sg13g2_io_typ_1p2V_3p3V_25C Library

Cell Groups
INOUTx
INPUT
SG13G2_IOPADIOVDD
SG13G2_IOPADIOVSS
SG13G2_IOPADVDD
SG13G2_IOPADVSS
TRI_OUTx

INOUTx

Truth Table

INPUT			OUTPUT	
c2p	c2p_en	pad	pad	p2c
-	0	0	-	0
-	0	1	-	1
0	1	-	0	0
1	1	-	1	1

Footprint

Cell Name	Area
sg13g2_IOPadInOut16mA	14400.00000
sg13g2_IOPadInOut30mA	14400.00000
sg13g2_IOPadInOut4mA	14400.00000
sg13g2_IOPadOut16mA	14400.00000
sg13g2_IOPadOut30mA	14400.00000
sg13g2_IOPadOut4mA	14400.00000

Pin Capacitance Information

Cell Name	Pin Cap(pf)			Max Cap(pf)	
	c2p	c2p_en	pad	p2c	pad
sg13g2_IOPadInOut16mA	0.02758	0.02528	0.26512	0.81506	4.19976
sg13g2_IOPadInOut30mA	0.02758	0.02528	0.35424	0.80964	4.83452
sg13g2_IOPadInOut4mA	0.02758	0.02528	0.18858	0.81236	1.07593
sg13g2_IOPadOut16mA	0.03922	0.00000	0.00000	0.00000	4.21305
sg13g2_IOPadOut30mA	0.03922	0.00000	0.00000	0.00000	4.53171
sg13g2_IOPadOut4mA	0.03922	0.00000	0.00000	0.00000	1.11146

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_IOPadInOut16mA	4.74047	2150.39000	2150.39000
sg13g2_IOPadInOut30mA	0.00000	2295.58000	2295.58000
sg13g2_IOPadInOut4mA	0.00000	1978.73000	2042.79000
sg13g2_IOPadOut16mA	201.68200	830.82300	830.82300
sg13g2_IOPadOut30mA	406.78200	1139.43000	1139.43000
sg13g2_IOPadOut4mA	118.79500	656.02900	656.02900

Delay Information

Delay(ns) to p2c rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadInOut16mA	**pad->p2c (RR)**	0.12000	0.02400	**0.08322**	0.60000	0.14400	**0.16898**	3.50000	0.24000	**0.23430**
sg13g2_IOPadInOut30mA	**pad->p2c (RR)**	0.12000	0.02400	**0.08313**	0.60000	0.14400	**0.16892**	3.50000	0.24000	**0.23432**
sg13g2_IOPadInOut4mA	**pad->p2c (RR)**	0.12000	0.02400	**0.08314**	0.60000	0.14400	**0.16892**	3.50000	0.24000	**0.23420**

Delay(ns) to p2c falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadInOut16mA	**pad->p2c (FF)**	0.12000	0.02400	**0.45001**	0.60000	0.14400	**0.77868**	3.50000	0.24000	**2.40259**
sg13g2_IOPadInOut30mA	**pad->p2c (FF)**	0.12000	0.02400	**0.45115**	0.60000	0.14400	**0.76748**	3.50000	0.24000	**2.40238**
sg13g2_IOPadInOut4mA	**pad->p2c (FF)**	0.12000	0.02400	**0.45109**	0.60000	0.14400	**0.76743**	3.50000	0.24000	**2.40075**

Delay(ns) to pad rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadInOut16mA	c2p->pad (RR)	0.02000	1.00000	**1.53598**	0.33000	4.00000	**2.00851**	2.50000	10.00000	**2.78680**
	c2p_en->pad (FR)	0.02000	1.00000	**1.12630**	0.33000	4.00000	**1.19692**	2.50000	10.00000	**1.37853**
	c2p_en->pad (RR)	0.02000	1.00000	**1.53119**	0.33000	4.00000	**2.02427**	2.50000	10.00000	**2.83587**
sg13g2_IOPadInOut30mA	c2p->pad (RR)	0.02000	1.00000	**1.74247**	0.33000	4.00000	**2.15720**	2.50000	10.00000	**2.72911**
	c2p_en->pad (FR)	0.02000	1.00000	**1.31961**	0.33000	4.00000	**1.38713**	2.50000	10.00000	**1.57073**
	c2p_en->pad (RR)	0.02000	1.00000	**1.71898**	0.33000	4.00000	**2.16110**	2.50000	10.00000	**2.75581**
sg13g2_IOPadInOut4mA	c2p->pad (RR)	0.02000	1.00000	**1.54948**	0.33000	4.00000	**2.90912**	2.50000	10.00000	**5.60624**
	c2p_en->pad (FR)	0.02000	1.00000	**0.93245**	0.33000	4.00000	**1.00254**	2.50000	10.00000	**1.18617**
	c2p_en->pad (RR)	0.02000	1.00000	**1.55588**	0.33000	4.00000	**2.96596**	2.50000	10.00000	**5.76737**
sg13g2_IOPadOut16mA	c2p->pad (RR)	0.02000	1.00000	**1.48219**	0.33000	9.00000	**2.59688**	2.50000	15.00000	**4.30039**
sg13g2_IOPadOut30mA	c2p->pad (RR)	0.02000	2.00000	**1.83605**	0.33000	18.00000	**3.16989**	2.50000	30.00000	**4.93804**
sg13g2_IOPadOut4mA	c2p->pad (RR)	0.02000	1.00000	**1.48454**	0.33000	4.00000	**2.91962**	2.50000	10.00000	**6.56310**

