

## sg13g2\_stdcell\_fast\_1p32V\_m40C 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
GCLK
INx
ITL

<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\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00586	0.00644	0.00572	0.60000
sg13g2_a21oi_1	0.00305	0.00321	0.00291	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21oi_2	317.74900	583.54100	764.88500
sg13g2_a21oi_1	158.87400	291.77100	382.44300

## 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>0.02925</b>	0.32940	0.12960	<b>0.36369</b>	2.50740	0.60000	<b>1.87119</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.03482</b>	0.32940	0.12960	<b>0.36902</b>	2.50740	0.60000	<b>1.87389</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.02777</b>	0.32940	0.12960	<b>0.38546</b>	2.50740	0.60000	<b>2.08877</b>
sg13g2_a21oi_1	A1->Y (FR)	0.01860	0.00100	<b>0.03184</b>	0.32940	0.06480	<b>0.36344</b>	2.50740	0.30000	<b>1.86674</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.03728</b>	0.32940	0.06480	<b>0.36939</b>	2.50740	0.30000	<b>1.87620</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.03024</b>	0.32940	0.06480	<b>0.38624</b>	2.50740	0.30000	<b>2.09039</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>0.02610</b>	0.32940	0.12960	<b>0.34166</b>	2.50740	0.60000	<b>1.88061</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.02951</b>	0.32940	0.12960	<b>0.32536</b>	2.50740	0.60000	<b>1.72528</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.01535</b>	0.32940	0.12960	<b>0.25666</b>	2.50740	0.60000	<b>1.47129</b>
sg13g2_a21oi_1	A1->Y (RF)	0.01860	0.00100	<b>0.02842</b>	0.32940	0.06480	<b>0.34190</b>	2.50740	0.30000	<b>1.88040</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.03152</b>	0.32940	0.06480	<b>0.32520</b>	2.50740	0.30000	<b>1.72146</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.01682</b>	0.32940	0.06480	<b>0.25728</b>	2.50740	0.30000	<b>1.47320</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>0.02777</b>	0.32940	0.12960	<b>0.38546</b>	2.50740	0.60000	<b>2.08877</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.02174</b>	0.32940	0.12960	<b>0.37996</b>	2.50740	0.60000	<b>2.08684</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.01885</b>	0.32940	0.12960	<b>0.32446</b>	2.50740	0.60000	<b>1.81330</b>
sg13g2_a21oi_1	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.03024</b>	0.32940	0.06480	<b>0.38624</b>	2.50740	0.30000	<b>2.09039</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.02412</b>	0.32940	0.06480	<b>0.37830</b>	2.50740	0.30000	<b>2.07951</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.02061</b>	0.32940	0.06480	<b>0.32416</b>	2.50740	0.30000	<b>1.81033</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>0.01535</b>	0.32940	0.12960	<b>0.25666</b>	2.50740	0.60000	<b>1.47129</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.01512</b>	0.32940	0.12960	<b>0.25582</b>	2.50740	0.60000	<b>1.46879</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.01489</b>	0.32940	0.12960	<b>0.25546</b>	2.50740	0.60000	<b>1.47000</b>
sg13g2_a21oi_1	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.01682</b>	0.32940	0.06480	<b>0.25728</b>	2.50740	0.30000	<b>1.47320</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.01655</b>	0.32940	0.06480	<b>0.25605</b>	2.50740	0.30000	<b>1.47100</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.01634</b>	0.32940	0.06480	<b>0.25585</b>	2.50740	0.30000	<b>1.47203</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>0.00868</b>	0.32940	0.12960	<b>0.00903</b>	2.50740	0.60000	<b>0.01861</b>
	A2	0.01860	0.00100	<b>0.01117</b>	0.32940	0.12960	<b>0.01138</b>	2.50740	0.60000	<b>0.02065</b>
	B1	0.01860	0.00100	<b>0.00711</b>	0.32940	0.12960	<b>0.00796</b>	2.50740	0.60000	<b>0.02136</b>
sg13g2_a21oi_1	A1	0.01860	0.00100	<b>0.00445</b>	0.32940	0.06480	<b>0.00460</b>	2.50740	0.30000	<b>0.00903</b>
	A2	0.01860	0.00100	<b>0.00556</b>	0.32940	0.06480	<b>0.00563</b>	2.50740	0.30000	<b>0.01027</b>
	B1	0.01860	0.00100	<b>0.00354</b>	0.32940	0.06480	<b>0.00397</b>	2.50740	0.30000	<b>0.01088</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>0.00792</b>	0.32940	0.12960	<b>0.00817</b>	2.50740	0.60000	<b>0.01683</b>
	A2	0.01860	0.00100	<b>0.01118</b>	0.32940	0.12960	<b>0.01084</b>	2.50740	0.60000	<b>0.02048</b>
	B1	0.01860	0.00100	<b>0.00204</b>	0.32940	0.12960	<b>0.00327</b>	2.50740	0.60000	<b>0.01520</b>
sg13g2_a21oi_1	A1	0.01860	0.00100	<b>0.00435</b>	0.32940	0.06480	<b>0.00446</b>	2.50740	0.30000	<b>0.00895</b>
	A2	0.01860	0.00100	<b>0.00585</b>	0.32940	0.06480	<b>0.00567</b>	2.50740	0.30000	<b>0.01065</b>
	B1	0.01860	0.00100	<b>0.00135</b>	0.32940	0.06480	<b>0.00185</b>	2.50740	0.30000	<b>0.00810</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>0.00711</b>	0.32940	0.12960	<b>0.00796</b>	2.50740	0.60000	<b>0.02136</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00620</b>	0.32940	0.12960	<b>0.00741</b>	2.50740	0.60000	<b>0.02083</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00624</b>	0.32940	0.12960	<b>0.00737</b>	2.50740	0.60000	<b>0.02182</b>
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00354</b>	0.32940	0.06480	<b>0.00397</b>	2.50740	0.30000	<b>0.01088</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00320</b>	0.32940	0.06480	<b>0.00371</b>	2.50740	0.30000	<b>0.01064</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00321</b>	0.32940	0.06480	<b>0.00373</b>	2.50740	0.30000	<b>0.01100</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>0.00643</b>	0.32940	0.12960	<b>0.00770</b>	2.50740	0.60000	<b>0.01991</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00223</b>	0.32940	0.12960	<b>0.00355</b>	2.50740	0.60000	<b>0.01531</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00204</b>	0.32940	0.12960	<b>0.00327</b>	2.50740	0.60000	<b>0.01520</b>
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00357</b>	0.32940	0.06480	<b>0.00413</b>	2.50740	0.30000	<b>0.01020</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00145</b>	0.32940	0.06480	<b>0.00192</b>	2.50740	0.30000	<b>0.00766</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00135</b>	0.32940	0.06480	<b>0.00185</b>	2.50740	0.30000	<b>0.00810</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>-0.00161</b>	0.32940	<b>-0.00166</b>	2.50740	<b>-0.00164</b>
sg13g2_a21oi_1	0.01860	<b>-0.00079</b>	0.32940	<b>-0.00082</b>	2.50740	<b>-0.00081</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>0.00220</b>	0.32940	<b>0.00226</b>	2.50740	<b>0.00227</b>
sg13g2_a21oi_1	0.01860	<b>0.00100</b>	0.32940	<b>0.00104</b>	2.50740	<b>0.00104</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!A2 * !B1)	0.01860	<b>-0.00161</b>	0.32940	<b>-0.00166</b>	2.50740	<b>-0.00164</b>
sg13g2_a21oi_1	B1	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!A2 * !B1)	0.01860	<b>-0.00079</b>	0.32940	<b>-0.00082</b>	2.50740	<b>-0.00081</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	0.00000	0.32940	0.00000	2.50740	0.00000
	(!A2 * !B1)	0.01860	0.00220	0.32940	0.00226	2.50740	0.00227
sg13g2_a21oi_1	B1	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000
	(!A2 * !B1)	0.01860	0.00100	0.32940	0.00104	2.50740	0.00104

Passive power(pJ) for A2 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	-0.00040	0.32940	-0.00017	2.50740	-0.00008
sg13g2_a21oi_1	0.01860	-0.00020	0.32940	-0.00009	2.50740	-0.00005

Passive power(pJ) for A2 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	0.00040	0.32940	0.00017	2.50740	0.00008
sg13g2_a21oi_1	0.01860	0.00020	0.32940	0.00009	2.50740	0.00005

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	0.00000	0.32940	0.00000	2.50740	0.00000
	(!A1 * !B1)	0.01860	-0.00040	0.32940	-0.00017	2.50740	-0.00008
sg13g2_a21oi_1	B1	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000
	(!A1 * !B1)	0.01860	-0.00020	0.32940	-0.00009	2.50740	-0.00005

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	0.00000	0.32940	0.00000	2.50740	0.00000
	(!A1 * !B1)	0.01860	0.00040	0.32940	0.00017	2.50740	0.00008
sg13g2_a21oi_1	B1	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000
	(!A1 * !B1)	0.01860	0.00020	0.32940	0.00009	2.50740	0.00005

Passive power(pJ) for B1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	0.00109	0.32940	0.00113	2.50740	0.00113
sg13g2_a21oi_1	0.01860	0.00059	0.32940	0.00061	2.50740	0.00061

Passive power(pJ) for B1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a21oi_2	0.01860	-0.00109	0.32940	-0.00113	2.50740	-0.00113
sg13g2_a21oi_1	0.01860	-0.00059	0.32940	-0.00061	2.50740	-0.00061

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	0.00109	0.32940	0.00113	2.50740	0.00113
sg13g2_a21oi_1	(A1 * A2)	0.01860	0.00059	0.32940	0.00061	2.50740	0.00061

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	-0.00109	0.32940	-0.00113	2.50740	-0.00113
sg13g2_a21oi_1	(A1 * A2)	0.01860	-0.00059	0.32940	-0.00061	2.50740	-0.00061

# A221OI



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00317	0.00324	0.00292	0.00301	0.00268	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a221oi_1	238.70800	456.17800	622.82600

## 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>0.06008</b>	0.32940	0.12960	<b>0.85019</b>	2.50740	0.60000	<b>3.92334</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.06825</b>	0.32940	0.12960	<b>0.85629</b>	2.50740	0.60000	<b>3.92744</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.06219</b>	0.32940	0.12960	<b>0.86789</b>	2.50740	0.60000	<b>4.11302</b>
	B2->Y (FR)	0.01860	0.00100	<b>0.07017</b>	0.32940	0.12960	<b>0.87312</b>	2.50740	0.60000	<b>4.11171</b>
	C1->Y (FR)	0.01860	0.00100	<b>0.04541</b>	0.32940	0.12960	<b>0.86427</b>	2.50740	0.60000	<b>4.21604</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>0.03613</b>	0.32940	0.12960	<b>0.53685</b>	2.50740	0.60000	<b>2.79441</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.03988</b>	0.32940	0.12960	<b>0.52271</b>	2.50740	0.60000	<b>2.63234</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.03290</b>	0.32940	0.12960	<b>0.52897</b>	2.50740	0.60000	<b>2.78416</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.03594</b>	0.32940	0.12960	<b>0.51456</b>	2.50740	0.60000	<b>2.62161</b>
	C1->Y (RF)	0.01860	0.00100	<b>0.01879</b>	0.32940	0.12960	<b>0.36309</b>	2.50740	0.60000	<b>2.09413</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>0.06964</b>	0.32940	0.12960	<b>0.85720</b>	2.50740	0.60000	<b>3.92280</b>
	A1->Y (FR)	(!B1 * B2)	0.01860	0.00100	<b>0.06008</b>	0.32940	0.12960	<b>0.85019</b>	2.50740	0.60000	<b>3.92334</b>
	A1->Y (FR)	(!B1 * !B2)	0.01860	0.00100	<b>0.05458</b>	0.32940	0.12960	<b>0.73297</b>	2.50740	0.60000	<b>3.44810</b>
	A2->Y (FR)	(B1 * !B2)	0.01860	0.00100	<b>0.07761</b>	0.32940	0.12960	<b>0.86363</b>	2.50740	0.60000	<b>3.92407</b>
	A2->Y (FR)	(!B1 * B2)	0.01860	0.00100	<b>0.06825</b>	0.32940	0.12960	<b>0.85629</b>	2.50740	0.60000	<b>3.92744</b>
	A2->Y (FR)	(!B1 * !B2)	0.01860	0.00100	<b>0.06125</b>	0.32940	0.12960	<b>0.73823</b>	2.50740	0.60000	<b>3.44893</b>
	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.06219</b>	0.32940	0.12960	<b>0.86789</b>	2.50740	0.60000	<b>4.11302</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.05258</b>	0.32940	0.12960	<b>0.85904</b>	2.50740	0.60000	<b>4.10985</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.04457</b>	0.32940	0.12960	<b>0.73234</b>	2.50740	0.60000	<b>3.55470</b>
	B2->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.07017</b>	0.32940	0.12960	<b>0.87312</b>	2.50740	0.60000	<b>4.11171</b>
	B2->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.06077</b>	0.32940	0.12960	<b>0.86473</b>	2.50740	0.60000	<b>4.10893</b>
	B2->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.05115</b>	0.32940	0.12960	<b>0.73588</b>	2.50740	0.60000	<b>3.55155</b>
	C1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.04541</b>	0.32940	0.12960	<b>0.86427</b>	2.50740	0.60000	<b>4.21604</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>0.03613</b>	0.32940	0.12960	<b>0.53685</b>	2.50740	0.60000	<b>2.79441</b>
	A1->Y (RF)	(!B1 * B2)	0.01860	0.00100	<b>0.03534</b>	0.32940	0.12960	<b>0.53464</b>	2.50740	0.60000	<b>2.79267</b>
	A1->Y (RF)	(!B1 * !B2)	0.01860	0.00100	<b>0.03698</b>	0.32940	0.12960	<b>0.53742</b>	2.50740	0.60000	<b>2.79414</b>
	A2->Y (RF)	(B1 * !B2)	0.01860	0.00100	<b>0.03900</b>	0.32940	0.12960	<b>0.52236</b>	2.50740	0.60000	<b>2.63110</b>
	A2->Y (RF)	(!B1 * B2)	0.01860	0.00100	<b>0.03827</b>	0.32940	0.12960	<b>0.51999</b>	2.50740	0.60000	<b>2.62837</b>
	A2->Y (RF)	(!B1 * !B2)	0.01860	0.00100	<b>0.03988</b>	0.32940	0.12960	<b>0.52271</b>	2.50740	0.60000	<b>2.63234</b>
	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.03290</b>	0.32940	0.12960	<b>0.52897</b>	2.50740	0.60000	<b>2.78416</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.03234</b>	0.32940	0.12960	<b>0.52680</b>	2.50740	0.60000	<b>2.78182</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.03196</b>	0.32940	0.12960	<b>0.52653</b>	2.50740	0.60000	<b>2.78214</b>
	B2->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.03594</b>	0.32940	0.12960	<b>0.51456</b>	2.50740	0.60000	<b>2.62161</b>
	B2->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.03538</b>	0.32940	0.12960	<b>0.51234</b>	2.50740	0.60000	<b>2.61885</b>
	B2->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.03509</b>	0.32940	0.12960	<b>0.51149</b>	2.50740	0.60000	<b>2.61933</b>
	C1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.01879</b>	0.32940	0.12960	<b>0.36309</b>	2.50740	0.60000	<b>2.09413</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>0.01005</b>	0.32940	0.12960	<b>0.00974</b>	2.50740	0.60000	<b>0.01117</b>
	A2	0.01860	0.00100	<b>0.01019</b>	0.32940	0.12960	<b>0.00975</b>	2.50740	0.60000	<b>0.01121</b>
	B1	0.01860	0.00100	<b>0.00793</b>	0.32940	0.12960	<b>0.00783</b>	2.50740	0.60000	<b>0.00974</b>
	B2	0.01860	0.00100	<b>0.00812</b>	0.32940	0.12960	<b>0.00777</b>	2.50740	0.60000	<b>0.00940</b>
	C1	0.01860	0.00100	<b>0.00405</b>	0.32940	0.12960	<b>0.00399</b>	2.50740	0.60000	<b>0.00567</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>0.00576</b>	0.32940	0.12960	<b>0.00507</b>	2.50740	0.60000	<b>0.00687</b>
	A2	0.01860	0.00100	<b>0.00784</b>	0.32940	0.12960	<b>0.00728</b>	2.50740	0.60000	<b>0.00764</b>
	B1	0.01860	0.00100	<b>0.00309</b>	0.32940	0.12960	<b>0.00262</b>	2.50740	0.60000	<b>0.00451</b>
	B2	0.01860	0.00100	<b>0.00525</b>	0.32940	0.12960	<b>0.00478</b>	2.50740	0.60000	<b>0.00519</b>
	C1	0.01860	0.00100	<b>0.00377</b>	0.32940	0.12960	<b>0.00385</b>	2.50740	0.60000	<b>0.00401</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>0.01005</b>	0.32940	0.12960	<b>0.00974</b>	2.50740	0.60000	<b>0.01117</b>
	A1	(!B1 * B2)	0.01860	0.00100	<b>0.00973</b>	0.32940	0.12960	<b>0.00950</b>	2.50740	0.60000	<b>0.01149</b>
	A1	(!B1 * !B2)	0.01860	0.00100	<b>0.01212</b>	0.32940	0.12960	<b>0.01193</b>	2.50740	0.60000	<b>0.01374</b>
	A2	(B1 * !B2)	0.01860	0.00100	<b>0.01019</b>	0.32940	0.12960	<b>0.00975</b>	2.50740	0.60000	<b>0.01121</b>
	A2	(!B1 * B2)	0.01860	0.00100	<b>0.00993</b>	0.32940	0.12960	<b>0.00954</b>	2.50740	0.60000	<b>0.01161</b>
	A2	(!B1 * !B2)	0.01860	0.00100	<b>0.01232</b>	0.32940	0.12960	<b>0.01196</b>	2.50740	0.60000	<b>0.01385</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00827</b>	0.32940	0.12960	<b>0.00799</b>	2.50740	0.60000	<b>0.00923</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00794</b>	0.32940	0.12960	<b>0.00775</b>	2.50740	0.60000	<b>0.00897</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00793</b>	0.32940	0.12960	<b>0.00783</b>	2.50740	0.60000	<b>0.00974</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00839</b>	0.32940	0.12960	<b>0.00797</b>	2.50740	0.60000	<b>0.00918</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00813</b>	0.32940	0.12960	<b>0.00775</b>	2.50740	0.60000	<b>0.00893</b>
	B2	(!A1 * !A2)	0.01860	0.00100	<b>0.00812</b>	0.32940	0.12960	<b>0.00777</b>	2.50740	0.60000	<b>0.00940</b>
	C1	(!A1 * A2)	0.01860	0.00100	<b>0.00405</b>	0.32940	0.12960	<b>0.00399</b>	2.50740	0.60000	<b>0.00567</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>0.00786</b>	0.32940	0.12960	<b>0.00713</b>	2.50740	0.60000	<b>0.00908</b>
	A1	(!B1 * B2)	0.01860	0.00100	<b>0.00576</b>	0.32940	0.12960	<b>0.00507</b>	2.50740	0.60000	<b>0.00687</b>
	A1	(!B1 * !B2)	0.01860	0.00100	<b>0.00468</b>	0.32940	0.12960	<b>0.00403</b>	2.50740	0.60000	<b>0.00585</b>
	A2	(B1 * !B2)	0.01860	0.00100	<b>0.00994</b>	0.32940	0.12960	<b>0.00937</b>	2.50740	0.60000	<b>0.00984</b>
	A2	(!B1 * B2)	0.01860	0.00100	<b>0.00784</b>	0.32940	0.12960	<b>0.00728</b>	2.50740	0.60000	<b>0.00764</b>
	A2	(!B1 * !B2)	0.01860	0.00100	<b>0.00676</b>	0.32940	0.12960	<b>0.00624</b>	2.50740	0.60000	<b>0.00694</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00530</b>	0.32940	0.12960	<b>0.00481</b>	2.50740	0.60000	<b>0.00636</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00320</b>	0.32940	0.12960	<b>0.00273</b>	2.50740	0.60000	<b>0.00440</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00309</b>	0.32940	0.12960	<b>0.00262</b>	2.50740	0.60000	<b>0.00451</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00744</b>	0.32940	0.12960	<b>0.00708</b>	2.50740	0.60000	<b>0.00735</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00534</b>	0.32940	0.12960	<b>0.00499</b>	2.50740	0.60000	<b>0.00514</b>
	B2	(!A1 * !A2)	0.01860	0.00100	<b>0.00525</b>	0.32940	0.12960	<b>0.00478</b>	2.50740	0.60000	<b>0.00519</b>
	C1	(!A1 * A2)	0.01860	0.00100	<b>0.00377</b>	0.32940	0.12960	<b>0.00385</b>	2.50740	0.60000	<b>0.00401</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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	0.00000	0.32940	0.00000	2.50740	0.00000

Passive power(pJ) for A2 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	0.00000	0.32940	0.00000	2.50740	0.00000

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	0.00000	0.32940	0.00000	2.50740	0.00000

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	0.00000	0.32940	0.00000	2.50740	0.00000

Passive power(pJ) for B1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	0.00061	0.32940	0.00063	2.50740	0.00064

Passive power(pJ) for B1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	-0.00061	0.32940	-0.00063	2.50740	-0.00064

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>0.00077</b>	0.32940	<b>0.00082</b>	2.50740	<b>0.00089</b>
	(A1 * A2 * !C1)	0.01860	<b>0.00061</b>	0.32940	<b>0.00063</b>	2.50740	<b>0.00064</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>-0.00016</b>	0.32940	<b>-0.00016</b>	2.50740	<b>-0.00015</b>
	(A1 * A2 * !C1)	0.01860	<b>-0.00061</b>	0.32940	<b>-0.00063</b>	2.50740	<b>-0.00064</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>0.00064</b>	0.32940	<b>0.00066</b>	2.50740	<b>0.00067</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>-0.00064</b>	0.32940	<b>-0.00066</b>	2.50740	<b>-0.00067</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>0.00081</b>	0.32940	<b>0.00085</b>	2.50740	<b>0.00091</b>
	(A1 * A2 * !C1)	0.01860	<b>0.00064</b>	0.32940	<b>0.00066</b>	2.50740	<b>0.00067</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	<b>-0.00019</b>	0.32940	<b>-0.00018</b>	2.50740	<b>-0.00017</b>
	(A1 * A2 * !C1)	0.01860	<b>-0.00064</b>	0.32940	<b>-0.00066</b>	2.50740	<b>-0.00067</b>

Passive power(pJ) for C1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>0.00060</b>	0.32940	<b>0.00063</b>	2.50740	<b>0.00063</b>

Passive power(pJ) for C1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_a221oi_1	0.01860	<b>0.00070</b>	0.32940	<b>0.00071</b>	2.50740	<b>0.00073</b>

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	<b>0.00060</b>	0.32940	<b>0.00063</b>	2.50740	<b>0.00063</b>

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	<b>0.00070</b>	0.32940	<b>0.00071</b>	2.50740	<b>0.00073</b>

# A22OI



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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## Truth Table

INPUT				OUTPUT
A1	A2	B1	B2	Y
0	x	0	0	1
0	x	x	1	0
x	x	1	x	0
1	0	0	0	1
1	0	x	1	0
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	0.00334	0.00331	0.00383	0.00389	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a22oi_1	159.67300	355.45600	512.41900

