



## NEWS RELEASE

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### **Curtiss-Wright to Demo Modular Open Systems Approach SDR Technology for CMOSS and SOSA® Technical Standard 1.0 Aligned Systems at NI Connect 2022**

#### ***VPX3-E320 MODULE IS INDUSTRY'S FIRST FULLY RUGGED MOSA-BASED 3U OPENVPX™ VARIANT OF NI'S ETTUS RESEARCH USRP E320 SDR***

**NI CONNECT 2022 – AUSTIN, TX – May 24, 2022** – Curtiss-Wright's [Defense Solutions division](#), a leading supplier of [modular open systems approach](#) (MOSA) based solutions engineered to succeed, announced that it will demo its groundbreaking [VPX3-E320 Ruggedized Universal Software Defined Radio \(SDR\) card](#), a 3U OpenVPX module developed under agreement with NI, at NI Connect 2022, May 24-25 at the Austin Convention Center, Austin, Texas. Curtiss-Wright's VPX3-E320 Rugged SDR module is an OpenVPX functional equivalent variant of the Ettus Research USRP E320 and is fully compatible with the USRP Hardware Driver (UHD). It features a flexible 2 x 2 MIMO RF Agile Transceiver with 12-bit ADCs and DACs. Using an NI Commercial Ettus E320 USRP unit, functionally equivalent to the rugged VPX3-E320, system designers can quickly and cost-effectively develop SDR applications for deployment on a VPX3-E320 in OpenVPX environments.

“At NI Connect 2022, in support of MOSA principles and innovation, we are proud to showcase our VPX3-E320 Rugged SDR module, that brings NI's extremely popular Ettus Research USRP E320 technology to rugged OpenVPX based CMOSS and SOSA Technical Standard aligned deployed systems,” said Chris Wiltsey, Senior Vice President and General Manager, Curtiss-Wright Defense Solutions. “This open standards SDR solution provides system designers with a compelling choice for deploying rugged battlefield communications capabilities.”

“Accelerated development and deployment of EW systems is a critical need for the warfighter today,” said Haydn Nelson, Principal Solutions Manager for Radar and EW in NI's Aerospace,

Defense, and Government Business Unit. “Allied defense organizations have long desired a way to leverage commercial technology to reduce development time. NI’s collaboration with Curtiss-Wright on the VPX3-E320 is a realization of that need, enabling rapid migration of EW capabilities to the field on a SOSA aligned platform.”

### **About the VPX3-E320**

Curtiss-Wright’s VPX3-E320, the first fully rugged OpenVPX variant of the Ettus Research USRP E320 SDR solution, enables applications developed in the lab to be seamlessly transitioned to mission hardware. The conduction cooled 3U OpenVPX module speeds and eases the integration of critical SDR capabilities, such as deployed SIGINT, tactical communications, and reconfigurable jamming, into platforms deployed in harsh environments. The board supports tunable bandwidths from 200 kHz to 56 MHz over a frequency range from 70 MHz to 6 GHz. Baseband signal processing uses a Xilinx Zynq® 7045 System-on-Chip FPGA to deliver accelerated FPGA computations and software-based processing using its dual-core Arm® CPU. Device configuration can be accomplished with the NI USRP UHD, either through GNU Radio or with common programming languages such as Python or C++. Applications previously developed on the USRP E320 will port directly to the VPX3-E320.

The VPX3-E320 module’s backplane I/O is designed for alignment with the latest RF system implementation standards, including CMOSS, the Vehicular Integration for C4ISR/EW Interoperability (VICTORY), and Modular Open RF Architecture (MORA). Designed for superior durability and reliable operation in harsh environments, the VPX3-E320 incorporates Curtiss-Wright’s industry-leading rugged hardware design and validation practices to meet the stringent requirements of the most demanding front-line conditions.

### **Complete CMOSS/SOSA System Solutions**

Curtiss-Wright offers a broad range of CMOSS/SOSA- aligned system building blocks, including:

- **VPX3-E320 Rugged SDR** ruggedized universal software-defined radio peripheral
- **CHAMP-XD3** Intel® Xeon®-D 1700-based DSP engine
- **VPX3-687** VICTORY data / control plane Ethernet switch
- **VPX3-663** PCIe Gen 3 / 10G Ethernet hybrid switch
- **VPX3-673A** A-PNT/Radial Clock card
- **VPX3-1260** 9th Gen Intel Xeon-E processor-powered general-purpose single board computer

- **VPX3-4935** NVIDIA® Quadro™ Turing™-power GPU-coprocessing engine
- **8-slot 3U OpenVPX CMOSS/SOSA-aligned enclosure**
- **CMOSS/SOSA Starter Kit** for ground combat vehicles with VPX3-1260, VPX3-673A and VPX3-687 modules.

### **Broadest Range of MOSA Solutions for Aerospace & Defense Programs**

Curtiss-Wright Defense Solutions MOSA open architecture solutions eliminate proprietary interfaces through the use of widely supported consensus-based standards for the major system interfaces between systems and components. From rugged COTS components and modules to ready-to-integrate subsystems, our full suite of solutions, and our product road map, all adhere to MOSA. Curtiss-Wright MOSA Solutions include fully integrated CMOSS/SOSA aligned systems, as well as 3U and 6U OpenVPX system building blocks. For system development we offer complete system architecture services, Quick Reaction Capabilities, and development platforms such as our 3U OpenVPX CMOSS/SOSA-aligned enclosures and CMOSS/SOSA Starter Kits.

We offer the most comprehensive range of open standards based small form factor subsystems and modules, including the PacStar® 400 Series of modular tactical warfighter communications solutions, the ultra-compact Parvus® family of processing and network line replaceable units (LRU), and a complete line of data acquisition solutions. Our MOSA based rugged data solutions support high-density secure data storage protected with either Type 1 Top Secret or NSA-certified Commercial Solutions for Classified (CSfC) encryption. Designed for use on platforms that experience intense shock and vibration, such as helicopters and ground vehicles, our family of video management systems and rugged touchscreen LCD displays delivers optimal performance in harsh environments.

Whether in the air, on the ground, or at sea, Curtiss-Wright Defense Solutions MOSA technologies deliver high reliability and performance for the most demanding deployed applications, such as Battle Command, Mission Analysis & Planning, SIGINT, RADAR, EW, Flight Test, Jamming, Comms, Fire Control, Vehicle Electronics and Human Machine Interfaces.

For more information about Curtiss-Wright MOSA solutions, please click [here](#).

For additional information about Curtiss-Wright please visit [www.curtisswrightds.com](http://www.curtisswrightds.com), LinkedIn, and Twitter @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. Headquartered in Davidson, N.C., we leverage a workforce of 7,800 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](http://www.curtisswright.com).

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