



NEWS RELEASE

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Curtiss-Wright Announces Results of HPEC System Performance Study for US Air Force-Led Next Generation Radar Evaluation Program

Study demonstrates capability of cost-effective COTS-based open architecture HPEC solutions for next generation airborne radar system

ASHBURN, Va. – March 7, 2016 – [Curtiss-Wright's Defense Solutions division](#) today released the successful results of its participation in the US Air Force (USAF)-led Next Generation Radar (NGR) Processor Study. Curtiss-Wright demonstrated that its proposed multiprocessor [High Performance Embedded Computing](#) (HPEC) Radar processing architecture, based on demanding specifications and requirements provided by the USAF, has met the study's target benchmarks. The goal of the study is to assess the capability of cost-effective commercial-off-the-shelf (COTS) hardware and software to perform airborne radar signal processing. Curtiss-Wright ran and optimized the study's SAR (Synthetic Aperture Radar) and GMTI (Ground Moving Target Indicator) benchmarks on a solution comprised of its recently introduced [OpenHPEC™ Accelerator Suite development tools](#), five [OpenVPX™ DSP modules](#) and a [40 Gbps OpenVPX Ethernet switch module](#). During the study, Curtiss-Wright tested current generation as well as upcoming next generation OpenVPX modules. The benchmarks are designed to leverage advances in commercial high performance computing (HPC) software, such as OpenCL, VSIPL, FFTW and MPI, for use in compute-intensive defense and aerospace applications. The test results (available to customers following request to the factory at ds@curtisswright.com) also showed that standard conduction-cooled OpenVPX modules, such as Curtiss-Wright's recently announced [Intel® Xeon® processor D-based CHAMP-XD2 DSP module](#), can be used to satisfy the performance requirements to support the SAR and GMTI benchmarks in the most demanding USAF environments.

"We are very pleased to be able to announce that our HPEC Radar system architecture, along with our OpenHPEC suite of development tools, provides the performance and survivability needed to meet the USAF's demanding radar processing requirements with cost effective COTS technology," said Lynn Bamford, Senior Vice President and General Manager, Defense Solutions division. "We have successfully demonstrated how our cost-effective open architecture DSP and network switch building blocks, along with our industry-leading open standard-based OpenHPEC Accelerator Suite of software tools can be effectively used to design whole new classes of rugged deployed HPEC solutions

that deliver all of the proven cost savings and long lifecycle benefits of COTS technology while elevating radar processing performance to levels never before achievable."

Under the study, Curtiss-Wright benchmarked and optimized its HPEC-based radar processing system design based on its [Fabric40™](#) rugged OpenVPX™ board and chassis products. Fabric40 products deliver the industry's first complete end-to-end system approach for integrating 40 Gbps high-speed fabrics into aerospace and defense HPEC applications. Curtiss-Wright Fabric40 system elements provide a complete system solution, including single board computers (SBC), DSP and FPGA engines, GPU processors, network switches and backplanes.

About OpenHPEC Accelerator Suite:

To help speed time to market and mitigate design risk, Curtiss-Wright, working with leading third-party software partners, also provides the OpenHPEC Accelerator Suite, a fully integrated HPEC Development Environment, which is based on proven best-of-class software tools leveraged from the commercial HPC supercomputing industry. The recently introduced OpenHPEC Accelerator Suite software development toolset brings the benefits of open standard HPC software to the COTS market to effectively remove the risk from developing large scale embedded computer clusters. It includes a broad and comprehensive array of open standard drivers, middleware and libraries. It also includes proven solutions for cluster-wide debugging tools, performance profiling, performance reports, data flow performance analysis, and built-in-test tools, all of which have already been developed and qualified for commercial HPC use.

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.

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