	385.88700	574.94700

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_2	A->Y (FR)	0.01860	0.00100	0.07643	0.32940	0.12960	0.64775	2.50740	0.60000	2.84768
	B->Y (FR)	0.01860	0.00100	0.07312	0.32940	0.12960	0.66023	2.50740	0.60000	3.01150
	C->Y (FR)	0.01860	0.00100	0.06240	0.32940	0.12960	0.67054	2.50740	0.60000	3.19879
	D->Y (FR)	0.01860	0.00100	0.04190	0.32940	0.12960	0.67282	2.50740	0.60000	3.34503
sg13g2_nor4_1	A->Y (FR)	0.01860	0.00100	0.07964	0.32940	0.06480	0.64238	2.50740	0.30000	2.82671
	B->Y (FR)	0.01860	0.00100	0.07623	0.32940	0.06480	0.65425	2.50740	0.30000	2.99151
	C->Y (FR)	0.01860	0.00100	0.06663	0.32940	0.06480	0.66643	2.50740	0.30000	3.18127
	D->Y (FR)	0.01860	0.00100	0.04785	0.32940	0.06480	0.67012	2.50740	0.30000	3.32668

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_2	A->Y (RF)	0.01860	0.00100	0.02093	0.32940	0.12960	0.26115	2.50740	0.60000	1.37969
	B->Y (RF)	0.01860	0.00100	0.02157	0.32940	0.12960	0.25855	2.50740	0.60000	1.37588
	C->Y (RF)	0.01860	0.00100	0.02080	0.32940	0.12960	0.25495	2.50740	0.60000	1.36957
	D->Y (RF)	0.01860	0.00100	0.01754	0.32940	0.12960	0.25051	2.50740	0.60000	1.36083
sg13g2_nor4_1	A->Y (RF)	0.01860	0.00100	0.02235	0.32940	0.06480	0.26080	2.50740	0.30000	1.37911
	B->Y (RF)	0.01860	0.00100	0.02292	0.32940	0.06480	0.25876	2.50740	0.30000	1.37717
	C->Y (RF)	0.01860	0.00100	0.02209	0.32940	0.06480	0.25529	2.50740	0.30000	1.37107
	D->Y (RF)	0.01860	0.00100	0.01904	0.32940	0.06480	0.25126	2.50740	0.30000	1.36473

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_2	A	0.01860	0.00100	0.03108	0.32940	0.12960	0.03097	2.50740	0.60000	0.05175
	B	0.01860	0.00100	0.02500	0.32940	0.12960	0.02506	2.50740	0.60000	0.04383
	C	0.01860	0.00100	0.01899	0.32940	0.12960	0.01921	2.50740	0.60000	0.03759
	D	0.01860	0.00100	0.01184	0.32940	0.12960	0.01368	2.50740	0.60000	0.03472
sg13g2_nor4_1	A	0.01860	0.00100	0.01536	0.32940	0.06480	0.01520	2.50740	0.30000	0.02516
	B	0.01860	0.00100	0.01227	0.32940	0.06480	0.01225	2.50740	0.30000	0.02162
	C	0.01860	0.00100	0.00924	0.32940	0.06480	0.00935	2.50740	0.30000	0.01870
	D	0.01860	0.00100	0.00577	0.32940	0.06480	0.00669	2.50740	0.30000	0.01723

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_2	A	0.01860	0.00100	0.00970	0.32940	0.12960	0.01046	2.50740	0.60000	0.02866
	B	0.01860	0.00100	0.00912	0.32940	0.12960	0.01005	2.50740	0.60000	0.02721
	C	0.01860	0.00100	0.00739	0.32940	0.12960	0.00906	2.50740	0.60000	0.02574
	D	0.01860	0.00100	0.00537	0.32940	0.12960	0.00808	2.50740	0.60000	0.02431
sg13g2_nor4_1	A	0.01860	0.00100	0.00488	0.32940	0.06480	0.00522	2.50740	0.30000	0.01439
	B	0.01860	0.00100	0.00461	0.32940	0.06480	0.00515	2.50740	0.30000	0.01371
	C	0.01860	0.00100	0.00405	0.32940	0.06480	0.00485	2.50740	0.30000	0.01304
	D	0.01860	0.00100	0.00331	0.32940	0.06480	0.00455	2.50740	0.30000	0.01265

NP_ANT



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	0.00106

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_antennanp	6.75000	6.75002	6.75003

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	-0.00041	0.32940	-0.00041	2.50740	-0.00041

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_antennanp	0.01860	0.00041	0.32940	0.00041	2.50740	0.00041

O21AI



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	0.00358	0.00350	0.00333	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_o21ai_1	211.89300	444.56400	709.33400

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	0.04820	0.32940	0.06480	0.44587	2.50740	0.30000	2.17336
	A2->Y (FR)	0.01860	0.00100	0.04209	0.32940	0.06480	0.47903	2.50740	0.30000	2.46167
	B1->Y (FR)	0.01860	0.00100	0.01958	0.32940	0.06480	0.31278	2.50740	0.30000	1.71644

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	0.03345	0.32940	0.06480	0.31314	2.50740	0.30000	1.57066
	A2->Y (RF)	0.01860	0.00100	0.02813	0.32940	0.06480	0.30652	2.50740	0.30000	1.55950
	B1->Y (RF)	0.01860	0.00100	0.02206	0.32940	0.06480	0.33120	2.50740	0.30000	1.75986

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	0.01958	0.32940	0.06480	0.31278	2.50740	0.30000	1.71644

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	0.02206	0.32940	0.06480	0.33120	2.50740	0.30000	1.75986

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	0.00810	0.32940	0.06480	0.00855	2.50740	0.30000	0.01939
	A2	0.01860	0.00100	0.00414	0.32940	0.06480	0.00510	2.50740	0.30000	0.01551
	B1	0.01860	0.00100	0.00261	0.32940	0.06480	0.00406	2.50740	0.30000	0.01753

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	0.00749	0.32940	0.06480	0.00780	2.50740	0.30000	0.01771
	A2	0.01860	0.00100	0.00703	0.32940	0.06480	0.00793	2.50740	0.30000	0.01722
	B1	0.01860	0.00100	0.00362	0.32940	0.06480	0.00486	2.50740	0.30000	0.01667

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	0.00261	0.32940	0.06480	0.00406	2.50740	0.30000	0.01753

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	0.00362	0.32940	0.06480	0.00486	2.50740	0.30000	0.01667

OR2x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	10.88640
sg13g2_or2_1	9.07200

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	X
sg13g2_or2_2	0.00259	0.00240	0.60000
sg13g2_or2_1	0.00262	0.00243	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or2_2	349.48300	444.88500	620.24600
sg13g2_or2_1	255.63800	314.07600	378.54500

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_2	A->X (RR)	0.01860	0.00100	0.04799	0.32940	0.12960	0.25412	2.50740	0.60000	0.86920
	B->X (RR)	0.01860	0.00100	0.04503	0.32940	0.12960	0.24432	2.50740	0.60000	0.82662
sg13g2_or2_1	A->X (RR)	0.01860	0.00100	0.04073	0.32940	0.06480	0.22830	2.50740	0.30000	0.81268
	B->X (RR)	0.01860	0.00100	0.03757	0.32940	0.06480	0.21666	2.50740	0.30000	0.76461

