

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

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

<b>ITL</b>
<b>KEEPSTATE</b>
<b>MUX2x</b>
<b>MUX4</b>
<b>NAND2B1</b>
<b>NAND2B2</b>
<b>NAND2x</b>
<b>NAND3B1</b>
<b>NAND3</b>
<b>NAND4</b>
<b>NOR2Bx</b>
<b>NOR2x</b>
<b>NOR3x</b>
<b>NOR4x</b>
<b>NP_ANT</b>
<b>O21AI</b>
<b>OR2x</b>
<b>OR3x</b>
<b>OR4x</b>
<b>SDFRRS</b>
<b>SGCLK</b>
<b>TIE0</b>
<b>TIE1</b>
<b>XNOR2_1</b>
<b>XOR2_1</b>

# A21OIx



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_a21oi_2	14.51520
sg13g2_a21oi_1	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	Y
sg13g2_a21oi_2	0.00549	0.00597	0.00538	0.60000
sg13g2_a21oi_1	0.00286	0.00298	0.00274	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21oi_2	173.82400	228.95100	292.06000
sg13g2_a21oi_1	86.91100	114.47500	146.03000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21oi_2	A1->Y (FR)	0.01860	0.00100	<b>0.04261</b>	0.32940	0.12960	<b>0.53704</b>	2.50740	0.60000	<b>2.69635</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.05094</b>	0.32940	0.12960	<b>0.54490</b>	2.50740	0.60000	<b>2.70336</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.04017</b>	0.32940	0.12960	<b>0.55908</b>	2.50740	0.60000	<b>2.91461</b>
sg13g2_a21oi_1	A1->Y (FR)	0.01860	0.00100	<b>0.04688</b>	0.32940	0.06480	<b>0.53652</b>	2.50740	0.30000	<b>2.69243</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.05490</b>	0.32940	0.06480	<b>0.54584</b>	2.50740	0.30000	<b>2.70525</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.04423</b>	0.32940	0.06480	<b>0.55987</b>	2.50740	0.30000	<b>2.91640</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21oi_2	A1->Y (RF)	0.01860	0.00100	<b>0.03604</b>	0.32940	0.12960	<b>0.46746</b>	2.50740	0.60000	<b>2.47969</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.04066</b>	0.32940	0.12960	<b>0.45042</b>	2.50740	0.60000	<b>2.32729</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.01997</b>	0.32940	0.12960	<b>0.34063</b>	2.50740	0.60000	<b>1.92499</b>
sg13g2_a21oi_1	A1->Y (RF)	0.01860	0.00100	<b>0.03945</b>	0.32940	0.06480	<b>0.46787</b>	2.50740	0.30000	<b>2.47809</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.04368</b>	0.32940	0.06480	<b>0.45033</b>	2.50740	0.30000	<b>2.32553</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.02214</b>	0.32940	0.06480	<b>0.34145</b>	2.50740	0.30000	<b>1.92799</b>

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21oi_2	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.04017</b>	0.32940	0.12960	<b>0.55908</b>	2.50740	0.60000	<b>2.91461</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.03067</b>	0.32940	0.12960	<b>0.54997</b>	2.50740	0.60000	<b>2.90896</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.02556</b>	0.32940	0.12960	<b>0.45639</b>	2.50740	0.60000	<b>2.48971</b>
sg13g2_a21oi_1	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.04423</b>	0.32940	0.06480	<b>0.55987</b>	2.50740	0.30000	<b>2.91640</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.03486</b>	0.32940	0.06480	<b>0.54885</b>	2.50740	0.30000	<b>2.90074</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.02874</b>	0.32940	0.06480	<b>0.45622</b>	2.50740	0.30000	<b>2.48638</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21oi_2	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.01997</b>	0.32940	0.12960	<b>0.34063</b>	2.50740	0.60000	<b>1.92499</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.01973</b>	0.32940	0.12960	<b>0.34000</b>	2.50740	0.60000	<b>1.92279</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.01949</b>	0.32940	0.12960	<b>0.33959</b>	2.50740	0.60000	<b>1.92341</b>
sg13g2_a21oi_1	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.02214</b>	0.32940	0.06480	<b>0.34145</b>	2.50740	0.30000	<b>1.92799</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.02191</b>	0.32940	0.06480	<b>0.34080</b>	2.50740	0.30000	<b>1.92509</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.02168</b>	0.32940	0.06480	<b>0.34040</b>	2.50740	0.30000	<b>1.92396</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21oi_2	A1	0.01860	0.00100	<b>0.00688</b>	0.32940	0.12960	<b>0.00685</b>	2.50740	0.60000	<b>0.00772</b>
	A2	0.01860	0.00100	<b>0.00866</b>	0.32940	0.12960	<b>0.00852</b>	2.50740	0.60000	<b>0.00960</b>
	B1	0.01860	0.00100	<b>0.00568</b>	0.32940	0.12960	<b>0.00617</b>	2.50740	0.60000	<b>0.00804</b>
sg13g2_a21oi_1	A1	0.01860	0.00100	<b>0.00353</b>	0.32940	0.06480	<b>0.00344</b>	2.50740	0.30000	<b>0.00385</b>
	A2	0.01860	0.00100	<b>0.00431</b>	0.32940	0.06480	<b>0.00424</b>	2.50740	0.30000	<b>0.00480</b>
	B1	0.01860	0.00100	<b>0.00293</b>	0.32940	0.06480	<b>0.00319</b>	2.50740	0.30000	<b>0.00396</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21oi_2	A1	0.01860	0.00100	<b>0.00660</b>	0.32940	0.12960	<b>0.00625</b>	2.50740	0.60000	<b>0.00744</b>
	A2	0.01860	0.00100	<b>0.00945</b>	0.32940	0.12960	<b>0.00900</b>	2.50740	0.60000	<b>0.00982</b>
	B1	0.01860	0.00100	<b>0.00151</b>	0.32940	0.12960	<b>0.00206</b>	2.50740	0.60000	<b>0.00438</b>
sg13g2_a21oi_1	A1	0.01860	0.00100	<b>0.00363</b>	0.32940	0.06480	<b>0.00343</b>	2.50740	0.30000	<b>0.00393</b>
	A2	0.01860	0.00100	<b>0.00497</b>	0.32940	0.06480	<b>0.00472</b>	2.50740	0.30000	<b>0.00524</b>
	B1	0.01860	0.00100	<b>0.00109</b>	0.32940	0.06480	<b>0.00132</b>	2.50740	0.30000	<b>0.00246</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21oi_2	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00650</b>	0.32940	0.12960	<b>0.00654</b>	2.50740	0.60000	<b>0.00841</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00568</b>	0.32940	0.12960	<b>0.00600</b>	2.50740	0.60000	<b>0.00778</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00568</b>	0.32940	0.12960	<b>0.00617</b>	2.50740	0.60000	<b>0.00804</b>
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00325</b>	0.32940	0.06480	<b>0.00323</b>	2.50740	0.30000	<b>0.00412</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00293</b>	0.32940	0.06480	<b>0.00303</b>	2.50740	0.30000	<b>0.00392</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00293</b>	0.32940	0.06480	<b>0.00319</b>	2.50740	0.30000	<b>0.00396</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21oi_2	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00475</b>	0.32940	0.12960	<b>0.00528</b>	2.50740	0.60000	<b>0.00751</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00151</b>	0.32940	0.12960	<b>0.00206</b>	2.50740	0.60000	<b>0.00438</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00138</b>	0.32940	0.12960	<b>0.00192</b>	2.50740	0.60000	<b>0.00448</b>
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00271</b>	0.32940	0.06480	<b>0.00287</b>	2.50740	0.30000	<b>0.00404</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00109</b>	0.32940	0.06480	<b>0.00132</b>	2.50740	0.30000	<b>0.00246</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00102</b>	0.32940	0.06480	<b>0.00122</b>	2.50740	0.30000	<b>0.00229</b>

**Passive power(pJ) for A1 rising :**

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	<b>-0.00100</b>	0.32940	<b>-0.00098</b>	2.50740	<b>-0.00098</b>
sg13g2_a21oi_1	0.01860	<b>-0.00049</b>	0.32940	<b>-0.00049</b>	2.50740	<b>-0.00049</b>

**Passive power(pJ) for A1 falling :**

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	<b>0.00200</b>	0.32940	<b>0.00201</b>	2.50740	<b>0.00203</b>
sg13g2_a21oi_1	0.01860	<b>0.00092</b>	0.32940	<b>0.00093</b>	2.50740	<b>0.00094</b>

**Passive power(pJ) for A1 rising (conditional):**

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	B1	0.01860	<b>0.00030</b>	0.32940	<b>-0.00010</b>	2.50740	<b>-0.00013</b>
	(!A2 * !B1)	0.01860	<b>-0.00100</b>	0.32940	<b>-0.00098</b>	2.50740	<b>-0.00098</b>
sg13g2_a21oi_1	B1	0.01860	<b>0.00024</b>	0.32940	<b>0.00003</b>	2.50740	<b>0.00000</b>
	(!A2 * !B1)	0.01860	<b>-0.00049</b>	0.32940	<b>-0.00049</b>	2.50740	<b>-0.00049</b>



Passive power(pJ) for A1 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	B1	0.01860	<b>0.00013</b>	0.32940	<b>0.00013</b>	2.50740	<b>0.00013</b>
	(!A2 * !B1)	0.01860	<b>0.00200</b>	0.32940	<b>0.00201</b>	2.50740	<b>0.00203</b>
sg13g2_a21oi_1	B1	0.01860	<b>-0.00002</b>	0.32940	<b>-0.00002</b>	2.50740	<b>0.00000</b>
	(!A2 * !B1)	0.01860	<b>0.00092</b>	0.32940	<b>0.00093</b>	2.50740	<b>0.00094</b>

Passive power(pJ) for A2 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	<b>-0.00048</b>	0.32940	<b>-0.00048</b>	2.50740	<b>-0.00045</b>
sg13g2_a21oi_1	0.01860	<b>-0.00024</b>	0.32940	<b>-0.00025</b>	2.50740	<b>-0.00023</b>

Passive power(pJ) for A2 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	<b>0.00077</b>	0.32940	<b>0.00054</b>	2.50740	<b>0.00045</b>
sg13g2_a21oi_1	0.01860	<b>0.00038</b>	0.32940	<b>0.00027</b>	2.50740	<b>0.00023</b>

Passive power(pJ) for A2 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	B1	0.01860	<b>0.00038</b>	0.32940	<b>-0.00002</b>	2.50740	<b>-0.00005</b>
	(!A1 * !B1)	0.01860	<b>-0.00048</b>	0.32940	<b>-0.00048</b>	2.50740	<b>-0.00045</b>
sg13g2_a21oi_1	B1	0.01860	<b>0.00018</b>	0.32940	<b>-0.00001</b>	2.50740	<b>-0.00003</b>
	(!A1 * !B1)	0.01860	<b>-0.00024</b>	0.32940	<b>-0.00025</b>	2.50740	<b>-0.00023</b>

Passive power(pJ) for A2 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	B1	0.01860	<b>0.00005</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00005</b>
	(!A1 * !B1)	0.01860	<b>0.00077</b>	0.32940	<b>0.00054</b>	2.50740	<b>0.00045</b>
sg13g2_a21oi_1	B1	0.01860	<b>0.00003</b>	0.32940	<b>0.00003</b>	2.50740	<b>0.00003</b>
	(!A1 * !B1)	0.01860	<b>0.00038</b>	0.32940	<b>0.00027</b>	2.50740	<b>0.00023</b>

Passive power(pJ) for B1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	<b>0.00136</b>	0.32940	<b>0.00136</b>	2.50740	<b>0.00137</b>
sg13g2_a21oi_1	0.01860	<b>0.00072</b>	0.32940	<b>0.00072</b>	2.50740	<b>0.00073</b>

Passive power(pJ) for B1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	<b>-0.00136</b>	0.32940	<b>-0.00136</b>	2.50740	<b>-0.00137</b>
sg13g2_a21oi_1	0.01860	<b>-0.00072</b>	0.32940	<b>-0.00072</b>	2.50740	<b>-0.00073</b>

Passive power(pJ) for B1 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	(A1 * A2)	0.01860	<b>0.00136</b>	0.32940	<b>0.00136</b>	2.50740	<b>0.00137</b>
sg13g2_a21oi_1	(A1 * A2)	0.01860	<b>0.00072</b>	0.32940	<b>0.00072</b>	2.50740	<b>0.00073</b>

Passive power(pJ) for B1 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	(A1 * A2)	0.01860	<b>-0.00136</b>	0.32940	<b>-0.00136</b>	2.50740	<b>-0.00137</b>
sg13g2_a21oi_1	(A1 * A2)	0.01860	<b>-0.00072</b>	0.32940	<b>-0.00072</b>	2.50740	<b>-0.00073</b>

# A221OI



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_a221oi_1	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)					Max Cap(pf)
	A1	A2	B1	B2	C1	Y
sg13g2_a221oi_1	0.00295	0.00298	0.00276	0.00283	0.00255	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a221oi_1	112.17700	157.32300	191.48900

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a221oi_1	A1->Y (FR)	0.01860	0.00100	<b>0.10675</b>	0.32940	0.12960	<b>1.34052</b>	2.50740	0.60000	<b>6.07540</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.11860</b>	0.32940	0.12960	<b>1.35135</b>	2.50740	0.60000	<b>6.08085</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.09541</b>	0.32940	0.12960	<b>1.34356</b>	2.50740	0.60000	<b>6.27222</b>
	B2->Y (FR)	0.01860	0.00100	<b>0.10727</b>	0.32940	0.12960	<b>1.35304</b>	2.50740	0.60000	<b>6.27410</b>
	C1->Y (FR)	0.01860	0.00100	<b>0.06960</b>	0.32940	0.12960	<b>1.32999</b>	2.50740	0.60000	<b>6.38775</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a221oi_1	A1->Y (RF)	0.01860	0.00100	<b>0.05125</b>	0.32940	0.12960	<b>0.75863</b>	2.50740	0.60000	<b>3.84928</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.05515</b>	0.32940	0.12960	<b>0.74099</b>	2.50740	0.60000	<b>3.67041</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.04562</b>	0.32940	0.12960	<b>0.74592</b>	2.50740	0.60000	<b>3.83528</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.04980</b>	0.32940	0.12960	<b>0.72829</b>	2.50740	0.60000	<b>3.65619</b>
	C1->Y (RF)	0.01860	0.00100	<b>0.02509</b>	0.32940	0.12960	<b>0.50653</b>	2.50740	0.60000	<b>2.80335</b>

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a221oi_1	A1->Y (FR)	(B1 * !B2)	0.01860	0.00100	<b>0.10675</b>	0.32940	0.12960	<b>1.34052</b>	2.50740	0.60000	<b>6.07540</b>
	A1->Y (FR)	(!B1 * B2)	0.01860	0.00100	<b>0.09230</b>	0.32940	0.12960	<b>1.32797</b>	2.50740	0.60000	<b>6.07150</b>
	A1->Y (FR)	(!B1 * !B2)	0.01860	0.00100	<b>0.08285</b>	0.32940	0.12960	<b>1.13273</b>	2.50740	0.60000	<b>5.25577</b>
	A2->Y (FR)	(B1 * !B2)	0.01860	0.00100	<b>0.11860</b>	0.32940	0.12960	<b>1.35135</b>	2.50740	0.60000	<b>6.08085</b>
	A2->Y (FR)	(!B1 * B2)	0.01860	0.00100	<b>0.10451</b>	0.32940	0.12960	<b>1.33881</b>	2.50740	0.60000	<b>6.07691</b>
	A2->Y (FR)	(!B1 * !B2)	0.01860	0.00100	<b>0.09270</b>	0.32940	0.12960	<b>1.14127</b>	2.50740	0.60000	<b>5.25896</b>
	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.09541</b>	0.32940	0.12960	<b>1.34356</b>	2.50740	0.60000	<b>6.27222</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.08090</b>	0.32940	0.12960	<b>1.32969</b>	2.50740	0.60000	<b>6.26413</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.06764</b>	0.32940	0.12960	<b>1.12449</b>	2.50740	0.60000	<b>5.36639</b>
	B2->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.10727</b>	0.32940	0.12960	<b>1.35304</b>	2.50740	0.60000	<b>6.27410</b>
	B2->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.09313</b>	0.32940	0.12960	<b>1.33900</b>	2.50740	0.60000	<b>6.26539</b>
	B2->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.07749</b>	0.32940	0.12960	<b>1.13142</b>	2.50740	0.60000	<b>5.36470</b>
	C1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.06960</b>	0.32940	0.12960	<b>1.32999</b>	2.50740	0.60000	<b>6.38775</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a221oi_1	A1->Y (RF)	(B1 * !B2)	0.01860	0.00100	<b>0.04979</b>	0.32940	0.12960	<b>0.75731</b>	2.50740	0.60000	<b>3.84867</b>
	A1->Y (RF)	(!B1 * B2)	0.01860	0.00100	<b>0.04918</b>	0.32940	0.12960	<b>0.75535</b>	2.50740	0.60000	<b>3.84665</b>
	A1->Y (RF)	(!B1 * !B2)	0.01860	0.00100	<b>0.05125</b>	0.32940	0.12960	<b>0.75863</b>	2.50740	0.60000	<b>3.84928</b>
	A2->Y (RF)	(B1 * !B2)	0.01860	0.00100	<b>0.05369</b>	0.32940	0.12960	<b>0.73965</b>	2.50740	0.60000	<b>3.66953</b>
	A2->Y (RF)	(!B1 * B2)	0.01860	0.00100	<b>0.05307</b>	0.32940	0.12960	<b>0.73770</b>	2.50740	0.60000	<b>3.66607</b>
	A2->Y (RF)	(!B1 * !B2)	0.01860	0.00100	<b>0.05515</b>	0.32940	0.12960	<b>0.74099</b>	2.50740	0.60000	<b>3.67041</b>
	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.04562</b>	0.32940	0.12960	<b>0.74592</b>	2.50740	0.60000	<b>3.83528</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.04516</b>	0.32940	0.12960	<b>0.74401</b>	2.50740	0.60000	<b>3.83276</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.04483</b>	0.32940	0.12960	<b>0.74349</b>	2.50740	0.60000	<b>3.83236</b>
	B2->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.04980</b>	0.32940	0.12960	<b>0.72829</b>	2.50740	0.60000	<b>3.65619</b>
	B2->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.04935</b>	0.32940	0.12960	<b>0.72638</b>	2.50740	0.60000	<b>3.65291</b>
	B2->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.04902</b>	0.32940	0.12960	<b>0.72582</b>	2.50740	0.60000	<b>3.65272</b>
	C1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.02509</b>	0.32940	0.12960	<b>0.50653</b>	2.50740	0.60000	<b>2.80335</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a221oi_1	A1	0.01860	0.00100	<b>0.00814</b>	0.32940	0.12960	<b>0.00795</b>	2.50740	0.60000	<b>0.00802</b>
	A2	0.01860	0.00100	<b>0.00825</b>	0.32940	0.12960	<b>0.00791</b>	2.50740	0.60000	<b>0.00787</b>
	B1	0.01860	0.00100	<b>0.00738</b>	0.32940	0.12960	<b>0.00734</b>	2.50740	0.60000	<b>0.00735</b>
	B2	0.01860	0.00100	<b>0.00753</b>	0.32940	0.12960	<b>0.00722</b>	2.50740	0.60000	<b>0.00737</b>
	C1	0.01860	0.00100	<b>0.00350</b>	0.32940	0.12960	<b>0.00343</b>	2.50740	0.60000	<b>0.00375</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a221oi_1	A1	0.01860	0.00100	<b>0.00491</b>	0.32940	0.12960	<b>0.00458</b>	2.50740	0.60000	<b>0.00512</b>
	A2	0.01860	0.00100	<b>0.00613</b>	0.32940	0.12960	<b>0.00598</b>	2.50740	0.60000	<b>0.00626</b>
	B1	0.01860	0.00100	<b>0.00185</b>	0.32940	0.12960	<b>0.00157</b>	2.50740	0.60000	<b>0.00203</b>
	B2	0.01860	0.00100	<b>0.00347</b>	0.32940	0.12960	<b>0.00319</b>	2.50740	0.60000	<b>0.00365</b>
	C1	0.01860	0.00100	<b>0.00285</b>	0.32940	0.12960	<b>0.00300</b>	2.50740	0.60000	<b>0.00235</b>

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



Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a22loi_1	A1	(B1 * !B2)	0.01860	0.00100	<b>0.00814</b>	0.32940	0.12960	<b>0.00795</b>	2.50740	0.60000	<b>0.00802</b>
	A1	(!B1 * B2)	0.01860	0.00100	<b>0.00786</b>	0.32940	0.12960	<b>0.00777</b>	2.50740	0.60000	<b>0.00822</b>
	A1	(!B1 * !B2)	0.01860	0.00100	<b>0.00972</b>	0.32940	0.12960	<b>0.00958</b>	2.50740	0.60000	<b>0.00953</b>
	A2	(B1 * !B2)	0.01860	0.00100	<b>0.00825</b>	0.32940	0.12960	<b>0.00791</b>	2.50740	0.60000	<b>0.00787</b>
	A2	(!B1 * B2)	0.01860	0.00100	<b>0.00801</b>	0.32940	0.12960	<b>0.00769</b>	2.50740	0.60000	<b>0.00850</b>
	A2	(!B1 * !B2)	0.01860	0.00100	<b>0.00986</b>	0.32940	0.12960	<b>0.00953</b>	2.50740	0.60000	<b>0.00957</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00765</b>	0.32940	0.12960	<b>0.00740</b>	2.50740	0.60000	<b>0.00743</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00737</b>	0.32940	0.12960	<b>0.00719</b>	2.50740	0.60000	<b>0.00812</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00738</b>	0.32940	0.12960	<b>0.00734</b>	2.50740	0.60000	<b>0.00735</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00777</b>	0.32940	0.12960	<b>0.00742</b>	2.50740	0.60000	<b>0.00765</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00754</b>	0.32940	0.12960	<b>0.00727</b>	2.50740	0.60000	<b>0.00722</b>
	B2	(!A1 * !A2)	0.01860	0.00100	<b>0.00753</b>	0.32940	0.12960	<b>0.00722</b>	2.50740	0.60000	<b>0.00737</b>
	C1	(!A1 * A2)	0.01860	0.00100	<b>0.00350</b>	0.32940	0.12960	<b>0.00343</b>	2.50740	0.60000	<b>0.00375</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a221oi_1	A1	(B1 * !B2)	0.01860	0.00100	<b>0.00654</b>	0.32940	0.12960	<b>0.00616</b>	2.50740	0.60000	<b>0.00670</b>
	A1	(!B1 * B2)	0.01860	0.00100	<b>0.00491</b>	0.32940	0.12960	<b>0.00458</b>	2.50740	0.60000	<b>0.00512</b>
	A1	(!B1 * !B2)	0.01860	0.00100	<b>0.00404</b>	0.32940	0.12960	<b>0.00367</b>	2.50740	0.60000	<b>0.00426</b>
	A2	(B1 * !B2)	0.01860	0.00100	<b>0.00776</b>	0.32940	0.12960	<b>0.00758</b>	2.50740	0.60000	<b>0.00784</b>
	A2	(!B1 * B2)	0.01860	0.00100	<b>0.00613</b>	0.32940	0.12960	<b>0.00598</b>	2.50740	0.60000	<b>0.00626</b>
	A2	(!B1 * !B2)	0.01860	0.00100	<b>0.00527</b>	0.32940	0.12960	<b>0.00516</b>	2.50740	0.60000	<b>0.00546</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00347</b>	0.32940	0.12960	<b>0.00314</b>	2.50740	0.60000	<b>0.00371</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00185</b>	0.32940	0.12960	<b>0.00157</b>	2.50740	0.60000	<b>0.00203</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00179</b>	0.32940	0.12960	<b>0.00150</b>	2.50740	0.60000	<b>0.00216</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00508</b>	0.32940	0.12960	<b>0.00477</b>	2.50740	0.60000	<b>0.00527</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00347</b>	0.32940	0.12960	<b>0.00319</b>	2.50740	0.60000	<b>0.00365</b>
	B2	(!A1 * !A2)	0.01860	0.00100	<b>0.00341</b>	0.32940	0.12960	<b>0.00301</b>	2.50740	0.60000	<b>0.00356</b>
	C1	(!A1 * A2)	0.01860	0.00100	<b>0.00285</b>	0.32940	0.12960	<b>0.00300</b>	2.50740	0.60000	<b>0.00235</b>

Passive power(pJ) for A1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>0.00005</b>	0.32940	<b>-0.00003</b>	2.50740	<b>-0.00003</b>

Passive power(pJ) for A1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>0.00003</b>	0.32940	<b>0.00003</b>	2.50740	<b>0.00003</b>

Passive power(pJ) for A2 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>0.00038</b>	0.32940	<b>0.00012</b>	2.50740	<b>0.00005</b>

Passive power(pJ) for A2 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>0.00006</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00005</b>

Passive power(pJ) for A2 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	(B1 * B2 * !C1)	0.01860	<b>0.00038</b>	0.32940	<b>0.00012</b>	2.50740	<b>0.00005</b>

Passive power(pJ) for A2 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	(B1 * B2 * !C1)	0.01860	<b>0.00006</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00005</b>

Passive power(pJ) for B1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>0.00147</b>	0.32940	<b>0.00149</b>	2.50740	<b>0.00150</b>

Passive power(pJ) for B1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>-0.00131</b>	0.32940	<b>-0.00132</b>	2.50740	<b>-0.00132</b>

Passive power(pJ) for B1 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	C1	0.01860	<b>0.00097</b>	0.32940	<b>0.00099</b>	2.50740	<b>0.00102</b>
	(A1 * A2 * !C1)	0.01860	<b>0.00147</b>	0.32940	<b>0.00149</b>	2.50740	<b>0.00150</b>

Passive power(pJ) for B1 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	C1	0.01860	<b>0.00002</b>	0.32940	<b>0.00003</b>	2.50740	<b>0.00003</b>
	(A1 * A2 * !C1)	0.01860	<b>-0.00131</b>	0.32940	<b>-0.00132</b>	2.50740	<b>-0.00132</b>

Passive power(pJ) for B2 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>0.00150</b>	0.32940	<b>0.00151</b>	2.50740	<b>0.00152</b>

Passive power(pJ) for B2 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>-0.00133</b>	0.32940	<b>-0.00133</b>	2.50740	<b>-0.00134</b>

Passive power(pJ) for B2 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	C1	0.01860	<b>0.00099</b>	0.32940	<b>0.00100</b>	2.50740	<b>0.00104</b>
	(A1 * A2 * !C1)	0.01860	<b>0.00150</b>	0.32940	<b>0.00151</b>	2.50740	<b>0.00152</b>

Passive power(pJ) for B2 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	C1	0.01860	0.00001	0.32940	0.00001	2.50740	0.00001
	(A1 * A2 * !C1)	0.01860	-0.00133	0.32940	-0.00133	2.50740	-0.00134

Passive power(pJ) for C1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	0.00071	0.32940	0.00071	2.50740	0.00072

Passive power(pJ) for C1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	0.00059	0.32940	0.00062	2.50740	0.00063

Passive power(pJ) for C1 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	(B1 * B2)	0.01860	0.00071	0.32940	0.00071	2.50740	0.00072

Passive power(pJ) for C1 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	(B1 * B2)	0.01860	0.00059	0.32940	0.00062	2.50740	0.00063

# A22OI



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_a22oi_1	10.84860

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A1	A2	B1	B2	Y
sg13g2_a22oi_1	0.00275	0.00306	0.00355	0.00360	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a22oi_1	86.75930	138.87200	210.34700

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a22oi_1	A1->Y (FR)	0.01860	0.00100	<b>0.04802</b>	0.32940	0.06480	<b>0.47231</b>	2.50740	0.30000	<b>2.43513</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.05360</b>	0.32940	0.06480	<b>0.47850</b>	2.50740	0.30000	<b>2.44259</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.03835</b>	0.32940	0.06480	<b>0.46516</b>	2.50740	0.30000	<b>2.49147</b>
	B2->Y (FR)	0.01860	0.00100	<b>0.03254</b>	0.32940	0.06480	<b>0.45883</b>	2.50740	0.30000	<b>2.48335</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a22oi_1	A1->Y (RF)	0.01860	0.00100	<b>0.04940</b>	0.32940	0.06480	<b>0.47794</b>	2.50740	0.30000	<b>2.49028</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.05332</b>	0.32940	0.06480	<b>0.46001</b>	2.50740	0.30000	<b>2.33585</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.03852</b>	0.32940	0.06480	<b>0.44225</b>	2.50740	0.30000	<b>2.31582</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.03380</b>	0.32940	0.06480	<b>0.45960</b>	2.50740	0.30000	<b>2.46826</b>



## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a22oi_1	A1	0.01860	0.00100	<b>0.00260</b>	0.32940	0.06480	<b>0.00261</b>	2.50740	0.30000	<b>0.00281</b>
	A2	0.01860	0.00100	<b>0.00338</b>	0.32940	0.06480	<b>0.00337</b>	2.50740	0.30000	<b>0.00356</b>
	B1	0.01860	0.00100	<b>0.00143</b>	0.32940	0.06480	<b>0.00148</b>	2.50740	0.30000	<b>0.00214</b>
	B2	0.01860	0.00100	<b>0.00122</b>	0.32940	0.06480	<b>0.00142</b>	2.50740	0.30000	<b>0.00196</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a22oi_1	A1	0.01860	0.00100	<b>0.00003</b>	0.32940	0.06480	<b>0.00007</b>	2.50740	0.30000	<b>0.00061</b>
	A2	0.01860	0.00100	<b>0.00115</b>	0.32940	0.06480	<b>0.00119</b>	2.50740	0.30000	<b>0.00169</b>
	B1	0.01860	0.00100	<b>-0.00143</b>	0.32940	0.06480	<b>-0.00148</b>	2.50740	0.30000	<b>-0.00214</b>
	B2	0.01860	0.00100	<b>-0.00122</b>	0.32940	0.06480	<b>-0.00142</b>	2.50740	0.30000	<b>-0.00196</b>

Passive power(pJ) for A1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a22oi_1	0.01860	<b>0.00362</b>	0.32940	<b>0.00335</b>	2.50740	<b>0.00328</b>

Passive power(pJ) for A1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a22oi_1	0.01860	<b>0.00417</b>	0.32940	<b>0.00415</b>	2.50740	<b>0.00415</b>

Passive power(pJ) for A2 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a22oi_1	0.01860	<b>0.00406</b>	0.32940	<b>0.00376</b>	2.50740	<b>0.00369</b>

Passive power(pJ) for A2 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a22oi_1	0.01860	<b>0.00351</b>	0.32940	<b>0.00348</b>	2.50740	<b>0.00347</b>

Passive power(pJ) for B1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a22oi_1	0.01860	<b>0.00724</b>	0.32940	<b>0.00745</b>	2.50740	<b>0.00775</b>

Passive power(pJ) for B1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a22oi_1	0.01860	<b>0.00143</b>	0.32940	<b>0.00146</b>	2.50740	<b>0.00147</b>

Passive power(pJ) for B2 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a22oi_1	0.01860	<b>0.00574</b>	0.32940	<b>0.00595</b>	2.50740	<b>0.00625</b>

Passive power(pJ) for B2 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a22oi_1	0.01860	<b>0.00137</b>	0.32940	<b>0.00141</b>	2.50740	<b>0.00143</b>

# AND2x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_and2_2	10.88640
sg13g2_and2_1	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	X
sg13g2_and2_2	0.00254	0.00255	0.60000
sg13g2_and2_1	0.00255	0.00256	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and2_2	199.49400	210.30300	220.76100
sg13g2_and2_1	117.08500	137.61100	177.22000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and2_2	A->X (RR)	0.01860	0.00100	<b>0.08203</b>	0.32940	0.12960	<b>0.38289</b>	2.50740	0.60000	<b>1.29879</b>
	B->X (RR)	0.01860	0.00100	<b>0.08638</b>	0.32940	0.12960	<b>0.38186</b>	2.50740	0.60000	<b>1.29946</b>
sg13g2_and2_1	A->X (RR)	0.01860	0.00100	<b>0.06645</b>	0.32940	0.06480	<b>0.33830</b>	2.50740	0.30000	<b>1.19587</b>
	B->X (RR)	0.01860	0.00100	<b>0.07097</b>	0.32940	0.06480	<b>0.34278</b>	2.50740	0.30000	<b>1.20631</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and2_2	A->X (FF)	0.01860	0.00100	<b>0.06969</b>	0.32940	0.12960	<b>0.33793</b>	2.50740	0.60000	<b>1.10512</b>
	B->X (FF)	0.01860	0.00100	<b>0.07451</b>	0.32940	0.12960	<b>0.34986</b>	2.50740	0.60000	<b>1.13957</b>
sg13g2_and2_1	A->X (FF)	0.01860	0.00100	<b>0.05647</b>	0.32940	0.06480	<b>0.29560</b>	2.50740	0.30000	<b>1.00381</b>
	B->X (FF)	0.01860	0.00100	<b>0.06147</b>	0.32940	0.06480	<b>0.31060</b>	2.50740	0.30000	<b>1.03882</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and2_2	A	0.01860	0.00100	<b>0.01042</b>	0.32940	0.12960	<b>0.01063</b>	2.50740	0.60000	<b>0.01606</b>
	B	0.01860	0.00100	<b>0.01174</b>	0.32940	0.12960	<b>0.01193</b>	2.50740	0.60000	<b>0.01633</b>
sg13g2_and2_1	A	0.01860	0.00100	<b>0.00653</b>	0.32940	0.06480	<b>0.00667</b>	2.50740	0.30000	<b>0.01226</b>
	B	0.01860	0.00100	<b>0.00796</b>	0.32940	0.06480	<b>0.00795</b>	2.50740	0.30000	<b>0.01254</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and2_2	A	0.01860	0.00100	<b>0.00930</b>	0.32940	0.12960	<b>0.00989</b>	2.50740	0.60000	<b>0.01454</b>
	B	0.01860	0.00100	<b>0.00936</b>	0.32940	0.12960	<b>0.01006</b>	2.50740	0.60000	<b>0.01582</b>
sg13g2_and2_1	A	0.01860	0.00100	<b>0.00567</b>	0.32940	0.06480	<b>0.00607</b>	2.50740	0.30000	<b>0.01144</b>
	B	0.01860	0.00100	<b>0.00579</b>	0.32940	0.06480	<b>0.00627</b>	2.50740	0.30000	<b>0.01159</b>

# AND3x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_and3_2	12.70080
sg13g2_and3_1	12.70080

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	X
sg13g2_and3_2	0.00239	0.00251	0.00253	0.60000
sg13g2_and3_1	0.00239	0.00251	0.00252	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and3_2	201.53000	224.22200	287.63300
sg13g2_and3_1	119.12400	146.67500	244.09700



## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and3_2	A->X (RR)	0.01860	0.00100	<b>0.11198</b>	0.32940	0.12960	<b>0.42923</b>	2.50740	0.60000	<b>1.38350</b>
	B->X (RR)	0.01860	0.00100	<b>0.12091</b>	0.32940	0.12960	<b>0.43354</b>	2.50740	0.60000	<b>1.39169</b>
	C->X (RR)	0.01860	0.00100	<b>0.12482</b>	0.32940	0.12960	<b>0.42696</b>	2.50740	0.60000	<b>1.36106</b>
sg13g2_and3_1	A->X (RR)	0.01860	0.00100	<b>0.08983</b>	0.32940	0.06480	<b>0.37439</b>	2.50740	0.30000	<b>1.27184</b>
	B->X (RR)	0.01860	0.00100	<b>0.09897</b>	0.32940	0.06480	<b>0.38378</b>	2.50740	0.30000	<b>1.28574</b>
	C->X (RR)	0.01860	0.00100	<b>0.10288</b>	0.32940	0.06480	<b>0.38134</b>	2.50740	0.30000	<b>1.26348</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and3_2	A->X (FF)	0.01860	0.00100	<b>0.07324</b>	0.32940	0.12960	<b>0.34642</b>	2.50740	0.60000	<b>1.11915</b>
	B->X (FF)	0.01860	0.00100	<b>0.07839</b>	0.32940	0.12960	<b>0.35762</b>	2.50740	0.60000	<b>1.15302</b>
	C->X (FF)	0.01860	0.00100	<b>0.08189</b>	0.32940	0.12960	<b>0.36649</b>	2.50740	0.60000	<b>1.17961</b>
sg13g2_and3_1	A->X (FF)	0.01860	0.00100	<b>0.06045</b>	0.32940	0.06480	<b>0.30616</b>	2.50740	0.30000	<b>1.01978</b>
	B->X (FF)	0.01860	0.00100	<b>0.06573</b>	0.32940	0.06480	<b>0.31933</b>	2.50740	0.30000	<b>1.05534</b>
	C->X (FF)	0.01860	0.00100	<b>0.06909</b>	0.32940	0.06480	<b>0.32995</b>	2.50740	0.30000	<b>1.08573</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and3_2	A	0.01860	0.00100	<b>0.01209</b>	0.32940	0.12960	<b>0.01230</b>	2.50740	0.60000	<b>0.01712</b>
	B	0.01860	0.00100	<b>0.01276</b>	0.32940	0.12960	<b>0.01292</b>	2.50740	0.60000	<b>0.01651</b>
	C	0.01860	0.00100	<b>0.01406</b>	0.32940	0.12960	<b>0.01421</b>	2.50740	0.60000	<b>0.01784</b>
sg13g2_and3_1	A	0.01860	0.00100	<b>0.00811</b>	0.32940	0.06480	<b>0.00819</b>	2.50740	0.30000	<b>0.01359</b>
	B	0.01860	0.00100	<b>0.00882</b>	0.32940	0.06480	<b>0.00878</b>	2.50740	0.30000	<b>0.01304</b>
	C	0.01860	0.00100	<b>0.01010</b>	0.32940	0.06480	<b>0.01002</b>	2.50740	0.30000	<b>0.01380</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and3_2	A	0.01860	0.00100	<b>0.00868</b>	0.32940	0.12960	<b>0.00920</b>	2.50740	0.60000	<b>0.01362</b>
	B	0.01860	0.00100	<b>0.00954</b>	0.32940	0.12960	<b>0.01001</b>	2.50740	0.60000	<b>0.01523</b>
	C	0.01860	0.00100	<b>0.00965</b>	0.32940	0.12960	<b>0.01022</b>	2.50740	0.60000	<b>0.01556</b>
sg13g2_and3_1	A	0.01860	0.00100	<b>0.00507</b>	0.32940	0.06480	<b>0.00543</b>	2.50740	0.30000	<b>0.01028</b>
	B	0.01860	0.00100	<b>0.00595</b>	0.32940	0.06480	<b>0.00622</b>	2.50740	0.30000	<b>0.01138</b>
	C	0.01860	0.00100	<b>0.00609</b>	0.32940	0.06480	<b>0.00640</b>	2.50740	0.30000	<b>0.01164</b>

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and3_2	0.01860	<b>-0.00067</b>	0.32940	<b>-0.00068</b>	2.50740	<b>-0.00073</b>
sg13g2_and3_1	0.01860	<b>-0.00067</b>	0.32940	<b>-0.00068</b>	2.50740	<b>-0.00073</b>

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and3_2	0.01860	<b>0.00067</b>	0.32940	<b>0.00068</b>	2.50740	<b>0.00073</b>
sg13g2_and3_1	0.01860	<b>0.00067</b>	0.32940	<b>0.00068</b>	2.50740	<b>0.00073</b>

# AND4x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_and4_2	16.32960
sg13g2_and4_1	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	X
sg13g2_and4_2	0.00229	0.00229	0.00261	0.00255	0.60000
sg13g2_and4_1	0.00229	0.00230	0.00261	0.00256	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and4_2	203.65500	231.88400	354.46500
sg13g2_and4_1	121.24300	151.90300	310.92400

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and4_2	A->X (RR)	0.01860	0.00100	<b>0.14315</b>	0.32940	0.12960	<b>0.47432</b>	2.50740	0.60000	<b>1.46283</b>
	B->X (RR)	0.01860	0.00100	<b>0.15601</b>	0.32940	0.12960	<b>0.48278</b>	2.50740	0.60000	<b>1.47331</b>
	C->X (RR)	0.01860	0.00100	<b>0.16355</b>	0.32940	0.12960	<b>0.48054</b>	2.50740	0.60000	<b>1.44554</b>
	D->X (RR)	0.01860	0.00100	<b>0.16759</b>	0.32940	0.12960	<b>0.47773</b>	2.50740	0.60000	<b>1.41121</b>
sg13g2_and4_1	A->X (RR)	0.01860	0.00100	<b>0.11514</b>	0.32940	0.06480	<b>0.41273</b>	2.50740	0.30000	<b>1.34248</b>
	B->X (RR)	0.01860	0.00100	<b>0.12812</b>	0.32940	0.06480	<b>0.42478</b>	2.50740	0.30000	<b>1.36107</b>
	C->X (RR)	0.01860	0.00100	<b>0.13564</b>	0.32940	0.06480	<b>0.42625</b>	2.50740	0.30000	<b>1.34492</b>
	D->X (RR)	0.01860	0.00100	<b>0.13965</b>	0.32940	0.06480	<b>0.42551</b>	2.50740	0.30000	<b>1.31886</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and4_2	A->X (FF)	0.01860	0.00100	<b>0.07608</b>	0.32940	0.12960	<b>0.35181</b>	2.50740	0.60000	<b>1.12641</b>
	B->X (FF)	0.01860	0.00100	<b>0.08122</b>	0.32940	0.12960	<b>0.36233</b>	2.50740	0.60000	<b>1.15768</b>
	C->X (FF)	0.01860	0.00100	<b>0.08504</b>	0.32940	0.12960	<b>0.37093</b>	2.50740	0.60000	<b>1.18089</b>
	D->X (FF)	0.01860	0.00100	<b>0.08795</b>	0.32940	0.12960	<b>0.37885</b>	2.50740	0.60000	<b>1.20786</b>
sg13g2_and4_1	A->X (FF)	0.01860	0.00100	<b>0.06401</b>	0.32940	0.06480	<b>0.31282</b>	2.50740	0.30000	<b>1.02848</b>
	B->X (FF)	0.01860	0.00100	<b>0.06928</b>	0.32940	0.06480	<b>0.32548</b>	2.50740	0.30000	<b>1.06154</b>
	C->X (FF)	0.01860	0.00100	<b>0.07302</b>	0.32940	0.06480	<b>0.33532</b>	2.50740	0.30000	<b>1.09091</b>
	D->X (FF)	0.01860	0.00100	<b>0.07566</b>	0.32940	0.06480	<b>0.34408</b>	2.50740	0.30000	<b>1.11772</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and4_2	A	0.01860	0.00100	<b>0.01244</b>	0.32940	0.12960	<b>0.01241</b>	2.50740	0.60000	<b>0.01683</b>
	B	0.01860	0.00100	<b>0.01407</b>	0.32940	0.12960	<b>0.01398</b>	2.50740	0.60000	<b>0.01736</b>
	C	0.01860	0.00100	<b>0.01481</b>	0.32940	0.12960	<b>0.01475</b>	2.50740	0.60000	<b>0.01751</b>
	D	0.01860	0.00100	<b>0.01466</b>	0.32940	0.12960	<b>0.01462</b>	2.50740	0.60000	<b>0.01729</b>
sg13g2_and4_1	A	0.01860	0.00100	<b>0.00826</b>	0.32940	0.06480	<b>0.00834</b>	2.50740	0.30000	<b>0.01315</b>
	B	0.01860	0.00100	<b>0.00992</b>	0.32940	0.06480	<b>0.00988</b>	2.50740	0.30000	<b>0.01379</b>
	C	0.01860	0.00100	<b>0.01067</b>	0.32940	0.06480	<b>0.01064</b>	2.50740	0.30000	<b>0.01428</b>
	D	0.01860	0.00100	<b>0.01049</b>	0.32940	0.06480	<b>0.01050</b>	2.50740	0.30000	<b>0.01362</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_and4_2	A	0.01860	0.00100	<b>0.00896</b>	0.32940	0.12960	<b>0.00938</b>	2.50740	0.60000	<b>0.01417</b>
	B	0.01860	0.00100	<b>0.00919</b>	0.32940	0.12960	<b>0.00966</b>	2.50740	0.60000	<b>0.01453</b>
	C	0.01860	0.00100	<b>0.01018</b>	0.32940	0.12960	<b>0.01055</b>	2.50740	0.60000	<b>0.01533</b>
	D	0.01860	0.00100	<b>0.01018</b>	0.32940	0.12960	<b>0.01073</b>	2.50740	0.60000	<b>0.01555</b>
sg13g2_and4_1	A	0.01860	0.00100	<b>0.00536</b>	0.32940	0.06480	<b>0.00559</b>	2.50740	0.30000	<b>0.01027</b>
	B	0.01860	0.00100	<b>0.00562</b>	0.32940	0.06480	<b>0.00583</b>	2.50740	0.30000	<b>0.01053</b>
	C	0.01860	0.00100	<b>0.00659</b>	0.32940	0.06480	<b>0.00676</b>	2.50740	0.30000	<b>0.01159</b>
	D	0.01860	0.00100	<b>0.00665</b>	0.32940	0.06480	<b>0.00686</b>	2.50740	0.30000	<b>0.01168</b>

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	0.01860	<b>-0.00011</b>	0.32940	<b>-0.00010</b>	2.50740	<b>-0.00010</b>
sg13g2_and4_1	0.01860	<b>-0.00011</b>	0.32940	<b>-0.00010</b>	2.50740	<b>-0.00010</b>

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	0.01860	<b>0.00081</b>	0.32940	<b>0.00082</b>	2.50740	<b>0.00082</b>
sg13g2_and4_1	0.01860	<b>0.00082</b>	0.32940	<b>0.00082</b>	2.50740	<b>0.00082</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	$(B * C * !D) + (B * !C)$	0.01860	<b>-0.00011</b>	0.32940	<b>-0.00010</b>	2.50740	<b>-0.00010</b>
sg13g2_and4_1	$(B * C * !D) + (B * !C)$	0.01860	<b>-0.00011</b>	0.32940	<b>-0.00010</b>	2.50740	<b>-0.00010</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	$(B * C * !D) + (B * !C)$	0.01860	<b>0.00081</b>	0.32940	<b>0.00082</b>	2.50740	<b>0.00082</b>
sg13g2_and4_1	$(B * C * !D) + (B * !C)$	0.01860	<b>0.00082</b>	0.32940	<b>0.00082</b>	2.50740	<b>0.00082</b>

Passive power(pJ) for B rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	0.01860	<b>-0.00029</b>	0.32940	<b>-0.00028</b>	2.50740	<b>-0.00028</b>
sg13g2_and4_1	0.01860	<b>-0.00029</b>	0.32940	<b>-0.00028</b>	2.50740	<b>-0.00028</b>

Passive power(pJ) for B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	0.01860	<b>0.00060</b>	0.32940	<b>0.00061</b>	2.50740	<b>0.00061</b>
sg13g2_and4_1	0.01860	<b>0.00060</b>	0.32940	<b>0.00061</b>	2.50740	<b>0.00061</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	$(A * C * !D) + (A * !C)$	0.01860	<b>-0.00029</b>	0.32940	<b>-0.00028</b>	2.50740	<b>-0.00028</b>
sg13g2_and4_1	$(A * C * !D) + (A * !C)$	0.01860	<b>-0.00029</b>	0.32940	<b>-0.00028</b>	2.50740	<b>-0.00028</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	$(A * C * !D) + (A * !C)$	0.01860	<b>0.00060</b>	0.32940	<b>0.00061</b>	2.50740	<b>0.00061</b>
sg13g2_and4_1	$(A * C * !D) + (A * !C)$	0.01860	<b>0.00060</b>	0.32940	<b>0.00061</b>	2.50740	<b>0.00061</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	0.01860	<b>0.00026</b>	0.32940	<b>0.00026</b>	2.50740	<b>0.00026</b>
sg13g2_and4_1	0.01860	<b>0.00026</b>	0.32940	<b>0.00026</b>	2.50740	<b>0.00026</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	0.01860	<b>-0.00025</b>	0.32940	<b>-0.00025</b>	2.50740	<b>-0.00024</b>
sg13g2_and4_1	0.01860	<b>-0.00024</b>	0.32940	<b>-0.00025</b>	2.50740	<b>-0.00024</b>

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



Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	$(A * !B * D) + (!A * D)$	0.01860	<b>0.00026</b>	0.32940	<b>0.00026</b>	2.50740	<b>0.00026</b>
sg13g2_and4_1	$(A * !B * D) + (!A * D)$	0.01860	<b>0.00026</b>	0.32940	<b>0.00026</b>	2.50740	<b>0.00026</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	$(A * !B * D) + (!A * D)$	0.01860	<b>-0.00025</b>	0.32940	<b>-0.00025</b>	2.50740	<b>-0.00024</b>
sg13g2_and4_1	$(A * !B * D) + (!A * D)$	0.01860	<b>-0.00024</b>	0.32940	<b>-0.00025</b>	2.50740	<b>-0.00024</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	0.01860	<b>0.00166</b>	0.32940	<b>0.00163</b>	2.50740	<b>0.00165</b>
sg13g2_and4_1	0.01860	<b>0.00166</b>	0.32940	<b>0.00163</b>	2.50740	<b>0.00165</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	0.01860	<b>-0.00010</b>	0.32940	<b>-0.00012</b>	2.50740	<b>-0.00012</b>
sg13g2_and4_1	0.01860	<b>-0.00010</b>	0.32940	<b>-0.00012</b>	2.50740	<b>-0.00012</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	$(A * !B * C) + (!A * C)$	0.01860	<b>0.00166</b>	0.32940	<b>0.00163</b>	2.50740	<b>0.00165</b>
sg13g2_and4_1	$(A * !B * C) + (!A * C)$	0.01860	<b>0.00166</b>	0.32940	<b>0.00163</b>	2.50740	<b>0.00165</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_and4_2	$(A * !B * C) + (!A * C)$	0.01860	<b>-0.00010</b>	0.32940	<b>-0.00012</b>	2.50740	<b>-0.00012</b>
sg13g2_and4_1	$(A * !B * C) + (!A * C)$	0.01860	<b>-0.00010</b>	0.32940	<b>-0.00012</b>	2.50740	<b>-0.00012</b>

# A021x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_a21o_2	14.51520
sg13g2_a21o_1	12.70080

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	X
sg13g2_a21o_2	0.00295	0.00290	0.00262	0.60000
sg13g2_a21o_1	0.00276	0.00282	0.00247	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21o_2	183.45400	224.26500	271.20200
sg13g2_a21o_1	127.42800	158.34300	178.04700

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21o_2	A1->X (RR)	0.01860	0.00100	<b>0.08633</b>	0.32940	0.12960	<b>0.38961</b>	2.50740	0.60000	<b>1.30503</b>
	A2->X (RR)	0.01860	0.00100	<b>0.09002</b>	0.32940	0.12960	<b>0.38720</b>	2.50740	0.60000	<b>1.30588</b>
	B1->X (RR)	0.01860	0.00100	<b>0.05588</b>	0.32940	0.12960	<b>0.34681</b>	2.50740	0.60000	<b>1.22574</b>
sg13g2_a21o_1	A1->X (RR)	0.01860	0.00100	<b>0.08075</b>	0.32940	0.06480	<b>0.36836</b>	2.50740	0.30000	<b>1.27294</b>
	A2->X (RR)	0.01860	0.00100	<b>0.08464</b>	0.32940	0.06480	<b>0.36869</b>	2.50740	0.30000	<b>1.27531</b>
	B1->X (RR)	0.01860	0.00100	<b>0.05281</b>	0.32940	0.06480	<b>0.32772</b>	2.50740	0.30000	<b>1.19059</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21o_2	A1->X (FF)	0.01860	0.00100	<b>0.11607</b>	0.32940	0.12960	<b>0.38438</b>	2.50740	0.60000	<b>1.16567</b>
	A2->X (FF)	0.01860	0.00100	<b>0.12563</b>	0.32940	0.12960	<b>0.39963</b>	2.50740	0.60000	<b>1.19774</b>
	B1->X (FF)	0.01860	0.00100	<b>0.11575</b>	0.32940	0.12960	<b>0.40160</b>	2.50740	0.60000	<b>1.22707</b>
sg13g2_a21o_1	A1->X (FF)	0.01860	0.00100	<b>0.09196</b>	0.32940	0.06480	<b>0.33596</b>	2.50740	0.30000	<b>1.05223</b>
	A2->X (FF)	0.01860	0.00100	<b>0.10043</b>	0.32940	0.06480	<b>0.35075</b>	2.50740	0.30000	<b>1.08445</b>
	B1->X (FF)	0.01860	0.00100	<b>0.09009</b>	0.32940	0.06480	<b>0.34559</b>	2.50740	0.30000	<b>1.09444</b>

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21o_2	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	<b>0.05588</b>	0.32940	0.12960	<b>0.34681</b>	2.50740	0.60000	<b>1.22574</b>
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	<b>0.05367</b>	0.32940	0.12960	<b>0.33567</b>	2.50740	0.60000	<b>1.18807</b>
sg13g2_a21o_1	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	<b>0.05281</b>	0.32940	0.06480	<b>0.32772</b>	2.50740	0.30000	<b>1.19059</b>
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	<b>0.04975</b>	0.32940	0.06480	<b>0.31541</b>	2.50740	0.30000	<b>1.14669</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21o_2	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	<b>0.11575</b>	0.32940	0.12960	<b>0.40160</b>	2.50740	0.60000	<b>1.22707</b>
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	<b>0.10410</b>	0.32940	0.12960	<b>0.38355</b>	2.50740	0.60000	<b>1.18990</b>
sg13g2_a21o_1	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	<b>0.09009</b>	0.32940	0.06480	<b>0.34559</b>	2.50740	0.30000	<b>1.09444</b>
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	<b>0.07995</b>	0.32940	0.06480	<b>0.32750</b>	2.50740	0.30000	<b>1.05418</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21o_2	A1	0.01860	0.00100	<b>0.01094</b>	0.32940	0.12960	<b>0.01115</b>	2.50740	0.60000	<b>0.01669</b>
	A2	0.01860	0.00100	<b>0.01254</b>	0.32940	0.12960	<b>0.01277</b>	2.50740	0.60000	<b>0.01722</b>
	B1	0.01860	0.00100	<b>0.00936</b>	0.32940	0.12960	<b>0.00965</b>	2.50740	0.60000	<b>0.01542</b>
sg13g2_a21o_1	A1	0.01860	0.00100	<b>0.00718</b>	0.32940	0.06480	<b>0.00720</b>	2.50740	0.30000	<b>0.01266</b>
	A2	0.01860	0.00100	<b>0.00858</b>	0.32940	0.06480	<b>0.00849</b>	2.50740	0.30000	<b>0.01291</b>
	B1	0.01860	0.00100	<b>0.00554</b>	0.32940	0.06480	<b>0.00559</b>	2.50740	0.30000	<b>0.01147</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21o_2	A1	0.01860	0.00100	<b>0.01220</b>	0.32940	0.12960	<b>0.01239</b>	2.50740	0.60000	<b>0.01755</b>
	A2	0.01860	0.00100	<b>0.01221</b>	0.32940	0.12960	<b>0.01243</b>	2.50740	0.60000	<b>0.01757</b>
	B1	0.01860	0.00100	<b>0.00961</b>	0.32940	0.12960	<b>0.01010</b>	2.50740	0.60000	<b>0.01717</b>
sg13g2_a21o_1	A1	0.01860	0.00100	<b>0.00829</b>	0.32940	0.06480	<b>0.00833</b>	2.50740	0.30000	<b>0.01297</b>
	A2	0.01860	0.00100	<b>0.00826</b>	0.32940	0.06480	<b>0.00845</b>	2.50740	0.30000	<b>0.01288</b>
	B1	0.01860	0.00100	<b>0.00574</b>	0.32940	0.06480	<b>0.00624</b>	2.50740	0.30000	<b>0.01194</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21o_2	B1	(A1 * !A2)	0.01860	0.00100	<b>0.01098</b>	0.32940	0.12960	<b>0.01145</b>	2.50740	0.60000	<b>0.01779</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00936</b>	0.32940	0.12960	<b>0.00965</b>	2.50740	0.60000	<b>0.01542</b>
sg13g2_a21o_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00695</b>	0.32940	0.06480	<b>0.00705</b>	2.50740	0.30000	<b>0.01327</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00554</b>	0.32940	0.06480	<b>0.00559</b>	2.50740	0.30000	<b>0.01147</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_a21o_2	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00979</b>	0.32940	0.12960	<b>0.01023</b>	2.50740	0.60000	<b>0.01696</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00961</b>	0.32940	0.12960	<b>0.01010</b>	2.50740	0.60000	<b>0.01717</b>
sg13g2_a21o_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00583</b>	0.32940	0.06480	<b>0.00622</b>	2.50740	0.30000	<b>0.01224</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00574</b>	0.32940	0.06480	<b>0.00624</b>	2.50740	0.30000	<b>0.01194</b>

Passive power(pJ) for A1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	0.01860	<b>0.00019</b>	0.32940	<b>0.00019</b>	2.50740	<b>0.00020</b>
sg13g2_a21o_1	0.01860	<b>0.00004</b>	0.32940	<b>0.00004</b>	2.50740	<b>0.00005</b>

Passive power(pJ) for A1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	0.01860	<b>-0.00015</b>	0.32940	<b>-0.00016</b>	2.50740	<b>-0.00016</b>
sg13g2_a21o_1	0.01860	<b>-0.00001</b>	0.32940	<b>-0.00002</b>	2.50740	<b>-0.00002</b>

Passive power(pJ) for A1 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	(A2 * B1)	0.01860	<b>0.00034</b>	0.32940	<b>0.00016</b>	2.50740	<b>0.00011</b>
	(!A2 * B1)	0.01860	<b>0.00019</b>	0.32940	<b>0.00019</b>	2.50740	<b>0.00020</b>
sg13g2_a21o_1	(A2 * B1)	0.01860	<b>0.00022</b>	0.32940	<b>0.00004</b>	2.50740	<b>-0.00001</b>
	(!A2 * B1)	0.01860	<b>0.00004</b>	0.32940	<b>0.00004</b>	2.50740	<b>0.00005</b>

