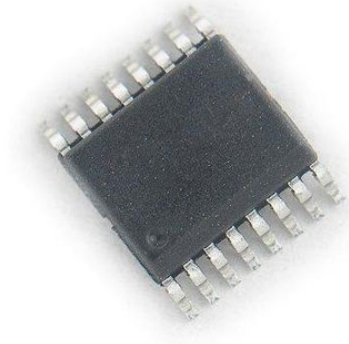


Digital Isolator CMOS 4-CH 2Mbps 16-Pin QSOP Tube

Manufacturers	Analog Devices, Inc
Package/Case	16-SSOP (0.154", 3.90mm Width)
Product Type	Interface ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADUM1442ARQZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADuM1440/ADuM1441/ADuM1442/ADuM1445/ADuM1446/ADuM1447 are micropower, 4-channel digital isolators based on the Analog Devices, Inc., iCoupler® technology. (Dual-channel products available). Combining high speed, complementary metal oxide semiconductor (CMOS) and monolithic air core transformer technologies, these isolation components provide outstanding performance characteristics superior to the alternatives, such as optocoupler devices, while requiring the lowest power of any available isolation product. The ENX signals can be used to disable the internal refresh, which lowers the total quiescent current to less than 1 μ A.

The ADuM1440/ADuM1441/ADuM1442/ADuM1445/ ADuM1446/ADuM1447 family of quad 2.5 kV digital isolation devices are packaged in a small 16-lead QSOP and 20-lead SSOP. While most 4-channel isolators come in 16-lead wide SOIC packages, the ADuM1440/ADuM1441/ADuM1442/ADuM1445/ADuM1446/ADuM1447 frees almost 70% of board space and yet can still withstand high isolation voltages and meet regulatory requirements, such as UL and CSA standards (pending). In addition to the space savings, the ADuM1440/ADuM1441/ADuM1442/ADuM1445/ADuM1446/ADuM1447 operates with supplies as low as 2.25 V.

Despite the low power consumption, all models of the ADuM1440/ADuM1441/ADuM1442/ADuM1445/ADuM1446/ADuM1447 provide low, pulse width distortion <8 ns. In addition, every model has an input glitch filter to protect against extraneous noise disturbances.

Features

Ultralow power operation 3.3 V operation (typical) 5.6 μA per channel quiescent current, refresh enabled 0.3 μA per channel quiescent current, refresh disabled 148 $\mu\text{A}/\text{Mbps}$ per channel typical dynamic current

2.5 V operation (typical) 3.4 μA per channel quiescent current, refresh enabled 0.1 μA per channel quiescent current, refresh disabled 117 $\mu\text{A}/\text{Mbps}$ per channel typical dynamic current

Small, 16-lead QSOP and

20-lead SSOP

Bidirectional communication

Up to 2 Mbps data rate (NRZ)

High temperature operation: 125°C

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

See datasheet for additional features

Application

General-purpose, low power multichannel isolation

1 MHz, low power peripheral interface (SPI)

4 mA to 20 mA loop process controls

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