

# **sg13g2\_stdcell\_typ\_1p50V\_25C Library**

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

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

# A21OIx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00315	0.00324	0.00298	0.30000
sg13g2_a21oi_2	0.00608	0.00645	0.00584	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21oi_1	186.83200	358.54600	459.77800
sg13g2_a21oi_2	373.63200	717.07700	919.55100

## 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>0.03323</b>	0.32940	0.06480	<b>0.37935</b>	2.50740	0.30000	<b>1.89310</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.03940</b>	0.32940	0.06480	<b>0.38635</b>	2.50740	0.30000	<b>1.90419</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.03203</b>	0.32940	0.06480	<b>0.41608</b>	2.50740	0.30000	<b>2.17085</b>
sg13g2_a21oi_2	A1->Y (FR)	0.01860	0.00100	<b>0.03028</b>	0.32940	0.12960	<b>0.37980</b>	2.50740	0.60000	<b>1.89687</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.03670</b>	0.32940	0.12960	<b>0.38584</b>	2.50740	0.60000	<b>1.90255</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.02931</b>	0.32940	0.12960	<b>0.41549</b>	2.50740	0.60000	<b>2.16863</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>0.02820</b>	0.32940	0.06480	<b>0.33674</b>	2.50740	0.30000	<b>1.76913</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.03070</b>	0.32940	0.06480	<b>0.31069</b>	2.50740	0.30000	<b>1.59203</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.01647</b>	0.32940	0.06480	<b>0.25015</b>	2.50740	0.30000	<b>1.37058</b>
sg13g2_a21oi_2	A1->Y (RF)	0.01860	0.00100	<b>0.02582</b>	0.32940	0.12960	<b>0.33648</b>	2.50740	0.60000	<b>1.77009</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.02862</b>	0.32940	0.12960	<b>0.31088</b>	2.50740	0.60000	<b>1.59420</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.01478</b>	0.32940	0.12960	<b>0.24948</b>	2.50740	0.60000	<b>1.36886</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>0.03203</b>	0.32940	0.06480	<b>0.41608</b>	2.50740	0.30000	<b>2.17085</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.02502</b>	0.32940	0.06480	<b>0.40757</b>	2.50740	0.30000	<b>2.15653</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.02103</b>	0.32940	0.06480	<b>0.34257</b>	2.50740	0.30000	<b>1.84691</b>
sg13g2_a21oi_2	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.02931</b>	0.32940	0.12960	<b>0.41549</b>	2.50740	0.60000	<b>2.16863</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.02214</b>	0.32940	0.12960	<b>0.40894</b>	2.50740	0.60000	<b>2.16533</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.01868</b>	0.32940	0.12960	<b>0.34283</b>	2.50740	0.60000	<b>1.85013</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>0.01647</b>	0.32940	0.06480	<b>0.25015</b>	2.50740	0.30000	<b>1.37058</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.01615</b>	0.32940	0.06480	<b>0.24871</b>	2.50740	0.30000	<b>1.36794</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.01590</b>	0.32940	0.06480	<b>0.24853</b>	2.50740	0.30000	<b>1.37054</b>
sg13g2_a21oi_2	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.01478</b>	0.32940	0.12960	<b>0.24948</b>	2.50740	0.60000	<b>1.36886</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.01447</b>	0.32940	0.12960	<b>0.24803</b>	2.50740	0.60000	<b>1.36594</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.01418</b>	0.32940	0.12960	<b>0.24787</b>	2.50740	0.60000	<b>1.36828</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>0.00688</b>	0.32940	0.06480	<b>0.00752</b>	2.50740	0.30000	<b>0.01797</b>
	A2	0.01860	0.00100	<b>0.00732</b>	0.32940	0.06480	<b>0.00779</b>	2.50740	0.30000	<b>0.01860</b>
	B1	0.01860	0.00100	<b>0.00379</b>	0.32940	0.06480	<b>0.00504</b>	2.50740	0.30000	<b>0.01785</b>
sg13g2_a21oi_2	A1	0.01860	0.00100	<b>0.01371</b>	0.32940	0.12960	<b>0.01522</b>	2.50740	0.60000	<b>0.03618</b>
	A2	0.01860	0.00100	<b>0.01475</b>	0.32940	0.12960	<b>0.01566</b>	2.50740	0.60000	<b>0.03680</b>
	B1	0.01860	0.00100	<b>0.00777</b>	0.32940	0.12960	<b>0.01058</b>	2.50740	0.60000	<b>0.03564</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>0.00479</b>	0.32940	0.06480	<b>0.00544</b>	2.50740	0.30000	<b>0.01582</b>
	A2	0.01860	0.00100	<b>0.00745</b>	0.32940	0.06480	<b>0.00781</b>	2.50740	0.30000	<b>0.01774</b>
	B1	0.01860	0.00100	<b>0.00267</b>	0.32940	0.06480	<b>0.00412</b>	2.50740	0.30000	<b>0.01578</b>
sg13g2_a21oi_2	A1	0.01860	0.00100	<b>0.00853</b>	0.32940	0.12960	<b>0.00983</b>	2.50740	0.60000	<b>0.03050</b>
	A2	0.01860	0.00100	<b>0.01412</b>	0.32940	0.12960	<b>0.01476</b>	2.50740	0.60000	<b>0.03460</b>
	B1	0.01860	0.00100	<b>0.00425</b>	0.32940	0.12960	<b>0.00749</b>	2.50740	0.60000	<b>0.03125</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>0.00379</b>	0.32940	0.06480	<b>0.00504</b>	2.50740	0.30000	<b>0.01785</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00328</b>	0.32940	0.06480	<b>0.00480</b>	2.50740	0.30000	<b>0.01745</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00330</b>	0.32940	0.06480	<b>0.00483</b>	2.50740	0.30000	<b>0.01904</b>
sg13g2_a21oi_2	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00777</b>	0.32940	0.12960	<b>0.01058</b>	2.50740	0.60000	<b>0.03564</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00647</b>	0.32940	0.12960	<b>0.00963</b>	2.50740	0.60000	<b>0.03490</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00651</b>	0.32940	0.12960	<b>0.00977</b>	2.50740	0.60000	<b>0.03859</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>0.00547</b>	0.32940	0.06480	<b>0.00686</b>	2.50740	0.30000	<b>0.01747</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00282</b>	0.32940	0.06480	<b>0.00423</b>	2.50740	0.30000	<b>0.01499</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00267</b>	0.32940	0.06480	<b>0.00412</b>	2.50740	0.30000	<b>0.01578</b>
sg13g2_a21oi_2	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00987</b>	0.32940	0.12960	<b>0.01284</b>	2.50740	0.60000	<b>0.03425</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00455</b>	0.32940	0.12960	<b>0.00753</b>	2.50740	0.60000	<b>0.02947</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00425</b>	0.32940	0.12960	<b>0.00749</b>	2.50740	0.60000	<b>0.03125</b>

# A21Ox



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_a21o_1	0.00288	0.00300	0.00279	0.30000
sg13g2_a21o_2	0.00306	0.00309	0.00291	0.60000

## Leakage Information

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

## 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>0.05559</b>	0.32940	0.06480	<b>0.25410</b>	2.50740	0.30000	<b>0.89463</b>
	A2->X (RR)	0.01860	0.00100	<b>0.05775</b>	0.32940	0.06480	<b>0.24800</b>	2.50740	0.30000	<b>0.86177</b>
	B1->X (RR)	0.01860	0.00100	<b>0.03801</b>	0.32940	0.06480	<b>0.22106</b>	2.50740	0.30000	<b>0.78307</b>
sg13g2_a21o_2	A1->X (RR)	0.01860	0.00100	<b>0.05921</b>	0.32940	0.12960	<b>0.26816</b>	2.50740	0.60000	<b>0.89590</b>
	A2->X (RR)	0.01860	0.00100	<b>0.06126</b>	0.32940	0.12960	<b>0.26014</b>	2.50740	0.60000	<b>0.86277</b>
	B1->X (RR)	0.01860	0.00100	<b>0.04045</b>	0.32940	0.12960	<b>0.23488</b>	2.50740	0.60000	<b>0.78964</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>0.06245</b>	0.32940	0.06480	<b>0.22716</b>	2.50740	0.30000	<b>0.74715</b>
	A2->X (FF)	0.01860	0.00100	<b>0.06890</b>	0.32940	0.06480	<b>0.23930</b>	2.50740	0.30000	<b>0.78064</b>
	B1->X (FF)	0.01860	0.00100	<b>0.06164</b>	0.32940	0.06480	<b>0.24742</b>	2.50740	0.30000	<b>0.83886</b>
sg13g2_a21o_2	A1->X (FF)	0.01860	0.00100	<b>0.07863</b>	0.32940	0.12960	<b>0.26301</b>	2.50740	0.60000	<b>0.83400</b>
	A2->X (FF)	0.01860	0.00100	<b>0.08578</b>	0.32940	0.12960	<b>0.27539</b>	2.50740	0.60000	<b>0.86681</b>
	B1->X (FF)	0.01860	0.00100	<b>0.07884</b>	0.32940	0.12960	<b>0.28968</b>	2.50740	0.60000	<b>0.94036</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>0.05559</b>	0.32940	0.06480	<b>0.25410</b>	2.50740	0.30000	<b>0.89463</b>
	A2->X (RR)	!B1	0.01860	0.00100	<b>0.05775</b>	0.32940	0.06480	<b>0.24800</b>	2.50740	0.30000	<b>0.86177</b>
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	<b>0.03801</b>	0.32940	0.06480	<b>0.22106</b>	2.50740	0.30000	<b>0.78307</b>
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	<b>0.03587</b>	0.32940	0.06480	<b>0.21193</b>	2.50740	0.30000	<b>0.75529</b>
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	<b>0.03566</b>	0.32940	0.06480	<b>0.21290</b>	2.50740	0.30000	<b>0.77621</b>
sg13g2_a21o_2	A1->X (RR)	!B1	0.01860	0.00100	<b>0.05921</b>	0.32940	0.12960	<b>0.26816</b>	2.50740	0.60000	<b>0.89590</b>
	A2->X (RR)	!B1	0.01860	0.00100	<b>0.06126</b>	0.32940	0.12960	<b>0.26014</b>	2.50740	0.60000	<b>0.86277</b>
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	<b>0.04045</b>	0.32940	0.12960	<b>0.23488</b>	2.50740	0.60000	<b>0.78964</b>
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	<b>0.03885</b>	0.32940	0.12960	<b>0.22610</b>	2.50740	0.60000	<b>0.76546</b>
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	<b>0.03863</b>	0.32940	0.12960	<b>0.22641</b>	2.50740	0.60000	<b>0.78553</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>0.06245</b>	0.32940	0.06480	<b>0.22716</b>	2.50740	0.30000	<b>0.74715</b>
	A2->X (FF)	!B1	0.01860	0.00100	<b>0.06890</b>	0.32940	0.06480	<b>0.23930</b>	2.50740	0.30000	<b>0.78064</b>
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	<b>0.06164</b>	0.32940	0.06480	<b>0.24742</b>	2.50740	0.30000	<b>0.83886</b>
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	<b>0.05415</b>	0.32940	0.06480	<b>0.23302</b>	2.50740	0.30000	<b>0.81369</b>
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	<b>0.04564</b>	0.32940	0.06480	<b>0.21634</b>	2.50740	0.30000	<b>0.76172</b>
sg13g2_a21o_2	A1->X (FF)	!B1	0.01860	0.00100	<b>0.07863</b>	0.32940	0.12960	<b>0.26301</b>	2.50740	0.60000	<b>0.83400</b>
	A2->X (FF)	!B1	0.01860	0.00100	<b>0.08578</b>	0.32940	0.12960	<b>0.27539</b>	2.50740	0.60000	<b>0.86681</b>
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	<b>0.07884</b>	0.32940	0.12960	<b>0.28968</b>	2.50740	0.60000	<b>0.94036</b>
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	<b>0.07021</b>	0.32940	0.12960	<b>0.27454</b>	2.50740	0.60000	<b>0.91363</b>
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	<b>0.05728</b>	0.32940	0.12960	<b>0.25275</b>	2.50740	0.60000	<b>0.85568</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>0.01139</b>	0.32940	0.06480	<b>0.01379</b>	2.50740	0.30000	<b>0.04418</b>
	A2	0.01860	0.00100	<b>0.01374</b>	0.32940	0.06480	<b>0.01544</b>	2.50740	0.30000	<b>0.04446</b>
	B1	0.01860	0.00100	<b>0.00952</b>	0.32940	0.06480	<b>0.01290</b>	2.50740	0.30000	<b>0.04696</b>
sg13g2_a21o_2	A1	0.01860	0.00100	<b>0.01819</b>	0.32940	0.12960	<b>0.02057</b>	2.50740	0.60000	<b>0.05257</b>
	A2	0.01860	0.00100	<b>0.02078</b>	0.32940	0.12960	<b>0.02238</b>	2.50740	0.60000	<b>0.05312</b>
	B1	0.01860	0.00100	<b>0.01586</b>	0.32940	0.12960	<b>0.01966</b>	2.50740	0.60000	<b>0.05533</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>0.01320</b>	0.32940	0.06480	<b>0.01509</b>	2.50740	0.30000	<b>0.04546</b>
	A2	0.01860	0.00100	<b>0.01329</b>	0.32940	0.06480	<b>0.01512</b>	2.50740	0.30000	<b>0.04520</b>
	B1	0.01860	0.00100	<b>0.00992</b>	0.32940	0.06480	<b>0.01373</b>	2.50740	0.30000	<b>0.04534</b>
sg13g2_a21o_2	A1	0.01860	0.00100	<b>0.02059</b>	0.32940	0.12960	<b>0.02154</b>	2.50740	0.60000	<b>0.05337</b>
	A2	0.01860	0.00100	<b>0.02100</b>	0.32940	0.12960	<b>0.02171</b>	2.50740	0.60000	<b>0.05407</b>
	B1	0.01860	0.00100	<b>0.01801</b>	0.32940	0.12960	<b>0.02012</b>	2.50740	0.60000	<b>0.05431</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>0.01139</b>	0.32940	0.06480	<b>0.01379</b>	2.50740	0.30000	<b>0.04418</b>
	A2	!B1	0.01860	0.00100	<b>0.01374</b>	0.32940	0.06480	<b>0.01544</b>	2.50740	0.30000	<b>0.04446</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.01196</b>	0.32940	0.06480	<b>0.01499</b>	2.50740	0.30000	<b>0.04747</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00965</b>	0.32940	0.06480	<b>0.01277</b>	2.50740	0.30000	<b>0.04474</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00952</b>	0.32940	0.06480	<b>0.01290</b>	2.50740	0.30000	<b>0.04696</b>
sg13g2_a21o_2	A1	!B1	0.01860	0.00100	<b>0.01819</b>	0.32940	0.12960	<b>0.02057</b>	2.50740	0.60000	<b>0.05257</b>
	A2	!B1	0.01860	0.00100	<b>0.02078</b>	0.32940	0.12960	<b>0.02238</b>	2.50740	0.60000	<b>0.05312</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.01872</b>	0.32940	0.12960	<b>0.02241</b>	2.50740	0.60000	<b>0.05628</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.01601</b>	0.32940	0.12960	<b>0.01954</b>	2.50740	0.60000	<b>0.05240</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.01586</b>	0.32940	0.12960	<b>0.01966</b>	2.50740	0.60000	<b>0.05533</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>0.01320</b>	0.32940	0.06480	<b>0.01509</b>	2.50740	0.30000	<b>0.04546</b>
	A2	!B1	0.01860	0.00100	<b>0.01329</b>	0.32940	0.06480	<b>0.01512</b>	2.50740	0.30000	<b>0.04520</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.01027</b>	0.32940	0.06480	<b>0.01358</b>	2.50740	0.30000	<b>0.04526</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00992</b>	0.32940	0.06480	<b>0.01373</b>	2.50740	0.30000	<b>0.04534</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00985</b>	0.32940	0.06480	<b>0.01410</b>	2.50740	0.30000	<b>0.04822</b>
sg13g2_a21o_2	A1	!B1	0.01860	0.00100	<b>0.02059</b>	0.32940	0.12960	<b>0.02154</b>	2.50740	0.60000	<b>0.05337</b>
	A2	!B1	0.01860	0.00100	<b>0.02100</b>	0.32940	0.12960	<b>0.02171</b>	2.50740	0.60000	<b>0.05407</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.01801</b>	0.32940	0.12960	<b>0.02012</b>	2.50740	0.60000	<b>0.05431</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.01739</b>	0.32940	0.12960	<b>0.02019</b>	2.50740	0.60000	<b>0.05420</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.01666</b>	0.32940	0.12960	<b>0.02052</b>	2.50740	0.60000	<b>0.05747</b>

# A221OI



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_a221oi_1	0.00310	0.00320	0.00305	0.00319	0.00295	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1->Y (FR)	0.01860	0.00100	<b>0.07458</b>	0.32940	0.06480	<b>0.52769</b>	2.50740	0.30000	<b>2.35254</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.08345</b>	0.32940	0.06480	<b>0.53616</b>	2.50740	0.30000	<b>2.35828</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.06662</b>	0.32940	0.06480	<b>0.54347</b>	2.50740	0.30000	<b>2.57697</b>
	B2->Y (FR)	0.01860	0.00100	<b>0.07548</b>	0.32940	0.06480	<b>0.55171</b>	2.50740	0.30000	<b>2.58557</b>
	C1->Y (FR)	0.01860	0.00100	<b>0.04286</b>	0.32940	0.06480	<b>0.48608</b>	2.50740	0.30000	<b>2.47479</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>0.03645</b>	0.32940	0.06480	<b>0.35219</b>	2.50740	0.30000	<b>1.78973</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.03854</b>	0.32940	0.06480	<b>0.32572</b>	2.50740	0.30000	<b>1.61238</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.03294</b>	0.32940	0.06480	<b>0.34372</b>	2.50740	0.30000	<b>1.77623</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.03531</b>	0.32940	0.06480	<b>0.31768</b>	2.50740	0.30000	<b>1.59791</b>
	C1->Y (RF)	0.01860	0.00100	<b>0.01873</b>	0.32940	0.06480	<b>0.25246</b>	2.50740	0.30000	<b>1.37112</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>0.07458</b>	0.32940	0.06480	<b>0.52769</b>	2.50740	0.30000	<b>2.35254</b>
	A1->Y (FR)	(A2 * !B1 * B2 * !C1)	0.01860	0.00100	<b>0.06389</b>	0.32940	0.06480	<b>0.51778</b>	2.50740	0.30000	<b>2.34580</b>
	A1->Y (FR)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.05797</b>	0.32940	0.06480	<b>0.45818</b>	2.50740	0.30000	<b>2.11758</b>
	A2->Y (FR)	(A1 * B1 * !B2 * !C1)	0.01860	0.00100	<b>0.08345</b>	0.32940	0.06480	<b>0.53616</b>	2.50740	0.30000	<b>2.35828</b>
	A2->Y (FR)	(A1 * !B1 * B2 * !C1)	0.01860	0.00100	<b>0.07308</b>	0.32940	0.06480	<b>0.52651</b>	2.50740	0.30000	<b>2.35345</b>
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.06553</b>	0.32940	0.06480	<b>0.46526</b>	2.50740	0.30000	<b>2.12451</b>
	B1->Y (FR)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.06662</b>	0.32940	0.06480	<b>0.54347</b>	2.50740	0.30000	<b>2.57697</b>
	B1->Y (FR)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	<b>0.05586</b>	0.32940	0.06480	<b>0.53327</b>	2.50740	0.30000	<b>2.56871</b>
	B1->Y (FR)	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.04726</b>	0.32940	0.06480	<b>0.45961</b>	2.50740	0.30000	<b>2.24110</b>
	B2->Y (FR)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.07548</b>	0.32940	0.06480	<b>0.55171</b>	2.50740	0.30000	<b>2.58557</b>
	B2->Y (FR)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	<b>0.06505</b>	0.32940	0.06480	<b>0.54163</b>	2.50740	0.30000	<b>2.57752</b>
	B2->Y (FR)	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.05469</b>	0.32940	0.06480	<b>0.46640</b>	2.50740	0.30000	<b>2.24737</b>
	C1->Y (FR)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.04068</b>	0.32940	0.06480	<b>0.48455</b>	2.50740	0.30000	<b>2.47352</b>
	C1->Y (FR)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	<b>0.03215</b>	0.32940	0.06480	<b>0.47608</b>	2.50740	0.30000	<b>2.46797</b>
	C1->Y (FR)	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	<b>0.04286</b>	0.32940	0.06480	<b>0.48608</b>	2.50740	0.30000	<b>2.47479</b>
	C1->Y (FR)	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	<b>0.03426</b>	0.32940	0.06480	<b>0.47862</b>	2.50740	0.30000	<b>2.47190</b>
	C1->Y (FR)	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.02896</b>	0.32940	0.06480	<b>0.41164</b>	2.50740	0.30000	<b>2.16467</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)

sg13g2_a221oi_1	A1->Y (RF)	(A2 * B1 * !B2 * !C1)	0.01860	0.00100	<b>0.03582</b>	0.32940	0.06480	<b>0.35220</b>	2.50740	0.30000	<b>1.78868</b>
	A1->Y (RF)	(A2 * !B1 * B2 * !C1)	0.01860	0.00100	<b>0.03496</b>	0.32940	0.06480	<b>0.34953</b>	2.50740	0.30000	<b>1.78555</b>
	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.03645</b>	0.32940	0.06480	<b>0.35219</b>	2.50740	0.30000	<b>1.78973</b>
	A2->Y (RF)	(A1 * B1 * !B2 * !C1)	0.01860	0.00100	<b>0.03792</b>	0.32940	0.06480	<b>0.32575</b>	2.50740	0.30000	<b>1.61000</b>
	A2->Y (RF)	(A1 * !B1 * B2 * !C1)	0.01860	0.00100	<b>0.03705</b>	0.32940	0.06480	<b>0.32330</b>	2.50740	0.30000	<b>1.60831</b>
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.03854</b>	0.32940	0.06480	<b>0.32572</b>	2.50740	0.30000	<b>1.61238</b>
	B1->Y (RF)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.03294</b>	0.32940	0.06480	<b>0.34372</b>	2.50740	0.30000	<b>1.77623</b>
	B1->Y (RF)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	<b>0.03230</b>	0.32940	0.06480	<b>0.34106</b>	2.50740	0.30000	<b>1.77259</b>
	B1->Y (RF)	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.03199</b>	0.32940	0.06480	<b>0.34094</b>	2.50740	0.30000	<b>1.77457</b>
	B2->Y (RF)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.03531</b>	0.32940	0.06480	<b>0.31768</b>	2.50740	0.30000	<b>1.59791</b>
	B2->Y (RF)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	<b>0.03470</b>	0.32940	0.06480	<b>0.31533</b>	2.50740	0.30000	<b>1.59585</b>
	B2->Y (RF)	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.03440</b>	0.32940	0.06480	<b>0.31507</b>	2.50740	0.30000	<b>1.59790</b>
	C1->Y (RF)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.01873</b>	0.32940	0.06480	<b>0.25246</b>	2.50740	0.30000	<b>1.37112</b>
	C1->Y (RF)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	<b>0.01843</b>	0.32940	0.06480	<b>0.25109</b>	2.50740	0.30000	<b>1.36838</b>
	C1->Y (RF)	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	<b>0.01884</b>	0.32940	0.06480	<b>0.25246</b>	2.50740	0.30000	<b>1.37113</b>
	C1->Y (RF)	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	<b>0.01855</b>	0.32940	0.06480	<b>0.25109</b>	2.50740	0.30000	<b>1.36834</b>
	C1->Y (RF)	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.01834</b>	0.32940	0.06480	<b>0.25094</b>	2.50740	0.30000	<b>1.37054</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>0.01285</b>	0.32940	0.06480	<b>0.01274</b>	2.50740	0.30000	<b>0.02164</b>
	A2	0.01860	0.00100	<b>0.01311</b>	0.32940	0.06480	<b>0.01294</b>	2.50740	0.30000	<b>0.02206</b>
	B1	0.01860	0.00100	<b>0.00985</b>	0.32940	0.06480	<b>0.01000</b>	2.50740	0.30000	<b>0.01815</b>
	B2	0.01860	0.00100	<b>0.01002</b>	0.32940	0.06480	<b>0.01016</b>	2.50740	0.30000	<b>0.01863</b>
	C1	0.01860	0.00100	<b>0.00617</b>	0.32940	0.06480	<b>0.00715</b>	2.50740	0.30000	<b>0.01866</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>0.00776</b>	0.32940	0.06480	<b>0.00785</b>	2.50740	0.30000	<b>0.01707</b>
	A2	0.01860	0.00100	<b>0.01032</b>	0.32940	0.06480	<b>0.01038</b>	2.50740	0.30000	<b>0.01923</b>
	B1	0.01860	0.00100	<b>0.00500</b>	0.32940	0.06480	<b>0.00546</b>	2.50740	0.30000	<b>0.01500</b>
	B2	0.01860	0.00100	<b>0.00770</b>	0.32940	0.06480	<b>0.00800</b>	2.50740	0.30000	<b>0.01710</b>
	C1	0.01860	0.00100	<b>0.00290</b>	0.32940	0.06480	<b>0.00420</b>	2.50740	0.30000	<b>0.01496</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>0.01285</b>	0.32940	0.06480	<b>0.01274</b>	2.50740	0.30000	<b>0.02164</b>
	A1	(A2 * !B1 * B2 * !C1)	0.01860	0.00100	<b>0.01235</b>	0.32940	0.06480	<b>0.01235</b>	2.50740	0.30000	<b>0.02134</b>
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01540</b>	0.32940	0.06480	<b>0.01551</b>	2.50740	0.30000	<b>0.02444</b>
	A2	(A1 * B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01311</b>	0.32940	0.06480	<b>0.01294</b>	2.50740	0.30000	<b>0.02206</b>
	A2	(A1 * !B1 * B2 * !C1)	0.01860	0.00100	<b>0.01272</b>	0.32940	0.06480	<b>0.01260</b>	2.50740	0.30000	<b>0.02177</b>
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01572</b>	0.32940	0.06480	<b>0.01561</b>	2.50740	0.30000	<b>0.02501</b>
	B1	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.00985</b>	0.32940	0.06480	<b>0.01000</b>	2.50740	0.30000	<b>0.01815</b>
	B1	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	<b>0.00935</b>	0.32940	0.06480	<b>0.00956</b>	2.50740	0.30000	<b>0.01780</b>
	B1	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.00935</b>	0.32940	0.06480	<b>0.00978</b>	2.50740	0.30000	<b>0.01874</b>
	B2	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.01002</b>	0.32940	0.06480	<b>0.01016</b>	2.50740	0.30000	<b>0.01863</b>
	B2	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	<b>0.00965</b>	0.32940	0.06480	<b>0.00972</b>	2.50740	0.30000	<b>0.01826</b>
	B2	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.00961</b>	0.32940	0.06480	<b>0.00980</b>	2.50740	0.30000	<b>0.01922</b>
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00615</b>	0.32940	0.06480	<b>0.00729</b>	2.50740	0.30000	<b>0.01857</b>
	C1	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00566</b>	0.32940	0.06480	<b>0.00686</b>	2.50740	0.30000	<b>0.01823</b>
	C1	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	<b>0.00617</b>	0.32940	0.06480	<b>0.00715</b>	2.50740	0.30000	<b>0.01866</b>
	C1	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	<b>0.00567</b>	0.32940	0.06480	<b>0.00692</b>	2.50740	0.30000	<b>0.01828</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00570</b>	0.32940	0.06480	<b>0.00713</b>	2.50740	0.30000	<b>0.01982</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)

sg13g2_a221oi_1	A1	(A2 * B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01038</b>	0.32940	0.06480	<b>0.01051</b>	2.50740	0.30000	<b>0.01971</b>
	A1	(A2 * !B1 * B2 * !C1)	0.01860	0.00100	<b>0.00776</b>	0.32940	0.06480	<b>0.00785</b>	2.50740	0.30000	<b>0.01707</b>
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.00638</b>	0.32940	0.06480	<b>0.00658</b>	2.50740	0.30000	<b>0.01618</b>
	A2	(A1 * B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01298</b>	0.32940	0.06480	<b>0.01299</b>	2.50740	0.30000	<b>0.02171</b>
	A2	(A1 * !B1 * B2 * !C1)	0.01860	0.00100	<b>0.01032</b>	0.32940	0.06480	<b>0.01038</b>	2.50740	0.30000	<b>0.01923</b>
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.00894</b>	0.32940	0.06480	<b>0.00898</b>	2.50740	0.30000	<b>0.01824</b>
	B1	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.00780</b>	0.32940	0.06480	<b>0.00818</b>	2.50740	0.30000	<b>0.01702</b>
	B1	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	<b>0.00514</b>	0.32940	0.06480	<b>0.00562</b>	2.50740	0.30000	<b>0.01439</b>
	B1	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.00500</b>	0.32940	0.06480	<b>0.00546</b>	2.50740	0.30000	<b>0.01500</b>
	B2	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.01049</b>	0.32940	0.06480	<b>0.01076</b>	2.50740	0.30000	<b>0.01900</b>
	B2	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	<b>0.00783</b>	0.32940	0.06480	<b>0.00810</b>	2.50740	0.30000	<b>0.01645</b>
	B2	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.00770</b>	0.32940	0.06480	<b>0.00800</b>	2.50740	0.30000	<b>0.01710</b>
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00560</b>	0.32940	0.06480	<b>0.00693</b>	2.50740	0.30000	<b>0.01657</b>
	C1	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00295</b>	0.32940	0.06480	<b>0.00430</b>	2.50740	0.30000	<b>0.01419</b>
	C1	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	<b>0.00568</b>	0.32940	0.06480	<b>0.00691</b>	2.50740	0.30000	<b>0.01648</b>
	C1	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	<b>0.00302</b>	0.32940	0.06480	<b>0.00429</b>	2.50740	0.30000	<b>0.01418</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00290</b>	0.32940	0.06480	<b>0.00420</b>	2.50740	0.30000	<b>0.01496</b>

