Sundance Multiprocessor Technology
embedded signal processing solutions

NEWS RELEASE

FOR IMMEDIATE RELEASE:

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Sundance hands PC/104 eco-system ARM Host Controller

"EMC²-Z7015 is a stackable SBC compatible with PCIe/104 OneBank™ PCI-Express interface and VITA57.1 FMC™, controlled by a Xilinx Zynq® SoC FPGA"

London, UK – 21st July 2015 – Sundance, an established supplier and manufacturer of Embedded Computing Modules for the PC/104® compatible format, has taken full advantage of the current generation of Xilinx Zynq® SoC, integrating dual-core ARM A9 CPUs, four-lane of PCI-Express and re-programmable logic with Artix-7® FPGA technology and designed it onto the latest PC/104® form-factor, called OneBank™

The ARM-9 is clocked at up to 1GHz and is supported by 1Gbyte of DDR3, SD-Card for stand-alone booting/local storage, USB2.0, HDMI, SATA and 1Gb Ethernet Interface. The ***EMC²-Z7015*** will run standard Linux application and is supported by the newly released and free Web-Edition of the Xilinx Vivado 2015.2 tools. This tool will also provide the VHDL synthesis for FPGA programing of the freely available logic and control of the integrated VITA57.1™ FMC-LPC Module carrier for extra I/O functions.

Flemming Christensen, Managing Director of Sundance Multiprocessor Technology Ltd., said: *"The legacy of PC/104® goes back more than 20 years and historically was based on x86 CPU and shared bus solution. The new stackable PCIe/104 OneBank™ is targeting PCI Express Serial Lanes for expansion and been tested with ten boards and Gen3, running 8GHz. This matches perfectly with the concept of current generation of SoC that has all the simple I/O features integrated and four PCI Express lanes for extra functionality, if required".*

– and continues -

*"The **EMC²-Z7015** is designed for "Embedded Multi-Core and Critical Application" and support is provided by the latest Xilinx SDSoC™ development environment, which enables rapid programming of the Zynq SoC, using traditional C/C++ programs.*

Mark Jensen, Director of Xilinx Alliance Ecosystem added: *"The **EMC²-Z7015** combined with the Xilinx **SDSoC™** development environment offers a total industrial-ready PC/104® solution for Embedded Computing for varied applications that can benefit from the flexible concept of the Zynq SoC with integrated Dual-Core ARM-9 and Artix™-7 FPGA fabric. The addition of a VITA57.1™ FMC-LPC makes it easy to migrate R&D efforts from Xilinx's development 'bread-boards' to a fully rugged PC/104® environment, be it air, land, sea or space.*

The **EMC²-Z7015** is a single-board-computer (SBC) as default, but the real benefit is the PC/104® stackable concept that will allow multiple **EMC²-Z7015** to be integrated into a multiprocessing ARM system, using PCI Express for inter-connection between each Zynq SoC.

EMC²-Z7015 also introduces two new dimensions of modularity to the PC/104™ World with the introduction of a 'cable-less-break-out' concept. The 'break-out' solution removes the requirement for cabling from the PC/104® board to the external world, and is implemented using Samtec Razor Beam™ self-mating connector solution that breaks out the I/O to a low-cost connector board.

The same connector system is used for the SoM modules, allowing the SoM to be replaced by one with a faster or bigger area of FPGA fabric or even the next generation of Zynq UltraScale+ MPSoC. The SoM modules are 40mm by 50mm and are also available without the **EMC²-*Z7015*** Carrier for integration into custom-unique solutions.

Pricing for 1+ **EMC²-Z7015** with a Dual-Core ARM-9 and Artix-7 FPGA starts at US $1485.00; 100+ units below $800.00. The EMC² and its variations are typically available on a lead-time of 1-3 weeks.

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About Sundance Multiprocessor Technology Ltd.

