

Line Transceiver, TIA/EIA RS-485 1 (RS-485)-TX 1 (RS-485)-RX 1 (RS-485)-TRX

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	SOIC-8
Product Type	Interface ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADM3065EARZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ADM3061E/ADM3062E/ADM3063E/ADM3064E/ADM3065E/ADM3066E/ADM3067E/ADM3068E are 3.0 V to 5.5 V, IEC electrostatic discharge (ESD) protected RS-485 transceivers, allowing the devices to withstand  $\pm 12$  kV contact discharges on the transceiver bus pins without latch-up or damage. The ADM3062E/ADM3064E/ADM3066E/ADM3068E feature a VIO logic supply pin that allows a flexible digital interface capable of operating as low as 1.62 V.

The ADM3065E/ADM3066E/ADM3067E/ADM3068E are suitable for high speed, 50 Mbps, bidirectional data communication on multipoint bus transmission lines. The ADM3061E/ADM3062E/ADM3063E/ADM3064E/ADM3065E/ADM3066E/ADM3067E/ADM3068E feature a 1/4 unit load input impedance that allows up to 128 transceivers on a bus. The ADM3061E/ADM3062E/ADM3063E/ADM3064E models offer all of the same features as the ADM3065E/ADM3066E/ADM3067E/ADM3068E models at a low 500 kbps data rate that is suitable for operation over long cable runs.

The ADM3061E/ADM3062E/ADM3065E/ADM3066E are half duplex RS-485 transceivers, fully compliant to the PROFIBUS® standard with increased 2.1 V bus differential voltage at  $V_{CC} \geq 4.5$  V. The ADM3063E/ADM3064E/ADM3067E/ADM3068E are full duplex RS-485 transceiver options.

The RS-485 transceivers are available in a number of space saving packages, including the 10-lead, 3 mm  $\times$  3 mm lead frame chip-scale package (LFCSP), the 8-lead or 10-lead, 3 mm  $\times$  3 mm mini small outline package (MSOP), and the 8-lead or 14-lead, narrow body standard small outline packages (SOIC\_N). Models with operating temperature ranges of  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  and  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  are available.

Excessive power dissipation caused by bus contention or by output shorting is prevented by a thermal shutdown circuit. If a significant temperature increase is detected in the internal driver circuitry during fault conditions, this feature forces the driver output into a high impedance state.

The ADM3061E/ADM3062E/ADM3063E/ADM3064E/ADM3065E/ADM3066E/ADM3067E/ADM3068E guarantee a logic high receiver output when the receiver inputs are shorted, open, or connected to a terminated transmission line with all drivers disabled.

Table 2 presents an overview of the ADM3061E/ADM3062E/ADM3063E/ADM3064E/ADM3065E/ADM3066E/ADM3067E/ADM3068E data rate capability across temperature, power supply, and package options. Refer to the Ordering Guide section for model numbering.

### Applications

Industrial fieldbuses

Process control

Building automation

PROFIBUS networks

Motor control servo drives and encoders

## Features

TIA/EIA RS-485 compliant over full supply range

3.0 V to 5.5 V operating voltage range on VCC

1.62 V to 5.5 V VIO logic supply option available

ESD protection on the bus pins

IEC 61000-4-2  $\pm 12$  kV contact discharge

IEC 61000-4-2  $\geq \pm 12$  kV air discharge

HBM:  $\geq \pm 30$  kV

Full hot swap support (glitch free power-up/power-down)

High speed 50 Mbps data rate (ADM3065E/ADM3066E/ADM3067E/ADM3068E)

Low speed 500 kbps data rate for long cables (ADM3061E/ADM3062E/ADM3063E)

Full receiver short-circuit, open circuit, and bus idle fail-safe

Extended temperature range up to 125°C

PROFIBUS compliant at VCC  $\geq 4.5$  V

Half duplex and full duplex models available

Allows connection of up to 128 transceivers onto the bus

Space-saving package options

10-lead, 3 mm  $\times$  3 mm LFCSP

8-lead and 10-lead, 3 mm  $\times$  3 mm MSOP

8-lead and 14-lead, narrow body SOIC

Supports defense and aerospace applications (AQEC standard)

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Extended industrial temperature range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$

Controlled manufacturing baseline

1 assembly/test site

1 fabrication site

Product change notification

Qualification data available on request

## Application

Industrial fieldbuses

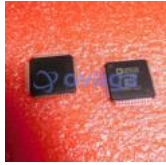
Process control

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## Related Products



### [ADV7181CBSTZ](#)

Analog Devices, Inc  
LQFP-64



### [AD724JR](#)

Analog Devices, Inc  
SOIC-16



### [ADV7391WBCPZ](#)

Analog Devices, Inc  
LFSCP-3



### [ADV7341BSTZ](#)

Analog Devices, Inc  
LQFP-64



### [AD8170AR](#)

Analog Devices, Inc  
SOP8



### [ADV7393BCPZ](#)

Analog Devices, Inc  
LFCSP-VQ-40



### [ADV7390BCPZ](#)

Analog Devices, Inc  
QFN32



### [ADUM4160BRIZ](#)

Analog Devices, Inc  
SOIC-16