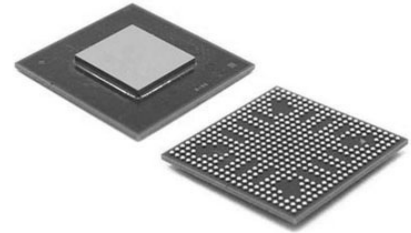


Analog to Digital Converters - ADC 8 chn 12 bit SAR ADC ref(max) SPI

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



Images are for reference only

Please submit RFQ for AD7091R-8BCPZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD7091R-2/AD7091R-4/AD7091R-8 family is a multichannel 12-bit, ultralow power, successive approximation analog-to-digital converter (ADC) that is available in two, four, or eight analog input channel options. The AD7091R-2/AD7091R-4/AD7091R-8 operate from a single 2.7 V to 5.25 V power supply and are capable of achieving a sampling rate of 1 MSPS.

The AD7091R-2/AD7091R-4/AD7091R-8 family offers up to eight single-ended analog input channels with a channel sequencer that allows a preprogrammed selection of channels to be converted sequentially. The AD7091R-2/AD7091R-4/AD7091R-8 also feature an on-chip conversion clock, an on-chip accurate 2.5 V reference, and a high speed serial interface.

The AD7091R-2/AD7091R-4/AD7091R-8 have a serial port interface (SPI) that allows data to be read after the conversion while achieving a 1 MSPS throughput rate. The conversion process and data acquisition are controlled using the CONVST pin.

The AD7091R-2/AD7091R-4/AD7091R-8 use advanced design techniques to achieve ultralow power dissipation at high throughput rates. They also feature flexible power management options. An on-chip configuration register allows the user to set up different operating conditions. These include power management, alert functionality, busy indication, channel sequencing, and general-purpose output pins. The MUXOUT and ADCIN pins allow signal conditioning of the multiplexer output prior to acquisition by the ADC.

Features

Ultralow system power

Flexible power/throughput rate management

Programmable ALERT interrupt pin

High performance

1 MSPS throughput with no latency/pipeline delay

SNR: 70 dB typical at 10 kHz input frequency

THD: -80 dB typical at 10 kHz input frequency

INL: ± 0.7 LSB typical, ± 1.0 LSB maximum

Small system footprint

On-chip accurate 2.5 V reference, 5 ppm/ $^{\circ}$ C typical drift

MUXOUT/ADCIN to allow single buffer amplifier

Daisy-chain mode

16-lead, 20-lead, and 24-lead 4 mm \times 4 mm LFCSP packages

16-lead, 20-lead, and 24-lead TSSOP packages

See data sheet for additional features.

Application

Battery powered systems

Personal digital assistants

Medical instruments

Mobile communications

Instrumentation and control systems

Data acquisition systems

Optical sensors

Diagnostic/monitoring functions

Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



[AD7938BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7266BSUZ](#)

Analog Devices, Inc
TQPF-32



[AD7401YRWZ](#)

Analog Devices, Inc
SOIC-16



[AD7192BRUZ-REEL](#)

Analog Devices, Inc
TSSOP-24



[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc

LFCSP-32



[AD9680BCPZ-500](#)

Analog Devices, Inc

LFCSP-64