## 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>0.03260</b>	0.32940	0.06480	<b>0.32769</b>	2.50740	0.30000	<b>1.73316</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.03640</b>	0.32940	0.06480	<b>0.33149</b>	2.50740	0.30000	<b>1.73906</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.02659</b>	0.32940	0.06480	<b>0.32908</b>	2.50740	0.30000	<b>1.80937</b>
	B2->Y (FR)	0.01860	0.00100	<b>0.02283</b>	0.32940	0.06480	<b>0.32513</b>	2.50740	0.30000	<b>1.80199</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>0.03542</b>	0.32940	0.06480	<b>0.34853</b>	2.50740	0.30000	<b>1.89490</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.03838</b>	0.32940	0.06480	<b>0.33190</b>	2.50740	0.30000	<b>1.73221</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.02748</b>	0.32940	0.06480	<b>0.31972</b>	2.50740	0.30000	<b>1.71687</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.02426</b>	0.32940	0.06480	<b>0.33591</b>	2.50740	0.30000	<b>1.87727</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>0.00455</b>	0.32940	0.06480	<b>0.00000</b>	2.50740	0.30000	<b>0.00000</b>
	A2	0.01860	0.00100	<b>0.00448</b>	0.32940	0.06480	<b>0.00000</b>	2.50740	0.30000	<b>0.00000</b>
	B1	0.01860	0.00100	<b>0.00031</b>	0.32940	0.06480	<b>0.00000</b>	2.50740	0.30000	<b>0.00000</b>
	B2	0.01860	0.00100	<b>0.00047</b>	0.32940	0.06480	<b>0.00000</b>	2.50740	0.30000	<b>0.00000</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>-0.00110</b>	0.32940	0.06480	<b>0.00000</b>	2.50740	0.30000	<b>0.00000</b>
	A2	0.01860	0.00100	<b>-0.00026</b>	0.32940	0.06480	<b>0.00000</b>	2.50740	0.30000	<b>0.00000</b>
	B1	0.01860	0.00100	<b>-0.00031</b>	0.32940	0.06480	<b>0.00000</b>	2.50740	0.30000	<b>0.00000</b>
	B2	0.01860	0.00100	<b>-0.00047</b>	0.32940	0.06480	<b>0.00000</b>	2.50740	0.30000	<b>0.00000</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>0.00523</b>	0.32940	<b>0.00676</b>	2.50740	<b>0.02861</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>0.00383</b>	0.32940	<b>0.01207</b>	2.50740	<b>0.03384</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>0.00648</b>	0.32940	<b>0.00836</b>	2.50740	<b>0.02931</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>0.00406</b>	0.32940	<b>0.01132</b>	2.50740	<b>0.03233</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>0.00657</b>	0.32940	<b>0.00826</b>	2.50740	<b>0.03022</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>0.00299</b>	0.32940	<b>0.00523</b>	2.50740	<b>0.02845</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>0.00440</b>	0.32940	<b>0.00695</b>	2.50740	<b>0.02983</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>0.00255</b>	0.32940	<b>0.00505</b>	2.50740	<b>0.02899</b>

# AND2x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00273	0.00276	0.60000
sg13g2_and2_1	0.00275	0.00278	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and2_2	376.01900	422.90000	475.39400
sg13g2_and2_1	218.16900	284.75100	341.22400

## 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>0.05693</b>	0.32940	0.12960	<b>0.27057</b>	2.50740	0.60000	<b>0.91963</b>
	B->X (RR)	0.01860	0.00100	<b>0.06016</b>	0.32940	0.12960	<b>0.26384</b>	2.50740	0.60000	<b>0.89255</b>
sg13g2_and2_1	A->X (RR)	0.01860	0.00100	<b>0.04586</b>	0.32940	0.06480	<b>0.23529</b>	2.50740	0.30000	<b>0.84505</b>
	B->X (RR)	0.01860	0.00100	<b>0.04919</b>	0.32940	0.06480	<b>0.23243</b>	2.50740	0.30000	<b>0.82772</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>0.04738</b>	0.32940	0.12960	<b>0.23881</b>	2.50740	0.60000	<b>0.76344</b>
	B->X (FF)	0.01860	0.00100	<b>0.05060</b>	0.32940	0.12960	<b>0.24846</b>	2.50740	0.60000	<b>0.79292</b>
sg13g2_and2_1	A->X (FF)	0.01860	0.00100	<b>0.03877</b>	0.32940	0.06480	<b>0.20573</b>	2.50740	0.30000	<b>0.68945</b>
	B->X (FF)	0.01860	0.00100	<b>0.04215</b>	0.32940	0.06480	<b>0.21665</b>	2.50740	0.30000	<b>0.72108</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>0.01313</b>	0.32940	0.12960	<b>0.01438</b>	2.50740	0.60000	<b>0.03343</b>
	B	0.01860	0.00100	<b>0.01497</b>	0.32940	0.12960	<b>0.01573</b>	2.50740	0.60000	<b>0.03403</b>
sg13g2_and2_1	A	0.01860	0.00100	<b>0.00795</b>	0.32940	0.06480	<b>0.00948</b>	2.50740	0.30000	<b>0.03045</b>
	B	0.01860	0.00100	<b>0.00983</b>	0.32940	0.06480	<b>0.01063</b>	2.50740	0.30000	<b>0.03150</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>0.01158</b>	0.32940	0.12960	<b>0.01377</b>	2.50740	0.60000	<b>0.03414</b>
	B	0.01860	0.00100	<b>0.01167</b>	0.32940	0.12960	<b>0.01359</b>	2.50740	0.60000	<b>0.03285</b>
sg13g2_and2_1	A	0.01860	0.00100	<b>0.00692</b>	0.32940	0.06480	<b>0.00896</b>	2.50740	0.30000	<b>0.02777</b>
	B	0.01860	0.00100	<b>0.00704</b>	0.32940	0.06480	<b>0.00883</b>	2.50740	0.30000	<b>0.02832</b>

# AND3x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00254	0.00271	0.00274	0.60000
sg13g2_and3_1	0.00255	0.00273	0.00274	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and3_2	378.68700	477.15400	575.86100
sg13g2_and3_1	220.83800	329.15700	472.36100



## 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_and3_2	A->X (RR)	0.01860	0.00100	<b>0.07743</b>	0.32940	0.12960	<b>0.30590</b>	2.50740	0.60000	<b>1.00096</b>
	B->X (RR)	0.01860	0.00100	<b>0.08417</b>	0.32940	0.12960	<b>0.30328</b>	2.50740	0.60000	<b>0.98604</b>
	C->X (RR)	0.01860	0.00100	<b>0.08690</b>	0.32940	0.12960	<b>0.29304</b>	2.50740	0.60000	<b>0.93936</b>
sg13g2_and3_1	A->X (RR)	0.01860	0.00100	<b>0.06131</b>	0.32940	0.06480	<b>0.26452</b>	2.50740	0.30000	<b>0.91932</b>
	B->X (RR)	0.01860	0.00100	<b>0.06816</b>	0.32940	0.06480	<b>0.26477</b>	2.50740	0.30000	<b>0.91080</b>
	C->X (RR)	0.01860	0.00100	<b>0.07092</b>	0.32940	0.06480	<b>0.25832</b>	2.50740	0.30000	<b>0.87126</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>0.04960</b>	0.32940	0.12960	<b>0.24390</b>	2.50740	0.60000	<b>0.75820</b>
	B->X (FF)	0.01860	0.00100	<b>0.05307</b>	0.32940	0.12960	<b>0.25347</b>	2.50740	0.60000	<b>0.78607</b>
	C->X (FF)	0.01860	0.00100	<b>0.05531</b>	0.32940	0.12960	<b>0.26095</b>	2.50740	0.60000	<b>0.81665</b>
sg13g2_and3_1	A->X (FF)	0.01860	0.00100	<b>0.04120</b>	0.32940	0.06480	<b>0.21124</b>	2.50740	0.30000	<b>0.68381</b>
	B->X (FF)	0.01860	0.00100	<b>0.04474</b>	0.32940	0.06480	<b>0.22265</b>	2.50740	0.30000	<b>0.71434</b>
	C->X (FF)	0.01860	0.00100	<b>0.04688</b>	0.32940	0.06480	<b>0.23138</b>	2.50740	0.30000	<b>0.74767</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>0.01541</b>	0.32940	0.12960	<b>0.01590</b>	2.50740	0.60000	<b>0.03353</b>
	B	0.01860	0.00100	<b>0.01658</b>	0.32940	0.12960	<b>0.01653</b>	2.50740	0.60000	<b>0.03324</b>
	C	0.01860	0.00100	<b>0.01828</b>	0.32940	0.12960	<b>0.01781</b>	2.50740	0.60000	<b>0.03414</b>
sg13g2_and3_1	A	0.01860	0.00100	<b>0.00974</b>	0.32940	0.06480	<b>0.01119</b>	2.50740	0.30000	<b>0.02988</b>
	B	0.01860	0.00100	<b>0.01091</b>	0.32940	0.06480	<b>0.01145</b>	2.50740	0.30000	<b>0.02920</b>
	C	0.01860	0.00100	<b>0.01260</b>	0.32940	0.06480	<b>0.01306</b>	2.50740	0.30000	<b>0.03093</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>0.01108</b>	0.32940	0.12960	<b>0.01244</b>	2.50740	0.60000	<b>0.03104</b>
	B	0.01860	0.00100	<b>0.01193</b>	0.32940	0.12960	<b>0.01362</b>	2.50740	0.60000	<b>0.03166</b>
	C	0.01860	0.00100	<b>0.01206</b>	0.32940	0.12960	<b>0.01369</b>	2.50740	0.60000	<b>0.03253</b>
sg13g2_and3_1	A	0.01860	0.00100	<b>0.00639</b>	0.32940	0.06480	<b>0.00761</b>	2.50740	0.30000	<b>0.02548</b>
	B	0.01860	0.00100	<b>0.00726</b>	0.32940	0.06480	<b>0.00873</b>	2.50740	0.30000	<b>0.02677</b>
	C	0.01860	0.00100	<b>0.00739</b>	0.32940	0.06480	<b>0.00892</b>	2.50740	0.30000	<b>0.02832</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>-0.00063</b>	0.32940	<b>-0.00080</b>	2.50740	<b>-0.00087</b>
sg13g2_and3_1	0.01860	<b>-0.00064</b>	0.32940	<b>-0.00080</b>	2.50740	<b>-0.00087</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>0.00063</b>	0.32940	<b>0.00080</b>	2.50740	<b>0.00087</b>
sg13g2_and3_1	0.01860	<b>0.00064</b>	0.32940	<b>0.00080</b>	2.50740	<b>0.00087</b>

# AND4x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00243	0.00244	0.00283	0.00278	0.60000
sg13g2_and4_1	0.00244	0.00245	0.00283	0.00278	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and4_2	381.38000	515.19400	682.47800
sg13g2_and4_1	223.52500	362.26500	603.43600

## 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>0.09879</b>	0.32940	0.12960	<b>0.33945</b>	2.50740	0.60000	<b>1.07641</b>
	B->X (RR)	0.01860	0.00100	<b>0.10844</b>	0.32940	0.12960	<b>0.33957</b>	2.50740	0.60000	<b>1.06333</b>
	C->X (RR)	0.01860	0.00100	<b>0.11395</b>	0.32940	0.12960	<b>0.33340</b>	2.50740	0.60000	<b>1.02605</b>
	D->X (RR)	0.01860	0.00100	<b>0.11672</b>	0.32940	0.12960	<b>0.32623</b>	2.50740	0.60000	<b>0.97554</b>
sg13g2_and4_1	A->X (RR)	0.01860	0.00100	<b>0.07796</b>	0.32940	0.06480	<b>0.29304</b>	2.50740	0.30000	<b>0.98872</b>
	B->X (RR)	0.01860	0.00100	<b>0.08782</b>	0.32940	0.06480	<b>0.29578</b>	2.50740	0.30000	<b>0.98432</b>
	C->X (RR)	0.01860	0.00100	<b>0.09333</b>	0.32940	0.06480	<b>0.29279</b>	2.50740	0.30000	<b>0.95420</b>
	D->X (RR)	0.01860	0.00100	<b>0.09607</b>	0.32940	0.06480	<b>0.28783</b>	2.50740	0.30000	<b>0.91212</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>0.05126</b>	0.32940	0.12960	<b>0.24723</b>	2.50740	0.60000	<b>0.75042</b>
	B->X (FF)	0.01860	0.00100	<b>0.05474</b>	0.32940	0.12960	<b>0.25642</b>	2.50740	0.60000	<b>0.77795</b>
	C->X (FF)	0.01860	0.00100	<b>0.05724</b>	0.32940	0.12960	<b>0.26353</b>	2.50740	0.60000	<b>0.80490</b>
	D->X (FF)	0.01860	0.00100	<b>0.05906</b>	0.32940	0.12960	<b>0.26942</b>	2.50740	0.60000	<b>0.83224</b>
sg13g2_and4_1	A->X (FF)	0.01860	0.00100	<b>0.04330</b>	0.32940	0.06480	<b>0.21553</b>	2.50740	0.30000	<b>0.67605</b>
	B->X (FF)	0.01860	0.00100	<b>0.04689</b>	0.32940	0.06480	<b>0.22603</b>	2.50740	0.30000	<b>0.70416</b>
	C->X (FF)	0.01860	0.00100	<b>0.04932</b>	0.32940	0.06480	<b>0.23506</b>	2.50740	0.30000	<b>0.73435</b>
	D->X (FF)	0.01860	0.00100	<b>0.05093</b>	0.32940	0.06480	<b>0.24271</b>	2.50740	0.30000	<b>0.76624</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>0.01663</b>	0.32940	0.12960	<b>0.01614</b>	2.50740	0.60000	<b>0.03592</b>
	B	0.01860	0.00100	<b>0.01865</b>	0.32940	0.12960	<b>0.01773</b>	2.50740	0.60000	<b>0.03524</b>
	C	0.01860	0.00100	<b>0.01993</b>	0.32940	0.12960	<b>0.01870</b>	2.50740	0.60000	<b>0.03517</b>
	D	0.01860	0.00100	<b>0.01974</b>	0.32940	0.12960	<b>0.01845</b>	2.50740	0.60000	<b>0.03287</b>
sg13g2_and4_1	A	0.01860	0.00100	<b>0.01037</b>	0.32940	0.06480	<b>0.01124</b>	2.50740	0.30000	<b>0.02773</b>
	B	0.01860	0.00100	<b>0.01240</b>	0.32940	0.06480	<b>0.01270</b>	2.50740	0.30000	<b>0.02837</b>
	C	0.01860	0.00100	<b>0.01367</b>	0.32940	0.06480	<b>0.01386</b>	2.50740	0.30000	<b>0.02960</b>
	D	0.01860	0.00100	<b>0.01349</b>	0.32940	0.06480	<b>0.01351</b>	2.50740	0.30000	<b>0.02996</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>0.01130</b>	0.32940	0.12960	<b>0.01262</b>	2.50740	0.60000	<b>0.02989</b>
	B	0.01860	0.00100	<b>0.01160</b>	0.32940	0.12960	<b>0.01307</b>	2.50740	0.60000	<b>0.03058</b>
	C	0.01860	0.00100	<b>0.01239</b>	0.32940	0.12960	<b>0.01373</b>	2.50740	0.60000	<b>0.03206</b>
	D	0.01860	0.00100	<b>0.01252</b>	0.32940	0.12960	<b>0.01353</b>	2.50740	0.60000	<b>0.03299</b>
sg13g2_and4_1	A	0.01860	0.00100	<b>0.00662</b>	0.32940	0.06480	<b>0.00797</b>	2.50740	0.30000	<b>0.02473</b>
	B	0.01860	0.00100	<b>0.00694</b>	0.32940	0.06480	<b>0.00806</b>	2.50740	0.30000	<b>0.02474</b>
	C	0.01860	0.00100	<b>0.00772</b>	0.32940	0.06480	<b>0.00898</b>	2.50740	0.30000	<b>0.02615</b>
	D	0.01860	0.00100	<b>0.00781</b>	0.32940	0.06480	<b>0.00935</b>	2.50740	0.30000	<b>0.02674</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>-0.00033</b>	0.32940	<b>-0.00033</b>	2.50740	<b>-0.00033</b>
sg13g2_and4_1	0.01860	<b>-0.00034</b>	0.32940	<b>-0.00034</b>	2.50740	<b>-0.00033</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>0.00092</b>	0.32940	<b>0.00094</b>	2.50740	<b>0.00095</b>
sg13g2_and4_1	0.01860	<b>0.00092</b>	0.32940	<b>0.00095</b>	2.50740	<b>0.00095</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>-0.00033</b>	0.32940	<b>-0.00033</b>	2.50740	<b>-0.00033</b>
sg13g2_and4_1	$(B * C * !D) + (B * !C)$	0.01860	<b>-0.00034</b>	0.32940	<b>-0.00034</b>	2.50740	<b>-0.00033</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>0.00092</b>	0.32940	<b>0.00094</b>	2.50740	<b>0.00095</b>
sg13g2_and4_1	$(B * C * !D) + (B * !C)$	0.01860	<b>0.00092</b>	0.32940	<b>0.00095</b>	2.50740	<b>0.00095</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>-0.00041</b>	0.32940	<b>-0.00041</b>	2.50740	<b>-0.00041</b>
sg13g2_and4_1	0.01860	<b>-0.00041</b>	0.32940	<b>-0.00041</b>	2.50740	<b>-0.00041</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>0.00064</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00067</b>
sg13g2_and4_1	0.01860	<b>0.00065</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00067</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>-0.00041</b>	0.32940	<b>-0.00041</b>	2.50740	<b>-0.00041</b>
sg13g2_and4_1	$(A * C * !D) + (A * !C)$	0.01860	<b>-0.00041</b>	0.32940	<b>-0.00041</b>	2.50740	<b>-0.00041</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>0.00064</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00067</b>
sg13g2_and4_1	$(A * C * !D) + (A * !C)$	0.01860	<b>0.00065</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00067</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_and4_1	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_and4_1	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_and4_1	$(A * !B * D) + (!A * D)$	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_and4_1	$(A * !B * D) + (!A * D)$	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00181</b>	0.32940	<b>0.00182</b>	2.50740	<b>0.00180</b>
sg13g2_and4_1	0.01860	<b>0.00180</b>	0.32940	<b>0.00182</b>	2.50740	<b>0.00180</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>0.00011</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00001</b>
sg13g2_and4_1	0.01860	<b>0.00012</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00001</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>0.00181</b>	0.32940	<b>0.00182</b>	2.50740	<b>0.00180</b>
sg13g2_and4_1	$(A * !B * C) + (!A * C)$	0.01860	<b>0.00180</b>	0.32940	<b>0.00182</b>	2.50740	<b>0.00180</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>0.00011</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00001</b>
sg13g2_and4_1	$(A * !B * C) + (!A * C)$	0.01860	<b>0.00012</b>	0.32940	<b>0.00005</b>	2.50740	<b>0.00001</b>

# A021x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00322	0.00318	0.00280	0.60000
sg13g2_a21o_1	0.00301	0.00308	0.00265	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21o_2	433.38100	496.65500	579.98400
sg13g2_a21o_1	298.78800	357.49200	398.18900

## 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>0.06031</b>	0.32940	0.12960	<b>0.27679</b>	2.50740	0.60000	<b>0.91646</b>
	A2->X (RR)	0.01860	0.00100	<b>0.06313</b>	0.32940	0.12960	<b>0.26830</b>	2.50740	0.60000	<b>0.88991</b>
	B1->X (RR)	0.01860	0.00100	<b>0.03882</b>	0.32940	0.12960	<b>0.24060</b>	2.50740	0.60000	<b>0.81906</b>
sg13g2_a21o_1	A1->X (RR)	0.01860	0.00100	<b>0.05598</b>	0.32940	0.06480	<b>0.25993</b>	2.50740	0.30000	<b>0.90214</b>
	A2->X (RR)	0.01860	0.00100	<b>0.05891</b>	0.32940	0.06480	<b>0.25356</b>	2.50740	0.30000	<b>0.87651</b>
	B1->X (RR)	0.01860	0.00100	<b>0.03646</b>	0.32940	0.06480	<b>0.22483</b>	2.50740	0.30000	<b>0.80269</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>0.07660</b>	0.32940	0.12960	<b>0.26438</b>	2.50740	0.60000	<b>0.81103</b>
	A2->X (FF)	0.01860	0.00100	<b>0.08320</b>	0.32940	0.12960	<b>0.27574</b>	2.50740	0.60000	<b>0.84203</b>
	B1->X (FF)	0.01860	0.00100	<b>0.07653</b>	0.32940	0.12960	<b>0.28525</b>	2.50740	0.60000	<b>0.89375</b>
sg13g2_a21o_1	A1->X (FF)	0.01860	0.00100	<b>0.06086</b>	0.32940	0.06480	<b>0.22776</b>	2.50740	0.30000	<b>0.71769</b>
	A2->X (FF)	0.01860	0.00100	<b>0.06683</b>	0.32940	0.06480	<b>0.23956</b>	2.50740	0.30000	<b>0.74791</b>
	B1->X (FF)	0.01860	0.00100	<b>0.05977</b>	0.32940	0.06480	<b>0.24253</b>	2.50740	0.30000	<b>0.78748</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>0.03882</b>	0.32940	0.12960	<b>0.24060</b>	2.50740	0.60000	<b>0.81906</b>
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	<b>0.03736</b>	0.32940	0.12960	<b>0.23190</b>	2.50740	0.60000	<b>0.79153</b>
sg13g2_a21o_1	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	<b>0.03646</b>	0.32940	0.06480	<b>0.22483</b>	2.50740	0.30000	<b>0.80269</b>
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	<b>0.03450</b>	0.32940	0.06480	<b>0.21506</b>	2.50740	0.30000	<b>0.77271</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>0.07653</b>	0.32940	0.12960	<b>0.28525</b>	2.50740	0.60000	<b>0.89375</b>
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	<b>0.06859</b>	0.32940	0.12960	<b>0.27164</b>	2.50740	0.60000	<b>0.86659</b>
sg13g2_a21o_1	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	<b>0.05977</b>	0.32940	0.06480	<b>0.24253</b>	2.50740	0.30000	<b>0.78748</b>
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	<b>0.05296</b>	0.32940	0.06480	<b>0.22788</b>	2.50740	0.30000	<b>0.75899</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>0.01404</b>	0.32940	0.12960	<b>0.01536</b>	2.50740	0.60000	<b>0.03548</b>
	A2	0.01860	0.00100	<b>0.01616</b>	0.32940	0.12960	<b>0.01696</b>	2.50740	0.60000	<b>0.03655</b>
	B1	0.01860	0.00100	<b>0.01197</b>	0.32940	0.12960	<b>0.01376</b>	2.50740	0.60000	<b>0.03871</b>
sg13g2_a21o_1	A1	0.01860	0.00100	<b>0.00891</b>	0.32940	0.06480	<b>0.01022</b>	2.50740	0.30000	<b>0.02885</b>
	A2	0.01860	0.00100	<b>0.01076</b>	0.32940	0.06480	<b>0.01160</b>	2.50740	0.30000	<b>0.02983</b>
	B1	0.01860	0.00100	<b>0.00696</b>	0.32940	0.06480	<b>0.00859</b>	2.50740	0.30000	<b>0.03023</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>0.01550</b>	0.32940	0.12960	<b>0.01618</b>	2.50740	0.60000	<b>0.03697</b>
	A2	0.01860	0.00100	<b>0.01560</b>	0.32940	0.12960	<b>0.01572</b>	2.50740	0.60000	<b>0.03789</b>
	B1	0.01860	0.00100	<b>0.01251</b>	0.32940	0.12960	<b>0.01446</b>	2.50740	0.60000	<b>0.03751</b>
sg13g2_a21o_1	A1	0.01860	0.00100	<b>0.01010</b>	0.32940	0.06480	<b>0.01099</b>	2.50740	0.30000	<b>0.02956</b>
	A2	0.01860	0.00100	<b>0.01012</b>	0.32940	0.06480	<b>0.01112</b>	2.50740	0.30000	<b>0.03016</b>
	B1	0.01860	0.00100	<b>0.00716</b>	0.32940	0.06480	<b>0.00910</b>	2.50740	0.30000	<b>0.02988</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>0.01409</b>	0.32940	0.12960	<b>0.01605</b>	2.50740	0.60000	<b>0.04062</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.01197</b>	0.32940	0.12960	<b>0.01376</b>	2.50740	0.60000	<b>0.03871</b>
sg13g2_a21o_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00877</b>	0.32940	0.06480	<b>0.01033</b>	2.50740	0.30000	<b>0.03333</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00696</b>	0.32940	0.06480	<b>0.00859</b>	2.50740	0.30000	<b>0.03023</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>0.01284</b>	0.32940	0.12960	<b>0.01403</b>	2.50740	0.60000	<b>0.03609</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.01251</b>	0.32940	0.12960	<b>0.01446</b>	2.50740	0.60000	<b>0.03751</b>
sg13g2_a21o_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00733</b>	0.32940	0.06480	<b>0.00911</b>	2.50740	0.30000	<b>0.02904</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00716</b>	0.32940	0.06480	<b>0.00910</b>	2.50740	0.30000	<b>0.02988</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_a21o_1	0.01860	<b>-0.00017</b>	0.32940	<b>-0.00017</b>	2.50740	<b>-0.00016</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_a21o_1	0.01860	<b>0.00017</b>	0.32940	<b>0.00017</b>	2.50740	<b>0.00016</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!A2 * B1)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_a21o_1	(A2 * B1)	0.01860	<b>-0.00017</b>	0.32940	<b>-0.00017</b>	2.50740	<b>-0.00016</b>
	(!A2 * B1)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!A2 * B1)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_a21o_1	(A2 * B1)	0.01860	<b>0.00017</b>	0.32940	<b>0.00017</b>	2.50740	<b>0.00016</b>
	(!A2 * B1)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>-0.00007</b>	0.32940	<b>-0.00006</b>	2.50740	<b>-0.00006</b>
sg13g2_a21o_1	0.01860	<b>-0.00013</b>	0.32940	<b>-0.00014</b>	2.50740	<b>-0.00014</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>0.00007</b>	0.32940	<b>0.00006</b>	2.50740	<b>0.00006</b>
sg13g2_a21o_1	0.01860	<b>0.00014</b>	0.32940	<b>0.00014</b>	2.50740	<b>0.00014</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>-0.00007</b>	0.32940	<b>-0.00006</b>	2.50740	<b>-0.00006</b>
	(!A1 * B1)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_a21o_1	(A1 * B1)	0.01860	<b>-0.00013</b>	0.32940	<b>-0.00014</b>	2.50740	<b>-0.00014</b>
	(!A1 * B1)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00007</b>	0.32940	<b>0.00006</b>	2.50740	<b>0.00006</b>
	(!A1 * B1)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_a21o_1	(A1 * B1)	0.01860	<b>0.00014</b>	0.32940	<b>0.00014</b>	2.50740	<b>0.00014</b>
	(!A1 * B1)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</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>0.00060</b>	0.32940	<b>0.00064</b>	2.50740	<b>0.00065</b>
sg13g2_a21o_1	0.01860	<b>0.00058</b>	0.32940	<b>0.00061</b>	2.50740	<b>0.00061</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>0.00040</b>	0.32940	<b>0.00041</b>	2.50740	<b>0.00042</b>
sg13g2_a21o_1	0.01860	<b>0.00054</b>	0.32940	<b>0.00054</b>	2.50740	<b>0.00055</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>0.00060</b>	0.32940	<b>0.00064</b>	2.50740	<b>0.00065</b>
sg13g2_a21o_1	(A1 * A2)	0.01860	<b>0.00058</b>	0.32940	<b>0.00061</b>	2.50740	<b>0.00061</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>0.00040</b>	0.32940	<b>0.00041</b>	2.50740	<b>0.00042</b>
sg13g2_a21o_1	(A1 * A2)	0.01860	<b>0.00054</b>	0.32940	<b>0.00054</b>	2.50740	<b>0.00055</b>