Delay(ns) to pad falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadInOut16mA	c2p->pad (FF)	0.02000	1.00000	1.36944	0.33000	4.00000	1.78554	2.50000	10.00000	2.68540
	c2p_en->pad (FF)	0.02000	1.00000	1.33973	0.33000	4.00000	1.42577	2.50000	10.00000	1.67305
	c2p_en->pad (RF)	0.02000	1.00000	1.21273	0.33000	4.00000	1.66304	2.50000	10.00000	2.44213
sg13g2_IOPadInOut30mA	c2p->pad (FF)	0.02000	1.00000	1.64263	0.33000	4.00000	1.95158	2.50000	10.00000	2.61070
	c2p_en->pad (FF)	0.02000	1.00000	1.91034	0.33000	4.00000	1.98278	2.50000	10.00000	2.24674
	c2p_en->pad (RF)	0.02000	1.00000	1.26481	0.33000	4.00000	1.61729	2.50000	10.00000	2.12639
sg13g2_IOPadInOut4mA	c2p->pad (FF)	0.02000	1.00000	1.43677	0.33000	4.00000	2.79226	2.50000	10.00000	5.64667
	c2p_en->pad (FF)	0.02000	1.00000	0.85806	0.33000	4.00000	0.93980	2.50000	10.00000	1.19977
	c2p_en->pad (RF)	0.02000	1.00000	1.45910	0.33000	4.00000	2.91305	2.50000	10.00000	5.78643
sg13g2_IOPadOut16mA	c2p->pad (FF)	0.02000	1.00000	1.29542	0.33000	9.00000	2.18460	2.50000	15.00000	2.92889
sg13g2_IOPadOut30mA	c2p->pad (FF)	0.02000	2.00000	1.66000	0.33000	18.00000	2.66629	2.50000	30.00000	3.42772
sg13g2_IOPadOut4mA	c2p->pad (FF)	0.02000	1.00000	1.33709	0.33000	4.00000	2.65501	2.50000	10.00000	5.34014

Power Information

Internal switching power(pJ) to p2c rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadInOut16mA	pad	0.12000	0.02400	**-0.62321**	0.60000	0.14400	**-0.62459**	3.50000	0.24000	**-0.62197**
	pad	0.12000	0.02400	**0.00010**	0.60000	0.14400	**-0.00085**	3.50000	0.24000	**-0.00306**
sg13g2_IOPadInOut30mA	pad	0.12000	0.02400	**-1.18540**	0.60000	0.14400	**-1.18875**	3.50000	0.24000	**-1.18313**
	pad	0.12000	0.02400	**0.00023**	0.60000	0.14400	**-0.00104**	3.50000	0.24000	**-0.00308**
sg13g2_IOPadInOut4mA	pad	0.12000	0.02400	**-0.15584**	0.60000	0.14400	**-0.15627**	3.50000	0.24000	**-0.15534**
	pad	0.12000	0.02400	**0.00012**	0.60000	0.14400	**-0.00086**	3.50000	0.24000	**-0.00370**

Internal switching power(pJ) to p2c falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadInOut16mA	pad	0.12000	0.02400	**0.62348**	0.60000	0.14400	**0.62459**	3.50000	0.24000	**0.62197**
	pad	0.12000	0.02400	**0.05336**	0.60000	0.14400	**0.05137**	3.50000	0.24000	**0.05066**
sg13g2_IOPadInOut30mA	pad	0.12000	0.02400	**1.19073**	0.60000	0.14400	**1.18875**	3.50000	0.24000	**1.18313**
	pad	0.12000	0.02400	**0.05543**	0.60000	0.14400	**0.05295**	3.50000	0.24000	**0.05251**
sg13g2_IOPadInOut4mA	pad	0.12000	0.02400	**0.15647**	0.60000	0.14400	**0.15627**	3.50000	0.24000	**0.15534**
	pad	0.12000	0.02400	**0.05543**	0.60000	0.14400	**0.05294**	3.50000	0.24000	**0.05242**

