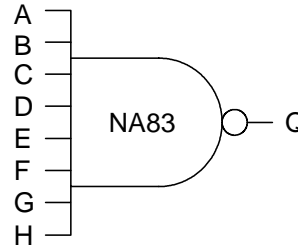


NA83 is an 8-input NAND gate with 3x drive strength.

Truth Table

A	B	C	D	E	F	G	H	Q
L	X	X	X	X	X	X	X	H
X	L	X	X	X	X	X	X	H
X	X	L	X	X	X	X	X	H
X	X	X	L	X	X	X	X	H
X	X	X	X	L	X	X	X	H
X	X	X	X	X	L	X	X	H
X	X	X	X	X	X	L	X	H
X	X	X	X	X	X	X	L	H
H	H	H	H	H	H	H	H	L



Capacitance

	C _i (pF)
A	0.028
B	0.024
C	0.025
D	0.039
E	0.027
F	0.024
G	0.027
H	0.038

Area

1.35 mils²

Power

6.06 μW/MHz

Delay [ns] = tpd.. = f(SL, L)

with SL = Input Slope [ns] ; L = Output Load [pF]

Output Slope [ns] = op_sl.. = f(L)

with L = Output Load [pF]

AC Characteristics : T_j = 25°C VDD = 3.3V Typical Process

AC Characteristics

Characteristics	Symbol	SL = 0.1			SL = 2.0		
		L = 0.3	L = 2.1	L = 3.0	L = 0.3	L = 2.1	L = 3.0
Delay A to Q	tpdar	1.11	2.56	3.24	1.47	2.93	3.60
	tpdaf	1.01	2.17	2.74	1.10	2.24	2.82
Delay B to Q	tpdbr	1.19	2.64	3.35	1.57	3.02	3.72
	tpdbf	1.09	2.25	2.77	1.12	2.28	2.84
Delay C to Q	tpdcr	1.28	2.69	3.34	1.64	3.08	3.77
	tpdcf	1.08	2.24	2.81	1.06	2.22	2.80
Delay D to Q	tpddr	1.34	2.79	3.47	1.75	3.19	3.82
	tpddf	1.11	2.27	2.84	1.03	2.18	2.76
Delay E to Q	tpder	1.13	2.50	3.22	1.46	2.86	3.56
	tpdef	1.03	2.19	2.76	1.10	2.26	2.84
Delay F to Q	tpdfr	1.18	2.61	3.31	1.55	2.99	3.65
	tpdff	1.07	2.22	2.76	1.11	2.26	2.83
Delay G to Q	tpdgr	1.25	2.64	3.37	1.62	3.01	3.75
	tpdgf	1.11	2.26	2.80	1.09	2.25	2.83
Delay H to Q	tpdhr	1.31	2.78	3.43	1.70	3.14	3.80
	tpdhf	1.11	2.25	2.81	1.04	2.20	2.78

Characteristics	Symbol	SL = 0.1			SL = 2.0		
		L = 0.3	L = 2.1	L = 3.0	L = 0.3	L = 2.1	L = 3.0
Output Slope A to Q	op_slar	1.02	5.40	7.91	1.06	5.51	7.77
	op_slaf	0.83	3.67	5.20	0.83	3.62	5.17
Output Slope B to Q	op_slbr	1.07	5.38	7.82	1.06	5.51	7.62
	op_slbf	0.82	3.71	5.06	0.82	3.83	4.98
Output Slope C to Q	op_slcr	1.03	5.57	7.76	1.05	5.42	7.90
	op_slcf	0.82	3.62	5.17	0.83	3.60	5.20
Output Slope D to Q	op_sl dr	1.07	5.40	7.88	1.03	5.42	7.86
	op_sl df	0.83	3.60	5.13	0.82	3.66	5.36
Output Slope E to Q	op_sl er	1.03	5.37	7.87	1.01	5.46	7.82
	op_sl ef	0.82	3.62	5.21	0.82	3.61	5.17
Output Slope F to Q	op_sl fr	1.06	5.52	7.76	1.05	5.51	7.88
	op_sl ff	0.85	3.83	5.10	0.86	3.87	5.10
Output Slope G to Q	op_sl gr	1.02	5.38	7.83	1.02	5.30	7.88
	op_sl gf	0.83	3.73	5.03	0.85	3.62	5.17
Output Slope H to Q	op_sl hr	1.03	5.41	7.86	1.03	5.43	7.81
	op_sl hf	0.81	3.90	5.06	0.83	3.61	5.17