

## sg13g2\_stdcell\_slow\_1p35V\_125C Library

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

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

# A21OIx



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_a21oi_1	9.07200
sg13g2_a21oi_2	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	Y
sg13g2_a21oi_1	0.00296	0.00302	0.00282	0.30000
sg13g2_a21oi_2	0.00571	0.00602	0.00552	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21oi_1	285.06700	703.80900	1594.23000
sg13g2_a21oi_2	570.10700	1407.59000	3188.44000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	A1->Y (FR)	0.01860	0.00100	<b>0.04698</b>	0.32940	0.06480	<b>0.53562</b>	2.50740	0.30000	<b>2.62028</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.05556</b>	0.32940	0.06480	<b>0.54504</b>	2.50740	0.30000	<b>2.63387</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.04461</b>	0.32940	0.06480	<b>0.56428</b>	2.50740	0.30000	<b>2.87968</b>
sg13g2_a21oi_2	A1->Y (FR)	0.01860	0.00100	<b>0.04245</b>	0.32940	0.12960	<b>0.53592</b>	2.50740	0.60000	<b>2.62720</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.05143</b>	0.32940	0.12960	<b>0.54413</b>	2.50740	0.60000	<b>2.63226</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.04034</b>	0.32940	0.12960	<b>0.56333</b>	2.50740	0.60000	<b>2.87775</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	A1->Y (RF)	0.01860	0.00100	<b>0.04010</b>	0.32940	0.06480	<b>0.46666</b>	2.50740	0.30000	<b>2.40772</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.04468</b>	0.32940	0.06480	<b>0.44785</b>	2.50740	0.30000	<b>2.24020</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.02256</b>	0.32940	0.06480	<b>0.34391</b>	2.50740	0.30000	<b>1.87112</b>
sg13g2_a21oi_2	A1->Y (RF)	0.01860	0.00100	<b>0.03638</b>	0.32940	0.12960	<b>0.46603</b>	2.50740	0.60000	<b>2.40923</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.04137</b>	0.32940	0.12960	<b>0.44765</b>	2.50740	0.60000	<b>2.24096</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.02008</b>	0.32940	0.12960	<b>0.34301</b>	2.50740	0.60000	<b>1.86891</b>

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.04461</b>	0.32940	0.06480	<b>0.56428</b>	2.50740	0.30000	<b>2.87968</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.03460</b>	0.32940	0.06480	<b>0.55285</b>	2.50740	0.30000	<b>2.86390</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.02851</b>	0.32940	0.06480	<b>0.45736</b>	2.50740	0.30000	<b>2.43253</b>
sg13g2_a21oi_2	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.04034</b>	0.32940	0.12960	<b>0.56333</b>	2.50740	0.60000	<b>2.87775</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.03019</b>	0.32940	0.12960	<b>0.55361</b>	2.50740	0.60000	<b>2.87190</b>
	B1->Y (FR)	(!A1 * !A2)	0.01860	0.00100	<b>0.02516</b>	0.32940	0.12960	<b>0.45721</b>	2.50740	0.60000	<b>2.43498</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.02256</b>	0.32940	0.06480	<b>0.34391</b>	2.50740	0.30000	<b>1.87112</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.02226</b>	0.32940	0.06480	<b>0.34257</b>	2.50740	0.30000	<b>1.86770</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.02197</b>	0.32940	0.06480	<b>0.34221</b>	2.50740	0.30000	<b>1.86839</b>
sg13g2_a21oi_2	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.02008</b>	0.32940	0.12960	<b>0.34301</b>	2.50740	0.60000	<b>1.86891</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.01978</b>	0.32940	0.12960	<b>0.34167</b>	2.50740	0.60000	<b>1.86552</b>
	B1->Y (RF)	(!A1 * !A2)	0.01860	0.00100	<b>0.01949</b>	0.32940	0.12960	<b>0.34130</b>	2.50740	0.60000	<b>1.86589</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	A1	0.01860	0.00100	<b>0.00549</b>	0.32940	0.06480	<b>0.00554</b>	2.50740	0.30000	<b>0.00816</b>
	A2	0.01860	0.00100	<b>0.00586</b>	0.32940	0.06480	<b>0.00572</b>	2.50740	0.30000	<b>0.00842</b>
	B1	0.01860	0.00100	<b>0.00275</b>	0.32940	0.06480	<b>0.00320</b>	2.50740	0.30000	<b>0.00683</b>
sg13g2_a21oi_2	A1	0.01860	0.00100	<b>0.01095</b>	0.32940	0.12960	<b>0.01113</b>	2.50740	0.60000	<b>0.01688</b>
	A2	0.01860	0.00100	<b>0.01183</b>	0.32940	0.12960	<b>0.01156</b>	2.50740	0.60000	<b>0.01702</b>
	B1	0.01860	0.00100	<b>0.00539</b>	0.32940	0.12960	<b>0.00650</b>	2.50740	0.60000	<b>0.01385</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	A1	0.01860	0.00100	<b>0.00419</b>	0.32940	0.06480	<b>0.00420</b>	2.50740	0.30000	<b>0.00701</b>
	A2	0.01860	0.00100	<b>0.00618</b>	0.32940	0.06480	<b>0.00602</b>	2.50740	0.30000	<b>0.00858</b>
	B1	0.01860	0.00100	<b>0.00226</b>	0.32940	0.06480	<b>0.00281</b>	2.50740	0.30000	<b>0.00671</b>
sg13g2_a21oi_2	A1	0.01860	0.00100	<b>0.00747</b>	0.32940	0.12960	<b>0.00750</b>	2.50740	0.60000	<b>0.01332</b>
	A2	0.01860	0.00100	<b>0.01165</b>	0.32940	0.12960	<b>0.01134</b>	2.50740	0.60000	<b>0.01666</b>
	B1	0.01860	0.00100	<b>0.00355</b>	0.32940	0.12960	<b>0.00480</b>	2.50740	0.60000	<b>0.01252</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00324</b>	0.32940	0.06480	<b>0.00344</b>	2.50740	0.30000	<b>0.00723</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00274</b>	0.32940	0.06480	<b>0.00306</b>	2.50740	0.30000	<b>0.00700</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00275</b>	0.32940	0.06480	<b>0.00320</b>	2.50740	0.30000	<b>0.00683</b>
sg13g2_a21oi_2	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00661</b>	0.32940	0.12960	<b>0.00708</b>	2.50740	0.60000	<b>0.01491</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00538</b>	0.32940	0.12960	<b>0.00620</b>	2.50740	0.60000	<b>0.01399</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00539</b>	0.32940	0.12960	<b>0.00650</b>	2.50740	0.60000	<b>0.01385</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21oi_1	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00437</b>	0.32940	0.06480	<b>0.00489</b>	2.50740	0.30000	<b>0.00846</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00236</b>	0.32940	0.06480	<b>0.00291</b>	2.50740	0.30000	<b>0.00646</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00226</b>	0.32940	0.06480	<b>0.00281</b>	2.50740	0.30000	<b>0.00671</b>
sg13g2_a21oi_2	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00775</b>	0.32940	0.12960	<b>0.00902</b>	2.50740	0.60000	<b>0.01617</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00373</b>	0.32940	0.12960	<b>0.00505</b>	2.50740	0.60000	<b>0.01236</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00355</b>	0.32940	0.12960	<b>0.00480</b>	2.50740	0.60000	<b>0.01252</b>



# A210x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_a21o_1	12.70080
sg13g2_a21o_2	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A1	A2	B1	X
sg13g2_a21o_1	0.00269	0.00279	0.00260	0.30000
sg13g2_a21o_2	0.00286	0.00288	0.00272	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a21o_1	661.74800	1032.39000	1627.97000
sg13g2_a21o_2	879.80300	1473.24000	1953.95000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1->X (RR)	0.01860	0.00100	<b>0.08180</b>	0.32940	0.06480	<b>0.36748</b>	2.50740	0.30000	<b>1.27355</b>
	A2->X (RR)	0.01860	0.00100	<b>0.08595</b>	0.32940	0.06480	<b>0.36413</b>	2.50740	0.30000	<b>1.26170</b>
	B1->X (RR)	0.01860	0.00100	<b>0.05433</b>	0.32940	0.06480	<b>0.32488</b>	2.50740	0.30000	<b>1.17335</b>
sg13g2_a21o_2	A1->X (RR)	0.01860	0.00100	<b>0.08683</b>	0.32940	0.12960	<b>0.38606</b>	2.50740	0.60000	<b>1.29117</b>
	A2->X (RR)	0.01860	0.00100	<b>0.09082</b>	0.32940	0.12960	<b>0.38072</b>	2.50740	0.60000	<b>1.27692</b>
	B1->X (RR)	0.01860	0.00100	<b>0.05749</b>	0.32940	0.12960	<b>0.34193</b>	2.50740	0.60000	<b>1.19234</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1->X (FF)	0.01860	0.00100	<b>0.09113</b>	0.32940	0.06480	<b>0.34124</b>	2.50740	0.30000	<b>1.13169</b>
	A2->X (FF)	0.01860	0.00100	<b>0.10002</b>	0.32940	0.06480	<b>0.35671</b>	2.50740	0.30000	<b>1.16518</b>
	B1->X (FF)	0.01860	0.00100	<b>0.08932</b>	0.32940	0.06480	<b>0.35730</b>	2.50740	0.30000	<b>1.20949</b>
sg13g2_a21o_2	A1->X (FF)	0.01860	0.00100	<b>0.11398</b>	0.32940	0.12960	<b>0.38815</b>	2.50740	0.60000	<b>1.23854</b>
	A2->X (FF)	0.01860	0.00100	<b>0.12388</b>	0.32940	0.12960	<b>0.40419</b>	2.50740	0.60000	<b>1.27285</b>
	B1->X (FF)	0.01860	0.00100	<b>0.11377</b>	0.32940	0.12960	<b>0.41179</b>	2.50740	0.60000	<b>1.33386</b>

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1->X (RR)	!B1	0.01860	0.00100	<b>0.08180</b>	0.32940	0.06480	<b>0.36748</b>	2.50740	0.30000	<b>1.27355</b>
	A2->X (RR)	!B1	0.01860	0.00100	<b>0.08595</b>	0.32940	0.06480	<b>0.36413</b>	2.50740	0.30000	<b>1.26170</b>
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	<b>0.05433</b>	0.32940	0.06480	<b>0.32488</b>	2.50740	0.30000	<b>1.17335</b>
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	<b>0.05115</b>	0.32940	0.06480	<b>0.31236</b>	2.50740	0.30000	<b>1.13595</b>
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	<b>0.05087</b>	0.32940	0.06480	<b>0.31236</b>	2.50740	0.30000	<b>1.15111</b>
sg13g2_a21o_2	A1->X (RR)	!B1	0.01860	0.00100	<b>0.08683</b>	0.32940	0.12960	<b>0.38606</b>	2.50740	0.60000	<b>1.29117</b>
	A2->X (RR)	!B1	0.01860	0.00100	<b>0.09082</b>	0.32940	0.12960	<b>0.38072</b>	2.50740	0.60000	<b>1.27692</b>
	B1->X (RR)	(A1 * !A2)	0.01860	0.00100	<b>0.05749</b>	0.32940	0.12960	<b>0.34193</b>	2.50740	0.60000	<b>1.19234</b>
	B1->X (RR)	(!A1 * A2)	0.01860	0.00100	<b>0.05512</b>	0.32940	0.12960	<b>0.33182</b>	2.50740	0.60000	<b>1.15778</b>
	B1->X (RR)	(!A1 * !A2)	0.01860	0.00100	<b>0.05490</b>	0.32940	0.12960	<b>0.33158</b>	2.50740	0.60000	<b>1.17301</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1->X (FF)	!B1	0.01860	0.00100	<b>0.09113</b>	0.32940	0.06480	<b>0.34124</b>	2.50740	0.30000	<b>1.13169</b>
	A2->X (FF)	!B1	0.01860	0.00100	<b>0.10002</b>	0.32940	0.06480	<b>0.35671</b>	2.50740	0.30000	<b>1.16518</b>
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	<b>0.08932</b>	0.32940	0.06480	<b>0.35730</b>	2.50740	0.30000	<b>1.20949</b>
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	<b>0.07868</b>	0.32940	0.06480	<b>0.33821</b>	2.50740	0.30000	<b>1.17205</b>
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	<b>0.06544</b>	0.32940	0.06480	<b>0.31712</b>	2.50740	0.30000	<b>1.11972</b>
sg13g2_a21o_2	A1->X (FF)	!B1	0.01860	0.00100	<b>0.11398</b>	0.32940	0.12960	<b>0.38815</b>	2.50740	0.60000	<b>1.23854</b>
	A2->X (FF)	!B1	0.01860	0.00100	<b>0.12388</b>	0.32940	0.12960	<b>0.40419</b>	2.50740	0.60000	<b>1.27285</b>
	B1->X (FF)	(A1 * !A2)	0.01860	0.00100	<b>0.11377</b>	0.32940	0.12960	<b>0.41179</b>	2.50740	0.60000	<b>1.33386</b>
	B1->X (FF)	(!A1 * A2)	0.01860	0.00100	<b>0.10152</b>	0.32940	0.12960	<b>0.39292</b>	2.50740	0.60000	<b>1.29740</b>
	B1->X (FF)	(!A1 * !A2)	0.01860	0.00100	<b>0.08194</b>	0.32940	0.12960	<b>0.36303</b>	2.50740	0.60000	<b>1.23602</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1	0.01860	0.00100	<b>0.00931</b>	0.32940	0.06480	<b>0.00992</b>	2.50740	0.30000	<b>0.02244</b>
	A2	0.01860	0.00100	<b>0.01105</b>	0.32940	0.06480	<b>0.01136</b>	2.50740	0.30000	<b>0.02291</b>
	B1	0.01860	0.00100	<b>0.00768</b>	0.32940	0.06480	<b>0.00872</b>	2.50740	0.30000	<b>0.02322</b>
sg13g2_a21o_2	A1	0.01860	0.00100	<b>0.01440</b>	0.32940	0.12960	<b>0.01511</b>	2.50740	0.60000	<b>0.02808</b>
	A2	0.01860	0.00100	<b>0.01635</b>	0.32940	0.12960	<b>0.01667</b>	2.50740	0.60000	<b>0.02879</b>
	B1	0.01860	0.00100	<b>0.01250</b>	0.32940	0.12960	<b>0.01384</b>	2.50740	0.60000	<b>0.02877</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1	0.01860	0.00100	<b>0.01041</b>	0.32940	0.06480	<b>0.01059</b>	2.50740	0.30000	<b>0.02309</b>
	A2	0.01860	0.00100	<b>0.01043</b>	0.32940	0.06480	<b>0.01075</b>	2.50740	0.30000	<b>0.02288</b>
	B1	0.01860	0.00100	<b>0.00820</b>	0.32940	0.06480	<b>0.00915</b>	2.50740	0.30000	<b>0.02287</b>
sg13g2_a21o_2	A1	0.01860	0.00100	<b>0.01569</b>	0.32940	0.12960	<b>0.01554</b>	2.50740	0.60000	<b>0.02847</b>
	A2	0.01860	0.00100	<b>0.01593</b>	0.32940	0.12960	<b>0.01585</b>	2.50740	0.60000	<b>0.02878</b>
	B1	0.01860	0.00100	<b>0.01373</b>	0.32940	0.12960	<b>0.01422</b>	2.50740	0.60000	<b>0.02856</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1	!B1	0.01860	0.00100	<b>0.00931</b>	0.32940	0.06480	<b>0.00992</b>	2.50740	0.30000	<b>0.02244</b>
	A2	!B1	0.01860	0.00100	<b>0.01105</b>	0.32940	0.06480	<b>0.01136</b>	2.50740	0.30000	<b>0.02291</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00950</b>	0.32940	0.06480	<b>0.01048</b>	2.50740	0.30000	<b>0.02441</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00776</b>	0.32940	0.06480	<b>0.00868</b>	2.50740	0.30000	<b>0.02233</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00768</b>	0.32940	0.06480	<b>0.00872</b>	2.50740	0.30000	<b>0.02322</b>
sg13g2_a21o_2	A1	!B1	0.01860	0.00100	<b>0.01440</b>	0.32940	0.12960	<b>0.01511</b>	2.50740	0.60000	<b>0.02808</b>
	A2	!B1	0.01860	0.00100	<b>0.01635</b>	0.32940	0.12960	<b>0.01667</b>	2.50740	0.60000	<b>0.02879</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.01461</b>	0.32940	0.12960	<b>0.01584</b>	2.50740	0.60000	<b>0.03056</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.01259</b>	0.32940	0.12960	<b>0.01390</b>	2.50740	0.60000	<b>0.02760</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.01250</b>	0.32940	0.12960	<b>0.01384</b>	2.50740	0.60000	<b>0.02877</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a21o_1	A1	!B1	0.01860	0.00100	<b>0.01041</b>	0.32940	0.06480	<b>0.01059</b>	2.50740	0.30000	<b>0.02309</b>
	A2	!B1	0.01860	0.00100	<b>0.01043</b>	0.32940	0.06480	<b>0.01075</b>	2.50740	0.30000	<b>0.02288</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00820</b>	0.32940	0.06480	<b>0.00915</b>	2.50740	0.30000	<b>0.02287</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00797</b>	0.32940	0.06480	<b>0.00899</b>	2.50740	0.30000	<b>0.02269</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.00797</b>	0.32940	0.06480	<b>0.00918</b>	2.50740	0.30000	<b>0.02388</b>
sg13g2_a21o_2	A1	!B1	0.01860	0.00100	<b>0.01569</b>	0.32940	0.12960	<b>0.01554</b>	2.50740	0.60000	<b>0.02847</b>
	A2	!B1	0.01860	0.00100	<b>0.01593</b>	0.32940	0.12960	<b>0.01585</b>	2.50740	0.60000	<b>0.02878</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.01373</b>	0.32940	0.12960	<b>0.01422</b>	2.50740	0.60000	<b>0.02856</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.01327</b>	0.32940	0.12960	<b>0.01400</b>	2.50740	0.60000	<b>0.02800</b>
	B1	(!A1 * !A2)	0.01860	0.00100	<b>0.01293</b>	0.32940	0.12960	<b>0.01400</b>	2.50740	0.60000	<b>0.02958</b>

# A221OI



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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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	0.00291	0.00297	0.00286	0.00298	0.00279	0.30000



## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a221oi_1	364.95300	967.84500	2189.62000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1->Y (FR)	0.01860	0.00100	<b>0.10840</b>	0.32940	0.06480	<b>0.77188</b>	2.50740	0.30000	<b>3.37701</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.12093</b>	0.32940	0.06480	<b>0.78431</b>	2.50740	0.30000	<b>3.38755</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.09712</b>	0.32940	0.06480	<b>0.77678</b>	2.50740	0.30000	<b>3.58107</b>
	B2->Y (FR)	0.01860	0.00100	<b>0.10970</b>	0.32940	0.06480	<b>0.78873</b>	2.50740	0.30000	<b>3.59146</b>
	C1->Y (FR)	0.01860	0.00100	<b>0.06180</b>	0.32940	0.06480	<b>0.66883</b>	2.50740	0.30000	<b>3.30813</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1->Y (RF)	0.01860	0.00100	<b>0.05291</b>	0.32940	0.06480	<b>0.48878</b>	2.50740	0.30000	<b>2.43726</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.05719</b>	0.32940	0.06480	<b>0.46983</b>	2.50740	0.30000	<b>2.26838</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.04703</b>	0.32940	0.06480	<b>0.47715</b>	2.50740	0.30000	<b>2.42097</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.05159</b>	0.32940	0.06480	<b>0.45747</b>	2.50740	0.30000	<b>2.25263</b>
	C1->Y (RF)	0.01860	0.00100	<b>0.02593</b>	0.32940	0.06480	<b>0.34730</b>	2.50740	0.30000	<b>1.87388</b>

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last

sg13g2_a221oi_1	A1->Y (FR)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.10840</b>	0.32940	0.06480	<b>0.77188</b>	2.50740	0.30000	<b>3.37701</b>
	A1->Y (FR)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.09310</b>	0.32940	0.06480	<b>0.75750</b>	2.50740	0.30000	<b>3.36626</b>
	A1->Y (FR)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.08344</b>	0.32940	0.06480	<b>0.66026</b>	2.50740	0.30000	<b>2.99178</b>
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.12093</b>	0.32940	0.06480	<b>0.78431</b>	2.50740	0.30000	<b>3.38755</b>
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.10602</b>	0.32940	0.06480	<b>0.76986</b>	2.50740	0.30000	<b>3.37709</b>
	A2->Y (FR)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.09401</b>	0.32940	0.06480	<b>0.67043</b>	2.50740	0.30000	<b>3.00088</b>
	B1->Y (FR)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.09712</b>	0.32940	0.06480	<b>0.77678</b>	2.50740	0.30000	<b>3.58107</b>
	B1->Y (FR)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	<b>0.08174</b>	0.32940	0.06480	<b>0.76173</b>	2.50740	0.30000	<b>3.56877</b>
	B1->Y (FR)	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.06848</b>	0.32940	0.06480	<b>0.65255</b>	2.50740	0.30000	<b>3.10372</b>
	B2->Y (FR)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.10970</b>	0.32940	0.06480	<b>0.78873</b>	2.50740	0.30000	<b>3.59146</b>
	B2->Y (FR)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	<b>0.09463</b>	0.32940	0.06480	<b>0.77377</b>	2.50740	0.30000	<b>3.57891</b>
	B2->Y (FR)	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.07890</b>	0.32940	0.06480	<b>0.66224</b>	2.50740	0.30000	<b>3.10903</b>
	C1->Y (FR)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.05857</b>	0.32940	0.06480	<b>0.66600</b>	2.50740	0.30000	<b>3.30391</b>
	C1->Y (FR)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	<b>0.04602</b>	0.32940	0.06480	<b>0.65366</b>	2.50740	0.30000	<b>3.29375</b>
	C1->Y (FR)	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	<b>0.06180</b>	0.32940	0.06480	<b>0.66883</b>	2.50740	0.30000	<b>3.30813</b>
	C1->Y (FR)	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	<b>0.04925</b>	0.32940	0.06480	<b>0.65744</b>	2.50740	0.30000	<b>3.30219</b>
	C1->Y (FR)	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.04085</b>	0.32940	0.06480	<b>0.55758</b>	2.50740	0.30000	<b>2.86848</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last

sg13g2_a221oi_1	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.05168</b>	0.32940	0.06480	<b>0.48810</b>	2.50740	0.30000	<b>2.43705</b>
	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.05067</b>	0.32940	0.06480	<b>0.48529</b>	2.50740	0.30000	<b>2.43203</b>
	A1->Y (RF)	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.05291</b>	0.32940	0.06480	<b>0.48878</b>	2.50740	0.30000	<b>2.43726</b>
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.05595</b>	0.32940	0.06480	<b>0.46914</b>	2.50740	0.30000	<b>2.26820</b>
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.05494</b>	0.32940	0.06480	<b>0.46644</b>	2.50740	0.30000	<b>2.26403</b>
	A2->Y (RF)	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.05719</b>	0.32940	0.06480	<b>0.46983</b>	2.50740	0.30000	<b>2.26838</b>
	B1->Y (RF)	(A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.04703</b>	0.32940	0.06480	<b>0.47715</b>	2.50740	0.30000	<b>2.42097</b>
	B1->Y (RF)	(!A1 * A2 * B2 * !C1)	0.01860	0.00100	<b>0.04633</b>	0.32940	0.06480	<b>0.47449</b>	2.50740	0.30000	<b>2.41621</b>
	B1->Y (RF)	(!A1 * !A2 * B2 * !C1)	0.01860	0.00100	<b>0.04598</b>	0.32940	0.06480	<b>0.47285</b>	2.50740	0.30000	<b>2.41652</b>
	B2->Y (RF)	(A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.05159</b>	0.32940	0.06480	<b>0.45747</b>	2.50740	0.30000	<b>2.25263</b>
	B2->Y (RF)	(!A1 * A2 * B1 * !C1)	0.01860	0.00100	<b>0.05086</b>	0.32940	0.06480	<b>0.45480</b>	2.50740	0.30000	<b>2.24823</b>
	B2->Y (RF)	(!A1 * !A2 * B1 * !C1)	0.01860	0.00100	<b>0.05052</b>	0.32940	0.06480	<b>0.45409</b>	2.50740	0.30000	<b>2.24920</b>
	C1->Y (RF)	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.02577</b>	0.32940	0.06480	<b>0.34729</b>	2.50740	0.30000	<b>1.87377</b>
	C1->Y (RF)	(!A1 * A2 * !B1 * !B2)	0.01860	0.00100	<b>0.02548</b>	0.32940	0.06480	<b>0.34596</b>	2.50740	0.30000	<b>1.87052</b>
	C1->Y (RF)	(!A1 * !A2 * B1 * !B2)	0.01860	0.00100	<b>0.02593</b>	0.32940	0.06480	<b>0.34730</b>	2.50740	0.30000	<b>1.87388</b>
	C1->Y (RF)	(!A1 * !A2 * !B1 * B2)	0.01860	0.00100	<b>0.02564</b>	0.32940	0.06480	<b>0.34597</b>	2.50740	0.30000	<b>1.87082</b>
	C1->Y (RF)	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.02542</b>	0.32940	0.06480	<b>0.34573</b>	2.50740	0.30000	<b>1.87141</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1	0.01860	0.00100	<b>0.01026</b>	0.32940	0.06480	<b>0.01017</b>	2.50740	0.30000	<b>0.01163</b>
	A2	0.01860	0.00100	<b>0.01050</b>	0.32940	0.06480	<b>0.01020</b>	2.50740	0.30000	<b>0.01197</b>
	B1	0.01860	0.00100	<b>0.00761</b>	0.32940	0.06480	<b>0.00748</b>	2.50740	0.30000	<b>0.00991</b>
	B2	0.01860	0.00100	<b>0.00788</b>	0.32940	0.06480	<b>0.00768</b>	2.50740	0.30000	<b>0.01008</b>
	C1	0.01860	0.00100	<b>0.00483</b>	0.32940	0.06480	<b>0.00515</b>	2.50740	0.30000	<b>0.00896</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a221oi_1	A1	0.01860	0.00100	<b>0.00665</b>	0.32940	0.06480	<b>0.00645</b>	2.50740	0.30000	<b>0.00885</b>
	A2	0.01860	0.00100	<b>0.00857</b>	0.32940	0.06480	<b>0.00830</b>	2.50740	0.30000	<b>0.01058</b>
	B1	0.01860	0.00100	<b>0.00434</b>	0.32940	0.06480	<b>0.00432</b>	2.50740	0.30000	<b>0.00694</b>
	B2	0.01860	0.00100	<b>0.00644</b>	0.32940	0.06480	<b>0.00632</b>	2.50740	0.30000	<b>0.00860</b>
	C1	0.01860	0.00100	<b>0.00243</b>	0.32940	0.06480	<b>0.00290</b>	2.50740	0.30000	<b>0.00655</b>

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

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

sg13g2_a221oi_1	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01026</b>	0.32940	0.06480	<b>0.01017</b>	2.50740	0.30000	<b>0.01163</b>
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.00983</b>	0.32940	0.06480	<b>0.00988</b>	2.50740	0.30000	<b>0.01129</b>
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01206</b>	0.32940	0.06480	<b>0.01193</b>	2.50740	0.30000	<b>0.01443</b>
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01050</b>	0.32940	0.06480	<b>0.01020</b>	2.50740	0.30000	<b>0.01197</b>
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01013</b>	0.32940	0.06480	<b>0.01020</b>	2.50740	0.30000	<b>0.01164</b>
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01236</b>	0.32940	0.06480	<b>0.01206</b>	2.50740	0.30000	<b>0.01443</b>
	B1	(A1 * !A2 * !B2 * !C1)	0.01860	0.00100	<b>0.00806</b>	0.32940	0.06480	<b>0.00818</b>	2.50740	0.30000	<b>0.00957</b>
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	<b>0.00760</b>	0.32940	0.06480	<b>0.00746</b>	2.50740	0.30000	<b>0.00922</b>
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	<b>0.00761</b>	0.32940	0.06480	<b>0.00748</b>	2.50740	0.30000	<b>0.00991</b>
	B2	(A1 * !A2 * !B1 * !C1)	0.01860	0.00100	<b>0.00824</b>	0.32940	0.06480	<b>0.00818</b>	2.50740	0.30000	<b>0.00985</b>
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	<b>0.00785</b>	0.32940	0.06480	<b>0.00796</b>	2.50740	0.30000	<b>0.00955</b>
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	<b>0.00788</b>	0.32940	0.06480	<b>0.00768</b>	2.50740	0.30000	<b>0.01008</b>
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00528</b>	0.32940	0.06480	<b>0.00538</b>	2.50740	0.30000	<b>0.00921</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00482</b>	0.32940	0.06480	<b>0.00513</b>	2.50740	0.30000	<b>0.00905</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00529</b>	0.32940	0.06480	<b>0.00540</b>	2.50740	0.30000	<b>0.00909</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00482</b>	0.32940	0.06480	<b>0.00511</b>	2.50740	0.30000	<b>0.00910</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00483</b>	0.32940	0.06480	<b>0.00515</b>	2.50740	0.30000	<b>0.00896</b>

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

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



sg13g2_a221oi_1	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.00867</b>	0.32940	0.06480	<b>0.00848</b>	2.50740	0.30000	<b>0.01070</b>
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.00665</b>	0.32940	0.06480	<b>0.00645</b>	2.50740	0.30000	<b>0.00885</b>
	A1	(A2 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.00555</b>	0.32940	0.06480	<b>0.00536</b>	2.50740	0.30000	<b>0.00777</b>
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.01058</b>	0.32940	0.06480	<b>0.01031</b>	2.50740	0.30000	<b>0.01251</b>
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.00857</b>	0.32940	0.06480	<b>0.00830</b>	2.50740	0.30000	<b>0.01058</b>
	A2	(A1 * !B1 * !B2 * !C1)	0.01860	0.00100	<b>0.00748</b>	0.32940	0.06480	<b>0.00720</b>	2.50740	0.30000	<b>0.00945</b>
	B1	(A1 * !A2 * !B2 * !C1)	0.01860	0.00100	<b>0.00644</b>	0.32940	0.06480	<b>0.00642</b>	2.50740	0.30000	<b>0.00873</b>
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	<b>0.00441</b>	0.32940	0.06480	<b>0.00441</b>	2.50740	0.30000	<b>0.00687</b>
	B1	(!A1 * !A2 * !B2 * !C1)	0.01860	0.00100	<b>0.00434</b>	0.32940	0.06480	<b>0.00432</b>	2.50740	0.30000	<b>0.00694</b>
	B2	(A1 * !A2 * !B1 * !C1)	0.01860	0.00100	<b>0.00844</b>	0.32940	0.06480	<b>0.00832</b>	2.50740	0.30000	<b>0.01059</b>
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	<b>0.00644</b>	0.32940	0.06480	<b>0.00632</b>	2.50740	0.30000	<b>0.00860</b>
	B2	(!A1 * !A2 * !B1 * !C1)	0.01860	0.00100	<b>0.00636</b>	0.32940	0.06480	<b>0.00619</b>	2.50740	0.30000	<b>0.00867</b>
	C1	(A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00446</b>	0.32940	0.06480	<b>0.00492</b>	2.50740	0.30000	<b>0.00823</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00245</b>	0.32940	0.06480	<b>0.00302</b>	2.50740	0.30000	<b>0.00635</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00451</b>	0.32940	0.06480	<b>0.00492</b>	2.50740	0.30000	<b>0.00825</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00250</b>	0.32940	0.06480	<b>0.00301</b>	2.50740	0.30000	<b>0.00639</b>
	C1	(!A1 * !A2 * !B1 * !B2)	0.01860	0.00100	<b>0.00243</b>	0.32940	0.06480	<b>0.00290</b>	2.50740	0.30000	<b>0.00655</b>

# A22OI



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_a22oi_1	10.84860

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A1	A2	B1	B2	Y
sg13g2_a22oi_1	0.00305	0.00306	0.00299	0.00295	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_a22oi_1	158.86900	900.81800	1968.88000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1->Y (FR)	0.01860	0.00100	<b>0.05448</b>	0.32940	0.06480	<b>0.54363</b>	2.50740	0.30000	<b>2.62756</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.06224</b>	0.32940	0.06480	<b>0.55093</b>	2.50740	0.30000	<b>2.63333</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.05813</b>	0.32940	0.06480	<b>0.57658</b>	2.50740	0.30000	<b>2.88719</b>
	B2->Y (FR)	0.01860	0.00100	<b>0.04950</b>	0.32940	0.06480	<b>0.56663</b>	2.50740	0.30000	<b>2.87113</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1->Y (RF)	0.01860	0.00100	<b>0.04553</b>	0.32940	0.06480	<b>0.47303</b>	2.50740	0.30000	<b>2.41528</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.04971</b>	0.32940	0.06480	<b>0.45381</b>	2.50740	0.30000	<b>2.24722</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.03982</b>	0.32940	0.06480	<b>0.44235</b>	2.50740	0.30000	<b>2.23371</b>
	B2->Y (RF)	0.01860	0.00100	<b>0.03489</b>	0.32940	0.06480	<b>0.46126</b>	2.50740	0.30000	<b>2.40210</b>

