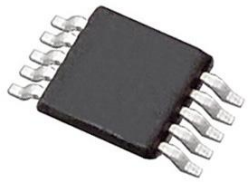
AD7791BRMZ

1-Channel Single ADC Delta-Sigma 120sps 24-bit Serial 10-Pin MSOP Tube

Manufacturer:	Analog Devices, Inc
Package/Case:	MSOP10
Product Type:	Data Conversion ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The AD7790/AD7791 are low-power, complete analog front ends for low frequency measurement applications. The device consumes 65 µA of current typically when operated with a 3 V power supply and 75 µA typical when operated with a 5 V power supply with the buffer disabled. The AD7791 contains a 24-bit S-D ADC with one differential input, which can be buffered or unbuffered. The AD7790 is a 16-bit version of the AD7791. The AD7790 has a peak-to-peak resolution of 16 bits at the default output data rate of 16.6 Hz while the AD7789 has a peak to peak resolution of 19 bits, which is equivalent to an effective resolution of 21.5 bits at this output data rate.

The device operates from an internal clock. Therefore, the user does not have to supply a clock source to the device. The output data rate from the part is software programmable, allowing rates from 9.5 Hz to 120 Hz. The p-p resolution from the part varies with the programmed output data rate. With an output data rate of 16.6 Hz, simultaneous 50 Hz/60 Hz rejection is achieved. Power supply monitoring is also included.

The part can be used in single conversion mode whereby the device powers up, performs a single conversion and then returns to powerdown mode. Alternatively, it can be operated in continuous mode. In continuous conversion mode, the part can be configured to continuously read i.e. the conversions are placed on the serial bus automatically as soon as a conversion is complete (the user does not need to write to the ADC to read the data), assuming that the serial clock is applied to the device.

The AD7790/AD7791 is housed in a 10-lead MSOP package.

Key Features

1.1µV RMS noise at 9.5Hz update rate

19.5-bit p-p resolution (22-bit effective resolution)

3.5ppm Typical integral nonlinearity

Simultaneous 50 and 60Hz rejection

Internal clock oscillator

Rail-to-rail input buffer

Recommended For You

AD7305BRZ

Analog Devices, Inc

SOP20

AD9910BSVZ

Analog Devices, Inc

TQFP100

AD9831ASTZ

Analog Devices, Inc

QFP

AD5447YRUZ

Analog Devices, Inc

TSSOP

AD5302BRMZ

Analog Devices, Inc

MSOP10

AD5531BRUZ

Analog Devices, Inc

TSSOP16

AD537JH

Analog Devices, Inc

CAN10

AD652AQ

Analog Devices, Inc

DIP

AD654JN

Analog Devices, Inc

DIP8

AD7740YRMZ

Analog Devices, Inc

MSOP8

AD9914BCPZ

Analog Devices, Inc

LFCSP

AD73311ARSZ

Analog Devices, Inc

SSOP20

AD7291BCPZ

Analog Devices, Inc

LFCSP20

AD9954YSVZ

Analog Devices, Inc

QFP

AD2S1205YSTZ

Analog Devices, Inc

LQFP44