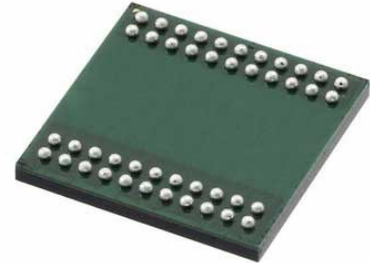


Digital to Analog Converters - DAC Dual, Multiband 16-bit 12GSPS digital-

Manufacturers	Analog Devices, Inc
Package/Case	144-FBGA
Product Type	Data Conversion ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for AD9173BBPZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD9173 is a high performance, dual, 16-bit digital-to-analog converter (DAC) that supports DAC sample rates to 12.6 GSPS. The device features an 8-lane, 15.4 Gbps JESD204B data input port, a high performance, on-chip DAC clock multiplier, and digital signal processing capabilities targeted at single-band and multiband direct to radio frequency (RF) wireless applications.

The AD9173 features three complex data input channels per RF DAC that are bypassable. Each data input channel includes a configurable gain stage, an interpolation filter, and a channel numerically controlled oscillator (NCO) for flexible, multiband frequency planning. The device supports up to a 1.54 GSPS complex data rate per input channel and is capable of aggregating multiple complex input data streams up to a maximum complex data rate of 1.54 GSPS. Additionally, the AD9173 supports ultrawide bandwidth modes bypassing the channelizers to provide maximum data rates of up to 3.08 GSPS (with 11-bit resolution using 16-bit serializer/deserializer (SERDES) packing) and 3.4 GSPS (with 11-bit resolution using 12-bit SERDES packing).

The AD9173 is available in a 144-ball BGA_ED package.

Features

Supports multiband wireless applications

3 bypassable, complex data input channels per RF DAC

1.54 GSPS maximum complex input data rate per input channel

1 independent NCO per input channel

Proprietary, low spurious and

Application

Wireless communications infrastructure

Multiband base station radios

Microwave/E-band backhaul systems

Instrumentation, automatic test equipment (ATE)

Product Highlights

Supports single-band and multiband wireless applications with three bypassable complex data input channels per RF DAC at a maximum complex input data rate of 1.54 GSPS with 11-bit resolution and 1.23 GSPS with 16-bit resolution. One independent NCO per input channel.

distortion design
2-tone>

Ultra-wide bandwidth channel bypass modes supporting up to 3.08 GSPS data rates with 11-bit resolution, 16-bit SERDES packing and 3.4 GSPS with 11-bit resolution, 12-bit SERDES packing.

SFDR < -80 dBc at 1.8 GHz, -7 dBFS RF output

Low power dual converter decreases the amount of power consumption needed in high bandwidth and multichannel applications.

Flexible 8-lane, 15.4 Gbps
JESD204B interface

Supports single-band and multiband use cases

Supports 12-bit high density mode for increased data throughput

Multiple chip synchronization

Supports JESD204B Subclass 1

Selectable interpolation filter for a complete set of input data rates

1×, 2×, 3×, 4×, 6×, and 8× configurable data channel interpolation

1×, 2×, 4×, 6×, 8×, and 12× configurable final interpolation

Final 48-bit NCO that operates at the DAC rate to support frequency synthesis up to 6 GHz

Transmit enable function allows extra power saving and downstream circuitry protection

High performance, low noise PLL clock multiplier

Supports 12.6 GSPS DAC update rate

Observation ADC clock driver with selectable divide ratios

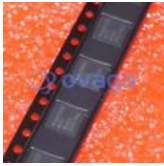
Low power

2.55 W at 12 GSPS, dual channel mode

10 mm × 10 mm, 144-ball
BGA_ FD with metal enhanced

thermal lid, 0.80 mm pitch

Related Products



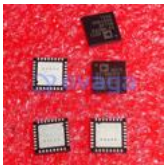
[ADAS3022BCPZ](#)
Analog Devices, Inc
LFCSP-40



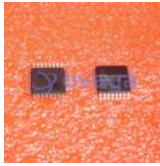
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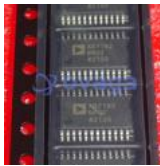
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