

ADUM1301BRWZ-RL

Data Sheet

Triple-Channel Digital Isolator; Package: SOIC - Wide; No of Pins: 16; Temperature Range: Industrial

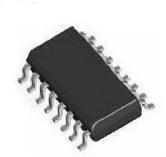
Manufacturers <u>Analog Devices, Inc</u>

Package/Case SOIC-16

Product Type Interface ICs

RoHS Rohs

Lifecycle



Images are for reference only

Please submit RFQ for ADUM1301BRWZ-RL or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFO

General Description

The ADuM130x are triple-channel digital isolators based on the Analog Devices, Inc., iCoupler[®] technology. Combining high speed CMOS and monolithic transformer technology, these isolation components provide outstanding performance characteristics superior to alternatives, such as optocouplers.

By avoiding the use of LEDs and photodiodes, iCoupler devices remove the design difficulties commonly associated with optocouplers. The typical optocoupler concerns regarding uncertain current transfer ratios, nonlinear transfer functions, and temperature and lifetime effects are eliminated with the simple iCoupler digital interfaces and stable performance characteristics. The need for external drivers and other discrete components is eliminated with these iCoupler products. Furthermore, iCoupler devices consume one-tenth to one-sixth of the power of optocouplers at comparable signal data rates.

The ADuM130x isolators provide three independent isolation channels in a variety of channel configurations and data rates (see the Ordering Guide in the data sheet). Both models operate with the supply voltage on either side ranging from 2.7 V to 5.5 V, providing compatibility with lower voltage systems as well as enabling a voltage translation functionality across the isolation barrier. In addition, the ADuM130x provide low pulse width distortion (<2 ns for CRW grade) and tight channel-to-channel matching (<2 ns for CRW grade). Unlike other optocoupler alternatives, the ADuM130x isolators have a patented refresh feature that ensures dc correctness in the absence of input logic transitions and when power is not applied to one of the supplies.

APPLICATIONS

Features

Automotive versions qualified per AEC-Q100

Low power operation

Bidirectional communication

3 V/5 V level translation

High temperature operation: 125°C

High data rate: dc to 90 Mbps (NRZ)

Precise timing characteristics

High common-mode transient immunity: $>25 \text{ kV/}\mu\text{s}$

See data sheet for additional features

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



General-purpose multichannel isolation

SPI interface/data converter isolation

RS-232/RS-422/RS-485 transceivers

Industrial field bus isolation

Automotive systems



AD8170AR

Analog Devices, Inc SOP8



ADV7393BCPZ

Analog Devices, Inc LFCSP-VQ-40



ADV7390BCPZ

Analog Devices, Inc QFN32



ADUM4160BRIZ

Analog Devices, Inc SOIC-16