Passive power(pJ) for A1 falling (conditional):



Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	(A2 * B1)	0.01860	<b>0.00011</b>	0.32940	<b>0.00011</b>	2.50740	<b>0.00011</b>
	(!A2 * B1)	0.01860	<b>-0.00015</b>	0.32940	<b>-0.00016</b>	2.50740	<b>-0.00016</b>
sg13g2_a21o_1	(A2 * B1)	0.01860	<b>0.00025</b>	0.32940	<b>0.00025</b>	2.50740	<b>0.00025</b>
	(!A2 * B1)	0.01860	<b>-0.00001</b>	0.32940	<b>-0.00002</b>	2.50740	<b>-0.00002</b>

Passive power(pJ) for A2 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	0.01860	<b>0.00014</b>	0.32940	<b>0.00014</b>	2.50740	<b>0.00014</b>
sg13g2_a21o_1	0.01860	<b>0.00007</b>	0.32940	<b>0.00007</b>	2.50740	<b>0.00007</b>

Passive power(pJ) for A2 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	0.01860	<b>-0.00010</b>	0.32940	<b>-0.00010</b>	2.50740	<b>-0.00010</b>
sg13g2_a21o_1	0.01860	<b>-0.00004</b>	0.32940	<b>-0.00004</b>	2.50740	<b>-0.00004</b>

Passive power(pJ) for A2 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	(A1 * B1)	0.01860	<b>0.00028</b>	0.32940	<b>0.00010</b>	2.50740	<b>0.00006</b>
	(!A1 * B1)	0.01860	<b>0.00014</b>	0.32940	<b>0.00014</b>	2.50740	<b>0.00014</b>
sg13g2_a21o_1	(A1 * B1)	0.01860	<b>0.00024</b>	0.32940	<b>0.00007</b>	2.50740	<b>0.00002</b>
	(!A1 * B1)	0.01860	<b>0.00007</b>	0.32940	<b>0.00007</b>	2.50740	<b>0.00007</b>

Passive power(pJ) for A2 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	(A1 * B1)	0.01860	<b>0.00017</b>	0.32940	<b>0.00017</b>	2.50740	<b>0.00017</b>
	(!A1 * B1)	0.01860	<b>-0.00010</b>	0.32940	<b>-0.00010</b>	2.50740	<b>-0.00010</b>
sg13g2_a21o_1	(A1 * B1)	0.01860	<b>0.00022</b>	0.32940	<b>0.00023</b>	2.50740	<b>0.00022</b>
	(!A1 * B1)	0.01860	<b>-0.00004</b>	0.32940	<b>-0.00004</b>	2.50740	<b>-0.00004</b>

Passive power(pJ) for B1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	0.01860	<b>0.00075</b>	0.32940	<b>0.00076</b>	2.50740	<b>0.00076</b>
sg13g2_a21o_1	0.01860	<b>0.00067</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00068</b>

Passive power(pJ) for B1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	0.01860	<b>0.00047</b>	0.32940	<b>0.00048</b>	2.50740	<b>0.00048</b>
sg13g2_a21o_1	0.01860	<b>0.00056</b>	0.32940	<b>0.00058</b>	2.50740	<b>0.00059</b>

Passive power(pJ) for B1 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	(A1 * A2)	0.01860	<b>0.00075</b>	0.32940	<b>0.00076</b>	2.50740	<b>0.00076</b>
sg13g2_a21o_1	(A1 * A2)	0.01860	<b>0.00067</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00068</b>

Passive power(pJ) for B1 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21o_2	(A1 * A2)	0.01860	<b>0.00047</b>	0.32940	<b>0.00048</b>	2.50740	<b>0.00048</b>
sg13g2_a21o_1	(A1 * A2)	0.01860	<b>0.00056</b>	0.32940	<b>0.00058</b>	2.50740	<b>0.00059</b>

# BTLx



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_ebufn_8	45.36000
sg13g2_ebufn_4	25.40160
sg13g2_ebufn_2	18.14400

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_ebufn_8	0.00579	0.01756	2.40000
sg13g2_ebufn_4	0.00297	0.01049	1.20000
sg13g2_ebufn_2	0.00262	0.00640	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_ebufn_8	278.55600	689.92700	1153.55000
sg13g2_ebufn_4	180.43500	376.40900	598.54700
sg13g2_ebufn_2	138.43700	236.41300	331.23500

## Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_ebufn_8	A->Z (RR)	0.01860	0.01865	<b>0.07218</b>	0.32940	0.53605	<b>0.57463</b>	2.50740	2.41765	<b>2.21562</b>
	TE_B->Z (RR)	0.01860	0.01865	<b>0.06586</b>	0.32940	0.53605	<b>0.17108</b>	2.50740	2.41765	<b>0.39631</b>
	TE_B->Z (FR)	0.01860	0.01865	<b>0.03554</b>	0.32940	0.53605	<b>0.53077</b>	2.50740	2.41765	<b>2.68982</b>
sg13g2_ebufn_4	A->Z (RR)	0.01860	0.00989	<b>0.07427</b>	0.32940	0.26809	<b>0.57565</b>	2.50740	1.20889	<b>2.21696</b>
	TE_B->Z (RR)	0.01860	0.00989	<b>0.05316</b>	0.32940	0.26809	<b>0.13161</b>	2.50740	1.20889	<b>0.28452</b>
	TE_B->Z (FR)	0.01860	0.00989	<b>0.03550</b>	0.32940	0.26809	<b>0.52911</b>	2.50740	1.20889	<b>2.68529</b>
sg13g2_ebufn_2	A->Z (RR)	0.01860	0.00551	<b>0.06307</b>	0.32940	0.13411	<b>0.53832</b>	2.50740	0.60451	<b>2.11571</b>
	TE_B->Z (RR)	0.01860	0.00551	<b>0.04664</b>	0.32940	0.13411	<b>0.11110</b>	2.50740	0.60451	<b>0.24070</b>
	TE_B->Z (FR)	0.01860	0.00551	<b>0.03548</b>	0.32940	0.13411	<b>0.52500</b>	2.50740	0.60451	<b>2.67189</b>

Delay(ns) to Z falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_ebufn_8	A->Z (FF)	0.01860	0.02957	<b>0.08338</b>	0.32940	0.54697	<b>0.48461</b>	2.50740	2.42857	<b>1.71852</b>
	TE_B->Z (RF)	0.01860	0.02957	<b>0.02985</b>	0.32940	0.54697	<b>0.03532</b>	2.50740	2.42857	<b>0.10158</b>
	TE_B->Z (FF)	0.01860	0.02957	<b>0.09986</b>	0.32940	0.54697	<b>0.68690</b>	2.50740	2.42857	<b>2.60607</b>
sg13g2_ebufn_4	A->Z (FF)	0.01860	0.01551	<b>0.08583</b>	0.32940	0.27371	<b>0.48720</b>	2.50740	1.21451	<b>1.72356</b>
	TE_B->Z (RF)	0.01860	0.01551	<b>0.02864</b>	0.32940	0.27371	<b>0.03372</b>	2.50740	1.21451	<b>0.09933</b>
	TE_B->Z (FF)	0.01860	0.01551	<b>0.07629</b>	0.32940	0.27371	<b>0.63145</b>	2.50740	1.21451	<b>2.45783</b>
sg13g2_ebufn_2	A->Z (FF)	0.01860	0.00842	<b>0.06622</b>	0.32940	0.13702	<b>0.43966</b>	2.50740	0.60742	<b>1.60221</b>
	TE_B->Z (RF)	0.01860	0.00842	<b>0.02754</b>	0.32940	0.13702	<b>0.03256</b>	2.50740	0.60742	<b>0.09696</b>
	TE_B->Z (FF)	0.01860	0.00842	<b>0.06488</b>	0.32940	0.13702	<b>0.59345</b>	2.50740	0.60742	<b>2.36717</b>

## Power Information

Internal switching power(pJ) to Z rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_ebufn_8	A	0.01860	0.01865	<b>0.03550</b>	0.32940	0.53605	<b>0.04116</b>	2.50740	2.41765	<b>0.04012</b>
	TE_B	0.01860	0.01865	<b>0.00613</b>	0.32940	0.53605	<b>0.00445</b>	2.50740	2.41765	<b>0.00220</b>
sg13g2_ebufn_4	A	0.01860	0.00989	<b>0.01780</b>	0.32940	0.26809	<b>0.02023</b>	2.50740	1.20889	<b>0.01864</b>
	TE_B	0.01860	0.00989	<b>0.00295</b>	0.32940	0.26809	<b>0.00224</b>	2.50740	1.20889	<b>0.00126</b>
sg13g2_ebufn_2	A	0.01860	0.00551	<b>0.00929</b>	0.32940	0.13411	<b>0.01020</b>	2.50740	0.60451	<b>0.00882</b>
	TE_B	0.01860	0.00551	<b>0.00153</b>	0.32940	0.13411	<b>0.00118</b>	2.50740	0.60451	<b>0.00069</b>

Internal switching power(pJ) to Z falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_ebufn_8	A	0.01860	0.02957	<b>0.03181</b>	0.32940	0.54697	<b>0.03609</b>	2.50740	2.42857	<b>0.03246</b>
	TE_B	0.01860	0.02957	<b>0.00721</b>	0.32940	0.54697	<b>0.12280</b>	2.50740	2.42857	<b>0.55090</b>
sg13g2_ebufn_4	A	0.01860	0.01551	<b>0.01594</b>	0.32940	0.27371	<b>0.01795</b>	2.50740	1.21451	<b>0.01602</b>
	TE_B	0.01860	0.01551	<b>0.00376</b>	0.32940	0.27371	<b>0.06237</b>	2.50740	1.21451	<b>0.27776</b>
sg13g2_ebufn_2	A	0.01860	0.00842	<b>0.00810</b>	0.32940	0.13702	<b>0.00909</b>	2.50740	0.60742	<b>0.00762</b>
	TE_B	0.01860	0.00842	<b>0.00205</b>	0.32940	0.13702	<b>0.03150</b>	2.50740	0.60742	<b>0.13959</b>

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_ebufn_8	0.01860	<b>0.01126</b>	0.32940	<b>0.01151</b>	2.50740	<b>0.02693</b>
sg13g2_ebufn_4	0.01860	<b>0.00602</b>	0.32940	<b>0.00612</b>	2.50740	<b>0.01373</b>
sg13g2_ebufn_2	0.01860	<b>0.00365</b>	0.32940	<b>0.00383</b>	2.50740	<b>0.01074</b>

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_ebufn_8	0.01860	<b>0.00901</b>	0.32940	<b>0.00966</b>	2.50740	<b>0.02560</b>
sg13g2_ebufn_4	0.01860	<b>0.00486</b>	0.32940	<b>0.00516</b>	2.50740	<b>0.01303</b>
sg13g2_ebufn_2	0.01860	<b>0.00310</b>	0.32940	<b>0.00347</b>	2.50740	<b>0.01061</b>

Passive power(pJ) for TE\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_ebufn_8	0.01860	<b>-0.00304</b>	0.32940	<b>-0.00423</b>	2.50740	<b>0.00179</b>
sg13g2_ebufn_4	0.01860	<b>-0.00042</b>	0.32940	<b>-0.00104</b>	2.50740	<b>0.00607</b>
sg13g2_ebufn_2	0.01860	<b>0.00043</b>	0.32940	<b>0.00020</b>	2.50740	<b>0.00687</b>

Passive power(pJ) for TE\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_ebufn_8	0.01860	<b>0.05142</b>	0.32940	<b>0.05168</b>	2.50740	<b>0.05869</b>
sg13g2_ebufn_4	0.01860	<b>0.02668</b>	0.32940	<b>0.02696</b>	2.50740	<b>0.03466</b>
sg13g2_ebufn_2	0.01860	<b>0.01405</b>	0.32940	<b>0.01442</b>	2.50740	<b>0.02145</b>

# BU<sub>x</sub>



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

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

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

## Pin Capacitance Information



Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	X
sg13g2_buf_16	0.01713	4.80000
sg13g2_buf_8	0.00860	2.40000
sg13g2_buf_4	0.00373	1.20000
sg13g2_buf_2	0.00262	0.60000
sg13g2_buf_1	0.00233	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_buf_16	1191.00000	1385.37000	1579.74000
sg13g2_buf_8	595.51200	692.68800	789.86400
sg13g2_buf_4	291.93100	337.35700	382.78200
sg13g2_buf_2	160.48500	181.52500	202.56400
sg13g2_buf_1	106.67400	110.33900	114.00400

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_buf_16	A->X (RR)	0.01860	0.00100	<b>0.05627</b>	0.32940	1.03680	<b>0.35029</b>	2.50740	4.80000	<b>1.25369</b>
sg13g2_buf_8	A->X (RR)	0.01860	0.00100	<b>0.05582</b>	0.32940	0.51840	<b>0.34876</b>	2.50740	2.40000	<b>1.25059</b>
sg13g2_buf_4	A->X (RR)	0.01860	0.00100	<b>0.07070</b>	0.32940	0.25920	<b>0.38462</b>	2.50740	1.20000	<b>1.36766</b>
sg13g2_buf_2	A->X (RR)	0.01860	0.00100	<b>0.05593</b>	0.32940	0.12960	<b>0.34409</b>	2.50740	0.60000	<b>1.24137</b>
sg13g2_buf_1	A->X (RR)	0.01860	0.00100	<b>0.04989</b>	0.32940	0.06480	<b>0.31899</b>	2.50740	0.30000	<b>1.17569</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_buf_16	A->X (FF)	0.01860	0.00100	<b>0.06358</b>	0.32940	1.03680	<b>0.32975</b>	2.50740	4.80000	<b>1.08001</b>
sg13g2_buf_8	A->X (FF)	0.01860	0.00100	<b>0.06291</b>	0.32940	0.51840	<b>0.32898</b>	2.50740	2.40000	<b>1.08048</b>
sg13g2_buf_4	A->X (FF)	0.01860	0.00100	<b>0.06229</b>	0.32940	0.25920	<b>0.32564</b>	2.50740	1.20000	<b>1.04531</b>
sg13g2_buf_2	A->X (FF)	0.01860	0.00100	<b>0.06093</b>	0.32940	0.12960	<b>0.31773</b>	2.50740	0.60000	<b>1.04694</b>
sg13g2_buf_1	A->X (FF)	0.01860	0.00100	<b>0.05307</b>	0.32940	0.06480	<b>0.28828</b>	2.50740	0.30000	<b>0.98040</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_buf_16	A	0.01860	0.00100	<b>0.07485</b>	0.32940	1.03680	<b>0.07821</b>	2.50740	4.80000	<b>0.12328</b>
sg13g2_buf_8	A	0.01860	0.00100	<b>0.03692</b>	0.32940	0.51840	<b>0.03842</b>	2.50740	2.40000	<b>0.06078</b>
sg13g2_buf_4	A	0.01860	0.00100	<b>0.01792</b>	0.32940	0.25920	<b>0.01842</b>	2.50740	1.20000	<b>0.02710</b>
sg13g2_buf_2	A	0.01860	0.00100	<b>0.00969</b>	0.32940	0.12960	<b>0.00996</b>	2.50740	0.60000	<b>0.01622</b>
sg13g2_buf_1	A	0.01860	0.00100	<b>0.00574</b>	0.32940	0.06480	<b>0.00590</b>	2.50740	0.30000	<b>0.01126</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_buf_16	A	0.01860	0.00100	<b>0.07182</b>	0.32940	1.03680	<b>0.07883</b>	2.50740	4.80000	<b>0.11826</b>
sg13g2_buf_8	A	0.01860	0.00100	<b>0.03543</b>	0.32940	0.51840	<b>0.03909</b>	2.50740	2.40000	<b>0.05790</b>
sg13g2_buf_4	A	0.01860	0.00100	<b>0.01785</b>	0.32940	0.25920	<b>0.01962</b>	2.50740	1.20000	<b>0.02672</b>
sg13g2_buf_2	A	0.01860	0.00100	<b>0.00943</b>	0.32940	0.12960	<b>0.01036</b>	2.50740	0.60000	<b>0.01604</b>
sg13g2_buf_1	A	0.01860	0.00100	<b>0.00566</b>	0.32940	0.06480	<b>0.00614</b>	2.50740	0.30000	<b>0.01127</b>

# DECAP<sub>x</sub>



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

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## Footprint

Cell Name	Area
sg13g2_decap_4	7.25760
sg13g2_decap_8	12.70080

## Pin Capacitance Information Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_decap_4	395.58100	395.58100	395.58100
sg13g2_decap_8	791.19800	791.19800	791.19800

# DFFRRx



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

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dfrbp_2	54.43200
sg13g2_dfrbp_1	47.17440

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	D	RESET_B	CLK	Q	Q_N
sg13g2_dfrbp_2	0.00164	0.00598	0.00298	0.60000	0.60000
sg13g2_dfrbp_1	0.00176	0.00646	0.00274	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbp_2	606.90900	685.71300	774.31900
sg13g2_dfrbp_1	459.13100	538.54200	621.78800

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dfrbp_2	CLK->Q (RR)	0.01860	0.00100	<b>0.24487</b>	0.32940	0.12960	<b>0.51516</b>	2.50740	0.60000	<b>1.41136</b>
sg13g2_dfrbp_1	CLK->Q (RR)	0.01860	0.00100	<b>0.19676</b>	0.32940	0.06480	<b>0.47329</b>	2.50740	0.30000	<b>1.35082</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dfrbp_2	CLK->Q (RF)	0.01860	0.00100	<b>0.21083</b>	0.32940	0.12960	<b>0.45536</b>	2.50740	0.60000	<b>1.18511</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.28213</b>	0.32940	0.12960	<b>0.56314</b>	2.50740	0.60000	<b>1.45623</b>
sg13g2_dfrbp_1	CLK->Q (RF)	0.01860	0.00100	<b>0.18723</b>	0.32940	0.06480	<b>0.43251</b>	2.50740	0.30000	<b>1.15400</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.24852</b>	0.32940	0.06480	<b>0.52669</b>	2.50740	0.30000	<b>1.40264</b>

Delay(ns) to Q\_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dfrbp_2	CLK->Q_N (RR)	0.01860	0.00100	<b>0.14074</b>	0.32940	0.12960	<b>0.45232</b>	2.50740	0.60000	<b>1.31307</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.21344</b>	0.32940	0.12960	<b>0.55854</b>	2.50740	0.60000	<b>1.58260</b>
sg13g2_dfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	<b>0.14349</b>	0.32940	0.06480	<b>0.44566</b>	2.50740	0.30000	<b>1.29972</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.20513</b>	0.32940	0.06480	<b>0.53784</b>	2.50740	0.30000	<b>1.54673</b>

Delay(ns) to Q\_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dfrbp_2	CLK->Q_N (RF)	0.01860	0.00100	<b>0.15954</b>	0.32940	0.12960	<b>0.46981</b>	2.50740	0.60000	<b>1.23658</b>
sg13g2_dfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	<b>0.14797</b>	0.32940	0.06480	<b>0.43686</b>	2.50740	0.30000	<b>1.19016</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.05868</b>	1.26300	1.26300	<b>-0.20238</b>	2.50740	2.50740	<b>-0.25678</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11492</b>	1.26300	1.26300	<b>0.25634</b>	2.50740	2.50740	<b>0.31286</b>
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.05868</b>	1.26300	1.26300	<b>-0.20508</b>	2.50740	2.50740	<b>-0.26859</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.25365</b>	2.50740	2.50740	<b>0.31582</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.03423</b>	1.26300	1.26300	<b>-0.15920</b>	2.50740	2.50740	<b>-0.23317</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11981</b>	1.26300	1.26300	<b>0.24825</b>	2.50740	2.50740	<b>0.33648</b>
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.03179</b>	1.26300	1.26300	<b>-0.15920</b>	2.50740	2.50740	<b>-0.23612</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11248</b>	1.26300	1.26300	<b>0.24285</b>	2.50740	2.50740	<b>0.33057</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dfrbp_2	recovery	CLK (R)	0.01860	0.01860	<b>0.12226</b>	1.26300	1.26300	<b>0.27523</b>	2.50740	2.50740	<b>0.37484</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.10514</b>	1.26300	1.26300	<b>-0.26174</b>	2.50740	2.50740	<b>-0.36304</b>
sg13g2_dfrbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.11492</b>	1.26300	1.26300	<b>0.27254</b>	2.50740	2.50740	<b>0.38075</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.09781</b>	1.26300	1.26300	<b>-0.25904</b>	2.50740	2.50740	<b>-0.36304</b>

Min Pulse Width (ns) for RESET\_B:

Cell Name	High	Low
sg13g2_dfrbp_2	-	3.3435
sg13g2_dfrbp_1	-	3.3435

Min Pulse Width (ns) for CLK:

Cell Name	High	Low
sg13g2_dfrbp_2	3.3435	3.3435
sg13g2_dfrbp_1	3.3435	3.3435



## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.03769</b>	0.32940	0.12960	<b>0.13140</b>	2.50740	0.60000	<b>0.47830</b>
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03049</b>	0.32940	0.06480	<b>0.07692</b>	2.50740	0.30000	<b>0.25373</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.03812</b>	0.32940	0.12960	<b>0.13201</b>	2.50740	0.60000	<b>0.47917</b>
	RESET_B	0.01860	0.00100	<b>0.02854</b>	0.32940	0.12960	<b>0.12232</b>	2.50740	0.60000	<b>0.46511</b>
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.02984</b>	0.32940	0.06480	<b>0.07647</b>	2.50740	0.30000	<b>0.25349</b>
	RESET_B	0.01860	0.00100	<b>0.02008</b>	0.32940	0.06480	<b>0.06666</b>	2.50740	0.30000	<b>0.23997</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.03816</b>	0.32940	0.12960	<b>0.13254</b>	2.50740	0.60000	<b>0.47996</b>
	RESET_B	0.01860	0.00100	<b>0.02859</b>	0.32940	0.12960	<b>0.12295</b>	2.50740	0.60000	<b>0.46516</b>
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.02987</b>	0.32940	0.06480	<b>0.07672</b>	2.50740	0.30000	<b>0.25393</b>
	RESET_B	0.01860	0.00100	<b>0.02009</b>	0.32940	0.06480	<b>0.06700</b>	2.50740	0.30000	<b>0.23994</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.03769</b>	0.32940	0.12960	<b>0.13076</b>	2.50740	0.60000	<b>0.47731</b>
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03051</b>	0.32940	0.06480	<b>0.07665</b>	2.50740	0.30000	<b>0.25345</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	0.01860	<b>0.00165</b>	0.32940	<b>0.00172</b>	2.50740	<b>0.00477</b>
sg13g2_dfrbp_1	0.01860	<b>0.00184</b>	0.32940	<b>0.00190</b>	2.50740	<b>0.00490</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	0.01860	<b>0.00129</b>	0.32940	<b>0.00138</b>	2.50740	<b>0.00454</b>
sg13g2_dfrbp_1	0.01860	<b>0.00144</b>	0.32940	<b>0.00151</b>	2.50740	<b>0.00464</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	CLK	0.01860	<b>0.00165</b>	0.32940	<b>0.00172</b>	2.50740	<b>0.00477</b>
	(!CLK * RESET_B)	0.01860	<b>0.01190</b>	0.32940	<b>0.01196</b>	2.50740	<b>0.01495</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00001</b>	0.32940	<b>-0.00001</b>	2.50740	<b>-0.00001</b>
sg13g2_dfrbp_1	CLK	0.01860	<b>0.00184</b>	0.32940	<b>0.00190</b>	2.50740	<b>0.00490</b>
	(!CLK * RESET_B)	0.01860	<b>0.01027</b>	0.32940	<b>0.01031</b>	2.50740	<b>0.01336</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00011</b>	0.32940	<b>0.00011</b>	2.50740	<b>0.00011</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	CLK	0.01860	<b>0.00129</b>	0.32940	<b>0.00138</b>	2.50740	<b>0.00454</b>
	(!CLK * RESET_B)	0.01860	<b>0.00917</b>	0.32940	<b>0.00918</b>	2.50740	<b>0.01250</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00019</b>	0.32940	<b>0.00020</b>	2.50740	<b>0.00020</b>
sg13g2_dfrbp_1	CLK	0.01860	<b>0.00144</b>	0.32940	<b>0.00151</b>	2.50740	<b>0.00464</b>
	(!CLK * RESET_B)	0.01860	<b>0.00853</b>	0.32940	<b>0.00856</b>	2.50740	<b>0.01187</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00010</b>	0.32940	<b>0.00011</b>	2.50740	<b>0.00011</b>

Passive power(pJ) for RESET\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	0.01860	<b>0.00438</b>	0.32940	<b>0.00429</b>	2.50740	<b>0.00663</b>
sg13g2_dfrbp_1	0.01860	<b>0.00473</b>	0.32940	<b>0.00464</b>	2.50740	<b>0.00692</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	0.01860	<b>0.00887</b>	0.32940	<b>0.00838</b>	2.50740	<b>0.01235</b>
sg13g2_dfrbp_1	0.01860	<b>0.00793</b>	0.32940	<b>0.00740</b>	2.50740	<b>0.01145</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	<b>0.00438</b>	0.32940	<b>0.00429</b>	2.50740	<b>0.00663</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>0.00180</b>	0.32940	<b>0.00181</b>	2.50740	<b>0.00181</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01479</b>	0.32940	<b>0.01460</b>	2.50740	<b>0.01783</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>0.00188</b>	0.32940	<b>0.00187</b>	2.50740	<b>0.00188</b>
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	<b>0.00473</b>	0.32940	<b>0.00464</b>	2.50740	<b>0.00692</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>0.00216</b>	0.32940	<b>0.00217</b>	2.50740	<b>0.00217</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01341</b>	0.32940	<b>0.01320</b>	2.50740	<b>0.01645</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>0.00224</b>	0.32940	<b>0.00223</b>	2.50740	<b>0.00223</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	<b>0.03694</b>	0.32940	<b>0.03647</b>	2.50740	<b>0.04471</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>-0.00132</b>	0.32940	<b>-0.00150</b>	2.50740	<b>-0.00157</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.00887</b>	0.32940	<b>0.00838</b>	2.50740	<b>0.01235</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>-0.00147</b>	0.32940	<b>-0.00158</b>	2.50740	<b>-0.00162</b>
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	<b>0.02731</b>	0.32940	<b>0.02685</b>	2.50740	<b>0.03494</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>-0.00166</b>	0.32940	<b>-0.00184</b>	2.50740	<b>-0.00191</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.00793</b>	0.32940	<b>0.00740</b>	2.50740	<b>0.01145</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>-0.00174</b>	0.32940	<b>-0.00189</b>	2.50740	<b>-0.00194</b>

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	0.01860	<b>0.01137</b>	0.32940	<b>0.01126</b>	2.50740	<b>0.01918</b>
sg13g2_dfrbp_1	0.01860	<b>0.01134</b>	0.32940	<b>0.01119</b>	2.50740	<b>0.01848</b>

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	0.01860	<b>0.02085</b>	0.32940	<b>0.02092</b>	2.50740	<b>0.02907</b>
sg13g2_dfrbp_1	0.01860	<b>0.01937</b>	0.32940	<b>0.01933</b>	2.50740	<b>0.02693</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.01137</b>	0.32940	<b>0.01126</b>	2.50740	<b>0.01918</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01191</b>	0.32940	<b>0.01184</b>	2.50740	<b>0.01972</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01123</b>	0.32940	<b>0.01112</b>	2.50740	<b>0.01905</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01195</b>	0.32940	<b>0.01185</b>	2.50740	<b>0.01973</b>
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.01162</b>	0.32940	<b>0.01151</b>	2.50740	<b>0.01879</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01132</b>	0.32940	<b>0.01119</b>	2.50740	<b>0.01848</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01115</b>	0.32940	<b>0.01105</b>	2.50740	<b>0.01833</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01134</b>	0.32940	<b>0.01119</b>	2.50740	<b>0.01848</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.02099</b>	0.32940	<b>0.02108</b>	2.50740	<b>0.02927</b>
	(D * RESET_B * !Q * Q_N)	0.01860	<b>0.02085</b>	0.32940	<b>0.02092</b>	2.50740	<b>0.02907</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01084</b>	0.32940	<b>0.01095</b>	2.50740	<b>0.01900</b>
	(!D * RESET_B * Q * !Q_N)	0.01860	<b>0.04918</b>	0.32940	<b>0.04640</b>	2.50740	<b>0.05450</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01085</b>	0.32940	<b>0.01095</b>	2.50740	<b>0.01904</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01083</b>	0.32940	<b>0.01094</b>	2.50740	<b>0.01898</b>
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.01953</b>	0.32940	<b>0.01950</b>	2.50740	<b>0.02708</b>
	(D * RESET_B * !Q * Q_N)	0.01860	<b>0.01937</b>	0.32940	<b>0.01933</b>	2.50740	<b>0.02693</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01114</b>	0.32940	<b>0.01121</b>	2.50740	<b>0.01866</b>
	(!D * RESET_B * Q * !Q_N)	0.01860	<b>0.04446</b>	0.32940	<b>0.03840</b>	2.50740	<b>0.04585</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01114</b>	0.32940	<b>0.01119</b>	2.50740	<b>0.01865</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01112</b>	0.32940	<b>0.01119</b>	2.50740	<b>0.01864</b>

