



Optoelectronic Packaging Engineer

SemiNex Corporation is a small but rapidly growing leader in high-powered laser modules and optical amplifiers for cutting-edge industries like automotive LiDAR, data communications, medical aesthetics, and industrial sensing.

Our dynamic R&D team is looking for an Engineer to take a leadership role in electro-optical packaging, testing, and characterization of semiconductor optoelectronic devices. Your responsibilities will include engineering ingenious opto-mechanical packaging solutions at both the chip and board levels, encompassing fiber butterfly, fiber 4PN, fiber bragg grating (FBG), and fiber-coupled laser TO can packages.

At SemiNex, our high-power semiconductor diode lasers are renowned for their best-in-class performance in power and efficiency. Our devices encompass a wide range, from high-power Fabry-Perot multimode and single-mode laser diodes to DFB laser diodes and semiconductor optical amplifiers, utilizing cutting-edge InP, GaAs, and GaSb material systems.

If you're passionate about pushing the boundaries of optoelectronics and making a significant impact in a fast-paced environment, then this opportunity is tailor-made for you. Come join our team and be at the forefront of groundbreaking technologies that shape the future.

Specific Responsibilities:

- Support the design, modeling, component procurement and assembly of various packaging configurations for semiconductor laser (III-V) devices.
- Support testing and characterization of new semiconductor lasers at the packaging device level.
- Design and develop optical and opto-mechanical assemblies and sub-systems.
- Assemble, align and evaluate lasers and optical systems performance at the component, subassembly and system levels.
- Design and build prototypes, create detailed drawings and instructions for production.
- Develop and execute laser package component reliability and qualification.
- Participate in laser devices engineering execution of multiple projects from design, prototype to production.
- Provide engineering services such as work instruction development, tooling and fixture design.
- Document and communicate packaging solutions and device performance.
- Participate in the full product life cycle from Concept Design, Prototyping, Production Release and Support.
- Drive continuous improvement on optoelectronics packaging of existing laser products.
- Conduct design reviews and be accountable for meeting cost goals & schedule milestones.
- Prepare product technical requirements and specifications.
- Responsible for technical documentation (CAD drawings, BOM's etc.).
- Work closely with management on products and customer requirements.
- Provide technical support to manufacturing, sales, and marketing.
- Provide technical assistance and guidance to customers and vendors.

Requirements:

- MS in an Optical engineering field, or BS in Mechanical Engineering and 3+ years of optical design experience working inside a photonics manufacturing company.
- Experience in the packaging, electrical and thermal management of semiconductor devices.
- Experience using optoelectronic packaging, such as solder deposition, die attach process, flip chip bonding, wire bonders, etc.
- Knowledge of CAD software, LabVIEW, simulation tools such as Zemax OpticStudio, CODE V and FRED, or programming languages commonly used in opto-mechanical engineering such as MATLAB or Python.
- Attention to details and ability to communicate technical designs and challenges.
- Ability to lead a project.
- Support a fun and positive work environment!

Work Location:

Danvers, MA near interstate I-95 and US Route 1

Company Background:

SemiNex was founded to bring next generation high-power laser diodes to mass-market applications including in LiDAR, medical aesthetics, laser range-finding, and in telecommunications. SemiNex's high-power semiconductor diode lasers have world-class performance in power and efficiency.

At SemiNex, our talented people make us successful. We promote an inclusive environment where we value individuality, differences, and unique perspectives. SemiNex is a fast-growing company that will provide ongoing career growth and advancement for all employees. Benefits include 401k, health insurance, bonus incentives, and company stock.