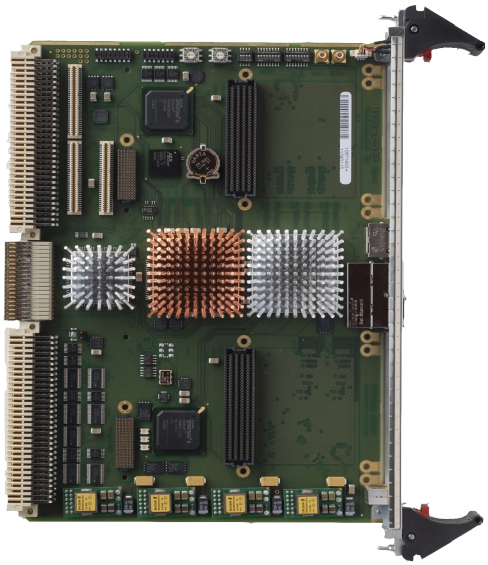
IOxOS Technologies releases its new VME64x Single Board Computer based on Freescale PowerPC P2020 and Xilinx Virtex-6T FPGA for high-performance embedded applications

Geneva (Switzerland), September 2011 - IOxOS Technologies introduces the IFC_1210, a 6U VME64x Single Board Computer which leverages the Freescale PowerPC P2020 and Xilinx Virtex-6T 40nm FPGA win-win combination. The high computing performance per watt of the QorIQ platform series and the powerful versatility and capacity of these high-end FPGAs allow the implementation of very sophisticated Scientific and Mil/Aero applications in standard VME64x environments.

The IFC_1210 is the cornerstone of IOxOS Technologies VME64x PowerPC & FPGA advanced product line. This comprehensive family of PCI Express GEN2 centric COTS is continuously upgraded with new products in order to fulfil the requirements of the most demanding applications.



The P2020 processor running at 1.2 GHz delivers high-performance dual-core computing with energy efficiency, and it is supported with up to 2 GBytes of soldered DDR3 SDRAM with ECC, non volatile memory (NOR, NAND and SD media) and full I/O capability including front panel two Gigabit Ethernet connections, USB 2.0 and RS232.

This SBC is powered by the industry's highest performance PCI Express to VME64x transparent bridge, which is fully embedded within the Virtex-6T FPGA and based on a proprietary Network on Chip (NoC) architecture. This bridge provides a non-blocking, controlled low latency and high-throughput bandwidth interface between the data producer and the data consumer.

The PCI Express GEN2 infrastructure is enhanced with a latest generation PCI Express switch enabling advanced features such as multiple PCI Express time domains, multicast, DMA and several non-transparent bridging (NTB) ports. The IFC_1210 also features the new 3M Ultra Hard Metric (UHM) connector technology which enhances the legacy VME64x P0 connector with high-speed serial protocols supporting data rates up to 7 Gbps (such as PCI Express GEN2 and proprietary CDL links).

In terms of expansion capabilities, the IFC_1210 features one PMC IEEE 1386.1 slot with support of legacy 32-bit PCI (33/66 MHz) and two XMC VITA 42.3 slots supporting PCI Express x4 GEN2. The expansion capabilities are enhanced with two FMC VITA 57 High Pin Count (HPC) slots directly routed to the Virtex-6T FPGA to be managed by the end user custom application.

TOSCA II, a comprehensive FPGA Design Kit developed by IOxOS Technologies, is available for the implementation and integration of custom applications within the IFC_1210 on-board Virtex-6T FPGA, which supports the following FF1156 devices: LX130T, LX195T, LX240T, LX365T, SX315T and SX475T.

The IFC_1210 is available in air-cooled format (conduction-cooled version upon request) with OS support for VxWorks and Open Source Linux.

IOxOS Technologies has developed the IFC_1210 in collaboration with the Paul Scherrer Institute (PSI) in Villigen (Switzerland) in the framework of the SwissFEL project.

IOxOS Technologies SA, based in the Geneva area (Switzerland), is an electronic design company offering innovative solutions to system integrators in the aerospace, physics and telecommunication industries. It combines a comprehensive product line with engineering, consulting and training services covering both hardware and software

Paul Scherrer Institute (PSI), based in Villigen (Switzerland), is the largest research centre for natural and engineering sciences within Switzerland, with its research activities concentrated on three main subject areas: Structure of Matter, Energy and the Evironment, and Health. By conducting fundamental and applied research, the PSI works on long-term solutions for major challenges facing society, industry and science