GSI Technology’s NRT SAR Image Processing Acceleration System Approved for use by IAI/ELTA

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SUNNYVALE, Calif., Sept. 27, 2022 (GLOBE NEWSWIRE) -- **GSI Technology, Inc. (Nasdaq: GSIT)**, developer of the Gemini® Associative Processing Unit (APU) for AI and high-performance parallel computing (HPPC) and a leading provider of high-performance memory solutions for the networking, telecommunications and military markets, today announced that its Synthetic Aperture Radar (SAR) image processing acceleration system using GSI’s APU technology has been approved for use by IAI/Elta System Ltd, a subsidiary of Israeli Aerospace Industries (IAI).

“We are pleased to be selected by IAI/Elta, Israel’s leading provider of innovative defense and space technology, for use of GSI Technology’s SAR image acceleration system,” said Dr. Avidan Akerib, Vice President, Associative Computing Business Unit at GSI Technology. “This prestigious recognition of our solution’s capabilities showcases the technological superiority of our APU and opens new opportunities to the field of accelerating SAR image formation.”

GSI has developed a SAR image processing acceleration system using GSI’s APU technology and has delivered the first system to IAI/Elta. The GSI system passed all IAI/Elta’s requirements including quality, accuracy and performance tests, and has been approved to use.

The scalable APU architecture allows expanding to multiple boards on servers for added performance and redundancy without specialized links. The APU platform has the capability to stack servers together and bring near real-time capability to time-consuming, compute-intensive processes. GSI has shown in comparisons for a large area SAR image processed in one second at high resolution scenarios that the APU uses, on average, 88% less power than CPU or GPU systems by using one tenth the number of servers. Further, the GSI solution used in this comparison is small enough to be installed on fixed-wing flight platforms.

GSI’s APU technology is ideal for SAR observation missions needing near real-time solutions and higher processing power that use the Fast Back Projection (FBP) algorithm. FBP is considered by SAR experts as the ideal algorithm for forming SAR image data, permitting optimal results (quality and accuracy), high ground resolution at various ranges (hundreds of meters to hundreds of kilometers), various frequencies and supporting any kind of SAR sensor carrying platform.

Prohibitive costs and power usage due to the high computational requirements of running the FBP algorithm on a CPU or GPU has previously limited its usage. With its significantly higher processing speed, high accuracy, and lower power usage, GSI’s APU chip architecture enables the usability of the FBP algorithms for a variety of platform use cases from onboard UAV and Satellite to Data Center applications.

GSI's APU SAR processing system reduced the processing time from a few minutes to a few seconds, significantly shortening the customer’s delivery time (images and data). The APU also offers onboard processing capabilities and substantially lower computing costs.

ABOUT GSI TECHNOLOGY

Founded in 1995, GSI Technology, Inc. is a leading provider of semiconductor memory solutions. The Company recently launched radiation-hardened memory products for extreme environments in space and the Gemini® Associative Processing Unit (APU), a memory-centric design that delivers significant performance advantages for diverse AI applications. The Gemini APU architecture removes the I/O bottleneck between the processors and memory arrays by performing massive parallel search directly in the memory array where data is stored. The novel architecture delivers performance-over-power ratio improvements compared to CPU, GPU, and DRAM for applications like image detection, speech recognition, e-commerce recommendation systems, and more. Gemini is an ideal solution for edge applications with a scalable format, small footprint, and low power consumption where rapid, accurate responses are critical. For more information, please visit www.gsitechnology.com.

Forward-Looking Statements

The statements contained in this press release that are not purely historical are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding GSI Technology's expectations, beliefs, intentions, or strategies regarding the future. All forward-looking statements included in this press release are based upon information available to GSI Technology as of the date hereof, and GSI Technology assumes no obligation to update any such forward-looking statements. Forward-looking statements involve a variety of risks and uncertainties, which could cause actual results to differ materially from those projected. Examples of risks that could affect our current expectations include: those associated with the rapidly evolving markets for GSI Technology's products and uncertainty regarding the development of these markets; the challenges of rapid growth followed by periods of contraction; intensive competition; and delays or unanticipated costs that may be encountered in the development of new products based on our in-place associative computing technology and the establishment of new markets and customer and partner relationships for the sale of such products. Many of these risks are currently amplified by and will continue to be amplified by, or in the future may be amplified by, the COVID-19 global pandemic. Further information regarding these and other risks relating to GSI Technology's business is contained in the Company's filings with the Securities and Exchange Commission, including those factors discussed under the caption "Risk Factors" in such filings.

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