

### Features

- Meets or exceeds the requirements of ANSI Standard TIA/EIA-485-A and ISO 8482:1987(E) specifications for  $V_{CC}$  at  $+5V \pm 10\%$
- Low quiescent current: 0.4mA typ., 0.9mA max
- Low shutdown current (where applicable): 1nA typical, 10 $\mu$ A max
- Guaranteed standard data rate 250Kbps, 1Mbps, or 20Mbps
- True Fail-Safe (Open, Short, Bus Idle) Receiver
- -7V to +12V common-mode input voltage range
- Half-Duplex or Full-Duplex mode configuration

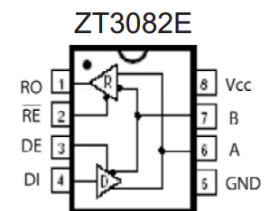
### Product Brief

- 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)
- Alternative replacement for MAX308xE series, SN75HVD3082E, and SN65HVD3082E series

### Product Description

The ZT308xE series devices are 5V 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 ZT308xE series devices spans out with half or full duplex, data rate guaranteed at 250Kbps, 1Mbps, or 20Mbps and allow one-eighth of an 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

- RS422/RS485 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	# Of Tx/Rx	Data Rate (Mbps)	# of Tx/Rx on Bus	Slew Rate Limit	Low-Power Shutdown	Tx/Rx Enable	ESD on Tx/Rx	Package Types	Pin-to-Pin Cross Reference	Industry Standard Pinout
ZT3080E	Full	1/1	.250	256	Yes	Yes	Yes	$\pm 15kV$	14-PDIP, 14-nSOIC	MAX3080E SN65HVD3080E	75180
ZT3081E	Full	1/1	.250	256	Yes	No	No	$\pm 15kV$	8-PDIP, 8-nSOIC, 8-MSOP	MAX3081E SN65HVD3081E	75179
ZT3082E	Half	1/1	.250	256	Yes	Yes	Yes	$\pm 15kV$	8-PDIP, 8-nSOIC, 8-MSOP	MAX3082E SN65HVD3082E	75176
ZT3083E	Full	1/1	1	256	Yes	Yes	Yes	$\pm 15kV$	14-PDIP, 14-nSOIC	MAX3083E, SN65HVD3083E	75180
ZT3084E	Full	1/1	1	256	Yes	No	No	$\pm 15kV$	8-PDIP, 8-nSOIC, 8-MSOP	MAX3084E SN65HVD3084E	75179
ZT3085E	Half	1/1	1	256	Yes	Yes	Yes	$\pm 15kV$	8-PDIP, 8-nSOIC, 8-MSOP	MAX3085E, SN65HVD3085E	75176
ZT3086E	Full	1/1	20	256	No	Yes	Yes	$\pm 15kV$	14-PDIP, 14-nSOIC	MAX3086E SN65HVD3086E	75180
ZT3087E	Full	1/1	20	256	No	No	No	$\pm 15kV$	8-PDIP, 8-nSOIC, 8-MSOP	MAX3087E SN65HVD3087E	75179
ZT3088E	Half	1/1	20	256	No	Yes	Yes	$\pm 15kV$	8-PDIP, 8-nSOIC, 8-MSOP	MAX3088E SN65HVD3088E	75176