

Analogue to Digital Converter, 16 bit, 250 kSPS, Single Ended, SPI, Single, 4.75 V

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	LQFP-64
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD7656YSTZ-1 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD7656-1/AD7657-1/AD7658-1 are reduced decoupling pin- and software-compatible versions of AD7656/AD7657/AD7658. The AD7656-1/AD7657-1/AD7658-1 devices contain six 16-/14-/12-bit, fast, low power successive approximation ADCs in a package 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 AD7656-1/AD7657-1/AD7658-1 feature throughput rates of up to 250 kSPS. The parts contain low noise, wide bandwidth track-and-hold amplifiers that can handle input frequencies up to 4.5 MHz. The conversion process and data acquisition are controlled using the CONVST signals and an internal oscillator. Three CONVST pins (CONVST A, CONVST B, and CONVST C) allow independent, simultaneous sampling of the three ADC pairs. The AD7656-1/AD7657-1/AD7658-1 have a high speed parallel and serial interface, allowing the devices to interface with microprocessors or DSPs. When the serial interface is selected, each part has a daisy-chain feature that allows multiple ADCs to connect to a single serial interface. The AD7656-1/AD7657-1/AD7658-1 can accommodate true bipolar input signals in the  $\pm 4 \times VREF$  and  $\pm 2 \times VREF$  ranges. Each AD7656-1/AD7657-1/AD7658-1 also contains an on-chip 2.5 V reference.

Please visit next generation product AD7606. Recommended for new designs is the AD7656A-1 pin for pin compatible device with improved PSS robustness.

### Product Highlights

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

Six true bipolar, high impedance analog inputs.

High speed parallel and serial interfaces.

Reduced decoupling requirements and reduced bill of materials cost compared with the AD7656/AD7657/AD7658 devices.

## Features

Pin and software compatible with AD7656/AD7657/AD7658 featuring reduced decoupling requirements

6 independent ADCs

True bipolar analog inputs

Pin-/software-selectable ranges:  $\pm 10$  V,  $\pm 5$  V

Fast throughput rate: 250 kSPS

iCMOS process technology

Low power 140 mW at 250 kSPS with 5 V supplies

See Data Sheet for Additional Information

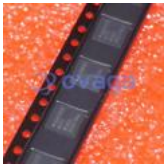
## Application

Power line monitoring and measuring systems

Instrumentation and control systems

Multiaxis positioning systems

## Related Products



### [ADAS3022BCPZ](#)

Analog Devices, Inc  
LFCSP-40



### [AD574AJNZ](#)

Analog Devices, Inc  
PDIP-28



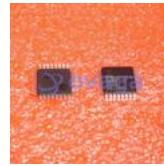
### [AD7938BSUZ](#)

Analog Devices, Inc  
TQFP-32



### [AD7124-8BCPZ-RL7](#)

Analog Devices, Inc  
LFCSP-32



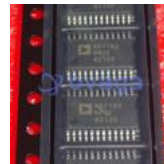
### [AD7266BSUZ](#)

Analog Devices, Inc  
TQFP-32



### [AD7401YRWZ](#)

Analog Devices, Inc  
SOIC-16



### [AD7192BRUZ-REEL](#)

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TSSOP-24



### [AD9680BCPZ-500](#)

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LFCSP-64