

## sg13g2\_stdcell\_typ\_1p20V\_25C Library

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

<b>INV<sub>x</sub></b>
<b>LGCP</b>
<b>MUX<sub>2x</sub></b>
<b>MUX<sub>4</sub></b>
<b>NAND<sub>2Bx</sub></b>
<b>NAND<sub>2x</sub></b>
<b>NAND<sub>3B</sub></b>
<b>NAND<sub>3</sub></b>
<b>NAND<sub>4</sub></b>
<b>NOR<sub>2Bx</sub></b>
<b>NOR<sub>2x</sub></b>
<b>NOR<sub>3x</sub></b>
<b>NOR<sub>4x</sub></b>
<b>O<sub>21AI</sub></b>
<b>OR<sub>2x</sub></b>
<b>OR<sub>3x</sub></b>
<b>OR<sub>4x</sub></b>
<b>SDFBBP</b>
<b>SDFRBPQ<sub>x</sub></b>
<b>SDFRBP<sub>x</sub></b>
<b>SIGHOLD</b>
<b>SLGCP</b>
<b>TIEHI</b>
<b>TIELO</b>
<b>XNOR<sub>2</sub></b>
<b>XOR<sub>2</sub></b>

# A21OIx



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_a21oi_1	9.07200
sg13g2_a21oi_2	14.51520

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

Delay(ns) to Y falling :

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

Delay(ns) to Y rising (conditional):

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

**Delay(ns) to Y falling (conditional):**

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

## Power Information

Internal switching power(pJ) to Y rising :

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

Internal switching power(pJ) to Y falling :

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

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

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

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

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



# A210x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_a21o_1	12.70080
sg13g2_a21o_2	14.51520

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

Delay(ns) to X falling :

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

Delay(ns) to X rising (conditional):

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

**Delay(ns) to X falling (conditional):**

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

## Power Information

Internal switching power(pJ) to X rising :

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

Internal switching power(pJ) to X falling :

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

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

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

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

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

# A221OI



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## 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	0.00297	0.00300	0.00292	0.00302	0.00286	0.30000



## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

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	<b>0.05131</b>	0.32940	0.06480	<b>0.48809</b>	2.50740	0.30000	<b>2.51316</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.05520</b>	0.32940	0.06480	<b>0.47036</b>	2.50740	0.30000	<b>2.35952</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.04570</b>	0.32940	0.06480	<b>0.47495</b>	2.50740	0.30000	<b>2.49803</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.04989</b>	0.32940	0.06480	<b>0.45770</b>	2.50740	0.30000	<b>2.34459</b>
	C1->Y (RF)	0.01860	0.00100	<b>0.02504</b>	0.32940	0.06480	<b>0.34402</b>	2.50740	0.30000	<b>1.93594</b>

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

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

## 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	<b>0.00815</b>	0.32940	0.06480	<b>0.00800</b>	2.50740	0.30000	<b>0.00828</b>
	A2	0.01860	0.00100	<b>0.00827</b>	0.32940	0.06480	<b>0.00808</b>	2.50740	0.30000	<b>0.00866</b>
	B1	0.01860	0.00100	<b>0.00605</b>	0.32940	0.06480	<b>0.00593</b>	2.50740	0.30000	<b>0.00683</b>
	B2	0.01860	0.00100	<b>0.00618</b>	0.32940	0.06480	<b>0.00600</b>	2.50740	0.30000	<b>0.00693</b>
	C1	0.01860	0.00100	<b>0.00379</b>	0.32940	0.06480	<b>0.00379</b>	2.50740	0.30000	<b>0.00482</b>

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	<b>0.00492</b>	0.32940	0.06480	<b>0.00465</b>	2.50740	0.30000	<b>0.00522</b>
	A2	0.01860	0.00100	<b>0.00647</b>	0.32940	0.06480	<b>0.00619</b>	2.50740	0.30000	<b>0.00670</b>
	B1	0.01860	0.00100	<b>0.00330</b>	0.32940	0.06480	<b>0.00312</b>	2.50740	0.30000	<b>0.00364</b>
	B2	0.01860	0.00100	<b>0.00494</b>	0.32940	0.06480	<b>0.00475</b>	2.50740	0.30000	<b>0.00523</b>
	C1	0.01860	0.00100	<b>0.00193</b>	0.32940	0.06480	<b>0.00206</b>	2.50740	0.30000	<b>0.00313</b>

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

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

# A22OI



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## 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	0.00310	0.00310	0.00304	0.00302	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

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	<b>0.04449</b>	0.32940	0.06480	<b>0.47325</b>	2.50740	0.30000	<b>2.49095</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.04838</b>	0.32940	0.06480	<b>0.45527</b>	2.50740	0.30000	<b>2.33876</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.03929</b>	0.32940	0.06480	<b>0.44358</b>	2.50740	0.30000	<b>2.32554</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.03460</b>	0.32940	0.06480	<b>0.46103</b>	2.50740	0.30000	<b>2.47893</b>

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	<b>0.05405</b>	0.32940	0.06480	<b>0.54502</b>	2.50740	0.30000	<b>2.70032</b>
	A2->Y (FR)	(A1 * B1)	0.01860	0.00100	<b>0.06142</b>	0.32940	0.06480	<b>0.55209</b>	2.50740	0.30000	<b>2.70573</b>
	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.05703</b>	0.32940	0.06480	<b>0.57274</b>	2.50740	0.30000	<b>2.92639</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.04796</b>	0.32940	0.06480	<b>0.56188</b>	2.50740	0.30000	<b>2.90979</b>
	B2->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.04888</b>	0.32940	0.06480	<b>0.56301</b>	2.50740	0.30000	<b>2.91053</b>
	B2->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.03986</b>	0.32940	0.06480	<b>0.55468</b>	2.50740	0.30000	<b>2.90611</b>

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	<b>0.04449</b>	0.32940	0.06480	<b>0.47325</b>	2.50740	0.30000	<b>2.49095</b>
	A2->Y (RF)	(A1 * B1)	0.01860	0.00100	<b>0.04838</b>	0.32940	0.06480	<b>0.45527</b>	2.50740	0.30000	<b>2.33876</b>
	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.03929</b>	0.32940	0.06480	<b>0.44358</b>	2.50740	0.30000	<b>2.32554</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.03887</b>	0.32940	0.06480	<b>0.44233</b>	2.50740	0.30000	<b>2.32188</b>
	B2->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.03460</b>	0.32940	0.06480	<b>0.46103</b>	2.50740	0.30000	<b>2.47893</b>
	B2->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.03422</b>	0.32940	0.06480	<b>0.45974</b>	2.50740	0.30000	<b>2.47553</b>

## 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	<b>0.00472</b>	0.32940	0.06480	<b>0.00461</b>	2.50740	0.30000	<b>0.00504</b>
	A2	0.01860	0.00100	<b>0.00486</b>	0.32940	0.06480	<b>0.00465</b>	2.50740	0.30000	<b>0.00518</b>
	B1	0.01860	0.00100	<b>0.00301</b>	0.32940	0.06480	<b>0.00285</b>	2.50740	0.30000	<b>0.00371</b>
	B2	0.01860	0.00100	<b>0.00282</b>	0.32940	0.06480	<b>0.00274</b>	2.50740	0.30000	<b>0.00358</b>

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	<b>0.00470</b>	0.32940	0.06480	<b>0.00447</b>	2.50740	0.30000	<b>0.00512</b>
	A2	0.01860	0.00100	<b>0.00626</b>	0.32940	0.06480	<b>0.00601</b>	2.50740	0.30000	<b>0.00656</b>
	B1	0.01860	0.00100	<b>0.00600</b>	0.32940	0.06480	<b>0.00599</b>	2.50740	0.30000	<b>0.00648</b>
	B2	0.01860	0.00100	<b>0.00434</b>	0.32940	0.06480	<b>0.00444</b>	2.50740	0.30000	<b>0.00507</b>

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	<b>0.00472</b>	0.32940	0.06480	<b>0.00461</b>	2.50740	0.30000	<b>0.00504</b>
	A2	(A1 * B1)	0.01860	0.00100	<b>0.00486</b>	0.32940	0.06480	<b>0.00465</b>	2.50740	0.30000	<b>0.00518</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00301</b>	0.32940	0.06480	<b>0.00285</b>	2.50740	0.30000	<b>0.00371</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00285</b>	0.32940	0.06480	<b>0.00273</b>	2.50740	0.30000	<b>0.00367</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00282</b>	0.32940	0.06480	<b>0.00274</b>	2.50740	0.30000	<b>0.00358</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00259</b>	0.32940	0.06480	<b>0.00264</b>	2.50740	0.30000	<b>0.00350</b>

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	<b>0.00470</b>	0.32940	0.06480	<b>0.00447</b>	2.50740	0.30000	<b>0.00512</b>
	A2	(A1 * B1)	0.01860	0.00100	<b>0.00626</b>	0.32940	0.06480	<b>0.00601</b>	2.50740	0.30000	<b>0.00656</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00600</b>	0.32940	0.06480	<b>0.00599</b>	2.50740	0.30000	<b>0.00648</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00436</b>	0.32940	0.06480	<b>0.00439</b>	2.50740	0.30000	<b>0.00498</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00434</b>	0.32940	0.06480	<b>0.00444</b>	2.50740	0.30000	<b>0.00507</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00271</b>	0.32940	0.06480	<b>0.00282</b>	2.50740	0.30000	<b>0.00352</b>

# AND2x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_and2_1	9.07200
sg13g2_and2_2	10.88640

## Pin Capacitance Information

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

## Leakage Information



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

## Delay Information

Delay(ns) to X rising :

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

Delay(ns) to X falling :

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

## Power Information

Internal switching power(pJ) to X rising :

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

Internal switching power(pJ) to X falling :

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

# AND3x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_and3_1	12.70080
sg13g2_and3_2	12.70080

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

Delay(ns) to X falling :

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

## Power Information

Internal switching power(pJ) to X rising :

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

Internal switching power(pJ) to X falling :

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

# AND4x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_and4_1	14.51520
sg13g2_and4_2	16.32960

## Pin Capacitance Information

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



## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

Delay(ns) to X falling :

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

## Power Information

Internal switching power(pJ) to X rising :

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

Internal switching power(pJ) to X falling :

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

# ANTENNANP



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library:  
Process sg13g2\_stdcell\_typ\_1p20V\_25C,  
Voltage 1.20, Temp 25.00*

## Truth Table

INPUT
A
x

## Footprint

Cell Name	Area
sg13g2_antennanp	5.44320

## Pin Capacitance Information

Cell Name	Pin Cap(pf)
	A
sg13g2_antennanp	0.00108

## Leakage Information

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

## Passive Power Information

Passive power(pJ) for A rising :

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

Passive power(pJ) for A falling :