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1->Y (FR)	(A2 * B1)	0.01860	0.00100	<b>0.05448</b>	0.32940	0.06480	<b>0.54363</b>	2.50740	0.30000	<b>2.62756</b>
	A2->Y (FR)	(A1 * B1)	0.01860	0.00100	<b>0.06224</b>	0.32940	0.06480	<b>0.55093</b>	2.50740	0.30000	<b>2.63333</b>
	B1->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.05813</b>	0.32940	0.06480	<b>0.57658</b>	2.50740	0.30000	<b>2.88719</b>
	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.04855</b>	0.32940	0.06480	<b>0.56553</b>	2.50740	0.30000	<b>2.87088</b>
	B2->Y (FR)	(A1 * !A2)	0.01860	0.00100	<b>0.04950</b>	0.32940	0.06480	<b>0.56663</b>	2.50740	0.30000	<b>2.87113</b>
	B2->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.03994</b>	0.32940	0.06480	<b>0.55810</b>	2.50740	0.30000	<b>2.86611</b>

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1->Y (RF)	(A2 * B1)	0.01860	0.00100	<b>0.04553</b>	0.32940	0.06480	<b>0.47303</b>	2.50740	0.30000	<b>2.41528</b>
	A2->Y (RF)	(A1 * B1)	0.01860	0.00100	<b>0.04971</b>	0.32940	0.06480	<b>0.45381</b>	2.50740	0.30000	<b>2.24722</b>
	B1->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.03982</b>	0.32940	0.06480	<b>0.44235</b>	2.50740	0.30000	<b>2.23371</b>
	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.03929</b>	0.32940	0.06480	<b>0.43987</b>	2.50740	0.30000	<b>2.22987</b>
	B2->Y (RF)	(A1 * !A2)	0.01860	0.00100	<b>0.03489</b>	0.32940	0.06480	<b>0.46126</b>	2.50740	0.30000	<b>2.40210</b>
	B2->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.03437</b>	0.32940	0.06480	<b>0.45866</b>	2.50740	0.30000	<b>2.39776</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1	0.01860	0.00100	<b>0.00589</b>	0.32940	0.06480	<b>0.00591</b>	2.50740	0.30000	<b>0.00853</b>
	A2	0.01860	0.00100	<b>0.00612</b>	0.32940	0.06480	<b>0.00596</b>	2.50740	0.30000	<b>0.00865</b>
	B1	0.01860	0.00100	<b>0.00397</b>	0.32940	0.06480	<b>0.00395</b>	2.50740	0.30000	<b>0.00747</b>
	B2	0.01860	0.00100	<b>0.00366</b>	0.32940	0.06480	<b>0.00376</b>	2.50740	0.30000	<b>0.00710</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1	0.01860	0.00100	<b>0.00621</b>	0.32940	0.06480	<b>0.00615</b>	2.50740	0.30000	<b>0.00892</b>
	A2	0.01860	0.00100	<b>0.00815</b>	0.32940	0.06480	<b>0.00797</b>	2.50740	0.30000	<b>0.01051</b>
	B1	0.01860	0.00100	<b>0.00750</b>	0.32940	0.06480	<b>0.00767</b>	2.50740	0.30000	<b>0.01022</b>
	B2	0.01860	0.00100	<b>0.00547</b>	0.32940	0.06480	<b>0.00585</b>	2.50740	0.30000	<b>0.00855</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1	(A2 * B1)	0.01860	0.00100	<b>0.00589</b>	0.32940	0.06480	<b>0.00591</b>	2.50740	0.30000	<b>0.00853</b>
	A2	(A1 * B1)	0.01860	0.00100	<b>0.00612</b>	0.32940	0.06480	<b>0.00596</b>	2.50740	0.30000	<b>0.00865</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00397</b>	0.32940	0.06480	<b>0.00395</b>	2.50740	0.30000	<b>0.00747</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00369</b>	0.32940	0.06480	<b>0.00371</b>	2.50740	0.30000	<b>0.00716</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00366</b>	0.32940	0.06480	<b>0.00376</b>	2.50740	0.30000	<b>0.00710</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00329</b>	0.32940	0.06480	<b>0.00353</b>	2.50740	0.30000	<b>0.00685</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_a22oi_1	A1	(A2 * B1)	0.01860	0.00100	<b>0.00621</b>	0.32940	0.06480	<b>0.00615</b>	2.50740	0.30000	<b>0.00892</b>
	A2	(A1 * B1)	0.01860	0.00100	<b>0.00815</b>	0.32940	0.06480	<b>0.00797</b>	2.50740	0.30000	<b>0.01051</b>
	B1	(A1 * !A2)	0.01860	0.00100	<b>0.00750</b>	0.32940	0.06480	<b>0.00767</b>	2.50740	0.30000	<b>0.01022</b>
	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00547</b>	0.32940	0.06480	<b>0.00566</b>	2.50740	0.30000	<b>0.00817</b>
	B2	(A1 * !A2)	0.01860	0.00100	<b>0.00547</b>	0.32940	0.06480	<b>0.00585</b>	2.50740	0.30000	<b>0.00855</b>
	B2	(!A1 * A2)	0.01860	0.00100	<b>0.00345</b>	0.32940	0.06480	<b>0.00384</b>	2.50740	0.30000	<b>0.00657</b>

# AND2x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_and2_1	9.07200
sg13g2_and2_2	10.88640

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	X
sg13g2_and2_1	0.00251	0.00252	0.30000
sg13g2_and2_2	0.00251	0.00253	0.60000

## Leakage Information



Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and2_1	823.86200	1010.75000	1352.74000
sg13g2_and2_2	1558.32000	1632.72000	1710.11000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and2_1	A->X (RR)	0.01860	0.00100	<b>0.06614</b>	0.32940	0.06480	<b>0.33620</b>	2.50740	0.30000	<b>1.20730</b>
	B->X (RR)	0.01860	0.00100	<b>0.07108</b>	0.32940	0.06480	<b>0.33681</b>	2.50740	0.30000	<b>1.19872</b>
sg13g2_and2_2	A->X (RR)	0.01860	0.00100	<b>0.08159</b>	0.32940	0.12960	<b>0.37804</b>	2.50740	0.60000	<b>1.28879</b>
	B->X (RR)	0.01860	0.00100	<b>0.08633</b>	0.32940	0.12960	<b>0.37435</b>	2.50740	0.60000	<b>1.27480</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and2_1	A->X (FF)	0.01860	0.00100	<b>0.05627</b>	0.32940	0.06480	<b>0.30540</b>	2.50740	0.30000	<b>1.08986</b>
	B->X (FF)	0.01860	0.00100	<b>0.06165</b>	0.32940	0.06480	<b>0.32014</b>	2.50740	0.30000	<b>1.12848</b>
sg13g2_and2_2	A->X (FF)	0.01860	0.00100	<b>0.06855</b>	0.32940	0.12960	<b>0.34485</b>	2.50740	0.60000	<b>1.17643</b>
	B->X (FF)	0.01860	0.00100	<b>0.07371</b>	0.32940	0.12960	<b>0.35745</b>	2.50740	0.60000	<b>1.21069</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and2_1	A	0.01860	0.00100	<b>0.00817</b>	0.32940	0.06480	<b>0.00912</b>	2.50740	0.30000	<b>0.02204</b>
	B	0.01860	0.00100	<b>0.00992</b>	0.32940	0.06480	<b>0.01039</b>	2.50740	0.30000	<b>0.02218</b>
sg13g2_and2_2	A	0.01860	0.00100	<b>0.01314</b>	0.32940	0.12960	<b>0.01393</b>	2.50740	0.60000	<b>0.02579</b>
	B	0.01860	0.00100	<b>0.01492</b>	0.32940	0.12960	<b>0.01532</b>	2.50740	0.60000	<b>0.02626</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and2_1	A	0.01860	0.00100	<b>0.00711</b>	0.32940	0.06480	<b>0.00808</b>	2.50740	0.30000	<b>0.02129</b>
	B	0.01860	0.00100	<b>0.00734</b>	0.32940	0.06480	<b>0.00835</b>	2.50740	0.30000	<b>0.02145</b>
sg13g2_and2_2	A	0.01860	0.00100	<b>0.01181</b>	0.32940	0.12960	<b>0.01265</b>	2.50740	0.60000	<b>0.02505</b>
	B	0.01860	0.00100	<b>0.01204</b>	0.32940	0.12960	<b>0.01302</b>	2.50740	0.60000	<b>0.02590</b>

# AND3x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_and3_1	12.70080
sg13g2_and3_2	12.70080

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	X
sg13g2_and3_1	0.00250	0.00249	0.00251	0.30000
sg13g2_and3_2	0.00252	0.00250	0.00251	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and3_1	822.26200	1009.27000	1926.20000
sg13g2_and3_2	1583.02000	1700.65000	2131.77000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and3_1	A->X (RR)	0.01860	0.00100	<b>0.08838</b>	0.32940	0.06480	<b>0.37319</b>	2.50740	0.30000	<b>1.28575</b>
	B->X (RR)	0.01860	0.00100	<b>0.09773</b>	0.32940	0.06480	<b>0.37783</b>	2.50740	0.30000	<b>1.28916</b>
	C->X (RR)	0.01860	0.00100	<b>0.10209</b>	0.32940	0.06480	<b>0.37333</b>	2.50740	0.30000	<b>1.25566</b>
sg13g2_and3_2	A->X (RR)	0.01860	0.00100	<b>0.10991</b>	0.32940	0.12960	<b>0.42362</b>	2.50740	0.60000	<b>1.38320</b>
	B->X (RR)	0.01860	0.00100	<b>0.11917</b>	0.32940	0.12960	<b>0.42497</b>	2.50740	0.60000	<b>1.37406</b>
	C->X (RR)	0.01860	0.00100	<b>0.12345</b>	0.32940	0.12960	<b>0.41687</b>	2.50740	0.60000	<b>1.33221</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and3_1	A->X (FF)	0.01860	0.00100	<b>0.06031</b>	0.32940	0.06480	<b>0.31426</b>	2.50740	0.30000	<b>1.09256</b>
	B->X (FF)	0.01860	0.00100	<b>0.06600</b>	0.32940	0.06480	<b>0.32894</b>	2.50740	0.30000	<b>1.13120</b>
	C->X (FF)	0.01860	0.00100	<b>0.06974</b>	0.32940	0.06480	<b>0.33991</b>	2.50740	0.30000	<b>1.16511</b>
sg13g2_and3_2	A->X (FF)	0.01860	0.00100	<b>0.07206</b>	0.32940	0.12960	<b>0.35253</b>	2.50740	0.60000	<b>1.18138</b>
	B->X (FF)	0.01860	0.00100	<b>0.07763</b>	0.32940	0.12960	<b>0.36542</b>	2.50740	0.60000	<b>1.21397</b>
	C->X (FF)	0.01860	0.00100	<b>0.08159</b>	0.32940	0.12960	<b>0.37486</b>	2.50740	0.60000	<b>1.24601</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and3_1	A	0.01860	0.00100	<b>0.00947</b>	0.32940	0.06480	<b>0.01008</b>	2.50740	0.30000	<b>0.02180</b>
	B	0.01860	0.00100	<b>0.01114</b>	0.32940	0.06480	<b>0.01134</b>	2.50740	0.30000	<b>0.02232</b>
	C	0.01860	0.00100	<b>0.01273</b>	0.32940	0.06480	<b>0.01280</b>	2.50740	0.30000	<b>0.02354</b>
sg13g2_and3_2	A	0.01860	0.00100	<b>0.01484</b>	0.32940	0.12960	<b>0.01499</b>	2.50740	0.60000	<b>0.02585</b>
	B	0.01860	0.00100	<b>0.01655</b>	0.32940	0.12960	<b>0.01633</b>	2.50740	0.60000	<b>0.02598</b>
	C	0.01860	0.00100	<b>0.01814</b>	0.32940	0.12960	<b>0.01789</b>	2.50740	0.60000	<b>0.02721</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and3_1	A	0.01860	0.00100	<b>0.00728</b>	0.32940	0.06480	<b>0.00803</b>	2.50740	0.30000	<b>0.02030</b>
	B	0.01860	0.00100	<b>0.00761</b>	0.32940	0.06480	<b>0.00831</b>	2.50740	0.30000	<b>0.02053</b>
	C	0.01860	0.00100	<b>0.00784</b>	0.32940	0.06480	<b>0.00855</b>	2.50740	0.30000	<b>0.02094</b>
sg13g2_and3_2	A	0.01860	0.00100	<b>0.01196</b>	0.32940	0.12960	<b>0.01268</b>	2.50740	0.60000	<b>0.02427</b>
	B	0.01860	0.00100	<b>0.01231</b>	0.32940	0.12960	<b>0.01312</b>	2.50740	0.60000	<b>0.02497</b>
	C	0.01860	0.00100	<b>0.01252</b>	0.32940	0.12960	<b>0.01331</b>	2.50740	0.60000	<b>0.02568</b>

# AND4x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_and4_1	14.51520
sg13g2_and4_2	16.32960

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	X
sg13g2_and4_1	0.00234	0.00247	0.00247	0.00248	0.30000
sg13g2_and4_2	0.00234	0.00247	0.00247	0.00248	0.60000



## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_and4_1	824.37700	969.96000	2499.71000
sg13g2_and4_2	1585.14000	1696.02000	2705.26000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and4_1	A->X (RR)	0.01860	0.00100	<b>0.11081</b>	0.32940	0.06480	<b>0.40840</b>	2.50740	0.30000	<b>1.35721</b>
	B->X (RR)	0.01860	0.00100	<b>0.12477</b>	0.32940	0.06480	<b>0.41708</b>	2.50740	0.30000	<b>1.36693</b>
	C->X (RR)	0.01860	0.00100	<b>0.13317</b>	0.32940	0.06480	<b>0.41720</b>	2.50740	0.30000	<b>1.34014</b>
	D->X (RR)	0.01860	0.00100	<b>0.13759</b>	0.32940	0.06480	<b>0.41525</b>	2.50740	0.30000	<b>1.30379</b>
sg13g2_and4_2	A->X (RR)	0.01860	0.00100	<b>0.13845</b>	0.32940	0.12960	<b>0.46624</b>	2.50740	0.60000	<b>1.46007</b>
	B->X (RR)	0.01860	0.00100	<b>0.15203</b>	0.32940	0.12960	<b>0.47231</b>	2.50740	0.60000	<b>1.45934</b>
	C->X (RR)	0.01860	0.00100	<b>0.16052</b>	0.32940	0.12960	<b>0.46944</b>	2.50740	0.60000	<b>1.42550</b>
	D->X (RR)	0.01860	0.00100	<b>0.16488</b>	0.32940	0.12960	<b>0.46531</b>	2.50740	0.60000	<b>1.37981</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and4_1	A->X (FF)	0.01860	0.00100	<b>0.06361</b>	0.32940	0.06480	<b>0.31968</b>	2.50740	0.30000	<b>1.08790</b>
	B->X (FF)	0.01860	0.00100	<b>0.06953</b>	0.32940	0.06480	<b>0.33398</b>	2.50740	0.30000	<b>1.12590</b>
	C->X (FF)	0.01860	0.00100	<b>0.07377</b>	0.32940	0.06480	<b>0.34505</b>	2.50740	0.30000	<b>1.15900</b>
	D->X (FF)	0.01860	0.00100	<b>0.07645</b>	0.32940	0.06480	<b>0.35376</b>	2.50740	0.30000	<b>1.19210</b>
sg13g2_and4_2	A->X (FF)	0.01860	0.00100	<b>0.07478</b>	0.32940	0.12960	<b>0.35764</b>	2.50740	0.60000	<b>1.17683</b>
	B->X (FF)	0.01860	0.00100	<b>0.08058</b>	0.32940	0.12960	<b>0.36988</b>	2.50740	0.60000	<b>1.21013</b>
	C->X (FF)	0.01860	0.00100	<b>0.08493</b>	0.32940	0.12960	<b>0.37938</b>	2.50740	0.60000	<b>1.23917</b>
	D->X (FF)	0.01860	0.00100	<b>0.08797</b>	0.32940	0.12960	<b>0.38766</b>	2.50740	0.60000	<b>1.26885</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and4_1	A	0.01860	0.00100	<b>0.01032</b>	0.32940	0.06480	<b>0.01085</b>	2.50740	0.30000	<b>0.02165</b>
	B	0.01860	0.00100	<b>0.01218</b>	0.32940	0.06480	<b>0.01226</b>	2.50740	0.30000	<b>0.02231</b>
	C	0.01860	0.00100	<b>0.01379</b>	0.32940	0.06480	<b>0.01370</b>	2.50740	0.30000	<b>0.02343</b>
	D	0.01860	0.00100	<b>0.01537</b>	0.32940	0.06480	<b>0.01524</b>	2.50740	0.30000	<b>0.02468</b>
sg13g2_and4_2	A	0.01860	0.00100	<b>0.01626</b>	0.32940	0.12960	<b>0.01583</b>	2.50740	0.60000	<b>0.02582</b>
	B	0.01860	0.00100	<b>0.01810</b>	0.32940	0.12960	<b>0.01727</b>	2.50740	0.60000	<b>0.02613</b>
	C	0.01860	0.00100	<b>0.01973</b>	0.32940	0.12960	<b>0.01878</b>	2.50740	0.60000	<b>0.02761</b>
	D	0.01860	0.00100	<b>0.02130</b>	0.32940	0.12960	<b>0.02030</b>	2.50740	0.60000	<b>0.02874</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_and4_1	A	0.01860	0.00100	<b>0.00773</b>	0.32940	0.06480	<b>0.00835</b>	2.50740	0.30000	<b>0.01988</b>
	B	0.01860	0.00100	<b>0.00794</b>	0.32940	0.06480	<b>0.00849</b>	2.50740	0.30000	<b>0.01995</b>
	C	0.01860	0.00100	<b>0.00828</b>	0.32940	0.06480	<b>0.00880</b>	2.50740	0.30000	<b>0.02031</b>
	D	0.01860	0.00100	<b>0.00855</b>	0.32940	0.06480	<b>0.00906</b>	2.50740	0.30000	<b>0.02111</b>
sg13g2_and4_2	A	0.01860	0.00100	<b>0.01245</b>	0.32940	0.12960	<b>0.01316</b>	2.50740	0.60000	<b>0.02416</b>
	B	0.01860	0.00100	<b>0.01268</b>	0.32940	0.12960	<b>0.01342</b>	2.50740	0.60000	<b>0.02466</b>
	C	0.01860	0.00100	<b>0.01308</b>	0.32940	0.12960	<b>0.01367</b>	2.50740	0.60000	<b>0.02451</b>
	D	0.01860	0.00100	<b>0.01332</b>	0.32940	0.12960	<b>0.01396</b>	2.50740	0.60000	<b>0.02572</b>

# ANTENNANP



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell*  
*Library: Process*  
*sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage*  
*1.35, Temp 125.00*

## Truth Table

INPUT
A
x

## Footprint

Cell Name	Area
sg13g2_antennanp	5.44320

## Pin Capacitance Information

Cell Name	Pin Cap(pf)
	A
sg13g2_antennanp	0.00110

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_antennanp	5.54685	5.55023	5.55362

## Passive Power Information

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_antennanp	0.01860	-0.00037	0.32940	-0.00037	2.50740	-0.00037

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_antennanp	0.01860	0.00037	0.32940	0.00037	2.50740	0.00037

# BUF<sub>x</sub>



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

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

## Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	X
sg13g2_buf_1	0.00224	0.30000
sg13g2_buf_16	0.01684	4.80000
sg13g2_buf_2	0.00259	0.60000
sg13g2_buf_4	0.00365	1.20000
sg13g2_buf_8	0.00846	2.40000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_buf_1	775.60500	837.68500	899.76500
sg13g2_buf_16	7855.69000	10631.10000	13406.50000
sg13g2_buf_2	1090.17000	1391.03000	1691.89000
sg13g2_buf_4	1952.91000	2605.01000	3257.11000
sg13g2_buf_8	3927.85000	5315.63000	6703.42000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_buf_1	A->X (RR)	0.01860	0.00100	<b>0.05096</b>	0.32940	0.06480	<b>0.31597</b>	2.50740	0.30000	<b>1.17418</b>
sg13g2_buf_16	A->X (RR)	0.01860	0.00100	<b>0.05715</b>	0.32940	1.03680	<b>0.34630</b>	2.50740	4.80000	<b>1.23569</b>
sg13g2_buf_2	A->X (RR)	0.01860	0.00100	<b>0.05759</b>	0.32940	0.12960	<b>0.34183</b>	2.50740	0.60000	<b>1.23254</b>
sg13g2_buf_4	A->X (RR)	0.01860	0.00100	<b>0.07362</b>	0.32940	0.25920	<b>0.38209</b>	2.50740	1.20000	<b>1.35540</b>
sg13g2_buf_8	A->X (RR)	0.01860	0.00100	<b>0.05727</b>	0.32940	0.51840	<b>0.34546</b>	2.50740	2.40000	<b>1.23487</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_buf_1	A->X (FF)	0.01860	0.00100	<b>0.05257</b>	0.32940	0.06480	<b>0.29689</b>	2.50740	0.30000	<b>1.06842</b>
sg13g2_buf_16	A->X (FF)	0.01860	0.00100	<b>0.06199</b>	0.32940	1.03680	<b>0.33598</b>	2.50740	4.80000	<b>1.16115</b>
sg13g2_buf_2	A->X (FF)	0.01860	0.00100	<b>0.06018</b>	0.32940	0.12960	<b>0.32501</b>	2.50740	0.60000	<b>1.12973</b>
sg13g2_buf_4	A->X (FF)	0.01860	0.00100	<b>0.06110</b>	0.32940	0.25920	<b>0.33090</b>	2.50740	1.20000	<b>1.10527</b>
sg13g2_buf_8	A->X (FF)	0.01860	0.00100	<b>0.06195</b>	0.32940	0.51840	<b>0.33579</b>	2.50740	2.40000	<b>1.16356</b>



## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_buf_1	A	0.01860	0.00100	<b>0.00714</b>	0.32940	0.06480	<b>0.00816</b>	2.50740	0.30000	<b>0.02063</b>
sg13g2_buf_16	A	0.01860	0.00100	<b>0.09166</b>	0.32940	1.03680	<b>0.10188</b>	2.50740	4.80000	<b>0.20173</b>
sg13g2_buf_2	A	0.01860	0.00100	<b>0.01211</b>	0.32940	0.12960	<b>0.01352</b>	2.50740	0.60000	<b>0.02783</b>
sg13g2_buf_4	A	0.01860	0.00100	<b>0.02282</b>	0.32940	0.25920	<b>0.02424</b>	2.50740	1.20000	<b>0.04403</b>
sg13g2_buf_8	A	0.01860	0.00100	<b>0.04614</b>	0.32940	0.51840	<b>0.05139</b>	2.50740	2.40000	<b>0.10136</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_buf_1	A	0.01860	0.00100	<b>0.00704</b>	0.32940	0.06480	<b>0.00816</b>	2.50740	0.30000	<b>0.02114</b>
sg13g2_buf_16	A	0.01860	0.00100	<b>0.09023</b>	0.32940	1.03680	<b>0.09879</b>	2.50740	4.80000	<b>0.20469</b>
sg13g2_buf_2	A	0.01860	0.00100	<b>0.01192</b>	0.32940	0.12960	<b>0.01324</b>	2.50740	0.60000	<b>0.02854</b>
sg13g2_buf_4	A	0.01860	0.00100	<b>0.02284</b>	0.32940	0.25920	<b>0.02467</b>	2.50740	1.20000	<b>0.04592</b>
sg13g2_buf_8	A	0.01860	0.00100	<b>0.04540</b>	0.32940	0.51840	<b>0.04987</b>	2.50740	2.40000	<b>0.10313</b>

# DECAP<sub>x</sub>



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp  
125.00*

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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	425.40000	425.40000	425.40000
sg13g2_decap_8	850.82400	850.82400	850.82400

# DFRBPQx



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp  
125.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dfrbpq_1	48.98880
sg13g2_dfrbpq_2	50.80320

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	CLK	D	RESET_B	Q
sg13g2_dfrbpq_1	0.00274	0.00140	0.00497	0.30000
sg13g2_dfrbpq_2	0.00275	0.00140	0.00502	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbpq_1	3240.69000	3777.50000	4563.24000
sg13g2_dfrbpq_2	3945.71000	4302.17000	5288.48000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbpq_1	CLK->Q (RR)	0.01860	0.00100	<b>0.15663</b>	0.32940	0.06480	<b>0.43357</b>	2.50740	0.30000	<b>1.29932</b>
sg13g2_dfrbpq_2	CLK->Q (RR)	0.01860	0.00100	<b>0.16878</b>	0.32940	0.12960	<b>0.45194</b>	2.50740	0.60000	<b>1.31723</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbpq_1	CLK->Q (RF)	0.01860	0.00100	<b>0.15519</b>	0.32940	0.06480	<b>0.40670</b>	2.50740	0.30000	<b>1.15838</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.22326</b>	0.32940	0.06480	<b>0.51548</b>	2.50740	0.30000	<b>1.44986</b>
sg13g2_dfrbpq_2	CLK->Q (RF)	0.01860	0.00100	<b>0.16682</b>	0.32940	0.12960	<b>0.42656</b>	2.50740	0.60000	<b>1.17902</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.23378</b>	0.32940	0.12960	<b>0.53383</b>	2.50740	0.60000	<b>1.46909</b>

## Constraint Information

Constraints(ns) for CLK rising :

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

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.12787</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>
sg13g2_dfrbpq_2	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.12787</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_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>-0.24793</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.22936</b>	2.50740	2.50740	<b>0.28630</b>
sg13g2_dfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.06358</b>	1.26300	1.26300	<b>-0.18889</b>	2.50740	2.50740	<b>-0.24793</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.22936</b>	2.50740	2.50740	<b>0.28925</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_1	hold	CLK (R)	0.01860	0.01860	<b>-0.03668</b>	1.26300	1.26300	<b>-0.17809</b>	2.50740	2.50740	<b>-0.26859</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10270</b>	1.26300	1.26300	<b>0.24825</b>	2.50740	2.50740	<b>0.34533</b>
sg13g2_dfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.03912</b>	1.26300	1.26300	<b>-0.17809</b>	2.50740	2.50740	<b>-0.26859</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10270</b>	1.26300	1.26300	<b>0.24555</b>	2.50740	2.50740	<b>0.34533</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbpq_1	recovery	CLK (R)	0.01860	0.01860	<b>0.11737</b>	1.26300	1.26300	<b>0.25365</b>	2.50740	2.50740	<b>0.36304</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.10025</b>	1.26300	1.26300	<b>-0.24285</b>	2.50740	2.50740	<b>-0.35123</b>
sg13g2_dfrbpq_2	recovery	CLK (R)	0.01860	0.01860	<b>0.11492</b>	1.26300	1.26300	<b>0.25365</b>	2.50740	2.50740	<b>0.36304</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.09781</b>	1.26300	1.26300	<b>-0.24285</b>	2.50740	2.50740	<b>-0.35123</b>

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

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

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbpq_1	CLK	0.01860	0.00100	<b>0.03148</b>	0.32940	0.06480	<b>0.03291</b>	2.50740	0.30000	<b>0.05330</b>
sg13g2_dfrbpq_2	CLK	0.01860	0.00100	<b>0.03560</b>	0.32940	0.12960	<b>0.03734</b>	2.50740	0.60000	<b>0.05800</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbpq_1	CLK	0.01860	0.00100	<b>0.03260</b>	0.32940	0.06480	<b>0.03451</b>	2.50740	0.30000	<b>0.05456</b>
	RESET_B	0.01860	0.00100	<b>0.02069</b>	0.32940	0.06480	<b>0.02166</b>	2.50740	0.30000	<b>0.03114</b>
sg13g2_dfrbpq_2	CLK	0.01860	0.00100	<b>0.03659</b>	0.32940	0.12960	<b>0.03902</b>	2.50740	0.60000	<b>0.05921</b>
	RESET_B	0.01860	0.00100	<b>0.02457</b>	0.32940	0.12960	<b>0.02607</b>	2.50740	0.60000	<b>0.03565</b>

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	<b>0.01376</b>	0.32940	<b>0.01479</b>	2.50740	<b>0.03432</b>
sg13g2_dfrbpq_2	0.01860	<b>0.01426</b>	0.32940	<b>0.01534</b>	2.50740	<b>0.03477</b>

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	<b>0.02609</b>	0.32940	<b>0.02718</b>	2.50740	<b>0.04799</b>
sg13g2_dfrbpq_2	0.01860	<b>0.02604</b>	0.32940	<b>0.02713</b>	2.50740	<b>0.04793</b>

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



Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	(D * RESET_B * Q)	0.01860	<b>0.01376</b>	0.32940	<b>0.01479</b>	2.50740	<b>0.03432</b>
	(D * !RESET_B * !Q)	0.01860	<b>0.01433</b>	0.32940	<b>0.01542</b>	2.50740	<b>0.03486</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01351</b>	0.32940	<b>0.01452</b>	2.50740	<b>0.03409</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01415</b>	0.32940	<b>0.01523</b>	2.50740	<b>0.03467</b>
sg13g2_dfrbpq_2	(D * RESET_B * Q)	0.01860	<b>0.01379</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03437</b>
	(D * !RESET_B * !Q)	0.01860	<b>0.01443</b>	0.32940	<b>0.01554</b>	2.50740	<b>0.03497</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01362</b>	0.32940	<b>0.01466</b>	2.50740	<b>0.03420</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01426</b>	0.32940	<b>0.01534</b>	2.50740	<b>0.03477</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	(D * RESET_B * Q)	0.01860	<b>0.03281</b>	0.32940	<b>0.03391</b>	2.50740	<b>0.05472</b>
	(D * RESET_B * !Q)	0.01860	<b>0.02609</b>	0.32940	<b>0.02718</b>	2.50740	<b>0.04799</b>
	(D * !RESET_B * !Q)	0.01860	<b>0.01354</b>	0.32940	<b>0.01464</b>	2.50740	<b>0.03479</b>
	(!D * RESET_B * Q)	0.01860	<b>0.03812</b>	0.32940	<b>0.03969</b>	2.50740	<b>0.05998</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01345</b>	0.32940	<b>0.01456</b>	2.50740	<b>0.03471</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01346</b>	0.32940	<b>0.01456</b>	2.50740	<b>0.03471</b>
sg13g2_dfrbpq_2	(D * RESET_B * Q)	0.01860	<b>0.03877</b>	0.32940	<b>0.03988</b>	2.50740	<b>0.06068</b>
	(D * RESET_B * !Q)	0.01860	<b>0.02604</b>	0.32940	<b>0.02713</b>	2.50740	<b>0.04793</b>
	(D * !RESET_B * !Q)	0.01860	<b>0.01349</b>	0.32940	<b>0.01460</b>	2.50740	<b>0.03474</b>
	(!D * RESET_B * Q)	0.01860	<b>0.04825</b>	0.32940	<b>0.04969</b>	2.50740	<b>0.06981</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01339</b>	0.32940	<b>0.01452</b>	2.50740	<b>0.03466</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01342</b>	0.32940	<b>0.01452</b>	2.50740	<b>0.03466</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	<b>0.00213</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.00960</b>
sg13g2_dfrbpq_2	0.01860	<b>0.00213</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.00960</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	<b>0.00157</b>	0.32940	<b>0.00207</b>	2.50740	<b>0.00935</b>
sg13g2_dfrbpq_2	0.01860	<b>0.00158</b>	0.32940	<b>0.00208</b>	2.50740	<b>0.00936</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	CLK	0.01860	<b>0.00213</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.00960</b>
	(!CLK * RESET_B)	0.01860	<b>0.01488</b>	0.32940	<b>0.01536</b>	2.50740	<b>0.02311</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00011</b>	0.32940	<b>-0.00011</b>	2.50740	<b>-0.00010</b>
sg13g2_dfrbpq_2	CLK	0.01860	<b>0.00213</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.00960</b>
	(!CLK * RESET_B)	0.01860	<b>0.01488</b>	0.32940	<b>0.01533</b>	2.50740	<b>0.02309</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00011</b>	0.32940	<b>-0.00010</b>	2.50740	<b>-0.00010</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	CLK	0.01860	<b>0.00157</b>	0.32940	<b>0.00207</b>	2.50740	<b>0.00935</b>
	(!CLK * RESET_B)	0.01860	<b>0.01135</b>	0.32940	<b>0.01180</b>	2.50740	<b>0.02035</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00013</b>	0.32940	<b>0.00013</b>	2.50740	<b>0.00013</b>
sg13g2_dfrbpq_2	CLK	0.01860	<b>0.00158</b>	0.32940	<b>0.00208</b>	2.50740	<b>0.00936</b>
	(!CLK * RESET_B)	0.01860	<b>0.01137</b>	0.32940	<b>0.01182</b>	2.50740	<b>0.02035</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00012</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)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	<b>0.00431</b>	0.32940	<b>0.00441</b>	2.50740	<b>0.01073</b>
sg13g2_dfrbpq_2	0.01860	<b>0.00435</b>	0.32940	<b>0.00444</b>	2.50740	<b>0.01077</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	0.01860	<b>0.01157</b>	0.32940	<b>0.01145</b>	2.50740	<b>0.02187</b>
sg13g2_dfrbpq_2	0.01860	<b>0.01156</b>	0.32940	<b>0.01143</b>	2.50740	<b>0.02185</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	(CLK * D * !Q)	0.01860	<b>0.00431</b>	0.32940	<b>0.00441</b>	2.50740	<b>0.01073</b>
	(CLK * !D * !Q)	0.01860	<b>0.00134</b>	0.32940	<b>0.00134</b>	2.50740	<b>0.00135</b>
	(!CLK * D * !Q)	0.01860	<b>0.01749</b>	0.32940	<b>0.01762</b>	2.50740	<b>0.02695</b>
	(!CLK * !D * !Q)	0.01860	<b>0.00131</b>	0.32940	<b>0.00130</b>	2.50740	<b>0.00131</b>
sg13g2_dfrbpq_2	(CLK * D * !Q)	0.01860	<b>0.00435</b>	0.32940	<b>0.00444</b>	2.50740	<b>0.01077</b>
	(CLK * !D * !Q)	0.01860	<b>0.00139</b>	0.32940	<b>0.00138</b>	2.50740	<b>0.00139</b>
	(!CLK * D * !Q)	0.01860	<b>0.01751</b>	0.32940	<b>0.01764</b>	2.50740	<b>0.02695</b>
	(!CLK * !D * !Q)	0.01860	<b>0.00135</b>	0.32940	<b>0.00135</b>	2.50740	<b>0.00135</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbpq_1	(CLK * D * !Q)	0.01860	<b>0.03239</b>	0.32940	<b>0.03283</b>	2.50740	<b>0.05293</b>
	(CLK * !D * !Q)	0.01860	<b>-0.00081</b>	0.32940	<b>-0.00104</b>	2.50740	<b>-0.00113</b>
	(!CLK * D * !Q)	0.01860	<b>0.01157</b>	0.32940	<b>0.01145</b>	2.50740	<b>0.02187</b>
	(!CLK * !D * !Q)	0.01860	<b>-0.00114</b>	0.32940	<b>-0.00130</b>	2.50740	<b>-0.00131</b>
sg13g2_dfrbpq_2	(CLK * D * !Q)	0.01860	<b>0.03631</b>	0.32940	<b>0.03682</b>	2.50740	<b>0.05684</b>
	(CLK * !D * !Q)	0.01860	<b>-0.00085</b>	0.32940	<b>-0.00108</b>	2.50740	<b>-0.00117</b>
	(!CLK * D * !Q)	0.01860	<b>0.01156</b>	0.32940	<b>0.01143</b>	2.50740	<b>0.02185</b>
	(!CLK * !D * !Q)	0.01860	<b>-0.00118</b>	0.32940	<b>-0.00135</b>	2.50740	<b>-0.00135</b>

