



Navitas Exceeds New 80 PLUS 'Ruby' Certification for Highest Level of Efficiency in AI Data Center Power Supplies

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AI Power Roadmap of 3.2 kW, 4.5 kW, and 8.5 kW PSUs enable new levels of energy efficiency, reduced electricity costs, and extended lifetime.

TORRANCE, Calif., March 17, 2025 (GLOBE NEWSWIRE) -- [Navitas Semiconductor](#) (Nasdaq: NVTX), 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 that its portfolio of 3.2kW, 4.5kW, and 8.5 kW AI data center power supply unit (PSU) designs exceed the new [80 PLUS 'Ruby' certification](#), focused on the highest level of efficiency for redundant server data center PSUs.



The 80 PLUS certification program assesses and certifies the energy efficiency of internal PSUs in computers and servers. The 'Ruby' certification was announced in January 2025 by 80 PLUS's administrating body, [CLEAResult](#), following its [endorsement](#) by the Green Grid consortium.

'Ruby' is the most rigorous PSU efficiency standard since the 'Titanium' certification was released 14 years ago. In comparison, Ruby sets an additional 1% system efficiency across all load conditions, except at 50% load (which requires a 0.5% increase), to achieve a new benchmark of 96.5% efficiency.

This new standard offers the industry a clear path to enhanced energy efficiency, helping data centers address the evolving needs of cloud storage, commercial sectors, and the increasing pressure on the grid from AI computing. For example, every Ruby-certified 3.2 kW CRPS185 PSU can save up to 420 kilowatt-hours during a 3-year lifetime. That is the equivalent of over 400 kg of CO2 emissions.

Navitas exceeds both Ruby and Titanium certifications on their portfolio of AI data center PSU reference designs, ranging from 3.2 kW to 8.5 kW, and are powered by high-power [GaNSafe™](#) ICs and GeneSiC™ [Gen 3 'Fast' SiC MOSFETs](#).

Navitas is the established leader in AI data center solutions enabled by GaN and SiC technology. In August 2023, they introduced a high-speed, high-efficiency [3.2 kW CRPS, achieving a 40% smaller size](#) than best-in-class, legacy silicon solutions for power-hungry AI and Edge computing. This was followed by the [world's highest power density 4.5 kW](#) CRPS, achieving a ground-breaking 137 W/in³, and efficiency of over 97%. In November 2024, Navitas released the [world's first 8.5 kW](#) AI data center power supply powered by GaN and SiC that could meet 98% efficiency, complying with the Open Compute Project (OCP) and Open Rack v3 (ORv3) specifications. Additionally, Navitas created [IntelliWeave, an innovative patented new digital control](#) technique, that when combined with high-power GaNSafe and Gen 3-Fast SiC MOSFETs, enables PFC peak efficiencies to 99.3% and

reduces power losses by 30% reduction compared to existing solutions.

“Compared with Titanium, Ruby cuts the allowable PSU losses significantly and will be critical in enabling the data center industry to reduce its carbon footprint and cut operational costs,” said Gene Sheridan, CEO and co-founder of Navitas. “With the industry set to consume 1,000 TWh annually by next year, every percentage point improvement in efficiency represents a reduction of 10 TWh, or approximately 3.5 million tons of CO₂. Advances in our GaNFast and GeneSiC products enable these targets to be met and significantly exceeded.”

Navitas’ AI Power Roadmap and 80 PLUS Ruby-compliant demos can be viewed at the ‘Planet Navitas’ booth #1107 during the [APEC 2025](#) conference, which takes place at Atlanta’s Georgia World Congress Center from March 16 to 20. For more information, please contact info@navitassemi.com or visit www.navitassemi.com.

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/b1014e9a-9a22-4031-a6b2-5a2b7359a0d3>



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Source: Navitas Semiconductor Corporation