

Sundance Multiprocessor Technology

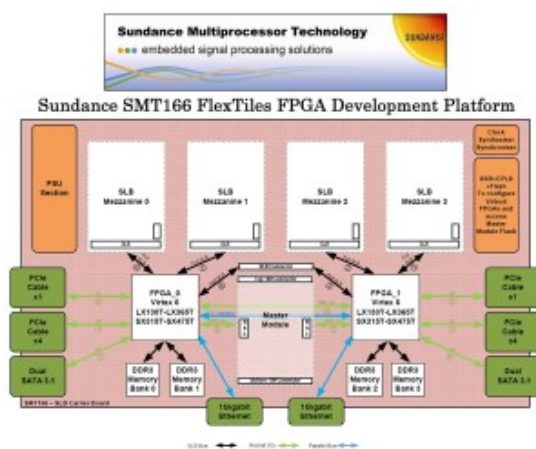
●●● embedded signal processing solutions

SUNDANCE

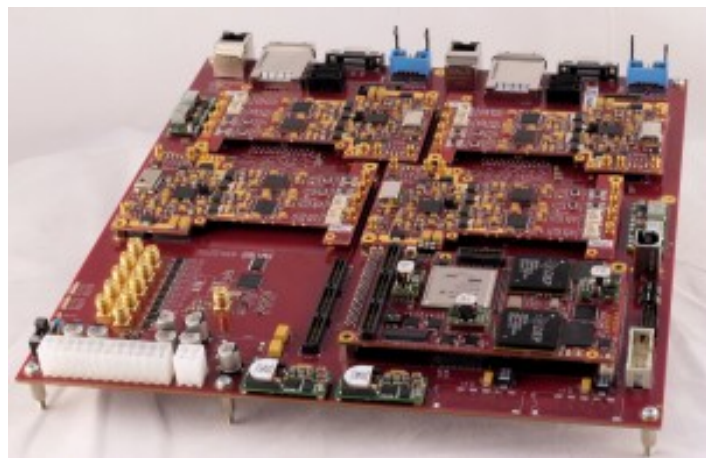
PRESS RELEASE

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Sundance launches SMT166 dual-FPGA development platform; powers EU's FP7 FlexTiles 3D SoC project



Photocaption: Sundance SMT166 block diagram



Photocaption: Sundance SMT166 dual-FPGA platform

Chesham, UK – 13th January 2014. Sundance Multiprocessor Technology, a pioneer in scalable and modular computing modules for embedded solutions, has launched the SMT166 dual-FPGA platform for R&D into the use of large FPGAs for high-performance reconfigurable computing and large-scale embedded systems applications as well as system-on-chip (SoC) simulation. At the same time, Sundance has announced that the SMT166 has been chosen as the prototyping platform for the European Union's FP7 FlexTiles 3D SoC project, placing it at the heart of leading research into self-adaptive, high-performance computing.

Headed by Thales Research & Technology, The EU FP7 FlexTiles project is focused on the challenge of leveraging multicore technology to develop energy-efficient, high-performance compute systems. The project will define and develop a programmable, heterogeneous, many-core 3D SoC architecture. The many-core layer, which will integrate GPP and DSP cores, will be associated with an innovative, reconfigurable virtualization layer, featuring a self-adaptive FPGA fabric in an interchangeable tiles concept; and a dedicated tool-flow to improve programming efficiency, reduce the impact on time-to-market and reduce the development costs by 20% to 50%. Sundance's SMT166 will be used initially to develop, validate and verify the tools to create the FlexTiles 3D SoC. Subsequently, users will be able to utilize the SMT166 as an R&D platform to innovate and prototype products based on the FlexTiles 3D SoC.

"The complexity of the FP7 FlexTiles project demands a powerful and versatile development engine at its heart," said Dr. Philippe Millet, Thales Research & Technology's High Performance Research Leader responsible for the FP7 FlexTiles project. *"We are pleased to have secured Sundance Microprocessor Technology's expertise for the FlexTiles project and in the Sundance SMT166 FPGA board we have a development engine that will enable us to drive the project forward with confidence."*

The SMT166, which can be integrated into a standard 19 inch rack, is designed around two Xilinx Virtex-6 FPGAs. Each FPGA is responsible for routing data to and from half the Sundance Local Bus (SLB) connections on the board. In addition, parallel and serial connections are available for inter-FPGA communications.

The SMT166 supports up to four SLB mezzanine modules with a wide range of low-cost options available from Sundance such as a multi-ADC system with 16x channels of 14-bit, 250MHz ADC inputs; an octal channel SDR platform; or a complete MIMO 8 x 8 RF transceiver setup. Additionally, the SMT166 supports Sundance's 12-core DSP module which provides over 10,000 MIPS of fixed point DSP processing power. An optional interface to FMC modules allows users to select from a growing range of add-on modules to suit a wide variety of applications. Each FPGA on the SMT166 is coupled with two banks of DDR3 memory and also supports an identical set of peripheral interfaces, including Gigabit Ethernet, dual SATA 3.1, one lane PCIe Cable, four lane PCIe Cable and RS232. A single USB 2.0 interface facilitates FPGA programming during development phases.

"The FP7 FlexTiles project will truly exercise the capabilities of our SMT166 FPGA as a development engine," said Flemming Christensen, Managing Director of Sundance Multiprocessor Technology. *"However, as a powerful FPGA environment that effectively integrates two identical FPGA boards into one, it is also ideally suited to a wide variety of other applications such as large-scale embedded systems and high-performance reconfigurable computing, especially those designed with fault-tolerance in mind."*

Pricing for the SMT166 starts at US \$7,850 for a Virtex-6 LX130 version. The SMT166, in all its variations, is available on typical 4-8 weeks lead-time.

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About Sundance Multiprocessor Technology

Sundance Multiprocessor Technology designs, develops and manufactures high-performance signal processing and reconfigurable systems for original equipment manufacturers (OEMs) in the wireless and signal processing markets. Leveraging its multiprocessor expertise and experience, Sundance provides OEMs with modular 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 50 different modules and carriers for PC/104, PXI Express, and standalone platforms, Sundance is a solution provider to the semiconductor, pharmaceutical, mil/aero and factory automation industries. Founded in 1989, Sundance is a Xilinx Alliance Partner and member of the Texas Instruments 3rd Party Program, PC/104 Consortium, PXI Alliance and MathWorks Connection program.

For further information about Sundance Multiprocessor Technology, visit <http://www.sundance.com>.

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