National Semiconductor

ADVANCE INFORMATION
November 1996

74LCX2245
Low-Voltage Bidirectional Transceiver with 5V Tolerant Inputs and Outputs

General Description

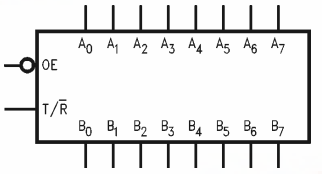
The LCX2245 contains eight non-inverting bidirectional buffers with TRI-STATE® outputs and is intended for bus oriented applications. The device is designed for low voltage (3.3V) V_{CC} applications with capability of interfacing to a 5V signal environment. The T/$\overline{R}$ input determines the direction of data flow through the device. The $\overline{OE}$ input disables both the A and B ports by placing them in a high impedance state. The 25Ω-series resistor helps reducing output overshoot and undershoot.

The LCX2245 is fabricated with an advanced CMOS technology to achieve high speed operation while maintaining CMOS low power dissipation.

Features

- 5V tolerant inputs and outputs
- 10 μA I_{CCQ} max
- Power down high impedance inputs and outputs
- 25Ω-series resistor on outputs
- Supports live insertion/withdrawal
- 2.0V–3.6V V_{CC} supply operation
- ±12 mA output drive
- Implements patented Quiet Series™ noise/EMI reduction circuitry
- Functionally compatible with the 74 series 245
- Latch-up performance exceeds 500 mA
- ESD performance:
  Human body model > 2000V
  Machine model > 200V

Logic Symbols



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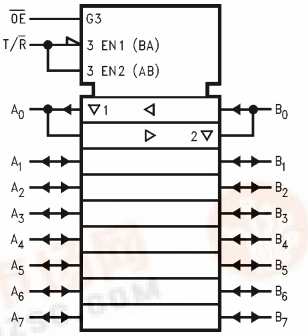
IEEE/IEC



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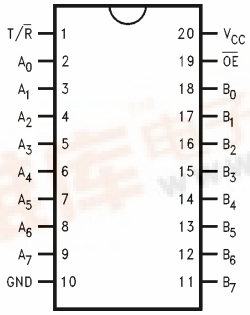
Connection Diagram

Pin Assignment for SOIC, SSOP and TSSOP



TL/F/12573–3

Pin Names	Description
$\overline{OE}$	Output Enable Input
T/$\overline{R}$	Transmit/Receive Input
A_0–A_7	Side A Inputs or TRI-STATE Outputs
B_0–B_7	Side B Inputs or TRI-STATE Outputs

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