**Job Description**

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| **Title:**  | Sr Reliability Engineer |  |  |
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| **Contact:**  | gauss.gao@ii-vi.com |  |  |
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| Basic Function of the Job |
| Evaluates, from a reliability standpoint, the materials, properties and techniques used in production. Advises design engineering on selection, application and test of optic/material/mechanical/electronic components and assemblies and systems. Determines reliability requirements of them. Performs risk assessment during selection, Develops new acceleration techniques and analytical tools to assure the early identification of potential problems with new products, packaging and processes. Makes recommendations for changes in the selection and application of them.Develop system product qualification and reliability plan and implementation.  |

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| **Organizational Relationships** |
| **Reports to:** | Manager of Reliability Engineering |
| **Direct Reports:** | NA |
| **Indirect Reports (through Direct Reports):** | N/A |
| **Dotted Line (Matrix) Reports:** | N/A |
| **Primary Location:** | Shanghai |

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| **Job Requirements** |
| **Education:** | * BS or MS or PHD in electrical/mechanical/chemical/materials engineering or physical sciences.
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| **Experience:** | * 8+ years of experience in product engineering/science operations, including 5+ years focus on system reliability and compliance is preferred.
* 2+ years product reliability management experience in product development.
* Capable of handling multiple projects at once.
* Strong attention to detail and capable of how technologies work.
* Demonstrated ability to lead people and achieve results through others, good cross-function communication capability is essential.
* Experience with problem analysis and resolution, such as, familiar with FA techniques (De-cap, X-ray/CT, Dye Pry, SEM/EDS, FIB, XPS, IPC-MS, C-SAM, OM, FTIR, DSC and etc.) and the ability to use failure analysis methodology to derive a root cause of failure.
* Proven track record of continuous improvement, have a good sense to support the improvement or optimization progressing.
* Able to develop long-term plans, programs and goals, to evaluate work accomplishments and provide effective feedback.
* Familiar with EMC mechanism and test as communication industry standards, EMC design principle is plus.
* Familiar with Compliance, such as laser/product safety, Network access license.
* Familiar with communication and industry relative standards, e.g: Telcordia series, JEDEC, MIL.
* Good reliability senses for system product, good activity, good reliability experiences.
* Familiar with common process methods, such as PCB/PCBA process, glue process, IC package and so on.
* Statistically analyzing data to provide design risk assessments, such as general distribution formulas (Exponent, Weibull, ect.).
* Effective DFMEA experience and reporting.
* Product Development Process experience and disciplines.
* Experience with Design in Reliability techniques and advance testing techniques.
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| **Special Skills:** | * In-depth technical knowledge and understanding of fiber-optics and its practical application. DWDM and OTN network understanding is preferred.
* Acoustic Noise test, Earth quake test, corrosion test mechanism and have good sense to improve some issues.
* Deal with Compliance capability is essential in daily work, in particular, for system product.
* Data management and analysis
* Leadership and the ability to work highly independently with minimal guidance from supervisor on specific tasks
* Excellent program management and independent planning skills for cross-functional programs
* Creative, analytical and structured problem solving capabilities
* Excellent interpersonal, communication and presentation skills
* Ability to prioritize multiple external and internal projects correctly
* Ability to lead employees in a cross-organizational, cross-cultural, global team environment
* Handle special assignments with speed and effectiveness
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| **EHS Demands:** | While performing the duties of this job, the employee is strictly required to follow the guidelines as below:* Electrical shock. There’re two kinds of electrical power supplier at lab area, including 220V and 110V. Pls. check the devices labels and instructions carefully before plug-in, and do not touch or operate any power distribution system without right training.
* Fiber injury. Be careful of the fiber debris for all fiber handling. Take the protection glasses for fiber cutting, splicing and welding.
* Laser power hazard. Know the laser hazards to skin and eyes. Do not view directly or exposure to the beam. Take the high power protection glasses for all the high power test at specified area with clear warning labels.
* Fire safety. Know the locations and operating procedures of all safety equipment including: fire extinguisher, fire alarm and the emergency exits. Follow the fire drill requirement, and turn off the electrical equipment if possible.
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| **Job Element** | Wt % | **Specific Duty** |
| **1) New Product Programs** | 85% | 1. Evaluates, analyzes and determines the selection of reliable and proven materials and components. Determines reliability specification requirements of component, module and subsystems.
2. Develop new acceleration techniques and analytical tools to assure the early identification of potential problems with new product design, packaging and processes.
3. Product and process development technology review and documentation.
4. Specialist technical support for customer enquiries.
5. New product design reliability programs and planning.
6. Take lead data collection and analysis and produce formal reports to external customers.
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| **2) Operations Support and Sustaining Engineering** | 15% | 1. Provide technical support for manufacturing personnel.
2. PCN and ECN Change Order approvals including product drawings, BOMs, software updates.
3. Ensure product design documentation control and manufacture release documentation is accurate and up-to-date.
4. Process troubleshooting and yield improvement.
5. RMA investigations and implementation of corrective actions and field performance monitor.
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