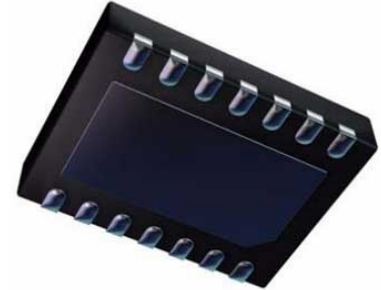


24-Bit 2-/4-Channel Delta Sigma ADC with Easy Drive Input Current Cancellation and I2C Interface; Package: DFN; No of Pins: 14; Temperature Range: -40°C to +85°C



Images are for reference only

Manufacturers	Analog Devices, Inc
Package/Case	DFN14
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	

Please submit RFQ for LTC2493IDE#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LTC2493 is a 4-channel (2-channel differential), 24-bit, No Latency $\Delta\Sigma^{\text{TM}}$ ADC with Easy Drive technology and a 2-wire, I2C interface. The patented sampling scheme eliminates dynamic input current errors and the shortcomings of on-chip buffering through automatic cancellation of differential input current. This allows large external source impedances and rail-to-rail input signals to be directly digitized while maintaining exceptional DC accuracy.

The LTC2493 includes a high accuracy temperature sensor and an integrated oscillator. This device can be configured to measure an external signal (from combinations of 4 analog input channels operating in single-ended or differential modes) or its internal temperature sensor. The integrated temperature sensor offers 1/30th°C resolution and 2°C absolute accuracy.

The LTC2493 allows a wide common mode input range (0V to VCC), independent of the reference voltage. Any combination of single-ended or differential inputs can be selected and the first conversion, after a new channel is selected, is valid. Access to the multiplexer output enables optional external amplifiers to be shared between all analog inputs and auto-calibration continuously removes their associated offset and drift.

Features

Up to 2 Differential or 4 Single-Ended Inputs

Easy Drive™ Technology Enables Rail-to-Rail Inputs with Zero Differential Input Current

Directly Digitizes High Impedance Sensors with Full Accuracy

2-Wire I2C Interface with 9 Addresses Plus One Global Address for Synchronization

600nV RMS Noise

Integrated High Accuracy Temperature Sensor

GND to VCC Input/Reference Common Mode Range

Programmable 50Hz, 60Hz or Simultaneous 50Hz/60Hz Rejection Mode

2ppm INL, No Missing Codes

1ppm Offset and 15ppm Full-Scale Error

2× Speed/Reduced Power Mode (15Hz Using Internal Oscillator and 80μA at 7.5Hz Output)

No Latency: Digital Filter Settles in a Single Cycle, Even After a New Channel Is Selected

Single Supply 2.7V to 5.5V Operation (0.8mW)

Internal Oscillator

Tiny 4mm × 3mm DFN Package

Application

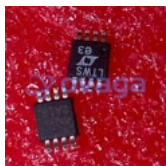
Direct Sensor Digitizer

Direct Temperature Measurement

Instrumentation

Industrial Process Control

Related Products



[LTC1860IMS8#PBF](#)

Analog Devices, Inc
MSOP-8



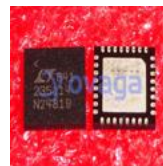
[LT1171CQ](#)

Analog Devices, Inc
TO-263



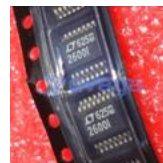
[LTC2485IDD#PBF](#)

Analog Devices, Inc
DFN-10



[LTC2351IUH-14#PBF](#)

Analog Devices, Inc
QFN-32



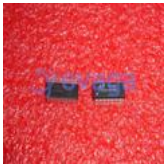
[LTC2600CGN#PBF](#)

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SSOP16



[LTC2642CMS-16#PBF](#)

Analog Devices, Inc
10MSOP



[LTC2418IGN#PBF](#)

Analog Devices, Inc
SSOP28



[LTC1865AIMS#PBF](#)

Analog Devices, Inc
MSOP-1