



NEWS RELEASE

FOR IMMEDIATE RELEASE

Contact: John Wranovics
M: 925.640.6402
jwranovics@curtisswright.com

Curtiss-Wright Highlights its Latest COTS-based Ground Combat Vehicle and Airborne Solutions for Army Applications at AUSA 2016

AUSA 2016, WASHINGTON, D.C. (Booth #319) – **October 3, 2016** – Curtiss-Wright's Defense Solutions division and Sensors & Controls division will display their latest commercial-off-the-shelf (COTS) solutions designed for use in Ground Combat Vehicles at AUSA 2016 (Booth #319). Curtiss-Wright's wide range of offerings will highlight rugged processing, data recording and storage, HD video management, LCD displays and motion control products. It will also feature innovative hardware components and software services for implementing the U.S. Army's Assured-PNT (Position, Navigation, and Timing) and VICTORY (Vehicular Integration for C4ISR/EW Interoperability) standard on legacy and future Ground Vehicles.

VETRONICS SOLUTIONS:

MAPS-enabling VICTORY Appliances:

Digital Beachhead™ Product Family: Curtiss-Wright's comprehensive line of VICTORY-enabled Digital Beachhead modules and systems includes both fully integrated rugged systems and open standards-based modules:

- **DBH-670:** first generation Digital Beachhead VICTORY services and switching unit
- **DuraDBH-672:** second-generation Digital Beachhead optimized for high-volume platforms
- **VPX3-671:** line replaceable VICTORY switch and processor module for 3U VPX systems

DuraDBH-672 Enables Mounted Assured-PNT (MAPS): Empowering the U.S. Army's Mounted Assured-PNT (MAPS) approach to distribute Assured Position, Navigation and Timing (A-PNT) to systems on mounted platforms even in GPS-denied environments, DuraDBH-672 is the industry's first COTS system that enables cost-effective, accurate MAPS functionality. It includes support for an integrated military GB-GRAM (Ground Based GPS Receiver Application Module), Chip Scale Atomic Clock (CSAC) and Inertial Measurement Unit (IMU). Combined with a proven VICTORY infrastructure switch and

shared services processor, this pre-qualified and low-cost Line Replaceable Unit (LRU) is ready for deployment on ground vehicles.

Live Demo: System-level A-PNT solutions synchronized with PTP distribution.

Rugged Network Router and Switch products:

Parvus® DuraNET® 20-11 Ethernet Switch: This revolutionary "pocket sized" ultra-small form factor 8-Port Gigabit Ethernet (GbE) switch subsystem is 90% smaller, 50% lighter than earlier designs (roughly 10 in³ in volume, 1/2 lb in weight, and 5W typical power consumption).

Parvus DuraMAR® 5915 Rugged IP Router: Cisco® IOS-managed mobile router LRU integrated with Cisco's 5915 Embedded Services Router (ESR) card in an ultra-rugged chassis optimized for harsh environment ground vehicle installations. It's ideal for IP networking technology refresh and situational awareness applications. The DuraMAR 5915 features dual WAN uplinks and is available as either a standalone 5-port network router or with an integrated Gigabit Ethernet switch for a total of 19 Ethernet ports.

Rugged Mission Computer products:

Parvus DuraCOR 311 Rugged Miniature Modular Mission Computer: Ultra-small form factor (SFF) tactical mission computer based on low-power, quad-core Intel® Atom 3845 (Bay Trail-I) processor equipped with a rugged Flash disk and PCIe-Mini Card I/O expansion slots. This miniature multi-core COTS processor is less than 40 in³ in volume, 1.5 lb in weight, and 15W power.

Parvus DuraCOR 80-41 Rugged Mission Computer: The DuraCOR 80-41 is a rugged COTS tactical mission computer LRU subsystem based on the 4th Gen Intel Core™ i7 Haswell processor with a high-speed, stackable PCI-Express bus (PCIe/104) architecture for I/O card expansion. Combines powerful graphics and multi-core processing. Ultra-reliable mechanical robustness and modular I/O expansion deliver extreme environmental and EMI performance per MIL-STD-810G (thermal, shock, vibration, dust, water, humidity) and MIL-STD-461F.

MPMC-9321 3U VPX Rugged Mission Computer: Fully integrated, rugged small form factor 3U VPX Application Ready COTS systems features line replaceable (LRM) processing modules and flexible I/O. Provides all the elements required of modern mission computers and avionics computers for use on ground vehicles.

MPMC-9341 Rugged 4-slot 3U VPX Mission Computer: 4-slot 3U system can be readily configured to meet requirements from benign laboratory to harsh deployed ground vehicle environments. This packaged solution can greatly reduce up-front development costs.

Enables system designers to implement and deploy a highly capable processing system without the need for fans, coldplates, vehicle supplied air, liquid or other supplied resources.

Data Recorders and Storage products:

Data Transport System (DTS1): Network attached storage (NAS) subsystem securely stores 2 TB of AES-256 encrypted data-at-rest. Weighing only 3.1 lb and measuring only 1.5 x 5.0 x 6.5" (38.1 x 127 x 165.1 mm), the DTS1 is ideal for SWaP-C constrained rugged applications. With iSCSI, NFS, CIFS, FTP, and HTTP protocols, DTS1 provides NAS services for multiple network clients and can even be used to boot those clients (with PXE) thus saving the need for local storage in each client.