# DLHQ



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dlhq_1	30.84480

## Pin Capacitance Information

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

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhq_1	339.71400	365.93300	417.21200



## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhq_1	D->Q (RR)	0.01860	0.00100	<b>0.17646</b>	0.32940	0.06480	<b>0.44411</b>	2.50740	0.30000	<b>1.28238</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.15045</b>	0.32940	0.06480	<b>0.41993</b>	2.50740	0.30000	<b>1.24481</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhq_1	D->Q (FF)	0.01860	0.00100	<b>0.15611</b>	0.32940	0.06480	<b>0.38837</b>	2.50740	0.30000	<b>1.05857</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.16038</b>	0.32940	0.06480	<b>0.39576</b>	2.50740	0.30000	<b>1.06340</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dlhq_1	hold	GATE (F)	0.01860	0.01860	<b>-0.09292</b>	1.26300	1.26300	<b>-0.22127</b>	2.50740	2.50740	<b>-0.27154</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.10270</b>	1.26300	1.26300	<b>0.25365</b>	2.50740	2.50740	<b>0.32762</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dlhq_1	hold	GATE (F)	0.01860	0.01860	<b>-0.03668</b>	1.26300	1.26300	<b>-0.00810</b>	2.50740	2.50740	<b>0.01771</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.04646</b>	1.26300	1.26300	<b>0.01619</b>	2.50740	2.50740	<b>-0.00885</b>

Min Pulse Width (ns) for GATE:

Cell Name	High	Low
sg13g2_dlhq_1	3.3435	-

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhq_1	D	0.01860	0.00100	<b>0.01449</b>	0.32940	0.06480	<b>0.01477</b>	2.50740	0.30000	<b>0.01459</b>
	GATE	0.01860	0.00100	<b>0.01233</b>	0.32940	0.06480	<b>0.01249</b>	2.50740	0.30000	<b>0.01280</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhq_1	D	0.01860	0.00100	<b>0.01511</b>	0.32940	0.06480	<b>0.01547</b>	2.50740	0.30000	<b>0.01546</b>
	GATE	0.01860	0.00100	<b>0.01346</b>	0.32940	0.06480	<b>0.01411</b>	2.50740	0.30000	<b>0.01424</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhq_1	0.01860	<b>0.00368</b>	0.32940	<b>0.00376</b>	2.50740	<b>0.00931</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhq_1	0.01860	<b>0.00388</b>	0.32940	<b>0.00402</b>	2.50740	<b>0.00972</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhq_1	(!GATE * Q)	0.01860	<b>0.00377</b>	0.32940	<b>0.00380</b>	2.50740	<b>0.00933</b>
	(!GATE * !Q)	0.01860	<b>0.00368</b>	0.32940	<b>0.00376</b>	2.50740	<b>0.00931</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhq_1	(!GATE * Q)	0.01860	<b>0.00367</b>	0.32940	<b>0.00389</b>	2.50740	<b>0.00963</b>
	(!GATE * !Q)	0.01860	<b>0.00388</b>	0.32940	<b>0.00402</b>	2.50740	<b>0.00972</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhq_1	0.01860	<b>0.00832</b>	0.32940	<b>0.00831</b>	2.50740	<b>0.01523</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhq_1	0.01860	<b>0.01494</b>	0.32940	<b>0.01541</b>	2.50740	<b>0.02257</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhq_1	(!D * !Q)	0.01860	<b>0.00832</b>	0.32940	<b>0.00831</b>	2.50740	<b>0.01523</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhq_1	(!D * !Q)	0.01860	<b>0.01494</b>	0.32940	<b>0.01541</b>	2.50740	<b>0.02257</b>

# DLHRQ



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dlhrq_1	27.21600

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	D	RESET_B	GATE	Q
sg13g2_dlhrq_1	0.00213	0.00295	0.00220	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhrq_1	350.18600	400.51700	438.97100

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhrq_1	D->Q (RR)	0.01860	0.00100	<b>0.18708</b>	0.32940	0.06480	<b>0.45955</b>	2.50740	0.30000	<b>1.29443</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.16837</b>	0.32940	0.06480	<b>0.44432</b>	2.50740	0.30000	<b>1.27011</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhrq_1	D->Q (FF)	0.01860	0.00100	<b>0.16489</b>	0.32940	0.06480	<b>0.39973</b>	2.50740	0.30000	<b>1.07646</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.17135</b>	0.32940	0.06480	<b>0.41183</b>	2.50740	0.30000	<b>1.09171</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.06539</b>	0.32940	0.06480	<b>0.32082</b>	2.50740	0.30000	<b>1.06538</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dlhrq_1	hold	GATE (F)	0.01860	0.01860	<b>-0.08558</b>	1.26300	1.26300	<b>-0.19968</b>	2.50740	2.50740	<b>-0.24498</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.09781</b>	1.26300	1.26300	<b>0.23746</b>	2.50740	2.50740	<b>0.30106</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dlhrq_1	hold	GATE (F)	0.01860	0.01860	<b>-0.04157</b>	1.26300	1.26300	<b>-0.00810</b>	2.50740	2.50740	<b>0.02066</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.05135</b>	1.26300	1.26300	<b>0.01619</b>	2.50740	2.50740	<b>-0.01181</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dlhrq_1	recovery	GATE (F)	0.01860	0.01860	<b>-0.01467</b>	1.26300	1.26300	<b>-0.10524</b>	2.50740	2.50740	<b>-0.14463</b>
	removal	GATE (F)	0.01860	0.01860	<b>0.02934</b>	1.26300	1.26300	<b>0.12412</b>	2.50740	2.50740	<b>0.16234</b>

Min Pulse Width (ns) for RESET\_B:

Cell Name	High	Low
sg13g2_dlhrq_1	-	3.3435

Min Pulse Width (ns) for GATE:

Cell Name	High	Low
sg13g2_dlhrq_1	3.3435	-



## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhrq_1	D	0.01860	0.00100	<b>0.00062</b>	0.32940	0.06480	<b>0.00093</b>	2.50740	0.30000	<b>0.00099</b>
	GATE	0.01860	0.00100	<b>0.01258</b>	0.32940	0.06480	<b>0.01270</b>	2.50740	0.30000	<b>0.01295</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhrq_1	D	0.01860	0.00100	<b>-0.00062</b>	0.32940	0.06480	<b>-0.00093</b>	2.50740	0.30000	<b>-0.00099</b>
	GATE	0.01860	0.00100	<b>0.01251</b>	0.32940	0.06480	<b>0.01316</b>	2.50740	0.30000	<b>0.01330</b>
	RESET_B	0.01860	0.00100	<b>0.00752</b>	0.32940	0.06480	<b>0.00807</b>	2.50740	0.30000	<b>0.01472</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	0.01860	<b>0.01765</b>	0.32940	<b>0.01767</b>	2.50740	<b>0.02313</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	0.01860	<b>0.02178</b>	0.32940	<b>0.02471</b>	2.50740	<b>0.03050</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	(!GATE * RESET_B * Q)	0.01860	<b>0.00350</b>	0.32940	<b>0.00356</b>	2.50740	<b>0.00910</b>
	!RESET_B	0.01860	<b>0.01765</b>	0.32940	<b>0.01767</b>	2.50740	<b>0.02313</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	(!GATE * RESET_B * Q)	0.01860	<b>0.00387</b>	0.32940	<b>0.00409</b>	2.50740	<b>0.00983</b>
	!RESET_B	0.01860	<b>0.02178</b>	0.32940	<b>0.02471</b>	2.50740	<b>0.03050</b>

Passive power(pJ) for RESET\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	0.01860	<b>-0.00001</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)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	0.01860	<b>0.00006</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)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	(D * !GATE * !Q)	0.01860	<b>0.00011</b>	0.32940	<b>0.00011</b>	2.50740	<b>0.00011</b>
	(!D * !GATE * !Q)	0.01860	<b>-0.00001</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)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	(D * !GATE * !Q)	0.01860	<b>0.00018</b>	0.32940	<b>0.00007</b>	2.50740	<b>0.00003</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00006</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	0.01860	<b>0.00866</b>	0.32940	<b>0.00864</b>	2.50740	<b>0.01549</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	0.01860	<b>0.01509</b>	0.32940	<b>0.01557</b>	2.50740	<b>0.02265</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	(D * !RESET_B * !Q)	0.01860	<b>0.01173</b>	0.32940	<b>0.01151</b>	2.50740	<b>0.01874</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00866</b>	0.32940	<b>0.00864</b>	2.50740	<b>0.01549</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	(D * !RESET_B * !Q)	0.01860	<b>0.01211</b>	0.32940	<b>0.01213</b>	2.50740	<b>0.01969</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01509</b>	0.32940	<b>0.01557</b>	2.50740	<b>0.02265</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01514</b>	0.32940	<b>0.01559</b>	2.50740	<b>0.02273</b>

# DLHR



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dlhr_1	32.65920

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	D	RESET_B	GATE	Q	Q_N
sg13g2_dlhr_1	0.00208	0.00311	0.00225	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhr_1	461.80400	512.46300	562.27400

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhr_1	D->Q (RR)	0.01860	0.00100	<b>0.20220</b>	0.32940	0.06480	<b>0.48175</b>	2.50740	0.30000	<b>1.31644</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.18428</b>	0.32940	0.06480	<b>0.46798</b>	2.50740	0.30000	<b>1.29500</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhr_1	D->Q (FF)	0.01860	0.00100	<b>0.17104</b>	0.32940	0.06480	<b>0.40940</b>	2.50740	0.30000	<b>1.08008</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.17777</b>	0.32940	0.06480	<b>0.42233</b>	2.50740	0.30000	<b>1.09692</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.07131</b>	0.32940	0.06480	<b>0.33935</b>	2.50740	0.30000	<b>1.10899</b>

Delay(ns) to Q\_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhr_1	D->Q_N (FR)	0.01860	0.00100	<b>0.20934</b>	0.32940	0.06480	<b>0.46898</b>	2.50740	0.30000	<b>1.27200</b>
	GATE->Q_N (RR)	0.01860	0.00100	<b>0.21621</b>	0.32940	0.06480	<b>0.48194</b>	2.50740	0.30000	<b>1.28862</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.10936</b>	0.32940	0.06480	<b>0.39334</b>	2.50740	0.30000	<b>1.24815</b>

Delay(ns) to Q\_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhr_1	D->Q_N (RF)	0.01860	0.00100	<b>0.24618</b>	0.32940	0.06480	<b>0.47356</b>	2.50740	0.30000	<b>1.17567</b>
	GATE->Q_N (RF)	0.01860	0.00100	<b>0.22800</b>	0.32940	0.06480	<b>0.45986</b>	2.50740	0.30000	<b>1.15411</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dlhr_1	hold	GATE (F)	0.01860	0.01860	<b>-0.09292</b>	1.26300	1.26300	<b>-0.20508</b>	2.50740	2.50740	<b>-0.25088</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.24285</b>	2.50740	2.50740	<b>0.30991</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dlhr_1	hold	GATE (F)	0.01860	0.01860	<b>-0.04157</b>	1.26300	1.26300	<b>-0.00810</b>	2.50740	2.50740	<b>0.02066</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.05379</b>	1.26300	1.26300	<b>0.01619</b>	2.50740	2.50740	<b>-0.01181</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dlhr_1	recovery	GATE (F)	0.01860	0.01860	<b>-0.00489</b>	1.26300	1.26300	<b>-0.06206</b>	2.50740	2.50740	<b>-0.07969</b>
	removal	GATE (F)	0.01860	0.01860	<b>0.02201</b>	1.26300	1.26300	<b>0.08365</b>	2.50740	2.50740	<b>0.10330</b>

Min Pulse Width (ns) for RESET\_B:

Cell Name	High	Low
sg13g2_dlhr_1	-	3.3435

Min Pulse Width (ns) for GATE:

Cell Name	High	Low
sg13g2_dlhr_1	3.3435	-

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhr_1	D	0.01860	0.00100	<b>0.00436</b>	0.32940	0.06480	<b>0.00479</b>	2.50740	0.30000	<b>0.00478</b>
	GATE	0.01860	0.00100	<b>0.01023</b>	0.32940	0.06480	<b>0.01052</b>	2.50740	0.30000	<b>0.01063</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhr_1	D	0.01860	0.00100	<b>0.00200</b>	0.32940	0.06480	<b>0.00085</b>	2.50740	0.30000	<b>0.00077</b>
	GATE	0.01860	0.00100	<b>0.01023</b>	0.32940	0.06480	<b>0.01064</b>	2.50740	0.30000	<b>0.01062</b>
	RESET_B	0.01860	0.00100	<b>0.00760</b>	0.32940	0.06480	<b>0.00789</b>	2.50740	0.30000	<b>0.01149</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhr_1	D	0.01860	0.00100	<b>0.00202</b>	0.32940	0.06480	<b>0.00105</b>	2.50740	0.30000	<b>0.00095</b>
	GATE	0.01860	0.00100	<b>0.01441</b>	0.32940	0.06480	<b>0.01499</b>	2.50740	0.30000	<b>0.01851</b>
	RESET_B	0.01860	0.00100	<b>0.00759</b>	0.32940	0.06480	<b>0.00803</b>	2.50740	0.30000	<b>0.01163</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlhr_1	D	0.01860	0.00100	<b>0.00435</b>	0.32940	0.06480	<b>0.00465</b>	2.50740	0.30000	<b>0.00451</b>
	GATE	0.01860	0.00100	<b>0.01023</b>	0.32940	0.06480	<b>0.01039</b>	2.50740	0.30000	<b>0.01048</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	0.01860	<b>0.01726</b>	0.32940	<b>0.01730</b>	2.50740	<b>0.02282</b>

Passive power(pJ) for D falling :



Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	0.01860	<b>0.02148</b>	0.32940	<b>0.02449</b>	2.50740	<b>0.03031</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	(!GATE * RESET_B * Q)	0.01860	<b>0.00355</b>	0.32940	<b>0.00363</b>	2.50740	<b>0.00921</b>
	!RESET_B	0.01860	<b>0.01726</b>	0.32940	<b>0.01730</b>	2.50740	<b>0.02282</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	(!GATE * RESET_B * Q)	0.01860	<b>0.00386</b>	0.32940	<b>0.00409</b>	2.50740	<b>0.00987</b>
	!RESET_B	0.01860	<b>0.02148</b>	0.32940	<b>0.02449</b>	2.50740	<b>0.03031</b>

Passive power(pJ) for RESET\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	0.01860	<b>-0.00013</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00001</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	0.01860	<b>0.00015</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00001</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	(D * !GATE * !Q)	0.01860	<b>-0.00001</b>	0.32940	<b>-0.00001</b>	2.50740	<b>-0.00002</b>
	(!D * !GATE * !Q)	0.01860	<b>-0.00013</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00001</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	(D * !GATE * !Q)	0.01860	<b>0.00027</b>	0.32940	<b>0.00017</b>	2.50740	<b>0.00013</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00015</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00001</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	0.01860	<b>0.00837</b>	0.32940	<b>0.00837</b>	2.50740	<b>0.01524</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	0.01860	<b>0.01492</b>	0.32940	<b>0.01534</b>	2.50740	<b>0.02261</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	(D * !RESET_B * !Q)	0.01860	<b>0.01141</b>	0.32940	<b>0.01119</b>	2.50740	<b>0.01846</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00837</b>	0.32940	<b>0.00837</b>	2.50740	<b>0.01524</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	(D * !RESET_B * !Q)	0.01860	<b>0.01243</b>	0.32940	<b>0.01242</b>	2.50740	<b>0.02000</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01492</b>	0.32940	<b>0.01534</b>	2.50740	<b>0.02261</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01496</b>	0.32940	<b>0.01537</b>	2.50740	<b>0.02259</b>

# DLLRQ



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

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dllrq_1	29.03040

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	D	RESET_B	GATE_N	Q
sg13g2_dllrq_1	0.00204	0.00296	0.00218	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllrq_1	345.21300	400.65800	446.38300

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllrq_1	D->Q (RR)	0.01860	0.00100	<b>0.18599</b>	0.32940	0.06480	<b>0.45770</b>	2.50740	0.30000	<b>1.29197</b>
	GATE_N->Q (FR)	0.01860	0.00100	<b>0.20857</b>	0.32940	0.06480	<b>0.49137</b>	2.50740	0.30000	<b>1.34122</b>
	RESET_B->Q (RR)	0.01860	0.00100	<b>0.08614</b>	0.32940	0.06480	<b>0.36107</b>	2.50740	0.30000	<b>1.24316</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllrq_1	D->Q (FF)	0.01860	0.00100	<b>0.16405</b>	0.32940	0.06480	<b>0.39700</b>	2.50740	0.30000	<b>1.06901</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.15741</b>	0.32940	0.06480	<b>0.40871</b>	2.50740	0.30000	<b>1.15430</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.06591</b>	0.32940	0.06480	<b>0.32017</b>	2.50740	0.30000	<b>1.06201</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dllrq_1	hold	GATE_N (R)	0.01860	0.01860	<b>-0.06847</b>	1.26300	1.26300	<b>-0.08365</b>	2.50740	2.50740	<b>-0.10626</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.08069</b>	1.26300	1.26300	<b>0.09444</b>	2.50740	2.50740	<b>0.11806</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dllrq_1	hold	GATE_N (R)	0.01860	0.01860	<b>-0.08314</b>	1.26300	1.26300	<b>-0.21857</b>	2.50740	2.50740	<b>-0.27449</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.09292</b>	1.26300	1.26300	<b>0.24825</b>	2.50740	2.50740	<b>0.32467</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dllrq_1	recovery	GATE_N (R)	0.01860	0.01860	<b>-0.03423</b>	1.26300	1.26300	<b>-0.09984</b>	2.50740	2.50740	<b>-0.10626</b>
	removal	GATE_N (R)	0.01860	0.01860	<b>0.04890</b>	1.26300	1.26300	<b>0.11333</b>	2.50740	2.50740	<b>0.11806</b>

Min Pulse Width (ns) for RESET\_B:

Cell Name	High	Low
sg13g2_dllrq_1	-	3.3435

Min Pulse Width (ns) for GATE\_N:

Cell Name	High	Low
sg13g2_dllrq_1	-	3.3435

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllrq_1	D	0.01860	0.00100	<b>0.00641</b>	0.32940	0.06480	<b>0.00683</b>	2.50740	0.30000	<b>0.00668</b>
	GATE_N	0.01860	0.00100	<b>0.00673</b>	0.32940	0.06480	<b>0.00688</b>	2.50740	0.30000	<b>0.00665</b>
	RESET_B	0.01860	0.00100	<b>0.00998</b>	0.32940	0.06480	<b>0.00992</b>	2.50740	0.30000	<b>0.01515</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllrq_1	D	0.01860	0.00100	<b>0.00350</b>	0.32940	0.06480	<b>0.00031</b>	2.50740	0.30000	<b>0.00013</b>
	GATE_N	0.01860	0.00100	<b>0.00548</b>	0.32940	0.06480	<b>0.00550</b>	2.50740	0.30000	<b>0.00568</b>
	RESET_B	0.01860	0.00100	<b>0.00759</b>	0.32940	0.06480	<b>0.00818</b>	2.50740	0.30000	<b>0.01489</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	0.01860	<b>0.01175</b>	0.32940	<b>0.01169</b>	2.50740	<b>0.01729</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	0.01860	<b>0.01432</b>	0.32940	<b>0.01802</b>	2.50740	<b>0.02387</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	(GATE_N * RESET_B * Q)	0.01860	<b>0.00336</b>	0.32940	<b>0.00342</b>	2.50740	<b>0.00898</b>
	!RESET_B	0.01860	<b>0.01175</b>	0.32940	<b>0.01169</b>	2.50740	<b>0.01729</b>

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



Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	(GATE_N * RESET_B * Q)	0.01860	<b>0.00388</b>	0.32940	<b>0.00411</b>	2.50740	<b>0.00986</b>
	!RESET_B	0.01860	<b>0.01432</b>	0.32940	<b>0.01802</b>	2.50740	<b>0.02387</b>

Passive power(pJ) for RESET\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	0.01860	<b>0.00002</b>	0.32940	<b>0.00002</b>	2.50740	<b>0.00002</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	0.01860	<b>0.00011</b>	0.32940	<b>0.00001</b>	2.50740	<b>-0.00002</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	(D * GATE_N * !Q)	0.01860	<b>0.00003</b>	0.32940	<b>0.00002</b>	2.50740	<b>0.00002</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00002</b>	0.32940	<b>0.00002</b>	2.50740	<b>0.00002</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	(D * GATE_N * !Q)	0.01860	<b>0.00011</b>	0.32940	<b>0.00001</b>	2.50740	<b>-0.00002</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00011</b>	0.32940	<b>0.00001</b>	2.50740	<b>-0.00002</b>

Passive power(pJ) for GATE\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	0.01860	<b>0.00794</b>	0.32940	<b>0.00792</b>	2.50740	<b>0.01480</b>

Passive power(pJ) for GATE\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	0.01860	<b>0.01512</b>	0.32940	<b>0.01555</b>	2.50740	<b>0.02281</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	(D * !RESET_B * !Q)	0.01860	<b>0.01333</b>	0.32940	<b>0.01324</b>	2.50740	<b>0.01982</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00794</b>	0.32940	<b>0.00792</b>	2.50740	<b>0.01480</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	(D * !RESET_B * !Q)	0.01860	<b>0.01240</b>	0.32940	<b>0.01253</b>	2.50740	<b>0.01951</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01512</b>	0.32940	<b>0.01555</b>	2.50740	<b>0.02281</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01517</b>	0.32940	<b>0.01560</b>	2.50740	<b>0.02279</b>

# DLLR



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dllr_1	34.47360

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	D	RESET_B	GATE_N	Q	Q_N
sg13g2_dllr_1	0.00215	0.00308	0.00231	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllr_1	456.77000	529.23800	593.03000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllr_1	D->Q (RR)	0.01860	0.00100	<b>0.20383</b>	0.32940	0.06480	<b>0.48280</b>	2.50740	0.30000	<b>1.31598</b>
	GATE_N->Q (FR)	0.01860	0.00100	<b>0.22632</b>	0.32940	0.06480	<b>0.51725</b>	2.50740	0.30000	<b>1.36748</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllr_1	D->Q (FF)	0.01860	0.00100	<b>0.17300</b>	0.32940	0.06480	<b>0.41079</b>	2.50740	0.30000	<b>1.08132</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.16738</b>	0.32940	0.06480	<b>0.42458</b>	2.50740	0.30000	<b>1.17269</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.07121</b>	0.32940	0.06480	<b>0.34474</b>	2.50740	0.30000	<b>1.10226</b>

Delay(ns) to Q\_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllr_1	D->Q_N (FR)	0.01860	0.00100	<b>0.21104</b>	0.32940	0.06480	<b>0.47019</b>	2.50740	0.30000	<b>1.27205</b>
	GATE_N->Q_N (FR)	0.01860	0.00100	<b>0.20563</b>	0.32940	0.06480	<b>0.48383</b>	2.50740	0.30000	<b>1.36456</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.11008</b>	0.32940	0.06480	<b>0.39474</b>	2.50740	0.30000	<b>1.25550</b>

Delay(ns) to Q\_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllr_1	D->Q_N (RF)	0.01860	0.00100	<b>0.24754</b>	0.32940	0.06480	<b>0.47482</b>	2.50740	0.30000	<b>1.17542</b>
	GATE_N->Q_N (FF)	0.01860	0.00100	<b>0.26977</b>	0.32940	0.06480	<b>0.50930</b>	2.50740	0.30000	<b>1.22648</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dllr_1	hold	GATE_N (R)	0.01860	0.01860	<b>-0.07580</b>	1.26300	1.26300	<b>-0.08635</b>	2.50740	2.50740	<b>-0.10921</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.09292</b>	1.26300	1.26300	<b>0.09984</b>	2.50740	2.50740	<b>0.12397</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dllr_1	hold	GATE_N (R)	0.01860	0.01860	<b>-0.08558</b>	1.26300	1.26300	<b>-0.21857</b>	2.50740	2.50740	<b>-0.27744</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.09781</b>	1.26300	1.26300	<b>0.25365</b>	2.50740	2.50740	<b>0.32762</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_dllr_1	recovery	GATE_N (R)	0.01860	0.01860	<b>-0.02690</b>	1.26300	1.26300	<b>-0.06476</b>	2.50740	2.50740	<b>-0.05018</b>
	removal	GATE_N (R)	0.01860	0.01860	<b>0.04157</b>	1.26300	1.26300	<b>0.07825</b>	2.50740	2.50740	<b>0.06493</b>

Min Pulse Width (ns) for RESET\_B:

Cell Name	High	Low
sg13g2_dllr_1	-	3.3435

Min Pulse Width (ns) for GATE\_N:

Cell Name	High	Low
sg13g2_dllr_1	-	3.3435

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllr_1	D	0.01860	0.00100	<b>0.00922</b>	0.32940	0.06480	<b>0.05599</b>	2.50740	0.30000	<b>0.22529</b>
	GATE_N	0.01860	0.00100	<b>0.02214</b>	0.32940	0.06480	<b>0.06905</b>	2.50740	0.30000	<b>0.23828</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllr_1	D	0.01860	0.00100	<b>0.00632</b>	0.32940	0.06480	<b>0.04597</b>	2.50740	0.30000	<b>0.21512</b>
	GATE_N	0.01860	0.00100	<b>0.02052</b>	0.32940	0.06480	<b>0.06692</b>	2.50740	0.30000	<b>0.23655</b>
	RESET_B	0.01860	0.00100	<b>0.02363</b>	0.32940	0.06480	<b>0.06964</b>	2.50740	0.30000	<b>0.24496</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllr_1	D	0.01860	0.00100	<b>0.00634</b>	0.32940	0.06480	<b>0.04637</b>	2.50740	0.30000	<b>0.21547</b>
	GATE_N	0.01860	0.00100	<b>0.02913</b>	0.32940	0.06480	<b>0.07606</b>	2.50740	0.30000	<b>0.25268</b>
	RESET_B	0.01860	0.00100	<b>0.02361</b>	0.32940	0.06480	<b>0.06992</b>	2.50740	0.30000	<b>0.24523</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dllr_1	D	0.01860	0.00100	<b>0.00920</b>	0.32940	0.06480	<b>0.05572</b>	2.50740	0.30000	<b>0.22485</b>
	GATE_N	0.01860	0.00100	<b>0.02213</b>	0.32940	0.06480	<b>0.06874</b>	2.50740	0.30000	<b>0.23819</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	0.01860	<b>0.01793</b>	0.32940	<b>0.01800</b>	2.50740	<b>0.02351</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	0.01860	<b>0.01979</b>	0.32940	<b>0.02677</b>	2.50740	<b>0.03265</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	(GATE_N * RESET_B * Q)	0.01860	<b>0.00362</b>	0.32940	<b>0.00368</b>	2.50740	<b>0.00930</b>
	!RESET_B	0.01860	<b>0.01793</b>	0.32940	<b>0.01800</b>	2.50740	<b>0.02351</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	(GATE_N * RESET_B * Q)	0.01860	<b>0.00327</b>	0.32940	<b>0.00349</b>	2.50740	<b>0.00927</b>
	!RESET_B	0.01860	<b>0.01979</b>	0.32940	<b>0.02677</b>	2.50740	<b>0.03265</b>

Passive power(pJ) for RESET\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	0.01860	<b>-0.00016</b>	0.32940	<b>-0.00013</b>	2.50740	<b>-0.00009</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	0.01860	<b>0.00023</b>	0.32940	<b>0.00013</b>	2.50740	<b>0.00009</b>

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



Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	(D * GATE_N * !Q)	0.01860	<b>0.00016</b>	0.32940	<b>0.00015</b>	2.50740	<b>0.00015</b>
	(!D * GATE_N * !Q)	0.01860	<b>-0.00016</b>	0.32940	<b>-0.00013</b>	2.50740	<b>-0.00009</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	(D * GATE_N * !Q)	0.01860	<b>0.00023</b>	0.32940	<b>0.00013</b>	2.50740	<b>0.00009</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00023</b>	0.32940	<b>0.00013</b>	2.50740	<b>0.00009</b>

Passive power(pJ) for GATE\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	0.01860	<b>0.01383</b>	0.32940	<b>0.01566</b>	2.50740	<b>0.02252</b>

Passive power(pJ) for GATE\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	0.01860	<b>0.00860</b>	0.32940	<b>0.00875</b>	2.50740	<b>0.01585</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	(D * !RESET_B * !Q)	0.01860	<b>0.01341</b>	0.32940	<b>0.01331</b>	2.50740	<b>0.01990</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01383</b>	0.32940	<b>0.01566</b>	2.50740	<b>0.02252</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01393</b>	0.32940	<b>0.01573</b>	2.50740	<b>0.02261</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllr_1	(D * !RESET_B * !Q)	0.01860	<b>0.01260</b>	0.32940	<b>0.01272</b>	2.50740	<b>0.01973</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00860</b>	0.32940	<b>0.00875</b>	2.50740	<b>0.01585</b>

