

True Bipolar Input, Single Supply, Parallel, 8-Channel, 12-Bit High Speed Data Acquisition System

Manufacturers	Analog Devices, Inc
Package/Case	PLCC-44
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD7891APZ-1 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD7891 is an eight-channel 12-bit data acquisition system with a choice of either parallel or serial interface structure. The part contains an input multiplexer, an on-chip track/hold amplifier, a high speed 12-bit ADC, a +2.5 V reference and a high speed interface. The part operates from a single +5 V supply and accepts a variety of analog input ranges across two models, the AD7891-1 (± 5 V and ± 10 V) and the AD7891-2 (0 V to +2.5 V, 0 V to +5 V and ± 2.5 V).

The AD7891 provides the option of either a parallel interface or serial interface structure determined by the MODE pin. The part has standard control inputs and fast data access times for both the serial and parallel interfaces which ensures easy interfacing to modern microprocessors, microcontrollers and digital signal processors.

In addition to the traditional dc accuracy specifications such as linearity, full-scale and offset errors, the part is also specified for dynamic performance parameters including harmonic distortion and signal-to-noise ratio.

Power dissipation in normal mode is 90 mW typical while in the standby mode this is reduced to 75 μ W typ. The part is available in a 44-pin plastic quad flat-pack (PQFP) and a 44-lead plastic leaded chip carrier (PLCC).

Features

Fast 12-Bit ADC with 1.6 μ s Conversion Time

8 Single-Ended Analog Input Channels

Overvoltage Protection on Each Channel

Selection of Input Ranges: ± 5 V, ± 10 V for AD7891-10 to $+2.5$ V, 0 to $+5$ V, ± 2.5 V for AD7891-2

Parallel and Serial Interface

On-Chip Track/Hold Amplifier

On-Chip Reference

Single-Supply, Low Power Operation (100 mW Max)

Power-Down Mode (75 μ W Typ)

Application

Data Acquisition Systems

Motor Control

Mobile Communication Base Stations

Instrumentation

Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



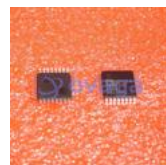
[AD7938BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc
LFCSP-32



[AD7266BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7401YRWZ](#)

Analog Devices, Inc
SOIC-16



[AD7192BRUZ-REEL](#)

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TSSOP-24



[AD9680BCPZ-500](#)

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LFCSP-64