



# NEWS RELEASE

**FOR IMMEDIATE RELEASE:**

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## Sundance adds low-cost Artix-7 FPGA to PC/104

*“EMC<sup>2</sup>-7A is a stackable FPGA solution compatible with PCIe/104 OneBank™  
PCI-Express interface and VITA57.1 FMC™, controlled by an Artix-7® FPGA”*

**London, UK – 30<sup>th</sup> June 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 lowest-cost Xilinx Artix-7 family, integrating four-lanes of Gen2 PCI-Express and re-programmable logic using the free Xilinx Vivado 2015 tools and designed it onto the latest PC/104® form-factor, called OneBank™

The **EMC<sup>2</sup>-7A** can use commercial, industrial or automotive graded Artix-7 FPGAs and is complimented with 1Gbyte of DDR3 local storage, 32Mbytes of Flash memory for storage/configurations and has 68x free differential I/O pins which are routed to a VITA57.1 FMC-LPC high-speed connector for bespoke interfaces. The four-lanes MGT (multi gigabit serial transceivers) are coupled to a PCI switch for infinite scalability, the FMC-LPC and a SATA connector on the PC/104 stack to connect to local storage or for direct high-speed connection to stacked EMC2 boards.

**Mr. Flemming Christensen**, Managing Director of Sundance Multiprocessor Technology Ltd., said: *“The EMC<sup>2</sup> is our latest addition to the legacy of PC/104 and follows-on from the introduction of the Xilinx Virtex-5 in Year 2010. Sundance is an industry pioneer when it comes to making embedded multi-core systems for critical applications. Sundance was invited to participate in the very large-scale European initiative - <http://www.artemis-emc2.eu/> - to provide hardware emulation solutions for the development of tool-chains to validate homogeneous and heterogeneous multi-core processing for varied industrial application.*

**Dr. Werner Weber**, Senior Principal, Infineon Technologies and overall EMC<sup>2</sup> Project Leader added: *“The Artemis EMC<sup>2</sup> is major push forward for Embedded Multi-Core implementation in the industry and has a total budget of over USD100million and almost 800 person years over 3 years. Having an SME, like Sundance, to provide specific expertise in design and production of scalable multiprocessor solution is paramount for the success of the EMC<sup>2</sup> project. We are delighted to see the launch of the first EMC<sup>2</sup> platform to our Partners.”*

The **EMC<sup>2</sup>-7A** - <http://www.sundance.technology/som-carriers/pc104-boards/emc2-7a100/> - introduces two new dimensions of modularity to the PC/104™ world with the introduction of a ‘cable-less-break-out’ concept and upgradeable SoM (System-on-Modules). The ‘break-out’ solution removes the requirement for cabling from the EMC<sup>2</sup> to the external world, and is implemented using the 100-way Samtec Razor Beam™ - <https://www.samtec.com/technical-specifications/default.aspx?seriesMaster=LSHM> - 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 MPSoC.

The SoM modules - [http://www.sundance.technology/?page\\_id=203](http://www.sundance.technology/?page_id=203) - are 40mm by 50mm and are also available without the EMC<sup>2</sup> Carrier for integration into custom-unique solutions.

Pricing for 1+ unit of **EMC<sup>2</sup>-7A100** with the Artix-7-100 FPGA starts at US \$1250.00; 100+ units below \$650.00. The **EMC<sup>2</sup>** and all its variations are available on typical 1-2 weeks lead-time for small quantities.

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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 TI’s 3<sup>rd</sup> Party Program, Xilinx Alliance Partner, PXI Alliance 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. The PC/104 Consortium 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 above information in electronics format, visit [http://www.sundance.com?page\\_id=2070](http://www.sundance.com?page_id=2070)



Figure 1: The 40mm x 50 mm SoM Module for EMC<sup>2</sup> with Xilinx Artix-7 FPGA