# DLY1



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

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

Cell Name	Area
sg13g2_dlygate4sd1_1	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	X
sg13g2_dlygate4sd1_1	0.00148	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd1_1	176.82300	186.80100	196.77800

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd1_1	A->X (RR)	0.01860	0.00100	<b>0.11500</b>	0.32940	0.06480	<b>0.38306</b>	2.50740	0.30000	<b>1.17731</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd1_1	A->X (FF)	0.01860	0.00100	<b>0.13489</b>	0.32940	0.06480	<b>0.39140</b>	2.50740	0.30000	<b>1.16851</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd1_1	A	0.01860	0.00100	<b>0.01261</b>	0.32940	0.06480	<b>0.01274</b>	2.50740	0.30000	<b>0.01597</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd1_1	A	0.01860	0.00100	<b>0.01195</b>	0.32940	0.06480	<b>0.01227</b>	2.50740	0.30000	<b>0.01571</b>

# DLY2



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

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

Cell Name	Area
sg13g2_dlygate4sd2_1	14.51520

## Pin Capacitance Information

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

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd2_1	178.59300	188.57100	198.54900

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd2_1	A->X (RR)	0.01860	0.00100	<b>0.16694</b>	0.32940	0.06480	<b>0.44660</b>	2.50740	0.30000	<b>1.28417</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd2_1	A->X (FF)	0.01860	0.00100	<b>0.18948</b>	0.32940	0.06480	<b>0.46685</b>	2.50740	0.30000	<b>1.28828</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd2_1	A	0.01860	0.00100	<b>0.01484</b>	0.32940	0.06480	<b>0.01493</b>	2.50740	0.30000	<b>0.01793</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd2_1	A	0.01860	0.00100	<b>0.01428</b>	0.32940	0.06480	<b>0.01446</b>	2.50740	0.30000	<b>0.01790</b>



# DLY4



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

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

Cell Name	Area
sg13g2_dlygate4sd3_1	16.32960

## Pin Capacitance Information

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

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd3_1	389.90600	399.86200	409.81900

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd3_1	A->X (RR)	0.01860	0.00100	<b>0.34476</b>	0.32940	0.06480	<b>0.65683</b>	2.50740	0.30000	<b>1.58549</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd3_1	A->X (FF)	0.01860	0.00100	<b>0.35892</b>	0.32940	0.06480	<b>0.67641</b>	2.50740	0.30000	<b>1.59920</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd3_1	A	0.01860	0.00100	<b>0.02105</b>	0.32940	0.06480	<b>0.02101</b>	2.50740	0.30000	<b>0.02351</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_dlygate4sd3_1	A	0.01860	0.00100	<b>0.02068</b>	0.32940	0.06480	<b>0.02071</b>	2.50740	0.30000	<b>0.02341</b>

# EINVIN<sub>x</sub>



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_einvn_4	23.58720
sg13g2_einvn_2	16.32960

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_einvn_4	0.00775	0.00914	1.20000
sg13g2_einvn_2	0.00394	0.00487	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_4	399.52500	477.26800	555.01000
sg13g2_einvn_2	201.55400	240.42400	279.29400

## Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_einvn_4	A->Z (FR)	0.01860	0.01005	<b>0.02559</b>	0.32940	0.26825	<b>0.54539</b>	2.50740	1.20905	<b>2.90053</b>
	TE_B->Z (RR)	0.01860	0.01005	<b>0.05152</b>	0.32940	0.26825	<b>0.13109</b>	2.50740	1.20905	<b>0.28101</b>
	TE_B->Z (FR)	0.01860	0.01005	<b>0.03195</b>	0.32940	0.26825	<b>0.52477</b>	2.50740	1.20905	<b>2.67594</b>
sg13g2_einvn_2	A->Z (FR)	0.01860	0.00557	<b>0.02749</b>	0.32940	0.13417	<b>0.54500</b>	2.50740	0.60457	<b>2.89716</b>
	TE_B->Z (RR)	0.01860	0.00557	<b>0.05048</b>	0.32940	0.13417	<b>0.12801</b>	2.50740	0.60457	<b>0.27785</b>
	TE_B->Z (FR)	0.01860	0.00557	<b>0.03344</b>	0.32940	0.13417	<b>0.52473</b>	2.50740	0.60457	<b>2.67570</b>

Delay(ns) to Z falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_einvn_4	A->Z (RF)	0.01860	0.01556	<b>0.02248</b>	0.32940	0.27376	<b>0.45745</b>	2.50740	1.21456	<b>2.47807</b>
sg13g2_einvn_2	A->Z (RF)	0.01860	0.00844	<b>0.02402</b>	0.32940	0.13704	<b>0.45747</b>	2.50740	0.60744	<b>2.47772</b>

## Power Information

Internal switching power(pJ) to Z rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_einvn_4	A	0.01860	0.01005	<b>0.01002</b>	0.32940	0.26825	<b>0.01062</b>	2.50740	1.20905	<b>0.01511</b>
	TE_B	0.01860	0.01005	<b>0.01566</b>	0.32940	0.26825	<b>0.01479</b>	2.50740	1.20905	<b>0.01326</b>
sg13g2_einvn_2	A	0.01860	0.00557	<b>0.00508</b>	0.32940	0.13417	<b>0.00519</b>	2.50740	0.60457	<b>0.00730</b>
	TE_B	0.01860	0.00557	<b>0.00770</b>	0.32940	0.13417	<b>0.00728</b>	2.50740	0.60457	<b>0.00648</b>

Internal switching power(pJ) to Z falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_einvn_4	A	0.01860	0.01556	<b>0.00941</b>	0.32940	0.27376	<b>0.01114</b>	2.50740	1.21456	<b>0.01271</b>
sg13g2_einvn_2	A	0.01860	0.00844	<b>0.00486</b>	0.32940	0.13704	<b>0.00563</b>	2.50740	0.60744	<b>0.00677</b>

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_einvn_4	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_einvn_2	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)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_einvn_4	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_einvn_2	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)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_einvn_4	0.01860	<b>-0.00425</b>	0.32940	<b>-0.00467</b>	2.50740	<b>0.00252</b>
sg13g2_einvn_2	0.01860	<b>-0.00181</b>	0.32940	<b>-0.00205</b>	2.50740	<b>0.00172</b>

Passive power(pJ) for TE\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_einvn_4	0.01860	<b>0.01414</b>	0.32940	<b>0.01461</b>	2.50740	<b>0.02285</b>
sg13g2_einvn_2	0.01860	<b>0.00716</b>	0.32940	<b>0.00739</b>	2.50740	<b>0.01174</b>



# FILLx



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

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## Footprint

Cell Name	Area
sg13g2_fill_1	1.81440
sg13g2_fill_8	14.51520
sg13g2_fill_2	3.62880
sg13g2_fill_4	7.25760

## Pin Capacitance Information Leakage Information

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

# GCLK



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

## Truth Table

INPUT		OUTPUT
GATE	CLK	GCLK
x	0	0
x	1	GCLK

## Footprint

Cell Name	Area
sg13g2_lgcp_1	27.21600

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	GATE	CLK	GCLK
sg13g2_lgcp_1	0.00229	0.00494	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_lgcp_1	377.61000	387.84600	400.61300

## Delay Information

Delay(ns) to GCLK rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_lgcp_1	CLK->GCLK (RR)	0.01860	0.00100	<b>0.07497</b>	0.32940	0.06480	<b>0.34545</b>	2.50740	0.30000	<b>1.20469</b>

Delay(ns) to GCLK falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_lgcp_1	CLK->GCLK (FF)	0.01860	0.00100	<b>0.06096</b>	0.32940	0.06480	<b>0.30870</b>	2.50740	0.30000	<b>1.03406</b>

## Constraint Information

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_lgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.03775</b>	1.26300	1.26300	<b>-0.15381</b>	2.50740	2.50740	<b>-0.23186</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07561</b>	1.26300	1.26300	<b>0.22666</b>	2.50740	2.50740	<b>0.32273</b>

Constraints(ns) for GATE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_lgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.01671</b>	1.26300	1.26300	<b>-0.00540</b>	2.50740	2.50740	<b>0.00062</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.04310</b>	1.26300	1.26300	<b>0.04857</b>	2.50740	2.50740	<b>0.05330</b>

Min Pulse Width (ns) for CLK:

Cell Name	High	Low
sg13g2_lgcp_1	3.3435	3.3435

## Power Information

Internal switching power(pJ) to GCLK rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_lgcp_1	CLK	0.01860	0.00100	<b>0.00875</b>	0.32940	0.06480	<b>0.00868</b>	2.50740	0.30000	<b>0.01325</b>

Internal switching power(pJ) to GCLK falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_lgcp_1	CLK	0.01860	0.00100	<b>0.00527</b>	0.32940	0.06480	<b>0.00585</b>	2.50740	0.30000	<b>0.01145</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_lgcp_1	0.01860	<b>0.01922</b>	0.32940	<b>0.01998</b>	2.50740	<b>0.02480</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_lgcp_1	0.01860	<b>0.01318</b>	0.32940	<b>0.02859</b>	2.50740	<b>0.03398</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_lgcp_1	!CLK	0.01860	<b>0.01922</b>	0.32940	<b>0.01998</b>	2.50740	<b>0.02480</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_lgcp_1	!CLK	0.01860	<b>0.01318</b>	0.32940	<b>0.02859</b>	2.50740	<b>0.03398</b>

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_lgcp_1	0.01860	<b>0.00722</b>	0.32940	<b>0.00723</b>	2.50740	<b>0.01405</b>

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_lgcp_1	0.01860	<b>0.00867</b>	0.32940	<b>0.00876</b>	2.50740	<b>0.01585</b>

# INx



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

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## Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

## Footprint

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

## Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
sg13g2_inv_16	0.04613	4.80000
sg13g2_inv_8	0.02251	2.40000
sg13g2_inv_4	0.01126	1.20000
sg13g2_inv_2	0.00565	0.60000
sg13g2_inv_1	0.00289	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_inv_16	696.58800	1007.55000	1318.51000
sg13g2_inv_8	348.28900	503.79900	659.30900
sg13g2_inv_4	174.15100	251.89000	329.62900
sg13g2_inv_2	87.07520	125.93700	164.79900
sg13g2_inv_1	43.53730	62.97230	82.40730



## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_inv_16	A->Y (FR)	0.01860	0.00100	<b>0.01640</b>	0.32940	1.03680	<b>0.36317</b>	2.50740	4.80000	<b>2.06027</b>
sg13g2_inv_8	A->Y (FR)	0.01860	0.00100	<b>0.01629</b>	0.32940	0.51840	<b>0.36259</b>	2.50740	2.40000	<b>2.05824</b>
sg13g2_inv_4	A->Y (FR)	0.01860	0.00100	<b>0.01666</b>	0.32940	0.25920	<b>0.36231</b>	2.50740	1.20000	<b>2.05743</b>
sg13g2_inv_2	A->Y (FR)	0.01860	0.00100	<b>0.01778</b>	0.32940	0.12960	<b>0.36178</b>	2.50740	0.60000	<b>2.05451</b>
sg13g2_inv_1	A->Y (FR)	0.01860	0.00100	<b>0.02057</b>	0.32940	0.06480	<b>0.36249</b>	2.50740	0.30000	<b>2.05515</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_inv_16	A->Y (RF)	0.01860	0.00100	<b>0.01601</b>	0.32940	1.03680	<b>0.33878</b>	2.50740	4.80000	<b>1.92562</b>
sg13g2_inv_8	A->Y (RF)	0.01860	0.00100	<b>0.01591</b>	0.32940	0.51840	<b>0.33885</b>	2.50740	2.40000	<b>1.92658</b>
sg13g2_inv_4	A->Y (RF)	0.01860	0.00100	<b>0.01625</b>	0.32940	0.25920	<b>0.33856</b>	2.50740	1.20000	<b>1.92635</b>
sg13g2_inv_2	A->Y (RF)	0.01860	0.00100	<b>0.01725</b>	0.32940	0.12960	<b>0.33719</b>	2.50740	0.60000	<b>1.91891</b>
sg13g2_inv_1	A->Y (RF)	0.01860	0.00100	<b>0.01984</b>	0.32940	0.06480	<b>0.33777</b>	2.50740	0.30000	<b>1.91999</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_inv_16	A	0.01860	0.00100	<b>0.02149</b>	0.32940	1.03680	<b>0.02629</b>	2.50740	4.80000	<b>0.04818</b>
sg13g2_inv_8	A	0.01860	0.00100	<b>0.01025</b>	0.32940	0.51840	<b>0.01270</b>	2.50740	2.40000	<b>0.02071</b>
sg13g2_inv_4	A	0.01860	0.00100	<b>0.00516</b>	0.32940	0.25920	<b>0.00630</b>	2.50740	1.20000	<b>0.01100</b>
sg13g2_inv_2	A	0.01860	0.00100	<b>0.00260</b>	0.32940	0.12960	<b>0.00312</b>	2.50740	0.60000	<b>0.00571</b>
sg13g2_inv_1	A	0.01860	0.00100	<b>0.00152</b>	0.32940	0.06480	<b>0.00172</b>	2.50740	0.30000	<b>0.00296</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_inv_16	A	0.01860	0.00100	<b>0.01871</b>	0.32940	1.03680	<b>0.02411</b>	2.50740	4.80000	<b>0.04648</b>
sg13g2_inv_8	A	0.01860	0.00100	<b>0.00894</b>	0.32940	0.51840	<b>0.01211</b>	2.50740	2.40000	<b>0.02287</b>
sg13g2_inv_4	A	0.01860	0.00100	<b>0.00453</b>	0.32940	0.25920	<b>0.00598</b>	2.50740	1.20000	<b>0.01155</b>
sg13g2_inv_2	A	0.01860	0.00100	<b>0.00236</b>	0.32940	0.12960	<b>0.00302</b>	2.50740	0.60000	<b>0.00566</b>
sg13g2_inv_1	A	0.01860	0.00100	<b>0.00158</b>	0.32940	0.06480	<b>0.00178</b>	2.50740	0.30000	<b>0.00329</b>

# ITL



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_einvn_8	39.91680

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_einvn_8	0.01523	0.01555	2.40000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_8	755.51400	910.99700	1066.48000

## Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_einvn_8	A->Z (FR)	0.01860	0.01901	<b>0.02471</b>	0.32940	0.53641	<b>0.54656</b>	2.50740	2.41801	<b>2.90742</b>
	TE_B->Z (RR)	0.01860	0.01901	<b>0.06473</b>	0.32940	0.53641	<b>0.17155</b>	2.50740	2.41801	<b>0.39638</b>
	TE_B->Z (FR)	0.01860	0.01901	<b>0.03294</b>	0.32940	0.53641	<b>0.52749</b>	2.50740	2.41801	<b>2.68121</b>

Delay(ns) to Z falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_einvn_8	A->Z (RF)	0.01860	0.02991	<b>0.02210</b>	0.32940	0.54731	<b>0.45878</b>	2.50740	2.42891	<b>2.48724</b>

## Power Information

Internal switching power(pJ) to Z rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_einvn_8	A	0.01860	0.01901	<b>0.01988</b>	0.32940	0.53641	<b>0.02175</b>	2.50740	2.41801	<b>0.03384</b>
	TE_B	0.01860	0.01901	<b>0.03330</b>	0.32940	0.53641	<b>0.03055</b>	2.50740	2.41801	<b>0.02793</b>

Internal switching power(pJ) to Z falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_einvn_8	A	0.01860	0.02991	<b>0.01831</b>	0.32940	0.54731	<b>0.02196</b>	2.50740	2.42891	<b>0.02471</b>

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
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)	Min	Slew(ns)	Mid	Slew(ns)	Max
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)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_einvn_8	0.01860	<b>-0.01090</b>	0.32940	<b>-0.01164</b>	2.50740	<b>-0.00559</b>

Passive power(pJ) for TE\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_einvn_8	0.01860	<b>0.02433</b>	0.32940	<b>0.02564</b>	2.50740	<b>0.03320</b>

# KEEPSTATE



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

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## Truth Table

INPUT	OUTPUT
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	0.00000	-

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sighold	37.36880	110.80400	184.23900

## Passive Power Information

Passive power(pJ) for SH rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sighold	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

Passive power(pJ) for SH falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sighold	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>



# MUX2x



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

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_mux2_2	19.95840
sg13g2_mux2_1	18.14400

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	S	X
sg13g2_mux2_2	0.00201	0.00213	0.00505	0.60000
sg13g2_mux2_1	0.00200	0.00211	0.00505	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux2_2	279.36200	309.31200	337.40300
sg13g2_mux2_1	220.22200	246.34000	274.31700

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux2_2	A0->X (RR)	0.01860	0.00100	<b>0.09004</b>	0.32940	0.12960	<b>0.39423</b>	2.50740	0.60000	<b>1.31283</b>
	A1->X (RR)	0.01860	0.00100	<b>0.07054</b>	0.32940	0.12960	<b>0.39601</b>	2.50740	0.60000	<b>1.32251</b>
	S->X (-R)	0.01860	0.00100	<b>0.09268</b>	0.32940	0.12960	<b>0.39168</b>	2.50740	0.60000	<b>1.31784</b>
sg13g2_mux2_1	A0->X (RR)	0.01860	0.00100	<b>0.07351</b>	0.32940	0.06480	<b>0.35581</b>	2.50740	0.30000	<b>1.23072</b>
	A1->X (RR)	0.01860	0.00100	<b>0.06919</b>	0.32940	0.06480	<b>0.36090</b>	2.50740	0.30000	<b>1.24526</b>
	S->X (-R)	0.01860	0.00100	<b>0.08100</b>	0.32940	0.06480	<b>0.36069</b>	2.50740	0.30000	<b>1.24178</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux2_2	A0->X (FF)	0.01860	0.00100	<b>0.10646</b>	0.32940	0.12960	<b>0.41254</b>	2.50740	0.60000	<b>1.25126</b>
	A1->X (FF)	0.01860	0.00100	<b>0.11711</b>	0.32940	0.12960	<b>0.41851</b>	2.50740	0.60000	<b>1.26326</b>
	S->X (-F)	0.01860	0.00100	<b>0.12941</b>	0.32940	0.12960	<b>0.40498</b>	2.50740	0.60000	<b>1.21512</b>
sg13g2_mux2_1	A0->X (FF)	0.01860	0.00100	<b>0.09297</b>	0.32940	0.06480	<b>0.36364</b>	2.50740	0.30000	<b>1.15286</b>
	A1->X (FF)	0.01860	0.00100	<b>0.09722</b>	0.32940	0.06480	<b>0.37021</b>	2.50740	0.30000	<b>1.16647</b>
	S->X (-F)	0.01860	0.00100	<b>0.10838</b>	0.32940	0.06480	<b>0.36070</b>	2.50740	0.30000	<b>1.12430</b>

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux2_2	S->X (RR)	(!A0 * A1)	0.01860	0.00100	<b>0.09268</b>	0.32940	0.12960	<b>0.39168</b>	2.50740	0.60000	<b>1.31784</b>
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	<b>0.12906</b>	0.32940	0.12960	<b>0.40808</b>	2.50740	0.60000	<b>1.22107</b>
sg13g2_mux2_1	S->X (RR)	(!A0 * A1)	0.01860	0.00100	<b>0.08100</b>	0.32940	0.06480	<b>0.36069</b>	2.50740	0.30000	<b>1.24178</b>
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	<b>0.11715</b>	0.32940	0.06480	<b>0.38673</b>	2.50740	0.30000	<b>1.19581</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux2_2	S->X (FF)	(!A0 * A1)	0.01860	0.00100	<b>0.12941</b>	0.32940	0.12960	<b>0.40498</b>	2.50740	0.60000	<b>1.21512</b>
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	<b>0.16151</b>	0.32940	0.12960	<b>0.42396</b>	2.50740	0.60000	<b>1.14038</b>
sg13g2_mux2_1	S->X (FF)	(!A0 * A1)	0.01860	0.00100	<b>0.10838</b>	0.32940	0.06480	<b>0.36070</b>	2.50740	0.30000	<b>1.12430</b>
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	<b>0.14026</b>	0.32940	0.06480	<b>0.38744</b>	2.50740	0.30000	<b>1.10206</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux2_2	A0	0.01860	0.00100	<b>0.01268</b>	0.32940	0.12960	<b>0.01272</b>	2.50740	0.60000	<b>0.01824</b>
	A1	0.01860	0.00100	<b>0.01587</b>	0.32940	0.12960	<b>0.01876</b>	2.50740	0.60000	<b>0.02459</b>
	S	0.01860	0.00100	<b>0.01328</b>	0.32940	0.12960	<b>0.01386</b>	2.50740	0.60000	<b>0.01842</b>
sg13g2_mux2_1	A0	0.01860	0.00100	<b>0.01000</b>	0.32940	0.06480	<b>0.01006</b>	2.50740	0.30000	<b>0.01635</b>
	A1	0.01860	0.00100	<b>0.01183</b>	0.32940	0.06480	<b>0.01291</b>	2.50740	0.30000	<b>0.01920</b>
	S	0.01860	0.00100	<b>0.00960</b>	0.32940	0.06480	<b>0.00982</b>	2.50740	0.30000	<b>0.01459</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux2_2	A0	0.01860	0.00100	<b>0.01734</b>	0.32940	0.12960	<b>0.01892</b>	2.50740	0.60000	<b>0.02554</b>
	A1	0.01860	0.00100	<b>0.01367</b>	0.32940	0.12960	<b>0.01404</b>	2.50740	0.60000	<b>0.02077</b>
	S	0.01860	0.00100	<b>0.01288</b>	0.32940	0.12960	<b>0.01338</b>	2.50740	0.60000	<b>0.01869</b>
sg13g2_mux2_1	A0	0.01860	0.00100	<b>0.01229</b>	0.32940	0.06480	<b>0.01301</b>	2.50740	0.30000	<b>0.01978</b>
	A1	0.01860	0.00100	<b>0.00980</b>	0.32940	0.06480	<b>0.01022</b>	2.50740	0.30000	<b>0.01683</b>
	S	0.01860	0.00100	<b>0.00922</b>	0.32940	0.06480	<b>0.00955</b>	2.50740	0.30000	<b>0.01465</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux2_2	S	(A0 * !A1)	0.01860	0.00100	<b>0.01314</b>	0.32940	0.12960	<b>0.01384</b>	2.50740	0.60000	<b>0.01382</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01328</b>	0.32940	0.12960	<b>0.01386</b>	2.50740	0.60000	<b>0.01842</b>
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	<b>0.00942</b>	0.32940	0.06480	<b>0.00970</b>	2.50740	0.30000	<b>0.00962</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.00960</b>	0.32940	0.06480	<b>0.00982</b>	2.50740	0.30000	<b>0.01459</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux2_2	S	(A0 * !A1)	0.01860	0.00100	<b>0.01322</b>	0.32940	0.12960	<b>0.01393</b>	2.50740	0.60000	<b>0.01394</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01288</b>	0.32940	0.12960	<b>0.01338</b>	2.50740	0.60000	<b>0.01869</b>
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	<b>0.00952</b>	0.32940	0.06480	<b>0.01000</b>	2.50740	0.30000	<b>0.00998</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.00922</b>	0.32940	0.06480	<b>0.00955</b>	2.50740	0.30000	<b>0.01465</b>

Passive power(pJ) for S rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux2_2	0.01860	<b>0.00409</b>	0.32940	<b>0.00399</b>	2.50740	<b>0.00950</b>
sg13g2_mux2_1	0.01860	<b>0.00408</b>	0.32940	<b>0.00399</b>	2.50740	<b>0.00949</b>

Passive power(pJ) for S falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux2_2	0.01860	<b>0.00421</b>	0.32940	<b>0.00430</b>	2.50740	<b>0.00998</b>
sg13g2_mux2_1	0.01860	<b>0.00419</b>	0.32940	<b>0.00430</b>	2.50740	<b>0.00998</b>

# MUX4



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_mux4_1	38.10240

## Pin Capacitance Information

Cell Name	Pin Cap(pf)						Max Cap(pf)
	A0	A1	A2	A3	S0	S1	X
sg13g2_mux4_1	0.00278	0.00276	0.00278	0.00287	0.00825	0.00503	0.30000



## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux4_1	346.84700	464.97700	578.36100

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux4_1	A0->X (RR)	0.01860	0.00100	<b>0.13603</b>	0.32940	0.06480	<b>0.44325</b>	2.50740	0.30000	<b>1.42498</b>
	A1->X (RR)	0.01860	0.00100	<b>0.13248</b>	0.32940	0.06480	<b>0.44180</b>	2.50740	0.30000	<b>1.42163</b>
	A2->X (RR)	0.01860	0.00100	<b>0.14255</b>	0.32940	0.06480	<b>0.45299</b>	2.50740	0.30000	<b>1.44719</b>
	A3->X (RR)	0.01860	0.00100	<b>0.13802</b>	0.32940	0.06480	<b>0.45100</b>	2.50740	0.30000	<b>1.44533</b>
	S0->X (-R)	0.01860	0.00100	<b>0.12060</b>	0.32940	0.06480	<b>0.43637</b>	2.50740	0.30000	<b>1.40830</b>
	S1->X (-R)	0.01860	0.00100	<b>0.07126</b>	0.32940	0.06480	<b>0.35476</b>	2.50740	0.30000	<b>1.21709</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux4_1	A0->X (FF)	0.01860	0.00100	<b>0.16006</b>	0.32940	0.06480	<b>0.44000</b>	2.50740	0.30000	<b>1.24636</b>
	A1->X (FF)	0.01860	0.00100	<b>0.16192</b>	0.32940	0.06480	<b>0.43952</b>	2.50740	0.30000	<b>1.24731</b>
	A2->X (FF)	0.01860	0.00100	<b>0.16999</b>	0.32940	0.06480	<b>0.45384</b>	2.50740	0.30000	<b>1.27478</b>
	A3->X (FF)	0.01860	0.00100	<b>0.17175</b>	0.32940	0.06480	<b>0.45328</b>	2.50740	0.30000	<b>1.27403</b>
	S0->X (-F)	0.01860	0.00100	<b>0.14792</b>	0.32940	0.06480	<b>0.44042</b>	2.50740	0.30000	<b>1.26972</b>
	S1->X (-F)	0.01860	0.00100	<b>0.08722</b>	0.32940	0.06480	<b>0.34853</b>	2.50740	0.30000	<b>1.08420</b>

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux4_1	S0->X (RR)	(!A2 * A3 * S1)	0.01860	0.00100	0.12060	0.32940	0.06480	0.43637	2.50740	0.30000	1.40830
	S0->X (RR)	(!A0 * A1 * !S1)	0.01860	0.00100	0.11369	0.32940	0.06480	0.42209	2.50740	0.30000	1.37538
	S0->X (FR)	(A2 * !A3 * S1)	0.01860	0.00100	0.17579	0.32940	0.06480	0.47411	2.50740	0.30000	1.33813
	S0->X (FR)	(A0 * !A1 * !S1)	0.01860	0.00100	0.17044	0.32940	0.06480	0.46656	2.50740	0.30000	1.32555
	S1->X (RR)	(!A1 * A3 * S0)	0.01860	0.00100	0.07141	0.32940	0.06480	0.35479	2.50740	0.30000	1.21707
	S1->X (RR)	(!A0 * A2 * !S0)	0.01860	0.00100	0.07126	0.32940	0.06480	0.35476	2.50740	0.30000	1.21709
	S1->X (FR)	(A1 * !A3 * S0)	0.01860	0.00100	0.09527	0.32940	0.06480	0.37295	2.50740	0.30000	1.16757
	S1->X (FR)	(A0 * !A2 * !S0)	0.01860	0.00100	0.09500	0.32940	0.06480	0.37283	2.50740	0.30000	1.16781

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux4_1	S0->X (FF)	(!A2 * A3 * S1)	0.01860	0.00100	0.14792	0.32940	0.06480	0.44042	2.50740	0.30000	1.26972
	S0->X (FF)	(!A0 * A1 * !S1)	0.01860	0.00100	0.13473	0.32940	0.06480	0.42086	2.50740	0.30000	1.22862
	S0->X (RF)	(A2 * !A3 * S1)	0.01860	0.00100	0.19495	0.32940	0.06480	0.47817	2.50740	0.30000	1.24623
	S0->X (RF)	(A0 * !A1 * !S1)	0.01860	0.00100	0.18395	0.32940	0.06480	0.46400	2.50740	0.30000	1.22898
	S1->X (FF)	(!A1 * A3 * S0)	0.01860	0.00100	0.08722	0.32940	0.06480	0.34853	2.50740	0.30000	1.08420
	S1->X (FF)	(!A0 * A2 * !S0)	0.01860	0.00100	0.08708	0.32940	0.06480	0.34846	2.50740	0.30000	1.08415
	S1->X (RF)	(A1 * !A3 * S0)	0.01860	0.00100	0.10724	0.32940	0.06480	0.37075	2.50740	0.30000	1.07538
	S1->X (RF)	(A0 * !A2 * !S0)	0.01860	0.00100	0.10750	0.32940	0.06480	0.37081	2.50740	0.30000	1.07537