# A22OI



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_a22oi_1	0.00324	0.00328	0.00317	0.00310	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a22oi_1	185.84500	432.99500	681.16500

## 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>0.03809</b>	0.32940	0.06480	<b>0.38430</b>	2.50740	0.30000	<b>1.89838</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.04373</b>	0.32940	0.06480	<b>0.38952</b>	2.50740	0.30000	<b>1.90168</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.04113</b>	0.32940	0.06480	<b>0.42418</b>	2.50740	0.30000	<b>2.17155</b>
	B2->Y (FR)	0.01860	0.00100	<b>0.03505</b>	0.32940	0.06480	<b>0.41658</b>	2.50740	0.30000	<b>2.15707</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>0.03168</b>	0.32940	0.06480	<b>0.34068</b>	2.50740	0.30000	<b>1.77457</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.03389</b>	0.32940	0.06480	<b>0.31468</b>	2.50740	0.30000	<b>1.59714</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.02755</b>	0.32940	0.06480	<b>0.30763</b>	2.50740	0.30000	<b>1.58560</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.02487</b>	0.32940	0.06480	<b>0.33335</b>	2.50740	0.30000	<b>1.76355</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>0.03809</b>	0.32940	0.06480	<b>0.38430</b>	2.50740	0.30000	<b>1.89838</b>
	A2->Y (FR)	(A1 * B1)	0.01860	0.00100	<b>0.04373</b>	0.32940	0.06480	<b>0.38952</b>	2.50740	0.30000	<b>1.90168</b>
	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.04113</b>	0.32940	0.06480	<b>0.42418</b>	2.50740	0.30000	<b>2.17155</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.03437</b>	0.32940	0.06480	<b>0.41581</b>	2.50740	0.30000	<b>2.15824</b>
	B2->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.03505</b>	0.32940	0.06480	<b>0.41658</b>	2.50740	0.30000	<b>2.15707</b>
	B2->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.02840</b>	0.32940	0.06480	<b>0.41070</b>	2.50740	0.30000	<b>2.15435</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>0.03168</b>	0.32940	0.06480	<b>0.34068</b>	2.50740	0.30000	<b>1.77457</b>
	A2->Y (RF)	(A1 * B1)	0.01860	0.00100	<b>0.03389</b>	0.32940	0.06480	<b>0.31468</b>	2.50740	0.30000	<b>1.59714</b>
	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.02755</b>	0.32940	0.06480	<b>0.30763</b>	2.50740	0.30000	<b>1.58560</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.02708</b>	0.32940	0.06480	<b>0.30526</b>	2.50740	0.30000	<b>1.58277</b>
	B2->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.02487</b>	0.32940	0.06480	<b>0.33335</b>	2.50740	0.30000	<b>1.76355</b>
	B2->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.02438</b>	0.32940	0.06480	<b>0.33088</b>	2.50740	0.30000	<b>1.76011</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>0.00730</b>	0.32940	0.06480	<b>0.00783</b>	2.50740	0.30000	<b>0.01830</b>
	A2	0.01860	0.00100	<b>0.00758</b>	0.32940	0.06480	<b>0.00796</b>	2.50740	0.30000	<b>0.01845</b>
	B1	0.01860	0.00100	<b>0.00456</b>	0.32940	0.06480	<b>0.00554</b>	2.50740	0.30000	<b>0.01691</b>
	B2	0.01860	0.00100	<b>0.00426</b>	0.32940	0.06480	<b>0.00540</b>	2.50740	0.30000	<b>0.01624</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>0.00723</b>	0.32940	0.06480	<b>0.00778</b>	2.50740	0.30000	<b>0.01814</b>
	A2	0.01860	0.00100	<b>0.00983</b>	0.32940	0.06480	<b>0.01009</b>	2.50740	0.30000	<b>0.01999</b>
	B1	0.01860	0.00100	<b>0.00943</b>	0.32940	0.06480	<b>0.01018</b>	2.50740	0.30000	<b>0.01943</b>
	B2	0.01860	0.00100	<b>0.00678</b>	0.32940	0.06480	<b>0.00783</b>	2.50740	0.30000	<b>0.01761</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>0.00730</b>	0.32940	0.06480	<b>0.00783</b>	2.50740	0.30000	<b>0.01830</b>
	A2	(A1 * B1)	0.01860	0.00100	<b>0.00758</b>	0.32940	0.06480	<b>0.00796</b>	2.50740	0.30000	<b>0.01845</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00456</b>	0.32940	0.06480	<b>0.00554</b>	2.50740	0.30000	<b>0.01691</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00428</b>	0.32940	0.06480	<b>0.00529</b>	2.50740	0.30000	<b>0.01687</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00426</b>	0.32940	0.06480	<b>0.00540</b>	2.50740	0.30000	<b>0.01624</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00384</b>	0.32940	0.06480	<b>0.00519</b>	2.50740	0.30000	<b>0.01596</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>0.00723</b>	0.32940	0.06480	<b>0.00778</b>	2.50740	0.30000	<b>0.01814</b>
	A2	(A1 * B1)	0.01860	0.00100	<b>0.00983</b>	0.32940	0.06480	<b>0.01009</b>	2.50740	0.30000	<b>0.01999</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00943</b>	0.32940	0.06480	<b>0.01018</b>	2.50740	0.30000	<b>0.01943</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00676</b>	0.32940	0.06480	<b>0.00752</b>	2.50740	0.30000	<b>0.01687</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00678</b>	0.32940	0.06480	<b>0.00783</b>	2.50740	0.30000	<b>0.01761</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00412</b>	0.32940	0.06480	<b>0.00518</b>	2.50740	0.30000	<b>0.01481</b>

# AND2x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_and2_1	0.00268	0.00270	0.30000
sg13g2_and2_2	0.00266	0.00270	0.60000

## Leakage Information

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

## 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>0.04545</b>	0.32940	0.06480	<b>0.23111</b>	2.50740	0.30000	<b>0.84299</b>
	B->X (RR)	0.01860	0.00100	<b>0.04812</b>	0.32940	0.06480	<b>0.22835</b>	2.50740	0.30000	<b>0.81776</b>
sg13g2_and2_2	A->X (RR)	0.01860	0.00100	<b>0.05585</b>	0.32940	0.12960	<b>0.26304</b>	2.50740	0.60000	<b>0.90508</b>
	B->X (RR)	0.01860	0.00100	<b>0.05833</b>	0.32940	0.12960	<b>0.25593</b>	2.50740	0.60000	<b>0.87349</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>0.03981</b>	0.32940	0.06480	<b>0.20633</b>	2.50740	0.30000	<b>0.71937</b>
	B->X (FF)	0.01860	0.00100	<b>0.04366</b>	0.32940	0.06480	<b>0.21783</b>	2.50740	0.30000	<b>0.75559</b>
sg13g2_and2_2	A->X (FF)	0.01860	0.00100	<b>0.04867</b>	0.32940	0.12960	<b>0.23719</b>	2.50740	0.60000	<b>0.78183</b>
	B->X (FF)	0.01860	0.00100	<b>0.05234</b>	0.32940	0.12960	<b>0.24712</b>	2.50740	0.60000	<b>0.81482</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>0.01015</b>	0.32940	0.06480	<b>0.01320</b>	2.50740	0.30000	<b>0.04431</b>
	B	0.01860	0.00100	<b>0.01247</b>	0.32940	0.06480	<b>0.01465</b>	2.50740	0.30000	<b>0.04450</b>
sg13g2_and2_2	A	0.01860	0.00100	<b>0.01688</b>	0.32940	0.12960	<b>0.01931</b>	2.50740	0.60000	<b>0.04969</b>
	B	0.01860	0.00100	<b>0.01917</b>	0.32940	0.12960	<b>0.02072</b>	2.50740	0.60000	<b>0.04980</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>0.00879</b>	0.32940	0.06480	<b>0.01249</b>	2.50740	0.30000	<b>0.04364</b>
	B	0.01860	0.00100	<b>0.00903</b>	0.32940	0.06480	<b>0.01275</b>	2.50740	0.30000	<b>0.04374</b>
sg13g2_and2_2	A	0.01860	0.00100	<b>0.01507</b>	0.32940	0.12960	<b>0.01858</b>	2.50740	0.60000	<b>0.04849</b>
	B	0.01860	0.00100	<b>0.01532</b>	0.32940	0.12960	<b>0.01883</b>	2.50740	0.60000	<b>0.04935</b>

# AND3x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_and3_1	0.00267	0.00267	0.00268	0.30000
sg13g2_and3_2	0.00267	0.00267	0.00268	0.60000

## Leakage Information

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

## 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>0.05924</b>	0.32940	0.06480	<b>0.25873</b>	2.50740	0.30000	<b>0.92018</b>
	B->X (RR)	0.01860	0.00100	<b>0.06519</b>	0.32940	0.06480	<b>0.25837</b>	2.50740	0.30000	<b>0.90262</b>
	C->X (RR)	0.01860	0.00100	<b>0.06768</b>	0.32940	0.06480	<b>0.25107</b>	2.50740	0.30000	<b>0.86140</b>
sg13g2_and3_2	A->X (RR)	0.01860	0.00100	<b>0.07389</b>	0.32940	0.12960	<b>0.29599</b>	2.50740	0.60000	<b>0.99330</b>
	B->X (RR)	0.01860	0.00100	<b>0.07969</b>	0.32940	0.12960	<b>0.29310</b>	2.50740	0.60000	<b>0.96942</b>
	C->X (RR)	0.01860	0.00100	<b>0.08215</b>	0.32940	0.12960	<b>0.28260</b>	2.50740	0.60000	<b>0.92002</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>0.04243</b>	0.32940	0.06480	<b>0.21122</b>	2.50740	0.30000	<b>0.70773</b>
	B->X (FF)	0.01860	0.00100	<b>0.04643</b>	0.32940	0.06480	<b>0.22338</b>	2.50740	0.30000	<b>0.74190</b>
	C->X (FF)	0.01860	0.00100	<b>0.04909</b>	0.32940	0.06480	<b>0.23224</b>	2.50740	0.30000	<b>0.77687</b>
sg13g2_and3_2	A->X (FF)	0.01860	0.00100	<b>0.05100</b>	0.32940	0.12960	<b>0.24221</b>	2.50740	0.60000	<b>0.77215</b>
	B->X (FF)	0.01860	0.00100	<b>0.05488</b>	0.32940	0.12960	<b>0.25208</b>	2.50740	0.60000	<b>0.80158</b>
	C->X (FF)	0.01860	0.00100	<b>0.05769</b>	0.32940	0.12960	<b>0.25997</b>	2.50740	0.60000	<b>0.83449</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>0.01172</b>	0.32940	0.06480	<b>0.01416</b>	2.50740	0.30000	<b>0.04302</b>
	B	0.01860	0.00100	<b>0.01404</b>	0.32940	0.06480	<b>0.01550</b>	2.50740	0.30000	<b>0.04313</b>
	C	0.01860	0.00100	<b>0.01619</b>	0.32940	0.06480	<b>0.01720</b>	2.50740	0.30000	<b>0.04584</b>
sg13g2_and3_2	A	0.01860	0.00100	<b>0.01931</b>	0.32940	0.12960	<b>0.02034</b>	2.50740	0.60000	<b>0.04868</b>
	B	0.01860	0.00100	<b>0.02148</b>	0.32940	0.12960	<b>0.02189</b>	2.50740	0.60000	<b>0.04902</b>
	C	0.01860	0.00100	<b>0.02361</b>	0.32940	0.12960	<b>0.02369</b>	2.50740	0.60000	<b>0.05124</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>0.00903</b>	0.32940	0.06480	<b>0.01220</b>	2.50740	0.30000	<b>0.04111</b>
	B	0.01860	0.00100	<b>0.00938</b>	0.32940	0.06480	<b>0.01249</b>	2.50740	0.30000	<b>0.04131</b>
	C	0.01860	0.00100	<b>0.00961</b>	0.32940	0.06480	<b>0.01280</b>	2.50740	0.30000	<b>0.04263</b>
sg13g2_and3_2	A	0.01860	0.00100	<b>0.01534</b>	0.32940	0.12960	<b>0.01836</b>	2.50740	0.60000	<b>0.04619</b>
	B	0.01860	0.00100	<b>0.01576</b>	0.32940	0.12960	<b>0.01868</b>	2.50740	0.60000	<b>0.04627</b>
	C	0.01860	0.00100	<b>0.01603</b>	0.32940	0.12960	<b>0.01886</b>	2.50740	0.60000	<b>0.04792</b>

# AND4x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_and4_1	0.00250	0.00265	0.00264	0.00266	0.30000
sg13g2_and4_2	0.00249	0.00264	0.00264	0.00265	0.60000

## Leakage Information

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

## 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>0.07314</b>	0.32940	0.06480	<b>0.28447</b>	2.50740	0.30000	<b>0.98640</b>
	B->X (RR)	0.01860	0.00100	<b>0.08223</b>	0.32940	0.06480	<b>0.28638</b>	2.50740	0.30000	<b>0.97816</b>
	C->X (RR)	0.01860	0.00100	<b>0.08767</b>	0.32940	0.06480	<b>0.28269</b>	2.50740	0.30000	<b>0.94391</b>
	D->X (RR)	0.01860	0.00100	<b>0.09033</b>	0.32940	0.06480	<b>0.27695</b>	2.50740	0.30000	<b>0.90113</b>
sg13g2_and4_2	A->X (RR)	0.01860	0.00100	<b>0.09204</b>	0.32940	0.12960	<b>0.32726</b>	2.50740	0.60000	<b>1.06275</b>
	B->X (RR)	0.01860	0.00100	<b>0.10100</b>	0.32940	0.12960	<b>0.32699</b>	2.50740	0.60000	<b>1.04812</b>
	C->X (RR)	0.01860	0.00100	<b>0.10638</b>	0.32940	0.12960	<b>0.32000</b>	2.50740	0.60000	<b>1.00683</b>
	D->X (RR)	0.01860	0.00100	<b>0.10905</b>	0.32940	0.12960	<b>0.31214</b>	2.50740	0.60000	<b>0.95737</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>0.04454</b>	0.32940	0.06480	<b>0.21410</b>	2.50740	0.30000	<b>0.69242</b>
	B->X (FF)	0.01860	0.00100	<b>0.04869</b>	0.32940	0.06480	<b>0.22583</b>	2.50740	0.30000	<b>0.72472</b>
	C->X (FF)	0.01860	0.00100	<b>0.05166</b>	0.32940	0.06480	<b>0.23474</b>	2.50740	0.30000	<b>0.75817</b>
	D->X (FF)	0.01860	0.00100	<b>0.05356</b>	0.32940	0.06480	<b>0.24270</b>	2.50740	0.30000	<b>0.79167</b>
sg13g2_and4_2	A->X (FF)	0.01860	0.00100	<b>0.05271</b>	0.32940	0.12960	<b>0.24457</b>	2.50740	0.60000	<b>0.75786</b>
	B->X (FF)	0.01860	0.00100	<b>0.05675</b>	0.32940	0.12960	<b>0.25428</b>	2.50740	0.60000	<b>0.78783</b>
	C->X (FF)	0.01860	0.00100	<b>0.05984</b>	0.32940	0.12960	<b>0.26227</b>	2.50740	0.60000	<b>0.81782</b>
	D->X (FF)	0.01860	0.00100	<b>0.06199</b>	0.32940	0.12960	<b>0.26926</b>	2.50740	0.60000	<b>0.84745</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>0.01285</b>	0.32940	0.06480	<b>0.01488</b>	2.50740	0.30000	<b>0.04160</b>
	B	0.01860	0.00100	<b>0.01532</b>	0.32940	0.06480	<b>0.01634</b>	2.50740	0.30000	<b>0.04228</b>
	C	0.01860	0.00100	<b>0.01744</b>	0.32940	0.06480	<b>0.01813</b>	2.50740	0.30000	<b>0.04472</b>
	D	0.01860	0.00100	<b>0.01957</b>	0.32940	0.06480	<b>0.02001</b>	2.50740	0.30000	<b>0.04722</b>
sg13g2_and4_2	A	0.01860	0.00100	<b>0.02119</b>	0.32940	0.12960	<b>0.02115</b>	2.50740	0.60000	<b>0.04710</b>
	B	0.01860	0.00100	<b>0.02363</b>	0.32940	0.12960	<b>0.02308</b>	2.50740	0.60000	<b>0.04778</b>
	C	0.01860	0.00100	<b>0.02577</b>	0.32940	0.12960	<b>0.02471</b>	2.50740	0.60000	<b>0.05018</b>
	D	0.01860	0.00100	<b>0.02789</b>	0.32940	0.12960	<b>0.02657</b>	2.50740	0.60000	<b>0.05288</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>0.00958</b>	0.32940	0.06480	<b>0.01240</b>	2.50740	0.30000	<b>0.03968</b>
	B	0.01860	0.00100	<b>0.00980</b>	0.32940	0.06480	<b>0.01245</b>	2.50740	0.30000	<b>0.03938</b>
	C	0.01860	0.00100	<b>0.01014</b>	0.32940	0.06480	<b>0.01278</b>	2.50740	0.30000	<b>0.04094</b>
	D	0.01860	0.00100	<b>0.01042</b>	0.32940	0.06480	<b>0.01308</b>	2.50740	0.30000	<b>0.04235</b>
sg13g2_and4_2	A	0.01860	0.00100	<b>0.01596</b>	0.32940	0.12960	<b>0.01869</b>	2.50740	0.60000	<b>0.04478</b>
	B	0.01860	0.00100	<b>0.01627</b>	0.32940	0.12960	<b>0.01870</b>	2.50740	0.60000	<b>0.04561</b>
	C	0.01860	0.00100	<b>0.01665</b>	0.32940	0.12960	<b>0.01897</b>	2.50740	0.60000	<b>0.04640</b>
	D	0.01860	0.00100	<b>0.01703</b>	0.32940	0.12960	<b>0.01920</b>	2.50740	0.60000	<b>0.04773</b>

# ANTENNANP



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library:  
Process sg13g2\_stdcell\_typ\_1p50V\_25C,  
Voltage 1.50, Temp 25.00*

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## Truth Table

INPUT
A
x

## Footprint

Cell Name	Area
sg13g2_antennanp	5.44320

## Pin Capacitance Information

Cell Name	Pin Cap(pf)
	A
sg13g2_antennanp	0.00106

## Leakage Information

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

## Passive Power Information

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_antennanp	0.01860	<b>-0.00041</b>	0.32940	<b>-0.00041</b>	2.50740	<b>-0.00041</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>0.00041</b>	0.32940	<b>0.00041</b>	2.50740	<b>0.00041</b>

# BUFx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00240	0.30000
sg13g2_buf_16	0.01800	4.80000
sg13g2_buf_2	0.00276	0.60000
sg13g2_buf_4	0.00390	1.20000
sg13g2_buf_8	0.00904	2.40000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_buf_1	270.74000	290.43800	310.13600
sg13g2_buf_16	2952.77000	3691.98000	4431.19000
sg13g2_buf_2	397.54200	481.47400	565.40700
sg13g2_buf_4	678.32100	883.10500	1087.89000
sg13g2_buf_8	1476.38000	1845.99000	2215.60000

## 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>0.03569</b>	0.32940	0.06480	<b>0.21618</b>	2.50740	0.30000	<b>0.80520</b>
sg13g2_buf_16	A->X (RR)	0.01860	0.00100	<b>0.04059</b>	0.32940	1.03680	<b>0.24042</b>	2.50740	4.80000	<b>0.85638</b>
sg13g2_buf_2	A->X (RR)	0.01860	0.00100	<b>0.04035</b>	0.32940	0.12960	<b>0.23587</b>	2.50740	0.60000	<b>0.84915</b>
sg13g2_buf_4	A->X (RR)	0.01860	0.00100	<b>0.05090</b>	0.32940	0.25920	<b>0.26811</b>	2.50740	1.20000	<b>0.96818</b>
sg13g2_buf_8	A->X (RR)	0.01860	0.00100	<b>0.04037</b>	0.32940	0.51840	<b>0.23938</b>	2.50740	2.40000	<b>0.85418</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>0.03731</b>	0.32940	0.06480	<b>0.19985</b>	2.50740	0.30000	<b>0.71118</b>
sg13g2_buf_16	A->X (FF)	0.01860	0.00100	<b>0.04472</b>	0.32940	1.03680	<b>0.23211</b>	2.50740	4.80000	<b>0.78139</b>
sg13g2_buf_2	A->X (FF)	0.01860	0.00100	<b>0.04292</b>	0.32940	0.12960	<b>0.22223</b>	2.50740	0.60000	<b>0.75134</b>
sg13g2_buf_4	A->X (FF)	0.01860	0.00100	<b>0.04392</b>	0.32940	0.25920	<b>0.22531</b>	2.50740	1.20000	<b>0.71419</b>
sg13g2_buf_8	A->X (FF)	0.01860	0.00100	<b>0.04440</b>	0.32940	0.51840	<b>0.23129</b>	2.50740	2.40000	<b>0.78208</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>0.00883</b>	0.32940	0.06480	<b>0.01221</b>	2.50740	0.30000	<b>0.04254</b>
sg13g2_buf_16	A	0.01860	0.00100	<b>0.11782</b>	0.32940	1.03680	<b>0.14471</b>	2.50740	4.80000	<b>0.39628</b>
sg13g2_buf_2	A	0.01860	0.00100	<b>0.01536</b>	0.32940	0.12960	<b>0.01926</b>	2.50740	0.60000	<b>0.05466</b>
sg13g2_buf_4	A	0.01860	0.00100	<b>0.02935</b>	0.32940	0.25920	<b>0.03364</b>	2.50740	1.20000	<b>0.08571</b>
sg13g2_buf_8	A	0.01860	0.00100	<b>0.05907</b>	0.32940	0.51840	<b>0.07314</b>	2.50740	2.40000	<b>0.19881</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>0.00870</b>	0.32940	0.06480	<b>0.01257</b>	2.50740	0.30000	<b>0.04344</b>
sg13g2_buf_16	A	0.01860	0.00100	<b>0.11690</b>	0.32940	1.03680	<b>0.14978</b>	2.50740	4.80000	<b>0.40217</b>
sg13g2_buf_2	A	0.01860	0.00100	<b>0.01509</b>	0.32940	0.12960	<b>0.01990</b>	2.50740	0.60000	<b>0.05525</b>
sg13g2_buf_4	A	0.01860	0.00100	<b>0.02932</b>	0.32940	0.25920	<b>0.03629</b>	2.50740	1.20000	<b>0.08627</b>
sg13g2_buf_8	A	0.01860	0.00100	<b>0.05831</b>	0.32940	0.51840	<b>0.07430</b>	2.50740	2.40000	<b>0.20030</b>

# DECAPx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	1670.69000	1670.69000	1670.69000
sg13g2_decap_8	3341.41000	3341.41000	3341.41000

# DFRBPQx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, Temp  
25.00*

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## 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	0.00293	0.00147	0.00535	0.30000
sg13g2_dfrbpq_2	0.00294	0.00148	0.00539	0.60000

