



Pico Computing Releases Next Gen M-Series Module

Modular FPGA board enables high-performance, memory intensive hardware-accelerated computing

Seattle, WA – September 30, 2010 – Pico Computing today announced the release of the M-503 M-Series Module. The M-503 is the most powerful and flexible M-Series Module from Pico Computing that addresses the ever increasing demands for memory and I/O bandwidth for HPC applications in the bioinformatics, image processing and signal processing domains.

The M-503 features a Xilinx Virtex-6 LX240T FPGA with 2 independent banks of DDR3 SODIMM providing 17GB/s of local memory bandwidth to the FPGA. In addition to the DDR3, there are 3 independent banks of QDRII SRAM capable of 10.8GB/s of sustained random access memory bandwidth. There are two x8 Gen2 PCIe links provided via Xilinx's PCIe endpoint on the Virtex-6. Eighty (80) LVDS and eight (8) GTX transceivers are available via a high speed high density connector to create direct M-503 to M-503 connections or direct access to SSDs, 10GigE and other peripherals. The M-503 will also be available with Virtex-6 LX365T, LX550T, SX315T or SX475T FPGAs.

"An exciting innovation on the M503 is the HIT (Heterogeneous Interconnect Technology). The HIT is combination of extremely low latency differential IO interfaces (80 pairs at 1.0Gb/s each) and extremely fast multi-standard serial IO interfaces (8 rocket IO at up to 5 Gb/s)," said Kent Gilson, Director of Advanced Research for Pico Computing. "Using customizable mezzanine interconnect boards (either passive or active), or customized hi-speed cables, any combination of parallel mass-storage, multi-standard network connectivity, and board-box-rack interconnect topology can be achieved. This HIT extends the reconfigurability native in FPGAs into the entire architecture of data centers, enabling system-level architecture optimization."

With the introduction of the M503 module, Pico extends the scalability and general-purpose nature of its FPGA cluster products into many more application domains. Used in conjunction with the EX-500 PCIe backplane, Pico is able to "cluster" three M-503s per PCIe slot or in their SC5 SuperCluster, up to 18 M-503s in a 5U Chassis. The first M-503 based SC5 SuperCluster will ship this month to an unidentified launch customer.

Pico Computing will demonstrate its M-503 module at the International Conference for High Performance Computing 2010 (SC10) November 13 - 19, 2010 in New Orleans, Louisiana.

About Pico Computing

Pico Computing, headquartered in Seattle, Washington, specializes in highly integrated development and deployment platforms based on Field Programmable Gate Array (FPGA) technologies. Applications for Pico Computing technologies include cryptography, networking, signal processing, bioinformatics, and scientific computing. Pico Computing products are used in embedded systems as well as in military, national security and high performance computing applications. For more information about Pico products and services, visit www.picocomputing.com.

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Pico Computing EX-500 platform board with three M-503 FPGA modules. The EX-500 supports up to three M-503 modules, and can be clustered to create a high-performance computing system.