

## Role Profile: Senior / Principal Hardware Engineer (Full or Part Time)

### **A bit about us...**

Amiosec is an exciting and growing UK technology company with innovation, agility and state of the art technology at its core. We work in partnerships with UK government customers and commercial providers to deliver research, technology, products and services in the communications security sector.

Our Engineering team is expanding, and we are looking for an experienced Senior or Principal Hardware Engineer to come on board and join us on our journey. We provide a stimulating working environment, with an opportunity to be involved in various projects from early-stage proof-of-concepts using emerging technologies, tools and languages right through to full lifecycle product development. We run self-managing agile teams using a mixture of Scrum and Kanban techniques so that engineers get a great sense of ownership of their work and can directly see how their efforts contribute to the bigger picture and help our customers achieve their goals.

We actively encourage personal development and have a structured career framework based on industry standard SFIA grades, with core and technical competencies aligned to each grade. We provide training tailored to your needs and learning methods and encourage our engineers to develop their skills – both technical and non-technical alike.

Collaboration and team spirit are key – we actively seek to share knowledge and ideas and preserve a family feel within our organisation. Our monthly Engineering Forum provides an ideal vehicle for sharing tips, tricks and techniques between projects/teams and we organise regular social activities to bring people together – something we feel has been especially important during recent years of lockdowns and remote working.

We are passionate and committed to growing new talent and as such run a Graduate Scheme and have an active STEM outreach program – working with schools, universities, and the NCSC CyberFirst program. If you're interested, we'd love you to get involved and help in these areas.

Our Engineering team is key to our success as a business and this not only includes what we do, but how we do it. Like any engineering organisation we have standardised processes and ways of working, but these are owned by the Engineering team, and we work to ensure that they are relevant, helpful, and as efficient as possible so that we can focus on what we're good at – the engineering. We actively encourage our engineers to contribute to improvements in our working practices and environment and regularly try out new ideas with a view to rolling things out that work well for us.



## Senior / Principal Hardware Engineer Vacancy

We are looking for a Senior or Principal Hardware Engineer to join our team and support the continued growth of the business, bringing a wealth of experience to add value to the team. You will undertake a wide range of tasks, in an exciting environment where we provide innovative technology solutions to our customers. You'll need to be familiar with high-speed digital design, complex multi-layered boards supporting cutting edge technology and the ability to specify, design and layout circuits involving multiple embedded processing devices. Some knowledge of commercial RF design including Wi-Fi, NFC and cellular would also be desirable.

General responsibilities include design, implementation and verification of innovative and complex encryption and cyber security solutions that help to solve difficult problems our customers present to us. You should be comfortable working as part of a multi-disciplined engineering team, where a focus on teamwork is essential. We are looking for someone who enjoys being a technical support and mentor to junior engineers as our team continues to grow, with potential line management responsibility.

This position can be either **full or part time**, for part time roles we are open to considering hours that work for you as a candidate.

**NOTE:-** Due to the nature of our work, all candidates will be required to obtain and maintain an appropriate UK security clearance.

The sections below outline the competencies that we are looking for.

### Typical Activities

Subject Area	Activities
<b>Hardware Design &amp; Development</b>	<ul style="list-style-type: none"> <li>• Lead and / or support the design of new products</li> <li>• Technical responsibility for the hardware design and development of allocated projects</li> <li>• Work alongside other subject matter experts to assess and select hardware components to meet product needs</li> </ul>
<b>Planning &amp; Estimation</b>	<ul style="list-style-type: none"> <li>• Plan and coordinate detailed aspects of engineering work, including scope, budget, and schedules</li> <li>• Develop and contribute to bids and technical proposals</li> </ul>
<b>Team Activities</b>	<ul style="list-style-type: none"> <li>• Participate in daily stand-ups, planning and design meetings</li> <li>• Provide direction to engineers assigned to you on projects</li> <li>• Support engineers through technical leadership and guidance</li> </ul>
<b>Production Activities</b>	<ul style="list-style-type: none"> <li>• Support electronic fault-finding and repair at PCB and system level</li> <li>• Analyse failures/trends to drive continuous improvement of products</li> </ul>
<b>Engineering Support</b>	<ul style="list-style-type: none"> <li>• Provide technical expertise to product development activities</li> <li>• Provide fault diagnostics to assist in product improvements</li> <li>• Provide timely customer support for Amiosec clients</li> </ul>

