
Hardware Development Test Engineer

Our company

Global Inkjet Systems (GIS), a division of Nano Dimension, is an award-winning global leader in developing and supplying innovative application software, advanced electronics, and ink system components for the industrial inkjet printing market. We specialise in creating next-generation, customised software and high-performance printing system components, delivering comprehensive solutions for customers worldwide, including direct-to-shape printing, cutting-edge inkjet hardware, and 3D printing technologies.

We foster a friendly culture for people to work collaboratively towards success, communicate openly to challenge the norm and nurture people to create future thought leaders.

The position

We are seeking a skilled and experienced **Mid to Senior level Hardware Development Test Engineer** to act as a vital bridge between hardware (HW) development and production teams. This role involves rigorous testing and validation of new hardware designs, developing and implementing test procedures, and ensuring systems are thoroughly prepared for production. The ideal candidate has strong experience in electronics testing, a solid understanding of key electronics principles, and hands-on experience in software and test development, particularly using Python.

Activities and Key Responsibilities:

- **Rigorous Testing of New Electronics Designs:** Conduct detailed testing of new electronics to evaluate their functionality and performance against requirements.
- **Stress Power Supplies and Amplifiers:** Test power supplies and amplifiers across a range of input and output conditions, including static and dynamic loads.
- **Creating Test Reports:** Prepare comprehensive test reports documenting methodologies, results, and recommendations for design improvements.
- **Debugging Board Failures:** Diagnose and troubleshoot hardware failures at the board level, identifying the root causes and providing solutions.
- **System Testing:** Set up and test systems, such as multi-head print rigs, to ensure their operational readiness.
- **Design and Specification of Test Rigs:** Design and specify test rigs, such as heatsink or water-cooling plates, to support hardware validation processes.
- **Bridge Between Design and Production:** Act as a liaison between the design and production test teams, ensuring smooth communication and the transfer of knowledge between departments.
- **Developing Production Test Procedures:** Create and refine procedures for testing in production environments to ensure repeatability and reliability.
- **Possible Development of Production Test Software:** Contribute to the development or enhancement of software tools used for production testing, automating processes where possible.

Required Experience & Skills:

- **Testing PCBs / Electronic Systems:** At least 3 years of hands-on experience in testing printed circuit boards (PCBs) and electronic systems.

- **Strong Communication Skills:** Ability to effectively communicate technical information to both internal teams and external stakeholders.
- **Excel Proficiency:** Experience using Excel to analyse data, generate reports, and manage test data.
- **Electronics Knowledge:**
 - **Expertise with Lab Equipment:** Strong experience using lab equipment, including signal generators, oscilloscopes, digital loads, and thermal cameras.
 - **Power Supply Design:** Understanding of power supply design principles.
 - **Amplifier Design:** Understanding of amplifier design principles.
 - **Circuit Diagrams:** Good understanding of electronic circuit diagrams.
 - **PCB Design Tools:** Familiarity with PCB design tools.
- **Software Experience:**
 - **Python Programming:** Familiarity with Python for scripting and automation tasks in testing environments.

Preferred Experience & Qualifications:

- **Education:** HND or Bachelor's degree in Electronics, Electrical Engineering, or a related field.
- **Altium Designer:** Experience with Altium Designer would be advantageous for design and testing tasks.
- **Additional Software Skills:** Experience with programming languages like C++ and Groovy is a plus.

Benefits on offer:

- Pension contributions
- Company Private health insurance
- Access to private Dental
- Life insurance
- Company-funded staff kitchen with snacks, chocolate, drinks and fruit
- Company-funded social events
- Company-funded Charity Committee
- 25 days annual leave
- Cycle-to-work scheme
- Friend work environment
- Free Tastecard Membership
- Quarterly Recognition Awards