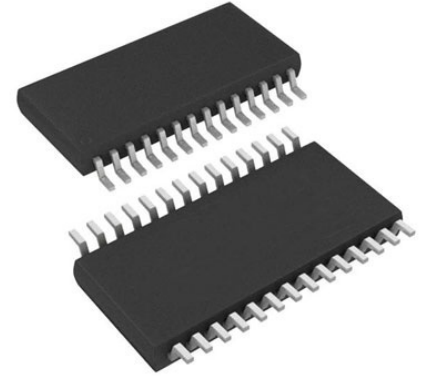


10-Bit, 65/80/105 MSPS 3 V A/D Converter; Package: TSSOP (4.4mm); No of Pins: 28;
Temperature Range: Industrial

Manufacturers	Analog Devices, Inc
Package/Case	TSSOP-28
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD9215BRUZ-105 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD9215 is a family of monolithic, single 3 V supply, 10-bit, 65/80/105 MSPS analog-to-digital converters (ADC). This family features a high performance sample-and-hold amplifier (SHA) and voltage reference. The AD9215 uses a multistage differential pipelined architecture with output error correction logic to provide 10-bit accuracy at 105 MSPS data rates and to guarantee no missing codes over the full operating temperature range.

The wide bandwidth, truly differential sample-and-hold amplifier (SHA) allows for a variety of user-selectable input ranges and offsets including single-ended applications. It is suitable for multiplexed systems that switch full-scale voltage levels in successive channels and for sampling single-channel inputs at frequencies well beyond the Nyquist rate. Combined with power and cost savings over previously available ADCs, the AD9215 is suitable for applications in communications, imaging, and medical ultrasound.

A single-ended clock input is used to control all internal conversion cycles. A duty cycle stabilizer compensates for wide variations in the clock duty cycle while maintaining excellent performance. The digital output data is presented in straight binary or twos complement formats. An out-of-range signal indicates an overflow condition, which can be used with the MSB to determine low or high overflow.

Fabricated on an advanced CMOS process, the AD9215 is available in both a 28-lead surface-mount plastic package and a 32-lead chip scale package and is specified over the industrial temperature range of -40°C to $+85^{\circ}\text{C}$.

PRODUCT HIGHLIGHTS

APPLICATIONS

The AD9215 operates from a single 3 V power supply and features a separate digital output driver supply to accommodate 2.5 V and 3.3 V logic families.

Operating at 105 MSPS, the AD9215 core ADC consumes a low 120 mW; at 80 MSPS, the power dissipation is 104 mW; and at 65 MSPS, the power dissipation is 96 mW.

The patented SHA input maintains excellent performance for input frequencies up to 200 MHz and can be configured for single-ended or differential operation.

The AD9215 is part of several pin compatible 10-, 12-, and 14-bit low power ADCs. This allows a simplified upgrade from 10 bits to 12 bits for systems up to 80 MSPS.

The clock duty cycle stabilizer maintains converter performance over a wide range of clock pulse widths.

The out of range (OR) output bit indicates when the signal is beyond the selected input range.

Features

Single 3 V supply operation (2.7 V to 3.3 V)

Low Power ADC Core:

96 mW at 65 MSPS

104 mW at 80 MSPS

120 mW at 105 MSPS

Differential input with 300 MHz bandwidth

On-chip reference and sample-and-hold amplifier

Flexible Analog Input: 1 V_{p-p} to 2 V_{p-p} Range

Offset binary or twos complement data format

Clock Duty Cycle Stabilizer

Application

Ultrasound equipment

IF sampling in communications receivers

Battery-powered instruments

Hand-held scopemeters

Low cost digital oscilloscopes

Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



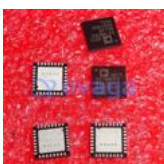
[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



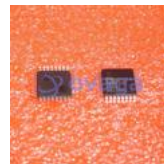
[AD7938BSUZ](#)

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