SKY130_UUOPENFPGA_CC_HD_INVMUX3_1

Cell Library: sky130_uuopenfpga_cc_hd
Process: TT
Voltage: 1.80
Temp: 25.00

Footprint

Cell Name	Area
sky130_uuopenfpga_cc_hd_invmux3_1	28.77760

Pin Capacitance Information

Cell Name	Pin Cap(pf)									Max Cap(pf)
	Q1	**Q2**	**Q3**	**S0**	**S0B**	**S1**	**S1B**	**S2**	**S2B**	**Z**
sky130_uuopenfpga_cc_hd_invmux3_1	0.00262	0.00259	0.00257	0.00126	0.00149	0.00124	0.00149	0.00222	0.00240	0.21844

Leakage Information

Cell Name	Leakage(nW)		
	Min.	**Avg**	**Max.**
sky130_uuopenfpga_cc_hd_invmux3_1	0.02936	0.03585	0.04183

Delay Information

Delay(ns) to Z rising :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	**Mid**	**Last**
sky130_uuopenfpga_cc_hd_invmux3_1	**Q1->Z (FR)**	0.06567	0.46234	2.55355
	Q2->Z (FR)	0.06643	0.46387	2.55925
	Q3->Z (FR)	0.06901	0.46885	2.57696
	S0->Z (RR)	0.03627	0.41538	2.41856
	S0->Z (FR)	0.03644	0.41917	2.43677
	S0B->Z (RR)	0.03644	0.41917	2.43677
	S0B->Z (FR)	0.03627	0.41538	2.41856
	S1->Z (RR)	0.03727	0.41733	2.42138
	S1->Z (FR)	0.03623	0.41903	2.43668
	S1B->Z (RR)	0.03623	0.41903	2.43668
	S1B->Z (FR)	0.03727	0.41733	2.42138
	S2->Z (RR)	0.03644	0.41917	2.43677
	S2->Z (FR)	0.03608	0.41642	2.42133
	S2B->Z (RR)	0.03608	0.41642	2.42133
	S2B->Z (FR)	0.03644	0.41917	2.43677

Delay(ns) to Z falling :

Cell Name	Timing Arc(Dir)	Delay(ns)		
		First	Mid	Last
sky130_uuopenfpga_cc_hd_invmux3_1	Q1->Z (RF)	0.04340	0.29458	1.68871
	Q2->Z (RF)	0.04383	0.29531	1.69294
	Q3->Z (RF)	0.04667	0.30736	1.72662
	S0->Z (FF)	0.02397	0.28559	1.77084
	S0->Z (RF)	0.02560	0.27513	1.70325
	S0B->Z (FF)	0.02560	0.27513	1.70325
	S0B->Z (RF)	0.02397	0.28559	1.77084
	S1->Z (FF)	0.02404	0.28571	1.77111
	S1->Z (RF)	0.02544	0.27556	1.70535
	S1B->Z (FF)	0.02544	0.27556	1.70535
	S1B->Z (RF)	0.02404	0.28571	1.77111
	S2->Z (FF)	0.02544	0.27556	1.70535
	S2->Z (RF)	0.02404	0.28571	1.77111
	S2B->Z (FF)	0.02404	0.28571	1.77111
	S2B->Z (RF)	0.02544	0.27556	1.70535

Power Information

Internal switching power(pJ) to Z rising :

Cell Name	Input	Power(pJ)		
		first	mid	last
sky130_uuopenfpga_cc_hd_invmux3_1	Q1	0.01899	0.01844	0.01841
	Q2	0.01914	0.01854	0.01834
	Q3	0.01998	0.01939	0.01944
	S0	0.00973	0.00941	0.01014
	S0B	0.00973	0.00941	0.01014
	S1	0.00973	0.00941	0.01014
	S1B	0.00973	0.00941	0.01014
	S2	0.00938	0.00911	0.00976
	S2B	0.00938	0.00911	0.00976

Internal switching power(pJ) to Z falling :

Cell Name	Input	Power(pJ)		
		first	mid	last
sky130_uuopenfpga_cc_hd_invmux3_1	Q1	0.00469	0.00444	0.00588
	Q2	0.00479	0.00453	0.00597
	Q3	0.00503	0.00475	0.00619

S0	0.00521	0.00538	0.00549
S0B	0.00521	0.00538	0.00549
S1	0.00528	0.00544	0.00555
S1B	0.00528	0.00544	0.00555
S2	0.00528	0.00544	0.00555
S2B	0.00528	0.00544	0.00555

