



Navitas Semiconductor, Inc.

Job Description:

Title: Principal Design Engineer

In Office / Remote: Hybrid

Exempt / Non-exempt

Based: Torrance, CA

Job Purpose:

Navitas Semiconductor is seeking a highly motivated and experienced analog / power IC design engineer to lead the architecture, design, and silicon execution of next-generation power management ICs. This role is hands-on and technical, with end-to-end ownership from concept through production, and close collaboration with systems, device, layout, and validation teams. This is a key technical expert position for engineers who have successfully brought power ICs into high-volume production and want to shape future architectures.

Key Responsibilities and Duties:

- Lead the architecture, design, and verification of power management ICs from transistor-level blocks to full top-level integration.
- Define and evaluate system-level trade-offs for next-generation power supplies in collaboration with applications and systems teams.
- Drive IC architecture decisions for products including AC-DC, DC-DC, ACF, LLC, QR, and related power topologies.
- Interface closely with device, modeling, and EDA teams to optimize device selection, models, and simulation methodologies.
- Guide and review physical layout and floor planning, providing clear feedback to ensure optimal performance, reliability, and manufacturability.
- Own tape-out execution, ensuring designs meet performance, schedule, and quality requirements.
- Lead silicon bring-up, lab validation, debugging, and correlation versus simulation.
- Support yield improvement, failure analysis, and release to production.
- Mentor junior designers and contribute to best practices across the design organization.

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

- Proven experience as chip lead or technical owner on at least one successful silicon program.
- Demonstrated track record of delivering power ICs from concept to high-volume production, including:
 - Architecture definition
 - Circuit design
 - Layout supervision



- Post-extraction verification
- Lab characterization and debug
- Yield and failure analysis support
- Strong experience in AC-DC and/or DC-DC power IC design.
- Deep expertise in analog and mixed-signal building blocks such as:
 - Bandgap references
 - LDOs
 - Comparators
 - Charge pumps
 - Operational amplifiers
- Clear written and verbal communication skills.
- Self-motivated, collaborative, and comfortable working in a fast-paced, startup-like environment.

Required Qualifications

Basic

- Degree in Electrical Engineering, Material Science, Applied Physics or related Fields
- Strong understanding of semiconductor device physics, SOA, and power transistors used in high-frequency switching.
- Solid knowledge of silicon fabrication processes and their impact on device models and circuit performance.

Preferred:

- MSEE + 7+ years or PhD + 5+ years of industry experience in analog or mixed-signal IC design.
- Proficiency with EDA tools, including:
 - Cadence Virtuoso / Spectre
 - Post-parasitic extraction simulation
 - Monte Carlo and corner analysis
- Experience with DFT methodologies, characterization strategies, and production test planning.
- Hands-on lab experience with silicon validation, debug, and characterization.

What We Give:

- A high visibility opportunity to work on leading edge technology development with a mission to make the world better with advancing the technology that powers the future.
- Fast decision making and freedom to work on interesting problems that the world cares about.
- A mission to succeed with full support from management.
- Health, dental, and vision benefits, unlimited PTO
- Total Compensation includes base + bonus and stock awards, depending on experience

Base Salary Range:

\$190,000 - \$230,000