# BTLx



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00628	0.01805	2.40000
sg13g2_ebufn_4	0.00321	0.01090	1.20000
sg13g2_ebufn_2	0.00285	0.00672	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_ebufn_8	374.50000	1634.34000	3019.60000
sg13g2_ebufn_4	266.08800	876.33600	1549.32000
sg13g2_ebufn_2	218.52800	523.63300	835.47100

## 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	0.02005	<b>0.04667</b>	0.32940	0.53745	<b>0.38890</b>	2.50740	2.41905	<b>1.47337</b>
	TE_B->Z (RR)	0.01860	0.02005	<b>0.04958</b>	0.32940	0.53745	<b>0.13714</b>	2.50740	2.41905	<b>0.31545</b>
	TE_B->Z (FR)	0.01860	0.02005	<b>0.02556</b>	0.32940	0.53745	<b>0.36099</b>	2.50740	2.41905	<b>1.85236</b>
sg13g2_ebufn_4	A->Z (RR)	0.01860	0.01064	<b>0.04769</b>	0.32940	0.26884	<b>0.38919</b>	2.50740	1.20964	<b>1.47129</b>
	TE_B->Z (RR)	0.01860	0.01064	<b>0.03892</b>	0.32940	0.26884	<b>0.10303</b>	2.50740	1.20964	<b>0.22949</b>
	TE_B->Z (FR)	0.01860	0.01064	<b>0.02509</b>	0.32940	0.26884	<b>0.35919</b>	2.50740	1.20964	<b>1.84900</b>
sg13g2_ebufn_2	A->Z (RR)	0.01860	0.00590	<b>0.04153</b>	0.32940	0.13450	<b>0.35804</b>	2.50740	0.60490	<b>1.39603</b>
	TE_B->Z (RR)	0.01860	0.00590	<b>0.03411</b>	0.32940	0.13450	<b>0.08572</b>	2.50740	0.60490	<b>0.19484</b>
	TE_B->Z (FR)	0.01860	0.00590	<b>0.02503</b>	0.32940	0.13450	<b>0.35516</b>	2.50740	0.60490	<b>1.83069</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	0.02999	<b>0.05919</b>	0.32940	0.54739	<b>0.34526</b>	2.50740	2.42899	<b>1.20334</b>
	TE_B->Z (RF)	0.01860	0.02999	<b>0.02381</b>	0.32940	0.54739	<b>-0.21079</b>	2.50740	2.42899	<b>-1.89700</b>
	TE_B->Z (FF)	0.01860	0.02999	<b>0.06136</b>	0.32940	0.54739	<b>0.35713</b>	2.50740	2.42899	<b>1.23459</b>
sg13g2_ebufn_4	A->Z (FF)	0.01860	0.01570	<b>0.06063</b>	0.32940	0.27390	<b>0.34632</b>	2.50740	1.21470	<b>1.20559</b>
	TE_B->Z (RF)	0.01860	0.01570	<b>0.01994</b>	0.32940	0.27390	<b>-0.21001</b>	2.50740	1.21470	<b>-1.89632</b>
	TE_B->Z (FF)	0.01860	0.01570	<b>0.04683</b>	0.32940	0.27390	<b>0.31373</b>	2.50740	1.21470	<b>1.13321</b>
sg13g2_ebufn_2	A->Z (FF)	0.01860	0.00849	<b>0.04662</b>	0.32940	0.13709	<b>0.30826</b>	2.50740	0.60749	<b>1.11675</b>
	TE_B->Z (RF)	0.01860	0.00849	<b>0.01380</b>	0.32940	0.13709	<b>-0.22157</b>	2.50740	0.60749	<b>-1.90763</b>
	TE_B->Z (FF)	0.01860	0.00849	<b>0.04022</b>	0.32940	0.13709	<b>0.28665</b>	2.50740	0.60749	<b>1.06403</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	0.02005	<b>0.04467</b>	0.32940	0.53745	<b>0.05378</b>	2.50740	2.41905	<b>0.05812</b>
	TE_B	0.01860	0.02005	<b>0.00901</b>	0.32940	0.53745	<b>0.00642</b>	2.50740	2.41905	<b>0.00459</b>
sg13g2_ebufn_4	A	0.01860	0.01064	<b>0.02240</b>	0.32940	0.26884	<b>0.02648</b>	2.50740	1.20964	<b>0.02697</b>
	TE_B	0.01860	0.01064	<b>0.00460</b>	0.32940	0.26884	<b>0.00359</b>	2.50740	1.20964	<b>0.00316</b>
sg13g2_ebufn_2	A	0.01860	0.00590	<b>0.01177</b>	0.32940	0.13450	<b>0.01317</b>	2.50740	0.60490	<b>0.01214</b>
	TE_B	0.01860	0.00590	<b>0.00244</b>	0.32940	0.13450	<b>0.00192</b>	2.50740	0.60490	<b>0.00094</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	0.02999	<b>0.04447</b>	0.32940	0.54739	<b>0.04524</b>	2.50740	2.42899	<b>0.04701</b>
	TE_B	0.01860	0.02999	<b>0.00591</b>	0.32940	0.54739	<b>0.00344</b>	2.50740	2.42899	<b>-0.00201</b>
sg13g2_ebufn_4	A	0.01860	0.01570	<b>0.02235</b>	0.32940	0.27390	<b>0.02230</b>	2.50740	1.21470	<b>0.02606</b>
	TE_B	0.01860	0.01570	<b>0.00315</b>	0.32940	0.27390	<b>0.00227</b>	2.50740	1.21470	<b>0.00388</b>
sg13g2_ebufn_2	A	0.01860	0.00849	<b>0.01105</b>	0.32940	0.13709	<b>0.01123</b>	2.50740	0.60749	<b>0.01419</b>
	TE_B	0.01860	0.00849	<b>0.00171</b>	0.32940	0.13709	<b>0.00137</b>	2.50740	0.60749	<b>0.00196</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>0.01036</b>	0.32940	<b>0.01451</b>	2.50740	<b>0.06782</b>
sg13g2_ebufn_4	0.01860	<b>0.00561</b>	0.32940	<b>0.00763</b>	2.50740	<b>0.03414</b>
sg13g2_ebufn_2	0.01860	<b>0.00336</b>	0.32940	<b>0.00542</b>	2.50740	<b>0.02910</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>0.00959</b>	0.32940	<b>0.01441</b>	2.50740	<b>0.06711</b>
sg13g2_ebufn_4	0.01860	<b>0.00518</b>	0.32940	<b>0.00748</b>	2.50740	<b>0.03375</b>
sg13g2_ebufn_2	0.01860	<b>0.00328</b>	0.32940	<b>0.00556</b>	2.50740	<b>0.02889</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>-0.00358</b>	0.32940	<b>-0.00343</b>	2.50740	<b>0.02011</b>
sg13g2_ebufn_4	0.01860	<b>-0.00068</b>	0.32940	<b>0.00030</b>	2.50740	<b>0.02593</b>
sg13g2_ebufn_2	0.01860	<b>0.00025</b>	0.32940	<b>0.00167</b>	2.50740	<b>0.02487</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>0.06349</b>	0.32940	<b>0.06653</b>	2.50740	<b>0.09069</b>
sg13g2_ebufn_4	0.01860	<b>0.03269</b>	0.32940	<b>0.03518</b>	2.50740	<b>0.06110</b>
sg13g2_ebufn_2	0.01860	<b>0.01713</b>	0.32940	<b>0.01952</b>	2.50740	<b>0.04260</b>

# BU<sub>x</sub>



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.01856	4.80000
sg13g2_buf_8	0.00931	2.40000
sg13g2_buf_4	0.00403	1.20000
sg13g2_buf_2	0.00284	0.60000
sg13g2_buf_1	0.00252	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_buf_16	2211.66000	2605.74000	2999.82000
sg13g2_buf_8	1105.84000	1302.87000	1499.90000
sg13g2_buf_4	499.66200	620.31100	740.96000
sg13g2_buf_2	292.03200	338.82800	385.62400
sg13g2_buf_1	190.72100	203.43200	216.14200

## 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>0.03941</b>	0.32940	1.03680	<b>0.24575</b>	2.50740	4.80000	<b>0.87183</b>
sg13g2_buf_8	A->X (RR)	0.01860	0.00100	<b>0.03897</b>	0.32940	0.51840	<b>0.24449</b>	2.50740	2.40000	<b>0.86981</b>
sg13g2_buf_4	A->X (RR)	0.01860	0.00100	<b>0.04880</b>	0.32940	0.25920	<b>0.27469</b>	2.50740	1.20000	<b>0.98505</b>
sg13g2_buf_2	A->X (RR)	0.01860	0.00100	<b>0.03876</b>	0.32940	0.12960	<b>0.23970</b>	2.50740	0.60000	<b>0.86249</b>
sg13g2_buf_1	A->X (RR)	0.01860	0.00100	<b>0.03452</b>	0.32940	0.06480	<b>0.21902</b>	2.50740	0.30000	<b>0.81119</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>0.04380</b>	0.32940	1.03680	<b>0.23280</b>	2.50740	4.80000	<b>0.75428</b>
sg13g2_buf_8	A->X (FF)	0.01860	0.00100	<b>0.04323</b>	0.32940	0.51840	<b>0.23198</b>	2.50740	2.40000	<b>0.75381</b>
sg13g2_buf_4	A->X (FF)	0.01860	0.00100	<b>0.04280</b>	0.32940	0.25920	<b>0.22709</b>	2.50740	1.20000	<b>0.69438</b>
sg13g2_buf_2	A->X (FF)	0.01860	0.00100	<b>0.04182</b>	0.32940	0.12960	<b>0.22215</b>	2.50740	0.60000	<b>0.72342</b>
sg13g2_buf_1	A->X (FF)	0.01860	0.00100	<b>0.03659</b>	0.32940	0.06480	<b>0.20015</b>	2.50740	0.30000	<b>0.67794</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>0.09381</b>	0.32940	1.03680	<b>0.10679</b>	2.50740	4.80000	<b>0.26329</b>
sg13g2_buf_8	A	0.01860	0.00100	<b>0.04622</b>	0.32940	0.51840	<b>0.05247</b>	2.50740	2.40000	<b>0.13232</b>
sg13g2_buf_4	A	0.01860	0.00100	<b>0.02272</b>	0.32940	0.25920	<b>0.02551</b>	2.50740	1.20000	<b>0.05500</b>
sg13g2_buf_2	A	0.01860	0.00100	<b>0.01201</b>	0.32940	0.12960	<b>0.01385</b>	2.50740	0.60000	<b>0.03798</b>
sg13g2_buf_1	A	0.01860	0.00100	<b>0.00697</b>	0.32940	0.06480	<b>0.00883</b>	2.50740	0.30000	<b>0.02931</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>0.09045</b>	0.32940	1.03680	<b>0.11067</b>	2.50740	4.80000	<b>0.27604</b>
sg13g2_buf_8	A	0.01860	0.00100	<b>0.04458</b>	0.32940	0.51840	<b>0.05450</b>	2.50740	2.40000	<b>0.13198</b>
sg13g2_buf_4	A	0.01860	0.00100	<b>0.02247</b>	0.32940	0.25920	<b>0.02620</b>	2.50740	1.20000	<b>0.05795</b>
sg13g2_buf_2	A	0.01860	0.00100	<b>0.01172</b>	0.32940	0.12960	<b>0.01413</b>	2.50740	0.60000	<b>0.03670</b>
sg13g2_buf_1	A	0.01860	0.00100	<b>0.00687</b>	0.32940	0.06480	<b>0.00924</b>	2.50740	0.30000	<b>0.02772</b>

# DECAP<sub>x</sub>



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp  
-40.00*

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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	1468.60000	1468.60000	1468.60000
sg13g2_decap_8	2937.24000	2937.24000	2937.24000

# DFFRRx



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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## 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	0.00173	0.00632	0.00307	0.60000	0.60000
sg13g2_dfrbp_1	0.00186	0.00687	0.00297	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbp_2	1222.38000	1384.06000	1519.48000
sg13g2_dfrbp_1	942.01400	1098.90000	1247.92000

## 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>0.16138</b>	0.32940	0.12960	<b>0.35100</b>	2.50740	0.60000	<b>0.95780</b>
sg13g2_dfrbp_1	CLK->Q (RR)	0.01860	0.00100	<b>0.13010</b>	0.32940	0.06480	<b>0.32233</b>	2.50740	0.30000	<b>0.90499</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>0.14375</b>	0.32940	0.12960	<b>0.31858</b>	2.50740	0.60000	<b>0.82614</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.18891</b>	0.32940	0.12960	<b>0.39542</b>	2.50740	0.60000	<b>1.01392</b>
sg13g2_dfrbp_1	CLK->Q (RF)	0.01860	0.00100	<b>0.12679</b>	0.32940	0.06480	<b>0.30196</b>	2.50740	0.30000	<b>0.79460</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.16540</b>	0.32940	0.06480	<b>0.36931</b>	2.50740	0.30000	<b>0.97449</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>0.09568</b>	0.32940	0.12960	<b>0.31324</b>	2.50740	0.60000	<b>0.88628</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.14186</b>	0.32940	0.12960	<b>0.38905</b>	2.50740	0.60000	<b>1.07257</b>
sg13g2_dfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	<b>0.09676</b>	0.32940	0.06480	<b>0.30748</b>	2.50740	0.30000	<b>0.86699</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.13574</b>	0.32940	0.06480	<b>0.37375</b>	2.50740	0.30000	<b>1.04628</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>0.10591</b>	0.32940	0.12960	<b>0.32566</b>	2.50740	0.60000	<b>0.86872</b>
sg13g2_dfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	<b>0.09847</b>	0.32940	0.06480	<b>0.30376</b>	2.50740	0.30000	<b>0.82847</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>-0.03179</b>	1.26300	1.26300	<b>-0.13222</b>	2.50740	2.50740	<b>-0.17709</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.08558</b>	1.26300	1.26300	<b>0.18079</b>	2.50740	2.50740	<b>0.22137</b>
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.03423</b>	1.26300	1.26300	<b>-0.14571</b>	2.50740	2.50740	<b>-0.19480</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.08069</b>	1.26300	1.26300	<b>0.19158</b>	2.50740	2.50740	<b>0.24203</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>-0.01467</b>	1.26300	1.26300	<b>-0.09984</b>	2.50740	2.50740	<b>-0.15643</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07825</b>	1.26300	1.26300	<b>0.17809</b>	2.50740	2.50740	<b>0.23908</b>
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.01223</b>	1.26300	1.26300	<b>-0.09174</b>	2.50740	2.50740	<b>-0.14758</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07336</b>	1.26300	1.26300	<b>0.17809</b>	2.50740	2.50740	<b>0.24793</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>0.09047</b>	1.26300	1.26300	<b>0.21317</b>	2.50740	2.50740	<b>0.31286</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.07091</b>	1.26300	1.26300	<b>-0.19968</b>	2.50740	2.50740	<b>-0.30401</b>
sg13g2_dfrbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.08558</b>	1.26300	1.26300	<b>0.22127</b>	2.50740	2.50740	<b>0.33648</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.06602</b>	1.26300	1.26300	<b>-0.19968</b>	2.50740	2.50740	<b>-0.31286</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>0.04825</b>	0.32940	0.12960	<b>0.16222</b>	2.50740	0.60000	<b>0.60206</b>
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03802</b>	0.32940	0.06480	<b>0.09600</b>	2.50740	0.30000	<b>0.33062</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>0.04825</b>	0.32940	0.12960	<b>0.16376</b>	2.50740	0.60000	<b>0.60601</b>
	RESET_B	0.01860	0.00100	<b>0.03702</b>	0.32940	0.12960	<b>0.15056</b>	2.50740	0.60000	<b>0.57880</b>
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03732</b>	0.32940	0.06480	<b>0.09568</b>	2.50740	0.30000	<b>0.33044</b>
	RESET_B	0.01860	0.00100	<b>0.02563</b>	0.32940	0.06480	<b>0.08274</b>	2.50740	0.30000	<b>0.30441</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>0.04828</b>	0.32940	0.12960	<b>0.16383</b>	2.50740	0.60000	<b>0.60521</b>
	RESET_B	0.01860	0.00100	<b>0.03705</b>	0.32940	0.12960	<b>0.15111</b>	2.50740	0.60000	<b>0.58092</b>
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03733</b>	0.32940	0.06480	<b>0.09603</b>	2.50740	0.30000	<b>0.32931</b>
	RESET_B	0.01860	0.00100	<b>0.02562</b>	0.32940	0.06480	<b>0.08330</b>	2.50740	0.30000	<b>0.30506</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>0.04827</b>	0.32940	0.12960	<b>0.16180</b>	2.50740	0.60000	<b>0.60571</b>
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03803</b>	0.32940	0.06480	<b>0.09562</b>	2.50740	0.30000	<b>0.33007</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>0.00175</b>	0.32940	<b>0.00271</b>	2.50740	<b>0.01356</b>
sg13g2_dfrbp_1	0.01860	<b>0.00191</b>	0.32940	<b>0.00284</b>	2.50740	<b>0.01362</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>0.00139</b>	0.32940	<b>0.00242</b>	2.50740	<b>0.01332</b>
sg13g2_dfrbp_1	0.01860	<b>0.00158</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.01343</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>0.00175</b>	0.32940	<b>0.00271</b>	2.50740	<b>0.01356</b>
	(!CLK * RESET_B)	0.01860	<b>0.01454</b>	0.32940	<b>0.01548</b>	2.50740	<b>0.02790</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00003</b>	0.32940	<b>-0.00004</b>	2.50740	<b>-0.00004</b>
sg13g2_dfrbp_1	CLK	0.01860	<b>0.00191</b>	0.32940	<b>0.00284</b>	2.50740	<b>0.01362</b>
	(!CLK * RESET_B)	0.01860	<b>0.01256</b>	0.32940	<b>0.01356</b>	2.50740	<b>0.02599</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00011</b>	0.32940	<b>0.00010</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>0.00139</b>	0.32940	<b>0.00242</b>	2.50740	<b>0.01332</b>
	(!CLK * RESET_B)	0.01860	<b>0.01121</b>	0.32940	<b>0.01212</b>	2.50740	<b>0.02478</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00022</b>	0.32940	<b>0.00024</b>	2.50740	<b>0.00024</b>
sg13g2_dfrbp_1	CLK	0.01860	<b>0.00158</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.01343</b>
	(!CLK * RESET_B)	0.01860	<b>0.01053</b>	0.32940	<b>0.01145</b>	2.50740	<b>0.02404</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00011</b>	0.32940	<b>0.00013</b>	2.50740	<b>0.00013</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>0.00481</b>	0.32940	<b>0.00518</b>	2.50740	<b>0.01536</b>
sg13g2_dfrbp_1	0.01860	<b>0.00530</b>	0.32940	<b>0.00566</b>	2.50740	<b>0.01577</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>0.01050</b>	0.32940	<b>0.01090</b>	2.50740	<b>0.02667</b>
sg13g2_dfrbp_1	0.01860	<b>0.00941</b>	0.32940	<b>0.00977</b>	2.50740	<b>0.02568</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>0.00481</b>	0.32940	<b>0.00518</b>	2.50740	<b>0.01536</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>0.00165</b>	0.32940	<b>0.00160</b>	2.50740	<b>0.00160</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01773</b>	0.32940	<b>0.01825</b>	2.50740	<b>0.03349</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>0.00173</b>	0.32940	<b>0.00167</b>	2.50740	<b>0.00167</b>
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	<b>0.00530</b>	0.32940	<b>0.00566</b>	2.50740	<b>0.01577</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>0.00215</b>	0.32940	<b>0.00210</b>	2.50740	<b>0.00210</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01614</b>	0.32940	<b>0.01663</b>	2.50740	<b>0.03193</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>0.00223</b>	0.32940	<b>0.00217</b>	2.50740	<b>0.00217</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>0.04684</b>	0.32940	<b>0.04864</b>	2.50740	<b>0.07875</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>-0.00165</b>	0.32940	<b>-0.00160</b>	2.50740	<b>-0.00160</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01050</b>	0.32940	<b>0.01090</b>	2.50740	<b>0.02667</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>-0.00173</b>	0.32940	<b>-0.00167</b>	2.50740	<b>-0.00167</b>
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	<b>0.03404</b>	0.32940	<b>0.03585</b>	2.50740	<b>0.06535</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>-0.00215</b>	0.32940	<b>-0.00210</b>	2.50740	<b>-0.00210</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.00941</b>	0.32940	<b>0.00977</b>	2.50740	<b>0.02568</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>-0.00223</b>	0.32940	<b>-0.00217</b>	2.50740	<b>-0.00217</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>0.01331</b>	0.32940	<b>0.01529</b>	2.50740	<b>0.04343</b>
sg13g2_dfrbp_1	0.01860	<b>0.01350</b>	0.32940	<b>0.01526</b>	2.50740	<b>0.04128</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>0.02535</b>	0.32940	<b>0.02750</b>	2.50740	<b>0.05610</b>
sg13g2_dfrbp_1	0.01860	<b>0.02368</b>	0.32940	<b>0.02572</b>	2.50740	<b>0.05264</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>0.01331</b>	0.32940	<b>0.01529</b>	2.50740	<b>0.04343</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01400</b>	0.32940	<b>0.01597</b>	2.50740	<b>0.04400</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01309</b>	0.32940	<b>0.01507</b>	2.50740	<b>0.04313</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01403</b>	0.32940	<b>0.01600</b>	2.50740	<b>0.04403</b>
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.01382</b>	0.32940	<b>0.01556</b>	2.50740	<b>0.04167</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01348</b>	0.32940	<b>0.01525</b>	2.50740	<b>0.04130</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01321</b>	0.32940	<b>0.01497</b>	2.50740	<b>0.04104</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01350</b>	0.32940	<b>0.01526</b>	2.50740	<b>0.04128</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>0.02535</b>	0.32940	<b>0.02750</b>	2.50740	<b>0.05610</b>
	(D * RESET_B * !Q * Q_N)	0.01860	<b>0.02553</b>	0.32940	<b>0.02767</b>	2.50740	<b>0.05629</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01311</b>	0.32940	<b>0.01526</b>	2.50740	<b>0.04300</b>
	(!D * RESET_B * Q * !Q_N)	0.01860	<b>0.00572</b>	0.32940	<b>0.06170</b>	2.50740	<b>0.08920</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01309</b>	0.32940	<b>0.01526</b>	2.50740	<b>0.04301</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01311</b>	0.32940	<b>0.01525</b>	2.50740	<b>0.04299</b>
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.02368</b>	0.32940	<b>0.02572</b>	2.50740	<b>0.05264</b>
	(D * RESET_B * !Q * Q_N)	0.01860	<b>0.02374</b>	0.32940	<b>0.02578</b>	2.50740	<b>0.05264</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01348</b>	0.32940	<b>0.01551</b>	2.50740	<b>0.04142</b>
	(!D * RESET_B * Q * !Q_N)	0.01860	<b>0.00540</b>	0.32940	<b>0.05065</b>	2.50740	<b>0.07648</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01346</b>	0.32940	<b>0.01555</b>	2.50740	<b>0.04141</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01347</b>	0.32940	<b>0.01550</b>	2.50740	<b>0.04141</b>

