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News Release

General Micro Systems Selected for Rugged, Deployable, Video Conversion and Compression System

Ruggedized small form factor system enables AVC, HEVC-enabled compression and format conversion for live video-based sensor system transmission over terrestrial, RF and satellite networks

RANCHO CUCAMONGA, Calif., October 9, 2018 – General Micro Systems (GMS), a rugged C4ISR mobile systems and servers company, today announced a design win for a system with both advanced video coding (AVC/H.264) and high efficiency video encoding (HEVC/H.265) integrated with the GMS S1202-HS Golden-Eye IV ruggedized, small form factor workstation. The solution will enable GMS’s customer to transmit video more efficiently while retaining high image quality and maximizing the opportunity for extracting all-important video metadata.

“This approach allows users to either increase the resolution over the same communications link or dramatically reduce the bandwidth used, freeing up the link for other data transmission,” said Ben Sharfi, Chief Architect and CEO, General Micro Systems. “This is extremely important on the ground, in the air, or at sea because poor image resolution can lead to loss in critical image data, and therefore, lead to sub-optimal image processing.”

The combination of the customer’s software and GMS’ rugged, small form factor S1202-HS device enables users operating in demanding physical environments, including military and industrial organizations, to deliver compressed full motion video and sensor data over constrained networks, and to retain the high resolution captured by the camera. Designed for low size, weight, and power (SWaP) environments and equipped with the proper software algorithms, this lightweight product will compress, trans-code, transmit and store live, video and sensor data over IP-based terrestrial or satellite networks with up to 2:1 HEVC compression (compared with AVC) while reducing resolution degradation.

Deep Video Expertise

GMS’s customer has intellectual property (IP) that leverages its video expertise to provide flexible, algorithm-based video processing and delivery solutions. Coupling this technology with a commercially available, off-the-shelf rugged small form factor server and sophisticated machine learning services in other GMS products—such as the Nvidia®-based GMS X422 “Lightning” system, also launching at AUSA this week (with link)—is ideal for mobile and tactical applications such as airborne use cases, tactical combat operations, and reconnaissance applications.

GMS Platform Packs More Power Into A Small Space

Selling for under \$10,000 in base configuration, GMS' S1202-HS is an ultra-rugged, low profile, lightweight workstation/server/graphics processor that weighs just five pounds and measures 6.5 inches x 5.4 inches x 2 inches. With the latest Intel® E3 Xeon® processor, multi-head graphics output, multiple HD-SDI inputs and 1/10 Gb Ethernet network ports and one removable drive, it is designed to provide the highest level of workstation performance possible in a fully ruggedized, conduction-cooled, sealed system that operates from -40 °C to +85 °C.

This architecture is suitable for applications such as video compression, which offers high-definition video processing, storage and high-speed I/O in a small enclosure with high performance at low cost per watt. The S1202-HS ruggedized small form factor product accepts data from common ISR sensors using the SMPTE HD-SDI video broadcast standards. The Intel Xeon processor's built-in CODECs also handle video conversions between MPEG-2, AVC and HEVC formats.

“The smaller and lighter you can make a video processing system like this, the more fuel is saved in airborne and maritime platforms, which lengthens time for reconnaissance,” Sharfi added. “This makes the S1202-HS-based ruggedized solution attractive to all branches of the government as video reconnaissance is essential to responding to America's ‘near-peer’ adversaries in the harshest environments worldwide.”

GMS will showcase the new ruggedized device at the Association of the United States Army (AUSA) annual meeting in Washington D.C., Oct. 8-10, 2018. Come see us at AUSA booth #9335.

- For more information regarding GMS' S1202-HS, visit <http://www.gms4sbc.com/index.php/products/systems/item/s1202-hs>
- For high resolution photos, see <http://www.gms4sbc.com/press/S1202-HS>
- S1202-HS datasheet: http://www.gms4sbc.com/images/Products/WorkstationClass/S1202-HS/2018_S1202-HS.pdf
- For more information regarding GMS products, please visit <http://www.gms4sbc.com/>

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About General Micro Systems:

General Micro Systems (GMS) is 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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