# DFRBPx



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dfrbp_1	52.61760
sg13g2_dfrbp_2	54.43200

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	CLK	D	RESET_B	Q	Q_N
sg13g2_dfrbp_1	0.00277	0.00153	0.00503	0.30000	0.30000
sg13g2_dfrbp_2	0.00278	0.00153	0.00508	0.60000	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dfrbp_1	3446.57000	4168.37000	5017.73000
sg13g2_dfrbp_2	4377.32000	5083.62000	5902.03000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK->Q (RR)	0.01860	0.00100	<b>0.18735</b>	0.32940	0.06480	<b>0.45831</b>	2.50740	0.30000	<b>1.33020</b>
sg13g2_dfrbp_2	CLK->Q (RR)	0.01860	0.00100	<b>0.23935</b>	0.32940	0.12960	<b>0.50487</b>	2.50740	0.60000	<b>1.38340</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK->Q (RF)	0.01860	0.00100	<b>0.17227</b>	0.32940	0.06480	<b>0.42136</b>	2.50740	0.30000	<b>1.17500</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.24346</b>	0.32940	0.06480	<b>0.53224</b>	2.50740	0.30000	<b>1.46890</b>
sg13g2_dfrbp_2	CLK->Q (RF)	0.01860	0.00100	<b>0.20801</b>	0.32940	0.12960	<b>0.45823</b>	2.50740	0.60000	<b>1.21657</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.27989</b>	0.32940	0.12960	<b>0.56949</b>	2.50740	0.60000	<b>1.51108</b>

Delay(ns) to Q\_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	<b>0.13520</b>	0.32940	0.06480	<b>0.43064</b>	2.50740	0.30000	<b>1.27829</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.20653</b>	0.32940	0.06480	<b>0.53957</b>	2.50740	0.30000	<b>1.57097</b>
sg13g2_dfrbp_2	CLK->Q_N (RR)	0.01860	0.00100	<b>0.13954</b>	0.32940	0.12960	<b>0.44504</b>	2.50740	0.60000	<b>1.29520</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.21250</b>	0.32940	0.12960	<b>0.55465</b>	2.50740	0.60000	<b>1.58808</b>

Delay(ns) to Q\_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	<b>0.14451</b>	0.32940	0.06480	<b>0.44332</b>	2.50740	0.30000	<b>1.22935</b>
sg13g2_dfrbp_2	CLK->Q_N (RF)	0.01860	0.00100	<b>0.15495</b>	0.32940	0.12960	<b>0.46802</b>	2.50740	0.60000	<b>1.25630</b>



## Constraint Information

### Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.11185</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>
sg13g2_dfrbp_2	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.13428</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

### Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.12787</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>
sg13g2_dfrbp_2	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.12466</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

### Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.05868</b>	1.26300	1.26300	<b>-0.18619</b>	2.50740	2.50740	<b>-0.24498</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.22666</b>	2.50740	2.50740	<b>0.28630</b>
sg13g2_dfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.05868</b>	1.26300	1.26300	<b>-0.18619</b>	2.50740	2.50740	<b>-0.24203</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.22936</b>	2.50740	2.50740	<b>0.28925</b>

### Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.03668</b>	1.26300	1.26300	<b>-0.18079</b>	2.50740	2.50740	<b>-0.27154</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10514</b>	1.26300	1.26300	<b>0.24825</b>	2.50740	2.50740	<b>0.34533</b>
sg13g2_dfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.03668</b>	1.26300	1.26300	<b>-0.17809</b>	2.50740	2.50740	<b>-0.26859</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.25095</b>	2.50740	2.50740	<b>0.34828</b>

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dfrbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.11492</b>	1.26300	1.26300	<b>0.25365</b>	2.50740	2.50740	<b>0.36304</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.10025</b>	1.26300	1.26300	<b>-0.24555</b>	2.50740	2.50740	<b>-0.35419</b>
sg13g2_dfrbp_2	recovery	CLK (R)	0.01860	0.01860	<b>0.11492</b>	1.26300	1.26300	<b>0.25365</b>	2.50740	2.50740	<b>0.36304</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.10270</b>	1.26300	1.26300	<b>-0.24555</b>	2.50740	2.50740	<b>-0.35419</b>

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

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

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03831</b>	0.32940	0.06480	<b>0.09805</b>	2.50740	0.30000	<b>0.33261</b>
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.04842</b>	0.32940	0.12960	<b>0.16643</b>	2.50740	0.60000	<b>0.61509</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03886</b>	0.32940	0.06480	<b>0.09895</b>	2.50740	0.30000	<b>0.33328</b>
	RESET_B	0.01860	0.00100	<b>0.02728</b>	0.32940	0.06480	<b>0.08639</b>	2.50740	0.30000	<b>0.30987</b>
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.04804</b>	0.32940	0.12960	<b>0.16733</b>	2.50740	0.60000	<b>0.61614</b>
	RESET_B	0.01860	0.00100	<b>0.03658</b>	0.32940	0.12960	<b>0.15491</b>	2.50740	0.60000	<b>0.59254</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03887</b>	0.32940	0.06480	<b>0.09921</b>	2.50740	0.30000	<b>0.33362</b>
	RESET_B	0.01860	0.00100	<b>0.02728</b>	0.32940	0.06480	<b>0.08677</b>	2.50740	0.30000	<b>0.31010</b>
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.04808</b>	0.32940	0.12960	<b>0.16781</b>	2.50740	0.60000	<b>0.61647</b>
	RESET_B	0.01860	0.00100	<b>0.03661</b>	0.32940	0.12960	<b>0.15551</b>	2.50740	0.60000	<b>0.59322</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dfrbp_1	CLK	0.01860	0.00100	<b>0.03835</b>	0.32940	0.06480	<b>0.09777</b>	2.50740	0.30000	<b>0.33217</b>
sg13g2_dfrbp_2	CLK	0.01860	0.00100	<b>0.04847</b>	0.32940	0.12960	<b>0.16599</b>	2.50740	0.60000	<b>0.61487</b>

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	<b>0.01378</b>	0.32940	<b>0.01479</b>	2.50740	<b>0.03431</b>
sg13g2_dfrbp_2	0.01860	<b>0.01384</b>	0.32940	<b>0.01485</b>	2.50740	<b>0.03436</b>

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	<b>0.02611</b>	0.32940	<b>0.02718</b>	2.50740	<b>0.04799</b>
sg13g2_dfrbp_2	0.01860	<b>0.02605</b>	0.32940	<b>0.02712</b>	2.50740	<b>0.04793</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.01378</b>	0.32940	<b>0.01479</b>	2.50740	<b>0.03431</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01433</b>	0.32940	<b>0.01539</b>	2.50740	<b>0.03486</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01351</b>	0.32940	<b>0.01452</b>	2.50740	<b>0.03408</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01415</b>	0.32940	<b>0.01519</b>	2.50740	<b>0.03465</b>
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.01384</b>	0.32940	<b>0.01485</b>	2.50740	<b>0.03436</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01446</b>	0.32940	<b>0.01548</b>	2.50740	<b>0.03496</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01363</b>	0.32940	<b>0.01464</b>	2.50740	<b>0.03419</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01428</b>	0.32940	<b>0.01529</b>	2.50740	<b>0.03476</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.02728</b>	0.32940	<b>0.02836</b>	2.50740	<b>0.04917</b>
	(D * RESET_B * !Q * Q_N)	0.01860	<b>0.02611</b>	0.32940	<b>0.02718</b>	2.50740	<b>0.04799</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01353</b>	0.32940	<b>0.01464</b>	2.50740	<b>0.03479</b>
	(!D * RESET_B * Q * !Q_N)	0.01860	<b>0.08295</b>	0.32940	<b>0.03953</b>	2.50740	<b>0.05979</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01346</b>	0.32940	<b>0.01456</b>	2.50740	<b>0.03471</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01347</b>	0.32940	<b>0.01457</b>	2.50740	<b>0.03471</b>
sg13g2_dfrbp_2	(D * RESET_B * Q * !Q_N)	0.01860	<b>0.02768</b>	0.32940	<b>0.02876</b>	2.50740	<b>0.04958</b>
	(D * RESET_B * !Q * Q_N)	0.01860	<b>0.02605</b>	0.32940	<b>0.02712</b>	2.50740	<b>0.04793</b>
	(D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01352</b>	0.32940	<b>0.01460</b>	2.50740	<b>0.03475</b>
	(!D * RESET_B * Q * !Q_N)	0.01860	<b>0.06056</b>	0.32940	<b>0.04942</b>	2.50740	<b>0.06958</b>
	(!D * RESET_B * !Q * Q_N)	0.01860	<b>0.01343</b>	0.32940	<b>0.01451</b>	2.50740	<b>0.03467</b>
	(!D * !RESET_B * !Q * Q_N)	0.01860	<b>0.01346</b>	0.32940	<b>0.01452</b>	2.50740	<b>0.03467</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	<b>0.00212</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.00960</b>
sg13g2_dfrbp_2	0.01860	<b>0.00213</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.00960</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	<b>0.00157</b>	0.32940	<b>0.00207</b>	2.50740	<b>0.00935</b>
sg13g2_dfrbp_2	0.01860	<b>0.00158</b>	0.32940	<b>0.00208</b>	2.50740	<b>0.00936</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	CLK	0.01860	<b>0.00212</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.00960</b>
	(!CLK * RESET_B)	0.01860	<b>0.01489</b>	0.32940	<b>0.01536</b>	2.50740	<b>0.02311</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00011</b>	0.32940	<b>-0.00011</b>	2.50740	<b>-0.00010</b>
sg13g2_dfrbp_2	CLK	0.01860	<b>0.00213</b>	0.32940	<b>0.00258</b>	2.50740	<b>0.00960</b>
	(!CLK * RESET_B)	0.01860	<b>0.01486</b>	0.32940	<b>0.01532</b>	2.50740	<b>0.02309</b>
	(!CLK * !RESET_B)	0.01860	<b>-0.00011</b>	0.32940	<b>-0.00011</b>	2.50740	<b>-0.00010</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	CLK	0.01860	<b>0.00157</b>	0.32940	<b>0.00207</b>	2.50740	<b>0.00935</b>
	(!CLK * RESET_B)	0.01860	<b>0.01135</b>	0.32940	<b>0.01180</b>	2.50740	<b>0.02035</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00013</b>	0.32940	<b>0.00013</b>	2.50740	<b>0.00013</b>
sg13g2_dfrbp_2	CLK	0.01860	<b>0.00158</b>	0.32940	<b>0.00208</b>	2.50740	<b>0.00936</b>
	(!CLK * RESET_B)	0.01860	<b>0.01138</b>	0.32940	<b>0.01182</b>	2.50740	<b>0.02036</b>
	(!CLK * !RESET_B)	0.01860	<b>0.00012</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)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	<b>0.00431</b>	0.32940	<b>0.00440</b>	2.50740	<b>0.01073</b>
sg13g2_dfrbp_2	0.01860	<b>0.00436</b>	0.32940	<b>0.00446</b>	2.50740	<b>0.01079</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	0.01860	<b>0.01155</b>	0.32940	<b>0.01145</b>	2.50740	<b>0.02187</b>
sg13g2_dfrbp_2	0.01860	<b>0.01152</b>	0.32940	<b>0.01143</b>	2.50740	<b>0.02184</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	<b>0.00431</b>	0.32940	<b>0.00440</b>	2.50740	<b>0.01073</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>0.00135</b>	0.32940	<b>0.00135</b>	2.50740	<b>0.00135</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01749</b>	0.32940	<b>0.01762</b>	2.50740	<b>0.02695</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>0.00131</b>	0.32940	<b>0.00130</b>	2.50740	<b>0.00131</b>
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	<b>0.00436</b>	0.32940	<b>0.00446</b>	2.50740	<b>0.01079</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>0.00140</b>	0.32940	<b>0.00139</b>	2.50740	<b>0.00140</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01751</b>	0.32940	<b>0.01764</b>	2.50740	<b>0.02696</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>0.00137</b>	0.32940	<b>0.00135</b>	2.50740	<b>0.00136</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dfrbp_1	(CLK * D * !Q * Q_N)	0.01860	<b>0.03808</b>	0.32940	<b>0.03859</b>	2.50740	<b>0.05885</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>-0.00081</b>	0.32940	<b>-0.00104</b>	2.50740	<b>-0.00113</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01155</b>	0.32940	<b>0.01145</b>	2.50740	<b>0.02187</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>-0.00114</b>	0.32940	<b>-0.00130</b>	2.50740	<b>-0.00131</b>
sg13g2_dfrbp_2	(CLK * D * !Q * Q_N)	0.01860	<b>0.04757</b>	0.32940	<b>0.04812</b>	2.50740	<b>0.06860</b>
	(CLK * !D * !Q * Q_N)	0.01860	<b>-0.00085</b>	0.32940	<b>-0.00109</b>	2.50740	<b>-0.00117</b>
	(!CLK * D * !Q * Q_N)	0.01860	<b>0.01152</b>	0.32940	<b>0.01143</b>	2.50740	<b>0.02184</b>
	(!CLK * !D * !Q * Q_N)	0.01860	<b>-0.00119</b>	0.32940	<b>-0.00135</b>	2.50740	<b>-0.00136</b>



# DLHQ



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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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	0.00226	0.00228	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhq_1	2192.03000	2682.43000	3355.59000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D->Q (RR)	0.01860	0.00100	<b>0.17854</b>	0.32940	0.06480	<b>0.44166</b>	2.50740	0.30000	<b>1.27654</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.15230</b>	0.32940	0.06480	<b>0.41666</b>	2.50740	0.30000	<b>1.22123</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D->Q (FF)	0.01860	0.00100	<b>0.15605</b>	0.32940	0.06480	<b>0.39813</b>	2.50740	0.30000	<b>1.13877</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.16242</b>	0.32940	0.06480	<b>0.40281</b>	2.50740	0.30000	<b>1.09260</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhq_1	hold	GATE (F)	0.01860	0.01860	<b>-0.09781</b>	1.26300	1.26300	<b>-0.17539</b>	2.50740	2.50740	<b>-0.19185</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.10270</b>	1.26300	1.26300	<b>0.20508</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)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhq_1	hold	GATE (F)	0.01860	0.01860	<b>-0.03912</b>	1.26300	1.26300	<b>0.00000</b>	2.50740	2.50740	<b>0.04132</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.04646</b>	1.26300	1.26300	<b>0.00540</b>	2.50740	2.50740	<b>-0.03542</b>

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhq_1	min_pulse_width	GATE ()	0.01860	0.00000	<b>0.07980</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D	0.01860	0.00100	<b>0.01798</b>	0.32940	0.06480	<b>0.01833</b>	2.50740	0.30000	<b>0.01839</b>
	GATE	0.01860	0.00100	<b>0.01487</b>	0.32940	0.06480	<b>0.01520</b>	2.50740	0.30000	<b>0.01620</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhq_1	D	0.01860	0.00100	<b>0.01905</b>	0.32940	0.06480	<b>0.01945</b>	2.50740	0.30000	<b>0.01974</b>
	GATE	0.01860	0.00100	<b>0.01626</b>	0.32940	0.06480	<b>0.01692</b>	2.50740	0.30000	<b>0.01718</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	<b>0.00467</b>	0.32940	<b>0.00539</b>	2.50740	<b>0.01861</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	<b>0.00466</b>	0.32940	<b>0.00552</b>	2.50740	<b>0.01902</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	(!GATE * Q)	0.01860	<b>0.00467</b>	0.32940	<b>0.00539</b>	2.50740	<b>0.01861</b>
	(!GATE * !Q)	0.01860	<b>0.00423</b>	0.32940	<b>0.00504</b>	2.50740	<b>0.01827</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	(!GATE * Q)	0.01860	<b>0.00442</b>	0.32940	<b>0.00536</b>	2.50740	<b>0.01890</b>
	(!GATE * !Q)	0.01860	<b>0.00466</b>	0.32940	<b>0.00552</b>	2.50740	<b>0.01902</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	<b>0.01108</b>	0.32940	<b>0.01205</b>	2.50740	<b>0.02868</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	0.01860	<b>0.01874</b>	0.32940	<b>0.02030</b>	2.50740	<b>0.03781</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	(!D * !Q)	0.01860	<b>0.01108</b>	0.32940	<b>0.01205</b>	2.50740	<b>0.02868</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhq_1	(!D * !Q)	0.01860	<b>0.01874</b>	0.32940	<b>0.02030</b>	2.50740	<b>0.03781</b>

# DLHRQ



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dlhrq_1	27.21600

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	D	GATE	RESET_B	Q
sg13g2_dlhrq_1	0.00211	0.00218	0.00288	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhrq_1	2461.77000	2911.10000	3378.45000



## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhrq_1	D->Q (RR)	0.01860	0.00100	<b>0.18776</b>	0.32940	0.06480	<b>0.45549</b>	2.50740	0.30000	<b>1.28798</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.16928</b>	0.32940	0.06480	<b>0.44007</b>	2.50740	0.30000	<b>1.24407</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhrq_1	D->Q (FF)	0.01860	0.00100	<b>0.16496</b>	0.32940	0.06480	<b>0.40998</b>	2.50740	0.30000	<b>1.15716</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.17364</b>	0.32940	0.06480	<b>0.41882</b>	2.50740	0.30000	<b>1.12021</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.06557</b>	0.32940	0.06480	<b>0.33084</b>	2.50740	0.30000	<b>1.15404</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhrq_1	hold	GATE (F)	0.01860	0.01860	<b>-0.08803</b>	1.26300	1.26300	<b>-0.15651</b>	2.50740	2.50740	<b>-0.17119</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.09781</b>	1.26300	1.26300	<b>0.18619</b>	2.50740	2.50740	<b>0.21841</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhrq_1	hold	GATE (F)	0.01860	0.01860	<b>-0.04401</b>	1.26300	1.26300	<b>0.00270</b>	2.50740	2.50740	<b>0.04132</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.05135</b>	1.26300	1.26300	<b>0.00540</b>	2.50740	2.50740	<b>-0.03542</b>

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhrq_1	min_pulse_width	GATE ()	0.01860	0.00000	<b>0.08301</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhrq_1	recovery	GATE (F)	0.01860	0.01860	<b>-0.01712</b>	1.26300	1.26300	<b>-0.13492</b>	2.50740	2.50740	<b>-0.20070</b>
	removal	GATE (F)	0.01860	0.01860	<b>0.02934</b>	1.26300	1.26300	<b>0.15111</b>	2.50740	2.50740	<b>0.21546</b>

Constraints(ns) for RESET\_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhrq_1	min_pulse_width	RESET_B ()	0.01860	0.00000	<b>0.20157</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhrq_1	D	0.01860	0.00100	<b>0.00117</b>	0.32940	0.06480	<b>0.00103</b>	2.50740	0.30000	<b>0.00081</b>
	GATE	0.01860	0.00100	<b>0.01159</b>	0.32940	0.06480	<b>0.01193</b>	2.50740	0.30000	<b>0.01196</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhrq_1	D	0.01860	0.00100	<b>-0.00117</b>	0.32940	0.06480	<b>-0.00103</b>	2.50740	0.30000	<b>-0.00081</b>
	GATE	0.01860	0.00100	<b>0.01161</b>	0.32940	0.06480	<b>0.01236</b>	2.50740	0.30000	<b>0.01168</b>
	RESET_B	0.01860	0.00100	<b>0.00940</b>	0.32940	0.06480	<b>0.01069</b>	2.50740	0.30000	<b>0.02662</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	<b>0.02152</b>	0.32940	<b>0.02263</b>	2.50740	<b>0.03623</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	<b>0.02659</b>	0.32940	<b>0.03155</b>	2.50740	<b>0.04560</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(!GATE * RESET_B * Q)	0.01860	<b>0.00145</b>	0.32940	<b>0.00220</b>	2.50740	<b>0.01542</b>
	!RESET_B	0.01860	<b>0.02152</b>	0.32940	<b>0.02263</b>	2.50740	<b>0.03623</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(!GATE * RESET_B * Q)	0.01860	<b>0.00577</b>	0.32940	<b>0.00670</b>	2.50740	<b>0.02024</b>
	!RESET_B	0.01860	<b>0.02659</b>	0.32940	<b>0.03155</b>	2.50740	<b>0.04560</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	<b>0.01510</b>	0.32940	<b>0.01591</b>	2.50740	<b>0.03346</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	<b>0.01902</b>	0.32940	<b>0.02065</b>	2.50740	<b>0.03795</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(D * !RESET_B * !Q)	0.01860	<b>0.01510</b>	0.32940	<b>0.01591</b>	2.50740	<b>0.03346</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01075</b>	0.32940	<b>0.01168</b>	2.50740	<b>0.02819</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(D * !RESET_B * !Q)	0.01860	<b>0.01493</b>	0.32940	<b>0.01600</b>	2.50740	<b>0.03455</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01902</b>	0.32940	<b>0.02065</b>	2.50740	<b>0.03795</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01908</b>	0.32940	<b>0.02076</b>	2.50740	<b>0.03803</b>

Passive power(pJ) for RESET\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	<b>0.00008</b>	0.32940	<b>0.00006</b>	2.50740	<b>0.00008</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	0.01860	<b>0.00022</b>	0.32940	<b>0.00008</b>	2.50740	<b>0.00004</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(D * !GATE * !Q)	0.01860	<b>0.00009</b>	0.32940	<b>0.00007</b>	2.50740	<b>0.00008</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00008</b>	0.32940	<b>0.00006</b>	2.50740	<b>0.00008</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhrq_1	(D * !GATE * !Q)	0.01860	<b>0.00022</b>	0.32940	<b>0.00009</b>	2.50740	<b>0.00004</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00022</b>	0.32940	<b>0.00008</b>	2.50740	<b>0.00004</b>

# DLHR



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dlhr_1	32.65920

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	D	GATE	RESET_B	Q	Q_N
sg13g2_dlhr_1	0.00206	0.00224	0.00304	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlhr_1	3241.39000	3717.17000	4179.22000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D->Q (RR)	0.01860	0.00100	<b>0.20291</b>	0.32940	0.06480	<b>0.47737</b>	2.50740	0.30000	<b>1.30927</b>
	GATE->Q (RR)	0.01860	0.00100	<b>0.18518</b>	0.32940	0.06480	<b>0.46334</b>	2.50740	0.30000	<b>1.26847</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D->Q (FF)	0.01860	0.00100	<b>0.17098</b>	0.32940	0.06480	<b>0.41924</b>	2.50740	0.30000	<b>1.16128</b>
	GATE->Q (RF)	0.01860	0.00100	<b>0.17983</b>	0.32940	0.06480	<b>0.42905</b>	2.50740	0.30000	<b>1.12640</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.07140</b>	0.32940	0.06480	<b>0.34814</b>	2.50740	0.30000	<b>1.18299</b>

Delay(ns) to Q\_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D->Q_N (FR)	0.01860	0.00100	<b>0.21011</b>	0.32940	0.06480	<b>0.46979</b>	2.50740	0.30000	<b>1.30573</b>
	GATE->Q_N (RR)	0.01860	0.00100	<b>0.21909</b>	0.32940	0.06480	<b>0.47980</b>	2.50740	0.30000	<b>1.27081</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.11042</b>	0.32940	0.06480	<b>0.39376</b>	2.50740	0.30000	<b>1.27456</b>

Delay(ns) to Q\_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D->Q_N (RF)	0.01860	0.00100	<b>0.24560</b>	0.32940	0.06480	<b>0.47971</b>	2.50740	0.30000	<b>1.21737</b>
	GATE->Q_N (RF)	0.01860	0.00100	<b>0.22814</b>	0.32940	0.06480	<b>0.46550</b>	2.50740	0.30000	<b>1.17618</b>



## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	hold	GATE (F)	0.01860	0.01860	<b>-0.09536</b>	1.26300	1.26300	<b>-0.16190</b>	2.50740	2.50740	<b>-0.17414</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.10759</b>	1.26300	1.26300	<b>0.19158</b>	2.50740	2.50740	<b>0.22432</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	hold	GATE (F)	0.01860	0.01860	<b>-0.04401</b>	1.26300	1.26300	<b>0.00270</b>	2.50740	2.50740	<b>0.04132</b>
	setup	GATE (F)	0.01860	0.01860	<b>0.05379</b>	1.26300	1.26300	<b>0.00540</b>	2.50740	2.50740	<b>-0.03247</b>

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	min_pulse_width	GATE ()	0.01860	0.00000	<b>0.08942</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	recovery	GATE (F)	0.01860	0.01860	<b>-0.00734</b>	1.26300	1.26300	<b>-0.09174</b>	2.50740	2.50740	<b>-0.13872</b>
	removal	GATE (F)	0.01860	0.01860	<b>0.02201</b>	1.26300	1.26300	<b>0.11063</b>	2.50740	2.50740	<b>0.15348</b>

Constraints(ns) for RESET\_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dlhr_1	min_pulse_width	RESET_B ()	0.01860	0.00000	<b>0.20477</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D	0.01860	0.00100	<b>0.00576</b>	0.32940	0.06480	<b>0.00593</b>	2.50740	0.30000	<b>0.00586</b>
	GATE	0.01860	0.00100	<b>0.01081</b>	0.32940	0.06480	<b>0.01122</b>	2.50740	0.30000	<b>0.01132</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D	0.01860	0.00100	<b>0.00292</b>	0.32940	0.06480	<b>0.00109</b>	2.50740	0.30000	<b>0.00095</b>
	GATE	0.01860	0.00100	<b>0.01080</b>	0.32940	0.06480	<b>0.01128</b>	2.50740	0.30000	<b>0.01093</b>
	RESET_B	0.01860	0.00100	<b>0.00950</b>	0.32940	0.06480	<b>0.01022</b>	2.50740	0.30000	<b>0.01911</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D	0.01860	0.00100	<b>0.00294</b>	0.32940	0.06480	<b>0.00133</b>	2.50740	0.30000	<b>0.00105</b>
	GATE	0.01860	0.00100	<b>0.01812</b>	0.32940	0.06480	<b>0.01921</b>	2.50740	0.30000	<b>0.02762</b>
	RESET_B	0.01860	0.00100	<b>0.00950</b>	0.32940	0.06480	<b>0.01043</b>	2.50740	0.30000	<b>0.01917</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlhr_1	D	0.01860	0.00100	<b>0.00576</b>	0.32940	0.06480	<b>0.00584</b>	2.50740	0.30000	<b>0.00572</b>
	GATE	0.01860	0.00100	<b>0.01080</b>	0.32940	0.06480	<b>0.01106</b>	2.50740	0.30000	<b>0.01110</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	<b>0.02099</b>	0.32940	<b>0.02211</b>	2.50740	<b>0.03570</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	<b>0.02611</b>	0.32940	<b>0.03122</b>	2.50740	<b>0.04534</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(!GATE * RESET_B * Q)	0.01860	<b>0.00412</b>	0.32940	<b>0.00490</b>	2.50740	<b>0.01819</b>
	!RESET_B	0.01860	<b>0.02099</b>	0.32940	<b>0.02211</b>	2.50740	<b>0.03570</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(!GATE * RESET_B * Q)	0.01860	<b>0.00832</b>	0.32940	<b>0.00929</b>	2.50740	<b>0.02289</b>
	!RESET_B	0.01860	<b>0.02611</b>	0.32940	<b>0.03122</b>	2.50740	<b>0.04534</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	<b>0.01464</b>	0.32940	<b>0.01546</b>	2.50740	<b>0.03305</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	<b>0.01876</b>	0.32940	<b>0.02034</b>	2.50740	<b>0.03776</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(D * !RESET_B * !Q)	0.01860	<b>0.01464</b>	0.32940	<b>0.01546</b>	2.50740	<b>0.03305</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01033</b>	0.32940	<b>0.01128</b>	2.50740	<b>0.02790</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(D * !RESET_B * !Q)	0.01860	<b>0.01530</b>	0.32940	<b>0.01636</b>	2.50740	<b>0.03493</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01876</b>	0.32940	<b>0.02034</b>	2.50740	<b>0.03776</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01882</b>	0.32940	<b>0.02040</b>	2.50740	<b>0.03781</b>

Passive power(pJ) for RESET\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	<b>-0.00006</b>	0.32940	<b>-0.00009</b>	2.50740	<b>-0.00007</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	0.01860	<b>0.00034</b>	0.32940	<b>0.00021</b>	2.50740	<b>0.00017</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(D * !GATE * !Q)	0.01860	<b>-0.00006</b>	0.32940	<b>-0.00009</b>	2.50740	<b>-0.00007</b>
	(!D * !GATE * !Q)	0.01860	<b>-0.00006</b>	0.32940	<b>-0.00009</b>	2.50740	<b>-0.00007</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dlhr_1	(D * !GATE * !Q)	0.01860	<b>0.00034</b>	0.32940	<b>0.00021</b>	2.50740	<b>0.00017</b>
	(!D * !GATE * !Q)	0.01860	<b>0.00034</b>	0.32940	<b>0.00021</b>	2.50740	<b>0.00017</b>

# DLLRQ



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dllrq_1	29.03040

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	D	GATE_N	RESET_B	Q
sg13g2_dllrq_1	0.00202	0.00215	0.00291	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllrq_1	2461.64000	2910.99000	3378.55000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D->Q (RR)	0.01860	0.00100	<b>0.18679</b>	0.32940	0.06480	<b>0.45358</b>	2.50740	0.30000	<b>1.28558</b>
	GATE_N->Q (FR)	0.01860	0.00100	<b>0.20831</b>	0.32940	0.06480	<b>0.49134</b>	2.50740	0.30000	<b>1.39077</b>
	RESET_B->Q (RR)	0.01860	0.00100	<b>0.08239</b>	0.32940	0.06480	<b>0.34979</b>	2.50740	0.30000	<b>1.22510</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D->Q (FF)	0.01860	0.00100	<b>0.16408</b>	0.32940	0.06480	<b>0.40729</b>	2.50740	0.30000	<b>1.15072</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.15713</b>	0.32940	0.06480	<b>0.41923</b>	2.50740	0.30000	<b>1.24856</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.06627</b>	0.32940	0.06480	<b>0.33047</b>	2.50740	0.30000	<b>1.15149</b>



## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	hold	GATE_N (R)	0.01860	0.01860	<b>-0.06847</b>	1.26300	1.26300	<b>-0.08635</b>	2.50740	2.50740	<b>-0.11806</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.07580</b>	1.26300	1.26300	<b>0.09444</b>	2.50740	2.50740	<b>0.12397</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	hold	GATE_N (R)	0.01860	0.01860	<b>-0.08314</b>	1.26300	1.26300	<b>-0.22936</b>	2.50740	2.50740	<b>-0.30401</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.09047</b>	1.26300	1.26300	<b>0.25634</b>	2.50740	2.50740	<b>0.34533</b>

Constraints(ns) for GATE\_N falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	min_pulse_width	GATE_N ()	0.01860	0.00000	<b>0.10544</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	recovery	GATE_N (R)	0.01860	0.01860	<b>-0.03912</b>	1.26300	1.26300	<b>-0.08905</b>	2.50740	2.50740	<b>-0.08559</b>
	removal	GATE_N (R)	0.01860	0.01860	<b>0.05135</b>	1.26300	1.26300	<b>0.09984</b>	2.50740	2.50740	<b>0.09445</b>