# DLHQ



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00248	0.00251	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhq_1	679.01900	746.96700	843.24000



## 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>0.11727</b>	0.32940	0.06480	<b>0.29939</b>	2.50740	0.30000	<b>0.86055</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.10041</b>	0.32940	0.06480	<b>0.28441</b>	2.50740	0.30000	<b>0.81226</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>0.10662</b>	0.32940	0.06480	<b>0.26603</b>	2.50740	0.30000	<b>0.70590</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.10898</b>	0.32940	0.06480	<b>0.27353</b>	2.50740	0.30000	<b>0.71375</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>-0.06113</b>	1.26300	1.26300	<b>-0.15651</b>	2.50740	2.50740	<b>-0.19480</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.21047</b>	2.50740	2.50740	<b>0.28040</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>-0.02690</b>	1.26300	1.26300	<b>0.01349</b>	2.50740	2.50740	<b>0.04722</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.03668</b>	1.26300	1.26300	<b>-0.00540</b>	2.50740	2.50740	<b>-0.03837</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>0.01847</b>	0.32940	0.06480	<b>0.01873</b>	2.50740	0.30000	<b>0.02116</b>
	GATE	0.01860	0.00100	<b>0.01588</b>	0.32940	0.06480	<b>0.01626</b>	2.50740	0.30000	<b>0.02028</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>0.01915</b>	0.32940	0.06480	<b>0.01974</b>	2.50740	0.30000	<b>0.02067</b>
	GATE	0.01860	0.00100	<b>0.01724</b>	0.32940	0.06480	<b>0.01812</b>	2.50740	0.30000	<b>0.01889</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>0.00422</b>	0.32940	<b>0.00579</b>	2.50740	<b>0.02527</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>0.00449</b>	0.32940	<b>0.00615</b>	2.50740	<b>0.02542</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>0.00418</b>	0.32940	<b>0.00567</b>	2.50740	<b>0.02516</b>
	(!GATE * !Q)	0.01860	<b>0.00422</b>	0.32940	<b>0.00579</b>	2.50740	<b>0.02527</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>0.00440</b>	0.32940	<b>0.00614</b>	2.50740	<b>0.02544</b>
	(!GATE * !Q)	0.01860	<b>0.00449</b>	0.32940	<b>0.00615</b>	2.50740	<b>0.02542</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>0.00971</b>	0.32940	<b>0.01151</b>	2.50740	<b>0.03576</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>0.00565</b>	0.32940	<b>0.02078</b>	2.50740	<b>0.04505</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>0.00971</b>	0.32940	<b>0.01151</b>	2.50740	<b>0.03576</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>0.00565</b>	0.32940	<b>0.02078</b>	2.50740	<b>0.04505</b>

# DLHRQ



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00233	0.00319	0.00242	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhrq_1	775.40800	856.02000	913.95400

## 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>0.12582</b>	0.32940	0.06480	<b>0.31163</b>	2.50740	0.30000	<b>0.86890</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.11357</b>	0.32940	0.06480	<b>0.30275</b>	2.50740	0.30000	<b>0.82924</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>0.11253</b>	0.32940	0.06480	<b>0.27407</b>	2.50740	0.30000	<b>0.72010</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.11615</b>	0.32940	0.06480	<b>0.28498</b>	2.50740	0.30000	<b>0.73556</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.04460</b>	0.32940	0.06480	<b>0.22574</b>	2.50740	0.30000	<b>0.73992</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>-0.05379</b>	1.26300	1.26300	<b>-0.14301</b>	2.50740	2.50740	<b>-0.17709</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.19158</b>	2.50740	2.50740	<b>0.25383</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	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>-0.02934</b>	1.26300	1.26300	<b>0.01349</b>	2.50740	2.50740	<b>0.05018</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.03912</b>	1.26300	1.26300	<b>-0.00540</b>	2.50740	2.50740	<b>-0.03837</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>-0.00734</b>	1.26300	1.26300	<b>-0.06746</b>	2.50740	2.50740	<b>-0.09445</b>
	removal	GATE (F)	0.01860	0.01860	<b>0.01712</b>	1.26300	1.26300	<b>0.08905</b>	2.50740	2.50740	<b>0.11806</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>0.00197</b>	0.32940	0.06480	<b>0.00160</b>	2.50740	0.30000	<b>0.00270</b>
	GATE	0.01860	0.00100	<b>0.01620</b>	0.32940	0.06480	<b>0.01641</b>	2.50740	0.30000	<b>0.01950</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>0.00681</b>	0.32940	0.06480	<b>-0.00160</b>	2.50740	0.30000	<b>-0.00270</b>
	GATE	0.01860	0.00100	<b>0.01610</b>	0.32940	0.06480	<b>0.01696</b>	2.50740	0.30000	<b>0.01753</b>
	RESET_B	0.01860	0.00100	<b>0.00926</b>	0.32940	0.06480	<b>0.01146</b>	2.50740	0.30000	<b>0.03448</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>0.02088</b>	0.32940	<b>0.02304</b>	2.50740	<b>0.04275</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>0.01527</b>	0.32940	<b>0.03199</b>	2.50740	<b>0.05189</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>0.00345</b>	0.32940	<b>0.00499</b>	2.50740	<b>0.02451</b>
	!RESET_B	0.01860	<b>0.02088</b>	0.32940	<b>0.02304</b>	2.50740	<b>0.04275</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>0.00381</b>	0.32940	<b>0.00557</b>	2.50740	<b>0.02485</b>
	!RESET_B	0.01860	<b>0.01527</b>	0.32940	<b>0.03199</b>	2.50740	<b>0.05189</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>0.00000</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>0.00000</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	(D * !GATE * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhrq_1	0.01860	<b>0.01010</b>	0.32940	<b>0.01183</b>	2.50740	<b>0.03597</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>0.00566</b>	0.32940	<b>0.02098</b>	2.50740	<b>0.04518</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>0.01381</b>	0.32940	<b>0.01551</b>	2.50740	<b>0.04137</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01010</b>	0.32940	<b>0.01183</b>	2.50740	<b>0.03597</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>0.01481</b>	0.32940	<b>0.01697</b>	2.50740	<b>0.04286</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.00566</b>	0.32940	<b>0.02098</b>	2.50740	<b>0.04518</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00569</b>	0.32940	<b>0.02101</b>	2.50740	<b>0.04521</b>

# DLHR



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00228	0.00337	0.00247	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhr_1	973.20200	1064.53000	1112.70000

## 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>0.13626</b>	0.32940	0.06480	<b>0.32777</b>	2.50740	0.30000	<b>0.88517</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.12448</b>	0.32940	0.06480	<b>0.31956</b>	2.50740	0.30000	<b>0.84898</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>0.11668</b>	0.32940	0.06480	<b>0.27985</b>	2.50740	0.30000	<b>0.72183</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.12044</b>	0.32940	0.06480	<b>0.29183</b>	2.50740	0.30000	<b>0.73826</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.04848</b>	0.32940	0.06480	<b>0.23995</b>	2.50740	0.30000	<b>0.76280</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>0.14190</b>	0.32940	0.06480	<b>0.31383</b>	2.50740	0.30000	<b>0.82265</b>
	GATE->Q_N (RR)	0.01860	0.00100	<b>0.14579</b>	0.32940	0.06480	<b>0.32587</b>	2.50740	0.30000	<b>0.83944</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.07357</b>	0.32940	0.06480	<b>0.26749</b>	2.50740	0.30000	<b>0.80579</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>0.16615</b>	0.32940	0.06480	<b>0.32615</b>	2.50740	0.30000	<b>0.81652</b>
	GATE->Q_N (RF)	0.01860	0.00100	<b>0.15420</b>	0.32940	0.06480	<b>0.31806</b>	2.50740	0.30000	<b>0.77898</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>-0.05868</b>	1.26300	1.26300	<b>-0.14571</b>	2.50740	2.50740	<b>-0.18004</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.07580</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.25678</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>-0.02934</b>	1.26300	1.26300	<b>0.01349</b>	2.50740	2.50740	<b>0.05018</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.04401</b>	1.26300	1.26300	<b>-0.00540</b>	2.50740	2.50740	<b>-0.03837</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>0.00245</b>	1.26300	1.26300	<b>-0.02968</b>	2.50740	2.50740	<b>-0.03837</b>
	removal	GATE (F)	0.01860	0.01860	<b>0.01223</b>	1.26300	1.26300	<b>0.05127</b>	2.50740	2.50740	<b>0.06493</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>0.00607</b>	0.32940	0.06480	<b>0.00613</b>	2.50740	0.30000	<b>0.00716</b>
	GATE	0.01860	0.00100	<b>0.01307</b>	0.32940	0.06480	<b>0.01344</b>	2.50740	0.30000	<b>0.01622</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>0.00834</b>	0.32940	0.06480	<b>0.00124</b>	2.50740	0.30000	<b>0.00266</b>
	GATE	0.01860	0.00100	<b>0.01305</b>	0.32940	0.06480	<b>0.01373</b>	2.50740	0.30000	<b>0.01501</b>
	RESET_B	0.01860	0.00100	<b>0.00949</b>	0.32940	0.06480	<b>0.01078</b>	2.50740	0.30000	<b>0.02377</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>0.00835</b>	0.32940	0.06480	<b>0.00146</b>	2.50740	0.30000	<b>0.00277</b>
	GATE	0.01860	0.00100	<b>0.01795</b>	0.32940	0.06480	<b>0.01956</b>	2.50740	0.30000	<b>0.03407</b>
	RESET_B	0.01860	0.00100	<b>0.00950</b>	0.32940	0.06480	<b>0.01076</b>	2.50740	0.30000	<b>0.02489</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>0.00607</b>	0.32940	0.06480	<b>0.00601</b>	2.50740	0.30000	<b>0.00778</b>
	GATE	0.01860	0.00100	<b>0.01307</b>	0.32940	0.06480	<b>0.01328</b>	2.50740	0.30000	<b>0.01534</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>0.02047</b>	0.32940	<b>0.02267</b>	2.50740	<b>0.04246</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>0.01524</b>	0.32940	<b>0.03178</b>	2.50740	<b>0.05174</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>0.00357</b>	0.32940	<b>0.00513</b>	2.50740	<b>0.02473</b>
	!RESET_B	0.01860	<b>0.02047</b>	0.32940	<b>0.02267</b>	2.50740	<b>0.04246</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>0.00566</b>	2.50740	<b>0.02500</b>
	!RESET_B	0.01860	<b>0.01524</b>	0.32940	<b>0.03178</b>	2.50740	<b>0.05174</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>-0.00002</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_dlhr_1	0.01860	<b>0.00002</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_dlhr_1	(D * !GATE * !Q)	0.01860	-0.00007	0.32940	0.00000	2.50740	0.00000
	(!D * !GATE * !Q)	0.01860	-0.00002	0.32940	0.00000	2.50740	0.00000

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	0.00007	0.32940	0.00000	2.50740	0.00000
	(!D * !GATE * !Q)	0.01860	0.00002	0.32940	0.00000	2.50740	0.00000

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	0.01860	0.00978	0.32940	0.01155	2.50740	0.03579

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dlhr_1	0.01860	0.00589	0.32940	0.02076	2.50740	0.04505

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	0.01348	0.32940	0.01519	2.50740	0.04111
	(!D * !RESET_B * !Q)	0.01860	0.00978	0.32940	0.01155	2.50740	0.03579

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>0.01517</b>	0.32940	<b>0.01734</b>	2.50740	<b>0.04328</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.00589</b>	0.32940	<b>0.02076</b>	2.50740	<b>0.04505</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00592</b>	0.32940	<b>0.02079</b>	2.50740	<b>0.04510</b>

# DLLRQ



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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## 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	0.00224	0.00321	0.00240	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllrq_1	775.38700	857.91900	913.96500

## 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>0.12496</b>	0.32940	0.06480	<b>0.31024</b>	2.50740	0.30000	<b>0.86730</b>
	GATE_N->Q (FR)	0.01860	0.00100	<b>0.13869</b>	0.32940	0.06480	<b>0.33140</b>	2.50740	0.30000	<b>0.89514</b>
	RESET_B->Q (RR)	0.01860	0.00100	<b>0.05940</b>	0.32940	0.06480	<b>0.24691</b>	2.50740	0.30000	<b>0.85892</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>0.11180</b>	0.32940	0.06480	<b>0.27178</b>	2.50740	0.30000	<b>0.71463</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.10590</b>	0.32940	0.06480	<b>0.28440</b>	2.50740	0.30000	<b>0.80159</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.04491</b>	0.32940	0.06480	<b>0.22511</b>	2.50740	0.30000	<b>0.73735</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>-0.04646</b>	1.26300	1.26300	<b>-0.06206</b>	2.50740	2.50740	<b>-0.08855</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.05868</b>	1.26300	1.26300	<b>0.07286</b>	2.50740	2.50740	<b>0.10035</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>-0.05624</b>	1.26300	1.26300	<b>-0.15381</b>	2.50740	2.50740	<b>-0.19480</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.06602</b>	1.26300	1.26300	<b>0.20777</b>	2.50740	2.50740	<b>0.28630</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>-0.01712</b>	1.26300	1.26300	<b>-0.05397</b>	2.50740	2.50740	<b>-0.04427</b>
	removal	GATE_N (R)	0.01860	0.01860	<b>0.03179</b>	1.26300	1.26300	<b>0.06746</b>	2.50740	2.50740	<b>0.05903</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>0.00828</b>	0.32940	0.06480	<b>0.00889</b>	2.50740	0.30000	<b>0.00974</b>
	GATE_N	0.01860	0.00100	<b>0.02135</b>	0.32940	0.06480	<b>0.00850</b>	2.50740	0.30000	<b>0.00960</b>
	RESET_B	0.01860	0.00100	<b>0.01242</b>	0.32940	0.06480	<b>0.01327</b>	2.50740	0.30000	<b>0.03581</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>0.01740</b>	0.32940	0.06480	<b>0.00055</b>	2.50740	0.30000	<b>0.00069</b>
	GATE_N	0.01860	0.00100	<b>0.01971</b>	0.32940	0.06480	<b>0.00698</b>	2.50740	0.30000	<b>0.00954</b>
	RESET_B	0.01860	0.00100	<b>0.00940</b>	0.32940	0.06480	<b>0.01163</b>	2.50740	0.30000	<b>0.03446</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>0.01445</b>	0.32940	<b>0.01564</b>	2.50740	<b>0.03517</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>0.00479</b>	0.32940	<b>0.02387</b>	2.50740	<b>0.04383</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>0.00329</b>	0.32940	<b>0.00485</b>	2.50740	<b>0.02441</b>
	!RESET_B	0.01860	<b>0.01445</b>	0.32940	<b>0.01564</b>	2.50740	<b>0.03517</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>0.00376</b>	0.32940	<b>0.00555</b>	2.50740	<b>0.02487</b>
	!RESET_B	0.01860	<b>0.00479</b>	0.32940	<b>0.02387</b>	2.50740	<b>0.04383</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>0.00000</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_dllrq_1	0.01860	<b>0.00000</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_dllrq_1	(D * GATE_N * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	(D * GATE_N * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>

Passive power(pJ) for GATE\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	Min	Slew(ns)	Mid	Slew(ns)	Max
sg13g2_dllrq_1	0.01860	<b>0.00925</b>	0.32940	<b>0.01099</b>	2.50740	<b>0.03518</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>0.00576</b>	0.32940	<b>0.02101</b>	2.50740	<b>0.04530</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>0.01599</b>	0.32940	<b>0.01760</b>	2.50740	<b>0.04143</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00925</b>	0.32940	<b>0.01099</b>	2.50740	<b>0.03518</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>0.01505</b>	0.32940	<b>0.01710</b>	2.50740	<b>0.04116</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.00576</b>	0.32940	<b>0.02101</b>	2.50740	<b>0.04530</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00579</b>	0.32940	<b>0.02104</b>	2.50740	<b>0.04533</b>

# DLLR



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00235	0.00333	0.00253	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllr_1	973.77000	1084.12000	1124.14000

## 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>0.13725</b>	0.32940	0.06480	<b>0.32812</b>	2.50740	0.30000	<b>0.88486</b>
	GATE_N->Q (FR)	0.01860	0.00100	<b>0.15096</b>	0.32940	0.06480	<b>0.35003</b>	2.50740	0.30000	<b>0.91404</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>0.11808</b>	0.32940	0.06480	<b>0.28095</b>	2.50740	0.30000	<b>0.72308</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.11274</b>	0.32940	0.06480	<b>0.29536</b>	2.50740	0.30000	<b>0.81473</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.04834</b>	0.32940	0.06480	<b>0.24337</b>	2.50740	0.30000	<b>0.73579</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>0.14311</b>	0.32940	0.06480	<b>0.31489</b>	2.50740	0.30000	<b>0.82283</b>
	GATE_N->Q_N (FR)	0.01860	0.00100	<b>0.13791</b>	0.32940	0.06480	<b>0.32910</b>	2.50740	0.30000	<b>0.91411</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.07385</b>	0.32940	0.06480	<b>0.26879</b>	2.50740	0.30000	<b>0.81253</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>0.16689</b>	0.32940	0.06480	<b>0.32673</b>	2.50740	0.30000	<b>0.81640</b>
	GATE_N->Q_N (FF)	0.01860	0.00100	<b>0.18046</b>	0.32940	0.06480	<b>0.34867</b>	2.50740	0.30000	<b>0.84563</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>-0.05135</b>	1.26300	1.26300	<b>-0.06476</b>	2.50740	2.50740	<b>-0.09445</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.06602</b>	1.26300	1.26300	<b>0.07825</b>	2.50740	2.50740	<b>0.10626</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>-0.05868</b>	1.26300	1.26300	<b>-0.15651</b>	2.50740	2.50740	<b>-0.19775</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.20777</b>	2.50740	2.50740	<b>0.28925</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>-0.00978</b>	1.26300	1.26300	<b>-0.01889</b>	2.50740	2.50740	<b>0.01181</b>
	removal	GATE_N (R)	0.01860	0.01860	<b>0.02690</b>	1.26300	1.26300	<b>0.03508</b>	2.50740	2.50740	<b>0.00295</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>0.01196</b>	0.32940	0.06480	<b>0.06839</b>	2.50740	0.30000	<b>0.27515</b>
	GATE_N	0.01860	0.00100	<b>0.02786</b>	0.32940	0.06480	<b>0.08428</b>	2.50740	0.30000	<b>0.29075</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>0.01728</b>	0.32940	0.06480	<b>0.05571</b>	2.50740	0.30000	<b>0.26342</b>
	GATE_N	0.01860	0.00100	<b>0.02576</b>	0.32940	0.06480	<b>0.08216</b>	2.50740	0.30000	<b>0.29097</b>
	RESET_B	0.01860	0.00100	<b>0.02955</b>	0.32940	0.06480	<b>0.08686</b>	2.50740	0.30000	<b>0.31329</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>0.01732</b>	0.32940	0.06480	<b>0.05631</b>	2.50740	0.30000	<b>0.26500</b>
	GATE_N	0.01860	0.00100	<b>0.03619</b>	0.32940	0.06480	<b>0.09476</b>	2.50740	0.30000	<b>0.32691</b>
	RESET_B	0.01860	0.00100	<b>0.02955</b>	0.32940	0.06480	<b>0.08677</b>	2.50740	0.30000	<b>0.31437</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>0.01195</b>	0.32940	0.06480	<b>0.06818</b>	2.50740	0.30000	<b>0.27662</b>
	GATE_N	0.01860	0.00100	<b>0.02786</b>	0.32940	0.06480	<b>0.08404</b>	2.50740	0.30000	<b>0.29017</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>0.02206</b>	0.32940	<b>0.02350</b>	2.50740	<b>0.04328</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>0.01537</b>	0.32940	<b>0.03481</b>	2.50740	<b>0.05474</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>0.00363</b>	0.32940	<b>0.00521</b>	2.50740	<b>0.02479</b>
	!RESET_B	0.01860	<b>0.02206</b>	0.32940	<b>0.02350</b>	2.50740	<b>0.04328</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>0.00349</b>	0.32940	<b>0.00526</b>	2.50740	<b>0.02461</b>
	!RESET_B	0.01860	<b>0.01537</b>	0.32940	<b>0.03481</b>	2.50740	<b>0.05474</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>-0.00003</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_dllr_1	0.01860	<b>0.00003</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_dllr_1	(D * GATE_N * !Q)	0.01860	-0.00003	0.32940	0.00000	2.50740	0.00000
	(!D * GATE_N * !Q)	0.01860	-0.00003	0.32940	0.00000	2.50740	0.00000

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	0.00003	0.32940	0.00000	2.50740	0.00000
	(!D * GATE_N * !Q)	0.01860	0.00003	0.32940	0.00000	2.50740	0.00000

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	0.00360	0.32940	0.02076	2.50740	0.04486

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	0.01041	0.32940	0.01254	2.50740	0.03681

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	0.01612	0.32940	0.01778	2.50740	0.04153
	(!D * RESET_B * !Q)	0.01860	0.00360	0.32940	0.02076	2.50740	0.04486
	(!D * !RESET_B * !Q)	0.01860	0.00360	0.32940	0.02076	2.50740	0.04486

**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>0.01527</b>	0.32940	<b>0.01735</b>	2.50740	<b>0.04133</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01041</b>	0.32940	<b>0.01254</b>	2.50740	<b>0.03681</b>

# DLY1



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00160	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd1_1	308.70800	324.83100	340.95500

## 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>0.07727</b>	0.32940	0.06480	<b>0.25541</b>	2.50740	0.30000	<b>0.74109</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>0.08962</b>	0.32940	0.06480	<b>0.27231</b>	2.50740	0.30000	<b>0.82477</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>0.01558</b>	0.32940	0.06480	<b>0.01672</b>	2.50740	0.30000	<b>0.03027</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>0.01477</b>	0.32940	0.06480	<b>0.01639</b>	2.50740	0.30000	<b>0.03002</b>

# DLY2



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00160	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd2_1	402.35400	418.47800	434.60200

## 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_dlygate4sd2_1	A->X (RR)	0.01860	0.00100	<b>0.11464</b>	0.32940	0.06480	<b>0.30437</b>	2.50740	0.30000	<b>0.82827</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>0.12823</b>	0.32940	0.06480	<b>0.32933</b>	2.50740	0.30000	<b>0.90985</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>0.01859</b>	0.32940	0.06480	<b>0.01948</b>	2.50740	0.30000	<b>0.03274</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>0.01796</b>	0.32940	0.06480	<b>0.01900</b>	2.50740	0.30000	<b>0.03182</b>



# DLY4



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00161	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd3_1	939.25200	955.35100	971.44900

## 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>0.23885</b>	0.32940	0.06480	<b>0.45451</b>	2.50740	0.30000	<b>1.05698</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>0.24301</b>	0.32940	0.06480	<b>0.47889</b>	2.50740	0.30000	<b>1.13040</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>0.02707</b>	0.32940	0.06480	<b>0.02740</b>	2.50740	0.30000	<b>0.04034</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>0.02665</b>	0.32940	0.06480	<b>0.02704</b>	2.50740	0.30000	<b>0.03967</b>

