



Heterogeneous Integration Expert for Si Photonics

About the company

QPlox Engineering is a leading technology company specializing in innovative solutions for IoT frameworks, instrumentation systems, and test automation. Our clients are major multinational enterprises and local companies from automotive, semiconductors, RF, and consumer electronics. We are committed to pushing the boundaries of technology and providing our clients with cutting-edge solutions. Our dynamic team thrives on collaboration, creativity, and continuous learning.

Job Description

We are looking for a **dynamic Heterogeneous Integration Expert for Si Photonics** who is passionate about overseeing the integration of active photonic devices - including lasers, modulators, and photodetectors - into next-generation transceivers and other high-performance photonic systems.

Key Responsibilities

- **Lead Heterogeneous Integration Efforts:** Develop and implement novel integration schemes and processes to incorporate active and passive photonic components into our Silicon Photonics platform, while overseeing their fabrication and characterization.
- **Architect and Optimize Process Modules:** Define new process architectures for integrating lasers, semiconductor optical amplifiers, photodetectors, and other active devices, optimizing device performance and process cost to meet overall requirements.
- **Cross-functional Collaboration:** Work closely with device design, process engineering, and system architecture teams to ensure compatibility and alignment with overall platform goals. Facilitate effective and clear communication to bridge design and fabrication teams.
- **Project Management and Team Leadership:** Manage and lead project timelines, resources, and milestones effectively. Provide leadership and technical guidance to a cross-functional team, fostering collaboration and addressing technical challenges.
- **Feasibility Analysis and Innovation:** Conduct feasibility studies and prototyping to assess new integration methods, with a focus on advancing heterogeneous integration within Silicon Photonics. Continuously explore advancements in Silicon Photonics, semiconductor lasers, and heterogeneous materials to drive platform innovation.
- **Documentation and Communication:** Prepare detailed documentation of process development and results. Present findings and recommendations to stakeholders and development divisions, ensuring clear and effective communication.

Location: Leuven, Belgium

Candidate Requirement

- **PhD in Photonics, Physics, Electrical Engineering, Materials Science, or a related field** with a focus on Silicon Photonics and heterogenous integration
 - Proven expertise in adv photonic device fabrication, laser integration and heterogeneous integration technologies in silicon photonics is essential.
 - Solid understanding of device physics and performance requirements.
 - Knowledge of quantum dot-based gain media is considered a plus.
 - Proficiency in Silicon Photonics design and simulation tools, such as Lumerical and COMSOL Multiphysics, is an advantage.
 - Demonstrated project management with the ability to oversee project timelines, coordinate across teams, and deliver on complex, multi-stage R&D projects.
 - Proficiency in effectively communicating complex technical information to a diverse audience, including stakeholders, engineers, and non-technical teams. Strong documentation skills are essential.
 - Team leadership experience and interest in people management is considered a plus.
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Benefits

- Competitive salary and benefits package.
 - Opportunities for professional growth and development.
 - Collaborative and innovative work environment.
 - Plenty of learning opportunities.
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Contact

Send your CV and application letter detailing their experience and qualifications to jobs@qplox.com with the subject "**Heterogeneous Integration Expert for Si Photonics**".
