

2-Channel Dual ADC Pipelined 65Msps 12-bit Parallel 64-Pin LQFP Tray

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	LQFP-64
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for AD9238BSTZ-65 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD9238 is a dual, 3 V, 12-bit, 20/40/65 MSPS analog to digital converter. It features dual high performance sample-and-hold amplifiers and an integrated voltage reference. The AD9238 uses a multistage differential pipelined architecture with output error correction logic to provide 12-bit accuracy and guarantee no missing codes over the full operating temperature range at up to 65 MSPS data rates.

The wide bandwidth, differential SHA allows for a variety of user-selectable input ranges and offsets including single-ended applications. It is suitable for various applications including multiplexed systems that switch full-scale voltage levels in successive channels and for sampling inputs at frequencies well beyond the Nyquist rate. The AD9238 is suitable for applications in communications, imaging and medical ultrasound.

Dual single-ended independent clock inputs are used to control all internal conversion cycles. A Duty Cycle Stabilizer (DCS) is available on the AD9238-65 and can compensate for wide variations in the clock duty cycle, allowing the converters to maintain excellent performance. The digital output data is presented in either straight binary or two's complement format. Out-of-range signals indicate an overflow condition, which can be used with the most significant bit to determine low or high overflow.

Fabricated on an advanced CMOS process, the AD9238 is available in either a space saving 64-pin LQFP or 64-pin LF-CSP and is specified over the industrial temperature range (-40°C to +85°C).

## PRODUCT HIGHLIGHTS

### APPLICATIONS

Pin-compatible with the AD9248, 14-bit 20MSPS/ 40 MSPS/65 MSPS ADC.

Speed grade options of 20 MSPS, 40 MSPS, and 65 MSPS allow flexibility between power, cost, and performance to suit an application.

Low power consumption: AD9238-65: 65 = 330 mW, and AD9238-20: 20>

Typical channel isolation of 85 dB at>

The clock duty cycle stabilizer (AD9238-20/AD9238-40/ AD9238-65) maintains performance over a wide range of clock duty cycles.

Multiplexed data output option enables single-port operation from either Data Port A or Data Port B.

## Features

Integrated dual 12-bit ADC

Single 3 V supply operation (2.7 V to 3.6 V)

Low power: 300 mW/channel at 65 MSPS

Differential input with 500 MHz, 3 dB bandwidth

Exceptional crosstalk immunity > 85 dB

Flexible analog input: 1 V p-p to 2 V p-p range

Offset binary or twos complement data format

Clock duty cycle stabilizer

Output datamux option

## Application

Ultrasound equipment

Direct conversion or IF sampling receivers

WB-CDMA, CDMA2000, WiMAX

Battery-powered instruments

Hand-held scopemeters

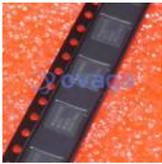
Low cost, digital oscilloscopes

WB-CDMA, CDMA2000, WiMAX





## Related Products



### [ADAS3022BCPZ](#)

Analog Devices, Inc  
LFCSP-40



### [AD574AJNZ](#)

Analog Devices, Inc  
PDIP-28



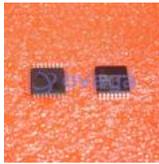
### [AD7938BSUZ](#)

Analog Devices, Inc  
TQFP-32



### [AD7124-8BCPZ-RL7](#)

Analog Devices, Inc  
LFCSP-32



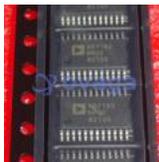
### [AD7266BSUZ](#)

Analog Devices, Inc  
TQFP-32



### [AD7401YRWZ](#)

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SOIC-16



### [AD7192BRUZ-REEL](#)

Analog Devices, Inc  
TSSOP-24



### [AD9680BCPZ-500](#)

Analog Devices, Inc  
LFCSP-64