

XOR & XNOR Gates

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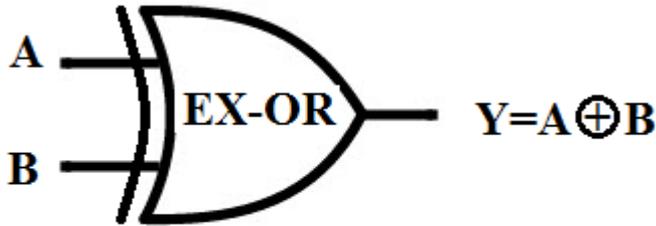
Outline

➤ **XOR and XNOR Gate**

- Symbol
- Truth Table
- IC

XOR Gate

Symbol

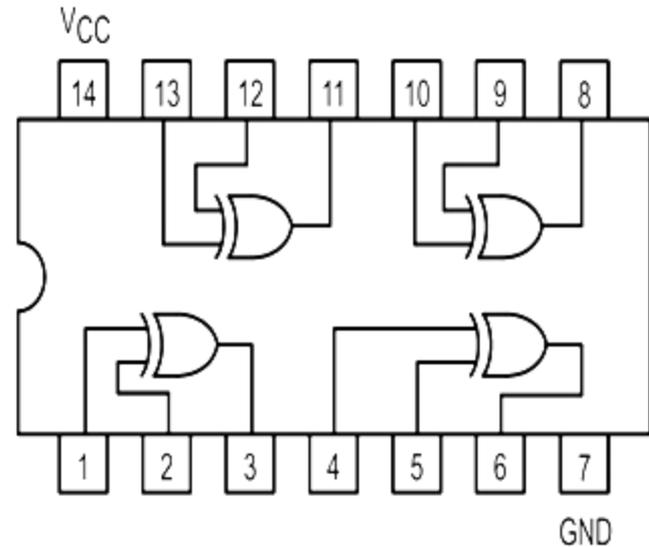


Truth Table

Inputs		Output
A	B	$Y=A\oplus B$
0	0	0
0	1	1
1	0	1
1	1	0

- This gate is used in digital data processing circuits.
- This gate has two or more input terminals and one output terminal.
- The EX-OR gate has the high output only for unequal inputs and the output is low for the equal inputs.

XOR Gate IC and PIN Diagram



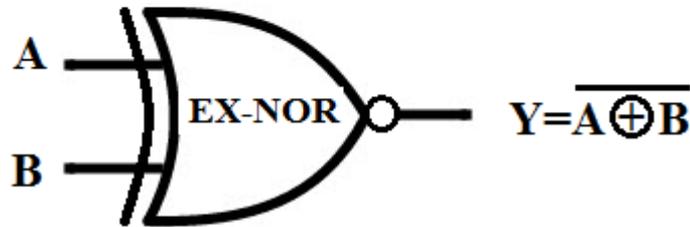
IC 7486 XOR Gate IC

7486 IC PIN Diagram

- IC 7486 is a two input XOR gate IC which contains four XOR gate.

XNOR Gate

Symbol

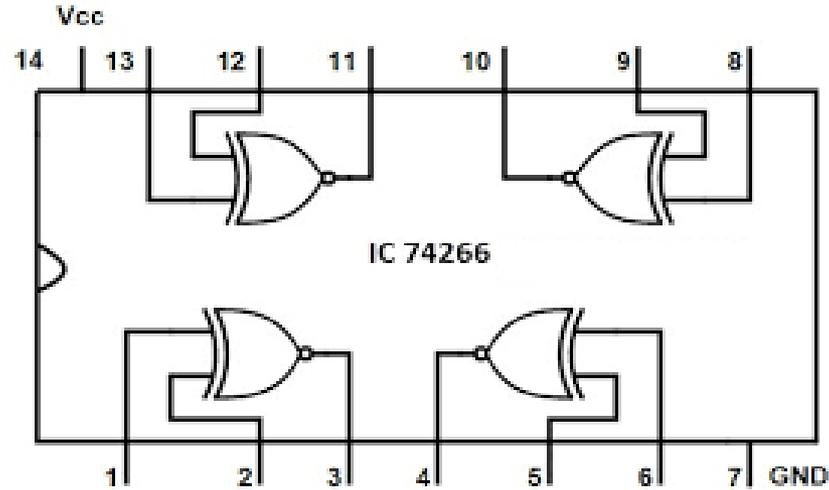


Truth Table

Inputs		Output
A	B	$Y = \overline{A \oplus B}$
0	0	1
0	1	0
1	0	0
1	1	1

- The EX-NOR gate has terminals like XOR gate.
- It is cascaded from of XOR – NOT gate.
- The EX-NOR gate has the high output only for equal inputs and the output is low for the unequal inputs.

XNOR Gate IC and PIN Diagram



IC 74266 XNOR Gate IC

- IC 74266 is a two input XNOR gate IC which contains four XNOR gate.