

CMOS, 24-Bit Sigma-Delta, Signal Conditioning ADC with Matched RTD Excitation Currents; Temperature Range: Industrial

Manufacturers	Analog Devices, Inc
Package/Case	SOIC-24
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for AD7711ARZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The part features one differential analog input and one single ended analog input as well as a differential reference input. Normally, one of the input channels will be used as the main channel with the second channel used as an auxiliary input to periodically measure a second voltage. It can be operated from a single supply (by tying the VSS pin to AGND) provided that the input signals on the analog inputs are more positive than -30 mV. By taking the VSS pin negative, the part can convert signals down to -VREF on its inputs. The part provides two current sources that can be used to provide excitation in three-wire and four-wire RTD configurations. The AD7711 thus performs all signal conditioning and conversion for a single or dual channel system.

The AD7711 is ideal for use in smart, microcontroller based systems. Gain settings, signal polarity, input channel selection and RTD current control can be configured in software using the bidirectional serial port. The AD7711 contains self-measurement calibration, system calibration and background calibration options and also allows the user to read and write the on-chip calibration registers.

CMOS construction ensures low power dissipation, and a software programmable power-down mode reduces the standby power consumption to only 7 mW typical. The part is available in a 24-pin, 0.3 inch wide, plastic and hermetic dual-in-line package (DIP) as well as a 24-lead small outline (SOIC) package.

Features

Charge-Balancing ADC 24 Bits, No Missing Codes $\pm 0.0015\%$ Nonlinearity

2-Channel Programmable Gain Front End Gains from 1 to 128 1 Differential Input 1 Single-Ended Input

Low-Pass Filter with Programmable Filter Cutoffs

Ability to Read/Write Calibration Coefficients

RTD Excitation Current Sources

Bidirectional Microcontroller Serial Interface

Internal/External Reference Option

Single- or Dual-Supply Operation

Low Power (25 mW typ) with Power-Down Mode (7 mW typ)

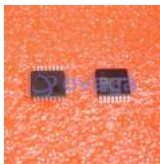


Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



[AD7266BSUZ](#)

Analog Devices, Inc
TQPF-32



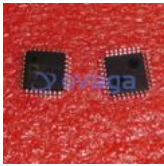
[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



[AD7401YRWZ](#)

Analog Devices, Inc
SOIC-16



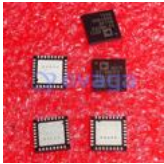
[AD7938BSUZ](#)

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