Internal switching power(pJ) to pad rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadInOut16mA	c2p	0.02000	1.00000	6.38413	0.33000	4.00000	6.30303	2.50000	10.00000	5.99105
	c2p	0.02000	1.00000	1.46845	0.33000	4.00000	5.74498	2.50000	10.00000	10.34040
	c2p_en	0.02000	1.00000	6.18034	0.33000	4.00000	7.02428	2.50000	10.00000	8.54261
	c2p_en	0.02000	1.00000	1.43686	0.33000	4.00000	5.71923	2.50000	10.00000	10.21370
sg13g2_IOPadInOut30mA	c2p	0.02000	1.00000	10.21910	0.33000	4.00000	9.85601	2.50000	10.00000	9.50502
	c2p	0.02000	1.00000	1.46519	0.33000	4.00000	5.72088	2.50000	10.00000	4.82154
	c2p_en	0.02000	1.00000	9.31797	0.33000	4.00000	10.17010	2.50000	10.00000	11.91200
	c2p_en	0.02000	1.00000	1.43800	0.33000	4.00000	5.70582	2.50000	10.00000	4.53740
sg13g2_IOPadInOut4mA	c2p	0.02000	1.00000	3.52410	0.33000	4.00000	3.40243	2.50000	10.00000	3.19740
	c2p	0.02000	1.00000	1.47173	0.33000	4.00000	5.75484	2.50000	10.00000	14.38480
	c2p_en	0.02000	1.00000	3.40015	0.33000	4.00000	3.96492	2.50000	10.00000	4.94244
	c2p_en	0.02000	1.00000	1.44709	0.33000	4.00000	5.73834	2.50000	10.00000	14.37280
sg13g2_IOPadOut16mA	c2p	0.02000	1.00000	6.17145	0.33000	9.00000	5.95191	2.50000	15.00000	5.99069
	c2p	0.02000	1.00000	-0.01010	0.33000	9.00000	-0.00731	2.50000	15.00000	0.05670
sg13g2_IOPadOut30mA	c2p	0.02000	2.00000	9.96903	0.33000	18.00000	9.44028	2.50000	30.00000	9.33438
	c2p	0.02000	2.00000	-0.01010	0.33000	18.00000	-0.00723	2.50000	30.00000	0.05664
sg13g2_IOPadOut4mA	c2p	0.02000	1.00000	3.16849	0.33000	4.00000	3.09834	2.50000	10.00000	3.10085
	c2p	0.02000	1.00000	-0.01010	0.33000	4.00000	-0.00724	2.50000	10.00000	0.05647

Internal switching power(pJ) to pad falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadInOut16mA	c2p	0.02000	1.00000	**13.25150**	0.33000	4.00000	**10.36050**	2.50000	10.00000	**7.99736**
	c2p	0.02000	1.00000	**0.17136**	0.33000	4.00000	**0.16980**	2.50000	10.00000	**0.22700**
	c2p_en	0.02000	1.00000	**2.51155**	0.33000	4.00000	**2.50700**	2.50000	10.00000	**2.51016**
	c2p_en	0.02000	1.00000	**0.09036**	0.33000	4.00000	**0.08988**	2.50000	10.00000	**0.12397**
sg13g2_IOPadInOut30mA	c2p	0.02000	1.00000	**53.45250**	0.33000	4.00000	**46.07940**	2.50000	10.00000	**36.21970**
	c2p	0.02000	1.00000	**0.17096**	0.33000	4.00000	**0.16989**	2.50000	10.00000	**0.22401**
	c2p_en	0.02000	1.00000	**4.16590**	0.33000	4.00000	**4.16626**	2.50000	10.00000	**4.16693**
	c2p_en	0.02000	1.00000	**0.09047**	0.33000	4.00000	**0.09024**	2.50000	10.00000	**0.11845**
sg13g2_IOPadInOut4mA	c2p	0.02000	1.00000	**1.91385**	0.33000	4.00000	**1.90929**	2.50000	10.00000	**1.90322**
	c2p	0.02000	1.00000	**0.17086**	0.33000	4.00000	**0.16935**	2.50000	10.00000	**0.22867**
	c2p_en	0.02000	1.00000	**1.11032**	0.33000	4.00000	**1.11163**	2.50000	10.00000	**1.11007**
	c2p_en	0.02000	1.00000	**0.08994**	0.33000	4.00000	**0.08955**	2.50000	10.00000	**0.12693**
sg13g2_IOPadOut16mA	c2p	0.02000	1.00000	**14.91860**	0.33000	9.00000	**8.97641**	2.50000	15.00000	**7.79409**
	c2p	0.02000	1.00000	**0.05609**	0.33000	9.00000	**0.06130**	2.50000	15.00000	**0.12570**
sg13g2_IOPadOut30mA	c2p	0.02000	2.00000	**53.69910**	0.33000	18.00000	**31.85670**	2.50000	30.00000	**26.34890**
	c2p	0.02000	2.00000	**0.05609**	0.33000	18.00000	**0.06123**	2.50000	30.00000	**0.12561**
sg13g2_IOPadOut4mA	c2p	0.02000	1.00000	**2.07826**	0.33000	4.00000	**1.98251**	2.50000	10.00000	**1.94503**
	c2p	0.02000	1.00000	**0.05610**	0.33000	4.00000	**0.06131**	2.50000	10.00000	**0.12553**