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux4_1	A0	0.01860	0.00100	<b>0.01257</b>	0.32940	0.06480	<b>0.01258</b>	2.50740	0.30000	<b>0.01646</b>
	A1	0.01860	0.00100	<b>0.01212</b>	0.32940	0.06480	<b>0.01214</b>	2.50740	0.30000	<b>0.01595</b>
	A2	0.01860	0.00100	<b>0.01774</b>	0.32940	0.06480	<b>0.01769</b>	2.50740	0.30000	<b>0.02150</b>
	A3	0.01860	0.00100	<b>0.01208</b>	0.32940	0.06480	<b>0.01209</b>	2.50740	0.30000	<b>0.01581</b>
	S0	0.01860	0.00100	<b>0.00134</b>	0.32940	0.06480	<b>-0.00064</b>	2.50740	0.30000	<b>0.01113</b>
	S1	0.01860	0.00100	<b>0.00746</b>	0.32940	0.06480	<b>0.00855</b>	2.50740	0.30000	<b>0.01258</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux4_1	A0	0.01860	0.00100	<b>0.01164</b>	0.32940	0.06480	<b>0.01176</b>	2.50740	0.30000	<b>0.01587</b>
	A1	0.01860	0.00100	<b>0.01253</b>	0.32940	0.06480	<b>0.01265</b>	2.50740	0.30000	<b>0.01683</b>
	A2	0.01860	0.00100	<b>0.01816</b>	0.32940	0.06480	<b>0.01832</b>	2.50740	0.30000	<b>0.02242</b>
	A3	0.01860	0.00100	<b>0.01326</b>	0.32940	0.06480	<b>0.01336</b>	2.50740	0.30000	<b>0.01754</b>
	S0	0.01860	0.00100	<b>0.00797</b>	0.32940	0.06480	<b>0.00822</b>	2.50740	0.30000	<b>0.01394</b>
	S1	0.01860	0.00100	<b>0.00457</b>	0.32940	0.06480	<b>0.00498</b>	2.50740	0.30000	<b>0.01072</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux4_1	S0	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.01256</b>	0.32940	0.06480	<b>0.01131</b>	2.50740	0.30000	<b>0.00463</b>
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.01255</b>	0.32940	0.06480	<b>0.01133</b>	2.50740	0.30000	<b>0.00463</b>
	S0	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.00134</b>	0.32940	0.06480	<b>-0.00064</b>	2.50740	0.30000	<b>0.01113</b>
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.00138</b>	0.32940	0.06480	<b>-0.00067</b>	2.50740	0.30000	<b>0.01103</b>
	S1	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.00746</b>	0.32940	0.06480	<b>0.00855</b>	2.50740	0.30000	<b>0.01258</b>
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.00746</b>	0.32940	0.06480	<b>0.00855</b>	2.50740	0.30000	<b>0.01299</b>
	S1	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00391</b>	0.32940	0.06480	<b>0.00414</b>	2.50740	0.30000	<b>0.00930</b>
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00388</b>	0.32940	0.06480	<b>0.00412</b>	2.50740	0.30000	<b>0.00930</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_mux4_1	S0	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.01203</b>	0.32940	0.06480	<b>0.01168</b>	2.50740	0.30000	<b>0.01171</b>
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.01188</b>	0.32940	0.06480	<b>0.01199</b>	2.50740	0.30000	<b>0.01210</b>
	S0	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.00812</b>	0.32940	0.06480	<b>0.00773</b>	2.50740	0.30000	<b>0.01397</b>
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.00797</b>	0.32940	0.06480	<b>0.00822</b>	2.50740	0.30000	<b>0.01394</b>
	S1	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.00763</b>	0.32940	0.06480	<b>0.00897</b>	2.50740	0.30000	<b>0.01287</b>
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.00826</b>	0.32940	0.06480	<b>0.00960</b>	2.50740	0.30000	<b>0.01353</b>
	S1	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00396</b>	0.32940	0.06480	<b>0.00434</b>	2.50740	0.30000	<b>0.01001</b>
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00457</b>	0.32940	0.06480	<b>0.00498</b>	2.50740	0.30000	<b>0.01072</b>

Passive power(pJ) for S0 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux4_1	0.01860	<b>0.01567</b>	0.32940	<b>0.01798</b>	2.50740	<b>0.02455</b>

Passive power(pJ) for S0 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux4_1	0.01860	<b>0.01175</b>	0.32940	<b>0.01321</b>	2.50740	<b>0.02633</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux4_1	(A2 * A3 * S1)	0.01860	<b>0.01502</b>	0.32940	<b>0.01683</b>	2.50740	<b>0.02356</b>
	(A0 * A1 * !S1)	0.01860	<b>0.01567</b>	0.32940	<b>0.01798</b>	2.50740	<b>0.02455</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.01531</b>	0.32940	<b>0.01712</b>	2.50740	<b>0.02390</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.01623</b>	0.32940	<b>0.01860</b>	2.50740	<b>0.02519</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux4_1	(A2 * A3 * S1)	0.01860	<b>0.01039</b>	0.32940	<b>0.01127</b>	2.50740	<b>0.02472</b>
	(A0 * A1 * !S1)	0.01860	<b>0.01175</b>	0.32940	<b>0.01321</b>	2.50740	<b>0.02633</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.01022</b>	0.32940	<b>0.01104</b>	2.50740	<b>0.02438</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.01648</b>	0.32940	<b>0.01912</b>	2.50740	<b>0.02571</b>

Passive power(pJ) for S1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux4_1	0.01860	<b>0.00440</b>	0.32940	<b>0.00470</b>	2.50740	<b>0.01167</b>

Passive power(pJ) for S1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux4_1	0.01860	<b>0.00426</b>	0.32940	<b>0.00479</b>	2.50740	<b>0.01187</b>

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



Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux4_1	(A1 * A3 * S0)	0.01860	<b>0.00429</b>	0.32940	<b>0.00455</b>	2.50740	<b>0.01154</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00429</b>	0.32940	<b>0.00455</b>	2.50740	<b>0.01155</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00440</b>	0.32940	<b>0.00470</b>	2.50740	<b>0.01167</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00443</b>	0.32940	<b>0.00471</b>	2.50740	<b>0.01172</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_mux4_1	(A1 * A3 * S0)	0.01860	<b>0.00426</b>	0.32940	<b>0.00476</b>	2.50740	<b>0.01202</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00426</b>	0.32940	<b>0.00475</b>	2.50740	<b>0.01218</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00424</b>	0.32940	<b>0.00471</b>	2.50740	<b>0.01192</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00426</b>	0.32940	<b>0.00479</b>	2.50740	<b>0.01187</b>

# NAND2B1



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

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2b_1	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A_N	B	Y
sg13g2_nand2b_1	0.00231	0.00312	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_1	74.95850	128.61900	196.40400

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2b_1	A_N->Y (RR)	0.01860	0.00100	<b>0.05192</b>	0.32940	0.06480	<b>0.32078</b>	2.50740	0.30000	<b>1.17651</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02546</b>	0.32940	0.06480	<b>0.36904</b>	2.50740	0.30000	<b>2.06389</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2b_1	A_N->Y (FF)	0.01860	0.00100	<b>0.06255</b>	0.32940	0.06480	<b>0.41057</b>	2.50740	0.30000	<b>1.52504</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03768</b>	0.32940	0.06480	<b>0.44074</b>	2.50740	0.30000	<b>2.31354</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2b_1	A_N	0.01860	0.00100	<b>0.00180</b>	0.32940	0.06480	<b>0.00186</b>	2.50740	0.30000	<b>0.00149</b>
	B	0.01860	0.00100	<b>0.00173</b>	0.32940	0.06480	<b>0.00173</b>	2.50740	0.30000	<b>0.00264</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2b_1	A_N	0.01860	0.00100	<b>0.00424</b>	0.32940	0.06480	<b>0.00447</b>	2.50740	0.30000	<b>0.00404</b>
	B	0.01860	0.00100	<b>0.00429</b>	0.32940	0.06480	<b>0.00430</b>	2.50740	0.30000	<b>0.00460</b>

Passive power(pJ) for A\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand2b_1	0.01860	<b>0.00413</b>	0.32940	<b>0.00434</b>	2.50740	<b>0.00999</b>

Passive power(pJ) for A\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand2b_1	0.01860	<b>0.00219</b>	0.32940	<b>0.00244</b>	2.50740	<b>0.00821</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand2b_1	!B	0.01860	<b>0.00413</b>	0.32940	<b>0.00434</b>	2.50740	<b>0.00999</b>

Passive power(pJ) for A\_N falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand2b_1	!B	0.01860	<b>0.00219</b>	0.32940	<b>0.00244</b>	2.50740	<b>0.00821</b>

# NAND2B2



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

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2b_2	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A_N	B	Y
sg13g2_nand2b_2	0.00220	0.00538	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_2	148.68900	207.93900	357.86600

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2b_2	A_N->Y (RR)	0.01860	0.00100	<b>0.06791</b>	0.32940	0.12960	<b>0.36071</b>	2.50740	0.60000	<b>1.27284</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02021</b>	0.32940	0.12960	<b>0.36370</b>	2.50740	0.60000	<b>2.05843</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2b_2	A_N->Y (FF)	0.01860	0.00100	<b>0.08586</b>	0.32940	0.12960	<b>0.47501</b>	2.50740	0.60000	<b>1.70802</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02752</b>	0.32940	0.12960	<b>0.46887</b>	2.50740	0.60000	<b>2.52599</b>



## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2b_2	A_N	0.01860	0.00100	<b>0.00381</b>	0.32940	0.12960	<b>0.00381</b>	2.50740	0.60000	<b>0.00381</b>
	B	0.01860	0.00100	<b>0.00525</b>	0.32940	0.12960	<b>0.00528</b>	2.50740	0.60000	<b>0.00778</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2b_2	A_N	0.01860	0.00100	<b>0.00849</b>	0.32940	0.12960	<b>0.00920</b>	2.50740	0.60000	<b>0.00919</b>
	B	0.01860	0.00100	<b>0.00662</b>	0.32940	0.12960	<b>0.00703</b>	2.50740	0.60000	<b>0.00799</b>

Passive power(pJ) for A\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand2b_2	0.01860	<b>0.00659</b>	0.32940	<b>0.00646</b>	2.50740	<b>0.01145</b>

Passive power(pJ) for A\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand2b_2	0.01860	<b>0.00620</b>	0.32940	<b>0.00626</b>	2.50740	<b>0.01148</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand2b_2	!B	0.01860	<b>0.00659</b>	0.32940	<b>0.00646</b>	2.50740	<b>0.01145</b>

Passive power(pJ) for A\_N falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand2b_2	!B	0.01860	<b>0.00620</b>	0.32940	<b>0.00626</b>	2.50740	<b>0.01148</b>

# NAND2x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2_2	10.88640
sg13g2_nand2_1	7.25760

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_nand2_2	0.00558	0.00572	0.60000
sg13g2_nand2_1	0.00294	0.00302	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2_2	85.56970	160.58100	326.27800
sg13g2_nand2_1	43.32830	81.22160	164.75900

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2_2	A->Y (FR)	0.01860	0.00100	<b>0.02039</b>	0.32940	0.12960	<b>0.36482</b>	2.50740	0.60000	<b>2.05945</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02450</b>	0.32940	0.12960	<b>0.36952</b>	2.50740	0.60000	<b>2.06559</b>
sg13g2_nand2_1	A->Y (FR)	0.01860	0.00100	<b>0.02266</b>	0.32940	0.06480	<b>0.36466</b>	2.50740	0.30000	<b>2.05717</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02616</b>	0.32940	0.06480	<b>0.36871</b>	2.50740	0.30000	<b>2.06275</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2_2	A->Y (RF)	0.01860	0.00100	<b>0.02767</b>	0.32940	0.12960	<b>0.46790</b>	2.50740	0.60000	<b>2.52649</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03343</b>	0.32940	0.12960	<b>0.45137</b>	2.50740	0.60000	<b>2.37225</b>
sg13g2_nand2_1	A->Y (RF)	0.01860	0.00100	<b>0.03013</b>	0.32940	0.06480	<b>0.45597</b>	2.50740	0.30000	<b>2.46451</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03449</b>	0.32940	0.06480	<b>0.43802</b>	2.50740	0.30000	<b>2.31217</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2_2	A	0.01860	0.00100	<b>0.00294</b>	0.32940	0.12960	<b>0.00345</b>	2.50740	0.60000	<b>0.00534</b>
	B	0.01860	0.00100	<b>0.00384</b>	0.32940	0.12960	<b>0.00383</b>	2.50740	0.60000	<b>0.00577</b>
sg13g2_nand2_1	A	0.01860	0.00100	<b>0.00163</b>	0.32940	0.06480	<b>0.00182</b>	2.50740	0.30000	<b>0.00290</b>
	B	0.01860	0.00100	<b>0.00175</b>	0.32940	0.06480	<b>0.00173</b>	2.50740	0.30000	<b>0.00271</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand2_2	A	0.01860	0.00100	<b>0.00443</b>	0.32940	0.12960	<b>0.00481</b>	2.50740	0.60000	<b>0.00599</b>
	B	0.01860	0.00100	<b>0.00781</b>	0.32940	0.12960	<b>0.00786</b>	2.50740	0.60000	<b>0.00894</b>
sg13g2_nand2_1	A	0.01860	0.00100	<b>0.00239</b>	0.32940	0.06480	<b>0.00251</b>	2.50740	0.30000	<b>0.00308</b>
	B	0.01860	0.00100	<b>0.00412</b>	0.32940	0.06480	<b>0.00410</b>	2.50740	0.30000	<b>0.00467</b>

# NAND3B1



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

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand3b_1	12.70080

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A_N	B	C	Y
sg13g2_nand3b_1	0.00223	0.00301	0.00301	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3b_1	76.88740	134.54300	278.76600

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand3b_1	A_N->Y (RR)	0.01860	0.00100	<b>0.05498</b>	0.32940	0.06480	<b>0.32222</b>	2.50740	0.30000	<b>1.17364</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02895</b>	0.32940	0.06480	<b>0.37253</b>	2.50740	0.30000	<b>2.06727</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03142</b>	0.32940	0.06480	<b>0.37643</b>	2.50740	0.30000	<b>2.07244</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand3b_1	A_N->Y (FF)	0.01860	0.00100	<b>0.07629</b>	0.32940	0.06480	<b>0.54136</b>	2.50740	0.30000	<b>2.09039</b>
	B->Y (RF)	0.01860	0.00100	<b>0.05714</b>	0.32940	0.06480	<b>0.57436</b>	2.50740	0.30000	<b>2.88533</b>
	C->Y (RF)	0.01860	0.00100	<b>0.06250</b>	0.32940	0.06480	<b>0.56010</b>	2.50740	0.30000	<b>2.71104</b>



## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand3b_1	A_N	0.01860	0.00100	<b>0.00205</b>	0.32940	0.06480	<b>0.00210</b>	2.50740	0.30000	<b>0.00162</b>
	B	0.01860	0.00100	<b>0.00216</b>	0.32940	0.06480	<b>0.00212</b>	2.50740	0.30000	<b>0.00308</b>
	C	0.01860	0.00100	<b>0.00247</b>	0.32940	0.06480	<b>0.00234</b>	2.50740	0.30000	<b>0.00343</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand3b_1	A_N	0.01860	0.00100	<b>0.00545</b>	0.32940	0.06480	<b>0.00558</b>	2.50740	0.30000	<b>0.00494</b>
	B	0.01860	0.00100	<b>0.00552</b>	0.32940	0.06480	<b>0.00551</b>	2.50740	0.30000	<b>0.00569</b>
	C	0.01860	0.00100	<b>0.00721</b>	0.32940	0.06480	<b>0.00725</b>	2.50740	0.30000	<b>0.00729</b>

Passive power(pJ) for A\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand3b_1	0.01860	<b>0.00410</b>	0.32940	<b>0.00426</b>	2.50740	<b>0.00996</b>

Passive power(pJ) for A\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand3b_1	0.01860	<b>0.00225</b>	0.32940	<b>0.00250</b>	2.50740	<b>0.00827</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand3b_1	(B * !C) + (!B)	0.01860	<b>0.00410</b>	0.32940	<b>0.00426</b>	2.50740	<b>0.00996</b>

Passive power(pJ) for A\_N falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nand3b_1	(B * !C) + (!B)	0.01860	<b>0.00225</b>	0.32940	<b>0.00250</b>	2.50740	<b>0.00827</b>

# NAND3



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand3_1	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	Y
sg13g2_nand3_1	0.00291	0.00303	0.00298	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3_1	45.33940	87.23670	247.22100

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand3_1	A->Y (FR)	0.01860	0.00100	<b>0.02591</b>	0.32940	0.06480	<b>0.36816</b>	2.50740	0.30000	<b>2.06219</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02969</b>	0.32940	0.06480	<b>0.37256</b>	2.50740	0.30000	<b>2.06726</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03166</b>	0.32940	0.06480	<b>0.37652</b>	2.50740	0.30000	<b>2.07245</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand3_1	A->Y (RF)	0.01860	0.00100	<b>0.04467</b>	0.32940	0.06480	<b>0.57792</b>	2.50740	0.30000	<b>2.99263</b>
	B->Y (RF)	0.01860	0.00100	<b>0.05369</b>	0.32940	0.06480	<b>0.57164</b>	2.50740	0.30000	<b>2.88380</b>
	C->Y (RF)	0.01860	0.00100	<b>0.05780</b>	0.32940	0.06480	<b>0.55512</b>	2.50740	0.30000	<b>2.70641</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand3_1	A	0.01860	0.00100	<b>0.00197</b>	0.32940	0.06480	<b>0.00210</b>	2.50740	0.30000	<b>0.00306</b>
	B	0.01860	0.00100	<b>0.00216</b>	0.32940	0.06480	<b>0.00208</b>	2.50740	0.30000	<b>0.00295</b>
	C	0.01860	0.00100	<b>0.00249</b>	0.32940	0.06480	<b>0.00233</b>	2.50740	0.30000	<b>0.00338</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand3_1	A	0.01860	0.00100	<b>0.00369</b>	0.32940	0.06480	<b>0.00375</b>	2.50740	0.30000	<b>0.00431</b>
	B	0.01860	0.00100	<b>0.00543</b>	0.32940	0.06480	<b>0.00546</b>	2.50740	0.30000	<b>0.00568</b>
	C	0.01860	0.00100	<b>0.00689</b>	0.32940	0.06480	<b>0.00683</b>	2.50740	0.30000	<b>0.00703</b>

# NAND4



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand4_1	10.88640

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	Y
sg13g2_nand4_1	0.00288	0.00299	0.00300	0.00297	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand4_1	47.40900	91.53890	329.58800



## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand4_1	A->Y (FR)	0.01860	0.00100	<b>0.02719</b>	0.32940	0.06480	<b>0.36960</b>	2.50740	0.30000	<b>2.06354</b>
	B->Y (FR)	0.01860	0.00100	<b>0.03121</b>	0.32940	0.06480	<b>0.37426</b>	2.50740	0.30000	<b>2.06873</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03340</b>	0.32940	0.06480	<b>0.37840</b>	2.50740	0.30000	<b>2.07384</b>
	D->Y (FR)	0.01860	0.00100	<b>0.03415</b>	0.32940	0.06480	<b>0.38166</b>	2.50740	0.30000	<b>2.07904</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand4_1	A->Y (RF)	0.01860	0.00100	<b>0.05723</b>	0.32940	0.06480	<b>0.69840</b>	2.50740	0.30000	<b>3.50976</b>
	B->Y (RF)	0.01860	0.00100	<b>0.07126</b>	0.32940	0.06480	<b>0.70170</b>	2.50740	0.30000	<b>3.43374</b>
	C->Y (RF)	0.01860	0.00100	<b>0.07925</b>	0.32940	0.06480	<b>0.69277</b>	2.50740	0.30000	<b>3.28275</b>
	D->Y (RF)	0.01860	0.00100	<b>0.08299</b>	0.32940	0.06480	<b>0.68542</b>	2.50740	0.30000	<b>3.15474</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand4_1	A	0.01860	0.00100	<b>0.00191</b>	0.32940	0.06480	<b>0.00205</b>	2.50740	0.30000	<b>0.00285</b>
	B	0.01860	0.00100	<b>0.00219</b>	0.32940	0.06480	<b>0.00212</b>	2.50740	0.30000	<b>0.00305</b>
	C	0.01860	0.00100	<b>0.00247</b>	0.32940	0.06480	<b>0.00230</b>	2.50740	0.30000	<b>0.00297</b>
	D	0.01860	0.00100	<b>0.00268</b>	0.32940	0.06480	<b>0.00247</b>	2.50740	0.30000	<b>0.00338</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nand4_1	A	0.01860	0.00100	<b>0.00442</b>	0.32940	0.06480	<b>0.00439</b>	2.50740	0.30000	<b>0.00530</b>
	B	0.01860	0.00100	<b>0.00615</b>	0.32940	0.06480	<b>0.00601</b>	2.50740	0.30000	<b>0.00660</b>
	C	0.01860	0.00100	<b>0.00765</b>	0.32940	0.06480	<b>0.00748</b>	2.50740	0.30000	<b>0.00798</b>
	D	0.01860	0.00100	<b>0.00909</b>	0.32940	0.06480	<b>0.00893</b>	2.50740	0.30000	<b>0.00944</b>

# NOR2Bx



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor2b_2	12.70080
sg13g2_nor2b_1	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B_N	Y
sg13g2_nor2b_2	0.00569	0.00269	0.60000
sg13g2_nor2b_1	0.00293	0.00227	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2b_2	165.75900	219.06600	278.92800
sg13g2_nor2b_1	97.26460	130.26100	166.70000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor2b_2	A->Y (FR)	0.01860	0.00100	<b>0.03066</b>	0.32940	0.12960	<b>0.54760</b>	2.50740	0.60000	<b>2.89636</b>
	B_N->Y (RR)	0.01860	0.00100	<b>0.07853</b>	0.32940	0.12960	<b>0.55535</b>	2.50740	0.60000	<b>2.14903</b>
sg13g2_nor2b_1	A->Y (FR)	0.01860	0.00100	<b>0.03527</b>	0.32940	0.06480	<b>0.54877</b>	2.50740	0.30000	<b>2.89782</b>
	B_N->Y (RR)	0.01860	0.00100	<b>0.07182</b>	0.32940	0.06480	<b>0.52888</b>	2.50740	0.30000	<b>2.07698</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor2b_2	A->Y (RF)	0.01860	0.00100	<b>0.01999</b>	0.32940	0.12960	<b>0.34770</b>	2.50740	0.60000	<b>1.96349</b>
	B_N->Y (FF)	0.01860	0.00100	<b>0.07001</b>	0.32940	0.12960	<b>0.32832</b>	2.50740	0.60000	<b>1.07458</b>
sg13g2_nor2b_1	A->Y (RF)	0.01860	0.00100	<b>0.02175</b>	0.32940	0.06480	<b>0.33986</b>	2.50740	0.30000	<b>1.92064</b>
	B_N->Y (FF)	0.01860	0.00100	<b>0.05892</b>	0.32940	0.06480	<b>0.29302</b>	2.50740	0.30000	<b>0.98583</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor2b_2	A	0.01860	0.00100	<b>0.00422</b>	0.32940	0.12960	<b>0.00454</b>	2.50740	0.60000	<b>0.00629</b>
	B_N	0.01860	0.00100	<b>0.00844</b>	0.32940	0.12960	<b>0.00887</b>	2.50740	0.60000	<b>0.00800</b>
sg13g2_nor2b_1	A	0.01860	0.00100	<b>0.00213</b>	0.32940	0.06480	<b>0.00222</b>	2.50740	0.30000	<b>0.00309</b>
	B_N	0.01860	0.00100	<b>0.00436</b>	0.32940	0.06480	<b>0.00452</b>	2.50740	0.30000	<b>0.00399</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor2b_2	A	0.01860	0.00100	<b>0.00292</b>	0.32940	0.12960	<b>0.00348</b>	2.50740	0.60000	<b>0.00573</b>
	B_N	0.01860	0.00100	<b>0.00423</b>	0.32940	0.12960	<b>0.00432</b>	2.50740	0.60000	<b>0.00399</b>
sg13g2_nor2b_1	A	0.01860	0.00100	<b>0.00188</b>	0.32940	0.06480	<b>0.00206</b>	2.50740	0.30000	<b>0.00321</b>
	B_N	0.01860	0.00100	<b>0.00233</b>	0.32940	0.06480	<b>0.00229</b>	2.50740	0.30000	<b>0.00178</b>

Passive power(pJ) for B\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor2b_2	0.01860	<b>0.00739</b>	0.32940	<b>0.00732</b>	2.50740	<b>0.01362</b>
sg13g2_nor2b_1	0.01860	<b>0.00417</b>	0.32940	<b>0.00425</b>	2.50740	<b>0.00977</b>

Passive power(pJ) for B\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor2b_2	0.01860	<b>0.00630</b>	0.32940	<b>0.00638</b>	2.50740	<b>0.01270</b>
sg13g2_nor2b_1	0.01860	<b>0.00370</b>	0.32940	<b>0.00386</b>	2.50740	<b>0.00955</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor2b_2	A	0.01860	<b>0.00739</b>	0.32940	<b>0.00732</b>	2.50740	<b>0.01362</b>
sg13g2_nor2b_1	A	0.01860	<b>0.00417</b>	0.32940	<b>0.00425</b>	2.50740	<b>0.00977</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor2b_2	A	0.01860	<b>0.00630</b>	0.32940	<b>0.00638</b>	2.50740	<b>0.01270</b>
sg13g2_nor2b_1	A	0.01860	<b>0.00370</b>	0.32940	<b>0.00386</b>	2.50740	<b>0.00955</b>

# NOR2x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor2_2	10.88640
sg13g2_nor2_1	7.25760

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_nor2_2	0.00583	0.00563	0.30000
sg13g2_nor2_1	0.00303	0.00293	0.30000

## Leakage Information



Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2_2	131.42800	165.86500	207.25800
sg13g2_nor2_1	65.69990	82.93550	103.61200

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor2_2	A->Y (FR)	0.01860	0.00100	<b>0.03937</b>	0.32940	0.06480	<b>0.33761</b>	2.50740	0.30000	<b>1.72264</b>
	B->Y (FR)	0.01860	0.00100	<b>0.03101</b>	0.32940	0.06480	<b>0.35374</b>	2.50740	0.30000	<b>1.89830</b>
sg13g2_nor2_1	A->Y (FR)	0.01860	0.00100	<b>0.04183</b>	0.32940	0.06480	<b>0.52821</b>	2.50740	0.30000	<b>2.68006</b>
	B->Y (FR)	0.01860	0.00100	<b>0.03538</b>	0.32940	0.06480	<b>0.54838</b>	2.50740	0.30000	<b>2.89665</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor2_2	A->Y (RF)	0.01860	0.00100	<b>0.02354</b>	0.32940	0.06480	<b>0.24638</b>	2.50740	0.30000	<b>1.35488</b>
	B->Y (RF)	0.01860	0.00100	<b>0.01971</b>	0.32940	0.06480	<b>0.24003</b>	2.50740	0.30000	<b>1.34611</b>
sg13g2_nor2_1	A->Y (RF)	0.01860	0.00100	<b>0.02500</b>	0.32940	0.06480	<b>0.34414</b>	2.50740	0.30000	<b>1.92566</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02181</b>	0.32940	0.06480	<b>0.33985</b>	2.50740	0.30000	<b>1.92077</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor2_2	A	0.01860	0.00100	<b>0.00873</b>	0.32940	0.06480	<b>0.00865</b>	2.50740	0.30000	<b>0.01166</b>
	B	0.01860	0.00100	<b>0.00430</b>	0.32940	0.06480	<b>0.00471</b>	2.50740	0.30000	<b>0.00875</b>
sg13g2_nor2_1	A	0.01860	0.00100	<b>0.00432</b>	0.32940	0.06480	<b>0.00421</b>	2.50740	0.30000	<b>0.00482</b>
	B	0.01860	0.00100	<b>0.00213</b>	0.32940	0.06480	<b>0.00223</b>	2.50740	0.30000	<b>0.00310</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor2_2	A	0.01860	0.00100	<b>0.00406</b>	0.32940	0.06480	<b>0.00403</b>	2.50740	0.30000	<b>0.00783</b>
	B	0.01860	0.00100	<b>0.00288</b>	0.32940	0.06480	<b>0.00343</b>	2.50740	0.30000	<b>0.00711</b>
sg13g2_nor2_1	A	0.01860	0.00100	<b>0.00202</b>	0.32940	0.06480	<b>0.00198</b>	2.50740	0.30000	<b>0.00313</b>
	B	0.01860	0.00100	<b>0.00186</b>	0.32940	0.06480	<b>0.00202</b>	2.50740	0.30000	<b>0.00322</b>

# NOR3x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor3_2	16.32960
sg13g2_nor3_1	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	Y
sg13g2_nor3_2	0.00579	0.00576	0.00560	0.60000
sg13g2_nor3_1	0.00305	0.00306	0.00292	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor3_2	134.33800	185.70800	261.22300
sg13g2_nor3_1	69.78160	95.13840	133.66500

