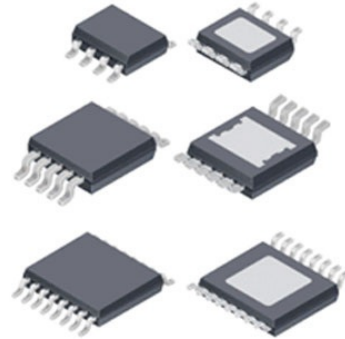


IC ADC 18BIT 1MSPS 16-MSOP

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	MSOP-16
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for LTC2338CMS-18#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The LTC2338-18 is a low noise, high speed 18-bit successive approximation register (SAR) ADC with fully differential inputs. Operating from a single 5V supply, the LTC2338-18 has a  $\pm 10.24V$  true bipolar input range, making it ideal for high voltage applications which require a wide dynamic range. The LTC2338-18 achieves  $\pm 4LSB$  INL maximum, no missing codes at 18-bits with 100dB SNR.

The LTC2338-18 has an on-board single-shot capable reference buffer and low drift (20ppm/°C max) 2.048V temperature compensated reference. The LTC2338-18 also has a high speed SPI-compatible serial interface that supports 1.8V, 2.5V, 3.3V and 5V logic while also featuring a daisy-chain mode. The fast 1Msps throughput with no cycle latency makes the LTC2338-18 ideally suited for a wide variety of high speed applications. An internal oscillator sets the conversion time, easing external timing considerations. The LTC2338-18 dissipates only 50mW and automatically naps between conversions, leading to reduced power dissipation that scales with the sampling rate. A sleep mode is also provided to reduce the power consumption of the LTC2338-18 to 300 $\mu$ W for further power savings during inactive periods.

## Features

1Msps Throughput Rate

Guaranteed 18-Bit No Missing Codes

Fully Differential Inputs

True Bipolar Input Ranges  $\pm 6.25V$ ,  $\pm 10.24V$ ,  $\pm 12.5V$

100dB SNR (Typ) at  $>$

Guaranteed Operation to 125°C

Single 5V Supply

Low Drift (20ppm/°C Max) 2.048V Internal Reference

On-board Single-Shot Capable Reference Buffer

No Pipeline Delay, No Cycle Latency

1.8V to 5V I/O Voltages

SPI-Compatible Serial I/O with Daisy-Chain Mode

Internal Conversion Clock

Power Dissipation 50mW (Typ)

16-Lead MSOP Package

## Application

Programmable Logic Controllers

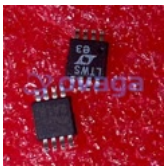
Industrial Process Control

High Speed Data Acquisition

Portable or Compact Instrumentation

ATE

## Related Products



[LTC1860IMS8#PBF](#)

Analog Devices, Inc  
MSOP-8



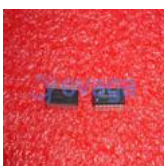
[LT1171CQ](#)

Analog Devices, Inc  
TO-263



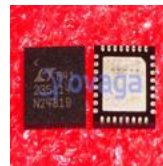
[LTC2485IDD#PBF](#)

Analog Devices, Inc  
DFN-10



[LTC2418IGN#PBF](#)

Analog Devices, Inc  
SSOP28



[LTC2351IUH-14#PBF](#)

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QFN-32



[LTC2600CGN#PBF](#)

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SSOP16



[LTC2642CMS-16#PBF](#)

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10MSOP



[LTC1865AIMS#PBF](#)

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MSOP-1