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 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 fifty different modules and carriers for PC/104, PCIe/104, PXI Express, and standalone 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 Xilinx Alliance Partner and MathWorks' Connection programs.

Sundance is a member of the PC/104 Consortium, the focal point for the entire PC/104 industry including manufactures and OEMs. It provides a place for information on current specifications, product offerings, news, and events and a place to advance and develop specifications that are consistent and stable for long-term use.

For more information visit http://www.sundance.technology/

Figure 1 - The 40mm x 50 mm SoM Module for EMC^2 with Xilinx Zynq SoC

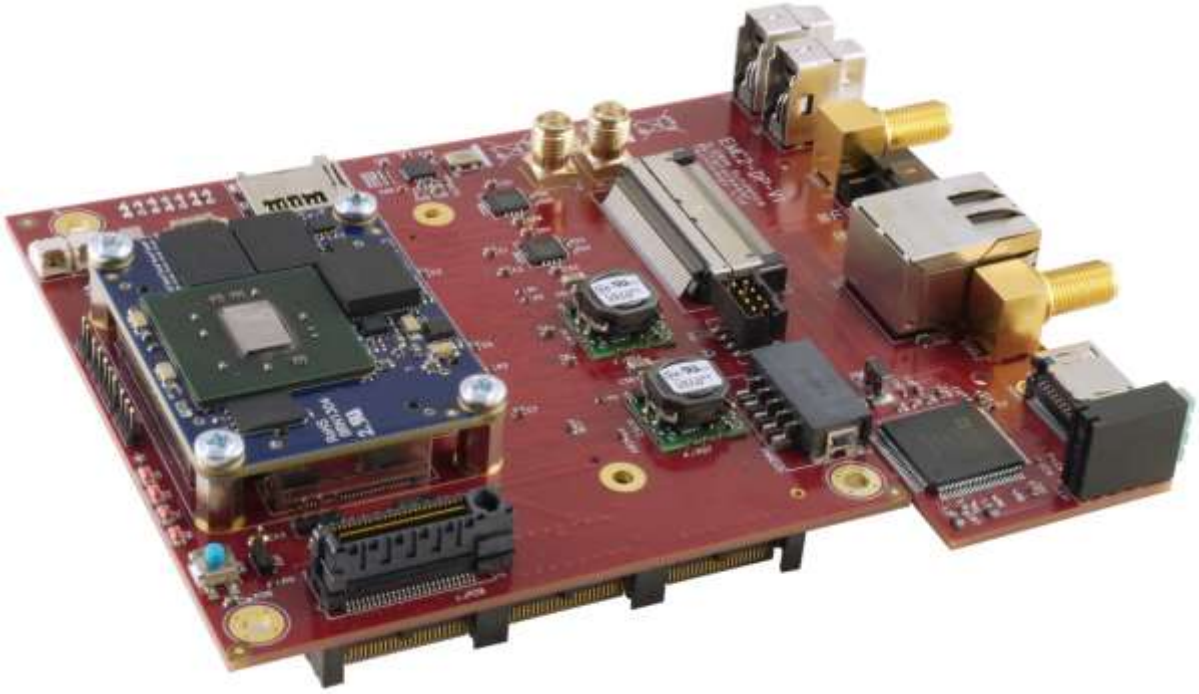

Figure 2 The EMC^2 showing the Stackable PCIe/104 OneBank Connector and the Cable-less I/O board

