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Trio of Analog Devices' Best-in-Class High-Speed Transmit D/A Converters Target Aerospace and Defense Applications

High-speed D/A converters now available with extended operating temperature range, reliability-enhanced NiPdAu and Pb BGA packaging:

AD9117 dual-channel D/A converter 14 bits/125 MSPS

AD9122 dual-channel D/A converter 16 bits/1.23 GSPS

AD9739 single-channel D/A converter 14 bits/2.5 GSPS

NORWOOD, Mass.--(BUSINESS WIRE)-- Analog Devices, Inc. ([ADI](#)), a global leader in high-performance signal processing technology and the data converter market share leader*, has been at the forefront of signal processing innovation for aerospace and defense applications for more than 45 years. ADI continues this innovation trend by introducing today three high-performance 16- and 14-bit transmit D/A converters (DACs) with extended operating temperature ranges and high-reliability packaging for radar, secure communications, avionics, and other defense electronics applications. ADI's 14-bit dual-channel AD9117, 16-bit dual-channel AD9122 and 14-bit single-channel AD9739 transmit DACs were designed for signal synthesis applications, including pulse-modulated waveform generation and for synthesizing the modulated carrier in quadrature digital architectures.

In addition to extended temperature ranges, some aerospace and defense applications require an alternate solution to matte tin (Sn) for lead-frame packages in order to eliminate the concern with the whiskering associated with the Sn plating process. These DACs are available in NiPdAu lead-frame or Pb BGA packaging, as applicable, to avoid the issue of whiskering. The NiPdAu lead-frame package is assembled with low halogen/halogen-free RoHS-compliant materials and the entire lead-frame is pre-plated.

AD9117 Dual-channel D/A Converter for Baseband Synthesis Features and Benefits:

- SFDR to Nyquist:
86 dBc @ 1 MHz output
85 dBc @ 10 MHz output
- NSD @ 10 MHz output, 125 MSPS, 20 mA: -157 dBc/Hz
- Differential current outputs: 4 mA to 20 mA
- -40° C to +85° C operating temperature range.
- NiPdAu lead-frame packaging

View the AD9117BCPZN D/A converter product page, order samples, and download the data sheet:

<http://www.analog.com/AD9117>

AD9122EP Dual-channel D/A Converter for IF Synthesis Features and Benefits:

- 72 dBc SFDR performance with $f_{\text{DAC}} = 800 \text{ MSPS}$, $f_{\text{OUT}} = 70 \text{ MHz}$
- Analog output: adjustable 8.7 mA to 31.7 mA, $R_L = 25 \Omega$ to 50Ω
- Novel $2 \times / 4 \times / 8 \times$ interpolator/complex modulator allows carrier placement anywhere in the DAC bandwidth
- -55° C to +105° C operating temperature range.
- NiPdAu lead-frame packaging

View the AD9122SCPZ-EP extended temperature range version D/A converter data sheet in the "Enhanced Products Features" section of the AD9122 product page, and order samples: www.analog.com/AD9122

AD9739 Single-channel D/A Converter for RF Synthesis Features and Benefits:

- Industry leading single/multicarrier IF or RF synthesis
 - 60 dBc SFDR performance with $f_{DAC} = 2400$ MSPS, $f_{OUT} = 950$ MHz
- -40° C to +85° C operating temperature range
- Pb BGA packaging

View the AD9739BBC D/A converter product page, order samples, and download the data sheet:

<http://www.analog.com/AD9739>

Get support at ADI's EngineerZone™ online technical support community:

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

Visit ADI's aerospace and defense packaging page: <http://mil-aero.analog.com/en/packaging/segment/ma.html>

Pricing, Availability and Complementary Products

Product	Sample Availability	Production Release	Resolution (Bits)	Channels	Sample Rate (MSPS)	Price Each In 1,000 Quantities	Packaging
AD9117BCPZN	Now	Now	14	2	125	\$9.50	40-lead NiPdAu LFCSP
AD9122SCPZ	Now	Now	16	2	1228	\$41.40	72-lead NiPdAu LFCSP Enhanced Package
AD9739BBC	Now	Now	14	1	2500	\$48.16	160-ball Pb BGA

Complementary products include the [AD9266-EP](#) 16-Bit, 65-MSPS, 1.8-V A/D converter with an on-chip sample-and- hold circuit that enables the device to maintain excellent performance with input frequencies up to 200 MHz. This device operates over the full military temperature range of -55°C to +125° C and is designed for low cost, low power, small size, and ease of use.

About Analog Devices

Innovation, performance, and excellence are the cultural pillars on which Analog Devices has built one of the longest standing, highest growth companies within the technology sector. Acknowledged industry-wide as the world leader in data conversion and signal conditioning technology, Analog Devices serves over 60,000 customers, representing virtually all types of electronic equipment. Analog Devices is headquartered in Norwood, Massachusetts, with design and manufacturing facilities throughout the world. Analog Devices is included in the S&P 500 Index. <http://www.analog.com>

* [Analog Devices, Inc.](#) leads the worldwide data converter market with a 48 percent share, according to industry analyst firm [Databeans, Inc.](#) in its market research report titled "2011 Data Converters." Analog Devices' 48 percent share is larger than the combined market share of the nearest eight competitors.

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