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RF Engines Ltd (RFEL) wins new contract with EONIC of the Netherlands

“Novel wideband downconverter for signal analysis”

Newport, Isle of Wight, UK – 4 June 2009 -- RF Engines Limited (RFEL), the specialists in high performance signal processing design work, have been contracted by EONIC of Delft in the Netherlands for the development of a novel digital downconverter to be used in one of their latest signal processing platforms.

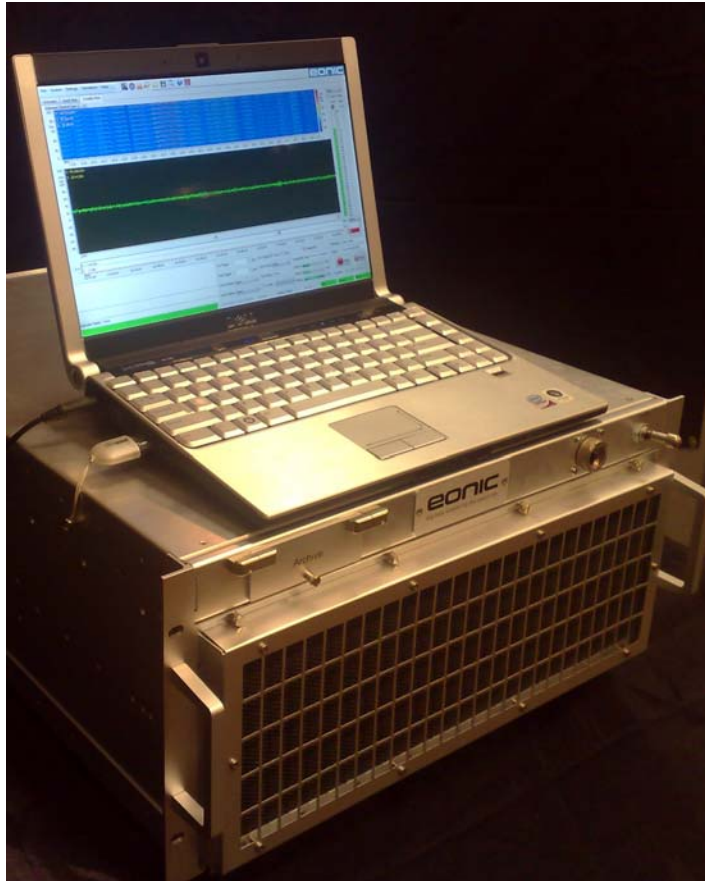
The high-speed design will enable the real-time extraction of large sections of spectrum from a wideband signal for subsequent analysis. The EONIC specification requires particularly demanding channel passband, stopband, ripple and SFDR (Spurious Free Dynamic Range) performance, as well as requiring a complex range of parallelisms (levels of de-multiplexing) to enable the multiple outputs to precisely match the required data rates.

The RFEL core is to be implemented in a single Altera Stratix III FPGA and then incorporated into EONIC's bespoke hardware. It will accept data from a Maxim MAX109 analogue to digital converter running at speeds of up to 2.2 Giga samples per second.

The design will incorporate the required functions including mixers, half-band-filters and down-samplers, in a unique flexible architecture that will provide all of the required functionality for both baseband and IF input signals. The high flexibility and decimation data rate of the specification make the implementation and the routing/placing constraints particularly demanding and require the design of a novel parallel down-sampler that is specifically tailored to the Stratix III silicon architecture. The outputs of the core will also be selectable from various nodes within the core to enable the full range of required decimation rates to be achieved.

Laurens Bierens, EONIC's co-founder and CTO, commented: "EONIC are recognised as one of the world's leading companies in this specialist area of signal analysis and recording and are keen to partner with companies who are able to understand the requirement and deliver quality products and designs on time. We've worked with RF Engines for a number of years and so can always depend on them delivering the goods, particularly so where the design is as complex as this."

Simon Underhay, RFEL's Sales Director, commented: "We're pleased to be working with EONIC again and to use our skills, both in hardware and in FPGA embedded firmware, to supply them with what is a very clever and operationally efficient design."



Eonic's latest signal acquisition platform with embedded RFEL wideband downconverter

EONIC

EONIC is a global supplier of best-of-class signal acquisition systems for intelligence, surveillance and reconnaissance applications. EONIC is one of the world's leading providers of technologically advanced signal collection and analysis systems in the EW industry. The company supplies a complete line of SIGINT, ELINT, FISINT, COMINT and Data Acquisition Systems which are used to intercept, identify, locate and analyze radar, milcom and satcom signals for a variety of military needs, including intelligence, reconnaissance, surveillance, precision targeting, situational awareness and threat warning.

RF Engines Ltd

RF Engines Limited (RFEL) is a UK-based electronic systems designer, providing high specification signal processing solutions for FPGAs, as well as supplying digital receiver and complete product solutions for the homeland security, defence, communications and instrumentation markets. Applications include communications base stations, satellite communications systems, test and measurement instrumentation, and bespoke wideband receivers/transceivers.

Further Information

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