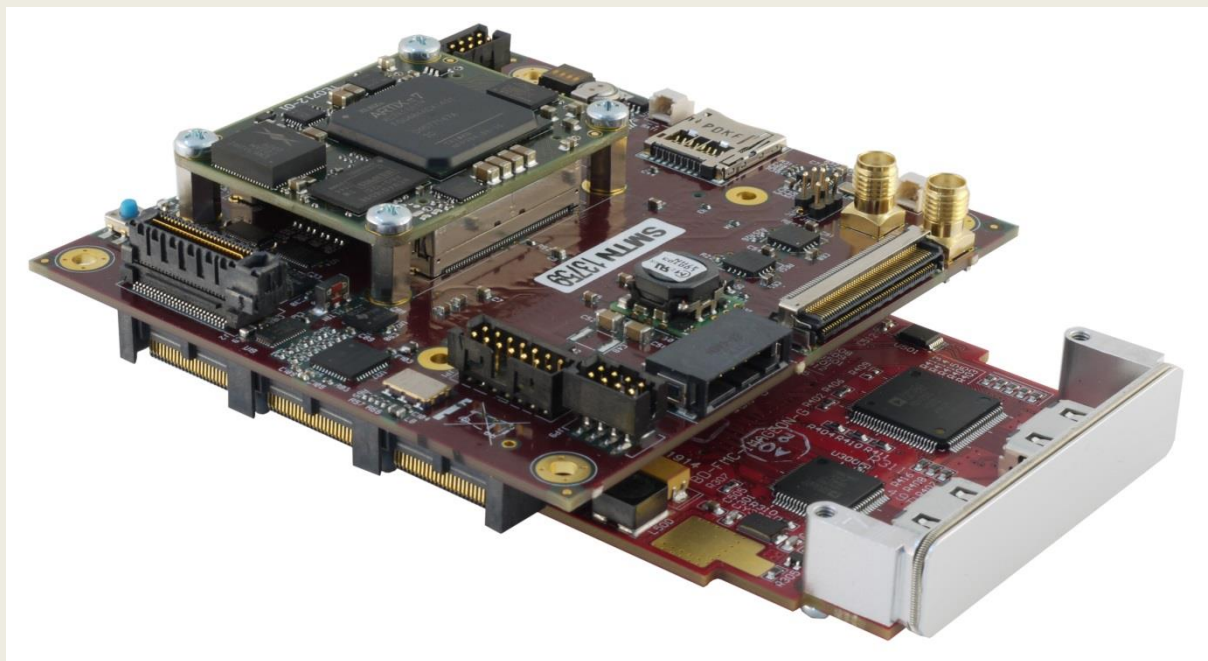


Figure 2: The EMC<sup>2</sup> showing the Stackable PCIe/104 OneBank Connector and the VITA57.1 FMC Expansion I/O

