PIC Engineer: Reference ZPM1406P

Location: Bristol, UK

About

At Zero Point Motion we are redefining the limits of inertial sensors to enable high precision positioning and navigation. Our mission is providing exquisitely low-noise readout of acceleration and rotation using cavity optomechanics in a hybrid micro-electro-mechanical systems (MEMS) and photonic integrated circuit (PIC) chip.

We're an early stage start-up founded in 2020 to commercialise technology invented by the CEO Dr Lia Li, with a founding team comprised of eminent semiconductor veterans. We operate a fabless business model, and are VC funded.

We are seeking enthusiastic technical engineers to join our team and shape our technology design, strategy, and workflow. Together we will bring aerospace/defence levels of sensor performance to commercial mass markets and transform indoor, autonomous and GNSS-denied navigation. Can you help us disrupt the inertial sensing market?

Zero Point Motion is based in Bristol, and supports virtual working practices where applicable.

Role Overview

We are seeking experienced PIC design and testing engineers to support development of our MEMS/PIC inertial sensor devices. Our collaborative culture of knowledge exchange means no prior experience in MEMS inertial sensors is required, just your enthusiasm to learn. We are especially eager to find candidates with experience in chipscale LIDAR, optical switches or MEMS-enabled silicon photonics.

You will be working directly with the company CEO/inventor, and will be responsible primarily for testing of PIC chips and our PIC/MEMS inertial sensors for high volume commercial applications. Your background in integrated silicon and/or silicon nitride PICs including laser and detector testing will influence key design decisions and test flows.

You will part of our core technical team working with an experienced group of electronic engineers, physicists, chip designers and hardware engineers in a fast-paced environment that requires self-motivation and a willingness to embrace new ideas. We want dynamic people that understand the scale and nature of our goal, who can challenge our assumptions. This is an exciting opportunity for a PIC engineer to join a small start-up with big ambitions who will value your personal initiative.

What you'll accomplish

- Test photonic devices in our laboratory, including testing setup preparation, instrument automotive control, data process, and procedure development
- Create statistical analysis on test data, working with the design and simulation team to align experimental results with predicted performance
- Be involved in discussions with foundries, packaging houses and suppliers to understand test requirements
- Operate a variety of test equipment that spans optical, thermal, mechanical and electrical domains
- Support simulation and layout activities

The critical attributes we'll use to compare candidates

- Hands on experience on testing with a passion for optimising test setups, automation & efficient test processes
- Demonstratable experience of silicon and/or silicon nitride PIC design, simulation and testing using tools such as Lumerical, IPKISS, COMSOL
- Broad knowledge base across light sources, detectors that translates into experimental skills

Must-have-skills

- Masters / PhD in Physics or Engineering
- PIC design, tape out and experimental testing experience (3+ years preferable)
- Experience working within small engineering teams or research groups
- Excellent analytical skills with an eye for detail and accuracy
- Demonstrate a strong discipline for thorough documentation
- Ability to distil and communicate scientific information effectively with the wider team
- Highly adaptable, good communication and interpersonal skills
- Ability to multitask and meet deadlines

Package

- Competitive salary
- Generous company package including share options, Royal London pension, and sick pay
- Flexible working arrangements

Location & Travel

Zero Point Motion's office and lab space is located in the Bristol University Quantum Technologies Innovation Center amongst likeminded start-up companies. There will be occasional travel throughout the UK and abroad for conferences, meetings and engineering visits.

Zero Point Motion is determined to foster belonging and empowerment at work. We are committed to providing a work environment where there's a zero-tolerance approach to discrimination, and everyone is treated with respect. Equity, diversity and inclusion are central

to our mission and we strongly encourage candidates of all different backgrounds and identities to apply. If you need assistance or an accommodation due to a disability, please contact us.