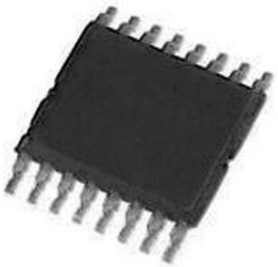
AD5686ARUZ

Data Sheet

Digital to Analogue Converter, Quad, 16 bit, SPI, 2.7V to 5.5V, TSSOP, 16 Pins

Manufacturers	Analog Devices, Inc
Package/Case	TSSOP-16
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD5686ARUZ or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The AD5686, a member of the nanoDAC+™ family, is a low power, quad, 16-bit buffered voltage output DAC. The device includes a gain select pin giving a full-scale output of 2.5 V = 2). The device operates from a single 2.7 V to 5.5 V supply, is guaranteed monotonic by design, and exhibits less than 0.1% FSR gain error and 1.5 mV offset error performance. The device is available in a 3 mm × 3 mm LFCSP and a TSSOP package.

The AD5686 also incorporates a power-on reset circuit and a RSTSEL pin that ensures that the DAC outputs power up to zero scale or midscale and remain at that level 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 µA at 3 V while in power-down mode.

The AD5686 employs a versatile SPI interface that operates at clock rates up to 50 MHz, and all devices contain a VLOGIC pin intended for 1.8 V/3 V/5 V logic.

Product Highlights

High Relative Accuracy (INL): ±2 LSB maximum

Excellent DC Performance.Total unadjusted error: ±0.1% of FSR maximumOffset error: ±1.5 mV maximumGain error: ±0.1% of FSR maximum

Two Package Options: 3 mm × 3 mm, 16-lead LFCSP and 16-lead TSSOP

Features

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

Tiny package: 3 mm × 3 mm, 16-lead LFCSP

Total unadjusted error (TUE): ±0.1% of FSR maximum

Offset error: ±1.5 mV maximum

Gain error: ±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: 1.8 mW at 3 V

2.7 V to 5.5 V power supply

Application

Digital gain and offset adjustment

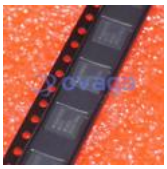
Programmable attenuators

Process control (PLC I/O cards)

Industrial automation

Data acquisition systems

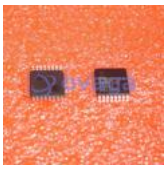
Related Products



ADAS3022BCPZ

Analog Devices, Inc

LFCSP-40



AD7266BSUZ

Analog Devices, Inc

TQPF-32

AD574AJNZ

Analog Devices, Inc

PDIP-28

AD7401YRWZ

Analog Devices, Inc

SOIC-16

AD7938BSUZ

Analog Devices, Inc

TQFP-32

AD7192BRUZ-REEL

Analog Devices, Inc

TSSOP-24

AD7124-8BCPZ-RL7

Analog Devices, Inc

LFCSP-32

AD9680BCPZ-500

Analog Devices, Inc

LFCSP-64