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

# BUF<sub>x</sub>



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

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

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

Delay(ns) to X falling :

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



## Power Information

Internal switching power(pJ) to X rising :

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

Internal switching power(pJ) to X falling :

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

# DECAP<sub>x</sub>



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Footprint

Cell Name	Area
sg13g2_decap_4	7.25760
sg13g2_decap_8	12.70080

## Pin Capacitance Information Leakage Information

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

# DFRBPQx



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp  
25.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dfrbpq_1	48.98880
sg13g2_dfrbpq_2	50.80320

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

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

Delay(ns) to Q falling :

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

## Constraint Information

### Constraints(ns) for CLK rising :

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

### Constraints(ns) for CLK falling :

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

### Constraints(ns) for D rising :

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

### Constraints(ns) for D falling :

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

### Constraints(ns) for RESET\_B rising :

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

**Constraints(ns) for RESET\_B falling :**

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

## Power Information

Internal switching power(pJ) to Q rising :

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

Internal switching power(pJ) to Q falling :

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

Passive power(pJ) for CLK rising :

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

Passive power(pJ) for CLK falling :

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

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



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

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

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

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :

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

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

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

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

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

Passive power(pJ) for RESET\_B rising :

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

Passive power(pJ) for RESET\_B falling :

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

Passive power(pJ) for RESET\_B rising (conditional):

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

Passive power(pJ) for RESET\_B falling (conditional):

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

# DFRBPx



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dfrbp_1	52.61760
sg13g2_dfrbp_2	54.43200

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

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

Delay(ns) to Q falling :

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

Delay(ns) to Q\_N rising :

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

Delay(ns) to Q\_N falling :

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



## Constraint Information

### Constraints(ns) for CLK rising :

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

### Constraints(ns) for CLK falling :

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

### Constraints(ns) for D rising :

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

### Constraints(ns) for D falling :

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

### Constraints(ns) for RESET\_B rising :

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

**Constraints(ns) for RESET\_B falling :**

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

## Power Information

Internal switching power(pJ) to Q rising :

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

Internal switching power(pJ) to Q falling :

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

Internal switching power(pJ) to Q\_N rising :

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

Internal switching power(pJ) to Q\_N falling :

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

Passive power(pJ) for CLK rising :

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

Passive power(pJ) for CLK falling :

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

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

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

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

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

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :

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

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

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

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

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

Passive power(pJ) for RESET\_B rising :

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

Passive power(pJ) for RESET\_B falling :

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

Passive power(pJ) for RESET\_B rising (conditional):

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

Passive power(pJ) for RESET\_B falling (conditional):

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



# DLHQ



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dlhq_1	30.84480

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

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

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	<b>0.15621</b>	0.32940	0.06480	<b>0.38782</b>	2.50740	0.30000	<b>1.06173</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.16055</b>	0.32940	0.06480	<b>0.39563</b>	2.50740	0.30000	<b>1.06532</b>

## 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	<b>-0.09536</b>	1.26300	1.26300	<b>-0.22666</b>	2.50740	2.50740	<b>-0.27744</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.10270</b>	1.26300	1.26300	<b>0.25634</b>	2.50740	2.50740	<b>0.32467</b>

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	<b>-0.03668</b>	1.26300	1.26300	<b>-0.00810</b>	2.50740	2.50740	<b>0.02066</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.04646</b>	1.26300	1.26300	<b>0.01619</b>	2.50740	2.50740	<b>-0.01181</b>

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	<b>0.07980</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## 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	<b>0.01444</b>	0.32940	0.06480	<b>0.01473</b>	2.50740	0.30000	<b>0.01463</b>
	GATE	0.01860	0.00100	<b>0.01231</b>	0.32940	0.06480	<b>0.01250</b>	2.50740	0.30000	<b>0.01278</b>

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	<b>0.01524</b>	0.32940	0.06480	<b>0.01558</b>	2.50740	0.30000	<b>0.01541</b>
	GATE	0.01860	0.00100	<b>0.01345</b>	0.32940	0.06480	<b>0.01411</b>	2.50740	0.30000	<b>0.01428</b>

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :

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

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	<b>0.00373</b>	0.32940	<b>0.00377</b>	2.50740	<b>0.00934</b>
	(!GATE * !Q)	0.01860	<b>0.00368</b>	0.32940	<b>0.00376</b>	2.50740	<b>0.00937</b>

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	<b>0.00367</b>	0.32940	<b>0.00389</b>	2.50740	<b>0.00974</b>
	(!GATE * !Q)	0.01860	<b>0.00375</b>	0.32940	<b>0.00390</b>	2.50740	<b>0.00971</b>

Passive power(pJ) for GATE rising :

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

Passive power(pJ) for GATE falling :

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

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	<b>0.00833</b>	0.32940	<b>0.00830</b>	2.50740	<b>0.01525</b>

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	<b>0.01480</b>	0.32940	<b>0.01522</b>	2.50740	<b>0.02249</b>

# DLHRQ



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dlhrq_1	27.21600

## Pin Capacitance Information

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

## Leakage Information

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



## Delay Information

Delay(ns) to Q rising :

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

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	<b>0.16499</b>	0.32940	0.06480	<b>0.39908</b>	2.50740	0.30000	<b>1.07948</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.17142</b>	0.32940	0.06480	<b>0.41168</b>	2.50740	0.30000	<b>1.09330</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.06543</b>	0.32940	0.06480	<b>0.32080</b>	2.50740	0.30000	<b>1.07562</b>

## 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	<b>-0.08558</b>	1.26300	1.26300	<b>-0.20238</b>	2.50740	2.50740	<b>-0.24498</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.09781</b>	1.26300	1.26300	<b>0.24015</b>	2.50740	2.50740	<b>0.30401</b>

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	<b>-0.04157</b>	1.26300	1.26300	<b>-0.00540</b>	2.50740	2.50740	<b>0.02361</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.05135</b>	1.26300	1.26300	<b>0.01349</b>	2.50740	2.50740	<b>-0.01476</b>

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	<b>0.07980</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

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	<b>-0.01467</b>	1.26300	1.26300	<b>-0.10794</b>	2.50740	2.50740	<b>-0.15053</b>
	removal	GATE (F)	0.01860	0.01860	<b>0.02934</b>	1.26300	1.26300	<b>0.12682</b>	2.50740	2.50740	<b>0.16824</b>

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	<b>0.17914</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## 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	<b>0.00030</b>	0.32940	0.06480	<b>0.00061</b>	2.50740	0.30000	<b>0.00056</b>
	GATE	0.01860	0.00100	<b>0.00925</b>	0.32940	0.06480	<b>0.00957</b>	2.50740	0.30000	<b>0.00941</b>

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	<b>-0.00030</b>	0.32940	0.06480	<b>-0.00061</b>	2.50740	0.30000	<b>-0.00056</b>
	GATE	0.01860	0.00100	<b>0.00918</b>	0.32940	0.06480	<b>0.01000</b>	2.50740	0.30000	<b>0.00981</b>
	RESET_B	0.01860	0.00100	<b>0.00752</b>	0.32940	0.06480	<b>0.00804</b>	2.50740	0.30000	<b>0.01481</b>

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :

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

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	<b>0.00349</b>	0.32940	<b>0.00355</b>	2.50740	<b>0.00915</b>
	!RESET_B	0.01860	<b>0.01797</b>	0.32940	<b>0.01799</b>	2.50740	<b>0.02353</b>

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	<b>0.00387</b>	0.32940	<b>0.00409</b>	2.50740	<b>0.00982</b>
	!RESET_B	0.01860	<b>0.02181</b>	0.32940	<b>0.02480</b>	2.50740	<b>0.03066</b>

Passive power(pJ) for GATE rising :

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

Passive power(pJ) for GATE falling :

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

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	<b>0.01199</b>	0.32940	<b>0.01178</b>	2.50740	<b>0.01914</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00873</b>	0.32940	<b>0.00873</b>	2.50740	<b>0.01561</b>

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	<b>0.01212</b>	0.32940	<b>0.01212</b>	2.50740	<b>0.01981</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01503</b>	0.32940	<b>0.01549</b>	2.50740	<b>0.02278</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01514</b>	0.32940	<b>0.01559</b>	2.50740	<b>0.02285</b>

Passive power(pJ) for RESET\_B rising :

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

Passive power(pJ) for RESET\_B falling :

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

Passive power(pJ) for RESET\_B rising (conditional):

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

Passive power(pJ) for RESET\_B falling (conditional):

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

# DLHR



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dlhr_1	32.65920

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

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

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	<b>0.17116</b>	0.32940	0.06480	<b>0.40867</b>	2.50740	0.30000	<b>1.08334</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.17784</b>	0.32940	0.06480	<b>0.42235</b>	2.50740	0.30000	<b>1.09929</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.07131</b>	0.32940	0.06480	<b>0.33937</b>	2.50740	0.30000	<b>1.11856</b>

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	<b>0.20944</b>	0.32940	0.06480	<b>0.46816</b>	2.50740	0.30000	<b>1.27473</b>
	GATE->Q_N (RR)	0.01860	0.00100	<b>0.21631</b>	0.32940	0.06480	<b>0.48188</b>	2.50740	0.30000	<b>1.29100</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.10937</b>	0.32940	0.06480	<b>0.39326</b>	2.50740	0.30000	<b>1.25488</b>

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	<b>0.24631</b>	0.32940	0.06480	<b>0.47386</b>	2.50740	0.30000	<b>1.17836</b>
	GATE->Q_N (RF)	0.01860	0.00100	<b>0.22808</b>	0.32940	0.06480	<b>0.46020</b>	2.50740	0.30000	<b>1.15690</b>



## 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	<b>-0.09292</b>	1.26300	1.26300	<b>-0.20777</b>	2.50740	2.50740	<b>-0.25088</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.24285</b>	2.50740	2.50740	<b>0.30991</b>

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	<b>-0.04401</b>	1.26300	1.26300	<b>-0.00540</b>	2.50740	2.50740	<b>0.02656</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.05379</b>	1.26300	1.26300	<b>0.01349</b>	2.50740	2.50740	<b>-0.01476</b>

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	<b>0.08942</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

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	<b>-0.00734</b>	1.26300	1.26300	<b>-0.06206</b>	2.50740	2.50740	<b>-0.08264</b>
	removal	GATE (F)	0.01860	0.01860	<b>0.02201</b>	1.26300	1.26300	<b>0.08635</b>	2.50740	2.50740	<b>0.10921</b>

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	<b>0.18555</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## 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	<b>0.00420</b>	0.32940	0.06480	<b>0.00464</b>	2.50740	0.30000	<b>0.00468</b>
	GATE	0.01860	0.00100	<b>0.00857</b>	0.32940	0.06480	<b>0.00898</b>	2.50740	0.30000	<b>0.00900</b>

