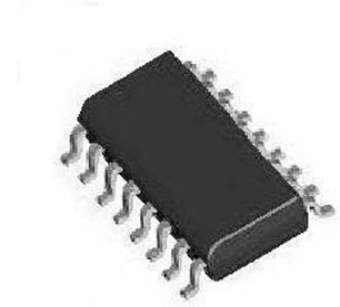


500 kbps, 5.7 kV RMS, Signal Isolated Half Duplex RS-485 Transceiver with ± 15 kV IEC ESD

Manufacturers	Analog Devices, Inc
Package/Case	16-Lead SOIC Wide
Product Type	Interface ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADM2461EBRWZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADM2461E/ADM2463E are 500 kbps, 5.7 kV rms, signal isolated RS-485 transceivers that pass radiated emissions testing to the EN55032 Class B standard with margin on a 2-layer printed circuit board (PCB). The ADM2461E/ADM2463E isolation barrier provides robust immunity to noise and system level EMC events. The devices are protected against $\geq \pm 12$ kV contact and $\geq \pm 15$ kV air IEC61000-4-2 electrostatic discharge (ESD) events on the RS-485 A, B, Y, and Z pins. The devices feature cable invert pins to allow quick correction of the reversed cable connection on the A, B, Y, and Z bus pins while maintaining full receiver fail-safe performance.

These devices are optimized for low speed over long cable runs and have a maximum data rate of 500 kbps. The high differential output voltage makes these devices suitable for Profibus nodes when powered with 5 V on the V_{DD2} supply. The V_{DD1} primary supply and V_{DD2} isolated supply both support a wide range of voltages (1.7 V to 5.5 V and 3 V to 5.5 V, respectively). Half-duplex and full duplex device options are available in the industry standard 16-lead, wide-body, standard SOIC_W package with >8.0 mm creepage and clearance.

APPLICATIONS

Features

- 5.7 kV rms, signal isolated RS-485/RS-422 transceiver
- Low radiated emissions, passes EN55032 Class B with margin on a 2-layer PCB
- Cable inversion smart feature
- Correction for reversed cable connection on A, B, Y, and Z bus pins while maintaining full receiver fail-safe
- ESD protection on the RS-485 A, B, Y, and Z bus pins
- Low speed 500 kbps data rate for EMI control

Application

- Heating, ventilation, and air conditioning (HVAC) networks
- Industrial field buses
- Building automation
- Utility networks

Flexible power supply inputs

Primary V

DD1

Isolated V

DD2

Correction for reversed cable connection on A, B, Y, and Z bus pins while maintaining full receiver fail-safe

Primary V

DD1

Isolated V

DD2

Profibus

DD2

Wide -40°C to $+125^{\circ}\text{C}$ operating temperature range

High common-mode transient immunity: $>250\text{ kV}/\mu\text{s}$

Short-circuit, open-circuit, and floating input receiver fail-safe

Supports 192 bus nodes ($72\text{ k}\Omega$ receiver input impedance)

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

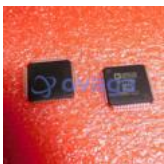
Safety and regulatory approvals (pending)

CSA Component Acceptance Notice 5A, DIN V VDE V 0884-11,

UL 1577, CQC11-471543-2012, IEC 61010-1

16-lead, wide body, SOIC_W package with $>8.0\text{ mm}$ creepage and clearance in standard pinout

Related Products



[ADV7181CBSTZ](#)

Analog Devices, Inc
LQFP-64



[AD8170AR](#)

Analog Devices, Inc
SOP8



[AD724JR](#)

Analog Devices, Inc
SOIC-16



[ADV7393BCPZ](#)

Analog Devices, Inc
LFCSP-VQ-40



[ADV7391WBCPZ](#)

Analog Devices, Inc
LFSCP-3



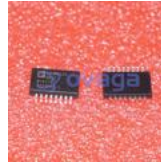
[ADV7390BCPZ](#)

Analog Devices, Inc
QFN32



[ADV7341BSTZ](#)

Analog Devices, Inc
LQFP-64



[ADUM4160BRIZ](#)

Analog Devices, Inc
SOIC-16