

Analogue to Digital Converter, 12 bit, 250 kSPS, Single Ended, Parallel, Serial, 5 V

Manufacturers	Analog Devices, Inc
Package/Case	LQFP-64
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD7658BSTZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD7656/AD7657/AD7658 contain six 16-/14-/12-bit, fast, low power, successive approximation ADCs all in the one package that is designed on the iCMOS™ process (industrial CMOS). iCMOS is a process combining high voltage silicon with submicron CMOS and complementary bipolar technologies. It enables the development of a wide range of high performance analog ICs, capable of 33 V operation in a footprint that no previous generation of high voltage parts could achieve. Unlike analog ICs using conventional CMOS processes, iCMOS components can accept bipolar input signals while providing increased performance, which dramatically reduces power consumption and package size.

The AD7656/AD7657/AD7658 feature throughput rates up to 250 kSPS. The parts contain low noise, wide bandwidth, track-and-hold amplifiers that can handle input frequencies up to 12 MHz.

The conversion process and data acquisition are controlled using CONVST signals and an internal oscillator. Three CONVST pins allow independent, simultaneous sampling of the three ADC pairs. The AD7656/AD7657/AD7658 all have a high speed parallel and serial interface, allowing the devices to interface with microprocessors or DSPs. In serial interface mode, the parts have a daisy-chain feature that allows multiple ADCs to connect to a single serial interface. The AD7656/ AD7657/AD7658 can accommodate true bipolar input signals in the $\pm 4 \times V_{REF}$ range and $\pm 2 \times V_{REF}$ range. The AD7656/ AD7657/AD7658 also contain an on-chip 2.5 V reference.

For reduced decoupling requirements visit the AD7658-1 product page.

Product Highlights

Six 16-/14-/12-bit, 250 kSPS ADCs on board.

Six true bipolar, high impedance analog inputs.

Parallel and high speed serial interfaces.

Features

6 independent ADCs

True bipolar analog inputs

Pin-/software-selectable ranges: ± 10 V, ± 5 V

Fast throughput rate: 250 kSPS

iCMOS process technology

Low power 140 mW at 250 kSPS with 5 V supplies

Wide input bandwidth 86.5 dB SNR at 50 kHz input frequency

On-chip reference and reference buffers

Parallel, serial, and daisy-chain interface modes

High speed serial interface SPI[®]-/QSPI[™]-/MICROWIRE[™]-/DSP-compatible

Standby mode: 100 μ W maximum

64-lead LQFP

Application

Power line monitoring systems

Instrumentation and control systems

Multi-axis positioning systems

Related Products



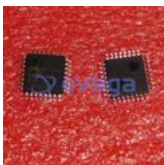
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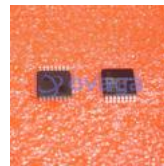
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