



Job Title: Senior Product Engineer

Team – Product and Quality Engineering of Operations

Location – Cambridge, England

Contract – Permanent

Company Background

Cambridge GaN Devices (CGD) is a tech start-up with the mission to transform the way the world deploys energy by delivering the most efficient power switch. No more wasted energy and yes to efficient power electronics that can enable less CO₂ emissions and smaller, less bulky electronics. CGD is a fabless semiconductor company, spun out of the world-renowned Electronics Department at the University of Cambridge, and is focused on designing, developing and commercialising power transistors and Integrated Circuits based on the most efficient material available, Gallium Nitride (GaN).

Triggered by a world-wide need to save energy and achieve a more sustainable use of natural resources, the power electronics market will see significant innovation over the next 10 years. Having already built a team who are leaders in their field, with decades of expertise in the power semiconductor industry, CGD are leading the way towards this energy-revolution.

Would you like to contribute to shaping the future of power electronics, by joining a growing team in a passionate and innovative environment? Join CGD and be part of the adventure!

The Opportunity

CGD is looking for a Senior Product Engineer to join our growing product and quality team. Reporting directly to the Director of Product and Quality Engineering, this is an amazing opportunity to join CGD at an early stage and help drive the product and quality function, developing it further as CGD grows.

You will work closely with both internal teams, and with leading external fab and assembly houses worldwide, to help make best performance and high quality GaN devices for our international customers.

The role is based at the company's office in Cambridge, UK, though it is expected that travel will be required for this role.

Main Responsibilities

Reporting to the Director of Product and Quality Engineering, you will play a key role in the development and manufacture of CGD's products. This will include responsibility for New Product Introduction (NPI), Yield Engineering, and Product Quality. It will require close interaction with CGD's internal team as well as CGD's global network of partners that provide CGD wafer fab, assembly and test, reliability test and failure analysis services.

Skills and Experience

Essential

- A Bachelor's degree or above in Electronics, Microelectronics, Semiconductor Physics, Engineering or similar disciplines
- Demonstrable experience within the semiconductor industry, ideally working in a Product Engineering, Test Engineering or Quality Engineering role from NPI to high volume production stage
- Solid experience in at least from one of the following areas:
 - Wafer fab: Process Integration, Yield Enhancement, D0 Control and Defect Reduction strategy.
 - IC Assembly: QFN/DFN/FC Assembly Process or Package Design, Assembly Quality Control, BOM optimization, Yield Engineering
 - IC Test: Test Program Development, Wafer Probe and IC Test Hardware Development, Yield Engineering
 - Fabless Semiconductor or IC Design: IC Product Qualification Plan, IC Reliability and Failure Study, RMA Handling
- Knowledge of WAT, WS/CP and FT data analysis and correlation methods
- Strong data mining and analytical skills. Familiar with semiconductor industry data analysis tool/software, e.g. Galaxy, Ktool, DR Yield, yieldHUB, Yieldwerx, Spotfire, etc.
- Good knowledge of general semiconductor industry process quality control system and statistical analysis methodology: SPC charts review, Cp, Cpk improvement, etc.
- A solid understanding of ISO9001 and ISO14001 general Quality and Environmental policies
- Familiar with Semiconductor Qualification procedure and JEDEC standards
- Good communication skills and team player attitude
- Flexible and able to handle multiple projects in parallel
- Willing and able to travel worldwide when needed
- Fluent in English, both writing and speaking

Desirable

- Planning and management of NPI and IC Qualification
- External and Internal Quality Audit experience
- Experience of power discrete or power integrated circuit manufacture

- Multi-culture awareness

Benefits

- Excellent salary
- Life Assurance
- Pension scheme
- BUPA Cash Plan – Level 3
- Share options scheme available (so you own a piece of the company!)
- Annual leave allowance of 33 days (including bank holidays)
- Flexible working options (both location and times)
- IP bonus scheme
- Referral bonus scheme
- Training and development
- Involvement in collaborative projects and grants with University of Cambridge and other partners
- Regular social events including frequent company lunches, annual Summer party, Christmas party, team building and wellbeing activities

We believe in equal opportunities

It takes a diverse and inclusive community of passionate, talented and committed people to build a system to shape the future of power electronics. We're an equal opportunity employer, and welcome applications from people of all backgrounds, with different outlooks and experiences. We are well set up for collaborative hybrid working, with some members of the team working in the UK office and some from home in the UK and other cities in Europe and Asia.