AD7657BSTZ

Data Sheet

Analogue to Digital Converter, 14 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 AD7657BSTZ or Email to us: 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 ±4 × VREF and ±2 × VREF ranges. Each AD7656-1/AD7657-1/AD7658-1 also contains an on-chip 2.5 V reference.

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: ±10 V, ±5 V

Fast throughput rate: 250 kSPS

iCMOS process technology

Low power140 mW at 250 kSPS with 5 V supplies

See Data Sheet for Additional Information

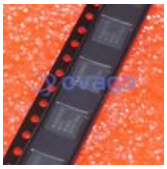
Application

Power line monitoring and measuring systems

Instrumentation and control systems

Multiaxis positioning systems

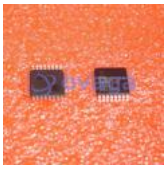
Related Products



ADAS3022BCPZ

Analog Devices, Inc

LFCSP-40



AD7266BSUZ

Analog Devices, Inc

TQPF-32

AD574AJNZ

Analog Devices, Inc

PDIP-28

AD7401YRWZ

Analog Devices, Inc

SOIC-16

AD7938BSUZ

Analog Devices, Inc

TQFP-32

AD7192BRUZ-REEL

Analog Devices, Inc

TSSOP-24

AD7124-8BCPZ-RL7

Analog Devices, Inc

LFCSP-32

AD9680BCPZ-500

Analog Devices, Inc

LFCSP-64