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_2	A->X (FF)	0.01860	0.00100	0.08134	0.32940	0.12960	0.27039	2.50740	0.60000	0.84828
	B->X (FF)	0.01860	0.00100	0.07706	0.32940	0.12960	0.28679	2.50740	0.60000	0.90961
sg13g2_or2_1	A->X (FF)	0.01860	0.00100	0.06256	0.32940	0.06480	0.23107	2.50740	0.30000	0.78095
	B->X (FF)	0.01860	0.00100	0.05808	0.32940	0.06480	0.24179	2.50740	0.30000	0.83246

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_2	A	0.01860	0.00100	0.01596	0.32940	0.12960	0.01829	2.50740	0.60000	0.04455
	B	0.01860	0.00100	0.01570	0.32940	0.12960	0.01816	2.50740	0.60000	0.04352
sg13g2_or2_1	A	0.01860	0.00100	0.00950	0.32940	0.06480	0.01203	2.50740	0.30000	0.03910
	B	0.01860	0.00100	0.00923	0.32940	0.06480	0.01173	2.50740	0.30000	0.03828

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_2	A	0.01860	0.00100	0.01991	0.32940	0.12960	0.02045	2.50740	0.60000	0.04611
	B	0.01860	0.00100	0.01750	0.32940	0.12960	0.01886	2.50740	0.60000	0.04484
sg13g2_or2_1	A	0.01860	0.00100	0.01205	0.32940	0.06480	0.01412	2.50740	0.30000	0.04064
	B	0.01860	0.00100	0.00953	0.32940	0.06480	0.01261	2.50740	0.30000	0.03947

OR3x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	14.51520
sg13g2_or3_1	12.70080

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	X
sg13g2_or3_2	0.00274	0.00267	0.00252	0.60000
sg13g2_or3_1	0.00276	0.00268	0.00254	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or3_2	360.48900	467.21100	715.80700
sg13g2_or3_1	266.55300	354.73000	474.01800

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_2	A->X (RR)	0.01860	0.00100	0.05353	0.32940	0.12960	0.27048	2.50740	0.60000	0.92090
	B->X (RR)	0.01860	0.00100	0.05155	0.32940	0.12960	0.26211	2.50740	0.60000	0.87573
	C->X (RR)	0.01860	0.00100	0.04752	0.32940	0.12960	0.25126	2.50740	0.60000	0.83816
sg13g2_or3_1	A->X (RR)	0.01860	0.00100	0.04660	0.32940	0.06480	0.24690	2.50740	0.30000	0.86479
	B->X (RR)	0.01860	0.00100	0.04474	0.32940	0.06480	0.23746	2.50740	0.30000	0.81964
	C->X (RR)	0.01860	0.00100	0.04056	0.32940	0.06480	0.22492	2.50740	0.30000	0.77614

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_2	A->X (FF)	0.01860	0.00100	0.11219	0.32940	0.12960	0.29711	2.50740	0.60000	0.85414
	B->X (FF)	0.01860	0.00100	0.10893	0.32940	0.12960	0.31182	2.50740	0.60000	0.92899
	C->X (FF)	0.01860	0.00100	0.09803	0.32940	0.12960	0.31753	2.50740	0.60000	0.96455
sg13g2_or3_1	A->X (FF)	0.01860	0.00100	0.08883	0.32940	0.06480	0.25584	2.50740	0.30000	0.79399
	B->X (FF)	0.01860	0.00100	0.08552	0.32940	0.06480	0.26715	2.50740	0.30000	0.85702
	C->X (FF)	0.01860	0.00100	0.07430	0.32940	0.06480	0.26877	2.50740	0.30000	0.88193

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_2	A	0.01860	0.00100	0.01668	0.32940	0.12960	0.01866	2.50740	0.60000	0.04696
	B	0.01860	0.00100	0.01641	0.32940	0.12960	0.01837	2.50740	0.60000	0.04385
	C	0.01860	0.00100	0.01592	0.32940	0.12960	0.01804	2.50740	0.60000	0.04339
sg13g2_or3_1	A	0.01860	0.00100	0.01012	0.32940	0.06480	0.01224	2.50740	0.30000	0.04091
	B	0.01860	0.00100	0.00989	0.32940	0.06480	0.01201	2.50740	0.30000	0.03813
	C	0.01860	0.00100	0.00940	0.32940	0.06480	0.01178	2.50740	0.30000	0.03779

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_2	A	0.01860	0.00100	0.02639	0.32940	0.12960	0.02473	2.50740	0.60000	0.05085
	B	0.01860	0.00100	0.02366	0.32940	0.12960	0.02227	2.50740	0.60000	0.04737
	C	0.01860	0.00100	0.02068	0.32940	0.12960	0.02034	2.50740	0.60000	0.04562
sg13g2_or3_1	A	0.01860	0.00100	0.01732	0.32940	0.06480	0.01825	2.50740	0.30000	0.04616
	B	0.01860	0.00100	0.01463	0.32940	0.06480	0.01591	2.50740	0.30000	0.04220
	C	0.01860	0.00100	0.01162	0.32940	0.06480	0.01414	2.50740	0.30000	0.04044

OR4x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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_2	16.32960
sg13g2_or4_1	14.51520

Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	X
sg13g2_or4_2	0.00273	0.00264	0.00261	0.00251	0.60000
sg13g2_or4_1	0.00275	0.00265	0.00262	0.00253	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or4_2	363.10500	492.02900	793.24600
sg13g2_or4_1	269.22100	388.87700	551.50200

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_2	A->X (RR)	0.01860	0.00100	0.05583	0.32940	0.12960	0.27861	2.50740	0.60000	0.92608
	B->X (RR)	0.01860	0.00100	0.05511	0.32940	0.12960	0.27239	2.50740	0.60000	0.89165
	C->X (RR)	0.01860	0.00100	0.05235	0.32940	0.12960	0.26343	2.50740	0.60000	0.85504
	D->X (RR)	0.01860	0.00100	0.04819	0.32940	0.12960	0.25272	2.50740	0.60000	0.81774
sg13g2_or4_1	A->X (RR)	0.01860	0.00100	0.04866	0.32940	0.06480	0.25609	2.50740	0.30000	0.87586
	B->X (RR)	0.01860	0.00100	0.04824	0.32940	0.06480	0.24931	2.50740	0.30000	0.83482
	C->X (RR)	0.01860	0.00100	0.04575	0.32940	0.06480	0.23912	2.50740	0.30000	0.79666
	D->X (RR)	0.01860	0.00100	0.04136	0.32940	0.06480	0.22639	2.50740	0.30000	0.75584

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_2	A->X (FF)	0.01860	0.00100	0.15546	0.32940	0.12960	0.34736	2.50740	0.60000	0.90971
	B->X (FF)	0.01860	0.00100	0.15206	0.32940	0.12960	0.35591	2.50740	0.60000	0.98371
	C->X (FF)	0.01860	0.00100	0.14133	0.32940	0.12960	0.36049	2.50740	0.60000	1.03433
	D->X (FF)	0.01860	0.00100	0.12337	0.32940	0.12960	0.35894	2.50740	0.60000	1.05626
sg13g2_or4_1	A->X (FF)	0.01860	0.00100	0.12386	0.32940	0.06480	0.29794	2.50740	0.30000	0.84399
	B->X (FF)	0.01860	0.00100	0.12037	0.32940	0.06480	0.30466	2.50740	0.30000	0.90936
	C->X (FF)	0.01860	0.00100	0.10973	0.32940	0.06480	0.30628	2.50740	0.30000	0.94876
	D->X (FF)	0.01860	0.00100	0.09140	0.32940	0.06480	0.30153	2.50740	0.30000	0.96280

