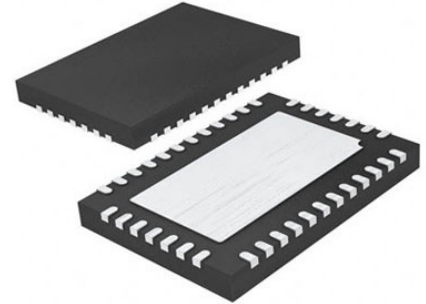


24-Bit High Speed 8-/16-Channel Delta Sigma ADCs with Selectable Speed/Resolution;
 Package: QFN; No of Pins: 38; Temperature Range: -40°C to +85°C

Manufacturers	Analog Devices, Inc
Package/Case	QFN-38
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for LTC2449IUHF#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LTC2444/LTC2445/LTC2448/LTC2449 are 8-/16- channel (4-/8-differential) high speed 24-bit No Latency $\Delta\Sigma$ ADCs. They use a proprietary delta-sigma architecture enabling variable speed/resolution. Through a simple 4-wire serial interface, ten speed/resolution combinations 6.9Hz/280nVRMS to 3.5kHz/25 μ VRMS (4kHz with external oscillator) can be selected with no latency between conversion results or shift in DC accuracy (offset, full-scale, linearity, drift). Additionally, a 2X speed mode can be selected enabling output rates up to 7kHz (8kHz if an external oscillator is used) with one cycle latency.

Any combination of single-ended or differential inputs can be selected with a common mode input range from ground to VCC, independent of VREF. While operating in the 1X speed mode the first conversion following a new speed, resolution, or channel selection is valid. Since there is no settling time between conversions, all 8 differential channels can be scanned at a rate of 500Hz. At the conclusion of each conversion, the converter is internally reset eliminating any memory effects between successive conversions and assuring stability of the high order delta-sigma modulator.

Features

Up to 8 Differential or 16 Single-Ended Input Channels

Up to 8kHz Output Rate

Up to 4kHz Multiplexing Rate

Selectable Speed/Resolution

2 μ V_{RMS} Noise at 1.76kHz Output Rate

200nV_{RMS} Noise at 13.8Hz Output Rate with Simultaneous 50/60Hz Rejection

Guaranteed Modulator Stability and Lock-Up Immunity for any Input and Reference Conditions

0.0005% INL, No Missing Codes

Autosleep Enables 20 μ A Operation at 6.9Hz

Differential Input and Differential Reference with GND to VCC Common Mode Range

No Latency Mode, Each Conversion is Accurate Even After a New Channel is Selected

Internal Oscillator-No External Components

LTC2445/LTC2449 Include MUXOUT/ADCIN for External Buffering or Gain

Tiny QFN 5mm x 7mm Package

Application

High Speed Multiplexing

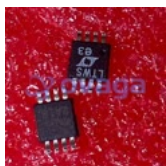
Weight Scales

Auto Ranging 6-Digit DVMS

Direct Temperature Measurement

High Speed Data Acquisition

Related Products



[LTC1860IMS8#PBF](#)

Analog Devices, Inc
MSOP-8



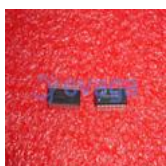
[LT1171CQ](#)

Analog Devices, Inc
TO-263



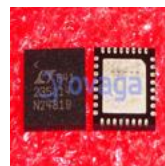
[LTC2485IDD#PBF](#)

Analog Devices, Inc
DFN-10



[LTC2418IGN#PBF](#)

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SSOP28



[LTC2351IUH-14#PBF](#)

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QFN-32



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MSOP-1