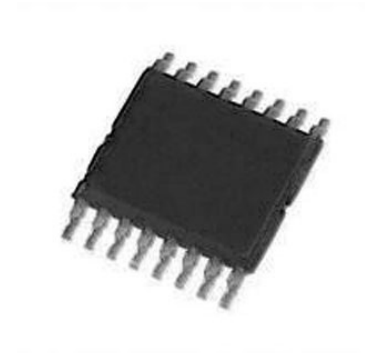


Digital to Analog Converters - DAC IC 12-Bit 2-CH w/ SPI INTERFACE

Manufacturers	Analog Devices, Inc
Package/Case	16-TSSOP (0.173, 4.40mm Width)
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD5687BRUZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD5689/AD5687 members of the nanoDAC+™ family are low power, dual, 16-/12-bit, buffered voltage output digital-to-analog converters (DACs). The devices include a gain select pin giving a full-scale output of $2.5\text{ V} \times 2$. The AD5689/AD5687 operate from a single 2.7 V to 5.5 V supply, are guaranteed monotonic by design, and exhibit less than 0.1% FSR gain error and 1.5 mV offset error performance. Both devices are available in a $3\text{ mm} \times 3\text{ mm}$ LFCSP and a TSSOP package.

The AD5689/AD5687 also incorporate a power-on reset circuit and a RSTSEL pin that ensure that the DAC outputs power up to zero scale or midscale and remain there until a valid write takes place. Each part contains a per channel power-down feature that reduces the current consumption of the device to $4\text{ }\mu\text{A}$ at 3 V while in power-down mode.

The AD5689/AD5687 uses a versatile serial peripheral interface that operates at clock rates up to 50 MHz. Both devices contain a VLOGIC pin that is intended for 1.8 V/3 V/5 V logic.

Product Highlights

High Relative Accuracy (INL). AD5687 (12-bit): ± 1 LSB maximum

Excellent DC Performance. Total unadjusted error: $\pm 0.1\%$ of FSR maximum Offset error: $\pm 1.5\text{ mV}$ maximum Gain error: $\pm 0.1\%$ of FSR maximum

Two Package Options. $3\text{ mm} \times 3\text{ mm}$, 16-lead LFCSP or 16-lead TSSOP

Features

High relative accuracy (INL): ± 2 LSB maximum at 16 bits

Tiny package: 3 mm \times 3 mm, 16-lead LFCSP

TUE: $\pm 0.1\%$ of FSR maximum

Offset error: ± 1.5 mV maximum

Gain error: $\pm 0.1\%$ of FSR maximum

High drive capability: 20 mA, 0.5 V from supply rails

User-selectable gain of 1 or 2 (GAIN pin)

Reset to zero scale or midscale (RSTSEL pin)

1.8 V logic compatibility

50 MHz SPI with readback or daisy chain

Low glitch: 0.5 nV-sec

Low power: 3.3 mW at 3 V

2.7 V to 5.5 V power supply

Application

Optical transceivers

Base station power amplifiers

Process control (PLC I/O cards)

Industrial automation

Data acquisition systems

Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



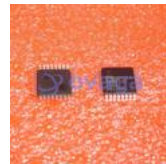
[AD7938BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc
LFCSP-32



[AD7266BSUZ](#)

Analog Devices, Inc
TQPF-32



[AD7401YRWZ](#)

Analog Devices, Inc
SOIC-16



[AD7192BRUZ-REEL](#)

Analog Devices, Inc
TSSOP-24



[AD9680BCPZ-500](#)

Analog Devices, Inc
LFCSP-64