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D/A Converter Offers More Accuracy in a Smaller Footprint for Diverse Applications Ranging from Radar to Smartphone Testing

NORWOOD, Mass.--(BUSINESS WIRE)-- [Analog Devices, Inc.](http://www.analog.com) (ADI) today introduced the AD9164 D/A converter that brings high resolution radar images for designers of military and commercial radar while reducing solution component count. Additionally, for designers of precision instrumentation equipment, such as smartphone testers, the new device ensures improved accuracy as well as speed of test, contributing to faster market-ready time while significantly decreasing tester complexity and size. Thanks to its audio to 6 GHz frequency coverage, the AD9164 D/A converter moves the tester market one step closer to a universal wireless test platform.

This Smart News Release features multimedia. View the full release here:

<http://www.businesswire.com/news/home/20160808005014/en/>



- | View product pages, download data sheets, order samples and evaluation boards: <http://www.analog.com/AD9164>
- | View the unique new remote evaluation tool, and 'test-drive' the AD9164 immediately on: <http://labs.analog.com/ad916x>
- | Learn about Analog Devices' D/A converter product portfolio: <http://www.analog.com/en/products/digital-to-analog-converters/da-converters.html>
- | Connect with engineers and ADI product experts on EngineerZone®, an online technical support community:

D/A Converter Offers More Accuracy in a Smaller Footprint for Diverse Applications Ranging from Radar to Smartphone Testing (Photo: Business Wire)

https://ez.analog.com/community/data_converters/high-speed_dacs

The AD9164 D/A converter delivers:

- | Highest linearity in ADI's D/A converters portfolio
- | 100 to 1,000 times improved spectral purity versus previous generation ADI solutions (20-30 dB better)
- | Higher agility with frequency change time now a 100 times shorter than traditional ADI phased locked loop (PLL) systems

The reduction in solution component count and thus size enables element level digital beamforming advanced radar solutions. With the same performance specifications as the already released AD9162, the AD9164 D/A converter also includes an on-chip direct digital synthesizer (DDS) that ensures phase-coherent fast frequency hopping of less than 300 ns for up to 32 different frequencies. This makes the AD9164 D/A converter well-suited for testing anything from AM broadcast band or Japanese FM band to 5.8 GHz UNII band.

The AD9164 converter features a 2x interpolator (FIR85), which enables configurability for lower data rates and converter clocking to reduce overall system power and ease filtering requirements. In mix-mode operation, this D/A converter can be configured to reconstruct RF carriers in the 2nd and 3rd Nyquist zones up to 7.5 GHz while maintaining exceptional dynamic range.

The AD9164 also comes with a unique remote evaluation tool, allowing designers to "test-drive" the D/A converter's performance. The remote tool is available at <http://labs.analog.com/ad916x>.

Product Specifications

Product	DDS Frequency Hopping	Update Rate	Direct RF Synthesis	Baseband Mode	Normal Mode	Mix-Mode
AD9164	< 500 ns	12 GSPS	6 GSPS	DC to 2.5 GHz	DC to 6 GHz	1.5 to 7.5 GHz

Pricing and Availability

Product	Sample Availability	Full Production	Price Each Per 1,000	Packaging
AD9164	Now	Now	\$295	8 mm x 8 mm CSP-BGA 11 mm x 11 mm CSP-BGA
			\$334	11mm x 11mm CSP-BGA SnPb

About Analog Devices

Analog Devices (NASDAQ: ADI) designs and manufactures semiconductor products and solutions. We enable our customers to interpret the world around us by intelligently bridging the physical and digital worlds with unmatched technologies that sense, measure and connect.

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