GSI’s APU Chosen for IAI/Elta Near Real-Time SAR Image Processing Acceleration

January 12, 2022

SUNNYVALE, Calif., Jan. 12, 2022 (GLOBE NEWSWIRE) -- **GSI Technology, Inc. (Nasdaq: GSIT)**, a leading provider of high-performance memory solutions for the networking, telecommunications and military markets, and developer of the Gemini® Associative Processing Unit (APU) for AI and high-performance parallel computing (HPPC), today announced an initial order from Elta System Ltd, a subsidiary of Israeli Aerospace Industries (IAI), to develop a Synthetic Aperture Radar (SAR) image processing acceleration system using GSI’s APU technology.

The APU technology is ideal for SAR observation missions needing near real-time (NRT) solutions and higher processing power to use the Fast Back Projection (FBP) algorithm. FBP is optimal for processing SAR image data, permitting high ground resolution at various ranges and frequencies. However, prohibitive costs due to the high computational requirements of running the FBP algorithm on a CPU or GPU limit its usage. With its significantly higher processing speed, high accuracy, and lower power usage, GSI’s APU chip architecture unlocks the potential of practical algorithms like FBP. Running on the APU chip, the GSI SAR application can use the FBP algorithm to construct the synthetic-aperture images from an input array of pulses.

“We are honored to be working with IAI/Elta, Israel’s leading provider of innovative defense and space technology, on improving their critical SAR processing capabilities,” said Dr. Avidan Akerib, Vice President, Associative Computing Business Unit at GSI Technology. “GSI’s APU application brings new potential to the field of accelerating SAR image construction. Our highly skilled team of engineers looks forward to collaborating with IAI/Elta group to showcase the technological superiority of our APU.”

The GSI’s APU enables vast performance improvements and superior SAR image construction. With the APU, NRT processing is reduced from a few minutes to a few seconds, significantly shortening the delivery time for images and data. The APU also offers onboard processing capabilities and substantially lower computing costs.

The GSI APU platform delivers enhanced parallel processing power, like a supercomputer cluster. For added performance and redundancy, the scalable architecture allows for multiple boards on various servers, with the capability to stack servers together and bring real-time capability to time-consuming, compute-intensive processes. GSI has shown in comparisons for a large area SAR image in one second at high resolution that the APU uses on average
93% less power than CPU or GPU systems.

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 regarding partnership arrangements 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.

Contacts:

Investor Relations
Hayden IR
Kim Rogers
385-831-7337
Kim@HaydenIR.com

Media Relations
Finn Partners for GSI Technology

Ricca Silverio
(415) 348-2724
gsi@finnpartners.com

Company
GSI Technology, Inc.
Douglas M. Schirle
Chief Financial Officer
408-331-9802

Source: GSI Technology, Inc.