

## Mechanical Engineer

### Job Summary:

Responsible for identifying, selecting, specifying, modifying, and verifying components, sub-assemblies, modules and mechanical equipment and hardware systems including appropriate documentation and mechanical design. Works on complex problems where analysis of situations or data requires an in-depth evaluation of various factors. Exercises within broadly defined practices and policies in selecting methods, techniques, and evaluation criteria for obtaining results. **The position is on-site in Allentown, PA.**

### Essential Duties and Responsibilities

- Provides forward looking product line design concepts and develop environments which allow company product to meet the rapidly changing market demands and establish a technological edge in the marketplace.
- Directs and will be part of technical activities of moderate to large design teams and establishes new techniques for test and manufacturing of these products.
- Provides technical expertise, mentoring, and consultation to team members.
- Conducts and participates in design reviews and design concept meetings
- Handles Field Technical Action Requests (FTAR) for safety, out of specification conditions, or product enhancements. Performs advanced problem diagnosis, root cause analysis, solution planning, implementation, and verification.
- Handles Customer Orders. Defines mechanical integration requirements, modules, interfaces and nonstandard designs. Creates required drawings and specifications in conformance with standard manufacturing codes.
- Provides sustaining engineering support for manufacturing. Reviews and responds to Engineering Change Requests (ECR). Resolves advance product problems during the manufacturing process. Integrates modifications into standard modules or sub-assemblies.
- Implements Product Enhancements and retrofits for customers. Liaisons with Field Service and external customers as needed to define requirements.
- Obtains applicable engineering drawing(s) and identifies impacted modules, sub-assemblies, and components. Modifies or creates drawings for new components/modules. Creates integration drawing and bill of materials for all modifications. Submits drawing for manufacturing release.
- Assembles installation kit including hardware, and documentation for Field Support.
- Creates required manufacturing ECOs/ECRs to fabricate modified assemblies or modules and partners with Technical Publications to prepare required customer documentation.
- Prepares technical justification for engineering changes, including impact on process, specification, quality, reliability etc. Bases recommendations on facts and data.
- Ensures all materials meet reliability and quality standards and conform to customer requirements.
- Assumes ownership for one or more bench subsystems or purchased components and resolve FTARs, ECRs, proposes improvements and tracks performance.
- Provides telephone and on-site advance product support as required

## **Requirements**

- A minimum of a BS in Mechanical Engineering or AS (or other relevant degree),
- Preferably experience in a mechanical manufacturing environment of single wafer and batch equipment for silicon wafer surface preparation field.
- Must be proficient in a CAD software package. (Solidworks, AutoCAD)
- Must have the ability to perform advance theoretical verification of engineering proposals.
- Able to create and interpret engineering drawings
- Must be able to function under a high level of stress.
- Must possess systematic problem solving and professional communication skills.
- Able to interact with all levels in the organization, suppliers and with external customers.
- Able to handle and prioritize multiple projects.
- Travel requirements to vendors, customers, and/or offsite training: less than 20%