

## **VMETRO Adds Quad-Core Processing Engine and Single Board Computer to 6U VPX-REDI Offerings**

VMETRO, a leader in embedded computing solutions based on multi-gigabit serial interconnects such as VXS and XMCs, today announced two new 6U VPX-REDI products. The [MPE730](#) is a 6U VPX-REDI Quad-Core PowerPC™ Multi-Processing Engine that integrates dual Freescale Power Architecture™ MPC8641D processors and Serial RapidIO® fabric connectivity. The [SBC731](#) is a 6U VPX-REDI Single Board Computer (SBC) that supports a single MPC8641D processor and the Serial RapidIO fabric. The MPE730 is suited for demanding, deployed multi-core applications such as radar, sensor, and signal processing. The SBC731 is targeted at host boards applications such as mission and control processors.

Both of these COTS products utilize powerful processing and high-speed interconnect technology. The MPE730 supports two single or dual core 1.0/1.33/1.5GHz Freescale MPC8641D processors for up to four PowerPC processors with up to 1 GB of DDR2 memory per processor core for a total of up to 4 Gbytes of memory. The SBC731 also supports a single or dual core 1.0/1.33/1.5GHz MPC8641D processor with up to 1 GB of DDR2 memory per processor core. Both boards incorporate PCI Express™ and Serial RapidIO switches for on-board interconnects as well as backplane communication with support for Serial RapidIO on the P1 fabric connector and a single x8 or dual x4 PCI Express (PCIe) connection(s) to the P3 connector, providing for multi-processing systems and expansion I/O.

To meet a wide range of application needs, there are two XMC/PMC sites on both the MPE730 and SBC731. Each site supports PCI/PCI-X up to 64-bit/133MHz, PCIe x4/x8, and Serial RapidIO x4. Each XMC/PMC site also supports VITA 46.9 I/O connections through the Jn4/6 connectors, providing maximum I/O density and flexibility in a 6U form factor.

Additionally, both boards provide access to commonly required I/O. The MPE730 supports two front-panel Gigabit Ethernet (GigE) ports and two GigE ports to the backplane; the SBC731

support one GigE port to the front-panel and one GigE port to the backplane. Both boards support RS-232/422 serial ports. To provide interoperability with legacy VME boards, the boards provide VME 2eSST interfaces.

For system control and chassis management, the boards come with a Xilinx® Virtex™-5 LX FPGA known as the System Control Node (SCN) that controls power and temperature monitoring, bit stream encryption, and routing of I/O.

“VMETRO has leveraged our expertise in COTS products utilizing PowerPC, high-speed serial interconnect, and ruggedized VXS and VPX technologies to add a Multi-Processing Engine and Single Board Computer,” says Mike Jadon, Chief Technical Officer of Embedded Systems for VMETRO, Inc. “With these new products VMETRO is providing more value to our customers. In addition to the I/O and FPGA-centric products we are known for, VMETRO now offers our customers state-of-the-art processing and subsystem capability that are aligned with the application needs of our customers.”

The MPE730 and SBC731 are based on the VPX (VITA 46) and VPX-REDI (VITA 48) standards, an evolution of the VME64 specification. The key advantages of VPX-REDI are the amount of bandwidth for board-to-board communication, the large number of high-speed user defined rear I/O, and the environmental enhancements that REDI provides. VPX boards can be used alongside VXS and VME64 boards using suitable backplanes to leverage existing proven technology.

VxWorks and Linux support is provided on the MPE730 and SBC731 boards. To support programs from development through to deployment, the MPE730 and SBC731 will be available in a number of environmental build options ranging from air-cooled commercial to rugged conduction-cooled.

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For additional information about the MPE730, please visit the VMETRO website at <http://www.vmetro.com/mpe730>. Additional information on the SBC731 is available at <http://www.vmetro.com/sbc731>.

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### ***About VMETRO***

VMETRO [OSE: VME] provides commercial-off-the-shelf (COTS) board- and system-level embedded computer products from development to deployment for applications in Aerospace & Defense, Industrial, Communications, Medical, Enterprise Computing and Network Storage. Our products offer the highest levels of performance, innovation and reliability by applying state-of-the-art technology within the framework of well established industry standards.

VMETRO is a leading supplier of 1) **Embedded Computing** – high-performance Digital Signal Processing and FPGA Processing solutions, I/O products including Analog, Digital and Fiber-Optic, and Buffer Memory Nodes 2) **Data Recorders & Storage** - real-time long-endurance recording, playback and analysis systems for high-speed sensor data 3) **Protocol & Bus Analyzers** – debug, validation and analysis tools for testing computer systems and 4) **Network Storage devices** - solid-state non-volatile cards designed to increase performance and maintain reliability in server and storage appliances.

For more information, please visit [www.vmetro.com](http://www.vmetro.com).

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