NEWS RELEASE

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Curtiss-Wright's New Fiber-Optic XMC Card Brings Quad-Channel 10 Gb Ethernet to MOSA Systems Without Requiring Chassis Modification

Based on popular Intel® XL710 controller, the XMC-E01 future proofs Ethernet connectivity for tech insertions while simplifying integration

ASHBURN, Va. – June 13, 2022 – Curtiss-Wright's Defense Solutions division, a leading supplier of modular open systems approach (MOSA) solutions engineered to succeed, today introduced a new fiber-optic XMC module (VITA 42) that speeds and eases the integration of four channels of 10 Gb Ethernet (GbE) into OpenVPX™ and VME based embedded systems. The rugged XMC-E01 Quad-Channel 10Gb Fiber-Optic Ethernet XMC card is based on Intel®'s popular XL710 Ethernet Converged Network Adapter, and delivers four independent channels of 10 GbE, as well as a range of advanced features such as checksum offload and IEEE 1588 PTP. Today, air, ground and naval platform system integrators need to support ever-increasing amounts sensor data bandwidths while avoiding data traffic bottlenecks. The use of fiber-optic transceivers supports the desired high-speed data communications while eliminating the use of heavy, costly copper cabling, but alternative fiber-optic mezzanine card offerings can introduce unwanted integration hurdles.

With four channels of 10 GbE, the XMC-E01 reduces slot count and size, weight and power (SWaP) burdens by 50% compared to competing two-channel designs. The module's fiber-optic "pigtail" cable features a midline MTP® connector that enables the module to be easily removed from the carrier card without disturbing the system's fiber-optic cabling, or requiring custom modification of the carrier card's heat frame, which can add time and cost while potentially adding the need for additional analysis or requalification of the system's thermal management performance. What's more, fiber-optic cards that use a front-of-card connector approach introduce rigid cable length and bend radius requirements, increasing the amount of space provided at the front of the card within

the chassis. In comparison, the XMC-E01, which uses a single quad transceiver and provides an aperture in the XMC's PCB to provide cabling access, saves system designers an inch or more of space at the front of carrier card, enabling the use of smaller chassis. The XMC-E01 is ideal for bandwidth intense ISR, Sensor Input, and High Performance Embedded Computing (HPEC) applications where high bandwidth data ingest or network backbone connectivity is required.

"With ease of integration, serviceability, and tech refresh as our design goals, the XMC-E01 fiber-optic XMC module hits the sweet spot for system integrators who need a 10 GbE solution today with a path towards upgrading bandwidth as requirements and technology advance," said Chris Wiltsey, Senior Vice President and General Manager, Curtiss-Wright Defense Solutions. "By keeping the customer's needs in mind, we mitigated the need for custom modification of the carrier card for fiber-optic cabling, and made this rugged, high-performance mezzanine card easily removable for maintenance or replacement.

Built Rugged for Harsh Environments

The XMC-E01 is designed for optimal performance in the harsh environments typical of aerospace and defense applications. It features and operating temperature range of -40°C to +85°C. The transceiver directly connects to the heatsink to ensure adequate cooling at high temperatures in conduction-cooled implementations. In addition, the module's quad fiber-optic transceiver has specific retention features to ensure operation in harsh shock and vibration environments. Typically, for alternate offerings, fiber-optic transceivers are soldered onto the board, making it necessary to ship the entire board back to the factor for service. The XMC-E01's design enables its fiber-optic transceiver to be replaced without the need for soldering equipment and other factory processes to support greater depot serviceability and integration capabilities.

The XMC-E01 XMC is suitable for use with both air-cooled and conduction-cooled single board computers, including the wide range of Curtiss-Wright 3U and 6U OpenVPX and 6U VME SBCs. Software support includes Linux and Windows drivers.

To download the XMC-E01 product sheet, please click here. For information about availability of development boards 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 Twitter @CurtissWrightDS.

Broadest Range of MOSA Solutions for Aerospace & Defense Programs

Curtiss-Wright Defense Solutions offerings are based on the Modular Open Systems Approach (MOSA). These 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 Battlefield Communications solutions, the ultra-compact Parvus® family of processing and network line replaceable units (LRUs), 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.

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 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.

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