



## **RF Engines sign further contract with Thales UK**

### ***Advanced FPGA channeliser design***

**Date 22<sup>nd</sup> May 2006**

RF Engines (RFEL), the experts in signal processing for FPGA, have been awarded a contract by Thales' Land & Joint Systems Division for the supply of a complex channeliser design.

Building on the successful launch of the ChannelCore product line in December of 2005, this contract calls for a modified version of that product to meet a specific channel plan and FPGA resource availability. Use of the ChannelCore design has enabled Thales to utilise a small FPGA in the project, therefore meeting both space and power consumption targets.

The extensive experience that RFEL has in this area of signal processing, coupled with the use of existing IP cores for FPGA, means that RFEL offered Thales a very cost effective and low risk route to achieving a critical processing element in the system.

The RFEL design will form a key part of a new high specification, digital receiver system that Thales is developing. Multiple instantiations of the design will be included in a single Altera Stratix-II device, and so a highly efficient structure is required, with critical timing and low power usage. It is essential that the design fully exploits the architecture of the Stratix-II device.

The Thales overall system design approach will allow for the future upgrading of the system to accommodate developments in analogue to digital converters and other device enhancements, and so the RFEL channeliser design has also been structured in such a way as to accommodate these overall system changes.

Thales said, "The key part of the design was being able to pack as many channels into as small an FPGA as possible to process multiple antenna inputs. RFEL's ChannelCore design is so compact and fine-tuned that they were able to achieve an extremely high channel density when compared to any other solution offered."

The RFEL design allows a totally reconfigurable multiple channel output from a very wideband input, and allows these output channels to be precisely matched to the requirements of the further processing elements in the system. RFEL have extensive experience in this area and have developed a range of designs that can be used in a wide range of digital receivers for electronic warfare and wireless communications systems. RFEL have therefore been able to apply these techniques to provide Thales with a sophisticated high quality design, to a very tight timescale.

"We're obviously very pleased to be working with the Thales team and continuing a relationship that has existed for a number of years," said John Summers, RF Engines' CEO. "It does help to have good working relationships across all levels of the businesses, and, as always, a very clear set of requirements from the Thales team."

## Thales UK Limited

Thales UK is a major electronics and systems group serving defence, aerospace, security and services markets. Thales employs 10,000 staff in the UK and 60,000 people in 50 countries. In 2005, Thales UK's revenues were over £1bn.

[www.thalesgroup.co.uk](http://www.thalesgroup.co.uk)

## RF Engines Limited

RF Engines Limited (RFEL) is a UK based designer, providing high specification signal processing solutions for FPGA, and turnkey receiver solutions for the homeland security, defence, communications and instrumentation markets. Applications include wireless and wireline base stations, satellite communications systems, test and measurement instrumentation, and bespoke wideband receivers.

### Further Information

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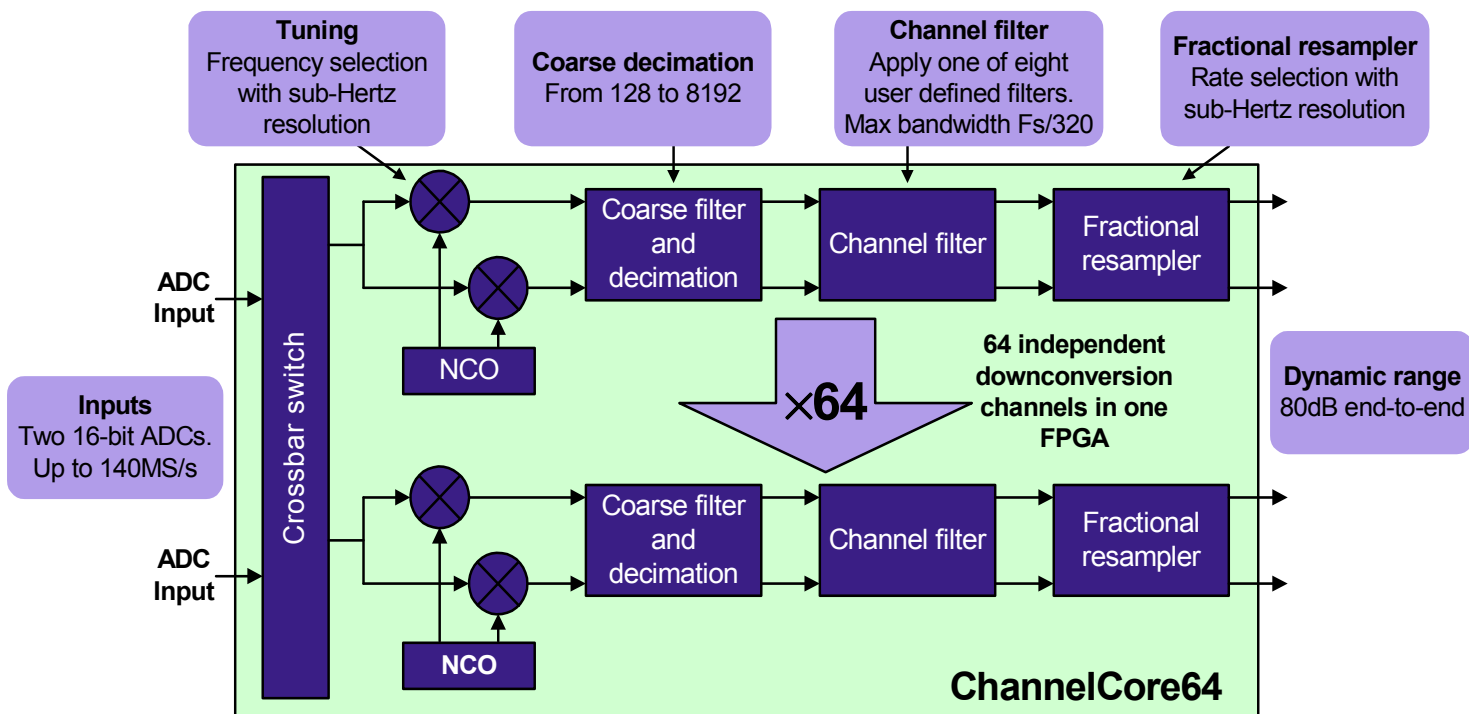
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An illustration of the ChannelCore64 architecture.