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	<b>0.00199</b>	0.32940	0.06480	<b>0.00079</b>	2.50740	0.30000	<b>0.00062</b>
	GATE	0.01860	0.00100	<b>0.00858</b>	0.32940	0.06480	<b>0.00906</b>	2.50740	0.30000	<b>0.00893</b>
	RESET_B	0.01860	0.00100	<b>0.00760</b>	0.32940	0.06480	<b>0.00786</b>	2.50740	0.30000	<b>0.01145</b>

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	<b>0.00201</b>	0.32940	0.06480	<b>0.00098</b>	2.50740	0.30000	<b>0.00084</b>
	GATE	0.01860	0.00100	<b>0.01441</b>	0.32940	0.06480	<b>0.01498</b>	2.50740	0.30000	<b>0.01855</b>
	RESET_B	0.01860	0.00100	<b>0.00759</b>	0.32940	0.06480	<b>0.00800</b>	2.50740	0.30000	<b>0.01163</b>

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	<b>0.00419</b>	0.32940	0.06480	<b>0.00451</b>	2.50740	0.30000	<b>0.00453</b>
	GATE	0.01860	0.00100	<b>0.00857</b>	0.32940	0.06480	<b>0.00883</b>	2.50740	0.30000	<b>0.00878</b>

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :

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

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	<b>0.00356</b>	0.32940	<b>0.00363</b>	2.50740	<b>0.00927</b>
	!RESET_B	0.01860	<b>0.01759</b>	0.32940	<b>0.01762</b>	2.50740	<b>0.02317</b>

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	<b>0.00386</b>	0.32940	<b>0.00408</b>	2.50740	<b>0.00987</b>
	!RESET_B	0.01860	<b>0.02150</b>	0.32940	<b>0.02457</b>	2.50740	<b>0.03045</b>

Passive power(pJ) for GATE rising :

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

Passive power(pJ) for GATE falling :

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

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	<b>0.01167</b>	0.32940	<b>0.01147</b>	2.50740	<b>0.01885</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00842</b>	0.32940	<b>0.00841</b>	2.50740	<b>0.01532</b>

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	<b>0.01238</b>	0.32940	<b>0.01240</b>	2.50740	<b>0.02012</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01494</b>	0.32940	<b>0.01537</b>	2.50740	<b>0.02262</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01498</b>	0.32940	<b>0.01540</b>	2.50740	<b>0.02263</b>

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	<b>-0.00013</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00001</b>

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	<b>0.00015</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00001</b>

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	<b>-0.00001</b>	0.32940	<b>-0.00001</b>	2.50740	<b>-0.00002</b>
	(!D * !GATE * !Q)	0.01860	<b>-0.00013</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00001</b>

**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	<b>0.00027</b>	0.32940	<b>0.00017</b>	2.50740	<b>0.00014</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00015</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00001</b>

# DLLRQ



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dllrq_1	29.03040

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

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

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	<b>0.16410</b>	0.32940	0.06480	<b>0.39632</b>	2.50740	0.30000	<b>1.07202</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.15751</b>	0.32940	0.06480	<b>0.40862</b>	2.50740	0.30000	<b>1.16407</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.06591</b>	0.32940	0.06480	<b>0.32017</b>	2.50740	0.30000	<b>1.07220</b>



## 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	<b>-0.06602</b>	1.26300	1.26300	<b>-0.08365</b>	2.50740	2.50740	<b>-0.10626</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.08069</b>	1.26300	1.26300	<b>0.09444</b>	2.50740	2.50740	<b>0.12101</b>

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	<b>-0.08314</b>	1.26300	1.26300	<b>-0.21857</b>	2.50740	2.50740	<b>-0.27449</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.09292</b>	1.26300	1.26300	<b>0.24825</b>	2.50740	2.50740	<b>0.32467</b>

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	<b>0.10864</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

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	<b>-0.03423</b>	1.26300	1.26300	<b>-0.10254</b>	2.50740	2.50740	<b>-0.10921</b>
	removal	GATE_N (R)	0.01860	0.01860	<b>0.04890</b>	1.26300	1.26300	<b>0.11333</b>	2.50740	2.50740	<b>0.11806</b>

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	<b>0.17914</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## 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	<b>0.00632</b>	0.32940	0.06480	<b>0.00672</b>	2.50740	0.30000	<b>0.00658</b>
	GATE_N	0.01860	0.00100	<b>0.00673</b>	0.32940	0.06480	<b>0.00680</b>	2.50740	0.30000	<b>0.00653</b>
	RESET_B	0.01860	0.00100	<b>0.00989</b>	0.32940	0.06480	<b>0.00984</b>	2.50740	0.30000	<b>0.01511</b>

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	<b>0.00357</b>	0.32940	0.06480	<b>0.00027</b>	2.50740	0.30000	<b>0.00011</b>
	GATE_N	0.01860	0.00100	<b>0.00550</b>	0.32940	0.06480	<b>0.00544</b>	2.50740	0.30000	<b>0.00548</b>
	RESET_B	0.01860	0.00100	<b>0.00764</b>	0.32940	0.06480	<b>0.00820</b>	2.50740	0.30000	<b>0.01498</b>

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :

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

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	<b>0.00342</b>	0.32940	<b>0.00349</b>	2.50740	<b>0.00910</b>
	!RESET_B	0.01860	<b>0.01184</b>	0.32940	<b>0.01178</b>	2.50740	<b>0.01744</b>

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	<b>0.00384</b>	0.32940	<b>0.00405</b>	2.50740	<b>0.00983</b>
	!RESET_B	0.01860	<b>0.01425</b>	0.32940	<b>0.01802</b>	2.50740	<b>0.02389</b>

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	<b>0.01342</b>	0.32940	<b>0.01330</b>	2.50740	<b>0.01994</b>

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	<b>0.01510</b>	0.32940	<b>0.01552</b>	2.50740	<b>0.02300</b>

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	<b>0.01342</b>	0.32940	<b>0.01330</b>	2.50740	<b>0.01994</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00790</b>	0.32940	<b>0.00788</b>	2.50740	<b>0.01478</b>

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	<b>0.01267</b>	0.32940	<b>0.01273</b>	2.50740	<b>0.01988</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01510</b>	0.32940	<b>0.01552</b>	2.50740	<b>0.02300</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01516</b>	0.32940	<b>0.01558</b>	2.50740	<b>0.02292</b>

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	<b>0.00008</b>	0.32940	<b>0.00008</b>	2.50740	<b>0.00007</b>

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	<b>0.00006</b>	0.32940	<b>-0.00004</b>	2.50740	<b>-0.00007</b>

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	<b>0.00020</b>	0.32940	<b>0.00020</b>	2.50740	<b>0.00020</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00008</b>	0.32940	<b>0.00008</b>	2.50740	<b>0.00007</b>

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	<b>0.00019</b>	0.32940	<b>0.00008</b>	2.50740	<b>0.00005</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00006</b>	0.32940	<b>-0.00004</b>	2.50740	<b>-0.00007</b>

# DLLR



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dllr_1	34.47360

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

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

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	<b>0.17305</b>	0.32940	0.06480	<b>0.41005</b>	2.50740	0.30000	<b>1.08415</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.16743</b>	0.32940	0.06480	<b>0.42465</b>	2.50740	0.30000	<b>1.18287</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.07126</b>	0.32940	0.06480	<b>0.34475</b>	2.50740	0.30000	<b>1.11003</b>

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	<b>0.21116</b>	0.32940	0.06480	<b>0.46935</b>	2.50740	0.30000	<b>1.27482</b>
	GATE_N->Q_N (FR)	0.01860	0.00100	<b>0.20565</b>	0.32940	0.06480	<b>0.48399</b>	2.50740	0.30000	<b>1.37231</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.11011</b>	0.32940	0.06480	<b>0.39480</b>	2.50740	0.30000	<b>1.26301</b>

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	<b>0.24765</b>	0.32940	0.06480	<b>0.47513</b>	2.50740	0.30000	<b>1.17886</b>
	GATE_N->Q_N (FF)	0.01860	0.00100	<b>0.26977</b>	0.32940	0.06480	<b>0.50894</b>	2.50740	0.30000	<b>1.23357</b>

## 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	<b>-0.07580</b>	1.26300	1.26300	<b>-0.08905</b>	2.50740	2.50740	<b>-0.11216</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.09292</b>	1.26300	1.26300	<b>0.09984</b>	2.50740	2.50740	<b>0.12692</b>

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	<b>-0.08558</b>	1.26300	1.26300	<b>-0.22127</b>	2.50740	2.50740	<b>-0.27744</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.09781</b>	1.26300	1.26300	<b>0.25365</b>	2.50740	2.50740	<b>0.32762</b>

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	<b>0.11826</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

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	<b>-0.02690</b>	1.26300	1.26300	<b>-0.06476</b>	2.50740	2.50740	<b>-0.04722</b>
	removal	GATE_N (R)	0.01860	0.01860	<b>0.04157</b>	1.26300	1.26300	<b>0.07825</b>	2.50740	2.50740	<b>0.06198</b>

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	<b>0.18555</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>



## 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	<b>0.00895</b>	0.32940	0.06480	<b>0.05571</b>	2.50740	0.30000	<b>0.22499</b>
	GATE_N	0.01860	0.00100	<b>0.01786</b>	0.32940	0.06480	<b>0.06476</b>	2.50740	0.30000	<b>0.23412</b>

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	<b>0.00635</b>	0.32940	0.06480	<b>0.04590</b>	2.50740	0.30000	<b>0.21483</b>
	GATE_N	0.01860	0.00100	<b>0.01624</b>	0.32940	0.06480	<b>0.06261</b>	2.50740	0.30000	<b>0.23194</b>
	RESET_B	0.01860	0.00100	<b>0.02368</b>	0.32940	0.06480	<b>0.06964</b>	2.50740	0.30000	<b>0.24478</b>

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	<b>0.00638</b>	0.32940	0.06480	<b>0.04632</b>	2.50740	0.30000	<b>0.21523</b>
	GATE_N	0.01860	0.00100	<b>0.02911</b>	0.32940	0.06480	<b>0.07598</b>	2.50740	0.30000	<b>0.25260</b>
	RESET_B	0.01860	0.00100	<b>0.02353</b>	0.32940	0.06480	<b>0.06978</b>	2.50740	0.30000	<b>0.24503</b>

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	<b>0.00893</b>	0.32940	0.06480	<b>0.05539</b>	2.50740	0.30000	<b>0.22480</b>
	GATE_N	0.01860	0.00100	<b>0.01785</b>	0.32940	0.06480	<b>0.06448</b>	2.50740	0.30000	<b>0.23338</b>

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :

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

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	<b>0.00362</b>	0.32940	<b>0.00369</b>	2.50740	<b>0.00933</b>
	!RESET_B	0.01860	<b>0.01820</b>	0.32940	<b>0.01830</b>	2.50740	<b>0.02385</b>

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	<b>0.00338</b>	0.32940	<b>0.00360</b>	2.50740	<b>0.00950</b>
	!RESET_B	0.01860	<b>0.01975</b>	0.32940	<b>0.02677</b>	2.50740	<b>0.03267</b>

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	<b>0.01385</b>	0.32940	<b>0.01567</b>	2.50740	<b>0.02261</b>

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	<b>0.01287</b>	0.32940	<b>0.01295</b>	2.50740	<b>0.02020</b>

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	<b>0.01348</b>	0.32940	<b>0.01338</b>	2.50740	<b>0.02002</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01385</b>	0.32940	<b>0.01567</b>	2.50740	<b>0.02261</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01390</b>	0.32940	<b>0.01572</b>	2.50740	<b>0.02264</b>

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	<b>0.01287</b>	0.32940	<b>0.01295</b>	2.50740	<b>0.02020</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00858</b>	0.32940	<b>0.00869</b>	2.50740	<b>0.01604</b>

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	<b>-0.00016</b>	0.32940	<b>-0.00008</b>	2.50740	<b>-0.00004</b>

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	<b>0.00018</b>	0.32940	<b>0.00008</b>	2.50740	<b>0.00004</b>

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	<b>0.00027</b>	0.32940	<b>0.00026</b>	2.50740	<b>0.00026</b>
	(!D * GATE_N * !Q)	0.01860	<b>-0.00016</b>	0.32940	<b>-0.00008</b>	2.50740	<b>-0.00004</b>

**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	<b>0.00030</b>	0.32940	<b>0.00020</b>	2.50740	<b>0.00017</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00018</b>	0.32940	<b>0.00008</b>	2.50740	<b>0.00004</b>

# DLYGATE4SD1



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell*  
*Library: Process*  
*sg13g2\_stdcell\_typ\_1p20V\_25C,*  
*Voltage 1.20, Temp 25.00*

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

Cell Name	Area
sg13g2_dlygate4sd1_1	14.51520

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

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	<b>0.13504</b>	0.32940	0.06480	<b>0.39134</b>	2.50740	0.30000	<b>1.17984</b>

## 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	<b>0.01256</b>	0.32940	0.06480	<b>0.01269</b>	2.50740	0.30000	<b>0.01597</b>

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	<b>0.01199</b>	0.32940	0.06480	<b>0.01227</b>	2.50740	0.30000	<b>0.01572</b>



# DLYGATE4SD2



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell*  
*Library: Process*  
*sg13g2\_stdcell\_typ\_1p20V\_25C,*  
*Voltage 1.20, Temp 25.00*

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

Cell Name	Area
sg13g2_dlygate4sd2_1	14.51520

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

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	<b>0.18947</b>	0.32940	0.06480	<b>0.46680</b>	2.50740	0.30000	<b>1.29914</b>

## 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	<b>0.01481</b>	0.32940	0.06480	<b>0.01489</b>	2.50740	0.30000	<b>0.01785</b>

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	<b>0.01431</b>	0.32940	0.06480	<b>0.01453</b>	2.50740	0.30000	<b>0.01778</b>

# DLYGATE4SD3



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell*  
*Library: Process*  
*sg13g2\_stdcell\_typ\_1p20V\_25C,*  
*Voltage 1.20, Temp 25.00*

---

## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

Cell Name	Area
sg13g2_dlygate4sd3_1	16.32960

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

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	<b>0.35893</b>	0.32940	0.06480	<b>0.67703</b>	2.50740	0.30000	<b>1.61288</b>

## 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	<b>0.02105</b>	0.32940	0.06480	<b>0.02100</b>	2.50740	0.30000	<b>0.02356</b>

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	<b>0.02069</b>	0.32940	0.06480	<b>0.02072</b>	2.50740	0.30000	<b>0.02346</b>



# EBUFN<sub>x</sub>



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

---

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_ebufn_2	18.14400
sg13g2_ebufn_4	27.21600
sg13g2_ebufn_8	45.36000

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Z rising :

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

Delay(ns) to Z falling :

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

## Power Information

Internal switching power(pJ) to Z rising :

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

Internal switching power(pJ) to Z falling :

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

Passive power(pJ) for A rising :

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

Passive power(pJ) for A falling :

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

Passive power(pJ) for TE\_B rising :

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

Passive power(pJ) for TE\_B falling :

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

# EINVN<sub>x</sub>



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_einvn_2	16.32960
sg13g2_einvn_4	23.58720
sg13g2_einvn_8	39.91680

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Z rising :

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

Delay(ns) to Z falling :

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



## Power Information

Internal switching power(pJ) to Z rising :

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

Internal switching power(pJ) to Z falling :

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

Passive power(pJ) for A rising :

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

Passive power(pJ) for A falling :

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

Passive power(pJ) for TE\_B rising :

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

Passive power(pJ) for TE\_B falling :

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

# FILLx



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## 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

# INV<sub>x</sub>



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

## Footprint

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

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

Delay(ns) to Y falling :

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

## Power Information

Internal switching power(pJ) to Y rising :

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

Internal switching power(pJ) to Y falling :

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

# LGCP



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

INPUT		OUTPUT
CLK	GATE	GCLK
0	x	0
1	x	GCLK

## Footprint

Cell Name	Area
sg13g2_lgcp_1	27.21600

## Pin Capacitance Information

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

## Leakage Information

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



## Delay Information

Delay(ns) to GCLK rising :

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

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	<b>0.06102</b>	0.32940	0.06480	<b>0.30849</b>	2.50740	0.30000	<b>1.04286</b>

## Constraint Information

Constraints(ns) for CLK rising :

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

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	<b>0.10223</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

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	<b>-0.03683</b>	1.26300	1.26300	<b>-0.15850</b>	2.50740	2.50740	<b>-0.23763</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07452</b>	1.26300	1.26300	<b>0.23146</b>	2.50740	2.50740	<b>0.32659</b>

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	<b>-0.01972</b>	1.26300	1.26300	<b>-0.01097</b>	2.50740	2.50740	<b>-0.00301</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.05489</b>	1.26300	1.26300	<b>0.05603</b>	2.50740	2.50740	<b>0.06228</b>

## 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	<b>0.00867</b>	0.32940	0.06480	<b>0.00865</b>	2.50740	0.30000	<b>0.01315</b>

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	<b>0.00517</b>	0.32940	0.06480	<b>0.00571</b>	2.50740	0.30000	<b>0.01126</b>

Passive power(pJ) for CLK rising :

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

Passive power(pJ) for CLK falling :

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

Passive power(pJ) for GATE rising :

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

Passive power(pJ) for GATE falling :

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

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	<b>0.01924</b>	0.32940	<b>0.02002</b>	2.50740	<b>0.02482</b>

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	<b>0.01315</b>	0.32940	<b>0.02863</b>	2.50740	<b>0.03406</b>

# MUX2x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_mux2_1	18.14400
sg13g2_mux2_2	19.95840

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

Delay(ns) to X falling :

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

Delay(ns) to X rising (conditional):

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

**Delay(ns) to X falling (conditional):**

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



## Power Information

Internal switching power(pJ) to X rising :

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

Internal switching power(pJ) to X falling :

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

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

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

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

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

Passive power(pJ) for S rising :

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

Passive power(pJ) for S falling :

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

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

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

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

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

# MUX4



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## 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	0.00278	0.00276	0.00278	0.00284	0.00825	0.00502	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

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	<b>0.16011</b>	0.32940	0.06480	<b>0.44049</b>	2.50740	0.30000	<b>1.25803</b>
	A1->X (FF)	0.01860	0.00100	<b>0.16178</b>	0.32940	0.06480	<b>0.44008</b>	2.50740	0.30000	<b>1.25928</b>
	A2->X (FF)	0.01860	0.00100	<b>0.16988</b>	0.32940	0.06480	<b>0.45431</b>	2.50740	0.30000	<b>1.28795</b>
	A3->X (FF)	0.01860	0.00100	<b>0.17165</b>	0.32940	0.06480	<b>0.45347</b>	2.50740	0.30000	<b>1.28630</b>
	S0->X (-F)	0.01860	0.00100	<b>0.14782</b>	0.32940	0.06480	<b>0.44059</b>	2.50740	0.30000	<b>1.28045</b>
	S1->X (-F)	0.01860	0.00100	<b>0.08710</b>	0.32940	0.06480	<b>0.34845</b>	2.50740	0.30000	<b>1.09407</b>

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	<b>0.12047</b>	0.32940	0.06480	<b>0.43598</b>	2.50740	0.30000	<b>1.41562</b>
	S0->X (RR)	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.11358</b>	0.32940	0.06480	<b>0.42167</b>	2.50740	0.30000	<b>1.38160</b>
	S0->X (FR)	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.17578</b>	0.32940	0.06480	<b>0.47372</b>	2.50740	0.30000	<b>1.34459</b>
	S0->X (FR)	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.17041</b>	0.32940	0.06480	<b>0.46629</b>	2.50740	0.30000	<b>1.33335</b>
	S1->X (RR)	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.07149</b>	0.32940	0.06480	<b>0.35436</b>	2.50740	0.30000	<b>1.22302</b>
	S1->X (RR)	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.07128</b>	0.32940	0.06480	<b>0.35437</b>	2.50740	0.30000	<b>1.22338</b>
	S1->X (FR)	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.09523</b>	0.32940	0.06480	<b>0.37238</b>	2.50740	0.30000	<b>1.16946</b>
	S1->X (FR)	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.09493</b>	0.32940	0.06480	<b>0.37254</b>	2.50740	0.30000	<b>1.16931</b>

**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	<b>0.14782</b>	0.32940	0.06480	<b>0.44059</b>	2.50740	0.30000	<b>1.28045</b>
	S0->X (FF)	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.13458</b>	0.32940	0.06480	<b>0.42082</b>	2.50740	0.30000	<b>1.23933</b>
	S0->X (RF)	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.19484</b>	0.32940	0.06480	<b>0.47774</b>	2.50740	0.30000	<b>1.25271</b>
	S0->X (RF)	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.18397</b>	0.32940	0.06480	<b>0.46353</b>	2.50740	0.30000	<b>1.23520</b>
	S1->X (FF)	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.08724</b>	0.32940	0.06480	<b>0.34880</b>	2.50740	0.30000	<b>1.09371</b>
	S1->X (FF)	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.08710</b>	0.32940	0.06480	<b>0.34845</b>	2.50740	0.30000	<b>1.09407</b>
	S1->X (RF)	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.10733</b>	0.32940	0.06480	<b>0.37041</b>	2.50740	0.30000	<b>1.07779</b>
	S1->X (RF)	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.10757</b>	0.32940	0.06480	<b>0.37048</b>	2.50740	0.30000	<b>1.07771</b>