Constraints(ns) for RESET\_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllrq_1	min_pulse_width	RESET_B ()	0.01860	0.00000	<b>0.19836</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D	0.01860	0.00100	<b>0.00785</b>	0.32940	0.06480	<b>0.00829</b>	2.50740	0.30000	<b>0.00849</b>
	GATE_N	0.01860	0.00100	<b>0.00854</b>	0.32940	0.06480	<b>0.00837</b>	2.50740	0.30000	<b>0.00816</b>
	RESET_B	0.01860	0.00100	<b>0.01163</b>	0.32940	0.06480	<b>0.01211</b>	2.50740	0.30000	<b>0.02626</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllrq_1	D	0.01860	0.00100	<b>0.00516</b>	0.32940	0.06480	<b>0.00043</b>	2.50740	0.30000	<b>0.00010</b>
	GATE_N	0.01860	0.00100	<b>0.00715</b>	0.32940	0.06480	<b>0.00697</b>	2.50740	0.30000	<b>0.00815</b>
	RESET_B	0.01860	0.00100	<b>0.00958</b>	0.32940	0.06480	<b>0.01087</b>	2.50740	0.30000	<b>0.02686</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	<b>0.01468</b>	0.32940	<b>0.01527</b>	2.50740	<b>0.02847</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	<b>0.01720</b>	0.32940	<b>0.02318</b>	2.50740	<b>0.03723</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(GATE_N * RESET_B * Q)	0.01860	<b>0.00137</b>	0.32940	<b>0.00213</b>	2.50740	<b>0.01540</b>
	!RESET_B	0.01860	<b>0.01468</b>	0.32940	<b>0.01527</b>	2.50740	<b>0.02847</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(GATE_N * RESET_B * Q)	0.01860	<b>0.00569</b>	0.32940	<b>0.00665</b>	2.50740	<b>0.02024</b>
	!RESET_B	0.01860	<b>0.01720</b>	0.32940	<b>0.02318</b>	2.50740	<b>0.03723</b>

Passive power(pJ) for GATE\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	<b>0.01642</b>	0.32940	<b>0.01724</b>	2.50740	<b>0.03359</b>

Passive power(pJ) for GATE\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	<b>0.01889</b>	0.32940	<b>0.02053</b>	2.50740	<b>0.03800</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(D * !RESET_B * !Q)	0.01860	<b>0.01642</b>	0.32940	<b>0.01724</b>	2.50740	<b>0.03359</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.00959</b>	0.32940	<b>0.01054</b>	2.50740	<b>0.02710</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(D * !RESET_B * !Q)	0.01860	<b>0.01586</b>	0.32940	<b>0.01690</b>	2.50740	<b>0.03415</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01889</b>	0.32940	<b>0.02053</b>	2.50740	<b>0.03800</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01896</b>	0.32940	<b>0.02059</b>	2.50740	<b>0.03810</b>

Passive power(pJ) for RESET\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	<b>0.00017</b>	0.32940	<b>0.00015</b>	2.50740	<b>0.00016</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	0.01860	<b>0.00023</b>	0.32940	<b>0.00010</b>	2.50740	<b>0.00005</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(D * GATE_N * !Q)	0.01860	<b>0.00017</b>	0.32940	<b>0.00015</b>	2.50740	<b>0.00016</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00017</b>	0.32940	<b>0.00015</b>	2.50740	<b>0.00016</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllrq_1	(D * GATE_N * !Q)	0.01860	<b>0.00023</b>	0.32940	<b>0.00010</b>	2.50740	<b>0.00005</b>
	(!D * GATE_N * !Q)	0.01860	<b>0.00023</b>	0.32940	<b>0.00010</b>	2.50740	<b>0.00005</b>

# DLLR



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_dllr_1	34.47360

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	D	GATE_N	RESET_B	Q	Q_N
sg13g2_dllr_1	0.00213	0.00229	0.00300	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dllr_1	3240.99000	3809.48000	4179.07000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D->Q (RR)	0.01860	0.00100	<b>0.20472</b>	0.32940	0.06480	<b>0.47874</b>	2.50740	0.30000	<b>1.30986</b>
	GATE_N->Q (FR)	0.01860	0.00100	<b>0.22616</b>	0.32940	0.06480	<b>0.51724</b>	2.50740	0.30000	<b>1.41660</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D->Q (FF)	0.01860	0.00100	<b>0.17297</b>	0.32940	0.06480	<b>0.42078</b>	2.50740	0.30000	<b>1.16286</b>
	GATE_N->Q (FF)	0.01860	0.00100	<b>0.16695</b>	0.32940	0.06480	<b>0.43493</b>	2.50740	0.30000	<b>1.26651</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.07128</b>	0.32940	0.06480	<b>0.35236</b>	2.50740	0.30000	<b>1.16669</b>

Delay(ns) to Q\_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D->Q_N (FR)	0.01860	0.00100	<b>0.21189</b>	0.32940	0.06480	<b>0.47110</b>	2.50740	0.30000	<b>1.30620</b>
	GATE_N->Q_N (FR)	0.01860	0.00100	<b>0.20607</b>	0.32940	0.06480	<b>0.48535</b>	2.50740	0.30000	<b>1.40872</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.11100</b>	0.32940	0.06480	<b>0.39504</b>	2.50740	0.30000	<b>1.28186</b>

Delay(ns) to Q\_N falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D->Q_N (RF)	0.01860	0.00100	<b>0.24717</b>	0.32940	0.06480	<b>0.48114</b>	2.50740	0.30000	<b>1.21826</b>
	GATE_N->Q_N (FF)	0.01860	0.00100	<b>0.26883</b>	0.32940	0.06480	<b>0.51952</b>	2.50740	0.30000	<b>1.32555</b>

## Constraint Information

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	hold	GATE_N (R)	0.01860	0.01860	<b>-0.07580</b>	1.26300	1.26300	<b>-0.09174</b>	2.50740	2.50740	<b>-0.12101</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.08803</b>	1.26300	1.26300	<b>0.10254</b>	2.50740	2.50740	<b>0.13282</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	hold	GATE_N (R)	0.01860	0.01860	<b>-0.08803</b>	1.26300	1.26300	<b>-0.23206</b>	2.50740	2.50740	<b>-0.30696</b>
	setup	GATE_N (R)	0.01860	0.01860	<b>0.09536</b>	1.26300	1.26300	<b>0.25904</b>	2.50740	2.50740	<b>0.35419</b>

Constraints(ns) for GATE\_N falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	min_pulse_width	GATE_N ()	0.01860	0.00000	<b>0.11505</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	recovery	GATE_N (R)	0.01860	0.01860	<b>-0.02934</b>	1.26300	1.26300	<b>-0.05127</b>	2.50740	2.50740	<b>-0.02656</b>
	removal	GATE_N (R)	0.01860	0.01860	<b>0.04401</b>	1.26300	1.26300	<b>0.06476</b>	2.50740	2.50740	<b>0.03837</b>

Constraints(ns) for RESET\_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_dllr_1	min_pulse_width	RESET_B ()	0.01860	0.00000	<b>0.20477</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>



## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D	0.01860	0.00100	<b>0.01219</b>	0.32940	0.06480	<b>0.07046</b>	2.50740	0.30000	<b>0.28456</b>
	GATE_N	0.01860	0.00100	<b>0.02258</b>	0.32940	0.06480	<b>0.08168</b>	2.50740	0.30000	<b>0.29592</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D	0.01860	0.00100	<b>0.00896</b>	0.32940	0.06480	<b>0.05899</b>	2.50740	0.30000	<b>0.27311</b>
	GATE_N	0.01860	0.00100	<b>0.02051</b>	0.32940	0.06480	<b>0.07928</b>	2.50740	0.30000	<b>0.29480</b>
	RESET_B	0.01860	0.00100	<b>0.02953</b>	0.32940	0.06480	<b>0.08850</b>	2.50740	0.30000	<b>0.31746</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D	0.01860	0.00100	<b>0.00899</b>	0.32940	0.06480	<b>0.05945</b>	2.50740	0.30000	<b>0.27344</b>
	GATE_N	0.01860	0.00100	<b>0.03670</b>	0.32940	0.06480	<b>0.09695</b>	2.50740	0.30000	<b>0.32934</b>
	RESET_B	0.01860	0.00100	<b>0.02953</b>	0.32940	0.06480	<b>0.08891</b>	2.50740	0.30000	<b>0.31782</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dllr_1	D	0.01860	0.00100	<b>0.01219</b>	0.32940	0.06480	<b>0.07013</b>	2.50740	0.30000	<b>0.28414</b>
	GATE_N	0.01860	0.00100	<b>0.02258</b>	0.32940	0.06480	<b>0.08136</b>	2.50740	0.30000	<b>0.29576</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	<b>0.02181</b>	0.32940	<b>0.02320</b>	2.50740	<b>0.03684</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	<b>0.02379</b>	0.32940	<b>0.03335</b>	2.50740	<b>0.04737</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(GATE_N * RESET_B * Q)	0.01860	<b>0.00419</b>	0.32940	<b>0.00498</b>	2.50740	<b>0.01826</b>
	!RESET_B	0.01860	<b>0.02181</b>	0.32940	<b>0.02320</b>	2.50740	<b>0.03684</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(GATE_N * RESET_B * Q)	0.01860	<b>0.00401</b>	0.32940	<b>0.00498</b>	2.50740	<b>0.01860</b>
	!RESET_B	0.01860	<b>0.02379</b>	0.32940	<b>0.03335</b>	2.50740	<b>0.04737</b>

Passive power(pJ) for GATE\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	<b>0.01748</b>	0.32940	<b>0.02078</b>	2.50740	<b>0.03740</b>

Passive power(pJ) for GATE\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	<b>0.01616</b>	0.32940	<b>0.01720</b>	2.50740	<b>0.03446</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(D * !RESET_B * !Q)	0.01860	<b>0.01648</b>	0.32940	<b>0.01731</b>	2.50740	<b>0.03365</b>
	(!D * RESET_B * !Q)	0.01860	<b>0.01748</b>	0.32940	<b>0.02078</b>	2.50740	<b>0.03740</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01755</b>	0.32940	<b>0.02086</b>	2.50740	<b>0.03746</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(D * !RESET_B * !Q)	0.01860	<b>0.01616</b>	0.32940	<b>0.01720</b>	2.50740	<b>0.03446</b>
	(!D * !RESET_B * !Q)	0.01860	<b>0.01059</b>	0.32940	<b>0.01167</b>	2.50740	<b>0.02904</b>

Passive power(pJ) for RESET\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	<b>0.00338</b>	0.32940	<b>0.00335</b>	2.50740	<b>0.00337</b>

Passive power(pJ) for RESET\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	0.01860	<b>0.00039</b>	0.32940	<b>0.00025</b>	2.50740	<b>0.00021</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(D * GATE_N * !Q)	0.01860	<b>0.00338</b>	0.32940	<b>0.00335</b>	2.50740	<b>0.00337</b>
	(!D * GATE_N * !Q)	0.01860	<b>-0.00009</b>	0.32940	<b>-0.00012</b>	2.50740	<b>-0.00010</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_dllr_1	(D * GATE_N * !Q)	0.01860	0.00038	0.32940	0.00025	2.50740	0.00021
	(!D * GATE_N * !Q)	0.01860	0.00039	0.32940	0.00025	2.50740	0.00021

# DLYGATE4SD1



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell*  
*Library: Process*  
*sg13g2\_stdcell\_slow\_1p35V\_125C,*  
*Voltage 1.35, Temp 125.00*

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## Truth Table

INPUT	OUTPUT
A	X
0	0
1	1

## Footprint

Cell Name	Area
sg13g2_dlygate4sd1_1	14.51520

## Pin Capacitance Information

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

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd1_1	1250.77000	1439.16000	1627.55000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd1_1	A->X (RR)	0.01860	0.00100	<b>0.11907</b>	0.32940	0.06480	<b>0.38201</b>	2.50740	0.30000	<b>1.15773</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd1_1	A->X (FF)	0.01860	0.00100	<b>0.13631</b>	0.32940	0.06480	<b>0.40320</b>	2.50740	0.30000	<b>1.26194</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd1_1	A	0.01860	0.00100	<b>0.01569</b>	0.32940	0.06480	<b>0.01629</b>	2.50740	0.30000	<b>0.02449</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd1_1	A	0.01860	0.00100	<b>0.01504</b>	0.32940	0.06480	<b>0.01590</b>	2.50740	0.30000	<b>0.02435</b>



# DLYGATE4SD2



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell*  
*Library: Process*  
*sg13g2\_stdcell\_slow\_1p35V\_125C,*  
*Voltage 1.35, Temp 125.00*

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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	0.00147	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd2_1	1270.93000	1459.31000	1647.70000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd2_1	A->X (RR)	0.01860	0.00100	<b>0.17621</b>	0.32940	0.06480	<b>0.45234</b>	2.50740	0.30000	<b>1.27021</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd2_1	A->X (FF)	0.01860	0.00100	<b>0.19696</b>	0.32940	0.06480	<b>0.48451</b>	2.50740	0.30000	<b>1.38170</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd2_1	A	0.01860	0.00100	<b>0.01864</b>	0.32940	0.06480	<b>0.01917</b>	2.50740	0.30000	<b>0.02676</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd2_1	A	0.01860	0.00100	<b>0.01811</b>	0.32940	0.06480	<b>0.01875</b>	2.50740	0.30000	<b>0.02683</b>

# DLYGATE4SD3



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell*  
*Library: Process*  
*sg13g2\_stdcell\_slow\_1p35V\_125C,*  
*Voltage 1.35, Temp 125.00*

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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	0.00148	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_dlygate4sd3_1	2554.52000	2742.91000	2931.30000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd3_1	A->X (RR)	0.01860	0.00100	<b>0.38601</b>	0.32940	0.06480	<b>0.69729</b>	2.50740	0.30000	<b>1.59349</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd3_1	A->X (FF)	0.01860	0.00100	<b>0.40435</b>	0.32940	0.06480	<b>0.73207</b>	2.50740	0.30000	<b>1.71723</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd3_1	A	0.01860	0.00100	<b>0.02690</b>	0.32940	0.06480	<b>0.02686</b>	2.50740	0.30000	<b>0.03339</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_dlygate4sd3_1	A	0.01860	0.00100	<b>0.02664</b>	0.32940	0.06480	<b>0.02662</b>	2.50740	0.30000	<b>0.03312</b>



# EBUFN<sub>x</sub>



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp  
125.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_ebufn_2	18.14400
sg13g2_ebufn_4	27.21600
sg13g2_ebufn_8	45.36000

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_ebufn_2	0.00259	0.00612	0.60000
sg13g2_ebufn_4	0.00292	0.00994	1.20000
sg13g2_ebufn_8	0.00570	0.01657	2.40000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_ebufn_2	1171.81000	1486.29000	1947.78000
sg13g2_ebufn_4	1611.89000	2240.96000	3625.90000
sg13g2_ebufn_8	2462.43000	3998.34000	7045.57000

## Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_ebufn_2	A->Z (RR)	0.01860	0.00583	<b>0.06457</b>	0.32940	0.13443	<b>0.53863</b>	2.50740	0.60483	<b>2.12074</b>
	TE_B->Z (RR)	0.01860	0.00583	<b>0.04849</b>	0.32940	0.13443	<b>0.10403</b>	2.50740	0.60483	<b>0.20371</b>
	TE_B->Z (FR)	0.01860	0.00583	<b>0.03517</b>	0.32940	0.13443	<b>0.52363</b>	2.50740	0.60483	<b>2.58920</b>
sg13g2_ebufn_4	A->Z (RR)	0.01860	0.01049	<b>0.07648</b>	0.32940	0.26869	<b>0.57503</b>	2.50740	1.20949	<b>2.20226</b>
	TE_B->Z (RR)	0.01860	0.01049	<b>0.05673</b>	0.32940	0.26869	<b>0.12467</b>	2.50740	1.20949	<b>0.24850</b>
	TE_B->Z (FR)	0.01860	0.01049	<b>0.03476</b>	0.32940	0.26869	<b>0.52731</b>	2.50740	1.20949	<b>2.60190</b>
sg13g2_ebufn_8	A->Z (RR)	0.01860	0.01969	<b>0.07423</b>	0.32940	0.53709	<b>0.57379</b>	2.50740	2.41869	<b>2.19726</b>
	TE_B->Z (RR)	0.01860	0.01969	<b>0.07383</b>	0.32940	0.53709	<b>0.16800</b>	2.50740	2.41869	<b>0.35322</b>
	TE_B->Z (FR)	0.01860	0.01969	<b>0.03468</b>	0.32940	0.53709	<b>0.52890</b>	2.50740	2.41869	<b>2.60662</b>

Delay(ns) to Z falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_ebufn_2	A->Z (FF)	0.01860	0.00845	<b>0.06546</b>	0.32940	0.13705	<b>0.44167</b>	2.50740	0.60745	<b>1.65693</b>
	TE_B->Z (RF)	0.01860	0.00845	<b>0.02936</b>	0.32940	0.13705	<b>0.05488</b>	2.50740	0.60745	<b>0.25370</b>
	TE_B->Z (FF)	0.01860	0.00845	<b>0.06146</b>	0.32940	0.13705	<b>0.53803</b>	2.50740	0.60745	<b>2.15592</b>
sg13g2_ebufn_4	A->Z (FF)	0.01860	0.01556	<b>0.08484</b>	0.32940	0.27376	<b>0.48751</b>	2.50740	1.21456	<b>1.76403</b>
	TE_B->Z (RF)	0.01860	0.01556	<b>0.03039</b>	0.32940	0.27376	<b>0.05549</b>	2.50740	1.21456	<b>0.25535</b>
	TE_B->Z (FF)	0.01860	0.01556	<b>0.07243</b>	0.32940	0.27376	<b>0.57457</b>	2.50740	1.21456	<b>2.24121</b>
sg13g2_ebufn_8	A->Z (FF)	0.01860	0.02961	<b>0.08243</b>	0.32940	0.54701	<b>0.48555</b>	2.50740	2.42861	<b>1.76067</b>
	TE_B->Z (RF)	0.01860	0.02961	<b>0.03133</b>	0.32940	0.54701	<b>0.05703</b>	2.50740	2.42861	<b>0.25806</b>
	TE_B->Z (FF)	0.01860	0.02961	<b>0.09500</b>	0.32940	0.54701	<b>0.62971</b>	2.50740	2.42861	<b>2.37369</b>

## Power Information

Internal switching power(pJ) to Z rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_ebufn_2	A	0.01860	0.00583	<b>0.00619</b>	0.32940	0.13443	<b>0.00728</b>	2.50740	0.60483	<b>0.00496</b>
	TE_B	0.01860	0.00583	<b>0.00326</b>	0.32940	0.13443	<b>0.00286</b>	2.50740	0.60483	<b>0.00276</b>
sg13g2_ebufn_4	A	0.01860	0.01049	<b>0.01149</b>	0.32940	0.26869	<b>0.01408</b>	2.50740	1.20949	<b>0.01050</b>
	TE_B	0.01860	0.01049	<b>0.00630</b>	0.32940	0.26869	<b>0.00568</b>	2.50740	1.20949	<b>0.00562</b>
sg13g2_ebufn_8	A	0.01860	0.01969	<b>0.02279</b>	0.32940	0.53709	<b>0.02805</b>	2.50740	2.41869	<b>0.02431</b>
	TE_B	0.01860	0.01969	<b>0.01286</b>	0.32940	0.53709	<b>0.01127</b>	2.50740	2.41869	<b>0.01159</b>

Internal switching power(pJ) to Z falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_ebufn_2	A	0.01860	0.00845	<b>0.00989</b>	0.32940	0.13705	<b>0.01069</b>	2.50740	0.60745	<b>0.00941</b>
	TE_B	0.01860	0.00845	<b>0.00366</b>	0.32940	0.13705	<b>0.02814</b>	2.50740	0.60745	<b>0.12051</b>
sg13g2_ebufn_4	A	0.01860	0.01556	<b>0.02009</b>	0.32940	0.27376	<b>0.02188</b>	2.50740	1.21456	<b>0.01880</b>
	TE_B	0.01860	0.01556	<b>0.00708</b>	0.32940	0.27376	<b>0.05629</b>	2.50740	1.21456	<b>0.24089</b>
sg13g2_ebufn_8	A	0.01860	0.02961	<b>0.04023</b>	0.32940	0.54701	<b>0.04383</b>	2.50740	2.42861	<b>0.03568</b>
	TE_B	0.01860	0.02961	<b>0.01373</b>	0.32940	0.54701	<b>0.11404</b>	2.50740	2.42861	<b>0.48019</b>

Passive power(pJ) for A rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_2	0.01860	<b>0.00977</b>	0.32940	<b>0.01080</b>	2.50740	<b>0.02694</b>
sg13g2_ebufn_4	0.01860	<b>0.01804</b>	0.32940	<b>0.01898</b>	2.50740	<b>0.03708</b>
sg13g2_ebufn_8	0.01860	<b>0.03537</b>	0.32940	<b>0.03736</b>	2.50740	<b>0.07381</b>

Passive power(pJ) for A falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_2	0.01860	<b>0.00416</b>	0.32940	<b>0.00545</b>	2.50740	<b>0.02196</b>
sg13g2_ebufn_4	0.01860	<b>0.00660</b>	0.32940	<b>0.00786</b>	2.50740	<b>0.02637</b>
sg13g2_ebufn_8	0.01860	<b>0.01236</b>	0.32940	<b>0.01495</b>	2.50740	<b>0.05222</b>

Passive power(pJ) for TE\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_2	0.01860	<b>0.00043</b>	0.32940	<b>0.00098</b>	2.50740	<b>0.01693</b>
sg13g2_ebufn_4	0.01860	<b>-0.00086</b>	0.32940	<b>-0.00083</b>	2.50740	<b>0.01674</b>
sg13g2_ebufn_8	0.01860	<b>-0.00451</b>	0.32940	<b>-0.00537</b>	2.50740	<b>0.01041</b>

Passive power(pJ) for TE\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_ebufn_2	0.01860	<b>0.01577</b>	0.32940	<b>0.01713</b>	2.50740	<b>0.03354</b>
sg13g2_ebufn_4	0.01860	<b>0.03042</b>	0.32940	<b>0.03148</b>	2.50740	<b>0.04995</b>
sg13g2_ebufn_8	0.01860	<b>0.05828</b>	0.32940	<b>0.05905</b>	2.50740	<b>0.07630</b>

# EINVN<sub>x</sub>



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_einvn_2	16.32960
sg13g2_einvn_4	23.58720
sg13g2_einvn_8	39.91680

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	TE_B	Z
sg13g2_einvn_2	0.00412	0.00480	0.60000
sg13g2_einvn_4	0.00802	0.00894	1.20000
sg13g2_einvn_8	0.01586	0.01532	2.40000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_einvn_2	594.24000	1149.30000	1704.37000
sg13g2_einvn_4	1199.74000	2309.88000	3420.01000
sg13g2_einvn_8	2193.61000	4413.88000	6634.15000

## Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_einvn_2	A->Z (FR)	0.01860	0.00585	<b>0.02714</b>	0.32940	0.13445	<b>0.55055</b>	2.50740	0.60485	<b>2.85924</b>
	TE_B->Z (RR)	0.01860	0.00585	<b>0.05373</b>	0.32940	0.13445	<b>0.12158</b>	2.50740	0.60485	<b>0.25818</b>
	TE_B->Z (FR)	0.01860	0.00585	<b>0.03335</b>	0.32940	0.13445	<b>0.52327</b>	2.50740	0.60485	<b>2.59276</b>
sg13g2_einvn_4	A->Z (FR)	0.01860	0.01046	<b>0.02518</b>	0.32940	0.26866	<b>0.55103</b>	2.50740	1.20946	<b>2.86190</b>
	TE_B->Z (RR)	0.01860	0.01046	<b>0.05487</b>	0.32940	0.26866	<b>0.12390</b>	2.50740	1.20946	<b>0.24758</b>
	TE_B->Z (FR)	0.01860	0.01046	<b>0.03188</b>	0.32940	0.26866	<b>0.52334</b>	2.50740	1.20946	<b>2.59282</b>
sg13g2_einvn_8	A->Z (FR)	0.01860	0.01996	<b>0.02428</b>	0.32940	0.53736	<b>0.55254</b>	2.50740	2.41896	<b>2.86843</b>
	TE_B->Z (RR)	0.01860	0.01996	<b>0.07208</b>	0.32940	0.53736	<b>0.16790</b>	2.50740	2.41896	<b>0.35205</b>
	TE_B->Z (FR)	0.01860	0.01996	<b>0.03247</b>	0.32940	0.53736	<b>0.52578</b>	2.50740	2.41896	<b>2.59758</b>

Delay(ns) to Z falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_einvn_2	A->Z (RF)	0.01860	0.00848	<b>0.02375</b>	0.32940	0.13708	<b>0.45467</b>	2.50740	0.60748	<b>2.40588</b>
sg13g2_einvn_4	A->Z (RF)	0.01860	0.01558	<b>0.02207</b>	0.32940	0.27377	<b>0.45470</b>	2.50740	1.21458	<b>2.40563</b>
sg13g2_einvn_8	A->Z (RF)	0.01860	0.03000	<b>0.02133</b>	0.32940	0.54740	<b>0.45712</b>	2.50740	2.42900	<b>2.41382</b>



## Power Information

Internal switching power(pJ) to Z rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_einvn_2	A	0.01860	0.00585	<b>0.00331</b>	0.32940	0.13445	<b>0.00459</b>	2.50740	0.60485	<b>0.01081</b>
	TE_B	0.01860	0.00585	<b>0.00933</b>	0.32940	0.13445	<b>0.00878</b>	2.50740	0.60485	<b>0.00832</b>
sg13g2_einvn_4	A	0.01860	0.01046	<b>0.00652</b>	0.32940	0.26866	<b>0.00931</b>	2.50740	1.20946	<b>0.02237</b>
	TE_B	0.01860	0.01046	<b>0.01894</b>	0.32940	0.26866	<b>0.01780</b>	2.50740	1.20946	<b>0.01657</b>
sg13g2_einvn_8	A	0.01860	0.01996	<b>0.01292</b>	0.32940	0.53736	<b>0.01828</b>	2.50740	2.41896	<b>0.04319</b>
	TE_B	0.01860	0.01996	<b>0.04228</b>	0.32940	0.53736	<b>0.03757</b>	2.50740	2.41896	<b>0.03548</b>

Internal switching power(pJ) to Z falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_einvn_2	A	0.01860	0.00848	<b>0.00345</b>	0.32940	0.13708	<b>0.00487</b>	2.50740	0.60748	<b>0.01034</b>
sg13g2_einvn_4	A	0.01860	0.01558	<b>0.00651</b>	0.32940	0.27377	<b>0.00958</b>	2.50740	1.21458	<b>0.02067</b>
sg13g2_einvn_8	A	0.01860	0.03000	<b>0.01268</b>	0.32940	0.54740	<b>0.01873</b>	2.50740	2.42900	<b>0.04018</b>

Passive power(pJ) for A rising :

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

Passive power(pJ) for A falling :

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

Passive power(pJ) for TE\_B rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_2	0.01860	<b>-0.00638</b>	0.32940	<b>-0.00610</b>	2.50740	<b>0.00320</b>
sg13g2_einvn_4	0.01860	<b>-0.01451</b>	0.32940	<b>-0.01395</b>	2.50740	<b>0.00388</b>
sg13g2_einvn_8	0.01860	<b>-0.02899</b>	0.32940	<b>-0.03310</b>	2.50740	<b>-0.02066</b>

Passive power(pJ) for TE\_B falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_einvn_2	0.01860	<b>0.00900</b>	0.32940	<b>0.00982</b>	2.50740	<b>0.01979</b>
sg13g2_einvn_4	0.01860	<b>0.01780</b>	0.32940	<b>0.01945</b>	2.50740	<b>0.03884</b>
sg13g2_einvn_8	0.01860	<b>0.02899</b>	0.32940	<b>0.03310</b>	2.50740	<b>0.05196</b>

# FILLx



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Footprint

Cell Name	Area
sg13g2_fill_1	1.81440
sg13g2_fill_2	3.62880
sg13g2_fill_4	7.25760
sg13g2_fill_8	14.51520

## Pin Capacitance Information Leakage Information

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

# INV<sub>x</sub>



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

INPUT	OUTPUT
A	Y
0	1
1	0

## Footprint

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

## Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	A	Y
sg13g2_inv_1	0.00281	0.30000
sg13g2_inv_16	0.04267	4.80000
sg13g2_inv_2	0.00556	0.60000
sg13g2_inv_4	0.01099	1.20000
sg13g2_inv_8	0.02199	2.40000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_inv_1	205.86900	483.36300	760.85600
sg13g2_inv_16	3291.05000	7731.67000	12172.30000
sg13g2_inv_2	411.38900	966.47000	1521.55000
sg13g2_inv_4	822.76200	1932.92000	3043.07000
sg13g2_inv_8	1645.53000	3865.87000	6086.21000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_inv_1	A->Y (FR)	0.01860	0.00100	<b>0.02028</b>	0.32940	0.06480	<b>0.36080</b>	2.50740	0.30000	<b>1.98832</b>
sg13g2_inv_16	A->Y (FR)	0.01860	0.00100	<b>0.01824</b>	0.32940	1.03680	<b>0.36430</b>	2.50740	4.80000	<b>1.99680</b>
sg13g2_inv_2	A->Y (FR)	0.01860	0.00100	<b>0.01733</b>	0.32940	0.12960	<b>0.36002</b>	2.50740	0.60000	<b>1.98755</b>
sg13g2_inv_4	A->Y (FR)	0.01860	0.00100	<b>0.01615</b>	0.32940	0.25920	<b>0.36045</b>	2.50740	1.20000	<b>1.99021</b>
sg13g2_inv_8	A->Y (FR)	0.01860	0.00100	<b>0.01578</b>	0.32940	0.51840	<b>0.36077</b>	2.50740	2.40000	<b>1.99094</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_inv_1	A->Y (RF)	0.01860	0.00100	<b>0.01994</b>	0.32940	0.06480	<b>0.33959</b>	2.50740	0.30000	<b>1.86389</b>
sg13g2_inv_16	A->Y (RF)	0.01860	0.00100	<b>0.01826</b>	0.32940	1.03680	<b>0.34319</b>	2.50740	4.80000	<b>1.87170</b>
sg13g2_inv_2	A->Y (RF)	0.01860	0.00100	<b>0.01703</b>	0.32940	0.12960	<b>0.33872</b>	2.50740	0.60000	<b>1.86332</b>
sg13g2_inv_4	A->Y (RF)	0.01860	0.00100	<b>0.01588</b>	0.32940	0.25920	<b>0.33998</b>	2.50740	1.20000	<b>1.86972</b>
sg13g2_inv_8	A->Y (RF)	0.01860	0.00100	<b>0.01550</b>	0.32940	0.51840	<b>0.34100</b>	2.50740	2.40000	<b>1.86970</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_inv_1	A	0.01860	0.00100	<b>0.00191</b>	0.32940	0.06480	<b>0.00242</b>	2.50740	0.30000	<b>0.00677</b>
sg13g2_inv_16	A	0.01860	0.00100	<b>0.02561</b>	0.32940	1.03680	<b>0.03608</b>	2.50740	4.80000	<b>0.10683</b>
sg13g2_inv_2	A	0.01860	0.00100	<b>0.00327</b>	0.32940	0.12960	<b>0.00446</b>	2.50740	0.60000	<b>0.01324</b>
sg13g2_inv_4	A	0.01860	0.00100	<b>0.00646</b>	0.32940	0.25920	<b>0.00898</b>	2.50740	1.20000	<b>0.02700</b>
sg13g2_inv_8	A	0.01860	0.00100	<b>0.01283</b>	0.32940	0.51840	<b>0.01801</b>	2.50740	2.40000	<b>0.05391</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_inv_1	A	0.01860	0.00100	<b>0.00202</b>	0.32940	0.06480	<b>0.00261</b>	2.50740	0.30000	<b>0.00685</b>
sg13g2_inv_16	A	0.01860	0.00100	<b>0.02323</b>	0.32940	1.03680	<b>0.03615</b>	2.50740	4.80000	<b>0.10557</b>
sg13g2_inv_2	A	0.01860	0.00100	<b>0.00310</b>	0.32940	0.12960	<b>0.00450</b>	2.50740	0.60000	<b>0.01313</b>
sg13g2_inv_4	A	0.01860	0.00100	<b>0.00588</b>	0.32940	0.25920	<b>0.00889</b>	2.50740	1.20000	<b>0.02621</b>
sg13g2_inv_8	A	0.01860	0.00100	<b>0.01164</b>	0.32940	0.51840	<b>0.01719</b>	2.50740	2.40000	<b>0.05203</b>

# LGCP



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

INPUT		OUTPUT
CLK	GATE	GCLK
0	x	0
1	x	GCLK

## Footprint

Cell Name	Area
sg13g2_lgcp_1	27.21600

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	CLK	GATE	GCLK
sg13g2_lgcp_1	0.00486	0.00229	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_lgcp_1	2636.05000	2874.13000	3045.12000



## Delay Information

Delay(ns) to GCLK rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_lgcp_1	CLK->GCLK (RR)	0.01860	0.00100	<b>0.07274</b>	0.32940	0.06480	<b>0.33567</b>	2.50740	0.30000	<b>1.19974</b>

Delay(ns) to GCLK falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_lgcp_1	CLK->GCLK (FF)	0.01860	0.00100	<b>0.06103</b>	0.32940	0.06480	<b>0.31899</b>	2.50740	0.30000	<b>1.12584</b>

## Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_lgcp_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.24002</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_lgcp_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.09903</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_lgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.03900</b>	1.26300	1.26300	<b>-0.15598</b>	2.50740	2.50740	<b>-0.24733</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07575</b>	1.26300	1.26300	<b>0.21385</b>	2.50740	2.50740	<b>0.31808</b>

