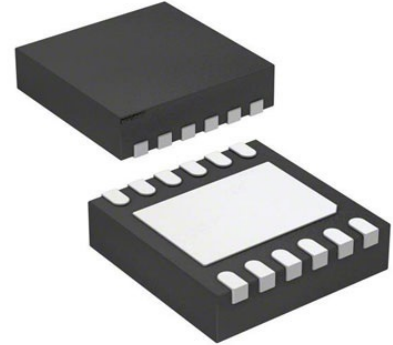


Line Transceiver, TIA/EIA RS-485 1 (RS-485)-TX 1 (RS-485)-RX 1 (RS-485)-TRX

Manufacturers	Analog Devices, Inc
Package/Case	10-WDFN, CSP
Product Type	Interface ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADM3066EACPZ 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 ± 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°C to $+125^{\circ}\text{C}$ and -40°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 ± 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 ≥ 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)

Download(PDF)

Extended industrial temperature range: -55°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

Building automation

PROFIBUS networks

Motor control servo drives and encoders

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



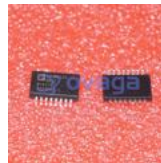
[ADV7393BCPZ](#)

Analog Devices, Inc
LFCSP-VQ-40



[ADV7390BCPZ](#)

Analog Devices, Inc
QFN32



[ADUM4160BRIZ](#)

Analog Devices, Inc
SOIC-16