VadaTech Announces new Xilinx Zynq UltraScale+ FPGA board with TCI6638 Multicore DSP+ARM

Henderson, NV – September 4, 2018 – VadaTech, a leading manufacturer of integrated systems, embedded boards, enabling software and application-ready platforms, announces the AMC541. The AMC541 couples Xilinx Zynq Ultrascale+ XCZU19EG MPSoC FPGA with the TCI6638K2K communications KeyStone SoC to provide a high performance wireless infrastructure module.

Zynq Ultrascale+ XCZU19EG MPSoC FPGA includes embedded Quad-core ARM Cortex-A53 application processing unit, Dualcore ARM Cortex-R5 real-time processing unit, ARM Mali - MP2 GPU. The FPGA has Dual banks of 64-bit DDR4 memory (one bank to the ARM Core and one bank to the FPGA) and includes an SD card. The TCI6638K2K communications infrastructure KeyStone SoC is a member of the C66x family based on TI's new KeyStone II Multicore SoC Architecture designed specifically for high-performance telecommunication, IoT and networking applications. It features eight TMS320C66x DSP core subsystems (C66x CorePacs). The TMS320C66x interfaces to dual 64-bit wide DRAM DDR-3.

The flexible AMC541 architecture allows the FPGA and DSP to interface to the AMC connector in different configurations. The AMC connector ports 2-3 and 8-11 are linked directly to the FPGA for the core to interface with the host through protocols such as SRIO, PCIe or 10/40GbE. The ports 4-7 can connect directly to the FPGA in addition to ports 8-11, or connect directly to the DSP with SRIO protocol via MUX (DIP-switch selection). The module also routes GbE on ports 0 and 1 per AMC.2 and the DSP and FPGA are linked via PCIe x2 and GbE. The on-board, re-configurable FPGA interfaces to the AMC FCLKA (fabric clock) and TCLKA-D (user clocks and triggers) via a clock and jitter cleaner. There is also a front panel TRIG IN and CLK IN to the clock and jitter cleaner – the three front panel SFP+ cages allow expansion via fiber or copper interface.

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.

VadaTech, Inc. www.vadatech.com 198 N. Gibson Henderson, NV 89014