

## **Electrical Engineer – Switched-Mode Pulsed Power Microelectronics**

Starfire Industries, LLC is adding to our technical team to support applied R&D and production activities. We seek a person with experience with high-voltage SiC power electronics, >kHz passive component selection, and circuit design using Altium/KiCAD to apply knowledge company-wide. Building on your base skill set in design, layout, fabrication, test and measurement, we will provide job-specific training unique to our products and technologies. You will enjoy “hands-on” work and being part of an applied engineering team.

This position is eligible to earn an “on-the-job” Masters of Engineering (M.Eng.) Degree through a professional program between Starfire and the University of Illinois at Urbana-Champaign Electrical Engineering. If eligible and meeting requirements, Starfire will reimburse tuition costs for the M.Eng. while working 75% full time over a two-year period. The M.Eng. capstone project will be directly relevant to work at Starfire.

### **Job Summary:**

Responsible for component selection, circuit layout, assembly, testing, debugging, and validation for high-voltage switching subsystems working closely with R&D for system-level prototype integration. Primary role is supporting IMPULSE® product development and its associated systems. Support production teams as needed.

### **Primary Responsibilities:**

- Develop HV SiC power electronics subsystems from conceptual design through electronics test/debug into prototype and production assembly deliverables.
- Support overall system design, simulation, and testing with the R&D team.
- Communicate consistently and openly with engineers, technicians, and managers.

### **Required Qualifications:**

- Relevant Electrical Engineering or Microelectronics degree
- Strong desire to learn and appreciates hands-on (re)work.
- Proficient with high-voltage test equipment, electrical schematics, and mechanical drawings and use of Altium or KiCAD
- Experience with high-power SiC electronics, LCR design, noise immunity and simulations through LT SPICE (or equivalent)
- Ability to take initiative, assume responsibility and work independently.

### **Desired**

- Minimum 3+ years' work experiences
- CNC mill, PCB layout, proven ability to multitask (e.g., handle projects in both R&D prototyping environment and production facility)
- Experience with >MW-class pulsed power and circuit design constraints.
- Analog/digital communications and controls
- High-voltage design experience (>2.5kVdc)

Salary commensurate with experience. Immediate start date. To apply, send resume and cover letter to [hr@starfireindustries.com](mailto:hr@starfireindustries.com). This position is restricted to U.S. Persons only.