Passive power(pJ) for c2p rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadInOut16mA	0.02000	**-0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**-0.01643**	0.33000	**-0.01742**	2.50000	**-0.01763**
sg13g2_IOPadInOut30mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**-0.01643**	0.33000	**-0.01742**	2.50000	**-0.01763**
sg13g2_IOPadInOut4mA	0.02000	**-0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**-0.01643**	0.33000	**-0.01742**	2.50000	**-0.01763**

Passive power(pJ) for c2p falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadInOut16mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**0.02248**	0.33000	**0.02214**	2.50000	**0.02216**
sg13g2_IOPadInOut30mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**0.02248**	0.33000	**0.02214**	2.50000	**0.02216**
sg13g2_IOPadInOut4mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**0.02248**	0.33000	**0.02214**	2.50000	**0.02216**

Passive power(pJ) for c2p rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadInOut16mA	(!c2p_en * pad * p2c)	0.02000	**-0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * pad * p2c)	0.02000	**-0.01643**	0.33000	**-0.01742**	2.50000	**-0.01763**
	(!c2p_en * !pad * !p2c)	0.02000	**-0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * !pad * !p2c)	0.02000	**-0.01643**	0.33000	**-0.01742**	2.50000	**-0.01763**
sg13g2_IOPadInOut30mA	(!c2p_en * pad * p2c)	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * pad * p2c)	0.02000	**-0.01643**	0.33000	**-0.01742**	2.50000	**-0.01763**
	(!c2p_en * !pad * !p2c)	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * !pad * !p2c)	0.02000	**-0.01643**	0.33000	**-0.01742**	2.50000	**-0.01763**
sg13g2_IOPadInOut4mA	(!c2p_en * pad * p2c)	0.02000	**-0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * pad * p2c)	0.02000	**-0.01643**	0.33000	**-0.01742**	2.50000	**-0.01763**
	(!c2p_en * !pad * !p2c)	0.02000	**-0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * !pad * !p2c)	0.02000	**-0.01643**	0.33000	**-0.01742**	2.50000	**-0.01763**

Passive power(pJ) for c2p falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadInOut16mA	(!c2p_en * pad * p2c)	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * pad * p2c)	0.02000	**0.02248**	0.33000	**0.02214**	2.50000	**0.02216**
	(!c2p_en * !pad * !p2c)	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * !pad * !p2c)	0.02000	**0.02248**	0.33000	**0.02214**	2.50000	**0.02216**
sg13g2_IOPadInOut30mA	(!c2p_en * pad * p2c)	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * pad * p2c)	0.02000	**0.02248**	0.33000	**0.02214**	2.50000	**0.02216**
	(!c2p_en * !pad * !p2c)	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * !pad * !p2c)	0.02000	**0.02248**	0.33000	**0.02214**	2.50000	**0.02216**
sg13g2_IOPadInOut4mA	(!c2p_en * pad * p2c)	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * pad * p2c)	0.02000	**0.02248**	0.33000	**0.02214**	2.50000	**0.02216**
	(!c2p_en * !pad * !p2c)	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	(!c2p_en * !pad * !p2c)	0.02000	**0.02248**	0.33000	**0.02214**	2.50000	**0.02216**

