

Logical Unit

Y	X	Out
0	0	F_3
0	1	F_2
1	0	F_0
1	1	F_1

function	F_3	F_2	F_1	F_0
AND	0	0	1	0
XOR	0	1	0	1
\bar{X}	1	0	0	1
$X + Y$	1	1	1	0