

## ADUM1402CRWZ-RL

Data Sheet

Digital Isolator CMOS 4-CH 90Mbps 16-Pin SOIC W T/R

Manufacturers Analog Devices, Inc

Package/Case SOIC-16

Product Type Interface ICs

RoHS Rohs

Lifecycle

Images are for reference only

Please submit RFQ for ADUM1402CRWZ-RL or <a href="mailto:sales@ovaga.com"><u>Email to us: sales@ovaga.com</u></a> We will contact you in 12 hours.

**RFO** 

## **General Description**

The ADuM1402 is a quad-channel digital isolator with 2/2 channel directionality based on Analog Devices, Inc.,iCoupler® technology. Combining high speed CMOS and monolithic air core transformer technology, this isolation component provides outstanding performance characteristics superior to alternatives, such as optocoupler devices.

By avoiding the use of LEDs and photodiodes, iCouplerdevices remove the design difficulties commonly associated with opto-couplers. 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 iCoupler products. Furthermore, iCoupler devices consume one-tenth to one-sixth of the power of optocouplers at comparable signal data rates.

The ADuM1401/ADuM1401 isolators provide four independent isolation channels in a variety of channel configurations and data rates (see the Ordering Guide in the data sheet). All 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 ADuM1400/ADuM1401/ADuM1402 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 ADuM1400/ADuM1401/ADuM1402 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.

## **Features**

Qualified for automotive applications

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 kV/µs

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



AD8170AR
Analog Devices, Inc
SOP8



ADV7393BCPZ
Analog Devices, Inc
LFCSP-VQ-40



ADV7390BCPZ
Analog Devices, Inc
QFN32



Analog Devices, Inc SOIC-16