Constraints(ns) for GATE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_lgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.01698</b>	1.26300	1.26300	<b>-0.02578</b>	2.50740	2.50740	<b>-0.03757</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.05186</b>	1.26300	1.26300	<b>0.07326</b>	2.50740	2.50740	<b>0.09400</b>

## Power Information

Internal switching power(pJ) to GCLK rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_lgcp_1	CLK	0.01860	0.00100	<b>0.01056</b>	0.32940	0.06480	<b>0.01105</b>	2.50740	0.30000	<b>0.02326</b>

Internal switching power(pJ) to GCLK falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_lgcp_1	CLK	0.01860	0.00100	<b>0.00768</b>	0.32940	0.06480	<b>0.00894</b>	2.50740	0.30000	<b>0.02215</b>

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	<b>0.00897</b>	0.32940	<b>0.00994</b>	2.50740	<b>0.02639</b>

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	<b>0.01031</b>	0.32940	<b>0.01127</b>	2.50740	<b>0.02866</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	<b>0.02376</b>	0.32940	<b>0.02538</b>	2.50740	<b>0.03857</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	0.01860	<b>0.01566</b>	0.32940	<b>0.03571</b>	2.50740	<b>0.04957</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	!CLK	0.01860	<b>0.02376</b>	0.32940	<b>0.02538</b>	2.50740	<b>0.03857</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_lgcp_1	!CLK	0.01860	<b>0.01566</b>	0.32940	<b>0.03571</b>	2.50740	<b>0.04957</b>

# MUX2x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_mux2_1	18.14400
sg13g2_mux2_2	19.95840

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A0	A1	S	X
sg13g2_mux2_1	0.00273	0.00285	0.00498	0.30000
sg13g2_mux2_2	0.00273	0.00283	0.00497	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux2_1	1203.82000	1680.13000	2354.83000
sg13g2_mux2_2	1618.97000	2163.25000	2560.33000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	A0->X (RR)	0.01860	0.00100	<b>0.07864</b>	0.32940	0.06480	<b>0.35699</b>	2.50740	0.30000	<b>1.21902</b>
	A1->X (RR)	0.01860	0.00100	<b>0.07435</b>	0.32940	0.06480	<b>0.35629</b>	2.50740	0.30000	<b>1.22904</b>
	S->X (-R)	0.01860	0.00100	<b>0.08209</b>	0.32940	0.06480	<b>0.35493</b>	2.50740	0.30000	<b>1.22318</b>
sg13g2_mux2_2	A0->X (RR)	0.01860	0.00100	<b>0.08419</b>	0.32940	0.12960	<b>0.38663</b>	2.50740	0.60000	<b>1.28875</b>
	A1->X (RR)	0.01860	0.00100	<b>0.08464</b>	0.32940	0.12960	<b>0.38992</b>	2.50740	0.60000	<b>1.29680</b>
	S->X (-R)	0.01860	0.00100	<b>0.09349</b>	0.32940	0.12960	<b>0.38496</b>	2.50740	0.60000	<b>1.28660</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	A0->X (FF)	0.01860	0.00100	<b>0.09584</b>	0.32940	0.06480	<b>0.38030</b>	2.50740	0.30000	<b>1.26975</b>
	A1->X (FF)	0.01860	0.00100	<b>0.09573</b>	0.32940	0.06480	<b>0.38077</b>	2.50740	0.30000	<b>1.27193</b>
	S->X (-F)	0.01860	0.00100	<b>0.10796</b>	0.32940	0.06480	<b>0.36765</b>	2.50740	0.30000	<b>1.21358</b>
sg13g2_mux2_2	A0->X (FF)	0.01860	0.00100	<b>0.11522</b>	0.32940	0.12960	<b>0.42616</b>	2.50740	0.60000	<b>1.35392</b>
	A1->X (FF)	0.01860	0.00100	<b>0.11492</b>	0.32940	0.12960	<b>0.42643</b>	2.50740	0.60000	<b>1.35591</b>
	S->X (-F)	0.01860	0.00100	<b>0.12772</b>	0.32940	0.12960	<b>0.40959</b>	2.50740	0.60000	<b>1.28910</b>

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	S->X (RR)	(!A0 * A1)	0.01860	0.00100	<b>0.08209</b>	0.32940	0.06480	<b>0.35493</b>	2.50740	0.30000	<b>1.22318</b>
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	<b>0.11679</b>	0.32940	0.06480	<b>0.38559</b>	2.50740	0.30000	<b>1.22309</b>
sg13g2_mux2_2	S->X (RR)	(!A0 * A1)	0.01860	0.00100	<b>0.09349</b>	0.32940	0.12960	<b>0.38496</b>	2.50740	0.60000	<b>1.28660</b>
	S->X (FR)	(A0 * !A1)	0.01860	0.00100	<b>0.12838</b>	0.32940	0.12960	<b>0.40697</b>	2.50740	0.60000	<b>1.24832</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	S->X (FF)	(!A0 * A1)	0.01860	0.00100	<b>0.10796</b>	0.32940	0.06480	<b>0.36765</b>	2.50740	0.30000	<b>1.21358</b>
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	<b>0.14035</b>	0.32940	0.06480	<b>0.39311</b>	2.50740	0.30000	<b>1.13903</b>
sg13g2_mux2_2	S->X (FF)	(!A0 * A1)	0.01860	0.00100	<b>0.12772</b>	0.32940	0.12960	<b>0.40959</b>	2.50740	0.60000	<b>1.28910</b>
	S->X (RF)	(A0 * !A1)	0.01860	0.00100	<b>0.16022</b>	0.32940	0.12960	<b>0.42841</b>	2.50740	0.60000	<b>1.17594</b>



## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	A0	0.01860	0.00100	<b>0.00990</b>	0.32940	0.06480	<b>0.01042</b>	2.50740	0.30000	<b>0.02391</b>
	A1	0.01860	0.00100	<b>0.01120</b>	0.32940	0.06480	<b>0.01197</b>	2.50740	0.30000	<b>0.02608</b>
	S	0.01860	0.00100	<b>0.01198</b>	0.32940	0.06480	<b>0.01247</b>	2.50740	0.30000	<b>0.02524</b>
sg13g2_mux2_2	A0	0.01860	0.00100	<b>0.01616</b>	0.32940	0.12960	<b>0.01686</b>	2.50740	0.60000	<b>0.03042</b>
	A1	0.01860	0.00100	<b>0.01621</b>	0.32940	0.12960	<b>0.01705</b>	2.50740	0.60000	<b>0.03063</b>
	S	0.01860	0.00100	<b>0.01692</b>	0.32940	0.12960	<b>0.01756</b>	2.50740	0.60000	<b>0.02988</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	A0	0.01860	0.00100	<b>0.01106</b>	0.32940	0.06480	<b>0.01200</b>	2.50740	0.30000	<b>0.02650</b>
	A1	0.01860	0.00100	<b>0.01097</b>	0.32940	0.06480	<b>0.01187</b>	2.50740	0.30000	<b>0.02650</b>
	S	0.01860	0.00100	<b>0.01129</b>	0.32940	0.06480	<b>0.01185</b>	2.50740	0.30000	<b>0.02521</b>
sg13g2_mux2_2	A0	0.01860	0.00100	<b>0.01660</b>	0.32940	0.12960	<b>0.01673</b>	2.50740	0.60000	<b>0.03123</b>
	A1	0.01860	0.00100	<b>0.01650</b>	0.32940	0.12960	<b>0.01661</b>	2.50740	0.60000	<b>0.03130</b>
	S	0.01860	0.00100	<b>0.01648</b>	0.32940	0.12960	<b>0.01663</b>	2.50740	0.60000	<b>0.02991</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	<b>0.01182</b>	0.32940	0.06480	<b>0.01216</b>	2.50740	0.30000	<b>0.01212</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01198</b>	0.32940	0.06480	<b>0.01247</b>	2.50740	0.30000	<b>0.02524</b>
sg13g2_mux2_2	S	(A0 * !A1)	0.01860	0.00100	<b>0.01670</b>	0.32940	0.12960	<b>0.01734</b>	2.50740	0.60000	<b>0.01724</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01692</b>	0.32940	0.12960	<b>0.01756</b>	2.50740	0.60000	<b>0.02988</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux2_1	S	(A0 * !A1)	0.01860	0.00100	<b>0.01243</b>	0.32940	0.06480	<b>0.01265</b>	2.50740	0.30000	<b>0.01291</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01129</b>	0.32940	0.06480	<b>0.01185</b>	2.50740	0.30000	<b>0.02521</b>
sg13g2_mux2_2	S	(A0 * !A1)	0.01860	0.00100	<b>0.01770</b>	0.32940	0.12960	<b>0.01765</b>	2.50740	0.60000	<b>0.01800</b>
	S	(!A0 * A1)	0.01860	0.00100	<b>0.01648</b>	0.32940	0.12960	<b>0.01663</b>	2.50740	0.60000	<b>0.02991</b>

Passive power(pJ) for S rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_1	0.01860	<b>0.00465</b>	0.32940	<b>0.00538</b>	2.50740	<b>0.01839</b>
sg13g2_mux2_2	0.01860	<b>0.00464</b>	0.32940	<b>0.00537</b>	2.50740	<b>0.01839</b>

Passive power(pJ) for S falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_1	0.01860	<b>0.00502</b>	0.32940	<b>0.00581</b>	2.50740	<b>0.01930</b>
sg13g2_mux2_2	0.01860	<b>0.00502</b>	0.32940	<b>0.00581</b>	2.50740	<b>0.01931</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_1	(A0 * A1)	0.01860	<b>0.00452</b>	0.32940	<b>0.00510</b>	2.50740	<b>0.01829</b>
	(!A0 * !A1)	0.01860	<b>0.00465</b>	0.32940	<b>0.00538</b>	2.50740	<b>0.01839</b>
sg13g2_mux2_2	(A0 * A1)	0.01860	<b>0.00452</b>	0.32940	<b>0.00509</b>	2.50740	<b>0.01828</b>
	(!A0 * !A1)	0.01860	<b>0.00464</b>	0.32940	<b>0.00537</b>	2.50740	<b>0.01839</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux2_1	(A0 * A1)	0.01860	<b>0.00459</b>	0.32940	<b>0.00554</b>	2.50740	<b>0.01889</b>
	(!A0 * !A1)	0.01860	<b>0.00502</b>	0.32940	<b>0.00581</b>	2.50740	<b>0.01930</b>
sg13g2_mux2_2	(A0 * A1)	0.01860	<b>0.00460</b>	0.32940	<b>0.00554</b>	2.50740	<b>0.01890</b>
	(!A0 * !A1)	0.01860	<b>0.00502</b>	0.32940	<b>0.00581</b>	2.50740	<b>0.01931</b>

# MUX4



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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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	0.00275	0.00273	0.00275	0.00281	0.00816	0.00494	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_mux4_1	1583.43000	3711.46000	5416.67000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	A0->X (RR)	0.01860	0.00100	<b>0.13784</b>	0.32940	0.06480	<b>0.43706</b>	2.50740	0.30000	<b>1.39086</b>
	A1->X (RR)	0.01860	0.00100	<b>0.13262</b>	0.32940	0.06480	<b>0.43466</b>	2.50740	0.30000	<b>1.38624</b>
	A2->X (RR)	0.01860	0.00100	<b>0.14207</b>	0.32940	0.06480	<b>0.44727</b>	2.50740	0.30000	<b>1.41124</b>
	A3->X (RR)	0.01860	0.00100	<b>0.13928</b>	0.32940	0.06480	<b>0.44527</b>	2.50740	0.30000	<b>1.40981</b>
	S0->X (-R)	0.01860	0.00100	<b>0.12125</b>	0.32940	0.06480	<b>0.43357</b>	2.50740	0.30000	<b>1.38851</b>
	S1->X (-R)	0.01860	0.00100	<b>0.06957</b>	0.32940	0.06480	<b>0.35175</b>	2.50740	0.30000	<b>1.21855</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	A0->X (FF)	0.01860	0.00100	<b>0.15702</b>	0.32940	0.06480	<b>0.44411</b>	2.50740	0.30000	<b>1.30886</b>
	A1->X (FF)	0.01860	0.00100	<b>0.15910</b>	0.32940	0.06480	<b>0.44484</b>	2.50740	0.30000	<b>1.30993</b>
	A2->X (FF)	0.01860	0.00100	<b>0.16815</b>	0.32940	0.06480	<b>0.45945</b>	2.50740	0.30000	<b>1.33566</b>
	A3->X (FF)	0.01860	0.00100	<b>0.16838</b>	0.32940	0.06480	<b>0.45866</b>	2.50740	0.30000	<b>1.33462</b>
	S0->X (-F)	0.01860	0.00100	<b>0.14541</b>	0.32940	0.06480	<b>0.45139</b>	2.50740	0.30000	<b>1.35483</b>
	S1->X (-F)	0.01860	0.00100	<b>0.08342</b>	0.32940	0.06480	<b>0.35932</b>	2.50740	0.30000	<b>1.19842</b>

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	S0->X (RR)	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.12125</b>	0.32940	0.06480	<b>0.43357</b>	2.50740	0.30000	<b>1.38851</b>
	S0->X (RR)	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.11327</b>	0.32940	0.06480	<b>0.41892</b>	2.50740	0.30000	<b>1.35854</b>
	S0->X (FR)	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.17631</b>	0.32940	0.06480	<b>0.47435</b>	2.50740	0.30000	<b>1.36883</b>
	S0->X (FR)	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.17045</b>	0.32940	0.06480	<b>0.46603</b>	2.50740	0.30000	<b>1.35663</b>
	S1->X (RR)	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.06957</b>	0.32940	0.06480	<b>0.35175</b>	2.50740	0.30000	<b>1.21855</b>
	S1->X (RR)	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.06941</b>	0.32940	0.06480	<b>0.35166</b>	2.50740	0.30000	<b>1.21850</b>
	S1->X (FR)	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.09280</b>	0.32940	0.06480	<b>0.37348</b>	2.50740	0.30000	<b>1.21108</b>
	S1->X (FR)	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.09246</b>	0.32940	0.06480	<b>0.37296</b>	2.50740	0.30000	<b>1.21130</b>

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



Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	S0->X (FF)	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.14541</b>	0.32940	0.06480	<b>0.45139</b>	2.50740	0.30000	<b>1.35483</b>
	S0->X (FF)	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.13140</b>	0.32940	0.06480	<b>0.43109</b>	2.50740	0.30000	<b>1.31764</b>
	S0->X (RF)	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.19396</b>	0.32940	0.06480	<b>0.48400</b>	2.50740	0.30000	<b>1.28167</b>
	S0->X (RF)	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.18300</b>	0.32940	0.06480	<b>0.47007</b>	2.50740	0.30000	<b>1.26323</b>
	S1->X (FF)	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.08342</b>	0.32940	0.06480	<b>0.35932</b>	2.50740	0.30000	<b>1.19842</b>
	S1->X (FF)	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.08319</b>	0.32940	0.06480	<b>0.35922</b>	2.50740	0.30000	<b>1.19833</b>
	S1->X (RF)	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.10307</b>	0.32940	0.06480	<b>0.37696</b>	2.50740	0.30000	<b>1.12977</b>
	S1->X (RF)	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.10324</b>	0.32940	0.06480	<b>0.37702</b>	2.50740	0.30000	<b>1.12980</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	A0	0.01860	0.00100	<b>0.02342</b>	0.32940	0.06480	<b>0.02354</b>	2.50740	0.30000	<b>0.03412</b>
	A1	0.01860	0.00100	<b>0.01466</b>	0.32940	0.06480	<b>0.01485</b>	2.50740	0.30000	<b>0.02535</b>
	A2	0.01860	0.00100	<b>0.01680</b>	0.32940	0.06480	<b>0.01696</b>	2.50740	0.30000	<b>0.02739</b>
	A3	0.01860	0.00100	<b>0.02261</b>	0.32940	0.06480	<b>0.02268</b>	2.50740	0.30000	<b>0.03316</b>
	S0	0.01860	0.00100	<b>0.01155</b>	0.32940	0.06480	<b>0.01224</b>	2.50740	0.30000	<b>0.02448</b>
	S1	0.01860	0.00100	<b>0.00604</b>	0.32940	0.06480	<b>0.00687</b>	2.50740	0.30000	<b>0.01802</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	A0	0.01860	0.00100	<b>0.01594</b>	0.32940	0.06480	<b>0.01593</b>	2.50740	0.30000	<b>0.02732</b>
	A1	0.01860	0.00100	<b>0.01630</b>	0.32940	0.06480	<b>0.01636</b>	2.50740	0.30000	<b>0.02779</b>
	A2	0.01860	0.00100	<b>0.01682</b>	0.32940	0.06480	<b>0.01674</b>	2.50740	0.30000	<b>0.02797</b>
	A3	0.01860	0.00100	<b>0.02369</b>	0.32940	0.06480	<b>0.02369</b>	2.50740	0.30000	<b>0.03500</b>
	S0	0.01860	0.00100	<b>0.01070</b>	0.32940	0.06480	<b>0.01131</b>	2.50740	0.30000	<b>0.02425</b>
	S1	0.01860	0.00100	<b>0.00597</b>	0.32940	0.06480	<b>0.00692</b>	2.50740	0.30000	<b>0.01878</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	S0	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.01662</b>	0.32940	0.06480	<b>0.01349</b>	2.50740	0.30000	<b>0.00049</b>
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.01658</b>	0.32940	0.06480	<b>0.01351</b>	2.50740	0.30000	<b>0.00023</b>
	S0	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.02067</b>	0.32940	0.06480	<b>0.02257</b>	2.50740	0.30000	<b>0.02178</b>
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.01155</b>	0.32940	0.06480	<b>0.01224</b>	2.50740	0.30000	<b>0.02448</b>
	S1	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.00917</b>	0.32940	0.06480	<b>0.01073</b>	2.50740	0.30000	<b>0.01908</b>
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.00956</b>	0.32940	0.06480	<b>0.01109</b>	2.50740	0.30000	<b>0.01985</b>
	S1	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00604</b>	0.32940	0.06480	<b>0.00687</b>	2.50740	0.30000	<b>0.01802</b>
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00550</b>	0.32940	0.06480	<b>0.00635</b>	2.50740	0.30000	<b>0.01751</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_mux4_1	S0	(A2 * !A3 * S1)	0.01860	0.00100	<b>0.02552</b>	0.32940	0.06480	<b>0.02666</b>	2.50740	0.30000	<b>0.01431</b>
	S0	(A0 * !A1 * !S1)	0.01860	0.00100	<b>0.02525</b>	0.32940	0.06480	<b>0.02711</b>	2.50740	0.30000	<b>0.01450</b>
	S0	(!A2 * A3 * S1)	0.01860	0.00100	<b>0.01125</b>	0.32940	0.06480	<b>0.01068</b>	2.50740	0.30000	<b>0.02404</b>
	S0	(!A0 * A1 * !S1)	0.01860	0.00100	<b>0.01070</b>	0.32940	0.06480	<b>0.01131</b>	2.50740	0.30000	<b>0.02425</b>
	S1	(A1 * !A3 * S0)	0.01860	0.00100	<b>0.00968</b>	0.32940	0.06480	<b>0.01116</b>	2.50740	0.30000	<b>0.01983</b>
	S1	(A0 * !A2 * !S0)	0.01860	0.00100	<b>0.00969</b>	0.32940	0.06480	<b>0.01117</b>	2.50740	0.30000	<b>0.01983</b>
	S1	(!A1 * A3 * S0)	0.01860	0.00100	<b>0.00597</b>	0.32940	0.06480	<b>0.00692</b>	2.50740	0.30000	<b>0.01878</b>
	S1	(!A0 * A2 * !S0)	0.01860	0.00100	<b>0.00566</b>	0.32940	0.06480	<b>0.00663</b>	2.50740	0.30000	<b>0.01845</b>

Passive power(pJ) for S0 rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	<b>0.01017</b>	0.32940	<b>0.01175</b>	2.50740	<b>0.04092</b>

Passive power(pJ) for S0 falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	<b>0.01424</b>	0.32940	<b>0.01811</b>	2.50740	<b>0.04831</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	(A2 * A3 * S1)	0.01860	<b>0.00958</b>	0.32940	<b>0.01137</b>	2.50740	<b>0.04091</b>
	(A0 * A1 * !S1)	0.01860	<b>0.01017</b>	0.32940	<b>0.01175</b>	2.50740	<b>0.04092</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.00983</b>	0.32940	<b>0.01168</b>	2.50740	<b>0.04134</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.01104</b>	0.32940	<b>0.01267</b>	2.50740	<b>0.04178</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	(A2 * A3 * S1)	0.01860	<b>0.01272</b>	0.32940	<b>0.01567</b>	2.50740	<b>0.04632</b>
	(A0 * A1 * !S1)	0.01860	<b>0.01424</b>	0.32940	<b>0.01811</b>	2.50740	<b>0.04831</b>
	(!A2 * !A3 * S1)	0.01860	<b>0.01509</b>	0.32940	<b>0.01572</b>	2.50740	<b>0.03215</b>
	(!A0 * !A1 * !S1)	0.01860	<b>0.01959</b>	0.32940	<b>0.02432</b>	2.50740	<b>0.04077</b>

Passive power(pJ) for S1 rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	<b>0.00500</b>	0.32940	<b>0.00621</b>	2.50740	<b>0.02258</b>

Passive power(pJ) for S1 falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	0.01860	<b>0.00484</b>	0.32940	<b>0.00628</b>	2.50740	<b>0.02309</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	(A1 * A3 * S0)	0.01860	<b>0.00375</b>	0.32940	<b>0.00494</b>	2.50740	<b>0.02118</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00374</b>	0.32940	<b>0.00494</b>	2.50740	<b>0.02119</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00500</b>	0.32940	<b>0.00621</b>	2.50740	<b>0.02258</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00506</b>	0.32940	<b>0.00630</b>	2.50740	<b>0.02260</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_mux4_1	(A1 * A3 * S0)	0.01860	<b>0.00368</b>	0.32940	<b>0.00522</b>	2.50740	<b>0.02197</b>
	(A0 * A2 * !S0)	0.01860	<b>0.00368</b>	0.32940	<b>0.00522</b>	2.50740	<b>0.02195</b>
	(!A1 * !A3 * S0)	0.01860	<b>0.00481</b>	0.32940	<b>0.00624</b>	2.50740	<b>0.02335</b>
	(!A0 * !A2 * !S0)	0.01860	<b>0.00484</b>	0.32940	<b>0.00628</b>	2.50740	<b>0.02309</b>

# NAND2Bx



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp  
125.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2b_1	9.07200
sg13g2_nand2b_2	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A_N	B	Y
sg13g2_nand2b_1	0.00222	0.00298	0.30000
sg13g2_nand2b_2	0.00217	0.00549	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2b_1	330.21900	860.18800	1660.51000
sg13g2_nand2b_2	585.22700	1357.36000	3178.70000



## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2b_1	A_N->Y (RR)	0.01860	0.00100	<b>0.05343</b>	0.32940	0.06480	<b>0.31848</b>	2.50740	0.30000	<b>1.17877</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02613</b>	0.32940	0.06480	<b>0.36826</b>	2.50740	0.30000	<b>1.99608</b>
sg13g2_nand2b_2	A_N->Y (RR)	0.01860	0.00100	<b>0.07034</b>	0.32940	0.12960	<b>0.35744</b>	2.50740	0.60000	<b>1.25859</b>
	B->Y (FR)	0.01860	0.00100	<b>0.01989</b>	0.32940	0.12960	<b>0.36266</b>	2.50740	0.60000	<b>1.98837</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2b_1	A_N->Y (FF)	0.01860	0.00100	<b>0.06248</b>	0.32940	0.06480	<b>0.41575</b>	2.50740	0.30000	<b>1.58983</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03768</b>	0.32940	0.06480	<b>0.43848</b>	2.50740	0.30000	<b>2.23273</b>
sg13g2_nand2b_2	A_N->Y (FF)	0.01860	0.00100	<b>0.08307</b>	0.32940	0.12960	<b>0.47486</b>	2.50740	0.60000	<b>1.74817</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02709</b>	0.32940	0.12960	<b>0.46675</b>	2.50740	0.60000	<b>2.45913</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2b_1	A_N	0.01860	0.00100	<b>0.00275</b>	0.32940	0.06480	<b>0.00292</b>	2.50740	0.30000	<b>0.00217</b>
	B	0.01860	0.00100	<b>0.00265</b>	0.32940	0.06480	<b>0.00288</b>	2.50740	0.30000	<b>0.00680</b>
sg13g2_nand2b_2	A_N	0.01860	0.00100	<b>0.00495</b>	0.32940	0.12960	<b>0.00505</b>	2.50740	0.60000	<b>0.00447</b>
	B	0.01860	0.00100	<b>0.00364</b>	0.32940	0.12960	<b>0.00471</b>	2.50740	0.60000	<b>0.01209</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2b_1	A_N	0.01860	0.00100	<b>0.00507</b>	0.32940	0.06480	<b>0.00527</b>	2.50740	0.30000	<b>0.00441</b>
	B	0.01860	0.00100	<b>0.00516</b>	0.32940	0.06480	<b>0.00529</b>	2.50740	0.30000	<b>0.00824</b>
sg13g2_nand2b_2	A_N	0.01860	0.00100	<b>0.01056</b>	0.32940	0.12960	<b>0.01155</b>	2.50740	0.60000	<b>0.01123</b>
	B	0.01860	0.00100	<b>0.00563</b>	0.32940	0.12960	<b>0.00671</b>	2.50740	0.60000	<b>0.01304</b>

Passive power(pJ) for A\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_1	0.01860	<b>0.00475</b>	0.32940	<b>0.00566</b>	2.50740	<b>0.01906</b>
sg13g2_nand2b_2	0.01860	<b>0.00817</b>	0.32940	<b>0.00867</b>	2.50740	<b>0.02100</b>

Passive power(pJ) for A\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_1	0.01860	<b>0.00293</b>	0.32940	<b>0.00392</b>	2.50740	<b>0.01755</b>
sg13g2_nand2b_2	0.01860	<b>0.00727</b>	0.32940	<b>0.00785</b>	2.50740	<b>0.02062</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_1	!B	0.01860	<b>0.00475</b>	0.32940	<b>0.00566</b>	2.50740	<b>0.01906</b>
sg13g2_nand2b_2	!B	0.01860	<b>0.00817</b>	0.32940	<b>0.00867</b>	2.50740	<b>0.02100</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand2b_1	!B	0.01860	<b>0.00293</b>	0.32940	<b>0.00392</b>	2.50740	<b>0.01755</b>
sg13g2_nand2b_2	!B	0.01860	<b>0.00727</b>	0.32940	<b>0.00785</b>	2.50740	<b>0.02062</b>

# NAND2x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp  
125.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nand2_1	7.25760
sg13g2_nand2_2	10.88640

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_nand2_1	0.00282	0.00294	0.30000
sg13g2_nand2_2	0.00547	0.00563	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand2_1	79.50780	505.77400	1521.50000
sg13g2_nand2_2	155.98400	1003.02000	3039.74000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2_1	A->Y (FR)	0.01860	0.00100	<b>0.02247</b>	0.32940	0.06480	<b>0.36299</b>	2.50740	0.30000	<b>1.98886</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02651</b>	0.32940	0.06480	<b>0.36765</b>	2.50740	0.30000	<b>1.99444</b>
sg13g2_nand2_2	A->Y (FR)	0.01860	0.00100	<b>0.02008</b>	0.32940	0.12960	<b>0.36300</b>	2.50740	0.60000	<b>1.99014</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02449</b>	0.32940	0.12960	<b>0.36800</b>	2.50740	0.60000	<b>1.99724</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2_1	A->Y (RF)	0.01860	0.00100	<b>0.03002</b>	0.32940	0.06480	<b>0.45422</b>	2.50740	0.30000	<b>2.39615</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03518</b>	0.32940	0.06480	<b>0.43544</b>	2.50740	0.30000	<b>2.22774</b>
sg13g2_nand2_2	A->Y (RF)	0.01860	0.00100	<b>0.02740</b>	0.32940	0.12960	<b>0.46629</b>	2.50740	0.60000	<b>2.45874</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03349</b>	0.32940	0.12960	<b>0.44824</b>	2.50740	0.60000	<b>2.28777</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2_1	A	0.01860	0.00100	<b>0.00211</b>	0.32940	0.06480	<b>0.00257</b>	2.50740	0.30000	<b>0.00623</b>
	B	0.01860	0.00100	<b>0.00249</b>	0.32940	0.06480	<b>0.00270</b>	2.50740	0.30000	<b>0.00669</b>
sg13g2_nand2_2	A	0.01860	0.00100	<b>0.00368</b>	0.32940	0.12960	<b>0.00472</b>	2.50740	0.60000	<b>0.01178</b>
	B	0.01860	0.00100	<b>0.00499</b>	0.32940	0.12960	<b>0.00545</b>	2.50740	0.60000	<b>0.01326</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand2_1	A	0.01860	0.00100	<b>0.00299</b>	0.32940	0.06480	<b>0.00340</b>	2.50740	0.30000	<b>0.00688</b>
	B	0.01860	0.00100	<b>0.00513</b>	0.32940	0.06480	<b>0.00527</b>	2.50740	0.30000	<b>0.00836</b>
sg13g2_nand2_2	A	0.01860	0.00100	<b>0.00565</b>	0.32940	0.12960	<b>0.00664</b>	2.50740	0.60000	<b>0.01310</b>
	B	0.01860	0.00100	<b>0.00978</b>	0.32940	0.12960	<b>0.01021</b>	2.50740	0.60000	<b>0.01601</b>

# NAND3B



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp  
125.00*

## 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	0.00220	0.00293	0.00295	0.30000

## Leakage Information



Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3b_1	221.53200	766.47900	2421.19000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3b_1	A_N->Y (RR)	0.01860	0.00100	<b>0.05649</b>	0.32940	0.06480	<b>0.32020</b>	2.50740	0.30000	<b>1.17810</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02942</b>	0.32940	0.06480	<b>0.37134</b>	2.50740	0.30000	<b>1.99802</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03199</b>	0.32940	0.06480	<b>0.37542</b>	2.50740	0.30000	<b>2.00316</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3b_1	A_N->Y (FF)	0.01860	0.00100	<b>0.07592</b>	0.32940	0.06480	<b>0.54034</b>	2.50740	0.30000	<b>2.12598</b>
	B->Y (RF)	0.01860	0.00100	<b>0.05588</b>	0.32940	0.06480	<b>0.56623</b>	2.50740	0.30000	<b>2.78987</b>
	C->Y (RF)	0.01860	0.00100	<b>0.06025</b>	0.32940	0.06480	<b>0.54785</b>	2.50740	0.30000	<b>2.59915</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3b_1	A_N	0.01860	0.00100	<b>0.00279</b>	0.32940	0.06480	<b>0.00287</b>	2.50740	0.30000	<b>0.00217</b>
	B	0.01860	0.00100	<b>0.00293</b>	0.32940	0.06480	<b>0.00309</b>	2.50740	0.30000	<b>0.00640</b>
	C	0.01860	0.00100	<b>0.00326</b>	0.32940	0.06480	<b>0.00330</b>	2.50740	0.30000	<b>0.00686</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3b_1	A_N	0.01860	0.00100	<b>0.00698</b>	0.32940	0.06480	<b>0.00704</b>	2.50740	0.30000	<b>0.00625</b>
	B	0.01860	0.00100	<b>0.00678</b>	0.32940	0.06480	<b>0.00697</b>	2.50740	0.30000	<b>0.00902</b>
	C	0.01860	0.00100	<b>0.00867</b>	0.32940	0.06480	<b>0.00866</b>	2.50740	0.30000	<b>0.01092</b>

Passive power(pJ) for A\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand3b_1	0.01860	<b>0.00490</b>	0.32940	<b>0.00582</b>	2.50740	<b>0.01921</b>

Passive power(pJ) for A\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand3b_1	0.01860	<b>0.00265</b>	0.32940	<b>0.00363</b>	2.50740	<b>0.01728</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand3b_1	(B * !C) + (!B)	0.01860	<b>0.00490</b>	0.32940	<b>0.00582</b>	2.50740	<b>0.01921</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nand3b_1	(B * !C) + (!B)	0.01860	<b>0.00265</b>	0.32940	<b>0.00363</b>	2.50740	<b>0.01728</b>

# NAND3



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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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	0.00281	0.00296	0.00294	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand3_1	79.68280	412.09900	2282.24000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3_1	A->Y (FR)	0.01860	0.00100	<b>0.02558</b>	0.32940	0.06480	<b>0.36615</b>	2.50740	0.30000	<b>1.99170</b>
	B->Y (FR)	0.01860	0.00100	<b>0.02977</b>	0.32940	0.06480	<b>0.37103</b>	2.50740	0.30000	<b>1.99751</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03185</b>	0.32940	0.06480	<b>0.37509</b>	2.50740	0.30000	<b>2.00219</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3_1	A->Y (RF)	0.01860	0.00100	<b>0.04366</b>	0.32940	0.06480	<b>0.57146</b>	2.50740	0.30000	<b>2.91387</b>
	B->Y (RF)	0.01860	0.00100	<b>0.05313</b>	0.32940	0.06480	<b>0.56331</b>	2.50740	0.30000	<b>2.78475</b>
	C->Y (RF)	0.01860	0.00100	<b>0.05735</b>	0.32940	0.06480	<b>0.54460</b>	2.50740	0.30000	<b>2.59441</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3_1	A	0.01860	0.00100	<b>0.00232</b>	0.32940	0.06480	<b>0.00268</b>	2.50740	0.30000	<b>0.00612</b>
	B	0.01860	0.00100	<b>0.00270</b>	0.32940	0.06480	<b>0.00284</b>	2.50740	0.30000	<b>0.00632</b>
	C	0.01860	0.00100	<b>0.00306</b>	0.32940	0.06480	<b>0.00309</b>	2.50740	0.30000	<b>0.00664</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand3_1	A	0.01860	0.00100	<b>0.00467</b>	0.32940	0.06480	<b>0.00511</b>	2.50740	0.30000	<b>0.00770</b>
	B	0.01860	0.00100	<b>0.00684</b>	0.32940	0.06480	<b>0.00690</b>	2.50740	0.30000	<b>0.00910</b>
	C	0.01860	0.00100	<b>0.00867</b>	0.32940	0.06480	<b>0.00874</b>	2.50740	0.30000	<b>0.01087</b>



