

TOSHIBA

TC74LCXR164245FT

ADVANCE
INFORMATION

TOSHIBA CMOS DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

TC74LCXR164245FT

16-BIT DUAL SUPPLY VOLTAGE

INTERFACE BUS TRANSCEIVER WITH SERIES RESISTOR

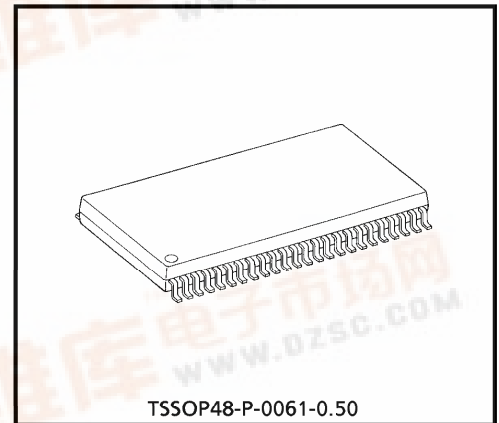
The TC74LCXR164245 is a dual supply, advanced high speed CMOS 16 bit DUAL SUPPLY VOLTAGE INTERFACE BUS TRANSCEIVER fabricated with silicon gate CMOS technology.

Designed for use as an interface between a 5 V bus and a 3.3 V or 2.5 V bus in mixed 5 V/3.3 V or 2.5 V supply systems' it achieves high speed operation while maintaining the CMOS low power dissipation.

It is intended for 2 way asynchronous communication between data busses. The direction of data transmission is determined by the level of the DIR input. The enable input ($\overline{OE}$) can be used to disable the device so that the busses are effectively isolated. The B-port interfaces with the 5 V bus, the A-port with the 3.3 V or 2.5 V bus.

The 26- Ω series resistor helps reducing output overshoot and undershoot without external resistor.

All inputs are equipped with protection circuits against static discharge or transient excess voltage.



Weight : 0.25 g (Typ.)

FEATURES

- 26- Ω series resistors on outputs
- Bidirectional interface between 5 V and 3.3 V or 2.5 V buses
- High speed : $t_{pd} = \text{TBD (max)}$
($V_{CCB} = 5 \pm 0.5 \text{ V} / V_{CCA} = 3.3 \pm 0.3 \text{ V}$, $T_a = -40 \sim 85^\circ\text{C}$)
- Low power dissipation : $I_{CC} = 80 \mu\text{A (max)}$ ($T_a = -40 \sim 85^\circ\text{C}$)
- Symmetrical output impedance : $I_{OUTB} = \pm 12 \text{ mA (min)}$
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($V_{CCB} = 4.5 \text{ V} / V_{CCA} = 3.0 \text{ V}$)
- Power Down Protection is provided on all inputs and outputs.
- Allows A port and V_{CCA} to float simultaneously when $\overline{OE}$ is "H".
- Latch-up Performance : $\pm 300 \text{ mA}$
- Package : TSSOP (Thin Shrink Small Outline Package)

(Note 1) : Do not apply a signal to any bus terminal when it is in the output mode. Damage may result.

All floating (high impedance) bus terminals must have their input fixed by means of pull up or pull down resistors.

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