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_2	A	0.01860	0.00100	0.01776	0.32940	0.12960	0.01929	2.50740	0.60000	0.04593
	B	0.01860	0.00100	0.01738	0.32940	0.12960	0.01887	2.50740	0.60000	0.04320
	C	0.01860	0.00100	0.01651	0.32940	0.12960	0.01837	2.50740	0.60000	0.04082
	D	0.01860	0.00100	0.01595	0.32940	0.12960	0.01804	2.50740	0.60000	0.04031
sg13g2_or4_1	A	0.01860	0.00100	0.01113	0.32940	0.06480	0.01281	2.50740	0.30000	0.03970
	B	0.01860	0.00100	0.01079	0.32940	0.06480	0.01247	2.50740	0.30000	0.03687
	C	0.01860	0.00100	0.01000	0.32940	0.06480	0.01183	2.50740	0.30000	0.03471
	D	0.01860	0.00100	0.00945	0.32940	0.06480	0.01161	2.50740	0.30000	0.03496

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_2	A	0.01860	0.00100	0.03184	0.32940	0.12960	0.02714	2.50740	0.60000	0.05143
	B	0.01860	0.00100	0.02921	0.32940	0.12960	0.02489	2.50740	0.60000	0.04874
	C	0.01860	0.00100	0.02651	0.32940	0.12960	0.02274	2.50740	0.60000	0.04549
	D	0.01860	0.00100	0.02349	0.32940	0.12960	0.02068	2.50740	0.60000	0.04407
sg13g2_or4_1	A	0.01860	0.00100	0.02101	0.32940	0.06480	0.02080	2.50740	0.30000	0.04642
	B	0.01860	0.00100	0.01837	0.32940	0.06480	0.01839	2.50740	0.30000	0.04279
	C	0.01860	0.00100	0.01571	0.32940	0.06480	0.01617	2.50740	0.30000	0.03891
	D	0.01860	0.00100	0.01263	0.32940	0.06480	0.01435	2.50740	0.30000	0.03811

SDFRBPQ_x



*sg13g2_stdcell_typ_1p50V_25C Cell Library:
Process sg13g2_stdcell_typ_1p50V_25C, Voltage
1.50, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_sdfrbpq_2	72.57600
sg13g2_sdfrbpq_1	63.50400

Pin Capacitance Information

Cell Name	Pin Cap(pf)					Max Cap(pf)
	D	SCD	SCE	RESET_B	CLK	Q
sg13g2_sdfrbpq_2	0.00291	0.00304	0.00516	0.00530	0.00310	0.60000
sg13g2_sdfrbpq_1	0.00291	0.00304	0.00516	0.00529	0.00310	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfrbpq_2	2036.90000	2255.48000	2562.95000
sg13g2_sdfrbpq_1	1812.33000	2074.67000	2321.27000

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_sdfrbpq_2	CLK->Q (RR)	0.01860	0.00100	0.13381	0.32940	0.12960	0.33908	2.50740	0.60000	0.90581
sg13g2_sdfrbpq_1	CLK->Q (RR)	0.01860	0.00100	0.11664	0.32940	0.06480	0.31222	2.50740	0.30000	0.87802

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_sdfrbpq_2	CLK->Q (RF)	0.01860	0.00100	0.14076	0.32940	0.12960	0.32541	2.50740	0.60000	0.79610
	RESET_B->Q (FF)	0.01860	0.00100	0.08471	0.32940	0.12960	0.32348	2.50740	0.60000	0.97233
sg13g2_sdfrbpq_1	CLK->Q (RF)	0.01860	0.00100	0.12274	0.32940	0.06480	0.29680	2.50740	0.30000	0.76859
	RESET_B->Q (FF)	0.01860	0.00100	0.06719	0.32940	0.06480	0.28432	2.50740	0.30000	0.89794

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_sdfrbpq_2	CLK->Q (RR)	SCE	0.01860	0.00100	0.13380	0.32940	0.12960	0.33908	2.50740	0.60000	0.90581
	CLK->Q (RR)	!SCE	0.01860	0.00100	0.13381	0.32940	0.12960	0.33908	2.50740	0.60000	0.90581
sg13g2_sdfrbpq_1	CLK->Q (RR)	SCE	0.01860	0.00100	0.11664	0.32940	0.06480	0.31222	2.50740	0.30000	0.87802
	CLK->Q (RR)	!SCE	0.01860	0.00100	0.11661	0.32940	0.06480	0.31199	2.50740	0.30000	0.87751

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_sdfrbpq_2	CLK->Q (RF)	SCE	0.01860	0.00100	0.14077	0.32940	0.12960	0.32541	2.50740	0.60000	0.79610
	CLK->Q (RF)	!SCE	0.01860	0.00100	0.14076	0.32940	0.12960	0.32541	2.50740	0.60000	0.79610
sg13g2_sdfrbpq_1	CLK->Q (RF)	SCE	0.01860	0.00100	0.12274	0.32940	0.06480	0.29680	2.50740	0.30000	0.76859
	CLK->Q (RF)	!SCE	0.01860	0.00100	0.12279	0.32940	0.06480	0.29680	2.50740	0.30000	0.76859

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_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.18595
	setup	CLK (R)	0.01860	0.01860	0.11981	1.26300	1.26300	0.18619	2.50740	2.50740	0.20070
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.18595
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.18619	2.50740	2.50740	0.20070

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_2	hold	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.17269	2.50740	2.50740	-0.22432
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.19968	2.50740	2.50740	0.25973
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.22432
	setup	CLK (R)	0.01860	0.01860	0.13448	1.26300	1.26300	0.20238	2.50740	2.50740	0.26269

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_2	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.18595
	setup	CLK (R)	0.01860	0.01860	0.11981	1.26300	1.26300	0.18619	2.50740	2.50740	0.20070
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.18595
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.18619	2.50740	2.50740	0.20070

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_2	hold	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.22727
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.19968	2.50740	2.50740	0.26269
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.22727
	setup	CLK (R)	0.01860	0.01860	0.13448	1.26300	1.26300	0.20238	2.50740	2.50740	0.26269

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_2	hold	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.16190	2.50740	2.50740	-0.18299
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.17809	2.50740	2.50740	0.19775
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.16190	2.50740	2.50740	-0.18299
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.17809	2.50740	2.50740	0.19775

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_2	hold	CLK (R)	0.01860	0.01860	-0.10759	1.26300	1.26300	-0.14301	2.50740	2.50740	-0.18004
	setup	CLK (R)	0.01860	0.01860	0.13938	1.26300	1.26300	0.17269	2.50740	2.50740	0.21251
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.10514	1.26300	1.26300	-0.14031	2.50740	2.50740	-0.18004
	setup	CLK (R)	0.01860	0.01860	0.13938	1.26300	1.26300	0.17269	2.50740	2.50740	0.21546

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_2	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.26984	2.50740	2.50740	0.60802
	removal	CLK (R)	0.01860	0.01860	-0.06358	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.28335
sg13g2_sdfrbpq_1	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.22936	2.50740	2.50740	0.45454
	removal	CLK (R)	0.01860	0.01860	-0.06358	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.28335

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_2	min_pulse_width	RESET_B ()	0.01860	0.00000	0.09262	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbpq_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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_2	min_pulse_width	CLK ()	0.01860	0.00000	0.06378	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.05417	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_2	min_pulse_width	CLK ()	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.08301	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_sdfrbpq_2	CLK	0.01860	0.00100	0.04092	0.32940	0.12960	0.04427	2.50740	0.60000	0.09333
sg13g2_sdfrbpq_1	CLK	0.01860	0.00100	0.03375	0.32940	0.06480	0.03810	2.50740	0.30000	0.08727

