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VadaTech Announces a 6U VPX board with Dual FMC+, Xilinx XCVU47P and NXP LX2160A

Henderson, NV – August 30, 2023 – VadaTech, a leading manufacturer of integrated systems, embedded boards, enabling software and application-ready platforms, announces the VPX554. The VPX554 is a 6U VPX board utilizing Xilinx Virtex UltraScale+™ XCVU47P FPGA with CPU from NXP LX2160A. The board has dual FMC+ sites per VITA57.4 which route all the LA/HA/HB as well as all the FMC+ 32 SERDES (DP) to the FPGA.

The FPGA XCVU47P has integrated 16GB of High Bandwidth Memory (HBM) which can provide large memory buffer space. In addition, the FPGA has 16GB of DDR4 memory. The FPGA has 12x SERDES routed to the P6 location via VITA 66.5 optical. These SERDES could utilize the hardcore CMAC of the XCVU47P to run at 100GbE or as 40GbE/10GbE, Aurora, etc. The FPGA has 12 additional RX/TX SERDES routed to P3 which could operate up to 28Gbaud per lane. Ports 0-3 of the P3 connector are routed to the FPGA PCIe Hardcore. The FPGA routes to P4/P5 16x LVDS (which could be configured as single ended lanes vs. differential per pair) as well as additional singled ended 48x GPIO which could be configured in banks of x8 as +3.3V or +5V.

The boards CPU is based on the NXP LX2160A which has 16 A72 cores running at 2.2GHz each. The health management CPU, the LX2160A CPU and the FPGA RS-232 are routed to a USB-to-RS-232 interface which is accessed through USB 2.0. Additionally, it has a PLL clock jitter cleaner and can provide clocks to both of the FMCs, the FPGA, and/or the protocol clocks for P0/P4 connectors. The health management is based on the VITA 46.11 with Tier 2 support. The unit is available in a range of temperature and shock/vibe specifications per ANSI/VITA 47, up to V3 and OS2. Please contact VadaTech Sales for more information on Conduction Cooled versions and ordering option inquiries.

About VadaTech

VadaTech provides innovative embedded computing solutions from board-level products, chassis-level platforms, to configurable application-ready systems. With a focus on AdvancedTCA, MicroTCA, VPX and PCIe solutions, the company offers unmatched product selection and expertise. A unique combination of electrical, mechanical, software, and system-level expertise, enables VadaTech to provide customized commercial or rugged computing solutions to meet the most complex customer requirements. VadaTech also offers specialized product solutions for VME, CompactPCI, and other architectures. A member of PICMG and VITA, VadaTech has headquarters, design and manufacturing facilities in Henderson, NV with design, support and sales offices in Europe and Asia Pacific.

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