# EINVIN<sub>x</sub>



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp  
-40.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_einvn_4	23.58720
sg13g2_einvn_2	16.32960

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_einvn_4	0.00810	0.00997	1.20000
sg13g2_einvn_2	0.00412	0.00531	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_4	1155.03000	1312.66000	1470.28000
sg13g2_einvn_2	581.53900	660.35200	739.16400

## 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	0.01073	<b>0.01875</b>	0.32940	0.26893	<b>0.37695</b>	2.50740	1.20973	<b>2.07692</b>
	TE_B->Z (RR)	0.01860	0.01073	<b>0.03762</b>	0.32940	0.26893	<b>0.10174</b>	2.50740	1.20973	<b>0.22894</b>
	TE_B->Z (FR)	0.01860	0.01073	<b>0.02315</b>	0.32940	0.26893	<b>0.35538</b>	2.50740	1.20973	<b>1.83668</b>
sg13g2_einvn_2	A->Z (FR)	0.01860	0.00592	<b>0.01975</b>	0.32940	0.13452	<b>0.37658</b>	2.50740	0.60492	<b>2.07264</b>
	TE_B->Z (RR)	0.01860	0.00592	<b>0.03642</b>	0.32940	0.13452	<b>0.09747</b>	2.50740	0.60492	<b>0.21708</b>
	TE_B->Z (FR)	0.01860	0.00592	<b>0.02393</b>	0.32940	0.13452	<b>0.35499</b>	2.50740	0.60492	<b>1.83973</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	0.01574	<b>0.01764</b>	0.32940	0.27394	<b>0.33564</b>	2.50740	1.21474	<b>1.88681</b>
sg13g2_einvn_2	A->Z (RF)	0.01860	0.00851	<b>0.01865</b>	0.32940	0.13711	<b>0.33579</b>	2.50740	0.60751	<b>1.88466</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	0.01073	<b>0.01242</b>	0.32940	0.26893	<b>0.01497</b>	2.50740	1.20973	<b>0.04178</b>
	TE_B	0.01860	0.01073	<b>0.02803</b>	0.32940	0.26893	<b>0.01933</b>	2.50740	1.20973	<b>0.01707</b>
sg13g2_einvn_2	A	0.01860	0.00592	<b>0.00623</b>	0.32940	0.13452	<b>0.00734</b>	2.50740	0.60492	<b>0.01977</b>
	TE_B	0.01860	0.00592	<b>0.01379</b>	0.32940	0.13452	<b>0.00947</b>	2.50740	0.60492	<b>0.00880</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	0.01574	<b>0.01129</b>	0.32940	0.27394	<b>0.01418</b>	2.50740	1.21474	<b>0.03384</b>
sg13g2_einvn_2	A	0.01860	0.00851	<b>0.00581</b>	0.32940	0.13711	<b>0.00721</b>	2.50740	0.60751	<b>0.01615</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>-0.00948</b>	0.32940	<b>-0.01156</b>	2.50740	<b>0.01415</b>
sg13g2_einvn_2	0.01860	<b>-0.00492</b>	0.32940	<b>-0.00535</b>	2.50740	<b>0.00891</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>0.00948</b>	0.32940	<b>0.01956</b>	2.50740	<b>0.04634</b>
sg13g2_einvn_2	0.01860	<b>0.00492</b>	0.32940	<b>0.01003</b>	2.50740	<b>0.02471</b>



# GCLK



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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## 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	0.00254	0.00536	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_lgcp_1	804.30800	828.58300	867.50900

## 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>0.05207</b>	0.32940	0.06480	<b>0.23396</b>	2.50740	0.30000	<b>0.82726</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>0.04191</b>	0.32940	0.06480	<b>0.21629</b>	2.50740	0.30000	<b>0.72168</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>-0.02647</b>	1.26300	1.26300	<b>-0.13222</b>	2.50740	2.50740	<b>-0.22355</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.04195</b>	1.26300	1.26300	<b>0.18349</b>	2.50740	2.50740	<b>0.31622</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>-0.00845</b>	1.26300	1.26300	<b>0.01349</b>	2.50740	2.50740	<b>0.02975</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.03036</b>	1.26300	1.26300	<b>0.02159</b>	2.50740	2.50740	<b>0.01249</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>0.01178</b>	0.32940	0.06480	<b>0.01252</b>	2.50740	0.30000	<b>0.03394</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>0.00703</b>	0.32940	0.06480	<b>0.00918</b>	2.50740	0.30000	<b>0.02889</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>0.02256</b>	0.32940	<b>0.02555</b>	2.50740	<b>0.04500</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>0.01239</b>	0.32940	<b>0.03663</b>	2.50740	<b>0.05616</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>0.02256</b>	0.32940	<b>0.02555</b>	2.50740	<b>0.04500</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>0.01239</b>	0.32940	<b>0.03663</b>	2.50740	<b>0.05616</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>0.00786</b>	0.32940	<b>0.00960</b>	2.50740	<b>0.03378</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>0.01004</b>	0.32940	<b>0.01205</b>	2.50740	<b>0.03630</b>

# INx



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.04933	4.80000
sg13g2_inv_8	0.02411	2.40000
sg13g2_inv_4	0.01206	1.20000
sg13g2_inv_2	0.00605	0.60000
sg13g2_inv_1	0.00309	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_inv_16	1264.60000	1895.09000	2525.59000
sg13g2_inv_8	632.29200	947.57600	1262.86000
sg13g2_inv_4	316.15300	473.77600	631.40000
sg13g2_inv_2	158.07700	236.87900	315.68100
sg13g2_inv_1	79.03780	118.44400	157.85000

## 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>0.01235</b>	0.32940	1.03680	<b>0.26869</b>	2.50740	4.80000	<b>1.52143</b>
sg13g2_inv_8	A->Y (FR)	0.01860	0.00100	<b>0.01225</b>	0.32940	0.51840	<b>0.26813</b>	2.50740	2.40000	<b>1.52186</b>
sg13g2_inv_4	A->Y (FR)	0.01860	0.00100	<b>0.01251</b>	0.32940	0.25920	<b>0.26784</b>	2.50740	1.20000	<b>1.52103</b>
sg13g2_inv_2	A->Y (FR)	0.01860	0.00100	<b>0.01342</b>	0.32940	0.12960	<b>0.26749</b>	2.50740	0.60000	<b>1.51800</b>
sg13g2_inv_1	A->Y (FR)	0.01860	0.00100	<b>0.01546</b>	0.32940	0.06480	<b>0.26794</b>	2.50740	0.30000	<b>1.51830</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>0.01234</b>	0.32940	1.03680	<b>0.25524</b>	2.50740	4.80000	<b>1.47287</b>
sg13g2_inv_8	A->Y (RF)	0.01860	0.00100	<b>0.01225</b>	0.32940	0.51840	<b>0.25529</b>	2.50740	2.40000	<b>1.47414</b>
sg13g2_inv_4	A->Y (RF)	0.01860	0.00100	<b>0.01244</b>	0.32940	0.25920	<b>0.25505</b>	2.50740	1.20000	<b>1.47350</b>
sg13g2_inv_2	A->Y (RF)	0.01860	0.00100	<b>0.01323</b>	0.32940	0.12960	<b>0.25392</b>	2.50740	0.60000	<b>1.46793</b>
sg13g2_inv_1	A->Y (RF)	0.01860	0.00100	<b>0.01504</b>	0.32940	0.06480	<b>0.25431</b>	2.50740	0.30000	<b>1.46808</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>0.02670</b>	0.32940	1.03680	<b>0.04060</b>	2.50740	4.80000	<b>0.16908</b>
sg13g2_inv_8	A	0.01860	0.00100	<b>0.01283</b>	0.32940	0.51840	<b>0.01958</b>	2.50740	2.40000	<b>0.08665</b>
sg13g2_inv_4	A	0.01860	0.00100	<b>0.00642</b>	0.32940	0.25920	<b>0.00974</b>	2.50740	1.20000	<b>0.04304</b>
sg13g2_inv_2	A	0.01860	0.00100	<b>0.00322</b>	0.32940	0.12960	<b>0.00490</b>	2.50740	0.60000	<b>0.02215</b>
sg13g2_inv_1	A	0.01860	0.00100	<b>0.00181</b>	0.32940	0.06480	<b>0.00262</b>	2.50740	0.30000	<b>0.01079</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>0.02190</b>	0.32940	1.03680	<b>0.03387</b>	2.50740	4.80000	<b>0.14899</b>
sg13g2_inv_8	A	0.01860	0.00100	<b>0.01044</b>	0.32940	0.51840	<b>0.01631</b>	2.50740	2.40000	<b>0.07144</b>
sg13g2_inv_4	A	0.01860	0.00100	<b>0.00524</b>	0.32940	0.25920	<b>0.00813</b>	2.50740	1.20000	<b>0.03563</b>
sg13g2_inv_2	A	0.01860	0.00100	<b>0.00273</b>	0.32940	0.12960	<b>0.00424</b>	2.50740	0.60000	<b>0.01808</b>
sg13g2_inv_1	A	0.01860	0.00100	<b>0.00177</b>	0.32940	0.06480	<b>0.00237</b>	2.50740	0.30000	<b>0.00934</b>

# ITL



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.01592	0.01687	2.40000

## Leakage Information

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

## Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	Min	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Max
sg13g2_einvn_8	A->Z (FR)	0.01860	0.02031	<b>0.01829</b>	0.32940	0.53771	<b>0.37828</b>	2.50740	2.41931	<b>2.08412</b>
	TE_B->Z (RR)	0.01860	0.02031	<b>0.04832</b>	0.32940	0.53771	<b>0.13640</b>	2.50740	2.41931	<b>0.31481</b>
	TE_B->Z (FR)	0.01860	0.02031	<b>0.02429</b>	0.32940	0.53771	<b>0.35808</b>	2.50740	2.41931	<b>1.84362</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	0.03028	<b>0.01771</b>	0.32940	0.54768	<b>0.33670</b>	2.50740	2.42928	<b>1.89755</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	0.02031	<b>0.02466</b>	0.32940	0.53771	<b>0.03086</b>	2.50740	2.41931	<b>0.08816</b>
	TE_B	0.01860	0.02031	<b>0.05875</b>	0.32940	0.53771	<b>0.03996</b>	2.50740	2.41931	<b>0.03648</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	0.03028	<b>0.02190</b>	0.32940	0.54768	<b>0.02767</b>	2.50740	2.42928	<b>0.07058</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>-0.01381</b>	0.32940	<b>-0.02760</b>	2.50740	<b>-0.00404</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>0.01381</b>	0.32940	<b>0.03299</b>	2.50740	<b>0.05872</b>

# KEEPSTATE



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library:  
Process sg13g2\_stdcell\_fast\_1p32V\_m40C,  
Voltage 1.32, Temp -40.00*

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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	46.59170	363.86300	681.13400

## 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	0.00000	0.32940	0.00000	2.50740	0.00000

Passive power(pJ) for SH falling :

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

# MUX2x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_mux2_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	0.00222	0.00232	0.00554	0.60000
sg13g2_mux2_1	0.00223	0.00233	0.00554	0.30000



## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux2_2	583.71400	677.51200	746.56200
sg13g2_mux2_1	481.21800	559.06900	661.66000

## 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>0.05849</b>	0.32940	0.12960	<b>0.27703</b>	2.50740	0.60000	<b>0.91230</b>
	A1->X (RR)	0.01860	0.00100	<b>0.03713</b>	0.32940	0.12960	<b>0.27920</b>	2.50740	0.60000	<b>0.91933</b>
	S->X (-R)	0.01860	0.00100	<b>0.06479</b>	0.32940	0.12960	<b>0.27179</b>	2.50740	0.60000	<b>0.89782</b>
sg13g2_mux2_1	A0->X (RR)	0.01860	0.00100	<b>0.05056</b>	0.32940	0.06480	<b>0.24842</b>	2.50740	0.30000	<b>0.84926</b>
	A1->X (RR)	0.01860	0.00100	<b>0.03758</b>	0.32940	0.06480	<b>0.25177</b>	2.50740	0.30000	<b>0.85847</b>
	S->X (-R)	0.01860	0.00100	<b>0.05634</b>	0.32940	0.06480	<b>0.24676</b>	2.50740	0.30000	<b>0.84179</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>0.04254</b>	0.32940	0.12960	<b>0.29214</b>	2.50740	0.60000	<b>0.89705</b>
	A1->X (FF)	0.01860	0.00100	<b>0.07742</b>	0.32940	0.12960	<b>0.29559</b>	2.50740	0.60000	<b>0.90493</b>
	S->X (-F)	0.01860	0.00100	<b>0.08544</b>	0.32940	0.12960	<b>0.28034</b>	2.50740	0.60000	<b>0.85438</b>
sg13g2_mux2_1	A0->X (FF)	0.01860	0.00100	<b>0.04250</b>	0.32940	0.06480	<b>0.25616</b>	2.50740	0.30000	<b>0.82551</b>
	A1->X (FF)	0.01860	0.00100	<b>0.06391</b>	0.32940	0.06480	<b>0.25985</b>	2.50740	0.30000	<b>0.83636</b>
	S->X (-F)	0.01860	0.00100	<b>0.07155</b>	0.32940	0.06480	<b>0.24811</b>	2.50740	0.30000	<b>0.79012</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>0.06479</b>	0.32940	0.12960	<b>0.27179</b>	2.50740	0.60000	<b>0.89782</b>
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	<b>0.08869</b>	0.32940	0.12960	<b>0.27571</b>	2.50740	0.60000	<b>0.79126</b>
sg13g2_mux2_1	S->X (RR)	(!A0 * A1)	0.01860	0.00100	<b>0.05634</b>	0.32940	0.06480	<b>0.24676</b>	2.50740	0.30000	<b>0.84179</b>
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	<b>0.08010</b>	0.32940	0.06480	<b>0.25984</b>	2.50740	0.30000	<b>0.77395</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>0.08544</b>	0.32940	0.12960	<b>0.28034</b>	2.50740	0.60000	<b>0.85438</b>
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	<b>0.10651</b>	0.32940	0.12960	<b>0.29046</b>	2.50740	0.60000	<b>0.79153</b>
sg13g2_mux2_1	S->X (FF)	(!A0 * A1)	0.01860	0.00100	<b>0.07155</b>	0.32940	0.06480	<b>0.24811</b>	2.50740	0.30000	<b>0.79012</b>
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	<b>0.09259</b>	0.32940	0.06480	<b>0.26654</b>	2.50740	0.30000	<b>0.76550</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>0.01746</b>	0.32940	0.12960	<b>0.01871</b>	2.50740	0.60000	<b>0.04078</b>
	A1	0.01860	0.00100	<b>0.01674</b>	0.32940	0.12960	<b>0.02518</b>	2.50740	0.60000	<b>0.04626</b>
	S	0.01860	0.00100	<b>0.01743</b>	0.32940	0.12960	<b>0.01883</b>	2.50740	0.60000	<b>0.03909</b>
sg13g2_mux2_1	A0	0.01860	0.00100	<b>0.01233</b>	0.32940	0.06480	<b>0.01380</b>	2.50740	0.30000	<b>0.03614</b>
	A1	0.01860	0.00100	<b>0.01167</b>	0.32940	0.06480	<b>0.01755</b>	2.50740	0.30000	<b>0.03970</b>
	S	0.01860	0.00100	<b>0.01244</b>	0.32940	0.06480	<b>0.01385</b>	2.50740	0.30000	<b>0.03399</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>0.01648</b>	0.32940	0.12960	<b>0.02545</b>	2.50740	0.60000	<b>0.04755</b>
	A1	0.01860	0.00100	<b>0.01763</b>	0.32940	0.12960	<b>0.01877</b>	2.50740	0.60000	<b>0.04248</b>
	S	0.01860	0.00100	<b>0.01683</b>	0.32940	0.12960	<b>0.01761</b>	2.50740	0.60000	<b>0.03945</b>
sg13g2_mux2_1	A0	0.01860	0.00100	<b>0.01125</b>	0.32940	0.06480	<b>0.01782</b>	2.50740	0.30000	<b>0.03894</b>
	A1	0.01860	0.00100	<b>0.01218</b>	0.32940	0.06480	<b>0.01392</b>	2.50740	0.30000	<b>0.03595</b>
	S	0.01860	0.00100	<b>0.01170</b>	0.32940	0.06480	<b>0.01302</b>	2.50740	0.30000	<b>0.03305</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>0.01708</b>	0.32940	0.12960	<b>0.01741</b>	2.50740	0.60000	<b>0.02135</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01743</b>	0.32940	0.12960	<b>0.01883</b>	2.50740	0.60000	<b>0.03909</b>
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	<b>0.01206</b>	0.32940	0.06480	<b>0.01232</b>	2.50740	0.30000	<b>0.01425</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01244</b>	0.32940	0.06480	<b>0.01385</b>	2.50740	0.30000	<b>0.03399</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>0.01776</b>	0.32940	0.12960	<b>0.01812</b>	2.50740	0.60000	<b>0.01983</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01683</b>	0.32940	0.12960	<b>0.01761</b>	2.50740	0.60000	<b>0.03945</b>
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	<b>0.01259</b>	0.32940	0.06480	<b>0.01300</b>	2.50740	0.30000	<b>0.01394</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01170</b>	0.32940	0.06480	<b>0.01302</b>	2.50740	0.30000	<b>0.03305</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>0.00419</b>	0.32940	<b>0.00554</b>	2.50740	<b>0.02496</b>
sg13g2_mux2_1	0.01860	<b>0.00418</b>	0.32940	<b>0.00555</b>	2.50740	<b>0.02496</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>0.00480</b>	0.32940	<b>0.00642</b>	2.50740	<b>0.02564</b>
sg13g2_mux2_1	0.01860	<b>0.00480</b>	0.32940	<b>0.00642</b>	2.50740	<b>0.02564</b>

# MUX4



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00306	0.00304	0.00306	0.00314	0.00891	0.00540	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux4_1	762.61000	984.26700	1144.80000



## 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>0.09304</b>	0.32940	0.06480	<b>0.30649</b>	2.50740	0.30000	<b>0.97956</b>
	A1->X (RR)	0.01860	0.00100	<b>0.09115</b>	0.32940	0.06480	<b>0.30573</b>	2.50740	0.30000	<b>0.97747</b>
	A2->X (RR)	0.01860	0.00100	<b>0.09621</b>	0.32940	0.06480	<b>0.31316</b>	2.50740	0.30000	<b>0.99440</b>
	A3->X (RR)	0.01860	0.00100	<b>0.09465</b>	0.32940	0.06480	<b>0.31213</b>	2.50740	0.30000	<b>0.99312</b>
	S0->X (-R)	0.01860	0.00100	<b>0.08157</b>	0.32940	0.06480	<b>0.30713</b>	2.50740	0.30000	<b>0.98488</b>
	S1->X (-R)	0.01860	0.00100	<b>0.04857</b>	0.32940	0.06480	<b>0.24704</b>	2.50740	0.30000	<b>0.85546</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>0.10301</b>	0.32940	0.06480	<b>0.29990</b>	2.50740	0.30000	<b>0.85573</b>
	A1->X (FF)	0.01860	0.00100	<b>0.10476</b>	0.32940	0.06480	<b>0.29989</b>	2.50740	0.30000	<b>0.85709</b>
	A2->X (FF)	0.01860	0.00100	<b>0.10980</b>	0.32940	0.06480	<b>0.30919</b>	2.50740	0.30000	<b>0.87255</b>
	A3->X (FF)	0.01860	0.00100	<b>0.11044</b>	0.32940	0.06480	<b>0.30854</b>	2.50740	0.30000	<b>0.87390</b>
	S0->X (-F)	0.01860	0.00100	<b>0.09473</b>	0.32940	0.06480	<b>0.30481</b>	2.50740	0.30000	<b>0.88482</b>
	S1->X (-F)	0.01860	0.00100	<b>0.05701</b>	0.32940	0.06480	<b>0.24111</b>	2.50740	0.30000	<b>0.77036</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	<b>0.08157</b>	0.32940	0.06480	<b>0.30713</b>	2.50740	0.30000	<b>0.98488</b>
	S0->X (RR)	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.07732</b>	0.32940	0.06480	<b>0.29669</b>	2.50740	0.30000	<b>0.96318</b>
	S0->X (FR)	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.11863</b>	0.32940	0.06480	<b>0.32267</b>	2.50740	0.30000	<b>0.87857</b>
	S0->X (FR)	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.11553</b>	0.32940	0.06480	<b>0.31768</b>	2.50740	0.30000	<b>0.87074</b>
	S1->X (RR)	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.04864</b>	0.32940	0.06480	<b>0.24705</b>	2.50740	0.30000	<b>0.85528</b>
	S1->X (RR)	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.04857</b>	0.32940	0.06480	<b>0.24704</b>	2.50740	0.30000	<b>0.85546</b>
	S1->X (FR)	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.06488</b>	0.32940	0.06480	<b>0.25167</b>	2.50740	0.30000	<b>0.76250</b>
	S1->X (FR)	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.06468</b>	0.32940	0.06480	<b>0.25162</b>	2.50740	0.30000	<b>0.76250</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_mux4_1	S0->X (FF)	(!A2 * A3 * S1)	0.01860	0.00100	0.09473	0.32940	0.06480	0.30481	2.50740	0.30000	0.88482
	S0->X (FF)	(!A0 * A1 * !S1)	0.01860	0.00100	0.08709	0.32940	0.06480	0.29267	2.50740	0.30000	0.86067
	S0->X (RF)	(A2 * !A3 * S1)	0.01860	0.00100	0.12412	0.32940	0.06480	0.32692	2.50740	0.30000	0.87819
	S0->X (RF)	(A0 * !A1 * !S1)	0.01860	0.00100	0.11825	0.32940	0.06480	0.31870	2.50740	0.30000	0.86738
	S1->X (FF)	(!A1 * A3 * S0)	0.01860	0.00100	0.05701	0.32940	0.06480	0.24111	2.50740	0.30000	0.77036
	S1->X (FF)	(!A0 * A2 * !S0)	0.01860	0.00100	0.05688	0.32940	0.06480	0.24095	2.50740	0.30000	0.76977
	S1->X (RF)	(A1 * !A3 * S0)	0.01860	0.00100	0.07024	0.32940	0.06480	0.25537	2.50740	0.30000	0.76417
	S1->X (RF)	(A0 * !A2 * !S0)	0.01860	0.00100	0.07044	0.32940	0.06480	0.25541	2.50740	0.30000	0.76419

