
About the company

QploX is a fast-growing company offering test and automation engineering. Headquarters in Leuven, with offices in Barcelona and Eindhoven.

Our clients are major multinational enterprises and local companies from automotive, semiconductors, RF, consumer electronics.... Our Test automation group offers a one stop shop for designing automated test benches, system integration production, lab automation and data acquisition systems, with a growing focus in IoT sensor networks.

Our consultancy department offers services in RF, semiconductors and electronics design and test, as well as on the crossing roads of Nanotechnology, Bio-Science Engineering and Biotechnology.

Job Description

We are looking for a Characterization Expert in Active Visible Integrated Photonics to support a large internal research project focused on qubit control technologies.

In this role, you will perform advanced measurements and characterization of active visible integrated photonic circuits and contribute to the development of next-generation quantum photonics systems.

You will work in a high-tech laboratory environment, collaborate with multidisciplinary researchers, and provide weekly reports on experimental progress and measurement results.

Key Responsibilities

- Photonic Component Characterization
 1. Perform spectral characterization of passive photonic components
 2. (*waveguides, gratings, ring resonators, etc.*)
- Advanced Modulator Measurements
 1. Characterize modulators including:
 2. $V\pi L$ measurements
 3. Rise and fall time measurements using pulsed RF and oscilloscope
 4. S11 / S21 RF characterization
 5. Sideband generation analysis through heterodyne detection
- Noise Analysis
 1. Conduct phase noise characterization
 2. Extract and quantify added modulator noise
- Data Analysis & Reporting
 1. Document and communicate results through precise measurement reports
 2. Provide weekly progress updates
 3. Identify and flag technical issues or anomalies in a timely manner

Location: Leuven, Belgium

Required Skills and Knowledge

- Extensive experience with active integrated photonics, including:
- Vertical and horizontal optical coupling
- Spectral characterization
- Extraction of modulator specifications
- Strong experience with Vector Network Analyzers (VNA) including:
- S11 / S21 measurements
- Calibration procedures, Spectrum analysis, Phase noise measurements
- Experience with RF probing of Photonic Integrated Circuits (PICs)
- Experience with lab automation using Python
- Ability to interface with: Lasers, Wavemeters, Vector Network Analyzers, Oscilloscopes, RF signal generators, RF spectrum analyzers
- Experience collecting and managing large experimental datasets
- Ability to independently manage day-to-day laboratory operations
- Comfortable interacting with equipment manufacturers
- Ability to upgrade and optimize measurement setups

Profile

- Highly hands-on experimental physicist or photonics engineer
- Strong analytical mindset
- Able to work independently in a research lab environment
- Excellent technical reporting and communication skills

Contact

Send your CV and application letter detailing their experience and qualifications to jobs@qplox.com with the subject "**Senior Photonics Characterization Engineer**".
