



NEWS RELEASE

FOR IMMEDIATE RELEASE

New Cooling Technology for Open Architecture Systems Becomes Industry Standard for Fixed and Rotary Wing Aircraft

Recently Ratified ANSI/VITA 48.8 Air-Flow-Through Cooling Standard Provides Lower Weight, Reduced Cost Approach for Embedded Systems

AUSA 2017, WASHINGTON, D.C. (Booth #1607) – October 9, 2017 -- [Curtiss-Wright's Defense Solutions division](#) today announced a collaboration with Lockheed Martin of a new open architecture cooling standard for use with commercial-off-the-shelf (COTS) VPX modules deployed on fixed-wing and rotary wing aircraft. The VITA 48.8 Working Group was sponsored by Lockheed Martin, Curtiss-Wright, and Abaco, and chaired by Curtiss-Wright.

For customers, the recently ratified ANSI Standard ANSI/VITA 48.8-2017, "Mechanical Standard for Electronic VPX Plug-in Modules Using Air Flow Through Cooling" (ANSI/VITA 48.8) VITA 48.8 standard significantly reduces system size, weight, power, and cost while increasing the reliability of avionics systems. Electronic functional density could nearly double or avionics weight could be reduced by hundreds of pounds per aircraft, which would significantly increase range, payload, or fuel economy. The ANSI/VITA 48.8 provides OEM suppliers with a license-free industry standard for cooling the latest high performance electronics used in demanding aerospace and defense applications.

"Embedded system customers will benefit from the recent ANSI ratification of VITA 48.8," said Lynn Bamford, Curtiss Wright Senior Vice President and General Manager, Defense Solutions division. "As a formal open architecture standard, VITA 48.8 delivers advanced air-flow-through cooling while delivering a great combination of weight and cost savings ideal for use in space, weight and power-constrained aircraft such as rotorcraft and UAV platforms. COTS 3U and 6U VPX solutions are now being deployed with power densities as high as 200 W per square centimeter resulting from the latest processors. VITA 48.8 provides a low-cost, effective means to cool the latest generation of components."

ANSI/VITA 48.8 compliant plug-in modules will provide government and industry customers significant cost savings and approximately 40 percent weight savings for avionics systems deployed in platforms such as future vertical lift aircraft. Additionally, the new cooling technology preserves investment in existing electrical and software architectures, and protects electronic components from environmental contamination. The new cooling standard defines design requirements for platforms that need high performance processing, graphics or electronic warfare capabilities, which means that AFT-cooled plug-in VPX modules, including both 3U and 6U form factors, retains the current VITA 46.0 connector interoperability.

"Prior to the development of the ANSI/VITA 48.8 standard we were always challenged balancing the high performance processing requirements our customers needed to effectively execute their mission. We recognized that we had to maintain the SWaP-C of the system to meet

reliability and mission success needs for our fixed and rotary wing platforms,” said David Vos, Lockheed Martin Fellow. “ANSI/VITA 48.8 addresses these challenges and allows us to bring state-of-the art capabilities to our warfighters while ensuring that the platforms operate reliably in all mission environments.”

About VITA 48.8

VITA 48.8 is the first open standard AFT technology to support small form factor 3U VPX COTS modules, which are preferred for use in SWAP-C sensitive rotorcraft and unmanned platforms. Based on technologies developed by Lockheed Martin Rotary and Mission Systems, Owego, New York, VITA 48.8 helps reduce weight and cost for high density, high power dissipation 3U and 6U module based systems by eliminating the use of wedgelocks and ejector/injector handles. VITA 48.8 also supports alternative air-flow arrangements, allowing air inlet at both card edges. Because VITA 48.8 does not use module-to-chassis conduction cooling, it also promises to help drive innovative use of new lightweight polymer or composite material based chassis. ANSI/VITA 48.8 addresses previous design challenges for AFT cooling, such as air cooling, air flow intake, heat exchanges, and exhaust paths. ANSI/VITA 48.8 compliant modules use a finned heat exchanger frame located within the central section of the assembly to top-cool primary circuit board and mezzanine board components.

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 8,000 people worldwide. For more information, visit www.curtisswright.com.

NOTE: All trademarks are property of their respective owners.

###

Contact:
John Wranovics
Curtiss-Wright Defense Solutions
M: 925.640.6402
jwranovics@curtisswright.com