Passive power(pJ) for c2p_en rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadInOut16mA	0.02000	**1.71151**	0.33000	**1.70911**	2.50000	**1.72074**
	0.02000	**0.03365**	0.33000	**0.03401**	2.50000	**0.07063**
sg13g2_IOPadInOut30mA	0.02000	**2.66300**	0.33000	**2.65803**	2.50000	**2.66328**
	0.02000	**0.03365**	0.33000	**0.03401**	2.50000	**0.07066**
sg13g2_IOPadInOut4mA	0.02000	**0.90907**	0.33000	**0.90904**	2.50000	**0.90859**
	0.02000	**0.03366**	0.33000	**0.03401**	2.50000	**0.07074**

Passive power(pJ) for c2p_en falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadInOut16mA	0.02000	**0.28007**	0.33000	**0.27958**	2.50000	**0.27715**
	0.02000	**0.08135**	0.33000	**0.08226**	2.50000	**0.11852**
sg13g2_IOPadInOut30mA	0.02000	**0.26992**	0.33000	**0.26939**	2.50000	**0.26744**
	0.02000	**0.08135**	0.33000	**0.08226**	2.50000	**0.11885**
sg13g2_IOPadInOut4mA	0.02000	**0.30507**	0.33000	**0.30370**	2.50000	**0.30294**
	0.02000	**0.08135**	0.33000	**0.08226**	2.50000	**0.11872**

Passive power(pJ) for pad rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadInOut16mA	0.02000	**6.38413**	0.33000	**6.30303**	2.50000	**5.99105**
	0.02000	**1.46845**	0.33000	**5.74498**	2.50000	**10.34040**
	0.02000	**6.18034**	0.33000	**7.02428**	2.50000	**8.54261**
	0.02000	**1.43686**	0.33000	**5.71923**	2.50000	**10.21370**
sg13g2_IOPadInOut30mA	0.02000	**10.21910**	0.33000	**9.85601**	2.50000	**9.50502**
	0.02000	**1.46519**	0.33000	**5.72088**	2.50000	**4.82154**
	0.02000	**9.31797**	0.33000	**10.17010**	2.50000	**11.91200**
	0.02000	**1.43800**	0.33000	**5.70582**	2.50000	**4.53740**
sg13g2_IOPadInOut4mA	0.02000	**3.52410**	0.33000	**3.40243**	2.50000	**3.19740**
	0.02000	**1.47173**	0.33000	**5.75484**	2.50000	**14.38480**
	0.02000	**3.40015**	0.33000	**3.96492**	2.50000	**4.94244**
	0.02000	**1.44709**	0.33000	**5.73834**	2.50000	**14.37280**
sg13g2_IOPadOut16mA	0.02000	**6.17145**	0.33000	**5.95191**	2.50000	**5.99069**
	0.02000	**-0.01010**	0.33000	**-0.00731**	2.50000	**0.05670**
sg13g2_IOPadOut30mA	0.02000	**9.96903**	0.33000	**9.44028**	2.50000	**9.33438**
	0.02000	**-0.01010**	0.33000	**-0.00723**	2.50000	**0.05664**
sg13g2_IOPadOut4mA	0.02000	**3.16849**	0.33000	**3.09834**	2.50000	**3.10085**
	0.02000	**-0.01010**	0.33000	**-0.00724**	2.50000	**0.05647**

Passive power(pJ) for pad falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadInOut16mA	0.02000	**13.25150**	0.33000	**10.36050**	2.50000	**7.99736**
	0.02000	**0.17136**	0.33000	**0.16980**	2.50000	**0.22700**
	0.02000	**2.51155**	0.33000	**2.50700**	2.50000	**2.51016**
	0.02000	**0.09036**	0.33000	**0.08988**	2.50000	**0.12397**
sg13g2_IOPadInOut30mA	0.02000	**53.45250**	0.33000	**46.07940**	2.50000	**36.21970**
	0.02000	**0.17096**	0.33000	**0.16989**	2.50000	**0.22401**
	0.02000	**4.16590**	0.33000	**4.16626**	2.50000	**4.16693**
	0.02000	**0.09047**	0.33000	**0.09024**	2.50000	**0.11845**
sg13g2_IOPadInOut4mA	0.02000	**1.91385**	0.33000	**1.90929**	2.50000	**1.90322**
	0.02000	**0.17086**	0.33000	**0.16935**	2.50000	**0.22867**
	0.02000	**1.11032**	0.33000	**1.11163**	2.50000	**1.11007**
	0.02000	**0.08994**	0.33000	**0.08955**	2.50000	**0.12693**
sg13g2_IOPadOut16mA	0.02000	**14.91860**	0.33000	**8.97641**	2.50000	**7.79409**
	0.02000	**0.05609**	0.33000	**0.06130**	2.50000	**0.12570**
sg13g2_IOPadOut30mA	0.02000	**53.69910**	0.33000	**31.85670**	2.50000	**26.34890**
	0.02000	**0.05609**	0.33000	**0.06123**	2.50000	**0.12561**
sg13g2_IOPadOut4mA	0.02000	**2.07826**	0.33000	**1.98251**	2.50000	**1.94503**
	0.02000	**0.05610**	0.33000	**0.06131**	2.50000	**0.12553**

