

Boolean Logic and ICs

IC		Ground (Vss)	74*02	inv(A) ^ B	74*04	A ^ inv(B)	74*04	74*86	74*00
Boolean		FALSE	NOR	CNI	Negation (A)	MNI	Negation (B)	XOR	NAND
A	B	Output	Output	Output	Output	Output	Output	Output	Output
0	0	0	1	0	1	0	1	0	1
0	1	0	0	1	1	0	0	1	1
1	0	0	0	0	0	1	1	1	1
1	1	0	0	0	0	0	0	0	0

IC		74*08	4077	B	inv(A) v B	A	A v inv(B)	74*32	VCC
Boolean		AND	XNOR	B	Imply	A	Converse	OR	TRUE
A	B	Output	Output	Output	Output	Output	Output	Output	Output
0	0	0	1	0	1	0	1	0	1
0	1	0	0	1	1	0	0	1	1
1	0	0	0	0	0	1	1	1	1
1	1	1	1	1	1	1	1	1	1

CNI Converse Non Implication

MNI Material Non Implication

XNOR Material Bicondition

Imply Implication

Converse Converse

v OR

^ And

inv() Inverse, Negation