NEWS RELEASE

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Curtiss-Wright Revitalizes Legacy VME Systems with New Intel® 8th Generation Xeon® E Series-Based Single Board Computer

VME-1910 SBC brings the highest performance multi-core processing and advanced security features to legacy VME systems

ASHBURN, Va. – November 14, 2019 – Curtiss-Wright's Defense Solutions division, a trusted leading supplier of rugged, open-architecture processing modules, has introduced a new VME single board computer (SBC) designed for system integrators seeking to modernize legacy VME systems. The VME-1910 delivers contemporary high-performance multi-core computing and advanced Trusted Computing capabilities in a board that's pin-compatible with many older generations of VME SBCs without increasing power consumption. This new, fully modern VME SBC highlights Curtiss-Wright's commitment to customers seeking to protect and maintain their existing investment in deployed VME-based aerospace and defense solutions via technology insertion. The VME-1910 features Intel's powerful 6-core hyper-threading Intel 8th Gen "Coffee Lake" E-2176M Xeon processor with integrated graphics and supports today's latest software and security advances. The VME-1910 delivers over 60% more processing power than previous four-core designs, and approximately 36 times the performance of Intel's original Core2Duo™ processor.

In addition to delivering improved performance and higher-speed data communications, the VME-1910's high core count enables system designers to bring new capabilities to existing platforms. The SBC is ideal for use in systems consolidating the functionality of many separate SBC modules into a single board, satisfying demanding storage, data logging, and sensor processing requirements for a wide range of embedded applications. For further information on using technology insertion to upgrade legacy VME systems, a white paper 7 Simple Steps to Upgrading Your VME Single Board Computer is available for download.

“Our newest VME single board computer, the VME-1910, is the high-performance, fully modern technology insertion solution that many of our customers have been looking for,” said Lynn Bamford, Senior Vice President and General Manager, Curtiss-Wright Defense Solutions Defense and Power. “This powerful, no-compromise processing engine brings new life to legacy VME systems with the added advantages of cutting-edge security features and an obsolescence-free FPGA-based VMEbus interface. Designed to be pin compatible with previous generations of VME boards, the VME-1910 proves our commitment to support our VME customers with viable solutions for many years to come.”

VME-1910 Performance Features:

- Intel 8th Gen “Coffee Lake” E-2176M Xeon processor
    - 6-core (12-thread) CPU at 2.7 GHz with Turbo to 4.4 GHz
- Up to 32 GB DDR4 at 2,400 MT/s with ECC
- Up to 256 GB high-performance NVMe onboard storage
- Support for two PMC/XMC expansion mezzanines
- Software support
    - Linux® (CentOS™ and Red Hat® Enterprise Linux [RHEL])
    - Wind River® VxWorks®
    - Green Hills Software INTEGRITY®
    - Microsoft® Windows®
    - Lynx Software Technologies LynxOS®
- Trusted Computing features
    - Curtiss-Wright TrustedCOTS™ Trusted Boot protections
    - Intel TPM 2.0 hardware RoT
    - Intel Boot Guard for verified/trusted boot
    - UEFI Secure Boot
    - SSD encryption
- Air-cooled and conduction-cooled versions

The VME-1910 brings VMEbus processing fully up to date with significant improvements in CPU performance, on-board memory, integrated graphics, flexible I/O, Trusted Computing mechanisms, and FPGA-based VMEbus Interface capabilities. The VME-1910 supports its Intel 8th Gen E-2176M Xeon processor with up to 32 GB of dual-channel high speed ECC-protected DDR4 memory, providing up to 34 GB/s memory throughput. Acceleration of math-intensive

algorithms is supported with powerful AVX2 SIMD extensions. The VME-1910 also incorporates Curtis-Wright's Helix™ FPGA-based VME Interface technology. Helix provides full VMEbus access and functionality while eliminating future component obsolescence.

The SBC's on-board memory includes up to 256 GB of high-speed on-board NVMe flash memory. The Intel Xeon processor includes an enhanced Intel HD Graphics P630 GPU that delivers multi-head Gen 9 discrete GPU performance and supports OpenGL® for graphics-intensive applications. For data processing-intensive applications, the GPU can also serve as a 24-core GPGPU with performance up to 461 GFLOPS with OpenCL™ support. Also included is dedicated hardware codec support for H.264/H.265/HEVC, enabling accelerated media-intensive processing for up to 4K image streams.

The VME-1910's full complement of flexible I/O includes dual PMC/XMC mezzanine sites to support a wide variety of expansion mezzanine daughter cards, including high-performance FPGA, GPGPU and storage modules. The board's standard I/O includes dual Gigabit Ethernet, RS-232/422, discrete DIO, dual DVI displays, a legacy VGA port, SATA, USB, and analog audio ports.

Another significant advantage of the VME-1910 over earlier VME SBCs is its ability to protect critical data with enhanced security capabilities. The board's Trusted Computing features and mechanisms include an Intel TPM 2.0 hardware device for key management, Intel Boot Guard for verified/trusted boot, UEFI Secure Boot, SSD encryption, and Curtiss-Wright TrustedCOTS™ Trusted Boot protections.

Software Support

Software support for the VME-1910 includes a wide range of popular operating systems including Linux (CentOS and RHEL), Wind River VxWorks, Green Hills Software INTEGRITY, Microsoft Windows, and Lynx Software Technologies LynxOS, among others. The SBC also includes support for a Built-in Test (BIT) library of diagnostic routines.

For more information about Curtiss-Wright's Defense Solutions division, please visit www.curtisswrightds.com.

About Curtiss-Wright Corporation

Curtiss-Wright Corporation is a global innovative company that delivers highly engineered, critical function products and services to the commercial, industrial, defense and energy markets. Building on the heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright has a long tradition of providing reliable solutions through trusted customer relationships. The company is headquartered in Davidson, N.C. and employs approximately 9,000 people worldwide. For more information, visit www.curtisswright.com.

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