## Leakage Information

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

## 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>0.10583</b>	0.32940	0.06480	<b>0.29618</b>	2.50740	0.30000	<b>0.87517</b>
sg13g2_dfrbpq_2	CLK->Q (RR)	0.01860	0.00100	<b>0.11389</b>	0.32940	0.12960	<b>0.30850</b>	2.50740	0.60000	<b>0.88717</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>0.10430</b>	0.32940	0.06480	<b>0.26922</b>	2.50740	0.30000	<b>0.74056</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.14989</b>	0.32940	0.06480	<b>0.35499</b>	2.50740	0.30000	<b>0.97590</b>
sg13g2_dfrbpq_2	CLK->Q (RF)	0.01860	0.00100	<b>0.11271</b>	0.32940	0.12960	<b>0.28338</b>	2.50740	0.60000	<b>0.75506</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.15754</b>	0.32940	0.12960	<b>0.36818</b>	2.50740	0.60000	<b>0.98939</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>0.06378</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>0.06058</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>0.08301</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>0.08301</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>-0.04157</b>	1.26300	1.26300	<b>-0.13222</b>	2.50740	2.50740	<b>-0.17414</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.15920</b>	2.50740	2.50740	<b>0.19775</b>
sg13g2_dfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.04157</b>	1.26300	1.26300	<b>-0.13492</b>	2.50740	2.50740	<b>-0.17414</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.15920</b>	2.50740	2.50740	<b>0.19775</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>-0.02690</b>	1.26300	1.26300	<b>-0.14031</b>	2.50740	2.50740	<b>-0.22137</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.18889</b>	2.50740	2.50740	<b>0.26859</b>
sg13g2_dfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.02690</b>	1.26300	1.26300	<b>-0.14031</b>	2.50740	2.50740	<b>-0.22137</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.18619</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_dfrbpq_1	recovery	CLK (R)	0.01860	0.01860	<b>0.07336</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.28925</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.06358</b>	1.26300	1.26300	<b>-0.18619</b>	2.50740	2.50740	<b>-0.28335</b>
sg13g2_dfrbpq_2	recovery	CLK (R)	0.01860	0.01860	<b>0.07336</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.28925</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.06358</b>	1.26300	1.26300	<b>-0.18619</b>	2.50740	2.50740	<b>-0.28335</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	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_dfrbpq_2	min_pulse_width	RESET_B_0	0.01860	0.00000	<b>0.07660</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>0.03974</b>	0.32940	0.06480	<b>0.04442</b>	2.50740	0.30000	<b>0.09349</b>
sg13g2_dfrbpq_2	CLK	0.01860	0.00100	<b>0.04522</b>	0.32940	0.12960	<b>0.05015</b>	2.50740	0.60000	<b>0.09914</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>0.04116</b>	0.32940	0.06480	<b>0.04637</b>	2.50740	0.30000	<b>0.09337</b>
	RESET_B	0.01860	0.00100	<b>0.02644</b>	0.32940	0.06480	<b>0.02952</b>	2.50740	0.30000	<b>0.05066</b>
sg13g2_dfrbpq_2	CLK	0.01860	0.00100	<b>0.04640</b>	0.32940	0.12960	<b>0.05240</b>	2.50740	0.60000	<b>0.09927</b>
	RESET_B	0.01860	0.00100	<b>0.03161</b>	0.32940	0.12960	<b>0.03525</b>	2.50740	0.60000	<b>0.05617</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>0.01667</b>	0.32940	<b>0.02070</b>	2.50740	<b>0.06720</b>
sg13g2_dfrbpq_2	0.01860	<b>0.01675</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06721</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>0.03231</b>	0.32940	<b>0.03696</b>	2.50740	<b>0.08649</b>
sg13g2_dfrbpq_2	0.01860	<b>0.03232</b>	0.32940	<b>0.03696</b>	2.50740	<b>0.08647</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>0.01667</b>	0.32940	<b>0.02070</b>	2.50740	<b>0.06720</b>
	(D * !RESET_B * !Q)	0.01860	<b>0.01754</b>	0.32940	<b>0.02152</b>	2.50740	<b>0.06793</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01631</b>	0.32940	<b>0.02033</b>	2.50740	<b>0.06679</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01757</b>	0.32940	<b>0.02155</b>	2.50740	<b>0.06795</b>
sg13g2_dfrbpq_2	(D * RESET_B * Q)	0.01860	<b>0.01675</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06721</b>
	(D * !RESET_B * !Q)	0.01860	<b>0.01763</b>	0.32940	<b>0.02166</b>	2.50740	<b>0.06798</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01641</b>	0.32940	<b>0.02044</b>	2.50740	<b>0.06687</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01767</b>	0.32940	<b>0.02168</b>	2.50740	<b>0.06796</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>0.03339</b>	0.32940	<b>0.03803</b>	2.50740	<b>0.08761</b>
	(D * RESET_B * !Q)	0.01860	<b>0.03231</b>	0.32940	<b>0.03696</b>	2.50740	<b>0.08649</b>
	(D * !RESET_B * !Q)	0.01860	<b>0.01651</b>	0.32940	<b>0.02109</b>	2.50740	<b>0.06893</b>
	(!D * RESET_B * Q)	0.01860	<b>0.05618</b>	0.32940	<b>0.06038</b>	2.50740	<b>0.10851</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01648</b>	0.32940	<b>0.02108</b>	2.50740	<b>0.06895</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01649</b>	0.32940	<b>0.02107</b>	2.50740	<b>0.06891</b>
sg13g2_dfrbpq_2	(D * RESET_B * Q)	0.01860	<b>0.03510</b>	0.32940	<b>0.03973</b>	2.50740	<b>0.08925</b>
	(D * RESET_B * !Q)	0.01860	<b>0.03232</b>	0.32940	<b>0.03696</b>	2.50740	<b>0.08647</b>
	(D * !RESET_B * !Q)	0.01860	<b>0.01655</b>	0.32940	<b>0.02113</b>	2.50740	<b>0.06897</b>
	(!D * RESET_B * Q)	0.01860	<b>0.06337</b>	0.32940	<b>0.06745</b>	2.50740	<b>0.11530</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01654</b>	0.32940	<b>0.02112</b>	2.50740	<b>0.06898</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01655</b>	0.32940	<b>0.02111</b>	2.50740	<b>0.06894</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>0.00208</b>	0.32940	<b>0.00374</b>	2.50740	<b>0.02070</b>
sg13g2_dfrbpq_2	0.01860	<b>0.00208</b>	0.32940	<b>0.00374</b>	2.50740	<b>0.02068</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>0.00168</b>	0.32940	<b>0.00349</b>	2.50740	<b>0.02122</b>
sg13g2_dfrbpq_2	0.01860	<b>0.00169</b>	0.32940	<b>0.00350</b>	2.50740	<b>0.02123</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	CLK	0.01860	<b>0.00208</b>	0.32940	<b>0.00374</b>	2.50740	<b>0.02070</b>
	(!CLK * RESET_B)	0.01860	<b>0.01845</b>	0.32940	<b>0.02012</b>	2.50740	<b>0.03981</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00006</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00005</b>
sg13g2_dfrbpq_2	CLK	0.01860	<b>0.00208</b>	0.32940	<b>0.00374</b>	2.50740	<b>0.02068</b>
	(!CLK * RESET_B)	0.01860	<b>0.01841</b>	0.32940	<b>0.02009</b>	2.50740	<b>0.03978</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00005</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00005</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	CLK	0.01860	<b>0.00168</b>	0.32940	<b>0.00349</b>	2.50740	<b>0.02122</b>
	(!CLK * RESET_B)	0.01860	<b>0.01418</b>	0.32940	<b>0.01611</b>	2.50740	<b>0.03707</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00038</b>	0.32940	<b>0.00039</b>	2.50740	<b>0.00039</b>
sg13g2_dfrbpq_2	CLK	0.01860	<b>0.00169</b>	0.32940	<b>0.00350</b>	2.50740	<b>0.02123</b>
	(!CLK * RESET_B)	0.01860	<b>0.01422</b>	0.32940	<b>0.01614</b>	2.50740	<b>0.03710</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00038</b>	0.32940	<b>0.00038</b>	2.50740	<b>0.00039</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>0.00504</b>	0.32940	<b>0.00593</b>	2.50740	<b>0.02222</b>
sg13g2_dfrbpq_2	0.01860	<b>0.00510</b>	0.32940	<b>0.00597</b>	2.50740	<b>0.02224</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>0.01402</b>	0.32940	<b>0.01544</b>	2.50740	<b>0.04233</b>
sg13g2_dfrbpq_2	0.01860	<b>0.01401</b>	0.32940	<b>0.01542</b>	2.50740	<b>0.04235</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>0.00504</b>	0.32940	<b>0.00593</b>	2.50740	<b>0.02222</b>
	(CLK * !D * !Q)	0.01860	<b>0.00114</b>	0.32940	<b>0.00114</b>	2.50740	<b>0.00113</b>
	(!CLK * D * !Q)	0.01860	<b>0.02166</b>	0.32940	<b>0.02281</b>	2.50740	<b>0.04807</b>
	(!CLK * !D * !Q)	0.01860	<b>0.00128</b>	0.32940	<b>0.00128</b>	2.50740	<b>0.00127</b>
sg13g2_dfrbpq_2	(CLK * D * !Q)	0.01860	<b>0.00510</b>	0.32940	<b>0.00597</b>	2.50740	<b>0.02224</b>
	(CLK * !D * !Q)	0.01860	<b>0.00119</b>	0.32940	<b>0.00119</b>	2.50740	<b>0.00119</b>
	(!CLK * D * !Q)	0.01860	<b>0.02168</b>	0.32940	<b>0.02283</b>	2.50740	<b>0.04809</b>
	(!CLK * !D * !Q)	0.01860	<b>0.00132</b>	0.32940	<b>0.00133</b>	2.50740	<b>0.00133</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>0.04054</b>	0.32940	<b>0.04452</b>	2.50740	<b>0.09273</b>
	(CLK * !D * !Q)	0.01860	<b>-0.00114</b>	0.32940	<b>-0.00114</b>	2.50740	<b>-0.00113</b>
	(!CLK * D * !Q)	0.01860	<b>0.01402</b>	0.32940	<b>0.01544</b>	2.50740	<b>0.04233</b>
	(!CLK * !D * !Q)	0.01860	<b>-0.00128</b>	0.32940	<b>-0.00128</b>	2.50740	<b>-0.00127</b>
sg13g2_dfrbpq_2	(CLK * D * !Q)	0.01860	<b>0.04583</b>	0.32940	<b>0.04984</b>	2.50740	<b>0.09803</b>
	(CLK * !D * !Q)	0.01860	<b>-0.00119</b>	0.32940	<b>-0.00119</b>	2.50740	<b>-0.00119</b>
	(!CLK * D * !Q)	0.01860	<b>0.01401</b>	0.32940	<b>0.01542</b>	2.50740	<b>0.04235</b>
	(!CLK * !D * !Q)	0.01860	<b>-0.00132</b>	0.32940	<b>-0.00133</b>	2.50740	<b>-0.00133</b>

# DFRBPx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, Temp 25.00*

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## 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	0.00296	0.00162	0.00541	0.30000	0.30000
sg13g2_dfrbp_2	0.00297	0.00162	0.00546	0.60000	0.60000

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK->Q (RR)	0.01860	0.00100	<b>0.12679</b>	0.32940	0.06480	<b>0.31266</b>	2.50740	0.30000	<b>0.89729</b>
sg13g2_dfrbp_2	CLK->Q (RR)	0.01860	0.00100	<b>0.16187</b>	0.32940	0.12960	<b>0.34459</b>	2.50740	0.60000	<b>0.93614</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>0.11578</b>	0.32940	0.06480	<b>0.27899</b>	2.50740	0.30000	<b>0.75208</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.16327</b>	0.32940	0.06480	<b>0.36635</b>	2.50740	0.30000	<b>0.98883</b>
sg13g2_dfrbp_2	CLK->Q (RF)	0.01860	0.00100	<b>0.14019</b>	0.32940	0.12960	<b>0.30484</b>	2.50740	0.60000	<b>0.78188</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.18821</b>	0.32940	0.12960	<b>0.39258</b>	2.50740	0.60000	<b>1.01932</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>0.09109</b>	0.32940	0.06480	<b>0.29300</b>	2.50740	0.30000	<b>0.85581</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.13882</b>	0.32940	0.06480	<b>0.37895</b>	2.50740	0.30000	<b>1.09220</b>
sg13g2_dfrbp_2	CLK->Q_N (RR)	0.01860	0.00100	<b>0.09432</b>	0.32940	0.12960	<b>0.30291</b>	2.50740	0.60000	<b>0.86759</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.14304</b>	0.32940	0.12960	<b>0.38937</b>	2.50740	0.60000	<b>1.10424</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>0.09812</b>	0.32940	0.06480	<b>0.29794</b>	2.50740	0.30000	<b>0.80113</b>
sg13g2_dfrbp_2	CLK->Q_N (RF)	0.01860	0.00100	<b>0.10577</b>	0.32940	0.12960	<b>0.31506</b>	2.50740	0.60000	<b>0.82023</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>0.07660</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>0.08942</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_dfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.08301</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>0.08301</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>-0.03912</b>	1.26300	1.26300	<b>-0.13222</b>	2.50740	2.50740	<b>-0.17119</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.15920</b>	2.50740	2.50740	<b>0.19775</b>
sg13g2_dfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.03912</b>	1.26300	1.26300	<b>-0.13222</b>	2.50740	2.50740	<b>-0.17119</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.15920</b>	2.50740	2.50740	<b>0.19775</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>-0.02690</b>	1.26300	1.26300	<b>-0.14301</b>	2.50740	2.50740	<b>-0.22137</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07091</b>	1.26300	1.26300	<b>0.18889</b>	2.50740	2.50740	<b>0.27154</b>
sg13g2_dfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.02690</b>	1.26300	1.26300	<b>-0.14031</b>	2.50740	2.50740	<b>-0.22137</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07091</b>	1.26300	1.26300	<b>0.18889</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_dfrbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.07336</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.28925</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.06358</b>	1.26300	1.26300	<b>-0.18619</b>	2.50740	2.50740	<b>-0.28335</b>
sg13g2_dfrbp_2	recovery	CLK (R)	0.01860	0.01860	<b>0.07336</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.28925</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.06602</b>	1.26300	1.26300	<b>-0.18889</b>	2.50740	2.50740	<b>-0.28630</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	0.01860	0.00000	<b>0.07980</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	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_dfrbp_1	CLK	0.01860	0.00100	<b>0.04904</b>	0.32940	0.06480	<b>0.12501</b>	2.50740	0.30000	<b>0.43806</b>
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.06340</b>	0.32940	0.12960	<b>0.21011</b>	2.50740	0.60000	<b>0.78750</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>0.04919</b>	0.32940	0.06480	<b>0.12635</b>	2.50740	0.30000	<b>0.43680</b>
	RESET_B	0.01860	0.00100	<b>0.03496</b>	0.32940	0.06480	<b>0.10975</b>	2.50740	0.30000	<b>0.39460</b>
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.06180</b>	0.32940	0.12960	<b>0.21148</b>	2.50740	0.60000	<b>0.78568</b>
	RESET_B	0.01860	0.00100	<b>0.04766</b>	0.32940	0.12960	<b>0.19447</b>	2.50740	0.60000	<b>0.74399</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>0.04921</b>	0.32940	0.06480	<b>0.12628</b>	2.50740	0.30000	<b>0.43825</b>
	RESET_B	0.01860	0.00100	<b>0.03494</b>	0.32940	0.06480	<b>0.10995</b>	2.50740	0.30000	<b>0.39559</b>
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.06185</b>	0.32940	0.12960	<b>0.21179</b>	2.50740	0.60000	<b>0.78831</b>
	RESET_B	0.01860	0.00100	<b>0.04766</b>	0.32940	0.12960	<b>0.19526</b>	2.50740	0.60000	<b>0.74486</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>0.04905</b>	0.32940	0.06480	<b>0.12488</b>	2.50740	0.30000	<b>0.43690</b>
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.06343</b>	0.32940	0.12960	<b>0.21018</b>	2.50740	0.60000	<b>0.78432</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>0.01669</b>	0.32940	<b>0.02076</b>	2.50740	<b>0.06718</b>
sg13g2_dfrbp_2	0.01860	<b>0.01680</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06725</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>0.03193</b>	0.32940	<b>0.03655</b>	2.50740	<b>0.08611</b>
sg13g2_dfrbp_2	0.01860	<b>0.03216</b>	0.32940	<b>0.03676</b>	2.50740	<b>0.08627</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>0.01669</b>	0.32940	<b>0.02076</b>	2.50740	<b>0.06718</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01754</b>	0.32940	<b>0.02153</b>	2.50740	<b>0.06792</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01634</b>	0.32940	<b>0.02036</b>	2.50740	<b>0.06675</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01757</b>	0.32940	<b>0.02157</b>	2.50740	<b>0.06792</b>
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.01680</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06725</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01766</b>	0.32940	<b>0.02167</b>	2.50740	<b>0.06792</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01644</b>	0.32940	<b>0.02048</b>	2.50740	<b>0.06680</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01769</b>	0.32940	<b>0.02169</b>	2.50740	<b>0.06796</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>0.03193</b>	0.32940	<b>0.03655</b>	2.50740	<b>0.08611</b>
	(D * RESET_B * !Q * Q_N)	0.01860	<b>0.03234</b>	0.32940	<b>0.03695</b>	2.50740	<b>0.08649</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01654</b>	0.32940	<b>0.02109</b>	2.50740	<b>0.06896</b>
	(!D * RESET_B * Q * !Q_N)	0.01860	<b>0.06217</b>	0.32940	<b>0.06602</b>	2.50740	<b>0.11374</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01650</b>	0.32940	<b>0.02108</b>	2.50740	<b>0.06894</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01652</b>	0.32940	<b>0.02107</b>	2.50740	<b>0.06893</b>
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.03216</b>	0.32940	<b>0.03676</b>	2.50740	<b>0.08627</b>
	(D * RESET_B * !Q * Q_N)	0.01860	<b>0.03236</b>	0.32940	<b>0.03695</b>	2.50740	<b>0.08645</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01661</b>	0.32940	<b>0.02114</b>	2.50740	<b>0.06895</b>
	(!D * RESET_B * Q * !Q_N)	0.01860	<b>0.08191</b>	0.32940	<b>0.07906</b>	2.50740	<b>0.12684</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01659</b>	0.32940	<b>0.02112</b>	2.50740	<b>0.06897</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01659</b>	0.32940	<b>0.02111</b>	2.50740	<b>0.06892</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>0.00208</b>	0.32940	<b>0.00374</b>	2.50740	<b>0.02069</b>
sg13g2_dfrbp_2	0.01860	<b>0.00209</b>	0.32940	<b>0.00374</b>	2.50740	<b>0.02068</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>0.00167</b>	0.32940	<b>0.00349</b>	2.50740	<b>0.02122</b>
sg13g2_dfrbp_2	0.01860	<b>0.00169</b>	0.32940	<b>0.00350</b>	2.50740	<b>0.02123</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>0.00208</b>	0.32940	<b>0.00374</b>	2.50740	<b>0.02069</b>
	(!CLK * RESET_B)	0.01860	<b>0.01846</b>	0.32940	<b>0.02012</b>	2.50740	<b>0.03981</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00006</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00005</b>
sg13g2_dfrbp_2	CLK	0.01860	<b>0.00209</b>	0.32940	<b>0.00374</b>	2.50740	<b>0.02068</b>
	(!CLK * RESET_B)	0.01860	<b>0.01844</b>	0.32940	<b>0.02010</b>	2.50740	<b>0.03978</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00005</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00005</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>0.00167</b>	0.32940	<b>0.00349</b>	2.50740	<b>0.02122</b>
	(!CLK * RESET_B)	0.01860	<b>0.01420</b>	0.32940	<b>0.01611</b>	2.50740	<b>0.03707</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00038</b>	0.32940	<b>0.00039</b>	2.50740	<b>0.00039</b>
sg13g2_dfrbp_2	CLK	0.01860	<b>0.00169</b>	0.32940	<b>0.00350</b>	2.50740	<b>0.02123</b>
	(!CLK * RESET_B)	0.01860	<b>0.01422</b>	0.32940	<b>0.01614</b>	2.50740	<b>0.03710</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00038</b>	0.32940	<b>0.00038</b>	2.50740	<b>0.00039</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>0.00505</b>	0.32940	<b>0.00593</b>	2.50740	<b>0.02223</b>
sg13g2_dfrbp_2	0.01860	<b>0.00509</b>	0.32940	<b>0.00599</b>	2.50740	<b>0.02225</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>0.01402</b>	0.32940	<b>0.01544</b>	2.50740	<b>0.04233</b>
sg13g2_dfrbp_2	0.01860	<b>0.01399</b>	0.32940	<b>0.01541</b>	2.50740	<b>0.04236</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>0.00505</b>	0.32940	<b>0.00593</b>	2.50740	<b>0.02223</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>0.00114</b>	0.32940	<b>0.00114</b>	2.50740	<b>0.00114</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.02164</b>	0.32940	<b>0.02281</b>	2.50740	<b>0.04807</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>0.00127</b>	0.32940	<b>0.00128</b>	2.50740	<b>0.00127</b>
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	<b>0.00509</b>	0.32940	<b>0.00599</b>	2.50740	<b>0.02225</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>0.00119</b>	0.32940	<b>0.00120</b>	2.50740	<b>0.00120</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.02169</b>	0.32940	<b>0.02284</b>	2.50740	<b>0.04811</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>0.00133</b>	0.32940	<b>0.00134</b>	2.50740	<b>0.00134</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>0.04805</b>	0.32940	<b>0.05211</b>	2.50740	<b>0.10077</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>-0.00114</b>	0.32940	<b>-0.00114</b>	2.50740	<b>-0.00114</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01402</b>	0.32940	<b>0.01544</b>	2.50740	<b>0.04233</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>-0.00127</b>	0.32940	<b>-0.00128</b>	2.50740	<b>-0.00127</b>
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	<b>0.06108</b>	0.32940	<b>0.06519</b>	2.50740	<b>0.11418</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>-0.00119</b>	0.32940	<b>-0.00120</b>	2.50740	<b>-0.00120</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01399</b>	0.32940	<b>0.01541</b>	2.50740	<b>0.04236</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>-0.00133</b>	0.32940	<b>-0.00134</b>	2.50740	<b>-0.00134</b>

# DLHQ



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00242	0.00245	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D->Q (RR)	0.01860	0.00100	<b>0.12072</b>	0.32940	0.06480	<b>0.29861</b>	2.50740	0.30000	<b>0.85482</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.10274</b>	0.32940	0.06480	<b>0.28120</b>	2.50740	0.30000	<b>0.80279</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>0.10587</b>	0.32940	0.06480	<b>0.26559</b>	2.50740	0.30000	<b>0.74036</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.10909</b>	0.32940	0.06480	<b>0.26360</b>	2.50740	0.30000	<b>0.68022</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	-0.06602	1.26300	1.26300	-0.10794	2.50740	2.50740	-0.10330
	setup	GATE (F)	0.01860	0.01860	0.06847	1.26300	1.26300	0.12682	2.50740	2.50740	0.14167

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhq_1	hold	GATE (F)	0.01860	0.01860	-0.02445	1.26300	1.26300	0.01619	2.50740	2.50740	0.05608
	setup	GATE (F)	0.01860	0.01860	0.02934	1.26300	1.26300	-0.01079	2.50740	2.50740	-0.05018

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhq_1	min_pulse_width	GATE ()	0.01860	0.00000	0.05417	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D	0.01860	0.00100	<b>0.02351</b>	0.32940	0.06480	<b>0.02396</b>	2.50740	0.30000	<b>0.02455</b>
	GATE	0.01860	0.00100	<b>0.02015</b>	0.32940	0.06480	<b>0.02074</b>	2.50740	0.30000	<b>0.02296</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>0.02436</b>	0.32940	0.06480	<b>0.02506</b>	2.50740	0.30000	<b>0.02589</b>
	GATE	0.01860	0.00100	<b>0.02187</b>	0.32940	0.06480	<b>0.02305</b>	2.50740	0.30000	<b>0.02281</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>0.00538</b>	0.32940	<b>0.00822</b>	2.50740	<b>0.04002</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>0.00572</b>	0.32940	<b>0.00891</b>	2.50740	<b>0.04141</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>0.00544</b>	0.32940	<b>0.00824</b>	2.50740	<b>0.03997</b>
	(!GATE * !Q)	0.01860	<b>0.00538</b>	0.32940	<b>0.00822</b>	2.50740	<b>0.04002</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>0.00558</b>	0.32940	<b>0.00888</b>	2.50740	<b>0.04140</b>
	(!GATE * !Q)	0.01860	<b>0.00572</b>	0.32940	<b>0.00891</b>	2.50740	<b>0.04141</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>0.01245</b>	0.32940	<b>0.01599</b>	2.50740	<b>0.05530</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>0.02339</b>	0.32940	<b>0.02762</b>	2.50740	<b>0.06996</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>0.01245</b>	0.32940	<b>0.01599</b>	2.50740	<b>0.05530</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>0.02339</b>	0.32940	<b>0.02762</b>	2.50740	<b>0.06996</b>

# DLHRQ



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_dlhrq_1	0.00226	0.00235	0.00311	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_dlhrq_1	D->Q (RR)	0.01860	0.00100	<b>0.12715</b>	0.32940	0.06480	<b>0.30867</b>	2.50740	0.30000	<b>0.86141</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.11415</b>	0.32940	0.06480	<b>0.29707</b>	2.50740	0.30000	<b>0.81776</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)	
sg13g2_dlhrq_1	D->Q (FF)	0.01860	0.00100	<b>0.11150</b>	0.32940	0.06480	<b>0.27329</b>	2.50740	0.30000	<b>0.75409</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.11635</b>	0.32940	0.06480	<b>0.27469</b>	2.50740	0.30000	<b>0.70052</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.04621</b>	0.32940	0.06480	<b>0.22591</b>	2.50740	0.30000	<b>0.77255</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_dlhraq_1	hold	GATE (F)	0.01860	0.01860	-0.06113	1.26300	1.26300	-0.09444	2.50740	2.50740	-0.08559
	setup	GATE (F)	0.01860	0.01860	0.06602	1.26300	1.26300	0.11603	2.50740	2.50740	0.12397

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhraq_1	hold	GATE (F)	0.01860	0.01860	-0.02690	1.26300	1.26300	0.01619	2.50740	2.50740	0.05313
	setup	GATE (F)	0.01860	0.01860	0.03179	1.26300	1.26300	-0.01079	2.50740	2.50740	-0.05018

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhraq_1	min_pulse_width	GATE ()	0.01860	0.00000	0.05417	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhraq_1	recovery	GATE (F)	0.01860	0.01860	-0.01223	1.26300	1.26300	-0.11063	2.50740	2.50740	-0.17709
	removal	GATE (F)	0.01860	0.01860	0.01956	1.26300	1.26300	0.12143	2.50740	2.50740	0.18595

Constraints(ns) for RESET\_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhraq_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.12787	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhrq_1	D	0.01860	0.00100	<b>0.00122</b>	0.32940	0.06480	<b>0.00176</b>	2.50740	0.30000	<b>0.00172</b>
	GATE	0.01860	0.00100	<b>0.01537</b>	0.32940	0.06480	<b>0.01582</b>	2.50740	0.30000	<b>0.01579</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>-0.00122</b>	0.32940	0.06480	<b>-0.00176</b>	2.50740	0.30000	<b>-0.00172</b>
	GATE	0.01860	0.00100	<b>0.01536</b>	0.32940	0.06480	<b>0.01648</b>	2.50740	0.30000	<b>0.01383</b>
	RESET_B	0.01860	0.00100	<b>0.01183</b>	0.32940	0.06480	<b>0.01612</b>	2.50740	0.30000	<b>0.05356</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>0.02775</b>	0.32940	<b>0.03042</b>	2.50740	<b>0.06281</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>0.03578</b>	0.32940	<b>0.04189</b>	2.50740	<b>0.07574</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	<b>(!GATE * RESET_B * Q)</b>	0.01860	<b>0.00430</b>	0.32940	<b>0.00715</b>	2.50740	<b>0.03893</b>
	<b>!RESET_B</b>	0.01860	<b>0.02775</b>	0.32940	<b>0.03042</b>	2.50740	<b>0.06281</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>0.00519</b>	0.32940	<b>0.00849</b>	2.50740	<b>0.04099</b>
	!RESET_B	0.01860	<b>0.03578</b>	0.32940	<b>0.04189</b>	2.50740	<b>0.07574</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>0.01808</b>	0.32940	<b>0.02155</b>	2.50740	<b>0.06307</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>0.02382</b>	0.32940	<b>0.02802</b>	2.50740	<b>0.06996</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>0.01808</b>	0.32940	<b>0.02155</b>	2.50740	<b>0.06307</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01306</b>	0.32940	<b>0.01654</b>	2.50740	<b>0.05558</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>0.01904</b>	0.32940	<b>0.02331</b>	2.50740	<b>0.06688</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.02382</b>	0.32940	<b>0.02802</b>	2.50740	<b>0.06996</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.02395</b>	0.32940	<b>0.02823</b>	2.50740	<b>0.07014</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	<b>-0.00008</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

**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	<b>0.00008</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

**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	<b>-0.00008</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

**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	<b>0.00008</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

# DLHR



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00221	0.00240	0.00328	0.30000	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D->Q (RR)	0.01860	0.00100	<b>0.13726</b>	0.32940	0.06480	<b>0.32277</b>	2.50740	0.30000	<b>0.87660</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.12480</b>	0.32940	0.06480	<b>0.31286</b>	2.50740	0.30000	<b>0.83506</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>0.11566</b>	0.32940	0.06480	<b>0.27960</b>	2.50740	0.30000	<b>0.75618</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.12060</b>	0.32940	0.06480	<b>0.28163</b>	2.50740	0.30000	<b>0.70417</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.05019</b>	0.32940	0.06480	<b>0.23901</b>	2.50740	0.30000	<b>0.78827</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>0.14154</b>	0.32940	0.06480	<b>0.31979</b>	2.50740	0.30000	<b>0.88635</b>
	GATE->Q_N (RR)	0.01860	0.00100	<b>0.14659</b>	0.32940	0.06480	<b>0.32187</b>	2.50740	0.30000	<b>0.83436</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.07614</b>	0.32940	0.06480	<b>0.27299</b>	2.50740	0.30000	<b>0.86547</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>0.16592</b>	0.32940	0.06480	<b>0.31681</b>	2.50740	0.30000	<b>0.78037</b>
	GATE->Q_N (RF)	0.01860	0.00100	<b>0.15326</b>	0.32940	0.06480	<b>0.30699</b>	2.50740	0.30000	<b>0.73875</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	-0.06358	1.26300	1.26300	-0.09714	2.50740	2.50740	-0.09150
	setup	GATE (F)	0.01860	0.01860	0.07336	1.26300	1.26300	0.11873	2.50740	2.50740	0.12987

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	hold	GATE (F)	0.01860	0.01860	-0.02690	1.26300	1.26300	0.01619	2.50740	2.50740	0.05313
	setup	GATE (F)	0.01860	0.01860	0.03423	1.26300	1.26300	-0.01079	2.50740	2.50740	-0.04722

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	min_pulse_width	GATE 0	0.01860	0.00000	0.06058	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	recovery	GATE (F)	0.01860	0.01860	-0.00489	1.26300	1.26300	-0.07825	2.50740	2.50740	-0.12692
	removal	GATE (F)	0.01860	0.01860	0.01467	1.26300	1.26300	0.08905	2.50740	2.50740	0.13577

Constraints(ns) for RESET\_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	min_pulse_width	RESET_B 0	0.01860	0.00000	0.13107	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D	0.01860	0.00100	<b>0.00719</b>	0.32940	0.06480	<b>0.00773</b>	2.50740	0.30000	<b>0.00761</b>
	GATE	0.01860	0.00100	<b>0.01411</b>	0.32940	0.06480	<b>0.01457</b>	2.50740	0.30000	<b>0.01441</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>0.00262</b>	0.32940	0.06480	<b>0.00160</b>	2.50740	0.30000	<b>0.00104</b>
	GATE	0.01860	0.00100	<b>0.01407</b>	0.32940	0.06480	<b>0.01486</b>	2.50740	0.30000	<b>0.01303</b>
	RESET_B	0.01860	0.00100	<b>0.01213</b>	0.32940	0.06480	<b>0.01452</b>	2.50740	0.30000	<b>0.03535</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>0.00264</b>	0.32940	0.06480	<b>0.00169</b>	2.50740	0.30000	<b>0.00131</b>
	GATE	0.01860	0.00100	<b>0.02288</b>	0.32940	0.06480	<b>0.02549</b>	2.50740	0.30000	<b>0.04497</b>
	RESET_B	0.01860	0.00100	<b>0.01217</b>	0.32940	0.06480	<b>0.01449</b>	2.50740	0.30000	<b>0.03561</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>0.00719</b>	0.32940	0.06480	<b>0.00771</b>	2.50740	0.30000	<b>0.00711</b>
	GATE	0.01860	0.00100	<b>0.01411</b>	0.32940	0.06480	<b>0.01447</b>	2.50740	0.30000	<b>0.01397</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>0.02715</b>	0.32940	<b>0.02987</b>	2.50740	<b>0.06240</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>0.03531</b>	0.32940	<b>0.04161</b>	2.50740	<b>0.07555</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>0.00469</b>	0.32940	<b>0.00755</b>	2.50740	<b>0.03943</b>
	!RESET_B	0.01860	<b>0.02715</b>	0.32940	<b>0.02987</b>	2.50740	<b>0.06240</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>0.00546</b>	0.32940	<b>0.00881</b>	2.50740	<b>0.04144</b>
	!RESET_B	0.01860	<b>0.03531</b>	0.32940	<b>0.04161</b>	2.50740	<b>0.07555</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>0.01758</b>	0.32940	<b>0.02110</b>	2.50740	<b>0.06274</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>0.02361</b>	0.32940	<b>0.02784</b>	2.50740	<b>0.06914</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>0.01758</b>	0.32940	<b>0.02110</b>	2.50740	<b>0.06274</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01260</b>	0.32940	<b>0.01612</b>	2.50740	<b>0.05521</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>0.01944</b>	0.32940	<b>0.02379</b>	2.50740	<b>0.06746</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.02361</b>	0.32940	<b>0.02784</b>	2.50740	<b>0.06914</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.02369</b>	0.32940	<b>0.02792</b>	2.50740	<b>0.06916</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>-0.00007</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00007</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>-0.00022</b>	0.32940	<b>-0.00008</b>	2.50740	<b>-0.00003</b>
	(!D * !GATE * !Q)	0.01860	<b>-0.00007</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00022</b>	0.32940	<b>0.00008</b>	2.50740	<b>0.00003</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00007</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

