

SENIOR HARDWARE DESIGN ENGINEER

Reports To: Engineering Manager

JOB SUMMARY: Provides functional and empirical analysis related to the design, development and implementation of hardware for the Company's products, including but not limited to the circuit design of components, development of structure specifications of a microprocessor and the design of LCD display units.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Design, develop, integrate and validate electronic displays into Company's product system solutions
- Participate in the full development cycle, including design, development, implementation, validation, documentation and maintenance
- Design of electronic circuits for instrumentation that convert digital input into an analog or visual output
- Selection of components, creation of schematic diagrams, PWB design (including multi-layer boards)
- Maintain or increase internal and external customer satisfaction
- Support existing display designs with specific customer modifications and redesign for cost/obsolescence
- Work closely with sourcing, manufacturing, product development and the global network of suppliers to develop and drive key cost saving initiatives
- Seek continuous improvement opportunities of designated products by reviewing, evaluating and recommending production process from start to finish including product costs, processes and quality outcomes
- Research and analyze available specifications, tools and components related to product designs and test
- Perform feasibility, cost and reliability analyses of product proposals to influence decisions related to design tradeoffs and specifications
- Research and provide due diligence on new technologies
- Summarize development results in presentations for internal and external use
- Assist in the creation and maintenance of engineering database systems
- Analyze test data and reports to determine if design meets functional and performance specifications
- Proper material selection and product design to meet customer expectations
- Meet or exceed project schedules on cost, quality and on time delivery
- Work closely with other engineers and disciplines to define technical requirements and feasibility for new development
- Design and test requirement documentation, and reports on design and test results

- Support manufacturing and product support teams in development, troubleshooting and maintenance of embedded platforms
- Other related duties as may be assigned.
- Travel abroad may be required

EDUCATION AND EXPERIENCE:

Bachelor of Science in Electrical Engineering and 7-10 years experience in product engineering for electronic systems, components or sub systems

QUALIFICATIONS:

- Ability to create system layouts hardware, software, safety and control strategy designs that fulfill given specifications
- Ability to quote and optimize cost, performance and meeting internal/external customer requirements for complex system
- Advanced experience in testing of electronic systems: environmental, EMC, etc.
- Thorough knowledge of circuit level hardware implementation with analog interface
- Proficiency with all forms of liquid crystal displays
- Experience designing analog circuitry, power supplies and embedded microcontrollers
- Knowledgeable in communication protocols including CAN, LIN, USB, SPI, I2C, RS485, J1587, J1939 and J1708
- Competence in basic Microsoft software packages and basic electronic design software including Altium

OTHER KNOWLEDGE, SKILLS & ABILITIES:

- Ability to forge and manage relationships with multiple disciplines
- Creativity in product development
- Excellent interpersonal and communication skills
- Exercise good critical judgment
- Strong design, presentation and communication skills
- Demonstrate a mindset of ownership, accountability and sense of urgency to achieve productivity results
- Ability to handle and prioritize many tasks and projects
- Take initiative and work independently with minimal supervision
- Follow established methods and processes including work safety and security procedures.

PHYSICAL DEMANDS:

Employee is regularly required to use hands and fingers, reach with hands and arms, and talk and hear. The employee will be required to sit for long periods of time and occasionally may stand and walk. Specific vision abilities required include close vision, distance vision, color vision, peripheral vision, depth perception and ability to adjust focus.

WORK ENVIRONMENT:

Duties are performed in an office setting with standard office lighting, equipment and a quiet noise level.