Job Description

|  |  |
| --- | --- |
| **Position:** | Hardware Engineer |
| **About the Company, and working environment:** | CyanConnode is a world leader in narrowband radio frequency (RF) Smart Mesh Networks, headquartered in Cambridge UK, with subsidiaries in India and Sweden.  CyanConnode is an equal opportunity employer, and we take pride in the diversity of our employees, valuing the special experience and expertise that people from different cultures and backgrounds bring to our business.  We are a global organization with employees from many different countries and backgrounds in the UK and India. The ability to develop ground-breaking technologies is one of our key assets and our people make it happen.  Open plan office with excellent facilities, adjacent to the world-renowned Science Park in Cambridge, with access to private meeting rooms and private car parking, and hybrid working environment. |
| **Directly reports to:** | Hardware Team Lead - UK |
| **Direct reports:** | None |
| **Regularly interacts with:** | Hardware and Operations departments  Software Team  External:  Test Labs / Accreditation facilities  Suppliers / CEM’s / Vendors |
| **Primary location:** | CyanConnode office on Cowley Road, Cambridge |
| **Travel requirements:** | Occasional visits to external test laboratories and UK CEMs.  Occasional international travel to CEM sites in India / Far-East |
| **Role description:** | CyanConnode is currently seeking a Hardware Engineer to join their Hardware team, based in Cambridge, near the Science Park.  This opportunity would be ideal for an experienced engineer with minimum 5-7 years of work experience in hardware development and testing, familiar with mass production.  This role will be suitable for any professional looking for the opportunity to play a key role in the growth of a fantastic business. |
| **Primary responsibilities**  **will include:** | This role requires a hands-on, practical Engineer with knowledge and, ideally, some experience in the following areas:   * Supporting the business in the delivery of new products and projects from Hardware perspective. * Sub-1GHz RF Communications based Product Development and Validation. * Cellular Technology based Product Development and Validation. * AC/DC and DC/DC Power Supply Development and Validation. * 32-bit MCU based Product Development and Validation. * Battery Charger Circuitry Development and Validation. * Compliance / Pre-Compliance / Certification testing. * Testing and verifying product performance / endurance against design specifications and producing test reports. * Hands on debugging / reworking, hardware bring up, use of standard lab equipment. * Knowledge of Altium designer. * DFM, DFT experience for medium and/or high-volume product manufacturing.   The candidate may also be called on to support the Manufacturing Operations teams as and when required. |
| **Experience and skills**  **required:** | The following capability would be required:   * Solid understanding of electronics design from first-principles / ground-up development - **essential** * Proficiency in Altium Designer for Schematics Capture and PCB Design – **essential**. * Design circuitry with modern 32-bit Microcontroller(s) with associated interface(s) (SPI, I2C, UART, USB) – **essential**. * Significant experience of sub-GHz RF design for SigFox/LoRA/Zigbee/RFID/IOT devices or similar – *desirable*. * Experience of simulation tools for electronics design like LTSpice, TinaTI, Simetrix (or similar) - **essential** * Experience of designing Power Supplies – Buck / Boost / Buck-Boost DC-DC type designs – **essential**. * Experience with integrating COTS Cellular Modems and modules for 2G/3G/4G/5G technology – **essential**. * Experience in Lithium battery powered circuitry design – charging / low-power consumption etc – **essential**. * Experience in debugging AC powered products – *desirable*. * Experience of DFM/DFT for medium (100K+) / high volume (1M+) manufacturing – *desirable*. * Experience in using RF test equipment like Spectrum Analyser / Vector Network Analyser etc – **essential**. * Writing Test Reports / Technical documentation – **essential**. * Attention to detail and good problem-solving skills – **essential**. * Working with version control tools like Git, Gitlab, SVN (or similar) – *desirable*. * Working with planning tools like Jira, Trello (or similar) – *desirable*. |
| **Personal attributes:** | * Analytical with solving focused attitude. * Flexible; able to work in a small team, or individually as required. * Willingness to learn and looking to progress in electronics design. * Good communication skills in dealing with external parties such as test labs and contract equipment manufacturers. * Ability to get on with a task and take it to completion once shown how to perform it. * Ability to show initiative. |
| **Working environment:** | * Hybrid Home/office environment with meeting rooms, whiteboards and projector * Candidates based out of Cambridge/who can move to Cambridge are preferred. |
| **Qualifications:** | * Bachelors or Master’s Degree in relevant fields * HND in relevant fields * Good understanding and use of Microsoft windows / based PC’s, office-based tools. * Proficient in use hardware tools like oscilloscopes, multi-meter, soldering stations etc. |
| **Benefits:** | * Share options * 25 days annual leave * Private health insurance plan (currently BUPA) * Pension scheme with employer contributions * Life cover (3x salary) |
| **Date document compiled:** | 27/05/2024 |