



Position Title: Test Engineer - Electrical
Department: Engineering
Reports To: Director of Engineering
FLSA Status: Exempt
Prepared Date: 4/18/2018
Approved Date: 4/18/2018

SUMMARY

The Test engineer is responsible for participating in the design of new products and manufacture of existing products as related to qualification testing and manufacturing tests. The role includes collaborating with R&D Engineering to provide input on Design for Test (DFT) considerations, determining what subsystems must be tested and establishing pass / fail criteria. The Test Engineer will architect test software using modular test code approach with an emphasis on simultaneous automated testing of multiple units of alike products. The Test Engineer will also support Test Technicians in diagnosing and isolating failures as well as developing trouble shooting guidelines for products. He or she will also create and maintain test procedures, work instructions and provide training of Test personnel as needed. The Test Engineer supports Quality and Procurement in resolving problems with contract manufacturers.

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

Design, develop and document test equipment and test procedures for production, including, but not limited to writing software and procedures to run tests and test equipment.

Develops test code modules that can be used for Design Validation Test (DVT), Qualification Test (QT), Production Test (PT) and debug of failed units while generating test records and identifying failures.

Develops test code and test stations that support simultaneous automated testing of multiple products of the same type and generate test records for each product.

Develops and conducts training sessions with Test personnel on test procedures and other technical issues.

Interacts with vendors to determine failure causes and develop solutions to resolve issues.

Analyzes failure data to identify trends, and respond to issues to avoid escalation.

Participate in Change Control Board (CCB) meetings for submitting, reviewing and approving Engineering Change Notices (ECN).

Work with Business Systems (IT) to improve integration of Test software and systems with the corporate ERP system (Microsoft Dynamics AX).

Work with Test Operators, Technicians, and Production management to develop new, and improve existing tools used in the manufacturing process.

Participate in root cause analysis and corrective action responses of system failures during the qualification or manufacturing process.

Understand Design for Testability (DFT) principles and provide input to R&D Engineering on new designs.

Work with Manufacturing Engineers for the design and assembly of custom test fixtures.

Participate in Material Review Board (MRB) to provide analysis and recommendations for the disposition of electrical assemblies that fail during manufacturing process.

Supervisory Responsibilities: Test Technicians 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 in Electrical Engineering (BSEE), Computer Engineering (BSCPE) or similar related degree with 5+ years of experience in a testing environment
- Experience designing test stations and automated testing software code
- Experience with Microsoft Windows and Linux operating systems

Required Knowledge, Skills, & Abilities:

- Ability to write and maintain programs in various languages: Perl, C++, Windows command shell, Linux bash shell, etc.
- Ability to read and understand schematics.
- Ability to use common test equipment:
 - Digital multi-meter
 - Oscilloscope
 - Logic Analyzer
- Ability to organize and prioritize tasks; excellent time management skills.
- Strong interpersonal, verbal and written communication skills to interface with internal employees and external vendors and be able to accurately document, report and present
- Proficient with Microsoft Office (Word, Excel & PowerPoint)
- A drive for results in a teambuilding environment
- No travel restrictions

Preferred Education & Experience:

- Experience in aerospace and/or manufacturing environment
- Agile SCRUM, Kanban experience
- Lean Six Sigma
- Experience designing tests for computer products with CPU's that are Intel, AMD or RISC based
- Experience with Microsoft Windows and Linux operating systems
- Working knowledge of Microsoft Dynamics AX 2012
- Ability to write reports, business correspondence, and procedures
- Ability to effectively present information and respond to questions

Physical Demands and Work Environment:

- While performing the duties of this job, the incumbent is frequently exposed to moving mechanical parts, fumes, or airborne particles, risk of electrical shock and vibration.
- The noise level in the work environment is usually moderate.
- The incumbent may be required to walk and stand for long periods of time.