INPUT

Truth Table

INPUT	OUTPUT
pad	p2c
0	0
1	1

Footprint

Cell Name	Area
sg13g2_IOPadIn	14400.00000

Pin Capacitance Information

Cell Name	Pin Cap(pf)	Max Cap(pf)
	pad	p2c
sg13g2_IOPadIn	0.22066	0.81352

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_IOPadIn	0.00000	257.60100	306.04700

Delay Information

Delay(ns) to p2c rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadIn	**pad->p2c (RR)**	0.12000	0.02400	**0.08293**	0.60000	0.14400	**0.16877**	3.50000	0.24000	**0.23410**

Delay(ns) to p2c falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadIn	**pad->p2c (FF)**	0.12000	0.02400	**0.44960**	0.60000	0.14400	**0.76196**	3.50000	0.24000	**2.38737**

Power Information

Internal switching power(pJ) to p2c rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadIn	**pad**	0.12000	0.02400	**0.00000**	0.60000	0.14400	**0.00000**	3.50000	0.24000	**0.00000**
	pad	0.12000	0.02400	**0.00001**	0.60000	0.14400	**-0.00108**	3.50000	0.24000	**-0.00384**

Internal switching power(pJ) to p2c falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadIn	**pad**	0.12000	0.02400	**-0.00000**	0.60000	0.14400	**-0.00000**	3.50000	0.24000	**-0.00000**
	pad	0.12000	0.02400	**0.05334**	0.60000	0.14400	**0.05079**	3.50000	0.24000	**0.05145**

SG13G2_IOPADIOVDD

Footprint

Cell Name	Area
sg13g2_IOPadIOVdd	14400.00000

Pin Capacitance Information
Leakage Information

Cell Name	Leakage(pW)		
	Min.	**Avg**	**Max.**
sg13g2_IOPadIOVdd	0.00000	4853.24000	4853.24000

SG13G2_IOPADIOVSS

Footprint

Cell Name	Area
sg13g2_IOPadIOVss	14400.00000

Pin Capacitance Information
Leakage Information

Cell Name	Leakage(pW)		
	Min.	**Avg**	**Max.**
sg13g2_IOPadIOVss	0.00000	1.51487	1.51487

SG13G2_IOPADVDD

Footprint

Cell Name	Area
sg13g2_IOPadVdd	14400.00000

Pin Capacitance Information
Leakage Information

Cell Name	Leakage(pW)		
	Min.	**Avg**	**Max.**
sg13g2_IOPadVdd	0.00000	0.00000	0.00000

SG13G2_IOPADVSS

Footprint

Cell Name	Area
sg13g2_IOPadVss	14400.00000

Pin Capacitance Information
Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_IOPadVss	0.00000	0.95236	0.95236

TRI_OUTx

Truth Table

INPUT		OUTPUT
c2p	c2p_en	pad
-	0	HiZ
0	1	0
1	1	1

Footprint

Cell Name	Area
sg13g2_IOPadTriOut16mA	14400.00000
sg13g2_IOPadTriOut30mA	14400.00000
sg13g2_IOPadTriOut4mA	14400.00000

Pin Capacitance Information

Cell Name	Pin Cap(pf)		Max Cap(pf)
	c2p	c2p_en	pad
sg13g2_IOPadTriOut16mA	0.02743	0.02594	4.21412
sg13g2_IOPadTriOut30mA	0.02743	0.02594	4.86346
sg13g2_IOPadTriOut4mA	0.02743	0.02595	1.11181

Leakage Information

Cell Name	Leakage(pW)		
	Min.	Avg	Max.
sg13g2_IOPadTriOut16mA	173.44600	1896.83000	1896.83000
sg13g2_IOPadTriOut30mA	281.63900	2087.15000	2087.15000
sg13g2_IOPadTriOut4mA	13.83420	1676.97000	1755.43000

