

sg13g2_stdcell_fast_1p32V_m40C 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_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00625	0.00659	0.00601	0.60000
sg13g2_a21oi_1	0.00323	0.00330	0.00306	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21oi_2	317.74500	583.54000	764.88500
sg13g2_a21oi_1	158.88400	291.77500	382.44300

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	0.02955	0.32940	0.12960	0.36849	2.50740	0.60000	1.87313
	A2->Y (FR)	0.01860	0.00100	0.03520	0.32940	0.12960	0.37380	2.50740	0.60000	1.87820
	B1->Y (FR)	0.01860	0.00100	0.02832	0.32940	0.12960	0.39923	2.50740	0.60000	2.10400
sg13g2_a21oi_1	A1->Y (FR)	0.01860	0.00100	0.03219	0.32940	0.06480	0.36785	2.50740	0.30000	1.87050
	A2->Y (FR)	0.01860	0.00100	0.03767	0.32940	0.06480	0.37428	2.50740	0.30000	1.87879
	B1->Y (FR)	0.01860	0.00100	0.03081	0.32940	0.06480	0.39976	2.50740	0.30000	2.10598

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	0.02733	0.32940	0.12960	0.35739	2.50740	0.60000	1.89165
	A2->Y (RF)	0.01860	0.00100	0.03022	0.32940	0.12960	0.33208	2.50740	0.60000	1.71131
	B1->Y (RF)	0.01860	0.00100	0.01527	0.32940	0.12960	0.26151	2.50740	0.60000	1.45274
sg13g2_a21oi_1	A1->Y (RF)	0.01860	0.00100	0.02969	0.32940	0.06480	0.35752	2.50740	0.30000	1.89053
	A2->Y (RF)	0.01860	0.00100	0.03226	0.32940	0.06480	0.33199	2.50740	0.30000	1.70929
	B1->Y (RF)	0.01860	0.00100	0.01688	0.32940	0.06480	0.26224	2.50740	0.30000	1.45488

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	0.02832	0.32940	0.12960	0.39923	2.50740	0.60000	2.10400
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.02177	0.32940	0.12960	0.39321	2.50740	0.60000	2.10233
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	0.01850	0.32940	0.12960	0.33314	2.50740	0.60000	1.81674
sg13g2_a21oi_1	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.03081	0.32940	0.06480	0.39976	2.50740	0.30000	2.10598
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.02444	0.32940	0.06480	0.39174	2.50740	0.30000	2.09272
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	0.02064	0.32940	0.06480	0.33277	2.50740	0.30000	1.81342

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	0.01527	0.32940	0.12960	0.26151	2.50740	0.60000	1.45274
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.01498	0.32940	0.12960	0.26058	2.50740	0.60000	1.44993
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	0.01474	0.32940	0.12960	0.26040	2.50740	0.60000	1.45110
sg13g2_a21oi_1	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.01688	0.32940	0.06480	0.26224	2.50740	0.30000	1.45488
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.01661	0.32940	0.06480	0.26127	2.50740	0.30000	1.45224
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	0.01638	0.32940	0.06480	0.26104	2.50740	0.30000	1.45333

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	0.01092	0.32940	0.12960	0.01149	2.50740	0.60000	0.02110
	A2	0.01860	0.00100	0.01160	0.32940	0.12960	0.01174	2.50740	0.60000	0.02181
	B1	0.01860	0.00100	0.00602	0.32940	0.12960	0.00729	2.50740	0.60000	0.01984
sg13g2_a21oi_1	A1	0.01860	0.00100	0.00548	0.32940	0.06480	0.00570	2.50740	0.30000	0.01067
	A2	0.01860	0.00100	0.00576	0.32940	0.06480	0.00579	2.50740	0.30000	0.01071
	B1	0.01860	0.00100	0.00295	0.32940	0.06480	0.00353	2.50740	0.30000	0.00981

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	0.00638	0.32940	0.12960	0.00687	2.50740	0.60000	0.01740
	A2	0.01860	0.00100	0.01084	0.32940	0.12960	0.01093	2.50740	0.60000	0.02054
	B1	0.01860	0.00100	0.00314	0.32940	0.12960	0.00499	2.50740	0.60000	0.01740
sg13g2_a21oi_1	A1	0.01860	0.00100	0.00358	0.32940	0.06480	0.00378	2.50740	0.30000	0.00911
	A2	0.01860	0.00100	0.00571	0.32940	0.06480	0.00575	2.50740	0.30000	0.01056
	B1	0.01860	0.00100	0.00197	0.32940	0.06480	0.00277	2.50740	0.30000	0.00953

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	0.00602	0.32940	0.12960	0.00729	2.50740	0.60000	0.01984
	B1	(!A1 * A2)	0.01860	0.00100	0.00512	0.32940	0.12960	0.00668	2.50740	0.60000	0.01927
	B1	(!A1 * !A2)	0.01860	0.00100	0.00516	0.32940	0.12960	0.00673	2.50740	0.60000	0.02121
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	0.00295	0.32940	0.06480	0.00353	2.50740	0.30000	0.00981
	B1	(!A1 * A2)	0.01860	0.00100	0.00260	0.32940	0.06480	0.00335	2.50740	0.30000	0.00966
	B1	(!A1 * !A2)	0.01860	0.00100	0.00261	0.32940	0.06480	0.00336	2.50740	0.30000	0.01051

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	0.00755	0.32940	0.12960	0.00927	2.50740	0.60000	0.02084
	B1	(!A1 * A2)	0.01860	0.00100	0.00334	0.32940	0.12960	0.00516	2.50740	0.60000	0.01655
	B1	(!A1 * !A2)	0.01860	0.00100	0.00314	0.32940	0.12960	0.00499	2.50740	0.60000	0.01740
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	0.00419	0.32940	0.06480	0.00498	2.50740	0.30000	0.01071
	B1	(!A1 * A2)	0.01860	0.00100	0.00207	0.32940	0.06480	0.00290	2.50740	0.30000	0.00860
	B1	(!A1 * !A2)	0.01860	0.00100	0.00197	0.32940	0.06480	0.00277	2.50740	0.30000	0.00953

A221OI



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00319	0.00326	0.00313	0.00327	0.00303	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a221oi_1	238.70000	469.26300	622.81200

Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1->Y (FR)	0.01860	0.00100	0.07009	0.32940	0.06480	0.50329	2.50740	0.30000	2.28558
	A2->Y (FR)	0.01860	0.00100	0.07805	0.32940	0.06480	0.51096	2.50740	0.30000	2.29085
	B1->Y (FR)	0.01860	0.00100	0.06273	0.32940	0.06480	0.51765	2.50740	0.30000	2.49013
	B2->Y (FR)	0.01860	0.00100	0.07067	0.32940	0.06480	0.52512	2.50740	0.30000	2.49715
	C1->Y (FR)	0.01860	0.00100	0.04076	0.32940	0.06480	0.46366	2.50740	0.30000	2.38323

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	0.03859	0.32940	0.06480	0.37366	2.50740	0.30000	1.91306
	A2->Y (RF)	0.01860	0.00100	0.04080	0.32940	0.06480	0.34742	2.50740	0.30000	1.73116
	B1->Y (RF)	0.01860	0.00100	0.03428	0.32940	0.06480	0.36417	2.50740	0.30000	1.89915
	B2->Y (RF)	0.01860	0.00100	0.03674	0.32940	0.06480	0.33827	2.50740	0.30000	1.71877
	C1->Y (RF)	0.01860	0.00100	0.01908	0.32940	0.06480	0.26443	2.50740	0.30000	1.45660

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	0.07009	0.32940	0.06480	0.50329	2.50740	0.30000	2.28558
	A1->Y (FR)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.06051	0.32940	0.06480	0.49442	2.50740	0.30000	2.27892
	A1->Y (FR)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.05512	0.32940	0.06480	0.44093	2.50740	0.30000	2.07497
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.07805	0.32940	0.06480	0.51096	2.50740	0.30000	2.29085
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.06869	0.32940	0.06480	0.50221	2.50740	0.30000	2.28427
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.06180	0.32940	0.06480	0.44705	2.50740	0.30000	2.07857
	B1->Y (FR)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.06273	0.32940	0.06480	0.51765	2.50740	0.30000	2.49013
	B1->Y (FR)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	0.05309	0.32940	0.06480	0.50829	2.50740	0.30000	2.48288
	B1->Y (FR)	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.04506	0.32940	0.06480	0.44140	2.50740	0.30000	2.18669
	B2->Y (FR)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.07067	0.32940	0.06480	0.52512	2.50740	0.30000	2.49715
	B2->Y (FR)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	0.06128	0.32940	0.06480	0.51580	2.50740	0.30000	2.49065
	B2->Y (FR)	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.05165	0.32940	0.06480	0.44739	2.50740	0.30000	2.19156
	C1->Y (FR)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.03897	0.32940	0.06480	0.46247	2.50740	0.30000	2.38320
	C1->Y (FR)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	0.03123	0.32940	0.06480	0.45454	2.50740	0.30000	2.37660
	C1->Y (FR)	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	0.04076	0.32940	0.06480	0.46366	2.50740	0.30000	2.38323
	C1->Y (FR)	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	0.03302	0.32940	0.06480	0.45690	2.50740	0.30000	2.38135
	C1->Y (FR)	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.02809	0.32940	0.06480	0.39602	2.50740	0.30000	2.10160

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	0.03770	0.32940	0.06480	0.37296	2.50740	0.30000	1.91165
	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03701	0.32940	0.06480	0.37097	2.50740	0.30000	1.90840
	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03859	0.32940	0.06480	0.37366	2.50740	0.30000	1.91306
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03989	0.32940	0.06480	0.34667	2.50740	0.30000	1.73050
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.03918	0.32940	0.06480	0.34492	2.50740	0.30000	1.72727
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.04080	0.32940	0.06480	0.34742	2.50740	0.30000	1.73116
	B1->Y (RF)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.03428	0.32940	0.06480	0.36417	2.50740	0.30000	1.89915
	B1->Y (RF)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	0.03375	0.32940	0.06480	0.36224	2.50740	0.30000	1.89601
	B1->Y (RF)	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	0.03343	0.32940	0.06480	0.36192	2.50740	0.30000	1.89655
	B2->Y (RF)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.03674	0.32940	0.06480	0.33827	2.50740	0.30000	1.71877
	B2->Y (RF)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	0.03623	0.32940	0.06480	0.33659	2.50740	0.30000	1.71567
	B2->Y (RF)	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	0.03593	0.32940	0.06480	0.33626	2.50740	0.30000	1.71640
	C1->Y (RF)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.01899	0.32940	0.06480	0.26444	2.50740	0.30000	1.45640
	C1->Y (RF)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	0.01875	0.32940	0.06480	0.26346	2.50740	0.30000	1.45383
	C1->Y (RF)	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	0.01908	0.32940	0.06480	0.26443	2.50740	0.30000	1.45660
	C1->Y (RF)	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	0.01884	0.32940	0.06480	0.26346	2.50740	0.30000	1.45378
	C1->Y (RF)	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.01866	0.32940	0.06480	0.26328	2.50740	0.30000	1.45468

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	0.01005	0.32940	0.06480	0.01003	2.50740	0.30000	0.01381
	A2	0.01860	0.00100	0.01018	0.32940	0.06480	0.01019	2.50740	0.30000	0.01399
	B1	0.01860	0.00100	0.00767	0.32940	0.06480	0.00768	2.50740	0.30000	0.01139
	B2	0.01860	0.00100	0.00750	0.32940	0.06480	0.00750	2.50740	0.30000	0.01170
	C1	0.01860	0.00100	0.00475	0.32940	0.06480	0.00536	2.50740	0.30000	0.01097

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	0.00578	0.32940	0.06480	0.00571	2.50740	0.30000	0.01028
	A2	0.01860	0.00100	0.00786	0.32940	0.06480	0.00771	2.50740	0.30000	0.01193
	B1	0.01860	0.00100	0.00373	0.32940	0.06480	0.00386	2.50740	0.30000	0.00878
	B2	0.01860	0.00100	0.00589	0.32940	0.06480	0.00588	2.50740	0.30000	0.01032
	C1	0.01860	0.00100	0.00216	0.32940	0.06480	0.00287	2.50740	0.30000	0.00851

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	0.01005	0.32940	0.06480	0.01003	2.50740	0.30000	0.01381
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00973	0.32940	0.06480	0.00971	2.50740	0.30000	0.01359
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01215	0.32940	0.06480	0.01221	2.50740	0.30000	0.01592
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01018	0.32940	0.06480	0.01019	2.50740	0.30000	0.01399
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00995	0.32940	0.06480	0.00985	2.50740	0.30000	0.01382
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.01234	0.32940	0.06480	0.01226	2.50740	0.30000	0.01621
	B1	(A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00767	0.32940	0.06480	0.00768	2.50740	0.30000	0.01139
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00735	0.32940	0.06480	0.00750	2.50740	0.30000	0.01117
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00736	0.32940	0.06480	0.00752	2.50740	0.30000	0.01152
	B2	(A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.00775	0.32940	0.06480	0.00783	2.50740	0.30000	0.01159
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.00751	0.32940	0.06480	0.00744	2.50740	0.30000	0.01145
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.00750	0.32940	0.06480	0.00750	2.50740	0.30000	0.01170
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00474	0.32940	0.06480	0.00528	2.50740	0.30000	0.01089
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00443	0.32940	0.06480	0.00515	2.50740	0.30000	0.01061
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00475	0.32940	0.06480	0.00536	2.50740	0.30000	0.01097
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00445	0.32940	0.06480	0.00514	2.50740	0.30000	0.01068
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00444	0.32940	0.06480	0.00511	2.50740	0.30000	0.01127

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	0.00790	0.32940	0.06480	0.00781	2.50740	0.30000	0.01242
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00578	0.32940	0.06480	0.00571	2.50740	0.30000	0.01028
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00470	0.32940	0.06480	0.00462	2.50740	0.30000	0.00946
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00994	0.32940	0.06480	0.00977	2.50740	0.30000	0.01406
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00786	0.32940	0.06480	0.00771	2.50740	0.30000	0.01193
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	0.00677	0.32940	0.06480	0.00657	2.50740	0.30000	0.01099
	B1	(A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00595	0.32940	0.06480	0.00603	2.50740	0.30000	0.01071
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00384	0.32940	0.06480	0.00396	2.50740	0.30000	0.00860
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	0.00373	0.32940	0.06480	0.00386	2.50740	0.30000	0.00878
	B2	(A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.00811	0.32940	0.06480	0.00804	2.50740	0.30000	0.01216
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.00599	0.32940	0.06480	0.00600	2.50740	0.30000	0.01021
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	0.00589	0.32940	0.06480	0.00588	2.50740	0.30000	0.01032
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00431	0.32940	0.06480	0.00506	2.50740	0.30000	0.01037
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00220	0.32940	0.06480	0.00295	2.50740	0.30000	0.00877
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00435	0.32940	0.06480	0.00506	2.50740	0.30000	0.01024
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00225	0.32940	0.06480	0.00295	2.50740	0.30000	0.00881
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	0.00216	0.32940	0.06480	0.00287	2.50740	0.30000	0.00851

A22OI



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00332	0.00335	0.00325	0.00319	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a22oi_1	159.65000	355.44800	512.38300

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	0.03662	0.32940	0.06480	0.37263	2.50740	0.30000	1.87319
	A2->Y (FR)	0.01860	0.00100	0.04162	0.32940	0.06480	0.37730	2.50740	0.30000	1.87754
	B1->Y (FR)	0.01860	0.00100	0.03908	0.32940	0.06480	0.40748	2.50740	0.30000	2.10893
	B2->Y (FR)	0.01860	0.00100	0.03361	0.32940	0.06480	0.40027	2.50740	0.30000	2.09467

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	0.03324	0.32940	0.06480	0.36185	2.50740	0.30000	1.89553
	A2->Y (RF)	0.01860	0.00100	0.03558	0.32940	0.06480	0.33585	2.50740	0.30000	1.71403
	B1->Y (RF)	0.01860	0.00100	0.02879	0.32940	0.06480	0.32780	2.50740	0.30000	1.70478
	B2->Y (RF)	0.01860	0.00100	0.02594	0.32940	0.06480	0.35338	2.50740	0.30000	1.88499

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	0.03662	0.32940	0.06480	0.37263	2.50740	0.30000	1.87319
	A2->Y (FR)	(A1 * B1)	0.01860	0.00100	0.04162	0.32940	0.06480	0.37730	2.50740	0.30000	1.87754
	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.03908	0.32940	0.06480	0.40748	2.50740	0.30000	2.10893
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.03294	0.32940	0.06480	0.39947	2.50740	0.30000	2.09469
	B2->Y (FR)	(A1 * !A2)	0.01860	0.00100	0.03361	0.32940	0.06480	0.40027	2.50740	0.30000	2.09467
	B2->Y (FR)	(!A1 * A2)	0.01860	0.00100	0.02758	0.32940	0.06480	0.39483	2.50740	0.30000	2.09304

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	0.03324	0.32940	0.06480	0.36185	2.50740	0.30000	1.89553
	A2->Y (RF)	(A1 * B1)	0.01860	0.00100	0.03558	0.32940	0.06480	0.33585	2.50740	0.30000	1.71403
	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.02879	0.32940	0.06480	0.32780	2.50740	0.30000	1.70478
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.02838	0.32940	0.06480	0.32607	2.50740	0.30000	1.70178
	B2->Y (RF)	(A1 * !A2)	0.01860	0.00100	0.02594	0.32940	0.06480	0.35338	2.50740	0.30000	1.88499
	B2->Y (RF)	(!A1 * A2)	0.01860	0.00100	0.02551	0.32940	0.06480	0.35152	2.50740	0.30000	1.88221

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	0.00578	0.32940	0.06480	0.00591	2.50740	0.30000	0.01069
	A2	0.01860	0.00100	0.00596	0.32940	0.06480	0.00597	2.50740	0.30000	0.01085
	B1	0.01860	0.00100	0.00349	0.32940	0.06480	0.00387	2.50740	0.30000	0.00937
	B2	0.01860	0.00100	0.00329	0.32940	0.06480	0.00378	2.50740	0.30000	0.00926

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	0.00548	0.32940	0.06480	0.00560	2.50740	0.30000	0.01083
	A2	0.01860	0.00100	0.00756	0.32940	0.06480	0.00752	2.50740	0.30000	0.01239
	B1	0.01860	0.00100	0.00741	0.32940	0.06480	0.00770	2.50740	0.30000	0.01235
	B2	0.01860	0.00100	0.00525	0.32940	0.06480	0.00582	2.50740	0.30000	0.01086

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	0.00578	0.32940	0.06480	0.00591	2.50740	0.30000	0.01069
	A2	(A1 * B1)	0.01860	0.00100	0.00596	0.32940	0.06480	0.00597	2.50740	0.30000	0.01085
	B1	(A1 * !A2)	0.01860	0.00100	0.00349	0.32940	0.06480	0.00387	2.50740	0.30000	0.00937
	B1	(!A1 * A2)	0.01860	0.00100	0.00330	0.32940	0.06480	0.00377	2.50740	0.30000	0.00948
	B2	(A1 * !A2)	0.01860	0.00100	0.00329	0.32940	0.06480	0.00378	2.50740	0.30000	0.00926
	B2	(!A1 * A2)	0.01860	0.00100	0.00302	0.32940	0.06480	0.00365	2.50740	0.30000	0.00915

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	0.00548	0.32940	0.06480	0.00560	2.50740	0.30000	0.01083
	A2	(A1 * B1)	0.01860	0.00100	0.00756	0.32940	0.06480	0.00752	2.50740	0.30000	0.01239
	B1	(A1 * !A2)	0.01860	0.00100	0.00741	0.32940	0.06480	0.00770	2.50740	0.30000	0.01235
	B1	(!A1 * A2)	0.01860	0.00100	0.00529	0.32940	0.06480	0.00560	2.50740	0.30000	0.01026
	B2	(A1 * !A2)	0.01860	0.00100	0.00525	0.32940	0.06480	0.00582	2.50740	0.30000	0.01086
	B2	(!A1 * A2)	0.01860	0.00100	0.00314	0.32940	0.06480	0.00374	2.50740	0.30000	0.00888

AND2x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00272	0.00275	0.60000
sg13g2_and2_1	0.00273	0.00274	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and2_2	376.01400	422.92200	475.44000
sg13g2_and2_1	218.16800	284.75100	341.22400

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	0.05848	0.32940	0.12960	0.26854	2.50740	0.60000	0.89428
	B->X (RR)	0.01860	0.00100	0.06102	0.32940	0.12960	0.26185	2.50740	0.60000	0.87370
sg13g2_and2_1	A->X (RR)	0.01860	0.00100	0.04720	0.32940	0.06480	0.23308	2.50740	0.30000	0.82480
	B->X (RR)	0.01860	0.00100	0.04997	0.32940	0.06480	0.23050	2.50740	0.30000	0.81029

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	0.04840	0.32940	0.12960	0.23509	2.50740	0.60000	0.75132
	B->X (FF)	0.01860	0.00100	0.05166	0.32940	0.12960	0.24503	2.50740	0.60000	0.77921
sg13g2_and2_1	A->X (FF)	0.01860	0.00100	0.03954	0.32940	0.06480	0.20215	2.50740	0.30000	0.67824
	B->X (FF)	0.01860	0.00100	0.04300	0.32940	0.06480	0.21405	2.50740	0.30000	0.70852

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	0.01317	0.32940	0.12960	0.01478	2.50740	0.60000	0.03061
	B	0.01860	0.00100	0.01499	0.32940	0.12960	0.01620	2.50740	0.60000	0.03148
sg13g2_and2_1	A	0.01860	0.00100	0.00797	0.32940	0.06480	0.00972	2.50740	0.30000	0.02680
	B	0.01860	0.00100	0.00983	0.32940	0.06480	0.01092	2.50740	0.30000	0.02725

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	0.01159	0.32940	0.12960	0.01382	2.50740	0.60000	0.03092
	B	0.01860	0.00100	0.01168	0.32940	0.12960	0.01397	2.50740	0.60000	0.03105
sg13g2_and2_1	A	0.01860	0.00100	0.00688	0.32940	0.06480	0.00883	2.50740	0.30000	0.02632
	B	0.01860	0.00100	0.00702	0.32940	0.06480	0.00907	2.50740	0.30000	0.02605

AND3x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00273	0.00272	0.00273	0.60000
sg13g2_and3_1	0.00273	0.00272	0.00273	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and3_2	378.68700	477.15700	575.86800
sg13g2_and3_1	220.80700	329.14200	472.32900

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	0.07893	0.32940	0.12960	0.30427	2.50740	0.60000	0.97761
	B->X (RR)	0.01860	0.00100	0.08519	0.32940	0.12960	0.30187	2.50740	0.60000	0.96266
	C->X (RR)	0.01860	0.00100	0.08764	0.32940	0.12960	0.29167	2.50740	0.60000	0.91930
sg13g2_and3_1	A->X (RR)	0.01860	0.00100	0.06273	0.32940	0.06480	0.26227	2.50740	0.30000	0.89599
	B->X (RR)	0.01860	0.00100	0.06915	0.32940	0.06480	0.26299	2.50740	0.30000	0.88918
	C->X (RR)	0.01860	0.00100	0.07158	0.32940	0.06480	0.25648	2.50740	0.30000	0.85321

