



NEWS RELEASE

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Curtiss-Wright Announces New Dual AMD® Versal™ Premium Adaptive SoC-based 100 Gbit Ethernet SOSA Aligned FPGA Plug-In Card

The CHAMP-FX7 FPGA engine and the recently announced CHAMP-XD4 6U VPX Intel® Xeon® D-2700 HPEC and Cognitive DSP Processor are among the first members of Curtiss-Wright's new Fabric100™ class of SOSA aligned system elements

ASHBURN, Va. – August 29, 2023 – Curtiss-Wright's [Defense Solutions Division](#) today introduced the [CHAMP-FX7 \(VPX6-476\)](#), its highest performance user programmable real-time processing module. Ideal for intelligence, surveillance, and reconnaissance (ISR) system architectures, the CHAMP-FX7 is designed to ingest extremely large quantities of digital sensor data over optical fibers for wide bandwidth, latency-sensitive parallel signal processing applications. With unprecedented amounts of on-board fast fiber optic and backplane connectivity, the module takes user programmability and functionality to the next level.

The rugged 6U OpenVPX™ board features dual AMD Versal Premium ASoC (Adaptive System on Chip) FPGA devices that add many advanced on-chip features not found on traditional FPGAs. Supporting a range of Versal Premium devices, each device features advanced high-speed I/O and digital signal processing (DSP). The devices speed internal data traffic with a unique low-latency deterministic Network-on-Chip (NoC) architecture that far exceeds the performance of the previous generation of AMD UltraScale+™ FPGA boards.

The CHAMP-FX7 Adaptive SoC devices, which support up to 64 lanes of VITA 66.5 fiber optic connectivity directly to the backplane and are rated at up to 28 Gbps/lane, support the most demanding deployable EW, Radar, and SIGINT applications. Designed to deliver ultra high-speed processing of digitized sensor data, the CHAMP-FX7 features quad 100 Gigabit Ethernet (GbE) ports on the VPX Data Plane, dual 10 GbE TSN-capable Control Plane interfaces, and 32 flexible lanes of PCIe Gen 4 connectivity on the Expansion Plane. The CHAMP-FX7 module joins the recently announced [CHAMP-XD4](#) Intel Xeon D-2700 Processing module as the first 6U members of Curtiss-Wright's new [Fabric100](#) family of SOSA aligned processing engines. This extremely high-performance board-set delivers a powerful, closely coupled solution specifically designed for the most compute demanding DSP applications, such as EW, Multi-mode Radar, SAR, SIGINT and EO/IR.

Aligned with the [SOSA Technical Standard](#), the rugged CHAMP-FX7 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-FX7 product sheet, 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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