<b>Continuous Improvement</b>	<ul style="list-style-type: none"> <li>Keep abreast and evaluating latest tools and technologies</li> <li>Review and recommend enhancements for company products, processes, and workflows</li> </ul>
<b>Technology Research</b>	<ul style="list-style-type: none"> <li>Evaluate emerging technologies (e.g. processors, System on Chip, etc.) in the context of Amiosec products and roadmaps</li> </ul>

The sections below outline typical responsibilities and competencies that we are looking for. These are wide-ranging and represent the full cross-section of capabilities that we seek. Prospective candidates should be able to demonstrate ability in a number of the technical competencies (depending on grade/experience) and as a minimum, satisfy the core competencies as listed.

We are **not** looking for full coverage across all of them in any one candidate.

## Technical Competencies

Subject Area	Competency
<b>Design Experience</b>	<ul style="list-style-type: none"> <li>Digital and analogue electronic circuit design, simulation, implementation, and verification</li> <li>Good understanding of the electronics component market and current offerings</li> <li>High speed digital design</li> <li>Design of complex multi-layered boards involving multiple embedded processing devices, including schematic capture</li> <li>Experience of PCB layout, including reviewing and identifying constraints</li> <li>Integration and test of PCB assemblies and systems</li> <li>Experience of a manufacturing and production environment</li> </ul>
<b>Technical Leadership</b>	<ul style="list-style-type: none"> <li>Provide technical oversight and management for hardware aspects on projects, providing direction and guidance to assigned team members to deliver required outcomes</li> <li>Select and apply relevant standards</li> <li>Develop new techniques and their supporting processes</li> <li>Investigate and solve complex technical problems</li> <li>Assist others as a technical specialist/advisor</li> </ul>
<b>Documentation</b>	<ul style="list-style-type: none"> <li>Review technical documents for conformity and quality</li> <li>Author technical documentation, including research reports, technical proposals to support bids and design documents</li> <li>Tailor document style and content appropriately for consumption by a wide range of stakeholders (customers, evaluators, engineers, management, etc.)</li> </ul>
<b>Development Tools/Lifecycle</b>	<ul style="list-style-type: none"> <li>Requirements management - how to read, interpret and specify requirements</li> <li>Design capture using state-of-the-art tools</li> </ul>
<b>Desirables</b>	<ul style="list-style-type: none"> <li>Working knowledge of commercial RF design including Wi-Fi, NFC and cellular</li> <li>Understanding of cryptography</li> </ul>

## Core Competencies

Subject Area	Competency
<b>Approach</b>	<ul style="list-style-type: none"><li>• Enthusiasm for hardware design involving the latest technologies</li></ul>
<b>Working Style</b>	<ul style="list-style-type: none"><li>• Able to work individually or as a member of a multi-discipline team</li><li>• Self-motivated</li><li>• Willing to be flexible and embrace new technologies/techniques</li><li>• Good time management skills and ownership of own deliverables</li><li>• Good troubleshooting and problem-solving skills</li></ul>
<b>Customer Focus</b>	<ul style="list-style-type: none"><li>• Good communication skills (including generation of written content including reports and technical documents)</li><li>• Able to investigate and understand customer needs</li></ul>
<b>Innovation</b>	<ul style="list-style-type: none"><li>• Able to foster and develop innovative ideas</li><li>• Lead and contribute to improvements in production and customer support and innovative ways of working</li></ul>

