



September 8, 2014

## **Mercury's New OpenVPX Processing Module is First in Industry to Break the Teraflop Barrier**

**Innovative packaging, cooling and interconnect technologies combined with the new Intel(R) Xeon(R) E5-2600 v3 processors deliver up to 1.38 TFLOPS of full throttle, embedded general-purpose symmetric multi-processing power**

**CHELMSFORD, Mass., Sept. 8, 2014** (GLOBE NEWSWIRE) -- Mercury Systems, Inc. (Nasdaq:MRCY) ([www.mrcy.com](http://www.mrcy.com)), a leading provider of affordable, commercially developed, open sensor processing systems and services for critical commercial, defense and intelligence applications, announced the Ensemble<sup>®</sup> HDS6603 High Density Server, the embedded computing industry's most powerful open systems architecture (OSA) blade providing more than one Teraflop (TFLOP) of general processing power in a single OpenVPX<sup>™</sup> slot. This fourth generation solution delivers cloud computing-caliber resources to the tactical edge, enabling a new level of embedded on-platform exploitation and mission autonomy by emulating similar but non-rugged data center capability.

"We believe our new HDS6603 can be a real game changer for the defense industry," said Ian Dunn, Vice President and General Manager of Mercury's Embedded Products group. "Mercury's packaging, cooling, and interconnect domain expertise enables the latest server-class processing capability to be embedded as an OSA solution on the platform. With the leverage of scalable server-class symmetric multiple-processing (SMP), the most complex radar, EO/IR and IMINT applications are effectively handled on the platform itself, in real-time, bringing actionable intelligence closer to the antenna and information dissemination direct to the warfighter as needed."

A single-slot, 6U OpenVPX (VITA 46/65) compliant module, the HDS6603 is powered by two 1.8 GHz Intel<sup>®</sup> Xeon<sup>®</sup> E5-2600 v3 processors (formerly codenamed "Haswell-EP"), each with 12 cores to deliver a total of 1.38 TFLOPS of general-purpose processing power. Each processor includes fused-multiply-add (FMA) functionality enabling common radar functions like fast Fourier transformations (FFTs) to be performed twice as quickly. On-board Gen 3 PCIe<sup>®</sup> pipes feed the module's switch fabric interconnects, which are managed by dual Mellanox ConnectX<sup>®</sup>-3 devices to deliver 40Gb/s Ethernet or InfiniBand<sup>™</sup> inter-module data rates. With the support of up to 128 GB of DDR4 system memory, this high technology readiness level (TRL) processing resource consumes no more power than previous generations.

"Delivering 1.38 TFLOPS of general processing power from a highly size, weight and power (SWaP) optimized package requires breakthrough cooling technology and advanced fabrication techniques", explained Darryl McKenney, Mercury's Vice President of Engineering Services. "Further, maintaining performance across the whole processing subsystem means removing signal bottlenecks. Mercury's Air Flow-By<sup>™</sup> cooling technology easily dissipates the module's heat, and our robust ball grid array (BGA) techniques produce a highly SWaP-optimized package with excellent rugged attributes. Mercury's micro via radial interconnect (MVRI) technology removes critical subsystem signal bottlenecks, enabling the fastest switch fabrics to run unrestricted at 40Gb/s and beyond, across the full rugged level-4 temperature spectrum."

Native Intel QuickPath Interconnect (Intel QPI) inter-processor interconnects support virtual cache coherent processor cores to create a true deterministic processing environment. SMP underscores the open and highly configurable nature of this module to support the widest array of existing software tools and libraries. Intel Advanced Vector Extension 2 (Intel AVX2) implementation enhances floating-point and intensely complex algorithm processing ability.

"The Intel Xeon processor E5-2600 v3 product family is designed to bring cloud processing to the edge of the network," said Bill Rollender, director of marketing for Intel's Communications Infrastructure Division. "Mercury's ability to provide a robust, modular open-standards architecture for hostile environments takes cloud processing for military and aerospace applications right to the tactical edge."

The leverage of Mercury and commercial technologies produces an affordable OpenVPX processing engine for low risk technology adoption and fast deployment. Compatibility with prevailing software and industry standards delivers a processing solution that is smooth and expedient to integrate. As localized processing power and interoperability become ever more critical, from radar to on-platform exploitation and Big Data analytics, the HDS6603's processing density, rugged reliability and affordability offers new technical and performance possibilities.

HDS6603 modules are designed and manufactured in the USA. Module options include air-cooled and rugged Air Flow-By deployable configurations with either InfiniBand or Ethernet data plane fabrics. The performance of field units is creating a lot of industry interest and participation.

For detailed specifications and general product information, visit [www.mrcy.com/HDS6603](http://www.mrcy.com/HDS6603) or contact Mercury at (866) 627-6951 or [info@mrcy.com](mailto:info@mrcy.com).

## **Mercury Systems - Innovation That Matters™**

Mercury Systems (Nasdaq:MRCY) is the better alternative for affordable, commercially developed, open sensor processing systems and services. These capabilities make us the first commercially based defense electronics company built to meet rapidly evolving next generation defense challenges. Mercury Systems has worked on over 300 programs, including Aegis, Patriot, SEWIP, Gorgon Stare and Predator/Reaper. We are based in Chelmsford, Massachusetts with additional advanced manufacturing and other key facilities across the USA. To learn more, visit [www.mrcy.com](http://www.mrcy.com).

### **Forward-Looking Safe Harbor Statement**

This press release contains certain forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995, including those relating to the products and services described herein. You can identify these statements by the use of the words "may," "will," "could," "should," "would," "plans," "expects," "anticipates," "continue," "estimate," "project," "intend," "likely," "forecast," "probable," "potential," and similar expressions. These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. Such risks and uncertainties include, but are not limited to, continued funding of defense programs, the timing and amounts of such funding, general economic and business conditions, including unforeseen weakness in the Company's markets, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, changes in, or in the U.S. Government's interpretation of, federal export control or procurement rules and regulations, market acceptance of the Company's products, shortages in components, production delays due to performance quality issues with outsourced components, inability to fully realize the expected benefits from acquisitions, divestitures and restructurings, or delays in realizing such benefits, challenges in integrating acquired businesses and achieving anticipated synergies, changes to export regulations, increases in tax rates, changes to generally accepted accounting principles, difficulties in retaining key employees and customers, unanticipated costs under fixed-price service and system integration engagements, and various other factors beyond our control. These risks and uncertainties also include such additional risk factors as are discussed in the Company's filings with the U.S. Securities and Exchange Commission, including its Annual Report on Form 10-K for the fiscal year ended June 30, 2014. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made.

Mercury Systems, Innovation That Matters, and Air Flow-By are trademarks and Ensemble is a registered trademark of Mercury Systems, Inc. Intel and Xeon are registered trademarks of Intel Corporation in the United States and other countries. InfiniBand is a trademark and service mark of the InfiniBand Trade Association. PCI Express and PCIe are registered trademarks of PCI-SIG. ConnectX is a registered trademark of Mellanox Technologies. Other product and company names mentioned may be trademarks and/or registered trademarks of their respective holders.

CONTACT: Robert McGrail, Director of Corporate Communications

Mercury Systems, Inc.

+1 978-967-1366 / [rmcgrail@mrcy.com](mailto:rmcgrail@mrcy.com)