ADM2561EBRNZ

Data Sheet

3 kV RMS Signal and Power Isolated RS-485 Transceiver with ±15 kV IEC ESD

Manufacturers	Analog Devices, Inc
Package/Case	28-Lead SOIC (Wide, Finer Pitch)
Product Type	Interface ICs
RoHS	
Lifecycle	

Images are for reference only

Please submit RFQ for ADM2561EBRNZ or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The ADM2561E, ADM2563E, ADM2565E, and ADM2567E are 3 kV rms signal and power isolated RS-485 transceivers. These devices are designed for balanced transmission lines and comply with ANSI/TIA/EIA-485-A-98 and ISO 8482:1987(E). The devices pass radiated emissions testing to the EN 55032 Class B standard with margin on a 2-layer printed circuit board (PCB) using two small external 0402 ferrites on isolated power and ground pins. The device features an integrated, low electro-magnetic interference (EMI), isolated dc-to-dc converter, which eliminates the need for an external isolated power supply. The isolation barrier provides immunity to system level electromagnetic compatibility (EMC) standards. The family of isolator devices features ±12 kV contact and ±15 kV air IEC61000-4-2 ESD protection on the RS-485 A, B, Y, and Z pins. The devices also features cable invert pins, allowing the user to quickly correct reversed cable connection on the A, B, Y, and Z bus pins while maintaining full receiver fail-safe performance.

Slew rate limited versions are available, which are optimized for low speed over long cable runs, and have a maximum data rate of 500 kbps. Half duplex and full duplex variants are available. The full duplex generics allow independent cable inversion of the driver and receiver for additional flexibility.

APPLICATIONS

Features

3 kV rms isolated RS-485/RS-422 transceiver

Low radiated emissions, integrated, isolated dc-to-dc converter

Passes EN 55032 Class B with margin on a 2-layer PCB

Cable invert smart feature

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

Application

Heating,ventilation, and air conditioning (HVAC) networks

Industrial field buses

Building automation

Utility networks

ESD protection on RS-485 A, B, Y and Z pins

High speed 25 Mbps data rate (ADM2565E/ADM2567E)

Low speed 500 kbps data rate for EMI control (ADM2561E/ADM2563E)

Flexible power supplies

Input V

CC

Logic V

IO

V

SEL

ISO

CC

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

Input V

CC

Logic V

IO

V

SEL

ISO

CC

PROFIBUS compliant for 5 V VISO

Wide operating temperature range: −40°C to +105°C

High common-mode transient immunity: 250 kV/μs

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

Supports 196 bus nodes (72 kΩ receiver input impedance)

Full hot swap support (glitch free power-up/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

Complies with ANSI/TIA/EIA-485-A-98 and ISO 8482:1987(E)

28-lead, fine pitch SOIC_W package (10.15 mm × 10.05 mm) with >8.0 mm creepage and clearance

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

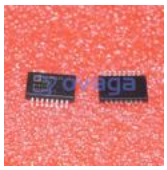
Analog Devices, Inc

QFN32

ADV7341BSTZ

Analog Devices, Inc

LQFP-64



ADUM4160BRIZ

Analog Devices, Inc

SOIC-16