## 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	<b>0.01773</b>	0.32940	0.06480	<b>0.01769</b>	2.50740	0.30000	<b>0.02139</b>
	A1	0.01860	0.00100	<b>0.01849</b>	0.32940	0.06480	<b>0.01840</b>	2.50740	0.30000	<b>0.02225</b>
	A2	0.01860	0.00100	<b>0.01903</b>	0.32940	0.06480	<b>0.01900</b>	2.50740	0.30000	<b>0.02288</b>
	A3	0.01860	0.00100	<b>0.01792</b>	0.32940	0.06480	<b>0.01786</b>	2.50740	0.30000	<b>0.02154</b>
	S0	0.01860	0.00100	<b>0.00130</b>	0.32940	0.06480	<b>-0.00060</b>	2.50740	0.30000	<b>0.01126</b>
	S1	0.01860	0.00100	<b>0.00744</b>	0.32940	0.06480	<b>0.00854</b>	2.50740	0.30000	<b>0.01250</b>

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	<b>0.01290</b>	0.32940	0.06480	<b>0.01303</b>	2.50740	0.30000	<b>0.01706</b>
	A1	0.01860	0.00100	<b>0.01316</b>	0.32940	0.06480	<b>0.01331</b>	2.50740	0.30000	<b>0.01737</b>
	A2	0.01860	0.00100	<b>0.01814</b>	0.32940	0.06480	<b>0.01827</b>	2.50740	0.30000	<b>0.02237</b>
	A3	0.01860	0.00100	<b>0.01389</b>	0.32940	0.06480	<b>0.01398</b>	2.50740	0.30000	<b>0.01813</b>
	S0	0.01860	0.00100	<b>0.00797</b>	0.32940	0.06480	<b>0.00818</b>	2.50740	0.30000	<b>0.01379</b>
	S1	0.01860	0.00100	<b>0.00462</b>	0.32940	0.06480	<b>0.00506</b>	2.50740	0.30000	<b>0.01069</b>

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	<b>0.01262</b>	0.32940	0.06480	<b>0.01114</b>	2.50740	0.30000	<b>0.00453</b>
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.01262</b>	0.32940	0.06480	<b>0.01119</b>	2.50740	0.30000	<b>0.00454</b>
	S0	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.00130</b>	0.32940	0.06480	<b>-0.00060</b>	2.50740	0.30000	<b>0.01126</b>
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.00136</b>	0.32940	0.06480	<b>-0.00065</b>	2.50740	0.30000	<b>0.01083</b>
	S1	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.00744</b>	0.32940	0.06480	<b>0.00854</b>	2.50740	0.30000	<b>0.01250</b>
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.00744</b>	0.32940	0.06480	<b>0.00854</b>	2.50740	0.30000	<b>0.01257</b>
	S1	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00514</b>	0.32940	0.06480	<b>0.00536</b>	2.50740	0.30000	<b>0.01059</b>
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00510</b>	0.32940	0.06480	<b>0.00537</b>	2.50740	0.30000	<b>0.01063</b>

**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	<b>0.01198</b>	0.32940	0.06480	<b>0.01168</b>	2.50740	0.30000	<b>0.01184</b>
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.01188</b>	0.32940	0.06480	<b>0.01200</b>	2.50740	0.30000	<b>0.01207</b>
	S0	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.00813</b>	0.32940	0.06480	<b>0.00779</b>	2.50740	0.30000	<b>0.01368</b>
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.00797</b>	0.32940	0.06480	<b>0.00818</b>	2.50740	0.30000	<b>0.01379</b>
	S1	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.00696</b>	0.32940	0.06480	<b>0.00832</b>	2.50740	0.30000	<b>0.01208</b>
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.00696</b>	0.32940	0.06480	<b>0.00828</b>	2.50740	0.30000	<b>0.01208</b>
	S1	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00462</b>	0.32940	0.06480	<b>0.00506</b>	2.50740	0.30000	<b>0.01069</b>
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00398</b>	0.32940	0.06480	<b>0.00441</b>	2.50740	0.30000	<b>0.00992</b>

Passive power(pJ) for S0 rising :

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

Passive power(pJ) for S0 falling :

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

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	<b>0.01500</b>	0.32940	<b>0.01681</b>	2.50740	<b>0.02357</b>
	(A0 * A1 * !S1)	0.01860	<b>0.01568</b>	0.32940	<b>0.01794</b>	2.50740	<b>0.02456</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.01529</b>	0.32940	<b>0.01709</b>	2.50740	<b>0.02394</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.01627</b>	0.32940	<b>0.01858</b>	2.50740	<b>0.02522</b>

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	<b>0.01036</b>	0.32940	<b>0.01131</b>	2.50740	<b>0.02469</b>
	(A0 * A1 * !S1)	0.01860	<b>0.01169</b>	0.32940	<b>0.01318</b>	2.50740	<b>0.02636</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.01019</b>	0.32940	<b>0.01110</b>	2.50740	<b>0.02437</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.01643</b>	0.32940	<b>0.01903</b>	2.50740	<b>0.02555</b>

Passive power(pJ) for S1 rising :

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

Passive power(pJ) for S1 falling :

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

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	<b>0.00428</b>	0.32940	<b>0.00457</b>	2.50740	<b>0.01158</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00427</b>	0.32940	<b>0.00456</b>	2.50740	<b>0.01158</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00441</b>	0.32940	<b>0.00471</b>	2.50740	<b>0.01176</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00442</b>	0.32940	<b>0.00473</b>	2.50740	<b>0.01174</b>

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	<b>0.00427</b>	0.32940	<b>0.00478</b>	2.50740	<b>0.01214</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00426</b>	0.32940	<b>0.00476</b>	2.50740	<b>0.01209</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00424</b>	0.32940	<b>0.00472</b>	2.50740	<b>0.01192</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00425</b>	0.32940	<b>0.00472</b>	2.50740	<b>0.01193</b>

# NAND2Bx



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp  
25.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2b_1	9.07200
sg13g2_nand2b_2	14.51520

## Pin Capacitance Information

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

## Leakage Information

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



## Delay Information

Delay(ns) to Y rising :

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

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	<b>0.06265</b>	0.32940	0.06480	<b>0.41121</b>	2.50740	0.30000	<b>1.53455</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03786</b>	0.32940	0.06480	<b>0.44128</b>	2.50740	0.30000	<b>2.32408</b>
sg13g2_nand2b_2	A_N->Y (FF)	0.01860	0.00100	<b>0.08421</b>	0.32940	0.12960	<b>0.47235</b>	2.50740	0.60000	<b>1.71059</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02750</b>	0.32940	0.12960	<b>0.46753</b>	2.50740	0.60000	<b>2.53376</b>

## 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	<b>0.00193</b>	0.32940	0.06480	<b>0.00194</b>	2.50740	0.30000	<b>0.00185</b>
	B	0.01860	0.00100	<b>0.00204</b>	0.32940	0.06480	<b>0.00202</b>	2.50740	0.30000	<b>0.00307</b>
sg13g2_nand2b_2	A_N	0.01860	0.00100	<b>0.00378</b>	0.32940	0.12960	<b>0.00369</b>	2.50740	0.60000	<b>0.00352</b>
	B	0.01860	0.00100	<b>0.00290</b>	0.32940	0.12960	<b>0.00334</b>	2.50740	0.60000	<b>0.00549</b>

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	<b>0.00410</b>	0.32940	0.06480	<b>0.00431</b>	2.50740	0.30000	<b>0.00405</b>
	B	0.01860	0.00100	<b>0.00411</b>	0.32940	0.06480	<b>0.00411</b>	2.50740	0.30000	<b>0.00478</b>
sg13g2_nand2b_2	A_N	0.01860	0.00100	<b>0.00819</b>	0.32940	0.12960	<b>0.00880</b>	2.50740	0.60000	<b>0.00816</b>
	B	0.01860	0.00100	<b>0.00441</b>	0.32940	0.12960	<b>0.00477</b>	2.50740	0.60000	<b>0.00666</b>

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	<b>0.00407</b>	0.32940	<b>0.00427</b>	2.50740	<b>0.00998</b>
sg13g2_nand2b_2	0.01860	<b>0.00661</b>	0.32940	<b>0.00644</b>	2.50740	<b>0.01154</b>

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	<b>0.00231</b>	0.32940	<b>0.00256</b>	2.50740	<b>0.00836</b>
sg13g2_nand2b_2	0.01860	<b>0.00618</b>	0.32940	<b>0.00621</b>	2.50740	<b>0.01148</b>

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	<b>0.00407</b>	0.32940	<b>0.00427</b>	2.50740	<b>0.00998</b>
sg13g2_nand2b_2	!B	0.01860	<b>0.00661</b>	0.32940	<b>0.00644</b>	2.50740	<b>0.01154</b>

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	<b>0.00231</b>	0.32940	<b>0.00256</b>	2.50740	<b>0.00836</b>
sg13g2_nand2b_2	!B	0.01860	<b>0.00618</b>	0.32940	<b>0.00621</b>	2.50740	<b>0.01148</b>

# NAND2x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2_1	7.25760
sg13g2_nand2_2	10.88640

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

Delay(ns) to Y falling :

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

## Power Information

Internal switching power(pJ) to Y rising :

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

Internal switching power(pJ) to Y falling :

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

# NAND3B



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## 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	0.00222	0.00297	0.00299	0.30000

## Leakage Information



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

## Delay Information

Delay(ns) to Y rising :

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

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	<b>0.07615</b>	0.32940	0.06480	<b>0.54110</b>	2.50740	0.30000	<b>2.09688</b>
	B->Y (RF)	0.01860	0.00100	<b>0.05623</b>	0.32940	0.06480	<b>0.57299</b>	2.50740	0.30000	<b>2.89043</b>
	C->Y (RF)	0.01860	0.00100	<b>0.06023</b>	0.32940	0.06480	<b>0.55632</b>	2.50740	0.30000	<b>2.71271</b>

## 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	<b>0.00207</b>	0.32940	0.06480	<b>0.00203</b>	2.50740	0.30000	<b>0.00194</b>
	B	0.01860	0.00100	<b>0.00224</b>	0.32940	0.06480	<b>0.00218</b>	2.50740	0.30000	<b>0.00307</b>
	C	0.01860	0.00100	<b>0.00247</b>	0.32940	0.06480	<b>0.00231</b>	2.50740	0.30000	<b>0.00325</b>

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	<b>0.00539</b>	0.32940	0.06480	<b>0.00552</b>	2.50740	0.30000	<b>0.00495</b>
	B	0.01860	0.00100	<b>0.00538</b>	0.32940	0.06480	<b>0.00537</b>	2.50740	0.30000	<b>0.00561</b>
	C	0.01860	0.00100	<b>0.00687</b>	0.32940	0.06480	<b>0.00689</b>	2.50740	0.30000	<b>0.00704</b>

