

Databook Build Date: Thursday Feb 17 15:07 2011

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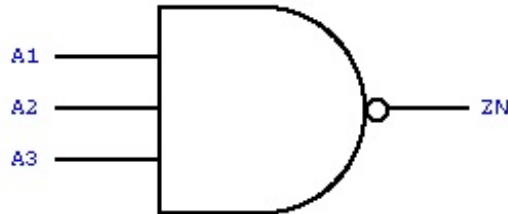
Conditions for characterization library **NangateOpenCellLibrary**, corner **NangateOpenCellLibrary_typical_typical**: Vdd= 1.10V, Tj= 25.0 deg. C .

Additional corners: NangateOpenCellLibrary [NangateOpenCellLibrary_slow_slow], NangateOpenCellLibrary [NangateOpenCellLibrary_fast_fast], NangateOpenCellLibrary [NangateOpenCellLibrary_worst_low_worst_low], NangateOpenCellLibrary [NangateOpenCellLibrary_low_temp_low_temp].

Output transition is defined from 30% to 70% (rising) and from 70% to 30% (falling) output voltage.

Propagation delay is measured from 50% (input rise) or 50% (input fall) to 50% (output rise) or 50% (output fall).

Strength	1
Cell Area	1.064 um ²
Equation	ZN = "!(A1 & A2) & A3"
Type	Combinational
Input	A1, A2, A3
Output	ZN
PG Pins	VDD (primary_power), VSS (primary_ground)



State Table			
A1	A2	A3	ZN
L	-	-	H
H	H	H	L
-	L	-	H
-	-	L	H

Propagation Delay [ns]					
Input Transition [ns]		0.0012		0.1985	
Load Capacitance [fF]		0.3656	58.3649	0.3656	58.3649
A1 to ZN	fall	0.01	0.18	0.02	0.26
	rise	0.01	0.15	0.04	0.25
A2 to ZN	fall	0.01	0.18	0.03	0.25
	rise	0.01	0.15	0.05	0.25
A3 to ZN	fall	0.01	0.19	0.02	0.23
	rise	0.01	0.15	0.06	0.26

Output Transition [ns]					
Input Transition [ns]		0.0012		0.1985	
Load Capacitance [fF]		0.3656	58.3649	0.3656	58.3649
A1 to ZN	fall	0.01	0.15	0.04	0.16
	rise	0.01	0.14	0.04	0.15
A2 to ZN	fall	0.01	0.15	0.03	0.16
	rise	0.01	0.14	0.03	0.15
A3 to ZN	fall	0.01	0.15	0.03	0.16
	rise	0.01	0.14	0.03	0.15

Capacitance [fF]	
A1	1.5903
A2	1.6212
A3	1.6504

Leakage [nW]
18.10

Dynamic Power Consumption [uW/GHz]					
Input Transition [ns]		0.0012		0.1985	
Load Capacitance [fF]		0.3656	58.3649	0.3656	58.3649
A1 to ZN	fall	0.52	0.56	3.28	1.11
	rise	2.47	2.46	5.19	3.45
A2 to ZN	fall	0.53	0.56	2.42	0.82
	rise	3.20	3.01	5.85	4.37
A3 to ZN	fall	0.53	0.56	2.25	0.80
	rise	3.77	3.83	6.61	4.88

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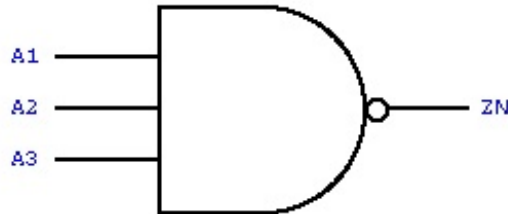
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Output transition is defined from 30% to 70% (rising) and from 70% to 30% (falling) output voltage.

Propagation delay is measured from 50% (input rise) or 50% (input fall) to 50% (output rise) or 50% (output fall).

Strength	2
Cell Area	1.862 um ²
Equation	ZN = "!(A1 & A2) & A3"
Type	Combinational
Input	A1, A2, A3
Output	ZN
PG Pins	VDD (primary_power), VSS (primary_ground)



State Table			
A1	A2	A3	ZN
L	-	-	H
H	H	H	L
-	L	-	H
-	-	L	H

Propagation Delay [ns]					
Input Transition [ns]		0.0012		0.1985	
Load Capacitance [fF]		0.3656	116.272	0.3656	116.272
A1 to ZN	fall	0.01	0.18	0.02	0.26
	rise	0.01	0.15	0.04	0.25
A2 to ZN	fall	0.01	0.18	0.03	0.25
	rise	0.01	0.15	0.05	0.25
A3 to ZN	fall	0.01	0.19	0.02	0.23
	rise	0.01	0.15	0.06	0.26

Output Transition [ns]					
Input Transition [ns]		0.0012		0.1985	
Load Capacitance [fF]		0.3656	116.272	0.3656	116.272
A1 to ZN	fall	0.01	0.15	0.04	0.16
	rise	0.01	0.14	0.04	0.15
A2 to ZN	fall	0.01	0.15	0.03	0.16
	rise	0.01	0.14	0.03	0.15
A3 to ZN	fall	0.01	0.15	0.03	0.16
	rise	0.01	0.14	0.03	0.15

Capacitance [fF]	
A1	2.9778
A2	3.2864
A3	3.5589

Leakage [nW]
36.21

Dynamic Power Consumption [uW/GHz]					
Input Transition [ns]		0.0012		0.1985	
Load Capacitance [fF]		0.3656	116.272	0.3656	116.272
A1 to ZN	fall	1.24	1.31	6.74	2.40
	rise	5.11	5.07	10.57	7.05
A2 to ZN	fall	1.24	1.31	5.03	1.83
	rise	6.57	6.85	11.85	8.89
A3 to ZN	fall	1.24	1.31	4.68	1.78
	rise	7.72	8.20	13.41	10.20