



## **SUNDANCE UPGRADES MULTIPROCESSOR TO STORAGE INTERCONNECT WITH SINGLE CHIP SATA II SOLUTION**

*Sundance Teams With IP Specialist LogicDesign Solutions To Offer Single-Chip Serial ATA II Solutions For Its 7-Series of Multiprocessor Modules. Extends Multiprocessing Reach in the Servers and Storage, Video Storage and Aerospace and Defense Markets*

Sundance, the leading supplier and manufacturer of advanced digital signal processing and reconfigurable FPGA systems, and LogicDesign Solutions, a specialist provider of interconnect IP and services for embedded FPGA systems, today announced the delivery of LogicDesign's Serial ATA Host and Dual Host Controller IP for the Xilinx Virtex 5 FPGAs featured in the Sundance 7-Series of multiprocessing modules. The LogicDesign core is compliant with the Serial ATA II specification and supports signalling rates of 1.5Gbps SATA-Gen1 and scales to 3Gbps SATA-Gen2. VHDL source code, test benches, validation data and DO-254 documentation can be provided.

The availability of LogicDesign's SATA IP on Sundance 7-Series hardware offers designers a multiprocessing development environment that features PCI-X, PCI-E, GigE, SATA and fibre optic modules for interconnect. In the form of a shrink wrapped SATA II compliant 3L Diamond multiprocessing task, LogicDesign is the first IP provider to offer SATA IP that is expressly designed for multiprocessing systems. Its 3L Diamond task is a self-contained block of code that incorporates the Transport layer, the Link layer and the PHY layer on a Xilinx Virtex 5 FPGA. This unique offer enables quick and straight-forward integration of LogicDesign's SATA IP into the multiprocessor system design.

"We are continuing to execute on our strategy of partnering with IP vendors and design tools providers to supply customers with complete multiprocessing solutions," said Flemming Christensen, managing director of Sundance Multiprocessor Technology Ltd. "Developers remain under constant pressure to deliver products on-time, on-cost and on-specification, and completely packaged offerings from multiprocessing hardware through design verification are an important step in helping them to achieve their goals."

The serial implementation of ATA is a high-speed serial replacement for the parallel implementation of ATA attachment of mass storage devices. Immediately available on Sundance hardware the LogicDesign Host and Dual Host Controller cores integrate the Transport layer, the Link layer and the PHY layer onto a single-chip, Virtex 5 FPGA solution. It is fully synchronous with system frequency at 37.5MHz for Gen-1 speed selection and 75MHz for Gen-2. The core implements shadow registers and SATA SuperSet registers, supports 8b/10b encoding and decoding and has state machine controlled power management (shared between PHY and Link layer). It features a 32-bit wide interface between the link layer and transport layer and a 128-word ingress/egress FIFO between the transport and link layer.

Serge Sciberras, managing director at LogicDesign Solutions noted, "With our core competence in developing IP for FPGAs in embedded systems, the move to a multiprocessing partnership with Sundance was an obvious

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# Press Release

**April 2009**

FOR IMMEDIATE RELEASE  
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decision. By providing DO-254 documentation that supports the compliance of electronic hardware in airborne systems our SATA IP not only serves the video storage, and servers and storage markets, but also the aerospace and defense markets, and Sundance has established channels in all these segments."

The 7-Series of multiprocessing modules from Sundance feature the fastest performing Virtex 5 FPGAs from Xilinx, C Series DSPs from Texas Instruments and are supported by an array of memory configurations, interconnect standards and design tools including 3L's Diamond multiprocessor model and tool-suite, ISE from Xilinx and TI's Code Composer Studio.

Commenting further, Flemming Christensen said, "We chose to work with LogicDesign Solutions because of their track record in interconnect IP and their commitment to FPGA based solutions in a multiprocessing environment. By providing a tightly integrated SATA IP offer with our Virtex 5 hardware, customer design, verification and integration effort is reduced and the package is supported with comprehensive documentation and customer support."

LogicDesign's Serial ATA Host & Dual Host Controller IP is available from your local Sundance sales office with prices being subject to choice of multiprocessor module.

#### **About Sundance**

Sundance designs, develops, manufactures and markets internationally 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 member of the TI Third Party Program, Xilinx Alliance Partner and MathWorks' Connection programs. For more information visit [www.sundance.com](http://www.sundance.com).

#### **About LogicDesign Solutions**

LogicDesign Solutions is an FPGA Design and Intellectual Property (IP) company providing IP core development, DO-254 methodology and Design Services. LogicDesign Solutions has extensive FPGA technology experience and particular expertise in high speed interconnect and ultra fast designs. LogicDesign Solutions develop VHDL cores for FPGA and provides services ranging from consulting to product development. For more information visit [www.logic-design-solutions.com](http://www.logic-design-solutions.com).

#### **About Kane Computing Ltd.**

KCL ([www.kanecomputing.co.uk](http://www.kanecomputing.co.uk)) has been providing Image Processing, DSP and high performance computing products for use in industry, education and research since 1987. KCL has extensive knowledge and experience of providing video compression solutions for many industries particularly for digital video security and high quality broadcast applications. KCL has a policy of continual improvement and operates its business in accordance with the requirements of ISO9001:2000. KCL is also approved under the Investors in People programme.

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