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	<b>0.00407</b>	0.32940	<b>0.00428</b>	2.50740	<b>0.00998</b>

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	<b>0.00229</b>	0.32940	<b>0.00254</b>	2.50740	<b>0.00834</b>

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	<b>0.00407</b>	0.32940	<b>0.00428</b>	2.50740	<b>0.00998</b>

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	<b>0.00229</b>	0.32940	<b>0.00254</b>	2.50740	<b>0.00834</b>

# NAND3



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand3_1	9.07200

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

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	<b>0.04393</b>	0.32940	0.06480	<b>0.57586</b>	2.50740	0.30000	<b>2.99382</b>
	B->Y (RF)	0.01860	0.00100	<b>0.05331</b>	0.32940	0.06480	<b>0.56988</b>	2.50740	0.30000	<b>2.88425</b>
	C->Y (RF)	0.01860	0.00100	<b>0.05715</b>	0.32940	0.06480	<b>0.55316</b>	2.50740	0.30000	<b>2.70611</b>

## 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	<b>0.00183</b>	0.32940	0.06480	<b>0.00195</b>	2.50740	0.30000	<b>0.00284</b>
	B	0.01860	0.00100	<b>0.00208</b>	0.32940	0.06480	<b>0.00200</b>	2.50740	0.30000	<b>0.00290</b>
	C	0.01860	0.00100	<b>0.00233</b>	0.32940	0.06480	<b>0.00215</b>	2.50740	0.30000	<b>0.00329</b>

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	<b>0.00365</b>	0.32940	0.06480	<b>0.00381</b>	2.50740	0.30000	<b>0.00422</b>
	B	0.01860	0.00100	<b>0.00541</b>	0.32940	0.06480	<b>0.00537</b>	2.50740	0.30000	<b>0.00556</b>
	C	0.01860	0.00100	<b>0.00688</b>	0.32940	0.06480	<b>0.00690</b>	2.50740	0.30000	<b>0.00701</b>



# NAND4



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand4_1	10.88640

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

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	<b>0.05714</b>	0.32940	0.06480	<b>0.69756</b>	2.50740	0.30000	<b>3.51281</b>
	B->Y (RF)	0.01860	0.00100	<b>0.07121</b>	0.32940	0.06480	<b>0.70115</b>	2.50740	0.30000	<b>3.43739</b>
	C->Y (RF)	0.01860	0.00100	<b>0.07919</b>	0.32940	0.06480	<b>0.69230</b>	2.50740	0.30000	<b>3.28792</b>
	D->Y (RF)	0.01860	0.00100	<b>0.08296</b>	0.32940	0.06480	<b>0.68493</b>	2.50740	0.30000	<b>3.15966</b>

## 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	<b>0.00189</b>	0.32940	0.06480	<b>0.00201</b>	2.50740	0.30000	<b>0.00291</b>
	B	0.01860	0.00100	<b>0.00215</b>	0.32940	0.06480	<b>0.00206</b>	2.50740	0.30000	<b>0.00274</b>
	C	0.01860	0.00100	<b>0.00242</b>	0.32940	0.06480	<b>0.00222</b>	2.50740	0.30000	<b>0.00296</b>
	D	0.01860	0.00100	<b>0.00263</b>	0.32940	0.06480	<b>0.00242</b>	2.50740	0.30000	<b>0.00324</b>

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	<b>0.00440</b>	0.32940	0.06480	<b>0.00437</b>	2.50740	0.30000	<b>0.00523</b>
	B	0.01860	0.00100	<b>0.00618</b>	0.32940	0.06480	<b>0.00601</b>	2.50740	0.30000	<b>0.00658</b>
	C	0.01860	0.00100	<b>0.00768</b>	0.32940	0.06480	<b>0.00752</b>	2.50740	0.30000	<b>0.00807</b>
	D	0.01860	0.00100	<b>0.00911</b>	0.32940	0.06480	<b>0.00896</b>	2.50740	0.30000	<b>0.00933</b>

# NOR2Bx



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor2b_1	9.07200
sg13g2_nor2b_2	12.70080

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

Delay(ns) to Y falling :

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

## Power Information

Internal switching power(pJ) to Y rising :

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

Internal switching power(pJ) to Y falling :

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

Passive power(pJ) for B\_N rising :

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

Passive power(pJ) for B\_N falling :

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

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



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

**Passive power(pJ) for B\_N falling (conditional):**

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

# NOR2x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor2_1	7.25760
sg13g2_nor2_2	10.88640

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

Delay(ns) to Y falling :

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

## Power Information

Internal switching power(pJ) to Y rising :

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

Internal switching power(pJ) to Y falling :

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

# NOR3x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor3_1	9.07200
sg13g2_nor3_2	16.32960

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

Delay(ns) to Y falling :

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



## Power Information

Internal switching power(pJ) to Y rising :

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

Internal switching power(pJ) to Y falling :

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

# NOR4x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor4_1	10.88640
sg13g2_nor4_2	21.77280

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

Delay(ns) to Y falling :

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

## Power Information

Internal switching power(pJ) to Y rising :

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

Internal switching power(pJ) to Y falling :

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

# O21AI



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_o21ai_1	9.07200

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

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

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	<b>0.04632</b>	0.32940	0.06480	<b>0.44461</b>	2.50740	0.30000	<b>2.26400</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.03934</b>	0.32940	0.06480	<b>0.43562</b>	2.50740	0.30000	<b>2.25106</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.03053</b>	0.32940	0.06480	<b>0.45067</b>	2.50740	0.30000	<b>2.42144</b>

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	<b>0.02621</b>	0.32940	0.06480	<b>0.41115</b>	2.50740	0.30000	<b>2.29606</b>

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	<b>0.03053</b>	0.32940	0.06480	<b>0.45067</b>	2.50740	0.30000	<b>2.42144</b>



## 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	<b>0.00513</b>	0.32940	0.06480	<b>0.00491</b>	2.50740	0.30000	<b>0.00597</b>
	A2	0.01860	0.00100	<b>0.00275</b>	0.32940	0.06480	<b>0.00262</b>	2.50740	0.30000	<b>0.00402</b>
	B1	0.01860	0.00100	<b>0.00173</b>	0.32940	0.06480	<b>0.00196</b>	2.50740	0.30000	<b>0.00299</b>

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	<b>0.00478</b>	0.32940	0.06480	<b>0.00456</b>	2.50740	0.30000	<b>0.00540</b>
	A2	0.01860	0.00100	<b>0.00453</b>	0.32940	0.06480	<b>0.00461</b>	2.50740	0.30000	<b>0.00543</b>
	B1	0.01860	0.00100	<b>0.00242</b>	0.32940	0.06480	<b>0.00257</b>	2.50740	0.30000	<b>0.00373</b>

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	<b>0.00173</b>	0.32940	0.06480	<b>0.00196</b>	2.50740	0.30000	<b>0.00299</b>

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	<b>0.00242</b>	0.32940	0.06480	<b>0.00257</b>	2.50740	0.30000	<b>0.00373</b>

# OR2x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_or2_1	9.07200
sg13g2_or2_2	10.88640

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

Delay(ns) to X falling :

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

## Power Information

Internal switching power(pJ) to X rising :

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

Internal switching power(pJ) to X falling :

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

# OR3x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_or3_1	12.70080
sg13g2_or3_2	14.51520

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

Delay(ns) to X falling :

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



## Power Information

Internal switching power(pJ) to X rising :

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

Internal switching power(pJ) to X falling :

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

# OR4x



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_or4_1	14.51520
sg13g2_or4_2	16.32960

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

Delay(ns) to X falling :

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

## Power Information

Internal switching power(pJ) to X rising :

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

Internal switching power(pJ) to X falling :

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

# SDFBBP



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_sdfbbp_1	63.50400

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

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

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	<b>0.24961</b>	0.32940	0.06480	<b>0.49450</b>	2.50740	0.30000	<b>1.24897</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.20686</b>	0.32940	0.06480	<b>0.46628</b>	2.50740	0.30000	<b>1.25333</b>

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	<b>0.30309</b>	0.32940	0.06480	<b>0.57988</b>	2.50740	0.30000	<b>1.45030</b>

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	<b>0.24961</b>	0.32940	0.06480	<b>0.49450</b>	2.50740	0.30000	<b>1.24897</b>

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	<b>0.20494</b>	0.32940	0.06480	<b>0.50350</b>	2.50740	0.30000	<b>1.39341</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.16127</b>	0.32940	0.06480	<b>0.48199</b>	2.50740	0.30000	<b>1.40905</b>

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	<b>0.25162</b>	0.32940	0.06480	<b>0.53788</b>	2.50740	0.30000	<b>1.28019</b>
	SET_B->Q_N (FF)	0.01860	0.00100	<b>0.08160</b>	0.32940	0.06480	<b>0.36987</b>	2.50740	0.30000	<b>1.18471</b>

**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	<b>0.20494</b>	0.32940	0.06480	<b>0.50350</b>	2.50740	0.30000	<b>1.39341</b>

**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	<b>0.25162</b>	0.32940	0.06480	<b>0.53788</b>	2.50740	0.30000	<b>1.28019</b>

## Constraint Information

Constraints(ns) for CLK rising :

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

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	<b>0.12787</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

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	<b>-0.09536</b>	1.26300	1.26300	<b>-0.26444</b>	2.50740	2.50740	<b>-0.34828</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12470</b>	1.26300	1.26300	<b>0.28603</b>	2.50740	2.50740	<b>0.37484</b>

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	<b>-0.10514</b>	1.26300	1.26300	<b>-0.18079</b>	2.50740	2.50740	<b>-0.22432</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.16627</b>	1.26300	1.26300	<b>0.23206</b>	2.50740	2.50740	<b>0.29515</b>

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	<b>0.06847</b>	1.26300	1.26300	<b>0.13492</b>	2.50740	2.50740	<b>0.16529</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.04401</b>	1.26300	1.26300	<b>-0.10794</b>	2.50740	2.50740	<b>-0.13577</b>

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	<b>0.14069</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

### 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	<b>-0.11981</b>	1.26300	1.26300	<b>-0.32380</b>	2.50740	2.50740	<b>-0.43683</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.14916</b>	1.26300	1.26300	<b>0.34269</b>	2.50740	2.50740	<b>0.45749</b>

### 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	<b>-0.13693</b>	1.26300	1.26300	<b>-0.20777</b>	2.50740	2.50740	<b>-0.26269</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19806</b>	1.26300	1.26300	<b>0.25634</b>	2.50740	2.50740	<b>0.33057</b>

