

Decoder

The Encoder converts inputs into numbers. It takes 2<sup>n</sup> inputs and it represents the binary values as decimal values, by using a truth table shown below.

Digital Inputs								Binary Output		
D <sub>7</sub>	D <sub>6</sub>	D <sub>5</sub>	D <sub>4</sub>	D <sub>3</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>0</sub>	Q <sub>2</sub>	Q <sub>1</sub>	Q <sub>0</sub>
0	0	0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	1	X	0	0	1
0	0	0	0	0	1	X	X	0	1	0
0	0	0	0	1	Х	X	X	0	1	1
0	0	0	1	X	X	X	X	1	0	0
0	0	1	X	X	Х	X	X	1	0	1
0	1	X	X	X	X	X	X	1	1	0
1	X	X	X	X	Х	X	X	1	1	1