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_2	CLK	0.01860	0.00100	0.04277	0.32940	0.12960	0.04642	2.50740	0.60000	0.09304
	RESET_B	0.01860	0.00100	0.04043	0.32940	0.12960	0.04134	2.50740	0.60000	0.08260
sg13g2_sdfrbpq_1	CLK	0.01860	0.00100	0.03471	0.32940	0.06480	0.03984	2.50740	0.30000	0.08691
	RESET_B	0.01860	0.00100	0.03222	0.32940	0.06480	0.03494	2.50740	0.30000	0.07579

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_2	CLK	SCE	0.01860	0.00100	0.04092	0.32940	0.12960	0.04427	2.50740	0.60000	0.09333
	CLK	!SCE	0.01860	0.00100	0.02459	0.32940	0.12960	0.02374	2.50740	0.60000	0.02650
sg13g2_sdfrbpq_1	CLK	SCE	0.01860	0.00100	0.03375	0.32940	0.06480	0.03810	2.50740	0.30000	0.08727
	CLK	!SCE	0.01860	0.00100	0.01645	0.32940	0.06480	0.01693	2.50740	0.30000	0.01966

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_2	CLK	SCE	0.01860	0.00100	0.04277	0.32940	0.12960	0.04642	2.50740	0.60000	0.09304
	CLK	!SCE	0.01860	0.00100	0.02643	0.32940	0.12960	0.02604	2.50740	0.60000	0.02620
sg13g2_sdfrbpq_1	CLK	SCE	0.01860	0.00100	0.03471	0.32940	0.06480	0.03984	2.50740	0.30000	0.08691
	CLK	!SCE	0.01860	0.00100	0.01837	0.32940	0.06480	0.01946	2.50740	0.30000	0.02008

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.03668	0.32940	0.03942	2.50740	0.07548
sg13g2_sdfrbpq_1	0.01860	0.03266	0.32940	0.03535	2.50740	0.07145

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.03213	0.32940	0.03607	2.50740	0.07469
sg13g2_sdfrbpq_1	0.01860	0.03068	0.32940	0.03459	2.50740	0.07320

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	(!CLK * RESET_B * !SCE)	0.01860	0.03668	0.32940	0.03942	2.50740	0.07548
sg13g2_sdfrbpq_1	(!CLK * RESET_B * !SCE)	0.01860	0.03266	0.32940	0.03535	2.50740	0.07145

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	(!CLK * RESET_B * !SCE)	0.01860	0.03213	0.32940	0.03607	2.50740	0.07469
sg13g2_sdfrbpq_1	(!CLK * RESET_B * !SCE)	0.01860	0.03068	0.32940	0.03459	2.50740	0.07320

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.03692	0.32940	0.03958	2.50740	0.07572
sg13g2_sdfrbpq_1	0.01860	0.03289	0.32940	0.03553	2.50740	0.07169

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.03235	0.32940	0.03627	2.50740	0.07501
sg13g2_sdfrbpq_1	0.01860	0.03086	0.32940	0.03479	2.50740	0.07353

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	(!CLK * RESET_B * SCE)	0.01860	0.03692	0.32940	0.03958	2.50740	0.07572
sg13g2_sdfrbpq_1	(!CLK * RESET_B * SCE)	0.01860	0.03289	0.32940	0.03553	2.50740	0.07169

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	(!CLK * RESET_B * SCE)	0.01860	0.03235	0.32940	0.03627	2.50740	0.07501
sg13g2_sdfrbpq_1	(!CLK * RESET_B * SCE)	0.01860	0.03086	0.32940	0.03479	2.50740	0.07353

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.03966	0.32940	0.04456	2.50740	0.11132
sg13g2_sdfrbpq_1	0.01860	0.03970	0.32940	0.04460	2.50740	0.11137

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.05211	0.32940	0.07258	2.50740	0.14155
sg13g2_sdfrbpq_1	0.01860	0.05150	0.32940	0.07201	2.50740	0.14106

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	(!CLK * D * RESET_B * !SCD)	0.01860	0.03735	0.32940	0.03996	2.50740	0.07258
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03966	0.32940	0.04456	2.50740	0.11132
sg13g2_sdfrbpq_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.03676	0.32940	0.03935	2.50740	0.07199
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03970	0.32940	0.04460	2.50740	0.11137

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	(!CLK * D * RESET_B * !SCD)	0.01860	0.04077	0.32940	0.04387	2.50740	0.07752
	(!CLK * !D * RESET_B * SCD)	0.01860	0.05211	0.32940	0.07258	2.50740	0.14155
sg13g2_sdfrbpq_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.04080	0.32940	0.04390	2.50740	0.07756
	(!CLK * !D * RESET_B * SCD)	0.01860	0.05150	0.32940	0.07201	2.50740	0.14106

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.01634	0.32940	0.02038	2.50740	0.06684
sg13g2_sdfrbpq_1	0.01860	0.01634	0.32940	0.02038	2.50740	0.06683

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.01704	0.32940	0.02168	2.50740	0.06947
sg13g2_sdfrbpq_1	0.01860	0.01669	0.32940	0.02129	2.50740	0.06907

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	(RESET_B * SCD * SCE * Q)	0.01860	0.01671	0.32940	0.02084	2.50740	0.06729
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01634	0.32940	0.02038	2.50740	0.06684
	(D * RESET_B * !SCE * Q)	0.01860	0.01671	0.32940	0.02084	2.50740	0.06729
	(!RESET_B * !Q)	0.01860	0.01598	0.32940	0.01999	2.50740	0.06634
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01634	0.32940	0.02038	2.50740	0.06684
sg13g2_sdfrbpq_1	(RESET_B * SCD * SCE * Q)	0.01860	0.01671	0.32940	0.02084	2.50740	0.06723
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01634	0.32940	0.02038	2.50740	0.06683
	(D * RESET_B * !SCE * Q)	0.01860	0.01671	0.32940	0.02084	2.50740	0.06723
	(!RESET_B * !Q)	0.01860	0.01537	0.32940	0.01938	2.50740	0.06572
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01636	0.32940	0.02038	2.50740	0.06683

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	(RESET_B * SCD * SCE * Q)	0.01860	0.01704	0.32940	0.02168	2.50740	0.06947
	(RESET_B * SCD * SCE * !Q)	0.01860	0.03232	0.32940	0.03695	2.50740	0.08658
	(RESET_B * !SCD * SCE * Q)	0.01860	0.03056	0.32940	0.03557	2.50740	0.08446
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01648	0.32940	0.02108	2.50740	0.06893
	(D * RESET_B * !SCE * Q)	0.01860	0.01704	0.32940	0.02168	2.50740	0.06947
	(!RESET_B * !Q)	0.01860	0.01468	0.32940	0.01926	2.50740	0.06702
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01648	0.32940	0.02108	2.50740	0.06893
sg13g2_sdfrbpq_1	(RESET_B * SCD * SCE * Q)	0.01860	0.01637	0.32940	0.02100	2.50740	0.06890
	(RESET_B * SCD * SCE * !Q)	0.01860	0.03247	0.32940	0.03713	2.50740	0.08666
	(RESET_B * !SCD * SCE * Q)	0.01860	0.02993	0.32940	0.03495	2.50740	0.08392
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01669	0.32940	0.02129	2.50740	0.06907
	(D * RESET_B * !SCE * Q)	0.01860	0.01637	0.32940	0.02100	2.50740	0.06890
	(!RESET_B * !Q)	0.01860	0.01407	0.32940	0.01865	2.50740	0.06640
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01669	0.32940	0.02129	2.50740	0.06907

SDFRBP_x



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_sdfrbp_2	72.57600
sg13g2_sdfrbp_1	68.94720

