Analog Devices Collaborates with Altera to Streamline Wireless Infrastructure System Development

NORWOOD, Mass.--(BUSINESS WIRE)-- Analog Devices, Inc. (ADI) introduced a high-performance development platform for wireless infrastructure equipment designers who need to quickly evaluate systems using DPD (digital pre-distortion) techniques in multi-carrier cellular base stations.

ADI's MS-DPD (mixed-signal, digital pre-distortion) development platform seamlessly integrates a complete high-performance RF and mixed-signal transmit chain from ADI with any FPGA (field-programmable gate array) development kit with an HSMC (high-speed mezzanine card) connector from industry leading programmable-logic vendor Altera Corporation.

"Analog Devices' RF and mixed-signal portfolio gives our customers access to a complete radio architecture, which allows them to lower engineering overhead and time-to-market," said Martin Cotter, segment director, Communications Infrastructure, Analog Devices. "By collaborating with Altera, ADI is now able to offer customers the complete circuitry and components needed to implement a base station radio. The MS-DPD platform offers the highest performance possible in the transmit and observation-path signal chains, allowing our customers to focus on differentiation in their DPD algorithm implementations."

The complete multi-carrier development platform has best-in-class dynamic performance, which reduces the time spent on component selection, interoperability issues and board layout while freeing design resources to optimize the DPD algorithms required by multi-carrier GSM and multi-standard SDR (software-defined radio) applications.

FPGAs enable designers to quickly re-program DPD algorithms during product development to correct for non-linearities in the radio?s transmit paths while improving the power efficiency of the entire radio. FPGAs also provide the flexibility to optimize the solution that competing fixed-function ASICs (application-specific integrated circuits) cannot.

ADI's MS-DPD development board includes more than 12 Analog Devices' RF and mixed-signal components, including the recently announced AD9122 1.2-GSPS DAC (digital-to-analog converter) and ADL5375 quadrature modulator, in addition to amplifiers, mixers, clock ICs, power management ICs, and PLL (phase-locked-loop) circuits. The observation path includes the AD9230 12-bit, 250-MSPS ADC (analog-to-digital converter) to maximize the bandwidth available for DPD.

Source URL (retrieved on *12/19/2013 - 9:29am*):
http://www.wirelessdesignmag.com/news/2010/08/analog-devices-collaborates-altera-streamline-wireless-infrastructure-system-development