

PRESS RELEASE

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Sundance Unveils One Giga Sample per Second Digital Down Converter



SUNDANCE

RENO, NEVADA (May 20, 2005) – Sundance Digital Processing Inc, a worldwide supplier and manufacturer of advanced digital signal processing (DSP) systems, reconfigurable computing platforms, and FPGA-based intellectual property (IP) cores and a member of Xilinx® XPERTS Program, today announced the availability of the FC104, a new and powerful Digital Down Converter (DDC) IP core. Specifically developed for Xilinx' FPGAs, this fully configurable core combines flexibility and speed to address the demanding performance requirements of complex DSP applications such as SDR-Software Defined Radio, Wireless IP development, hardware testing, radar and electronic warfare applications.

Twice as fast as any DDC core on the market today, the FC104 can be fully implemented on Sundance's SMT398, SMT338, and SMT368 FPGA-based reconfigurable computing platforms. This combination makes for a high performance, flexible and fully integrated programmable off-the-shelf digital receiver. With its ultra-high performance generated by its quad DDC architecture, the FC104 accepts 16-bit complex data and can process data flows up to 1 Giga samples per second (GSPS) continuously.

"The year 2005 is going to be an important year for the wireless industry and 3G wireless products. Communications OEMs are always seeking cost-effective, high-performance IP core and reconfigurable computing platforms to implement and test their new designs," said Flemming Christensen, Managing Director of Sundance. "To support its OEM customers in meeting this challenge, Sundance has leveraged its IP development, signal processing, and complex hardware development expertise to offer one stop shop solutions such as the FC104 and the SMT platforms."

Handcrafted and optimized by VHDL experts, the FC104 is particularly well suited for Xilinx' FPGA family of products such as Virtex™II™, Virtex-4 and Spartan™-3. All four stages of this DDC are fully programmable and four 16-bit complex samples can be loaded in parallel at a rate of 250MHz. The DDC core is comprised of four NCO and mixers in parallel and the output can be decimated by factors power of two. The input gain is user programmable, while the Numerically Controlled Oscillator (NCO) is comprised of four sets of sine and cosine. At the mixer stage the core implements four mixers in parallel and its output can be decimated over by factors. The output stage is also user programmable.

"Increasing wireless infrastructure requirements are driving the proliferation of 3G wireless technologies," said Robert Bielby, Xilinx Senior Director of Vertical Marketing and Partnerships. "We are pleased that our XPERTS partner Sundance is enabling accelerated industry deployments

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by offering a fully-verified Digital Down Converter IP core that leverages the integrated DSP blocks of our Virtex-4 device to deliver a high-performance, low-power solution."

The FC104 leverages Xilinx' Virtex-4 high speed dedicated arithmetic resources to reduce the number of inputs, NCO, and mixer block. The design reduced number of resources needed by almost half while the performance of the core is sustained at 1 GSPS. The FC104 can also be customized for higher performances for customer specific design solutions.

Pricing for the FC104 can start at \$8,000 (US\$). However, costs will depend on implementation specifics, such as the platform selected and the DDC parameters.

About Sundance

Sundance is a UK-based, ISO 9000 Compliant, independent company headquartered in Chesham, U.K., with offices in the United States and Italy. The company designs, develops, manufactures and markets high performance signal processing and reconfigurable systems for original equipment manufacturers in the wireless and signal processing markets. Leveraging its multiprocessor expertise and experience, Sundance provides OEM with modular DSP and FPGA-based systems as well as data acquisition, I/O, communication and interconnectivity products that are essential to multiprocessor systems where scalability and performance are essential. With over fifty different modules and carriers for PCI, cPCI VME and Stand Alone platforms, Sundance is a solution provider to semiconductor, pharmaceutical and factory automation industries. Sundance, founded in 1989 by the current directors, is a Xilinx Xperts and MathWorks' Connection program member.

About the Xilinx XPERTS Program

Xilinx established the XPERTS Program (www.xilinx.com/xperts) to provide its customers with access to a worldwide network of certified design consultants. XPERTS members are certified and have extensive expertise and experience with Xilinx technology in various vertical applications, such as DSP, communications and networking, video and image processing, system I/O interfaces, and home networking. XPERTS members are an integral part of the Xilinx strategy to provide its customers with cost-efficient design solutions, while speeding time-to-market.

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