



Job Description

Job Title	Senior Electrical Engineer	Reports to	Engr - Electrical Engineer Manager
Department	4140 - Engineering & Technology	FLSA	Exempt
Location	Woodridge IL	Status	Full-time

About Us

Inventus Power is a global leader in advanced battery systems that specializes in designing and manufacturing high-quality, reliable, and innovative power systems for a broad range of portable, motive, and stationary applications. We are a US based company headquartered in Woodridge, Illinois and have a global presence that extends across four continents with five manufacturing facilities, three engineering technical centers, a multi-tiered sales service channel, and 3,000+ employees. For over 60 years, Inventus Power has been addressing the rapidly expanding power demands of a changing world through technology and engineered solutions. We continue to invest in our people and processes, while enhancing our products and capabilities in order to create a safer, smarter, and more sustainable battery-powered world.

We are an ITAR facility and hire only U.S. persons who are defined as U.S. citizens or green card holders.

What You'll Do

The Senior Electrical Engineer will be responsible for designing and conducting analysis to support development of battery packs or chargers. The Senior Engineer leads concept phase, product specifications, design activities, reviews, and reports design's progress with limited supervision. Assignments are broad in nature, requiring appreciable initiative, originality, ingenuity and excellent problem-solving skills. The ideal candidate will have excellent circuit analysis skills, advanced electrical engineering experience and a great understanding of power electronics, preferable with battery management system designs. The Senior Electrical Engineer also supports the growth of less experienced engineers through leadership, technical reviews, and mentorship.

Responsibilities (Including other duties as assigned)

- Promote the spirit of teamwork and enthusiasm around fellow engineers.
- Establish a culture of learning, openness, and accountability.
- Develop complete electrical designs; including schematic, layout, DFM, BOM generation, with consideration to EMI/EMC.
- Design and document robust hardware analog/digital circuit architecture and power path structure suitable for use in high reliability embedded applications.
- Lead electrical hardware component selection/optimization for microcontrollers and battery/charger management devices.
- Perform worst case circuit analysis and circuit simulations via EMA tools.
- Perform de-ratings and power stack-up analyses.
- Provide necessary sustaining support to existing products, and work in a cross-functional team environment to assure electrical system level integration and design for manufacturability.
- Conduct Electrical DFMEAs to ensure products conform to customer specifications and requirements.



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- Collaborate with cross-functional team members to assure electrical system level integration and design for manufacturability.
- Support hands-on prototype builds including soldering, wiring, debug, performance evaluation/documentation, and identification of possible improvements.
- Support less experienced engineers in growth and development.
- Explore new and existing circuit designs and methods to solve design challenges.
- Prepare technical reports, product specifications, and process flow documents.
- Provide necessary sustaining support to existing products.
- Maintain an awareness of customer requirements and any complaints to identify any areas that may need development or improvement.

What You Will Need

- BS, MS or PhD in Electrical Engineering.
- Minimum 5 years of experience in New Product Development and electronics manufacturing in the consumer, telecom, automotive, medical and/or military industries.
- Fluent in English (spoken and written).
- Strong verbal and written communication skills.
- Advanced knowledge of Microsoft Office products.
- Excellent problem-solving skills.
- Excellent skills in technical writing, capable of preparing technical reports, product specifications, and process flow documents.
- Ability to take ownership and lead electrical designs with minimal supervision.
- Ability to work with various design sites globally.
- Experience with electrical CAD modeling systems (i.e., Altium, OrCAD/Cadence) required, Altium preferred.
- Battery management system and protection circuit design experience highly preferred.
- Must be able to perform electrical schematic capture and conduct PCB layout.
- Strong quantitative, design, analytical, and problem-solving skills.
- Must have a solid understanding of digital and analog circuitry.
- Solid understanding of DC power electronics.
- Familiarity with I2C, SPI, RS-232, USB, and Ethernet are highly desirable.
- Experience with fault-tolerant, redundant, and high-reliability systems is desirable.
- Desire to have fun leading the development of quality products in a fast paced and diverse work environment.

Inventus Power is proud to be an Equal Employment Opportunity and affirmative action employer. We celebrate diversity and are committed to creating an inclusive environment for all employees.

Date

Employee Name

Employee Signature



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Date

HR Name

HR Signature