### 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	<b>-0.09781</b>	1.26300	1.26300	<b>-0.27793</b>	2.50740	2.50740	<b>-0.37484</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.13204</b>	1.26300	1.26300	<b>0.31571</b>	2.50740	2.50740	<b>0.41912</b>

### 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	<b>-0.10759</b>	1.26300	1.26300	<b>-0.14301</b>	2.50740	2.50740	<b>-0.17709</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.16627</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.25088</b>

### 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	<b>0.01956</b>	1.26300	1.26300	<b>0.08905</b>	2.50740	2.50740	<b>0.36894</b>
	removal	CLK (R)	0.01860	0.01860	<b>0.03912</b>	1.26300	1.26300	<b>0.10524</b>	2.50740	2.50740	<b>0.12397</b>
	hold	RESET_B (R)	0.01860	0.01860	<b>-0.07825</b>	1.26300	1.26300	<b>-0.21047</b>	2.50740	2.50740	<b>-0.27744</b>
	setup	RESET_B (R)	0.01860	0.01860	<b>0.09781</b>	1.26300	1.26300	<b>0.24015</b>	2.50740	2.50740	<b>0.31877</b>

### 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	<b>0.09262</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## 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	<b>0.01649</b>	0.32940	0.06480	<b>0.01690</b>	2.50740	0.30000	<b>0.02099</b>
	SET_B	0.01860	0.00100	<b>0.03108</b>	0.32940	0.06480	<b>0.07720</b>	2.50740	0.30000	<b>0.25669</b>

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	<b>0.01626</b>	0.32940	0.06480	<b>0.01638</b>	2.50740	0.30000	<b>0.02047</b>
	RESET_B	0.01860	0.00100	<b>0.03508</b>	0.32940	0.06480	<b>0.08124</b>	2.50740	0.30000	<b>0.25405</b>

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	<b>0.01649</b>	0.32940	0.06480	<b>0.01690</b>	2.50740	0.30000	<b>0.02099</b>

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	<b>0.01626</b>	0.32940	0.06480	<b>0.01638</b>	2.50740	0.30000	<b>0.02047</b>

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	<b>0.01627</b>	0.32940	0.06480	<b>0.01652</b>	2.50740	0.30000	<b>0.02060</b>
	RESET_B	0.01860	0.00100	<b>0.03509</b>	0.32940	0.06480	<b>0.08155</b>	2.50740	0.30000	<b>0.25477</b>

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	<b>0.01649</b>	0.32940	0.06480	<b>0.01674</b>	2.50740	0.30000	<b>0.02082</b>
	SET_B	0.01860	0.00100	<b>0.03111</b>	0.32940	0.06480	<b>0.07680</b>	2.50740	0.30000	<b>0.25625</b>

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	<b>0.01627</b>	0.32940	0.06480	<b>0.01652</b>	2.50740	0.30000	<b>0.02060</b>

**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	<b>0.01649</b>	0.32940	0.06480	<b>0.01674</b>	2.50740	0.30000	<b>0.02082</b>

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

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

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

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

**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	<b>0.01187</b>	0.32940	<b>0.01173</b>	2.50740	<b>0.01960</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.01576</b>	0.32940	<b>0.01562</b>	2.50740	<b>0.02348</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01195</b>	0.32940	<b>0.01175</b>	2.50740	<b>0.01970</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01099</b>	0.32940	<b>0.01085</b>	2.50740	<b>0.01872</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01144</b>	0.32940	<b>0.01127</b>	2.50740	<b>0.01920</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01194</b>	0.32940	<b>0.01174</b>	2.50740	<b>0.01970</b>

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	<b>0.01129</b>	0.32940	<b>0.01132</b>	2.50740	<b>0.01944</b>
	(RESET_B * SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01988</b>	0.32940	<b>0.01983</b>	2.50740	<b>0.02801</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.01489</b>	0.32940	<b>0.01508</b>	2.50740	<b>0.02354</b>
	(RESET_B * !SCD * SCE * SET_B * Q * !Q_N)	0.01860	<b>0.02165</b>	0.32940	<b>0.02184</b>	2.50740	<b>0.03036</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01124</b>	0.32940	<b>0.01135</b>	2.50740	<b>0.01941</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01115</b>	0.32940	<b>0.01117</b>	2.50740	<b>0.01929</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01030</b>	0.32940	<b>0.01039</b>	2.50740	<b>0.01845</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01151</b>	0.32940	<b>0.01160</b>	2.50740	<b>0.01966</b>

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :



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

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	<b>0.01122</b>	0.32940	<b>0.01107</b>	2.50740	<b>0.01429</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>0.00488</b>	0.32940	<b>0.00473</b>	2.50740	<b>0.00769</b>

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	<b>0.01140</b>	0.32940	<b>0.01128</b>	2.50740	<b>0.01466</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>0.00475</b>	0.32940	<b>0.00461</b>	2.50740	<b>0.00764</b>

Passive power(pJ) for SCD rising :

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

Passive power(pJ) for SCD falling :

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

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	<b>0.01268</b>	0.32940	<b>0.01258</b>	2.50740	<b>0.01501</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>0.00638</b>	0.32940	<b>0.00625</b>	2.50740	<b>0.00832</b>

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	<b>0.01548</b>	0.32940	<b>0.01528</b>	2.50740	<b>0.01781</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>0.00728</b>	0.32940	<b>0.00721</b>	2.50740	<b>0.00936</b>

Passive power(pJ) for SCE rising :

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

Passive power(pJ) for SCE falling :

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

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	<b>0.01451</b>	0.32940	<b>0.01458</b>	2.50740	<b>0.01863</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.01951</b>	0.32940	<b>0.01905</b>	2.50740	<b>0.02313</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.01320</b>	0.32940	<b>0.01328</b>	2.50740	<b>0.02079</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>0.00675</b>	0.32940	<b>0.00679</b>	2.50740	<b>0.01396</b>

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	<b>0.01479</b>	0.32940	<b>0.01491</b>	2.50740	<b>0.01891</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.01876</b>	0.32940	<b>0.02417</b>	2.50740	<b>0.02833</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.00745</b>	0.32940	<b>0.02514</b>	2.50740	<b>0.03322</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>0.00703</b>	0.32940	<b>0.00708</b>	2.50740	<b>0.01380</b>

# SDFRBPQ<sub>x</sub>



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library:  
Process sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage  
1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_sdfrbpq_1	63.50400
sg13g2_sdfrbpq_2	72.57600

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

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

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_1	CLK->Q (RF)	0.01860	0.00100	<b>0.18201</b>	0.32940	0.06480	<b>0.44157</b>	2.50740	0.30000	<b>1.16765</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.09751</b>	0.32940	0.06480	<b>0.40016</b>	2.50740	0.30000	<b>1.28522</b>
sg13g2_sdfrbpq_2	CLK->Q (RF)	0.01860	0.00100	<b>0.20798</b>	0.32940	0.12960	<b>0.48478</b>	2.50740	0.60000	<b>1.20959</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.12280</b>	0.32940	0.12960	<b>0.45358</b>	2.50740	0.60000	<b>1.40894</b>

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_1	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.17223</b>	0.32940	0.06480	<b>0.46407</b>	2.50740	0.30000	<b>1.32713</b>
	CLK->Q (RR)	!SCE	0.01860	0.00100	<b>0.17228</b>	0.32940	0.06480	<b>0.46407</b>	2.50740	0.30000	<b>1.32713</b>
sg13g2_sdfrbpq_2	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.19728</b>	0.32940	0.12960	<b>0.50543</b>	2.50740	0.60000	<b>1.37115</b>
	CLK->Q (RR)	!SCE	0.01860	0.00100	<b>0.19724</b>	0.32940	0.12960	<b>0.50543</b>	2.50740	0.60000	<b>1.37115</b>

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_1	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.18192</b>	0.32940	0.06480	<b>0.44157</b>	2.50740	0.30000	<b>1.16765</b>
	CLK->Q (RF)	!SCE	0.01860	0.00100	<b>0.18201</b>	0.32940	0.06480	<b>0.44157</b>	2.50740	0.30000	<b>1.16765</b>
sg13g2_sdfrbpq_2	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.20800</b>	0.32940	0.12960	<b>0.48478</b>	2.50740	0.60000	<b>1.20959</b>
	CLK->Q (RF)	!SCE	0.01860	0.00100	<b>0.20798</b>	0.32940	0.12960	<b>0.48478</b>	2.50740	0.60000	<b>1.20959</b>

## Constraint Information

### Constraints(ns) for CLK rising :

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

### Constraints(ns) for CLK falling :

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

### Constraints(ns) for D rising :

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

### Constraints(ns) for D falling :

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

### Constraints(ns) for RESET\_B rising :

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

### Constraints(ns) for RESET\_B falling :

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

### Constraints(ns) for SCD rising :

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

### Constraints(ns) for SCD falling :

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

### Constraints(ns) for SCE rising :

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

### Constraints(ns) for SCE falling :



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

## Power Information

Internal switching power(pJ) to Q rising :

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

Internal switching power(pJ) to Q falling :

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

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

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

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

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

Passive power(pJ) for CLK rising :

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

Passive power(pJ) for CLK falling :

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

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

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

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

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

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :

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

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

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

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

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

Passive power(pJ) for SCD rising :

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

Passive power(pJ) for SCD falling :

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

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

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

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

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

Passive power(pJ) for SCE rising :

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

Passive power(pJ) for SCE falling :

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

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

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

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

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



# SDFRBP<sub>x</sub>



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_sdfrbp_1	68.94720
sg13g2_sdfrbp_2	72.57600

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

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

Delay(ns) to Q falling :

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

Delay(ns) to Q rising (conditional):

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

Delay(ns) to Q falling (conditional):

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

Delay(ns) to Q\_N rising :

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

**Delay(ns) to Q\_N falling :**

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

**Delay(ns) to Q\_N rising (conditional):**

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

**Delay(ns) to Q\_N falling (conditional):**

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

## Constraint Information

Constraints(ns) for CLK rising :

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

Constraints(ns) for D rising :

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

Constraints(ns) for D falling :

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

Constraints(ns) for RESET\_B rising :

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

Constraints(ns) for RESET\_B falling :

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

#### Constraints(ns) for SCD rising :

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

#### Constraints(ns) for SCD falling :

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

#### Constraints(ns) for SCE rising :

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

#### Constraints(ns) for SCE falling :

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

## Power Information

Internal switching power(pJ) to Q rising :

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

Internal switching power(pJ) to Q falling :

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

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

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

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

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

Internal switching power(pJ) to Q\_N rising :

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

Internal switching power(pJ) to Q\_N falling :

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

**Internal switching power(pJ) to Q\_N rising (conditional):**

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

**Internal switching power(pJ) to Q\_N falling (conditional):**

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

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

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

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

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

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



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

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

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

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

Passive power(pJ) for D rising :

