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PRESS RELEASE

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Ettus Research Releases Software Defined Radio Platforms Featuring Kintex-7 FPGA

The USRP X300 and USRP X310 feature 2x2 multiple input, multiple output and set new industry benchmarks for performance, flexibility and cost.

SANTA CLARA, Calif. – February 3, 2014- Ettus Research, a National Instruments company, today introduced the USRP X300 and USRP X310 high-performance, modular software defined radio (SDR) platforms. Both platforms combine two RF transceivers covering DC–6 GHz with up to 12 0 MHz bandwidth and a large user-programmable Kintex-7 FPGA. The USRP X300 and USRP X310 both feature multiple high-speed interface options, including PCI Express, dual 10 Gigabit Ethernet and dual 1 Gigabit Ethernet and is available in in a convenient desktop or rack-mountable half-wide 1U form factor. The USRP Hardware Driver™ (UHD) architecture, common to all NI USRP™ (Universal Software Radio Peripheral) devices, provides a comprehensive, easy-to-use interface. Developers can programmatically control the USRP with the UHD C++ API, or choose from a wide selection of third-party tools and software such as GNU Radio. The USRP X300 and USRP X310 use a flexible software ecosystem to deliver cost-effective, high-performance SDR solutions that help wireless system designers quickly create simple prototypes, develop complex systems and accelerate their wireless research.

Both the USRP X300 and USRP X310 leverage the Kintex-7 family of FPGAs from Xilinx. The USRP X300 uses the XC7K325T, and the USRP X310 is based on the larger XC7K410T. Kintex-7 FPGAs integrate up to 1,540 DSP48 slices operating in parallel so USRP users can deploy custom or third-party signal processing algorithms onto each device. Users can process data in real time using their own DSP algorithms such as filters, modulators/demodulators and coders/decoders. They can also access and control the wide range of peripherals available on each USRP, including the RF front ends.

“The USRP X310 and USRP X300 significantly extend the USRP product family to a new level in capability and processing power,” said Matt Ettus, founder and president of Ettus Research. “Offering unprecedented levels of real-time signal processing power and RF bandwidth, the USRP X310 and USRP X300 can now address applications such as next generation 5G wireless standard prototyping, multichannel spectrum scanning and analysis and even active radar prototyping and development.”

Product Features:

- Two wide-bandwidth RF transceiver slots with up to 120 MHz of real-time bandwidth
- 10 Gigabit Ethernet and PCI Express bus options for high-bandwidth, low-latency operation
- Large customizable Xilinx Kintex-7 FPGA for high performance DSP
- GNU Radio support through the open source UHD

Additional Resources:

- **USRP X300 Product Page**
- **USRP X310 Product Page**

About Ettus Research

Ettus Research™, a National Instruments (NI) company since 2010, is the world’s leading supplier of software defined radio platforms, including the Universal Software Radio Peripheral (USRP™) family of products. With an overall affordable system price, expansive capabilities and fully supported by the open source community, USRP products are used by thousands of students, engineers and scientists worldwide and remain the top choice in software defined radio hardware for algorithm development, exploration, prototyping and developing next generation wireless technologies across a wide variety of applications.

About National Instruments

Since 1976, National Instruments (**www.ni.com**) has equipped engineers and scientists with tools that accelerate productivity, innovation and discovery. NI’s graphical system design approach to engineering provides an integrated software and hardware platform that speeds the development of any system needing measurement and control. The company’s long-term vision and focus on improving society through its technology supports the success of its customers, employees, suppliers and shareholders.

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