## 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>0.01659</b>	0.32940	0.06480	<b>0.01690</b>	2.50740	0.30000	<b>0.03356</b>
	A1	0.01860	0.00100	<b>0.02125</b>	0.32940	0.06480	<b>0.02156</b>	2.50740	0.30000	<b>0.03821</b>
	A2	0.01860	0.00100	<b>0.01599</b>	0.32940	0.06480	<b>0.01629</b>	2.50740	0.30000	<b>0.03289</b>
	A3	0.01860	0.00100	<b>0.02320</b>	0.32940	0.06480	<b>0.02345</b>	2.50740	0.30000	<b>0.04008</b>
	S0	0.01860	0.00100	<b>0.01169</b>	0.32940	0.06480	<b>0.01244</b>	2.50740	0.30000	<b>0.03083</b>
	S1	0.01860	0.00100	<b>0.00715</b>	0.32940	0.06480	<b>0.00871</b>	2.50740	0.30000	<b>0.02610</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>0.02335</b>	0.32940	0.06480	<b>0.02393</b>	2.50740	0.30000	<b>0.04136</b>
	A1	0.01860	0.00100	<b>0.01675</b>	0.32940	0.06480	<b>0.01721</b>	2.50740	0.30000	<b>0.03553</b>
	A2	0.01860	0.00100	<b>0.01772</b>	0.32940	0.06480	<b>0.01803</b>	2.50740	0.30000	<b>0.03564</b>
	A3	0.01860	0.00100	<b>0.01762</b>	0.32940	0.06480	<b>0.01796</b>	2.50740	0.30000	<b>0.03596</b>
	S0	0.01860	0.00100	<b>0.01137</b>	0.32940	0.06480	<b>0.01435</b>	2.50740	0.30000	<b>0.03319</b>
	S1	0.01860	0.00100	<b>0.00670</b>	0.32940	0.06480	<b>0.00832</b>	2.50740	0.30000	<b>0.02573</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>0.02269</b>	0.32940	0.06480	<b>0.01533</b>	2.50740	0.30000	<b>-0.00199</b>
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.02263</b>	0.32940	0.06480	<b>0.01534</b>	2.50740	0.30000	<b>-0.00190</b>
	S0	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.01164</b>	0.32940	0.06480	<b>0.01265</b>	2.50740	0.30000	<b>0.03096</b>
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.01169</b>	0.32940	0.06480	<b>0.01244</b>	2.50740	0.30000	<b>0.03083</b>
	S1	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.00877</b>	0.32940	0.06480	<b>0.01062</b>	2.50740	0.30000	<b>0.02426</b>
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.00875</b>	0.32940	0.06480	<b>0.01062</b>	2.50740	0.30000	<b>0.02426</b>
	S1	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00629</b>	0.32940	0.06480	<b>0.00786</b>	2.50740	0.30000	<b>0.02467</b>
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00715</b>	0.32940	0.06480	<b>0.00871</b>	2.50740	0.30000	<b>0.02610</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>0.02073</b>	0.32940	0.06480	<b>0.02556</b>	2.50740	0.30000	<b>0.00843</b>
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.02036</b>	0.32940	0.06480	<b>0.02602</b>	2.50740	0.30000	<b>0.00868</b>
	S0	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.01031</b>	0.32940	0.06480	<b>0.00508</b>	2.50740	0.30000	<b>0.00469</b>
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.01137</b>	0.32940	0.06480	<b>0.01435</b>	2.50740	0.30000	<b>0.03319</b>
	S1	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.01048</b>	0.32940	0.06480	<b>0.01252</b>	2.50740	0.30000	<b>0.02587</b>
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.01049</b>	0.32940	0.06480	<b>0.01252</b>	2.50740	0.30000	<b>0.02593</b>
	S1	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00497</b>	0.32940	0.06480	<b>0.00658</b>	2.50740	0.30000	<b>0.02390</b>
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00670</b>	0.32940	0.06480	<b>0.00832</b>	2.50740	0.30000	<b>0.02573</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>0.00881</b>	0.32940	<b>0.01249</b>	2.50740	<b>0.05573</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>0.00769</b>	0.32940	<b>0.01616</b>	2.50740	<b>0.05891</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>0.00813</b>	0.32940	<b>0.01168</b>	2.50740	<b>0.05494</b>
	(A0 * A1 * !S1)	0.01860	<b>0.00881</b>	0.32940	<b>0.01210</b>	2.50740	<b>0.05497</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.00881</b>	0.32940	<b>0.01249</b>	2.50740	<b>0.05573</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.00984</b>	0.32940	<b>0.01322</b>	2.50740	<b>0.05613</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>0.00813</b>	0.32940	<b>0.01670</b>	2.50740	<b>0.05959</b>
	(A0 * A1 * !S1)	0.01860	<b>0.00874</b>	0.32940	<b>0.01883</b>	2.50740	<b>0.06130</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.00769</b>	0.32940	<b>0.01616</b>	2.50740	<b>0.05891</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.00846</b>	0.32940	<b>0.01238</b>	2.50740	<b>0.05471</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>0.00455</b>	0.32940	<b>0.00672</b>	2.50740	<b>0.03040</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>0.00515</b>	0.32940	<b>0.00767</b>	2.50740	<b>0.03106</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>0.00455</b>	0.32940	<b>0.00672</b>	2.50740	<b>0.03040</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00453</b>	0.32940	<b>0.00670</b>	2.50740	<b>0.03038</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00500</b>	0.32940	<b>0.00731</b>	2.50740	<b>0.03099</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00498</b>	0.32940	<b>0.00730</b>	2.50740	<b>0.03096</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>0.00516</b>	0.32940	<b>0.00769</b>	2.50740	<b>0.03109</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00515</b>	0.32940	<b>0.00767</b>	2.50740	<b>0.03106</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00495</b>	0.32940	<b>0.00731</b>	2.50740	<b>0.03068</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00494</b>	0.32940	<b>0.00730</b>	2.50740	<b>0.03066</b>



# NAND2B1



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp  
-40.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2b_1	9.07200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A_N	B	Y
sg13g2_nand2b_1	0.00250	0.00336	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_1	138.12100	269.63300	373.98300

## 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>0.03593</b>	0.32940	0.06480	<b>0.21994</b>	2.50740	0.30000	<b>0.81494</b>
	B->Y (FR)	0.01860	0.00100	<b>0.01894</b>	0.32940	0.06480	<b>0.27184</b>	2.50740	0.30000	<b>1.52301</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>0.04344</b>	0.32940	0.06480	<b>0.28546</b>	2.50740	0.30000	<b>1.05872</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02681</b>	0.32940	0.06480	<b>0.31869</b>	2.50740	0.30000	<b>1.71495</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>0.00247</b>	0.32940	0.06480	<b>0.00246</b>	2.50740	0.30000	<b>0.00330</b>
	B	0.01860	0.00100	<b>0.00202</b>	0.32940	0.06480	<b>0.00245</b>	2.50740	0.30000	<b>0.00929</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>0.00537</b>	0.32940	0.06480	<b>0.00554</b>	2.50740	0.30000	<b>0.00564</b>
	B	0.01860	0.00100	<b>0.00517</b>	0.32940	0.06480	<b>0.00544</b>	2.50740	0.30000	<b>0.01091</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>0.00474</b>	0.32940	<b>0.00651</b>	2.50740	<b>0.02626</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>0.00244</b>	0.32940	<b>0.00422</b>	2.50740	<b>0.02361</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>0.00474</b>	0.32940	<b>0.00651</b>	2.50740	<b>0.02626</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>0.00244</b>	0.32940	<b>0.00422</b>	2.50740	<b>0.02361</b>

# NAND2B2



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp  
-40.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2b_2	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A_N	B	Y
sg13g2_nand2b_2	0.00238	0.00571	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_2	270.99900	447.53100	672.25200

## 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>0.04688</b>	0.32940	0.12960	<b>0.25133</b>	2.50740	0.60000	<b>0.88154</b>
	B->Y (FR)	0.01860	0.00100	<b>0.01496</b>	0.32940	0.12960	<b>0.26869</b>	2.50740	0.60000	<b>1.51838</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>0.05822</b>	0.32940	0.12960	<b>0.33422</b>	2.50740	0.60000	<b>1.17976</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02076</b>	0.32940	0.12960	<b>0.34302</b>	2.50740	0.60000	<b>1.92491</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>0.00494</b>	0.32940	0.12960	<b>0.00522</b>	2.50740	0.60000	<b>0.00505</b>
	B	0.01860	0.00100	<b>0.00630</b>	0.32940	0.12960	<b>0.00754</b>	2.50740	0.60000	<b>0.02117</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>0.01059</b>	0.32940	0.12960	<b>0.01119</b>	2.50740	0.60000	<b>0.01237</b>
	B	0.01860	0.00100	<b>0.00793</b>	0.32940	0.12960	<b>0.00891</b>	2.50740	0.60000	<b>0.02110</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>0.00782</b>	0.32940	<b>0.00880</b>	2.50740	<b>0.02736</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>0.00761</b>	0.32940	<b>0.00903</b>	2.50740	<b>0.02736</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>0.00782</b>	0.32940	<b>0.00880</b>	2.50740	<b>0.02736</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>0.00761</b>	0.32940	<b>0.00903</b>	2.50740	<b>0.02736</b>



# NAND2x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00597	0.00617	0.60000
sg13g2_nand2_1	0.00314	0.00325	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2_2	159.30500	362.54600	613.97400
sg13g2_nand2_1	79.77980	184.60600	315.63300

## 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>0.01543</b>	0.32940	0.12960	<b>0.26878</b>	2.50740	0.60000	<b>1.51822</b>
	B->Y (FR)	0.01860	0.00100	<b>0.01837</b>	0.32940	0.12960	<b>0.27225</b>	2.50740	0.60000	<b>1.52377</b>
sg13g2_nand2_1	A->Y (FR)	0.01860	0.00100	<b>0.01699</b>	0.32940	0.06480	<b>0.26838</b>	2.50740	0.30000	<b>1.51571</b>
	B->Y (FR)	0.01860	0.00100	<b>0.01935</b>	0.32940	0.06480	<b>0.27147</b>	2.50740	0.30000	<b>1.52148</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>0.02044</b>	0.32940	0.12960	<b>0.34211</b>	2.50740	0.60000	<b>1.92448</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02421</b>	0.32940	0.12960	<b>0.32610</b>	2.50740	0.60000	<b>1.75562</b>
sg13g2_nand2_1	A->Y (RF)	0.01860	0.00100	<b>0.02194</b>	0.32940	0.06480	<b>0.33356</b>	2.50740	0.30000	<b>1.87667</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02490</b>	0.32940	0.06480	<b>0.31628</b>	2.50740	0.30000	<b>1.71530</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>0.00359</b>	0.32940	0.12960	<b>0.00481</b>	2.50740	0.60000	<b>0.01950</b>
	B	0.01860	0.00100	<b>0.00448</b>	0.32940	0.12960	<b>0.00531</b>	2.50740	0.60000	<b>0.01905</b>
sg13g2_nand2_1	A	0.01860	0.00100	<b>0.00194</b>	0.32940	0.06480	<b>0.00248</b>	2.50740	0.30000	<b>0.00991</b>
	B	0.01860	0.00100	<b>0.00204</b>	0.32940	0.06480	<b>0.00241</b>	2.50740	0.30000	<b>0.01001</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>0.00503</b>	0.32940	0.12960	<b>0.00594</b>	2.50740	0.60000	<b>0.01840</b>
	B	0.01860	0.00100	<b>0.00937</b>	0.32940	0.12960	<b>0.00988</b>	2.50740	0.60000	<b>0.01907</b>
sg13g2_nand2_1	A	0.01860	0.00100	<b>0.00273</b>	0.32940	0.06480	<b>0.00308</b>	2.50740	0.30000	<b>0.00914</b>
	B	0.01860	0.00100	<b>0.00495</b>	0.32940	0.06480	<b>0.00513</b>	2.50740	0.30000	<b>0.01099</b>

# NAND3B1



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp  
-40.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand3b_1	12.70080

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A_N	B	C	Y
sg13g2_nand3b_1	0.00243	0.00325	0.00325	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3b_1	140.70200	315.53800	531.77800

## 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>0.03789</b>	0.32940	0.06480	<b>0.22101</b>	2.50740	0.30000	<b>0.81259</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02091</b>	0.32940	0.06480	<b>0.27420</b>	2.50740	0.30000	<b>1.52277</b>
	C->Y (FR)	0.01860	0.00100	<b>0.02234</b>	0.32940	0.06480	<b>0.27621</b>	2.50740	0.30000	<b>1.52489</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>0.05286</b>	0.32940	0.06480	<b>0.37640</b>	2.50740	0.30000	<b>1.45277</b>
	B->Y (RF)	0.01860	0.00100	<b>0.04021</b>	0.32940	0.06480	<b>0.41006</b>	2.50740	0.30000	<b>2.12764</b>
	C->Y (RF)	0.01860	0.00100	<b>0.04395</b>	0.32940	0.06480	<b>0.39527</b>	2.50740	0.30000	<b>1.95889</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>0.00278</b>	0.32940	0.06480	<b>0.00298</b>	2.50740	0.30000	<b>0.00443</b>
	B	0.01860	0.00100	<b>0.00252</b>	0.32940	0.06480	<b>0.00290</b>	2.50740	0.30000	<b>0.00914</b>
	C	0.01860	0.00100	<b>0.00285</b>	0.32940	0.06480	<b>0.00294</b>	2.50740	0.30000	<b>0.00952</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>0.00676</b>	0.32940	0.06480	<b>0.00682</b>	2.50740	0.30000	<b>0.00634</b>
	B	0.01860	0.00100	<b>0.00657</b>	0.32940	0.06480	<b>0.00658</b>	2.50740	0.30000	<b>0.01093</b>
	C	0.01860	0.00100	<b>0.00878</b>	0.32940	0.06480	<b>0.00876</b>	2.50740	0.30000	<b>0.01355</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>0.00468</b>	0.32940	<b>0.00642</b>	2.50740	<b>0.02621</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>0.00252</b>	0.32940	<b>0.00431</b>	2.50740	<b>0.02370</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>0.00468</b>	0.32940	<b>0.00642</b>	2.50740	<b>0.02621</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>0.00252</b>	0.32940	<b>0.00431</b>	2.50740	<b>0.02370</b>

# NAND3



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00300	0.00316	0.00313	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3_1	82.46890	230.62100	473.55200

## 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>0.01911</b>	0.32940	0.06480	<b>0.27063</b>	2.50740	0.30000	<b>1.51889</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02140</b>	0.32940	0.06480	<b>0.27398</b>	2.50740	0.30000	<b>1.52279</b>
	C->Y (FR)	0.01860	0.00100	<b>0.02262</b>	0.32940	0.06480	<b>0.27634</b>	2.50740	0.30000	<b>1.52488</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>0.03119</b>	0.32940	0.06480	<b>0.41556</b>	2.50740	0.30000	<b>2.23652</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03787</b>	0.32940	0.06480	<b>0.40767</b>	2.50740	0.30000	<b>2.12697</b>
	C->Y (RF)	0.01860	0.00100	<b>0.04075</b>	0.32940	0.06480	<b>0.39200</b>	2.50740	0.30000	<b>1.95833</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>0.00238</b>	0.32940	0.06480	<b>0.00280</b>	2.50740	0.30000	<b>0.00973</b>
	B	0.01860	0.00100	<b>0.00253</b>	0.32940	0.06480	<b>0.00284</b>	2.50740	0.30000	<b>0.00910</b>
	C	0.01860	0.00100	<b>0.00287</b>	0.32940	0.06480	<b>0.00298</b>	2.50740	0.30000	<b>0.00954</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>0.00410</b>	0.32940	0.06480	<b>0.00437</b>	2.50740	0.30000	<b>0.00877</b>
	B	0.01860	0.00100	<b>0.00637</b>	0.32940	0.06480	<b>0.00633</b>	2.50740	0.30000	<b>0.01087</b>
	C	0.01860	0.00100	<b>0.00828</b>	0.32940	0.06480	<b>0.00828</b>	2.50740	0.30000	<b>0.01344</b>

# NAND4



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00298	0.00312	0.00313	0.00313	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand4_1	85.11470	268.85500	631.35200

## 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>0.01986</b>	0.32940	0.06480	<b>0.27197</b>	2.50740	0.30000	<b>1.51542</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02246</b>	0.32940	0.06480	<b>0.27468</b>	2.50740	0.30000	<b>1.52325</b>
	C->Y (FR)	0.01860	0.00100	<b>0.02372</b>	0.32940	0.06480	<b>0.27796</b>	2.50740	0.30000	<b>1.52648</b>
	D->Y (FR)	0.01860	0.00100	<b>0.02412</b>	0.32940	0.06480	<b>0.27969</b>	2.50740	0.30000	<b>1.53008</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>0.03941</b>	0.32940	0.06480	<b>0.49866</b>	2.50740	0.30000	<b>2.57719</b>
	B->Y (RF)	0.01860	0.00100	<b>0.04983</b>	0.32940	0.06480	<b>0.49850</b>	2.50740	0.30000	<b>2.49990</b>
	C->Y (RF)	0.01860	0.00100	<b>0.05565</b>	0.32940	0.06480	<b>0.48826</b>	2.50740	0.30000	<b>2.36378</b>
	D->Y (RF)	0.01860	0.00100	<b>0.05830</b>	0.32940	0.06480	<b>0.47860</b>	2.50740	0.30000	<b>2.23558</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>0.00231</b>	0.32940	0.06480	<b>0.00283</b>	2.50740	0.30000	<b>0.00808</b>
	B	0.01860	0.00100	<b>0.00260</b>	0.32940	0.06480	<b>0.00276</b>	2.50740	0.30000	<b>0.00830</b>
	C	0.01860	0.00100	<b>0.00289</b>	0.32940	0.06480	<b>0.00296</b>	2.50740	0.30000	<b>0.00882</b>
	D	0.01860	0.00100	<b>0.00309</b>	0.32940	0.06480	<b>0.00303</b>	2.50740	0.30000	<b>0.00967</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>0.00500</b>	0.32940	0.06480	<b>0.00524</b>	2.50740	0.30000	<b>0.00935</b>
	B	0.01860	0.00100	<b>0.00727</b>	0.32940	0.06480	<b>0.00724</b>	2.50740	0.30000	<b>0.01075</b>
	C	0.01860	0.00100	<b>0.00922</b>	0.32940	0.06480	<b>0.00910</b>	2.50740	0.30000	<b>0.01285</b>
	D	0.01860	0.00100	<b>0.01113</b>	0.32940	0.06480	<b>0.01103</b>	2.50740	0.30000	<b>0.01522</b>

# NOR2Bx



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00606	0.00290	0.60000
sg13g2_nor2b_1	0.00312	0.00246	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2b_2	368.14100	489.67700	576.52400
sg13g2_nor2b_1	211.74300	283.30000	337.28300

## 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>0.02170</b>	0.32940	0.12960	<b>0.37729</b>	2.50740	0.60000	<b>2.07293</b>
	B_N->Y (RR)	0.01860	0.00100	<b>0.05373</b>	0.32940	0.12960	<b>0.37076</b>	2.50740	0.60000	<b>1.41563</b>
sg13g2_nor2b_1	A->Y (FR)	0.01860	0.00100	<b>0.02432</b>	0.32940	0.06480	<b>0.37801</b>	2.50740	0.30000	<b>2.07244</b>
	B_N->Y (RR)	0.01860	0.00100	<b>0.04892</b>	0.32940	0.06480	<b>0.34902</b>	2.50740	0.30000	<b>1.35847</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>0.01525</b>	0.32940	0.12960	<b>0.26173</b>	2.50740	0.60000	<b>1.49997</b>
	B_N->Y (FF)	0.01860	0.00100	<b>0.04803</b>	0.32940	0.12960	<b>0.22918</b>	2.50740	0.60000	<b>0.74093</b>
sg13g2_nor2b_1	A->Y (RF)	0.01860	0.00100	<b>0.01639</b>	0.32940	0.06480	<b>0.25533</b>	2.50740	0.30000	<b>1.46676</b>
	B_N->Y (FF)	0.01860	0.00100	<b>0.04073</b>	0.32940	0.06480	<b>0.20358</b>	2.50740	0.30000	<b>0.68176</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>0.00499</b>	0.32940	0.12960	<b>0.00607</b>	2.50740	0.60000	<b>0.01922</b>
	B_N	0.01860	0.00100	<b>0.01096</b>	0.32940	0.12960	<b>0.01113</b>	2.50740	0.60000	<b>0.01088</b>
sg13g2_nor2b_1	A	0.01860	0.00100	<b>0.00249</b>	0.32940	0.06480	<b>0.00301</b>	2.50740	0.30000	<b>0.00944</b>
	B_N	0.01860	0.00100	<b>0.00578</b>	0.32940	0.06480	<b>0.00574</b>	2.50740	0.30000	<b>0.00610</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>0.00334</b>	0.32940	0.12960	<b>0.00488</b>	2.50740	0.60000	<b>0.01544</b>
	B_N	0.01860	0.00100	<b>0.00521</b>	0.32940	0.12960	<b>0.00541</b>	2.50740	0.60000	<b>0.00589</b>
sg13g2_nor2b_1	A	0.01860	0.00100	<b>0.00211</b>	0.32940	0.06480	<b>0.00266</b>	2.50740	0.30000	<b>0.00845</b>
	B_N	0.01860	0.00100	<b>0.00290</b>	0.32940	0.06480	<b>0.00306</b>	2.50740	0.30000	<b>0.00247</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>0.00885</b>	0.32940	<b>0.01034</b>	2.50740	<b>0.03274</b>
sg13g2_nor2b_1	0.01860	<b>0.00483</b>	0.32940	<b>0.00637</b>	2.50740	<b>0.02580</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>0.00764</b>	0.32940	<b>0.00926</b>	2.50740	<b>0.03143</b>
sg13g2_nor2b_1	0.01860	<b>0.00441</b>	0.32940	<b>0.00606</b>	2.50740	<b>0.02525</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>0.00885</b>	0.32940	<b>0.01034</b>	2.50740	<b>0.03274</b>
sg13g2_nor2b_1	A	0.01860	<b>0.00483</b>	0.32940	<b>0.00637</b>	2.50740	<b>0.02580</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>0.00764</b>	0.32940	<b>0.00926</b>	2.50740	<b>0.03143</b>
sg13g2_nor2b_1	A	0.01860	<b>0.00441</b>	0.32940	<b>0.00606</b>	2.50740	<b>0.02525</b>

# NOR2x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00631	0.00604	0.30000
sg13g2_nor2_1	0.00327	0.00312	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2_2	306.92100	396.71500	512.42500
sg13g2_nor2_1	153.49000	198.36100	256.19500



## 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>0.02727</b>	0.32940	0.06480	<b>0.23615</b>	2.50740	0.30000	<b>1.21330</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02194</b>	0.32940	0.06480	<b>0.25573</b>	2.50740	0.30000	<b>1.37919</b>
sg13g2_nor2_1	A->Y (FR)	0.01860	0.00100	<b>0.02874</b>	0.32940	0.06480	<b>0.35815</b>	2.50740	0.30000	<b>1.86182</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02440</b>	0.32940	0.06480	<b>0.37772</b>	2.50740	0.30000	<b>2.07467</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>0.01780</b>	0.32940	0.06480	<b>0.18805</b>	2.50740	0.30000	<b>1.02707</b>
	B->Y (RF)	0.01860	0.00100	<b>0.01508</b>	0.32940	0.06480	<b>0.18272</b>	2.50740	0.30000	<b>1.01927</b>
sg13g2_nor2_1	A->Y (RF)	0.01860	0.00100	<b>0.01873</b>	0.32940	0.06480	<b>0.25880</b>	2.50740	0.30000	<b>1.47128</b>
	B->Y (RF)	0.01860	0.00100	<b>0.01643</b>	0.32940	0.06480	<b>0.25532</b>	2.50740	0.30000	<b>1.46670</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>0.01073</b>	0.32940	0.06480	<b>0.01163</b>	2.50740	0.30000	<b>0.03055</b>
	B	0.01860	0.00100	<b>0.00509</b>	0.32940	0.06480	<b>0.00715</b>	2.50740	0.30000	<b>0.02736</b>
sg13g2_nor2_1	A	0.01860	0.00100	<b>0.00531</b>	0.32940	0.06480	<b>0.00551</b>	2.50740	0.30000	<b>0.01102</b>
	B	0.01860	0.00100	<b>0.00249</b>	0.32940	0.06480	<b>0.00300</b>	2.50740	0.30000	<b>0.01007</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>0.00453</b>	0.32940	0.06480	<b>0.00587</b>	2.50740	0.30000	<b>0.02564</b>
	B	0.01860	0.00100	<b>0.00331</b>	0.32940	0.06480	<b>0.00521</b>	2.50740	0.30000	<b>0.02417</b>
sg13g2_nor2_1	A	0.01860	0.00100	<b>0.00227</b>	0.32940	0.06480	<b>0.00260</b>	2.50740	0.30000	<b>0.00827</b>
	B	0.01860	0.00100	<b>0.00210</b>	0.32940	0.06480	<b>0.00266</b>	2.50740	0.30000	<b>0.00845</b>

# NOR3x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00627	0.00621	0.00597	0.60000
sg13g2_nor3_1	0.00330	0.00329	0.00312	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor3_2	311.25000	516.04700	751.46500
sg13g2_nor3_1	162.21600	267.57800	395.48600

