Navitas Semiconductor, Inc.

Job Description:

Title: **Staff Application Engineer**

In Office ☒/Remote: ☐/Hybrid☐

Exempt ☒/ Non-exempt☐

Based: Torrance, CA

Job Purpose:

Navitas Semiconductor (Nasdaq: NVTS) is a next-generation power semiconductor leader driving innovation in gallium nitride (GaN) and high-voltage silicon carbide (SiC) technologies. Our products enable faster, more efficient power delivery across AI data centers, high-performance computing, energy and grid infrastructure, and industrial electrification.

With more than 30 years of combined expertise in wide bandgap technologies, GaNFast™ power ICs integrate GaN power, drive, control, sensing, and protection, delivering faster power delivery, higher system density, and greater efficiency. GeneSiC™ high-voltage SiC devices leverage patented trench-assisted planar technology to provide industry-leading voltage capability, efficiency, and reliability for medium-voltage grid and infrastructure applications.

We are seeking a **Staff Application Engineer** to join our fast-growing, collaborative team. The ideal candidate is self-motivated, energetic, and able to thrive in a high-growth, innovative environment, contributing directly to technologies that are shaping the future of power electronics.

Key Responsibilities and Duties:

- Perform direct high-voltage semiconductor testing and characterization, including double pulse testing (DPT), short-circuit testing, SOA, ruggedness, and device performance evaluation of SiC MOSFET devices.
- Design power electronics schematics and associated PCB layouts for reference designs and high-voltage semiconductor test hardware supporting device testing up to 10 kV, with appropriate isolation, creepage/clearance, protection, and measurement integrity.
- Define and optimize gate-drive solutions, including gate resistance selection, protection features, and isolation strategies.
- Design, build, and validate Evaluation (EVAL) boards for customer enablement and internal demonstration.
- Develop high-quality Application Notes, design guides, and technical documentation for customers and internal teams.

- Apply strong understanding of AI data center power architectures, including front-end AC/DC and back-end DC/DC stages and high-voltage DC distribution.
- Work with advanced power topologies such as totem-pole and interleaved PFC, LLC resonant converters, Dual Active Bridge (DAB), and solid-state transformer concepts.
- Perform current-sharing and transient simulations of SiC power modules, accounting for parasitic, gate-drive interactions, and layout-dependent effects using SIMetrix and PLECS.
- Perform device- and system-level simulations using PLECS.
- Conduct hands-on lab work using oscilloscopes, high-voltage probes, power analyzers, electronic loads, and other high-voltage test equipment.
- Develop and maintain LabVIEW-based automation for semiconductor characterization, validation, and data analysis.
- Provide technical enablement to FAEs and sales teams.
- Collaborate with R&D, product marketing, quality, and operations teams to support customer programs and product development.

Knowledge, Skills, Abilities, and Other Characteristics (KSAO's)

- 5+ years of hands-on experience in power electronics design and applications.
- Direct experience in high-voltage semiconductor testing and characterization is preferred.
- Experience with power electronics schematic capture and PCB design.
- Strong knowledge of SiC MOSFETs and/or high-voltage IGBT devices, gate drivers, and isolation technologies.
- Experience with AI data center power systems is a plus.
- Proficiency with SIMetrix and PLECS, MATLAB, and PCB design tools such as Altium or Cadence.
- Hands-on experience in high-voltage lab environments and with LabVIEW automation.
- Strong written and verbal communication skills with good attention to detail.

Required Qualifications

Basic

- Degree in Electrical Engineering or a related field.
- Hands-on experience in high-voltage power electronics and semiconductor applications

Preferred

- Proven experience in high-voltage semiconductor testing and characterization
- Strong knowledge of power electronics topologies used in server and AI data center power systems.

What We Offer

- **A front-row seat to the future of power electronics.** Work on cutting-edge GaN and SiC technologies that are transforming AI data centers, electrification, and global energy infrastructure.
- **A fast-paced, high-energy environment**. We move quickly, make decisions with purpose, and empower employees to take ownership and drive real impact from day one.
- **A team that shows up and delivers.** We care deeply about our mission, our customers, and each other. We collaborate, support one another, and bring intensity and accountability to everything we do.
- **Full support to succeed.** You'll have access to leadership, cross-functional collaboration, and the resources needed to innovate and execute at a high level.
- **Competitive total rewards.** Comprehensive health, dental, and vision coverage, unlimited PTO, and a competitive compensation package including base salary, performance bonus, and equity awards.

Base Salary Range:

$130,000 - $160,000 depending on experience