

SN54154, SN74154 4-LINE TO 16-LINE DECODERS/DEMULTIPLEXERS

SDLS056

DECEMBER 1972 — REVISED MARCH 88

- '154 is Ideal for High-Performance Memory Decoding
- Decodes 4 Binary-Coded Inputs into One of 16 Mutually Exclusive Outputs
- Performs the Demultiplexing Function by Distributing Data From One Input Line to Any One of 16 Outputs
- Input Clamping Diodes Simplify System Design
- High Fan-Out, Low-Impedance, Totem-Pole Outputs
- Fully Compatible with Most TTL and MSI Circuits

TYPICAL AVERAGE PROPAGATION DELAY 3 LEVELS OF LOGIC		TYPICAL POWER DISSIPATION
23 ns	19 ns	170 mW

description

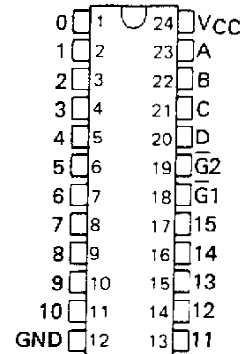
Each of these monolithic, 4-line-to-16-line decoders utilizes TTL circuitry to decode four binary-coded inputs into one of sixteen mutually exclusive outputs when both the strobe inputs, $\overline{G1}$ and $\overline{G2}$, are low. The demultiplexing function is performed by using the 4 input lines to address the output line, passing data from one of the strobe inputs with the other strobe input low. When either strobe input is high, all outputs are high. These demultiplexers are ideally suited for implementing high-performance memory decoders. For ultra-high speed systems, SN54S138/SN74S138 and SN54S139/SN74S139 are recommended.

These circuits are fully compatible for use with most other TTL circuits. All inputs are buffered and input clamping diodes are provided to minimize transmission-line effects and thereby simplify system design.

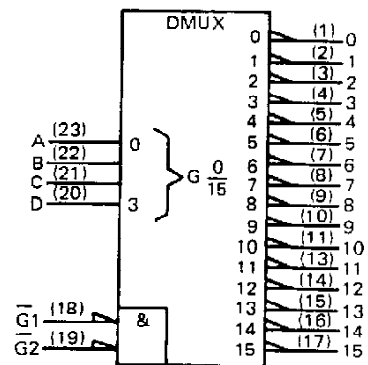
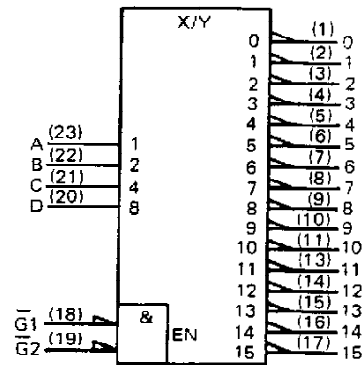
The SN54154 is characterized for operation over the full military temperature range of -55°C to 125°C . The SN74154 is characterized for operation from 0°C to 70°C .

SN54154 . . . J OR W PACKAGE
SN74154 . . . N PACKAGE

(TOP VIEW)



logic symbols (alternatives)[†]



[†]These symbols are in accordance with ANSI/IEEE Std. 91-1984 and IEC Publication 617-12.

PRODUCTION DATA documents contain information current as of publication date. Products conform to specifications per the terms of Texas Instruments standard warranty. Production processing does not necessarily include testing of all parameters.

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