



Position Title: Electrical Engineer II or III- Huntsville or Montgomery, Alabama
Department: Research and Development/ Engineering
Reports To: Director, Hardware, Software Mechanical and Electrical Engineering
Prepared Date: 9/5/2023

SUMMARY

Miltope Corporation manufactures rugged computers and computer devices. We have multiple offices located primarily in the United States. We encourage a healthy work life balance with our PTO programs and 9/80 work week. In addition, we have excellent benefits such as tiered health plans through BCBS, 401k and various insurances that are employer paid.

The primary duty of this position is to design and test electronics throughout the development of new products. As part of the R&D Engineering team you will work on new business opportunities in collaboration with Mechanical Engineers and Firmware/Software Engineers. Miltope is well-known for designing computer and display systems for harsh environments. Our products include military, aviation, and commercial applications.

ESSENTIAL FUNCTIONS *(To perform within this position successfully, the incumbent must be able to perform each essential duty satisfactorily. Other duties may be assigned.)*

Duties include but are not limited to:

- Product design and support in Analog and Digital Electronics for military applications and rugged environments.
- Perform detailed circuit designs that may include high speed buses (USB/Ethernet/LVDS), microcontrollers, CPU's, flex circuits, power supplies, and protection circuits.
- Design for compliance with military, aviation, and company specifications/standards with emphasis on shock and vibration, wide temperature extremes, and EMI/RFI concerns.
- Prepare complete documentation packages including schematics, assembly drawings, and BOM's.
- Work closely with mechanical and software engineers to insure a "system approach" to product solutions.
- Provide design reviews for product compliance to military, airborne, commercial, and customer requirements.



Supervisory Responsibilities: No

BASIC QUALIFICATIONS *(The requirements listed below are representative of the knowledge, skills, and/or ability required and preferred for this position.)*

Required Education & Experience:

- Bachelor's Degree of Electrical Engineering, Electrical & Computer Engineering or equivalent
- Minimum of 5 years of experience as an Electrical Engineer in an electronics design
- US citizenship required as well as ability to maintain a security clearance.

Required Knowledge, Skills, & Abilities:

- Must possess superior engineering, strong interpersonal, verbal and written communication skills to interface with peers, customers or suppliers and be able to accurately document, report and present information.
- Possess an understanding of industry standard electrical design tools including schematic capture, BOM management, and printed circuit layout. Examples: Cadence OrCAD / Allegro, Mentor Graphics Dx Designer / Expedition / PADS or equivalents.
- Must understand signal integrity constraint concepts as they apply to schematics and printed circuit board design.
- Must have experience in schematic design and (BOM) Bill of Materials generation.
- Experience designing with communication interfaces, USB, Ethernet, I2C, SPI, RS232, RS485, PCI Express, other serial and parallel interfaces.
- Experience with designing wire harnesses and flex circuits.
- Experience in point-of-load power supply designs.
- Knowledge of design and testing firmware or circuitry containing firmware
- Ability to research solutions, debug and apply advanced tools / techniques to resolve engineering challenges.
- Ability to identify test methods, perform tests and write test plans, procedures, and reports.
- Ability to organize, schedule and coordinate work phases to complete tasks per estimates, excellent time management skills.
- Proficient with Microsoft Office.
- Perform other duties as assigned.
- No travel restrictions.



Preferred Education & Experience:

- 5-10 years' experience in electrical design to meet temperature, shock, vibration and EMI requirements and is familiar with applicable military, commercial airborne, and industry standards.
- Experience designing or testing wireless, data server or computer products for the Mil-Aero market.
- Experience writing test plans, procedures, reports and technical correspondence for Mil-Aero products.
- Experience with Mentor Graphics (Siemens) Expedition / PADS or equivalent schematic and layout tools.
- Experience performing printed circuit layout of high-speed circuitry including memory and computer interfaces using signal integrity design principles.
- Design, testing or programming experience with Intel / AMD or ARM processors, architecture, supporting chips, GPU's, FPGA's.
- Experience in programming languages such as HDL, VHDL, C, C++, Java, and Python.
- Experience with MIL-STD-810, MIL-STD-461, DO-160, DO-254, DO-178
- Experience with UL, CE, FCC design compliance and testing.
- Experience with test automation and design for testability.

Physical Demands and Work Environment:

- While performing the duties of this job, the incumbent is frequently exposed to moving mechanical parts, fumes, airborne particles, or risk of electrical shock and vibration.
- Position requires desk work as well as physically standing and walking.
- Position requires adequate vision/color interpretation.
- The noise level in the work environment is usually moderate