# DLLRQ



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_dllrq_1	0.00217	0.00231	0.00318	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D->Q (RR)	0.01860	0.00100	<b>0.12630</b>	0.32940	0.06480	<b>0.30664</b>	2.50740	0.30000	<b>0.85985</b>
	GATE_N->Q (FR)	0.01860	0.00100	<b>0.14050</b>	0.32940	0.06480	<b>0.33814</b>	2.50740	0.30000	<b>0.96264</b>
	RESET_B->Q (RR)	0.01860	0.00100	<b>0.05722</b>	0.32940	0.06480	<b>0.24008</b>	2.50740	0.30000	<b>0.84450</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>0.11085</b>	0.32940	0.06480	<b>0.27127</b>	2.50740	0.30000	<b>0.74890</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.10649</b>	0.32940	0.06480	<b>0.28454</b>	2.50740	0.30000	<b>0.83436</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.04659</b>	0.32940	0.06480	<b>0.22532</b>	2.50740	0.30000	<b>0.77089</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	-0.04646	1.26300	1.26300	-0.06206	2.50740	2.50740	-0.08855
	setup	GATE_N (R)	0.01860	0.01860	0.05379	1.26300	1.26300	0.07016	2.50740	2.50740	0.09445

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	hold	GATE_N (R)	0.01860	0.01860	-0.05624	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.23908
	setup	GATE_N (R)	0.01860	0.01860	0.06113	1.26300	1.26300	0.19158	2.50740	2.50740	0.27154

Constraints(ns) for GATE\_N falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	min_pulse_width	GATE_N_0	0.01860	0.00000	0.07019	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	recovery	GATE_N (R)	0.01860	0.01860	-0.02445	1.26300	1.26300	-0.05397	2.50740	2.50740	-0.04132
	removal	GATE_N (R)	0.01860	0.01860	0.03423	1.26300	1.26300	0.05936	2.50740	2.50740	0.05018

Constraints(ns) for RESET\_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	min_pulse_width	RESET_B_0	0.01860	0.00000	0.12787	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D	0.01860	0.00100	<b>0.01073</b>	0.32940	0.06480	<b>0.01134</b>	2.50740	0.30000	<b>0.01191</b>
	GATE_N	0.01860	0.00100	<b>0.01063</b>	0.32940	0.06480	<b>0.01088</b>	2.50740	0.30000	<b>0.00995</b>
	RESET_B	0.01860	0.00100	<b>0.01572</b>	0.32940	0.06480	<b>0.01764</b>	2.50740	0.30000	<b>0.05320</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>0.00391</b>	0.32940	0.06480	<b>0.00070</b>	2.50740	0.30000	<b>0.00010</b>
	GATE_N	0.01860	0.00100	<b>0.00870</b>	0.32940	0.06480	<b>0.00950</b>	2.50740	0.30000	<b>0.01122</b>
	RESET_B	0.01860	0.00100	<b>0.01202</b>	0.32940	0.06480	<b>0.01625</b>	2.50740	0.30000	<b>0.05399</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>0.01807</b>	0.32940	<b>0.02074</b>	2.50740	<b>0.05265</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>0.02431</b>	0.32940	<b>0.03141</b>	2.50740	<b>0.06531</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>0.00420</b>	0.32940	<b>0.00704</b>	2.50740	<b>0.03890</b>
	!RESET_B	0.01860	<b>0.01807</b>	0.32940	<b>0.02074</b>	2.50740	<b>0.05265</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>0.00514</b>	0.32940	<b>0.00847</b>	2.50740	<b>0.04107</b>
	!RESET_B	0.01860	<b>0.02431</b>	0.32940	<b>0.03141</b>	2.50740	<b>0.06531</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>0.02049</b>	0.32940	<b>0.02376</b>	2.50740	<b>0.06264</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>0.02386</b>	0.32940	<b>0.02810</b>	2.50740	<b>0.06964</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>0.02049</b>	0.32940	<b>0.02376</b>	2.50740	<b>0.06264</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01175</b>	0.32940	<b>0.01526</b>	2.50740	<b>0.05439</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>0.01966</b>	0.32940	<b>0.02372</b>	2.50740	<b>0.06435</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.02386</b>	0.32940	<b>0.02810</b>	2.50740	<b>0.06964</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.02392</b>	0.32940	<b>0.02824</b>	2.50740	<b>0.06988</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>-0.00010</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00010</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>-0.00010</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00010</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

# DLLR



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00228	0.00245	0.00324	0.30000	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D->Q (RR)	0.01860	0.00100	<b>0.13832</b>	0.32940	0.06480	<b>0.32332</b>	2.50740	0.30000	<b>0.87620</b>
	GATE_N->Q (FR)	0.01860	0.00100	<b>0.15243</b>	0.32940	0.06480	<b>0.35544</b>	2.50740	0.30000	<b>0.97997</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>0.11694</b>	0.32940	0.06480	<b>0.28065</b>	2.50740	0.30000	<b>0.75762</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.11323</b>	0.32940	0.06480	<b>0.29552</b>	2.50740	0.30000	<b>0.84652</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.05004</b>	0.32940	0.06480	<b>0.24187</b>	2.50740	0.30000	<b>0.75971</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>0.14267</b>	0.32940	0.06480	<b>0.32058</b>	2.50740	0.30000	<b>0.88678</b>
	GATE_N->Q_N (FR)	0.01860	0.00100	<b>0.13907</b>	0.32940	0.06480	<b>0.33552</b>	2.50740	0.30000	<b>0.97550</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.07638</b>	0.32940	0.06480	<b>0.27443</b>	2.50740	0.30000	<b>0.87127</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>0.16680</b>	0.32940	0.06480	<b>0.31740</b>	2.50740	0.30000	<b>0.78015</b>
	GATE_N->Q_N (FF)	0.01860	0.00100	<b>0.18074</b>	0.32940	0.06480	<b>0.34966</b>	2.50740	0.30000	<b>0.88416</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	-0.05135	1.26300	1.26300	-0.06746	2.50740	2.50740	-0.09150
	setup	GATE_N (R)	0.01860	0.01860	0.06113	1.26300	1.26300	0.07286	2.50740	2.50740	0.10035

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	hold	GATE_N (R)	0.01860	0.01860	-0.05868	1.26300	1.26300	-0.17269	2.50740	2.50740	-0.23908
	setup	GATE_N (R)	0.01860	0.01860	0.06358	1.26300	1.26300	0.19428	2.50740	2.50740	0.27744

Constraints(ns) for GATE\_N falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	min_pulse_width	GATE_N ()	0.01860	0.00000	0.07660	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	recovery	GATE_N (R)	0.01860	0.01860	-0.01956	1.26300	1.26300	-0.02159	2.50740	2.50740	0.00590
	removal	GATE_N (R)	0.01860	0.01860	0.02934	1.26300	1.26300	0.02968	2.50740	2.50740	0.00000

Constraints(ns) for RESET\_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	min_pulse_width	RESET_B ()	0.01860	0.00000	0.13107	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

## 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>0.01513</b>	0.32940	0.06480	<b>0.08789</b>	2.50740	0.30000	<b>0.35245</b>
	GATE_N	0.01860	0.00100	<b>0.02892</b>	0.32940	0.06480	<b>0.10164</b>	2.50740	0.30000	<b>0.36612</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>0.00800</b>	0.32940	0.06480	<b>0.07245</b>	2.50740	0.30000	<b>0.33571</b>
	GATE_N	0.01860	0.00100	<b>0.02623</b>	0.32940	0.06480	<b>0.09915</b>	2.50740	0.30000	<b>0.36625</b>
	RESET_B	0.01860	0.00100	<b>0.03764</b>	0.32940	0.06480	<b>0.11329</b>	2.50740	0.30000	<b>0.41129</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>0.00806</b>	0.32940	0.06480	<b>0.07263</b>	2.50740	0.30000	<b>0.33636</b>
	GATE_N	0.01860	0.00100	<b>0.04622</b>	0.32940	0.06480	<b>0.12341</b>	2.50740	0.30000	<b>0.43124</b>
	RESET_B	0.01860	0.00100	<b>0.03748</b>	0.32940	0.06480	<b>0.11310</b>	2.50740	0.30000	<b>0.41135</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>0.01514</b>	0.32940	0.06480	<b>0.08779</b>	2.50740	0.30000	<b>0.35106</b>
	GATE_N	0.01860	0.00100	<b>0.02892</b>	0.32940	0.06480	<b>0.10145</b>	2.50740	0.30000	<b>0.36567</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>0.02821</b>	0.32940	<b>0.03101</b>	2.50740	<b>0.06344</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>0.03353</b>	0.32940	<b>0.04511</b>	2.50740	<b>0.07915</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>0.00478</b>	0.32940	<b>0.00764</b>	2.50740	<b>0.03956</b>
	!RESET_B	0.01860	<b>0.02821</b>	0.32940	<b>0.03101</b>	2.50740	<b>0.06344</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>0.00491</b>	0.32940	<b>0.00825</b>	2.50740	<b>0.04086</b>
	!RESET_B	0.01860	<b>0.03353</b>	0.32940	<b>0.04511</b>	2.50740	<b>0.07915</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>0.02220</b>	0.32940	<b>0.02747</b>	2.50740	<b>0.06684</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>0.01996</b>	0.32940	<b>0.02403</b>	2.50740	<b>0.06460</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>0.02061</b>	0.32940	<b>0.02388</b>	2.50740	<b>0.06261</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.02220</b>	0.32940	<b>0.02747</b>	2.50740	<b>0.06684</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.02226</b>	0.32940	<b>0.02755</b>	2.50740	<b>0.06691</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>0.01996</b>	0.32940	<b>0.02403</b>	2.50740	<b>0.06460</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01331</b>	0.32940	<b>0.01743</b>	2.50740	<b>0.05848</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>-0.00012</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00012</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00016</b>	0.32940	<b>0.00016</b>	2.50740	<b>0.00016</b>
	(!D * GATE_N * !Q)	0.01860	<b>-0.00012</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
<b>sg13g2_dllr_1</b>	<b>(D * GATE_N * !Q)</b>	0.01860	<b>0.00028</b>	0.32940	<b>0.00013</b>	2.50740	<b>0.00008</b>
	<b>(!D * GATE_N * !Q)</b>	0.01860	<b>0.00012</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

# DLYGATE4SD1



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell  
Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C,  
Voltage 1.50, 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	0.00158	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd1_1	A->X (RR)	0.01860	0.00100	<b>0.07972</b>	0.32940	0.06480	<b>0.25411</b>	2.50740	0.30000	<b>0.74468</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>0.09213</b>	0.32940	0.06480	<b>0.27407</b>	2.50740	0.30000	<b>0.85476</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>0.01970</b>	0.32940	0.06480	<b>0.02190</b>	2.50740	0.30000	<b>0.04176</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>0.01890</b>	0.32940	0.06480	<b>0.02147</b>	2.50740	0.30000	<b>0.04222</b>

# DLYGATE4SD2



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell  
Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C,  
Voltage 1.50, 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	0.00157	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd2_1	A->X (RR)	0.01860	0.00100	<b>0.11935</b>	0.32940	0.06480	<b>0.30521</b>	2.50740	0.30000	<b>0.82696</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>0.13362</b>	0.32940	0.06480	<b>0.33298</b>	2.50740	0.30000	<b>0.93684</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>0.02363</b>	0.32940	0.06480	<b>0.02548</b>	2.50740	0.30000	<b>0.04408</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>0.02294</b>	0.32940	0.06480	<b>0.02490</b>	2.50740	0.30000	<b>0.04493</b>

# DLYGATE4SD3



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell*

*Library: Process*

*sg13g2\_stdcell\_typ\_1p50V\_25C,*

*Voltage 1.50, Temp 25.00*

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

Cell Name	Area
sg13g2_dlygate4sd3_1	16.32960

## Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	X
sg13g2_dlygate4sd3_1	0.00157	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd3_1	1214.88000	1252.42000	1289.95000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd3_1	A->X (RR)	0.01860	0.00100	<b>0.25699</b>	0.32940	0.06480	<b>0.46949</b>	2.50740	0.30000	<b>1.05625</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>0.26552</b>	0.32940	0.06480	<b>0.49959</b>	2.50740	0.30000	<b>1.16562</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>0.03463</b>	0.32940	0.06480	<b>0.03528</b>	2.50740	0.30000	<b>0.05240</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>0.03428</b>	0.32940	0.06480	<b>0.03496</b>	2.50740	0.30000	<b>0.05292</b>

# EBUFNx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, Temp 25.00*

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## 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	0.00277	0.00669	0.60000
sg13g2_ebufn_4	0.00312	0.01090	1.20000
sg13g2_ebufn_8	0.00609	0.01821	2.40000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_ebufn_2	331.81700	683.06000	1042.44000
sg13g2_ebufn_4	416.03800	1118.49000	1944.93000
sg13g2_ebufn_8	590.33500	2069.17000	3795.96000

## 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	0.00597	<b>0.04528</b>	0.32940	0.13457	<b>0.36535</b>	2.50740	0.60497	<b>1.43769</b>
	TE_B->Z (RR)	0.01860	0.00597	<b>0.03443</b>	0.32940	0.13457	<b>0.07213</b>	2.50740	0.60497	<b>0.13806</b>
	TE_B->Z (FR)	0.01860	0.00597	<b>0.02533</b>	0.32940	0.13457	<b>0.36918</b>	2.50740	0.60497	<b>1.83757</b>
sg13g2_ebufn_4	A->Z (RR)	0.01860	0.01080	<b>0.05341</b>	0.32940	0.26900	<b>0.39380</b>	2.50740	1.20980	<b>1.49867</b>
	TE_B->Z (RR)	0.01860	0.01080	<b>0.04044</b>	0.32940	0.26900	<b>0.08930</b>	2.50740	1.20980	<b>0.17000</b>
	TE_B->Z (FR)	0.01860	0.01080	<b>0.02504</b>	0.32940	0.26900	<b>0.37268</b>	2.50740	1.20980	<b>1.84856</b>
sg13g2_ebufn_8	A->Z (RR)	0.01860	0.02030	<b>0.05214</b>	0.32940	0.53770	<b>0.39374</b>	2.50740	2.41930	<b>1.49979</b>
	TE_B->Z (RR)	0.01860	0.02030	<b>0.05210</b>	0.32940	0.53770	<b>0.12297</b>	2.50740	2.41930	<b>0.24540</b>
	TE_B->Z (FR)	0.01860	0.02030	<b>0.02548</b>	0.32940	0.53770	<b>0.37454</b>	2.50740	2.41930	<b>1.85263</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	0.00841	<b>0.04662</b>	0.32940	0.13701	<b>0.29763</b>	2.50740	0.60741	<b>1.09798</b>
	TE_B->Z (RF)	0.01860	0.00841	<b>0.02073</b>	0.32940	0.13701	<b>0.05495</b>	2.50740	0.60741	<b>0.33811</b>
	TE_B->Z (FF)	0.01860	0.00841	<b>0.04100</b>	0.32940	0.13701	<b>0.31142</b>	2.50740	0.60741	<b>1.21084</b>
sg13g2_ebufn_4	A->Z (FF)	0.01860	0.01553	<b>0.06012</b>	0.32940	0.27373	<b>0.33403</b>	2.50740	1.21453	<b>1.17517</b>
	TE_B->Z (RF)	0.01860	0.01553	<b>0.02185</b>	0.32940	0.27373	<b>0.05571</b>	2.50740	1.21453	<b>0.34091</b>
	TE_B->Z (FF)	0.01860	0.01553	<b>0.04828</b>	0.32940	0.27373	<b>0.33913</b>	2.50740	1.21453	<b>1.27366</b>
sg13g2_ebufn_8	A->Z (FF)	0.01860	0.02961	<b>0.05867</b>	0.32940	0.54701	<b>0.33285</b>	2.50740	2.42861	<b>1.17698</b>
	TE_B->Z (RF)	0.01860	0.02961	<b>0.02319</b>	0.32940	0.54701	<b>0.05701</b>	2.50740	2.42861	<b>0.34469</b>
	TE_B->Z (FF)	0.01860	0.02961	<b>0.06334</b>	0.32940	0.54701	<b>0.38148</b>	2.50740	2.42861	<b>1.36730</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	0.00597	<b>0.01530</b>	0.32940	0.13457	<b>0.01604</b>	2.50740	0.60497	<b>0.01526</b>
	TE_B	0.01860	0.00597	<b>0.00281</b>	0.32940	0.13457	<b>0.00266</b>	2.50740	0.60497	<b>0.00229</b>
sg13g2_ebufn_4	A	0.01860	0.01080	<b>0.02971</b>	0.32940	0.26900	<b>0.03219</b>	2.50740	1.20980	<b>0.03265</b>
	TE_B	0.01860	0.01080	<b>0.00526</b>	0.32940	0.26900	<b>0.00512</b>	2.50740	1.20980	<b>0.00316</b>
sg13g2_ebufn_8	A	0.01860	0.02030	<b>0.05918</b>	0.32940	0.53770	<b>0.06551</b>	2.50740	2.41930	<b>0.07013</b>
	TE_B	0.01860	0.02030	<b>0.01003</b>	0.32940	0.53770	<b>0.00965</b>	2.50740	2.41930	<b>0.00718</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	0.00841	<b>0.01336</b>	0.32940	0.13701	<b>0.01417</b>	2.50740	0.60741	<b>0.01250</b>
	TE_B	0.01860	0.00841	<b>0.00251</b>	0.32940	0.13701	<b>0.01630</b>	2.50740	0.60741	<b>0.07008</b>
sg13g2_ebufn_4	A	0.01860	0.01553	<b>0.02753</b>	0.32940	0.27373	<b>0.02816</b>	2.50740	1.21453	<b>0.02516</b>
	TE_B	0.01860	0.01553	<b>0.00479</b>	0.32940	0.27373	<b>0.03254</b>	2.50740	1.21453	<b>0.14134</b>
sg13g2_ebufn_8	A	0.01860	0.02961	<b>0.05525</b>	0.32940	0.54701	<b>0.05604</b>	2.50740	2.42861	<b>0.05192</b>
	TE_B	0.01860	0.02961	<b>0.00883</b>	0.32940	0.54701	<b>0.06317</b>	2.50740	2.42861	<b>0.28212</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>0.00512</b>	0.32940	<b>0.00879</b>	2.50740	<b>0.04729</b>
sg13g2_ebufn_4	0.01860	<b>0.00867</b>	0.32940	<b>0.01239</b>	2.50740	<b>0.05575</b>
sg13g2_ebufn_8	0.01860	<b>0.01615</b>	0.32940	<b>0.02382</b>	2.50740	<b>0.11086</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>0.00452</b>	0.32940	<b>0.00873</b>	2.50740	<b>0.04815</b>
sg13g2_ebufn_4	0.01860	<b>0.00721</b>	0.32940	<b>0.01159</b>	2.50740	<b>0.05634</b>
sg13g2_ebufn_8	0.01860	<b>0.01351</b>	0.32940	<b>0.02244</b>	2.50740	<b>0.11219</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>0.00028</b>	0.32940	<b>0.00328</b>	2.50740	<b>0.04132</b>
sg13g2_ebufn_4	0.01860	<b>-0.00105</b>	0.32940	<b>0.00139</b>	2.50740	<b>0.04402</b>
sg13g2_ebufn_8	0.01860	<b>-0.00492</b>	0.32940	<b>-0.00373</b>	2.50740	<b>0.03636</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>0.02151</b>	0.32940	<b>0.02572</b>	2.50740	<b>0.06465</b>
sg13g2_ebufn_4	0.01860	<b>0.04175</b>	0.32940	<b>0.04612</b>	2.50740	<b>0.09011</b>
sg13g2_ebufn_8	0.01860	<b>0.08146</b>	0.32940	<b>0.08470</b>	2.50740	<b>0.12661</b>

# EINVN<sub>x</sub>



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, Temp 25.00*

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## 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	0.00420	0.00512	0.60000
sg13g2_einvn_4	0.00819	0.00955	1.20000
sg13g2_einvn_8	0.01619	0.01630	2.40000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_2	633.83500	781.67500	929.51500
sg13g2_einvn_4	1259.66000	1555.34000	1851.03000
sg13g2_einvn_8	2425.43000	3016.79000	3608.16000

## Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_einvn_2	A->Z (FR)	0.01860	0.00600	<b>0.02000</b>	0.32940	0.13460	<b>0.40579</b>	2.50740	0.60500	<b>2.14937</b>
	TE_B->Z (RR)	0.01860	0.00600	<b>0.03791</b>	0.32940	0.13460	<b>0.08577</b>	2.50740	0.60500	<b>0.16815</b>
	TE_B->Z (FR)	0.01860	0.00600	<b>0.02441</b>	0.32940	0.13460	<b>0.36946</b>	2.50740	0.60500	<b>1.84298</b>
sg13g2_einvn_4	A->Z (FR)	0.01860	0.01086	<b>0.01855</b>	0.32940	0.26906	<b>0.40621</b>	2.50740	1.20986	<b>2.15293</b>
	TE_B->Z (RR)	0.01860	0.01086	<b>0.03909</b>	0.32940	0.26906	<b>0.08833</b>	2.50740	1.20986	<b>0.17598</b>
	TE_B->Z (FR)	0.01860	0.01086	<b>0.02357</b>	0.32940	0.26906	<b>0.36968</b>	2.50740	1.20986	<b>1.84158</b>
sg13g2_einvn_8	A->Z (FR)	0.01860	0.02052	<b>0.01793</b>	0.32940	0.53792	<b>0.40772</b>	2.50740	2.41952	<b>2.15940</b>
	TE_B->Z (RR)	0.01860	0.02052	<b>0.05083</b>	0.32940	0.53792	<b>0.12208</b>	2.50740	2.41952	<b>0.24621</b>
	TE_B->Z (FR)	0.01860	0.02052	<b>0.02441</b>	0.32940	0.53792	<b>0.37197</b>	2.50740	2.41952	<b>1.84573</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	0.00844	<b>0.01724</b>	0.32940	0.13704	<b>0.32951</b>	2.50740	0.60744	<b>1.77200</b>
sg13g2_einvn_4	A->Z (RF)	0.01860	0.01554	<b>0.01602</b>	0.32940	0.27374	<b>0.32941</b>	2.50740	1.21454	<b>1.77231</b>
sg13g2_einvn_8	A->Z (RF)	0.01860	0.02994	<b>0.01556</b>	0.32940	0.54734	<b>0.33111</b>	2.50740	2.42894	<b>1.78181</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	0.00600	<b>0.00403</b>	0.32940	0.13460	<b>0.00722</b>	2.50740	0.60500	<b>0.02911</b>
	TE_B	0.01860	0.00600	<b>0.01241</b>	0.32940	0.13460	<b>0.01211</b>	2.50740	0.60500	<b>0.01094</b>
sg13g2_einvn_4	A	0.01860	0.01086	<b>0.00802</b>	0.32940	0.26906	<b>0.01471</b>	2.50740	1.20986	<b>0.05910</b>
	TE_B	0.01860	0.01086	<b>0.02510</b>	0.32940	0.26906	<b>0.02428</b>	2.50740	1.20986	<b>0.02150</b>
sg13g2_einvn_8	A	0.01860	0.02052	<b>0.01599</b>	0.32940	0.53792	<b>0.02944</b>	2.50740	2.41952	<b>0.11556</b>
	TE_B	0.01860	0.02052	<b>0.05302</b>	0.32940	0.53792	<b>0.05061</b>	2.50740	2.41952	<b>0.04517</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	0.00844	<b>0.00417</b>	0.32940	0.13704	<b>0.00702</b>	2.50740	0.60744	<b>0.02637</b>
sg13g2_einvn_4	A	0.01860	0.01554	<b>0.00792</b>	0.32940	0.27374	<b>0.01366</b>	2.50740	1.21454	<b>0.05286</b>
sg13g2_einvn_8	A	0.01860	0.02994	<b>0.01543</b>	0.32940	0.54734	<b>0.02707</b>	2.50740	2.42894	<b>0.10511</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>-0.00666</b>	0.32940	<b>-0.00516</b>	2.50740	<b>0.01792</b>
sg13g2_einvn_4	0.01860	<b>-0.01428</b>	0.32940	<b>-0.01176</b>	2.50740	<b>0.03100</b>
sg13g2_einvn_8	0.01860	<b>-0.03239</b>	0.32940	<b>-0.03115</b>	2.50740	<b>0.00913</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>0.01108</b>	0.32940	<b>0.01359</b>	2.50740	<b>0.03793</b>
sg13g2_einvn_4	0.01860	<b>0.02199</b>	0.32940	<b>0.02683</b>	2.50740	<b>0.07207</b>
sg13g2_einvn_8	0.01860	<b>0.03853</b>	0.32940	<b>0.04394</b>	2.50740	<b>0.08779</b>

# FILLx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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

# INVX



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00298	0.30000
sg13g2_inv_16	0.04506	4.80000
sg13g2_inv_2	0.00589	0.60000
sg13g2_inv_4	0.01166	1.20000
sg13g2_inv_8	0.02333	2.40000

## Leakage Information

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

## 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>0.01514</b>	0.32940	0.06480	<b>0.27357</b>	2.50740	0.30000	<b>1.50884</b>
sg13g2_inv_16	A->Y (FR)	0.01860	0.00100	<b>0.01450</b>	0.32940	1.03680	<b>0.27758</b>	2.50740	4.80000	<b>1.51795</b>
sg13g2_inv_2	A->Y (FR)	0.01860	0.00100	<b>0.01300</b>	0.32940	0.12960	<b>0.27323</b>	2.50740	0.60000	<b>1.50799</b>
sg13g2_inv_4	A->Y (FR)	0.01860	0.00100	<b>0.01204</b>	0.32940	0.25920	<b>0.27353</b>	2.50740	1.20000	<b>1.51218</b>
sg13g2_inv_8	A->Y (FR)	0.01860	0.00100	<b>0.01173</b>	0.32940	0.51840	<b>0.27379</b>	2.50740	2.40000	<b>1.51227</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>0.01437</b>	0.32940	0.06480	<b>0.24654</b>	2.50740	0.30000	<b>1.36822</b>
sg13g2_inv_16	A->Y (RF)	0.01860	0.00100	<b>0.01428</b>	0.32940	1.03680	<b>0.25095</b>	2.50740	4.80000	<b>1.37769</b>
sg13g2_inv_2	A->Y (RF)	0.01860	0.00100	<b>0.01232</b>	0.32940	0.12960	<b>0.24616</b>	2.50740	0.60000	<b>1.36793</b>
sg13g2_inv_4	A->Y (RF)	0.01860	0.00100	<b>0.01145</b>	0.32940	0.25920	<b>0.24738</b>	2.50740	1.20000	<b>1.37490</b>
sg13g2_inv_8	A->Y (RF)	0.01860	0.00100	<b>0.01121</b>	0.32940	0.51840	<b>0.24759</b>	2.50740	2.40000	<b>1.37549</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>0.00230</b>	0.32940	0.06480	<b>0.00405</b>	2.50740	0.30000	<b>0.02049</b>
sg13g2_inv_16	A	0.01860	0.00100	<b>0.03326</b>	0.32940	1.03680	<b>0.06126</b>	2.50740	4.80000	<b>0.32500</b>
sg13g2_inv_2	A	0.01860	0.00100	<b>0.00410</b>	0.32940	0.12960	<b>0.00759</b>	2.50740	0.60000	<b>0.04029</b>
sg13g2_inv_4	A	0.01860	0.00100	<b>0.00817</b>	0.32940	0.25920	<b>0.01552</b>	2.50740	1.20000	<b>0.08162</b>
sg13g2_inv_8	A	0.01860	0.00100	<b>0.01629</b>	0.32940	0.51840	<b>0.03077</b>	2.50740	2.40000	<b>0.16279</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>0.00236</b>	0.32940	0.06480	<b>0.00392</b>	2.50740	0.30000	<b>0.01746</b>
sg13g2_inv_16	A	0.01860	0.00100	<b>0.02905</b>	0.32940	1.03680	<b>0.05646</b>	2.50740	4.80000	<b>0.26971</b>
sg13g2_inv_2	A	0.01860	0.00100	<b>0.00371</b>	0.32940	0.12960	<b>0.00714</b>	2.50740	0.60000	<b>0.03378</b>
sg13g2_inv_4	A	0.01860	0.00100	<b>0.00711</b>	0.32940	0.25920	<b>0.01399</b>	2.50740	1.20000	<b>0.06777</b>
sg13g2_inv_8	A	0.01860	0.00100	<b>0.01412</b>	0.32940	0.51840	<b>0.02833</b>	2.50740	2.40000	<b>0.13453</b>

