



Press Release

For immediate release.

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Epiq Solutions Announces Software Defined Radio Receiver covering 300 MHz to 4 GHz in VITA 57 Form Factor

Schaumburg, IL – October 28th 2010 – Epiq Solutions has announced the availability of the Bitshark FMC-1RX radio receiver. The FMC-1RX is a small form factor, low power reconfigurable radio capable of tuning between 300 MHz and 4 GHz and supporting RF channels up to 50 MHz wide. By providing superior RF performance and utilizing a standard VITA 57/FPGA Mezzanine Card (FMC) digital interface, the FMC-1RX dramatically lowers the barrier to entry for building high performance SDR receiver solutions with COTS FPGA-based processing or custom FMC carriers.

Measuring just 76 mm x 69 mm x 10 mm, the Bitshark FMC-1RX provides a complete single channel radio receiver that accepts RF at its input and outputs digitized baseband samples from its on-board high speed A/D converters. The digitized samples are available on LVDS pairs on the Low Pin Count (LPC) variant of the FMC connector used on the board. Configuration of the key operating parameters (RF center frequency, gain, sample rate, etc.) is performed using a simple text-based protocol over a UART interface. This greatly reduces the complexity typically involved with configuring a software defined radio receiver.

The FMC-1RX can interface to a wide variety of readily available COTS FPGA platforms which support the VITA 57/FMC standard. "Our goal with the Bitshark FMC-1RX is to provide a receiver that changes the landscape of software defined radio platforms in terms of flexibility, ease of use, and performance", says John Orlando, CEO and System Architect at Epiq Solutions. "The FMC-1RX allows an engineering team to concentrate on writing their signal processing blocks rather than spending time building and interfacing to a radio front-end."

The Bitshark FMC-1RX also provides additional features to support a variety of different use cases, including an integrated GPS receiver and the ability to phase lock multiple FMC-1RX boards in the same host system. This enables both Time Difference of Arrival (TDOA) and Angle of Arrival (AOA) applications that are only limited by the number of FMC sites available on the host platform.

The Bitshark FMC-1RX board is in production and is available for \$2500 USD (quantity 1). A development kit consisting of the FMC-1RX board, the HDL source code for interfacing the FMC-1RX to the Xilinx® SP605 and ML605 FPGA platforms, and a cross-platform PC-based spectrum analyzer application is available for \$4500 USD. Please email sales@epiq-solutions.com for a quote, or visit <http://www.epiq-solutions.com> for more information.

About Epiq Solutions – Epiq Solutions designs and builds state-of-the-art low power reconfigurable radio systems for mission-critical applications. These applications include the detection, classification, and geolocation of radio emitters, as well as real-time processing and decoding of Layers 1, 2, and 3 for numerous wireless radio standards (including 2G/3G/4G cellular). For more information, please visit <http://www.epiq-solutions.com>.

Product Brief: http://www.epiq-solutions.com/Bitshark_FMC_1RX_flyer.pdf

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