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor3_2	A->Y (FR)	0.01860	0.00100	<b>0.06987</b>	0.32940	0.12960	<b>0.73072</b>	2.50740	0.60000	<b>3.39135</b>
	B->Y (FR)	0.01860	0.00100	<b>0.06475</b>	0.32940	0.12960	<b>0.74385</b>	2.50740	0.60000	<b>3.59481</b>
	C->Y (FR)	0.01860	0.00100	<b>0.04636</b>	0.32940	0.12960	<b>0.74173</b>	2.50740	0.60000	<b>3.73051</b>
sg13g2_nor3_1	A->Y (FR)	0.01860	0.00100	<b>0.07600</b>	0.32940	0.06480	<b>0.72857</b>	2.50740	0.30000	<b>3.38120</b>
	B->Y (FR)	0.01860	0.00100	<b>0.07111</b>	0.32940	0.06480	<b>0.74201</b>	2.50740	0.30000	<b>3.58189</b>
	C->Y (FR)	0.01860	0.00100	<b>0.05523</b>	0.32940	0.06480	<b>0.74237</b>	2.50740	0.30000	<b>3.72072</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor3_2	A->Y (RF)	0.01860	0.00100	<b>0.02618</b>	0.32940	0.12960	<b>0.35091</b>	2.50740	0.60000	<b>1.93581</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02586</b>	0.32940	0.12960	<b>0.34700</b>	2.50740	0.60000	<b>1.92920</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02183</b>	0.32940	0.12960	<b>0.34164</b>	2.50740	0.60000	<b>1.92278</b>
sg13g2_nor3_1	A->Y (RF)	0.01860	0.00100	<b>0.02764</b>	0.32940	0.06480	<b>0.34261</b>	2.50740	0.30000	<b>1.89150</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02723</b>	0.32940	0.06480	<b>0.33980</b>	2.50740	0.30000	<b>1.89033</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02378</b>	0.32940	0.06480	<b>0.33516</b>	2.50740	0.30000	<b>1.88415</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor3_2	A	0.01860	0.00100	<b>0.01434</b>	0.32940	0.12960	<b>0.01425</b>	2.50740	0.60000	<b>0.01522</b>
	B	0.01860	0.00100	<b>0.01054</b>	0.32940	0.12960	<b>0.01048</b>	2.50740	0.60000	<b>0.01256</b>
	C	0.01860	0.00100	<b>0.00615</b>	0.32940	0.12960	<b>0.00650</b>	2.50740	0.60000	<b>0.00874</b>
sg13g2_nor3_1	A	0.01860	0.00100	<b>0.00737</b>	0.32940	0.06480	<b>0.00729</b>	2.50740	0.30000	<b>0.00784</b>
	B	0.01860	0.00100	<b>0.00546</b>	0.32940	0.06480	<b>0.00542</b>	2.50740	0.30000	<b>0.00654</b>
	C	0.01860	0.00100	<b>0.00334</b>	0.32940	0.06480	<b>0.00345</b>	2.50740	0.30000	<b>0.00486</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor3_2	A	0.01860	0.00100	<b>0.00503</b>	0.32940	0.12960	<b>0.00457</b>	2.50740	0.60000	<b>0.00680</b>
	B	0.01860	0.00100	<b>0.00455</b>	0.32940	0.12960	<b>0.00437</b>	2.50740	0.60000	<b>0.00644</b>
	C	0.01860	0.00100	<b>0.00320</b>	0.32940	0.12960	<b>0.00386</b>	2.50740	0.60000	<b>0.00577</b>
sg13g2_nor3_1	A	0.01860	0.00100	<b>0.00260</b>	0.32940	0.06480	<b>0.00238</b>	2.50740	0.30000	<b>0.00352</b>
	B	0.01860	0.00100	<b>0.00243</b>	0.32940	0.06480	<b>0.00237</b>	2.50740	0.30000	<b>0.00349</b>
	C	0.01860	0.00100	<b>0.00204</b>	0.32940	0.06480	<b>0.00228</b>	2.50740	0.30000	<b>0.00328</b>

# NOR4x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor4_2	21.77280
sg13g2_nor4_1	10.88640

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	Y
sg13g2_nor4_2	0.00577	0.00568	0.00498	0.00509	0.60000
sg13g2_nor4_1	0.00300	0.00300	0.00262	0.00265	0.30000



## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor4_2	138.99200	199.52200	348.29700
sg13g2_nor4_1	69.50120	99.76760	174.12800

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor4_2	A->Y (FR)	0.01860	0.00100	<b>0.11112</b>	0.32940	0.12960	<b>0.95732</b>	2.50740	0.60000	<b>4.19136</b>
	B->Y (FR)	0.01860	0.00100	<b>0.10629</b>	0.32940	0.12960	<b>0.96105</b>	2.50740	0.60000	<b>4.33319</b>
	C->Y (FR)	0.01860	0.00100	<b>0.09139</b>	0.32940	0.12960	<b>0.95816</b>	2.50740	0.60000	<b>4.48813</b>
	D->Y (FR)	0.01860	0.00100	<b>0.06217</b>	0.32940	0.12960	<b>0.94057</b>	2.50740	0.60000	<b>4.57129</b>
sg13g2_nor4_1	A->Y (FR)	0.01860	0.00100	<b>0.11620</b>	0.32940	0.06480	<b>0.95066</b>	2.50740	0.30000	<b>4.17115</b>
	B->Y (FR)	0.01860	0.00100	<b>0.11170</b>	0.32940	0.06480	<b>0.95488</b>	2.50740	0.30000	<b>4.31233</b>
	C->Y (FR)	0.01860	0.00100	<b>0.09792</b>	0.32940	0.06480	<b>0.95371</b>	2.50740	0.30000	<b>4.46779</b>
	D->Y (FR)	0.01860	0.00100	<b>0.07084</b>	0.32940	0.06480	<b>0.93774</b>	2.50740	0.30000	<b>4.55141</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor4_2	A->Y (RF)	0.01860	0.00100	<b>0.02749</b>	0.32940	0.12960	<b>0.35642</b>	2.50740	0.60000	<b>1.94339</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02835</b>	0.32940	0.12960	<b>0.35350</b>	2.50740	0.60000	<b>1.94032</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02743</b>	0.32940	0.12960	<b>0.34901</b>	2.50740	0.60000	<b>1.93430</b>
	D->Y (RF)	0.01860	0.00100	<b>0.02343</b>	0.32940	0.12960	<b>0.34351</b>	2.50740	0.60000	<b>1.92536</b>
sg13g2_nor4_1	A->Y (RF)	0.01860	0.00100	<b>0.02937</b>	0.32940	0.06480	<b>0.35618</b>	2.50740	0.30000	<b>1.94339</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03017</b>	0.32940	0.06480	<b>0.35425</b>	2.50740	0.30000	<b>1.94191</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02914</b>	0.32940	0.06480	<b>0.34998</b>	2.50740	0.30000	<b>1.93581</b>
	D->Y (RF)	0.01860	0.00100	<b>0.02530</b>	0.32940	0.06480	<b>0.34462</b>	2.50740	0.30000	<b>1.92878</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor4_2	A	0.01860	0.00100	<b>0.01926</b>	0.32940	0.12960	<b>0.01907</b>	2.50740	0.60000	<b>0.01958</b>
	B	0.01860	0.00100	<b>0.01586</b>	0.32940	0.12960	<b>0.01563</b>	2.50740	0.60000	<b>0.01672</b>
	C	0.01860	0.00100	<b>0.01252</b>	0.32940	0.12960	<b>0.01232</b>	2.50740	0.60000	<b>0.01331</b>
	D	0.01860	0.00100	<b>0.00760</b>	0.32940	0.12960	<b>0.00763</b>	2.50740	0.60000	<b>0.00890</b>
sg13g2_nor4_1	A	0.01860	0.00100	<b>0.00960</b>	0.32940	0.06480	<b>0.00948</b>	2.50740	0.30000	<b>0.01004</b>
	B	0.01860	0.00100	<b>0.00789</b>	0.32940	0.06480	<b>0.00773</b>	2.50740	0.30000	<b>0.00790</b>
	C	0.01860	0.00100	<b>0.00636</b>	0.32940	0.06480	<b>0.00627</b>	2.50740	0.30000	<b>0.00666</b>
	D	0.01860	0.00100	<b>0.00401</b>	0.32940	0.06480	<b>0.00403</b>	2.50740	0.30000	<b>0.00479</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_nor4_2	A	0.01860	0.00100	<b>0.00617</b>	0.32940	0.12960	<b>0.00590</b>	2.50740	0.60000	<b>0.00782</b>
	B	0.01860	0.00100	<b>0.00581</b>	0.32940	0.12960	<b>0.00540</b>	2.50740	0.60000	<b>0.00736</b>
	C	0.01860	0.00100	<b>0.00301</b>	0.32940	0.12960	<b>0.00297</b>	2.50740	0.60000	<b>0.00489</b>
	D	0.01860	0.00100	<b>0.00127</b>	0.32940	0.12960	<b>0.00185</b>	2.50740	0.60000	<b>0.00407</b>
sg13g2_nor4_1	A	0.01860	0.00100	<b>0.00305</b>	0.32940	0.06480	<b>0.00292</b>	2.50740	0.30000	<b>0.00398</b>
	B	0.01860	0.00100	<b>0.00294</b>	0.32940	0.06480	<b>0.00281</b>	2.50740	0.30000	<b>0.00376</b>
	C	0.01860	0.00100	<b>0.00165</b>	0.32940	0.06480	<b>0.00165</b>	2.50740	0.30000	<b>0.00254</b>
	D	0.01860	0.00100	<b>0.00093</b>	0.32940	0.06480	<b>0.00118</b>	2.50740	0.30000	<b>0.00208</b>

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	0.01860	<b>0.00007</b>	0.32940	<b>-0.00027</b>	2.50740	<b>-0.00036</b>
sg13g2_nor4_1	0.01860	<b>0.00012</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00010</b>

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	0.01860	<b>0.00036</b>	0.32940	<b>0.00037</b>	2.50740	<b>0.00037</b>
sg13g2_nor4_1	0.01860	<b>0.00010</b>	0.32940	<b>0.00010</b>	2.50740	<b>0.00010</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	(!B * C) + (!B * !C * D)	0.01860	<b>0.00007</b>	0.32940	<b>-0.00027</b>	2.50740	<b>-0.00036</b>
sg13g2_nor4_1	(!B * C) + (!B * !C * D)	0.01860	<b>0.00012</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00010</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	(!B * C) + (!B * !C * D)	0.01860	<b>0.00036</b>	0.32940	<b>0.00037</b>	2.50740	<b>0.00037</b>
sg13g2_nor4_1	(!B * C) + (!B * !C * D)	0.01860	<b>0.00010</b>	0.32940	<b>0.00010</b>	2.50740	<b>0.00010</b>

Passive power(pJ) for B rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	0.01860	<b>0.00001</b>	0.32940	<b>-0.00011</b>	2.50740	<b>-0.00011</b>
sg13g2_nor4_1	0.01860	<b>0.00011</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

Passive power(pJ) for B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	0.01860	<b>0.00010</b>	0.32940	<b>0.00011</b>	2.50740	<b>0.00011</b>
sg13g2_nor4_1	0.01860	<b>-0.00006</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	(!A * C) + (!A * !C * D)	0.01860	<b>0.00001</b>	0.32940	<b>-0.00011</b>	2.50740	<b>-0.00011</b>
sg13g2_nor4_1	(!A * C) + (!A * !C * D)	0.01860	<b>0.00011</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	(!A * C) + (!A * !C * D)	0.01860	<b>0.00010</b>	0.32940	<b>0.00011</b>	2.50740	<b>0.00011</b>
sg13g2_nor4_1	(!A * C) + (!A * !C * D)	0.01860	<b>-0.00006</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	0.01860	<b>0.00166</b>	0.32940	<b>0.00168</b>	2.50740	<b>0.00169</b>
sg13g2_nor4_1	0.01860	<b>0.00094</b>	0.32940	<b>0.00095</b>	2.50740	<b>0.00095</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	0.01860	<b>-0.00030</b>	0.32940	<b>-0.00029</b>	2.50740	<b>-0.00028</b>
sg13g2_nor4_1	0.01860	<b>-0.00038</b>	0.32940	<b>-0.00037</b>	2.50740	<b>-0.00037</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	$(A * !D) + (!A * B * !D)$	0.01860	<b>0.00166</b>	0.32940	<b>0.00168</b>	2.50740	<b>0.00169</b>
sg13g2_nor4_1	$(A * !D) + (!A * B * !D)$	0.01860	<b>0.00094</b>	0.32940	<b>0.00095</b>	2.50740	<b>0.00095</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	$(A * !D) + (!A * B * !D)$	0.01860	<b>-0.00030</b>	0.32940	<b>-0.00029</b>	2.50740	<b>-0.00028</b>
sg13g2_nor4_1	$(A * !D) + (!A * B * !D)$	0.01860	<b>-0.00038</b>	0.32940	<b>-0.00037</b>	2.50740	<b>-0.00037</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	0.01860	<b>0.00206</b>	0.32940	<b>0.00206</b>	2.50740	<b>0.00207</b>
sg13g2_nor4_1	0.01860	<b>0.00113</b>	0.32940	<b>0.00113</b>	2.50740	<b>0.00114</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	0.01860	<b>0.00027</b>	0.32940	<b>0.00032</b>	2.50740	<b>0.00035</b>
sg13g2_nor4_1	0.01860	<b>-0.00014</b>	0.32940	<b>-0.00012</b>	2.50740	<b>-0.00011</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	$(A * !C) + (!A * B * !C)$	0.01860	<b>0.00206</b>	0.32940	<b>0.00206</b>	2.50740	<b>0.00207</b>
sg13g2_nor4_1	$(A * !C) + (!A * B * !C)$	0.01860	<b>0.00113</b>	0.32940	<b>0.00113</b>	2.50740	<b>0.00114</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_nor4_2	$(A * !C) + (!A * B * !C)$	0.01860	<b>0.00027</b>	0.32940	<b>0.00032</b>	2.50740	<b>0.00035</b>
sg13g2_nor4_1	$(A * !C) + (!A * B * !C)$	0.01860	<b>-0.00014</b>	0.32940	<b>-0.00012</b>	2.50740	<b>-0.00011</b>

# NP\_ANT



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

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## Truth Table

INPUT
A
x

## Footprint

Cell Name	Area
sg13g2_antennanp	5.44320

## Pin Capacitance Information

Cell Name	Pin Cap(pf)
	A
sg13g2_antennanp	0.00091

## Leakage Information

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



## Passive Power Information

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_antennanp	0.01860	<b>-0.00039</b>	0.32940	<b>-0.00040</b>	2.50740	<b>-0.00040</b>

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_antennanp	0.01860	<b>0.00039</b>	0.32940	<b>0.00040</b>	2.50740	<b>0.00040</b>

# O21AI



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_o21ai_1	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	Y
sg13g2_o21ai_1	0.00332	0.00335	0.00307	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_o21ai_1	81.54170	126.66700	169.71400

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_o21ai_1	A1->Y (FR)	0.01860	0.00100	<b>0.06692</b>	0.32940	0.06480	<b>0.62719</b>	2.50740	0.30000	<b>3.04775</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.05855</b>	0.32940	0.06480	<b>0.64583</b>	2.50740	0.30000	<b>3.28922</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.02685</b>	0.32940	0.06480	<b>0.41265</b>	2.50740	0.30000	<b>2.30374</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_o21ai_1	A1->Y (RF)	0.01860	0.00100	<b>0.04622</b>	0.32940	0.06480	<b>0.44501</b>	2.50740	0.30000	<b>2.25780</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.03922</b>	0.32940	0.06480	<b>0.43614</b>	2.50740	0.30000	<b>2.24507</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.03924</b>	0.32940	0.06480	<b>0.46340</b>	2.50740	0.30000	<b>2.43519</b>

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_o21ai_1	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.02685</b>	0.32940	0.06480	<b>0.41265</b>	2.50740	0.30000	<b>2.30374</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.02618</b>	0.32940	0.06480	<b>0.41135</b>	2.50740	0.30000	<b>2.29969</b>

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_o21ai_1	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.03924</b>	0.32940	0.06480	<b>0.46340</b>	2.50740	0.30000	<b>2.43519</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.03045</b>	0.32940	0.06480	<b>0.45118</b>	2.50740	0.30000	<b>2.41581</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_o21ai_1	A1	0.01860	0.00100	<b>0.00470</b>	0.32940	0.06480	<b>0.00462</b>	2.50740	0.30000	<b>0.00564</b>
	A2	0.01860	0.00100	<b>0.00238</b>	0.32940	0.06480	<b>0.00238</b>	2.50740	0.30000	<b>0.00362</b>
	B1	0.01860	0.00100	<b>0.00070</b>	0.32940	0.06480	<b>0.00097</b>	2.50740	0.30000	<b>0.00190</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_o21ai_1	A1	0.01860	0.00100	<b>0.00515</b>	0.32940	0.06480	<b>0.00485</b>	2.50740	0.30000	<b>0.00530</b>
	A2	0.01860	0.00100	<b>0.00485</b>	0.32940	0.06480	<b>0.00485</b>	2.50740	0.30000	<b>0.00546</b>
	B1	0.01860	0.00100	<b>0.00232</b>	0.32940	0.06480	<b>0.00245</b>	2.50740	0.30000	<b>0.00334</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_o21ai_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00297</b>	0.32940	0.06480	<b>0.00322</b>	2.50740	0.30000	<b>0.00410</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00070</b>	0.32940	0.06480	<b>0.00097</b>	2.50740	0.30000	<b>0.00190</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_o21ai_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00283</b>	0.32940	0.06480	<b>0.00278</b>	2.50740	0.30000	<b>0.00350</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00232</b>	0.32940	0.06480	<b>0.00245</b>	2.50740	0.30000	<b>0.00334</b>

Passive power(pJ) for A1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	0.01860	<b>-0.00037</b>	0.32940	<b>-0.00029</b>	2.50740	<b>-0.00025</b>

Passive power(pJ) for A1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	0.01860	<b>0.00042</b>	0.32940	<b>0.00029</b>	2.50740	<b>0.00025</b>

Passive power(pJ) for A1 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	(!A2 * !B1)	0.01860	<b>-0.00037</b>	0.32940	<b>-0.00029</b>	2.50740	<b>-0.00025</b>

Passive power(pJ) for A1 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	(!A2 * !B1)	0.01860	<b>0.00042</b>	0.32940	<b>0.00029</b>	2.50740	<b>0.00025</b>

Passive power(pJ) for A2 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	0.01860	<b>-0.00032</b>	0.32940	<b>-0.00023</b>	2.50740	<b>-0.00019</b>

Passive power(pJ) for A2 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	0.01860	<b>0.00037</b>	0.32940	<b>0.00023</b>	2.50740	<b>0.00019</b>

Passive power(pJ) for A2 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	(!A1 * !B1)	0.01860	<b>-0.00032</b>	0.32940	<b>-0.00023</b>	2.50740	<b>-0.00019</b>

Passive power(pJ) for A2 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	(!A1 * !B1)	0.01860	<b>0.00037</b>	0.32940	<b>0.00023</b>	2.50740	<b>0.00019</b>

Passive power(pJ) for B1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	0.01860	<b>0.00011</b>	0.32940	<b>0.00014</b>	2.50740	<b>0.00013</b>

Passive power(pJ) for B1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	0.01860	<b>0.00102</b>	0.32940	<b>0.00102</b>	2.50740	<b>0.00103</b>

Passive power(pJ) for B1 rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	(!A1 * !A2)	0.01860	<b>0.00011</b>	0.32940	<b>0.00014</b>	2.50740	<b>0.00013</b>

Passive power(pJ) for B1 falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_o21ai_1	(!A1 * !A2)	0.01860	<b>0.00102</b>	0.32940	<b>0.00102</b>	2.50740	<b>0.00103</b>

# OR2x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_or2_2	10.88640
sg13g2_or2_1	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	X
sg13g2_or2_2	0.00247	0.00229	0.60000
sg13g2_or2_1	0.00247	0.00230	0.30000

## Leakage Information



Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or2_2	133.82000	168.06100	227.90500
sg13g2_or2_1	90.37990	114.90400	145.59400

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or2_2	A->X (RR)	0.01860	0.00100	<b>0.06640</b>	0.32940	0.12960	<b>0.37102</b>	2.50740	0.60000	<b>1.30059</b>
	B->X (RR)	0.01860	0.00100	<b>0.06265</b>	0.32940	0.12960	<b>0.35980</b>	2.50740	0.60000	<b>1.26747</b>
sg13g2_or2_1	A->X (RR)	0.01860	0.00100	<b>0.05621</b>	0.32940	0.06480	<b>0.33701</b>	2.50740	0.30000	<b>1.20871</b>
	B->X (RR)	0.01860	0.00100	<b>0.05213</b>	0.32940	0.06480	<b>0.32271</b>	2.50740	0.30000	<b>1.16664</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or2_2	A->X (FF)	0.01860	0.00100	<b>0.12056</b>	0.32940	0.12960	<b>0.39345</b>	2.50740	0.60000	<b>1.18364</b>
	B->X (FF)	0.01860	0.00100	<b>0.11428</b>	0.32940	0.12960	<b>0.40142</b>	2.50740	0.60000	<b>1.21203</b>
sg13g2_or2_1	A->X (FF)	0.01860	0.00100	<b>0.09271</b>	0.32940	0.06480	<b>0.33765</b>	2.50740	0.30000	<b>1.06872</b>
	B->X (FF)	0.01860	0.00100	<b>0.08605</b>	0.32940	0.06480	<b>0.33924</b>	2.50740	0.30000	<b>1.08014</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or2_2	A	0.01860	0.00100	<b>0.00996</b>	0.32940	0.12960	<b>0.01029</b>	2.50740	0.60000	<b>0.01478</b>
	B	0.01860	0.00100	<b>0.00983</b>	0.32940	0.12960	<b>0.01003</b>	2.50740	0.60000	<b>0.01458</b>
sg13g2_or2_1	A	0.01860	0.00100	<b>0.00609</b>	0.32940	0.06480	<b>0.00623</b>	2.50740	0.30000	<b>0.01087</b>
	B	0.01860	0.00100	<b>0.00591</b>	0.32940	0.06480	<b>0.00595</b>	2.50740	0.30000	<b>0.01067</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or2_2	A	0.01860	0.00100	<b>0.01140</b>	0.32940	0.12960	<b>0.01165</b>	2.50740	0.60000	<b>0.01580</b>
	B	0.01860	0.00100	<b>0.00992</b>	0.32940	0.12960	<b>0.01030</b>	2.50740	0.60000	<b>0.01539</b>
sg13g2_or2_1	A	0.01860	0.00100	<b>0.00751</b>	0.32940	0.06480	<b>0.00770</b>	2.50740	0.30000	<b>0.01190</b>
	B	0.01860	0.00100	<b>0.00601</b>	0.32940	0.06480	<b>0.00643</b>	2.50740	0.30000	<b>0.01127</b>

# OR3x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_or3_2	14.51520
sg13g2_or3_1	12.70080

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	X
sg13g2_or3_2	0.00258	0.00253	0.00241	0.60000
sg13g2_or3_1	0.00259	0.00253	0.00242	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or3_2	137.31700	170.38900	269.50000
sg13g2_or3_1	93.74350	121.95700	187.05500

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or3_2	A->X (RR)	0.01860	0.00100	<b>0.07452</b>	0.32940	0.12960	<b>0.39208</b>	2.50740	0.60000	<b>1.36712</b>
	B->X (RR)	0.01860	0.00100	<b>0.07142</b>	0.32940	0.12960	<b>0.38200</b>	2.50740	0.60000	<b>1.33191</b>
	C->X (RR)	0.01860	0.00100	<b>0.06629</b>	0.32940	0.12960	<b>0.36911</b>	2.50740	0.60000	<b>1.29819</b>
sg13g2_or3_1	A->X (RR)	0.01860	0.00100	<b>0.06444</b>	0.32940	0.06480	<b>0.36051</b>	2.50740	0.30000	<b>1.28330</b>
	B->X (RR)	0.01860	0.00100	<b>0.06162</b>	0.32940	0.06480	<b>0.34885</b>	2.50740	0.30000	<b>1.24175</b>
	C->X (RR)	0.01860	0.00100	<b>0.05634</b>	0.32940	0.06480	<b>0.33411</b>	2.50740	0.30000	<b>1.20073</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or3_2	A->X (FF)	0.01860	0.00100	<b>0.16711</b>	0.32940	0.12960	<b>0.44482</b>	2.50740	0.60000	<b>1.20778</b>
	B->X (FF)	0.01860	0.00100	<b>0.16171</b>	0.32940	0.12960	<b>0.45105</b>	2.50740	0.60000	<b>1.26180</b>
	C->X (FF)	0.01860	0.00100	<b>0.14770</b>	0.32940	0.12960	<b>0.44650</b>	2.50740	0.60000	<b>1.27145</b>
sg13g2_or3_1	A->X (FF)	0.01860	0.00100	<b>0.13264</b>	0.32940	0.06480	<b>0.38438</b>	2.50740	0.30000	<b>1.10155</b>
	B->X (FF)	0.01860	0.00100	<b>0.12721</b>	0.32940	0.06480	<b>0.38678</b>	2.50740	0.30000	<b>1.14045</b>
	C->X (FF)	0.01860	0.00100	<b>0.11282</b>	0.32940	0.06480	<b>0.37768</b>	2.50740	0.30000	<b>1.13209</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or3_2	A	0.01860	0.00100	<b>0.01032</b>	0.32940	0.12960	<b>0.01051</b>	2.50740	0.60000	<b>0.01496</b>
	B	0.01860	0.00100	<b>0.01007</b>	0.32940	0.12960	<b>0.01027</b>	2.50740	0.60000	<b>0.01474</b>
	C	0.01860	0.00100	<b>0.00991</b>	0.32940	0.12960	<b>0.01005</b>	2.50740	0.60000	<b>0.01485</b>
sg13g2_or3_1	A	0.01860	0.00100	<b>0.00644</b>	0.32940	0.06480	<b>0.00640</b>	2.50740	0.30000	<b>0.01122</b>
	B	0.01860	0.00100	<b>0.00619</b>	0.32940	0.06480	<b>0.00611</b>	2.50740	0.30000	<b>0.01084</b>
	C	0.01860	0.00100	<b>0.00600</b>	0.32940	0.06480	<b>0.00597</b>	2.50740	0.30000	<b>0.01096</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or3_2	A	0.01860	0.00100	<b>0.01477</b>	0.32940	0.12960	<b>0.01475</b>	2.50740	0.60000	<b>0.01836</b>
	B	0.01860	0.00100	<b>0.01312</b>	0.32940	0.12960	<b>0.01314</b>	2.50740	0.60000	<b>0.01716</b>
	C	0.01860	0.00100	<b>0.01134</b>	0.32940	0.12960	<b>0.01139</b>	2.50740	0.60000	<b>0.01670</b>
sg13g2_or3_1	A	0.01860	0.00100	<b>0.01062</b>	0.32940	0.06480	<b>0.01074</b>	2.50740	0.30000	<b>0.01435</b>
	B	0.01860	0.00100	<b>0.00897</b>	0.32940	0.06480	<b>0.00911</b>	2.50740	0.30000	<b>0.01331</b>
	C	0.01860	0.00100	<b>0.00716</b>	0.32940	0.06480	<b>0.00750</b>	2.50740	0.30000	<b>0.01239</b>

# OR4x



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_or4_2	16.32960
sg13g2_or4_1	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	X
sg13g2_or4_2	0.00258	0.00255	0.00215	0.00219	0.60000
sg13g2_or4_1	0.00258	0.00255	0.00215	0.00219	0.30000



## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or4_2	139.52100	170.05300	304.38000
sg13g2_or4_1	96.07360	124.17000	221.97400