## 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>0.04643</b>	0.32940	0.12960	<b>0.47403</b>	2.50740	0.60000	<b>2.25620</b>
	B->Y (FR)	0.01860	0.00100	<b>0.04292</b>	0.32940	0.12960	<b>0.49156</b>	2.50740	0.60000	<b>2.44707</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03091</b>	0.32940	0.12960	<b>0.49573</b>	2.50740	0.60000	<b>2.57407</b>
sg13g2_nor3_1	A->Y (FR)	0.01860	0.00100	<b>0.05011</b>	0.32940	0.06480	<b>0.47198</b>	2.50740	0.30000	<b>2.24959</b>
	B->Y (FR)	0.01860	0.00100	<b>0.04671</b>	0.32940	0.06480	<b>0.48906</b>	2.50740	0.30000	<b>2.43547</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03605</b>	0.32940	0.06480	<b>0.49486</b>	2.50740	0.30000	<b>2.56391</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>0.01951</b>	0.32940	0.12960	<b>0.26370</b>	2.50740	0.60000	<b>1.47757</b>
	B->Y (RF)	0.01860	0.00100	<b>0.01924</b>	0.32940	0.12960	<b>0.26050</b>	2.50740	0.60000	<b>1.47433</b>
	C->Y (RF)	0.01860	0.00100	<b>0.01663</b>	0.32940	0.12960	<b>0.25695</b>	2.50740	0.60000	<b>1.46805</b>
sg13g2_nor3_1	A->Y (RF)	0.01860	0.00100	<b>0.02029</b>	0.32940	0.06480	<b>0.25765</b>	2.50740	0.30000	<b>1.44578</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02003</b>	0.32940	0.06480	<b>0.25566</b>	2.50740	0.30000	<b>1.44532</b>
	C->Y (RF)	0.01860	0.00100	<b>0.01788</b>	0.32940	0.06480	<b>0.25244</b>	2.50740	0.30000	<b>1.44194</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>0.01782</b>	0.32940	0.12960	<b>0.01773</b>	2.50740	0.60000	<b>0.02835</b>
	B	0.01860	0.00100	<b>0.01288</b>	0.32940	0.12960	<b>0.01293</b>	2.50740	0.60000	<b>0.02195</b>
	C	0.01860	0.00100	<b>0.00723</b>	0.32940	0.12960	<b>0.00811</b>	2.50740	0.60000	<b>0.01890</b>
sg13g2_nor3_1	A	0.01860	0.00100	<b>0.00911</b>	0.32940	0.06480	<b>0.00906</b>	2.50740	0.30000	<b>0.01446</b>
	B	0.01860	0.00100	<b>0.00664</b>	0.32940	0.06480	<b>0.00662</b>	2.50740	0.30000	<b>0.01111</b>
	C	0.01860	0.00100	<b>0.00389</b>	0.32940	0.06480	<b>0.00426</b>	2.50740	0.30000	<b>0.00957</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>0.00565</b>	0.32940	0.12960	<b>0.00601</b>	2.50740	0.60000	<b>0.01631</b>
	B	0.01860	0.00100	<b>0.00516</b>	0.32940	0.12960	<b>0.00558</b>	2.50740	0.60000	<b>0.01636</b>
	C	0.01860	0.00100	<b>0.00377</b>	0.32940	0.12960	<b>0.00503</b>	2.50740	0.60000	<b>0.01537</b>
sg13g2_nor3_1	A	0.01860	0.00100	<b>0.00293</b>	0.32940	0.06480	<b>0.00297</b>	2.50740	0.30000	<b>0.00858</b>
	B	0.01860	0.00100	<b>0.00277</b>	0.32940	0.06480	<b>0.00292</b>	2.50740	0.30000	<b>0.00831</b>
	C	0.01860	0.00100	<b>0.00237</b>	0.32940	0.06480	<b>0.00286</b>	2.50740	0.30000	<b>0.00841</b>

# NOR4x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00628	0.00613	0.00530	0.00537	0.60000
sg13g2_nor4_1	0.00326	0.00322	0.00278	0.00279	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor4_2	316.15400	660.41200	993.97200
sg13g2_nor4_1	158.08100	330.21400	497.00500



## 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>0.07217</b>	0.32940	0.12960	<b>0.61023</b>	2.50740	0.60000	<b>2.70630</b>
	B->Y (FR)	0.01860	0.00100	<b>0.06892</b>	0.32940	0.12960	<b>0.61898</b>	2.50740	0.60000	<b>2.85188</b>
	C->Y (FR)	0.01860	0.00100	<b>0.05919</b>	0.32940	0.12960	<b>0.62421</b>	2.50740	0.60000	<b>2.99829</b>
	D->Y (FR)	0.01860	0.00100	<b>0.04026</b>	0.32940	0.12960	<b>0.61802</b>	2.50740	0.60000	<b>3.07783</b>
sg13g2_nor4_1	A->Y (FR)	0.01860	0.00100	<b>0.07527</b>	0.32940	0.06480	<b>0.60503</b>	2.50740	0.30000	<b>2.68870</b>
	B->Y (FR)	0.01860	0.00100	<b>0.07215</b>	0.32940	0.06480	<b>0.61373</b>	2.50740	0.30000	<b>2.82926</b>
	C->Y (FR)	0.01860	0.00100	<b>0.06313</b>	0.32940	0.06480	<b>0.62023</b>	2.50740	0.30000	<b>2.97882</b>
	D->Y (FR)	0.01860	0.00100	<b>0.04535</b>	0.32940	0.06480	<b>0.61427</b>	2.50740	0.30000	<b>3.05855</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>0.02032</b>	0.32940	0.12960	<b>0.26717</b>	2.50740	0.60000	<b>1.48152</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02083</b>	0.32940	0.12960	<b>0.26486</b>	2.50740	0.60000	<b>1.48239</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02024</b>	0.32940	0.12960	<b>0.26236</b>	2.50740	0.60000	<b>1.47626</b>
	D->Y (RF)	0.01860	0.00100	<b>0.01777</b>	0.32940	0.12960	<b>0.25811</b>	2.50740	0.60000	<b>1.46859</b>
sg13g2_nor4_1	A->Y (RF)	0.01860	0.00100	<b>0.02147</b>	0.32940	0.06480	<b>0.26685</b>	2.50740	0.30000	<b>1.48096</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02198</b>	0.32940	0.06480	<b>0.26542</b>	2.50740	0.30000	<b>1.48249</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02137</b>	0.32940	0.06480	<b>0.26281</b>	2.50740	0.30000	<b>1.47851</b>
	D->Y (RF)	0.01860	0.00100	<b>0.01888</b>	0.32940	0.06480	<b>0.25901</b>	2.50740	0.30000	<b>1.47107</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>0.02222</b>	0.32940	0.12960	<b>0.02196</b>	2.50740	0.60000	<b>0.03001</b>
	B	0.01860	0.00100	<b>0.01972</b>	0.32940	0.12960	<b>0.01954</b>	2.50740	0.60000	<b>0.02768</b>
	C	0.01860	0.00100	<b>0.01563</b>	0.32940	0.12960	<b>0.01548</b>	2.50740	0.60000	<b>0.02357</b>
	D	0.01860	0.00100	<b>0.01107</b>	0.32940	0.12960	<b>0.01180</b>	2.50740	0.60000	<b>0.02108</b>
sg13g2_nor4_1	A	0.01860	0.00100	<b>0.01107</b>	0.32940	0.06480	<b>0.01092</b>	2.50740	0.30000	<b>0.01527</b>
	B	0.01860	0.00100	<b>0.00969</b>	0.32940	0.06480	<b>0.00957</b>	2.50740	0.30000	<b>0.01352</b>
	C	0.01860	0.00100	<b>0.00792</b>	0.32940	0.06480	<b>0.00784</b>	2.50740	0.30000	<b>0.01178</b>
	D	0.01860	0.00100	<b>0.00557</b>	0.32940	0.06480	<b>0.00587</b>	2.50740	0.30000	<b>0.01054</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>0.00761</b>	0.32940	0.12960	<b>0.00783</b>	2.50740	0.60000	<b>0.01632</b>
	B	0.01860	0.00100	<b>0.00666</b>	0.32940	0.12960	<b>0.00649</b>	2.50740	0.60000	<b>0.01652</b>
	C	0.01860	0.00100	<b>0.00414</b>	0.32940	0.12960	<b>0.00472</b>	2.50740	0.60000	<b>0.01311</b>
	D	0.01860	0.00100	<b>0.00220</b>	0.32940	0.12960	<b>0.00349</b>	2.50740	0.60000	<b>0.01299</b>
sg13g2_nor4_1	A	0.01860	0.00100	<b>0.00377</b>	0.32940	0.06480	<b>0.00386</b>	2.50740	0.30000	<b>0.00841</b>
	B	0.01860	0.00100	<b>0.00350</b>	0.32940	0.06480	<b>0.00339</b>	2.50740	0.30000	<b>0.00809</b>
	C	0.01860	0.00100	<b>0.00225</b>	0.32940	0.06480	<b>0.00250</b>	2.50740	0.30000	<b>0.00735</b>
	D	0.01860	0.00100	<b>0.00141</b>	0.32940	0.06480	<b>0.00196</b>	2.50740	0.30000	<b>0.00626</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>-0.00056</b>	0.32940	<b>-0.00095</b>	2.50740	<b>-0.00105</b>
sg13g2_nor4_1	0.01860	<b>-0.00019</b>	0.32940	<b>-0.00038</b>	2.50740	<b>-0.00043</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>0.00231</b>	0.32940	<b>0.00234</b>	2.50740	<b>0.00235</b>
sg13g2_nor4_1	0.01860	<b>0.00104</b>	0.32940	<b>0.00107</b>	2.50740	<b>0.00107</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>-0.00056</b>	0.32940	<b>-0.00095</b>	2.50740	<b>-0.00105</b>
sg13g2_nor4_1	(!B * C) + (!B * !C * D)	0.01860	<b>-0.00019</b>	0.32940	<b>-0.00038</b>	2.50740	<b>-0.00043</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>0.00231</b>	0.32940	<b>0.00234</b>	2.50740	<b>0.00235</b>
sg13g2_nor4_1	(!B * C) + (!B * !C * D)	0.01860	<b>0.00104</b>	0.32940	<b>0.00107</b>	2.50740	<b>0.00107</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_nor4_1	0.01860	<b>0.00000</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_nor4_1	0.01860	<b>0.00000</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_nor4_1	(!A * C) + (!A * !C * D)	0.01860	<b>0.00000</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>0.00000</b>	0.32940	<b>0.00000</b>	2.50740	<b>0.00000</b>
sg13g2_nor4_1	(!A * C) + (!A * !C * D)	0.01860	<b>0.00000</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>0.00128</b>	0.32940	<b>0.00131</b>	2.50740	<b>0.00133</b>
sg13g2_nor4_1	0.01860	<b>0.00078</b>	0.32940	<b>0.00079</b>	2.50740	<b>0.00080</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>-0.00071</b>	0.32940	<b>-0.00071</b>	2.50740	<b>-0.00070</b>
sg13g2_nor4_1	0.01860	<b>-0.00061</b>	0.32940	<b>-0.00061</b>	2.50740	<b>-0.00061</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>0.00128</b>	0.32940	<b>0.00131</b>	2.50740	<b>0.00133</b>
sg13g2_nor4_1	$(A * !D) + (!A * B * !D)$	0.01860	<b>0.00078</b>	0.32940	<b>0.00079</b>	2.50740	<b>0.00080</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>-0.00071</b>	0.32940	<b>-0.00071</b>	2.50740	<b>-0.00070</b>
sg13g2_nor4_1	$(A * !D) + (!A * B * !D)$	0.01860	<b>-0.00061</b>	0.32940	<b>-0.00061</b>	2.50740	<b>-0.00061</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>0.00179</b>	0.32940	<b>0.00181</b>	2.50740	<b>0.00181</b>
sg13g2_nor4_1	0.01860	<b>0.00102</b>	0.32940	<b>0.00103</b>	2.50740	<b>0.00103</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>-0.00179</b>	0.32940	<b>-0.00181</b>	2.50740	<b>-0.00181</b>
sg13g2_nor4_1	0.01860	<b>-0.00102</b>	0.32940	<b>-0.00103</b>	2.50740	<b>-0.00103</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>0.00179</b>	0.32940	<b>0.00181</b>	2.50740	<b>0.00181</b>
sg13g2_nor4_1	$(A * !C) + (!A * B * !C)$	0.01860	<b>0.00102</b>	0.32940	<b>0.00103</b>	2.50740	<b>0.00103</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>-0.00179</b>	0.32940	<b>-0.00181</b>	2.50740	<b>-0.00181</b>
sg13g2_nor4_1	$(A * !C) + (!A * B * !C)$	0.01860	<b>-0.00102</b>	0.32940	<b>-0.00103</b>	2.50740	<b>-0.00103</b>

# NP\_ANT



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp  
-40.00*

## Truth Table

INPUT
A
x

## Footprint

Cell Name	Area
sg13g2_antennanp	5.44320

## Pin Capacitance Information

Cell Name	Pin Cap(pf)
	A
sg13g2_antennanp	0.00113

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_antennanp	5.22721	5.22721	5.22721

## 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>-0.00023</b>	0.32940	<b>-0.00023</b>	2.50740	<b>-0.00024</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>0.00023</b>	0.32940	<b>0.00023</b>	2.50740	<b>0.00024</b>



# O21AI



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00359	0.00361	0.00327	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_o21ai_1	170.72800	372.61100	572.07100

## 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>0.04605</b>	0.32940	0.06480	<b>0.42776</b>	2.50740	0.30000	<b>2.14752</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.03996</b>	0.32940	0.06480	<b>0.44801</b>	2.50740	0.30000	<b>2.36726</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.02018</b>	0.32940	0.06480	<b>0.30625</b>	2.50740	0.30000	<b>1.73212</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>0.03311</b>	0.32940	0.06480	<b>0.31886</b>	2.50740	0.30000	<b>1.64785</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.02785</b>	0.32940	0.06480	<b>0.31230</b>	2.50740	0.30000	<b>1.63745</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.02816</b>	0.32940	0.06480	<b>0.33652</b>	2.50740	0.30000	<b>1.83547</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>0.02018</b>	0.32940	0.06480	<b>0.30625</b>	2.50740	0.30000	<b>1.73212</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.01965</b>	0.32940	0.06480	<b>0.30482</b>	2.50740	0.30000	<b>1.72947</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>0.02816</b>	0.32940	0.06480	<b>0.33652</b>	2.50740	0.30000	<b>1.83547</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.02196</b>	0.32940	0.06480	<b>0.32832</b>	2.50740	0.30000	<b>1.81798</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>0.00606</b>	0.32940	0.06480	<b>0.00606</b>	2.50740	0.30000	<b>0.01149</b>
	A2	0.01860	0.00100	<b>0.00301</b>	0.32940	0.06480	<b>0.00332</b>	2.50740	0.30000	<b>0.00860</b>
	B1	0.01860	0.00100	<b>0.00088</b>	0.32940	0.06480	<b>0.00154</b>	2.50740	0.30000	<b>0.00852</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>0.00601</b>	0.32940	0.06480	<b>0.00581</b>	2.50740	0.30000	<b>0.01073</b>
	A2	0.01860	0.00100	<b>0.00561</b>	0.32940	0.06480	<b>0.00584</b>	2.50740	0.30000	<b>0.01040</b>
	B1	0.01860	0.00100	<b>0.00282</b>	0.32940	0.06480	<b>0.00325</b>	2.50740	0.30000	<b>0.00900</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>0.00381</b>	0.32940	0.06480	<b>0.00450</b>	2.50740	0.30000	<b>0.01115</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00088</b>	0.32940	0.06480	<b>0.00154</b>	2.50740	0.30000	<b>0.00852</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>0.00341</b>	0.32940	0.06480	<b>0.00357</b>	2.50740	0.30000	<b>0.00951</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00282</b>	0.32940	0.06480	<b>0.00325</b>	2.50740	0.30000	<b>0.00900</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>-0.00023</b>	0.32940	<b>-0.00010</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_o21ai_1	0.01860	<b>0.00023</b>	0.32940	<b>0.00010</b>	2.50740	<b>0.00005</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>-0.00023</b>	0.32940	<b>-0.00010</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_o21ai_1	(!A2 * !B1)	0.01860	<b>0.00023</b>	0.32940	<b>0.00010</b>	2.50740	<b>0.00005</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>-0.00014</b>	0.32940	<b>-0.00002</b>	2.50740	<b>0.00000</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>0.00014</b>	0.32940	<b>0.00002</b>	2.50740	<b>0.00000</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>-0.00014</b>	0.32940	<b>-0.00002</b>	2.50740	<b>0.00000</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>0.00014</b>	0.32940	<b>0.00002</b>	2.50740	<b>0.00000</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>-0.00006</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00005</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>0.00115</b>	0.32940	<b>0.00118</b>	2.50740	<b>0.00119</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>-0.00006</b>	0.32940	<b>-0.00005</b>	2.50740	<b>-0.00005</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>0.00115</b>	0.32940	<b>0.00118</b>	2.50740	<b>0.00119</b>

# OR2x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00266	0.00246	0.60000
sg13g2_or2_1	0.00268	0.00248	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or2_2	266.46400	336.88200	432.15800
sg13g2_or2_1	187.54400	238.25900	274.42500



## 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>0.04580</b>	0.32940	0.12960	<b>0.25981</b>	2.50740	0.60000	<b>0.89185</b>
	B->X (RR)	0.01860	0.00100	<b>0.04317</b>	0.32940	0.12960	<b>0.25051</b>	2.50740	0.60000	<b>0.85575</b>
sg13g2_or2_1	A->X (RR)	0.01860	0.00100	<b>0.03884</b>	0.32940	0.06480	<b>0.23156</b>	2.50740	0.30000	<b>0.82226</b>
	B->X (RR)	0.01860	0.00100	<b>0.03608</b>	0.32940	0.06480	<b>0.22031</b>	2.50740	0.30000	<b>0.78222</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>0.07952</b>	0.32940	0.12960	<b>0.27136</b>	2.50740	0.60000	<b>0.82717</b>
	B->X (FF)	0.01860	0.00100	<b>0.07512</b>	0.32940	0.12960	<b>0.28331</b>	2.50740	0.60000	<b>0.87175</b>
sg13g2_or2_1	A->X (FF)	0.01860	0.00100	<b>0.06130</b>	0.32940	0.06480	<b>0.22997</b>	2.50740	0.30000	<b>0.74761</b>
	B->X (FF)	0.01860	0.00100	<b>0.05674</b>	0.32940	0.06480	<b>0.23691</b>	2.50740	0.30000	<b>0.78052</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>0.01244</b>	0.32940	0.12960	<b>0.01398</b>	2.50740	0.60000	<b>0.03220</b>
	B	0.01860	0.00100	<b>0.01228</b>	0.32940	0.12960	<b>0.01370</b>	2.50740	0.60000	<b>0.03362</b>
sg13g2_or2_1	A	0.01860	0.00100	<b>0.00739</b>	0.32940	0.06480	<b>0.00868</b>	2.50740	0.30000	<b>0.02735</b>
	B	0.01860	0.00100	<b>0.00721</b>	0.32940	0.06480	<b>0.00860</b>	2.50740	0.30000	<b>0.02714</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>0.01480</b>	0.32940	0.12960	<b>0.01523</b>	2.50740	0.60000	<b>0.03223</b>
	B	0.01860	0.00100	<b>0.01287</b>	0.32940	0.12960	<b>0.01366</b>	2.50740	0.60000	<b>0.03233</b>
sg13g2_or2_1	A	0.01860	0.00100	<b>0.00935</b>	0.32940	0.06480	<b>0.01024</b>	2.50740	0.30000	<b>0.02689</b>
	B	0.01860	0.00100	<b>0.00739</b>	0.32940	0.06480	<b>0.00901</b>	2.50740	0.30000	<b>0.02645</b>

# OR3x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00280	0.00274	0.00260	0.60000
sg13g2_or3_1	0.00281	0.00275	0.00262	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or3_2	271.04500	373.47300	522.49800
sg13g2_or3_1	191.96300	284.53900	364.60200

## 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_or3_2	A->X (RR)	0.01860	0.00100	<b>0.05118</b>	0.32940	0.12960	<b>0.27686</b>	2.50740	0.60000	<b>0.94504</b>
	B->X (RR)	0.01860	0.00100	<b>0.04907</b>	0.32940	0.12960	<b>0.26813</b>	2.50740	0.60000	<b>0.90721</b>
	C->X (RR)	0.01860	0.00100	<b>0.04548</b>	0.32940	0.12960	<b>0.25726</b>	2.50740	0.60000	<b>0.87275</b>
sg13g2_or3_1	A->X (RR)	0.01860	0.00100	<b>0.04421</b>	0.32940	0.06480	<b>0.25131</b>	2.50740	0.30000	<b>0.88385</b>
	B->X (RR)	0.01860	0.00100	<b>0.04232</b>	0.32940	0.06480	<b>0.24095</b>	2.50740	0.30000	<b>0.84012</b>
	C->X (RR)	0.01860	0.00100	<b>0.03863</b>	0.32940	0.06480	<b>0.22910</b>	2.50740	0.30000	<b>0.80067</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>0.10902</b>	0.32940	0.12960	<b>0.29817</b>	2.50740	0.60000	<b>0.83123</b>
	B->X (FF)	0.01860	0.00100	<b>0.10533</b>	0.32940	0.12960	<b>0.30960</b>	2.50740	0.60000	<b>0.89288</b>
	C->X (FF)	0.01860	0.00100	<b>0.09566</b>	0.32940	0.12960	<b>0.31285</b>	2.50740	0.60000	<b>0.91735</b>
sg13g2_or3_1	A->X (FF)	0.01860	0.00100	<b>0.08628</b>	0.32940	0.06480	<b>0.25654</b>	2.50740	0.30000	<b>0.75857</b>
	B->X (FF)	0.01860	0.00100	<b>0.08259</b>	0.32940	0.06480	<b>0.26397</b>	2.50740	0.30000	<b>0.81210</b>
	C->X (FF)	0.01860	0.00100	<b>0.07265</b>	0.32940	0.06480	<b>0.26277</b>	2.50740	0.30000	<b>0.82411</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>0.01288</b>	0.32940	0.12960	<b>0.01402</b>	2.50740	0.60000	<b>0.03108</b>
	B	0.01860	0.00100	<b>0.01261</b>	0.32940	0.12960	<b>0.01373</b>	2.50740	0.60000	<b>0.03109</b>
	C	0.01860	0.00100	<b>0.01244</b>	0.32940	0.12960	<b>0.01362</b>	2.50740	0.60000	<b>0.03136</b>
sg13g2_or3_1	A	0.01860	0.00100	<b>0.00779</b>	0.32940	0.06480	<b>0.00894</b>	2.50740	0.30000	<b>0.02754</b>
	B	0.01860	0.00100	<b>0.00754</b>	0.32940	0.06480	<b>0.00854</b>	2.50740	0.30000	<b>0.02588</b>
	C	0.01860	0.00100	<b>0.00734</b>	0.32940	0.06480	<b>0.00871</b>	2.50740	0.30000	<b>0.02750</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>0.01938</b>	0.32940	0.12960	<b>0.01870</b>	2.50740	0.60000	<b>0.03578</b>
	B	0.01860	0.00100	<b>0.01724</b>	0.32940	0.12960	<b>0.01665</b>	2.50740	0.60000	<b>0.03290</b>
	C	0.01860	0.00100	<b>0.01491</b>	0.32940	0.12960	<b>0.01492</b>	2.50740	0.60000	<b>0.03259</b>
sg13g2_or3_1	A	0.01860	0.00100	<b>0.01335</b>	0.32940	0.06480	<b>0.01387</b>	2.50740	0.30000	<b>0.03037</b>
	B	0.01860	0.00100	<b>0.01120</b>	0.32940	0.06480	<b>0.01196</b>	2.50740	0.30000	<b>0.02897</b>
	C	0.01860	0.00100	<b>0.00882</b>	0.32940	0.06480	<b>0.01032</b>	2.50740	0.30000	<b>0.02779</b>

# OR4x



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00282	0.00278	0.00230	0.00233	0.60000
sg13g2_or4_1	0.00282	0.00279	0.00230	0.00234	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or4_2	273.36100	406.66000	591.41100
sg13g2_or4_1	194.43100	322.79800	433.56500



