

Digital Isolator, Quad, 4 Channel, 65 ns, 2.7 V, 5.5 V, WSOIC, 16 Pins

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	SOP16
Product Type	Interface ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADUM1412ARWZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ADuM1410/ADuM1411/ADuM1412 are four-channel digital isolators based on Analog Devices, Inc. iCoupler® technology. Combining high speed CMOS and monolithic air core transformer technologies, these isolation components provide outstanding performance characteristics superior to alternatives such as optocoupler devices.

By avoiding the use of LEDs and photodiodes, iCoupler devices remove the design difficulties commonly associated with optocouplers. The usual concerns that arise with optocouplers, such as 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 the power of optocouplers at comparable signal data rates.

The ADuM1410/ADuM1411/ADuM1412 isolators provide four independent isolation channels in a variety of channel configurations and data rates (see the Ordering Guide) up to 10 Mbps. 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 voltage translation functionality across the isolation barrier. All products also have a default output control pin. This allows the user to define the logic state the outputs are to adopt in the absence of the input power. Unlike other optocoupler alternatives, the ADuM1410/ADuM1411/ADuM1412 isolators have a patented refresh feature that ensures dc correctness in the absence of input logic transitions and during power-up/power-down conditions.

## Features

Bidirectional communication

3 V/5 V level translation

High temperature operation: 105°C

Up to 10 Mbps data rate (NRZ)

Low Power Operation

5 V operation 1.3 mA per channel maximum at 0 Mbps to 2 Mbps  
4.0 mA per channel maximum at 10 Mbps

3 V operation 0.8 mA per channel maximum at 0 Mbps to 2 Mbps  
1.8 mA per channel maximum at 10 Mbps

Programmable default output state

High common-mode transient immunity: >25 kV/μs

16-lead, RoHS-compliant, SOIC wide body package

Safety and Regulatory Approvals

UL recognition: 3750 V rms for 1 minute per UL 1577

CSA Component Acceptance Notice 5A

VDE certificate of conformity DIN V VDE V 0884-10 (VDE V 0884-10)>

## Application

General-purpose multichannel isolation

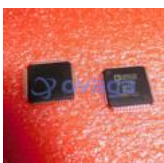
SPI interface/data converter isolation

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



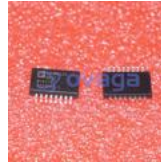
[ADV7390BCPZ](#)

Analog Devices, Inc  
QFN32



[ADV7341BSTZ](#)

Analog Devices, Inc  
LQFP-64



[ADUM4160BRIZ](#)

Analog Devices, Inc  
SOIC-16