Passive power(pJ) for Q1 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
sky130_uuopenfpga_cc_hd_invmux3_1	**(Q2 * Q3 * !S0 * S0B * S1 * !S1B * !S2 * S2B * !Z) + (Q2 * Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * !Z) + (Q2 * !Q3 * !S0 * S0B * S1 * !S1B * !S2 * S2B * !Z) + (Q2 * !Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * Z) + (!Q2 * Q3 * !S0 * S0B * S1 * !S1B * !S2 * S2B * Z) + (!Q2 * Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * !Z) + (!Q2 * !Q3 * !S0 * S0B * S1 * !S1B * !S2 * S2B * Z) + (!Q2 * !Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * Z)**	-0.00094	-0.00157	0.00247

Passive power(pJ) for Q1 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
sky130_uuopenfpga_cc_hd_invmux3_1	**(Q2 * Q3 * !S0 * S0B * S1 * !S1B * !S2 * S2B * !Z) + (Q2 * Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * !Z) + (Q2 * !Q3 * !S0 * S0B * S1 * !S1B * !S2 * S2B * !Z) + (Q2 * !Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * Z) + (!Q2 * Q3 * !S0 * S0B * S1 * !S1B * !S2 * S2B * Z) + (!Q2 * Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * !Z) + (!Q2 * !Q3 * !S0 * S0B * S1 * !S1B * !S2 * S2B * Z) + (!Q2 * !Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * Z)**	0.00821	0.00795	0.01223

Passive power(pJ) for Q2 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
sky130_uuopenfpga_cc_hd_invmux3_1	**(Q1 * Q3 * S0 * !S0B * !S1 * S1B * !S2 * S2B * !Z) + (Q1 * Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * !Z) + (Q1 * !Q3 * S0 * !S0B * !S1 * S1B * !S2 * S2B * !Z) + (Q1 * !Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * Z) + (!Q1 * Q3 * S0 * !S0B * !S1 * S1B * !S2 * S2B * Z) + (!Q1 * Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * !Z) + (!Q1 * !Q3 * S0 * !S0B * !S1 * S1B * !S2 * S2B * Z) + (!Q1 * !Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * Z)**	-0.00082	-0.00146	0.00251

Passive power(pJ) for Q2 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
sky130_uuopenfpga_cc_hd_invmux3_1	**(Q1 * Q3 * S0 * !S0B * !S1 * S1B * !S2 * S2B * !Z) + (Q1 * Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * !Z) + (Q1 * !Q3 * S0 * !S0B * !S1 * S1B * !S2 * S2B * !Z) + (Q1 * !Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * Z) + (!Q1 * Q3 * S0 * !S0B * !S1 * S1B * !S2 * S2B * Z) + (!Q1 * Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * !Z) + (!Q1 * !Q3 * S0 * !S0B * !S1 * S1B * !S2 * S2B * Z) + (!Q1 * !Q3 * !S0 * S0B * !S1 * S1B * S2 * !S2B * Z)**	0.00850	0.00822	0.01243

Passive power(pJ) for Q3 rising (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
sky130_uuopenfpga_cc_hd_invmux3_1	(Q1 * Q2 * S0 * !S0B * !S1 * S1B * !S2 * S2B * !Z) + (Q1 * Q2 * !S0 * S0B * S1 * !S1B * !S2 * S2B * !Z) + (Q1 * !Q2 * S0 * !S0B * !S1 * S1B * !S2 * S2B * !Z) + (Q1 * !Q2 * !S0 * S0B * S1 * !S1B * !S2 * S2B * Z) + (!Q1 * Q2 * S0 * !S0B * !S1 * S1B * !S2 * S2B * Z) + (!Q1 * Q2 * !S0 * S0B * S1 * !S1B * !S2 * S2B * !Z) + (!Q1 * !Q2 * S0 * !S0B * !S1 * S1B * !S2 * S2B * Z) + (!Q1 * !Q2 * !S0 * S0B * S1 * !S1B * !S2 * S2B * Z)	-0.00048	-0.00115	0.00243

Passive power(pJ) for Q3 falling (conditional):

Cell Name	When	Power(pJ)		
		first	mid	last
sky130_uuopenfpga_cc_hd_invmux3_1	(Q1 * Q2 * S0 * !S0B * !S1 * S1B * !S2 * S2B * !Z) + (Q1 * Q2 * !S0 * S0B * S1 * !S1B * !S2 * S2B * !Z) + (Q1 * !Q2 * S0 * !S0B * !S1 * S1B * !S2 * S2B * !Z) + (Q1 * !Q2 * !S0 * S0B * S1 * !S1B * !S2 * S2B * Z) + (!Q1 * Q2 * S0 * !S0B * !S1 * S1B * !S2 * S2B * Z) + (!Q1 * Q2 * !S0 * S0B * S1 * !S1B * !S2 * S2B * !Z) + (!Q1 * !Q2 * S0 * !S0B * !S1 * S1B * !S2 * S2B * Z) + (!Q1 * !Q2 * !S0 * S0B * S1 * !S1B * !S2 * S2B * Z)	0.01102	0.01063	0.01449