# LGCP



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00523	0.00245	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to GCLK rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_lgcp_1	CLK->GCLK (RR)	0.01860	0.00100	<b>0.05052</b>	0.32940	0.06480	<b>0.22872</b>	2.50740	0.30000	<b>0.81882</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>0.04335</b>	0.32940	0.06480	<b>0.21686</b>	2.50740	0.30000	<b>0.75711</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>0.15991</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>0.06699</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>-0.02512</b>	1.26300	1.26300	<b>-0.12007</b>	2.50740	2.50740	<b>-0.20331</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.05247</b>	1.26300	1.26300	<b>0.16581</b>	2.50740	2.50740	<b>0.25574</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>-0.01315</b>	1.26300	1.26300	<b>-0.02361</b>	2.50740	2.50740	<b>-0.03378</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.03582</b>	1.26300	1.26300	<b>0.05785</b>	2.50740	2.50740	<b>0.08032</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>0.01450</b>	0.32940	0.06480	<b>0.01630</b>	2.50740	0.30000	<b>0.04655</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>0.00891</b>	0.32940	0.06480	<b>0.01277</b>	2.50740	0.30000	<b>0.04432</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>0.01034</b>	0.32940	<b>0.01382</b>	2.50740	<b>0.05294</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>0.01292</b>	0.32940	<b>0.01691</b>	2.50740	<b>0.05801</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>0.03051</b>	0.32940	<b>0.03333</b>	2.50740	<b>0.06612</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>0.02580</b>	0.32940	<b>0.04766</b>	2.50740	<b>0.08173</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>0.03051</b>	0.32940	<b>0.03333</b>	2.50740	<b>0.06612</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>0.02580</b>	0.32940	<b>0.04766</b>	2.50740	<b>0.08173</b>

# MUX2x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_mux2_1	0.00293	0.00304	0.00541	0.30000
sg13g2_mux2_2	0.00291	0.00301	0.00540	0.60000

## Leakage Information

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

## 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_mux2_1	A0->X (RR)	0.01860	0.00100	<b>0.05027</b>	0.32940	0.06480	<b>0.24284</b>	2.50740	0.30000	<b>0.82842</b>
	A1->X (RR)	0.01860	0.00100	<b>0.05068</b>	0.32940	0.06480	<b>0.24509</b>	2.50740	0.30000	<b>0.83444</b>
	S->X (-R)	0.01860	0.00100	<b>0.07886</b>	0.32940	0.06480	<b>0.26352</b>	2.50740	0.30000	<b>0.83057</b>
sg13g2_mux2_2	A0->X (RR)	0.01860	0.00100	<b>0.05774</b>	0.32940	0.12960	<b>0.26844</b>	2.50740	0.60000	<b>0.88331</b>
	A1->X (RR)	0.01860	0.00100	<b>0.05798</b>	0.32940	0.12960	<b>0.27041</b>	2.50740	0.60000	<b>0.88726</b>
	S->X (-R)	0.01860	0.00100	<b>0.06290</b>	0.32940	0.12960	<b>0.26322</b>	2.50740	0.60000	<b>0.87277</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>0.06540</b>	0.32940	0.06480	<b>0.26379</b>	2.50740	0.30000	<b>0.87848</b>
	A1->X (FF)	0.01860	0.00100	<b>0.06520</b>	0.32940	0.06480	<b>0.26397</b>	2.50740	0.30000	<b>0.88216</b>
	S->X (-F)	0.01860	0.00100	<b>0.07375</b>	0.32940	0.06480	<b>0.24877</b>	2.50740	0.30000	<b>0.82670</b>
sg13g2_mux2_2	A0->X (FF)	0.01860	0.00100	<b>0.07973</b>	0.32940	0.12960	<b>0.29839</b>	2.50740	0.60000	<b>0.94018</b>
	A1->X (FF)	0.01860	0.00100	<b>0.07951</b>	0.32940	0.12960	<b>0.29849</b>	2.50740	0.60000	<b>0.94149</b>
	S->X (-F)	0.01860	0.00100	<b>0.08808</b>	0.32940	0.12960	<b>0.28011</b>	2.50740	0.60000	<b>0.87981</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>0.05518</b>	0.32940	0.06480	<b>0.24064</b>	2.50740	0.30000	<b>0.82574</b>
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	<b>0.07886</b>	0.32940	0.06480	<b>0.26352</b>	2.50740	0.30000	<b>0.83057</b>
sg13g2_mux2_2	S->X (RR)	(!A0 * A1)	0.01860	0.00100	<b>0.06290</b>	0.32940	0.12960	<b>0.26322</b>	2.50740	0.60000	<b>0.87277</b>
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	<b>0.08674</b>	0.32940	0.12960	<b>0.27795</b>	2.50740	0.60000	<b>0.84863</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>0.07375</b>	0.32940	0.06480	<b>0.24877</b>	2.50740	0.30000	<b>0.82670</b>
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	<b>0.09489</b>	0.32940	0.06480	<b>0.25954</b>	2.50740	0.30000	<b>0.72912</b>
sg13g2_mux2_2	S->X (FF)	(!A0 * A1)	0.01860	0.00100	<b>0.08808</b>	0.32940	0.12960	<b>0.28011</b>	2.50740	0.60000	<b>0.87981</b>
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	<b>0.10927</b>	0.32940	0.12960	<b>0.28406</b>	2.50740	0.60000	<b>0.75532</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>0.01394</b>	0.32940	0.06480	<b>0.01669</b>	2.50740	0.30000	<b>0.04895</b>
	A1	0.01860	0.00100	<b>0.01408</b>	0.32940	0.06480	<b>0.01687</b>	2.50740	0.30000	<b>0.04908</b>
	S	0.01860	0.00100	<b>0.01525</b>	0.32940	0.06480	<b>0.01745</b>	2.50740	0.30000	<b>0.04874</b>
sg13g2_mux2_2	A0	0.01860	0.00100	<b>0.02075</b>	0.32940	0.12960	<b>0.02297</b>	2.50740	0.60000	<b>0.05495</b>
	A1	0.01860	0.00100	<b>0.02092</b>	0.32940	0.12960	<b>0.02324</b>	2.50740	0.60000	<b>0.05483</b>
	S	0.01860	0.00100	<b>0.02183</b>	0.32940	0.12960	<b>0.02386</b>	2.50740	0.60000	<b>0.05464</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>0.01403</b>	0.32940	0.06480	<b>0.01726</b>	2.50740	0.30000	<b>0.05007</b>
	A1	0.01860	0.00100	<b>0.01393</b>	0.32940	0.06480	<b>0.01714</b>	2.50740	0.30000	<b>0.05048</b>
	S	0.01860	0.00100	<b>0.01438</b>	0.32940	0.06480	<b>0.01665</b>	2.50740	0.30000	<b>0.04946</b>
sg13g2_mux2_2	A0	0.01860	0.00100	<b>0.02188</b>	0.32940	0.12960	<b>0.02355</b>	2.50740	0.60000	<b>0.05576</b>
	A1	0.01860	0.00100	<b>0.02175</b>	0.32940	0.12960	<b>0.02346</b>	2.50740	0.60000	<b>0.05651</b>
	S	0.01860	0.00100	<b>0.02174</b>	0.32940	0.12960	<b>0.02296</b>	2.50740	0.60000	<b>0.05519</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>0.01491</b>	0.32940	0.06480	<b>0.01516</b>	2.50740	0.30000	<b>0.01587</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01525</b>	0.32940	0.06480	<b>0.01745</b>	2.50740	0.30000	<b>0.04874</b>
sg13g2_mux2_2	S	(A0 * !A1)	0.01860	0.00100	<b>0.02149</b>	0.32940	0.12960	<b>0.02183</b>	2.50740	0.60000	<b>0.02236</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.02183</b>	0.32940	0.12960	<b>0.02386</b>	2.50740	0.60000	<b>0.05464</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>0.01600</b>	0.32940	0.06480	<b>0.01644</b>	2.50740	0.30000	<b>0.01666</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01438</b>	0.32940	0.06480	<b>0.01665</b>	2.50740	0.30000	<b>0.04946</b>
sg13g2_mux2_2	S	(A0 * !A1)	0.01860	0.00100	<b>0.02345</b>	0.32940	0.12960	<b>0.02305</b>	2.50740	0.60000	<b>0.02238</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.02174</b>	0.32940	0.12960	<b>0.02296</b>	2.50740	0.60000	<b>0.05519</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>0.00543</b>	0.32940	<b>0.00806</b>	2.50740	<b>0.03972</b>
sg13g2_mux2_2	0.01860	<b>0.00543</b>	0.32940	<b>0.00801</b>	2.50740	<b>0.03971</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>0.00615</b>	0.32940	<b>0.00929</b>	2.50740	<b>0.04173</b>
sg13g2_mux2_2	0.01860	<b>0.00617</b>	0.32940	<b>0.00930</b>	2.50740	<b>0.04174</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>0.00543</b>	0.32940	<b>0.00806</b>	2.50740	<b>0.03972</b>
	(!A0 * !A1)	0.01860	<b>0.00502</b>	0.32940	<b>0.00772</b>	2.50740	<b>0.03930</b>
sg13g2_mux2_2	(A0 * A1)	0.01860	<b>0.00543</b>	0.32940	<b>0.00801</b>	2.50740	<b>0.03971</b>
	(!A0 * !A1)	0.01860	<b>0.00500</b>	0.32940	<b>0.00772</b>	2.50740	<b>0.03931</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>0.00583</b>	0.32940	<b>0.00896</b>	2.50740	<b>0.04127</b>
	(!A0 * !A1)	0.01860	<b>0.00615</b>	0.32940	<b>0.00929</b>	2.50740	<b>0.04173</b>
sg13g2_mux2_2	(A0 * A1)	0.01860	<b>0.00584</b>	0.32940	<b>0.00897</b>	2.50740	<b>0.04128</b>
	(!A0 * !A1)	0.01860	<b>0.00617</b>	0.32940	<b>0.00930</b>	2.50740	<b>0.04174</b>

# MUX4



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_mux4_1	0.00297	0.00295	0.00296	0.00303	0.00855	0.00523	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	A0->X (RR)	0.01860	0.00100	<b>0.08952</b>	0.32940	0.06480	<b>0.29797</b>	2.50740	0.30000	<b>0.95424</b>
	A1->X (RR)	0.01860	0.00100	<b>0.08780</b>	0.32940	0.06480	<b>0.29681</b>	2.50740	0.30000	<b>0.95219</b>
	A2->X (RR)	0.01860	0.00100	<b>0.09321</b>	0.32940	0.06480	<b>0.30474</b>	2.50740	0.30000	<b>0.96753</b>
	A3->X (RR)	0.01860	0.00100	<b>0.09068</b>	0.32940	0.06480	<b>0.30369</b>	2.50740	0.30000	<b>0.96586</b>
	S0->X (-R)	0.01860	0.00100	<b>0.07963</b>	0.32940	0.06480	<b>0.29902</b>	2.50740	0.30000	<b>0.95679</b>
	S1->X (-R)	0.01860	0.00100	<b>0.04777</b>	0.32940	0.06480	<b>0.24155</b>	2.50740	0.30000	<b>0.83572</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>0.10496</b>	0.32940	0.06480	<b>0.29990</b>	2.50740	0.30000	<b>0.87633</b>
	A1->X (FF)	0.01860	0.00100	<b>0.10673</b>	0.32940	0.06480	<b>0.30029</b>	2.50740	0.30000	<b>0.87685</b>
	A2->X (FF)	0.01860	0.00100	<b>0.11160</b>	0.32940	0.06480	<b>0.30976</b>	2.50740	0.30000	<b>0.89312</b>
	A3->X (FF)	0.01860	0.00100	<b>0.11237</b>	0.32940	0.06480	<b>0.30946</b>	2.50740	0.30000	<b>0.89247</b>
	S0->X (-F)	0.01860	0.00100	<b>0.09686</b>	0.32940	0.06480	<b>0.31056</b>	2.50740	0.30000	<b>0.92483</b>
	S1->X (-F)	0.01860	0.00100	<b>0.05696</b>	0.32940	0.06480	<b>0.24536</b>	2.50740	0.30000	<b>0.82826</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	<b>S0-&gt;X (RR)</b>	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.07963</b>	0.32940	0.06480	<b>0.29902</b>	2.50740	0.30000	<b>0.95679</b>
	<b>S0-&gt;X (RR)</b>	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.07545</b>	0.32940	0.06480	<b>0.28934</b>	2.50740	0.30000	<b>0.93800</b>
	<b>S0-&gt;X (FR)</b>	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.11668</b>	0.32940	0.06480	<b>0.32438</b>	2.50740	0.30000	<b>0.93314</b>
	<b>S0-&gt;X (FR)</b>	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.11352</b>	0.32940	0.06480	<b>0.31931</b>	2.50740	0.30000	<b>0.92510</b>
	<b>S1-&gt;X (RR)</b>	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.04777</b>	0.32940	0.06480	<b>0.24155</b>	2.50740	0.30000	<b>0.83572</b>
	<b>S1-&gt;X (RR)</b>	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.04768</b>	0.32940	0.06480	<b>0.24156</b>	2.50740	0.30000	<b>0.83523</b>
	<b>S1-&gt;X (FR)</b>	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.06326</b>	0.32940	0.06480	<b>0.25609</b>	2.50740	0.30000	<b>0.83078</b>
	<b>S1-&gt;X (FR)</b>	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.06313</b>	0.32940	0.06480	<b>0.25609</b>	2.50740	0.30000	<b>0.83069</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	<b>S0-&gt;X (FF)</b>	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.09686</b>	0.32940	0.06480	<b>0.31056</b>	2.50740	0.30000	<b>0.92483</b>
	<b>S0-&gt;X (FF)</b>	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.08827</b>	0.32940	0.06480	<b>0.29697</b>	2.50740	0.30000	<b>0.90182</b>
	<b>S0-&gt;X (RF)</b>	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.12973</b>	0.32940	0.06480	<b>0.32162</b>	2.50740	0.30000	<b>0.83802</b>
	<b>S0-&gt;X (RF)</b>	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.12285</b>	0.32940	0.06480	<b>0.31299</b>	2.50740	0.30000	<b>0.82688</b>
	<b>S1-&gt;X (FF)</b>	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.05696</b>	0.32940	0.06480	<b>0.24536</b>	2.50740	0.30000	<b>0.82826</b>
	<b>S1-&gt;X (FF)</b>	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.05683</b>	0.32940	0.06480	<b>0.24533</b>	2.50740	0.30000	<b>0.82732</b>
	<b>S1-&gt;X (RF)</b>	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.06993</b>	0.32940	0.06480	<b>0.25073</b>	2.50740	0.30000	<b>0.74016</b>
	<b>S1-&gt;X (RF)</b>	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.07005</b>	0.32940	0.06480	<b>0.25077</b>	2.50740	0.30000	<b>0.74079</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>0.01922</b>	0.32940	0.06480	<b>0.02041</b>	2.50740	0.30000	<b>0.04827</b>
	A1	0.01860	0.00100	<b>0.02849</b>	0.32940	0.06480	<b>0.02950</b>	2.50740	0.30000	<b>0.05732</b>
	A2	0.01860	0.00100	<b>0.02939</b>	0.32940	0.06480	<b>0.03044</b>	2.50740	0.30000	<b>0.05796</b>
	A3	0.01860	0.00100	<b>0.02042</b>	0.32940	0.06480	<b>0.02164</b>	2.50740	0.30000	<b>0.04926</b>
	S0	0.01860	0.00100	<b>0.02297</b>	0.32940	0.06480	<b>0.01886</b>	2.50740	0.30000	<b>-0.00308</b>
	S1	0.01860	0.00100	<b>0.01141</b>	0.32940	0.06480	<b>0.01376</b>	2.50740	0.30000	<b>0.03386</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>0.02916</b>	0.32940	0.06480	<b>0.03026</b>	2.50740	0.30000	<b>0.05947</b>
	A1	0.01860	0.00100	<b>0.02077</b>	0.32940	0.06480	<b>0.02183</b>	2.50740	0.30000	<b>0.05119</b>
	A2	0.01860	0.00100	<b>0.03063</b>	0.32940	0.06480	<b>0.03161</b>	2.50740	0.30000	<b>0.06089</b>
	A3	0.01860	0.00100	<b>0.02996</b>	0.32940	0.06480	<b>0.03099</b>	2.50740	0.30000	<b>0.06003</b>
	S0	0.01860	0.00100	<b>0.01666</b>	0.32940	0.06480	<b>0.01939</b>	2.50740	0.30000	<b>0.04956</b>
	S1	0.01860	0.00100	<b>0.01299</b>	0.32940	0.06480	<b>0.01551</b>	2.50740	0.30000	<b>0.03413</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>0.02297</b>	0.32940	0.06480	<b>0.01886</b>	2.50740	0.30000	-0.00308
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.02291</b>	0.32940	0.06480	<b>0.01881</b>	2.50740	0.30000	-0.00333
	S0	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.01065</b>	0.32940	0.06480	<b>0.00964</b>	2.50740	0.30000	0.00690
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.01522</b>	0.32940	0.06480	<b>0.01709</b>	2.50740	0.30000	0.04701
	S1	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.01245</b>	0.32940	0.06480	<b>0.01485</b>	2.50740	0.30000	0.03675
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.01141</b>	0.32940	0.06480	<b>0.01376</b>	2.50740	0.30000	0.03386
	S1	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00823</b>	0.32940	0.06480	<b>0.01072</b>	2.50740	0.30000	0.03616
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00720</b>	0.32940	0.06480	<b>0.00972</b>	2.50740	0.30000	0.03423

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	<b>S0</b>	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.03417</b>	0.32940	0.06480	<b>0.03215</b>	2.50740	0.30000	<b>0.00308</b>
	<b>S0</b>	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.03421</b>	0.32940	0.06480	<b>0.03263</b>	2.50740	0.30000	<b>0.00333</b>
	<b>S0</b>	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.01640</b>	0.32940	0.06480	<b>0.01866</b>	2.50740	0.30000	<b>0.04848</b>
	<b>S0</b>	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.01666</b>	0.32940	0.06480	<b>0.01939</b>	2.50740	0.30000	<b>0.04956</b>
	<b>S1</b>	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.01299</b>	0.32940	0.06480	<b>0.01551</b>	2.50740	0.30000	<b>0.03413</b>
	<b>S1</b>	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.01399</b>	0.32940	0.06480	<b>0.01651</b>	2.50740	0.30000	<b>0.03591</b>
	<b>S1</b>	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00768</b>	0.32940	0.06480	<b>0.01034</b>	2.50740	0.30000	<b>0.03658</b>
	<b>S1</b>	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00777</b>	0.32940	0.06480	<b>0.01053</b>	2.50740	0.30000	<b>0.03838</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>0.01170</b>	0.32940	<b>0.01799</b>	2.50740	<b>0.08711</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>0.01566</b>	0.32940	<b>0.02312</b>	2.50740	<b>0.09396</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>0.01084</b>	0.32940	<b>0.01705</b>	2.50740	<b>0.08622</b>
	(A0 * A1 * !S1)	0.01860	<b>0.01176</b>	0.32940	<b>0.01759</b>	2.50740	<b>0.08637</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.01170</b>	0.32940	<b>0.01799</b>	2.50740	<b>0.08711</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.01308</b>	0.32940	<b>0.01904</b>	2.50740	<b>0.08856</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>0.01605</b>	0.32940	<b>0.02364</b>	2.50740	<b>0.09491</b>
	(A0 * A1 * !S1)	0.01860	<b>0.01868</b>	0.32940	<b>0.02642</b>	2.50740	<b>0.09726</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.01566</b>	0.32940	<b>0.02312</b>	2.50740	<b>0.09396</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.01115</b>	0.32940	<b>0.01823</b>	2.50740	<b>0.08885</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>0.00579</b>	0.32940	<b>0.00954</b>	2.50740	<b>0.04864</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>0.00647</b>	0.32940	<b>0.01100</b>	2.50740	<b>0.05053</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>0.00580</b>	0.32940	<b>0.00955</b>	2.50740	<b>0.04823</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00579</b>	0.32940	<b>0.00954</b>	2.50740	<b>0.04864</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00642</b>	0.32940	<b>0.01026</b>	2.50740	<b>0.04887</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00644</b>	0.32940	<b>0.01026</b>	2.50740	<b>0.04881</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>0.00650</b>	0.32940	<b>0.01090</b>	2.50740	<b>0.05170</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00647</b>	0.32940	<b>0.01100</b>	2.50740	<b>0.05053</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00633</b>	0.32940	<b>0.01076</b>	2.50740	<b>0.05037</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00636</b>	0.32940	<b>0.01068</b>	2.50740	<b>0.05122</b>

# NAND2BX



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, Temp  
25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2b_1	9.07200
sg13g2_nand2b_2	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A_N	B	Y
sg13g2_nand2b_1	0.00238	0.00318	0.30000
sg13g2_nand2b_2	0.00232	0.00582	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_1	161.31700	357.10700	551.87000
sg13g2_nand2b_2	360.86900	583.52000	1016.76000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2b_1	A_N->Y (RR)	0.01860	0.00100	<b>0.03734</b>	0.32940	0.06480	<b>0.21755</b>	2.50740	0.30000	<b>0.80981</b>
	B->Y (FR)	0.01860	0.00100	<b>0.01960</b>	0.32940	0.06480	<b>0.27896</b>	2.50740	0.30000	<b>1.51223</b>
sg13g2_nand2b_2	A_N->Y (RR)	0.01860	0.00100	<b>0.04887</b>	0.32940	0.12960	<b>0.24671</b>	2.50740	0.60000	<b>0.86610</b>
	B->Y (FR)	0.01860	0.00100	<b>0.01489</b>	0.32940	0.12960	<b>0.27457</b>	2.50740	0.60000	<b>1.50375</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>0.04386</b>	0.32940	0.06480	<b>0.27576</b>	2.50740	0.30000	<b>1.04790</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02583</b>	0.32940	0.06480	<b>0.30464</b>	2.50740	0.30000	<b>1.59193</b>
sg13g2_nand2b_2	A_N->Y (FF)	0.01860	0.00100	<b>0.05771</b>	0.32940	0.12960	<b>0.31917</b>	2.50740	0.60000	<b>1.14956</b>
	B->Y (RF)	0.01860	0.00100	<b>0.01939</b>	0.32940	0.12960	<b>0.33775</b>	2.50740	0.60000	<b>1.81448</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>0.00321</b>	0.32940	0.06480	<b>0.00360</b>	2.50740	0.30000	<b>0.00258</b>
	B	0.01860	0.00100	<b>0.00306</b>	0.32940	0.06480	<b>0.00438</b>	2.50740	0.30000	<b>0.01900</b>
sg13g2_nand2b_2	A_N	0.01860	0.00100	<b>0.00633</b>	0.32940	0.12960	<b>0.00678</b>	2.50740	0.60000	<b>0.00651</b>
	B	0.01860	0.00100	<b>0.00447</b>	0.32940	0.12960	<b>0.00759</b>	2.50740	0.60000	<b>0.03513</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>0.00649</b>	0.32940	0.06480	<b>0.00669</b>	2.50740	0.30000	<b>0.00567</b>
	B	0.01860	0.00100	<b>0.00634</b>	0.32940	0.06480	<b>0.00719</b>	2.50740	0.30000	<b>0.01855</b>
sg13g2_nand2b_2	A_N	0.01860	0.00100	<b>0.01291</b>	0.32940	0.12960	<b>0.01376</b>	2.50740	0.60000	<b>0.01422</b>
	B	0.01860	0.00100	<b>0.00663</b>	0.32940	0.12960	<b>0.00910</b>	2.50740	0.60000	<b>0.03283</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>0.00606</b>	0.32940	<b>0.00916</b>	2.50740	<b>0.04113</b>
sg13g2_nand2b_2	0.01860	<b>0.00997</b>	0.32940	<b>0.01229</b>	2.50740	<b>0.04261</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>0.00338</b>	0.32940	<b>0.00675</b>	2.50740	<b>0.03941</b>
sg13g2_nand2b_2	0.01860	<b>0.00957</b>	0.32940	<b>0.01233</b>	2.50740	<b>0.04365</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>0.00606</b>	0.32940	<b>0.00916</b>	2.50740	<b>0.04113</b>
sg13g2_nand2b_2	!B	0.01860	<b>0.00997</b>	0.32940	<b>0.01229</b>	2.50740	<b>0.04261</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>0.00338</b>	0.32940	<b>0.00675</b>	2.50740	<b>0.03941</b>
sg13g2_nand2b_2	!B	0.01860	<b>0.00957</b>	0.32940	<b>0.01233</b>	2.50740	<b>0.04365</b>

# NAND2x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00299	0.00313	0.30000
sg13g2_nand2_2	0.00579	0.00600	0.60000

## Leakage Information

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

## 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>0.01680</b>	0.32940	0.06480	<b>0.27476</b>	2.50740	0.30000	<b>1.50446</b>
	B->Y (FR)	0.01860	0.00100	<b>0.01998</b>	0.32940	0.06480	<b>0.27849</b>	2.50740	0.30000	<b>1.51006</b>
sg13g2_nand2_2	A->Y (FR)	0.01860	0.00100	<b>0.01505</b>	0.32940	0.12960	<b>0.27487</b>	2.50740	0.60000	<b>1.50555</b>
	B->Y (FR)	0.01860	0.00100	<b>0.01852</b>	0.32940	0.12960	<b>0.27883</b>	2.50740	0.60000	<b>1.51217</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>0.02128</b>	0.32940	0.06480	<b>0.32814</b>	2.50740	0.30000	<b>1.76421</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02434</b>	0.32940	0.06480	<b>0.30261</b>	2.50740	0.30000	<b>1.58647</b>
sg13g2_nand2_2	A->Y (RF)	0.01860	0.00100	<b>0.01960</b>	0.32940	0.12960	<b>0.33746</b>	2.50740	0.60000	<b>1.81364</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02331</b>	0.32940	0.12960	<b>0.31216</b>	2.50740	0.60000	<b>1.63185</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>0.00252</b>	0.32940	0.06480	<b>0.00402</b>	2.50740	0.30000	<b>0.01826</b>
	B	0.01860	0.00100	<b>0.00287</b>	0.32940	0.06480	<b>0.00419</b>	2.50740	0.30000	<b>0.01867</b>
sg13g2_nand2_2	A	0.01860	0.00100	<b>0.00451</b>	0.32940	0.12960	<b>0.00760</b>	2.50740	0.60000	<b>0.03497</b>
	B	0.01860	0.00100	<b>0.00579</b>	0.32940	0.12960	<b>0.00839</b>	2.50740	0.60000	<b>0.03670</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>0.00352</b>	0.32940	0.06480	<b>0.00469</b>	2.50740	0.30000	<b>0.01683</b>
	B	0.01860	0.00100	<b>0.00631</b>	0.32940	0.06480	<b>0.00708</b>	2.50740	0.30000	<b>0.01852</b>
sg13g2_nand2_2	A	0.01860	0.00100	<b>0.00665</b>	0.32940	0.12960	<b>0.00919</b>	2.50740	0.60000	<b>0.03267</b>
	B	0.01860	0.00100	<b>0.01203</b>	0.32940	0.12960	<b>0.01383</b>	2.50740	0.60000	<b>0.03562</b>

# NAND3B



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_nand3b_1	0.00236	0.00311	0.00315	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_nand3b_1	A_N->Y (RR)	0.01860	0.00100	<b>0.03930</b>	0.32940	0.06480	<b>0.21855</b>	2.50740	0.30000	<b>0.80821</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02189</b>	0.32940	0.06480	<b>0.28088</b>	2.50740	0.30000	<b>1.51035</b>
	C->Y (FR)	0.01860	0.00100	<b>0.02382</b>	0.32940	0.06480	<b>0.28414</b>	2.50740	0.30000	<b>1.51499</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)	
sg13g2_nand3b_1	A_N->Y (FF)	0.01860	0.00100	<b>0.05231</b>	0.32940	0.06480	<b>0.35535</b>	2.50740	0.30000	<b>1.39175</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03767</b>	0.32940	0.06480	<b>0.39191</b>	2.50740	0.30000	<b>1.98980</b>
	C->Y (RF)	0.01860	0.00100	<b>0.04039</b>	0.32940	0.06480	<b>0.36843</b>	2.50740	0.30000	<b>1.79526</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>0.00346</b>	0.32940	0.06480	<b>0.00379</b>	2.50740	0.30000	<b>0.00274</b>
	B	0.01860	0.00100	<b>0.00341</b>	0.32940	0.06480	<b>0.00446</b>	2.50740	0.30000	<b>0.01734</b>
	C	0.01860	0.00100	<b>0.00374</b>	0.32940	0.06480	<b>0.00473</b>	2.50740	0.30000	<b>0.01806</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>0.00843</b>	0.32940	0.06480	<b>0.00867</b>	2.50740	0.30000	<b>0.00773</b>
	B	0.01860	0.00100	<b>0.00826</b>	0.32940	0.06480	<b>0.00881</b>	2.50740	0.30000	<b>0.01857</b>
	C	0.01860	0.00100	<b>0.01075</b>	0.32940	0.06480	<b>0.01117</b>	2.50740	0.30000	<b>0.02160</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>0.00606</b>	0.32940	<b>0.00914</b>	2.50740	<b>0.04117</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>0.00335</b>	0.32940	<b>0.00673</b>	2.50740	<b>0.03938</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>0.00606</b>	0.32940	<b>0.00914</b>	2.50740	<b>0.04117</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>0.00335</b>	0.32940	<b>0.00673</b>	2.50740	<b>0.03938</b>

