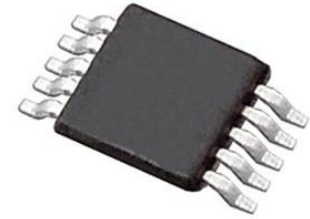


250 kSPS 16-BIT Differential PulSAR® A/D Converter in μ SOIC/QFN; Package: MSOP;
No of Pins: 10; Temperature Range: Industrial

Manufacturers	Analog Devices, Inc
Package/Case	MSOP-10
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for AD7687BRMZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD7687 is a 16-bit, charge redistribution, successive approximation, analog-to-digital converter (ADC) that operates from a single power supply, VDD, between 2.3 V to 5.5 V. It contains a low power, high speed, 16-bit sampling ADC with no missing codes, an internal conversion clock, and a versatile serial interface port. The device also contains a low noise, wide bandwidth, short aperture delay track-and-hold circuit. On the CNV rising edge, the AD7687 samples the voltage difference between IN+ and IN- pins, which can range from -VREF to +VREF. The reference voltage, VREF, is applied externally and can be set up to the supply voltage.

The power consumption of the device scales linearly with throughput.

The SPI-compatible serial interface also features the ability to daisy-chain several ADCs on a single 3-wire bus and provides an optional BUSY indicator by means of the SDI pin. It is compatible with 1.8 V, 2.5 V, 3 V, or 5 V logic using the separate supply VIO.

The AD7687 comes in a 10-lead MSOP or a 10-lead LFCSP with operation specified from -40°C to +85°C.

Features

16-bit resolution with no missing codes

Throughput: 250 kSPS

INL: ± 0.4 LSB typ, ± 1.5 LSB max (± 23 ppm of FSR)

Dynamic range: 96.5 dB

SNR: 95.5 dB at 20 kHz

THD: -118 dB at 20 kHz

True differential analog input range

0 V to VREF with VREF up to VDD on both inputs

No pipeline delay

Single-supply 2.3 V to 5.5 V operation with 1.8 V/2.5 V/3 V/5 V logic interface

Refer to data sheet for additional features.

Application

Battery-powered equipment

Data acquisitions

Instrumentation

Medical instruments

Process controls

Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



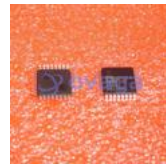
[AD7938BSUZ](#)

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