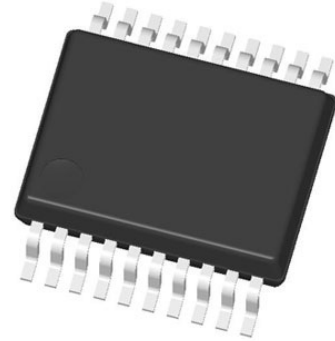


5 kV rms, 600 Mbps Dual Tx or Rx Channel LVDS Isolator

Manufacturers	Analog Devices, Inc
Package/Case	20-Lead SSOP
Product Type	Interface ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADN4650BRSZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADN4650/ADN4651/ADN46521 are signal isolated, low voltage differential signaling (LVDS) buffers that operate at up to 600 Mbps with very low jitter.

The devices integrate Analog Devices, Inc., iCoupler® technology, enhanced for high speed operation, to provide galvanic isolation of the TIA/EIA-644-A compliant LVDS drivers and receivers. This technology allows drop-in isolation of an LVDS signal chain.

Multiple channel configurations are offered, and the LVDS receivers on the ADN4651/ADN4652 include a fail-safe mechanism to ensure a Logic 1 on the corresponding LVDS driver output when the inputs are floating, shorted, or terminated, but not driven.

For high speed operation with low jitter, the LVDS and isolator circuits rely on a 2.5 V supply. An integrated on-chip low dropout regulator (LDO) can provide the required 2.5 V from an external 3.3 V power supply. The devices are fully specified over a wide industrial temperature range and are available in a 20-lead, wide body SOIC package with 5 kV rms isolation or a 20-lead SSOP package with 3.75 kV rms isolation.

Features

5 kV rms/3.75 kV rms LVDS isolator

Complies with TIA/EIA-644-A LVDS standard

Multiple dual-channel configurations

Up to 600 Mbps switching with low jitter

4.5 ns maximum propagation delay

151 ps maximum peak-to-peak total jitter at 600 Mbps

100 ps maximum pulse skew

600 ps maximum part to part skew

2.5 V or 3.3 V supplies

High common-mode transient immunity: >25 kV/ μ s

Passes EN55022 Class B radiated emissions limits with 600 Mbps PRBS

Safety and regulatory approvals (20-lead SOIC package)

UL: 5000 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>

Fail-safe output high for open, short, and terminated input conditions (ADN4651/ADN4652)

Operating temperature range: -40°C to $+125^{\circ}\text{C}$

Choice of package and isolation options

3.75 kV rms in highly integrated 20-lead SSOP

5 kV rms in 20-lead SOIC with 7.8 mm creepage/clearance

Application

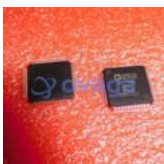
Analog front-end (AFE) isolation

Data plane isolation

Isolated high speed clock and data links

Isolated serial peripheral interface (SPI) over LVDS

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



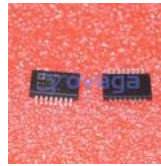
[ADV7390BCPZ](#)

Analog Devices, Inc
QFN32



[ADV7341BSTZ](#)

Analog Devices, Inc
LQFP-64



[ADUM4160BRIZ](#)

Analog Devices, Inc
SOIC-16