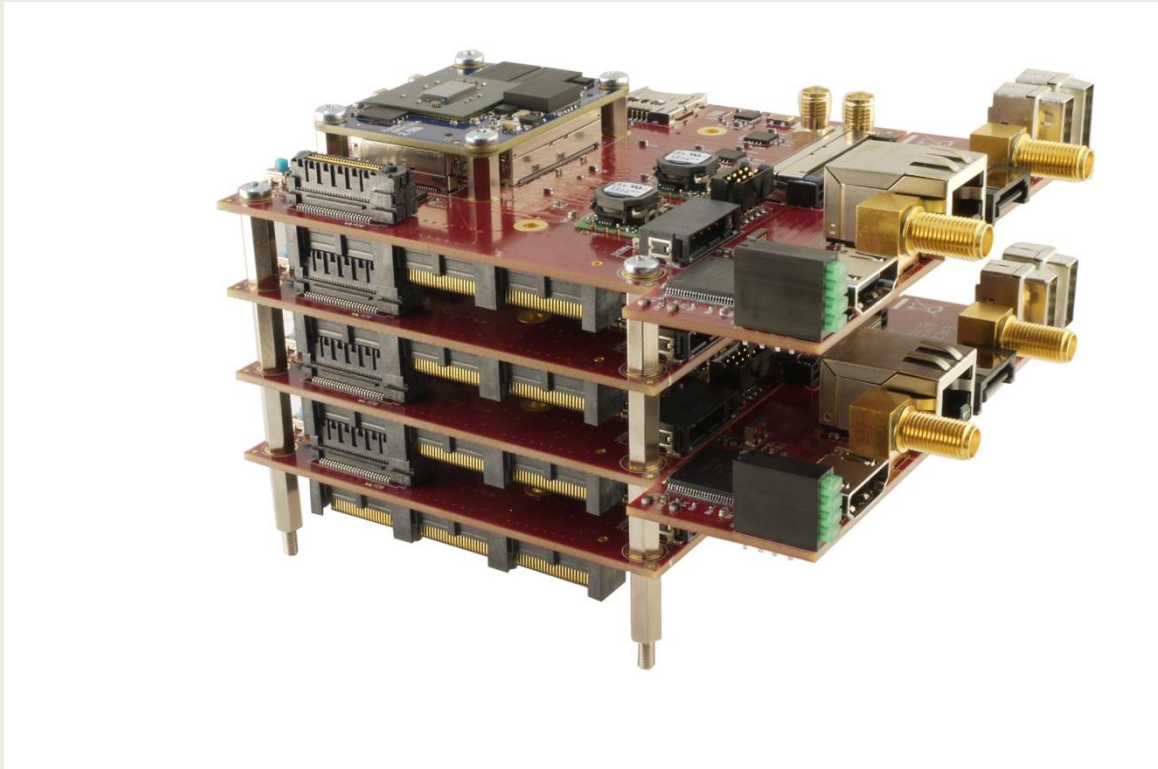


Figure 3: EMC<sup>2</sup> stacked, using the PCI Express Lanes, to provide 4x Artix-7 FPGA Board

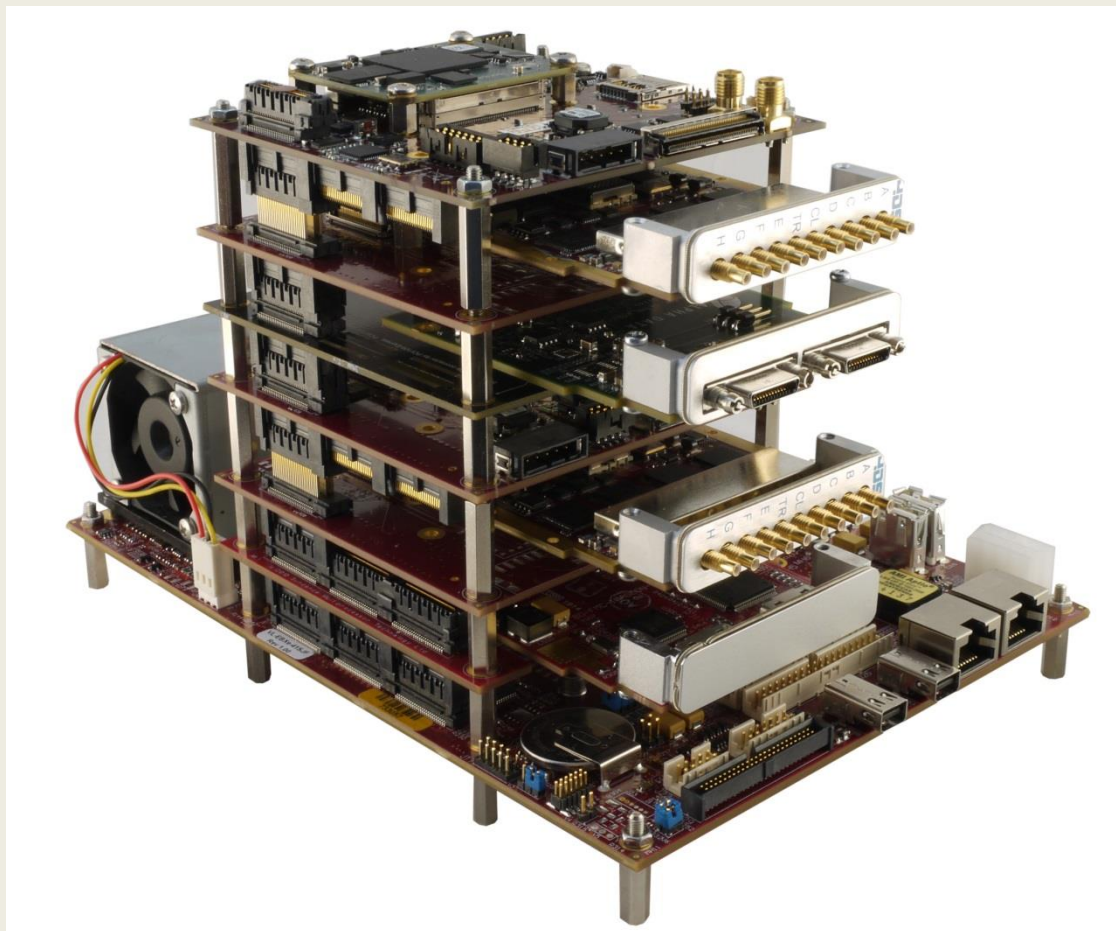


Figure 4: EMC<sup>2</sup> fitted onto an EBX i7 SBC and providing extra I/O via VITA 57.1™ FMC-LPC Module