

# World's highest performance RF digital-to-analog converter announced by NXP

4 May 2011



NXP Semiconductors today announced the DAC1627D - a 16-bit dual-channel LVDS DDR interface Digital-to-Analog Converter (DAC) which supports output update rates of up to 1.25 Gbps. In terms of dynamic performance specifications, this new high-speed DAC offers best-in-class single tone SFDR performance and two-tone intermodulation distortion over a broad output bandwidth of 200 MHz. The first public demonstration of the DAC1627D will be made in the NXP booth (no. 420) at IMS2011, the IEEE MTT-S International Microwave Symposium held June 7-9, 2011 in Baltimore, Maryland.

Developed primarily for wireless infrastructure applications, the DAC1627D1G25 is fully compliant to the Multi-Carrier GSM spectral mask and the LTE and LTE-Advanced transmit specification, with comfortable margins. As a result, the DAC1627D is ideal for multi-standard radio base stations, allowing design engineers to employ a single DAC transmit architecture, which minimizes the system bill-of-material costs.

"The technology advances in cellular infrastructure demand ever higher performance in RF data converters. The introduction of NXP's DAC1627D,

its high performance and high-speed digital to analog converter device, provides a compelling solution in this quickly evolving segment," said Flint Pulskamp, wireless and wired communications semiconductor analyst at IDC.

"The achievement announced today, the highest performance RF DAC, is a culmination of decades of experience and innovation in high performance data converters," said Maury Wood, general manager, High Speed Converters product line, NXP Semiconductors. "When combined with CGVxpress<sup>®</sup> and CGV<sup>®</sup>, NXP's implementation of the industry-leading JESD204A high speed serial interface, NXP has a roadmap that meets the most demanding digital radio transmitter signal fidelity requirements. NXP continues to work closely with our customers to bring new levels of radio frequency digital-to-analog performance to next-generation radio base stations, and other digital communications and signal synthesis applications."

The DAC1627D incorporates elements of NXP's CGV technology feature set, including Multi-Device Synchronization (MDS), which solves tough system synchronization and latency challenges in many digital communications system applications, including MIMO and active antenna array LTE radio base stations.

At IMS2011, NXP will also showcase the DAC1627D1G25 plus the BGX7100 IQ Modulator on a dedicated evaluation/demonstration printed circuit board which, in combination, deliver optimum RF performance.

Provided by NXP

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