CAREER OPPORTUNITY

RF Engineer – Electronic–Photonic Integration

Kgs. Lyngby, Denmark | Full-time | On-site

Help connect advanced photonic devices with the electronics that drive them. At Lizard Photonics, you will work across RF design, electronic–photonic integration, and hands-on electro-optic measurements, turning simulations and device concepts into experimentally verified performance.

About Lizard Photonics

We are a Danish deep-tech start-up originating from the Technical University of Denmark (DTU), developing ultra-low-power, highly efficient silicon photonic devices for AI data-center interconnects. We are expanding our engineering team to bring our technology from device development towards integrated, high-speed demonstrations and commercial applications.

You will work closely with photonic device designers, fabrication engineers, and external partners. Your work will directly influence our device interfaces, measurement capabilities and integration roadmap.

What you will do

- **Design and simulate RF interfaces for active photonic devices**, including electrodes, contact pads, transmission lines, biasing networks and electrical interconnects. Evaluate bandwidth, impedance, losses, reflections, and parasitic effects.
- **Co-design electronic–photonic interfaces**, connecting photonic devices with drivers, amplifiers, PCBs, interposers and packages. Translate device requirements into practical electrical designs, considering voltage swing, capacitive loading, signal integrity, and power consumption.
- **Build and improve RF and electro-optic characterization setups using vector network analyzers** (VNAs), RF probes, bias tees, high-speed photodetectors, oscilloscopes and optical equipment.
- **Measure and interpret electrical and electro-optic performance**, including S-parameters, input impedance, EO frequency response, and bandwidth. Perform calibration and de-embedding to distinguish device behavior from cables, probes, fixtures, and measurement equipment.
- **Develop electrical models of active photonic devices and their interfaces**, using measurements to extract parasitics, validate simulations, and identify performance limitations. Work with the team to improve device layouts and integration approaches.
- **Automate measurements and analyze results using Python, MATLAB, LabVIEW, VISA/SCPI,** or similar tools. Document procedures, maintain reproducible measurements, and lead structured troubleshooting.

What you bring

- A Master’s degree or PhD in electrical engineering, RF/microwave engineering, electronics, optoelectronics, photonics, communications engineering, applied physics, or a related field. A Bachelor’s degree with strong relevant industry experience is also welcome.
- Practical experience in **both RF design and experimental characterization**, including work on electronic–photonic interfaces or the RF/electrical aspects of active photonic devices.
- Hands-on experience with **VNAs and electro-optic characterization**, including calibration, S-parameter analysis, and an understanding of measurement limitations.
- A sound understanding of transmission lines, impedance matching, capacitive loads, parasitic effects, RF probing, and high-frequency signal integrity.

- Experience with relevant circuit or electromagnetic simulation tools, such as Keysight ADS, Ansys HFSS, CST, Cadence, SPICE, or comparable software.
- Experience with measurement automation and data analysis, good English communication skills, and a collaborative approach to solving problems across disciplines.

It is a plus if you have

- Designed or characterized **high-speed photonic modulators**, photodetectors, or other active optoelectronic devices, particularly silicon-photonic resonant devices.
- Worked on **high-speed optical communications**, including eye diagrams, bit-error-ratio measurements, NRZ/PAM4 signaling, jitter, optical modulation amplitude, or link budgets.
- Used high-speed oscilloscopes, arbitrary waveform generators, pattern generators, or BERTs to evaluate devices and communication links.
- Experience with modulator drivers, TIAs, differential signaling, equalization, or SerDes interfaces.
- Experience with RF PCB design, wire-bond or flip-chip interconnects, packaging, wafer-level testing or electronic–photonic co-packaging.

Why join us?

- Join the core team at an early stage and help shape our technology and engineering capabilities.
- Work across the full path from RF modeling and interface design to laboratory measurements and integrated demonstrations.
- Take ownership of technically challenging work with a direct influence on product performance.
- Join a collaborative international team with strong academic and industry connections and access to advanced laboratory facilities.
- Grow alongside the company, with opportunities to take on broader technical responsibility and potentially build and lead a team.

Role details

Full-time | Kgs. Lyngby, Denmark | Regular on-site laboratory work | Start date by mutual agreement | Salary based on experience.

Ready to apply?

Apply with your CV, a short note about your motivation, and a relevant RF design, electronic–photonic integration, or measurement project you have worked on. Tell us what you personally contributed and what you learned.

Apply here or send your documents directly in a single document to info@lizardphotonics.com

We value different perspectives and are committed to an inclusive workplace. You do not need to meet every preferred qualification to apply. If you have a strong foundation in the core requirements and are interested in the role, we would like to hear from you.