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	0.05056	0.32940	0.12960	0.24085	2.50740	0.60000	0.74776
	B->X (FF)	0.01860	0.00100	0.05403	0.32940	0.12960	0.25007	2.50740	0.60000	0.77443
	C->X (FF)	0.01860	0.00100	0.05642	0.32940	0.12960	0.25785	2.50740	0.60000	0.80211
sg13g2_and3_1	A->X (FF)	0.01860	0.00100	0.04202	0.32940	0.06480	0.20862	2.50740	0.30000	0.67329
	B->X (FF)	0.01860	0.00100	0.04566	0.32940	0.06480	0.21985	2.50740	0.30000	0.70321
	C->X (FF)	0.01860	0.00100	0.04793	0.32940	0.06480	0.22880	2.50740	0.30000	0.73566

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	0.01487	0.32940	0.12960	0.01554	2.50740	0.60000	0.03065
	B	0.01860	0.00100	0.01659	0.32940	0.12960	0.01689	2.50740	0.60000	0.03101
	C	0.01860	0.00100	0.01828	0.32940	0.12960	0.01831	2.50740	0.60000	0.03253
sg13g2_and3_1	A	0.01860	0.00100	0.00914	0.32940	0.06480	0.01056	2.50740	0.30000	0.02643
	B	0.01860	0.00100	0.01096	0.32940	0.06480	0.01171	2.50740	0.30000	0.02701
	C	0.01860	0.00100	0.01271	0.32940	0.06480	0.01313	2.50740	0.30000	0.02848

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	0.01174	0.32940	0.12960	0.01369	2.50740	0.60000	0.02899
	B	0.01860	0.00100	0.01196	0.32940	0.12960	0.01379	2.50740	0.60000	0.02925
	C	0.01860	0.00100	0.01208	0.32940	0.12960	0.01394	2.50740	0.60000	0.02993
sg13g2_and3_1	A	0.01860	0.00100	0.00706	0.32940	0.06480	0.00875	2.50740	0.30000	0.02480
	B	0.01860	0.00100	0.00728	0.32940	0.06480	0.00896	2.50740	0.30000	0.02474
	C	0.01860	0.00100	0.00741	0.32940	0.06480	0.00916	2.50740	0.30000	0.02562

AND4x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00255	0.00269	0.00269	0.00270	0.60000
sg13g2_and4_1	0.00256	0.00270	0.00269	0.00270	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and4_2	381.38100	515.19900	682.49000
sg13g2_and4_1	223.52800	362.27200	603.45000

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	0.09947	0.32940	0.12960	0.33710	2.50740	0.60000	1.04448
	B->X (RR)	0.01860	0.00100	0.10926	0.32940	0.12960	0.33828	2.50740	0.60000	1.03460
	C->X (RR)	0.01860	0.00100	0.11502	0.32940	0.12960	0.33258	2.50740	0.60000	0.99940
	D->X (RR)	0.01860	0.00100	0.11751	0.32940	0.12960	0.32541	2.50740	0.60000	0.95481
sg13g2_and4_1	A->X (RR)	0.01860	0.00100	0.07835	0.32940	0.06480	0.28959	2.50740	0.30000	0.95731
	B->X (RR)	0.01860	0.00100	0.08836	0.32940	0.06480	0.29330	2.50740	0.30000	0.95758
	C->X (RR)	0.01860	0.00100	0.09404	0.32940	0.06480	0.29055	2.50740	0.30000	0.92943
	D->X (RR)	0.01860	0.00100	0.09658	0.32940	0.06480	0.28589	2.50740	0.30000	0.89179

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	0.05215	0.32940	0.12960	0.24399	2.50740	0.60000	0.74221
	B->X (FF)	0.01860	0.00100	0.05578	0.32940	0.12960	0.25291	2.50740	0.60000	0.76744
	C->X (FF)	0.01860	0.00100	0.05843	0.32940	0.12960	0.26060	2.50740	0.60000	0.79272
	D->X (FF)	0.01860	0.00100	0.06016	0.32940	0.12960	0.26698	2.50740	0.60000	0.81845
sg13g2_and4_1	A->X (FF)	0.01860	0.00100	0.04397	0.32940	0.06480	0.21235	2.50740	0.30000	0.66558
	B->X (FF)	0.01860	0.00100	0.04774	0.32940	0.06480	0.22307	2.50740	0.30000	0.69403
	C->X (FF)	0.01860	0.00100	0.05033	0.32940	0.06480	0.23151	2.50740	0.30000	0.72415
	D->X (FF)	0.01860	0.00100	0.05189	0.32940	0.06480	0.23911	2.50740	0.30000	0.75433

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	0.01619	0.32940	0.12960	0.01607	2.50740	0.60000	0.03031
	B	0.01860	0.00100	0.01816	0.32940	0.12960	0.01755	2.50740	0.60000	0.03075
	C	0.01860	0.00100	0.01985	0.32940	0.12960	0.01909	2.50740	0.60000	0.03192
	D	0.01860	0.00100	0.02150	0.32940	0.12960	0.02062	2.50740	0.60000	0.03383
sg13g2_and4_1	A	0.01860	0.00100	0.01002	0.32940	0.06480	0.01111	2.50740	0.30000	0.02578
	B	0.01860	0.00100	0.01195	0.32940	0.06480	0.01240	2.50740	0.30000	0.02651
	C	0.01860	0.00100	0.01362	0.32940	0.06480	0.01384	2.50740	0.30000	0.02789
	D	0.01860	0.00100	0.01529	0.32940	0.06480	0.01543	2.50740	0.30000	0.02971

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	0.01218	0.32940	0.12960	0.01397	2.50740	0.60000	0.02897
	B	0.01860	0.00100	0.01232	0.32940	0.12960	0.01397	2.50740	0.60000	0.02899
	C	0.01860	0.00100	0.01256	0.32940	0.12960	0.01409	2.50740	0.60000	0.02899
	D	0.01860	0.00100	0.01272	0.32940	0.12960	0.01422	2.50740	0.60000	0.02992
sg13g2_and4_1	A	0.01860	0.00100	0.00745	0.32940	0.06480	0.00901	2.50740	0.30000	0.02405
	B	0.01860	0.00100	0.00757	0.32940	0.06480	0.00904	2.50740	0.30000	0.02377
	C	0.01860	0.00100	0.00779	0.32940	0.06480	0.00915	2.50740	0.30000	0.02467
	D	0.01860	0.00100	0.00795	0.32940	0.06480	0.00940	2.50740	0.30000	0.02547

A021x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00313	0.00315	0.00296	0.60000
sg13g2_a21o_1	0.00294	0.00305	0.00284	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21o_2	433.42800	496.68500	579.99300
sg13g2_a21o_1	298.71200	357.43800	398.14400

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	0.06191	0.32940	0.12960	0.27439	2.50740	0.60000	0.89770
	A2->X (RR)	0.01860	0.00100	0.06401	0.32940	0.12960	0.26630	2.50740	0.60000	0.86807
	B1->X (RR)	0.01860	0.00100	0.04051	0.32940	0.12960	0.23822	2.50740	0.60000	0.80643
sg13g2_a21o_1	A1->X (RR)	0.01860	0.00100	0.05762	0.32940	0.06480	0.25750	2.50740	0.30000	0.88170
	A2->X (RR)	0.01860	0.00100	0.05987	0.32940	0.06480	0.25156	2.50740	0.30000	0.85696
	B1->X (RR)	0.01860	0.00100	0.03793	0.32940	0.06480	0.22294	2.50740	0.30000	0.79015

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	0.07705	0.32940	0.12960	0.26166	2.50740	0.60000	0.79864
	A2->X (FF)	0.01860	0.00100	0.08362	0.32940	0.12960	0.27351	2.50740	0.60000	0.82801
	B1->X (FF)	0.01860	0.00100	0.07723	0.32940	0.12960	0.28249	2.50740	0.60000	0.87851
sg13g2_a21o_1	A1->X (FF)	0.01860	0.00100	0.06135	0.32940	0.06480	0.22526	2.50740	0.30000	0.70840
	A2->X (FF)	0.01860	0.00100	0.06727	0.32940	0.06480	0.23684	2.50740	0.30000	0.73643
	B1->X (FF)	0.01860	0.00100	0.06058	0.32940	0.06480	0.23965	2.50740	0.30000	0.77365

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	0.06191	0.32940	0.12960	0.27439	2.50740	0.60000	0.89770
	A2->X (RR)	!B1	0.01860	0.00100	0.06401	0.32940	0.12960	0.26630	2.50740	0.60000	0.86807
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	0.04051	0.32940	0.12960	0.23822	2.50740	0.60000	0.80643
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	0.03906	0.32940	0.12960	0.22935	2.50740	0.60000	0.77862
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	0.03890	0.32940	0.12960	0.22968	2.50740	0.60000	0.79297
sg13g2_a21o_1	A1->X (RR)	!B1	0.01860	0.00100	0.05762	0.32940	0.06480	0.25750	2.50740	0.30000	0.88170
	A2->X (RR)	!B1	0.01860	0.00100	0.05987	0.32940	0.06480	0.25156	2.50740	0.30000	0.85696
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	0.03793	0.32940	0.06480	0.22294	2.50740	0.30000	0.79015
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	0.03589	0.32940	0.06480	0.21244	2.50740	0.30000	0.75933
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	0.03570	0.32940	0.06480	0.21308	2.50740	0.30000	0.77417

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	0.07705	0.32940	0.12960	0.26166	2.50740	0.60000	0.79864
	A2->X (FF)	!B1	0.01860	0.00100	0.08362	0.32940	0.12960	0.27351	2.50740	0.60000	0.82801
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	0.07723	0.32940	0.12960	0.28249	2.50740	0.60000	0.87851
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	0.06929	0.32940	0.12960	0.26838	2.50740	0.60000	0.85113
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	0.05677	0.32940	0.12960	0.24741	2.50740	0.60000	0.80283
sg13g2_a21o_1	A1->X (FF)	!B1	0.01860	0.00100	0.06135	0.32940	0.06480	0.22526	2.50740	0.30000	0.70840
	A2->X (FF)	!B1	0.01860	0.00100	0.06727	0.32940	0.06480	0.23684	2.50740	0.30000	0.73643
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	0.06058	0.32940	0.06480	0.23965	2.50740	0.30000	0.77365
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	0.05370	0.32940	0.06480	0.22554	2.50740	0.30000	0.74893
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	0.04527	0.32940	0.06480	0.21014	2.50740	0.30000	0.70474

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	0.01405	0.32940	0.12960	0.01559	2.50740	0.60000	0.03328
	A2	0.01860	0.00100	0.01614	0.32940	0.12960	0.01720	2.50740	0.60000	0.03304
	B1	0.01860	0.00100	0.01250	0.32940	0.12960	0.01474	2.50740	0.60000	0.03475
sg13g2_a21o_1	A1	0.01860	0.00100	0.00879	0.32940	0.06480	0.01018	2.50740	0.30000	0.02699
	A2	0.01860	0.00100	0.01065	0.32940	0.06480	0.01151	2.50740	0.30000	0.02720
	B1	0.01860	0.00100	0.00746	0.32940	0.06480	0.00931	2.50740	0.30000	0.02897

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	0.01558	0.32940	0.12960	0.01626	2.50740	0.60000	0.03368
	A2	0.01860	0.00100	0.01574	0.32940	0.12960	0.01645	2.50740	0.60000	0.03405
	B1	0.01860	0.00100	0.01301	0.32940	0.12960	0.01499	2.50740	0.60000	0.03475
sg13g2_a21o_1	A1	0.01860	0.00100	0.01031	0.32940	0.06480	0.01126	2.50740	0.30000	0.02764
	A2	0.01860	0.00100	0.01028	0.32940	0.06480	0.01120	2.50740	0.30000	0.02742
	B1	0.01860	0.00100	0.00772	0.32940	0.06480	0.01000	2.50740	0.30000	0.02866

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	0.01405	0.32940	0.12960	0.01559	2.50740	0.60000	0.03328
	A2	!B1	0.01860	0.00100	0.01614	0.32940	0.12960	0.01720	2.50740	0.60000	0.03304
	B1	(A1 * !A2)	0.01860	0.00100	0.01473	0.32940	0.12960	0.01678	2.50740	0.60000	0.03663
	B1	(!A1 * A2)	0.01860	0.00100	0.01260	0.32940	0.12960	0.01466	2.50740	0.60000	0.03347
	B1	(!A1 * !A2)	0.01860	0.00100	0.01250	0.32940	0.12960	0.01474	2.50740	0.60000	0.03475
sg13g2_a21o_1	A1	!B1	0.01860	0.00100	0.00879	0.32940	0.06480	0.01018	2.50740	0.30000	0.02699
	A2	!B1	0.01860	0.00100	0.01065	0.32940	0.06480	0.01151	2.50740	0.30000	0.02720
	B1	(A1 * !A2)	0.01860	0.00100	0.00939	0.32940	0.06480	0.01113	2.50740	0.30000	0.03018
	B1	(!A1 * A2)	0.01860	0.00100	0.00756	0.32940	0.06480	0.00920	2.50740	0.30000	0.02793
	B1	(!A1 * !A2)	0.01860	0.00100	0.00746	0.32940	0.06480	0.00931	2.50740	0.30000	0.02897

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	0.01558	0.32940	0.12960	0.01626	2.50740	0.60000	0.03368
	A2	!B1	0.01860	0.00100	0.01574	0.32940	0.12960	0.01645	2.50740	0.60000	0.03405
	B1	(A1 * !A2)	0.01860	0.00100	0.01330	0.32940	0.12960	0.01497	2.50740	0.60000	0.03450
	B1	(!A1 * A2)	0.01860	0.00100	0.01301	0.32940	0.12960	0.01499	2.50740	0.60000	0.03475
	B1	(!A1 * !A2)	0.01860	0.00100	0.01266	0.32940	0.12960	0.01521	2.50740	0.60000	0.03671
sg13g2_a21o_1	A1	!B1	0.01860	0.00100	0.01031	0.32940	0.06480	0.01126	2.50740	0.30000	0.02764
	A2	!B1	0.01860	0.00100	0.01028	0.32940	0.06480	0.01120	2.50740	0.30000	0.02742
	B1	(A1 * !A2)	0.01860	0.00100	0.00788	0.32940	0.06480	0.00986	2.50740	0.30000	0.02804
	B1	(!A1 * A2)	0.01860	0.00100	0.00772	0.32940	0.06480	0.01000	2.50740	0.30000	0.02866
	B1	(!A1 * !A2)	0.01860	0.00100	0.00771	0.32940	0.06480	0.01014	2.50740	0.30000	0.02950

BTLx



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00623	0.01879	2.40000
sg13g2_ebufn_4	0.00318	0.01123	1.20000
sg13g2_ebufn_2	0.00282	0.00688	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_ebufn_8	374.45400	1634.29000	3019.59000
sg13g2_ebufn_4	266.15400	876.36500	1549.32000
sg13g2_ebufn_2	218.52500	523.63100	835.47100

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	0.02022	0.05222	0.32940	0.53761	0.38776	2.50740	2.41922	1.45405
	TE_B->Z (RR)	0.01860	0.02022	0.05107	0.32940	0.53761	0.13413	2.50740	2.41922	0.30782
	TE_B->Z (FR)	0.01860	0.02022	0.02559	0.32940	0.53761	0.36521	2.50740	2.41922	1.85072
sg13g2_ebufn_4	A->Z (RR)	0.01860	0.01073	0.05335	0.32940	0.26893	0.38748	2.50740	1.20973	1.45126
	TE_B->Z (RR)	0.01860	0.01073	0.04052	0.32940	0.26893	0.10060	2.50740	1.20973	0.22145
	TE_B->Z (FR)	0.01860	0.01073	0.02497	0.32940	0.26893	0.36333	2.50740	1.20973	1.84708
sg13g2_ebufn_2	A->Z (RR)	0.01860	0.00594	0.04515	0.32940	0.13454	0.35570	2.50740	0.60494	1.37935
	TE_B->Z (RR)	0.01860	0.00594	0.03471	0.32940	0.13454	0.08300	2.50740	0.60494	0.18170
	TE_B->Z (FR)	0.01860	0.00594	0.02499	0.32940	0.13454	0.35942	2.50740	0.60494	1.83330

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	0.02990	0.05822	0.32940	0.54730	0.34253	2.50740	2.42890	1.19416
	TE_B->Z (RF)	0.01860	0.02990	0.02192	0.32940	0.54730	0.04636	2.50740	2.42890	0.23400
	TE_B->Z (FF)	0.01860	0.02990	0.06655	0.32940	0.54730	0.44488	2.50740	2.42890	1.63213
sg13g2_ebufn_4	A->Z (FF)	0.01860	0.01565	0.05960	0.32940	0.27385	0.34264	2.50740	1.21465	1.19378
	TE_B->Z (RF)	0.01860	0.01565	0.02055	0.32940	0.27385	0.04487	2.50740	1.21465	0.23004
	TE_B->Z (FF)	0.01860	0.01565	0.05144	0.32940	0.27385	0.40033	2.50740	1.21465	1.52087
sg13g2_ebufn_2	A->Z (FF)	0.01860	0.00845	0.04671	0.32940	0.13705	0.30585	2.50740	0.60745	1.10689
	TE_B->Z (RF)	0.01860	0.00845	0.01938	0.32940	0.13705	0.04403	2.50740	0.60745	0.22677
	TE_B->Z (FF)	0.01860	0.00845	0.04373	0.32940	0.13705	0.37094	2.50740	0.60745	1.45321

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	0.02022	0.04955	0.32940	0.53761	0.05580	2.50740	2.41922	0.05759
	TE_B	0.01860	0.02022	0.00891	0.32940	0.53761	0.00776	2.50740	2.41922	0.00725
sg13g2_ebufn_4	A	0.01860	0.01073	0.02486	0.32940	0.26893	0.02715	2.50740	1.20973	0.02631
	TE_B	0.01860	0.01073	0.00462	0.32940	0.26893	0.00413	2.50740	1.20973	0.00351
sg13g2_ebufn_2	A	0.01860	0.00594	0.01287	0.32940	0.13454	0.01359	2.50740	0.60494	0.01222
	TE_B	0.01860	0.00594	0.00248	0.32940	0.13454	0.00219	2.50740	0.60494	0.00189

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	0.02990	0.04263	0.32940	0.54730	0.04539	2.50740	2.42890	0.04328
	TE_B	0.01860	0.02990	0.00999	0.32940	0.54730	0.11380	2.50740	2.42890	0.51390
sg13g2_ebufn_4	A	0.01860	0.01565	0.02145	0.32940	0.27385	0.02271	2.50740	1.21465	0.02189
	TE_B	0.01860	0.01565	0.00524	0.32940	0.27385	0.05721	2.50740	1.21465	0.25675
sg13g2_ebufn_2	A	0.01860	0.00845	0.01073	0.32940	0.13705	0.01156	2.50740	0.60745	0.01102
	TE_B	0.01860	0.00845	0.00283	0.32940	0.13705	0.02909	2.50740	0.60745	0.12821

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_8	0.01860	0.01050	0.32940	0.01422	2.50740	0.06446
sg13g2_ebufn_4	0.01860	0.00568	0.32940	0.00750	2.50740	0.03246
sg13g2_ebufn_2	0.01860	0.00340	0.32940	0.00529	2.50740	0.02766

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_8	0.01860	0.00968	0.32940	0.01430	2.50740	0.06423
sg13g2_ebufn_4	0.01860	0.00517	0.32940	0.00741	2.50740	0.03234
sg13g2_ebufn_2	0.01860	0.00324	0.32940	0.00548	2.50740	0.02759

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	-0.00350	0.32940	-0.00346	2.50740	0.01862
sg13g2_ebufn_4	0.01860	-0.00072	0.32940	0.00015	2.50740	0.02426
sg13g2_ebufn_2	0.01860	0.00021	0.32940	0.00159	2.50740	0.02346

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	0.06387	0.32940	0.06564	2.50740	0.08864
sg13g2_ebufn_4	0.01860	0.03282	0.32940	0.03505	2.50740	0.05936
sg13g2_ebufn_2	0.01860	0.01686	0.32940	0.01906	2.50740	0.04093

BU_x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.01841	4.80000
sg13g2_buf_8	0.00925	2.40000
sg13g2_buf_4	0.00399	1.20000
sg13g2_buf_2	0.00282	0.60000
sg13g2_buf_1	0.00245	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_buf_16	2211.69000	2605.75000	2999.82000
sg13g2_buf_8	1105.84000	1302.88000	1499.91000
sg13g2_buf_4	499.66000	620.30900	740.95800
sg13g2_buf_2	292.08300	338.85300	385.62200
sg13g2_buf_1	190.68500	203.40500	216.12500

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	0.04107	0.32940	1.03680	0.24375	2.50740	4.80000	0.85436
sg13g2_buf_8	A->X (RR)	0.01860	0.00100	0.04074	0.32940	0.51840	0.24278	2.50740	2.40000	0.85193
sg13g2_buf_4	A->X (RR)	0.01860	0.00100	0.05087	0.32940	0.25920	0.27228	2.50740	1.20000	0.95731
sg13g2_buf_2	A->X (RR)	0.01860	0.00100	0.04054	0.32940	0.12960	0.23830	2.50740	0.60000	0.84393
sg13g2_buf_1	A->X (RR)	0.01860	0.00100	0.03575	0.32940	0.06480	0.21504	2.50740	0.30000	0.79205

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	0.04465	0.32940	1.03680	0.22998	2.50740	4.80000	0.74410
sg13g2_buf_8	A->X (FF)	0.01860	0.00100	0.04424	0.32940	0.51840	0.22950	2.50740	2.40000	0.74371
sg13g2_buf_4	A->X (FF)	0.01860	0.00100	0.04388	0.32940	0.25920	0.22465	2.50740	1.20000	0.68486
sg13g2_buf_2	A->X (FF)	0.01860	0.00100	0.04282	0.32940	0.12960	0.21955	2.50740	0.60000	0.71340
sg13g2_buf_1	A->X (FF)	0.01860	0.00100	0.03712	0.32940	0.06480	0.19616	2.50740	0.30000	0.66567

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	0.09247	0.32940	1.03680	0.10958	2.50740	4.80000	0.24417
sg13g2_buf_8	A	0.01860	0.00100	0.04643	0.32940	0.51840	0.05558	2.50740	2.40000	0.12145
sg13g2_buf_4	A	0.01860	0.00100	0.02282	0.32940	0.25920	0.02591	2.50740	1.20000	0.05220
sg13g2_buf_2	A	0.01860	0.00100	0.01209	0.32940	0.12960	0.01452	2.50740	0.60000	0.03358
sg13g2_buf_1	A	0.01860	0.00100	0.00695	0.32940	0.06480	0.00866	2.50740	0.30000	0.02562

