**Decoder/Demultiplexer Single 3-to-8 16-Pin PDIP Tube**

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| **Manufacturer:** | Texas Instruments, Inc |
| **Package/Case:** | DIP16 |
| **Product Type:** | Logic ICs |
| **RoHS:** | RoHS Compliant/Lead free RoHS |
| **Lifecycle:** | Active |
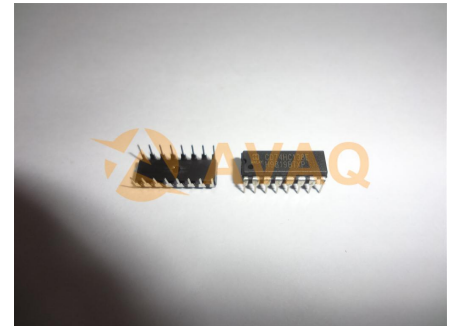
Images are for reference only

Inquiry

## General Description

The 'HC138, 'HC238, 'HCT138, and 'HCT238 are high speed silicon gate CMOS decoders well suited to memory address decoding or data routing applications. Both circuits feature low power consumption usually associated with CMOS circuitry, yet have speeds comparable to low power Schottky TTL logic. Both circuits have three binary select inputs (A0, A1 and A2). If the device is enabled, these inputs determine which one of the eight normally high outputs of the HC/HCT138 series will go low or which of the normally low outputs of the HC/HCT238 series will go high.

Two active low and one active high enables (E1\, E2\, and E3) are provided to ease the cascading of decoders. The decoder's 8 outputs can drive 10 low power Schottky TTL equivalent loads.

**Key Features**

Select One Of Eight Data Outputs Active Low for 138, Active High for 238

I/O Port or Memory Selector

Three Enable Inputs to Simplify Cascading

Typical Propagation Delay of 13ns at VCC = 5V, CL = 15pF, TA = 25°C

Fanout (Over Temperature Range)
Standard Outputs . . . . 10 LSTTL Loads

Bus Driver Outputs . . . . 15 LSTTL Loads

Wide Operating Temperature Range . . . –55°C to 125°C

Balanced Propagation Delay and Transition Times

Significant Power Reduction Compared to LSTTL Logic ICs

HC Types
2V to 6V Operation

High Noise Immunity: NIL = 30%, NIH = 30% of VCC at VCC = 5V

HCT Types
4.5V to 5.5V Operation

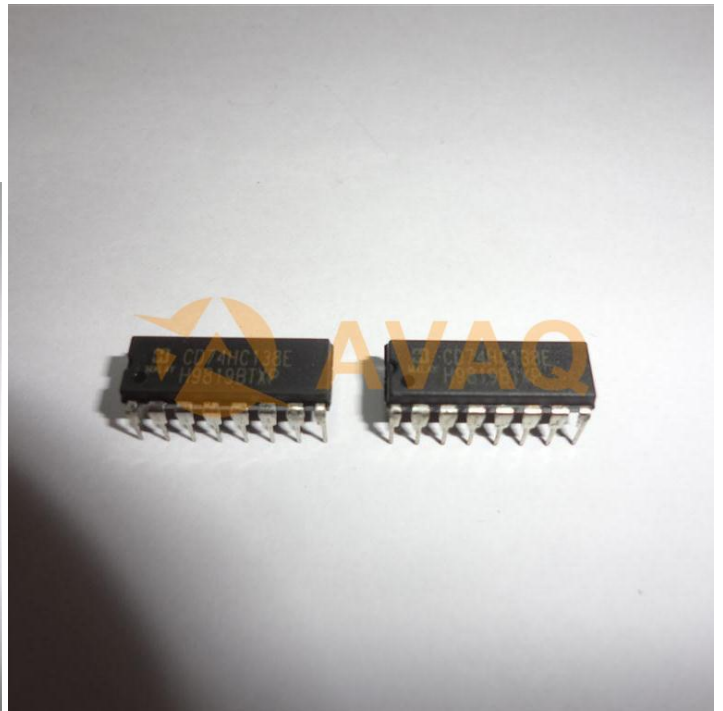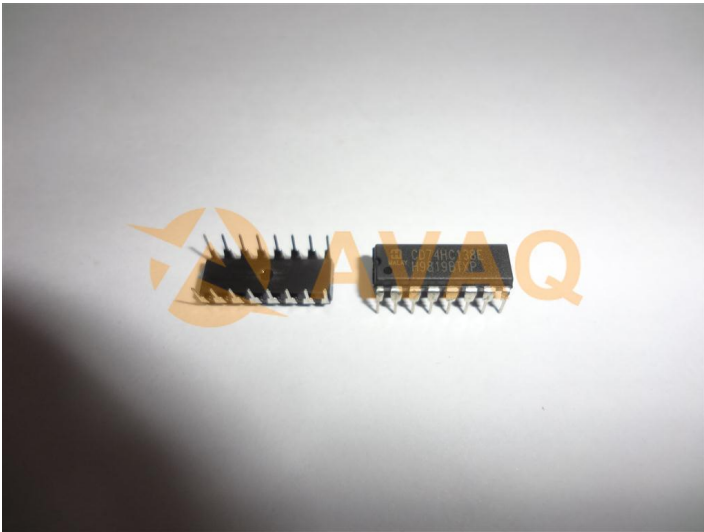Direct LSTTL Input Logic Compatibility, VIL = 0.8V (Max), VIH = 2V (Min)

CMOS Input Compatibility, Il1μA at VOL, VOH

Data sheet acquired from Harris Semiconductor
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## Recommended For You

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**CD4070BE**

Texas Instruments, Inc

DIP14

**CD74HCT138E**

Texas Instruments, Inc

DIP16

**CD4098BE**

Texas Instruments, Inc

DIP

**CD74HC08E**

Texas Instruments, Inc

DIP

**CD74HC4075E**

Texas Instruments, Inc

DIP

**CD74ACT74E**

Texas Instruments, Inc

DIP-14

**CD74HC75E**

Texas Instruments, Inc

DIP

**CD4504BE**

Texas Instruments, Inc

DIP16

**CD4068BE**

Texas Instruments, Inc

DIP

**CD4081BE**

Texas Instruments, Inc

DIP14

**CD4001BE**

Texas Instruments, Inc

DIP14

**CD4512BE**

Texas Instruments, Inc

DIP16

**CD4069UBE**

Texas Instruments, Inc

DIP14

**CD74HCT151E**

Texas Instruments, Inc

DIP

**CD74HC04M**

Texas Instruments, Inc

SOP14

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