

Analogue to Digital Converter, 16 bit, 250 kSPS, Single Ended, Parallel, Serial, 2.7 V

|               |                                     |
|---------------|-------------------------------------|
| Manufacturers | <a href="#">Analog Devices, Inc</a> |
| Package/Case  | LQFP-48                             |
| Product Type  | Data Conversion ICs                 |
| RoHS          | Pb-free Halide free                 |
| Lifecycle     |                                     |



Images are for reference only

Please submit RFQ for AD7610BSTZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD7610 is a 16-bit charge redistribution successive approximation register (SAR), architecture analog-to-digital converter (ADC) fabricated on Analog Devices, Inc.'s iCMOS high voltage process. The device is configured through hardware or via a dedicated write only serial configuration port for input range and operating mode. The AD7610 contains a high speed 16-bit sampling ADC, an internal conversion clock, an internal reference (and buffer), error correction circuits, and both serial and parallel system interface ports. A falling edge on CNVST samples the analog input on IN+ with respect to a ground sense, IN-. The AD7610 features four different analog input ranges: 0 V to 5 V, 0 V to 10 V,  $\pm 5$  V, and  $\pm 10$  V. Power consumption is scaled linearly with throughput. The device is available in Pb-free 48-lead, low-profile quad flat package (LQFP) and a lead frame chip-scale (LFCSP\_VQ) package. Operation is specified from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .

## Features

Multiple pins/software programmable input ranges: 5 V, 10 V,  $\pm 5$  V,  $\pm 10$  V

Pins or serial SPI®-compatible input ranges/mode selection

Throughput: 250 kSPS

16-bit resolution with no missing codes

INL:  $\pm 0.75$  LSB typ,  $\pm 1.5$  LSB max ( $\pm 23$  ppm of FSR)

SNR: 94 dB @ 2 kHz

iCMOS® process technology

5 V internal reference: typical drift 3 ppm/°C

On-chip temperature sensor

No pipeline delay (SAR architecture)

Parallel (16- or 8-bit bus) and serial 5 V/3.3 V interface

SPI®-/QSPI™-/MICROWIRE™-/DSP-compatible

## Application

Process control

Medical instruments

High speed data acquisition

Digital signal processing

Instrumentation

Spectrum analysis

ATE

## Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc  
LFCSP-40



[AD574AJNZ](#)

Analog Devices, Inc  
PDIP-28



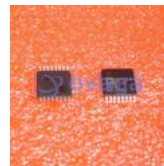
[AD7938BSUZ](#)

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](#)

Analog Devices, Inc  
TSSOP-24



[AD9680BCPZ-500](#)

Analog Devices, Inc  
LFCSP-64