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

Passive power(pJ) for D falling :

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

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

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

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

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

Passive power(pJ) for SCD rising :

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

Passive power(pJ) for SCD falling :

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

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

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

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

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

Passive power(pJ) for SCE rising :

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

Passive power(pJ) for SCE falling :

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

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

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

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

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

# SIGHOLD



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp  
25.00*

## Truth Table

INPUT	OUTPUT
SH	SH
x	-

## Footprint

Cell Name	Area
sg13g2_sighold	9.07200

## Pin Capacitance Information

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

## Leakage Information

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

## Passive Power Information

Passive power(pJ) for SH rising :

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

Passive power(pJ) for SH falling :

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



# SLGCP



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_slgcp_1	30.84480

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to GCLK rising :

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

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	<b>0.06113</b>	0.32940	0.06480	<b>0.30923</b>	2.50740	0.30000	<b>1.04620</b>

## Constraint Information

Constraints(ns) for CLK rising :

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

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	<b>0.10223</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

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	<b>-0.04138</b>	1.26300	1.26300	<b>-0.19121</b>	2.50740	2.50740	<b>-0.26034</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06423</b>	1.26300	1.26300	<b>0.26165</b>	2.50740	2.50740	<b>0.35982</b>

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	<b>-0.06774</b>	1.26300	1.26300	<b>-0.17225</b>	2.50740	2.50740	<b>-0.23813</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11758</b>	1.26300	1.26300	<b>0.21969</b>	2.50740	2.50740	<b>0.29447</b>

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	<b>-0.04379</b>	1.26300	1.26300	<b>-0.21888</b>	2.50740	2.50740	<b>-0.29952</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06794</b>	1.26300	1.26300	<b>0.28681</b>	2.50740	2.50740	<b>0.39723</b>

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	<b>-0.07419</b>	1.26300	1.26300	<b>-0.15327</b>	2.50740	2.50740	<b>-0.20770</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12615</b>	1.26300	1.26300	<b>0.19597</b>	2.50740	2.50740	<b>0.26232</b>

## 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	<b>0.00876</b>	0.32940	0.06480	<b>0.00872</b>	2.50740	0.30000	<b>0.01319</b>

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	<b>0.00558</b>	0.32940	0.06480	<b>0.00607</b>	2.50740	0.30000	<b>0.01168</b>

Passive power(pJ) for CLK rising :

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

Passive power(pJ) for CLK falling :

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

Passive power(pJ) for GATE rising :

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

Passive power(pJ) for GATE falling :

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

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	<b>0.01873</b>	0.32940	<b>0.01933</b>	2.50740	<b>0.02439</b>

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	<b>0.01589</b>	0.32940	<b>0.03019</b>	2.50740	<b>0.03571</b>

Passive power(pJ) for SCE rising :

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

Passive power(pJ) for SCE falling :

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

# TIEHI



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Footprint

Cell Name	Area
sg13g2_tiehi	7.25760

## Pin Capacitance Information

Cell Name	Max Cap(pf)
	L_HI
sg13g2_tiehi	-

## Leakage Information

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

# TIELO



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Footprint

Cell Name	Area
sg13g2_tielo	7.25760

## Pin Capacitance Information

Cell Name	Max Cap(pf)
	L_LO
sg13g2_tielo	-

## Leakage Information

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

# XNOR2



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_xnor2_1	14.51520

## Pin Capacitance Information

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

## Leakage Information



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

## Delay Information

Delay(ns) to Y rising :

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

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	<b>0.04844</b>	0.32940	0.06480	<b>0.45548</b>	2.50740	0.30000	<b>2.34417</b>
	B->Y (-F)	0.01860	0.00100	<b>0.04172</b>	0.32940	0.06480	<b>0.44697</b>	2.50740	0.30000	<b>2.33010</b>

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	<b>0.07292</b>	0.32940	0.06480	<b>0.34339</b>	2.50740	0.30000	<b>1.21422</b>
	A->Y (FR)	!B	0.01860	0.00100	<b>0.05440</b>	0.32940	0.06480	<b>0.54428</b>	2.50740	0.30000	<b>2.70026</b>
	B->Y (RR)	A	0.01860	0.00100	<b>0.06807</b>	0.32940	0.06480	<b>0.33782</b>	2.50740	0.30000	<b>1.20327</b>
	B->Y (FR)	!A	0.01860	0.00100	<b>0.04714</b>	0.32940	0.06480	<b>0.56315</b>	2.50740	0.30000	<b>2.91259</b>

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	<b>0.07119</b>	0.32940	0.06480	<b>0.43271</b>	2.50740	0.30000	<b>1.59615</b>
	A->Y (RF)	!B	0.01860	0.00100	<b>0.04844</b>	0.32940	0.06480	<b>0.45548</b>	2.50740	0.30000	<b>2.34417</b>
	B->Y (FF)	A	0.01860	0.00100	<b>0.07194</b>	0.32940	0.06480	<b>0.42183</b>	2.50740	0.30000	<b>1.57210</b>
	B->Y (RF)	!A	0.01860	0.00100	<b>0.04172</b>	0.32940	0.06480	<b>0.44697</b>	2.50740	0.30000	<b>2.33010</b>

## 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	<b>0.00781</b>	0.32940	0.06480	<b>0.00777</b>	2.50740	0.30000	<b>0.01265</b>
	B	0.01860	0.00100	<b>0.00795</b>	0.32940	0.06480	<b>0.00780</b>	2.50740	0.30000	<b>0.01370</b>

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	<b>0.00705</b>	0.32940	0.06480	<b>0.00744</b>	2.50740	0.30000	<b>0.01292</b>
	B	0.01860	0.00100	<b>0.00749</b>	0.32940	0.06480	<b>0.00664</b>	2.50740	0.30000	<b>0.01231</b>

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	<b>0.00781</b>	0.32940	0.06480	<b>0.00777</b>	2.50740	0.30000	<b>0.01265</b>
	A	!B	0.01860	0.00100	<b>0.00496</b>	0.32940	0.06480	<b>0.00470</b>	2.50740	0.30000	<b>0.00533</b>
	B	A	0.01860	0.00100	<b>0.00795</b>	0.32940	0.06480	<b>0.00780</b>	2.50740	0.30000	<b>0.01370</b>
	B	!A	0.01860	0.00100	<b>0.00329</b>	0.32940	0.06480	<b>0.00324</b>	2.50740	0.30000	<b>0.00414</b>

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	<b>0.00705</b>	0.32940	0.06480	<b>0.00744</b>	2.50740	0.30000	<b>0.01292</b>
	A	!B	0.01860	0.00100	<b>0.00494</b>	0.32940	0.06480	<b>0.00474</b>	2.50740	0.30000	<b>0.00522</b>
	B	A	0.01860	0.00100	<b>0.00749</b>	0.32940	0.06480	<b>0.00664</b>	2.50740	0.30000	<b>0.01231</b>
	B	!A	0.01860	0.00100	<b>0.00405</b>	0.32940	0.06480	<b>0.00411</b>	2.50740	0.30000	<b>0.00461</b>

# XOR2



*sg13g2\_stdcell\_typ\_1p20V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p20V\_25C, Voltage 1.20, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_xor2_1	14.51520

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

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

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	<b>0.04425</b>	0.32940	0.06480	<b>0.45060</b>	2.50740	0.30000	<b>2.33339</b>
	B->X (-F)	0.01860	0.00100	<b>0.03904</b>	0.32940	0.06480	<b>0.46730</b>	2.50740	0.30000	<b>2.48411</b>

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	<b>0.07184</b>	0.32940	0.06480	<b>0.54144</b>	2.50740	0.30000	<b>2.13028</b>
	A->X (FR)	B	0.01860	0.00100	<b>0.05873</b>	0.32940	0.06480	<b>0.55039</b>	2.50740	0.30000	<b>2.71033</b>
	B->X (RR)	!A	0.01860	0.00100	<b>0.07486</b>	0.32940	0.06480	<b>0.52807</b>	2.50740	0.30000	<b>2.08997</b>
	B->X (FR)	A	0.01860	0.00100	<b>0.05038</b>	0.32940	0.06480	<b>0.54091</b>	2.50740	0.30000	<b>2.69711</b>

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	<b>0.08766</b>	0.32940	0.06480	<b>0.32597</b>	2.50740	0.30000	<b>1.03849</b>
	A->X (RF)	B	0.01860	0.00100	<b>0.04425</b>	0.32940	0.06480	<b>0.45060</b>	2.50740	0.30000	<b>2.33339</b>
	B->X (FF)	!A	0.01860	0.00100	<b>0.08096</b>	0.32940	0.06480	<b>0.32438</b>	2.50740	0.30000	<b>1.04564</b>
	B->X (RF)	A	0.01860	0.00100	<b>0.03904</b>	0.32940	0.06480	<b>0.46730</b>	2.50740	0.30000	<b>2.48411</b>

## 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	<b>0.00692</b>	0.32940	0.06480	<b>0.00725</b>	2.50740	0.30000	<b>0.01195</b>
	B	0.01860	0.00100	<b>0.00742</b>	0.32940	0.06480	<b>0.00655</b>	2.50740	0.30000	<b>0.01165</b>

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	<b>0.00845</b>	0.32940	0.06480	<b>0.00861</b>	2.50740	0.30000	<b>0.01341</b>
	B	0.01860	0.00100	<b>0.00777</b>	0.32940	0.06480	<b>0.00783</b>	2.50740	0.30000	<b>0.01367</b>

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	<b>0.00523</b>	0.32940	0.06480	<b>0.00506</b>	2.50740	0.30000	<b>0.00556</b>
	A	!B	0.01860	0.00100	<b>0.00692</b>	0.32940	0.06480	<b>0.00725</b>	2.50740	0.30000	<b>0.01195</b>
	B	A	0.01860	0.00100	<b>0.00416</b>	0.32940	0.06480	<b>0.00412</b>	2.50740	0.30000	<b>0.00461</b>
	B	!A	0.01860	0.00100	<b>0.00742</b>	0.32940	0.06480	<b>0.00655</b>	2.50740	0.30000	<b>0.01165</b>

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	<b>0.00490</b>	0.32940	0.06480	<b>0.00455</b>	2.50740	0.30000	<b>0.00507</b>
	A	!B	0.01860	0.00100	<b>0.00845</b>	0.32940	0.06480	<b>0.00861</b>	2.50740	0.30000	<b>0.01341</b>
	B	A	0.01860	0.00100	<b>0.00397</b>	0.32940	0.06480	<b>0.00387</b>	2.50740	0.30000	<b>0.00454</b>
	B	!A	0.01860	0.00100	<b>0.00777</b>	0.32940	0.06480	<b>0.00783</b>	2.50740	0.30000	<b>0.01367</b>