

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

Manufacturers	Analog Devices, Inc
Package/Case	LQFP64
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for AD7656A-1BSTZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD7656A-1 is a reduced decoupling pin- and software-compatible version of AD7656A. The AD7656A-1 contains six 16-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 devices 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 AD7656A-1 features throughput rates of to 250 kSPS. It contains wide bandwidth (4.5 MHz), track-and-hold amplifier that can handle input frequencies up to 4.5 MHz.

The conversion process and data acquisition are controlled using the CONVST x signals and an internal oscillator. Three CONVST x pins (CONVST A, CONVST B, and CONVST C) allow independent, simultaneous sampling of the three ADC pairs. The AD7656A-1 has a high speed parallel and serial interface, allowing the device to interface with microprocessors or digital signal processors (DSPs). In serial interface mode, the AD7656A-1 has a daisy-chain feature that allows multiple ADCs to connect to a single serial interface. The AD7656A-1 can accommodate true bipolar input signals in the $\pm 4 \times VREF$ range and the $\pm 2 \times VREF$ range. The AD7656A-1 also contains an on-chip 2.5 V reference.

Multifunction pin names may be referenced by their relevant function only.

Please visit next generation product AD7606.

PRODUCT HIGHLIGHTS

Six 16-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 AD7656A.

Features

Pin and software compatible with the AD7656A featuring reduced decoupling requirements

6 independent analog-to-digital converters (ADCs)

True bipolar analog inputs

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

Fast throughput rate: 250 kSPS

iCMOS process technology

Low power: 140 mW at 250 kSPS with 5 V supplies

High noise performance with wide bandwidth 88 dB SNR at 10 kHz input frequency

On-chip reference and reference buffers

See data sheet for additional features

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



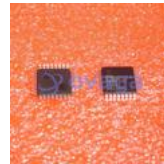
[AD7938BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc
LFCSP-32



[AD7266BSUZ](#)

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[AD7401YRWZ](#)

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SOIC-16



[AD7192BRUZ-REEL](#)

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TSSOP-24



[AD9680BCPZ-500](#)

Analog Devices, Inc
LFCSP-64