



Analog Design Engineer (High Power Circuit)

We are seeking a highly motivated Analog Design Engineer to join our team and lead the design of high-power circuits for Infinecs' next-generation products. You will be responsible for the entire design cycle, from concept creation to silicon evaluation and production release. This role offers an exciting opportunity to develop innovative power management solutions that push the boundaries of performance and efficiency.

Responsibilities:

- Design and develop high-power analog and mixed-signal circuits, including:
 - High-efficiency DC-DC converters (Buck, Boost, Buck-Boost)
 - Power regulators (LDOs, Switching regulators)
 - Gate drivers for high-power devices
 - Charge pumps
 - High-side and low-side switches
- Perform in-depth circuit analysis to ensure designs meet power efficiency, performance, and thermal management targets
- Participate in architectural definition and chip integration for high-power blocks
- Conduct simulations using industry-standard EDA tools (e.g., Cadence Virtuoso, Assura) to verify circuit functionality and performance
- Collaborate with layout engineers to ensure manufacturability and minimize parasitic effects
- Develop and maintain detailed design documentation
- Lead design reviews and participate in technical discussions
- Actively participate in silicon bring-up, evaluation, and characterization
- Work cross-functionally with product, test, and applications engineers
- Stay current with the latest advancements in high-power analog and mixed-signal design methodologies

Qualifications:

- Master's degree in Electrical Engineering or a related field
- Minimum 5+ years of experience in designing high-power analog and mixed-signal circuits
- Proven experience with high-efficiency DC-DC converter design
- Strong understanding of power management principles, including thermal management and noise analysis
- In-depth knowledge of CMOS analog circuit design and device physics
- Expertise in using industry-standard EDA tools for simulation and layout
- Excellent written and verbal communication skills
- Ability to work independently and as part of a cross-functional team

Preferred Skills:

- Experience in High Voltage design (>20V)
- Knowledge in BCD (Bipolar-CMOS-DMOS) process
- Proven track record of successfully taking designs to production
- Experience with GaN or other wide-bandgap semiconductor technologies (a plus)
- Experience in designing for high-voltage applications (a plus)
- Knowledge of EMC/EMI considerations for high-power circuits (a plus)