Analog Switch Octal SPST 24-Pin LFCSP EP Tray

Manufacturers	Analog Devices, Inc
Package/Case	24-VFQFN, CSP
Product Type	Analog Switches, Multiplexers, Demultiplexers
RoHS	
Lifecycle	
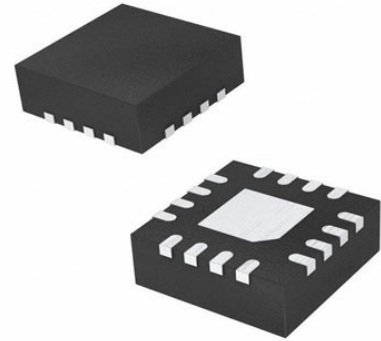
Images are for reference only

Please submit RFQ for ADGS5414BCPZ or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The ADGS5414 contains eight independent single-pole/single-throw (SPST) switches. An SPI interface controls the switchesand has robust error detection features, including cyclicredundancy check (CRC) error detection, invalid read/writeaddress error detection, and SCLK count error detection.

It is possible to daisy-chain multiple ADGS5414 devices together. This enables the configuration of multiple devices with a minimalamount of digital lines. The ADGS5414 can also operate in burstmode to decrease the time between SPI commands.

Each switch conducts equally well in both directions when on, andeach switch has an input signal range that extends to the supplies. In the off condition, signal levels up to the supplies are blocked.

The on-resistance profile is flat over the full analog input range, ensuring ideal linearity and low distortion when switchingaudio signals. The ADGS5414 exhibits break-before-makeswitching action, allowing the use of the device in multiplexer applications with external wiring.

Product Highlights

The SPI interface removes the need for parallel conversion, logic traces, and reduces the general-purpose input/output (GPIO) channel count.

Daisy-chain mode removes the need for additional logic traces when using multiple devices.

CRC error detection, invalid read/write address error detenction, and SCLK count error detection ensures a robust digital interface.

CRC and error detection capabilities allow the use of the ADGS5414 in safety critical systems.

Break-before-make switching allows external wiring of the switches to deliver multiplexer configurations.

The trench isolation analog switch section guards against latch-up. A dielectric trench separates the positive and negative channel transistors, preventing latch-up even under severe overvoltage conditions.

Features

SPI interface with error detection

Includes CRC, invalid read/write address, and SCLK count error detection

Supports burst and daisy-chain mode

Industry-standard SPI Mode 0 and Mode 3 interface-compatible

Guaranteed break-before-make switching, allowing external wiring of switches to deliver multiplexer configurations

VSS to VDD analog signal range

Fully specified at ±15 V, ±20 V, +12 V, and +36 V

9 V to 40 V single-supply operation (VDD)

8 kV HBM ESD rating

Low on resistance

1.8 V logic compatibility with 2.7 V ≤ VL ≤ 3.3 V

Application

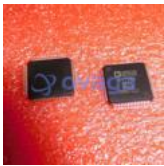Relay replacement

Automatic test equipment

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Related Products

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