# NAND3



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00298	0.00315	0.00313	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3_1	A->Y (FR)	0.01860	0.00100	<b>0.01907</b>	0.32940	0.06480	<b>0.27687</b>	2.50740	0.30000	<b>1.50355</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02223</b>	0.32940	0.06480	<b>0.28068</b>	2.50740	0.30000	<b>1.50970</b>
	C->Y (FR)	0.01860	0.00100	<b>0.02384</b>	0.32940	0.06480	<b>0.28388</b>	2.50740	0.30000	<b>1.51571</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>0.03003</b>	0.32940	0.06480	<b>0.40696</b>	2.50740	0.30000	<b>2.13065</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03600</b>	0.32940	0.06480	<b>0.38986</b>	2.50740	0.30000	<b>1.98451</b>
	C->Y (RF)	0.01860	0.00100	<b>0.03851</b>	0.32940	0.06480	<b>0.36605</b>	2.50740	0.30000	<b>1.78936</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>0.00278</b>	0.32940	0.06480	<b>0.00410</b>	2.50740	0.30000	<b>0.01651</b>
	B	0.01860	0.00100	<b>0.00313</b>	0.32940	0.06480	<b>0.00418</b>	2.50740	0.30000	<b>0.01700</b>
	C	0.01860	0.00100	<b>0.00352</b>	0.32940	0.06480	<b>0.00441</b>	2.50740	0.30000	<b>0.01797</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>0.00544</b>	0.32940	0.06480	<b>0.00641</b>	2.50740	0.30000	<b>0.01688</b>
	B	0.01860	0.00100	<b>0.00830</b>	0.32940	0.06480	<b>0.00886</b>	2.50740	0.30000	<b>0.01861</b>
	C	0.01860	0.00100	<b>0.01073</b>	0.32940	0.06480	<b>0.01113</b>	2.50740	0.30000	<b>0.02163</b>

# NAND4



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand4_1	10.88640

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	
sg13g2_nand4_1	0.00297	0.00315	0.00318	0.00316	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand4_1	A->Y (FR)	0.01860	0.00100	<b>0.02034</b>	0.32940	0.06480	<b>0.27809</b>	2.50740	0.30000	<b>1.50208</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02354</b>	0.32940	0.06480	<b>0.28186</b>	2.50740	0.30000	<b>1.50834</b>
	C->Y (FR)	0.01860	0.00100	<b>0.02536</b>	0.32940	0.06480	<b>0.28543</b>	2.50740	0.30000	<b>1.51411</b>
	D->Y (FR)	0.01860	0.00100	<b>0.02611</b>	0.32940	0.06480	<b>0.28832</b>	2.50740	0.30000	<b>1.51834</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>0.03779</b>	0.32940	0.06480	<b>0.48401</b>	2.50740	0.30000	<b>2.48093</b>
	B->Y (RF)	0.01860	0.00100	<b>0.04690</b>	0.32940	0.06480	<b>0.47365</b>	2.50740	0.30000	<b>2.35985</b>
	C->Y (RF)	0.01860	0.00100	<b>0.05225</b>	0.32940	0.06480	<b>0.45642</b>	2.50740	0.30000	<b>2.19101</b>
	D->Y (RF)	0.01860	0.00100	<b>0.05480</b>	0.32940	0.06480	<b>0.44177</b>	2.50740	0.30000	<b>2.04075</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>0.00291</b>	0.32940	0.06480	<b>0.00412</b>	2.50740	0.30000	<b>0.01539</b>
	B	0.01860	0.00100	<b>0.00329</b>	0.32940	0.06480	<b>0.00415</b>	2.50740	0.30000	<b>0.01575</b>
	C	0.01860	0.00100	<b>0.00370</b>	0.32940	0.06480	<b>0.00449</b>	2.50740	0.30000	<b>0.01647</b>
	D	0.01860	0.00100	<b>0.00404</b>	0.32940	0.06480	<b>0.00471</b>	2.50740	0.30000	<b>0.01706</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>0.00660</b>	0.32940	0.06480	<b>0.00757</b>	2.50740	0.30000	<b>0.01633</b>
	B	0.01860	0.00100	<b>0.00949</b>	0.32940	0.06480	<b>0.01001</b>	2.50740	0.30000	<b>0.01804</b>
	C	0.01860	0.00100	<b>0.01197</b>	0.32940	0.06480	<b>0.01229</b>	2.50740	0.30000	<b>0.02089</b>
	D	0.01860	0.00100	<b>0.01436</b>	0.32940	0.06480	<b>0.01468</b>	2.50740	0.30000	<b>0.02365</b>

# NOR2Bx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00302	0.00240	0.30000
sg13g2_nor2b_2	0.00587	0.00282	0.60000

## Leakage Information

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

## 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>0.02540</b>	0.32940	0.06480	<b>0.40736</b>	2.50740	0.30000	<b>2.15363</b>
	B_N->Y (RR)	0.01860	0.00100	<b>0.05059</b>	0.32940	0.06480	<b>0.35627</b>	2.50740	0.30000	<b>1.39800</b>
sg13g2_nor2b_2	A->Y (FR)	0.01860	0.00100	<b>0.02215</b>	0.32940	0.12960	<b>0.40642</b>	2.50740	0.60000	<b>2.15093</b>
	B_N->Y (RR)	0.01860	0.00100	<b>0.05528</b>	0.32940	0.12960	<b>0.37610</b>	2.50740	0.60000	<b>1.44488</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>0.01602</b>	0.32940	0.06480	<b>0.24792</b>	2.50740	0.30000	<b>1.36371</b>
	B_N->Y (FF)	0.01860	0.00100	<b>0.04197</b>	0.32940	0.06480	<b>0.20432</b>	2.50740	0.30000	<b>0.71664</b>
sg13g2_nor2b_2	A->Y (RF)	0.01860	0.00100	<b>0.01466</b>	0.32940	0.12960	<b>0.25442</b>	2.50740	0.60000	<b>1.40171</b>
	B_N->Y (FF)	0.01860	0.00100	<b>0.04945</b>	0.32940	0.12960	<b>0.22956</b>	2.50740	0.60000	<b>0.77101</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>0.00316</b>	0.32940	0.06480	<b>0.00464</b>	2.50740	0.30000	<b>0.01734</b>
	B_N	0.01860	0.00100	<b>0.00714</b>	0.32940	0.06480	<b>0.00728</b>	2.50740	0.30000	<b>0.00675</b>
sg13g2_nor2b_2	A	0.01860	0.00100	<b>0.00631</b>	0.32940	0.12960	<b>0.00943</b>	2.50740	0.60000	<b>0.03364</b>
	B_N	0.01860	0.00100	<b>0.01357</b>	0.32940	0.12960	<b>0.01405</b>	2.50740	0.60000	<b>0.01409</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>0.00289</b>	0.32940	0.06480	<b>0.00432</b>	2.50740	0.30000	<b>0.01520</b>
	B_N	0.01860	0.00100	<b>0.00371</b>	0.32940	0.06480	<b>0.00391</b>	2.50740	0.30000	<b>0.00234</b>
sg13g2_nor2b_2	A	0.01860	0.00100	<b>0.00456</b>	0.32940	0.12960	<b>0.00749</b>	2.50740	0.60000	<b>0.02831</b>
	B_N	0.01860	0.00100	<b>0.00683</b>	0.32940	0.12960	<b>0.00732</b>	2.50740	0.60000	<b>0.00552</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>0.00613</b>	0.32940	<b>0.00894</b>	2.50740	<b>0.04066</b>
sg13g2_nor2b_2	0.01860	<b>0.01110</b>	0.32940	<b>0.01406</b>	2.50740	<b>0.05083</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>0.00564</b>	0.32940	<b>0.00881</b>	2.50740	<b>0.04125</b>
sg13g2_nor2b_2	0.01860	<b>0.00968</b>	0.32940	<b>0.01304</b>	2.50740	<b>0.05106</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>0.00613</b>	0.32940	<b>0.00894</b>	2.50740	<b>0.04066</b>
sg13g2_nor2b_2	A	0.01860	<b>0.01110</b>	0.32940	<b>0.01406</b>	2.50740	<b>0.05083</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>0.00564</b>	0.32940	<b>0.00881</b>	2.50740	<b>0.04125</b>
sg13g2_nor2b_2	A	0.01860	<b>0.00968</b>	0.32940	<b>0.01304</b>	2.50740	<b>0.05106</b>

# NOR2X



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00319	0.00302	0.30000
sg13g2_nor2_2	0.00612	0.00584	0.30000

## Leakage Information

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

## 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>0.02978</b>	0.32940	0.06480	<b>0.37402</b>	2.50740	0.30000	<b>1.89243</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02548</b>	0.32940	0.06480	<b>0.40713</b>	2.50740	0.30000	<b>2.15292</b>
sg13g2_nor2_2	A->Y (FR)	0.01860	0.00100	<b>0.02805</b>	0.32940	0.06480	<b>0.23622</b>	2.50740	0.30000	<b>1.19599</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02239</b>	0.32940	0.06480	<b>0.26340</b>	2.50740	0.30000	<b>1.39803</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>0.01874</b>	0.32940	0.06480	<b>0.25133</b>	2.50740	0.30000	<b>1.37037</b>
	B->Y (RF)	0.01860	0.00100	<b>0.01607</b>	0.32940	0.06480	<b>0.24792</b>	2.50740	0.30000	<b>1.36366</b>
sg13g2_nor2_2	A->Y (RF)	0.01860	0.00100	<b>0.01755</b>	0.32940	0.06480	<b>0.17252</b>	2.50740	0.30000	<b>0.91471</b>
	B->Y (RF)	0.01860	0.00100	<b>0.01442</b>	0.32940	0.06480	<b>0.16722</b>	2.50740	0.30000	<b>0.90396</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>0.00669</b>	0.32940	0.06480	<b>0.00751</b>	2.50740	0.30000	<b>0.02009</b>
	B	0.01860	0.00100	<b>0.00318</b>	0.32940	0.06480	<b>0.00465</b>	2.50740	0.30000	<b>0.01741</b>
sg13g2_nor2_2	A	0.01860	0.00100	<b>0.01352</b>	0.32940	0.06480	<b>0.01563</b>	2.50740	0.30000	<b>0.05198</b>
	B	0.01860	0.00100	<b>0.00645</b>	0.32940	0.06480	<b>0.01051</b>	2.50740	0.30000	<b>0.04788</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>0.00307</b>	0.32940	0.06480	<b>0.00411</b>	2.50740	0.30000	<b>0.01548</b>
	B	0.01860	0.00100	<b>0.00288</b>	0.32940	0.06480	<b>0.00430</b>	2.50740	0.30000	<b>0.01510</b>
sg13g2_nor2_2	A	0.01860	0.00100	<b>0.00616</b>	0.32940	0.06480	<b>0.00910</b>	2.50740	0.30000	<b>0.04312</b>
	B	0.01860	0.00100	<b>0.00451</b>	0.32940	0.06480	<b>0.00809</b>	2.50740	0.30000	<b>0.03974</b>

# NOR3x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_nor3_1	0.00317	0.00316	0.00300	0.30000
sg13g2_nor3_2	0.00607	0.00602	0.00577	0.60000

## Leakage Information

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

## 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>0.05325</b>	0.32940	0.06480	<b>0.49972</b>	2.50740	0.30000	<b>2.32603</b>
	B->Y (FR)	0.01860	0.00100	<b>0.04953</b>	0.32940	0.06480	<b>0.52292</b>	2.50740	0.30000	<b>2.55716</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03791</b>	0.32940	0.06480	<b>0.53943</b>	2.50740	0.30000	<b>2.74914</b>
sg13g2_nor3_2	A->Y (FR)	0.01860	0.00100	<b>0.04853</b>	0.32940	0.12960	<b>0.50071</b>	2.50740	0.60000	<b>2.33083</b>
	B->Y (FR)	0.01860	0.00100	<b>0.04507</b>	0.32940	0.12960	<b>0.52460</b>	2.50740	0.60000	<b>2.56442</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03218</b>	0.32940	0.12960	<b>0.53963</b>	2.50740	0.60000	<b>2.75758</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>0.02097</b>	0.32940	0.06480	<b>0.25029</b>	2.50740	0.30000	<b>1.33870</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02058</b>	0.32940	0.06480	<b>0.24796</b>	2.50740	0.30000	<b>1.33649</b>
	C->Y (RF)	0.01860	0.00100	<b>0.01772</b>	0.32940	0.06480	<b>0.24421</b>	2.50740	0.30000	<b>1.33029</b>
sg13g2_nor3_2	A->Y (RF)	0.01860	0.00100	<b>0.01982</b>	0.32940	0.12960	<b>0.25659</b>	2.50740	0.60000	<b>1.37541</b>
	B->Y (RF)	0.01860	0.00100	<b>0.01954</b>	0.32940	0.12960	<b>0.25377</b>	2.50740	0.60000	<b>1.37029</b>
	C->Y (RF)	0.01860	0.00100	<b>0.01618</b>	0.32940	0.12960	<b>0.24955</b>	2.50740	0.60000	<b>1.36419</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>0.01155</b>	0.32940	0.06480	<b>0.01169</b>	2.50740	0.30000	<b>0.02306</b>
	B	0.01860	0.00100	<b>0.00845</b>	0.32940	0.06480	<b>0.00878</b>	2.50740	0.30000	<b>0.01926</b>
	C	0.01860	0.00100	<b>0.00496</b>	0.32940	0.06480	<b>0.00611</b>	2.50740	0.30000	<b>0.01735</b>
sg13g2_nor3_2	A	0.01860	0.00100	<b>0.02248</b>	0.32940	0.12960	<b>0.02280</b>	2.50740	0.60000	<b>0.04453</b>
	B	0.01860	0.00100	<b>0.01625</b>	0.32940	0.12960	<b>0.01699</b>	2.50740	0.60000	<b>0.03653</b>
	C	0.01860	0.00100	<b>0.00919</b>	0.32940	0.12960	<b>0.01154</b>	2.50740	0.60000	<b>0.03303</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>0.00419</b>	0.32940	0.06480	<b>0.00494</b>	2.50740	0.30000	<b>0.01572</b>
	B	0.01860	0.00100	<b>0.00381</b>	0.32940	0.06480	<b>0.00471</b>	2.50740	0.30000	<b>0.01474</b>
	C	0.01860	0.00100	<b>0.00318</b>	0.32940	0.06480	<b>0.00446</b>	2.50740	0.30000	<b>0.01423</b>
sg13g2_nor3_2	A	0.01860	0.00100	<b>0.00771</b>	0.32940	0.12960	<b>0.00901</b>	2.50740	0.60000	<b>0.02924</b>
	B	0.01860	0.00100	<b>0.00706</b>	0.32940	0.12960	<b>0.00867</b>	2.50740	0.60000	<b>0.02772</b>
	C	0.01860	0.00100	<b>0.00510</b>	0.32940	0.12960	<b>0.00782</b>	2.50740	0.60000	<b>0.02620</b>

# NOR4x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_nor4_1	0.00315	0.00314	0.00310	0.00293	0.30000
sg13g2_nor4_2	0.00609	0.00600	0.00594	0.00574	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor4_1	225.52800	385.88700	574.94700
sg13g2_nor4_2	451.00200	771.79200	1149.93000

## 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>0.07964</b>	0.32940	0.06480	<b>0.64238</b>	2.50740	0.30000	<b>2.82671</b>
	B->Y (FR)	0.01860	0.00100	<b>0.07623</b>	0.32940	0.06480	<b>0.65425</b>	2.50740	0.30000	<b>2.99151</b>
	C->Y (FR)	0.01860	0.00100	<b>0.06663</b>	0.32940	0.06480	<b>0.66643</b>	2.50740	0.30000	<b>3.18127</b>
	D->Y (FR)	0.01860	0.00100	<b>0.04785</b>	0.32940	0.06480	<b>0.67012</b>	2.50740	0.30000	<b>3.32668</b>
sg13g2_nor4_2	A->Y (FR)	0.01860	0.00100	<b>0.07641</b>	0.32940	0.12960	<b>0.64771</b>	2.50740	0.60000	<b>2.84752</b>
	B->Y (FR)	0.01860	0.00100	<b>0.07309</b>	0.32940	0.12960	<b>0.66020</b>	2.50740	0.60000	<b>3.01135</b>
	C->Y (FR)	0.01860	0.00100	<b>0.06240</b>	0.32940	0.12960	<b>0.67051</b>	2.50740	0.60000	<b>3.19866</b>
	D->Y (FR)	0.01860	0.00100	<b>0.04190</b>	0.32940	0.12960	<b>0.67282</b>	2.50740	0.60000	<b>3.34454</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>0.02235</b>	0.32940	0.06480	<b>0.26080</b>	2.50740	0.30000	<b>1.37911</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02292</b>	0.32940	0.06480	<b>0.25876</b>	2.50740	0.30000	<b>1.37717</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02209</b>	0.32940	0.06480	<b>0.25529</b>	2.50740	0.30000	<b>1.37107</b>
	D->Y (RF)	0.01860	0.00100	<b>0.01904</b>	0.32940	0.06480	<b>0.25126</b>	2.50740	0.30000	<b>1.36473</b>
sg13g2_nor4_2	A->Y (RF)	0.01860	0.00100	<b>0.02093</b>	0.32940	0.12960	<b>0.26112</b>	2.50740	0.60000	<b>1.37956</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02157</b>	0.32940	0.12960	<b>0.25855</b>	2.50740	0.60000	<b>1.37586</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02080</b>	0.32940	0.12960	<b>0.25495</b>	2.50740	0.60000	<b>1.36957</b>
	D->Y (RF)	0.01860	0.00100	<b>0.01754</b>	0.32940	0.12960	<b>0.25051</b>	2.50740	0.60000	<b>1.36083</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>0.01536</b>	0.32940	0.06480	<b>0.01520</b>	2.50740	0.30000	<b>0.02516</b>
	B	0.01860	0.00100	<b>0.01227</b>	0.32940	0.06480	<b>0.01225</b>	2.50740	0.30000	<b>0.02162</b>
	C	0.01860	0.00100	<b>0.00924</b>	0.32940	0.06480	<b>0.00935</b>	2.50740	0.30000	<b>0.01870</b>
	D	0.01860	0.00100	<b>0.00577</b>	0.32940	0.06480	<b>0.00669</b>	2.50740	0.30000	<b>0.01723</b>
sg13g2_nor4_2	A	0.01860	0.00100	<b>0.03107</b>	0.32940	0.12960	<b>0.03100</b>	2.50740	0.60000	<b>0.05175</b>
	B	0.01860	0.00100	<b>0.02500</b>	0.32940	0.12960	<b>0.02505</b>	2.50740	0.60000	<b>0.04391</b>
	C	0.01860	0.00100	<b>0.01900</b>	0.32940	0.12960	<b>0.01919</b>	2.50740	0.60000	<b>0.03781</b>
	D	0.01860	0.00100	<b>0.01184</b>	0.32940	0.12960	<b>0.01379</b>	2.50740	0.60000	<b>0.03472</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>0.00488</b>	0.32940	0.06480	<b>0.00522</b>	2.50740	0.30000	<b>0.01439</b>
	B	0.01860	0.00100	<b>0.00461</b>	0.32940	0.06480	<b>0.00515</b>	2.50740	0.30000	<b>0.01371</b>
	C	0.01860	0.00100	<b>0.00405</b>	0.32940	0.06480	<b>0.00485</b>	2.50740	0.30000	<b>0.01304</b>
	D	0.01860	0.00100	<b>0.00331</b>	0.32940	0.06480	<b>0.00455</b>	2.50740	0.30000	<b>0.01265</b>
sg13g2_nor4_2	A	0.01860	0.00100	<b>0.00970</b>	0.32940	0.12960	<b>0.01045</b>	2.50740	0.60000	<b>0.02866</b>
	B	0.01860	0.00100	<b>0.00912</b>	0.32940	0.12960	<b>0.01007</b>	2.50740	0.60000	<b>0.02719</b>
	C	0.01860	0.00100	<b>0.00739</b>	0.32940	0.12960	<b>0.00903</b>	2.50740	0.60000	<b>0.02574</b>
	D	0.01860	0.00100	<b>0.00537</b>	0.32940	0.12960	<b>0.00807</b>	2.50740	0.60000	<b>0.02431</b>

# O21AI



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00358	0.00350	0.00333	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_o21ai_1	211.90500	444.57700	709.34700

## 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>0.04820</b>	0.32940	0.06480	<b>0.44587</b>	2.50740	0.30000	<b>2.17332</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.04209</b>	0.32940	0.06480	<b>0.47903</b>	2.50740	0.30000	<b>2.46168</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.01958</b>	0.32940	0.06480	<b>0.31278</b>	2.50740	0.30000	<b>1.71643</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>0.03345</b>	0.32940	0.06480	<b>0.31315</b>	2.50740	0.30000	<b>1.57066</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.02813</b>	0.32940	0.06480	<b>0.30652</b>	2.50740	0.30000	<b>1.55949</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.02206</b>	0.32940	0.06480	<b>0.33120</b>	2.50740	0.30000	<b>1.75986</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>0.01958</b>	0.32940	0.06480	<b>0.31278</b>	2.50740	0.30000	<b>1.71643</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>0.02206</b>	0.32940	0.06480	<b>0.33120</b>	2.50740	0.30000	<b>1.75986</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>0.00809</b>	0.32940	0.06480	<b>0.00850</b>	2.50740	0.30000	<b>0.01945</b>
	A2	0.01860	0.00100	<b>0.00414</b>	0.32940	0.06480	<b>0.00507</b>	2.50740	0.30000	<b>0.01551</b>
	B1	0.01860	0.00100	<b>0.00261</b>	0.32940	0.06480	<b>0.00405</b>	2.50740	0.30000	<b>0.01754</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>0.00749</b>	0.32940	0.06480	<b>0.00784</b>	2.50740	0.30000	<b>0.01772</b>
	A2	0.01860	0.00100	<b>0.00703</b>	0.32940	0.06480	<b>0.00790</b>	2.50740	0.30000	<b>0.01722</b>
	B1	0.01860	0.00100	<b>0.00362</b>	0.32940	0.06480	<b>0.00486</b>	2.50740	0.30000	<b>0.01673</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	<b>(!A1 * A2)</b>	0.01860	0.00100	<b>0.00261</b>	0.32940	0.06480	<b>0.00405</b>	2.50740	0.30000	<b>0.01754</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	<b>(!A1 * A2)</b>	0.01860	0.00100	<b>0.00362</b>	0.32940	0.06480	<b>0.00486</b>	2.50740	0.30000	<b>0.01673</b>

# OR2x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00262	0.00243	0.30000
sg13g2_or2_2	0.00259	0.00240	0.60000

## Leakage Information

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

## 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>0.04073</b>	0.32940	0.06480	<b>0.22830</b>	2.50740	0.30000	<b>0.81268</b>
	B->X (RR)	0.01860	0.00100	<b>0.03757</b>	0.32940	0.06480	<b>0.21666</b>	2.50740	0.30000	<b>0.76461</b>
sg13g2_or2_2	A->X (RR)	0.01860	0.00100	<b>0.04799</b>	0.32940	0.12960	<b>0.25412</b>	2.50740	0.60000	<b>0.86920</b>
	B->X (RR)	0.01860	0.00100	<b>0.04503</b>	0.32940	0.12960	<b>0.24432</b>	2.50740	0.60000	<b>0.82662</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>0.06256</b>	0.32940	0.06480	<b>0.23107</b>	2.50740	0.30000	<b>0.78095</b>
	B->X (FF)	0.01860	0.00100	<b>0.05808</b>	0.32940	0.06480	<b>0.24179</b>	2.50740	0.30000	<b>0.83246</b>
sg13g2_or2_2	A->X (FF)	0.01860	0.00100	<b>0.08134</b>	0.32940	0.12960	<b>0.27039</b>	2.50740	0.60000	<b>0.84828</b>
	B->X (FF)	0.01860	0.00100	<b>0.07706</b>	0.32940	0.12960	<b>0.28679</b>	2.50740	0.60000	<b>0.90961</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>0.00950</b>	0.32940	0.06480	<b>0.01203</b>	2.50740	0.30000	<b>0.03910</b>
	B	0.01860	0.00100	<b>0.00923</b>	0.32940	0.06480	<b>0.01173</b>	2.50740	0.30000	<b>0.03828</b>
sg13g2_or2_2	A	0.01860	0.00100	<b>0.01596</b>	0.32940	0.12960	<b>0.01829</b>	2.50740	0.60000	<b>0.04455</b>
	B	0.01860	0.00100	<b>0.01570</b>	0.32940	0.12960	<b>0.01816</b>	2.50740	0.60000	<b>0.04352</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>0.01205</b>	0.32940	0.06480	<b>0.01412</b>	2.50740	0.30000	<b>0.04064</b>
	B	0.01860	0.00100	<b>0.00953</b>	0.32940	0.06480	<b>0.01261</b>	2.50740	0.30000	<b>0.03947</b>
sg13g2_or2_2	A	0.01860	0.00100	<b>0.01991</b>	0.32940	0.12960	<b>0.02045</b>	2.50740	0.60000	<b>0.04611</b>
	B	0.01860	0.00100	<b>0.01750</b>	0.32940	0.12960	<b>0.01886</b>	2.50740	0.60000	<b>0.04484</b>

# OR3x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_or3_1	0.00276	0.00268	0.00254	0.30000
sg13g2_or3_2	0.00274	0.00267	0.00252	0.60000

## Leakage Information

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

## 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>0.04660</b>	0.32940	0.06480	<b>0.24690</b>	2.50740	0.30000	<b>0.86479</b>
	B->X (RR)	0.01860	0.00100	<b>0.04474</b>	0.32940	0.06480	<b>0.23746</b>	2.50740	0.30000	<b>0.81964</b>
	C->X (RR)	0.01860	0.00100	<b>0.04056</b>	0.32940	0.06480	<b>0.22492</b>	2.50740	0.30000	<b>0.77614</b>
sg13g2_or3_2	A->X (RR)	0.01860	0.00100	<b>0.05353</b>	0.32940	0.12960	<b>0.27048</b>	2.50740	0.60000	<b>0.92090</b>
	B->X (RR)	0.01860	0.00100	<b>0.05155</b>	0.32940	0.12960	<b>0.26211</b>	2.50740	0.60000	<b>0.87573</b>
	C->X (RR)	0.01860	0.00100	<b>0.04752</b>	0.32940	0.12960	<b>0.25126</b>	2.50740	0.60000	<b>0.83816</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>0.08883</b>	0.32940	0.06480	<b>0.25584</b>	2.50740	0.30000	<b>0.79399</b>
	B->X (FF)	0.01860	0.00100	<b>0.08552</b>	0.32940	0.06480	<b>0.26715</b>	2.50740	0.30000	<b>0.85702</b>
	C->X (FF)	0.01860	0.00100	<b>0.07430</b>	0.32940	0.06480	<b>0.26877</b>	2.50740	0.30000	<b>0.88193</b>
sg13g2_or3_2	A->X (FF)	0.01860	0.00100	<b>0.11219</b>	0.32940	0.12960	<b>0.29711</b>	2.50740	0.60000	<b>0.85414</b>
	B->X (FF)	0.01860	0.00100	<b>0.10893</b>	0.32940	0.12960	<b>0.31182</b>	2.50740	0.60000	<b>0.92899</b>
	C->X (FF)	0.01860	0.00100	<b>0.09803</b>	0.32940	0.12960	<b>0.31753</b>	2.50740	0.60000	<b>0.96455</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>0.01012</b>	0.32940	0.06480	<b>0.01224</b>	2.50740	0.30000	<b>0.04091</b>
	B	0.01860	0.00100	<b>0.00989</b>	0.32940	0.06480	<b>0.01201</b>	2.50740	0.30000	<b>0.03813</b>
	C	0.01860	0.00100	<b>0.00940</b>	0.32940	0.06480	<b>0.01178</b>	2.50740	0.30000	<b>0.03779</b>
sg13g2_or3_2	A	0.01860	0.00100	<b>0.01668</b>	0.32940	0.12960	<b>0.01866</b>	2.50740	0.60000	<b>0.04696</b>
	B	0.01860	0.00100	<b>0.01641</b>	0.32940	0.12960	<b>0.01837</b>	2.50740	0.60000	<b>0.04385</b>
	C	0.01860	0.00100	<b>0.01592</b>	0.32940	0.12960	<b>0.01804</b>	2.50740	0.60000	<b>0.04339</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>0.01732</b>	0.32940	0.06480	<b>0.01825</b>	2.50740	0.30000	<b>0.04616</b>
	B	0.01860	0.00100	<b>0.01463</b>	0.32940	0.06480	<b>0.01591</b>	2.50740	0.30000	<b>0.04220</b>
	C	0.01860	0.00100	<b>0.01162</b>	0.32940	0.06480	<b>0.01414</b>	2.50740	0.30000	<b>0.04044</b>
sg13g2_or3_2	A	0.01860	0.00100	<b>0.02639</b>	0.32940	0.12960	<b>0.02473</b>	2.50740	0.60000	<b>0.05085</b>
	B	0.01860	0.00100	<b>0.02366</b>	0.32940	0.12960	<b>0.02227</b>	2.50740	0.60000	<b>0.04737</b>
	C	0.01860	0.00100	<b>0.02068</b>	0.32940	0.12960	<b>0.02034</b>	2.50740	0.60000	<b>0.04562</b>

