



## NEWS RELEASE

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### **New Family of Single Board Computers Brings Intel® Xeon® Processing and DO-254 Safety Certification to Small Form Factor Modules**

*Low-power VPX3-1220 and XMC-121 SBCs deliver highest performance with latest generation quad-core “Skylake-H” Mobile Xeon processor and fast Intel HD Graphics*

**INTEL DEVELOPER FORUM 2016 (IDF16) – SAN FRANCISCO, Calif. (Booth #329) – August 16-18, 2016** – Curtiss-Wright’s [Defense Solutions division](#) today introduced two new small form factor commercial-off-the-shelf (COTS) single board computers (SBCs) based on Intel’s latest generation Mobile Xeon processor E3 v5 (formerly known as “Skylake-H”). The new rugged modules, the [3U OpenVPX™ VPX3-1220](#) and [XMC-121 XMC processor mezzanine card](#), feature a low-power version of the Xeon processor to provide high performance quad-core x86 processing with integrated graphics at typically 50% the power levels of previous solutions. These SBCs are ideal for use in size, weight, power and cost (SWaP-C) constrained aerospace and defense systems. What’s more, the VPX3-1220 is the first Xeon processor SBC designed to meet DO-254 Design Assurance Level (DAL) C. Available with certifiable DO-254 design artifacts from Curtiss-Wright, this powerful VPX module can greatly speed the deployment and certification of critical manned and unmanned airborne Safety Certifiable applications.

Both of these new SBCs are ideal for use in general purpose mission computing applications that require the highest possible processing performance while consuming low power. These fully rugged modules speed and simplify the integration of Intel Xeon-class processing into demanding defense and aerospace deployed applications such as mission computing, image and display processing, virtualization and small multi-SBC ISR systems.

“With the introduction of our two new ‘Skylake’ Xeon-based single board computers, Curtiss-Wright has once again extended the performance of small form factor embedded processing, enabling our customers to deploy more computing power at less cost in ever smaller size and power envelopes,” said Lynn Bamford, Senior Vice President and General Manager, Defense Solutions division. “Going further, we designed our VPX3-1220 SBC for safety certifiable applications. Its COTS DO-254 artifact kit makes this SBC the industry’s highest performance multi-core solution to meet the rapidly increasing demands of system designers seeking safety certifiable COTS products.”

The VPX3-1220 is the industry's first multi-core Intel Xeon-based SBC designed to meet DO-254 Design Assurance Level (DAL) C for use on safety critical military and civil aerospace platforms. This high-performance, safety certifiable COTS module is supported by a wide range of popular operating environments, including real-time operating systems certifiable to DO-178C. Because the VPX3-1220 is offered with off-the-shelf certifiable design artifacts available from Curtiss-Wright it speeds the system safety certification process.

The new XMC-121 XMC processor mezzanine module features the same Intel Mobile Xeon processor as the VPX3-1220, but delivers its high performance on an even smaller form factor. The XMC-121 enables system designers to add Xeon-class processing to extremely space constrained systems. An ideal means of reducing system slot count, this XMC processor mezzanine can be mounted on a graphics or FPGA module, or on the power supply of Curtiss-Wright MPMC series system chassis for a truly zero-slot solution.

#### **About the Quad-Core Xeon E3 V5 Processor**

Intel's quad-core hyper-threading Xeon E3 V5 processor features an integrated Intel HD Graphics P530 graphics processor unit (GPU) that excels at graphics applications, and can drive 2D and 3D visual applications to multiple displays with up to 4K resolution. This helps to reduce overall system SWaP-C by eliminating the need to use a separate graphics module to support OpenGL® for graphics-intensive applications. The processor's 24-core GPU can also serve as a general purpose GPU (GPGPU), delivering performance up to 403 GFLOPS with OpenCL™ programming language support for demanding data processing applications. Built-in hardware codecs can also be used to accelerate H.254/H.265/HEVC video encoding and decoding applications.

#### **Full System Solutions**

The VPX3-1220 is easily integrated with other members of Curtiss-Wright's extensive 3U OpenVPX product family, including Intel, Power Architecture® and ARM-based SBCs, powerful graphics and storage modules, as well as DSP and FPGA engines to develop powerful mission computing and ISR/EW systems. It joins the recently introduced Xeon D-based CHAMP-XD1 3U VPX DSP processor card to provide customers with a wider choice of Xeon-based computing modules, enabling system designers to select the solution that best matches their application's requirements without having to compromise on features and performance.

#### **Ideal for Technology Upgrades**

Designed to be pin-compatible with previous generations of Curtiss-Wright SBCs, the VPX3-1220 is ideal for use in technology upgrade programs. Thanks to its 6<sup>th</sup> generation 'Skylake' Xeon processor, the VPX3-1220 features faster DRAM and consumes lower power than previous generations of SBCs. The board's enhanced graphics and video features deliver up to 3x faster GPU performance compared to predecessors.

### **Curtiss-Wright Safety Certifiable Hardware**

The VPX3-1220 was developed under Curtiss-Wright's COTS Safety Certifiable Module initiative using a process that results in a DO-254 Design Assurance Level (DAL) C certifiable product with supporting artifacts. The module's DO-254 Artifact Kit offers reusable design artifacts and support documents for use in safety critical military and civil aerospace platforms.

Sales inquiries: Please forward all Sales and reader service inquiries to [ds@curtisswright.com](mailto:ds@curtisswright.com).

For more information about Curtiss-Wright's Defense Solutions division, please visit [www.curtisswrightds.com](http://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 8,400 people worldwide. For more information, visit [www.curtisswright.com](http://www.curtisswright.com).

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