NXP's next generation power transistors deliver 5% increase in efficiency

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NXP Semiconductors today announced the launch of its ninth generation (Gen9) LDMOS RF power transistors for wireless/cellular base stations. These ground-breaking devices represent a further step-up in performance for LDMOS transistors, having shown up to 5% more efficiency in Doherty applications. The first Gen9 transistors are designed for Doherty power amplifiers – symmetric and asymmetric – and offer benchmark power densities in existing high-volume packages. The Gen9 technology is also optimized for operation at 3.4-3.8 GHz in anticipation of these frequency bands being released on a global scale next year for use by mobile telecoms providers. NXP will showcase its first Gen9 products at IMS 2014.

With 4G mobile data services now being rolled out globally, the Gen9 product family is specifically focused on compact, efficient and high-performance LTE base stations. Building on the excellent reputation already established by previous LDMOS generations, Gen9 delivers unprecedented efficiencies and excellent linearization capabilities for RF power amplifiers, at an industry-leading cost point.

NXP's range of LDMOS RF power transistors has historically been designed with the demands of multiple telecoms markets in mind, meeting the challenges presented by a diversity of cellular standards and frequency bands. Gen9 continues this trend by being optimized for higher frequencies than currently used by operators, enabling designers to start creating devices in readiness for when these frequencies are released for use in 2015.

"Our Gen9 family of LDMOS transistors once again sets a new standard for performance, power and efficiency," said Christophe Cugge, director of marketing, base station power amplifiers, NXP Semiconductors. "Building on our strong heritage in RF power, Gen9 delivers a competitive edge to our customers with truly future-proofed products. Wireless infrastructure manufacturers are under constant pressure to bring cost-effective and power-efficient base stations to market quickly. As well as meeting demand for popular frequency bands such as 1800, 2100 and 2700 MHz, we're giving manufacturers a head start by also optimizing Gen9 for 3.4-3.8 GHz, enabling them to design equipment in preparation for when these frequencies become more widely used"

Provided by NXP