



Job Description

Position: Senior Electrical Engineer

Department: Engineering

Location: Santa Ana, CA

FLSA Status: Exempt, Full-Time

Job Summary:

The Senior Electrical Engineer is responsible for the design, development, integration, and sustainment of complex high speed electronic circuit design and PCB layout used in aerospace and defense systems. This position provides advanced engineering expertise throughout the product lifecycle, circuit design, component selection, simulation, PCB layout, validation testing, manufacturing transition, and long-term product support. The Senior Electrical Engineer provides technical leadership and mentorship to engineering team members, drives technical decision-making, and collaborates across Engineering, Manufacturing, Quality, Supply Chain, and Program Management to ensure successful product execution.

Key Responsibilities:

- Support the design and development of complex analog and digital electronic circuits for mission-critical products
- Serve as electrical lead on major product development and sustainment projects
- Develop and review schematics, PCB layouts, engineering drawings, and supporting documentation using Altium Designer tools
- Conduct advanced circuit analysis, simulation, troubleshooting, and root-cause investigations
- Lead engineering validation, verification, qualification, and environmental testing activities
- Review and approve Engineering Change Orders (ECOs), Bills of Material (BOMs), and design documentation
- Mentor junior and mid-level engineers, providing technical guidance and support
- Collaborate with Manufacturing, Quality, and Supply Chain teams to ensure successful product launches and production support
- Lead Design for Manufacturability (DFM), Design for Assembly (DFA), and Design for Test (DFT) reviews to improve product quality, reliability, and cost effectiveness
- Evaluate component lifecycle risks and lead product obsolescence mitigation efforts
- Support new product introduction activities and transition designs into manufacturing
- Participate in customer, supplier, and internal technical reviews and audits
- Develop engineering standards, best practices, and design guidelines
- Identify opportunities to improve product performance, reliability, manufacturability, and cost



- Track project milestones, technical deliverables, and engineering priorities to support program schedules
- Follow established safety and quality protocols in a fast-paced production/manufacturing environment.

Required Qualifications:

- Bachelor's degree in Electrical Engineering or related technical field
- Minimum of 10 years of experience designing and developing electronic hardware in a manufacturing environment
- Advanced experience with analog and digital circuit design, high-speed embedded hardware, analysis, testing, troubleshooting, and verification
- Advanced proficiency with Altium Designer for schematic capture and PCB layout
- Strong understanding of Design for Manufacturability (DFM), Design for Assembly (DFA), production support, and engineering change management
- Strong knowledge of environmental, reliability, IPC, and MIL-STD requirements

Preferred Qualifications:

- Master's degree in Electrical Engineering or related discipline
- Aerospace & Defense industry experience with AS9100 compliance
- Experience designing to EMI/EMC standards and ruggedized environmental requirements
- Hands-on experience with timing systems, RF systems, precision oscillators, embedded electronics, or other precision frequency technologies
- Proven ability to lead technical projects, collaborate across functional teams, and communicate technical information effectively
- Experience working directly with contract manufacturers, EMS providers, or external suppliers
- Familiarity with PLM/ERP systems and engineering change management processes
- Active security clearance or ability to obtain and maintain one

Physical Requirements:

- Must be able to sit or stand for extended periods and frequently perform tasks that require repetitive motion, such as typing on a keyboard.
- Regular use of a computer, telephone, and headset is required, including participation in virtual meetings via Microsoft Teams.
- Ability to lift up to 25 lbs occasionally (e.g., test equipment, prototypes, or lab equipment).
- Visual acuity and manual dexterity to review small components, circuit layouts, and assembled products.



- Ability to wear PPE when required in designated lab and test areas. This is primarily an office-based role located within a shared open-concept office inside a warehouse facility. The work environment may include elevated noise levels due to open workspaces and conversational noise. Employees should be comfortable working in a setting where sound carries and interruptions may occur.

Additional Information:

The above statements are intended to describe the general nature and level of work performed. They are not intended to be an exhaustive list of all responsibilities, duties, or qualifications required.

Duties and responsibilities may be modified at any time based on business needs and in accordance with applicable laws. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions of the role.

Export Compliance / Citizen Requirement:

Brandywine Communications' products and services are subject to U.S. export control regulations, including the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations (EAR). Because of the nature of our work and our contractual obligations, only U.S. citizens are eligible for employment with Brandywine Communications.

Security Clearance Eligibility:

Some positions at Brandywine Communications may require the ability to obtain and maintain a U.S. Department of Defense (DoD) security clearance. While not all roles require an active clearance at the time of hire, applicants must be eligible for clearance under federal guidelines, and employment may be contingent upon successful completion of a government background investigation.

Equal Opportunity Employer Statement:

Brandywine Communications is an Equal Opportunity Employer. We are committed to providing equal employment opportunities to all employees and applicants without regard to race, color, religion, sex, (including pregnancy, childbirth, and related medical conditions), sexual orientation, gender identity or expression, national origin, ancestry, age, physical or mental disability, medical condition, genetic information, marital status, military or veteran status, or any other characteristic protected by federal, state, or local laws.

Brandywine Communications strives to create a workplace that is inclusive, respectful, and reflective of the diverse communities we serve. We are committed to providing reasonable accommodations for



qualified individuals with disabilities in accordance with applicable laws. If you require accommodation during any part of the application or hiring process, please contact the Human Resources department.