



Data Sheet

CMOS, 16-Bit, 195 kSPS Sigma-Delta ADC; Package: PLASTIC QUAL FLATPACK/MQFP; No of Pins: 44; Temperature Range: Industrial

Manufacturers <u>Analog Devices, Inc</u>

Package/Case QFP-44

Product Type Data Conversion ICs

RoHS Rohs

Lifecycle



Images are for reference only

Please submit RFQ for AD7722ASZ or Email to us: sales@ovaga.com We will contact you in 12 hours.

**RFO** 

## **General Description**

The analog input is continuously sampled by an analog modulator eliminating the need for external sample-and-hold circuitry. The modulator output is processed by two Finite Impulse Response (FIR) digital filters in series. The on-chip filtering reduces the external antialias requirements to first order, in most cases. The group delay for the filter is  $215.5 \,\mu s$ , while the settling time for a step input is  $431 \,\mu s$ . The sample rate, filter corner frequency, and output word rate are set by an external clock that is nominally  $12.5 \, MHz$ .

Use of a single bit DAC in the modulator guarantees excellent linearity and dc accuracy. Endpoint accuracy is ensured by on-chip calibration. This calibration procedure minimizes the zero-scale and full-scale errors.

Conversion data is provided at the output register through a flexible serial port or a parallel port. This offers 3-wire, high speed interfacing to digital signal processors. The serial interface operates in an internal clocking (master) mode, whereby an internal serial data clock and framing pulse are device outputs. Additionally, two AD7722s can be configured with the serial data outputs connected together. Each converter alternately transmits its conversion data on a shared serial data line.

The part provides an accurate on-chip 2.5 V reference. A reference input/output function is provided to allow either the internal reference or an external system reference to be used as the reference source for the part.

The AD7722 is available in a 44-pin PQFP package and is specified over the industrial temperature range from -40°C to +85°C.

## **Features**

16-Bit Σ-Δ ADC- 64 x Oversampling Ratio- Up to 220 kSPS Output Word Rate- Low-Pass, Linear Phase Digital Filter

Inherently Monotonic

On-Chip 2.5 V Voltage Reference

Single-Supply 5 V

High Speed Parallel or Serial Interface

## **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 TQPF-32



Analog Devices, Inc SOIC-16



Analog Devices, Inc TSSOP-24



AD9680BCPZ-500
Analog Devices, Inc
LFCSP-64