



A Phoenix Mecano Company

Job Position: Electrical Design Engineer – Level II

Orion Technologies is looking for an experienced electrical engineer with a specialization in digital electronics design. Competence in designing processor boards including processor architectures such as Intel (x86), PowerPC, MIPS64, is also desired. Orion Technologies is a designer and manufacturer of single board computers, custom electronics, and rugged computer systems. Orion is looking for a hardware engineer to design next generation single board computers, backplanes, and system level products that can take a design from concept to working product.

Job Duties:

- Create design in schematic capture package.
- Perform and document worst case analysis on design.
- Perform and document BOM lifetime analysis.
- Perform and document derating analysis.
- Communicate the design constraints to an in-house or contract layout engineer.
- Guide the layout through effective communication with the layout engineer.
- Perform a layout review in layout CAD software. Must be familiar enough with layout software, preferably Cadence Allegro.
- Create testing procedures. Perform design verification and validation testing of designated product.
- Work to resolve, update and document issues as they arise during testing.
- Collaborate with the software engineers to effectively communicate the requirements of the hardware need for software development.
- Support the software engineer through the software design process.
- Create CPLD/FPGA logic design for power-up sequence and glue logic.

Job Requirements:

- A bachelor's degree in electrical engineering.
- At least four years in an electrical engineering design position.
- Knowledge or standard form factor designs such as VPX, VME, Compact PCI, COM Express, PC/104, PCI-104, and PCLE/104.
- Knowledge/Experience with Schematic CAD tools (OrCAD/Design Entry CIS preferred).
- Knowledge/Experience with Layout CAD tools (Allegro preferred).
- Knowledge/Experience with troubleshooting circuits and prototype/testing boards.
- Must understand concepts of PCB construction and trade-offs.
- Must understand high speed signal concepts including PCB material, stack-up and impedance calculations.
- Knowledge/Experience with board level and system level EMI emission mitigation and testing
- Must understand concepts for protecting electrical connections to the "outside world"
- Basic knowledge/experience with FPGA programming and FPGA programming languages like Verilog and VHDL.