# NAND4



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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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	0.00280	0.00296	0.00298	0.00296	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nand4_1	82.16050	314.81600	3043.08000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand4_1	A->Y (FR)	0.01860	0.00100	<b>0.02723</b>	0.32940	0.06480	<b>0.36792</b>	2.50740	0.30000	<b>1.99203</b>
	B->Y (FR)	0.01860	0.00100	<b>0.03158</b>	0.32940	0.06480	<b>0.37286</b>	2.50740	0.30000	<b>1.99856</b>
	C->Y (FR)	0.01860	0.00100	<b>0.03401</b>	0.32940	0.06480	<b>0.37722</b>	2.50740	0.30000	<b>2.00483</b>
	D->Y (FR)	0.01860	0.00100	<b>0.03486</b>	0.32940	0.06480	<b>0.38092</b>	2.50740	0.30000	<b>2.00943</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand4_1	A->Y (RF)	0.01860	0.00100	<b>0.05613</b>	0.32940	0.06480	<b>0.69053</b>	2.50740	0.30000	<b>3.41986</b>
	B->Y (RF)	0.01860	0.00100	<b>0.07016</b>	0.32940	0.06480	<b>0.69021</b>	2.50740	0.30000	<b>3.32384</b>
	C->Y (RF)	0.01860	0.00100	<b>0.07841</b>	0.32940	0.06480	<b>0.67928</b>	2.50740	0.30000	<b>3.16346</b>
	D->Y (RF)	0.01860	0.00100	<b>0.08257</b>	0.32940	0.06480	<b>0.67022</b>	2.50740	0.30000	<b>3.02443</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand4_1	A	0.01860	0.00100	<b>0.00240</b>	0.32940	0.06480	<b>0.00277</b>	2.50740	0.30000	<b>0.00581</b>
	B	0.01860	0.00100	<b>0.00280</b>	0.32940	0.06480	<b>0.00291</b>	2.50740	0.30000	<b>0.00603</b>
	C	0.01860	0.00100	<b>0.00320</b>	0.32940	0.06480	<b>0.00317</b>	2.50740	0.30000	<b>0.00634</b>
	D	0.01860	0.00100	<b>0.00351</b>	0.32940	0.06480	<b>0.00345</b>	2.50740	0.30000	<b>0.00654</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nand4_1	A	0.01860	0.00100	<b>0.00560</b>	0.32940	0.06480	<b>0.00579</b>	2.50740	0.30000	<b>0.00870</b>
	B	0.01860	0.00100	<b>0.00776</b>	0.32940	0.06480	<b>0.00775</b>	2.50740	0.30000	<b>0.00996</b>
	C	0.01860	0.00100	<b>0.00964</b>	0.32940	0.06480	<b>0.00948</b>	2.50740	0.30000	<b>0.01174</b>
	D	0.01860	0.00100	<b>0.01143</b>	0.32940	0.06480	<b>0.01128</b>	2.50740	0.30000	<b>0.01351</b>

# NOR2Bx



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp  
125.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor2b_1	9.07200
sg13g2_nor2b_2	12.70080

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B_N	Y
sg13g2_nor2b_1	0.00286	0.00224	0.30000
sg13g2_nor2b_2	0.00555	0.00265	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2b_1	546.90000	999.46000	1348.17000
sg13g2_nor2b_2	982.75100	1706.23000	2233.89000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2b_1	A->Y (FR)	0.01860	0.00100	<b>0.03519</b>	0.32940	0.06480	<b>0.55297</b>	2.50740	0.30000	<b>2.86183</b>
	B_N->Y (RR)	0.01860	0.00100	<b>0.07300</b>	0.32940	0.06480	<b>0.52937</b>	2.50740	0.30000	<b>2.08791</b>
sg13g2_nor2b_2	A->Y (FR)	0.01860	0.00100	<b>0.03029</b>	0.32940	0.12960	<b>0.55159</b>	2.50740	0.60000	<b>2.85782</b>
	B_N->Y (RR)	0.01860	0.00100	<b>0.07985</b>	0.32940	0.12960	<b>0.55437</b>	2.50740	0.60000	<b>2.14521</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2b_1	A->Y (RF)	0.01860	0.00100	<b>0.02213</b>	0.32940	0.06480	<b>0.34161</b>	2.50740	0.30000	<b>1.86399</b>
	B_N->Y (FF)	0.01860	0.00100	<b>0.05956</b>	0.32940	0.06480	<b>0.30413</b>	2.50740	0.30000	<b>1.07727</b>
sg13g2_nor2b_2	A->Y (RF)	0.01860	0.00100	<b>0.02006</b>	0.32940	0.12960	<b>0.34977</b>	2.50740	0.60000	<b>1.90784</b>
	B_N->Y (FF)	0.01860	0.00100	<b>0.07023</b>	0.32940	0.12960	<b>0.33726</b>	2.50740	0.60000	<b>1.15930</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2b_1	A	0.01860	0.00100	<b>0.00266</b>	0.32940	0.06480	<b>0.00304</b>	2.50740	0.30000	<b>0.00692</b>
	B_N	0.01860	0.00100	<b>0.00601</b>	0.32940	0.06480	<b>0.00606</b>	2.50740	0.30000	<b>0.00550</b>
sg13g2_nor2b_2	A	0.01860	0.00100	<b>0.00526</b>	0.32940	0.12960	<b>0.00621</b>	2.50740	0.60000	<b>0.01326</b>
	B_N	0.01860	0.00100	<b>0.01159</b>	0.32940	0.12960	<b>0.01196</b>	2.50740	0.60000	<b>0.01096</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2b_1	A	0.01860	0.00100	<b>0.00244</b>	0.32940	0.06480	<b>0.00295</b>	2.50740	0.30000	<b>0.00654</b>
	B_N	0.01860	0.00100	<b>0.00308</b>	0.32940	0.06480	<b>0.00291</b>	2.50740	0.30000	<b>0.00245</b>
sg13g2_nor2b_2	A	0.01860	0.00100	<b>0.00380</b>	0.32940	0.12960	<b>0.00495</b>	2.50740	0.60000	<b>0.01231</b>
	B_N	0.01860	0.00100	<b>0.00567</b>	0.32940	0.12960	<b>0.00539</b>	2.50740	0.60000	<b>0.00512</b>

Passive power(pJ) for B\_N rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_1	0.01860	<b>0.00451</b>	0.32940	<b>0.00531</b>	2.50740	<b>0.01852</b>
sg13g2_nor2b_2	0.01860	<b>0.00782</b>	0.32940	<b>0.00858</b>	2.50740	<b>0.02394</b>

Passive power(pJ) for B\_N falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_1	0.01860	<b>0.00456</b>	0.32940	<b>0.00550</b>	2.50740	<b>0.01887</b>
sg13g2_nor2b_2	0.01860	<b>0.00773</b>	0.32940	<b>0.00858</b>	2.50740	<b>0.02414</b>

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



Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_1	A	0.01860	<b>0.00451</b>	0.32940	<b>0.00531</b>	2.50740	<b>0.01852</b>
sg13g2_nor2b_2	A	0.01860	<b>0.00782</b>	0.32940	<b>0.00858</b>	2.50740	<b>0.02394</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_nor2b_1	A	0.01860	<b>0.00456</b>	0.32940	<b>0.00550</b>	2.50740	<b>0.01887</b>
sg13g2_nor2b_2	A	0.01860	<b>0.00773</b>	0.32940	<b>0.00858</b>	2.50740	<b>0.02414</b>

# NOR2x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor2_1	7.25760
sg13g2_nor2_2	10.88640

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_nor2_1	0.00299	0.00286	0.30000
sg13g2_nor2_2	0.00572	0.00549	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor2_1	407.93500	645.12500	982.69500
sg13g2_nor2_2	815.92400	1290.26000	1965.37000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2_1	A->Y (FR)	0.01860	0.00100	<b>0.04178</b>	0.32940	0.06480	<b>0.52738</b>	2.50740	0.30000	<b>2.61320</b>
	B->Y (FR)	0.01860	0.00100	<b>0.03534</b>	0.32940	0.06480	<b>0.55271</b>	2.50740	0.30000	<b>2.86040</b>
sg13g2_nor2_2	A->Y (FR)	0.01860	0.00100	<b>0.03909</b>	0.32940	0.06480	<b>0.33008</b>	2.50740	0.30000	<b>1.63824</b>
	B->Y (FR)	0.01860	0.00100	<b>0.03061</b>	0.32940	0.06480	<b>0.35147</b>	2.50740	0.30000	<b>1.84576</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2_1	A->Y (RF)	0.01860	0.00100	<b>0.02577</b>	0.32940	0.06480	<b>0.34632</b>	2.50740	0.30000	<b>1.87045</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02221</b>	0.32940	0.06480	<b>0.34161</b>	2.50740	0.30000	<b>1.86430</b>
sg13g2_nor2_2	A->Y (RF)	0.01860	0.00100	<b>0.02407</b>	0.32940	0.06480	<b>0.23894</b>	2.50740	0.30000	<b>1.25865</b>
	B->Y (RF)	0.01860	0.00100	<b>0.01976</b>	0.32940	0.06480	<b>0.23200</b>	2.50740	0.30000	<b>1.24795</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2_1	A	0.01860	0.00100	<b>0.00533</b>	0.32940	0.06480	<b>0.00536</b>	2.50740	0.30000	<b>0.00863</b>
	B	0.01860	0.00100	<b>0.00267</b>	0.32940	0.06480	<b>0.00308</b>	2.50740	0.30000	<b>0.00677</b>
sg13g2_nor2_2	A	0.01860	0.00100	<b>0.01077</b>	0.32940	0.06480	<b>0.01102</b>	2.50740	0.30000	<b>0.02115</b>
	B	0.01860	0.00100	<b>0.00537</b>	0.32940	0.06480	<b>0.00655</b>	2.50740	0.30000	<b>0.01831</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor2_1	A	0.01860	0.00100	<b>0.00267</b>	0.32940	0.06480	<b>0.00284</b>	2.50740	0.30000	<b>0.00666</b>
	B	0.01860	0.00100	<b>0.00243</b>	0.32940	0.06480	<b>0.00294</b>	2.50740	0.30000	<b>0.00649</b>
sg13g2_nor2_2	A	0.01860	0.00100	<b>0.00543</b>	0.32940	0.06480	<b>0.00624</b>	2.50740	0.30000	<b>0.01723</b>
	B	0.01860	0.00100	<b>0.00372</b>	0.32940	0.06480	<b>0.00531</b>	2.50740	0.30000	<b>0.01570</b>

# NOR3x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor3_1	9.07200
sg13g2_nor3_2	16.32960

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	Y
sg13g2_nor3_1	0.00297	0.00297	0.00284	0.30000
sg13g2_nor3_2	0.00567	0.00564	0.00545	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor3_1	385.09800	750.23300	1275.10000
sg13g2_nor3_2	762.67100	1487.96000	2547.72000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor3_1	A->Y (FR)	0.01860	0.00100	<b>0.07712</b>	0.32940	0.06480	<b>0.73150</b>	2.50740	0.30000	<b>3.33327</b>
	B->Y (FR)	0.01860	0.00100	<b>0.07180</b>	0.32940	0.06480	<b>0.74699</b>	2.50740	0.30000	<b>3.54568</b>
	C->Y (FR)	0.01860	0.00100	<b>0.05513</b>	0.32940	0.06480	<b>0.75117</b>	2.50740	0.30000	<b>3.71084</b>
sg13g2_nor3_2	A->Y (FR)	0.01860	0.00100	<b>0.06954</b>	0.32940	0.12960	<b>0.73162</b>	2.50740	0.60000	<b>3.33952</b>
	B->Y (FR)	0.01860	0.00100	<b>0.06458</b>	0.32940	0.12960	<b>0.74773</b>	2.50740	0.60000	<b>3.55496</b>
	C->Y (FR)	0.01860	0.00100	<b>0.04573</b>	0.32940	0.12960	<b>0.74986</b>	2.50740	0.60000	<b>3.71837</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor3_1	A->Y (RF)	0.01860	0.00100	<b>0.02891</b>	0.32940	0.06480	<b>0.34501</b>	2.50740	0.30000	<b>1.83066</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02836</b>	0.32940	0.06480	<b>0.34138</b>	2.50740	0.30000	<b>1.82778</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02440</b>	0.32940	0.06480	<b>0.33625</b>	2.50740	0.30000	<b>1.82045</b>
sg13g2_nor3_2	A->Y (RF)	0.01860	0.00100	<b>0.02708</b>	0.32940	0.12960	<b>0.35375</b>	2.50740	0.60000	<b>1.87929</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02676</b>	0.32940	0.12960	<b>0.34973</b>	2.50740	0.60000	<b>1.87408</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02210</b>	0.32940	0.12960	<b>0.34387</b>	2.50740	0.60000	<b>1.86641</b>



## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor3_1	A	0.01860	0.00100	<b>0.00912</b>	0.32940	0.06480	<b>0.00924</b>	2.50740	0.30000	<b>0.01160</b>
	B	0.01860	0.00100	<b>0.00683</b>	0.32940	0.06480	<b>0.00682</b>	2.50740	0.30000	<b>0.00935</b>
	C	0.01860	0.00100	<b>0.00421</b>	0.32940	0.06480	<b>0.00476</b>	2.50740	0.30000	<b>0.00772</b>
sg13g2_nor3_2	A	0.01860	0.00100	<b>0.01761</b>	0.32940	0.12960	<b>0.01743</b>	2.50740	0.60000	<b>0.02205</b>
	B	0.01860	0.00100	<b>0.01302</b>	0.32940	0.12960	<b>0.01311</b>	2.50740	0.60000	<b>0.01738</b>
	C	0.01860	0.00100	<b>0.00768</b>	0.32940	0.12960	<b>0.00822</b>	2.50740	0.60000	<b>0.01453</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor3_1	A	0.01860	0.00100	<b>0.00370</b>	0.32940	0.06480	<b>0.00365</b>	2.50740	0.30000	<b>0.00709</b>
	B	0.01860	0.00100	<b>0.00326</b>	0.32940	0.06480	<b>0.00339</b>	2.50740	0.30000	<b>0.00661</b>
	C	0.01860	0.00100	<b>0.00262</b>	0.32940	0.06480	<b>0.00316</b>	2.50740	0.30000	<b>0.00628</b>
sg13g2_nor3_2	A	0.01860	0.00100	<b>0.00679</b>	0.32940	0.12960	<b>0.00668</b>	2.50740	0.60000	<b>0.01356</b>
	B	0.01860	0.00100	<b>0.00606</b>	0.32940	0.12960	<b>0.00636</b>	2.50740	0.60000	<b>0.01268</b>
	C	0.01860	0.00100	<b>0.00413</b>	0.32940	0.12960	<b>0.00537</b>	2.50740	0.60000	<b>0.01165</b>

# NOR4x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_nor4_1	10.88640
sg13g2_nor4_2	21.77280

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	Y
sg13g2_nor4_1	0.00294	0.00295	0.00292	0.00277	0.30000
sg13g2_nor4_2	0.00568	0.00561	0.00556	0.00541	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_nor4_1	389.16800	724.65200	1561.85000
sg13g2_nor4_2	778.35200	1449.31000	3123.67000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor4_1	A->Y (FR)	0.01860	0.00100	<b>0.11584</b>	0.32940	0.06480	<b>0.95448</b>	2.50740	0.30000	<b>4.14148</b>
	B->Y (FR)	0.01860	0.00100	<b>0.11114</b>	0.32940	0.06480	<b>0.96005</b>	2.50740	0.30000	<b>4.28654</b>
	C->Y (FR)	0.01860	0.00100	<b>0.09777</b>	0.32940	0.06480	<b>0.96216</b>	2.50740	0.30000	<b>4.45397</b>
	D->Y (FR)	0.01860	0.00100	<b>0.07086</b>	0.32940	0.06480	<b>0.95126</b>	2.50740	0.30000	<b>4.56344</b>
sg13g2_nor4_2	A->Y (FR)	0.01860	0.00100	<b>0.11082</b>	0.32940	0.12960	<b>0.96088</b>	2.50740	0.60000	<b>4.16012</b>
	B->Y (FR)	0.01860	0.00100	<b>0.10623</b>	0.32940	0.12960	<b>0.96680</b>	2.50740	0.60000	<b>4.30751</b>
	C->Y (FR)	0.01860	0.00100	<b>0.09109</b>	0.32940	0.12960	<b>0.96628</b>	2.50740	0.60000	<b>4.46968</b>
	D->Y (FR)	0.01860	0.00100	<b>0.06108</b>	0.32940	0.12960	<b>0.95295</b>	2.50740	0.60000	<b>4.58096</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor4_1	A->Y (RF)	0.01860	0.00100	<b>0.03084</b>	0.32940	0.06480	<b>0.35972</b>	2.50740	0.30000	<b>1.88699</b>
	B->Y (RF)	0.01860	0.00100	<b>0.03166</b>	0.32940	0.06480	<b>0.35785</b>	2.50740	0.30000	<b>1.88385</b>
	C->Y (RF)	0.01860	0.00100	<b>0.03044</b>	0.32940	0.06480	<b>0.35318</b>	2.50740	0.30000	<b>1.87678</b>
	D->Y (RF)	0.01860	0.00100	<b>0.02615</b>	0.32940	0.06480	<b>0.34667</b>	2.50740	0.30000	<b>1.86944</b>
sg13g2_nor4_2	A->Y (RF)	0.01860	0.00100	<b>0.02865</b>	0.32940	0.12960	<b>0.36003</b>	2.50740	0.60000	<b>1.88721</b>
	B->Y (RF)	0.01860	0.00100	<b>0.02961</b>	0.32940	0.12960	<b>0.35785</b>	2.50740	0.60000	<b>1.88289</b>
	C->Y (RF)	0.01860	0.00100	<b>0.02855</b>	0.32940	0.12960	<b>0.35283</b>	2.50740	0.60000	<b>1.87560</b>
	D->Y (RF)	0.01860	0.00100	<b>0.02396</b>	0.32940	0.12960	<b>0.34554</b>	2.50740	0.60000	<b>1.86623</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor4_1	A	0.01860	0.00100	<b>0.01191</b>	0.32940	0.06480	<b>0.01168</b>	2.50740	0.30000	<b>0.01434</b>
	B	0.01860	0.00100	<b>0.00966</b>	0.32940	0.06480	<b>0.00953</b>	2.50740	0.30000	<b>0.01158</b>
	C	0.01860	0.00100	<b>0.00742</b>	0.32940	0.06480	<b>0.00732</b>	2.50740	0.30000	<b>0.00921</b>
	D	0.01860	0.00100	<b>0.00485</b>	0.32940	0.06480	<b>0.00503</b>	2.50740	0.30000	<b>0.00795</b>
sg13g2_nor4_2	A	0.01860	0.00100	<b>0.02416</b>	0.32940	0.12960	<b>0.02390</b>	2.50740	0.60000	<b>0.02761</b>
	B	0.01860	0.00100	<b>0.01971</b>	0.32940	0.12960	<b>0.01943</b>	2.50740	0.60000	<b>0.02431</b>
	C	0.01860	0.00100	<b>0.01521</b>	0.32940	0.12960	<b>0.01494</b>	2.50740	0.60000	<b>0.01883</b>
	D	0.01860	0.00100	<b>0.00990</b>	0.32940	0.12960	<b>0.01051</b>	2.50740	0.60000	<b>0.01688</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_nor4_1	A	0.01860	0.00100	<b>0.00431</b>	0.32940	0.06480	<b>0.00409</b>	2.50740	0.30000	<b>0.00721</b>
	B	0.01860	0.00100	<b>0.00399</b>	0.32940	0.06480	<b>0.00387</b>	2.50740	0.30000	<b>0.00690</b>
	C	0.01860	0.00100	<b>0.00342</b>	0.32940	0.06480	<b>0.00359</b>	2.50740	0.30000	<b>0.00659</b>
	D	0.01860	0.00100	<b>0.00271</b>	0.32940	0.06480	<b>0.00321</b>	2.50740	0.30000	<b>0.00607</b>
sg13g2_nor4_2	A	0.01860	0.00100	<b>0.00857</b>	0.32940	0.12960	<b>0.00808</b>	2.50740	0.60000	<b>0.01434</b>
	B	0.01860	0.00100	<b>0.00791</b>	0.32940	0.12960	<b>0.00770</b>	2.50740	0.60000	<b>0.01381</b>
	C	0.01860	0.00100	<b>0.00623</b>	0.32940	0.12960	<b>0.00651</b>	2.50740	0.60000	<b>0.01257</b>
	D	0.01860	0.00100	<b>0.00428</b>	0.32940	0.12960	<b>0.00553</b>	2.50740	0.60000	<b>0.01104</b>

# O21AI



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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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	0.00334	0.00329	0.00315	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_o21ai_1	178.56400	778.45000	1640.43000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	A1->Y (FR)	0.01860	0.00100	<b>0.06748</b>	0.32940	0.06480	<b>0.62264</b>	2.50740	0.30000	<b>2.96035</b>
	A2->Y (FR)	0.01860	0.00100	<b>0.05911</b>	0.32940	0.06480	<b>0.64610</b>	2.50740	0.30000	<b>3.22793</b>
	B1->Y (FR)	0.01860	0.00100	<b>0.02588</b>	0.32940	0.06480	<b>0.40686</b>	2.50740	0.30000	<b>2.21410</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	A1->Y (RF)	0.01860	0.00100	<b>0.04903</b>	0.32940	0.06480	<b>0.45811</b>	2.50740	0.30000	<b>2.24939</b>
	A2->Y (RF)	0.01860	0.00100	<b>0.04113</b>	0.32940	0.06480	<b>0.44857</b>	2.50740	0.30000	<b>2.23598</b>
	B1->Y (RF)	0.01860	0.00100	<b>0.03146</b>	0.32940	0.06480	<b>0.46450</b>	2.50740	0.30000	<b>2.42654</b>

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	B1->Y (FR)	(!A1 * A2)	0.01860	0.00100	<b>0.02588</b>	0.32940	0.06480	<b>0.40686</b>	2.50740	0.30000	<b>2.21410</b>

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	B1->Y (RF)	(!A1 * A2)	0.01860	0.00100	<b>0.03146</b>	0.32940	0.06480	<b>0.46450</b>	2.50740	0.30000	<b>2.42654</b>



## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	A1	0.01860	0.00100	<b>0.00656</b>	0.32940	0.06480	<b>0.00635</b>	2.50740	0.30000	<b>0.00962</b>
	A2	0.01860	0.00100	<b>0.00363</b>	0.32940	0.06480	<b>0.00377</b>	2.50740	0.30000	<b>0.00765</b>
	B1	0.01860	0.00100	<b>0.00221</b>	0.32940	0.06480	<b>0.00275</b>	2.50740	0.30000	<b>0.00647</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	A1	0.01860	0.00100	<b>0.00612</b>	0.32940	0.06480	<b>0.00600</b>	2.50740	0.30000	<b>0.00893</b>
	A2	0.01860	0.00100	<b>0.00568</b>	0.32940	0.06480	<b>0.00596</b>	2.50740	0.30000	<b>0.00884</b>
	B1	0.01860	0.00100	<b>0.00307</b>	0.32940	0.06480	<b>0.00357</b>	2.50740	0.30000	<b>0.00715</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00221</b>	0.32940	0.06480	<b>0.00275</b>	2.50740	0.30000	<b>0.00647</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_o21ai_1	B1	(!A1 * A2)	0.01860	0.00100	<b>0.00307</b>	0.32940	0.06480	<b>0.00357</b>	2.50740	0.30000	<b>0.00715</b>

# OR2x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_or2_1	9.07200
sg13g2_or2_2	10.88640

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	X
sg13g2_or2_1	0.00245	0.00227	0.30000
sg13g2_or2_2	0.00243	0.00225	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or2_1	509.16900	819.33200	1038.47000
sg13g2_or2_2	714.66500	1163.64000	1799.21000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or2_1	A->X (RR)	0.01860	0.00100	<b>0.05846</b>	0.32940	0.06480	<b>0.33448</b>	2.50740	0.30000	<b>1.19875</b>
	B->X (RR)	0.01860	0.00100	<b>0.05368</b>	0.32940	0.06480	<b>0.31992</b>	2.50740	0.30000	<b>1.15286</b>
sg13g2_or2_2	A->X (RR)	0.01860	0.00100	<b>0.06939</b>	0.32940	0.12960	<b>0.36809</b>	2.50740	0.60000	<b>1.27678</b>
	B->X (RR)	0.01860	0.00100	<b>0.06471</b>	0.32940	0.12960	<b>0.35618</b>	2.50740	0.60000	<b>1.23789</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or2_1	A->X (FF)	0.01860	0.00100	<b>0.09118</b>	0.32940	0.06480	<b>0.34322</b>	2.50740	0.30000	<b>1.15685</b>
	B->X (FF)	0.01860	0.00100	<b>0.08450</b>	0.32940	0.06480	<b>0.34988</b>	2.50740	0.30000	<b>1.19438</b>
sg13g2_or2_2	A->X (FF)	0.01860	0.00100	<b>0.11777</b>	0.32940	0.12960	<b>0.39652</b>	2.50740	0.60000	<b>1.25013</b>
	B->X (FF)	0.01860	0.00100	<b>0.11141</b>	0.32940	0.12960	<b>0.40916</b>	2.50740	0.60000	<b>1.30481</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or2_1	A	0.01860	0.00100	<b>0.00770</b>	0.32940	0.06480	<b>0.00844</b>	2.50740	0.30000	<b>0.01972</b>
	B	0.01860	0.00100	<b>0.00740</b>	0.32940	0.06480	<b>0.00814</b>	2.50740	0.30000	<b>0.01932</b>
sg13g2_or2_2	A	0.01860	0.00100	<b>0.01259</b>	0.32940	0.12960	<b>0.01337</b>	2.50740	0.60000	<b>0.02429</b>
	B	0.01860	0.00100	<b>0.01231</b>	0.32940	0.12960	<b>0.01311</b>	2.50740	0.60000	<b>0.02357</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or2_1	A	0.01860	0.00100	<b>0.00945</b>	0.32940	0.06480	<b>0.00978</b>	2.50740	0.30000	<b>0.02069</b>
	B	0.01860	0.00100	<b>0.00759</b>	0.32940	0.06480	<b>0.00846</b>	2.50740	0.30000	<b>0.01981</b>
sg13g2_or2_2	A	0.01860	0.00100	<b>0.01501</b>	0.32940	0.12960	<b>0.01475</b>	2.50740	0.60000	<b>0.02479</b>
	B	0.01860	0.00100	<b>0.01322</b>	0.32940	0.12960	<b>0.01344</b>	2.50740	0.60000	<b>0.02405</b>

# OR3x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_or3_1	12.70080
sg13g2_or3_2	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	A	B	C	X
sg13g2_or3_1	0.00257	0.00250	0.00237	0.30000
sg13g2_or3_2	0.00256	0.00249	0.00236	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or3_1	530.83500	880.58700	1338.03000
sg13g2_or3_2	736.48600	1155.60000	1946.54000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or3_1	A->X (RR)	0.01860	0.00100	<b>0.06790</b>	0.32940	0.06480	<b>0.35954</b>	2.50740	0.30000	<b>1.26996</b>
	B->X (RR)	0.01860	0.00100	<b>0.06492</b>	0.32940	0.06480	<b>0.34840</b>	2.50740	0.30000	<b>1.22541</b>
	C->X (RR)	0.01860	0.00100	<b>0.05846</b>	0.32940	0.06480	<b>0.33178</b>	2.50740	0.30000	<b>1.17902</b>
sg13g2_or3_2	A->X (RR)	0.01860	0.00100	<b>0.07848</b>	0.32940	0.12960	<b>0.39002</b>	2.50740	0.60000	<b>1.33545</b>
	B->X (RR)	0.01860	0.00100	<b>0.07514</b>	0.32940	0.12960	<b>0.37973</b>	2.50740	0.60000	<b>1.30213</b>
	C->X (RR)	0.01860	0.00100	<b>0.06879</b>	0.32940	0.12960	<b>0.36565</b>	2.50740	0.60000	<b>1.25952</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or3_1	A->X (FF)	0.01860	0.00100	<b>0.13084</b>	0.32940	0.06480	<b>0.38731</b>	2.50740	0.30000	<b>1.18091</b>
	B->X (FF)	0.01860	0.00100	<b>0.12613</b>	0.32940	0.06480	<b>0.39421</b>	2.50740	0.30000	<b>1.24117</b>
	C->X (FF)	0.01860	0.00100	<b>0.11046</b>	0.32940	0.06480	<b>0.38877</b>	2.50740	0.30000	<b>1.25505</b>
sg13g2_or3_2	A->X (FF)	0.01860	0.00100	<b>0.16372</b>	0.32940	0.12960	<b>0.44479</b>	2.50740	0.60000	<b>1.26860</b>
	B->X (FF)	0.01860	0.00100	<b>0.15913</b>	0.32940	0.12960	<b>0.45553</b>	2.50740	0.60000	<b>1.34071</b>
	C->X (FF)	0.01860	0.00100	<b>0.14375</b>	0.32940	0.12960	<b>0.45473</b>	2.50740	0.60000	<b>1.36814</b>



## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or3_1	A	0.01860	0.00100	<b>0.00826</b>	0.32940	0.06480	<b>0.00877</b>	2.50740	0.30000	<b>0.02029</b>
	B	0.01860	0.00100	<b>0.00800</b>	0.32940	0.06480	<b>0.00853</b>	2.50740	0.30000	<b>0.01962</b>
	C	0.01860	0.00100	<b>0.00751</b>	0.32940	0.06480	<b>0.00818</b>	2.50740	0.30000	<b>0.01924</b>
sg13g2_or3_2	A	0.01860	0.00100	<b>0.01324</b>	0.32940	0.12960	<b>0.01375</b>	2.50740	0.60000	<b>0.02438</b>
	B	0.01860	0.00100	<b>0.01292</b>	0.32940	0.12960	<b>0.01344</b>	2.50740	0.60000	<b>0.02421</b>
	C	0.01860	0.00100	<b>0.01244</b>	0.32940	0.12960	<b>0.01324</b>	2.50740	0.60000	<b>0.02340</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or3_1	A	0.01860	0.00100	<b>0.01348</b>	0.32940	0.06480	<b>0.01356</b>	2.50740	0.30000	<b>0.02422</b>
	B	0.01860	0.00100	<b>0.01151</b>	0.32940	0.06480	<b>0.01165</b>	2.50740	0.30000	<b>0.02236</b>
	C	0.01860	0.00100	<b>0.00928</b>	0.32940	0.06480	<b>0.00997</b>	2.50740	0.30000	<b>0.02120</b>
sg13g2_or3_2	A	0.01860	0.00100	<b>0.01966</b>	0.32940	0.12960	<b>0.01856</b>	2.50740	0.60000	<b>0.02859</b>
	B	0.01860	0.00100	<b>0.01772</b>	0.32940	0.12960	<b>0.01668</b>	2.50740	0.60000	<b>0.02639</b>
	C	0.01860	0.00100	<b>0.01553</b>	0.32940	0.12960	<b>0.01486</b>	2.50740	0.60000	<b>0.02507</b>

# OR4x



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_or4_1	14.51520
sg13g2_or4_2	16.32960

