

Job Description



Role Title: PCB Design Engineer

Reporting to: Chief Electrical and Electronics Engineer

Role Purpose:

We require a PCB Design Engineer to design control and power electronic PCBs for our wide range of customer applications focussed on electrification, including battery management, power conversion and electric vehicle control systems.

The successful candidate will develop the use of the PCB toolset within the team, helping to shape the processes and standards that we use to ensure quality and minimize manufacturing issues.

They will liaise with bare board suppliers and sub-contract assembly and work with the wider multi-disciplinary engineering team to support the delivery of effective engineering solutions.

Key Responsibilities:

- Work closely with the electronics team and other engineering disciplines, such as EDS, and mechanical, to develop modern, innovative, and practical electronic solutions
- Undertake schematic and PCB design and modifications to support the team's development of power and control boards, test hardware, prototypes, etc.
- Help to define and apply the procedures and standards to be applied to all PCB design activities, including component part creation, schematic capture, BOM generation and PCB layout activities. Ensure all released designs are of high quality and optimised for high-volume manufacturing processes.
- Manage and maintain the centralised PCB component library, ensuring proper control over the quality and correctness of all utilised component symbols, footprints and part numbers.
- Manage project data for PCB designs, the generation of manufacturing data and its formal release into the company's document management system.
- Work with PCB vendors and manufacturing partners to understand and optimise PCB blank cost and use Design for Manufacture tools and techniques to identify and resolve potential manufacturing issues.
- Work with the mechanical design team to determine all aspects of PCB mounting arrangements, mechanical packaging and thermal management. Establish efficient working practices for transfer of design information.
- Delivery of engineering tasks and reporting of progress and issues in line with project milestones

Qualifications, Experience and Skills Required:

- Significant (> 5 years) experience in design and development of Printed Circuit Boards, encompassing high current/high power, as well as small signal and microprocessor-based board designs.
- Significant experience in use of a professional, integrated schematic, capture, PCB layout and 3D design tool (such as Altium Designer), including component generation and library management.
- Experience of working in multi-disciplinary teams with electronic design engineers, mechanical engineers and others.
- Experience in defining and managing the PCB layout process and standards for an organisation, including the component library management function.

Preferred:

- Experience of working in a relevant industry (such as automotive, energy storage aerospace)
- Knowledge of electronic design fundamentals and experience in digital/analog design.
- Will understand the layout features that are required to optimise the function of electronic circuits such as trace impedance, loop inductance, voltage isolation, Design for EMC, etc.

System or Knowledge:

- Detailed knowledge of the manufacturing processes for construction of various types of PCB blank, and how this is controlled and driven from the PCB design data.
- Detailed working knowledge of the PCB assembly process in a high-volume, quality-driven manufacturing environment, with strong knowledge of the key principles of Design for Manufacture and Design for Test, and able to apply these effectively to guide and control PCB design activities.

Personal Attributes:

- Quality-focussed and process-oriented with an attention to detail
- Strong communication skills – including report writing and presentation
- Self-motivated and enjoys working within a team environment
- Willingness to accept responsibility and challenges required to achieve objectives
- Commitment to professional development and continuous learning

Location and Travel:

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- You must be eligible to work in the **UK** and have no restrictions for world-wide travel.
- This role is based at our Head Office in the **UK**, with flexibility for remote working.
- Working hours are 0900 to 1700, including 30-minute paid break, 5 days a week, however some travel is expected, and flexible working patterns are essential to the role.