Navitas & GigaDevice Announce Partnership to Combine Power & Control for Next-Gen, High-Frequency, High-Efficiency, & High-Density Power Platforms

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Joint lab collaboration expected to accelerate GaN & SiC adoption in AI data centers, EV, solar and energy storage systems (ESS)

TORRANCE, Calif., April 09, 2025 (GLOBE NEWSWIRE) -- Navitas Semiconductor (Nasdaq: NVTS), the only pure-play, next-generation power semiconductor company and industry leader in gallium nitride (GaN) power ICs and silicon carbide (SiC) technology, has announced a new strategic partnership with GigaDevice, a world-leader in microcontrollers (MCUs) and flash memory, to create a joint-lab for integrating and tailoring Navitas' GaNFast™ ICs & GigaDevice's Microcontrollers, targeting AI data centers, EVs, Solar, and Energy Saving Systems.

As GaN & SiC power technologies transition power conversion to faster, lighter, and more compact solutions, such as single-stage BDS converters, MCUs need to be optimized to maximize these extremely fast switching characteristics, such as high processing speeds and fast I/O capabilities. A co-developed solution of Navitas' power and GigaDevice's control will further accelerate the adoption of GaN & SiC into higher-power markets.

The joint R&D laboratory will integrate both company's technical product and system-level application expertise to drive innovative advancements in intelligent and efficient power management solutions. Integrating Navitas' next-generation, clean-energy, GaNFast™ technology with GigaDevice's advanced high-performance MCU products will enable a new level of integration, performance, and high-power-density digital-power solutions.

As a leader in China's high-performance general-purpose MCU market, GigaDevice has been widely adopted across diverse sectors including power systems, industrial automation, automotive electronics, and motion control, with cumulative shipments exceeding 2 billion units. GigaDevice's GD32 high-performance MCU series has been designed to use leading technology and core architecture, with higher processing power, greater storage capacity, and richer on-chip resources, to bring high-end innovative experiences to developers for industrial automation, photovoltaic energy storage, graphic displays, digital power supplies, motor control, and other diversified applications. Their expansive portfolio is complemented by comprehensive industry-specific vertical solutions, delivering exceptional products, tailored technical support, and system-level design services to customers.

Navitas is an industry leader in GaN power technology with a wide portfolio of GaNFast™ power ICs, which enable high-frequency, high-efficiency power conversion, achieving 3x more power and 3x faster charging in half the size and weight compared to prior designs with legacy silicon power devices.

Navitas technology leads across various growth markets including mobile, where they continue to supply 10 of the top 10 smartphone/notebook OEMs with Navitas GaN ICs, with the recent announcement of powering Dell's™ Family of AI Notebooks. They are the established leader in AI data center solutions enabled by high-power GaNSafe™ and GeneSiC technology, with the world's firsts in high-efficiency, high-power density designs, such as the 3.2 kW CRPS, achieving a 40% smaller size, world's highest power density 4.5 kW CRPS, and the world's first 8.5 kW AI data center power supply powered by GaN and SiC that can meet 98% efficiency, complying with the Open Compute Project (OCP) and Open Rack v3 (ORv3) specifications. For Electric Vehicles, Power Electronics News announced that Changan Automobile would launch the first commercial GaN-Based On-Board Charger (OBC) using Navitas GaN ICs.

The partnership follows Navitas' strategy of creating an eco-system to support these next-gen, clean-energy solutions. Creating new high-speed isolated drivers, such as IsoFast, integrating ASICs with GaNSense™ ICs for lower power applications, alongside partnering with high-frequency planar magnetics for high-frequency transformers, inductors, and EMI filters, enables simple integrated 'one-stop shop' solutions to allow designers to innovate and accelerate these next-gen GaN/SiC-based power electronics.

On April 8th, 2025, Vincent Li, GigaDevice Senior Vice President, CTO, & General Manager of MCU Business Unit, and Charles Zha, VP and GM of Navitas Asia-Pacific, plus other senior executives attended the signing ceremony in Shanghai. Both parties shared their collaboration strategy and discussed operational models for the joint lab.

"Digital power stands as one of GigaDevice's core strategic markets. MCUs play a pivotal role in advancing the intelligence of digital power systems, enhancing energy efficiency, and ensuring operational security." said Vincent Li, GigaDevice Senior Vice President, CTO, and General Manager of MCU BU. "By working with Navitas, we will deeply integrate GigaDevice's advanced MCU with Navitas' leading GaNFast™ technology to develop competitive solutions for industrial automation and new energy vehicles. This collaboration not only technological synergy but also a critical step toward greener, more efficient industry

development.”

“Navitas continues to innovate our GaNFast power IC technology to achieve our mission to ‘Electrify Our World™’”, said Charles Zha, SVP and GM of Navitas Asia-Pacific. “The joint lab with GigaDevice will amplify our complementary strengths in IC design, manufacturing, and ecosystem development and accelerate R&D for next-gen, high-efficiency power solutions, reinforcing our 'Smart + Green' strategic vision. We look forward to delivering faster, energy-saving innovations to global customers and pioneering a new era of collaboration in power electronics.”

For further information, please contact info@navitassemi.com or visit www.navitassemi.com and https://www.gigadevice.com/.

About GigaDevice
GigaDevice Semiconductor Inc. is a global leading fabless supplier of MCUs and flash memory. The company was founded in April 2005 and headquartered in Beijing, China, with branch offices in many countries and regions worldwide, providing local support at customers' fingertips. Committed to building a complete ecosystem with four major product lines – Flash memory, MCU, sensor, and analog – as the core driving force, GigaDevice can provide a wide range of solutions and services in the fields of industrial, automotive, computing, consumer electronics, IoT, mobile, networking and communications. GigaDevice has received the ISO26262:2018 automotive functional safety ASIL D certification, IEC 61508 functional safety production certification, as well as ISO9001, ISO14001, ISO45001, and Duns certifications. In a constant quest to expand our technology offering to customers, GigaDevice has also formed strategic alliances with leading foundries, assembly, and test plants to streamline supply chain management.

About Navitas
Navitas Semiconductor (Nasdaq: NVTS) is the only pure-play, next-generation power-semiconductor company, celebrating 10 years of power innovation founded in 2014. GaNFast™ power ICs integrate gallium nitride (GaN) power and drive, with control, sensing, and protection to enable faster charging, higher power density, and greater energy savings. Complementary GeneSiC™ power devices are optimized high-power, high-voltage, and high-reliability silicon carbide (SiC) solutions. Focus markets include AI data centers, EV, solar, energy storage, home appliance / industrial, mobile, and consumer. Over 300 Navitas patents are issued or pending, with the industry’s first and only 20-year GaNFast warranty. Navitas was the world’s first semiconductor company to be CarbonNeutral®-certified.

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A photo accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/0a84171f-0ff4-4c35-9850-8f8a0211a060

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Source: Navitas Semiconductor Corporation