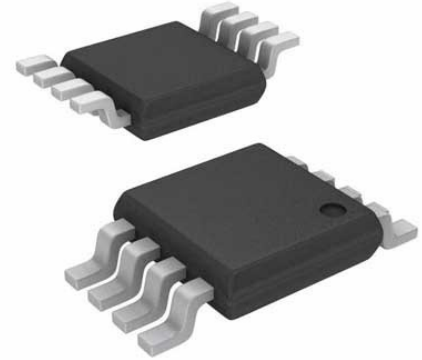


Single Transmitter/Receiver RS-485/RS-422 10-Pin MSOP Tube

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	MSOP8
Product Type	Interface ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADM1491EBRMZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ADM1490E / ADM1491E are RS-485 transceivers with  $\pm 8$  kV ESD protection and is suitable for high speed, full-duplex communication on multipoint transmission lines. In particular, the ADM1491E is designed for use in motor control applications requiring communications at data rates up to 16 Mbps.

The ADM1491E is designed for balanced transmission lines and complies with TIA/EIA-485-A-98. The device has a 12 k $\Omega$  receiver input impedance for unit load RS-485 operation allowing up to 32 nodes on the bus.

The differential transmitter outputs and receiver inputs feature electrostatic discharge circuitry that provides protection to  $\pm 8$  kV using the human body model (HBM).

The ADM1491E operates from a single 5 V power supply. Excessive power dissipation caused by bus contention or output shorting is prevented by short-circuit protection and thermal circuitry.

Short-circuit protection circuits limit the maximum output current to  $\pm 250$  mA during fault conditions. A thermal shutdown circuit senses if the die temperature rises above 150°C and forces the driver outputs into a high impedance state under this condition.

The receiver of the ADM1491E contains a fail-safe feature that results in a logic high output state if the inputs are unconnected (floating).

The ADM1491E features extremely fast and closely matched switching times. Minimal driver propagation delays permit transmission at data rates up to 16 Mbps while low skew minimizes EMI interference.

The ADM1491E is fully specified over the commercial and industrial temperature ranges and is available in two packages: a narrow-body 14-lead SOIC and a 10-lead MSOP.

## APPLICATIONS

## Features

RS-485/RS-422 full duplex transceiver, for high speed motor control applications

16 Mbps data rate

Complies with ANSI/TIA/EIA-485-A-1998

Open circuit fail-safe

Suitable for 5 V power supply applications

32 nodes on the bus (1 unit load)

Thermal shutdown protection

Operating temperature range: -40°C to +85°C

Packages Narrow-body 14-lead SOIC 10-lead MSOP

## Application

RS-485/RS-422 interfaces

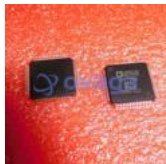
Industrial field networks

High data rate motor control

Multipoint data transmission systems

Single-ended to differential signal conversion

## 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



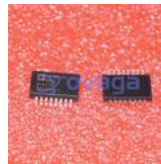
### [ADV7393BCPZ](#)

Analog Devices, Inc  
LFCSP-VQ-40



### [ADV7390BCPZ](#)

Analog Devices, Inc  
QFN32



### [ADUM4160BRIZ](#)

Analog Devices, Inc  
SOIC-16