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	0.08938	0.32940	1.03680	0.10987	2.50740	4.80000	0.25316
sg13g2_buf_8	A	0.01860	0.00100	0.04467	0.32940	0.51840	0.05541	2.50740	2.40000	0.12446
sg13g2_buf_4	A	0.01860	0.00100	0.02253	0.32940	0.25920	0.02719	2.50740	1.20000	0.05341
sg13g2_buf_2	A	0.01860	0.00100	0.01172	0.32940	0.12960	0.01457	2.50740	0.60000	0.03496
sg13g2_buf_1	A	0.01860	0.00100	0.00682	0.32940	0.06480	0.00905	2.50740	0.30000	0.02622

DECAP_x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp
-40.00*

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	1468.61000	1468.61000	1468.61000
sg13g2_decap_8	2937.24000	2937.24000	2937.24000

DFFRRx



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00166	0.00557	0.00303	0.60000	0.60000
sg13g2_dfrbp_1	0.00165	0.00552	0.00302	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbp_2	1222.45000	1383.55000	1515.49000
sg13g2_dfrbp_1	994.66600	1160.68000	1302.46000

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_dfrbp_2	CLK->Q (RR)	0.01860	0.00100	0.16240	0.32940	0.12960	0.34747	2.50740	0.60000	0.94175
sg13g2_dfrbp_1	CLK->Q (RR)	0.01860	0.00100	0.12730	0.32940	0.06480	0.31482	2.50740	0.30000	0.90093

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	0.14479	0.32940	0.12960	0.31538	2.50740	0.60000	0.81351
	RESET_B->Q (FF)	0.01860	0.00100	0.18878	0.32940	0.12960	0.39150	2.50740	0.60000	0.99360
sg13g2_dfrbp_1	CLK->Q (RF)	0.01860	0.00100	0.11867	0.32940	0.06480	0.28834	2.50740	0.30000	0.78178
	RESET_B->Q (FF)	0.01860	0.00100	0.16248	0.32940	0.06480	0.36448	2.50740	0.30000	0.96188

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	0.09642	0.32940	0.12960	0.30962	2.50740	0.60000	0.87196
	RESET_B->Q_N (FR)	0.01860	0.00100	0.14145	0.32940	0.12960	0.38439	2.50740	0.60000	1.05155
sg13g2_dfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	0.09275	0.32940	0.06480	0.29842	2.50740	0.30000	0.85872
	RESET_B->Q_N (FR)	0.01860	0.00100	0.13690	0.32940	0.06480	0.37292	2.50740	0.30000	1.03857

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	0.10677	0.32940	0.12960	0.32212	2.50740	0.60000	0.85278
sg13g2_dfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	0.09871	0.32940	0.06480	0.30466	2.50740	0.30000	0.83285

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	-0.13492	2.50740	2.50740	-0.17709
	setup	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.16460	2.50740	2.50740	0.20661
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.03912	1.26300	1.26300	-0.13762	2.50740	2.50740	-0.17709
	setup	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.16460	2.50740	2.50740	0.20661

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	-0.02201	1.26300	1.26300	-0.11063	2.50740	2.50740	-0.16234
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.16190	2.50740	2.50740	0.21546
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.02201	1.26300	1.26300	-0.11063	2.50740	2.50740	-0.16529
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.16190	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_dfrbp_2	recovery	CLK (R)	0.01860	0.01860	0.07825	1.26300	1.26300	0.19428	2.50740	2.50740	0.28335
	removal	CLK (R)	0.01860	0.01860	-0.06847	1.26300	1.26300	-0.18889	2.50740	2.50740	-0.28040
sg13g2_dfrbp_1	recovery	CLK (R)	0.01860	0.01860	0.07825	1.26300	1.26300	0.19428	2.50740	2.50740	0.28335
	removal	CLK (R)	0.01860	0.01860	-0.06847	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.27744

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	0.07660	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbp_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.07660	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_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	0.08621	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.08621	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	0.04790	0.32940	0.12960	0.16224	2.50740	0.60000	0.59950
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.03780	0.32940	0.06480	0.09601	2.50740	0.30000	0.32837

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	0.04800	0.32940	0.12960	0.16388	2.50740	0.60000	0.59995
	RESET_B	0.01860	0.00100	0.03685	0.32940	0.12960	0.15101	2.50740	0.60000	0.57295
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.03854	0.32940	0.06480	0.09743	2.50740	0.30000	0.32910
	RESET_B	0.01860	0.00100	0.02735	0.32940	0.06480	0.08481	2.50740	0.30000	0.30206

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	0.04803	0.32940	0.12960	0.16382	2.50740	0.60000	0.60052
	RESET_B	0.01860	0.00100	0.03686	0.32940	0.12960	0.15145	2.50740	0.60000	0.57376
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.03855	0.32940	0.06480	0.09749	2.50740	0.30000	0.32938
	RESET_B	0.01860	0.00100	0.02731	0.32940	0.06480	0.08493	2.50740	0.30000	0.30260

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	0.04794	0.32940	0.12960	0.16229	2.50740	0.60000	0.59856
sg13g2_dfrbp_1	CLK	0.01860	0.00100	0.03780	0.32940	0.06480	0.09603	2.50740	0.30000	0.32794

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.00166	0.32940	0.00256	2.50740	0.01286
sg13g2_dfrbp_1	0.01860	0.00165	0.32940	0.00256	2.50740	0.01286

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.00130	0.32940	0.00229	2.50740	0.01270
sg13g2_dfrbp_1	0.01860	0.00129	0.32940	0.00228	2.50740	0.01269

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	0.00166	0.32940	0.00256	2.50740	0.01286
	(!CLK * RESET_B)	0.01860	0.01437	0.32940	0.01516	2.50740	0.02678
	(!CLK * !RESET_B)	0.01860	-0.00006	0.32940	-0.00005	2.50740	-0.00005
sg13g2_dfrbp_1	CLK	0.01860	0.00165	0.32940	0.00256	2.50740	0.01286
	(!CLK * RESET_B)	0.01860	0.01438	0.32940	0.01518	2.50740	0.02680
	(!CLK * !RESET_B)	0.01860	-0.00006	0.32940	-0.00006	2.50740	-0.00006

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	0.00130	0.32940	0.00229	2.50740	0.01270
	(!CLK * RESET_B)	0.01860	0.01086	0.32940	0.01170	2.50740	0.02371
	(!CLK * !RESET_B)	0.01860	0.00030	0.32940	0.00030	2.50740	0.00031
sg13g2_dfrbp_1	CLK	0.01860	0.00129	0.32940	0.00228	2.50740	0.01269
	(!CLK * RESET_B)	0.01860	0.01084	0.32940	0.01169	2.50740	0.02369
	(!CLK * !RESET_B)	0.01860	0.00030	0.32940	0.00031	2.50740	0.00031

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	0.00411	0.32940	0.00443	2.50740	0.01399
sg13g2_dfrbp_1	0.01860	0.00407	0.32940	0.00438	2.50740	0.01394

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	0.01079	0.32940	0.01116	2.50740	0.02602
sg13g2_dfrbp_1	0.01860	0.01081	0.32940	0.01117	2.50740	0.02603

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	0.00411	0.32940	0.00443	2.50740	0.01399
	(CLK * !D * !Q * Q_N)	0.01860	0.00096	0.32940	0.00095	2.50740	0.00096
	(!CLK * D * !Q * Q_N)	0.01860	0.01704	0.32940	0.01734	2.50740	0.03146
	(!CLK * !D * !Q * Q_N)	0.01860	0.00104	0.32940	0.00103	2.50740	0.00104
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	0.00407	0.32940	0.00438	2.50740	0.01394
	(CLK * !D * !Q * Q_N)	0.01860	0.00091	0.32940	0.00091	2.50740	0.00091
	(!CLK * D * !Q * Q_N)	0.01860	0.01702	0.32940	0.01733	2.50740	0.03159
	(!CLK * !D * !Q * Q_N)	0.01860	0.00099	0.32940	0.00099	2.50740	0.00099

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	0.04699	0.32940	0.04872	2.50740	0.07716
	(CLK * !D * !Q * Q_N)	0.01860	-0.00096	0.32940	-0.00095	2.50740	-0.00096
	(!CLK * D * !Q * Q_N)	0.01860	0.01079	0.32940	0.01116	2.50740	0.02602
	(!CLK * !D * !Q * Q_N)	0.01860	-0.00104	0.32940	-0.00103	2.50740	-0.00104
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	0.03727	0.32940	0.03895	2.50740	0.06719
	(CLK * !D * !Q * Q_N)	0.01860	-0.00091	0.32940	-0.00091	2.50740	-0.00091
	(!CLK * D * !Q * Q_N)	0.01860	0.01081	0.32940	0.01117	2.50740	0.02603
	(!CLK * !D * !Q * Q_N)	0.01860	-0.00099	0.32940	-0.00099	2.50740	-0.00099

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.01325	0.32940	0.01518	2.50740	0.04180
sg13g2_dfrbp_1	0.01860	0.01315	0.32940	0.01508	2.50740	0.04175

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_2	0.01860	0.02510	0.32940	0.02724	2.50740	0.05463
sg13g2_dfrbp_1	0.01860	0.02491	0.32940	0.02708	2.50740	0.05449

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	0.01325	0.32940	0.01518	2.50740	0.04180
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01390	0.32940	0.01577	2.50740	0.04227
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01296	0.32940	0.01485	2.50740	0.04142
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01393	0.32940	0.01580	2.50740	0.04230
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	0.01315	0.32940	0.01508	2.50740	0.04175
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01382	0.32940	0.01569	2.50740	0.04221
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01287	0.32940	0.01479	2.50740	0.04144
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01385	0.32940	0.01572	2.50740	0.04224

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	0.02510	0.32940	0.02724	2.50740	0.05463
	(D * RESET_B * !Q * Q_N)	0.01860	0.02531	0.32940	0.02747	2.50740	0.05468
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01301	0.32940	0.01518	2.50740	0.04146
	(!D * RESET_B * Q * !Q_N)	0.01860	0.06772	0.32940	0.06107	2.50740	0.08738
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01299	0.32940	0.01517	2.50740	0.04154
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01302	0.32940	0.01518	2.50740	0.04145
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	0.02491	0.32940	0.02708	2.50740	0.05449
	(D * RESET_B * !Q * Q_N)	0.01860	0.02529	0.32940	0.02744	2.50740	0.05469
	(D * !RESET_B * !Q * Q_N)	0.01860	0.01295	0.32940	0.01514	2.50740	0.04143
	(!D * RESET_B * Q * !Q_N)	0.01860	0.04978	0.32940	0.05130	2.50740	0.07760
	(!D * RESET_B * !Q * Q_N)	0.01860	0.01293	0.32940	0.01513	2.50740	0.04153
	(!D * !RESET_B * !Q * Q_N)	0.01860	0.01296	0.32940	0.01513	2.50740	0.04143

DFRBPQx



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp
-40.00*

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	0.00151	0.00550	0.00300	0.60000
sg13g2_dfrbpq_1	0.00151	0.00546	0.00299	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbpq_2	1064.38000	1172.93000	1332.02000
sg13g2_dfrbpq_1	915.62900	1055.38000	1183.27000

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_dfrbpq_2	CLK->Q (RR)	0.01860	0.00100	0.11365	0.32940	0.12960	0.31001	2.50740	0.60000	0.89016
sg13g2_dfrbpq_1	CLK->Q (RR)	0.01860	0.00100	0.10583	0.32940	0.06480	0.29757	2.50740	0.30000	0.87727

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	0.11450	0.32940	0.12960	0.29175	2.50740	0.60000	0.78428
	RESET_B->Q (FF)	0.01860	0.00100	0.15560	0.32940	0.12960	0.36566	2.50740	0.60000	0.96155
sg13g2_dfrbpq_1	CLK->Q (RF)	0.01860	0.00100	0.10598	0.32940	0.06480	0.27782	2.50740	0.30000	0.76951
	RESET_B->Q (FF)	0.01860	0.00100	0.14790	0.32940	0.06480	0.35262	2.50740	0.30000	0.94786

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	-0.14031	2.50740	2.50740	-0.18004
	setup	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.16460	2.50740	2.50740	0.20661
sg13g2_dfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.04157	1.26300	1.26300	-0.14031	2.50740	2.50740	-0.18004
	setup	CLK (R)	0.01860	0.01860	0.07580	1.26300	1.26300	0.16460	2.50740	2.50740	0.20661

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	-0.02201	1.26300	1.26300	-0.11063	2.50740	2.50740	-0.16234
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.16190	2.50740	2.50740	0.21546
sg13g2_dfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.02201	1.26300	1.26300	-0.11063	2.50740	2.50740	-0.16234
	setup	CLK (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.16190	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_dfrbpq_2	recovery	CLK (R)	0.01860	0.01860	0.07825	1.26300	1.26300	0.19428	2.50740	2.50740	0.28335
	removal	CLK (R)	0.01860	0.01860	-0.06602	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.27744
sg13g2_dfrbpq_1	recovery	CLK (R)	0.01860	0.01860	0.08069	1.26300	1.26300	0.19428	2.50740	2.50740	0.28335
	removal	CLK (R)	0.01860	0.01860	-0.06602	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.27744

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	0.07339	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	0.08621	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_dfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.08621	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	0.03553	0.32940	0.12960	0.03839	2.50740	0.60000	0.06600
sg13g2_dfrbpq_1	CLK	0.01860	0.00100	0.03123	0.32940	0.06480	0.03360	2.50740	0.30000	0.06138

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	0.03633	0.32940	0.12960	0.04018	2.50740	0.60000	0.06729
	RESET_B	0.01860	0.00100	0.02469	0.32940	0.12960	0.02707	2.50740	0.60000	0.03957
sg13g2_dfrbpq_1	CLK	0.01860	0.00100	0.03228	0.32940	0.06480	0.03529	2.50740	0.30000	0.06247
	RESET_B	0.01860	0.00100	0.02073	0.32940	0.06480	0.02259	2.50740	0.30000	0.03515

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.00166	0.32940	0.00256	2.50740	0.01286
sg13g2_dfrbpq_1	0.01860	0.00166	0.32940	0.00256	2.50740	0.01286

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.00130	0.32940	0.00229	2.50740	0.01270
sg13g2_dfrbpq_1	0.01860	0.00129	0.32940	0.00228	2.50740	0.01269

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	0.00166	0.32940	0.00256	2.50740	0.01286
	(!CLK * RESET_B)	0.01860	0.01436	0.32940	0.01516	2.50740	0.02678
	(!CLK * !RESET_B)	0.01860	-0.00006	0.32940	-0.00005	2.50740	-0.00005
sg13g2_dfrbpq_1	CLK	0.01860	0.00166	0.32940	0.00256	2.50740	0.01286
	(!CLK * RESET_B)	0.01860	0.01438	0.32940	0.01518	2.50740	0.02680
	(!CLK * !RESET_B)	0.01860	-0.00006	0.32940	-0.00006	2.50740	-0.00006

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	0.00130	0.32940	0.00229	2.50740	0.01270
	(!CLK * RESET_B)	0.01860	0.01085	0.32940	0.01170	2.50740	0.02371
	(!CLK * !RESET_B)	0.01860	0.00030	0.32940	0.00030	2.50740	0.00031
sg13g2_dfrbpq_1	CLK	0.01860	0.00129	0.32940	0.00228	2.50740	0.01269
	(!CLK * RESET_B)	0.01860	0.01084	0.32940	0.01169	2.50740	0.02369
	(!CLK * !RESET_B)	0.01860	0.00031	0.32940	0.00031	2.50740	0.00031

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	0.00411	0.32940	0.00442	2.50740	0.01398
sg13g2_dfrbpq_1	0.01860	0.00406	0.32940	0.00438	2.50740	0.01394

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	0.01079	0.32940	0.01117	2.50740	0.02602
sg13g2_dfrbpq_1	0.01860	0.01081	0.32940	0.01117	2.50740	0.02603

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	0.00411	0.32940	0.00442	2.50740	0.01398
	(CLK * !D * !Q)	0.01860	0.00095	0.32940	0.00095	2.50740	0.00095
	(!CLK * D * !Q)	0.01860	0.01703	0.32940	0.01733	2.50740	0.03145
	(!CLK * !D * !Q)	0.01860	0.00103	0.32940	0.00102	2.50740	0.00103
sg13g2_dfrbpq_1	(CLK * D * !Q)	0.01860	0.00406	0.32940	0.00438	2.50740	0.01394
	(CLK * !D * !Q)	0.01860	0.00091	0.32940	0.00091	2.50740	0.00091
	(!CLK * D * !Q)	0.01860	0.01701	0.32940	0.01733	2.50740	0.03159
	(!CLK * !D * !Q)	0.01860	0.00100	0.32940	0.00099	2.50740	0.00099

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	0.03545	0.32940	0.03711	2.50740	0.06505
	(CLK * !D * !Q)	0.01860	-0.00095	0.32940	-0.00095	2.50740	-0.00095
	(!CLK * D * !Q)	0.01860	0.01079	0.32940	0.01117	2.50740	0.02602
	(!CLK * !D * !Q)	0.01860	-0.00103	0.32940	-0.00102	2.50740	-0.00103
sg13g2_dfrbpq_1	(CLK * D * !Q)	0.01860	0.03149	0.32940	0.03316	2.50740	0.06113
	(CLK * !D * !Q)	0.01860	-0.00091	0.32940	-0.00091	2.50740	-0.00091
	(!CLK * D * !Q)	0.01860	0.01081	0.32940	0.01117	2.50740	0.02603
	(!CLK * !D * !Q)	0.01860	-0.00100	0.32940	-0.00099	2.50740	-0.00099

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.01320	0.32940	0.01515	2.50740	0.04182
sg13g2_dfrbpq_1	0.01860	0.01313	0.32940	0.01507	2.50740	0.04175

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_2	0.01860	0.02530	0.32940	0.02746	2.50740	0.05469
sg13g2_dfrbpq_1	0.01860	0.02528	0.32940	0.02744	2.50740	0.05470

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	0.01320	0.32940	0.01515	2.50740	0.04182
	(D * !RESET_B * !Q)	0.01860	0.01389	0.32940	0.01576	2.50740	0.04228
	(!D * RESET_B * !Q)	0.01860	0.01294	0.32940	0.01485	2.50740	0.04151
	(!D * !RESET_B * !Q)	0.01860	0.01391	0.32940	0.01579	2.50740	0.04231
sg13g2_dfrbpq_1	(D * RESET_B * Q)	0.01860	0.01313	0.32940	0.01507	2.50740	0.04175
	(D * !RESET_B * !Q)	0.01860	0.01380	0.32940	0.01570	2.50740	0.04222
	(!D * RESET_B * !Q)	0.01860	0.01287	0.32940	0.01478	2.50740	0.04145
	(!D * !RESET_B * !Q)	0.01860	0.01384	0.32940	0.01573	2.50740	0.04224

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	0.02664	0.32940	0.02882	2.50740	0.05619
	(D * RESET_B * !Q)	0.01860	0.02530	0.32940	0.02746	2.50740	0.05469
	(D * !RESET_B * !Q)	0.01860	0.01298	0.32940	0.01518	2.50740	0.04155
	(!D * RESET_B * Q)	0.01860	0.04989	0.32940	0.05164	2.50740	0.07793
	(!D * RESET_B * !Q)	0.01860	0.01296	0.32940	0.01517	2.50740	0.04146
	(!D * !RESET_B * !Q)	0.01860	0.01299	0.32940	0.01517	2.50740	0.04155
sg13g2_dfrbpq_1	(D * RESET_B * Q)	0.01860	0.02569	0.32940	0.02787	2.50740	0.05528
	(D * RESET_B * !Q)	0.01860	0.02528	0.32940	0.02744	2.50740	0.05470
	(D * !RESET_B * !Q)	0.01860	0.01294	0.32940	0.01514	2.50740	0.04143
	(!D * RESET_B * Q)	0.01860	0.04482	0.32940	0.04665	2.50740	0.07288
	(!D * RESET_B * !Q)	0.01860	0.01291	0.32940	0.01513	2.50740	0.04144
	(!D * !RESET_B * !Q)	0.01860	0.01295	0.32940	0.01513	2.50740	0.04143

DLHQ



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00247	0.00248	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhq_1	679.37100	747.87700	843.23900

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	0.11862	0.32940	0.06480	0.29712	2.50740	0.30000	0.84860
	GATE->Q (RR)	0.01860	0.00100	0.10176	0.32940	0.06480	0.28224	2.50740	0.30000	0.80433

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	0.10734	0.32940	0.06480	0.26323	2.50740	0.30000	0.69739
	GATE->Q (RF)	0.01860	0.00100	0.11035	0.32940	0.06480	0.27164	2.50740	0.30000	0.70678

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	-0.06358	1.26300	1.26300	-0.15381	2.50740	2.50740	-0.18890
	setup	GATE (F)	0.01860	0.01860	0.06847	1.26300	1.26300	0.17539	2.50740	2.50740	0.22727

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	-0.02690	1.26300	1.26300	0.01079	2.50740	2.50740	0.04132
	setup	GATE (F)	0.01860	0.01860	0.03179	1.26300	1.26300	-0.00270	2.50740	2.50740	-0.03542

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	0.01846	0.32940	0.06480	0.01888	2.50740	0.30000	0.01880
	GATE	0.01860	0.00100	0.01588	0.32940	0.06480	0.01629	2.50740	0.30000	0.01740

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	0.01925	0.32940	0.06480	0.01975	2.50740	0.30000	0.01969
	GATE	0.01860	0.00100	0.01726	0.32940	0.06480	0.01821	2.50740	0.30000	0.01809

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.00424	0.32940	0.00566	2.50740	0.02407

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.00441	0.32940	0.00613	2.50740	0.02444

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	0.00420	0.32940	0.00555	2.50740	0.02393
	(!GATE * !Q)	0.01860	0.00424	0.32940	0.00566	2.50740	0.02407

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	0.00441	0.32940	0.00613	2.50740	0.02444
	(!GATE * !Q)	0.01860	0.00444	0.32940	0.00607	2.50740	0.02434

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.00973	0.32940	0.01148	2.50740	0.03422

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	0.01851	0.32940	0.02058	2.50740	0.04381

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	0.00973	0.32940	0.01148	2.50740	0.03422

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	0.01851	0.32940	0.02058	2.50740	0.04381

DLHRQ



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00230	0.00318	0.00237	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhrq_1	746.39000	852.03200	913.95100

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	0.12713	0.32940	0.06480	0.30944	2.50740	0.30000	0.85774
	GATE->Q (RR)	0.01860	0.00100	0.11500	0.32940	0.06480	0.30031	2.50740	0.30000	0.82139

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	0.11326	0.32940	0.06480	0.27109	2.50740	0.30000	0.71173
	GATE->Q (RF)	0.01860	0.00100	0.11759	0.32940	0.06480	0.28295	2.50740	0.30000	0.72885
	RESET_B->Q (FF)	0.01860	0.00100	0.04559	0.32940	0.06480	0.22260	2.50740	0.30000	0.72788