Rugged Touchscreen LCD Displays:

RVG-SD1 Digital Video Switch: The 8-port, multi-format, RVG-SDI Crossbar Video Switch speeds and simplifies the routing of 3G, HD and SD-SDI video sources, such as distributing video camera data to multiple displays. It functions as a non-blocking crossbar switch and features eight (8) external miniBNC connectors, each of which can be configured as either a video input or output. The unit's unique level of configuration flexibility enables any input to be routed to any or all of the 7 remaining I/O ports.

10.4" and 4" Ground Vehicle Displays (GVDU): Compact, lightweight touchscreen GVDU family of displays is ideal for use in tactical ground vehicles. GVDU displays are designed to deliver optimal performance over the full -40°C to +60°C military temperature range

Rugged Power Supply:

PSU3-THOR 3U 28 VDC Power Supply (with Embedded XMC Carriers): The PSU3-THOR 28 VDC power supply provides a flexible power design with support from 250 watts to 500 Watts. Its power supply safety features include transient protection, current limiting, and reverse polarity protection. THOR's two XMC sites enable overall I/O count and capability to be increased without adding slot count. It also includes an embedded six port PCI Express® (PCIe) Gen2 switch.

DRIVE SYSTEMS:

Electrical Rotary Gears: The ERG line of electrical rotary drives provides a critical component in the traverse and elevation of a turret by accurately transferring the motor's motion while aiming at constant low speeds, as well as in stabilize mode, controlling highly dynamic movements.

Gyroscope: Our single and dual-axis Fiber Optic Gyroscopes (FOG) have been developed for high performance military applications. Designed for use in particularly harsh environments, the gyroscopes can withstand extreme shock and vibration in accordance with

MIL-STD-810 ground mobile use, are fully digitized, include on-line BIT, and have no moving parts.

Hand Controllers: Curtiss-Wright hand controllers (HC) are developed to meet the high demands of the military sector while providing reliability and optimal user comfort. HCs are available as one or two hand grip shell style, each of the ergonomically designed motion control handles can hold up to 12 independent sealed switches which are adaptable to customer's requirements.

AIRBORNE:

Rugged Mission Computer for Airborne Digital Mapping:

Live Demo: In collaboration with Harris Corporation, the demo will show the FliteScene® Digital Mapping Solution on the Core i7-based DuraCOR 80-41 mission computer. The DuraCOR 80-41 is pre-validated and pre-tested. This system eases and speeds the integration of situational awareness and high performance digital mapping functions into embedded commercial and military avionics systems.

Crash Protected Flight Recorders:

Fortress: Curtiss-Wright has been manufacturing crash protected recorders since 1957, introducing the world's first combined cockpit voice/flight data recorder (CVR/FDR) in 1986. Today the Curtiss-Wright Fortress is an ED-112A compliant product in a lightweight and compact package. Fortress provides a complete aircraft recording solution, designed in accordance with RTCA/DO-178 and RTCA/DO-254 and meets all current and anticipated FAA, EASA, and EURCAE requirements.

Air Data Computers:

Enhanced Software Configurable Air Data Unit (ESCADU): The Curtiss-Wright ESCADU is a highly configurable, highly reliable Air Data Unit that is intended to be the primary supply of air data parameters to the aircraft systems. Traditional rotary installations have required mechanical dampening in order to remove the effects of rotor-wash from the display screens. The ESCADU is able to counter this by using electronic filtering to negate this effect, reducing cost of ownership by reducing weight and removing maintenance issues for the operators.

SENSORS & CONTROLS:

Electromechanical rotary-gear actuation system products:

PowerHinge® Electrically Powered Heavy-lift Rotary-gear Actuation System: Curtiss-Wright's Sensors & Controls division will display the PowerHinge, a breakthrough heavy-lift

rotary-gear actuation system used in conjunction with a commercial electric motor. The PowerHinge is ideal for use in defense applications such as launchers, radars, hatches, armored doors, turrets, and weapons systems as it greatly increases ingress/egress reliability and reduces space by up to 40 percent. This electromechanical actuation technology delivers the torque and power of a hydraulic system with all of the compelling benefits and advantages of electric solutions, including greater environmental and energy efficiencies and reduced in-the-field maintenance.

Elevation/Hatch Actuation Demonstrator: Our hatch/door and elevation system is a small scale demonstration of how our electromechanical actuators can be used for a weapon system on a ground vehicle. Here you will see our Curtiss-Wright Exlar® branded electromechanical actuators not only lift the tube of the weapon, but also open the hatch. Typically a hydraulic unit would be used to this, which would take up more space and require different tools based on the type of weapon. Our actuation solution can be used in a controller system, all in a light, compact package.

Sales inquiries: Please forward all Sales and reader service inquiries to ds@curtisswright.com.

For more information about Curtiss-Wright's Defense Solutions division, please visit 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.

###

Note: All trademarks are property of their respective owners.