



TRUTH TABLE

DATA INPUTS								OUTPUTS			
D0	D1	D2	D3	D4	D5	D6	D7	Q3	Q2	Q1	Q0
H	φ	φ	φ	φ	φ	φ	φ	H	L	L	L
L	H	φ	φ	φ	φ	φ	φ	H	L	L	H
L	L	H	φ	φ	φ	φ	φ	H	L	H	L
L	L	L	H	φ	φ	φ	φ	H	L	H	H
L	L	L	L	H	φ	φ	φ	H	H	L	L
L	L	L	L	L	H	φ	φ	H	H	H	L
L	L	L	L	L	L	H	φ	H	H	H	H
L	L	L	L	L	L	L	H	H	H	H	H
L	L	L	L	L	L	L	L	L	L	L	L

φ = Don't Care

 V_{CC1} = Pin 1 V_{CC2} = Pin 16 V_{EE} = Pin 8 P_D = 545 mW typ/pkg (No Load) t_{pd} = 7.0 ns typ (Data to Output)

8-input Priority Encoder

The MC10165 is a device designed to encode eight inputs to a binary coded output. The output code is that of the highest order input. Any input of lower priority is ignored. Each output incorporates a latch allowing synchronous operation. When the clock is low the outputs follow the inputs and latch when the clock goes high. This device is very useful for a variety of applications in checking system status in control processors, peripheral controllers, and testing systems.

The input is active when high, (e.g. the three binary outputs are low when input D0 is high). The Q3 output is high when any input is high. This allows direct extension into another priority encoder when more than eight inputs are necessary. The MC10165 can also be used to develop binary codes from random logic inputs, for addressing ROMs, RAMs, or for multiplexing data.