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	-0.05868	1.26300	1.26300	-0.14031	2.50740	2.50740	-0.17414
	setup	GATE (F)	0.01860	0.01860	0.06602	1.26300	1.26300	0.16730	2.50740	2.50740	0.21251

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	-0.02934	1.26300	1.26300	0.01079	2.50740	2.50740	0.04132
	setup	GATE (F)	0.01860	0.01860	0.03668	1.26300	1.26300	-0.00540	2.50740	2.50740	-0.03542

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	-0.00978	1.26300	1.26300	-0.07286	2.50740	2.50740	-0.10330
	removal	GATE (F)	0.01860	0.01860	0.01712	1.26300	1.26300	0.08635	2.50740	2.50740	0.11216

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	0.11826	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	0.05737	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	0.00085	0.32940	0.06480	0.00132	2.50740	0.30000	0.00107
	GATE	0.01860	0.00100	0.01219	0.32940	0.06480	0.01260	2.50740	0.30000	0.01221

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	-0.00085	0.32940	0.06480	-0.00132	2.50740	0.30000	-0.00107
	GATE	0.01860	0.00100	0.01209	0.32940	0.06480	0.01313	2.50740	0.30000	0.01138
	RESET_B	0.01860	0.00100	0.00928	0.32940	0.06480	0.01164	2.50740	0.30000	0.03231

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.02201	0.32940	0.02330	2.50740	0.04184

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.02851	0.32940	0.03209	2.50740	0.05085

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(!GATE * RESET_B * Q)	0.01860	0.00349	0.32940	0.00489	2.50740	0.02332
	!RESET_B	0.01860	0.02201	0.32940	0.02330	2.50740	0.04184

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	0.00382	0.32940	0.00554	2.50740	0.02384
	!RESET_B	0.01860	0.02851	0.32940	0.03209	2.50740	0.05085

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	0.00000	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	0.00000	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	0.00000	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	0.00000	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	0.01413	0.32940	0.01574	2.50740	0.04001

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	0.01874	0.32940	0.02083	2.50740	0.04400

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	0.01413	0.32940	0.01574	2.50740	0.04001
	(!D * !RESET_B * !Q)	0.01860	0.01023	0.32940	0.01191	2.50740	0.03454

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	0.01486	0.32940	0.01683	2.50740	0.04148
	(!D * RESET_B * !Q)	0.01860	0.01874	0.32940	0.02083	2.50740	0.04400
	(!D * !RESET_B * !Q)	0.01860	0.01888	0.32940	0.02097	2.50740	0.04395

DLHR



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00225	0.00336	0.00243	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhr_1	945.12400	1055.34000	1112.70000

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	0.13752	0.32940	0.06480	0.32551	2.50740	0.30000	0.87377
	GATE->Q (RR)	0.01860	0.00100	0.12585	0.32940	0.06480	0.31750	2.50740	0.30000	0.84026

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	0.11736	0.32940	0.06480	0.27716	2.50740	0.30000	0.71291
	GATE->Q (RF)	0.01860	0.00100	0.12187	0.32940	0.06480	0.28969	2.50740	0.30000	0.73176
	RESET_B->Q (FF)	0.01860	0.00100	0.04951	0.32940	0.06480	0.23663	2.50740	0.30000	0.75131

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	0.14252	0.32940	0.06480	0.31135	2.50740	0.30000	0.81388
	GATE->Q_N (RR)	0.01860	0.00100	0.14718	0.32940	0.06480	0.32383	2.50740	0.30000	0.83290
	RESET_B->Q_N (FR)	0.01860	0.00100	0.07456	0.32940	0.06480	0.26439	2.50740	0.30000	0.79645

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	0.16742	0.32940	0.06480	0.32407	2.50740	0.30000	0.80487
	GATE->Q_N (RF)	0.01860	0.00100	0.15556	0.32940	0.06480	0.31600	2.50740	0.30000	0.77116

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	-0.14301	2.50740	2.50740	-0.17709
	setup	GATE (F)	0.01860	0.01860	0.07091	1.26300	1.26300	0.17000	2.50740	2.50740	0.21546

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	-0.02934	1.26300	1.26300	0.01079	2.50740	2.50740	0.04132
	setup	GATE (F)	0.01860	0.01860	0.03668	1.26300	1.26300	-0.00540	2.50740	2.50740	-0.03542

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	-0.00245	1.26300	1.26300	-0.04048	2.50740	2.50740	-0.05018
	removal	GATE (F)	0.01860	0.01860	0.01223	1.26300	1.26300	0.05127	2.50740	2.50740	0.06198

Constraints(ns) for RESET_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.12146	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	0.00551	0.32940	0.06480	0.00604	2.50740	0.30000	0.00595
	GATE	0.01860	0.00100	0.01107	0.32940	0.06480	0.01153	2.50740	0.30000	0.01125

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	0.00184	0.32940	0.06480	0.00131	2.50740	0.30000	0.00083
	GATE	0.01860	0.00100	0.01106	0.32940	0.06480	0.01184	2.50740	0.30000	0.01080
	RESET_B	0.01860	0.00100	0.00950	0.32940	0.06480	0.01087	2.50740	0.30000	0.02223

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	0.00185	0.32940	0.06480	0.00138	2.50740	0.30000	0.00100
	GATE	0.01860	0.00100	0.01796	0.32940	0.06480	0.01956	2.50740	0.30000	0.03082
	RESET_B	0.01860	0.00100	0.00951	0.32940	0.06480	0.01084	2.50740	0.30000	0.02234

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	0.00551	0.32940	0.06480	0.00598	2.50740	0.30000	0.00574
	GATE	0.01860	0.00100	0.01106	0.32940	0.06480	0.01154	2.50740	0.30000	0.01114

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.02161	0.32940	0.02296	2.50740	0.04154

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.02823	0.32940	0.03193	2.50740	0.05084

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	0.00362	0.32940	0.00504	2.50740	0.02356
	!RESET_B	0.01860	0.02161	0.32940	0.02296	2.50740	0.04154

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	0.00387	0.32940	0.00561	2.50740	0.02400
	!RESET_B	0.01860	0.02823	0.32940	0.03193	2.50740	0.05084

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	-0.00004	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	0.00004	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	-0.00009	0.32940	0.00000	2.50740	0.00000
	(!D * !GATE * !Q)	0.01860	-0.00004	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	0.00009	0.32940	0.00000	2.50740	0.00000
	(!D * !GATE * !Q)	0.01860	0.00004	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	0.01379	0.32940	0.01540	2.50740	0.03976

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	0.01867	0.32940	0.02076	2.50740	0.04385

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	0.01379	0.32940	0.01540	2.50740	0.03976
	(!D * !RESET_B * !Q)	0.01860	0.00990	0.32940	0.01160	2.50740	0.03440

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	0.01523	0.32940	0.01720	2.50740	0.04189
	(!D * RESET_B * !Q)	0.01860	0.01867	0.32940	0.02076	2.50740	0.04385
	(!D * !RESET_B * !Q)	0.01860	0.01870	0.32940	0.02082	2.50740	0.04389

DLLRQ



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00222	0.00325	0.00235	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllrq_1	746.33600	852.00500	913.96500

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	0.12625	0.32940	0.06480	0.30818	2.50740	0.30000	0.85586
	GATE_N->Q (FR)	0.01860	0.00100	0.13965	0.32940	0.06480	0.32851	2.50740	0.30000	0.88108
	RESET_B->Q (RR)	0.01860	0.00100	0.06008	0.32940	0.06480	0.24455	2.50740	0.30000	0.84199

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	0.11257	0.32940	0.06480	0.26897	2.50740	0.30000	0.70591
	GATE_N->Q (FF)	0.01860	0.00100	0.10681	0.32940	0.06480	0.28113	2.50740	0.30000	0.78687
	RESET_B->Q (FF)	0.01860	0.00100	0.04590	0.32940	0.06480	0.22182	2.50740	0.30000	0.72550

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	-0.04401	1.26300	1.26300	-0.05936	2.50740	2.50740	-0.08559
	setup	GATE_N (R)	0.01860	0.01860	0.05379	1.26300	1.26300	0.06746	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	-0.14841	2.50740	2.50740	-0.18890
	setup	GATE_N (R)	0.01860	0.01860	0.06358	1.26300	1.26300	0.17539	2.50740	2.50740	0.23612

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	-0.02201	1.26300	1.26300	-0.05936	2.50740	2.50740	-0.05313
	removal	GATE_N (R)	0.01860	0.01860	0.03179	1.26300	1.26300	0.06746	2.50740	2.50740	0.05903

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	0.11826	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	0.00848	0.32940	0.06480	0.00894	2.50740	0.30000	0.00896
	GATE_N	0.01860	0.00100	0.00833	0.32940	0.06480	0.00873	2.50740	0.30000	0.00824
	RESET_B	0.01860	0.00100	0.01248	0.32940	0.06480	0.01336	2.50740	0.30000	0.03290

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	0.00262	0.32940	0.06480	0.00063	2.50740	0.30000	0.00018
	GATE_N	0.01860	0.00100	0.00668	0.32940	0.06480	0.00728	2.50740	0.30000	0.00823
	RESET_B	0.01860	0.00100	0.00942	0.32940	0.06480	0.01174	2.50740	0.30000	0.03261

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.01427	0.32940	0.01564	2.50740	0.03399

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	0.01959	0.32940	0.02382	2.50740	0.04258

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(GATE_N * RESET_B * Q)	0.01860	0.00342	0.32940	0.00482	2.50740	0.02326
	!RESET_B	0.01860	0.01427	0.32940	0.01564	2.50740	0.03399

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	0.00380	0.32940	0.00553	2.50740	0.02388
	!RESET_B	0.01860	0.01959	0.32940	0.02382	2.50740	0.04258

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	0.00000	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	0.00000	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	0.00000	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	0.00000	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	0.01616	0.32940	0.01759	2.50740	0.04004

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	0.01880	0.32940	0.02089	2.50740	0.04401

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	0.01616	0.32940	0.01759	2.50740	0.04004
	(!D * !RESET_B * !Q)	0.01860	0.00929	0.32940	0.01096	2.50740	0.03378

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	0.01537	0.32940	0.01737	2.50740	0.04011
	(!D * RESET_B * !Q)	0.01860	0.01880	0.32940	0.02089	2.50740	0.04401
	(!D * !RESET_B * !Q)	0.01860	0.01883	0.32940	0.02092	2.50740	0.04430

DLLR



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00233	0.00332	0.00249	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllr_1	945.00700	1072.35000	1112.70000

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	0.13843	0.32940	0.06480	0.32595	2.50740	0.30000	0.87331
	GATE_N->Q (FR)	0.01860	0.00100	0.15183	0.32940	0.06480	0.34708	2.50740	0.30000	0.90041

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	0.11875	0.32940	0.06480	0.27822	2.50740	0.30000	0.71433
	GATE_N->Q (FF)	0.01860	0.00100	0.11368	0.32940	0.06480	0.29212	2.50740	0.30000	0.80066
	RESET_B->Q (FF)	0.01860	0.00100	0.04934	0.32940	0.06480	0.24018	2.50740	0.30000	0.72586

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	0.14374	0.32940	0.06480	0.31213	2.50740	0.30000	0.81427
	GATE_N->Q_N (FR)	0.01860	0.00100	0.13880	0.32940	0.06480	0.32599	2.50740	0.30000	0.90028
	RESET_B->Q_N (FR)	0.01860	0.00100	0.07485	0.32940	0.06480	0.26580	2.50740	0.30000	0.80213

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	0.16809	0.32940	0.06480	0.32461	2.50740	0.30000	0.80460
	GATE_N->Q_N (FF)	0.01860	0.00100	0.18135	0.32940	0.06480	0.34575	2.50740	0.30000	0.83178

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	-0.04890	1.26300	1.26300	-0.06476	2.50740	2.50740	-0.08855
	setup	GATE_N (R)	0.01860	0.01860	0.06113	1.26300	1.26300	0.07286	2.50740	2.50740	0.09740

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	-0.15111	2.50740	2.50740	-0.18890
	setup	GATE_N (R)	0.01860	0.01860	0.06602	1.26300	1.26300	0.17809	2.50740	2.50740	0.23908

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	-0.01712	1.26300	1.26300	-0.02698	2.50740	2.50740	-0.00295
	removal	GATE_N (R)	0.01860	0.01860	0.02690	1.26300	1.26300	0.03778	2.50740	2.50740	0.00885

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	0.12146	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	0.01169	0.32940	0.06480	0.06837	2.50740	0.30000	0.27300
	GATE_N	0.01860	0.00100	0.02266	0.32940	0.06480	0.07933	2.50740	0.30000	0.28422

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	0.00574	0.32940	0.06480	0.05620	2.50740	0.30000	0.26019
	GATE_N	0.01860	0.00100	0.02057	0.32940	0.06480	0.07727	2.50740	0.30000	0.28314
	RESET_B	0.01860	0.00100	0.02955	0.32940	0.06480	0.08715	2.50740	0.30000	0.31023

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	0.00575	0.32940	0.06480	0.05634	2.50740	0.30000	0.26057
	GATE_N	0.01860	0.00100	0.03622	0.32940	0.06480	0.09490	2.50740	0.30000	0.32386
	RESET_B	0.01860	0.00100	0.02951	0.32940	0.06480	0.08712	2.50740	0.30000	0.31023

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	0.01169	0.32940	0.06480	0.06820	2.50740	0.30000	0.27266
	GATE_N	0.01860	0.00100	0.02266	0.32940	0.06480	0.07924	2.50740	0.30000	0.28358

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	0.02232	0.32940	0.02369	2.50740	0.04223

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	0.02691	0.32940	0.03468	2.50740	0.05351

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	0.00367	0.32940	0.00510	2.50740	0.02358
	!RESET_B	0.01860	0.02232	0.32940	0.02369	2.50740	0.04223

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	0.00362	0.32940	0.00536	2.50740	0.02371
	!RESET_B	0.01860	0.02691	0.32940	0.03468	2.50740	0.05351

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	-0.00007	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_dllr_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_dllr_1	(D * GATE_N * !Q)	0.01860	-0.00013	0.32940	-0.00000	2.50740	0.00000
	(!D * GATE_N * !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_dllr_1	(D * GATE_N * !Q)	0.01860	0.00013	0.32940	0.00000	2.50740	0.00000
	(!D * GATE_N * !Q)	0.01860	0.00007	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	0.01782	0.32940	0.02064	2.50740	0.04329

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	0.01561	0.32940	0.01758	2.50740	0.04030

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	0.01629	0.32940	0.01772	2.50740	0.04012
	(!D * RESET_B * !Q)	0.01860	0.01782	0.32940	0.02064	2.50740	0.04329
	(!D * !RESET_B * !Q)	0.01860	0.01785	0.32940	0.02066	2.50740	0.04341

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	0.01561	0.32940	0.01758	2.50740	0.04030
	(!D * !RESET_B * !Q)	0.01860	0.01044	0.32940	0.01247	2.50740	0.03541

DLY1



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00160	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd1_1	308.70500	324.83000	340.95500

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	0.07855	0.32940	0.06480	0.25376	2.50740	0.30000	0.73727

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	0.09071	0.32940	0.06480	0.26911	2.50740	0.30000	0.80757

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	0.01554	0.32940	0.06480	0.01677	2.50740	0.30000	0.02840

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	0.01485	0.32940	0.06480	0.01630	2.50740	0.30000	0.02809

DLY2



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00159	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd2_1	402.35600	418.47900	434.60300

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	0.11607	0.32940	0.06480	0.30267	2.50740	0.30000	0.82110

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	0.12926	0.32940	0.06480	0.32627	2.50740	0.30000	0.89387

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	0.01859	0.32940	0.06480	0.01964	2.50740	0.30000	0.03058

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	0.01796	0.32940	0.06480	0.01915	2.50740	0.30000	0.03049

DLY4



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00160	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd3_1	939.24100	955.34500	971.44900

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_dlygate4sd3_1	A->X (RR)	0.01860	0.00100	0.24040	0.32940	0.06480	0.45391	2.50740	0.30000	1.04391

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	0.24389	0.32940	0.06480	0.47777	2.50740	0.30000	1.11309

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	0.02707	0.32940	0.06480	0.02746	2.50740	0.30000	0.03770

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	0.02663	0.32940	0.06480	0.02711	2.50740	0.30000	0.03777

EINVIN_x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp
-40.00*

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	0.00834	0.00980	1.20000
sg13g2_einvn_2	0.00427	0.00525	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_4	1155.03000	1312.66000	1470.28000
sg13g2_einvn_2	581.54000	660.35200	739.16300

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	0.01071	0.01831	0.32940	0.26891	0.39089	2.50740	1.20971	2.09139
	TE_B->Z (RR)	0.01860	0.01071	0.03922	0.32940	0.26891	0.09889	2.50740	1.20971	0.22054
	TE_B->Z (FR)	0.01860	0.01071	0.02330	0.32940	0.26891	0.35998	2.50740	1.20971	1.83836
sg13g2_einvn_2	A->Z (FR)	0.01860	0.00595	0.01971	0.32940	0.13455	0.39047	2.50740	0.60495	2.08847
	TE_B->Z (RR)	0.01860	0.00595	0.03794	0.32940	0.13455	0.09416	2.50740	0.60495	0.20766
	TE_B->Z (FR)	0.01860	0.00595	0.02397	0.32940	0.13455	0.35974	2.50740	0.60495	1.83857

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	0.01568	0.01704	0.32940	0.27388	0.35030	2.50740	1.21468	1.89430
sg13g2_einvn_2	A->Z (RF)	0.01860	0.00849	0.01827	0.32940	0.13709	0.35041	2.50740	0.60749	1.89409

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	0.01071	0.00638	0.32940	0.26891	0.01004	2.50740	1.20971	0.03131
	TE_B	0.01860	0.01071	0.02064	0.32940	0.26891	0.01986	2.50740	1.20971	0.01863
sg13g2_einvn_2	A	0.01860	0.00595	0.00322	0.32940	0.13455	0.00503	2.50740	0.60495	0.01568
	TE_B	0.01860	0.00595	0.01020	0.32940	0.13455	0.00978	2.50740	0.60495	0.00890

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	0.01568	0.00574	0.32940	0.27388	0.00929	2.50740	1.21468	0.02950
sg13g2_einvn_2	A	0.01860	0.00849	0.00305	0.32940	0.13709	0.00474	2.50740	0.60749	0.01493

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	-0.01242	0.32940	-0.01170	2.50740	0.01257
sg13g2_einvn_2	0.01860	-0.00589	0.32940	-0.00540	2.50740	0.00805

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	0.01689	0.32940	0.01944	2.50740	0.04468
sg13g2_einvn_2	0.01860	0.00851	0.32940	0.00989	2.50740	0.02377

FILLx



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00250	0.00534	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_lgcp_1	801.81300	826.73200	872.60900

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	0.05282	0.32940	0.06480	0.23188	2.50740	0.30000	0.81254

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	0.04288	0.32940	0.06480	0.21311	2.50740	0.30000	0.70836

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	-0.02536	1.26300	1.26300	-0.12604	2.50740	2.50740	-0.20673
	setup	CLK (R)	0.01860	0.01860	0.05195	1.26300	1.26300	0.17393	2.50740	2.50740	0.26185

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	-0.01028	1.26300	1.26300	0.01100	2.50740	2.50740	0.02644
	setup	CLK (R)	0.01860	0.01860	0.03428	1.26300	1.26300	0.02320	2.50740	2.50740	0.01758

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	0.15030	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	0.01162	0.32940	0.06480	0.01246	2.50740	0.30000	0.02907

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	0.00680	0.32940	0.06480	0.00900	2.50740	0.30000	0.02644

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.02411	0.32940	0.02543	2.50740	0.04373

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.02003	0.32940	0.03659	2.50740	0.05501

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	0.02411	0.32940	0.02543	2.50740	0.04373

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	0.02003	0.32940	0.03659	2.50740	0.05501

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.00807	0.32940	0.00973	2.50740	0.03241

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	0.01031	0.32940	0.01224	2.50740	0.03519

INx



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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_1	5.44320
sg13g2_inv_2	7.25760

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
sg13g2_inv_16	0.04627	4.80000
sg13g2_inv_8	0.02398	2.40000
sg13g2_inv_4	0.01199	1.20000
sg13g2_inv_1	0.00306	0.30000
sg13g2_inv_2	0.00606	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_inv_16	1264.61000	1895.10000	2525.60000
sg13g2_inv_8	632.30300	947.58100	1262.86000
sg13g2_inv_4	316.15100	473.77600	631.40000
sg13g2_inv_1	79.03790	118.48100	157.92500
sg13g2_inv_2	158.08400	236.90200	315.71900

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	0.01480	0.32940	1.03680	0.27398	2.50740	4.80000	1.51665
sg13g2_inv_8	A->Y (FR)	0.01860	0.00100	0.01186	0.32940	0.51840	0.26988	2.50740	2.40000	1.51036
sg13g2_inv_4	A->Y (FR)	0.01860	0.00100	0.01212	0.32940	0.25920	0.26962	2.50740	1.20000	1.50956
sg13g2_inv_1	A->Y (FR)	0.01860	0.00100	0.01508	0.32940	0.06480	0.26947	2.50740	0.30000	1.50692
sg13g2_inv_2	A->Y (FR)	0.01860	0.00100	0.01307	0.32940	0.12960	0.26912	2.50740	0.60000	1.50694

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	0.01515	0.32940	1.03680	0.26343	2.50740	4.80000	1.45938
sg13g2_inv_8	A->Y (RF)	0.01860	0.00100	0.01201	0.32940	0.51840	0.26007	2.50740	2.40000	1.45702
sg13g2_inv_4	A->Y (RF)	0.01860	0.00100	0.01222	0.32940	0.25920	0.25987	2.50740	1.20000	1.45640
sg13g2_inv_1	A->Y (RF)	0.01860	0.00100	0.01490	0.32940	0.06480	0.25874	2.50740	0.30000	1.44885
sg13g2_inv_2	A->Y (RF)	0.01860	0.00100	0.01304	0.32940	0.12960	0.25839	2.50740	0.60000	1.44869

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	0.02587	0.32940	1.03680	0.04137	2.50740	4.80000	0.17118
sg13g2_inv_8	A	0.01860	0.00100	0.01280	0.32940	0.51840	0.02097	2.50740	2.40000	0.08324
sg13g2_inv_4	A	0.01860	0.00100	0.00643	0.32940	0.25920	0.01054	2.50740	1.20000	0.04240
sg13g2_inv_1	A	0.01860	0.00100	0.00181	0.32940	0.06480	0.00278	2.50740	0.30000	0.01069
sg13g2_inv_2	A	0.01860	0.00100	0.00324	0.32940	0.12960	0.00525	2.50740	0.60000	0.02103

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	0.02120	0.32940	1.03680	0.03690	2.50740	4.80000	0.14825
sg13g2_inv_8	A	0.01860	0.00100	0.01045	0.32940	0.51840	0.01816	2.50740	2.40000	0.07395
sg13g2_inv_4	A	0.01860	0.00100	0.00527	0.32940	0.25920	0.00919	2.50740	1.20000	0.03693
sg13g2_inv_1	A	0.01860	0.00100	0.00175	0.32940	0.06480	0.00260	2.50740	0.30000	0.00949
sg13g2_inv_2	A	0.01860	0.00100	0.00276	0.32940	0.12960	0.00465	2.50740	0.60000	0.01838