Delay Information

Delay(ns) to pad rising :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadTriOut16mA	c2p->pad (RR)	0.02000	1.00000	**1.55181**	0.33000	4.00000	**2.03028**	2.50000	10.00000	**2.81045**
	c2p_en->pad (FR)	0.02000	1.00000	**1.14816**	0.33000	4.00000	**1.21639**	2.50000	10.00000	**1.39988**
	c2p_en->pad (RR)	0.02000	1.00000	**1.54568**	0.33000	4.00000	**2.04601**	2.50000	10.00000	**2.86352**
sg13g2_IOPadTriOut30mA	c2p->pad (RR)	0.02000	1.00000	**1.76117**	0.33000	4.00000	**2.17873**	2.50000	10.00000	**2.75815**
	c2p_en->pad (FR)	0.02000	1.00000	**1.33963**	0.33000	4.00000	**1.40984**	2.50000	10.00000	**1.59423**
	c2p_en->pad (RR)	0.02000	1.00000	**1.73374**	0.33000	4.00000	**2.18174**	2.50000	10.00000	**2.78520**
sg13g2_IOPadTriOut4mA	c2p->pad (RR)	0.02000	1.00000	**1.55578**	0.33000	4.00000	**2.91632**	2.50000	10.00000	**5.61473**
	c2p_en->pad (FR)	0.02000	1.00000	**0.95284**	0.33000	4.00000	**1.02359**	2.50000	10.00000	**1.20632**
	c2p_en->pad (RR)	0.02000	1.00000	**1.56138**	0.33000	4.00000	**2.97624**	2.50000	10.00000	**5.78864**

Delay(ns) to pad falling :

Cell Name	Timing Arc(Dir)	Delay(ns)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadTriOut16mA	c2p->pad (FF)	0.02000	1.00000	**1.38738**	0.33000	4.00000	**1.80448**	2.50000	10.00000	**2.70370**
	c2p_en->pad (FF)	0.02000	1.00000	**1.35910**	0.33000	4.00000	**1.44018**	2.50000	10.00000	**1.69253**
	c2p_en->pad (RF)	0.02000	1.00000	**1.22722**	0.33000	4.00000	**1.68247**	2.50000	10.00000	**2.46511**
sg13g2_IOPadTriOut30mA	c2p->pad (FF)	0.02000	1.00000	**1.66341**	0.33000	4.00000	**1.97338**	2.50000	10.00000	**2.63449**
	c2p_en->pad (FF)	0.02000	1.00000	**1.94579**	0.33000	4.00000	**2.02803**	2.50000	10.00000	**2.25424**
	c2p_en->pad (RF)	0.02000	1.00000	**1.28022**	0.33000	4.00000	**1.63754**	2.50000	10.00000	**2.15309**
sg13g2_IOPadTriOut4mA	c2p->pad (FF)	0.02000	1.00000	**1.44376**	0.33000	4.00000	**2.79680**	2.50000	10.00000	**5.64887**
	c2p_en->pad (FF)	0.02000	1.00000	**0.87445**	0.33000	4.00000	**0.95678**	2.50000	10.00000	**1.21679**
	c2p_en->pad (RF)	0.02000	1.00000	**1.46421**	0.33000	4.00000	**2.91799**	2.50000	10.00000	**5.79463**

Power Information

Internal switching power(pJ) to pad rising :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadTriOut16mA	c2p	0.02000	1.00000	**6.11675**	0.33000	4.00000	**6.13589**	2.50000	10.00000	**5.92845**
	c2p	0.02000	1.00000	**0.04928**	0.33000	4.00000	**0.04789**	2.50000	10.00000	**0.10721**
	c2p_en	0.02000	1.00000	**5.88778**	0.33000	4.00000	**6.96660**	2.50000	10.00000	**8.78648**
	c2p_en	0.02000	1.00000	**0.02154**	0.33000	4.00000	**0.02307**	2.50000	10.00000	**0.09326**
sg13g2_IOPadTriOut30mA	c2p	0.02000	1.00000	**10.05590**	0.33000	4.00000	**9.73120**	2.50000	10.00000	**9.62280**
	c2p	0.02000	1.00000	**0.04927**	0.33000	4.00000	**0.04788**	2.50000	10.00000	**0.10717**
	c2p_en	0.02000	1.00000	**9.05155**	0.33000	4.00000	**10.12280**	2.50000	10.00000	**12.11460**
	c2p_en	0.02000	1.00000	**0.02153**	0.33000	4.00000	**0.02305**	2.50000	10.00000	**0.09307**
sg13g2_IOPadTriOut4mA	c2p	0.02000	1.00000	**3.16644**	0.33000	4.00000	**3.07850**	2.50000	10.00000	**2.89717**
	c2p	0.02000	1.00000	**0.04933**	0.33000	4.00000	**0.04794**	2.50000	10.00000	**0.10721**
	c2p_en	0.02000	1.00000	**3.03984**	0.33000	4.00000	**3.65871**	2.50000	10.00000	**4.92921**
	c2p_en	0.02000	1.00000	**0.02160**	0.33000	4.00000	**0.02312**	2.50000	10.00000	**0.09365**

