

**Integrated Circuits—High Level Logic H100 Series**

HLL is a family of high threshold logic designed specifically for application in areas where noise is a hazard. A comprehensive range of gates, flip-flops, counters, decoders and level converters make this family completely self-sufficient for any system design. Devices are generally pin-compatible with the equivalent circuit in TTL, minimising board modification when converting from TTL to HLL.

**THE FAMILY'S MAJOR CHARACTERISTICS**

Supply voltage	from 10.8 to 20V	Standard temperature range	0°C to +70°C
Noise immunity	5V at 15V V <sub>CC</sub> (typical)	Package	Ceramic DIP
Fan-out	25 (worst case)		

See outline drawings Nos. 116 and 118 for physical dimensions

**REFERENCE TABLE**

Code	Function	Stock No.	Connection Diagram No.
H102D1	Quad 2-input NAND gate	19179A	D1
H103D1	Triple 3-input NAND gate	19246X	D2
H104D1	Dual 4-input NAND gate (Expandable)	19180D	D3
H105D1	Expandable AND-OR-INVERT gate	33185D	D4
H109D1	Dual 4-input AND buffer (Expandable)	19181B	D5
H110D1	Dual JK Flip-Flop (Separate preset)	19182X	D6
H111D1	Dual JK Flip-Flop (Separate preset and clear)	19183R	D7
H112D1	Hex inverter (Open collector)	32478E	D8
H113D1	Quad high to low level converter (Open collectors)	19247R	D9
H114D1	Quad low to high level converter	19248G	D10
H115D1	Strobed hex inverter (Open collector)	32479C	D11
H117D1	One shot multivibrator	28918B	D12
H118D1	Hex inverter (Active pull-up)	32480F	D13
H119D1	Strobed hex inverter (Active pull-up)	32481D	D11
H122D1	Quad 2-input NAND gate (Passive pull-up)	19249E	D14
H124D1	Dual 4-input NAND gate (Passive pull-up)	19250H	D15
H156D1	4-Bit binary counter	31191G	D16
H157D1	BCD decade counter	28919X	D16
H158D1	BCD to decimal decoder/driver	28920C	D17

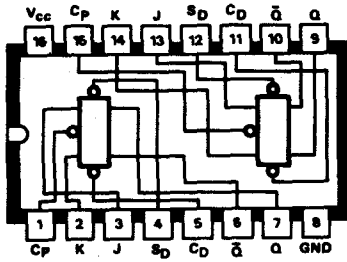
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PLEASE QUOTE STOCK NO. AND MANUFACTURER'S CODE WHEN ORDERING

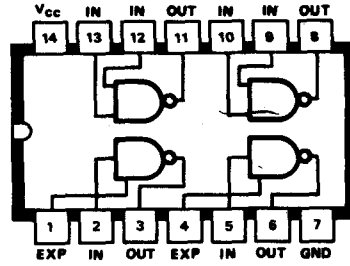
# Semiconductors

## Connection Diagrams

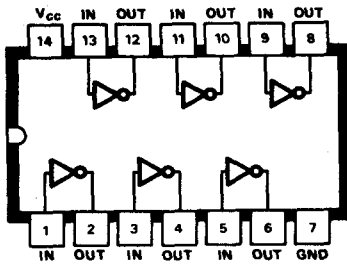
D7 **H111DI**  
Dual J-K flip-flop



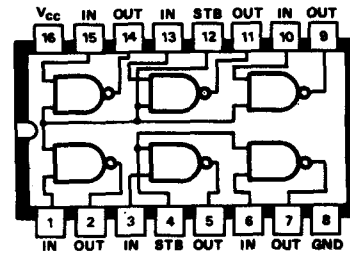
D10 **H114DI**  
Quad Low to High level converter



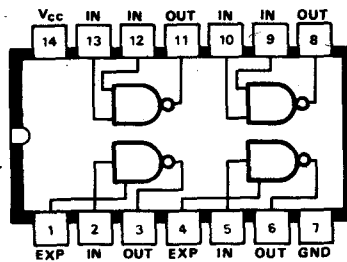
D8 **H112DI/H118DI**  
Hex inverter with open collector



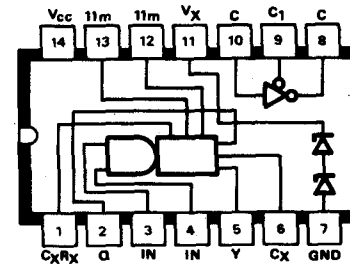
D11 **H115DI/H119DI**  
Strobed hex inverter with open collector



D9 **H113DI**  
Quad High to Low level converter with open collector output



D12 **H117DI**  
One shot multivibrator



MANUFACTURER'S CURRENT LIST PRICES ARE ALWAYS CHARGED