SCINTIL PHOTONICS

R&D Engineer Packaging & Assembly

Silicon photonic Integrated Circuits

Type et term of contract: CDI (full time, permanent)

Contact: hiring@scintil-photonics.com

Who are we?

SCINTIL Photonics is a fabless company that develops, and supplies silicon photonic integrated circuits augmented with integrated lasers and optical amplifiers, for ultimate optical connectivity in Data Centers, Cloud HPC and 5G infrastructure.

Its solution combines the best of Silicon (Si) and Indium Phosphide (InP) photonics using wafer-scale bonding of III-V on Si. And it uses commercial silicon photonic foundry to mass-produce its Augmented Silicon Photonic Integrated Circuits (PIC).

Based in Grenoble, France and Toronto, Canada, SCINTIL is currently taking its innovative technology to an industrial level as it gears up for mass production.

Position summary

For our Grenoble office, we are looking for a Senior R&D Engineer in semiconductor packaging to join our team in charge of developing industrial packaging concepts and processes for our photonic chips. This includes ensuring that these packaging solutions are ready for integration into our customers' latest generation of high-performance computing solutions or data communication modules.

Job description

- Design of advanced packaging solutions for semiconductor circuits, taking them from design, prototype to mass production for applications with high thermal constraints
- Analysis of existing solutions, development, and qualification proposals
- Development and optimization of packaging and assembly processes (flip-chip, wire-bonding, fibre attachment, etc.)
- Identification and management of subcontractors (OSAT) for implementation in prototyping, small series and then in volume
- Interaction with customers to ensure it meets the product requirements
- Project set-up and follow-up
- Contribution to the product reliability assessment plan
- Documentation of solutions and assembly processes

Requirements

Education: Education: PhD, engineering school or master's degree with solid experience in industrial and/or mechanical and/or materials engineering or equivalent experience

Technical skills:

- 3 years of hands-on experience in advanced semiconductor assembly processes (metallization, back grinding, cutting, pick & place, flip-chip, wire-bonding, multi-chip module) and ideally also micro-optical or fibre optic assembly
- Good understanding of high-density interconnects, mechanical, thermal and reliability constraints, associated with the cost trade-offs of various assembly technologies
- Knowledge of CAD software (SolidWorks, Comsol...)

Soft skills:

- Creative and motivated to develop new solutions with hands-on attitude and willingness to take on complex technical challenges
- Communication with cross-functional teams to ensure quality and reliability of the design from prototyping to production.
- Diplomacy, thoroughness, good synthesis skills and organisation.

Linguistic skills (mandatory):

- English read, spoken, and written, minimum level C1 or equivalent.
- French read, spoken, and written, minimum level C1 or equivalent.