## Pin Capacitance Information

Cell Name	Pin Cap(pf)				Max Cap(pf)
	A	B	C	D	X
sg13g2_or4_1	0.00256	0.00247	0.00244	0.00235	0.30000
sg13g2_or4_2	0.00254	0.00246	0.00243	0.00234	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_or4_1	532.49600	866.55600	1594.54000
sg13g2_or4_2	738.04700	1106.80000	2087.87000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or4_1	A->X (RR)	0.01860	0.00100	<b>0.07117</b>	0.32940	0.06480	<b>0.37239</b>	2.50740	0.30000	<b>1.29055</b>
	B->X (RR)	0.01860	0.00100	<b>0.07038</b>	0.32940	0.06480	<b>0.36414</b>	2.50740	0.30000	<b>1.25519</b>
	C->X (RR)	0.01860	0.00100	<b>0.06619</b>	0.32940	0.06480	<b>0.35143</b>	2.50740	0.30000	<b>1.21447</b>
	D->X (RR)	0.01860	0.00100	<b>0.05954</b>	0.32940	0.06480	<b>0.33518</b>	2.50740	0.30000	<b>1.16785</b>
sg13g2_or4_2	A->X (RR)	0.01860	0.00100	<b>0.08215</b>	0.32940	0.12960	<b>0.40191</b>	2.50740	0.60000	<b>1.35991</b>
	B->X (RR)	0.01860	0.00100	<b>0.08080</b>	0.32940	0.12960	<b>0.39416</b>	2.50740	0.60000	<b>1.32683</b>
	C->X (RR)	0.01860	0.00100	<b>0.07616</b>	0.32940	0.12960	<b>0.38223</b>	2.50740	0.60000	<b>1.28799</b>
	D->X (RR)	0.01860	0.00100	<b>0.06970</b>	0.32940	0.12960	<b>0.36828</b>	2.50740	0.60000	<b>1.24766</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or4_1	A->X (FF)	0.01860	0.00100	<b>0.18217</b>	0.32940	0.06480	<b>0.45308</b>	2.50740	0.30000	<b>1.24309</b>
	B->X (FF)	0.01860	0.00100	<b>0.17761</b>	0.32940	0.06480	<b>0.45543</b>	2.50740	0.30000	<b>1.30518</b>
	C->X (FF)	0.01860	0.00100	<b>0.16234</b>	0.32940	0.06480	<b>0.44843</b>	2.50740	0.30000	<b>1.34306</b>
	D->X (FF)	0.01860	0.00100	<b>0.13613</b>	0.32940	0.06480	<b>0.43370</b>	2.50740	0.30000	<b>1.34346</b>
sg13g2_or4_2	A->X (FF)	0.01860	0.00100	<b>0.22681</b>	0.32940	0.12960	<b>0.52286</b>	2.50740	0.60000	<b>1.33674</b>
	B->X (FF)	0.01860	0.00100	<b>0.22205</b>	0.32940	0.12960	<b>0.52677</b>	2.50740	0.60000	<b>1.40828</b>
	C->X (FF)	0.01860	0.00100	<b>0.20665</b>	0.32940	0.12960	<b>0.52290</b>	2.50740	0.60000	<b>1.45749</b>
	D->X (FF)	0.01860	0.00100	<b>0.18114</b>	0.32940	0.12960	<b>0.51226</b>	2.50740	0.60000	<b>1.47138</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or4_1	A	0.01860	0.00100	<b>0.00917</b>	0.32940	0.06480	<b>0.00950</b>	2.50740	0.30000	<b>0.01991</b>
	B	0.01860	0.00100	<b>0.00882</b>	0.32940	0.06480	<b>0.00913</b>	2.50740	0.30000	<b>0.01904</b>
	C	0.01860	0.00100	<b>0.00804</b>	0.32940	0.06480	<b>0.00854</b>	2.50740	0.30000	<b>0.01841</b>
	D	0.01860	0.00100	<b>0.00753</b>	0.32940	0.06480	<b>0.00822</b>	2.50740	0.30000	<b>0.01818</b>
sg13g2_or4_2	A	0.01860	0.00100	<b>0.01417</b>	0.32940	0.12960	<b>0.01450</b>	2.50740	0.60000	<b>0.02436</b>
	B	0.01860	0.00100	<b>0.01383</b>	0.32940	0.12960	<b>0.01429</b>	2.50740	0.60000	<b>0.02353</b>
	C	0.01860	0.00100	<b>0.01298</b>	0.32940	0.12960	<b>0.01350</b>	2.50740	0.60000	<b>0.02301</b>
	D	0.01860	0.00100	<b>0.01246</b>	0.32940	0.12960	<b>0.01316</b>	2.50740	0.60000	<b>0.02234</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_or4_1	A	0.01860	0.00100	<b>0.01605</b>	0.32940	0.06480	<b>0.01580</b>	2.50740	0.30000	<b>0.02503</b>
	B	0.01860	0.00100	<b>0.01414</b>	0.32940	0.06480	<b>0.01387</b>	2.50740	0.30000	<b>0.02321</b>
	C	0.01860	0.00100	<b>0.01216</b>	0.32940	0.06480	<b>0.01206</b>	2.50740	0.30000	<b>0.02137</b>
	D	0.01860	0.00100	<b>0.00990</b>	0.32940	0.06480	<b>0.01030</b>	2.50740	0.30000	<b>0.02037</b>
sg13g2_or4_2	A	0.01860	0.00100	<b>0.02335</b>	0.32940	0.12960	<b>0.02078</b>	2.50740	0.60000	<b>0.02907</b>
	B	0.01860	0.00100	<b>0.02140</b>	0.32940	0.12960	<b>0.01888</b>	2.50740	0.60000	<b>0.02725</b>
	C	0.01860	0.00100	<b>0.01938</b>	0.32940	0.12960	<b>0.01716</b>	2.50740	0.60000	<b>0.02542</b>
	D	0.01860	0.00100	<b>0.01721</b>	0.32940	0.12960	<b>0.01529</b>	2.50740	0.60000	<b>0.02436</b>

# SDFBBP



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_sdfbbp_1	63.50400

## Pin Capacitance Information

Cell Name	Pin Cap(pf)						Max Cap(pf)	
	CLK	D	RESET_B	SCD	SCE	SET_B	Q	Q_N
sg13g2_sdfbbp_1	0.00299	0.00195	0.00171	0.00196	0.00350	0.00517	0.30000	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfbbp_1	3962.80000	5790.66000	7346.23000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q (RR)	0.01860	0.00100	<b>0.30402</b>	0.32940	0.06480	<b>0.57602</b>	2.50740	0.30000	<b>1.43046</b>
	SET_B->Q (FR)	0.01860	0.00100	<b>0.12372</b>	0.32940	0.06480	<b>0.41690</b>	2.50740	0.30000	<b>1.34432</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q (RF)	0.01860	0.00100	<b>0.25010</b>	0.32940	0.06480	<b>0.50133</b>	2.50740	0.30000	<b>1.27528</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.20565</b>	0.32940	0.06480	<b>0.47364</b>	2.50740	0.30000	<b>1.30427</b>

Delay(ns) to Q rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.30402</b>	0.32940	0.06480	<b>0.57602</b>	2.50740	0.30000	<b>1.43046</b>

Delay(ns) to Q falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.25010</b>	0.32940	0.06480	<b>0.50133</b>	2.50740	0.30000	<b>1.27528</b>

Delay(ns) to Q\_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q_N (RR)	0.01860	0.00100	<b>0.20635</b>	0.32940	0.06480	<b>0.49995</b>	2.50740	0.30000	<b>1.37046</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.16090</b>	0.32940	0.06480	<b>0.47865</b>	2.50740	0.30000	<b>1.40985</b>

Delay(ns) to Q\_N falling :



Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q_N (RF)	0.01860	0.00100	<b>0.25293</b>	0.32940	0.06480	<b>0.54287</b>	2.50740	0.30000	<b>1.30683</b>
	SET_B->Q_N (FF)	0.01860	0.00100	<b>0.08162</b>	0.32940	0.06480	<b>0.37736</b>	2.50740	0.30000	<b>1.23534</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q_N (RR)	SCE	0.01860	0.00100	<b>0.20635</b>	0.32940	0.06480	<b>0.49995</b>	2.50740	0.30000	<b>1.37046</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK->Q_N (RF)	SCE	0.01860	0.00100	<b>0.25293</b>	0.32940	0.06480	<b>0.54287</b>	2.50740	0.30000	<b>1.30683</b>

## Constraint Information

Constraints(ns) for CLK rising :

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

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.12146</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.09781</b>	1.26300	1.26300	<b>-0.25095</b>	2.50740	2.50740	<b>-0.33352</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11981</b>	1.26300	1.26300	<b>0.26714</b>	2.50740	2.50740	<b>0.35419</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.10514</b>	1.26300	1.26300	<b>-0.20508</b>	2.50740	2.50740	<b>-0.26564</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.15160</b>	1.26300	1.26300	<b>0.23746</b>	2.50740	2.50740	<b>0.30991</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.06113</b>	1.26300	1.26300	<b>0.11333</b>	2.50740	2.50740	<b>0.14167</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.04157</b>	1.26300	1.26300	<b>-0.09174</b>	2.50740	2.50740	<b>-0.11511</b>

Constraints(ns) for RESET\_B falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	min_pulse_width	RESET_B ()	0.01860	0.00000	<b>0.14069</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

### Constraints(ns) for SCD rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.12470</b>	1.26300	1.26300	<b>-0.29682</b>	2.50740	2.50740	<b>-0.39551</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.14671</b>	1.26300	1.26300	<b>0.31031</b>	2.50740	2.50740	<b>0.41321</b>

### Constraints(ns) for SCD falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.13693</b>	1.26300	1.26300	<b>-0.21317</b>	2.50740	2.50740	<b>-0.27154</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.18339</b>	1.26300	1.26300	<b>0.24555</b>	2.50740	2.50740	<b>0.31582</b>

### Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.10759</b>	1.26300	1.26300	<b>-0.28603</b>	2.50740	2.50740	<b>-0.38370</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12959</b>	1.26300	1.26300	<b>0.29952</b>	2.50740	2.50740	<b>0.40141</b>

### Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.10514</b>	1.26300	1.26300	<b>-0.15381</b>	2.50740	2.50740	<b>-0.19185</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.15160</b>	1.26300	1.26300	<b>0.18619</b>	2.50740	2.50740	<b>0.23612</b>

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.01467</b>	1.26300	1.26300	<b>0.06746</b>	2.50740	2.50740	<b>0.28925</b>
	removal	CLK (R)	0.01860	0.01860	<b>0.03912</b>	1.26300	1.26300	<b>0.09444</b>	2.50740	2.50740	<b>0.09445</b>
	hold	RESET_B (R)	0.01860	0.01860	<b>-0.07580</b>	1.26300	1.26300	<b>-0.18079</b>	2.50740	2.50740	<b>-0.24498</b>
	setup	RESET_B (R)	0.01860	0.01860	<b>0.09781</b>	1.26300	1.26300	<b>0.20777</b>	2.50740	2.50740	<b>0.28335</b>

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfbbp_1	min_pulse_width	SET_B ()	0.01860	0.00000	<b>0.09262</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	<b>0.02092</b>	0.32940	0.06480	<b>0.02182</b>	2.50740	0.30000	<b>0.03136</b>
	SET_B	0.01860	0.00100	<b>0.03913</b>	0.32940	0.06480	<b>0.09857</b>	2.50740	0.30000	<b>0.33832</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	<b>0.02047</b>	0.32940	0.06480	<b>0.02121</b>	2.50740	0.30000	<b>0.03120</b>
	RESET_B	0.01860	0.00100	<b>0.04390</b>	0.32940	0.06480	<b>0.10269</b>	2.50740	0.30000	<b>0.32771</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	<b>0.02092</b>	0.32940	0.06480	<b>0.02182</b>	2.50740	0.30000	<b>0.03136</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	<b>0.02047</b>	0.32940	0.06480	<b>0.02121</b>	2.50740	0.30000	<b>0.03120</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	<b>0.02049</b>	0.32940	0.06480	<b>0.02135</b>	2.50740	0.30000	<b>0.03130</b>
	RESET_B	0.01860	0.00100	<b>0.04389</b>	0.32940	0.06480	<b>0.10303</b>	2.50740	0.30000	<b>0.32774</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	0.01860	0.00100	<b>0.02093</b>	0.32940	0.06480	<b>0.02163</b>	2.50740	0.30000	<b>0.03136</b>
	SET_B	0.01860	0.00100	<b>0.03909</b>	0.32940	0.06480	<b>0.09818</b>	2.50740	0.30000	<b>0.33796</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	<b>0.02049</b>	0.32940	0.06480	<b>0.02135</b>	2.50740	0.30000	<b>0.03130</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfbbp_1	CLK	SCE	0.01860	0.00100	<b>0.02093</b>	0.32940	0.06480	<b>0.02163</b>	2.50740	0.30000	<b>0.03136</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	<b>0.01497</b>	0.32940	<b>0.01599</b>	2.50740	<b>0.03530</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	<b>0.01399</b>	0.32940	<b>0.01509</b>	2.50740	<b>0.03495</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(RESET_B * SCD * SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01531</b>	0.32940	<b>0.01632</b>	2.50740	<b>0.03552</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.01576</b>	0.32940	<b>0.01675</b>	2.50740	<b>0.03583</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01497</b>	0.32940	<b>0.01599</b>	2.50740	<b>0.03530</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.00869</b>	0.32940	<b>0.00969</b>	2.50740	<b>0.02890</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.00336</b>	0.32940	<b>0.00442</b>	2.50740	<b>0.02366</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01495</b>	0.32940	<b>0.01598</b>	2.50740	<b>0.03529</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(RESET_B * SCD * SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01375</b>	0.32940	<b>0.01483</b>	2.50740	<b>0.03479</b>
	(RESET_B * SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.02517</b>	0.32940	<b>0.02620</b>	2.50740	<b>0.04662</b>
	(RESET_B * !SET_B * Q * !Q_N)	0.01860	<b>0.00665</b>	0.32940	<b>0.00786</b>	2.50740	<b>0.02851</b>
	(RESET_B * !SCD * SCE * SET_B * Q * !Q_N)	0.01860	<b>0.02726</b>	0.32940	<b>0.02847</b>	2.50740	<b>0.04917</b>
	(RESET_B * !SCD * SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01399</b>	0.32940	<b>0.01509</b>	2.50740	<b>0.03495</b>
	(D * RESET_B * !SCE * SET_B * Q * !Q_N)	0.01860	<b>0.01376</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03479</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.00123</b>	0.32940	<b>0.00234</b>	2.50740	<b>0.02220</b>
	(!D * RESET_B * !SCE * SET_B * !Q * Q_N)	0.01860	<b>0.01395</b>	0.32940	<b>0.01505</b>	2.50740	<b>0.03491</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	<b>0.01408</b>	0.32940	<b>0.01431</b>	2.50740	<b>0.02234</b>

Passive power(pJ) for D falling :



Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	<b>0.01418</b>	0.32940	<b>0.01437</b>	2.50740	<b>0.02263</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * RESET_B * !SCE * SET_B)	0.01860	<b>0.01408</b>	0.32940	<b>0.01431</b>	2.50740	<b>0.02234</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>-0.00007</b>	0.32940	<b>0.00003</b>	2.50740	<b>0.00716</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * RESET_B * !SCE * SET_B)	0.01860	<b>0.01418</b>	0.32940	<b>0.01437</b>	2.50740	<b>0.02263</b>
	(!CLK * RESET_B * !SCE * !SET_B)	0.01860	<b>0.00625</b>	0.32940	<b>0.00642</b>	2.50740	<b>0.01360</b>

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	<b>0.01603</b>	0.32940	<b>0.01613</b>	2.50740	<b>0.02275</b>

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	<b>0.01852</b>	0.32940	<b>0.01845</b>	2.50740	<b>0.02578</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * RESET_B * SCE * SET_B)	0.01860	<b>0.01603</b>	0.32940	<b>0.01613</b>	2.50740	<b>0.02275</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>0.00751</b>	0.32940	<b>0.00750</b>	2.50740	<b>0.01346</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * RESET_B * SCE * SET_B)	0.01860	<b>0.01852</b>	0.32940	<b>0.01845</b>	2.50740	<b>0.02578</b>
	(!CLK * RESET_B * SCE * !SET_B)	0.01860	<b>-0.00238</b>	0.32940	<b>-0.00233</b>	2.50740	<b>0.00399</b>

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	<b>0.01338</b>	0.32940	<b>0.01335</b>	2.50740	<b>0.02312</b>

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	0.01860	<b>0.01863</b>	0.32940	<b>0.01922</b>	2.50740	<b>0.02901</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * D * RESET_B * !SCD * SET_B)	0.01860	<b>0.01876</b>	0.32940	<b>0.01937</b>	2.50740	<b>0.02906</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.01338</b>	0.32940	<b>0.01335</b>	2.50740	<b>0.02312</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.01641</b>	0.32940	<b>0.01743</b>	2.50740	<b>0.03512</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>0.00781</b>	0.32940	<b>0.00866</b>	2.50740	<b>0.02560</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfbbp_1	(!CLK * D * RESET_B * !SCD * SET_B)	0.01860	<b>0.01863</b>	0.32940	<b>0.01922</b>	2.50740	<b>0.02901</b>
	(!CLK * D * RESET_B * !SCD * !SET_B)	0.01860	<b>0.01674</b>	0.32940	<b>0.02466</b>	2.50740	<b>0.03459</b>
	(!CLK * !D * RESET_B * SCD * SET_B)	0.01860	<b>0.00646</b>	0.32940	<b>0.03009</b>	2.50740	<b>0.04869</b>
	(!CLK * !D * RESET_B * SCD * !SET_B)	0.01860	<b>-0.00475</b>	0.32940	<b>-0.00402</b>	2.50740	<b>0.01261</b>

# SDFRBPQ<sub>x</sub>



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library:  
Process sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage  
1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_sdfrbpq_1	63.50400
sg13g2_sdfrbpq_2	72.57600

## Pin Capacitance Information

Cell Name	Pin Cap(pf)					Max Cap(pf)
	CLK	D	RESET_B	SCD	SCE	Q
sg13g2_sdfrbpq_1	0.00290	0.00273	0.00502	0.00285	0.00465	0.30000
sg13g2_sdfrbpq_2	0.00290	0.00273	0.00503	0.00285	0.00465	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfrbpq_1	4439.66000	5239.24000	6712.18000
sg13g2_sdfrbpq_2	4901.60000	5771.39000	7472.95000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK->Q (RR)	0.01860	0.00100	<b>0.17470</b>	0.32940	0.06480	<b>0.46080</b>	2.50740	0.30000	<b>1.30853</b>
sg13g2_sdfrbpq_2	CLK->Q (RR)	0.01860	0.00100	<b>0.20034</b>	0.32940	0.12960	<b>0.50203</b>	2.50740	0.60000	<b>1.35208</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK->Q (RF)	0.01860	0.00100	<b>0.18206</b>	0.32940	0.06480	<b>0.44653</b>	2.50740	0.30000	<b>1.19821</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.09623</b>	0.32940	0.06480	<b>0.40574</b>	2.50740	0.30000	<b>1.32917</b>
sg13g2_sdfrbpq_2	CLK->Q (RF)	0.01860	0.00100	<b>0.20733</b>	0.32940	0.12960	<b>0.48826</b>	2.50740	0.60000	<b>1.23879</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.12075</b>	0.32940	0.12960	<b>0.45681</b>	2.50740	0.60000	<b>1.43522</b>

Delay(ns) to Q rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.17470</b>	0.32940	0.06480	<b>0.46080</b>	2.50740	0.30000	<b>1.30853</b>
	CLK->Q (RR)	!SCE	0.01860	0.00100	<b>0.17470</b>	0.32940	0.06480	<b>0.46080</b>	2.50740	0.30000	<b>1.30853</b>
sg13g2_sdfrbpq_2	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.20034</b>	0.32940	0.12960	<b>0.50203</b>	2.50740	0.60000	<b>1.35208</b>
	CLK->Q (RR)	!SCE	0.01860	0.00100	<b>0.20034</b>	0.32940	0.12960	<b>0.50203</b>	2.50740	0.60000	<b>1.35208</b>

Delay(ns) to Q falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.18206</b>	0.32940	0.06480	<b>0.44653</b>	2.50740	0.30000	<b>1.19821</b>
	CLK->Q (RF)	!SCE	0.01860	0.00100	<b>0.18213</b>	0.32940	0.06480	<b>0.44674</b>	2.50740	0.30000	<b>1.19805</b>
sg13g2_sdfrbpq_2	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.20733</b>	0.32940	0.12960	<b>0.48826</b>	2.50740	0.60000	<b>1.23879</b>
	CLK->Q (RF)	!SCE	0.01860	0.00100	<b>0.20761</b>	0.32940	0.12960	<b>0.48839</b>	2.50740	0.60000	<b>1.23845</b>

## Constraint Information

### Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.07980</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>
sg13g2_sdfrbpq_2	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.09583</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

### Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.12466</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>
sg13g2_sdfrbpq_2	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.12146</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

### Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	<b>-0.14916</b>	1.26300	1.26300	<b>-0.25365</b>	2.50740	2.50740	<b>-0.28925</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19073</b>	1.26300	1.26300	<b>0.27793</b>	2.50740	2.50740	<b>0.31286</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.15160</b>	1.26300	1.26300	<b>-0.25365</b>	2.50740	2.50740	<b>-0.28630</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.18828</b>	1.26300	1.26300	<b>0.27523</b>	2.50740	2.50740	<b>0.31582</b>

### Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	<b>-0.15160</b>	1.26300	1.26300	<b>-0.22936</b>	2.50740	2.50740	<b>-0.28040</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.20295</b>	1.26300	1.26300	<b>0.26984</b>	2.50740	2.50740	<b>0.32467</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.15160</b>	1.26300	1.26300	<b>-0.22936</b>	2.50740	2.50740	<b>-0.28040</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.20295</b>	1.26300	1.26300	<b>0.26714</b>	2.50740	2.50740	<b>0.32467</b>

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	recovery	CLK (R)	0.01860	0.01860	<b>0.11492</b>	1.26300	1.26300	<b>0.28333</b>	2.50740	2.50740	<b>0.48995</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.09781</b>	1.26300	1.26300	<b>-0.24285</b>	2.50740	2.50740	<b>-0.35123</b>
sg13g2_sdfrbpq_2	recovery	CLK (R)	0.01860	0.01860	<b>0.11492</b>	1.26300	1.26300	<b>0.29412</b>	2.50740	2.50740	<b>0.67885</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.09781</b>	1.26300	1.26300	<b>-0.24285</b>	2.50740	2.50740	<b>-0.35123</b>

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	min_pulse_width	RESET_B ()	0.01860	0.00000	<b>0.11505</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>
sg13g2_sdfrbpq_2	min_pulse_width	RESET_B ()	0.01860	0.00000	<b>0.13107</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

### Constraints(ns) for SCD rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	<b>-0.14916</b>	1.26300	1.26300	<b>-0.25365</b>	2.50740	2.50740	<b>-0.28925</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19073</b>	1.26300	1.26300	<b>0.27793</b>	2.50740	2.50740	<b>0.31582</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.15160</b>	1.26300	1.26300	<b>-0.25365</b>	2.50740	2.50740	<b>-0.28925</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.18828</b>	1.26300	1.26300	<b>0.27793</b>	2.50740	2.50740	<b>0.31582</b>

### Constraints(ns) for SCD falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	<b>-0.14916</b>	1.26300	1.26300	<b>-0.22666</b>	2.50740	2.50740	<b>-0.28040</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.20295</b>	1.26300	1.26300	<b>0.26984</b>	2.50740	2.50740	<b>0.32762</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.14916</b>	1.26300	1.26300	<b>-0.22666</b>	2.50740	2.50740	<b>-0.27744</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.20295</b>	1.26300	1.26300	<b>0.26714</b>	2.50740	2.50740	<b>0.32467</b>

### Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	<b>-0.15405</b>	1.26300	1.26300	<b>-0.24825</b>	2.50740	2.50740	<b>-0.28925</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19317</b>	1.26300	1.26300	<b>0.27523</b>	2.50740	2.50740	<b>0.31582</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.15405</b>	1.26300	1.26300	<b>-0.24825</b>	2.50740	2.50740	<b>-0.28925</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19073</b>	1.26300	1.26300	<b>0.27254</b>	2.50740	2.50740	<b>0.31582</b>

### Constraints(ns) for SCE falling :



Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbpq_1	hold	CLK (R)	0.01860	0.01860	<b>-0.15894</b>	1.26300	1.26300	<b>-0.19968</b>	2.50740	2.50740	<b>-0.23317</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.21273</b>	1.26300	1.26300	<b>0.24285</b>	2.50740	2.50740	<b>0.28040</b>
sg13g2_sdfrbpq_2	hold	CLK (R)	0.01860	0.01860	<b>-0.15894</b>	1.26300	1.26300	<b>-0.19968</b>	2.50740	2.50740	<b>-0.23317</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.21029</b>	1.26300	1.26300	<b>0.24285</b>	2.50740	2.50740	<b>0.28040</b>

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK	0.01860	0.00100	<b>0.02598</b>	0.32940	0.06480	<b>0.02735</b>	2.50740	0.30000	<b>0.04810</b>
sg13g2_sdfrbpq_2	CLK	0.01860	0.00100	<b>0.03182</b>	0.32940	0.12960	<b>0.03268</b>	2.50740	0.60000	<b>0.05356</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK	0.01860	0.00100	<b>0.02905</b>	0.32940	0.06480	<b>0.03096</b>	2.50740	0.30000	<b>0.05101</b>
	RESET_B	0.01860	0.00100	<b>0.02561</b>	0.32940	0.06480	<b>0.02574</b>	2.50740	0.30000	<b>0.04204</b>
sg13g2_sdfrbpq_2	CLK	0.01860	0.00100	<b>0.03469</b>	0.32940	0.12960	<b>0.03596</b>	2.50740	0.60000	<b>0.05620</b>
	RESET_B	0.01860	0.00100	<b>0.03124</b>	0.32940	0.12960	<b>0.03058</b>	2.50740	0.60000	<b>0.04723</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK	SCE	0.01860	0.00100	<b>0.02598</b>	0.32940	0.06480	<b>0.02735</b>	2.50740	0.30000	<b>0.04810</b>
	CLK	!SCE	0.01860	0.00100	<b>0.01245</b>	0.32940	0.06480	<b>0.01278</b>	2.50740	0.30000	<b>0.01398</b>
sg13g2_sdfrbpq_2	CLK	SCE	0.01860	0.00100	<b>0.03182</b>	0.32940	0.12960	<b>0.03268</b>	2.50740	0.60000	<b>0.05356</b>
	CLK	!SCE	0.01860	0.00100	<b>0.01831</b>	0.32940	0.12960	<b>0.01812</b>	2.50740	0.60000	<b>0.01946</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbpq_1	CLK	SCE	0.01860	0.00100	<b>0.02905</b>	0.32940	0.06480	<b>0.03096</b>	2.50740	0.30000	<b>0.05101</b>
	CLK	!SCE	0.01860	0.00100	<b>0.01501</b>	0.32940	0.06480	<b>0.01577</b>	2.50740	0.30000	<b>0.01630</b>
sg13g2_sdfrbpq_2	CLK	SCE	0.01860	0.00100	<b>0.03469</b>	0.32940	0.12960	<b>0.03596</b>	2.50740	0.60000	<b>0.05620</b>
	CLK	!SCE	0.01860	0.00100	<b>0.02067</b>	0.32940	0.12960	<b>0.02073</b>	2.50740	0.60000	<b>0.02155</b>

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	<b>0.01352</b>	0.32940	<b>0.01457</b>	2.50740	<b>0.03411</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.01352</b>	0.32940	<b>0.01457</b>	2.50740	<b>0.03411</b>

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	<b>0.01373</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03501</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.01372</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03502</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(RESET_B * SCD * SCE * Q)	0.01860	<b>0.01377</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03436</b>
	(RESET_B * !SCD * SCE * !Q)	0.01860	<b>0.01352</b>	0.32940	<b>0.01457</b>	2.50740	<b>0.03411</b>
	(D * RESET_B * !SCE * Q)	0.01860	<b>0.01377</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03436</b>
	(!RESET_B * !Q)	0.01860	<b>0.00408</b>	0.32940	<b>0.00517</b>	2.50740	<b>0.02462</b>
	(!D * RESET_B * !SCE * !Q)	0.01860	<b>0.01360</b>	0.32940	<b>0.01467</b>	2.50740	<b>0.03421</b>
sg13g2_sdfrbpq_2	(RESET_B * SCD * SCE * Q)	0.01860	<b>0.01377</b>	0.32940	<b>0.01483</b>	2.50740	<b>0.03437</b>
	(RESET_B * !SCD * SCE * !Q)	0.01860	<b>0.01352</b>	0.32940	<b>0.01457</b>	2.50740	<b>0.03411</b>
	(D * RESET_B * !SCE * Q)	0.01860	<b>0.01375</b>	0.32940	<b>0.01483</b>	2.50740	<b>0.03437</b>
	(!RESET_B * !Q)	0.01860	<b>0.00636</b>	0.32940	<b>0.00742</b>	2.50740	<b>0.02691</b>
	(!D * RESET_B * !SCE * !Q)	0.01860	<b>0.01360</b>	0.32940	<b>0.01467</b>	2.50740	<b>0.03421</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(RESET_B * SCD * SCE * Q)	0.01860	<b>0.01373</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03501</b>
	(RESET_B * SCD * SCE * !Q)	0.01860	<b>0.02602</b>	0.32940	<b>0.02713</b>	2.50740	<b>0.04794</b>
	(RESET_B * !SCD * SCE * Q)	0.01860	<b>0.02453</b>	0.32940	<b>0.02580</b>	2.50740	<b>0.04676</b>
	(RESET_B * !SCD * SCE * !Q)	0.01860	<b>0.01310</b>	0.32940	<b>0.01424</b>	2.50740	<b>0.03439</b>
	(D * RESET_B * !SCE * Q)	0.01860	<b>0.01369</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03502</b>
	(!RESET_B * !Q)	0.01860	<b>0.00501</b>	0.32940	<b>0.00612</b>	2.50740	<b>0.02627</b>
	(!D * RESET_B * !SCE * !Q)	0.01860	<b>0.01325</b>	0.32940	<b>0.01441</b>	2.50740	<b>0.03456</b>
sg13g2_sdfrbpq_2	(RESET_B * SCD * SCE * Q)	0.01860	<b>0.01372</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03502</b>
	(RESET_B * SCD * SCE * !Q)	0.01860	<b>0.02601</b>	0.32940	<b>0.02713</b>	2.50740	<b>0.04793</b>
	(RESET_B * !SCD * SCE * Q)	0.01860	<b>0.02454</b>	0.32940	<b>0.02580</b>	2.50740	<b>0.04677</b>
	(RESET_B * !SCD * SCE * !Q)	0.01860	<b>0.01308</b>	0.32940	<b>0.01423</b>	2.50740	<b>0.03438</b>
	(D * RESET_B * !SCE * Q)	0.01860	<b>0.01372</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03502</b>
	(!RESET_B * !Q)	0.01860	<b>0.00727</b>	0.32940	<b>0.00841</b>	2.50740	<b>0.02856</b>
	(!D * RESET_B * !SCE * !Q)	0.01860	<b>0.01328</b>	0.32940	<b>0.01440</b>	2.50740	<b>0.03455</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	<b>0.03884</b>	0.32940	<b>0.03939</b>	2.50740	<b>0.05488</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.04437</b>	0.32940	<b>0.04492</b>	2.50740	<b>0.06041</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	<b>0.02427</b>	0.32940	<b>0.02533</b>	2.50740	<b>0.04232</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.02876</b>	0.32940	<b>0.02982</b>	2.50740	<b>0.04682</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * RESET_B * !SCE)	0.01860	<b>0.03884</b>	0.32940	<b>0.03939</b>	2.50740	<b>0.05488</b>
sg13g2_sdfrbpq_2	(!CLK * RESET_B * !SCE)	0.01860	<b>0.04437</b>	0.32940	<b>0.04492</b>	2.50740	<b>0.06041</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * RESET_B * !SCE)	0.01860	<b>0.02427</b>	0.32940	<b>0.02533</b>	2.50740	<b>0.04232</b>
sg13g2_sdfrbpq_2	(!CLK * RESET_B * !SCE)	0.01860	<b>0.02876</b>	0.32940	<b>0.02982</b>	2.50740	<b>0.04682</b>

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	<b>0.03904</b>	0.32940	<b>0.03958</b>	2.50740	<b>0.05507</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.04457</b>	0.32940	<b>0.04511</b>	2.50740	<b>0.06060</b>

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	<b>0.02279</b>	0.32940	<b>0.02387</b>	2.50740	<b>0.04089</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.02835</b>	0.32940	<b>0.02943</b>	2.50740	<b>0.04644</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * RESET_B * SCE)	0.01860	<b>0.03904</b>	0.32940	<b>0.03958</b>	2.50740	<b>0.05507</b>
sg13g2_sdfrbpq_2	(!CLK * RESET_B * SCE)	0.01860	<b>0.04457</b>	0.32940	<b>0.04511</b>	2.50740	<b>0.06060</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * RESET_B * SCE)	0.01860	<b>0.02279</b>	0.32940	<b>0.02387</b>	2.50740	<b>0.04089</b>
sg13g2_sdfrbpq_2	(!CLK * RESET_B * SCE)	0.01860	<b>0.02835</b>	0.32940	<b>0.02943</b>	2.50740	<b>0.04644</b>

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	<b>0.03222</b>	0.32940	<b>0.03370</b>	2.50740	<b>0.06110</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.03220</b>	0.32940	<b>0.03368</b>	2.50740	<b>0.06109</b>

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	0.01860	<b>0.02515</b>	0.32940	<b>0.05003</b>	2.50740	<b>0.07852</b>
sg13g2_sdfrbpq_2	0.01860	<b>0.02743</b>	0.32940	<b>0.05226</b>	2.50740	<b>0.08078</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.02880</b>	0.32940	<b>0.02953</b>	2.50740	<b>0.04277</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.03222</b>	0.32940	<b>0.03370</b>	2.50740	<b>0.06110</b>
sg13g2_sdfrbpq_2	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.03109</b>	0.32940	<b>0.03181</b>	2.50740	<b>0.04506</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.03220</b>	0.32940	<b>0.03368</b>	2.50740	<b>0.06109</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbpq_1	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.03277</b>	0.32940	<b>0.03351</b>	2.50740	<b>0.04730</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.02515</b>	0.32940	<b>0.05003</b>	2.50740	<b>0.07852</b>
sg13g2_sdfrbpq_2	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.03274</b>	0.32940	<b>0.03348</b>	2.50740	<b>0.04728</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.02743</b>	0.32940	<b>0.05226</b>	2.50740	<b>0.08078</b>



