**JOB DESCRIPTION**

**TITLE: HARDWARE RELIABILITY ENGINEER**

**FLSA STATUS: EXEMPT**

**REPORTS TO: DIRECTOR OF TAMR CHARACTERIZATION AND RELIABILITY**

**REQ#: 18-006**

**SUMMARY:**

# Under the direction of the Director of TAMR Characterization and Reliability, the Hardware Reliability Engineer is responsible for preparing concise and detailed life time test plans, implementing testing, performing data analysis, and presenting results; partnering with the wafer process team to identify process and material-related issues in TAMR wafers, and providing feasible solutions for reliability and performance improvement. This position is located in Milpitas, California.

## ESSENTIAL FUNCTIONS:

* Develops concise and detailed life time test plans using spin stand, drive, and other available methods
* Plans and coordinates life time testing, analyzes testing data, and presents the results via technical reports or presentations
* Performs failure analysis of TAMR heads, develops root cause, presents findings, and recommends corrective action if needed
* Partners with the wafer process team to identify process and material-related issues in TAMR wafers and provides solutions for reliability and performance improvement
* Develop and deliver new reliability testing procedures, methodologies, and test plan specifications
* Researches and presents new approaches for understanding and mitigating wafer failure and reliability issues
* Responds to inquiries from other team members, managers, or departments
* Adheres to all safety policies and procedures as required
* Performs other duties of a similar nature or level

**MINIMUM QUALIFICATIONS:**

* PhD in Electrical or Mechanical Engineering, Optics, Materials Science, or Physics, and/or equivalent relevant experience
* Strong knowledge of basic magnetic recording physics, reliability testing, and failure analysis
* Strong knowledge and experience using Excel, JMP, or similar software
* Proficient in the use of Microsoft Office Applications

# **Knowledge, Skills, and Abilities:**

* Strong knowledge of basic magnetic recording physics, reliability testing, and failure analysis using the FMEA methodology
* Strong knowledge and experience using Excel, JMP, or similar software; experience using accelerate testing
* Knowledge of failure analysis techniques such as XRD, RBS, SEM, TEM, EELS, EDS, etc.
* Knowledge of magnetic recording head, wafer fabrication, and HDD principles, practices, and techniques
* Knowledge and ability to use Microsoft Office applications to create spreadsheets, Word documents, and presentations
* Able to design experiments, analyze results, and recommend corrective action in order to improve reliability, yield, and performance
* Able to communicate effectively, both verbally and in writing, with all levels of contractors, consultants, employees, and management
* Able to work productively and collaboratively with all levels of employees and management
* Able to comply with all safety policies and procedures
* Demonstrated ability to work independently and with minimal supervision
* Demonstrated organizational and time management skills
* Demonstrated problem-solving and trouble shooting skills
* Flexible and able to prioritize

# **WORKING CONDITIONS:**

The Hardware Reliability Engineer works primarily in an office environment from Monday to Friday. The schedule may be altered from time-to-time to meet business or operational needs; may travel from building-to-building as needed. Occasionally, works in a class 100 ESD sensitive wafer fab manufacturing facility or testing laboratory; adheres to required safety and dress standards. Stands and walks; performs various fine grasping movements, bends, and twists; operates a computer and enters information using a keyboard, operates a telephone, and other office equipment. May occasionally push, pull, or lift up to 10 pounds.

\*Other duties of a similar nature or level are duties that may be required, but may not be specifically listed in the job description or posting.

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