ITL



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.01650	0.01676	2.40000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_8	2231.02000	2546.27000	2861.52000

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	0.02032	0.01770	0.32940	0.53772	0.39250	2.50740	2.41932	2.09944
	TE_B->Z (RR)	0.01860	0.02032	0.04989	0.32940	0.53772	0.13441	2.50740	2.41932	0.30638
	TE_B->Z (FR)	0.01860	0.02032	0.02432	0.32940	0.53772	0.36240	2.50740	2.41932	1.84343

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	0.03022	0.01653	0.32940	0.54762	0.35212	2.50740	2.42922	1.90378

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	0.02032	0.01270	0.32940	0.53772	0.02019	2.50740	2.41932	0.06230
	TE_B	0.01860	0.02032	0.04342	0.32940	0.53772	0.04095	2.50740	2.41932	0.03796

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	0.03022	0.01119	0.32940	0.54762	0.01829	2.50740	2.42922	0.05815

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	-0.02729	0.32940	-0.02765	2.50740	-0.00557

Passive power(pJ) for TE_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_8	0.01860	0.02957	0.32940	0.03265	2.50740	0.05713

KEEPSTATE



*sg13g2_stdcell_fast_1p32V_m40C Cell Library:
Process sg13g2_stdcell_fast_1p32V_m40C,
Voltage 1.32, Temp -40.00*

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	0.02620	-

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sighold	126.96700	404.05000	681.13200

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	0.00686	0.32940	0.01777	2.50740	0.09724

Passive power(pJ) for SH falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sighold	0.01860	0.00537	0.32940	0.01447	2.50740	0.10854

MUX2x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00297	0.00308	0.00552	0.60000
sg13g2_mux2_1	0.00299	0.00310	0.00553	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux2_2	583.67600	677.48600	746.54900
sg13g2_mux2_1	481.22000	559.06600	661.65900

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	0.05995	0.32940	0.12960	0.27458	2.50740	0.60000	0.89249
	A1->X (RR)	0.01860	0.00100	0.06009	0.32940	0.12960	0.27638	2.50740	0.60000	0.89696
	S->X (-R)	0.01860	0.00100	0.06567	0.32940	0.12960	0.26937	2.50740	0.60000	0.88095
sg13g2_mux2_1	A0->X (RR)	0.01860	0.00100	0.05180	0.32940	0.06480	0.24597	2.50740	0.30000	0.83378
	A1->X (RR)	0.01860	0.00100	0.05212	0.32940	0.06480	0.24808	2.50740	0.30000	0.83903
	S->X (-R)	0.01860	0.00100	0.05711	0.32940	0.06480	0.24424	2.50740	0.30000	0.82715

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	0.07823	0.32940	0.12960	0.29236	2.50740	0.60000	0.88840
	A1->X (FF)	0.01860	0.00100	0.07792	0.32940	0.12960	0.29238	2.50740	0.60000	0.89068
	S->X (-F)	0.01860	0.00100	0.08577	0.32940	0.12960	0.27772	2.50740	0.60000	0.84049
sg13g2_mux2_1	A0->X (FF)	0.01860	0.00100	0.06452	0.32940	0.06480	0.25640	2.50740	0.30000	0.81807
	A1->X (FF)	0.01860	0.00100	0.06431	0.32940	0.06480	0.25660	2.50740	0.30000	0.82205
	S->X (-F)	0.01860	0.00100	0.07183	0.32940	0.06480	0.24517	2.50740	0.30000	0.77795

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	0.06567	0.32940	0.12960	0.26937	2.50740	0.60000	0.88095
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	0.08846	0.32940	0.12960	0.27142	2.50740	0.60000	0.77886
sg13g2_mux2_1	S->X (RR)	(!A0 * A1)	0.01860	0.00100	0.05711	0.32940	0.06480	0.24424	2.50740	0.30000	0.82715
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	0.07976	0.32940	0.06480	0.25541	2.50740	0.30000	0.75916

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	0.08577	0.32940	0.12960	0.27772	2.50740	0.60000	0.84049
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	0.10674	0.32940	0.12960	0.28621	2.50740	0.60000	0.77614
sg13g2_mux2_1	S->X (FF)	(!A0 * A1)	0.01860	0.00100	0.07183	0.32940	0.06480	0.24517	2.50740	0.30000	0.77795
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	0.09269	0.32940	0.06480	0.26219	2.50740	0.30000	0.75016

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	0.01618	0.32940	0.12960	0.01758	2.50740	0.60000	0.03569
	A1	0.01860	0.00100	0.01622	0.32940	0.12960	0.01772	2.50740	0.60000	0.03611
	S	0.01860	0.00100	0.01707	0.32940	0.12960	0.01846	2.50740	0.60000	0.03510
sg13g2_mux2_1	A0	0.01860	0.00100	0.01089	0.32940	0.06480	0.01241	2.50740	0.30000	0.03134
	A1	0.01860	0.00100	0.01100	0.32940	0.06480	0.01256	2.50740	0.30000	0.03139
	S	0.01860	0.00100	0.01194	0.32940	0.06480	0.01314	2.50740	0.30000	0.03039

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	0.01631	0.32940	0.12960	0.01768	2.50740	0.60000	0.03628
	A1	0.01860	0.00100	0.01619	0.32940	0.12960	0.01759	2.50740	0.60000	0.03658
	S	0.01860	0.00100	0.01635	0.32940	0.12960	0.01735	2.50740	0.60000	0.03477
sg13g2_mux2_1	A0	0.01860	0.00100	0.01083	0.32940	0.06480	0.01268	2.50740	0.30000	0.03145
	A1	0.01860	0.00100	0.01076	0.32940	0.06480	0.01257	2.50740	0.30000	0.03202
	S	0.01860	0.00100	0.01127	0.32940	0.06480	0.01239	2.50740	0.30000	0.03008

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	0.01695	0.32940	0.12960	0.01741	2.50740	0.60000	0.01726
	S	(!A0 * A1)	0.01860	0.00100	0.01707	0.32940	0.12960	0.01846	2.50740	0.60000	0.03510
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	0.01183	0.32940	0.06480	0.01205	2.50740	0.30000	0.01206
	S	(!A0 * A1)	0.01860	0.00100	0.01194	0.32940	0.06480	0.01314	2.50740	0.30000	0.03039

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	0.01747	0.32940	0.12960	0.01812	2.50740	0.60000	0.01789
	S	(!A0 * A1)	0.01860	0.00100	0.01635	0.32940	0.12960	0.01735	2.50740	0.60000	0.03477
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	0.01237	0.32940	0.06480	0.01291	2.50740	0.30000	0.01276
	S	(!A0 * A1)	0.01860	0.00100	0.01127	0.32940	0.06480	0.01239	2.50740	0.30000	0.03008

Passive power(pJ) for S rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_2	0.01860	0.00421	0.32940	0.00544	2.50740	0.02380
sg13g2_mux2_1	0.01860	0.00421	0.32940	0.00545	2.50740	0.02381

Passive power(pJ) for S falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_2	0.01860	0.00476	0.32940	0.00635	2.50740	0.02455
sg13g2_mux2_1	0.01860	0.00475	0.32940	0.00635	2.50740	0.02455

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	0.00421	0.32940	0.00544	2.50740	0.02380
	(!A0 * !A1)	0.01860	0.00381	0.32940	0.00514	2.50740	0.02341
sg13g2_mux2_1	(A0 * A1)	0.01860	0.00421	0.32940	0.00545	2.50740	0.02381
	(!A0 * !A1)	0.01860	0.00380	0.32940	0.00515	2.50740	0.02337

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	0.00452	0.32940	0.00607	2.50740	0.02421
	(!A0 * !A1)	0.01860	0.00476	0.32940	0.00635	2.50740	0.02455
sg13g2_mux2_1	(A0 * A1)	0.01860	0.00451	0.32940	0.00606	2.50740	0.02420
	(!A0 * !A1)	0.01860	0.00475	0.32940	0.00635	2.50740	0.02455

MUX4



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00305	0.00302	0.00305	0.00311	0.00882	0.00536	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux4_1	762.59600	984.26200	1144.80000

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	0.09373	0.32940	0.06480	0.30534	2.50740	0.30000	0.95764
	A1->X (RR)	0.01860	0.00100	0.09163	0.32940	0.06480	0.30435	2.50740	0.30000	0.95557
	A2->X (RR)	0.01860	0.00100	0.09685	0.32940	0.06480	0.31205	2.50740	0.30000	0.97198
	A3->X (RR)	0.01860	0.00100	0.09498	0.32940	0.06480	0.31094	2.50740	0.30000	0.96964
	S0->X (-R)	0.01860	0.00100	0.08311	0.32940	0.06480	0.30500	2.50740	0.30000	0.96247
	S1->X (-R)	0.01860	0.00100	0.05008	0.32940	0.06480	0.24479	2.50740	0.30000	0.83904

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	0.10337	0.32940	0.06480	0.29788	2.50740	0.30000	0.84389
	A1->X (FF)	0.01860	0.00100	0.10469	0.32940	0.06480	0.29798	2.50740	0.30000	0.84463
	A2->X (FF)	0.01860	0.00100	0.10962	0.32940	0.06480	0.30695	2.50740	0.30000	0.86192
	A3->X (FF)	0.01860	0.00100	0.11075	0.32940	0.06480	0.30651	2.50740	0.30000	0.86094
	S0->X (-F)	0.01860	0.00100	0.09546	0.32940	0.06480	0.30261	2.50740	0.30000	0.87441
	S1->X (-F)	0.01860	0.00100	0.05779	0.32940	0.06480	0.23812	2.50740	0.30000	0.75965

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	0.08311	0.32940	0.06480	0.30500	2.50740	0.30000	0.96247
	S0->X (RR)	(!A0 * A1 * !S1)	0.01860	0.00100	0.07883	0.32940	0.06480	0.29470	2.50740	0.30000	0.94114
	S0->X (FR)	(A2 * !A3 * S1)	0.01860	0.00100	0.11896	0.32940	0.06480	0.31979	2.50740	0.30000	0.86833
	S0->X (FR)	(A0 * !A1 * !S1)	0.01860	0.00100	0.11594	0.32940	0.06480	0.31482	2.50740	0.30000	0.86120
	S1->X (RR)	(!A1 * A3 * S0)	0.01860	0.00100	0.05016	0.32940	0.06480	0.24480	2.50740	0.30000	0.83845
	S1->X (RR)	(!A0 * A2 * !S0)	0.01860	0.00100	0.05008	0.32940	0.06480	0.24479	2.50740	0.30000	0.83904
	S1->X (FR)	(A1 * !A3 * S0)	0.01860	0.00100	0.06552	0.32940	0.06480	0.24947	2.50740	0.30000	0.75523
	S1->X (FR)	(A0 * !A2 * !S0)	0.01860	0.00100	0.06535	0.32940	0.06480	0.24947	2.50740	0.30000	0.75532

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	0.09546	0.32940	0.06480	0.30261	2.50740	0.30000	0.87441
	S0->X (FF)	(!A0 * A1 * !S1)	0.01860	0.00100	0.08758	0.32940	0.06480	0.28992	2.50740	0.30000	0.84919
	S0->X (RF)	(A2 * !A3 * S1)	0.01860	0.00100	0.12810	0.32940	0.06480	0.32509	2.50740	0.30000	0.86183
	S0->X (RF)	(A0 * !A1 * !S1)	0.01860	0.00100	0.12162	0.32940	0.06480	0.31696	2.50740	0.30000	0.85059
	S1->X (FF)	(!A1 * A3 * S0)	0.01860	0.00100	0.05779	0.32940	0.06480	0.23812	2.50740	0.30000	0.75965
	S1->X (FF)	(!A0 * A2 * !S0)	0.01860	0.00100	0.05772	0.32940	0.06480	0.23800	2.50740	0.30000	0.75941
	S1->X (RF)	(A1 * !A3 * S0)	0.01860	0.00100	0.07160	0.32940	0.06480	0.25370	2.50740	0.30000	0.75121
	S1->X (RF)	(A0 * !A2 * !S0)	0.01860	0.00100	0.07174	0.32940	0.06480	0.25374	2.50740	0.30000	0.75134

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	0.01485	0.32940	0.06480	0.01531	2.50740	0.30000	0.03045
	A1	0.01860	0.00100	0.01521	0.32940	0.06480	0.01574	2.50740	0.30000	0.03089
	A2	0.01860	0.00100	0.01512	0.32940	0.06480	0.01558	2.50740	0.30000	0.03058
	A3	0.01860	0.00100	0.01675	0.32940	0.06480	0.01718	2.50740	0.30000	0.03227
	S0	0.01860	0.00100	0.01170	0.32940	0.06480	0.01277	2.50740	0.30000	0.02950
	S1	0.01860	0.00100	0.00999	0.32940	0.06480	0.01189	2.50740	0.30000	0.02397

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	0.02337	0.32940	0.06480	0.02404	2.50740	0.30000	0.03960
	A1	0.01860	0.00100	0.02357	0.32940	0.06480	0.02428	2.50740	0.30000	0.03992
	A2	0.01860	0.00100	0.02349	0.32940	0.06480	0.02412	2.50740	0.30000	0.03958
	A3	0.01860	0.00100	0.01762	0.32940	0.06480	0.01818	2.50740	0.30000	0.03367
	S0	0.01860	0.00100	0.01264	0.32940	0.06480	0.01440	2.50740	0.30000	0.03106
	S1	0.01860	0.00100	0.00696	0.32940	0.06480	0.00865	2.50740	0.30000	0.02424

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	0.01812	0.32940	0.06480	0.01565	2.50740	0.30000	-0.00289
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	0.01808	0.32940	0.06480	0.01565	2.50740	0.30000	-0.00301
	S0	(!A2 * A3 * S1)	0.01860	0.00100	0.01171	0.32940	0.06480	0.01277	2.50740	0.30000	0.02960
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	0.01170	0.32940	0.06480	0.01277	2.50740	0.30000	0.02950
	S1	(A1 * !A3 * S0)	0.01860	0.00100	0.00999	0.32940	0.06480	0.01189	2.50740	0.30000	0.02397
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	0.01084	0.32940	0.06480	0.01272	2.50740	0.30000	0.02420
	S1	(!A1 * A3 * S0)	0.01860	0.00100	0.00583	0.32940	0.06480	0.00734	2.50740	0.30000	0.02222
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	0.00586	0.32940	0.06480	0.00737	2.50740	0.30000	0.02259

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	0.02617	0.32940	0.06480	0.02603	2.50740	0.30000	0.00832
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	0.02621	0.32940	0.06480	0.02642	2.50740	0.30000	0.00841
	S0	(!A2 * A3 * S1)	0.01860	0.00100	0.01244	0.32940	0.06480	0.01382	2.50740	0.30000	0.03111
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	0.01264	0.32940	0.06480	0.01440	2.50740	0.30000	0.03106
	S1	(A1 * !A3 * S0)	0.01860	0.00100	0.00919	0.32940	0.06480	0.01129	2.50740	0.30000	0.02278
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	0.00919	0.32940	0.06480	0.01128	2.50740	0.30000	0.02279
	S1	(!A1 * A3 * S0)	0.01860	0.00100	0.00696	0.32940	0.06480	0.00865	2.50740	0.30000	0.02424
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	0.00615	0.32940	0.06480	0.00782	2.50740	0.30000	0.02324

Passive power(pJ) for S0 rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.00893	0.32940	0.01226	2.50740	0.05303

Passive power(pJ) for S0 falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.01202	0.32940	0.01600	2.50740	0.05708

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	0.00821	0.32940	0.01153	2.50740	0.05212
	(A0 * A1 * !S1)	0.01860	0.00888	0.32940	0.01188	2.50740	0.05232
	(!A2 * !A3 * S1)	0.01860	0.00893	0.32940	0.01226	2.50740	0.05303
	(!A0 * !A1 * !S1)	0.01860	0.00991	0.32940	0.01307	2.50740	0.05337

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	0.01247	0.32940	0.01655	2.50740	0.05747
	(A0 * A1 * !S1)	0.01860	0.01432	0.32940	0.01855	2.50740	0.05893
	(!A2 * !A3 * S1)	0.01860	0.01202	0.32940	0.01600	2.50740	0.05708
	(!A0 * !A1 * !S1)	0.01860	0.00851	0.32940	0.01219	2.50740	0.05236

Passive power(pJ) for S1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.00505	0.32940	0.00711	2.50740	0.02946

Passive power(pJ) for S1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	0.00496	0.32940	0.00730	2.50740	0.02971

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	0.00453	0.32940	0.00656	2.50740	0.02882
	(A0 * A2 * !S0)	0.01860	0.00453	0.32940	0.00655	2.50740	0.02878
	(!A1 * !A3 * S0)	0.01860	0.00506	0.32940	0.00711	2.50740	0.02942
	(!A0 * !A2 * !S0)	0.01860	0.00505	0.32940	0.00711	2.50740	0.02946

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	0.00520	0.32940	0.00754	2.50740	0.02978
	(A0 * A2 * !S0)	0.01860	0.00520	0.32940	0.00753	2.50740	0.02976
	(!A1 * !A3 * S0)	0.01860	0.00496	0.32940	0.00730	2.50740	0.02971
	(!A0 * !A2 * !S0)	0.01860	0.00497	0.32940	0.00724	2.50740	0.02935

NAND2B1



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp
-40.00*

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	0.00243	0.00324	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_1	138.10900	269.63100	373.97200

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	0.21727	2.50740	0.30000	0.79690
	B->Y (FR)	0.01860	0.00100	0.01929	0.32940	0.06480	0.27482	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	0.04417	0.32940	0.06480	0.28290	2.50740	0.30000	1.05111
	B->Y (RF)	0.01860	0.00100	0.02723	0.32940	0.06480	0.32552	2.50740	0.30000	1.70667

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	0.00252	0.32940	0.06480	0.00280	2.50740	0.30000	0.00164
	B	0.01860	0.00100	0.00236	0.32940	0.06480	0.00303	2.50740	0.30000	0.01015

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	0.00521	0.32940	0.06480	0.00546	2.50740	0.30000	0.00494
	B	0.01860	0.00100	0.00497	0.32940	0.06480	0.00529	2.50740	0.30000	0.01072

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	0.00476	0.32940	0.00632	2.50740	0.02500

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	0.00257	0.32940	0.00434	2.50740	0.02270

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	0.00476	0.32940	0.00632	2.50740	0.02500

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	0.00257	0.32940	0.00434	2.50740	0.02270

NAND2B2



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp
-40.00*

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	0.00237	0.00599	0.60000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_2	270.96300	447.51500	672.23600

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_nand2b_2	A_N->Y (RR)	0.01860	0.00100	0.04860	0.32940	0.12960	0.24869	2.50740	0.60000	0.86076
	B->Y (FR)	0.01860	0.00100	0.01492	0.32940	0.12960	0.27080	2.50740	0.60000	1.50572

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	0.05809	0.32940	0.12960	0.32885	2.50740	0.60000	1.16575
	B->Y (RF)	0.01860	0.00100	0.02059	0.32940	0.12960	0.35843	2.50740	0.60000	1.93257

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	0.00493	0.32940	0.12960	0.00552	2.50740	0.60000	0.00439
	B	0.01860	0.00100	0.00354	0.32940	0.12960	0.00533	2.50740	0.60000	0.01853

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	0.01019	0.32940	0.12960	0.01082	2.50740	0.60000	0.01118
	B	0.01860	0.00100	0.00505	0.32940	0.12960	0.00639	2.50740	0.60000	0.01784

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	0.00783	0.32940	0.00880	2.50740	0.02623

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	0.00761	0.32940	0.00896	2.50740	0.02637

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	0.00783	0.32940	0.00880	2.50740	0.02623

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	0.00761	0.32940	0.00896	2.50740	0.02637

NAND2x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00596	0.00614	0.60000
sg13g2_nand2_1	0.00307	0.00320	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2_2	159.32400	362.56500	613.98900
sg13g2_nand2_1	79.81350	184.63600	315.66900

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	0.27116	2.50740	0.60000	1.50749
	B->Y (FR)	0.01860	0.00100	0.01824	0.32940	0.12960	0.27479	2.50740	0.60000	1.51362
sg13g2_nand2_1	A->Y (FR)	0.01860	0.00100	0.01667	0.32940	0.06480	0.27091	2.50740	0.30000	1.50551
	B->Y (FR)	0.01860	0.00100	0.01959	0.32940	0.06480	0.27438	2.50740	0.30000	1.51139

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	0.02079	0.32940	0.12960	0.35816	2.50740	0.60000	1.93141
	B->Y (RF)	0.01860	0.00100	0.02461	0.32940	0.12960	0.33299	2.50740	0.60000	1.74906
sg13g2_nand2_1	A->Y (RF)	0.01860	0.00100	0.02249	0.32940	0.06480	0.34855	2.50740	0.30000	1.88155
	B->Y (RF)	0.01860	0.00100	0.02564	0.32940	0.06480	0.32332	2.50740	0.30000	1.70150

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	0.00358	0.32940	0.12960	0.00533	2.50740	0.60000	0.01893
	B	0.01860	0.00100	0.00448	0.32940	0.12960	0.00582	2.50740	0.60000	0.01961
sg13g2_nand2_1	A	0.01860	0.00100	0.00198	0.32940	0.06480	0.00282	2.50740	0.30000	0.00977
	B	0.01860	0.00100	0.00222	0.32940	0.06480	0.00286	2.50740	0.30000	0.01009

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	0.00507	0.32940	0.12960	0.00635	2.50740	0.60000	0.01780
	B	0.01860	0.00100	0.00944	0.32940	0.12960	0.01015	2.50740	0.60000	0.02072
sg13g2_nand2_1	A	0.01860	0.00100	0.00269	0.32940	0.06480	0.00331	2.50740	0.30000	0.00942
	B	0.01860	0.00100	0.00495	0.32940	0.06480	0.00523	2.50740	0.30000	0.01078

NAND3B1



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp
-40.00*

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	0.00241	0.00319	0.00321	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3b_1	140.64600	315.51300	531.73100

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	0.03916	0.32940	0.06480	0.21779	2.50740	0.30000	0.79495
	B->Y (FR)	0.01860	0.00100	0.02138	0.32940	0.06480	0.27682	2.50740	0.30000	1.51263
	C->Y (FR)	0.01860	0.00100	0.02300	0.32940	0.06480	0.27961	2.50740	0.30000	1.51597

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	0.05342	0.32940	0.06480	0.37361	2.50740	0.30000	1.44225
	B->Y (RF)	0.01860	0.00100	0.04022	0.32940	0.06480	0.42173	2.50740	0.30000	2.14121
	C->Y (RF)	0.01860	0.00100	0.04284	0.32940	0.06480	0.39932	2.50740	0.30000	1.94879

