



NEWS RELEASE

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Curtiss-Wright Announces First SOSA Aligned 6U VPX Dual Intel® Xeon® D-2700 HPEC and Cognitive DSP Processor to Support Quad 100 Gigabit Ethernet Connectivity

The new CHAMP-XD4 module and CHAMP-FX7 AMD® Versal™ Premium Adaptive SoC (FPGA) board are among the first members of Curtiss-Wright's recently announced Fabric100™ class of SOSA aligned system elements

ASHBURN, Va. – August 29, 2023 – Curtiss-Wright's [Defense Solutions Division](#) today introduced the [CHAMP-XD4 \(VPX6-485\)](#), the industry's highest performance, security-enhanced, 6U OpenVPX™ module for compute-intensive Industrial, Aerospace and Defense applications. Ideal for the most demanding intelligence, surveillance, and reconnaissance (ISR) system architectures, the CHAMP-XD4 features dual Intel Xeon D-2700 processors. The module is highly scalable and can be configured with 12, 16, or 20 cores per device. The CHAMP-XD4 complements the AMD Versal based [CHAMP-FX7](#) user-programmable Adaptive SoC (FPGA) module. The two modules are the first 6U form factor members of Curtiss-Wright's new [Fabric100](#) family of SOSA aligned processing engines, offering customers a powerful board-set specifically designed for the most compute-intensive digital signal processing (DSP) applications, such as Multi-mode Radar, SAR, SIGINT, EO/IR, and EW.

The CHAMP-XD4 is the first Xeon D-2700 module to support four 100GbE fabric connections and 32 lanes of Gen4 PCIe, as well as four banks of memory per processor. This enables customers to take full advantage of the extended core capability of the Xeon D-2700 processors without being

restricted by memory or I/O bottlenecks. To address the increasingly important issue of data security, the CHAMP-XD4 also features an AMD MPSoC FPGA device that provides [enhanced TrustedCOTS™](#) security functionality. An MPSoC FPGA toolkit is available for applications that require greater design versatility for adding security IP. The toolkit enables integration of advanced security IP, such as [Raytheon's Night Cover™](#) product suite and [Idaho Scientific's Immunity™](#) cryptography cores. The MPSoC FPGA can also support co-processing and general-purpose I/O requirements via its embedded quad-core Arm® A53 processor and dual-core R5 real-time processor.

Aligned with the [SOSA Technical Standard](#), the CHAMP-XD4 supports quad 100 Gigabit Ethernet (GbE) Data Plane interfaces, dual 10 GbE Control Plane interfaces, and 32 lanes of Gen4 PCI Express® (PCIe) on the Expansion Plane. The rugged module is available in a conduction-cooled 6U VPX form factor with two-level maintenance covers. The module also supports alternate cooling mechanisms, such as air flow-through (AFT) and liquid flow-through (LFT).

About Curtiss-Wright's Fabric100 Suite of 3U and 6U OpenVPX Modules and Systems

Fabric100 brings 100Gbit Ethernet and high-performance PCIe Gen4 interconnect speeds to tomorrow's new generation of rugged deployable computing architectures. Today, system integrators struggle to satisfy their C5ISR applications' insatiable appetite for sharing ever-increasing volumes of information. The higher-speed interconnects required to support these performance demands introduce significant integration challenges for systems integrators. What's more, the ability to meet the industry's goal of simplified interoperability, in other words, to quickly and effectively build systems using open standards-based building blocks and make them work well together, becomes increasingly risky as system designers migrate to faster 16Gbaud and 25Gbaud signaling technology and faster data throughput architectures. To address this daunting problem and reduce the system design risks associated with higher-speed interconnects, Curtiss-Wright has developed Fabric100, a complete end-to-end ecosystem of high-speed rugged OpenVPX modules and system components. It is not enough to simply provide 100Gbps connections between a system's modules yet fail to support the ability to process all this data within the modules themselves. Recognizing that Curtiss-Wright's Fabric100 board architectures are designed to deliver full 100Gbps performance through the entire processing chain, eliminating data bottlenecks that might otherwise compromise system performance.

To download the [CHAMP-XD4 product sheet, please click here.](#)

For information about availability of development boards and Quick Start Kits (QSKs) to support your program needs, please contact us at ds@curtisswright.com, visit our website at www.curtisswrightds.com, or contact your local Curtiss-Wright sales representative.

For additional information about Curtiss-Wright MOSA technologies, please visit www.curtisswrightds.com, LinkedIn, and X @CurtissWrightDS.

About Curtiss-Wright Corporation

Curtiss-Wright Corporation (NYSE:CW) is a global integrated business that provides highly engineered products, solutions and services mainly to Aerospace & Defense markets, as well as critical technologies in demanding Commercial Power, Process and Industrial markets. We leverage a workforce of approximately 8,400 highly skilled employees who develop, design and build what we believe are the best engineered solutions to the markets we serve. Building on the heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright has a long tradition of providing innovative solutions through trusted customer relationships. For more information, visit www.curtisswright.com.

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