

AFE General Purpose 1 ADC 24bit 1.8V/3V 32-Pin VQFN EP T/R

Manufacturer:	Texas Instruments, Inc	<input type="text" value="ADS1191IRSMR Image"/>
Package/Case:	VQFN32	Images are for reference only
Product Type:	Data Conversion ICs	<input type="button" value="Inquiry"/>
RoHS:	RoHS Compliant/Lead free 	
Lifecycle:	Active	

General Description

The ADS1191/2 are a family of multichannel, simultaneous sampling, 16-bit, delta-sigma ($\Delta\Sigma$) analog-to-digital converters (ADCs) with a built-in programmable gain amplifier (PGA), internal reference, and an onboard oscillator.

The ADS1191/2 incorporate all of the features that are commonly required in portable, low-power medical electrocardiogram (ECG), sports, and fitness applications.

With its high levels of integration and exceptional performance, the ADS1191/2 family enables the creation of scalable medical instrumentation systems at significantly reduced size, power, and overall cost.

The ADS1191/2 have a flexible input multiplexer per channel that can be independently connected to the internally-generated signals for test, temperature, and lead-off detection. Additionally, any configuration of input channels can be selected for derivation of the right leg drive (RLD) output signal. The ADS1191/2 operate at data rates up to 8 kSPS. Lead-off detection can be implemented internal to the device, using the device internal excitation current sink/source.

The devices are packaged in a 5-mm \times 5-mm, 32-pin thin quad flat pack (TQFP). Operating temperature is specified from -40°C to $+85^{\circ}\text{C}$.

Key Features

Two Low-Noise PGAs and

Two High-Resolution ADCs (ADS1192)

Low Power: 335 μ W/channel

Input-Referred Noise: 24 μ V

PP

Input Bias Current: 1 nA

Data Rate: 125 SPS to 8 kSPS

CMRR: -95 dB

Programmable Gain: 1, 2, 3, 4, 6, 8, or 12

Supplies: Unipolar or Bipolar

Analog: 2.7 V to 5.25 V

Digital: 1.7 V to 3.6 V

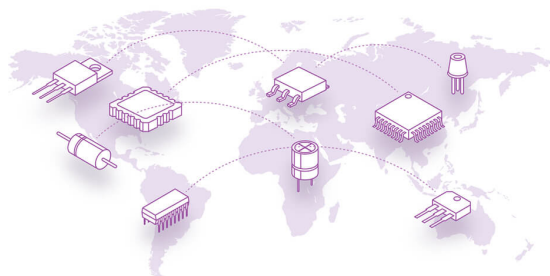
Built-In Right Leg Drive Amplifier, Lead-Off Detection, Test Signals

Built-In Oscillator and Reference

Flexible Power-Down, Standby Mode

SPI™-Compatible Serial Interface

Operating Temperature Range: -40°C to +85°C



Recommended For You

ADS8326IDGKT

Texas Instruments, Inc
MSOP8

ADS7816U

Texas Instruments, Inc
SOP8

ADS1110A0IDBVR

Texas Instruments, Inc
SOT23-6

ADS1015BQDGSRQ1

Texas Instruments, Inc
VSSOP-10

ADS7805UB

Texas Instruments, Inc
SOP28

ADS774KU

Texas Instruments, Inc
SOP28

ADS7846E

Texas Instruments, Inc
SSOP16

ADS8344NB

Texas Instruments, Inc
SSOP20

ADS1254E

Texas Instruments, Inc
SSOP20

ADS7842E

Texas Instruments, Inc
SSOP28

ADS1282IPW

Texas Instruments, Inc
TSSOP-28

ADS7843E/2K5

Texas Instruments, Inc
SSOP16

ADS1226IRGVT

Texas Instruments, Inc
QFN16

ADS825E

Texas Instruments, Inc
SOP28

ADS7825U

Texas Instruments, Inc
SOP28