Pin Capacitance Information

Cell Name	Pin Cap(pf)					Max Cap(pf)	
	D	SCD	SCE	RESET_B	CLK	Q	Q_N
sg13g2_sdfrbp_2	0.00291	0.00304	0.00516	0.00528	0.00310	0.60000	0.60000
sg13g2_sdfrbp_1	0.00291	0.00304	0.00516	0.00528	0.00310	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfrbp_2	2323.80000	2685.29000	2894.38000
sg13g2_sdfrbp_1	1988.17000	2349.70000	2558.80000

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_2	CLK->Q (RR)	0.01860	0.00100	0.16190	0.32940	0.12960	0.34450	2.50740	0.60000	0.93579
sg13g2_sdfrbp_1	CLK->Q (RR)	0.01860	0.00100	0.12740	0.32940	0.06480	0.31457	2.50740	0.30000	0.90300

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_2	CLK->Q (RF)	0.01860	0.00100	0.14017	0.32940	0.12960	0.30475	2.50740	0.60000	0.78157
	RESET_B->Q (FF)	0.01860	0.00100	0.18889	0.32940	0.12960	0.39375	2.50740	0.60000	1.02363
sg13g2_sdfrbp_1	CLK->Q (RF)	0.01860	0.00100	0.11590	0.32940	0.06480	0.27928	2.50740	0.30000	0.75223
	RESET_B->Q (FF)	0.01860	0.00100	0.16348	0.32940	0.06480	0.36727	2.50740	0.30000	0.99255

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_2	CLK->Q (RR)	SCE	0.01860	0.00100	0.16190	0.32940	0.12960	0.34450	2.50740	0.60000	0.93579
sg13g2_sdfrbp_1	CLK->Q (RR)	SCE	0.01860	0.00100	0.12740	0.32940	0.06480	0.31457	2.50740	0.30000	0.90300

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_2	CLK->Q (RF)	SCE	0.01860	0.00100	0.14017	0.32940	0.12960	0.30475	2.50740	0.60000	0.78157
sg13g2_sdfrbp_1	CLK->Q (RF)	SCE	0.01860	0.00100	0.11590	0.32940	0.06480	0.27928	2.50740	0.30000	0.75223

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_2	CLK->Q_N (RR)	0.01860	0.00100	0.09430	0.32940	0.12960	0.30280	2.50740	0.60000	0.86713
	RESET_B->Q_N (FR)	0.01860	0.00100	0.14374	0.32940	0.12960	0.39047	2.50740	0.60000	1.10875
sg13g2_sdfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	0.08981	0.32940	0.06480	0.29067	2.50740	0.30000	0.85325
	RESET_B->Q_N (FR)	0.01860	0.00100	0.13766	0.32940	0.06480	0.37722	2.50740	0.30000	1.09383

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_2	CLK->Q_N (RF)	0.01860	0.00100	0.10575	0.32940	0.12960	0.31527	2.50740	0.60000	0.82093
sg13g2_sdfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	0.09583	0.32940	0.06480	0.29392	2.50740	0.30000	0.79591

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_2	CLK->Q_N (RR)	SCE	0.01860	0.00100	0.09430	0.32940	0.12960	0.30280	2.50740	0.60000	0.86713
sg13g2_sdfrbp_1	CLK->Q_N (RR)	SCE	0.01860	0.00100	0.08981	0.32940	0.06480	0.29067	2.50740	0.30000	0.85325

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_2	CLK->Q_N (RF)	SCE	0.01860	0.00100	0.10575	0.32940	0.12960	0.31527	2.50740	0.60000	0.82093
sg13g2_sdfrbp_1	CLK->Q_N (RF)	SCE	0.01860	0.00100	0.09583	0.32940	0.06480	0.29392	2.50740	0.30000	0.79591

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_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.16730	2.50740	2.50740	-0.18299
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.18349	2.50740	2.50740	0.19775
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.16730	2.50740	2.50740	-0.18299
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.18349	2.50740	2.50740	0.19775

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_2	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17539	2.50740	2.50740	-0.23317
	setup	CLK (R)	0.01860	0.01860	0.13938	1.26300	1.26300	0.20508	2.50740	2.50740	0.26269
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17539	2.50740	2.50740	-0.23317
	setup	CLK (R)	0.01860	0.01860	0.13693	1.26300	1.26300	0.20508	2.50740	2.50740	0.26269

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_2	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.16730	2.50740	2.50740	-0.18299
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.18349	2.50740	2.50740	0.19775
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.16730	2.50740	2.50740	-0.18299
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.18349	2.50740	2.50740	0.19775

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_2	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.17539	2.50740	2.50740	-0.23612
	setup	CLK (R)	0.01860	0.01860	0.13938	1.26300	1.26300	0.20508	2.50740	2.50740	0.26564
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.17539	2.50740	2.50740	-0.23612
	setup	CLK (R)	0.01860	0.01860	0.13693	1.26300	1.26300	0.20508	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_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.15920	2.50740	2.50740	-0.18004
	setup	CLK (R)	0.01860	0.01860	0.12470	1.26300	1.26300	0.17539	2.50740	2.50740	0.19480
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.15920	2.50740	2.50740	-0.18004
	setup	CLK (R)	0.01860	0.01860	0.12470	1.26300	1.26300	0.17539	2.50740	2.50740	0.19480

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_2	hold	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.14571	2.50740	2.50740	-0.18890
	setup	CLK (R)	0.01860	0.01860	0.14671	1.26300	1.26300	0.17539	2.50740	2.50740	0.21841
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.14571	2.50740	2.50740	-0.18890
	setup	CLK (R)	0.01860	0.01860	0.14427	1.26300	1.26300	0.17539	2.50740	2.50740	0.21841

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_2	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.19428	2.50740	2.50740	0.29220
	removal	CLK (R)	0.01860	0.01860	-0.06602	1.26300	1.26300	-0.18889	2.50740	2.50740	-0.28630
sg13g2_sdfrbp_1	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.19428	2.50740	2.50740	0.28925
	removal	CLK (R)	0.01860	0.01860	-0.06602	1.26300	1.26300	-0.18889	2.50740	2.50740	-0.28335

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_2	min_pulse_width	RESET_B 0	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbp_1	min_pulse_width	RESET_B 0	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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_2	min_pulse_width	CLK 0	0.01860	0.00000	0.08942	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbp_1	min_pulse_width	CLK 0	0.01860	0.00000	0.07339	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_sdfrbp_2	CLK	0.01860	0.00100	0.06336	0.32940	0.12960	0.21018	2.50740	0.60000	0.78742
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.04858	0.32940	0.06480	0.12465	2.50740	0.30000	0.43791

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_2	CLK	0.01860	0.00100	0.06179	0.32940	0.12960	0.21164	2.50740	0.60000	0.78580
	RESET_B	0.01860	0.00100	0.06508	0.32940	0.12960	0.24796	2.50740	0.60000	0.94827
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.04855	0.32940	0.06480	0.12582	2.50740	0.30000	0.43678
	RESET_B	0.01860	0.00100	0.05128	0.32940	0.06480	0.14465	2.50740	0.30000	0.51861

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_2	CLK	SCE	0.01860	0.00100	0.06336	0.32940	0.12960	0.21018	2.50740	0.60000	0.78742
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.04858	0.32940	0.06480	0.12465	2.50740	0.30000	0.43791

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_2	CLK	SCE	0.01860	0.00100	0.06179	0.32940	0.12960	0.21164	2.50740	0.60000	0.78580
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.04855	0.32940	0.06480	0.12582	2.50740	0.30000	0.43678

