
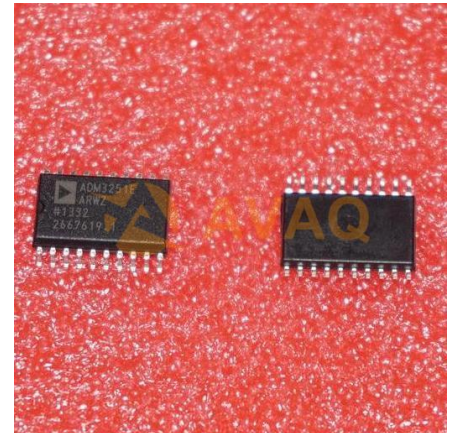


Single Transmitter/Receiver RS-232 20-Pin SOIC W Tube

Manufacturer:	Analog Devices, Inc
Package/Case:	SOP20
Product Type:	Drivers
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The ADM3251E is a high speed, 2.5 kV fully isolated, single-channel RS-232/V.28 transceiver device that operates from a single 5 V power supply. Due to the high ESD protection on the RIN and TOUT pins, the device is ideally suited for operation in electrically harsh environments or where RS-232 cables are frequently being plugged and unplugged.

The ADM3251E incorporates dual-channel digital isolators with isoPower™ integrated, isolated power. There is no requirement to use a separate isolated dc-to-dc converter. Chip-scale transformer iCoupler® technology from Analog Devices, Inc., is used both for the isolation of the logic signals as well as for the integrated dc-to-dc converter. The result is a total isolation solution.

The ADM3251E contains isoPower technology that uses high frequency switching elements to transfer power through the transformer. Special care must be taken during printed circuitboard (PCB) layout to meet emissions standards. Refer to Application Note AN-0971, Control of Radiated Emissions with isoPower Devices, for details on board layout considerations. The ADM3251E conforms to the EIA/TIA-232E and ITU-T V. 28 specifications and operates at data rates up to 460 kbps. Four external 0.1 μF charge pump capacitors are used for the voltage doubler/inverter, permitting operation from a single 5 V supply.

The ADM3251E is available in a 20-lead, wide body SOIC package and is specified over the -40°C to +85°C temperature range.

Key Features

2.5kV Fully Isolated (Power and Data) RS-232 Transceiver

isoPower Integrated, Isolated DC-to-DC Converter

460kbps Data Rate

1 Tx and 1 Rx

Meets EIA/TIA-232E Specifications

ESD Protection on RIN and TOUT Pins

±8kV Contact Discharge

±15kV Air Gap Discharge

0.1µF Charge Pump Capacitors

>25kV/µs High Common-mode Transient Immunity

Safety and Regulatory Approvals

Application

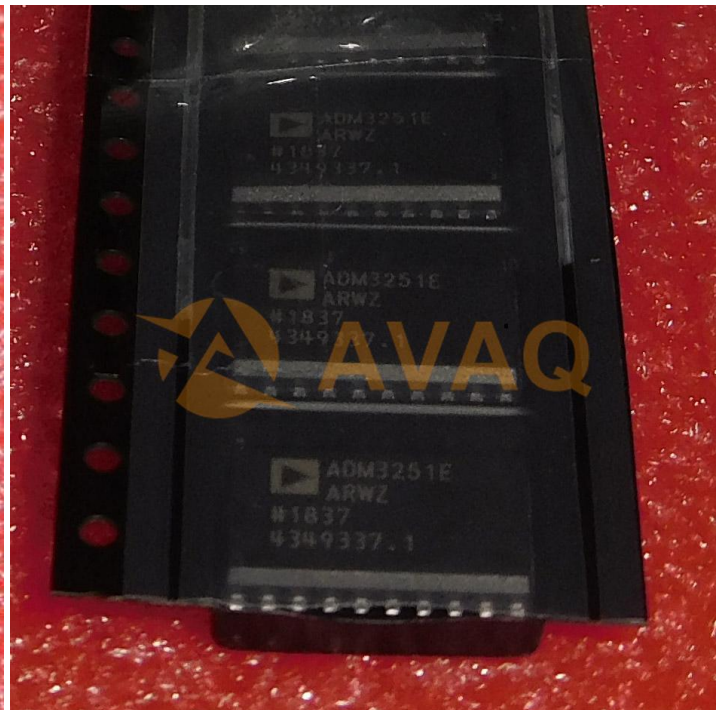
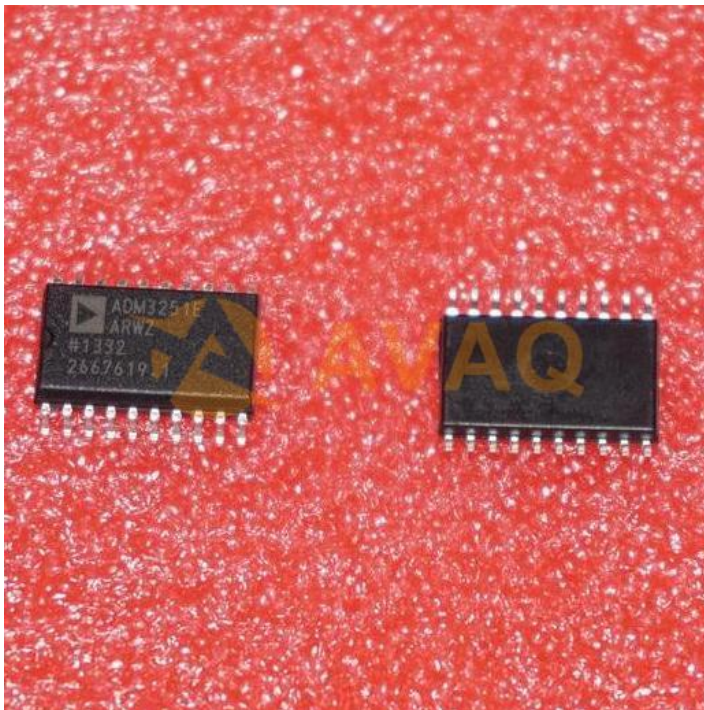
High noise data communications

Industrial communications

General-purpose RS-232 data links

Industrial/telecommunications diagnostic ports

Medical equipment



Recommended For You

ADM3490EARZ

Analog Devices, Inc

SOP-8

ADuM3160BRWZ-RL

Analog Devices, Inc

SOP16

ADM3232EARUZ

Analog Devices, Inc

TSSOP-16

ADuM5211ARSZ

Analog Devices, Inc
SSOP20

ADuMI201BRZ-RL7

Analog Devices, Inc
SOP8

ADV7623BSTZ

Analog Devices, Inc
LQFP144

ADuMI410BRWZ

Analog Devices, Inc
SOP16

AD698APZ

Analog Devices, Inc
PLCC28

ADM485ANZ

Analog Devices, Inc
DIP

ADuM6400ARWZ

Analog Devices, Inc
SOP16

ADuMI281BRZ

Analog Devices, Inc
SOP8

ADUMI42E0BRZ

Analog Devices, Inc
SOP-16

ADuMI412BRWZ

Analog Devices, Inc
SOP16

ADV7622BSTZ

Analog Devices, Inc
TQFP144

ADAUI328BSTZ

Analog Devices, Inc
QFP