## 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>0.05321</b>	0.32940	0.12960	<b>0.28419</b>	2.50740	0.60000	<b>0.95962</b>
	B->X (RR)	0.01860	0.00100	<b>0.05236</b>	0.32940	0.12960	<b>0.27840</b>	2.50740	0.60000	<b>0.92740</b>
	C->X (RR)	0.01860	0.00100	<b>0.04991</b>	0.32940	0.12960	<b>0.26975</b>	2.50740	0.60000	<b>0.89258</b>
	D->X (RR)	0.01860	0.00100	<b>0.04606</b>	0.32940	0.12960	<b>0.25884</b>	2.50740	0.60000	<b>0.85847</b>
sg13g2_or4_1	A->X (RR)	0.01860	0.00100	<b>0.04614</b>	0.32940	0.06480	<b>0.26091</b>	2.50740	0.30000	<b>0.90129</b>
	B->X (RR)	0.01860	0.00100	<b>0.04556</b>	0.32940	0.06480	<b>0.25369</b>	2.50740	0.30000	<b>0.86276</b>
	C->X (RR)	0.01860	0.00100	<b>0.04332</b>	0.32940	0.06480	<b>0.24322</b>	2.50740	0.30000	<b>0.82380</b>
	D->X (RR)	0.01860	0.00100	<b>0.03942</b>	0.32940	0.06480	<b>0.23120</b>	2.50740	0.30000	<b>0.78562</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>0.14947</b>	0.32940	0.12960	<b>0.34652</b>	2.50740	0.60000	<b>0.88211</b>
	B->X (FF)	0.01860	0.00100	<b>0.14588</b>	0.32940	0.12960	<b>0.35237</b>	2.50740	0.60000	<b>0.94321</b>
	C->X (FF)	0.01860	0.00100	<b>0.13673</b>	0.32940	0.12960	<b>0.35576</b>	2.50740	0.60000	<b>0.98932</b>
	D->X (FF)	0.01860	0.00100	<b>0.12076</b>	0.32940	0.12960	<b>0.35256</b>	2.50740	0.60000	<b>0.99875</b>
sg13g2_or4_1	A->X (FF)	0.01860	0.00100	<b>0.11912</b>	0.32940	0.06480	<b>0.29688</b>	2.50740	0.30000	<b>0.80683</b>
	B->X (FF)	0.01860	0.00100	<b>0.11555</b>	0.32940	0.06480	<b>0.30076</b>	2.50740	0.30000	<b>0.86254</b>
	C->X (FF)	0.01860	0.00100	<b>0.10640</b>	0.32940	0.06480	<b>0.30083</b>	2.50740	0.30000	<b>0.89671</b>
	D->X (FF)	0.01860	0.00100	<b>0.09006</b>	0.32940	0.06480	<b>0.29443</b>	2.50740	0.30000	<b>0.89983</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>0.01387</b>	0.32940	0.12960	<b>0.01445</b>	2.50740	0.60000	<b>0.03120</b>
	B	0.01860	0.00100	<b>0.01341</b>	0.32940	0.12960	<b>0.01432</b>	2.50740	0.60000	<b>0.03031</b>
	C	0.01860	0.00100	<b>0.01212</b>	0.32940	0.12960	<b>0.01300</b>	2.50740	0.60000	<b>0.02880</b>
	D	0.01860	0.00100	<b>0.01162</b>	0.32940	0.12960	<b>0.01266</b>	2.50740	0.60000	<b>0.03017</b>
sg13g2_or4_1	A	0.01860	0.00100	<b>0.00875</b>	0.32940	0.06480	<b>0.00961</b>	2.50740	0.30000	<b>0.02648</b>
	B	0.01860	0.00100	<b>0.00832</b>	0.32940	0.06480	<b>0.00926</b>	2.50740	0.30000	<b>0.02533</b>
	C	0.01860	0.00100	<b>0.00704</b>	0.32940	0.06480	<b>0.00779</b>	2.50740	0.30000	<b>0.02498</b>
	D	0.01860	0.00100	<b>0.00654</b>	0.32940	0.06480	<b>0.00761</b>	2.50740	0.30000	<b>0.02408</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>0.02046</b>	0.32940	0.12960	<b>0.01837</b>	2.50740	0.60000	<b>0.03436</b>
	B	0.01860	0.00100	<b>0.02069</b>	0.32940	0.12960	<b>0.01849</b>	2.50740	0.60000	<b>0.03447</b>
	C	0.01860	0.00100	<b>0.01917</b>	0.32940	0.12960	<b>0.01717</b>	2.50740	0.60000	<b>0.03368</b>
	D	0.01860	0.00100	<b>0.01673</b>	0.32940	0.12960	<b>0.01525</b>	2.50740	0.60000	<b>0.03136</b>
sg13g2_or4_1	A	0.01860	0.00100	<b>0.01348</b>	0.32940	0.06480	<b>0.01339</b>	2.50740	0.30000	<b>0.02914</b>
	B	0.01860	0.00100	<b>0.01373</b>	0.32940	0.06480	<b>0.01364</b>	2.50740	0.30000	<b>0.02950</b>
	C	0.01860	0.00100	<b>0.01221</b>	0.32940	0.06480	<b>0.01239</b>	2.50740	0.30000	<b>0.02749</b>
	D	0.01860	0.00100	<b>0.00972</b>	0.32940	0.06480	<b>0.01078</b>	2.50740	0.30000	<b>0.02681</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>-0.00044</b>	0.32940	<b>-0.00045</b>	2.50740	<b>-0.00047</b>
sg13g2_or4_1	0.01860	<b>-0.00043</b>	0.32940	<b>-0.00045</b>	2.50740	<b>-0.00047</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>0.00262</b>	0.32940	<b>0.00266</b>	2.50740	<b>0.00263</b>
sg13g2_or4_1	0.01860	<b>0.00262</b>	0.32940	<b>0.00265</b>	2.50740	<b>0.00263</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>-0.00044</b>	0.32940	<b>-0.00045</b>	2.50740	<b>-0.00047</b>
sg13g2_or4_1	(!B * C) + (!B * !C * D)	0.01860	<b>-0.00043</b>	0.32940	<b>-0.00045</b>	2.50740	<b>-0.00047</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>0.00262</b>	0.32940	<b>0.00266</b>	2.50740	<b>0.00263</b>
sg13g2_or4_1	(!B * C) + (!B * !C * D)	0.01860	<b>0.00262</b>	0.32940	<b>0.00265</b>	2.50740	<b>0.00263</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>-0.00027</b>	2.50740	<b>-0.00026</b>
sg13g2_or4_1	0.01860	<b>-0.00024</b>	0.32940	<b>-0.00027</b>	2.50740	<b>-0.00026</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>0.00027</b>	2.50740	<b>0.00026</b>
sg13g2_or4_1	0.01860	<b>0.00024</b>	0.32940	<b>0.00027</b>	2.50740	<b>0.00026</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>-0.00027</b>	2.50740	<b>-0.00026</b>
sg13g2_or4_1	(!A * C) + (!A * !C * D)	0.01860	<b>-0.00024</b>	0.32940	<b>-0.00027</b>	2.50740	<b>-0.00026</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>0.00027</b>	2.50740	<b>0.00026</b>
sg13g2_or4_1	(!A * C) + (!A * !C * D)	0.01860	<b>0.00024</b>	0.32940	<b>0.00027</b>	2.50740	<b>0.00026</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>0.00065</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00068</b>
sg13g2_or4_1	0.01860	<b>0.00065</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00068</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>-0.00038</b>	0.32940	<b>-0.00038</b>	2.50740	<b>-0.00038</b>
sg13g2_or4_1	0.01860	<b>-0.00039</b>	0.32940	<b>-0.00039</b>	2.50740	<b>-0.00038</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>0.00065</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00068</b>
sg13g2_or4_1	$(A * !D) + (!A * B * !D)$	0.01860	<b>0.00065</b>	0.32940	<b>0.00067</b>	2.50740	<b>0.00068</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>-0.00038</b>	0.32940	<b>-0.00038</b>	2.50740	<b>-0.00038</b>
sg13g2_or4_1	$(A * !D) + (!A * B * !D)$	0.01860	<b>-0.00039</b>	0.32940	<b>-0.00039</b>	2.50740	<b>-0.00038</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>0.00085</b>	0.32940	<b>0.00088</b>	2.50740	<b>0.00087</b>
sg13g2_or4_1	0.01860	<b>0.00086</b>	0.32940	<b>0.00088</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>-0.00027</b>	0.32940	<b>-0.00028</b>	2.50740	<b>-0.00026</b>
sg13g2_or4_1	0.01860	<b>-0.00028</b>	0.32940	<b>-0.00028</b>	2.50740	<b>-0.00026</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>0.00085</b>	0.32940	<b>0.00088</b>	2.50740	<b>0.00087</b>
sg13g2_or4_1	$(A * !C) + (!A * B * !C)$	0.01860	<b>0.00086</b>	0.32940	<b>0.00088</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>-0.00027</b>	0.32940	<b>-0.00028</b>	2.50740	<b>-0.00026</b>
sg13g2_or4_1	$(A * !C) + (!A * B * !C)$	0.01860	<b>-0.00028</b>	0.32940	<b>-0.00028</b>	2.50740	<b>-0.00026</b>

# SDFRRS



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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## 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	0	0	x	0	0
x	x	x	0	1	x	0	1
x	x	x	1	0	x	1	0
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	0.00211	0.00215	0.00382	0.00188	0.00566	0.00326	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfbbp_1	1508.43000	1693.56000	1790.09000



## 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>0.20132</b>	0.32940	0.06480	<b>0.39251</b>	2.50740	0.30000	<b>0.97051</b>
	SET_B->Q (FR)	0.01860	0.00100	<b>0.08190</b>	0.32940	0.06480	<b>0.28638</b>	2.50740	0.30000	<b>0.86538</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>0.16876</b>	0.32940	0.06480	<b>0.34505</b>	2.50740	0.30000	<b>0.87010</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.14053</b>	0.32940	0.06480	<b>0.32578</b>	2.50740	0.30000	<b>0.84645</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>0.20132</b>	0.32940	0.06480	<b>0.39251</b>	2.50740	0.30000	<b>0.97051</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>0.16876</b>	0.32940	0.06480	<b>0.34505</b>	2.50740	0.30000	<b>0.87010</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>0.13855</b>	0.32940	0.06480	<b>0.34760</b>	2.50740	0.30000	<b>0.94243</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.10944</b>	0.32940	0.06480	<b>0.33341</b>	2.50740	0.30000	<b>0.92852</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>0.16818</b>	0.32940	0.06480	<b>0.37047</b>	2.50740	0.30000	<b>0.88456</b>
	SET_B->Q_N (FF)	0.01860	0.00100	<b>0.05482</b>	0.32940	0.06480	<b>0.26280</b>	2.50740	0.30000	<b>0.79478</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>0.13855</b>	0.32940	0.06480	<b>0.34760</b>	2.50740	0.30000	<b>0.94243</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>0.16818</b>	0.32940	0.06480	<b>0.37047</b>	2.50740	0.30000	<b>0.88456</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>-0.06113</b>	1.26300	1.26300	<b>-0.18889</b>	2.50740	2.50740	<b>-0.25678</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.09047</b>	1.26300	1.26300	<b>0.20777</b>	2.50740	2.50740	<b>0.27744</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>-0.06113</b>	1.26300	1.26300	<b>-0.11333</b>	2.50740	2.50740	<b>-0.13872</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11737</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.24498</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>-0.07825</b>	1.26300	1.26300	<b>-0.22127</b>	2.50740	2.50740	<b>-0.30401</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.23746</b>	2.50740	2.50740	<b>0.32172</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>-0.08314</b>	1.26300	1.26300	<b>-0.12412</b>	2.50740	2.50740	<b>-0.15348</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.13938</b>	1.26300	1.26300	<b>0.19968</b>	2.50740	2.50740	<b>0.25088</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>-0.06113</b>	1.26300	1.26300	<b>-0.20238</b>	2.50740	2.50740	<b>-0.28335</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.09536</b>	1.26300	1.26300	<b>0.23476</b>	2.50740	2.50740	<b>0.32467</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>-0.06358</b>	1.26300	1.26300	<b>-0.07555</b>	2.50740	2.50740	<b>-0.08264</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11737</b>	1.26300	1.26300	<b>0.15381</b>	2.50740	2.50740	<b>0.18890</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>0.05379</b>	1.26300	1.26300	<b>0.09174</b>	2.50740	2.50740	<b>0.11216</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.02934</b>	1.26300	1.26300	<b>-0.06746</b>	2.50740	2.50740	<b>-0.07969</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>0.02445</b>	1.26300	1.26300	<b>0.24285</b>	2.50740	2.50740	<b>0.55784</b>
	removal	CLK (R)	0.01860	0.01860	<b>0.02445</b>	1.26300	1.26300	<b>0.07286</b>	2.50740	2.50740	<b>0.07379</b>
	hold	RESET_B (R)	0.01860	0.01860	<b>-0.05379</b>	1.26300	1.26300	<b>-0.15920</b>	2.50740	2.50740	<b>-0.22727</b>
	setup	RESET_B (R)	0.01860	0.01860	<b>0.06847</b>	1.26300	1.26300	<b>0.19428</b>	2.50740	2.50740	<b>0.29220</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>0.02064</b>	0.32940	0.06480	<b>0.02201</b>	2.50740	0.30000	<b>0.03683</b>
	SET_B	0.01860	0.00100	<b>0.03848</b>	0.32940	0.06480	<b>0.09686</b>	2.50740	0.30000	<b>0.33920</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>0.02048</b>	0.32940	0.06480	<b>0.02172</b>	2.50740	0.30000	<b>0.03703</b>
	RESET_B	0.01860	0.00100	<b>0.04376</b>	0.32940	0.06480	<b>0.10039</b>	2.50740	0.30000	<b>0.32256</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>0.02064</b>	0.32940	0.06480	<b>0.02201</b>	2.50740	0.30000	<b>0.03683</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>0.02048</b>	0.32940	0.06480	<b>0.02172</b>	2.50740	0.30000	<b>0.03703</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>0.02048</b>	0.32940	0.06480	<b>0.02188</b>	2.50740	0.30000	<b>0.03686</b>
	RESET_B	0.01860	0.00100	<b>0.04377</b>	0.32940	0.06480	<b>0.10063</b>	2.50740	0.30000	<b>0.32210</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>0.02064</b>	0.32940	0.06480	<b>0.02190</b>	2.50740	0.30000	<b>0.03714</b>
	SET_B	0.01860	0.00100	<b>0.03846</b>	0.32940	0.06480	<b>0.09640</b>	2.50740	0.30000	<b>0.33956</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>0.02048</b>	0.32940	0.06480	<b>0.02188</b>	2.50740	0.30000	<b>0.03686</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>0.02064</b>	0.32940	0.06480	<b>0.02190</b>	2.50740	0.30000	<b>0.03714</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>0.00623</b>	0.32940	<b>0.00678</b>	2.50740	<b>0.01789</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>0.00570</b>	0.32940	<b>0.00634</b>	2.50740	<b>0.01738</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>0.01383</b>	0.32940	<b>0.01436</b>	2.50740	<b>0.02681</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>0.00623</b>	0.32940	<b>0.00678</b>	2.50740	<b>0.01789</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>0.01403</b>	0.32940	<b>0.01468</b>	2.50740	<b>0.02709</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>0.00570</b>	0.32940	<b>0.00634</b>	2.50740	<b>0.01738</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>0.00770</b>	0.32940	<b>0.00795</b>	2.50740	<b>0.01799</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>0.00844</b>	0.32940	<b>0.00876</b>	2.50740	<b>0.01897</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>0.01560</b>	0.32940	<b>0.01598</b>	2.50740	<b>0.02711</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>0.00770</b>	0.32940	<b>0.00795</b>	2.50740	<b>0.01799</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>0.01988</b>	0.32940	<b>0.01975</b>	2.50740	<b>0.03129</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>0.00844</b>	0.32940	<b>0.00876</b>	2.50740	<b>0.01897</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>0.01663</b>	0.32940	<b>0.01792</b>	2.50740	<b>0.03302</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>0.01822</b>	0.32940	<b>0.01955</b>	2.50740	<b>0.03418</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>0.01663</b>	0.32940	<b>0.01792</b>	2.50740	<b>0.03302</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.02337</b>	0.32940	<b>0.02371</b>	2.50740	<b>0.03872</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.01581</b>	0.32940	<b>0.01792</b>	2.50740	<b>0.04540</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>0.00760</b>	0.32940	<b>0.00960</b>	2.50740	<b>0.03577</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>0.01822</b>	0.32940	<b>0.01955</b>	2.50740	<b>0.03418</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.02185</b>	0.32940	<b>0.03153</b>	2.50740	<b>0.04629</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.00435</b>	0.32940	<b>0.03373</b>	2.50740	<b>0.06027</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>0.00831</b>	0.32940	<b>0.01015</b>	2.50740	<b>0.03538</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>0.01457</b>	0.32940	<b>0.01659</b>	2.50740	<b>0.04453</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>0.01756</b>	0.32940	<b>0.02007</b>	2.50740	<b>0.04851</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>0.01406</b>	0.32940	<b>0.01595</b>	2.50740	<b>0.04392</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.01890</b>	0.32940	<b>0.02076</b>	2.50740	<b>0.04866</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01415</b>	0.32940	<b>0.01613</b>	2.50740	<b>0.04410</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01404</b>	0.32940	<b>0.01594</b>	2.50740	<b>0.04391</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01457</b>	0.32940	<b>0.01659</b>	2.50740	<b>0.04453</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01414</b>	0.32940	<b>0.01613</b>	2.50740	<b>0.04410</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>0.01366</b>	0.32940	<b>0.01584</b>	2.50740	<b>0.04353</b>
	(RESET_B * SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.02467</b>	0.32940	<b>0.02682</b>	2.50740	<b>0.05538</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.01756</b>	0.32940	<b>0.02007</b>	2.50740	<b>0.04851</b>
	(RESET_B * !SCD * SCE * SET_B * Q * !Q_N)	0.01860	<b>0.02636</b>	0.32940	<b>0.02883</b>	2.50740	<b>0.05732</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01396</b>	0.32940	<b>0.01621</b>	2.50740	<b>0.04381</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01366</b>	0.32940	<b>0.01584</b>	2.50740	<b>0.04354</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.01351</b>	0.32940	<b>0.01577</b>	2.50740	<b>0.04337</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01395</b>	0.32940	<b>0.01621</b>	2.50740	<b>0.04381</b>

# SGCLK



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_slgcp_1	30.84480

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	GATE	SCE	CLK	GCLK
sg13g2_slgcp_1	0.00214	0.00260	0.00545	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_slgcp_1	818.68200	878.32400	941.93500

## 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>0.05256</b>	0.32940	0.06480	<b>0.23596</b>	2.50740	0.30000	<b>0.83178</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>0.04240</b>	0.32940	0.06480	<b>0.21773</b>	2.50740	0.30000	<b>0.72464</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>-0.02833</b>	1.26300	1.26300	<b>-0.13492</b>	2.50740	2.50740	<b>-0.18178</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.04390</b>	1.26300	1.26300	<b>0.20238</b>	2.50740	2.50740	<b>0.31429</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>-0.04057</b>	1.26300	1.26300	<b>-0.12952</b>	2.50740	2.50740	<b>-0.18670</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06831</b>	1.26300	1.26300	<b>0.18619</b>	2.50740	2.50740	<b>0.27446</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>-0.02963</b>	1.26300	1.26300	<b>-0.16190</b>	2.50740	2.50740	<b>-0.22942</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>-0.04311</b>	1.26300	1.26300	<b>-0.09984</b>	2.50740	2.50740	<b>-0.14176</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07221</b>	1.26300	1.26300	<b>0.17000</b>	2.50740	2.50740	<b>0.22850</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>0.01184</b>	0.32940	0.06480	<b>0.01260</b>	2.50740	0.30000	<b>0.03405</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>0.00743</b>	0.32940	0.06480	<b>0.00946</b>	2.50740	0.30000	<b>0.02971</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>0.02278</b>	0.32940	<b>0.02538</b>	2.50740	<b>0.04401</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>0.01354</b>	0.32940	<b>0.03905</b>	2.50740	<b>0.05788</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>0.02278</b>	0.32940	<b>0.02538</b>	2.50740	<b>0.04401</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>0.01354</b>	0.32940	<b>0.03905</b>	2.50740	<b>0.05788</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>0.01298</b>	0.32940	<b>0.01419</b>	2.50740	<b>0.03291</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>0.01477</b>	0.32940	<b>0.03794</b>	2.50740	<b>0.05557</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>0.00834</b>	0.32940	<b>0.01012</b>	2.50740	<b>0.03445</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>0.00869</b>	0.32940	<b>0.01078</b>	2.50740	<b>0.03514</b>



# TIE0



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	246.50300	246.50300	246.50300

# TIE1



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	230.88300	230.88300	230.88300

# XNOR2\_1



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp  
-40.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_xnor2_1	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_xnor2_1	0.00613	0.00538	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xnor2_1	260.35300	440.21700	585.62300

## 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>0.05107</b>	0.32940	0.06480	<b>0.23422</b>	2.50740	0.30000	<b>0.82968</b>
	A->Y (FR)	0.01860	0.00100	<b>0.03646</b>	0.32940	0.06480	<b>0.36711</b>	2.50740	0.30000	<b>1.86901</b>
	B->Y (RR)	0.01860	0.00100	<b>0.04696</b>	0.32940	0.06480	<b>0.23541</b>	2.50740	0.30000	<b>0.84559</b>
	B->Y (FR)	0.01860	0.00100	<b>0.03177</b>	0.32940	0.06480	<b>0.38689</b>	2.50740	0.30000	<b>2.08137</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>0.04932</b>	0.32940	0.06480	<b>0.30384</b>	2.50740	0.30000	<b>1.10295</b>
	A->Y (RF)	0.01860	0.00100	<b>0.03434</b>	0.32940	0.06480	<b>0.32893</b>	2.50740	0.30000	<b>1.72971</b>
	B->Y (FF)	0.01860	0.00100	<b>0.04990</b>	0.32940	0.06480	<b>0.29419</b>	2.50740	0.30000	<b>1.07934</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02872</b>	0.32940	0.06480	<b>0.32240</b>	2.50740	0.30000	<b>1.71817</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>0.00976</b>	0.32940	0.06480	<b>0.01075</b>	2.50740	0.30000	<b>0.03091</b>
	B	0.01860	0.00100	<b>0.00962</b>	0.32940	0.06480	<b>0.01087</b>	2.50740	0.30000	<b>0.03141</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>0.00849</b>	0.32940	0.06480	<b>0.01035</b>	2.50740	0.30000	<b>0.03088</b>
	B	0.01860	0.00100	<b>0.00912</b>	0.32940	0.06480	<b>0.00947</b>	2.50740	0.30000	<b>0.02979</b>

# XOR2\_1



*sg13g2\_stdcell\_fast\_1p32V\_m40C Cell Library: Process  
sg13g2\_stdcell\_fast\_1p32V\_m40C, Voltage 1.32, Temp -40.00*

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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	0.00631	0.00553	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xor2_1	333.21500	407.76900	475.67600



## 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>0.04899</b>	0.32940	0.06480	<b>0.35962</b>	2.50740	0.30000	<b>1.39909</b>
	A->X (FR)	0.01860	0.00100	<b>0.03994</b>	0.32940	0.06480	<b>0.37167</b>	2.50740	0.30000	<b>1.88055</b>
	B->X (RR)	0.01860	0.00100	<b>0.05075</b>	0.32940	0.06480	<b>0.34863</b>	2.50740	0.30000	<b>1.35691</b>
	B->X (FR)	0.01860	0.00100	<b>0.03398</b>	0.32940	0.06480	<b>0.36516</b>	2.50740	0.30000	<b>1.86898</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>0.05833</b>	0.32940	0.06480	<b>0.22116</b>	2.50740	0.30000	<b>0.70771</b>
	A->X (RF)	0.01860	0.00100	<b>0.03192</b>	0.32940	0.06480	<b>0.32566</b>	2.50740	0.30000	<b>1.72367</b>
	B->X (FF)	0.01860	0.00100	<b>0.05371</b>	0.32940	0.06480	<b>0.22576</b>	2.50740	0.30000	<b>0.73460</b>
	B->X (RF)	0.01860	0.00100	<b>0.02799</b>	0.32940	0.06480	<b>0.34214</b>	2.50740	0.30000	<b>1.88033</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>0.00841</b>	0.32940	0.06480	<b>0.00982</b>	2.50740	0.30000	<b>0.02880</b>
	B	0.01860	0.00100	<b>0.00903</b>	0.32940	0.06480	<b>0.00926</b>	2.50740	0.30000	<b>0.02909</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>0.01050</b>	0.32940	0.06480	<b>0.01153</b>	2.50740	0.30000	<b>0.03016</b>
	B	0.01860	0.00100	<b>0.00951</b>	0.32940	0.06480	<b>0.01116</b>	2.50740	0.30000	<b>0.03067</b>