

**Digital Isolator CMOS 2-CH 1Mbps 8-Pin SOIC N**

Images are for reference only

[Inquiry](#)**Manufacturer:** [Analog Devices, Inc](#)**Package/Case:** SOP8**Product Type:** Drivers**Lifecycle:** Unconfirmed**General Description**

The ADuM1201 is a dual-channel, digital isolator with 1/1 channel directionality based on the Analog Devices, Inc., iCoupler® technology. Combining high speed CMOS and monolithic transformer technologies, 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. Further-more, iCoupler devices consume one-tenth to one-sixth the power of optocouplers at comparable signal data rates.

The ADuM120x product family of isolators provides two independent isolation channels in a variety of channel configurations and data rates (see the Ordering Guide). Both parts 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 ADuM120x provide low pulse width distortion (<3 ns for CR grade) and tight channel-to-channel matching (<3 ns for CR grade). Unlike other optocoupler alternatives, the ADuM120x isolators have a patented refresh feature that ensures dc correctness in the absence of input logic transitions and during power-up/power-down conditions.

ADuM1200W and ADuM1201W are automotive grade versions qualified for 125°C operation per AEC-Q100. See the Automotive Products section for more details.

## Key Features

Narrow body, RoHS-compliant, SOIC 8-lead package

Low power operation

Bidirectional communication

3 V/5 V level translation

High temperature operation:125°C

High data rate: dc to 25 Mbps (NRZ)

Precise timing characteristics

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

Automotive versions qualified per AEC-Q100

See data sheet for additional features

## Application

Size-critical multichannel isolation

SPI interface/data converter isolation

RS-232/RS-422/RS-485 transceiver isolation

Digital field bus isolation

Hybrid electric vehicles, battery monitor, and motor drive

## Recommended For You

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### **ADMB490EARZ**

Analog Devices, Inc

SOP-8

### **ADuM3160BRWZ-RL**

Analog Devices, Inc

SOP16

### **ADMB232EARUZ**

Analog Devices, Inc

TSSOP-16

### **ADuM5211ARSZ**

Analog Devices, Inc

SSOP20

### **ADuMI201BRZ-RL7**

Analog Devices, Inc

SOP8

### **ADV7623BSTZ**

Analog Devices, Inc

LQFP144

### **ADuMI410BRWZ**

Analog Devices, Inc

SOP16

### **AD698APZ**

Analog Devices, Inc

PLCC28

### **ADMB251EARWZ**

Analog Devices, Inc

SOP20

### **ADM485ANZ**

Analog Devices, Inc

DIP

### **ADuM6400ARWZ**

Analog Devices, Inc

SOP16

### **ADuMI281BRZ**

Analog Devices, Inc

SOP8

### **ADUMI42E0BRZ**

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SOP-16

### **ADuMI412BRWZ**

Analog Devices, Inc

SOP16

### **ADV7622BSTZ**

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TQFP144