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News Release

General Micro Systems (GMS) Launches S1202-XVE, the Industry's Smallest and Lightest Video Server with Artificial Intelligence for Rugged Military & Industrial Applications

Independent high-resolution video outputs, two video processors, and AI algorithm processing via additional GPGPU enable faster and higher quality video, image and sensor data processing for immediate and accurate on-the-spot battlefield analysis.

RANCHO CUCAMONGA, Calif., October 8, 2019 – General Micro Systems (GMS), the rugged C4ISR mobile systems and servers company, today announced the industry's smallest, lightest and most SWaP-C-optimized workstation, display and general-purpose graphics processing unit (GPGPU) artificial intelligence (AI) algorithm and video processor. At only seven pounds and 9.8 inches x 5.4 inches x 2.3 inches, the ultra-rugged S1202-XVE Peacock III enables the near real-time video processing of large amounts of high-quality images, video or sensor data for immediate and accurate analysis—right on the battlefield. This powerful processing performance makes the system ideal for military applications in harsh environments such as airborne reconnaissance, autonomous vehicles, wide-body C4ISR platforms, multi-console displays and other areas of modern warfare.

When equipped with third-party software algorithms, the S1202-XVE compresses, trans-codes, transmits and stores live video and sensor data over IP-based terrestrial or satellite networks with up to 2:1 HEVC compression (compared with AVC) while retaining resolution. The S1202-XVE supports three independent outputs of 4K UHD video, with an additional Nvidia® Quadro Pascal™ GPGPU providing up to eight TFLOPS for algorithm, vector or AI processing in near real time.

“This fully ruggedized, conduction-cooled system has more computational performance per cubic inch than any other video server on the market today,” said Ben Sharfi, chief architect and CEO of General Micro Systems. “The product is one-fifth the size of a rackmount server and more rugged. In fact, S1202-XVE has so much processing power despite its small package that it can replace most 1U rackmount servers while still operating over -40° to +85°C. This is a substantial benefit for any rugged system requiring real-time transmission and analysis of large amounts of super high-resolution sensor and video data.”

Extensive Video Capabilities with High Performance Parallel Computing

The S1202-XVE includes a 7th generation Intel® Core i7® processor, with built-in CODECs that handle video conversions between MPEG-2, AVC and HEVC formats. Supplementing the onboard Intel Graphics Processor (IGP), the base configuration adds a separate graphics processing unit (GPU) that boasts 2.3 TFLOPS of floating-point processing power and provides two additional HDMI/DisplayPort video outputs, for a total of three independent video outputs. The S1202-XVE can be optionally outfitted with a second modular Nvidia Quadro Pascal GPGPU for added computational resources.

By utilizing the second GPGPU, the S1202-XVE brings an additional 8.7 TFLOPS of floating-point processing power. With this much horsepower, the AI-ready system can perform complex

computations such as vector math, executing thousands of threads in parallel, which leads to a dramatic increase in computing power and cost effectiveness in a very small chassis.

As with all GMS workstations and servers, the S1202-XVE is designed with I/O flexibility in mind. It accommodates COTS interfaces such as USB (2.0/3.0), Ethernet (1GbE and 10GbE), and RS-232 serial, while also providing native support for multiple video formats such as VGA, HDMI, and DisplayPort. With this flexibility, seamless integration with existing data centers and video feeds is ensured.

The S1202-XVE is in full volume production, and is already deployed in military/aerospace applications, including airborne platforms with certification, qual, and other reliability data.

A Must-Have for Industrial Applications Too

In addition to benefiting applications used in modern warfare, such as intelligence, surveillance, and reconnaissance (ISR), cryptography and situational awareness, the S1202-XVE can also apply parallel processing in industrial applications for deep learning, autonomy, robotics and AI. One small S1202-XVE can process data to replicate human reasoning and actions, absorb remarkable amounts of data and transform data into intelligent decisions and actions. Applications include mining and excavation, electronic design automation, medical imaging, weather modeling, facial recognition, target tracking, autonomous vehicles and other areas of numerical analytics.

For more information regarding the S1202-XVE, including technical details and high-resolution images, visit <https://www.gms4sbc.com/products/systems/item/s1202-xve>.

Where: Booth #7664 at the Association of the United States Army (AUSA) annual meeting in Washington D.C., Oct. 14-16, 2019.

For interviews at the show, ask for Kelly Wanlass at 801-602-4723 or kelly@hughescom.net, or GMS CTO Chris Ciufu at (360) 921-7556 or cciufu@gms4sbc.com.

About General Micro Systems:

General Micro Systems (GMS) is the rugged server company. The company is known as the industry expert in highest-density, modular, compute-intensive, and rugged small form-factor embedded computing systems, servers, and switches. These powerful systems are ideal for demanding C4ISR defense, aerospace, medical, industrial, and energy exploration applications. GMS is an IEC, ISO, AS9100, NIST-800-171, and MIL-SPEC supplier with infrastructure and operations for long-life, spec-controlled, and configuration-managed programs. Designed from the ground up to provide the highest performance and functionality in the harshest environments on the planet, the company's highly customizable products include GMS Rugged DNA™ with patented RuggedCool™ cooling technology. GMS is also the leader in deployable high-end Intel® processors and a proud Intel® partner since 1986. For more information, visit www.gms4sbc.com

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