DenseLight
a POET Company
Co. Reg No. 200004082G
ISO 9001 Certified Company

6 Changi North Street 2 Singapore 498831
Tel: +65 64154466 Fax: +65 64154468
www.denselight.com

Optoelectronics Test Development and Analysis Engineer

JOB DESCRIPTION

Optoelectronics test engineers are to develop test methodologies, test setup and analyse test results for existing and new products. They will work closely with the New Product Introduction team and operation group to maintain and improve test efficiencies. For new products, they are responsible to characterize the product performance for emerging technologies.

RESPONSIBILITIES

- Design and develop the test methodology, test setup and test plan and procedures to characterize the optical, electrical, RF and thermal performance of optoelectronics devices, including but not limited to FP lasers, DFB lasers, gain chips, SLEDs, semiconductor optical amplifier, electroabsorption modulator/laser, photodetectors, photonics integrated circuits and their packaged modules, as well as photonics systems such as 100Gbps data-center transceivers, 10Gbps FTTX transceivers, and external cavity lasers to meet targeted design goals and requirements.
- Perform the test and characterization runs to support the test requirements of New Product Innovation, Non-Recurring Engineering, Request For Customization and Product Improvement Projects.
- Perform waveguide and optical coupling tests of passive components, and electro-optical test to characterize active optoelectronics devices and photonics integrated circuits.
- Perform high frequency characterization, including using vector network analyzer and 25Gbps BERT analysis to characterize optoelectronics devices and transceiver optical engines.
- Analysis of measured test results together with correlation to design requirements and simulation results to iterate towards improvement in design and performance of the optoelectronics devices and packaged modules.
- Generate test reports with measurement results and detailed analysis in a timely manner.
- Contribute actively to the build-up of test and characterization capabilities of the Advanced Photonics Engineering Lab, including maintenance of test setups and test jigs and calibration of the measurement instrumentation, as well as software control and automation of the test setups.
- Work closely with the wafer fab, assembly and packaging, design and product teams of both in-house and outsourced partners.

REQUIREMENTS

- Post-graduate Degree (MEng/PhD training in semiconductor based light emitting optoelectronics or fiber-optics data communications preferred)
- Minimum 5 years' working experience with technical background in optoelectronics and optical component, photonics device system and sub-system
- Proven working experience in optoelectronics in the manufacturing industry
- Specific Knowledge / Skills :
    - Team Player
    - Excellent organizational skills and multi-tasker