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	0.00273	0.32940	0.06480	0.00294	2.50740	0.30000	0.00184
	B	0.01860	0.00100	0.00263	0.32940	0.06480	0.00316	2.50740	0.30000	0.00941
	C	0.01860	0.00100	0.00286	0.32940	0.06480	0.00328	2.50740	0.30000	0.00986

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	0.00669	0.32940	0.06480	0.00689	2.50740	0.30000	0.00638
	B	0.01860	0.00100	0.00644	0.32940	0.06480	0.00661	2.50740	0.30000	0.01118
	C	0.01860	0.00100	0.00841	0.32940	0.06480	0.00851	2.50740	0.30000	0.01314

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	0.00475	0.32940	0.00631	2.50740	0.02495

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	0.00257	0.32940	0.00434	2.50740	0.02270

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	0.00475	0.32940	0.00631	2.50740	0.02495

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	0.00257	0.32940	0.00434	2.50740	0.02270

NAND3



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00306	0.00322	0.00320	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3_1	82.39640	230.55900	473.49100

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_nand3_1	A->Y (FR)	0.01860	0.00100	0.01882	0.32940	0.06480	0.27308	2.50740	0.30000	1.50685
	B->Y (FR)	0.01860	0.00100	0.02167	0.32940	0.06480	0.27663	2.50740	0.30000	1.51249
	C->Y (FR)	0.01860	0.00100	0.02301	0.32940	0.06480	0.27948	2.50740	0.30000	1.51637

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	0.03194	0.32940	0.06480	0.43551	2.50740	0.30000	2.27835
	B->Y (RF)	0.01860	0.00100	0.03851	0.32940	0.06480	0.41965	2.50740	0.30000	2.13552
	C->Y (RF)	0.01860	0.00100	0.04093	0.32940	0.06480	0.39696	2.50740	0.30000	1.94441

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	0.00219	0.32940	0.06480	0.00296	2.50740	0.30000	0.00907
	B	0.01860	0.00100	0.00243	0.32940	0.06480	0.00298	2.50740	0.30000	0.00930
	C	0.01860	0.00100	0.00269	0.32940	0.06480	0.00312	2.50740	0.30000	0.00981

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	0.00418	0.32940	0.06480	0.00465	2.50740	0.30000	0.00977
	B	0.01860	0.00100	0.00648	0.32940	0.06480	0.00663	2.50740	0.30000	0.01110
	C	0.01860	0.00100	0.00840	0.32940	0.06480	0.00846	2.50740	0.30000	0.01331

NAND4



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00306	0.00322	0.00325	0.00322	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand4_1	85.17730	268.89300	631.43000

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	0.02001	0.32940	0.06480	0.27426	2.50740	0.30000	1.50652
	B->Y (FR)	0.01860	0.00100	0.02292	0.32940	0.06480	0.27792	2.50740	0.30000	1.51170
	C->Y (FR)	0.01860	0.00100	0.02443	0.32940	0.06480	0.28109	2.50740	0.30000	1.51757
	D->Y (FR)	0.01860	0.00100	0.02492	0.32940	0.06480	0.28357	2.50740	0.30000	1.52117

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	0.04075	0.32940	0.06480	0.52102	2.50740	0.30000	2.66134
	B->Y (RF)	0.01860	0.00100	0.05090	0.32940	0.06480	0.51288	2.50740	0.30000	2.54433
	C->Y (RF)	0.01860	0.00100	0.05649	0.32940	0.06480	0.49719	2.50740	0.30000	2.38030
	D->Y (RF)	0.01860	0.00100	0.05893	0.32940	0.06480	0.48406	2.50740	0.30000	2.23293

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	0.00229	0.32940	0.06480	0.00299	2.50740	0.30000	0.00853
	B	0.01860	0.00100	0.00255	0.32940	0.06480	0.00301	2.50740	0.30000	0.00878
	C	0.01860	0.00100	0.00283	0.32940	0.06480	0.00312	2.50740	0.30000	0.00901
	D	0.01860	0.00100	0.00306	0.32940	0.06480	0.00332	2.50740	0.30000	0.00954

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	0.00511	0.32940	0.06480	0.00552	2.50740	0.30000	0.00986
	B	0.01860	0.00100	0.00741	0.32940	0.06480	0.00762	2.50740	0.30000	0.01127
	C	0.01860	0.00100	0.00937	0.32940	0.06480	0.00945	2.50740	0.30000	0.01331
	D	0.01860	0.00100	0.01126	0.32940	0.06480	0.01125	2.50740	0.30000	0.01503

NOR2Bx



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00603	0.00288	0.60000
sg13g2_nor2b_1	0.00311	0.00245	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2b_2	368.14000	489.63200	576.44700
sg13g2_nor2b_1	211.74300	283.29400	337.27700

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	0.02168	0.32940	0.12960	0.39058	2.50740	0.60000	2.08717
	B_N->Y (RR)	0.01860	0.00100	0.05541	0.32940	0.12960	0.36803	2.50740	0.60000	1.39901
sg13g2_nor2b_1	A->Y (FR)	0.01860	0.00100	0.02469	0.32940	0.06480	0.39142	2.50740	0.30000	2.08923
	B_N->Y (RR)	0.01860	0.00100	0.05027	0.32940	0.06480	0.34673	2.50740	0.30000	1.34578

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	0.01517	0.32940	0.12960	0.26697	2.50740	0.60000	1.48485
	B_N->Y (FF)	0.01860	0.00100	0.04901	0.32940	0.12960	0.22660	2.50740	0.60000	0.73056
sg13g2_nor2b_1	A->Y (RF)	0.01860	0.00100	0.01645	0.32940	0.06480	0.26025	2.50740	0.30000	1.44770
	B_N->Y (FF)	0.01860	0.00100	0.04153	0.32940	0.06480	0.20045	2.50740	0.30000	0.67134

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	0.00501	0.32940	0.12960	0.00657	2.50740	0.60000	0.01874
	B_N	0.01860	0.00100	0.01095	0.32940	0.12960	0.01122	2.50740	0.60000	0.01102
sg13g2_nor2b_1	A	0.01860	0.00100	0.00251	0.32940	0.06480	0.00328	2.50740	0.30000	0.00965
	B_N	0.01860	0.00100	0.00576	0.32940	0.06480	0.00584	2.50740	0.30000	0.00554

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	0.00334	0.32940	0.12960	0.00510	2.50740	0.60000	0.01638
	B_N	0.01860	0.00100	0.00522	0.32940	0.12960	0.00570	2.50740	0.60000	0.00465
sg13g2_nor2b_1	A	0.01860	0.00100	0.00213	0.32940	0.06480	0.00292	2.50740	0.30000	0.00869
	B_N	0.01860	0.00100	0.00288	0.32940	0.06480	0.00308	2.50740	0.30000	0.00206

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	0.00889	0.32940	0.01028	2.50740	0.03134
sg13g2_nor2b_1	0.01860	0.00486	0.32940	0.00627	2.50740	0.02459

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	0.00764	0.32940	0.00926	2.50740	0.03023
sg13g2_nor2b_1	0.01860	0.00443	0.32940	0.00603	2.50740	0.02421

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	0.00889	0.32940	0.01028	2.50740	0.03134
sg13g2_nor2b_1	A	0.01860	0.00486	0.32940	0.00627	2.50740	0.02459

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	0.00764	0.32940	0.00926	2.50740	0.03023
sg13g2_nor2b_1	A	0.01860	0.00443	0.32940	0.00603	2.50740	0.02421

NOR2x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00627	0.00599	0.30000
sg13g2_nor2_1	0.00327	0.00310	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2_2	306.92100	396.70800	512.40200
sg13g2_nor2_1	153.47700	198.34600	256.17100

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	0.02739	0.32940	0.06480	0.23407	2.50740	0.30000	1.20040
	B->Y (FR)	0.01860	0.00100	0.02194	0.32940	0.06480	0.25594	2.50740	0.30000	1.36367
sg13g2_nor2_1	A->Y (FR)	0.01860	0.00100	0.02897	0.32940	0.06480	0.36251	2.50740	0.30000	1.86348
	B->Y (FR)	0.01860	0.00100	0.02476	0.32940	0.06480	0.39112	2.50740	0.30000	2.08801

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	0.01814	0.32940	0.06480	0.18703	2.50740	0.30000	1.00027
	B->Y (RF)	0.01860	0.00100	0.01494	0.32940	0.06480	0.18170	2.50740	0.30000	0.99141
sg13g2_nor2_1	A->Y (RF)	0.01860	0.00100	0.01921	0.32940	0.06480	0.26381	2.50740	0.30000	1.45331
	B->Y (RF)	0.01860	0.00100	0.01650	0.32940	0.06480	0.26025	2.50740	0.30000	1.44740

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	0.01077	0.32940	0.06480	0.01163	2.50740	0.30000	0.02921
	B	0.01860	0.00100	0.00511	0.32940	0.06480	0.00735	2.50740	0.30000	0.02664
sg13g2_nor2_1	A	0.01860	0.00100	0.00533	0.32940	0.06480	0.00560	2.50740	0.30000	0.01120
	B	0.01860	0.00100	0.00253	0.32940	0.06480	0.00327	2.50740	0.30000	0.00968

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	0.00456	0.32940	0.06480	0.00596	2.50740	0.30000	0.02364
	B	0.01860	0.00100	0.00330	0.32940	0.06480	0.00531	2.50740	0.30000	0.02224
sg13g2_nor2_1	A	0.01860	0.00100	0.00230	0.32940	0.06480	0.00281	2.50740	0.30000	0.00884
	B	0.01860	0.00100	0.00212	0.32940	0.06480	0.00291	2.50740	0.30000	0.00863

NOR3x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00623	0.00619	0.00593	0.60000
sg13g2_nor3_1	0.00325	0.00325	0.00308	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor3_2	311.25600	516.05100	751.47000
sg13g2_nor3_1	162.15800	267.51300	395.35200

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	0.04656	0.32940	0.12960	0.47814	2.50740	0.60000	2.26362
	B->Y (FR)	0.01860	0.00100	0.04331	0.32940	0.12960	0.49997	2.50740	0.60000	2.47584
	C->Y (FR)	0.01860	0.00100	0.03137	0.32940	0.12960	0.51206	2.50740	0.60000	2.63937
sg13g2_nor3_1	A->Y (FR)	0.01860	0.00100	0.05071	0.32940	0.06480	0.47696	2.50740	0.30000	2.25653
	B->Y (FR)	0.01860	0.00100	0.04720	0.32940	0.06480	0.49792	2.50740	0.30000	2.46461
	C->Y (FR)	0.01860	0.00100	0.03643	0.32940	0.06480	0.51117	2.50740	0.30000	2.62981

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	0.02041	0.32940	0.12960	0.26911	2.50740	0.60000	1.45923
	B->Y (RF)	0.01860	0.00100	0.01996	0.32940	0.12960	0.26637	2.50740	0.60000	1.45566
	C->Y (RF)	0.01860	0.00100	0.01666	0.32940	0.12960	0.26213	2.50740	0.60000	1.44975
sg13g2_nor3_1	A->Y (RF)	0.01860	0.00100	0.02145	0.32940	0.06480	0.26306	2.50740	0.30000	1.42459
	B->Y (RF)	0.01860	0.00100	0.02089	0.32940	0.06480	0.26072	2.50740	0.30000	1.42340
	C->Y (RF)	0.01860	0.00100	0.01809	0.32940	0.06480	0.25687	2.50740	0.30000	1.41776

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	0.01786	0.32940	0.12960	0.01799	2.50740	0.60000	0.02782
	B	0.01860	0.00100	0.01296	0.32940	0.12960	0.01338	2.50740	0.60000	0.02211
	C	0.01860	0.00100	0.00730	0.32940	0.12960	0.00887	2.50740	0.60000	0.01930
sg13g2_nor3_1	A	0.01860	0.00100	0.00914	0.32940	0.06480	0.00918	2.50740	0.30000	0.01430
	B	0.01860	0.00100	0.00667	0.32940	0.06480	0.00684	2.50740	0.30000	0.01156
	C	0.01860	0.00100	0.00391	0.32940	0.06480	0.00461	2.50740	0.30000	0.01017

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	0.00570	0.32940	0.12960	0.00625	2.50740	0.60000	0.01692
	B	0.01860	0.00100	0.00523	0.32940	0.12960	0.00602	2.50740	0.60000	0.01648
	C	0.01860	0.00100	0.00378	0.32940	0.12960	0.00544	2.50740	0.60000	0.01545
sg13g2_nor3_1	A	0.01860	0.00100	0.00311	0.32940	0.06480	0.00340	2.50740	0.30000	0.00899
	B	0.01860	0.00100	0.00284	0.32940	0.06480	0.00324	2.50740	0.30000	0.00866
	C	0.01860	0.00100	0.00236	0.32940	0.06480	0.00313	2.50740	0.30000	0.00821

NOR4x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00623	0.00617	0.00610	0.00589	0.60000
sg13g2_nor4_1	0.00322	0.00323	0.00319	0.00301	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor4_2	316.10400	660.42700	994.00700
sg13g2_nor4_1	158.07400	330.20700	496.98900

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	0.07238	0.32940	0.12960	0.61271	2.50740	0.60000	2.72623
	B->Y (FR)	0.01860	0.00100	0.06936	0.32940	0.12960	0.62373	2.50740	0.60000	2.87682
	C->Y (FR)	0.01860	0.00100	0.05966	0.32940	0.12960	0.63333	2.50740	0.60000	3.05042
	D->Y (FR)	0.01860	0.00100	0.04089	0.32940	0.12960	0.63372	2.50740	0.60000	3.17416
sg13g2_nor4_1	A->Y (FR)	0.01860	0.00100	0.07526	0.32940	0.06480	0.60726	2.50740	0.30000	2.70728
	B->Y (FR)	0.01860	0.00100	0.07212	0.32940	0.06480	0.61789	2.50740	0.30000	2.85811
	C->Y (FR)	0.01860	0.00100	0.06335	0.32940	0.06480	0.62879	2.50740	0.30000	3.03128
	D->Y (FR)	0.01860	0.00100	0.04609	0.32940	0.06480	0.63033	2.50740	0.30000	3.15415

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	0.02160	0.32940	0.12960	0.27346	2.50740	0.60000	1.46474
	B->Y (RF)	0.01860	0.00100	0.02206	0.32940	0.12960	0.27125	2.50740	0.60000	1.46159
	C->Y (RF)	0.01860	0.00100	0.02115	0.32940	0.12960	0.26779	2.50740	0.60000	1.45655
	D->Y (RF)	0.01860	0.00100	0.01799	0.32940	0.12960	0.26310	2.50740	0.60000	1.44833
sg13g2_nor4_1	A->Y (RF)	0.01860	0.00100	0.02287	0.32940	0.06480	0.27320	2.50740	0.30000	1.46422
	B->Y (RF)	0.01860	0.00100	0.02327	0.32940	0.06480	0.27144	2.50740	0.30000	1.46331
	C->Y (RF)	0.01860	0.00100	0.02234	0.32940	0.06480	0.26816	2.50740	0.30000	1.45787
	D->Y (RF)	0.01860	0.00100	0.01933	0.32940	0.06480	0.26403	2.50740	0.30000	1.45240

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	0.02461	0.32940	0.12960	0.02455	2.50740	0.60000	0.03409
	B	0.01860	0.00100	0.01979	0.32940	0.12960	0.01973	2.50740	0.60000	0.02866
	C	0.01860	0.00100	0.01500	0.32940	0.12960	0.01506	2.50740	0.60000	0.02432
	D	0.01860	0.00100	0.00933	0.32940	0.12960	0.01052	2.50740	0.60000	0.02162
sg13g2_nor4_1	A	0.01860	0.00100	0.01217	0.32940	0.06480	0.01202	2.50740	0.30000	0.01660
	B	0.01860	0.00100	0.00971	0.32940	0.06480	0.00965	2.50740	0.30000	0.01398
	C	0.01860	0.00100	0.00730	0.32940	0.06480	0.00734	2.50740	0.30000	0.01198
	D	0.01860	0.00100	0.00457	0.32940	0.06480	0.00512	2.50740	0.30000	0.01019

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	0.00710	0.32940	0.12960	0.00730	2.50740	0.60000	0.01709
	B	0.01860	0.00100	0.00674	0.32940	0.12960	0.00705	2.50740	0.60000	0.01659
	C	0.01860	0.00100	0.00550	0.32940	0.12960	0.00632	2.50740	0.60000	0.01552
	D	0.01860	0.00100	0.00401	0.32940	0.12960	0.00563	2.50740	0.60000	0.01456
sg13g2_nor4_1	A	0.01860	0.00100	0.00361	0.32940	0.06480	0.00371	2.50740	0.30000	0.00867
	B	0.01860	0.00100	0.00344	0.32940	0.06480	0.00362	2.50740	0.30000	0.00836
	C	0.01860	0.00100	0.00302	0.32940	0.06480	0.00343	2.50740	0.30000	0.00802
	D	0.01860	0.00100	0.00246	0.32940	0.06480	0.00318	2.50740	0.30000	0.00770

NP_ANT



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp
-40.00*

Truth Table

INPUT
A
x

Footprint

Cell Name	Area
sg13g2_antennanp	5.44320

Pin Capacitance Information

Cell Name	Pin Cap(pf)
	A
sg13g2_antennanp	0.00105

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_antennanp	5.22711	5.22716	5.22720

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	-0.00030	0.32940	-0.00030	2.50740	-0.00030

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_antennanp	0.01860	0.00030	0.32940	0.00030	2.50740	0.00030

O21AI



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00365	0.00358	0.00342	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_o21ai_1	170.70000	372.57800	572.03700

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	0.04631	0.32940	0.06480	0.43430	2.50740	0.30000	2.15008
	A2->Y (FR)	0.01860	0.00100	0.04055	0.32940	0.06480	0.46442	2.50740	0.30000	2.41024
	B1->Y (FR)	0.01860	0.00100	0.01952	0.32940	0.06480	0.30984	2.50740	0.30000	1.72277

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	0.03390	0.32940	0.06480	0.32422	2.50740	0.30000	1.63579
	A2->Y (RF)	0.01860	0.00100	0.02850	0.32940	0.06480	0.31726	2.50740	0.30000	1.62522
	B1->Y (RF)	0.01860	0.00100	0.02260	0.32940	0.06480	0.34149	2.50740	0.30000	1.82278

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	0.01952	0.32940	0.06480	0.30984	2.50740	0.30000	1.72277

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	0.02260	0.32940	0.06480	0.34149	2.50740	0.30000	1.82278

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	0.00632	0.32940	0.06480	0.00637	2.50740	0.30000	0.01151
	A2	0.01860	0.00100	0.00318	0.32940	0.06480	0.00365	2.50740	0.30000	0.00878
	B1	0.01860	0.00100	0.00204	0.32940	0.06480	0.00289	2.50740	0.30000	0.00969

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	0.00582	0.32940	0.06480	0.00583	2.50740	0.30000	0.01091
	A2	0.01860	0.00100	0.00550	0.32940	0.06480	0.00591	2.50740	0.30000	0.01086
	B1	0.01860	0.00100	0.00277	0.32940	0.06480	0.00343	2.50740	0.30000	0.00980

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	0.00204	0.32940	0.06480	0.00289	2.50740	0.30000	0.00969

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	0.00277	0.32940	0.06480	0.00343	2.50740	0.30000	0.00980

OR2x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00265	0.00245	0.60000
sg13g2_or2_1	0.00266	0.00247	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or2_2	266.53600	336.95200	432.22800
sg13g2_or2_1	187.53800	238.24900	274.40800

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	0.04781	0.32940	0.12960	0.25789	2.50740	0.60000	0.87223
	B->X (RR)	0.01860	0.00100	0.04500	0.32940	0.12960	0.24809	2.50740	0.60000	0.83839
sg13g2_or2_1	A->X (RR)	0.01860	0.00100	0.04058	0.32940	0.06480	0.22977	2.50740	0.30000	0.80799
	B->X (RR)	0.01860	0.00100	0.03754	0.32940	0.06480	0.21699	2.50740	0.30000	0.76893

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	0.07984	0.32940	0.12960	0.26909	2.50740	0.60000	0.81555
	B->X (FF)	0.01860	0.00100	0.07585	0.32940	0.12960	0.28089	2.50740	0.60000	0.85696
sg13g2_or2_1	A->X (FF)	0.01860	0.00100	0.06164	0.32940	0.06480	0.22849	2.50740	0.30000	0.73759
	B->X (FF)	0.01860	0.00100	0.05745	0.32940	0.06480	0.23461	2.50740	0.30000	0.77159

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	0.01245	0.32940	0.12960	0.01414	2.50740	0.60000	0.02820
	B	0.01860	0.00100	0.01232	0.32940	0.12960	0.01394	2.50740	0.60000	0.02829
sg13g2_or2_1	A	0.01860	0.00100	0.00742	0.32940	0.06480	0.00888	2.50740	0.30000	0.02395
	B	0.01860	0.00100	0.00723	0.32940	0.06480	0.00857	2.50740	0.30000	0.02408

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	0.01488	0.32940	0.12960	0.01538	2.50740	0.60000	0.03006
	B	0.01860	0.00100	0.01286	0.32940	0.12960	0.01418	2.50740	0.60000	0.02898
sg13g2_or2_1	A	0.01860	0.00100	0.00936	0.32940	0.06480	0.01047	2.50740	0.30000	0.02525
	B	0.01860	0.00100	0.00737	0.32940	0.06480	0.00925	2.50740	0.30000	0.02533

OR3x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00280	0.00273	0.00258	0.60000
sg13g2_or3_1	0.00281	0.00274	0.00260	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or3_2	271.04100	373.46700	522.49000
sg13g2_or3_1	191.97300	284.49700	364.60200

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	0.05307	0.32940	0.12960	0.27434	2.50740	0.60000	0.92297
	B->X (RR)	0.01860	0.00100	0.05107	0.32940	0.12960	0.26617	2.50740	0.60000	0.88924
	C->X (RR)	0.01860	0.00100	0.04730	0.32940	0.12960	0.25517	2.50740	0.60000	0.85596
sg13g2_or3_1	A->X (RR)	0.01860	0.00100	0.04616	0.32940	0.06480	0.24900	2.50740	0.30000	0.86085
	B->X (RR)	0.01860	0.00100	0.04428	0.32940	0.06480	0.23960	2.50740	0.30000	0.82572
	C->X (RR)	0.01860	0.00100	0.04028	0.32940	0.06480	0.22617	2.50740	0.30000	0.78712

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	0.10911	0.32940	0.12960	0.29615	2.50740	0.60000	0.81969
	B->X (FF)	0.01860	0.00100	0.10597	0.32940	0.12960	0.30760	2.50740	0.60000	0.88025
	C->X (FF)	0.01860	0.00100	0.09598	0.32940	0.12960	0.30970	2.50740	0.60000	0.90172
sg13g2_or3_1	A->X (FF)	0.01860	0.00100	0.08658	0.32940	0.06480	0.25421	2.50740	0.30000	0.75010
	B->X (FF)	0.01860	0.00100	0.08345	0.32940	0.06480	0.26158	2.50740	0.30000	0.79912
	C->X (FF)	0.01860	0.00100	0.07315	0.32940	0.06480	0.25951	2.50740	0.30000	0.81090

