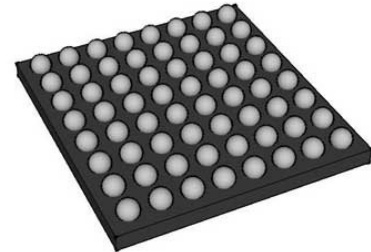


Digital to Analog Converters - DAC 14-Bit 2.5 GSPS RF

Manufacturers	Analog Devices, Inc
Package/Case	BGA160
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD9739BBCZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The AD9739 is a 14-bit, 2.5 GSPS high performance RF digital-to-analog converter (DAC) capable of synthesizing wideband signals from dc up to 3.0 GHz. Its DAC core features a quad-switch architecture that provides exceptionally low distortion performance with an industry-leading direct RF synthesis capability. This feature enables multicarrier generation up to the Nyquist frequency in baseband mode as well as second and third Nyquist zones in mix mode. The output current can be programmed over the 8.66 mA to 31.66 mA range.

The inclusion of on-chip controllers simplifies system integration. A dual-port, source synchronous, LVDS interface simplifies the digital interface with existing FPGA/ASIC technology. On-chip controllers are used to manage external and internal clock domain variations over temperature to ensure reliable data transfer from the host to the DAC core. Multichip synchronization is possible with an on-chip synchronization controller. A serial peripheral interface (SPI) is used for device configuration as well as readback of status registers.

The AD9739 is manufactured on a 0.18 μm CMOS process and operates from 1.8 V and 3.3 V supplies. It is supplied in a 160-ball chip scale ball grid array for reduced package parasitics.

Product Highlights

Ability to synthesize high quality wideband signals with bandwidths of up to 1.25 GHz in the first or second Nyquist zone.

A proprietary quad-switch DAC architecture provides exceptional ac linearity performance while enabling mix mode operation.

A dual-port, double data rate, LVDS interface supports the maximum conversion rate of 2500 MSPS.

On-chip controllers manage external and internal clock domain skews.

A multichip synchronization capability.

Programmable differential current output with an 8.66 mA to 31.66 mA range.

Features

Direct RF synthesis at 2.5 GSPS update rate

DC to 1.25 GHz in baseband mode

1.25 GHz to 3.0 GHz in mix mode

Industry leading single/multicarrier IF or RF =80 = 78 = 69 dBc

Dual-port LVDS data interface

Up to 1.25 GSPS operation

Source synchronous DDR clocking

Pin-compatible with the

Multichip synchronization capability

Programmable output current: 8.7 mA to 31.7 mA

Low power: 1.16 W at 2.5 GSPS

Application

Broadband communications systems

Military jammers

Instrumentation, automatic test equipment

Radar, avionics

Related Products



[ADAS3022BCPZ](#)

Analog Devices, Inc
LFCSP-40



[AD574AJNZ](#)

Analog Devices, Inc
PDIP-28



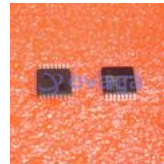
[AD7938BSUZ](#)

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