



NEWS RELEASE

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Curtiss-Wright Announces New OpenVPX™ DSP Modules Optimized for Intel® Xeon® Processor D-1500 Product Family

Rugged 3U CHAMP-XD1 and 6U CHAMP-XD2 OpenVPX modules feature thermal interconnects optimized to take full advantage of new Intel® Xeon® processors

ASHBURN, Va. – November 9, 2015 – Curtiss-Wright Corporation today announced that its Defense Solutions division has optimized its new 3U OpenVPX™ [CHAMP-XD1](#) and 6U [CHAMP-XD2](#) DSP modules to use the Intel® Xeon® processor D-1500 Product Family. The modules, which are available now with 8-core versions of the processor, will also be available with 12 and 16-core versions of the processor, which Intel will make available in the first quarter of 2016. The 12-core version will offer extended temperature support, and all of the variants offer 7-year availability. Intel® Xeon® processor D-1500 Product Family features the enhanced performance at low power that is ideal for use on rugged open architecture modules designed for deployment in extremely compute-intensive, harsh environment EW/C4ISR aerospace and defense applications.

The 3U CHAMP-XD1 and 6U CHAMP-XD2 modules enable designers of High Performance Embedded Computing (HPEC) systems to take full advantage of the unmatched performance of the leading-edge Intel® Xeon® Processor D-1500 Product Family architecture, bringing its unprecedented multi-core compute power to bear on advanced applications. The CHAMP-XDx module family is designed for the most demanding deployed HPEC systems to support applications such as next-generation Radar, EW and C4ISR applications, and SAR, cognitive EW and airborne cloud computing. The 3U CHAMP-XD1 is scheduled to ship in December 2015, with the 6U CHAMP-XD2 to follow in Q1 2016.

“For defense and aerospace HPEC system designers, Intel® Xeon® Processor D-1500 Product Family represents a real game changer,” said Lynn Bamford, Senior Vice President and General Manager, Defense Solutions division. “Intel’s extended temperature packaging enables the deployment of supercomputer-class processing in harsh SWaP-constrained environments for the first time. Our Intel® Xeon® Processor D-1500 Product Family CHAMP-XD1 and CHAMP-XD2 boards unleash the full power of Xeon D processors with both 3U and 6U variants, so system designers can extend their investments in software across multiple platforms and applications.”

The new CHAMP-XDx open architecture COTS modules feature high-speed DDR4 memory and high bandwidth PCIe Gen 3 data paths on both the data plane and the expansion plane. Because the 3U and 6U CHAMP-XDx modules support software compatibility and share the same architected memory and compute nodes, as well as providing similar I/O, they increase application scalability and transportability. This enables system designers to cost-effectively re-use solutions across multiple platforms with differing size, weight, power and cost (SWaP-C) constraints and program requirements. To maximize system configuration flexibility, the modules also feature XMC card expansion. The XD1 module supports a combination of 1 Gigabit and 10 Gigabit Ethernet (GbE) interfaces, while the XD2 module adds support for 40GbE. To ensure the protection of critical technology and data, the CHAMP-XDx modules also support Curtiss-Wright's [Trusted COTS™ hardware and software security](#) features that enable customers to implement protection plans quickly and economically.

The new DSP modules also support Curtiss-Wright's recently introduced [OpenHPEC™ Accelerator Suite™ of best-in-class software development tools](#). OpenHPEC Accelerator Suite speeds, simplifies, and lowers the cost of developing HPEC systems through the use of non-proprietary open standard based software.

3U CHAMP-XD1 Performance Features:

Leveraging Curtiss-Wright's extensive 3U OpenVPX ecosystem, the CHAMP-XD1 can be used to form the centerpiece of new small-form factor HPEC system architectures. In addition to its extremely fast DDR4 memory and support for 1/10 GbE, the CHAMP-XD1 also provides PCIe Gen 3 on the 3U Data Plane.

- Intel® Xeon® Processor D-1500 Product Family with Intel® AVX2
- Extended temperature rated processor with footprint-compatible, higher core count devices on roadmap targeted for Q1'16
- Integrated Platform Controller Hub Technology in Intel® Xeon® Processor D-1500 Product Family
- 2 ports of 10 GbE Intel® Ethernet
- 16 to 32 GB DDR4 @ 2133 mega transfers per second (MT/s)
- XMC PCIe up to Gen3, designed for up to 25W thermal dissipation
- PCIe Gen3 on 3U OpenVPX data plane with switch
- Core Function FPGA with IPMI
- Conduction and air-cooled
- Trusted COTS support

6U CHAMP-XD2 Performance Features:

The dual-processor CHAMP-XD2 brings the performance of two independent Intel® Xeon® Processor D-1500 Product Family to a single 6U chassis slot. It supports either 40 GbE or InfiniBand on the Data Plane in addition to its 1 GbE and 10 GbE interfaces.

- Dual Socket Intel® Xeon® Processor D-1500 Product Family with Intel® AVX2
- Extended temperature rated processor with footprint-compatible, higher core count devices on roadmap, targeted for Q1 2016
- Integrated Platform Controller Hub Technology in Intel® Xeon® Processor D-1500 Family. Four ports of 40G/10G Ethernet or DDR/QDR/FDR10 InfiniBand on OpenVPX data plane
- 2 ports of 10 GbE Intel® Ethernet on OpenVPX control plane
- 16 to 32 GB DDR4 @ 2133 megatransfers per second per Intel® Xeon® Processor D-1500 Family socket
- XMC PCIe up to Gen 3, designed for up to 25W thermal dissipation
- Dual x16 PCIe Gen 3 on OpenVPX expansion plane with switch
- Core Function FPGA with IPMI
- Air and conduction-cooled
- Trusted COTS support

About OpenHPEC Accelerator Suite:

The [OpenHPEC Accelerator Suite](#) brings the benefits of open standard HPC software to the COTS market to effectively remove the risk from developing large scale embedded computer clusters. It includes a broad and comprehensive array of open standard drivers, middleware and libraries. It also includes proven solutions for cluster-wide debugging tools, performance profiling, performance reports, data flow performance analysis, and built-in-test tools, all of which have already been developed and qualified for commercial HPC use.

Sales inquiries: Please forward all sales and reader service inquiries to ds@curtisswright.com.

For more information about Curtiss-Wright's Defense Solutions division, please visit <https://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 employs approximately 9,000 people worldwide. For more information, visit www.curtisswright.com.

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