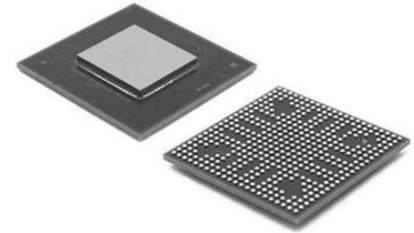


Analogue to Digital Converter, Quad, 16 bit, 1.8 MSPS, Differential, Single Ended, Parallel, Single

Manufacturers	Analog Devices, Inc
Package/Case	LFCSP-48
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADAR7251WBCSZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADAR7251 is a 16-bit, 4-channel, simultaneous sampling analog-to-digital converter (ADC) designed especially for applications such as automotive LSR-FMCW or FSK-FMCW radar systems. Each of the four channels contains a low noise amplifier (LNA), a programmable gain amplifier (PGA), an equalizer, a multibit Σ - Δ ADC, and a decimation filter. The front-end circuitry is designed to allow direct connection to an MMIC output with few external passive components. The ADAR7251 eliminates the need for a high order antialiasing filter, driver op amps, and external bipolar supplies. The ADAR7251 also offers precise channel-to-channel drift matching. The ADAR7251 features an on-chip phase-locked loop (PLL) that allows a range of clock frequencies for flexibility in the system. The CONV_START input and DATA_READY output signals synchronize the ADC with an external ramp for applications such as FSK-FMCW radar. The ADAR7251 supports serial and parallel interfaces at programmable sample rates from 300 kSPS to 1.8 MSPS, as well as easy connections to digital signal processors (DSPs) and microcontroller units (MCUs) in the system.

Features

Low noise: 2.4 nV/ $\sqrt{\text{Hz}}$ input referred voltage noise at maximum gain setting

Wide input signal bandwidth: 500 kHz at 1.2 MSPS sample rate, 16-bit resolution

Additional sample rates supported: 300 kSPS, 450 kSPS, 600 kSPS, 900 kSPS, and 1.8 MSPS

4 differential simultaneous sampling channels

No active antialiasing filter required

LNA and PGA with 45 dB gain range in 6 dB steps

Selectable equalizer

Flexible data port supports serial or parallel mode

Supports FSK mode for FMCW radar systems

On-chip 1.5 V reference

Internal oscillator/PLL input: 16 MHz to 54 MHz High speed serial data interface

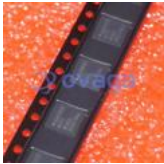
See datasheet for additional features

Application

Automotive LSR systems

Data acquisition systems

Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



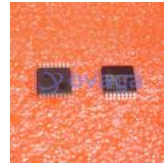
[AD7938BSUZ](#)

Analog Devices, Inc
TQFP-32



[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc
LFCSP-32



[AD7266BSUZ](#)

Analog Devices, Inc
TQPF-32



[AD7401YRWZ](#)

Analog Devices, Inc
SOIC-16



[AD7192BRUZ-REEL](#)

Analog Devices, Inc
TSSOP-24



[AD9680BCPZ-500](#)

Analog Devices, Inc
LFCSP-64