



## NEWS RELEASE

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### **Curtiss-Wright and DDC-I Collaborate for First Live Demonstration of Deos™ DO-178 Level A RTOS on the VPX3-152 SBC with Multi-Core NXP® Power Architecture® Processor**

***DDC-I's DEOS RTOS AND CURTISS-WRIGHT'S RUGGED MODULES WILL BE SHOWN RUNNING A 3D SYNTHETIC VISION APPLICATION BASED ON ENSCO AVIONICS'S IDATA® TOOL SUITE***

**2019 ARMY AVIATION MISSION SOLUTIONS SUMMIT, NASHVILLE, Tenn. (Booth #1068) – April 15, 2019** – Curtiss-Wright's Defense Solutions division, a trusted leading supplier of rugged safety-certifiable commercial off-the-shelf (COTS) avionics, today announced that at the Army Aviation Mission Solutions Summit, DDC-I's Deos™ DO-178 DAL Level A safety-critical multi-core real-time operating system (RTOS) will be demonstrated for the first time on Curtiss-Wright's [NXP Power Architecture QorIQ™ Quad-core Altivec™-enabled T2080 processor-based VPX3-152, a DO-254 safety-certifiable 3U OpenVPX™ single board computer \(SBC\)](#). The live demonstration (hosted in DDC-I's booth #936) will also feature Curtiss-Wright's [DO-254 safety-certifiable VPX3-719 graphics card](#), and highlight the COTS modules and RTOS running a 3D Synthetic Vision Display application based on ENSCO's IData Tool Suite – featuring IDataMap 2.0, a platform-independent HMI Toolkit for embedded displays. Software drivers for the demonstration are based on the Core Avionics & Industrial Inc. (CoreAVI) suite of high-performance OpenGL® ES/SC drivers and EASA ED-12C/ FAA DO-178C Level A certification packages. The demonstration provides an integration example for system designers who are interested in building complete rugged DO-254/DO-178 safety-certifiable avionics solutions based on [DDC-I's Deos RTOS](#) for aerospace, military and other high reliability markets.

“We are excited to collaborate with DDC-I to showcase the first live demonstration of their Deos DO-178C DAL A safety-certifiable RTOS running on Curtiss-Wright's industry-leading DO-254 and safety-certifiable processing and graphics solutions,” said Lynn Bamford, Senior Vice President and

General Manager, Defense Solutions division. “When combined with the Deos RTOS, ENSCO IData and CoreAVI’s graphics drivers, our SBCs, graphics modules and I/O cards provide system designers with the critical building blocks they need to quickly and cost-effectively develop safety-certifiable systems.”

### **About the VPX3-152 Single Board Computer**

Curtiss-Wright’s VPX3-152 is a DO-254 DAL A safety-certifiable, commercially designed SBC. The rugged 3U OpenVPX module features NXP’s QorIQ T2080 multicore SOC. For safety-certifiable SBC designs, the QorIQ T2080, a quad-core AltiVec-equipped 64-bit Power Architecture SOC processor, has emerged as a de facto standard thanks to its support from a wide range of field-proven OS vendors, such as DDC-I. Curtiss-Wright designed the VPX3-152 from the ground up to be cost-effective and support DO-254 DAL A safety-certifiability for critical defense and aerospace avionics applications. The VPX3-152 takes full advantage of the T2080’s features to reduce the chip count and complexity, which lowers the cost and the risk associated with the safety-certification effort. Designed for use in size, weight, and power (SWaP)-constrained applications, the VPX3-152’s compact 3U design is ideal for use in a wide range of C4ISR applications deployed in harsh environments, especially those that require safety-certifiable DO-254 hardware and DO-178C software.

### **About the VPX3-719 Graphics Card**

Curtiss-Wright’s DO-254 safety-certifiable VPX3-719 graphics module features built-in HD-SDI video capture and output interfaces. It supports extremely low latency video capture, graphics generation and overlay, with flexible I/O interfaces. The card’s AMD E8860 Radeon™ GPU is supported with up to six independent and simultaneous graphics outputs selectable from 4x DVI, 2x HD-SDI, and 2x analog RGBHV or STANAG interfaces. The VPX3-719 provides 2 GB of dedicated video memory, and a hardware accelerated video compression encoder and decoder. It features built-in video capture and format conversion and provides two channels of video capture from HD-SDI, analog RGBHV, or STANAG sources. The video data is transferred directly to processor or GPU memory. Curtiss-Wright also offers the VPX3-717 DO-254 safety-certifiable graphics module for applications that do not need video capture.

### **About the DDC-I Deos RTOS**

Deos™ is a high-performance time- and space-partitioned RTOS that is trusted and field proven, as well as certified to DO-178 Level A, since 1998. Deos offers several unique fundamental and

patented architectural advantages and delivers a high-performance, low risk, simple to certify solution with the lowest cost of ownership of any time- and space-partitioned COTS RTOS. The field proven, safety-critical avionics RTOS is used to host a multitude of flight-critical functions, such as air data computers, air data inertial reference units, cockpit video, displays and flight instrumentation, flight management systems, engine management, and many more.

### **About CoreAVI Safety Critical Software Drivers**

CoreAVI provides the industry's leading safety critical graphics, video and compute drivers which enable integrators of safety-critical embedded systems to maximize the performance of the latest graphics and compute technology. All CoreAVI products are available with COTS certification evidence to support the certification of systems to the most stringent levels of RTCA DO-254/DO-178C and EUROCAE ED-80/ED-12C. ([www.coreavi.com](http://www.coreavi.com)).

### **About ENSCO Avionics**

For more than 30 years, ENSCO Avionics has developed sophisticated airborne systems for the aerospace industry to meet DO-178C/ED-12, DO-254/ED-80, DO-278A/ED-109, DO-326A, SEAL and military standards for manned and unmanned systems. The focus of ENSCO Avionics is on safety- and mission-critical software and programmable hardware engineering solutions, display application development, tailored synthetic vision applications, integration test solutions, and the IData Tool Suite. ENSCO Avionics, based in Endicott, N.Y., is a wholly owned subsidiary of ENSCO, Inc. ([www.ensco.com](http://www.ensco.com)).

### **About DDC-I, Inc.**

DDC-I, Inc. is a global supplier of real-time operating systems, software development tools, custom software development services, and legacy software system modernization solutions, with a primary focus on mission- and safety-critical applications. DDC-I's customer base is an impressive "who's who" in the commercial, military, aerospace, and safety-critical industries. DDC-I offers safety-critical real-time operating systems, compilers, integrated development environments and run-time systems for C, C++, Ada, and JOVIAL application development. For more information regarding DDC-I products, contact DDC-I at [sales@ddci.com](mailto:sales@ddci.com) or visit <https://www.ddci.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 9,000 people worldwide. For more information, visit [www.curtisswright.com](http://www.curtisswright.com).

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