

54FCT/74FCT138

1-of-8 Decoder/Demultiplexer

General Description

The 'FCT138 is a high-speed 1-of-8 decoder/demultiplexer. This device is ideally suited for high-speed bipolar memory chip select address decoding. The multiple input enables allow parallel expansion to a 1-of-24 decoder using just three 'FCT138 devices or a 1-of-32 decoder using four 'FCT138 devices and one inverter.

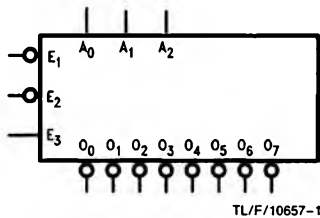
FACT™ FCT utilizes NSC quiet series technology to provide improved quiet output switching and dynamic threshold performance.

FACT FCT features GTO™ output control and undershoot corrector in addition to a split ground bus for superior performance.

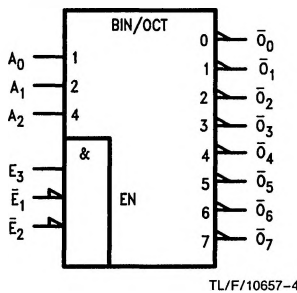
Features

- NSC 54FCT/74FCT138 is pin and functionally equivalent to IDT 54FCT/74FCT138
- Demultiplexing capability
- Multiple input enable for easy expansion
- Active LOW mutually exclusive outputs
- Input clamp diodes to limit bus reflections
- TTL/CMOS input and output level compatible
- $I_{OL} = 48 \text{ mA (Com)}, 32 \text{ mA (Mil)}$
- CMOS power levels
- ESD immunity $\geq 4 \text{ kV typ}$
- Military Product compliant to MIL-STD 883 and Standard Military Drawing #5962-87654

Logic Symbol

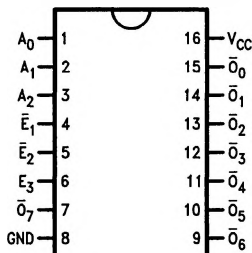


IEEE/IEC

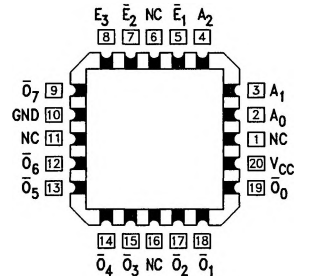


Connection Diagrams

Pin Assignment for DIP, Flatpak and SOIC



Pin Assignment for LCC



Pin Names	Description
A_0 - A_2	Address Inputs
\bar{E}_1 - \bar{E}_2	Enable Inputs
E_3	Enable Input
\bar{O}_0 - \bar{O}_7	Outputs