

**Features**

- Meets or exceeds the requirements of ANSI Standard TIA/EIA-485-A and ISO 8482:1987(E) specifications for V_{CC} at $+3.3V \pm 10\%$
- Low quiescent current – 0.5mA typ., 1.5mA max
- Low shutdown current (where applicable) - 0.05 μ A typical, 10 μ A max
- Guaranteed standard data rate 250Kbps, 500Kbps, or 16Mbps
- True Fail-Safe (Open and Short) Receiver
- -7V to +12V common-mode input voltage range
- Half-Duplex or Full-Duplex configuration

Product Brief

- Allows up to 1/8 unit load (256 devices) on the same common bus
- Controlled driver output slew rate and receiver input filtering
- Active-high driver enable and active-low receiver enable
- ESD Protection on bus terminals
 - $\pm 15kV$ Human Body Model (HBM)
- Drop-in Replacements for MAX3070E, MAX3071E, MAX3072E, MAX3073E, MAX3075E, MAX3076E, MAX3077E, MAX3078E

Product Description

The ZT3070E series devices are 3V differential data line transceivers for RS485/RS422 communication that consist of one driver and one receiver with high level of ESD protection. They are designed for balanced transmission lines interface that meet ANSI standard TIA/EIA-485-A and ISO 8482:1987(E) specifications.

The ZT3070E series devices span out with half or full duplex, data rate guaranteed at 250Kbps, 500Kbps or 16Mbps, and allow 1/8 unit load that fan out 256 devices sharing a common bus. The I/Os are enhanced-electrostatic discharge (ESD) protected, exceeding $\pm 15Kv$ Human Body Model (HBM).

Target Applications

- RS-422/RS-485 communications
- Utility meters
- Industrial process control
- Building automation
- Level translators
- Transceivers for EMI-sensitive applications
- Routers and HUBs
- Industrial-controlled Local Area Networks
- Industrial PCs, embedded PCs and peripherals
- Industrial, security CATV and camera applications

Product Selection Guide

Part Number	Duplex	Data Rate (Mbps)	# of Tx/Rx on Bus	Slew Rate Limit	Low-Power Shutdown	Tx/Rx Enable	Package Types	Pin-to-Pin Cross Reference
ZT3070E	Full	0.250	256	Yes	Yes	Yes	14-PDIP, 14-nSOIC	MAX3070E
ZT3071E	Full	0.250	256	Yes	No	No	8-PDIP, 8-nSOIC, 8-MSOP	MAX3071E
ZT3072E	Half	0.250	256	Yes	Yes	Yes	8-PDIP, 8-nSOIC, 8-MSOP	MAX3072E
ZT3073E	Full	0.5	256	Yes	Yes	Yes	14-PDIP, 14-nSOIC	MAX3073E
ZT3075E	Half	0.5	256	Yes	Yes	Yes	8-PDIP, 8-nSOIC, 8-MSOP	MAX3075E
ZT3076E	Full	16	256	No	Yes	Yes	14-PDIP, 14-nSOIC	MAX3076E
ZT3077E	Full	16	256	No	No	No	8-PDIP, 8-nSOIC, 8-MSOP	MAX3077E
ZT3078E	Half	16	256	No	Yes	Yes	8-PDIP, 8-nSOIC, 8-MSOP	MAX3078E