

ampt Sr. Hardware Design Engineer

Reports to: Director of Hardware Engineering

Employment: Full time

Department: Engineering

Type: Permanent

Benefits: Medical, Dental, Vision, LTD, 401K

Status: Exempt

Position Summary

Responsible for a major new project design or for an existing product area.

Essential Job Functions (Roles and Responsibilities)

1. Designs new products and modifies existing designs to improve existing product performance or to generate (spin-off) products to meet new customer needs.
2. Performs engineering work in basic and applied research, development and/or design of new products.
3. Analyzes designed equipment and conducts experimental tests to define operating limits.
4. Provides feedback for failure analysis, corrective action, and continued improvement activities.
5. Promotes technological innovation and focuses on technical pursuits of mutual interest to the company and the employee.
6. Serves as technical advisor and provides mentoring to other employees. May manage a small group of direct reports.
7. Provides technical, creative, and entrepreneurial support to the company strategic planning and product development and marketing processes.

Essential Job Requirements

Education:

M.Sc. degree in Electrical Engineering is required (Ph.D. preferred).

Experience:

Experience in the design of high power (>10kW), high voltage (>1kV) power converters based on SiC devices.

Minimum of 15 years of professional experience in product design, including circuit modeling and simulation, and PCBA design

Experience as lead design engineer on at least one product that was smoothly transferred to volume production.

Required Skills:

Strong expertise in the design of power electronics systems, including electrical and thermal analysis, and the design of high frequency magnetic components.

Solid understanding of physics and power electronics principles, including physics of high-power devices, power modules, inverters, converters, and related components

Experience with analog and digital control, and control simulation tools and techniques

Proficiency in circuit and layout design, and PCBA design software (Altium, PCAD)

Excellent analytical, problem-solving, and communication skills

Ability to work independently and collaborate effectively in a team environment.

Preferred Skills:

Knowledge of industry standards and regulations related to power electronics.