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_2	CLK	0.01860	0.00100	0.06185	0.32940	0.12960	0.21185	2.50740	0.60000	0.78838
	RESET_B	0.01860	0.00100	0.06499	0.32940	0.12960	0.23105	2.50740	0.60000	0.86877
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.04858	0.32940	0.06480	0.12577	2.50740	0.30000	0.43790
	RESET_B	0.01860	0.00100	0.05113	0.32940	0.06480	0.13613	2.50740	0.30000	0.47892

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_2	CLK	0.01860	0.00100	0.06438	0.32940	0.12960	0.21114	2.50740	0.60000	0.78503
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.04762	0.32940	0.06480	0.12371	2.50740	0.30000	0.43563

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_2	CLK	SCE	0.01860	0.00100	0.06185	0.32940	0.12960	0.21185	2.50740	0.60000	0.78838
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.04858	0.32940	0.06480	0.12577	2.50740	0.30000	0.43790

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_2	CLK	SCE	0.01860	0.00100	0.06438	0.32940	0.12960	0.21114	2.50740	0.60000	0.78503
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.04762	0.32940	0.06480	0.12371	2.50740	0.30000	0.43563

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.03262	0.32940	0.03535	2.50740	0.07142
sg13g2_sdfrbp_1	0.01860	0.03265	0.32940	0.03538	2.50740	0.07145

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.03289	0.32940	0.03682	2.50740	0.07541
sg13g2_sdfrbp_1	0.01860	0.03291	0.32940	0.03682	2.50740	0.07541

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	(!CLK * RESET_B * !SCE)	0.01860	0.03262	0.32940	0.03535	2.50740	0.07142
sg13g2_sdfrbp_1	(!CLK * RESET_B * !SCE)	0.01860	0.03265	0.32940	0.03538	2.50740	0.07145

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	(!CLK * RESET_B * !SCE)	0.01860	0.03289	0.32940	0.03682	2.50740	0.07541
sg13g2_sdfrbp_1	(!CLK * RESET_B * !SCE)	0.01860	0.03291	0.32940	0.03682	2.50740	0.07541

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.03287	0.32940	0.03551	2.50740	0.07166
sg13g2_sdfrbp_1	0.01860	0.03291	0.32940	0.03554	2.50740	0.07169

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.02811	0.32940	0.03204	2.50740	0.07078
sg13g2_sdfrbp_1	0.01860	0.02810	0.32940	0.03203	2.50740	0.07077

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	(!CLK * RESET_B * SCE)	0.01860	0.03287	0.32940	0.03551	2.50740	0.07166
sg13g2_sdfrbp_1	(!CLK * RESET_B * SCE)	0.01860	0.03291	0.32940	0.03554	2.50740	0.07169

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	(!CLK * RESET_B * SCE)	0.01860	0.02811	0.32940	0.03204	2.50740	0.07078
sg13g2_sdfrbp_1	(!CLK * RESET_B * SCE)	0.01860	0.02810	0.32940	0.03203	2.50740	0.07077

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.03968	0.32940	0.04457	2.50740	0.11132
sg13g2_sdfrbp_1	0.01860	0.03971	0.32940	0.04461	2.50740	0.11134

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.05053	0.32940	0.07099	2.50740	0.13995
sg13g2_sdfrbp_1	0.01860	0.05055	0.32940	0.07101	2.50740	0.14005

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	(!CLK * D * RESET_B * !SCD)	0.01860	0.03575	0.32940	0.03836	2.50740	0.07098
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03968	0.32940	0.04457	2.50740	0.11132
sg13g2_sdfrbp_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.03575	0.32940	0.03836	2.50740	0.07097
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03971	0.32940	0.04461	2.50740	0.11134

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	(!CLK * D * RESET_B * !SCD)	0.01860	0.04078	0.32940	0.04387	2.50740	0.07752
	(!CLK * !D * RESET_B * SCD)	0.01860	0.05053	0.32940	0.07099	2.50740	0.13995
sg13g2_sdfrbp_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.04084	0.32940	0.04390	2.50740	0.07755
	(!CLK * !D * RESET_B * SCD)	0.01860	0.05055	0.32940	0.07101	2.50740	0.14005

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.01639	0.32940	0.02043	2.50740	0.06674
sg13g2_sdfrbp_1	0.01860	0.01639	0.32940	0.02043	2.50740	0.06683

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.01674	0.32940	0.02129	2.50740	0.06908
sg13g2_sdfrbp_1	0.01860	0.01674	0.32940	0.02129	2.50740	0.06909

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01679	0.32940	0.02084	2.50740	0.06725
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01641	0.32940	0.02043	2.50740	0.06674
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01680	0.32940	0.02084	2.50740	0.06725
	(!RESET_B * !Q * Q_N)	0.01860	0.01443	0.32940	0.01844	2.50740	0.06471
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01639	0.32940	0.02043	2.50740	0.06674
sg13g2_sdfrbp_1	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01678	0.32940	0.02084	2.50740	0.06719
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01639	0.32940	0.02043	2.50740	0.06683
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01678	0.32940	0.02084	2.50740	0.06719
	(!RESET_B * !Q * Q_N)	0.01860	0.01442	0.32940	0.01843	2.50740	0.06473
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01639	0.32940	0.02043	2.50740	0.06683

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01646	0.32940	0.02100	2.50740	0.06889
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	0.03251	0.32940	0.03712	2.50740	0.08665
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	0.02998	0.32940	0.03494	2.50740	0.08390
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01674	0.32940	0.02129	2.50740	0.06908
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01646	0.32940	0.02100	2.50740	0.06889
	(!RESET_B * !Q * Q_N)	0.01860	0.01313	0.32940	0.01767	2.50740	0.06543
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01673	0.32940	0.02129	2.50740	0.06908

sg13g2_sdfrbp_1	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01644	0.32940	0.02100	2.50740	0.06890
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	0.03251	0.32940	0.03712	2.50740	0.08666
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	0.02997	0.32940	0.03494	2.50740	0.08391
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01674	0.32940	0.02129	2.50740	0.06909
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01644	0.32940	0.02100	2.50740	0.06890
	(!RESET_B * !Q * Q_N)	0.01860	0.01312	0.32940	0.01766	2.50740	0.06543
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01672	0.32940	0.02129	2.50740	0.06909

SDFRRS



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_sdfbbp_1	63.50400

Pin Capacitance Information

Cell Name	Pin Cap(pf)						Max Cap(pf)	
	D	SCD	SCE	RESET_B	SET_B	CLK	Q	Q_N
sg13g2_sdfbbp_1	0.00205	0.00210	0.00371	0.00182	0.00549	0.00318	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfbbp_1	1768.27000	2271.16000	2443.87000

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	0.20344	0.32940	0.06480	0.38857	2.50740	0.30000	0.95788
	SET_B->Q (FR)	0.01860	0.00100	0.08494	0.32940	0.06480	0.29169	2.50740	0.30000	0.92123

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	0.16803	0.32940	0.06480	0.33401	2.50740	0.30000	0.82348
	RESET_B->Q (FF)	0.01860	0.00100	0.13938	0.32940	0.06480	0.32264	2.50740	0.30000	0.86070

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	0.20344	0.32940	0.06480	0.38857	2.50740	0.30000	0.95788

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	0.16803	0.32940	0.06480	0.33401	2.50740	0.30000	0.82348

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	0.13905	0.32940	0.06480	0.34074	2.50740	0.30000	0.92295
	RESET_B->Q_N (FR)	0.01860	0.00100	0.10968	0.32940	0.06480	0.33366	2.50740	0.30000	0.96756

