ADUM3401BRWZ

Data Sheet

Digital Isolator, Quad, 3 Channel, 50 ns, 2.7 V, 5.5 V, SOIC, 16 Pins

Manufacturers	Analog Devices, Inc
Package/Case	SOIC-16
Product Type	Interface ICs
RoHS	Rohs
Lifecycle	

Images are for reference only

Please submit RFQ for ADUM3401BRWZ or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The ADuM3400/ADuM3401/ADuM3402 are 4-channel digitalisolators based on the Analog Devices, Inc., iCoupler® technology.Combining high speed CMOS and monolithic air coretransformer technology, these isolation components provideoutstanding performance characteristics superior to alternativessuch as optocoupler devices.

iCoupler devices remove the design difficulties commonlyassociated with optocouplers. Typical optocoupler concernsregarding uncertain current transfer ratios, nonlinear transferfunctions, and temperature and lifetime effects are eliminatedwith the simple iCoupler digital interfaces and stable performancecharacteristics. The need for external drivers and other discretecomponents is eliminated with these iCoupler products. Furthermore,iCoupler devices consume one-tenth to one-sixth thepower of optocouplers at comparable signal data rates.

The isolators provide four independent isolation channels in avariety of channel configurations and data rates (see theOrdering Guide). All models operate with the supply voltage oneither side ranging from 2.7 V to 5.5 V, providing compatibilitywith lower voltage systems as well as enabling a voltagetranslation functionality across the isolation barrier. Theisolators have a patented refresh feature that ensures dc correctnessin the absence of input logic transitions and during powerup/power-downconditions.

In comparison to the ADuM1400/ADuM1401/ADuM1402isolators, the ADuM3400/ADuM3401/ADuM3402 isolatorscontain various circuit and layout changes to provide increasedcapability relative to system-level IEC 61000-4-x testing (ESD/burst/surge). The precise capability in these tests for either set ofisolators is strongly determined by the design and layout of theuser's board or module. For more information, see the AN-793 application note, ESD/Latch-Up Considerations with iCoupler Isolation Products.

Features

For AEC-Q100 Automotive Qualified Devices Specifications view

Enhanced system-level ESD performance per IEC 61000-4-x

Bidirectional communication

3 V/5 V level translation

High temperature operation: 105°C

High data rate: dc to 90 Mbps (NRZ)

See data sheet for additional features

ADuM3401-EP supports defense and aerospace applications (AQEC standard)

Download(pdf)

Military temperature range (−55°C to +125°C)

Controlled manufacturing baseline

One assembly/test site

One fabrication site

Enhanced product change notification

Qualification data available on request

V62/14630 DSCC Drawing Number

Application

General-purpose multichannel isolation

SPI/data converter isolation

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

Industrial field bus isolation

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

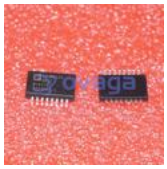
Analog Devices, Inc

QFN32

ADV7341BSTZ

Analog Devices, Inc

LQFP-64



ADUM4160BRIZ

Analog Devices, Inc

SOIC-16