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	0.01290	0.32940	0.12960	0.01423	2.50740	0.60000	0.02968
	B	0.01860	0.00100	0.01275	0.32940	0.12960	0.01407	2.50740	0.60000	0.02820
	C	0.01860	0.00100	0.01246	0.32940	0.12960	0.01400	2.50740	0.60000	0.02844
sg13g2_or3_1	A	0.01860	0.00100	0.00783	0.32940	0.06480	0.00902	2.50740	0.30000	0.02463
	B	0.01860	0.00100	0.00768	0.32940	0.06480	0.00888	2.50740	0.30000	0.02399
	C	0.01860	0.00100	0.00736	0.32940	0.06480	0.00864	2.50740	0.30000	0.02409

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	0.01937	0.32940	0.12960	0.01905	2.50740	0.60000	0.03317
	B	0.01860	0.00100	0.01721	0.32940	0.12960	0.01703	2.50740	0.60000	0.03082
	C	0.01860	0.00100	0.01484	0.32940	0.12960	0.01539	2.50740	0.60000	0.03000
sg13g2_or3_1	A	0.01860	0.00100	0.01337	0.32940	0.06480	0.01393	2.50740	0.30000	0.02904
	B	0.01860	0.00100	0.01128	0.32940	0.06480	0.01199	2.50740	0.30000	0.02681
	C	0.01860	0.00100	0.00889	0.32940	0.06480	0.01045	2.50740	0.30000	0.02625

OR4x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00278	0.00270	0.00267	0.00256	0.60000
sg13g2_or4_1	0.00281	0.00271	0.00268	0.00257	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or4_2	273.40200	406.69800	591.41600
sg13g2_or4_1	194.37500	322.72300	433.56400

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	0.05538	0.32940	0.12960	0.28341	2.50740	0.60000	0.93417
	B->X (RR)	0.01860	0.00100	0.05455	0.32940	0.12960	0.27729	2.50740	0.60000	0.90928
	C->X (RR)	0.01860	0.00100	0.05195	0.32940	0.12960	0.26788	2.50740	0.60000	0.87588
	D->X (RR)	0.01860	0.00100	0.04799	0.32940	0.12960	0.25705	2.50740	0.60000	0.84406
sg13g2_or4_1	A->X (RR)	0.01860	0.00100	0.04831	0.32940	0.06480	0.25951	2.50740	0.30000	0.88088
	B->X (RR)	0.01860	0.00100	0.04778	0.32940	0.06480	0.25257	2.50740	0.30000	0.85019
	C->X (RR)	0.01860	0.00100	0.04529	0.32940	0.06480	0.24205	2.50740	0.30000	0.81290
	D->X (RR)	0.01860	0.00100	0.04114	0.32940	0.06480	0.22862	2.50740	0.30000	0.77313

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	0.15052	0.32940	0.12960	0.34622	2.50740	0.60000	0.87256
	B->X (FF)	0.01860	0.00100	0.14726	0.32940	0.12960	0.35276	2.50740	0.60000	0.93298
	C->X (FF)	0.01860	0.00100	0.13746	0.32940	0.12960	0.35460	2.50740	0.60000	0.97610
	D->X (FF)	0.01860	0.00100	0.12103	0.32940	0.12960	0.35011	2.50740	0.60000	0.98481
sg13g2_or4_1	A->X (FF)	0.01860	0.00100	0.12022	0.32940	0.06480	0.29673	2.50740	0.30000	0.79880
	B->X (FF)	0.01860	0.00100	0.11694	0.32940	0.06480	0.30061	2.50740	0.30000	0.85049
	C->X (FF)	0.01860	0.00100	0.10727	0.32940	0.06480	0.29920	2.50740	0.30000	0.88277
	D->X (FF)	0.01860	0.00100	0.09047	0.32940	0.06480	0.29155	2.50740	0.30000	0.88336

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	0.01361	0.32940	0.12960	0.01467	2.50740	0.60000	0.02836
	B	0.01860	0.00100	0.01339	0.32940	0.12960	0.01450	2.50740	0.60000	0.02808
	C	0.01860	0.00100	0.01284	0.32940	0.12960	0.01409	2.50740	0.60000	0.02676
	D	0.01860	0.00100	0.01248	0.32940	0.12960	0.01394	2.50740	0.60000	0.02704
sg13g2_or4_1	A	0.01860	0.00100	0.00852	0.32940	0.06480	0.00948	2.50740	0.30000	0.02415
	B	0.01860	0.00100	0.00831	0.32940	0.06480	0.00928	2.50740	0.30000	0.02336
	C	0.01860	0.00100	0.00777	0.32940	0.06480	0.00883	2.50740	0.30000	0.02244
	D	0.01860	0.00100	0.00740	0.32940	0.06480	0.00854	2.50740	0.30000	0.02264

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	0.02308	0.32940	0.12960	0.02133	2.50740	0.60000	0.03417
	B	0.01860	0.00100	0.02099	0.32940	0.12960	0.01935	2.50740	0.60000	0.03187
	C	0.01860	0.00100	0.01885	0.32940	0.12960	0.01738	2.50740	0.60000	0.03043
	D	0.01860	0.00100	0.01646	0.32940	0.12960	0.01553	2.50740	0.60000	0.02922
sg13g2_or4_1	A	0.01860	0.00100	0.01611	0.32940	0.06480	0.01626	2.50740	0.30000	0.02969
	B	0.01860	0.00100	0.01403	0.32940	0.06480	0.01416	2.50740	0.30000	0.02760
	C	0.01860	0.00100	0.01190	0.32940	0.06480	0.01226	2.50740	0.30000	0.02559
	D	0.01860	0.00100	0.00946	0.32940	0.06480	0.01068	2.50740	0.30000	0.02479

SDFRBPQ_x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library:
Process sg13g2_stdcell_fast_1p32V_m40C, Voltage
1.32, Temp -40.00*

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	0.00298	0.00309	0.00529	0.00542	0.00317	0.60000
sg13g2_sdfrbpq_1	0.00298	0.00309	0.00529	0.00541	0.00317	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfrbpq_2	1518.77000	1656.51000	1820.11000
sg13g2_sdfrbpq_1	1388.63000	1531.15000	1662.31000

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	0.13569	0.32940	0.12960	0.34554	2.50740	0.60000	0.91116
sg13g2_sdfrbpq_1	CLK->Q (RR)	0.01860	0.00100	0.11795	0.32940	0.06480	0.31616	2.50740	0.30000	0.88051

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	0.14030	0.32940	0.12960	0.33123	2.50740	0.60000	0.82225
	RESET_B->Q (FF)	0.01860	0.00100	0.08290	0.32940	0.12960	0.32366	2.50740	0.60000	0.95642
sg13g2_sdfrbpq_1	CLK->Q (RF)	0.01860	0.00100	0.12304	0.32940	0.06480	0.30328	2.50740	0.30000	0.79582
	RESET_B->Q (FF)	0.01860	0.00100	0.06621	0.32940	0.06480	0.28332	2.50740	0.30000	0.87125

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	0.13569	0.32940	0.12960	0.34554	2.50740	0.60000	0.91116
	CLK->Q (RR)	!SCE	0.01860	0.00100	0.13570	0.32940	0.12960	0.34551	2.50740	0.60000	0.91082
sg13g2_sdfrbpq_1	CLK->Q (RR)	SCE	0.01860	0.00100	0.11795	0.32940	0.06480	0.31616	2.50740	0.30000	0.88051
	CLK->Q (RR)	!SCE	0.01860	0.00100	0.11794	0.32940	0.06480	0.31613	2.50740	0.30000	0.87992

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	0.14030	0.32940	0.12960	0.33123	2.50740	0.60000	0.82225
	CLK->Q (RF)	!SCE	0.01860	0.00100	0.14031	0.32940	0.12960	0.33123	2.50740	0.60000	0.82225
sg13g2_sdfrbpq_1	CLK->Q (RF)	SCE	0.01860	0.00100	0.12306	0.32940	0.06480	0.30328	2.50740	0.30000	0.79582
	CLK->Q (RF)	!SCE	0.01860	0.00100	0.12304	0.32940	0.06480	0.30328	2.50740	0.30000	0.79582

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	-0.10025	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.20956
	setup	CLK (R)	0.01860	0.01860	0.12715	1.26300	1.26300	0.20238	2.50740	2.50740	0.22727
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.20956
	setup	CLK (R)	0.01860	0.01860	0.12959	1.26300	1.26300	0.20508	2.50740	2.50740	0.22727

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	-0.09536	1.26300	1.26300	-0.12682	2.50740	2.50740	-0.13577
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.15381	2.50740	2.50740	0.16824
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.12412	2.50740	2.50740	-0.13577
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.15381	2.50740	2.50740	0.16824

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	-0.10025	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.20956
	setup	CLK (R)	0.01860	0.01860	0.12715	1.26300	1.26300	0.20238	2.50740	2.50740	0.22727
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.20956
	setup	CLK (R)	0.01860	0.01860	0.12959	1.26300	1.26300	0.20508	2.50740	2.50740	0.22727

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	-0.09292	1.26300	1.26300	-0.12412	2.50740	2.50740	-0.13872
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.15381	2.50740	2.50740	0.16824
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.12412	2.50740	2.50740	-0.13577
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.15381	2.50740	2.50740	0.16824

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	-0.10270	1.26300	1.26300	-0.17809	2.50740	2.50740	-0.20366
	setup	CLK (R)	0.01860	0.01860	0.12959	1.26300	1.26300	0.19428	2.50740	2.50740	0.22137
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.17809	2.50740	2.50740	-0.20366
	setup	CLK (R)	0.01860	0.01860	0.12959	1.26300	1.26300	0.19428	2.50740	2.50740	0.22137

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	-0.10025	1.26300	1.26300	-0.10524	2.50740	2.50740	-0.10626
	setup	CLK (R)	0.01860	0.01860	0.13693	1.26300	1.26300	0.13492	2.50740	2.50740	0.13872
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.10524	2.50740	2.50740	-0.10626
	setup	CLK (R)	0.01860	0.01860	0.13693	1.26300	1.26300	0.13492	2.50740	2.50740	0.13872

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	0.07825	1.26300	1.26300	0.27793	2.50740	2.50740	0.64934
	removal	CLK (R)	0.01860	0.01860	-0.06602	1.26300	1.26300	-0.18349	2.50740	2.50740	-0.27744
sg13g2_sdfrbpq_1	recovery	CLK (R)	0.01860	0.01860	0.07825	1.26300	1.26300	0.23476	2.50740	2.50740	0.45454
	removal	CLK (R)	0.01860	0.01860	-0.06602	1.26300	1.26300	-0.18349	2.50740	2.50740	-0.27744

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	0.08942	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	0.08301	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.08621	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	0.03276	0.32940	0.12960	0.03474	2.50740	0.60000	0.06269
sg13g2_sdfrbpq_1	CLK	0.01860	0.00100	0.02674	0.32940	0.06480	0.02902	2.50740	0.30000	0.05729

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	0.03265	0.32940	0.12960	0.03546	2.50740	0.60000	0.06255
	RESET_B	0.01860	0.00100	0.03049	0.32940	0.12960	0.03117	2.50740	0.60000	0.05408
sg13g2_sdfrbpq_1	CLK	0.01860	0.00100	0.02718	0.32940	0.06480	0.03017	2.50740	0.30000	0.05727
	RESET_B	0.01860	0.00100	0.02502	0.32940	0.06480	0.02618	2.50740	0.30000	0.04874

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	0.03276	0.32940	0.12960	0.03474	2.50740	0.60000	0.06269
	CLK	!SCE	0.01860	0.00100	0.01955	0.32940	0.12960	0.01949	2.50740	0.60000	0.02093
sg13g2_sdfrbpq_1	CLK	SCE	0.01860	0.00100	0.02674	0.32940	0.06480	0.02902	2.50740	0.30000	0.05729
	CLK	!SCE	0.01860	0.00100	0.01370	0.32940	0.06480	0.01421	2.50740	0.30000	0.01575

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	0.03265	0.32940	0.12960	0.03546	2.50740	0.60000	0.06255
	CLK	!SCE	0.01860	0.00100	0.01949	0.32940	0.12960	0.02031	2.50740	0.60000	0.02073
sg13g2_sdfrbpq_1	CLK	SCE	0.01860	0.00100	0.02718	0.32940	0.06480	0.03017	2.50740	0.30000	0.05727
	CLK	!SCE	0.01860	0.00100	0.01417	0.32940	0.06480	0.01526	2.50740	0.30000	0.01583

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.02736	0.32940	0.02861	2.50740	0.05003
sg13g2_sdfrbpq_1	0.01860	0.02541	0.32940	0.02664	2.50740	0.04805

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.02463	0.32940	0.02653	2.50740	0.04895
sg13g2_sdfrbpq_1	0.01860	0.02347	0.32940	0.02534	2.50740	0.04777

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	0.02736	0.32940	0.02861	2.50740	0.05003
sg13g2_sdfrbpq_1	(!CLK * RESET_B * !SCE)	0.01860	0.02541	0.32940	0.02664	2.50740	0.04805

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	0.02463	0.32940	0.02653	2.50740	0.04895
sg13g2_sdfrbpq_1	(!CLK * RESET_B * !SCE)	0.01860	0.02347	0.32940	0.02534	2.50740	0.04777

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.02755	0.32940	0.02876	2.50740	0.05021
sg13g2_sdfrbpq_1	0.01860	0.02558	0.32940	0.02678	2.50740	0.04822

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.02487	0.32940	0.02676	2.50740	0.04929
sg13g2_sdfrbpq_1	0.01860	0.02357	0.32940	0.02546	2.50740	0.04799

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	0.02755	0.32940	0.02876	2.50740	0.05021
sg13g2_sdfrbpq_1	(!CLK * RESET_B * SCE)	0.01860	0.02558	0.32940	0.02678	2.50740	0.04822

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	0.02487	0.32940	0.02676	2.50740	0.04929
sg13g2_sdfrbpq_1	(!CLK * RESET_B * SCE)	0.01860	0.02357	0.32940	0.02546	2.50740	0.04799

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.03102	0.32940	0.03322	2.50740	0.07110
sg13g2_sdfrbpq_1	0.01860	0.03105	0.32940	0.03323	2.50740	0.07114

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.03682	0.32940	0.05421	2.50740	0.09230
sg13g2_sdfrbpq_1	0.01860	0.03650	0.32940	0.05391	2.50740	0.09200

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	0.02840	0.32940	0.02964	2.50740	0.04830
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03102	0.32940	0.03322	2.50740	0.07110
sg13g2_sdfrbpq_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.02809	0.32940	0.02932	2.50740	0.04798
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03105	0.32940	0.03323	2.50740	0.07114

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	0.03177	0.32940	0.03326	2.50740	0.05184
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03682	0.32940	0.05421	2.50740	0.09230
sg13g2_sdfrbpq_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.03178	0.32940	0.03327	2.50740	0.05187
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03650	0.32940	0.05391	2.50740	0.09200

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.01317	0.32940	0.01516	2.50740	0.04182
sg13g2_sdfrbpq_1	0.01860	0.01301	0.32940	0.01490	2.50740	0.04145

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_2	0.01860	0.01335	0.32940	0.01560	2.50740	0.04189
sg13g2_sdfrbpq_1	0.01860	0.01310	0.32940	0.01533	2.50740	0.04164

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	0.01317	0.32940	0.01516	2.50740	0.04182
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01293	0.32940	0.01485	2.50740	0.04150
	(D * RESET_B * !SCE * Q)	0.01860	0.01317	0.32940	0.01516	2.50740	0.04182
	(!RESET_B * !Q)	0.01860	0.01333	0.32940	0.01523	2.50740	0.04177
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01292	0.32940	0.01485	2.50740	0.04150
sg13g2_sdfrbpq_1	(RESET_B * SCD * SCE * Q)	0.01860	0.01317	0.32940	0.01516	2.50740	0.04181
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01292	0.32940	0.01485	2.50740	0.04149
	(D * RESET_B * !SCE * Q)	0.01860	0.01317	0.32940	0.01516	2.50740	0.04181
	(!RESET_B * !Q)	0.01860	0.01301	0.32940	0.01490	2.50740	0.04145
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01291	0.32940	0.01485	2.50740	0.04149

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	0.01335	0.32940	0.01560	2.50740	0.04189
	(RESET_B * SCD * SCE * !Q)	0.01860	0.02528	0.32940	0.02747	2.50740	0.05471
	(RESET_B * !SCD * SCE * Q)	0.01860	0.02364	0.32940	0.02624	2.50740	0.05327
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01293	0.32940	0.01516	2.50740	0.04153
	(D * RESET_B * !SCE * Q)	0.01860	0.01335	0.32940	0.01560	2.50740	0.04189
	(!RESET_B * !Q)	0.01860	0.01201	0.32940	0.01423	2.50740	0.04052
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01293	0.32940	0.01516	2.50740	0.04153
sg13g2_sdfrbpq_1	(RESET_B * SCD * SCE * Q)	0.01860	0.01283	0.32940	0.01507	2.50740	0.04138
	(RESET_B * SCD * SCE * !Q)	0.01860	0.02542	0.32940	0.02761	2.50740	0.05484
	(RESET_B * !SCD * SCE * Q)	0.01860	0.02315	0.32940	0.02574	2.50740	0.05279
	(RESET_B * !SCD * SCE * !Q)	0.01860	0.01310	0.32940	0.01533	2.50740	0.04164
	(D * RESET_B * !SCE * Q)	0.01860	0.01283	0.32940	0.01507	2.50740	0.04138
	(!RESET_B * !Q)	0.01860	0.01169	0.32940	0.01391	2.50740	0.04020
	(!D * RESET_B * !SCE * !Q)	0.01860	0.01310	0.32940	0.01533	2.50740	0.04164

SDFRBP_x



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp
-40.00*

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	0.00298	0.00309	0.00529	0.00541	0.00317	0.60000	0.60000
sg13g2_sdfrbp_1	0.00298	0.00309	0.00529	0.00541	0.00317	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfrbp_2	1774.48000	1970.40000	2073.51000
sg13g2_sdfrbp_1	1537.59000	1733.55000	1836.66000

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	0.16238	0.32940	0.12960	0.34737	2.50740	0.60000	0.94135
sg13g2_sdfrbp_1	CLK->Q (RR)	0.01860	0.00100	0.12773	0.32940	0.06480	0.31663	2.50740	0.30000	0.90642

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	0.14477	0.32940	0.12960	0.31517	2.50740	0.60000	0.81324
	RESET_B->Q (FF)	0.01860	0.00100	0.18948	0.32940	0.12960	0.39281	2.50740	0.60000	0.99843
sg13g2_sdfrbp_1	CLK->Q (RF)	0.01860	0.00100	0.11881	0.32940	0.06480	0.28855	2.50740	0.30000	0.78204
	RESET_B->Q (FF)	0.01860	0.00100	0.16275	0.32940	0.06480	0.36531	2.50740	0.30000	0.96583

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	0.16238	0.32940	0.12960	0.34737	2.50740	0.60000	0.94135
sg13g2_sdfrbp_1	CLK->Q (RR)	SCE	0.01860	0.00100	0.12773	0.32940	0.06480	0.31663	2.50740	0.30000	0.90642

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	0.14477	0.32940	0.12960	0.31517	2.50740	0.60000	0.81324
sg13g2_sdfrbp_1	CLK->Q (RF)	SCE	0.01860	0.00100	0.11881	0.32940	0.06480	0.28855	2.50740	0.30000	0.78204

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	0.09638	0.32940	0.12960	0.30933	2.50740	0.60000	0.87177
	RESET_B->Q_N (FR)	0.01860	0.00100	0.14218	0.32940	0.12960	0.38571	2.50740	0.60000	1.05586
sg13g2_sdfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	0.09139	0.32940	0.06480	0.29584	2.50740	0.30000	0.85608
	RESET_B->Q_N (FR)	0.01860	0.00100	0.13571	0.32940	0.06480	0.37106	2.50740	0.30000	1.03963

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	0.10677	0.32940	0.12960	0.32211	2.50740	0.60000	0.85278
sg13g2_sdfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	0.09651	0.32940	0.06480	0.30085	2.50740	0.30000	0.82791

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	0.09638	0.32940	0.12960	0.30933	2.50740	0.60000	0.87177
sg13g2_sdfrbp_1	CLK->Q_N (RR)	SCE	0.01860	0.00100	0.09139	0.32940	0.06480	0.29584	2.50740	0.30000	0.85608

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	0.10677	0.32940	0.12960	0.32211	2.50740	0.60000	0.85278
sg13g2_sdfrbp_1	CLK->Q_N (RF)	SCE	0.01860	0.00100	0.09651	0.32940	0.06480	0.30085	2.50740	0.30000	0.82791

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	-0.09536	1.26300	1.26300	-0.18079	2.50740	2.50740	-0.20661
	setup	CLK (R)	0.01860	0.01860	0.12959	1.26300	1.26300	0.20238	2.50740	2.50740	0.22432
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.18349	2.50740	2.50740	-0.20956
	setup	CLK (R)	0.01860	0.01860	0.12959	1.26300	1.26300	0.20238	2.50740	2.50740	0.22432

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	-0.09047	1.26300	1.26300	-0.12952	2.50740	2.50740	-0.14463
	setup	CLK (R)	0.01860	0.01860	0.13693	1.26300	1.26300	0.15651	2.50740	2.50740	0.17119
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09047	1.26300	1.26300	-0.12952	2.50740	2.50740	-0.14167
	setup	CLK (R)	0.01860	0.01860	0.13693	1.26300	1.26300	0.15651	2.50740	2.50740	0.17119

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	-0.09536	1.26300	1.26300	-0.18349	2.50740	2.50740	-0.20661
	setup	CLK (R)	0.01860	0.01860	0.12959	1.26300	1.26300	0.20238	2.50740	2.50740	0.22727
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.18349	2.50740	2.50740	-0.20956
	setup	CLK (R)	0.01860	0.01860	0.12959	1.26300	1.26300	0.20238	2.50740	2.50740	0.22432

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	-0.08803	1.26300	1.26300	-0.12682	2.50740	2.50740	-0.14463
	setup	CLK (R)	0.01860	0.01860	0.13693	1.26300	1.26300	0.15651	2.50740	2.50740	0.17119
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.08803	1.26300	1.26300	-0.12682	2.50740	2.50740	-0.14463
	setup	CLK (R)	0.01860	0.01860	0.13693	1.26300	1.26300	0.15651	2.50740	2.50740	0.17119

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	-0.09536	1.26300	1.26300	-0.17539	2.50740	2.50740	-0.20070
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.19428	2.50740	2.50740	0.22137
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17539	2.50740	2.50740	-0.20366
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.19428	2.50740	2.50740	0.21841

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	-0.09292	1.26300	1.26300	-0.10794	2.50740	2.50740	-0.11511
	setup	CLK (R)	0.01860	0.01860	0.14182	1.26300	1.26300	0.13762	2.50740	2.50740	0.13872
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.10794	2.50740	2.50740	-0.11511
	setup	CLK (R)	0.01860	0.01860	0.14182	1.26300	1.26300	0.13762	2.50740	2.50740	0.13872