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	0.16987	0.32940	0.06480	0.36136	2.50740	0.30000	0.84372
	SET_B->Q_N (FF)	0.01860	0.00100	0.05696	0.32940	0.06480	0.26150	2.50740	0.30000	0.81451

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	0.13905	0.32940	0.06480	0.34074	2.50740	0.30000	0.92295

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	0.16987	0.32940	0.06480	0.36136	2.50740	0.30000	0.84372

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_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.06358	1.26300	1.26300	-0.18079	2.50740	2.50740	-0.23908
	setup	CLK (R)	0.01860	0.01860	0.07825	1.26300	1.26300	0.19158	2.50740	2.50740	0.25383

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	-0.07091	1.26300	1.26300	-0.15920	2.50740	2.50740	-0.22137
	setup	CLK (R)	0.01860	0.01860	0.10270	1.26300	1.26300	0.18619	2.50740	2.50740	0.25383

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	-0.08069	1.26300	1.26300	-0.21047	2.50740	2.50740	-0.28335
	setup	CLK (R)	0.01860	0.01860	0.09536	1.26300	1.26300	0.21857	2.50740	2.50740	0.29220

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	-0.09292	1.26300	1.26300	-0.15651	2.50740	2.50740	-0.20956
	setup	CLK (R)	0.01860	0.01860	0.12470	1.26300	1.26300	0.18349	2.50740	2.50740	0.24498

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	-0.06602	1.26300	1.26300	-0.19968	2.50740	2.50740	-0.27744
	setup	CLK (R)	0.01860	0.01860	0.08314	1.26300	1.26300	0.22396	2.50740	2.50740	0.30696

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	-0.07091	1.26300	1.26300	-0.11063	2.50740	2.50740	-0.14167
	setup	CLK (R)	0.01860	0.01860	0.10270	1.26300	1.26300	0.13762	2.50740	2.50740	0.17709

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	0.04401	1.26300	1.26300	0.07555	2.50740	2.50740	0.09150
	removal	CLK (R)	0.01860	0.01860	-0.02934	1.26300	1.26300	-0.06206	2.50740	2.50740	-0.07379

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	0.09262	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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	0.00734	1.26300	1.26300	0.08635	2.50740	2.50740	0.28335
	removal	CLK (R)	0.01860	0.01860	0.02690	1.26300	1.26300	0.06206	2.50740	2.50740	0.05903
	hold	RESET_B (R)	0.01860	0.01860	-0.04890	1.26300	1.26300	-0.13762	2.50740	2.50740	-0.19185
	setup	RESET_B (R)	0.01860	0.01860	0.06358	1.26300	1.26300	0.15920	2.50740	2.50740	0.22432

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 ()	0.01860	0.00000	0.06378	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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	0.06378	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	0.08301	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	0.02681	0.32940	0.06480	0.02901	2.50740	0.30000	0.05201
	SET_B	0.01860	0.00100	0.04931	0.32940	0.06480	0.12670	2.50740	0.30000	0.45148

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	0.02585	0.32940	0.06480	0.02824	2.50740	0.30000	0.05143
	RESET_B	0.01860	0.00100	0.05586	0.32940	0.06480	0.12997	2.50740	0.30000	0.42118

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	0.02681	0.32940	0.06480	0.02901	2.50740	0.30000	0.05201

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	0.02585	0.32940	0.06480	0.02824	2.50740	0.30000	0.05143

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	0.02585	0.32940	0.06480	0.02828	2.50740	0.30000	0.05219
	RESET_B	0.01860	0.00100	0.05582	0.32940	0.06480	0.13026	2.50740	0.30000	0.42164

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	0.02680	0.32940	0.06480	0.02897	2.50740	0.30000	0.05136
	SET_B	0.01860	0.00100	0.04930	0.32940	0.06480	0.12664	2.50740	0.30000	0.45112

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	0.02585	0.32940	0.06480	0.02828	2.50740	0.30000	0.05219

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	0.02680	0.32940	0.06480	0.02897	2.50740	0.30000	0.05136

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01754	0.32940	0.01872	2.50740	0.03824

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01807	0.32940	0.01947	2.50740	0.03958

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	0.01754	0.32940	0.01872	2.50740	0.03824
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	0.00717	0.32940	0.00800	2.50740	0.02560

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	0.01807	0.32940	0.01947	2.50740	0.03958
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	0.00732	0.32940	0.00844	2.50740	0.02643

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01989	0.32940	0.02076	2.50740	0.03908

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.02466	0.32940	0.02544	2.50740	0.04504

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	0.01989	0.32940	0.02076	2.50740	0.03908
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	0.00952	0.32940	0.01005	2.50740	0.02670

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	0.02466	0.32940	0.02544	2.50740	0.04504
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	0.00993	0.32940	0.01063	2.50740	0.02818

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.02195	0.32940	0.02419	2.50740	0.04836

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.02325	0.32940	0.02566	2.50740	0.05016

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	0.02195	0.32940	0.02419	2.50740	0.04836
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	0.02853	0.32940	0.03017	2.50740	0.05435
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	0.02033	0.32940	0.02402	2.50740	0.06861
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	0.00963	0.32940	0.01301	2.50740	0.05545

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	0.02325	0.32940	0.02566	2.50740	0.05016
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	0.03014	0.32940	0.04012	2.50740	0.06468
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	0.01328	0.32940	0.04454	2.50740	0.08876
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	0.00977	0.32940	0.01307	2.50740	0.05533

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01800	0.32940	0.02188	2.50740	0.06812

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.02174	0.32940	0.02660	2.50740	0.07512

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	0.01793	0.32940	0.02175	2.50740	0.06777
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	0.02354	0.32940	0.02732	2.50740	0.07328
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	0.01800	0.32940	0.02188	2.50740	0.06812
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	0.01774	0.32940	0.02153	2.50740	0.06756
	(!RESET_B * !Q * Q_N)	0.01860	0.01746	0.32940	0.02137	2.50740	0.06748
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	0.01800	0.32940	0.02189	2.50740	0.06813

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	0.01752	0.32940	0.02198	2.50740	0.06956
	(RESET_B * SCD * SCE * SET_B * !Q * Q_N)	0.01860	0.03110	0.32940	0.03559	2.50740	0.08455
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	0.02174	0.32940	0.02660	2.50740	0.07512
	(RESET_B * !SCD * SCE * SET_B * Q * !Q_N)	0.01860	0.03412	0.32940	0.03901	2.50740	0.08759
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	0.01746	0.32940	0.02193	2.50740	0.06940
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	0.01729	0.32940	0.02176	2.50740	0.06933
	(!RESET_B * !Q * Q_N)	0.01860	0.01614	0.32940	0.02063	2.50740	0.06806
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	0.01787	0.32940	0.02232	2.50740	0.06975

SGCLK



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, Temp 25.00*

Truth Table

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

Footprint

Cell Name	Area
sg13g2_slgcp_1	30.84480

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	GATE	SCE	CLK	GCLK
sg13g2_slgcp_1	0.00204	0.00246	0.00529	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_slgcp_1	1101.32000	1198.65000	1290.33000

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	0.05083	0.32940	0.06480	0.22998	2.50740	0.30000	0.82321

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	0.04334	0.32940	0.06480	0.21713	2.50740	0.30000	0.75675

Constraint Information

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	-0.02836	1.26300	1.26300	-0.11752	2.50740	2.50740	-0.15991
	setup	CLK (R)	0.01860	0.01860	0.04366	1.26300	1.26300	0.16836	2.50740	2.50740	0.23743

