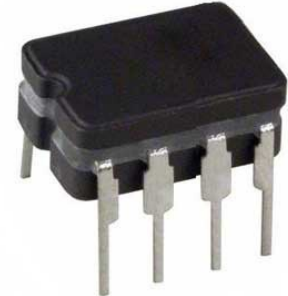


Analogue Comparator, Precision Voltage, 1 Comparator, 40 ns,  $\pm 2.25V$  to  $\pm 16.5V$ , 4.5V to 7V, DIP

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	CDIP-8
Product Type	Comparators ; High Speed Comparators (<100ns Propagation Delay)
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for AD790AQ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD7902 is a dual 16-bit, successive approximation, analog-to-digital converter (ADC) that operates from a single power supply,  $VDDx$ , per ADC. It contains two low power, high speed, 16-bit sampling ADCs and a versatile serial port interface (SPI). On the  $CNVx$  rising edge, the AD7902 samples an analog input,  $IN+$  in the range of 0 V to  $VREF$  with respect to a ground sense,  $IN-$ . The externally applied reference voltage of the  $REFx$  pins ( $VREF$ ) can be set independently from the supply voltage pins,  $VDDx$ . The power of the device scales linearly with throughput.

Using the  $SDIx$  inputs, the SPI-compatible serial interface can also daisy-chain multiple ADCs on a single 3-wire bus and provide an optional busy indicator. It is compatible with 1.8 V, 2.5 V, 3 V, or 5 V logic, using the separate  $VIOx$  supplies.

The AD7902 is available in a 20-lead QSOP package with operation specified from  $-40^{\circ}C$  to  $+125^{\circ}C$ .

## Features

16-bit resolution with no missing codes

Throughput: 1 MSPS

Lowpower dissipation 7.0 mW at 1 MSPS (VDD1 and VDD2 only) 12.0 mW at 1 MSPS (total) 140  $\mu$ W at 10 kSPS

INL:  $\pm 1.0$  LSB typical,  $\pm 2.5$  LSB maximum

Pseudodifferential analog input range 0 V to VREF with VREF between 2.4 V to 5.1 V Allows use of any input range Easy to drive with the ADA4841-1/ADA4841-2

SINAD: 91 dB at 1 kHz

THD:  $-105$  dB at 1 kHz

No pipeline delay

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

Serial port interface (SPI) QSPI/MICROWIRE/DSP compatible

20-lead QSOP package

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

## Application

Battery-powered equipment

Communications

Automated test equipment (ATE)

Data acquisition

Medical instrumentation

Redundant measurement

Simultaneous sampling

## Related Products



### [ADCMP573BCPZ](#)

Analog Devices, Inc  
QFN



### [AD790SQ](#)

Analog Devices, Inc  
CDIP-8



### [AD9696KR](#)

Analog Devices, Inc  
SOP-8



### [AD9687BD](#)

Analog Devices, Inc  
DIP16



### [AD96687BQ](#)

Analog Devices, Inc  
CDIP-16



### [AD790JRZ](#)

Analog Devices, Inc  
SOIC-8



### [AD790JN](#)

Analog Devices, Inc  
PDIP-8



### [AD9696TQ](#)

Analog Devices, Inc  
CDIP-8