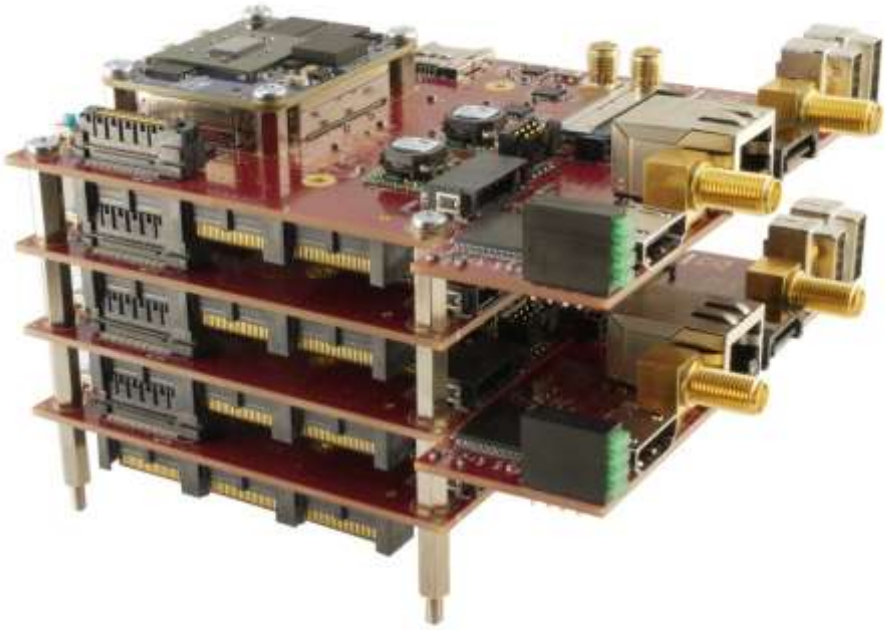

Figure 3 EMC^2 stacked, using the PCI Express Lanes, to provide 8x ARM9 CPU Cores

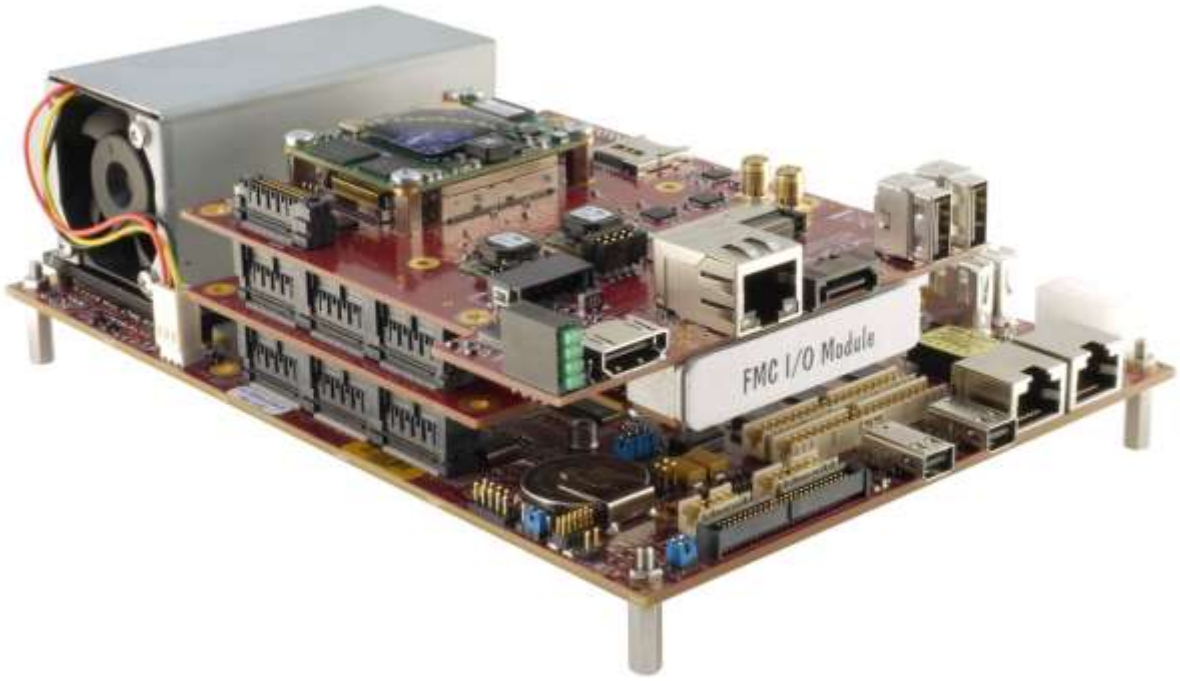

Figure 4: EMC^2 fitted onto an EBX i7 SBC and providing extra I/O via Vita 57.1™ FMC-LPC Module