# SDFRBP<sub>x</sub>



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp  
125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_sdfrbp_1	68.94720
sg13g2_sdfrbp_2	72.57600

## Pin Capacitance Information

Cell Name	Pin Cap(pf)					Max Cap(pf)	
	CLK	D	RESET_B	SCD	SCE	Q	Q_N
sg13g2_sdfrbp_1	0.00290	0.00273	0.00508	0.00285	0.00465	0.30000	0.30000
sg13g2_sdfrbp_2	0.00290	0.00273	0.00513	0.00285	0.00465	0.60000	0.60000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sdfrbp_1	4815.92000	5984.66000	7090.28000
sg13g2_sdfrbp_2	5782.17000	6950.88000	8056.51000

## Delay Information

Delay(ns) to Q rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q (RR)	0.01860	0.00100	<b>0.18828</b>	0.32940	0.06480	<b>0.46013</b>	2.50740	0.30000	<b>1.33559</b>
sg13g2_sdfrbp_2	CLK->Q (RR)	0.01860	0.00100	<b>0.23925</b>	0.32940	0.12960	<b>0.50464</b>	2.50740	0.60000	<b>1.38347</b>

Delay(ns) to Q falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q (RF)	0.01860	0.00100	<b>0.17249</b>	0.32940	0.06480	<b>0.42138</b>	2.50740	0.30000	<b>1.17523</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.24387</b>	0.32940	0.06480	<b>0.53339</b>	2.50740	0.30000	<b>1.47362</b>
sg13g2_sdfrbp_2	CLK->Q (RF)	0.01860	0.00100	<b>0.20793</b>	0.32940	0.12960	<b>0.45801</b>	2.50740	0.60000	<b>1.21631</b>
	RESET_B->Q (FF)	0.01860	0.00100	<b>0.28111</b>	0.32940	0.12960	<b>0.57140</b>	2.50740	0.60000	<b>1.51676</b>

Delay(ns) to Q rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.18828</b>	0.32940	0.06480	<b>0.46013</b>	2.50740	0.30000	<b>1.33559</b>
sg13g2_sdfrbp_2	CLK->Q (RR)	SCE	0.01860	0.00100	<b>0.23925</b>	0.32940	0.12960	<b>0.50464</b>	2.50740	0.60000	<b>1.38347</b>

Delay(ns) to Q falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.17249</b>	0.32940	0.06480	<b>0.42138</b>	2.50740	0.30000	<b>1.17523</b>
sg13g2_sdfrbp_2	CLK->Q (RF)	SCE	0.01860	0.00100	<b>0.20793</b>	0.32940	0.12960	<b>0.45801</b>	2.50740	0.60000	<b>1.21631</b>

Delay(ns) to Q\_N rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q_N (RR)	0.01860	0.00100	<b>0.13325</b>	0.32940	0.06480	<b>0.42697</b>	2.50740	0.30000	<b>1.27486</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.20496</b>	0.32940	0.06480	<b>0.53693</b>	2.50740	0.30000	<b>1.57237</b>
sg13g2_sdfrbp_2	CLK->Q_N (RR)	0.01860	0.00100	<b>0.13952</b>	0.32940	0.12960	<b>0.44470</b>	2.50740	0.60000	<b>1.29480</b>
	RESET_B->Q_N (FR)	0.01860	0.00100	<b>0.21379</b>	0.32940	0.12960	<b>0.55645</b>	2.50740	0.60000	<b>1.59391</b>

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

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q_N (RF)	0.01860	0.00100	<b>0.14104</b>	0.32940	0.06480	<b>0.43709</b>	2.50740	0.30000	<b>1.22226</b>
sg13g2_sdfrbp_2	CLK->Q_N (RF)	0.01860	0.00100	<b>0.15499</b>	0.32940	0.12960	<b>0.46802</b>	2.50740	0.60000	<b>1.25629</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q_N (RR)	SCE	0.01860	0.00100	<b>0.13325</b>	0.32940	0.06480	<b>0.42697</b>	2.50740	0.30000	<b>1.27486</b>
sg13g2_sdfrbp_2	CLK->Q_N (RR)	SCE	0.01860	0.00100	<b>0.13952</b>	0.32940	0.12960	<b>0.44470</b>	2.50740	0.60000	<b>1.29480</b>

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

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK->Q_N (RF)	SCE	0.01860	0.00100	<b>0.14104</b>	0.32940	0.06480	<b>0.43709</b>	2.50740	0.30000	<b>1.22226</b>
sg13g2_sdfrbp_2	CLK->Q_N (RF)	SCE	0.01860	0.00100	<b>0.15499</b>	0.32940	0.12960	<b>0.46802</b>	2.50740	0.60000	<b>1.25629</b>

## Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.10864</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>
sg13g2_sdfrbp_2	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.13428</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for D rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.14427</b>	1.26300	1.26300	<b>-0.24825</b>	2.50740	2.50740	<b>-0.28335</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19073</b>	1.26300	1.26300	<b>0.27523</b>	2.50740	2.50740	<b>0.30991</b>
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.14182</b>	1.26300	1.26300	<b>-0.24555</b>	2.50740	2.50740	<b>-0.28335</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19073</b>	1.26300	1.26300	<b>0.27523</b>	2.50740	2.50740	<b>0.30991</b>

Constraints(ns) for D falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.14427</b>	1.26300	1.26300	<b>-0.23206</b>	2.50740	2.50740	<b>-0.28925</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.21029</b>	1.26300	1.26300	<b>0.27254</b>	2.50740	2.50740	<b>0.32762</b>
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.14427</b>	1.26300	1.26300	<b>-0.23206</b>	2.50740	2.50740	<b>-0.28925</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.21029</b>	1.26300	1.26300	<b>0.27254</b>	2.50740	2.50740	<b>0.33057</b>

Constraints(ns) for RESET\_B rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	recovery	CLK (R)	0.01860	0.01860	<b>0.11737</b>	1.26300	1.26300	<b>0.25365</b>	2.50740	2.50740	<b>0.36304</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.10270</b>	1.26300	1.26300	<b>-0.24555</b>	2.50740	2.50740	<b>-0.35419</b>
sg13g2_sdfrbp_2	recovery	CLK (R)	0.01860	0.01860	<b>0.11737</b>	1.26300	1.26300	<b>0.25634</b>	2.50740	2.50740	<b>0.36599</b>
	removal	CLK (R)	0.01860	0.01860	<b>-0.10514</b>	1.26300	1.26300	<b>-0.24825</b>	2.50740	2.50740	<b>-0.35714</b>

Constraints(ns) for RESET\_B falling :

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

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.14427</b>	1.26300	1.26300	<b>-0.24825</b>	2.50740	2.50740	<b>-0.28335</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19073</b>	1.26300	1.26300	<b>0.27523</b>	2.50740	2.50740	<b>0.30991</b>
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.14182</b>	1.26300	1.26300	<b>-0.24825</b>	2.50740	2.50740	<b>-0.28335</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19073</b>	1.26300	1.26300	<b>0.27793</b>	2.50740	2.50740	<b>0.30991</b>

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.14182</b>	1.26300	1.26300	<b>-0.22936</b>	2.50740	2.50740	<b>-0.28630</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.21029</b>	1.26300	1.26300	<b>0.27254</b>	2.50740	2.50740	<b>0.33057</b>
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.13938</b>	1.26300	1.26300	<b>-0.22936</b>	2.50740	2.50740	<b>-0.28630</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.21029</b>	1.26300	1.26300	<b>0.27523</b>	2.50740	2.50740	<b>0.33057</b>

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.14671</b>	1.26300	1.26300	<b>-0.24555</b>	2.50740	2.50740	<b>-0.28630</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19562</b>	1.26300	1.26300	<b>0.27254</b>	2.50740	2.50740	<b>0.30991</b>
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.14427</b>	1.26300	1.26300	<b>-0.24285</b>	2.50740	2.50740	<b>-0.28335</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.19317</b>	1.26300	1.26300	<b>0.27254</b>	2.50740	2.50740	<b>0.31286</b>

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

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_sdfrbp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.14916</b>	1.26300	1.26300	<b>-0.20238</b>	2.50740	2.50740	<b>-0.24203</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.22007</b>	1.26300	1.26300	<b>0.24825</b>	2.50740	2.50740	<b>0.28335</b>
sg13g2_sdfrbp_2	hold	CLK (R)	0.01860	0.01860	<b>-0.14916</b>	1.26300	1.26300	<b>-0.20238</b>	2.50740	2.50740	<b>-0.24203</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.22007</b>	1.26300	1.26300	<b>0.24825</b>	2.50740	2.50740	<b>0.28335</b>

## Power Information

Internal switching power(pJ) to Q rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	<b>0.03730</b>	0.32940	0.06480	<b>0.09707</b>	2.50740	0.30000	<b>0.33166</b>
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	<b>0.04842</b>	0.32940	0.12960	<b>0.16644</b>	2.50740	0.60000	<b>0.61514</b>

Internal switching power(pJ) to Q falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	<b>0.03987</b>	0.32940	0.06480	<b>0.10003</b>	2.50740	0.30000	<b>0.33427</b>
	RESET_B	0.01860	0.00100	<b>0.05336</b>	0.32940	0.06480	<b>0.11947</b>	2.50740	0.30000	<b>0.36309</b>
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	<b>0.04802</b>	0.32940	0.12960	<b>0.16737</b>	2.50740	0.60000	<b>0.61615</b>
	RESET_B	0.01860	0.00100	<b>0.06328</b>	0.32940	0.12960	<b>0.19114</b>	2.50740	0.60000	<b>0.65842</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	<b>0.03730</b>	0.32940	0.06480	<b>0.09707</b>	2.50740	0.30000	<b>0.33166</b>
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	<b>0.04842</b>	0.32940	0.12960	<b>0.16644</b>	2.50740	0.60000	<b>0.61514</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	<b>0.03987</b>	0.32940	0.06480	<b>0.10003</b>	2.50740	0.30000	<b>0.33427</b>
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	<b>0.04802</b>	0.32940	0.12960	<b>0.16737</b>	2.50740	0.60000	<b>0.61615</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	<b>0.03991</b>	0.32940	0.06480	<b>0.10030</b>	2.50740	0.30000	<b>0.33463</b>
	RESET_B	0.01860	0.00100	<b>0.04018</b>	0.32940	0.06480	<b>0.10085</b>	2.50740	0.30000	<b>0.33953</b>
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	<b>0.04809</b>	0.32940	0.12960	<b>0.16784</b>	2.50740	0.60000	<b>0.61653</b>
	RESET_B	0.01860	0.00100	<b>0.06331</b>	0.32940	0.12960	<b>0.18916</b>	2.50740	0.60000	<b>0.64662</b>

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

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	0.01860	0.00100	<b>0.03731</b>	0.32940	0.06480	<b>0.09675</b>	2.50740	0.30000	<b>0.33135</b>
sg13g2_sdfrbp_2	CLK	0.01860	0.00100	<b>0.04846</b>	0.32940	0.12960	<b>0.16600</b>	2.50740	0.60000	<b>0.61483</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	<b>0.03991</b>	0.32940	0.06480	<b>0.10030</b>	2.50740	0.30000	<b>0.33463</b>
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	<b>0.04809</b>	0.32940	0.12960	<b>0.16784</b>	2.50740	0.60000	<b>0.61653</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_sdfrbp_1	CLK	SCE	0.01860	0.00100	<b>0.03731</b>	0.32940	0.06480	<b>0.09675</b>	2.50740	0.30000	<b>0.33135</b>
sg13g2_sdfrbp_2	CLK	SCE	0.01860	0.00100	<b>0.04846</b>	0.32940	0.12960	<b>0.16600</b>	2.50740	0.60000	<b>0.61483</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	<b>0.01353</b>	0.32940	<b>0.01454</b>	2.50740	<b>0.03409</b>
sg13g2_sdfrbp_2	0.01860	<b>0.01353</b>	0.32940	<b>0.01454</b>	2.50740	<b>0.03408</b>

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

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	<b>0.01337</b>	0.32940	<b>0.01443</b>	2.50740	<b>0.03459</b>
sg13g2_sdfrbp_2	0.01860	<b>0.01338</b>	0.32940	<b>0.01443</b>	2.50740	<b>0.03459</b>

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



Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	<b>0.01381</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03437</b>
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	<b>0.01353</b>	0.32940	<b>0.01454</b>	2.50740	<b>0.03409</b>
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	<b>0.01382</b>	0.32940	<b>0.01483</b>	2.50740	<b>0.03437</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.00041</b>	0.32940	<b>0.00147</b>	2.50740	<b>0.02091</b>
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	<b>0.01362</b>	0.32940	<b>0.01464</b>	2.50740	<b>0.03419</b>
sg13g2_sdfrbp_2	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	<b>0.01382</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03436</b>
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	<b>0.01353</b>	0.32940	<b>0.01454</b>	2.50740	<b>0.03408</b>
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	<b>0.01383</b>	0.32940	<b>0.01484</b>	2.50740	<b>0.03436</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.00041</b>	0.32940	<b>0.00147</b>	2.50740	<b>0.02091</b>
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	<b>0.01363</b>	0.32940	<b>0.01464</b>	2.50740	<b>0.03418</b>

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

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

sg13g2_sdfrbp_1	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	<b>0.01336</b>	0.32940	<b>0.01443</b>	2.50740	<b>0.03459</b>
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	<b>0.02604</b>	0.32940	<b>0.02713</b>	2.50740	<b>0.04794</b>
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	<b>0.02430</b>	0.32940	<b>0.02556</b>	2.50740	<b>0.04651</b>
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	<b>0.01312</b>	0.32940	<b>0.01424</b>	2.50740	<b>0.03439</b>
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	<b>0.01337</b>	0.32940	<b>0.01443</b>	2.50740	<b>0.03459</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.00135</b>	0.32940	<b>0.00244</b>	2.50740	<b>0.02259</b>
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	<b>0.01331</b>	0.32940	<b>0.01441</b>	2.50740	<b>0.03457</b>
sg13g2_sdfrbp_2	(RESET_B * SCD * SCE * Q * !Q_N)	0.01860	<b>0.01338</b>	0.32940	<b>0.01443</b>	2.50740	<b>0.03459</b>
	(RESET_B * SCD * SCE * !Q * Q_N)	0.01860	<b>0.02605</b>	0.32940	<b>0.02712</b>	2.50740	<b>0.04793</b>
	(RESET_B * !SCD * SCE * Q * !Q_N)	0.01860	<b>0.02431</b>	0.32940	<b>0.02554</b>	2.50740	<b>0.04650</b>
	(RESET_B * !SCD * SCE * !Q * Q_N)	0.01860	<b>0.01316</b>	0.32940	<b>0.01424</b>	2.50740	<b>0.03439</b>
	(D * RESET_B * !SCE * Q * !Q_N)	0.01860	<b>0.01338</b>	0.32940	<b>0.01443</b>	2.50740	<b>0.03459</b>
	(!RESET_B * !Q * Q_N)	0.01860	<b>0.00135</b>	0.32940	<b>0.00244</b>	2.50740	<b>0.02258</b>
	(!D * RESET_B * !SCE * !Q * Q_N)	0.01860	<b>0.01332</b>	0.32940	<b>0.01441</b>	2.50740	<b>0.03456</b>

Passive power(pJ) for D rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	<b>0.02657</b>	0.32940	<b>0.02712</b>	2.50740	<b>0.04261</b>
sg13g2_sdfrbp_2	0.01860	<b>0.02654</b>	0.32940	<b>0.02709</b>	2.50740	<b>0.04258</b>

Passive power(pJ) for D falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	<b>0.03594</b>	0.32940	<b>0.03700</b>	2.50740	<b>0.05400</b>
sg13g2_sdfrbp_2	0.01860	<b>0.03594</b>	0.32940	<b>0.03700</b>	2.50740	<b>0.05400</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * RESET_B * !SCE)	0.01860	<b>0.02657</b>	0.32940	<b>0.02712</b>	2.50740	<b>0.04261</b>
sg13g2_sdfrbp_2	(!CLK * RESET_B * !SCE)	0.01860	<b>0.02654</b>	0.32940	<b>0.02709</b>	2.50740	<b>0.04258</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * RESET_B * !SCE)	0.01860	<b>0.03594</b>	0.32940	<b>0.03700</b>	2.50740	<b>0.05400</b>
sg13g2_sdfrbp_2	(!CLK * RESET_B * !SCE)	0.01860	<b>0.03594</b>	0.32940	<b>0.03700</b>	2.50740	<b>0.05400</b>

Passive power(pJ) for SCD rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	<b>0.02677</b>	0.32940	<b>0.02731</b>	2.50740	<b>0.04280</b>
sg13g2_sdfrbp_2	0.01860	<b>0.02674</b>	0.32940	<b>0.02728</b>	2.50740	<b>0.04278</b>

Passive power(pJ) for SCD falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	<b>0.01216</b>	0.32940	<b>0.01324</b>	2.50740	<b>0.03025</b>
sg13g2_sdfrbp_2	0.01860	<b>0.01215</b>	0.32940	<b>0.01325</b>	2.50740	<b>0.03025</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * RESET_B * SCE)	0.01860	<b>0.02677</b>	0.32940	<b>0.02731</b>	2.50740	<b>0.04280</b>
sg13g2_sdfrbp_2	(!CLK * RESET_B * SCE)	0.01860	<b>0.02674</b>	0.32940	<b>0.02728</b>	2.50740	<b>0.04278</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * RESET_B * SCE)	0.01860	<b>0.01216</b>	0.32940	<b>0.01324</b>	2.50740	<b>0.03025</b>
sg13g2_sdfrbp_2	(!CLK * RESET_B * SCE)	0.01860	<b>0.01215</b>	0.32940	<b>0.01325</b>	2.50740	<b>0.03025</b>

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	<b>0.03223</b>	0.32940	<b>0.03371</b>	2.50740	<b>0.06112</b>
sg13g2_sdfrbp_2	0.01860	<b>0.03220</b>	0.32940	<b>0.03368</b>	2.50740	<b>0.06107</b>

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	0.01860	<b>0.02149</b>	0.32940	<b>0.04632</b>	2.50740	<b>0.07482</b>
sg13g2_sdfrbp_2	0.01860	<b>0.02146</b>	0.32940	<b>0.04629</b>	2.50740	<b>0.07480</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.02512</b>	0.32940	<b>0.02584</b>	2.50740	<b>0.03908</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.03223</b>	0.32940	<b>0.03371</b>	2.50740	<b>0.06112</b>
sg13g2_sdfrbp_2	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.02516</b>	0.32940	<b>0.02584</b>	2.50740	<b>0.03908</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.03220</b>	0.32940	<b>0.03368</b>	2.50740	<b>0.06107</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sdfrbp_1	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.03278</b>	0.32940	<b>0.03351</b>	2.50740	<b>0.04730</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.02149</b>	0.32940	<b>0.04632</b>	2.50740	<b>0.07482</b>
sg13g2_sdfrbp_2	(!CLK * D * RESET_B * !SCD)	0.01860	<b>0.03275</b>	0.32940	<b>0.03348</b>	2.50740	<b>0.04727</b>
	(!CLK * !D * RESET_B * SCD)	0.01860	<b>0.02146</b>	0.32940	<b>0.04629</b>	2.50740	<b>0.07480</b>

# SIGHOLD



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp  
125.00*

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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	0.01405	-

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_sighold	333.84800	875.32400	1416.80000

## Passive Power Information

Passive power(pJ) for SH rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sighold	0.01860	<b>0.00620</b>	0.32940	<b>0.01119</b>	2.50740	<b>0.05336</b>

Passive power(pJ) for SH falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_sighold	0.01860	<b>0.00524</b>	0.32940	<b>0.00869</b>	2.50740	<b>0.05379</b>



# SLGCP



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_slgcp_1	30.84480

## Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)
	CLK	GATE	SCE	GCLK
sg13g2_slgcp_1	0.00490	0.00191	0.00230	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_slgcp_1	2647.30000	3176.78000	3734.63000

## Delay Information

Delay(ns) to GCLK rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_slgcp_1	CLK->GCLK (RR)	0.01860	0.00100	<b>0.07332</b>	0.32940	0.06480	<b>0.33748</b>	2.50740	0.30000	<b>1.20482</b>

Delay(ns) to GCLK falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_slgcp_1	CLK->GCLK (FF)	0.01860	0.00100	<b>0.06118</b>	0.32940	0.06480	<b>0.31971</b>	2.50740	0.30000	<b>1.12727</b>

## Constraint Information

Constraints(ns) for CLK rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.24322</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for CLK falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	min_pulse_width	CLK ()	0.01860	0.00000	<b>0.09903</b>	1.26300	0.00000	<b>2.08496</b>	2.50740	0.00000	<b>4.13818</b>

Constraints(ns) for GATE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.04274</b>	1.26300	1.26300	<b>-0.17611</b>	2.50740	2.50740	<b>-0.24204</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.06574</b>	1.26300	1.26300	<b>0.23901</b>	2.50740	2.50740	<b>0.33343</b>

Constraints(ns) for GATE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.06910</b>	1.26300	1.26300	<b>-0.20147</b>	2.50740	2.50740	<b>-0.29670</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.11422</b>	1.26300	1.26300	<b>0.24421</b>	2.50740	2.50740	<b>0.35230</b>

Constraints(ns) for SCE rising :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.04551</b>	1.26300	1.26300	<b>-0.20127</b>	2.50740	2.50740	<b>-0.28361</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.07398</b>	1.26300	1.26300	<b>0.26417</b>	2.50740	2.50740	<b>0.37475</b>

Constraints(ns) for SCE falling :

Cell Name	Timing Check	Ref Pin(trans)	Constraint(ns)								
			Input Slew(ns)	Ref Slew(ns)	First	Input Slew(ns)	Ref Slew(ns)	Mid	Input Slew(ns)	Ref Slew(ns)	Last
sg13g2_slgcp_1	hold	CLK (R)	0.01860	0.01860	<b>-0.07233</b>	1.26300	1.26300	<b>-0.16823</b>	2.50740	2.50740	<b>-0.24109</b>
	setup	CLK (R)	0.01860	0.01860	<b>0.12088</b>	1.26300	1.26300	<b>0.20622</b>	2.50740	2.50740	<b>0.28904</b>

## Power Information

Internal switching power(pJ) to GCLK rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_slgcp_1	CLK	0.01860	0.00100	<b>0.01035</b>	0.32940	0.06480	<b>0.01077</b>	2.50740	0.30000	<b>0.02306</b>

Internal switching power(pJ) to GCLK falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_slgcp_1	CLK	0.01860	0.00100	<b>0.00876</b>	0.32940	0.06480	<b>0.01000</b>	2.50740	0.30000	<b>0.02336</b>

Passive power(pJ) for CLK rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	<b>0.00961</b>	0.32940	<b>0.01066</b>	2.50740	<b>0.02721</b>

Passive power(pJ) for CLK falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	<b>0.00772</b>	0.32940	<b>0.00878</b>	2.50740	<b>0.02625</b>

Passive power(pJ) for GATE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	<b>0.02346</b>	0.32940	<b>0.02482</b>	2.50740	<b>0.03746</b>

Passive power(pJ) for GATE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	<b>0.01839</b>	0.32940	<b>0.03720</b>	2.50740	<b>0.05027</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	!CLK	0.01860	<b>0.02346</b>	0.32940	<b>0.02482</b>	2.50740	<b>0.03746</b>

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

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	!CLK	0.01860	<b>0.01839</b>	0.32940	<b>0.03720</b>	2.50740	<b>0.05027</b>

Passive power(pJ) for SCE rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	<b>0.00792</b>	0.32940	<b>0.00849</b>	2.50740	<b>0.02111</b>

Passive power(pJ) for SCE falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_slgcp_1	0.01860	<b>0.01891</b>	0.32940	<b>0.03598</b>	2.50740	<b>0.04799</b>

# TIEHI



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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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	55.10960	55.10960	55.10960

# TIELO



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Footprint

Cell Name	Area
sg13g2_tielo	7.25760

## Pin Capacitance Information

Cell Name	Max Cap(pf)
	L_LO
sg13g2_tielo	-

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_tielo	57.44150	57.44150	57.44150

# XNOR2



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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## Truth Table

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

## Footprint

Cell Name	Area
sg13g2_xnor2_1	14.51520

## Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	A	B	Y
sg13g2_xnor2_1	0.00559	0.00502	0.30000

## Leakage Information



Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xnor2_1	436.47400	1366.74000	1932.02000

## Delay Information

Delay(ns) to Y rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A->Y (-R)	0.01860	0.00100	<b>0.05539</b>	0.32940	0.06480	<b>0.54366</b>	2.50740	0.30000	<b>2.62805</b>
	B->Y (-R)	0.01860	0.00100	<b>0.04799</b>	0.32940	0.06480	<b>0.56697</b>	2.50740	0.30000	<b>2.87407</b>

Delay(ns) to Y falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A->Y (-F)	0.01860	0.00100	<b>0.04908</b>	0.32940	0.06480	<b>0.45295</b>	2.50740	0.30000	<b>2.25058</b>
	B->Y (-F)	0.01860	0.00100	<b>0.04205</b>	0.32940	0.06480	<b>0.44434</b>	2.50740	0.30000	<b>2.23675</b>

Delay(ns) to Y rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A->Y (RR)	B	0.01860	0.00100	<b>0.07306</b>	0.32940	0.06480	<b>0.33823</b>	2.50740	0.30000	<b>1.20181</b>
	A->Y (FR)	!B	0.01860	0.00100	<b>0.05539</b>	0.32940	0.06480	<b>0.54366</b>	2.50740	0.30000	<b>2.62805</b>
	B->Y (RR)	A	0.01860	0.00100	<b>0.06798</b>	0.32940	0.06480	<b>0.33653</b>	2.50740	0.30000	<b>1.20815</b>
	B->Y (FR)	!A	0.01860	0.00100	<b>0.04799</b>	0.32940	0.06480	<b>0.56697</b>	2.50740	0.30000	<b>2.87407</b>

Delay(ns) to Y falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A->Y (FF)	B	0.01860	0.00100	<b>0.07128</b>	0.32940	0.06480	<b>0.43817</b>	2.50740	0.30000	<b>1.64954</b>
	A->Y (RF)	!B	0.01860	0.00100	<b>0.04908</b>	0.32940	0.06480	<b>0.45295</b>	2.50740	0.30000	<b>2.25058</b>
	B->Y (FF)	A	0.01860	0.00100	<b>0.07206</b>	0.32940	0.06480	<b>0.42546</b>	2.50740	0.30000	<b>1.61788</b>
	B->Y (RF)	!A	0.01860	0.00100	<b>0.04205</b>	0.32940	0.06480	<b>0.44434</b>	2.50740	0.30000	<b>2.23675</b>

## Power Information

Internal switching power(pJ) to Y rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A	0.01860	0.00100	<b>0.00975</b>	0.32940	0.06480	<b>0.01028</b>	2.50740	0.30000	<b>0.02234</b>
	B	0.01860	0.00100	<b>0.00999</b>	0.32940	0.06480	<b>0.01059</b>	2.50740	0.30000	<b>0.02360</b>

Internal switching power(pJ) to Y falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A	0.01860	0.00100	<b>0.00887</b>	0.32940	0.06480	<b>0.01004</b>	2.50740	0.30000	<b>0.02277</b>
	B	0.01860	0.00100	<b>0.00944</b>	0.32940	0.06480	<b>0.00907</b>	2.50740	0.30000	<b>0.02218</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A	B	0.01860	0.00100	<b>0.00975</b>	0.32940	0.06480	<b>0.01028</b>	2.50740	0.30000	<b>0.02234</b>
	A	!B	0.01860	0.00100	<b>0.00633</b>	0.32940	0.06480	<b>0.00614</b>	2.50740	0.30000	<b>0.00882</b>
	B	A	0.01860	0.00100	<b>0.00999</b>	0.32940	0.06480	<b>0.01059</b>	2.50740	0.30000	<b>0.02360</b>
	B	!A	0.01860	0.00100	<b>0.00423</b>	0.32940	0.06480	<b>0.00438</b>	2.50740	0.30000	<b>0.00769</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xnor2_1	A	B	0.01860	0.00100	<b>0.00887</b>	0.32940	0.06480	<b>0.01004</b>	2.50740	0.30000	<b>0.02277</b>
	A	!B	0.01860	0.00100	<b>0.00629</b>	0.32940	0.06480	<b>0.00618</b>	2.50740	0.30000	<b>0.00869</b>
	B	A	0.01860	0.00100	<b>0.00944</b>	0.32940	0.06480	<b>0.00907</b>	2.50740	0.30000	<b>0.02218</b>
	B	!A	0.01860	0.00100	<b>0.00520</b>	0.32940	0.06480	<b>0.00542</b>	2.50740	0.30000	<b>0.00783</b>

# XOR2



*sg13g2\_stdcell\_slow\_1p35V\_125C Cell Library: Process  
sg13g2\_stdcell\_slow\_1p35V\_125C, Voltage 1.35, Temp 125.00*

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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	0.00571	0.00506	0.30000

## Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_xor2_1	1079.38000	1356.10000	1948.47000

## Delay Information

Delay(ns) to X rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A->X (-R)	0.01860	0.00100	<b>0.05942</b>	0.32940	0.06480	<b>0.54941</b>	2.50740	0.30000	<b>2.63789</b>
	B->X (-R)	0.01860	0.00100	<b>0.05074</b>	0.32940	0.06480	<b>0.53997</b>	2.50740	0.30000	<b>2.62403</b>

Delay(ns) to X falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A->X (-F)	0.01860	0.00100	<b>0.04517</b>	0.32940	0.06480	<b>0.44860</b>	2.50740	0.30000	<b>2.24012</b>
	B->X (-F)	0.01860	0.00100	<b>0.03967</b>	0.32940	0.06480	<b>0.46669</b>	2.50740	0.30000	<b>2.40683</b>

Delay(ns) to X rising (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A->X (RR)	!B	0.01860	0.00100	<b>0.07420</b>	0.32940	0.06480	<b>0.54388</b>	2.50740	0.30000	<b>2.12935</b>
	A->X (FR)	B	0.01860	0.00100	<b>0.05942</b>	0.32940	0.06480	<b>0.54941</b>	2.50740	0.30000	<b>2.63789</b>
	B->X (RR)	!A	0.01860	0.00100	<b>0.07713</b>	0.32940	0.06480	<b>0.52950</b>	2.50740	0.30000	<b>2.08274</b>
	B->X (FR)	A	0.01860	0.00100	<b>0.05074</b>	0.32940	0.06480	<b>0.53997</b>	2.50740	0.30000	<b>2.62403</b>

Delay(ns) to X falling (conditional):

Cell Name	Timing Arc(Dir)	When	Delay(ns)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A->X (FF)	!B	0.01860	0.00100	<b>0.08681</b>	0.32940	0.06480	<b>0.33157</b>	2.50740	0.30000	<b>1.11214</b>
	A->X (RF)	B	0.01860	0.00100	<b>0.04517</b>	0.32940	0.06480	<b>0.44860</b>	2.50740	0.30000	<b>2.24012</b>
	B->X (FF)	!A	0.01860	0.00100	<b>0.08011</b>	0.32940	0.06480	<b>0.33533</b>	2.50740	0.30000	<b>1.14218</b>
	B->X (RF)	A	0.01860	0.00100	<b>0.03967</b>	0.32940	0.06480	<b>0.46669</b>	2.50740	0.30000	<b>2.40683</b>

## Power Information

Internal switching power(pJ) to X rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A	0.01860	0.00100	<b>0.00871</b>	0.32940	0.06480	<b>0.00974</b>	2.50740	0.30000	<b>0.02176</b>
	B	0.01860	0.00100	<b>0.00939</b>	0.32940	0.06480	<b>0.00901</b>	2.50740	0.30000	<b>0.02097</b>

Internal switching power(pJ) to X falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A	0.01860	0.00100	<b>0.01061</b>	0.32940	0.06480	<b>0.01093</b>	2.50740	0.30000	<b>0.02331</b>
	B	0.01860	0.00100	<b>0.00987</b>	0.32940	0.06480	<b>0.01029</b>	2.50740	0.30000	<b>0.02325</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A	B	0.01860	0.00100	<b>0.00653</b>	0.32940	0.06480	<b>0.00635</b>	2.50740	0.30000	<b>0.00912</b>
	A	!B	0.01860	0.00100	<b>0.00871</b>	0.32940	0.06480	<b>0.00974</b>	2.50740	0.30000	<b>0.02176</b>
	B	A	0.01860	0.00100	<b>0.00526</b>	0.32940	0.06480	<b>0.00535</b>	2.50740	0.30000	<b>0.00769</b>
	B	!A	0.01860	0.00100	<b>0.00939</b>	0.32940	0.06480	<b>0.00901</b>	2.50740	0.30000	<b>0.02097</b>

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

Cell Name	Input	When	Power(pJ)								
			Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_xor2_1	A	B	0.01860	0.00100	<b>0.00644</b>	0.32940	0.06480	<b>0.00611</b>	2.50740	0.30000	<b>0.00867</b>
	A	!B	0.01860	0.00100	<b>0.01061</b>	0.32940	0.06480	<b>0.01093</b>	2.50740	0.30000	<b>0.02331</b>
	B	A	0.01860	0.00100	<b>0.00524</b>	0.32940	0.06480	<b>0.00533</b>	2.50740	0.30000	<b>0.00818</b>
	B	!A	0.01860	0.00100	<b>0.00987</b>	0.32940	0.06480	<b>0.01029</b>	2.50740	0.30000	<b>0.02325</b>