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or4_2	A->X (RR)	0.01860	0.00100	<b>0.07740</b>	0.32940	0.12960	<b>0.40278</b>	2.50740	0.60000	<b>1.39526</b>
	B->X (RR)	0.01860	0.00100	<b>0.07614</b>	0.32940	0.12960	<b>0.39476</b>	2.50740	0.60000	<b>1.36792</b>
	C->X (RR)	0.01860	0.00100	<b>0.07249</b>	0.32940	0.12960	<b>0.38508</b>	2.50740	0.60000	<b>1.33229</b>
	D->X (RR)	0.01860	0.00100	<b>0.06708</b>	0.32940	0.12960	<b>0.37153</b>	2.50740	0.60000	<b>1.29441</b>
sg13g2_or4_1	A->X (RR)	0.01860	0.00100	<b>0.06724</b>	0.32940	0.06480	<b>0.37263</b>	2.50740	0.30000	<b>1.31720</b>
	B->X (RR)	0.01860	0.00100	<b>0.06631</b>	0.32940	0.06480	<b>0.36411</b>	2.50740	0.30000	<b>1.28226</b>
	C->X (RR)	0.01860	0.00100	<b>0.06293</b>	0.32940	0.06480	<b>0.35264</b>	2.50740	0.30000	<b>1.24487</b>
	D->X (RR)	0.01860	0.00100	<b>0.05739</b>	0.32940	0.06480	<b>0.33718</b>	2.50740	0.30000	<b>1.19965</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or4_2	A->X (FF)	0.01860	0.00100	<b>0.23011</b>	0.32940	0.12960	<b>0.52530</b>	2.50740	0.60000	<b>1.28088</b>
	B->X (FF)	0.01860	0.00100	<b>0.22495</b>	0.32940	0.12960	<b>0.52572</b>	2.50740	0.60000	<b>1.33420</b>
	C->X (FF)	0.01860	0.00100	<b>0.21105</b>	0.32940	0.12960	<b>0.52027</b>	2.50740	0.60000	<b>1.37349</b>
	D->X (FF)	0.01860	0.00100	<b>0.18723</b>	0.32940	0.12960	<b>0.50499</b>	2.50740	0.60000	<b>1.37059</b>
sg13g2_or4_1	A->X (FF)	0.01860	0.00100	<b>0.18458</b>	0.32940	0.06480	<b>0.45144</b>	2.50740	0.30000	<b>1.16709</b>
	B->X (FF)	0.01860	0.00100	<b>0.17930</b>	0.32940	0.06480	<b>0.45061</b>	2.50740	0.30000	<b>1.20781</b>
	C->X (FF)	0.01860	0.00100	<b>0.16529</b>	0.32940	0.06480	<b>0.44188</b>	2.50740	0.30000	<b>1.23400</b>
	D->X (FF)	0.01860	0.00100	<b>0.14084</b>	0.32940	0.06480	<b>0.42264</b>	2.50740	0.30000	<b>1.21720</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or4_2	A	0.01860	0.00100	<b>0.01110</b>	0.32940	0.12960	<b>0.01133</b>	2.50740	0.60000	<b>0.01509</b>
	B	0.01860	0.00100	<b>0.01078</b>	0.32940	0.12960	<b>0.01093</b>	2.50740	0.60000	<b>0.01496</b>
	C	0.01860	0.00100	<b>0.00944</b>	0.32940	0.12960	<b>0.00971</b>	2.50740	0.60000	<b>0.01364</b>
	D	0.01860	0.00100	<b>0.00906</b>	0.32940	0.12960	<b>0.00920</b>	2.50740	0.60000	<b>0.01373</b>
sg13g2_or4_1	A	0.01860	0.00100	<b>0.00721</b>	0.32940	0.06480	<b>0.00715</b>	2.50740	0.30000	<b>0.01156</b>
	B	0.01860	0.00100	<b>0.00688</b>	0.32940	0.06480	<b>0.00678</b>	2.50740	0.30000	<b>0.01109</b>
	C	0.01860	0.00100	<b>0.00556</b>	0.32940	0.06480	<b>0.00547</b>	2.50740	0.30000	<b>0.00985</b>
	D	0.01860	0.00100	<b>0.00515</b>	0.32940	0.06480	<b>0.00515</b>	2.50740	0.30000	<b>0.00955</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_or4_2	A	0.01860	0.00100	<b>0.01515</b>	0.32940	0.12960	<b>0.01470</b>	2.50740	0.60000	<b>0.01789</b>
	B	0.01860	0.00100	<b>0.01533</b>	0.32940	0.12960	<b>0.01480</b>	2.50740	0.60000	<b>0.01841</b>
	C	0.01860	0.00100	<b>0.01420</b>	0.32940	0.12960	<b>0.01363</b>	2.50740	0.60000	<b>0.01747</b>
	D	0.01860	0.00100	<b>0.01177</b>	0.32940	0.12960	<b>0.01133</b>	2.50740	0.60000	<b>0.01615</b>
sg13g2_or4_1	A	0.01860	0.00100	<b>0.01059</b>	0.32940	0.06480	<b>0.01065</b>	2.50740	0.30000	<b>0.01351</b>
	B	0.01860	0.00100	<b>0.01076</b>	0.32940	0.06480	<b>0.01082</b>	2.50740	0.30000	<b>0.01400</b>
	C	0.01860	0.00100	<b>0.00965</b>	0.32940	0.06480	<b>0.00966</b>	2.50740	0.30000	<b>0.01358</b>
	D	0.01860	0.00100	<b>0.00717</b>	0.32940	0.06480	<b>0.00737</b>	2.50740	0.30000	<b>0.01230</b>

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	0.01860	<b>-0.00032</b>	0.32940	<b>-0.00033</b>	2.50740	<b>-0.00034</b>
sg13g2_or4_1	0.01860	<b>-0.00032</b>	0.32940	<b>-0.00034</b>	2.50740	<b>-0.00034</b>

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	0.01860	<b>0.00203</b>	0.32940	<b>0.00203</b>	2.50740	<b>0.00202</b>
sg13g2_or4_1	0.01860	<b>0.00203</b>	0.32940	<b>0.00203</b>	2.50740	<b>0.00202</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	(!B * C) + (!B * !C * D)	0.01860	<b>-0.00032</b>	0.32940	<b>-0.00033</b>	2.50740	<b>-0.00034</b>
sg13g2_or4_1	(!B * C) + (!B * !C * D)	0.01860	<b>-0.00032</b>	0.32940	<b>-0.00034</b>	2.50740	<b>-0.00034</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	(!B * C) + (!B * !C * D)	0.01860	<b>0.00203</b>	0.32940	<b>0.00203</b>	2.50740	<b>0.00202</b>
sg13g2_or4_1	(!B * C) + (!B * !C * D)	0.01860	<b>0.00203</b>	0.32940	<b>0.00203</b>	2.50740	<b>0.00202</b>

Passive power(pJ) for B rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	0.01860	<b>-0.00024</b>	0.32940	<b>-0.00024</b>	2.50740	<b>-0.00024</b>
sg13g2_or4_1	0.01860	<b>-0.00023</b>	0.32940	<b>-0.00024</b>	2.50740	<b>-0.00024</b>

Passive power(pJ) for B falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	0.01860	<b>0.00024</b>	0.32940	<b>0.00024</b>	2.50740	<b>0.00024</b>
sg13g2_or4_1	0.01860	<b>0.00023</b>	0.32940	<b>0.00024</b>	2.50740	<b>0.00024</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	$(!A * C) + (!A * !C * D)$	0.01860	<b>-0.00024</b>	0.32940	<b>-0.00024</b>	2.50740	<b>-0.00024</b>
sg13g2_or4_1	$(!A * C) + (!A * !C * D)$	0.01860	<b>-0.00023</b>	0.32940	<b>-0.00024</b>	2.50740	<b>-0.00024</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	$(!A * C) + (!A * !C * D)$	0.01860	<b>0.00024</b>	0.32940	<b>0.00024</b>	2.50740	<b>0.00024</b>
sg13g2_or4_1	$(!A * C) + (!A * !C * D)$	0.01860	<b>0.00023</b>	0.32940	<b>0.00024</b>	2.50740	<b>0.00024</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	0.01860	<b>0.00071</b>	0.32940	<b>0.00072</b>	2.50740	<b>0.00072</b>
sg13g2_or4_1	0.01860	<b>0.00071</b>	0.32940	<b>0.00072</b>	2.50740	<b>0.00072</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	0.01860	<b>-0.00030</b>	0.32940	<b>-0.00029</b>	2.50740	<b>-0.00029</b>
sg13g2_or4_1	0.01860	<b>-0.00030</b>	0.32940	<b>-0.00029</b>	2.50740	<b>-0.00029</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	$(A * !D) + (!A * B * !D)$	0.01860	<b>0.00071</b>	0.32940	<b>0.00072</b>	2.50740	<b>0.00072</b>
sg13g2_or4_1	$(A * !D) + (!A * B * !D)$	0.01860	<b>0.00071</b>	0.32940	<b>0.00072</b>	2.50740	<b>0.00072</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	$(A * !D) + (!A * B * !D)$	0.01860	<b>-0.00030</b>	0.32940	<b>-0.00029</b>	2.50740	<b>-0.00029</b>
sg13g2_or4_1	$(A * !D) + (!A * B * !D)$	0.01860	<b>-0.00030</b>	0.32940	<b>-0.00029</b>	2.50740	<b>-0.00029</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	0.01860	<b>0.00087</b>	0.32940	<b>0.00087</b>	2.50740	<b>0.00087</b>
sg13g2_or4_1	0.01860	<b>0.00087</b>	0.32940	<b>0.00087</b>	2.50740	<b>0.00087</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	0.01860	<b>0.00037</b>	0.32940	<b>0.00037</b>	2.50740	<b>0.00037</b>
sg13g2_or4_1	0.01860	<b>0.00036</b>	0.32940	<b>0.00037</b>	2.50740	<b>0.00037</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	$(A * !C) + (!A * B * !C)$	0.01860	<b>0.00087</b>	0.32940	<b>0.00087</b>	2.50740	<b>0.00087</b>
sg13g2_or4_1	$(A * !C) + (!A * B * !C)$	0.01860	<b>0.00087</b>	0.32940	<b>0.00087</b>	2.50740	<b>0.00087</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_or4_2	$(A * !C) + (!A * B * !C)$	0.01860	<b>0.00037</b>	0.32940	<b>0.00037</b>	2.50740	<b>0.00037</b>
sg13g2_or4_1	$(A * !C) + (!A * B * !C)$	0.01860	<b>0.00036</b>	0.32940	<b>0.00037</b>	2.50740	<b>0.00037</b>

# SDFRRS



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

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_sdfbbp_1	63.50400

## Pin Capacitance Information

Cell Name	Pin Cap(pf)						Max Cap(pf)	
	D	SCD	SCE	RESET_B	SET_B	CLK	Q	Q_N
sg13g2_sdfbbp_1	0.00198	0.00198	0.00355	0.00174	0.00525	0.00302	0.30000	0.30000



## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfbbp_1	644.25100	819.63000	928.96400

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK->Q (RR)	0.01860	0.00100	<b>0.30304</b>	0.32940	0.06480	<b>0.57953</b>	2.50740	0.30000	<b>1.44596</b>
	SET_B->Q (FR)	0.01860	0.00100	<b>0.12287</b>	0.32940	0.06480	<b>0.41699</b>	2.50740	0.30000	<b>1.31680</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK->Q (RF)	0.01860	0.00100	<b>0.24949</b>	0.32940	0.06480	<b>0.49560</b>	2.50740	0.30000	<b>1.24467</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.20682</b>	0.32940	0.06480	<b>0.46656</b>	2.50740	0.30000	<b>1.24293</b>

Delay(ns) to Q rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.30304</b>	0.32940	0.06480	<b>0.57953</b>	2.50740	0.30000	<b>1.44596</b>

Delay(ns) to Q falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.24949</b>	0.32940	0.06480	<b>0.49560</b>	2.50740	0.30000	<b>1.24467</b>

Delay(ns) to Q\_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK->Q_N (RR)	0.01860	0.00100	<b>0.20486</b>	0.32940	0.06480	<b>0.50450</b>	2.50740	0.30000	<b>1.38914</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.16122</b>	0.32940	0.06480	<b>0.48252</b>	2.50740	0.30000	<b>1.39801</b>

Delay(ns) to Q\_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK->Q_N (RF)	0.01860	0.00100	<b>0.25161</b>	0.32940	0.06480	<b>0.53749</b>	2.50740	0.30000	<b>1.27580</b>
	SET_B->Q_N (FF)	0.01860	0.00100	<b>0.08158</b>	0.32940	0.06480	<b>0.36971</b>	2.50740	0.30000	<b>1.17287</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK->Q_N (RR)	SCE	0.01860	0.00100	<b>0.20486</b>	0.32940	0.06480	<b>0.50450</b>	2.50740	0.30000	<b>1.38914</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK->Q_N (RF)	SCE	0.01860	0.00100	<b>0.25161</b>	0.32940	0.06480	<b>0.53749</b>	2.50740	0.30000	<b>1.27580</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.09536</b>	1.26300	1.26300	<b>-0.26444</b>	2.50740	2.50740	<b>-0.34533</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12470</b>	1.26300	1.26300	<b>0.28333</b>	2.50740	2.50740	<b>0.36599</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.10514</b>	1.26300	1.26300	<b>-0.17809</b>	2.50740	2.50740	<b>-0.21546</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.16627</b>	1.26300	1.26300	<b>0.22666</b>	2.50740	2.50740	<b>0.28630</b>

Constraints(ns) for SCD rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.11981</b>	1.26300	1.26300	<b>-0.32110</b>	2.50740	2.50740	<b>-0.42797</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.14916</b>	1.26300	1.26300	<b>0.33999</b>	2.50740	2.50740	<b>0.44863</b>

Constraints(ns) for SCD falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.13938</b>	1.26300	1.26300	<b>-0.20508</b>	2.50740	2.50740	<b>-0.25088</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19806</b>	1.26300	1.26300	<b>0.25095</b>	2.50740	2.50740	<b>0.31877</b>

Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.09781</b>	1.26300	1.26300	<b>-0.27523</b>	2.50740	2.50740	<b>-0.36894</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.13204</b>	1.26300	1.26300	<b>0.31301</b>	2.50740	2.50740	<b>0.41321</b>

Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.10759</b>	1.26300	1.26300	<b>-0.14031</b>	2.50740	2.50740	<b>-0.16824</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.16627</b>	1.26300	1.26300	<b>0.18889</b>	2.50740	2.50740	<b>0.23908</b>

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_sdfbbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.13222</b>	2.50740	2.50740	<b>0.16234</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.04401</b>	1.26300	1.26300	<b>-0.10794</b>	2.50740	2.50740	<b>-0.13282</b>

**Min Pulse Width (ns) for RESET\_B:**

Cell Name	High	Low
sg13g2_sdfbbp_1	-	3.3435

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_sdfbbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.01956</b>	1.26300	1.26300	<b>0.08905</b>	2.50740	2.50740	<b>0.38075</b>
	removal	CLK (R)	0.01860	0.01860	<b>0.03912</b>	1.26300	1.26300	<b>0.10524</b>	2.50740	2.50740	<b>0.12101</b>
	hold	RESET_B (R)	0.01860	0.01860	<b>-0.07825</b>	1.26300	1.26300	<b>-0.20777</b>	2.50740	2.50740	<b>-0.27154</b>
	setup	RESET_B (R)	0.01860	0.01860	<b>0.10025</b>	1.26300	1.26300	<b>0.23746</b>	2.50740	2.50740	<b>0.31286</b>

**Min Pulse Width (ns) for SET\_B:**

Cell Name	High	Low
sg13g2_sdfbbp_1	-	3.3435

**Min Pulse Width (ns) for CLK:**

Cell Name	High	Low
sg13g2_sdfbbp_1	3.3435	3.3435

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	<b>0.01649</b>	0.32940	0.06480	<b>0.01692</b>	2.50740	0.30000	<b>0.02096</b>
	SET_B	0.01860	0.00100	<b>0.03109</b>	0.32940	0.06480	<b>0.07728</b>	2.50740	0.30000	<b>0.25677</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	<b>0.01627</b>	0.32940	0.06480	<b>0.01642</b>	2.50740	0.30000	<b>0.02029</b>
	RESET_B	0.01860	0.00100	<b>0.03507</b>	0.32940	0.06480	<b>0.08129</b>	2.50740	0.30000	<b>0.25450</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	<b>0.01649</b>	0.32940	0.06480	<b>0.01692</b>	2.50740	0.30000	<b>0.02096</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	<b>0.01627</b>	0.32940	0.06480	<b>0.01642</b>	2.50740	0.30000	<b>0.02029</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	<b>0.01628</b>	0.32940	0.06480	<b>0.01656</b>	2.50740	0.30000	<b>0.02047</b>
	RESET_B	0.01860	0.00100	<b>0.03509</b>	0.32940	0.06480	<b>0.08160</b>	2.50740	0.30000	<b>0.25461</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	<b>0.01650</b>	0.32940	0.06480	<b>0.01677</b>	2.50740	0.30000	<b>0.02073</b>
	SET_B	0.01860	0.00100	<b>0.03111</b>	0.32940	0.06480	<b>0.07692</b>	2.50740	0.30000	<b>0.25650</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	<b>0.01628</b>	0.32940	0.06480	<b>0.01656</b>	2.50740	0.30000	<b>0.02047</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	<b>0.01650</b>	0.32940	0.06480	<b>0.01677</b>	2.50740	0.30000	<b>0.02073</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	0.01860	<b>0.00486</b>	0.32940	<b>0.00470</b>	2.50740	<b>0.00758</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	0.01860	<b>0.00474</b>	0.32940	<b>0.00464</b>	2.50740	<b>0.00761</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	(!CLK * RESET_B * !SCE * SET_B)	0.01860	<b>0.01139</b>	0.32940	<b>0.01125</b>	2.50740	<b>0.01441</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>0.00486</b>	0.32940	<b>0.00470</b>	2.50740	<b>0.00758</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	(!CLK * RESET_B * !SCE * SET_B)	0.01860	<b>0.01138</b>	0.32940	<b>0.01128</b>	2.50740	<b>0.01463</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>0.00474</b>	0.32940	<b>0.00464</b>	2.50740	<b>0.00761</b>

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	0.01860	<b>0.00632</b>	0.32940	<b>0.00621</b>	2.50740	<b>0.00825</b>

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	0.01860	<b>0.00724</b>	0.32940	<b>0.00717</b>	2.50740	<b>0.00932</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	(!CLK * RESET_B * SCE * SET_B)	0.01860	<b>0.01285</b>	0.32940	<b>0.01275</b>	2.50740	<b>0.01504</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>0.00632</b>	0.32940	<b>0.00621</b>	2.50740	<b>0.00825</b>

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



Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	(!CLK * RESET_B * SCE * SET_B)	0.01860	<b>0.01560</b>	0.32940	<b>0.01540</b>	2.50740	<b>0.01788</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>0.00724</b>	0.32940	<b>0.00717</b>	2.50740	<b>0.00932</b>

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	0.01860	<b>0.01320</b>	0.32940	<b>0.01328</b>	2.50740	<b>0.02072</b>

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	0.01860	<b>0.01480</b>	0.32940	<b>0.01491</b>	2.50740	<b>0.01891</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	(!CLK * D * RESET_B * !SCD * SET_B)	0.01860	<b>0.01447</b>	0.32940	<b>0.01454</b>	2.50740	<b>0.01854</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.01952</b>	0.32940	<b>0.01905</b>	2.50740	<b>0.02307</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.01320</b>	0.32940	<b>0.01328</b>	2.50740	<b>0.02072</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>0.00672</b>	0.32940	<b>0.00676</b>	2.50740	<b>0.01386</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	(!CLK * D * RESET_B * !SCD * SET_B)	0.01860	<b>0.01480</b>	0.32940	<b>0.01491</b>	2.50740	<b>0.01891</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.01877</b>	0.32940	<b>0.02416</b>	2.50740	<b>0.02835</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.00747</b>	0.32940	<b>0.02508</b>	2.50740	<b>0.03318</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>0.00703</b>	0.32940	<b>0.00705</b>	2.50740	<b>0.01378</b>

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	0.01860	<b>0.01191</b>	0.32940	<b>0.01176</b>	2.50740	<b>0.01965</b>

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	0.01860	<b>0.01487</b>	0.32940	<b>0.01514</b>	2.50740	<b>0.02368</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	(RESET_B * SCD * SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01188</b>	0.32940	<b>0.01171</b>	2.50740	<b>0.01960</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.01573</b>	0.32940	<b>0.01561</b>	2.50740	<b>0.02339</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01191</b>	0.32940	<b>0.01176</b>	2.50740	<b>0.01965</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01100</b>	0.32940	<b>0.01087</b>	2.50740	<b>0.01873</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01142</b>	0.32940	<b>0.01124</b>	2.50740	<b>0.01914</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01190</b>	0.32940	<b>0.01176</b>	2.50740	<b>0.01965</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_sdfbbp_1	(RESET_B * SCD * SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01133</b>	0.32940	<b>0.01143</b>	2.50740	<b>0.01948</b>
	(RESET_B * SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.02011</b>	0.32940	<b>0.02012</b>	2.50740	<b>0.02825</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.01487</b>	0.32940	<b>0.01514</b>	2.50740	<b>0.02368</b>
	(RESET_B * !SCD * SCE * SET_B * Q * !Q_N)	0.01860	<b>0.02152</b>	0.32940	<b>0.02179</b>	2.50740	<b>0.03037</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01155</b>	0.32940	<b>0.01168</b>	2.50740	<b>0.01969</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01134</b>	0.32940	<b>0.01143</b>	2.50740	<b>0.01948</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01028</b>	0.32940	<b>0.01039</b>	2.50740	<b>0.01841</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01152</b>	0.32940	<b>0.01164</b>	2.50740	<b>0.01965</b>

# SGCLK



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_slgcp_1	30.84480

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	GATE	SCE	CLK	GCLK
sg13g2_slgcp_1	0.00199	0.00240	0.00502	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_slgcp_1	344.76500	415.99700	460.32300

## Delay Information

Delay(ns) to GCLK rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_slgcp_1	CLK->GCLK (RR)	0.01860	0.00100	<b>0.07588</b>	0.32940	0.06480	<b>0.34774</b>	2.50740	0.30000	<b>1.21015</b>

Delay(ns) to GCLK falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_slgcp_1	CLK->GCLK (FF)	0.01860	0.00100	<b>0.06172</b>	0.32940	0.06480	<b>0.31047</b>	2.50740	0.30000	<b>1.03881</b>

## Constraint Information

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.03952</b>	1.26300	1.26300	<b>-0.18889</b>	2.50740	2.50740	<b>-0.25776</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06539</b>	1.26300	1.26300	<b>0.25634</b>	2.50740	2.50740	<b>0.35685</b>

Constraints(ns) for GATE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.06709</b>	1.26300	1.26300	<b>-0.16730</b>	2.50740	2.50740	<b>-0.22519</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11148</b>	1.26300	1.26300	<b>0.21047</b>	2.50740	2.50740	<b>0.27911</b>

Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.04495</b>	1.26300	1.26300	<b>-0.21317</b>	2.50740	2.50740	<b>-0.29845</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.00200</b>	1.26300	1.26300	<b>0.00200</b>	2.50740	2.50740	<b>0.00200</b>

Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	Min	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Max
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.07325</b>	1.26300	1.26300	<b>-0.14571</b>	2.50740	2.50740	<b>-0.19593</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11647</b>	1.26300	1.26300	<b>0.18349</b>	2.50740	2.50740	<b>0.24160</b>

Min Pulse Width (ns) for CLK:

Cell Name	High	Low
sg13g2_slgcp_1	3.3435	3.3435

## Power Information

Internal switching power(pJ) to GCLK rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_slgcp_1	CLK	0.01860	0.00100	<b>0.00870</b>	0.32940	0.06480	<b>0.00868</b>	2.50740	0.30000	<b>0.01312</b>

Internal switching power(pJ) to GCLK falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_slgcp_1	CLK	0.01860	0.00100	<b>0.00555</b>	0.32940	0.06480	<b>0.00609</b>	2.50740	0.30000	<b>0.01173</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_slgcp_1	0.01860	<b>0.01907</b>	0.32940	<b>0.01964</b>	2.50740	<b>0.02464</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_slgcp_1	0.01860	<b>0.01588</b>	0.32940	<b>0.03047</b>	2.50740	<b>0.03584</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_slgcp_1	!CLK	0.01860	<b>0.01907</b>	0.32940	<b>0.01964</b>	2.50740	<b>0.02464</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_slgcp_1	!CLK	0.01860	<b>0.01588</b>	0.32940	<b>0.03047</b>	2.50740	<b>0.03584</b>

Passive power(pJ) for SCE rising :



Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_slgcp_1	0.01860	<b>0.01100</b>	0.32940	<b>0.01094</b>	2.50740	<b>0.01586</b>

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_slgcp_1	0.01860	<b>0.01608</b>	0.32940	<b>0.02973</b>	2.50740	<b>0.03406</b>

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_slgcp_1	0.01860	<b>0.00772</b>	0.32940	<b>0.00775</b>	2.50740	<b>0.01462</b>

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_slgcp_1	0.01860	<b>0.00762</b>	0.32940	<b>0.00777</b>	2.50740	<b>0.01490</b>

# TIE0



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

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## Footprint

Cell Name	Area
sg13g2_tielo	7.25760

## Pin Capacitance Information

Cell Name	Max Cap(pf)
	L_LO
sg13g2_tielo	-

## Leakage Information

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

# TIE1



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

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## Footprint

Cell Name	Area
sg13g2_tiehi	7.25760

## Pin Capacitance Information

Cell Name	Max Cap(pf)
	L_HI
sg13g2_tiehi	-

## Leakage Information

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

# XNOR2\_1



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_xnor2_1	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_xnor2_1	0.00559	0.00503	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xnor2_1	120.30200	194.77500	225.80900

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_xnor2_1	A->Y (RR)	0.01860	0.00100	<b>0.07327</b>	0.32940	0.06480	<b>0.34438</b>	2.50740	0.30000	<b>1.20794</b>
	A->Y (FR)	0.01860	0.00100	<b>0.05350</b>	0.32940	0.06480	<b>0.54251</b>	2.50740	0.30000	<b>2.69543</b>
	B->Y (RR)	0.01860	0.00100	<b>0.06810</b>	0.32940	0.06480	<b>0.33844</b>	2.50740	0.30000	<b>1.19851</b>
	B->Y (FR)	0.01860	0.00100	<b>0.04711</b>	0.32940	0.06480	<b>0.56225</b>	2.50740	0.30000	<b>2.91097</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_xnor2_1	A->Y (FF)	0.01860	0.00100	<b>0.07116</b>	0.32940	0.06480	<b>0.43328</b>	2.50740	0.30000	<b>1.58834</b>
	A->Y (RF)	0.01860	0.00100	<b>0.04756</b>	0.32940	0.06480	<b>0.45514</b>	2.50740	0.30000	<b>2.33662</b>
	B->Y (FF)	0.01860	0.00100	<b>0.07186</b>	0.32940	0.06480	<b>0.42166</b>	2.50740	0.30000	<b>1.56402</b>
	B->Y (RF)	0.01860	0.00100	<b>0.04053</b>	0.32940	0.06480	<b>0.44634</b>	2.50740	0.30000	<b>2.32246</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_xnor2_1	A	0.01860	0.00100	<b>0.00789</b>	0.32940	0.06480	<b>0.00784</b>	2.50740	0.30000	<b>0.01255</b>
	B	0.01860	0.00100	<b>0.00785</b>	0.32940	0.06480	<b>0.00775</b>	2.50740	0.30000	<b>0.01344</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_xnor2_1	A	0.01860	0.00100	<b>0.00696</b>	0.32940	0.06480	<b>0.00741</b>	2.50740	0.30000	<b>0.01265</b>
	B	0.01860	0.00100	<b>0.00748</b>	0.32940	0.06480	<b>0.00669</b>	2.50740	0.30000	<b>0.01205</b>

# XOR2\_1



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

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_xor2_1	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	X
sg13g2_xor2_1	0.00579	0.00517	0.30000

## Leakage Information



Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xor2_1	174.79300	184.81500	194.60200

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_xor2_1	A->X (RR)	0.01860	0.00100	<b>0.07184</b>	0.32940	0.06480	<b>0.54206</b>	2.50740	0.30000	<b>2.12607</b>
	A->X (FR)	0.01860	0.00100	<b>0.05859</b>	0.32940	0.06480	<b>0.54985</b>	2.50740	0.30000	<b>2.70767</b>
	B->X (RR)	0.01860	0.00100	<b>0.07493</b>	0.32940	0.06480	<b>0.52917</b>	2.50740	0.30000	<b>2.08553</b>
	B->X (FR)	0.01860	0.00100	<b>0.05033</b>	0.32940	0.06480	<b>0.54044</b>	2.50740	0.30000	<b>2.69431</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_xor2_1	A->X (FF)	0.01860	0.00100	<b>0.08780</b>	0.32940	0.06480	<b>0.32646</b>	2.50740	0.30000	<b>1.03029</b>
	A->X (RF)	0.01860	0.00100	<b>0.04413</b>	0.32940	0.06480	<b>0.45107</b>	2.50740	0.30000	<b>2.32594</b>
	B->X (FF)	0.01860	0.00100	<b>0.08119</b>	0.32940	0.06480	<b>0.32551</b>	2.50740	0.30000	<b>1.03604</b>
	B->X (RF)	0.01860	0.00100	<b>0.03900</b>	0.32940	0.06480	<b>0.46779</b>	2.50740	0.30000	<b>2.47834</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_xor2_1	A	0.01860	0.00100	<b>0.00695</b>	0.32940	0.06480	<b>0.00722</b>	2.50740	0.30000	<b>0.01202</b>
	B	0.01860	0.00100	<b>0.00745</b>	0.32940	0.06480	<b>0.00670</b>	2.50740	0.30000	<b>0.01162</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_xor2_1	A	0.01860	0.00100	<b>0.00846</b>	0.32940	0.06480	<b>0.00865</b>	2.50740	0.30000	<b>0.01324</b>
	B	0.01860	0.00100	<b>0.00780</b>	0.32940	0.06480	<b>0.00791</b>	2.50740	0.30000	<b>0.01320</b>