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	-0.04377	1.26300	1.26300	-0.16831	2.50740	2.50740	-0.26710
	setup	CLK (R)	0.01860	0.01860	0.07640	1.26300	1.26300	0.20023	2.50740	2.50740	0.30283

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	-0.02922	1.26300	1.26300	-0.14563	2.50740	2.50740	-0.20612
	setup	CLK (R)	0.01860	0.01860	0.05004	1.26300	1.26300	0.19380	2.50740	2.50740	0.28082

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	-0.05062	1.26300	1.26300	-0.13149	2.50740	2.50740	-0.19940
	setup	CLK (R)	0.01860	0.01860	0.07999	1.26300	1.26300	0.15876	2.50740	2.50740	0.23393

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	0.15991	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	0.06699	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

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	0.01458	0.32940	0.06480	0.01645	2.50740	0.30000	0.04657

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	0.00957	0.32940	0.06480	0.01337	2.50740	0.30000	0.04515

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.02955	0.32940	0.03260	2.50740	0.06261

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.03033	0.32940	0.05033	2.50740	0.08133

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	0.02955	0.32940	0.03260	2.50740	0.06261

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	0.03033	0.32940	0.05033	2.50740	0.08133

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.01610	0.32940	0.01838	2.50740	0.04960

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.03164	0.32940	0.04857	2.50740	0.07905

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.01079	0.32940	0.01435	2.50740	0.05368

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.01093	0.32940	0.01506	2.50740	0.05634

TIE0



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	266.16100	266.16100	266.16100

TIE1



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	238.39200	238.39200	238.39200

XNOR2_1



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	0.00601	0.00532	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xnor2_1	276.72200	577.48300	766.94200

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	0.03895	0.32940	0.06480	0.38472	2.50740	0.30000	1.90024
	B->Y (-R)	0.01860	0.00100	0.03398	0.32940	0.06480	0.41685	2.50740	0.30000	2.15897

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	0.03369	0.32940	0.06480	0.31438	2.50740	0.30000	1.60046
	B->Y (-F)	0.01860	0.00100	0.02872	0.32940	0.06480	0.30819	2.50740	0.30000	1.58976

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	0.04963	0.32940	0.06480	0.22975	2.50740	0.30000	0.82063
	A->Y (FR)	!B	0.01860	0.00100	0.03895	0.32940	0.06480	0.38472	2.50740	0.30000	1.90024
	B->Y (RR)	A	0.01860	0.00100	0.04660	0.32940	0.06480	0.23197	2.50740	0.30000	0.84386
	B->Y (FR)	!A	0.01860	0.00100	0.03398	0.32940	0.06480	0.41685	2.50740	0.30000	2.15897

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	0.05025	0.32940	0.06480	0.29400	2.50740	0.30000	1.08917
	A->Y (RF)	!B	0.01860	0.00100	0.03369	0.32940	0.06480	0.31438	2.50740	0.30000	1.60046
	B->Y (FF)	A	0.01860	0.00100	0.05019	0.32940	0.06480	0.28368	2.50740	0.30000	1.05970
	B->Y (RF)	!A	0.01860	0.00100	0.02872	0.32940	0.06480	0.30819	2.50740	0.30000	1.58976

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	0.01224	0.32940	0.06480	0.01461	2.50740	0.30000	0.04497
	B	0.01860	0.00100	0.01251	0.32940	0.06480	0.01527	2.50740	0.30000	0.04670

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	0.01092	0.32940	0.06480	0.01439	2.50740	0.30000	0.04643
	B	0.01860	0.00100	0.01157	0.32940	0.06480	0.01310	2.50740	0.30000	0.04527

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	0.01224	0.32940	0.06480	0.01461	2.50740	0.30000	0.04497
	A	!B	0.01860	0.00100	0.00773	0.32940	0.06480	0.00816	2.50740	0.30000	0.01910
	B	A	0.01860	0.00100	0.01251	0.32940	0.06480	0.01527	2.50740	0.30000	0.04670
	B	!A	0.01860	0.00100	0.00502	0.32940	0.06480	0.00619	2.50740	0.30000	0.01723

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	0.01092	0.32940	0.06480	0.01439	2.50740	0.30000	0.04643
	A	!B	0.01860	0.00100	0.00766	0.32940	0.06480	0.00800	2.50740	0.30000	0.01775
	B	A	0.01860	0.00100	0.01157	0.32940	0.06480	0.01310	2.50740	0.30000	0.04527
	B	!A	0.01860	0.00100	0.00622	0.32940	0.06480	0.00699	2.50740	0.30000	0.01622

XOR2_1



*sg13g2_stdcell_typ_1p50V_25C Cell Library: Process
sg13g2_stdcell_typ_1p50V_25C, Voltage 1.50, 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	0.00613	0.00536	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xor2_1	427.65100	522.92700	652.78600

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	0.04198	0.32940	0.06480	0.38883	2.50740	0.30000	1.90683
	B->X (-R)	0.01860	0.00100	0.03542	0.32940	0.06480	0.38161	2.50740	0.30000	1.89418

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	0.03115	0.32940	0.06480	0.31145	2.50740	0.30000	1.59305
	B->X (-F)	0.01860	0.00100	0.02787	0.32940	0.06480	0.33672	2.50740	0.30000	1.76908

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	0.05120	0.32940	0.06480	0.36793	2.50740	0.30000	1.42882
	A->X (FR)	B	0.01860	0.00100	0.04198	0.32940	0.06480	0.38883	2.50740	0.30000	1.90683
	B->X (RR)	!A	0.01860	0.00100	0.05290	0.32940	0.06480	0.35696	2.50740	0.30000	1.38261
	B->X (FR)	A	0.01860	0.00100	0.03542	0.32940	0.06480	0.38161	2.50740	0.30000	1.89418

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	0.05943	0.32940	0.06480	0.22143	2.50740	0.30000	0.74133
	A->X (RF)	B	0.01860	0.00100	0.03115	0.32940	0.06480	0.31145	2.50740	0.30000	1.59305
	B->X (FF)	!A	0.01860	0.00100	0.05486	0.32940	0.06480	0.23009	2.50740	0.30000	0.78453
	B->X (RF)	A	0.01860	0.00100	0.02787	0.32940	0.06480	0.33672	2.50740	0.30000	1.76908

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	0.01072	0.32940	0.06480	0.01350	2.50740	0.30000	0.04395
	B	0.01860	0.00100	0.01149	0.32940	0.06480	0.01277	2.50740	0.30000	0.04256

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	0.01342	0.32940	0.06480	0.01581	2.50740	0.30000	0.04622
	B	0.01860	0.00100	0.01236	0.32940	0.06480	0.01543	2.50740	0.30000	0.04564

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	0.00817	0.32940	0.06480	0.00849	2.50740	0.30000	0.01904
	A	!B	0.01860	0.00100	0.01072	0.32940	0.06480	0.01350	2.50740	0.30000	0.04395
	B	A	0.01860	0.00100	0.00640	0.32940	0.06480	0.00697	2.50740	0.30000	0.01728
	B	!A	0.01860	0.00100	0.01149	0.32940	0.06480	0.01277	2.50740	0.30000	0.04256

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	0.00765	0.32940	0.06480	0.00781	2.50740	0.30000	0.01769
	A	!B	0.01860	0.00100	0.01342	0.32940	0.06480	0.01581	2.50740	0.30000	0.04622
	B	A	0.01860	0.00100	0.00614	0.32940	0.06480	0.00687	2.50740	0.30000	0.01726
	B	!A	0.01860	0.00100	0.01236	0.32940	0.06480	0.01543	2.50740	0.30000	0.04564