Internal switching power(pJ) to pad falling :

Cell Name	Input	Power(pJ)								
		Slew(ns)	Load(pf)	First	Slew(ns)	Load(pf)	Mid	Slew(ns)	Load(pf)	Last
sg13g2_IOPadTriOut16mA	c2p	0.02000	1.00000	**13.39900**	0.33000	4.00000	**10.48090**	2.50000	10.00000	**8.09065**
	c2p	0.02000	1.00000	**0.11940**	0.33000	4.00000	**0.11824**	2.50000	10.00000	**0.17792**
	c2p_en	0.02000	1.00000	**2.55722**	0.33000	4.00000	**2.56063**	2.50000	10.00000	**2.56021**
	c2p_en	0.02000	1.00000	**0.03645**	0.33000	4.00000	**0.03674**	2.50000	10.00000	**0.07381**
sg13g2_IOPadTriOut30mA	c2p	0.02000	1.00000	**53.60400**	0.33000	4.00000	**46.20840**	2.50000	10.00000	**36.32050**
	c2p	0.02000	1.00000	**0.11935**	0.33000	4.00000	**0.11818**	2.50000	10.00000	**0.17791**
	c2p_en	0.02000	1.00000	**4.21710**	0.33000	4.00000	**4.22311**	2.50000	10.00000	**4.22415**
	c2p_en	0.02000	1.00000	**0.03640**	0.33000	4.00000	**0.03668**	2.50000	10.00000	**0.07354**
sg13g2_IOPadTriOut4mA	c2p	0.02000	1.00000	**1.99739**	0.33000	4.00000	**1.99406**	2.50000	10.00000	**1.98992**
	c2p	0.02000	1.00000	**0.11960**	0.33000	4.00000	**0.11844**	2.50000	10.00000	**0.17829**
	c2p_en	0.02000	1.00000	**1.15253**	0.33000	4.00000	**1.15014**	2.50000	10.00000	**1.14920**
	c2p_en	0.02000	1.00000	**0.03666**	0.33000	4.00000	**0.03699**	2.50000	10.00000	**0.07436**

Passive power(pJ) for c2p rising :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadTriOut16mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**-0.01643**	0.33000	**-0.01749**	2.50000	**-0.01774**
sg13g2_IOPadTriOut30mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**-0.01643**	0.33000	**-0.01749**	2.50000	**-0.01774**
sg13g2_IOPadTriOut4mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**-0.01643**	0.33000	**-0.01749**	2.50000	**-0.01774**

Passive power(pJ) for c2p falling :

Cell Name	Power(pJ)					
	Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadTriOut16mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**-0.00000**
	0.02000	**0.02149**	0.33000	**0.02091**	2.50000	**0.02083**
sg13g2_IOPadTriOut30mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	0.02000	**0.02149**	0.33000	**0.02092**	2.50000	**0.02078**
sg13g2_IOPadTriOut4mA	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**-0.00000**
	0.02000	**0.02149**	0.33000	**0.02125**	2.50000	**0.02090**

Passive power(pJ) for c2p rising (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadTriOut16mA	!c2p_en	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	!c2p_en	0.02000	**-0.01643**	0.33000	**-0.01749**	2.50000	**-0.01774**
sg13g2_IOPadTriOut30mA	!c2p_en	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	!c2p_en	0.02000	**-0.01643**	0.33000	**-0.01749**	2.50000	**-0.01774**
sg13g2_IOPadTriOut4mA	!c2p_en	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	!c2p_en	0.02000	**-0.01643**	0.33000	**-0.01749**	2.50000	**-0.01774**

Passive power(pJ) for c2p falling (conditional):

Cell Name	When	Power(pJ)					
		Slew(ns)	First	Slew(ns)	Mid	Slew(ns)	Last
sg13g2_IOPadTriOut16mA	**!c2p_en**	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**-0.00000**
	!c2p_en	0.02000	**0.02149**	0.33000	**0.02091**	2.50000	**0.02083**
sg13g2_IOPadTriOut30mA	**!c2p_en**	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**0.00000**
	!c2p_en	0.02000	**0.02149**	0.33000	**0.02092**	2.50000	**0.02078**
sg13g2_IOPadTriOut4mA	**!c2p_en**	0.02000	**0.00000**	0.33000	**0.00000**	2.50000	**-0.00000**
	!c2p_en	0.02000	**0.02149**	0.33000	**0.02125**	2.50000	**0.02090**