# OR4x



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	
sg13g2_or4_1	0.00275	0.00265	0.00262	0.00253	0.30000
sg13g2_or4_2	0.00273	0.00264	0.00261	0.00251	0.60000

## **Leakage Information**

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

## 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>0.04866</b>	0.32940	0.06480	<b>0.25609</b>	2.50740	0.30000	<b>0.87586</b>
	B->X (RR)	0.01860	0.00100	<b>0.04824</b>	0.32940	0.06480	<b>0.24931</b>	2.50740	0.30000	<b>0.83482</b>
	C->X (RR)	0.01860	0.00100	<b>0.04575</b>	0.32940	0.06480	<b>0.23912</b>	2.50740	0.30000	<b>0.79666</b>
	D->X (RR)	0.01860	0.00100	<b>0.04136</b>	0.32940	0.06480	<b>0.22639</b>	2.50740	0.30000	<b>0.75584</b>
sg13g2_or4_2	A->X (RR)	0.01860	0.00100	<b>0.05583</b>	0.32940	0.12960	<b>0.27861</b>	2.50740	0.60000	<b>0.92608</b>
	B->X (RR)	0.01860	0.00100	<b>0.05511</b>	0.32940	0.12960	<b>0.27239</b>	2.50740	0.60000	<b>0.89165</b>
	C->X (RR)	0.01860	0.00100	<b>0.05235</b>	0.32940	0.12960	<b>0.26343</b>	2.50740	0.60000	<b>0.85504</b>
	D->X (RR)	0.01860	0.00100	<b>0.04819</b>	0.32940	0.12960	<b>0.25272</b>	2.50740	0.60000	<b>0.81774</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>0.12386</b>	0.32940	0.06480	<b>0.29794</b>	2.50740	0.30000	<b>0.84399</b>
	B->X (FF)	0.01860	0.00100	<b>0.12037</b>	0.32940	0.06480	<b>0.30466</b>	2.50740	0.30000	<b>0.90936</b>
	C->X (FF)	0.01860	0.00100	<b>0.10973</b>	0.32940	0.06480	<b>0.30628</b>	2.50740	0.30000	<b>0.94876</b>
	D->X (FF)	0.01860	0.00100	<b>0.09140</b>	0.32940	0.06480	<b>0.30153</b>	2.50740	0.30000	<b>0.96280</b>
sg13g2_or4_2	A->X (FF)	0.01860	0.00100	<b>0.15546</b>	0.32940	0.12960	<b>0.34736</b>	2.50740	0.60000	<b>0.90971</b>
	B->X (FF)	0.01860	0.00100	<b>0.15206</b>	0.32940	0.12960	<b>0.35591</b>	2.50740	0.60000	<b>0.98371</b>
	C->X (FF)	0.01860	0.00100	<b>0.14133</b>	0.32940	0.12960	<b>0.36049</b>	2.50740	0.60000	<b>1.03433</b>
	D->X (FF)	0.01860	0.00100	<b>0.12337</b>	0.32940	0.12960	<b>0.35894</b>	2.50740	0.60000	<b>1.05626</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>0.01113</b>	0.32940	0.06480	<b>0.01281</b>	2.50740	0.30000	<b>0.03970</b>
	B	0.01860	0.00100	<b>0.01079</b>	0.32940	0.06480	<b>0.01247</b>	2.50740	0.30000	<b>0.03687</b>
	C	0.01860	0.00100	<b>0.01000</b>	0.32940	0.06480	<b>0.01183</b>	2.50740	0.30000	<b>0.03471</b>
	D	0.01860	0.00100	<b>0.00945</b>	0.32940	0.06480	<b>0.01161</b>	2.50740	0.30000	<b>0.03496</b>
sg13g2_or4_2	A	0.01860	0.00100	<b>0.01776</b>	0.32940	0.12960	<b>0.01929</b>	2.50740	0.60000	<b>0.04593</b>
	B	0.01860	0.00100	<b>0.01738</b>	0.32940	0.12960	<b>0.01887</b>	2.50740	0.60000	<b>0.04320</b>
	C	0.01860	0.00100	<b>0.01651</b>	0.32940	0.12960	<b>0.01837</b>	2.50740	0.60000	<b>0.04082</b>
	D	0.01860	0.00100	<b>0.01595</b>	0.32940	0.12960	<b>0.01804</b>	2.50740	0.60000	<b>0.04031</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>0.02101</b>	0.32940	0.06480	<b>0.02080</b>	2.50740	0.30000	<b>0.04642</b>
	B	0.01860	0.00100	<b>0.01837</b>	0.32940	0.06480	<b>0.01839</b>	2.50740	0.30000	<b>0.04279</b>
	C	0.01860	0.00100	<b>0.01571</b>	0.32940	0.06480	<b>0.01617</b>	2.50740	0.30000	<b>0.03891</b>
	D	0.01860	0.00100	<b>0.01263</b>	0.32940	0.06480	<b>0.01435</b>	2.50740	0.30000	<b>0.03811</b>
sg13g2_or4_2	A	0.01860	0.00100	<b>0.03184</b>	0.32940	0.12960	<b>0.02714</b>	2.50740	0.60000	<b>0.05143</b>
	B	0.01860	0.00100	<b>0.02921</b>	0.32940	0.12960	<b>0.02489</b>	2.50740	0.60000	<b>0.04874</b>
	C	0.01860	0.00100	<b>0.02651</b>	0.32940	0.12960	<b>0.02274</b>	2.50740	0.60000	<b>0.04549</b>
	D	0.01860	0.00100	<b>0.02349</b>	0.32940	0.12960	<b>0.02068</b>	2.50740	0.60000	<b>0.04407</b>

# SDFBBP



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, Temp 25.00*

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## 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	0.00318	0.00205	0.00182	0.00210	0.00371	0.00549	0.30000	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q (RR)	0.01860	0.00100	<b>0.20344</b>	0.32940	0.06480	<b>0.38857</b>	2.50740	0.30000	<b>0.95788</b>
	SET_B->Q (FR)	0.01860	0.00100	<b>0.08494</b>	0.32940	0.06480	<b>0.29169</b>	2.50740	0.30000	<b>0.92123</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>0.16803</b>	0.32940	0.06480	<b>0.33401</b>	2.50740	0.30000	<b>0.82348</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.13938</b>	0.32940	0.06480	<b>0.32264</b>	2.50740	0.30000	<b>0.86070</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>0.20344</b>	0.32940	0.06480	<b>0.38857</b>	2.50740	0.30000	<b>0.95788</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>0.16803</b>	0.32940	0.06480	<b>0.33401</b>	2.50740	0.30000	<b>0.82348</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>0.13905</b>	0.32940	0.06480	<b>0.34074</b>	2.50740	0.30000	<b>0.92295</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.10968</b>	0.32940	0.06480	<b>0.33366</b>	2.50740	0.30000	<b>0.96756</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>0.16987</b>	0.32940	0.06480	<b>0.36136</b>	2.50740	0.30000	<b>0.84372</b>
	SET_B->Q_N (FF)	0.01860	0.00100	<b>0.05696</b>	0.32940	0.06480	<b>0.26150</b>	2.50740	0.30000	<b>0.81451</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>0.13905</b>	0.32940	0.06480	<b>0.34074</b>	2.50740	0.30000	<b>0.92295</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>0.16987</b>	0.32940	0.06480	<b>0.36136</b>	2.50740	0.30000	<b>0.84372</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>0.06378</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>0.08301</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>-0.06358</b>	1.26300	1.26300	<b>-0.18079</b>	2.50740	2.50740	<b>-0.23908</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07825</b>	1.26300	1.26300	<b>0.19158</b>	2.50740	2.50740	<b>0.25383</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>-0.07091</b>	1.26300	1.26300	<b>-0.15920</b>	2.50740	2.50740	<b>-0.22137</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10270</b>	1.26300	1.26300	<b>0.18619</b>	2.50740	2.50740	<b>0.25383</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>0.04401</b>	1.26300	1.26300	<b>0.07555</b>	2.50740	2.50740	<b>0.09150</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.02934</b>	1.26300	1.26300	<b>-0.06206</b>	2.50740	2.50740	<b>-0.07379</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>0.09262</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	-0.08069	1.26300	1.26300	-0.21047	2.50740	2.50740	-0.28335
	setup	CLK (R)	0.01860	0.01860	0.09536	1.26300	1.26300	0.21857	2.50740	2.50740	0.29220

### Constraints(ns) for SCD falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.15651	2.50740	2.50740	-0.20956
	setup	CLK (R)	0.01860	0.01860	0.12470	1.26300	1.26300	0.18349	2.50740	2.50740	0.24498

### Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.06602	1.26300	1.26300	-0.19968	2.50740	2.50740	-0.27744
	setup	CLK (R)	0.01860	0.01860	0.08314	1.26300	1.26300	0.22396	2.50740	2.50740	0.30696

### Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	-0.07091	1.26300	1.26300	-0.11063	2.50740	2.50740	-0.14167
	setup	CLK (R)	0.01860	0.01860	0.10270	1.26300	1.26300	0.13762	2.50740	2.50740	0.17709

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	recovery	CLK (R)	0.01860	0.01860	0.00734	1.26300	1.26300	0.08635	2.50740	2.50740	0.28335
	removal	CLK (R)	0.01860	0.01860	0.02690	1.26300	1.26300	0.06206	2.50740	2.50740	0.05903
	hold	RESET_B (R)	0.01860	0.01860	-0.04890	1.26300	1.26300	-0.13762	2.50740	2.50740	-0.19185
	setup	RESET_B (R)	0.01860	0.01860	0.06358	1.26300	1.26300	0.15920	2.50740	2.50740	0.22432

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	min_pulse_width	SET_B(0)	0.01860	0.00000	<b>0.06378</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>0.02681</b>	0.32940	0.06480	<b>0.02901</b>	2.50740	0.30000	<b>0.05201</b>
	SET_B	0.01860	0.00100	<b>0.04931</b>	0.32940	0.06480	<b>0.12670</b>	2.50740	0.30000	<b>0.45148</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>0.02585</b>	0.32940	0.06480	<b>0.02824</b>	2.50740	0.30000	<b>0.05143</b>
	RESET_B	0.01860	0.00100	<b>0.05586</b>	0.32940	0.06480	<b>0.12997</b>	2.50740	0.30000	<b>0.42118</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>0.02681</b>	0.32940	0.06480	<b>0.02901</b>	2.50740	0.30000	<b>0.05201</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>0.02585</b>	0.32940	0.06480	<b>0.02824</b>	2.50740	0.30000	<b>0.05143</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>0.02585</b>	0.32940	0.06480	<b>0.02828</b>	2.50740	0.30000	<b>0.05219</b>
	RESET_B	0.01860	0.00100	<b>0.05582</b>	0.32940	0.06480	<b>0.13026</b>	2.50740	0.30000	<b>0.42164</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>0.02680</b>	0.32940	0.06480	<b>0.02897</b>	2.50740	0.30000	<b>0.05136</b>
	SET_B	0.01860	0.00100	<b>0.04930</b>	0.32940	0.06480	<b>0.12664</b>	2.50740	0.30000	<b>0.45112</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>0.02585</b>	0.32940	0.06480	<b>0.02828</b>	2.50740	0.30000	<b>0.05219</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>0.02680</b>	0.32940	0.06480	<b>0.02897</b>	2.50740	0.30000	<b>0.05136</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>0.01800</b>	0.32940	<b>0.02188</b>	2.50740	<b>0.06812</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>0.02174</b>	0.32940	<b>0.02660</b>	2.50740	<b>0.07512</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>0.01793</b>	0.32940	<b>0.02175</b>	2.50740	<b>0.06777</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.02354</b>	0.32940	<b>0.02732</b>	2.50740	<b>0.07328</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01800</b>	0.32940	<b>0.02188</b>	2.50740	<b>0.06812</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01774</b>	0.32940	<b>0.02153</b>	2.50740	<b>0.06756</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01746</b>	0.32940	<b>0.02137</b>	2.50740	<b>0.06748</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01800</b>	0.32940	<b>0.02189</b>	2.50740	<b>0.06813</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>0.01752</b>	0.32940	<b>0.02198</b>	2.50740	<b>0.06956</b>
	(RESET_B * SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.03110</b>	0.32940	<b>0.03559</b>	2.50740	<b>0.08455</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.02174</b>	0.32940	<b>0.02660</b>	2.50740	<b>0.07512</b>
	(RESET_B * !SCD * SCE * SET_B * Q * !Q_N)	0.01860	<b>0.03412</b>	0.32940	<b>0.03901</b>	2.50740	<b>0.08759</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01746</b>	0.32940	<b>0.02193</b>	2.50740	<b>0.06940</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01729</b>	0.32940	<b>0.02176</b>	2.50740	<b>0.06933</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01614</b>	0.32940	<b>0.02063</b>	2.50740	<b>0.06806</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01787</b>	0.32940	<b>0.02232</b>	2.50740	<b>0.06975</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>0.01754</b>	0.32940	<b>0.01872</b>	2.50740	<b>0.03824</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>0.01807</b>	0.32940	<b>0.01947</b>	2.50740	<b>0.03958</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>0.01754</b>	0.32940	<b>0.01872</b>	2.50740	<b>0.03824</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>0.00717</b>	0.32940	<b>0.00800</b>	2.50740	<b>0.02560</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>0.01807</b>	0.32940	<b>0.01947</b>	2.50740	<b>0.03958</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>0.00732</b>	0.32940	<b>0.00844</b>	2.50740	<b>0.02643</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>0.01989</b>	0.32940	<b>0.02076</b>	2.50740	<b>0.03908</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>0.02466</b>	0.32940	<b>0.02544</b>	2.50740	<b>0.04504</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>0.01989</b>	0.32940	<b>0.02076</b>	2.50740	<b>0.03908</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>0.00952</b>	0.32940	<b>0.01005</b>	2.50740	<b>0.02670</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>0.02466</b>	0.32940	<b>0.02544</b>	2.50740	<b>0.04504</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>0.00993</b>	0.32940	<b>0.01063</b>	2.50740	<b>0.02818</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>0.02195</b>	0.32940	<b>0.02419</b>	2.50740	<b>0.04836</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>0.02325</b>	0.32940	<b>0.02566</b>	2.50740	<b>0.05016</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>0.02195</b>	0.32940	<b>0.02419</b>	2.50740	<b>0.04836</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.02853</b>	0.32940	<b>0.03017</b>	2.50740	<b>0.05435</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.02033</b>	0.32940	<b>0.02402</b>	2.50740	<b>0.06861</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>0.00963</b>	0.32940	<b>0.01301</b>	2.50740	<b>0.05545</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>0.02325</b>	0.32940	<b>0.02566</b>	2.50740	<b>0.05016</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.03014</b>	0.32940	<b>0.04012</b>	2.50740	<b>0.06468</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.01328</b>	0.32940	<b>0.04454</b>	2.50740	<b>0.08876</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>0.00977</b>	0.32940	<b>0.01307</b>	2.50740	<b>0.05533</b>

# SDFRBPQx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library:  
Process sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage  
1.50, 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	
sg13g2_sdfrbpq_1	0.00310	0.00291	0.00529	0.00304	0.00516	0.30000
sg13g2_sdfrbpq_2	0.00310	0.00291	0.00529	0.00304	0.00516	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfrbpq_1	1812.33000	2074.68000	2321.26000
sg13g2_sdfrbpq_2	2036.93000	2255.55000	2563.00000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	
sg13g2_sdfrbpq_1	CLK->Q (RR)	0.01860	0.00100	<b>0.11669</b>	0.32940	0.06480	<b>0.31196</b>	2.50740	0.30000	<b>0.87692</b>
sg13g2_sdfrbpq_2	CLK->Q (RR)	0.01860	0.00100	<b>0.13384</b>	0.32940	0.12960	<b>0.33918</b>	2.50740	0.60000	<b>0.90578</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)	
sg13g2_sdfrbpq_1	CLK->Q (RF)	0.01860	0.00100	<b>0.12275</b>	0.32940	0.06480	<b>0.29677</b>	2.50740	0.30000	<b>0.76875</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.06723</b>	0.32940	0.06480	<b>0.28440</b>	2.50740	0.30000	<b>0.89813</b>
sg13g2_sdfrbpq_2	CLK->Q (RF)	0.01860	0.00100	<b>0.14083</b>	0.32940	0.12960	<b>0.32562</b>	2.50740	0.60000	<b>0.79636</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.08479</b>	0.32940	0.12960	<b>0.32365</b>	2.50740	0.60000	<b>0.97277</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)	
sg13g2_sdfrbpq_1	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.11664</b>	0.32940	0.06480	<b>0.31196</b>	2.50740	0.30000	<b>0.87692</b>
	CLK->Q (RR)	!SCE	0.01860	0.00100	<b>0.11669</b>	0.32940	0.06480	<b>0.31196</b>	2.50740	0.30000	<b>0.87692</b>
sg13g2_sdfrbpq_2	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.13384</b>	0.32940	0.12960	<b>0.33918</b>	2.50740	0.60000	<b>0.90578</b>
	CLK->Q (RR)	!SCE	0.01860	0.00100	<b>0.13385</b>	0.32940	0.12960	<b>0.33918</b>	2.50740	0.60000	<b>0.90569</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)	
sg13g2_sdfrbpq_1	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.12276</b>	0.32940	0.06480	<b>0.29677</b>	2.50740	0.30000	<b>0.76875</b>
	CLK->Q (RF)	!SCE	0.01860	0.00100	<b>0.12275</b>	0.32940	0.06480	<b>0.29677</b>	2.50740	0.30000	<b>0.76875</b>
sg13g2_sdfrbpq_2	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.14083</b>	0.32940	0.12960	<b>0.32562</b>	2.50740	0.60000	<b>0.79636</b>
	CLK->Q (RF)	!SCE	0.01860	0.00100	<b>0.14083</b>	0.32940	0.12960	<b>0.32562</b>	2.50740	0.60000	<b>0.79636</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	0.05417	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbpq_2	min_pulse_width	CLK ()	0.01860	0.00000	0.06378	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	0.08301	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbpq_2	min_pulse_width	CLK ()	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.18595
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.18619	2.50740	2.50740	0.20070
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.09781	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.18595
	setup	CLK (R)	0.01860	0.01860	0.11981	1.26300	1.26300	0.18619	2.50740	2.50740	0.20070

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.17000	2.50740	2.50740	-0.22432
	setup	CLK (R)	0.01860	0.01860	0.13448	1.26300	1.26300	0.20238	2.50740	2.50740	0.26269
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.17269	2.50740	2.50740	-0.22432
	setup	CLK (R)	0.01860	0.01860	0.13204	1.26300	1.26300	0.19968	2.50740	2.50740	0.25973

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.23206	2.50740	2.50740	0.45454
	removal	CLK (R)	0.01860	0.01860	-0.06358	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.28335
sg13g2_sdfrbpq_2	recovery	CLK (R)	0.01860	0.01860	0.07336	1.26300	1.26300	0.26984	2.50740	2.50740	0.60802
	removal	CLK (R)	0.01860	0.01860	-0.06358	1.26300	1.26300	-0.18619	2.50740	2.50740	-0.28335

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	min_pulse_width	RESET_B_0	0.01860	0.00000	<b>0.07980</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	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 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>-0.09781</b>	1.26300	1.26300	<b>-0.17000</b>	2.50740	2.50740	<b>-0.18595</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12226</b>	1.26300	1.26300	<b>0.18619</b>	2.50740	2.50740	<b>0.20070</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.09781</b>	1.26300	1.26300	<b>-0.17000</b>	2.50740	2.50740	<b>-0.18595</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11981</b>	1.26300	1.26300	<b>0.18619</b>	2.50740	2.50740	<b>0.20070</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>-0.09781</b>	1.26300	1.26300	<b>-0.17000</b>	2.50740	2.50740	<b>-0.22727</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.13448</b>	1.26300	1.26300	<b>0.20238</b>	2.50740	2.50740	<b>0.26269</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.10025</b>	1.26300	1.26300	<b>-0.17269</b>	2.50740	2.50740	<b>-0.22727</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.13204</b>	1.26300	1.26300	<b>0.19968</b>	2.50740	2.50740	<b>0.26269</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>-0.10025</b>	1.26300	1.26300	<b>-0.16190</b>	2.50740	2.50740	<b>-0.18299</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12226</b>	1.26300	1.26300	<b>0.17809</b>	2.50740	2.50740	<b>0.19775</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.10025</b>	1.26300	1.26300	<b>-0.16190</b>	2.50740	2.50740	<b>-0.18299</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12226</b>	1.26300	1.26300	<b>0.17539</b>	2.50740	2.50740	<b>0.19775</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>-0.10514</b>	1.26300	1.26300	<b>-0.14031</b>	2.50740	2.50740	<b>-0.18004</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.14182</b>	1.26300	1.26300	<b>0.17269</b>	2.50740	2.50740	<b>0.21546</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.10759</b>	1.26300	1.26300	<b>-0.14301</b>	2.50740	2.50740	<b>-0.18004</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.13938</b>	1.26300	1.26300	<b>0.17269</b>	2.50740	2.50740	<b>0.21251</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>0.03279</b>	0.32940	0.06480	<b>0.03730</b>	2.50740	0.30000	<b>0.08649</b>
sg13g2_sdfrbpq_2	CLK	0.01860	0.00100	<b>0.04093</b>	0.32940	0.12960	<b>0.04415</b>	2.50740	0.60000	<b>0.09331</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>0.03472</b>	0.32940	0.06480	<b>0.03977</b>	2.50740	0.30000	<b>0.08691</b>
	RESET_B	0.01860	0.00100	<b>0.03224</b>	0.32940	0.06480	<b>0.03498</b>	2.50740	0.30000	<b>0.07582</b>
sg13g2_sdfrbpq_2	CLK	0.01860	0.00100	<b>0.04280</b>	0.32940	0.12960	<b>0.04647</b>	2.50740	0.60000	<b>0.09336</b>
	RESET_B	0.01860	0.00100	<b>0.04046</b>	0.32940	0.12960	<b>0.04146</b>	2.50740	0.60000	<b>0.08277</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>0.03279</b>	0.32940	0.06480	<b>0.03730</b>	2.50740	0.30000	<b>0.08649</b>
	CLK	!SCE	0.01860	0.00100	<b>0.01646</b>	0.32940	0.06480	<b>0.01692</b>	2.50740	0.30000	<b>0.01969</b>
sg13g2_sdfrbpq_2	CLK	SCE	0.01860	0.00100	<b>0.04093</b>	0.32940	0.12960	<b>0.04415</b>	2.50740	0.60000	<b>0.09331</b>
	CLK	!SCE	0.01860	0.00100	<b>0.02457</b>	0.32940	0.12960	<b>0.02364</b>	2.50740	0.60000	<b>0.02647</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>0.03472</b>	0.32940	0.06480	<b>0.03977</b>	2.50740	0.30000	<b>0.08691</b>
	CLK	!SCE	0.01860	0.00100	<b>0.01837</b>	0.32940	0.06480	<b>0.01937</b>	2.50740	0.30000	<b>0.02008</b>
sg13g2_sdfrbpq_2	CLK	SCE	0.01860	0.00100	<b>0.04280</b>	0.32940	0.12960	<b>0.04647</b>	2.50740	0.60000	<b>0.09336</b>
	CLK	!SCE	0.01860	0.00100	<b>0.02644</b>	0.32940	0.12960	<b>0.02608</b>	2.50740	0.60000	<b>0.02652</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>0.01635</b>	0.32940	<b>0.02038</b>	2.50740	<b>0.06684</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.01636</b>	0.32940	<b>0.02038</b>	2.50740	<b>0.06684</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>0.01670</b>	0.32940	<b>0.02129</b>	2.50740	<b>0.06908</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.01706</b>	0.32940	<b>0.02169</b>	2.50740	<b>0.06948</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>0.01670</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06727</b>
	(RESET_B * !SCD * SCE * !Q)	0.01860	<b>0.01635</b>	0.32940	<b>0.02038</b>	2.50740	<b>0.06684</b>
	(D * RESET_B * !SCE * Q)	0.01860	<b>0.01670</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06727</b>
	(!RESET_B * !Q)	0.01860	<b>0.01537</b>	0.32940	<b>0.01938</b>	2.50740	<b>0.06573</b>
	(!D * RESET_B * !SCE * !Q)	0.01860	<b>0.01634</b>	0.32940	<b>0.02038</b>	2.50740	<b>0.06684</b>
sg13g2_sdfrbpq_2	(RESET_B * SCD * SCE * Q)	0.01860	<b>0.01671</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06727</b>
	(RESET_B * !SCD * SCE * !Q)	0.01860	<b>0.01633</b>	0.32940	<b>0.02038</b>	2.50740	<b>0.06684</b>
	(D * RESET_B * !SCE * Q)	0.01860	<b>0.01670</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06727</b>
	(!RESET_B * !Q)	0.01860	<b>0.01598</b>	0.32940	<b>0.01999</b>	2.50740	<b>0.06634</b>
	(!D * RESET_B * !SCE * !Q)	0.01860	<b>0.01636</b>	0.32940	<b>0.02038</b>	2.50740	<b>0.06684</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>0.01637</b>	0.32940	<b>0.02100</b>	2.50740	<b>0.06891</b>
	(RESET_B * SCD * SCE * !Q)	0.01860	<b>0.03247</b>	0.32940	<b>0.03713</b>	2.50740	<b>0.08668</b>
	(RESET_B * !SCD * SCE * Q)	0.01860	<b>0.02993</b>	0.32940	<b>0.03495</b>	2.50740	<b>0.08393</b>
	(RESET_B * !SCD * SCE * !Q)	0.01860	<b>0.01669</b>	0.32940	<b>0.02129</b>	2.50740	<b>0.06908</b>
	(D * RESET_B * !SCE * Q)	0.01860	<b>0.01637</b>	0.32940	<b>0.02100</b>	2.50740	<b>0.06891</b>
	(!RESET_B * !Q)	0.01860	<b>0.01408</b>	0.32940	<b>0.01865</b>	2.50740	<b>0.06641</b>
	(!D * RESET_B * !SCE * !Q)	0.01860	<b>0.01670</b>	0.32940	<b>0.02129</b>	2.50740	<b>0.06908</b>
sg13g2_sdfrbpq_2	(RESET_B * SCD * SCE * Q)	0.01860	<b>0.01706</b>	0.32940	<b>0.02169</b>	2.50740	<b>0.06948</b>
	(RESET_B * SCD * SCE * !Q)	0.01860	<b>0.03231</b>	0.32940	<b>0.03696</b>	2.50740	<b>0.08658</b>
	(RESET_B * !SCD * SCE * Q)	0.01860	<b>0.03055</b>	0.32940	<b>0.03557</b>	2.50740	<b>0.08446</b>
	(RESET_B * !SCD * SCE * !Q)	0.01860	<b>0.01648</b>	0.32940	<b>0.02108</b>	2.50740	<b>0.06893</b>
	(D * RESET_B * !SCE * Q)	0.01860	<b>0.01704</b>	0.32940	<b>0.02169</b>	2.50740	<b>0.06948</b>
	(!RESET_B * !Q)	0.01860	<b>0.01467</b>	0.32940	<b>0.01926</b>	2.50740	<b>0.06702</b>
	(!D * RESET_B * !SCE * !Q)	0.01860	<b>0.01648</b>	0.32940	<b>0.02108</b>	2.50740	<b>0.06893</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>0.03267</b>	0.32940	<b>0.03538</b>	2.50740	<b>0.07145</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.03669</b>	0.32940	<b>0.03941</b>	2.50740	<b>0.07548</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>0.03063</b>	0.32940	<b>0.03459</b>	2.50740	<b>0.07320</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.03217</b>	0.32940	<b>0.03607</b>	2.50740	<b>0.07469</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>0.03267</b>	0.32940	<b>0.03538</b>	2.50740	<b>0.07145</b>
sg13g2_sdfrbpq_2	(!CLK * RESET_B * !SCE)	0.01860	<b>0.03669</b>	0.32940	<b>0.03941</b>	2.50740	<b>0.07548</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>0.03063</b>	0.32940	<b>0.03459</b>	2.50740	<b>0.07320</b>
sg13g2_sdfrbpq_2	(!CLK * RESET_B * !SCE)	0.01860	<b>0.03217</b>	0.32940	<b>0.03607</b>	2.50740	<b>0.07469</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>0.03290</b>	0.32940	<b>0.03554</b>	2.50740	<b>0.07169</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.03692</b>	0.32940	<b>0.03958</b>	2.50740	<b>0.07573</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>0.03082</b>	0.32940	<b>0.03479</b>	2.50740	<b>0.07353</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.03235</b>	0.32940	<b>0.03627</b>	2.50740	<b>0.07502</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>0.03290</b>	0.32940	<b>0.03554</b>	2.50740	<b>0.07169</b>
sg13g2_sdfrbpq_2	(!CLK * RESET_B * SCE)	0.01860	<b>0.03692</b>	0.32940	<b>0.03958</b>	2.50740	<b>0.07573</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>0.03082</b>	0.32940	<b>0.03479</b>	2.50740	<b>0.07353</b>
sg13g2_sdfrbpq_2	(!CLK * RESET_B * SCE)	0.01860	<b>0.03235</b>	0.32940	<b>0.03627</b>	2.50740	<b>0.07502</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>0.03971</b>	0.32940	<b>0.04461</b>	2.50740	<b>0.11134</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.03968</b>	0.32940	<b>0.04458</b>	2.50740	<b>0.11132</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>0.05151</b>	0.32940	<b>0.07201</b>	2.50740	<b>0.14097</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.05214</b>	0.32940	<b>0.07259</b>	2.50740	<b>0.14156</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>0.03677</b>	0.32940	<b>0.03935</b>	2.50740	<b>0.07196</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.03971</b>	0.32940	<b>0.04461</b>	2.50740	<b>0.11134</b>
sg13g2_sdfrbpq_2	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.03736</b>	0.32940	<b>0.03996</b>	2.50740	<b>0.07257</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.03968</b>	0.32940	<b>0.04458</b>	2.50740	<b>0.11132</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>0.04081</b>	0.32940	<b>0.04390</b>	2.50740	<b>0.07756</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.05151</b>	0.32940	<b>0.07201</b>	2.50740	<b>0.14097</b>
sg13g2_sdfrbpq_2	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.04081</b>	0.32940	<b>0.04387</b>	2.50740	<b>0.07753</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.05214</b>	0.32940	<b>0.07259</b>	2.50740	<b>0.14156</b>

