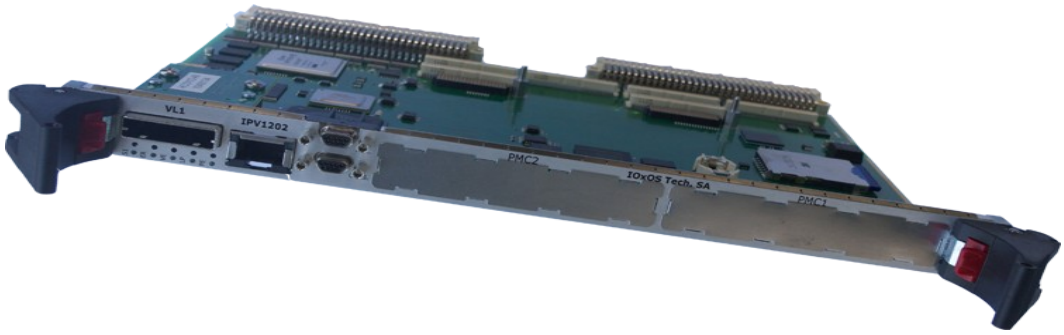
IOxOS Technologies unveils its new VME64x Single Board Computer based on Freescale PowerPC P2020 Computing Core and Xilinx Virtex-5T FPGA



Geneva (Switzerland), April 2011 - IOxOS Technologies extends its comprehensive family of PCI Express centric COTS introducing the IPV_1102, a 6U VME64x Single Board Computer based on Freescale PowerPC P2020 computing core and Xilinx Virtex-5T FPGA. The P2020 processor running at 1.2 GHz delivers high-performance dual-core computing with energy efficiency, and it is supported with up to 4 GBytes of soldered DDR2 SDRAM with ECC, non volatile memory (NOR, NAND and SD media) and multiple I/O capabilities.

The P2020 processor is tightly coupled with the on-board Xilinx Virtex-5T FPGA, which implements the IOxOS Technologies proprietary PCI Express centric Network on Chip (NoC) switched interconnection. This NoC architecture provides a non-blocking, controlled low latency and high-throughput bandwidth interface between the data producer and data consumer.

The IPV_1102 can extend its capabilities beyond the boundaries of the VME chassis on account of a PCI Express x4 External Cable connection (PCI-SIG Specification 1.0) implemented in its front panel, which allows to build real-time links combining very low latency (less than 1µs) with high sustained throughput (more than 800 MByte/s). The innovation is that the physical connection is implemented as a plug-in expansion I/O module to support both copper and optical physical media, allowing to increase the link length up to 100 meters.

This extension makes possible one of the key characteristics of this product: versatility. The IPV_1102 can operate as a legacy Single Board Computer with complete I/O capability (Ethernet, RS232 and SD card) or as an intelligent server/workstation memory mapped connection with the P2020 configured as PCI Express Root Complex or PCI Express End Point.

Another breakthrough is an additional direct path between the P2020 processor and the VME64x interface (which is implemented within the Virtex-5T FPGA) optimized to deliver unprecedented low latency VME64x transfers for time-critical applications.

The IPV_1102 features two dual PMC IEEE 1386.1 / XMC VITA 42.3 expansion slots with support of legacy 32-bit PCI (33/66 MHz) and PCI Express x4 GEN1 / GEN2 interfaces. One of the XMC slots provides two PCI Express x4 links. Additionally, a second Ethernet 10/100/100 Base-T and a second RS232 connection are available through the VME P0 connector.

TOSCA I, a comprehensive FPGA Design Kit developed by IOxOS Technologies, is available for the implementation and integration of custom applications within the IPV_1102 on-board Virtex-5T FPGA, which supports the following devices: LX30T (default), LX50T and SX50T.

The IPV_1102 is available in air-cooled format (conduction-cooled version upon request) with OS support for VxWorks and Open Source Linux. Its target applications include the upgrade of industrial VME64x based systems, aerospace integration rig systems, flight simulators and general purpose test equipment with advanced I/O support.

IOxOS TECHNOLOGIES
RELIABILITY BY DESIGN

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