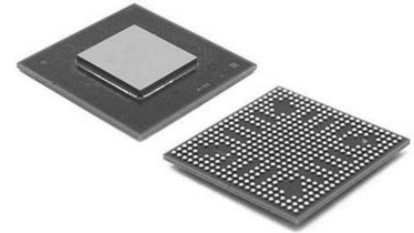Analogue to Digital Converter, 16 bit, 20 MSPS, Differential, Single Ended, SPI, Single, 1.7 V

Manufacturers	Analog Devices, Inc
Package/Case	LFCSP-32
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	

Images are for reference only

Please submit RFQ for AD9266BCPZ-20 or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The AD9266 is a monolithic, single-channel 1.8 V supply,16-bit, 20 MSPS/40 MSPS/65 MSPS/80 MSPS analog-to-digitalconverter (ADC). It features a high performance sample-and-holdcircuit and on-chip voltage reference.

The product uses multistage differential pipeline architecturewith output error correction logic to provide 16-bit accuracy at80 MSPS data rates and to guarantee no missing codes over thefull operating temperature range.

The ADC contains several features designed to maximizeflexibility and minimize system cost, such as programmableclock and data alignment and programmable digital test patterngeneration. The available digital test patterns include built-indeterministic and pseudorandom patterns, along with customuser-defined test patterns entered via the serial port interface (SPI).

A differential clock input with a selectable internal 1-to-8 divideratio controls all internal conversion cycles. An optional duty cyclestabilizer (DCS) compensates for wide variations in the clock dutycycle while maintaining excellent overall ADC performance.

The interleaved digital output data is presented in offset binary,gray code, or twos complement format. A DCO is provided toensure proper latch timing with receiving logic. Both 1.8 V and3.3 V CMOS levels are supported.

The AD9266 is available in a 32-lead RoHS-compliant LFCSPand is specified over the industrial temperature range (−40°Cto +85°C).

Product Highlights

Applications

The AD9266 operates from a single 1.8 V analog powersupply and features a separate digital output driver supplyto accommodate 1.8 V to 3.3 V logic families.

The sample-and-hold circuit maintains excellentperformance for input frequencies up to 200 MHz and isdesigned for low cost, low power, and ease of use.

A standard serial port interface supports various productfeatures and functions, such as data output formatting,internal clock divider, power-

down, DCO and data output(D15_D14 to D1_D0) timing and offset adjustments, andvoltage reference modes.

The AD9266 is packaged in a 32-lead RoHS-compliantLFCSP that is pin compatible with the AD9609 10-bitADC, the AD9629 12-bit ADC, and the AD9649 14-bitADC, enabling a simple migration path between 10-bit and16-bit converters sampling from 20 MSPS to 80 MSPS.

Features

1.8 V analog supply operation

1.8 V to 3.3 V output supply

SNR

77.6 dBFS at 9.7 MHz input

71.1 dBFS at 200 MHz input

SFDR

93 dBc at 9.7 MHz input

80 dBc at 200 MHz input

Low power

56 mW at 20 MSPS

113 mW at 80 MSPS

Differential input with 700 MHz bandwidth

See data sheet for additional features

77.6 dBFS at 9.7 MHz input

71.1 dBFS at 200 MHz input

93 dBc at 9.7 MHz input

80 dBc at 200 MHz input

56 mW at 20 MSPS

113 mW at 80 MSPS

Download the AD9266-EP data sheet (pdf)

Military temperature range (−55°C to +125°C)

Controlled manufacturing baseline

Enhanced product change notification

Qualification data available on request

V62/12660 DSCC Drawing Number

Application

Communications

Diversity radio systems

Multimode digital receivers

GSM, EDGE, W-CDMA, LTE, CDMA2000, WiMAX, TD-SCDMA

Smart antenna systems

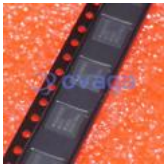Battery-powered instruments

Handheld scope meters

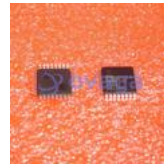Portable medical imaging

Ultrasound

Radar/LIDAR

PET/SPECT imaging

Related Products

[ADAS3022BCPZ](#)

Analog Devices, Inc

LFCSP-40

[AD7266BSUZ](#)

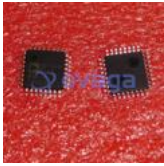Analog Devices, Inc

TQPF-32

[AD574AJNZ](#)

Analog Devices, Inc

PDIP-28
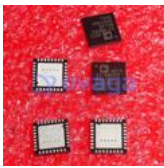
[AD7401YRWZ](#)

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SOIC-16

[AD7938BSUZ](#)

Analog Devices, Inc

TQFP-32

[AD7192BRUZ-REEL](#)

Analog Devices, Inc

TSSOP-24

[AD7124-8BCPZ-RL7](#)

Analog Devices, Inc

LFCSP-32

[AD9680BCPZ-500](#)

Analog Devices, Inc

LFCSP-64