Hardware Test Engineer II

About Us

Crescent Systems, Inc. (CSI) is a leading aerospace technology firm that designs, develops, implements, tests, deploys, and sustains reliable and rugged electrical, software, and hardware systems solutions for complex problems in the aerospace industry. Our integrated solutions teams focus on delivering high-performance products and services to meet our clients' needs. Our core values of ethics, quality, and community guide every conversation, decision, and interaction.

Job Description

We are seeking a talented Hardware Test Engineer II (HQE II). This Engineer is responsible for Line Replaceable Unit (LRU) box-level and module-level testing in the aerospace and defense industries. Responsibilities include both validation and verification efforts associated with LRUs. This position provides continuous cradle-to-grave product test support that includes: evaluating the testability of requirements during requirement definition, writing hardware qualification test documents, performing informal and formal qualification testing, and writing the qualification test report.

Validation involves proving the LRU design meets functional, environmental, electromagnetic interference, and nuclear survivability requirements. Verification includes testing each serial number of the LRU that is produced to ensure it was built according to design drawings and to detect workmanship defects. LRUs are validated/verified through inspection, demonstration, analysis, simulation, and formal laboratory testing.

This position is part of a hardware team that includes mechanical, electrical, systems, and other hardware qualification engineers.

Essential Duties, Responsibilities, and Qualifications

- Must be a U.S. citizen and able to obtain a DoD Secret security clearance

- BS in an Engineering Field, or equivalent with 7-10 years of experience

- 4+ years of experience testing to EMI standards such as MIL-STD-461 or RTCA DO160

- Strong understanding of electromagnetic field effects

- Ability to objectively compile detailed level-of-failure modes into a probable theory of failure and validate that theory through testing

- Technical writing proficiency

- Ability to read schematics to understand how the design works and then craft test cases to prove functional requirements are met

- Ability to read assembly drawings and schematics and design test cases to ensure the LRU is built according to the drawings

- General knowledge of electrical design CAD tools such as Cadence and Zuken

- Ability to collaborate in a team environment; prioritize and adjust tasks to accomplish the project result; prioritize multiple responsibilities as directed and/or accomplish them simultaneously; and comprehend/analyze complex problems and develop solutions

- Strong organizational skills & knowledge of Microsoft Word, Excel, and PowerPoint

- Working knowledge of test equipment, including oscilloscopes, multimeters, power supplies, and electronic loads

Preferred Qualifications

- 5+ years with DoD experience

- Experience with nuclear effects/ionizing radiation testing

- Experience with verification and validation in an AS9100 QMS

- Experience with testing aircraft electrical power systems and MIL-STD-704

- Experience with testing to environmental standards and test methods such as RTCA DO-160, MIL-STD-810

- Experience with TEMPEST compliance testing

- Experience with requirement management tools such as DOORS or JAMA

- Current Secret or Top-Secret security clearance

Why Work for Crescent Systems?

At Crescent Systems, Inc. (CSI), we have cultivated a company culture that revolves around community and collaboration. We believe in fostering a supportive and inclusive work environment where employees are encouraged to thrive both personally and professionally. We are an employee-owned company and provide free medical, dental, and LTD to each of our employees. As an organization, we value excellence in every aspect of our business, from our products and services to our relationships with customers and our staff. Meeting company goals and fulfilling commitments is not just a priority but a source of pride, ensuring exceptional customer satisfaction.

If you're seeking to be part of a company that upholds strong values of ethics, quality, and community, then join us at Crescent Systems, Inc. We are always looking for dedicated individuals who share our vision and are ready to contribute their skills and expertise to our dynamic team.

Apply now to explore exciting career opportunities at Crescent Systems!

Salary: From $110,000.00 per year

Experience level: 5 years

Schedule: 8-hour shift, Monday to Friday

Application Question(s):
- Are you a US Citizen?
- Are you willing to undergo a background check, in accordance with local law/regulations?

Education: Bachelor's (Required)

Experience:
- EMI testing: 2 years (Required)
- full-time design: 2 years (Required)
- Cadence and/or Zuken: 2 years (Preferred)

Work Location: In person

- Test Requirements Documents, Test Procedures: 3 years (Preferred)
- Interface definition: 3 years (Preferred)
- Microsoft Word, Excel, and PowerPoint: 5 years (Preferred)
- Generating Verification Compliance Requirements Matrices: 3 years (Preferred)
- Generation of Requirements Verification/Test Plans: 3 years (Preferred)
- SysML and UML modeling of software: 5 years (Preferred)

Work Location: Hybrid remote in Richardson, TX