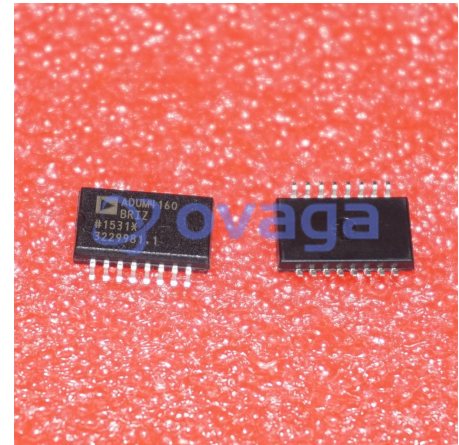


Digital Isolator, 1 Channel, 60 ns, 3.1 V, 5.5 V, SOIC, 16 Pins

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	SOIC-16
Product Type	Interface ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADUM4160BRIZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ADuM4160 is a USB port isolator, based on Analog Devices, Inc., iCoupler® technology. Combining high speed CMOS and monolithic air core transformer technology, these isolation components provide outstanding performance characteristics and are easily integrated with low and full speed USB-compatible peripheral devices.

Many microcontrollers implement USB so that it presents only the D+ and D- lines to external pins. This is desirable in many cases because it minimizes external components and simplifies the design; however, this presents particular challenges when isolation is required. USB lines must automatically switch between actively driving D+/D-, receiving data, and allowing external resistors to set the idle state of the bus. The ADuM4160 provides mechanisms for detecting the direction of data flow and control over the state of the output buffers. Data direction is determined on a packet-by-packet basis.

The ADuM4160 uses the edge detection based iCoupler technology in conjunction with internal logic to implement a transparent, easily configured, upstream facing port isolator. Isolating an upstream facing port provides several advantages in simplicity, power management, and robust operation.

The isolator has propagation delay comparable to that of a standard hub and cable. It operates with the supply voltage on either side ranging from 3.1 V to 5.5 V, allowing connection directly to VBUS by internally regulating the voltage to the signaling level. The ADuM4160 provides isolated control of the pull-up resistor to allow the peripheral to control connection timing. The device has a low idle current; a suspend mode is not required.

## Features

Fully USB 2.0 Compliant

Low and full speed data rate: 1.5 Mbps and 12 Mbps

Bidirectional communication

Short-circuit protection for xD+ and xD- lines

3.3 V and 5 V (dual mode power configuration) operation - Please see data sheet for further information.

Class 3A contact ESD performance per ANSI/ESD STM5.1-2007

High temperature operation: 105°C

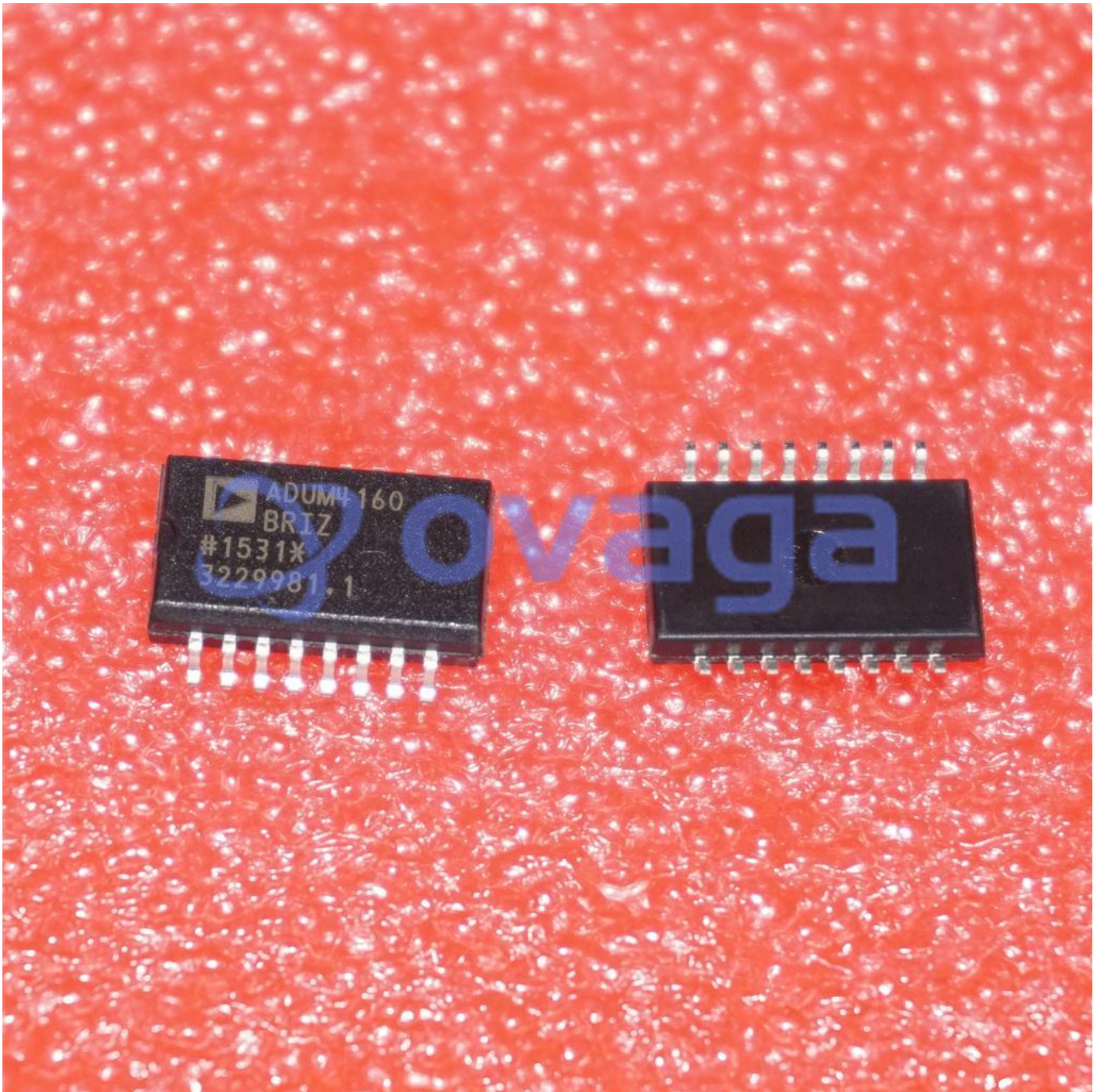
High common-mode transient immunity: >25 kV/μs

Please see data sheet for additional features.

## Application

USB peripheral isolation

Isolated USB hub



### 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



[ADUM7641CROZ](#)

Analog Devices, Inc  
QSOP-20