# SDFRBPx



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00310	0.00291	0.00528	0.00304	0.00516	0.30000	0.30000
sg13g2_sdfrbp_2	0.00310	0.00291	0.00528	0.00304	0.00516	0.60000	0.60000

## Leakage Information

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

## 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>0.12740</b>	0.32940	0.06480	<b>0.31457</b>	2.50740	0.30000	<b>0.90304</b>
sg13g2_sdfrbp_2	CLK->Q (RR)	0.01860	0.00100	<b>0.16186</b>	0.32940	0.12960	<b>0.34450</b>	2.50740	0.60000	<b>0.93579</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>0.11590</b>	0.32940	0.06480	<b>0.27928</b>	2.50740	0.30000	<b>0.75223</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.16348</b>	0.32940	0.06480	<b>0.36727</b>	2.50740	0.30000	<b>0.99255</b>
sg13g2_sdfrbp_2	CLK->Q (RF)	0.01860	0.00100	<b>0.14018</b>	0.32940	0.12960	<b>0.30475</b>	2.50740	0.60000	<b>0.78157</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.18889</b>	0.32940	0.12960	<b>0.39375</b>	2.50740	0.60000	<b>1.02363</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>0.12740</b>	0.32940	0.06480	<b>0.31457</b>	2.50740	0.30000	<b>0.90304</b>
sg13g2_sdfrbp_2	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.16186</b>	0.32940	0.12960	<b>0.34450</b>	2.50740	0.60000	<b>0.93579</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>0.11590</b>	0.32940	0.06480	<b>0.27928</b>	2.50740	0.30000	<b>0.75223</b>
sg13g2_sdfrbp_2	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.14018</b>	0.32940	0.12960	<b>0.30475</b>	2.50740	0.60000	<b>0.78157</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>0.08981</b>	0.32940	0.06480	<b>0.29067</b>	2.50740	0.30000	<b>0.85325</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.13766</b>	0.32940	0.06480	<b>0.37722</b>	2.50740	0.30000	<b>1.09383</b>
sg13g2_sdfrbp_2	CLK->Q_N (RR)	0.01860	0.00100	<b>0.09430</b>	0.32940	0.12960	<b>0.30280</b>	2.50740	0.60000	<b>0.86713</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.14374</b>	0.32940	0.12960	<b>0.39047</b>	2.50740	0.60000	<b>1.10875</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>0.09582</b>	0.32940	0.06480	<b>0.29412</b>	2.50740	0.30000	<b>0.79656</b>
sg13g2_sdfrbp_2	CLK->Q_N (RF)	0.01860	0.00100	<b>0.10575</b>	0.32940	0.12960	<b>0.31527</b>	2.50740	0.60000	<b>0.82093</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>0.08981</b>	0.32940	0.06480	<b>0.29067</b>	2.50740	0.30000	<b>0.85325</b>
sg13g2_sdfrbp_2	CLK->Q_N (RR)	SCE	0.01860	0.00100	<b>0.09430</b>	0.32940	0.12960	<b>0.30280</b>	2.50740	0.60000	<b>0.86713</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>0.09582</b>	0.32940	0.06480	<b>0.29412</b>	2.50740	0.30000	<b>0.79656</b>
sg13g2_sdfrbp_2	CLK->Q_N (RF)	SCE	0.01860	0.00100	<b>0.10575</b>	0.32940	0.12960	<b>0.31527</b>	2.50740	0.60000	<b>0.82093</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>0.07339</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>0.08942</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>-0.09292</b>	1.26300	1.26300	<b>-0.16730</b>	2.50740	2.50740	<b>-0.18299</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12226</b>	1.26300	1.26300	<b>0.18349</b>	2.50740	2.50740	<b>0.19775</b>
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.09292</b>	1.26300	1.26300	<b>-0.16730</b>	2.50740	2.50740	<b>-0.18299</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12226</b>	1.26300	1.26300	<b>0.18349</b>	2.50740	2.50740	<b>0.19775</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>-0.09781</b>	1.26300	1.26300	<b>-0.17539</b>	2.50740	2.50740	<b>-0.23317</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.13693</b>	1.26300	1.26300	<b>0.20508</b>	2.50740	2.50740	<b>0.26269</b>
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.09781</b>	1.26300	1.26300	<b>-0.17539</b>	2.50740	2.50740	<b>-0.23317</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.13938</b>	1.26300	1.26300	<b>0.20508</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_sdfrbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.07336</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.28925</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.06602</b>	1.26300	1.26300	<b>-0.18889</b>	2.50740	2.50740	<b>-0.28335</b>
sg13g2_sdfrbp_2	recovery	CLK (R)	0.01860	0.01860	<b>0.07336</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.29220</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.06602</b>	1.26300	1.26300	<b>-0.18889</b>	2.50740	2.50740	<b>-0.28630</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	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818
sg13g2_sdfrbp_2	min_pulse_width	RESET_B0	0.01860	0.00000	0.07980	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for SCD rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.16730	2.50740	2.50740	-0.18299
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.18349	2.50740	2.50740	0.19775
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.16730	2.50740	2.50740	-0.18299
	setup	CLK (R)	0.01860	0.01860	0.12226	1.26300	1.26300	0.18349	2.50740	2.50740	0.19775

Constraints(ns) for SCD falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.17539	2.50740	2.50740	-0.23612
	setup	CLK (R)	0.01860	0.01860	0.13693	1.26300	1.26300	0.20508	2.50740	2.50740	0.26564
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.17539	2.50740	2.50740	-0.23612
	setup	CLK (R)	0.01860	0.01860	0.13938	1.26300	1.26300	0.20508	2.50740	2.50740	0.26564

Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.09536	1.26300	1.26300	-0.15920	2.50740	2.50740	-0.18004
	setup	CLK (R)	0.01860	0.01860	0.12470	1.26300	1.26300	0.17539	2.50740	2.50740	0.19480
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.09292	1.26300	1.26300	-0.15920	2.50740	2.50740	-0.18004
	setup	CLK (R)	0.01860	0.01860	0.12470	1.26300	1.26300	0.17539	2.50740	2.50740	0.19480

Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	-0.10270	1.26300	1.26300	-0.14571	2.50740	2.50740	-0.18890
	setup	CLK (R)	0.01860	0.01860	0.14427	1.26300	1.26300	0.17539	2.50740	2.50740	0.21841
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	-0.10025	1.26300	1.26300	-0.14571	2.50740	2.50740	-0.18890
	setup	CLK (R)	0.01860	0.01860	0.14671	1.26300	1.26300	0.17539	2.50740	2.50740	0.21841

## 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>0.04858</b>	0.32940	0.06480	<b>0.12465</b>	2.50740	0.30000	<b>0.43781</b>
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	<b>0.06339</b>	0.32940	0.12960	<b>0.21018</b>	2.50740	0.60000	<b>0.78742</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>0.04855</b>	0.32940	0.06480	<b>0.12582</b>	2.50740	0.30000	<b>0.43678</b>
	RESET_B	0.01860	0.00100	<b>0.05128</b>	0.32940	0.06480	<b>0.14465</b>	2.50740	0.30000	<b>0.51861</b>
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	<b>0.06179</b>	0.32940	0.12960	<b>0.21164</b>	2.50740	0.60000	<b>0.78580</b>
	RESET_B	0.01860	0.00100	<b>0.06508</b>	0.32940	0.12960	<b>0.24796</b>	2.50740	0.60000	<b>0.94827</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>0.04858</b>	0.32940	0.06480	<b>0.12465</b>	2.50740	0.30000	<b>0.43781</b>
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	<b>0.06339</b>	0.32940	0.12960	<b>0.21018</b>	2.50740	0.60000	<b>0.78742</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>0.04855</b>	0.32940	0.06480	<b>0.12582</b>	2.50740	0.30000	<b>0.43678</b>
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	<b>0.06179</b>	0.32940	0.12960	<b>0.21164</b>	2.50740	0.60000	<b>0.78580</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>0.04858</b>	0.32940	0.06480	<b>0.12577</b>	2.50740	0.30000	<b>0.43790</b>
	RESET_B	0.01860	0.00100	<b>0.05113</b>	0.32940	0.06480	<b>0.13613</b>	2.50740	0.30000	<b>0.47892</b>
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	<b>0.06185</b>	0.32940	0.12960	<b>0.21185</b>	2.50740	0.60000	<b>0.78838</b>
	RESET_B	0.01860	0.00100	<b>0.06499</b>	0.32940	0.12960	<b>0.23105</b>	2.50740	0.60000	<b>0.86877</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>0.04857</b>	0.32940	0.06480	<b>0.12458</b>	2.50740	0.30000	<b>0.43617</b>
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	<b>0.06438</b>	0.32940	0.12960	<b>0.21114</b>	2.50740	0.60000	<b>0.78504</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>0.04858</b>	0.32940	0.06480	<b>0.12577</b>	2.50740	0.30000	<b>0.43790</b>
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	<b>0.06185</b>	0.32940	0.12960	<b>0.21185</b>	2.50740	0.60000	<b>0.78838</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>0.04857</b>	0.32940	0.06480	<b>0.12458</b>	2.50740	0.30000	<b>0.43617</b>
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	<b>0.06438</b>	0.32940	0.12960	<b>0.21114</b>	2.50740	0.60000	<b>0.78504</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>0.01639</b>	0.32940	<b>0.02043</b>	2.50740	<b>0.06683</b>
sg13g2_sdfrbp_2	0.01860	<b>0.01639</b>	0.32940	<b>0.02043</b>	2.50740	<b>0.06674</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>0.01674</b>	0.32940	<b>0.02129</b>	2.50740	<b>0.06909</b>
sg13g2_sdfrbp_2	0.01860	<b>0.01674</b>	0.32940	<b>0.02129</b>	2.50740	<b>0.06908</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>0.01678</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06719</b>
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	<b>0.01639</b>	0.32940	<b>0.02043</b>	2.50740	<b>0.06683</b>
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	<b>0.01678</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06719</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01442</b>	0.32940	<b>0.01843</b>	2.50740	<b>0.06473</b>
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	<b>0.01639</b>	0.32940	<b>0.02043</b>	2.50740	<b>0.06683</b>
sg13g2_sdfrbp_2	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	<b>0.01679</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06725</b>
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	<b>0.01641</b>	0.32940	<b>0.02043</b>	2.50740	<b>0.06674</b>
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	<b>0.01679</b>	0.32940	<b>0.02084</b>	2.50740	<b>0.06725</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01443</b>	0.32940	<b>0.01844</b>	2.50740	<b>0.06471</b>
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	<b>0.01639</b>	0.32940	<b>0.02043</b>	2.50740	<b>0.06674</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>0.01644</b>	0.32940	<b>0.02100</b>	2.50740	<b>0.06890</b>
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	<b>0.03251</b>	0.32940	<b>0.03712</b>	2.50740	<b>0.08666</b>
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	<b>0.02997</b>	0.32940	<b>0.03494</b>	2.50740	<b>0.08391</b>
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	<b>0.01674</b>	0.32940	<b>0.02129</b>	2.50740	<b>0.06909</b>
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	<b>0.01644</b>	0.32940	<b>0.02100</b>	2.50740	<b>0.06890</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01312</b>	0.32940	<b>0.01766</b>	2.50740	<b>0.06543</b>
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	<b>0.01672</b>	0.32940	<b>0.02129</b>	2.50740	<b>0.06909</b>
sg13g2_sdfrbp_2	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	<b>0.01646</b>	0.32940	<b>0.02100</b>	2.50740	<b>0.06889</b>
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	<b>0.03252</b>	0.32940	<b>0.03712</b>	2.50740	<b>0.08665</b>
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	<b>0.02998</b>	0.32940	<b>0.03494</b>	2.50740	<b>0.08390</b>
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	<b>0.01674</b>	0.32940	<b>0.02129</b>	2.50740	<b>0.06908</b>
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	<b>0.01646</b>	0.32940	<b>0.02100</b>	2.50740	<b>0.06889</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01313</b>	0.32940	<b>0.01767</b>	2.50740	<b>0.06543</b>
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	<b>0.01673</b>	0.32940	<b>0.02129</b>	2.50740	<b>0.06908</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>0.03265</b>	0.32940	<b>0.03538</b>	2.50740	<b>0.07145</b>
sg13g2_sdfrbp_2	0.01860	<b>0.03262</b>	0.32940	<b>0.03535</b>	2.50740	<b>0.07142</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>0.03291</b>	0.32940	<b>0.03682</b>	2.50740	<b>0.07541</b>
sg13g2_sdfrbp_2	0.01860	<b>0.03289</b>	0.32940	<b>0.03682</b>	2.50740	<b>0.07541</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>0.03265</b>	0.32940	<b>0.03538</b>	2.50740	<b>0.07145</b>
sg13g2_sdfrbp_2	(!CLK * RESET_B * !SCE)	0.01860	<b>0.03262</b>	0.32940	<b>0.03535</b>	2.50740	<b>0.07142</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>0.03291</b>	0.32940	<b>0.03682</b>	2.50740	<b>0.07541</b>
sg13g2_sdfrbp_2	(!CLK * RESET_B * !SCE)	0.01860	<b>0.03289</b>	0.32940	<b>0.03682</b>	2.50740	<b>0.07541</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>0.03291</b>	0.32940	<b>0.03554</b>	2.50740	<b>0.07169</b>
sg13g2_sdfrbp_2	0.01860	<b>0.03287</b>	0.32940	<b>0.03551</b>	2.50740	<b>0.07166</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>0.02813</b>	0.32940	<b>0.03203</b>	2.50740	<b>0.07077</b>
sg13g2_sdfrbp_2	0.01860	<b>0.02806</b>	0.32940	<b>0.03204</b>	2.50740	<b>0.07078</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>0.03291</b>	0.32940	<b>0.03554</b>	2.50740	<b>0.07169</b>
sg13g2_sdfrbp_2	(!CLK * RESET_B * SCE)	0.01860	<b>0.03287</b>	0.32940	<b>0.03551</b>	2.50740	<b>0.07166</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>0.02813</b>	0.32940	<b>0.03203</b>	2.50740	<b>0.07077</b>
sg13g2_sdfrbp_2	(!CLK * RESET_B * SCE)	0.01860	<b>0.02806</b>	0.32940	<b>0.03204</b>	2.50740	<b>0.07078</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>0.03971</b>	0.32940	<b>0.04461</b>	2.50740	<b>0.11134</b>
sg13g2_sdfrbp_2	0.01860	<b>0.03968</b>	0.32940	<b>0.04457</b>	2.50740	<b>0.11132</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>0.05055</b>	0.32940	<b>0.07101</b>	2.50740	<b>0.14005</b>
sg13g2_sdfrbp_2	0.01860	<b>0.05053</b>	0.32940	<b>0.07099</b>	2.50740	<b>0.13995</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>0.03575</b>	0.32940	<b>0.03836</b>	2.50740	<b>0.07097</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.03971</b>	0.32940	<b>0.04461</b>	2.50740	<b>0.11134</b>
sg13g2_sdfrbp_2	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.03580</b>	0.32940	<b>0.03836</b>	2.50740	<b>0.07098</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.03968</b>	0.32940	<b>0.04457</b>	2.50740	<b>0.11132</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>0.04084</b>	0.32940	<b>0.04390</b>	2.50740	<b>0.07755</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.05055</b>	0.32940	<b>0.07101</b>	2.50740	<b>0.14005</b>
sg13g2_sdfrbp_2	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.04078</b>	0.32940	<b>0.04387</b>	2.50740	<b>0.07752</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.05053</b>	0.32940	<b>0.07099</b>	2.50740	<b>0.13995</b>

# SIGHOLD



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, Temp  
25.00*

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## Truth Table

INPUT	OUTPUT
SH	SH
x	-

## Footprint

Cell Name	Area
sg13g2_sighold	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	SH	SH
sg13g2_sighold	0.02149	-

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sighold	262.39200	528.87800	795.36500

## Passive Power Information

Passive power(pJ) for SH rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sighold	0.01860	<b>0.00821</b>	0.32940	<b>0.01935</b>	2.50740	<b>0.10754</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>0.00658</b>	0.32940	<b>0.01661</b>	2.50740	<b>0.12019</b>

# SLGCP



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, Temp 25.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_slgcp_1	30.84480

## Pin Capacitance Information

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

## Leakage Information

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

## Delay Information

Delay(ns) to GCLK rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_slgcp_1	<b>CLK-&gt;GCLK (RR)</b>	0.01860	0.00100	<b>0.05083</b>	0.32940	0.06480	<b>0.22998</b>	2.50740	0.30000	<b>0.82321</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	<b>CLK-&gt;GCLK (FF)</b>	0.01860	0.00100	<b>0.04334</b>	0.32940	0.06480	<b>0.21713</b>	2.50740	0.30000	<b>0.75675</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	0.15991	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	min_pulse_width	CLK ()	0.01860	0.00000	0.06699	1.26300	0.00000	2.08496	2.50740	0.00000	4.13818

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	-0.02836	1.26300	1.26300	-0.11752	2.50740	2.50740	-0.15991
	setup	CLK (R)	0.01860	0.01860	0.04366	1.26300	1.26300	0.16836	2.50740	2.50740	0.23743

Constraints(ns) for GATE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	-0.04377	1.26300	1.26300	-0.16831	2.50740	2.50740	-0.26710
	setup	CLK (R)	0.01860	0.01860	0.07640	1.26300	1.26300	0.20023	2.50740	2.50740	0.30283

Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	-0.02922	1.26300	1.26300	-0.14563	2.50740	2.50740	-0.20612
	setup	CLK (R)	0.01860	0.01860	0.05004	1.26300	1.26300	0.19380	2.50740	2.50740	0.28082

Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	-0.05062	1.26300	1.26300	-0.13149	2.50740	2.50740	-0.19940
	setup	CLK (R)	0.01860	0.01860	0.07999	1.26300	1.26300	0.15876	2.50740	2.50740	0.23393

## 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>0.01458</b>	0.32940	0.06480	<b>0.01645</b>	2.50740	0.30000	<b>0.04657</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>0.00957</b>	0.32940	0.06480	<b>0.01337</b>	2.50740	0.30000	<b>0.04515</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>0.01079</b>	0.32940	<b>0.01435</b>	2.50740	<b>0.05368</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>0.01093</b>	0.32940	<b>0.01506</b>	2.50740	<b>0.05634</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>0.02955</b>	0.32940	<b>0.03260</b>	2.50740	<b>0.06261</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>0.03033</b>	0.32940	<b>0.05033</b>	2.50740	<b>0.08133</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>0.02955</b>	0.32940	<b>0.03260</b>	2.50740	<b>0.06261</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>0.03033</b>	0.32940	<b>0.05033</b>	2.50740	<b>0.08133</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>0.01610</b>	0.32940	<b>0.01838</b>	2.50740	<b>0.04960</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>0.03164</b>	0.32940	<b>0.04857</b>	2.50740	<b>0.07905</b>

# TIEHI



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	238.39200	238.39200	238.39200

# TIELO



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	266.16100	266.16100	266.16100

# XNOR2



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00601	0.00532	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A->Y (-R)	0.01860	0.00100	<b>0.03895</b>	0.32940	0.06480	<b>0.38472</b>	2.50740	0.30000	<b>1.90024</b>
	B->Y (-R)	0.01860	0.00100	<b>0.03398</b>	0.32940	0.06480	<b>0.41685</b>	2.50740	0.30000	<b>2.15897</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>0.03369</b>	0.32940	0.06480	<b>0.31438</b>	2.50740	0.30000	<b>1.60046</b>
	B->Y (-F)	0.01860	0.00100	<b>0.02872</b>	0.32940	0.06480	<b>0.30819</b>	2.50740	0.30000	<b>1.58976</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>0.04963</b>	0.32940	0.06480	<b>0.22975</b>	2.50740	0.30000	<b>0.82063</b>
	A->Y (FR)	!B	0.01860	0.00100	<b>0.03895</b>	0.32940	0.06480	<b>0.38472</b>	2.50740	0.30000	<b>1.90024</b>
	B->Y (RR)	A	0.01860	0.00100	<b>0.04660</b>	0.32940	0.06480	<b>0.23197</b>	2.50740	0.30000	<b>0.84386</b>
	B->Y (FR)	!A	0.01860	0.00100	<b>0.03398</b>	0.32940	0.06480	<b>0.41685</b>	2.50740	0.30000	<b>2.15897</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>0.05025</b>	0.32940	0.06480	<b>0.29400</b>	2.50740	0.30000	<b>1.08917</b>
	A->Y (RF)	!B	0.01860	0.00100	<b>0.03369</b>	0.32940	0.06480	<b>0.31438</b>	2.50740	0.30000	<b>1.60046</b>
	B->Y (FF)	A	0.01860	0.00100	<b>0.05019</b>	0.32940	0.06480	<b>0.28368</b>	2.50740	0.30000	<b>1.05970</b>
	B->Y (RF)	!A	0.01860	0.00100	<b>0.02872</b>	0.32940	0.06480	<b>0.30819</b>	2.50740	0.30000	<b>1.58976</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>0.01224</b>	0.32940	0.06480	<b>0.01461</b>	2.50740	0.30000	<b>0.04497</b>
	B	0.01860	0.00100	<b>0.01251</b>	0.32940	0.06480	<b>0.01527</b>	2.50740	0.30000	<b>0.04670</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>0.01092</b>	0.32940	0.06480	<b>0.01439</b>	2.50740	0.30000	<b>0.04643</b>
	B	0.01860	0.00100	<b>0.01157</b>	0.32940	0.06480	<b>0.01310</b>	2.50740	0.30000	<b>0.04527</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>0.01224</b>	0.32940	0.06480	<b>0.01461</b>	2.50740	0.30000	<b>0.04497</b>
	A	!B	0.01860	0.00100	<b>0.00773</b>	0.32940	0.06480	<b>0.00816</b>	2.50740	0.30000	<b>0.01910</b>
	B	A	0.01860	0.00100	<b>0.01251</b>	0.32940	0.06480	<b>0.01527</b>	2.50740	0.30000	<b>0.04670</b>
	B	!A	0.01860	0.00100	<b>0.00502</b>	0.32940	0.06480	<b>0.00619</b>	2.50740	0.30000	<b>0.01723</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>0.01092</b>	0.32940	0.06480	<b>0.01439</b>	2.50740	0.30000	<b>0.04643</b>
	A	!B	0.01860	0.00100	<b>0.00766</b>	0.32940	0.06480	<b>0.00800</b>	2.50740	0.30000	<b>0.01775</b>
	B	A	0.01860	0.00100	<b>0.01157</b>	0.32940	0.06480	<b>0.01310</b>	2.50740	0.30000	<b>0.04527</b>
	B	!A	0.01860	0.00100	<b>0.00622</b>	0.32940	0.06480	<b>0.00699</b>	2.50740	0.30000	<b>0.01622</b>

# XOR2



*sg13g2\_stdcell\_typ\_1p50V\_25C Cell Library: Process  
sg13g2\_stdcell\_typ\_1p50V\_25C, Voltage 1.50, 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	0.00613	0.00536	0.30000

## Leakage Information

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

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A->X (-R)	0.01860	0.00100	<b>0.04198</b>	0.32940	0.06480	<b>0.38883</b>	2.50740	0.30000	<b>1.90683</b>
	B->X (-R)	0.01860	0.00100	<b>0.03542</b>	0.32940	0.06480	<b>0.38161</b>	2.50740	0.30000	<b>1.89418</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>0.03115</b>	0.32940	0.06480	<b>0.31145</b>	2.50740	0.30000	<b>1.59305</b>
	B->X (-F)	0.01860	0.00100	<b>0.02787</b>	0.32940	0.06480	<b>0.33672</b>	2.50740	0.30000	<b>1.76908</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>0.05120</b>	0.32940	0.06480	<b>0.36793</b>	2.50740	0.30000	<b>1.42882</b>
	A->X (FR)	B	0.01860	0.00100	<b>0.04198</b>	0.32940	0.06480	<b>0.38883</b>	2.50740	0.30000	<b>1.90683</b>
	B->X (RR)	!A	0.01860	0.00100	<b>0.05290</b>	0.32940	0.06480	<b>0.35696</b>	2.50740	0.30000	<b>1.38261</b>
	B->X (FR)	A	0.01860	0.00100	<b>0.03542</b>	0.32940	0.06480	<b>0.38161</b>	2.50740	0.30000	<b>1.89418</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>0.05943</b>	0.32940	0.06480	<b>0.22143</b>	2.50740	0.30000	<b>0.74133</b>
	A->X (RF)	B	0.01860	0.00100	<b>0.03115</b>	0.32940	0.06480	<b>0.31145</b>	2.50740	0.30000	<b>1.59305</b>
	B->X (FF)	!A	0.01860	0.00100	<b>0.05486</b>	0.32940	0.06480	<b>0.23009</b>	2.50740	0.30000	<b>0.78453</b>
	B->X (RF)	A	0.01860	0.00100	<b>0.02787</b>	0.32940	0.06480	<b>0.33672</b>	2.50740	0.30000	<b>1.76908</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>0.01072</b>	0.32940	0.06480	<b>0.01350</b>	2.50740	0.30000	<b>0.04395</b>
	B	0.01860	0.00100	<b>0.01149</b>	0.32940	0.06480	<b>0.01277</b>	2.50740	0.30000	<b>0.04256</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>0.01342</b>	0.32940	0.06480	<b>0.01581</b>	2.50740	0.30000	<b>0.04622</b>
	B	0.01860	0.00100	<b>0.01236</b>	0.32940	0.06480	<b>0.01543</b>	2.50740	0.30000	<b>0.04564</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>B</b>	0.01860	0.00100	<b>0.00817</b>	0.32940	0.06480	<b>0.00849</b>	2.50740	0.30000	<b>0.01904</b>
	A	<b>!B</b>	0.01860	0.00100	<b>0.01072</b>	0.32940	0.06480	<b>0.01350</b>	2.50740	0.30000	<b>0.04395</b>
	B	<b>A</b>	0.01860	0.00100	<b>0.00640</b>	0.32940	0.06480	<b>0.00697</b>	2.50740	0.30000	<b>0.01728</b>
	B	<b>!A</b>	0.01860	0.00100	<b>0.01149</b>	0.32940	0.06480	<b>0.01277</b>	2.50740	0.30000	<b>0.04256</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>B</b>	0.01860	0.00100	<b>0.00765</b>	0.32940	0.06480	<b>0.00781</b>	2.50740	0.30000	<b>0.01769</b>
	A	<b>!B</b>	0.01860	0.00100	<b>0.01342</b>	0.32940	0.06480	<b>0.01581</b>	2.50740	0.30000	<b>0.04622</b>
	B	<b>A</b>	0.01860	0.00100	<b>0.00614</b>	0.32940	0.06480	<b>0.00687</b>	2.50740	0.30000	<b>0.01726</b>
	B	<b>!A</b>	0.01860	0.00100	<b>0.01236</b>	0.32940	0.06480	<b>0.01543</b>	2.50740	0.30000	<b>0.04564</b>