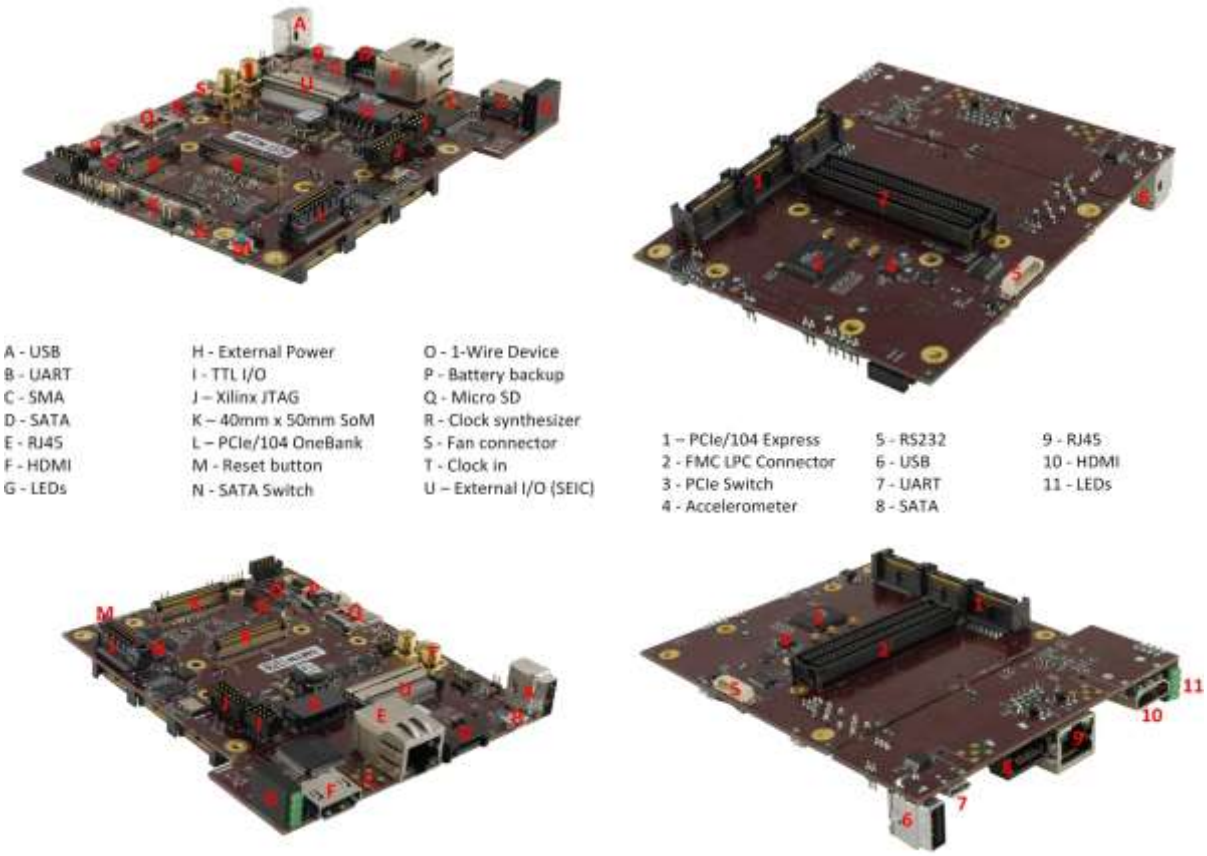

Figure 5: Location of EMC2-DP Interfaces