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	0.08069	1.26300	1.26300	0.19428	2.50740	2.50740	0.28335
	removal	CLK (R)	0.01860	0.01860	-0.07091	1.26300	1.26300	-0.18889	2.50740	2.50740	-0.28040
sg13g2_sdfrbp_1	recovery	CLK (R)	0.01860	0.01860	0.08069	1.26300	1.26300	0.19428	2.50740	2.50740	0.28335
	removal	CLK (R)	0.01860	0.01860	-0.06847	1.26300	1.26300	-0.18889	2.50740	2.50740	-0.28040

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	0.07660	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	0.07660	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_sdfrbp_2	min_pulse_width	CLK ()	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 ()	0.01860	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	0.04789	0.32940	0.12960	0.16229	2.50740	0.60000	0.59923
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.03776	0.32940	0.06480	0.09593	2.50740	0.30000	0.32858

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	0.04931	0.32940	0.12960	0.16503	2.50740	0.60000	0.60128
	RESET_B	0.01860	0.00100	0.04962	0.32940	0.12960	0.16412	2.50740	0.60000	0.60128
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.03806	0.32940	0.06480	0.09697	2.50740	0.30000	0.32860
	RESET_B	0.01860	0.00100	0.04583	0.32940	0.06480	0.10372	2.50740	0.30000	0.33621

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	0.04789	0.32940	0.12960	0.16229	2.50740	0.60000	0.59923
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.03776	0.32940	0.06480	0.09593	2.50740	0.30000	0.32858

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	0.04931	0.32940	0.12960	0.16503	2.50740	0.60000	0.60128
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.03806	0.32940	0.06480	0.09697	2.50740	0.30000	0.32860

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	0.04934	0.32940	0.12960	0.16522	2.50740	0.60000	0.60192
	RESET_B	0.01860	0.00100	0.04962	0.32940	0.12960	0.16449	2.50740	0.60000	0.60192
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.03807	0.32940	0.06480	0.09709	2.50740	0.30000	0.32876
	RESET_B	0.01860	0.00100	0.04580	0.32940	0.06480	0.10390	2.50740	0.30000	0.33674

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	0.04794	0.32940	0.12960	0.16228	2.50740	0.60000	0.59855
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	0.03776	0.32940	0.06480	0.09588	2.50740	0.30000	0.32809

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	0.04934	0.32940	0.12960	0.16522	2.50740	0.60000	0.60192
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.03807	0.32940	0.06480	0.09709	2.50740	0.30000	0.32876

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	0.04794	0.32940	0.12960	0.16228	2.50740	0.60000	0.59855
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	0.03776	0.32940	0.06480	0.09588	2.50740	0.30000	0.32809

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.02513	0.32940	0.02638	2.50740	0.04780
sg13g2_sdfrbp_1	0.01860	0.02539	0.32940	0.02664	2.50740	0.04805

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.02439	0.32940	0.02626	2.50740	0.04869
sg13g2_sdfrbp_1	0.01860	0.02439	0.32940	0.02626	2.50740	0.04869

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	0.02513	0.32940	0.02638	2.50740	0.04780
sg13g2_sdfrbp_1	(!CLK * RESET_B * !SCE)	0.01860	0.02539	0.32940	0.02664	2.50740	0.04805

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	0.02439	0.32940	0.02626	2.50740	0.04869
sg13g2_sdfrbp_1	(!CLK * RESET_B * !SCE)	0.01860	0.02439	0.32940	0.02626	2.50740	0.04869

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.02555	0.32940	0.02676	2.50740	0.04821
sg13g2_sdfrbp_1	0.01860	0.02558	0.32940	0.02678	2.50740	0.04823

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.02265	0.32940	0.02453	2.50740	0.04706
sg13g2_sdfrbp_1	0.01860	0.02264	0.32940	0.02453	2.50740	0.04706

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	0.02555	0.32940	0.02676	2.50740	0.04821
sg13g2_sdfrbp_1	(!CLK * RESET_B * SCE)	0.01860	0.02558	0.32940	0.02678	2.50740	0.04823

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	0.02265	0.32940	0.02453	2.50740	0.04706
sg13g2_sdfrbp_1	(!CLK * RESET_B * SCE)	0.01860	0.02264	0.32940	0.02453	2.50740	0.04706

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.03104	0.32940	0.03322	2.50740	0.07110
sg13g2_sdfrbp_1	0.01860	0.03105	0.32940	0.03324	2.50740	0.07112

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.03598	0.32940	0.05333	2.50740	0.09143
sg13g2_sdfrbp_1	0.01860	0.03598	0.32940	0.05337	2.50740	0.09146

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	0.02755	0.32940	0.02878	2.50740	0.04744
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03104	0.32940	0.03322	2.50740	0.07110
sg13g2_sdfrbp_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.02755	0.32940	0.02879	2.50740	0.04745
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03105	0.32940	0.03324	2.50740	0.07112

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	0.03177	0.32940	0.03326	2.50740	0.05185
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03598	0.32940	0.05333	2.50740	0.09143
sg13g2_sdfrbp_1	(!CLK * D * RESET_B * !SCD)	0.01860	0.03179	0.32940	0.03328	2.50740	0.05187
	(!CLK * !D * RESET_B * SCD)	0.01860	0.03598	0.32940	0.05337	2.50740	0.09146

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.01296	0.32940	0.01484	2.50740	0.04142
sg13g2_sdfrbp_1	0.01860	0.01295	0.32940	0.01484	2.50740	0.04145

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_2	0.01860	0.01315	0.32940	0.01534	2.50740	0.04165
sg13g2_sdfrbp_1	0.01860	0.01314	0.32940	0.01533	2.50740	0.04165

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	0.01324	0.32940	0.01517	2.50740	0.04181
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01296	0.32940	0.01484	2.50740	0.04142
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01324	0.32940	0.01517	2.50740	0.04181
	(!RESET_B * !Q * Q_N)	0.01860	0.01253	0.32940	0.01439	2.50740	0.04089
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01296	0.32940	0.01484	2.50740	0.04142
sg13g2_sdfrbp_1	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01323	0.32940	0.01517	2.50740	0.04181
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01295	0.32940	0.01484	2.50740	0.04145
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01322	0.32940	0.01517	2.50740	0.04181
	(!RESET_B * !Q * Q_N)	0.01860	0.01252	0.32940	0.01438	2.50740	0.04089
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01295	0.32940	0.01484	2.50740	0.04145

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	0.01290	0.32940	0.01508	2.50740	0.04138
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	0.02546	0.32940	0.02761	2.50740	0.05483
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	0.02319	0.32940	0.02575	2.50740	0.05278
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01315	0.32940	0.01534	2.50740	0.04165
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01290	0.32940	0.01508	2.50740	0.04138
	(!RESET_B * !Q * Q_N)	0.01860	0.01120	0.32940	0.01338	2.50740	0.03967
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01315	0.32940	0.01533	2.50740	0.04165

sg13g2_sdfrbp_1	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	0.01287	0.32940	0.01508	2.50740	0.04138
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	0.02546	0.32940	0.02761	2.50740	0.05484
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	0.02318	0.32940	0.02575	2.50740	0.05279
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	0.01313	0.32940	0.01533	2.50740	0.04165
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	0.01288	0.32940	0.01508	2.50740	0.04138
	(!RESET_B * !Q * Q_N)	0.01860	0.01119	0.32940	0.01338	2.50740	0.03968
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	0.01314	0.32940	0.01533	2.50740	0.04165

SDFRRS



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00210	0.00215	0.00379	0.00187	0.00563	0.00325	0.30000	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfbbp_1	1367.12000	1677.40000	1787.78000

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	0.20294	0.32940	0.06480	0.39044	2.50740	0.30000	0.95818
	SET_B->Q (FR)	0.01860	0.00100	0.08294	0.32940	0.06480	0.28312	2.50740	0.30000	0.85267

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	0.17023	0.32940	0.06480	0.34297	2.50740	0.30000	0.85595
	RESET_B->Q (FF)	0.01860	0.00100	0.14159	0.32940	0.06480	0.32354	2.50740	0.30000	0.83471

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	0.20294	0.32940	0.06480	0.39044	2.50740	0.30000	0.95818

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	0.17023	0.32940	0.06480	0.34297	2.50740	0.30000	0.85595

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	0.14006	0.32940	0.06480	0.34530	2.50740	0.30000	0.92845
	RESET_B->Q_N (FR)	0.01860	0.00100	0.11059	0.32940	0.06480	0.33106	2.50740	0.30000	0.91668

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	0.16980	0.32940	0.06480	0.36820	2.50740	0.30000	0.87215
	SET_B->Q_N (FF)	0.01860	0.00100	0.05588	0.32940	0.06480	0.25970	2.50740	0.30000	0.78246

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	0.14006	0.32940	0.06480	0.34530	2.50740	0.30000	0.92845

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	0.16980	0.32940	0.06480	0.36820	2.50740	0.30000	0.87215

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	-0.06602	1.26300	1.26300	-0.18889	2.50740	2.50740	-0.25088
	setup	CLK (R)	0.01860	0.01860	0.08314	1.26300	1.26300	0.19968	2.50740	2.50740	0.26564

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	-0.06602	1.26300	1.26300	-0.12143	2.50740	2.50740	-0.14758
	setup	CLK (R)	0.01860	0.01860	0.10270	1.26300	1.26300	0.14841	2.50740	2.50740	0.18004

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	-0.08314	1.26300	1.26300	-0.21587	2.50740	2.50740	-0.29220
	setup	CLK (R)	0.01860	0.01860	0.10025	1.26300	1.26300	0.22666	2.50740	2.50740	0.30401

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	-0.08803	1.26300	1.26300	-0.13222	2.50740	2.50740	-0.15643
	setup	CLK (R)	0.01860	0.01860	0.12470	1.26300	1.26300	0.15920	2.50740	2.50740	0.18890

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	-0.19698	2.50740	2.50740	-0.27154
	setup	CLK (R)	0.01860	0.01860	0.08803	1.26300	1.26300	0.22396	2.50740	2.50740	0.30401

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	-0.06602	1.26300	1.26300	-0.08365	2.50740	2.50740	-0.08855
	setup	CLK (R)	0.01860	0.01860	0.10270	1.26300	1.26300	0.11333	2.50740	2.50740	0.12397

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	0.07825	2.50740	2.50740	0.09150
	removal	CLK (R)	0.01860	0.01860	-0.02934	1.26300	1.26300	-0.06476	2.50740	2.50740	-0.07674

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	0.09583	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	0.01223	1.26300	1.26300	0.09174	2.50740	2.50740	0.25973
	removal	CLK (R)	0.01860	0.01860	0.02445	1.26300	1.26300	0.07286	2.50740	2.50740	0.07379
	hold	RESET_B (R)	0.01860	0.01860	-0.05379	1.26300	1.26300	-0.15111	2.50740	2.50740	-0.21546
	setup	RESET_B (R)	0.01860	0.01860	0.06847	1.26300	1.26300	0.17269	2.50740	2.50740	0.24498

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	0.06058	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	0.06699	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	0.02088	0.32940	0.06480	0.02231	2.50740	0.30000	0.03536
	SET_B	0.01860	0.00100	0.03856	0.32940	0.06480	0.09695	2.50740	0.30000	0.33478

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	0.02027	0.32940	0.06480	0.02159	2.50740	0.30000	0.03505
	RESET_B	0.01860	0.00100	0.04378	0.32940	0.06480	0.10085	2.50740	0.30000	0.32012

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	0.02088	0.32940	0.06480	0.02231	2.50740	0.30000	0.03536

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	0.02027	0.32940	0.06480	0.02159	2.50740	0.30000	0.03505

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	0.02027	0.32940	0.06480	0.02168	2.50740	0.30000	0.03515
	RESET_B	0.01860	0.00100	0.04381	0.32940	0.06480	0.10092	2.50740	0.30000	0.32052

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	0.02088	0.32940	0.06480	0.02229	2.50740	0.30000	0.03506
	SET_B	0.01860	0.00100	0.03858	0.32940	0.06480	0.09690	2.50740	0.30000	0.33468

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	0.02027	0.32940	0.06480	0.02168	2.50740	0.30000	0.03515

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	0.02088	0.32940	0.06480	0.02229	2.50740	0.30000	0.03506

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01375	0.32940	0.01424	2.50740	0.02591

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01407	0.32940	0.01469	2.50740	0.02627

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	0.01375	0.32940	0.01424	2.50740	0.02591
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	0.00646	0.32940	0.00680	2.50740	0.01723

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	0.01407	0.32940	0.01469	2.50740	0.02627
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	0.00575	0.32940	0.00627	2.50740	0.01675

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01551	0.32940	0.01582	2.50740	0.02621

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01940	0.32940	0.01960	2.50740	0.03023

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	0.01551	0.32940	0.01582	2.50740	0.02621
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	0.00791	0.32940	0.00804	2.50740	0.01731

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	0.01940	0.32940	0.01960	2.50740	0.03023
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	0.00863	0.32940	0.00883	2.50740	0.01827

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01679	0.32940	0.01796	2.50740	0.03215

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01822	0.32940	0.01941	2.50740	0.03321

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	0.01679	0.32940	0.01796	2.50740	0.03215
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	0.02296	0.32940	0.02364	2.50740	0.03781
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	0.01584	0.32940	0.01774	2.50740	0.04347
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	0.00785	0.32940	0.00955	2.50740	0.03419

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	0.01822	0.32940	0.01941	2.50740	0.03321
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	0.02468	0.32940	0.03149	2.50740	0.04535
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	0.01006	0.32940	0.03369	2.50740	0.05867
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	0.00851	0.32940	0.01009	2.50740	0.03385

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01474	0.32940	0.01665	2.50740	0.04290

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	0.01775	0.32940	0.02015	2.50740	0.04699

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	0.01407	0.32940	0.01596	2.50740	0.04227
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	0.01910	0.32940	0.02087	2.50740	0.04698
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	0.01418	0.32940	0.01608	2.50740	0.04244
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	0.01443	0.32940	0.01632	2.50740	0.04263
	(!RESET_B * !Q * Q_N)	0.01860	0.01474	0.32940	0.01665	2.50740	0.04290
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	0.01418	0.32940	0.01608	2.50740	0.04244

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	0.01375	0.32940	0.01593	2.50740	0.04206
	(RESET_B * SCD * SCE * SET_B * !Q * Q_N)	0.01860	0.02438	0.32940	0.02646	2.50740	0.05332
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	0.01775	0.32940	0.02015	2.50740	0.04699
	(RESET_B * !SCD * SCE * SET_B * Q * !Q_N)	0.01860	0.02641	0.32940	0.02885	2.50740	0.05574
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	0.01399	0.32940	0.01616	2.50740	0.04216
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	0.01357	0.32940	0.01575	2.50740	0.04195
	(!RESET_B * !Q * Q_N)	0.01860	0.01369	0.32940	0.01588	2.50740	0.04188
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	0.01398	0.32940	0.01616	2.50740	0.04216

SGCLK



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00208	0.00251	0.00539	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_slgcp_1	816.54300	876.63700	941.94700

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	0.05314	0.32940	0.06480	0.23326	2.50740	0.30000	0.81693

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	0.04281	0.32940	0.06480	0.21342	2.50740	0.30000	0.70845

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	-0.02765	1.26300	1.26300	-0.12856	2.50740	2.50740	-0.18168
	setup	CLK (R)	0.01860	0.01860	0.04386	1.26300	1.26300	0.18654	2.50740	2.50740	0.26038

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	-0.04262	1.26300	1.26300	-0.12579	2.50740	2.50740	-0.17746
	setup	CLK (R)	0.01860	0.01860	0.07228	1.26300	1.26300	0.15754	2.50740	2.50740	0.22115

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	-0.03116	1.26300	1.26300	-0.15377	2.50740	2.50740	-0.21903
	setup	CLK (R)	0.01860	0.01860	0.04716	1.26300	1.26300	0.20670	2.50740	2.50740	0.29931

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	-0.04676	1.26300	1.26300	-0.09892	2.50740	2.50740	-0.13675
	setup	CLK (R)	0.01860	0.01860	0.07631	1.26300	1.26300	0.12823	2.50740	2.50740	0.17059

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	0.15030	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	0.01171	0.32940	0.06480	0.01256	2.50740	0.30000	0.02921

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	0.00726	0.32940	0.06480	0.00942	2.50740	0.30000	0.02688

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.02318	0.32940	0.02477	2.50740	0.04261

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.02351	0.32940	0.03859	2.50740	0.05638

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	0.02318	0.32940	0.02477	2.50740	0.04261

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	0.02351	0.32940	0.03859	2.50740	0.05638

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.01286	0.32940	0.01391	2.50740	0.03142

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.02440	0.32940	0.03742	2.50740	0.05390

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.00842	0.32940	0.01014	2.50740	0.03290

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	0.00882	0.32940	0.01085	2.50740	0.03396

TIE0



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	246.50300	246.50300	246.50300

TIE1



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	230.88300	230.88300	230.88300

XNOR2_1



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp
-40.00*

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	0.00613	0.00544	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xnor2_1	260.33800	440.21100	585.62600

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	0.03712	0.32940	0.06480	0.37286	2.50740	0.30000	1.87389
	B->Y (-R)	0.01860	0.00100	0.03240	0.32940	0.06480	0.40034	2.50740	0.30000	2.09602

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	0.03535	0.32940	0.06480	0.33590	2.50740	0.30000	1.71972
	B->Y (-F)	0.01860	0.00100	0.03005	0.32940	0.06480	0.32918	2.50740	0.30000	1.70752

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	0.05149	0.32940	0.06480	0.23132	2.50740	0.30000	0.81379
	A->Y (FR)	!B	0.01860	0.00100	0.03712	0.32940	0.06480	0.37286	2.50740	0.30000	1.87389
	B->Y (RR)	A	0.01860	0.00100	0.04834	0.32940	0.06480	0.23359	2.50740	0.30000	0.82574
	B->Y (FR)	!A	0.01860	0.00100	0.03240	0.32940	0.06480	0.40034	2.50740	0.30000	2.09602

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	0.05017	0.32940	0.06480	0.30087	2.50740	0.30000	1.09280
	A->Y (RF)	!B	0.01860	0.00100	0.03535	0.32940	0.06480	0.33590	2.50740	0.30000	1.71972
	B->Y (FF)	A	0.01860	0.00100	0.05062	0.32940	0.06480	0.29158	2.50740	0.30000	1.07047
	B->Y (RF)	!A	0.01860	0.00100	0.03005	0.32940	0.06480	0.32918	2.50740	0.30000	1.70752

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	0.00965	0.32940	0.06480	0.01080	2.50740	0.30000	0.02764
	B	0.01860	0.00100	0.00982	0.32940	0.06480	0.01132	2.50740	0.30000	0.02872

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	0.00857	0.32940	0.06480	0.01036	2.50740	0.30000	0.02835
	B	0.01860	0.00100	0.00910	0.32940	0.06480	0.00946	2.50740	0.30000	0.02773

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	0.00965	0.32940	0.06480	0.01080	2.50740	0.30000	0.02764
	A	!B	0.01860	0.00100	0.00606	0.32940	0.06480	0.00604	2.50740	0.30000	0.01100
	B	A	0.01860	0.00100	0.00982	0.32940	0.06480	0.01132	2.50740	0.30000	0.02872
	B	!A	0.01860	0.00100	0.00391	0.32940	0.06480	0.00444	2.50740	0.30000	0.01013

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	0.00857	0.32940	0.06480	0.01036	2.50740	0.30000	0.02835
	A	!B	0.01860	0.00100	0.00597	0.32940	0.06480	0.00601	2.50740	0.30000	0.01065
	B	A	0.01860	0.00100	0.00910	0.32940	0.06480	0.00946	2.50740	0.30000	0.02773
	B	!A	0.01860	0.00100	0.00479	0.32940	0.06480	0.00510	2.50740	0.30000	0.00964

XOR2_1



*sg13g2_stdcell_fast_1p32V_m40C Cell Library: Process
sg13g2_stdcell_fast_1p32V_m40C, Voltage 1.32, Temp -40.00*

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	0.00625	0.00549	0.30000

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xor2_1	333.21000	407.77100	475.68000

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	0.04040	0.32940	0.06480	0.37707	2.50740	0.30000	1.88220
	B->X (-R)	0.01860	0.00100	0.03436	0.32940	0.06480	0.37009	2.50740	0.30000	1.87166

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	0.03274	0.32940	0.06480	0.33250	2.50740	0.30000	1.70977
	B->X (-F)	0.01860	0.00100	0.02927	0.32940	0.06480	0.35747	2.50740	0.30000	1.89048

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	0.05049	0.32940	0.06480	0.35779	2.50740	0.30000	1.37953
	A->X (FR)	B	0.01860	0.00100	0.04040	0.32940	0.06480	0.37707	2.50740	0.30000	1.88220
	B->X (RR)	!A	0.01860	0.00100	0.05167	0.32940	0.06480	0.34631	2.50740	0.30000	1.34298
	B->X (FR)	A	0.01860	0.00100	0.03436	0.32940	0.06480	0.37009	2.50740	0.30000	1.87166

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	0.05852	0.32940	0.06480	0.21887	2.50740	0.30000	0.69795
	A->X (RF)	B	0.01860	0.00100	0.03274	0.32940	0.06480	0.33250	2.50740	0.30000	1.70977
	B->X (FF)	!A	0.01860	0.00100	0.05426	0.32940	0.06480	0.22290	2.50740	0.30000	0.72275
	B->X (RF)	A	0.01860	0.00100	0.02927	0.32940	0.06480	0.35747	2.50740	0.30000	1.89048

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	0.00841	0.32940	0.06480	0.00986	2.50740	0.30000	0.02716
	B	0.01860	0.00100	0.00895	0.32940	0.06480	0.00926	2.50740	0.30000	0.02688

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	0.01049	0.32940	0.06480	0.01176	2.50740	0.30000	0.02841
	B	0.01860	0.00100	0.00964	0.32940	0.06480	0.01137	2.50740	0.30000	0.02888

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	0.00648	0.32940	0.06480	0.00652	2.50740	0.30000	0.01150
	A	!B	0.01860	0.00100	0.00841	0.32940	0.06480	0.00986	2.50740	0.30000	0.02716
	B	A	0.01860	0.00100	0.00504	0.32940	0.06480	0.00526	2.50740	0.30000	0.00988
	B	!A	0.01860	0.00100	0.00895	0.32940	0.06480	0.00926	2.50740	0.30000	0.02688

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	0.00585	0.32940	0.06480	0.00573	2.50740	0.30000	0.01042
	A	!B	0.01860	0.00100	0.01049	0.32940	0.06480	0.01176	2.50740	0.30000	0.02841
	B	A	0.01860	0.00100	0.00463	0.32940	0.06480	0.00497	2.50740	0.30000	0.01030
	B	!A	0.01860	0.00100	0.00964	0.32940	0.06480	0.01137	2.50740	0.30000	0.02888