

## JOB DESCRIPTION

<b>Company:</b>	PPM
<b>Job Title:</b>	Graduate Radio Frequency Design Engineer
<b>Industry:</b>	Electronics Design and Manufacture
<b>Purpose of Job:</b>	PPM is expanding its product portfolio so is strengthening and extending its Shrivenham based development team.
<b>Company Website:</b>	ppm.co.uk
<b>Location:</b>	Swindon SN6 8TY
<b>Reporting to:</b>	Development Team Lead
<b>Salary:</b>	£27,000 p.a. + profit related bonus
<b>Closing Date:</b>	30 <sup>th</sup> April 2021
<b>Start Date:</b>	1 <sup>st</sup> July 2021
<b>How to Apply:</b>	CV and covering letter to pseager@ppm.co.uk

### Company Background:

Pulse Power & Measurement (PPM) designs and manufactures a wide range of Radio Frequency (RF) over fibre systems, which allow RF electrical signals to be transmitted over fibre optic cables. Its 'Vialite Communications' business division is focused on optical transportation and manipulation of analogue radio communication signals, which are used in applications such as, satellite communications, telemetry, broadcasting, cellular base stations and radar. Find out more by visiting <https://ppm.co.uk/>.

Location: Watchfield, Oxfordshire. Watchfield is 23 miles away from Oxford (approx. 40 mins by car via the A420); 25-30 minutes (by car) from Swindon which has regular direct services to London (just under an hour via train).

### Role:

PPM is designing an innovative new range of RF, microwave, and optical solutions for SatCom, broadcast, timing, and cellular markets. This role offers the chance of working on a wide range of RF and analogue designs for radio over fibre products. As part of an agile design and development team you will have the opportunity to support the development of product concepts and see the design through to manufacture; directly contributing to the company's success. You will be developing your skills in:

- Design from concept through to manufacture of analogue & digital electronics products
- Circuit design and PCB layout for mixed mode RF & digital electronics
- X/Ku/Ka/Q/V-band circuit simulation, fabrication, and test
- Proof of concept and product definition for radio signal matrices
- Radio transceiver design for antenna remoting
- Electronic signal detection, location, and negation
- Developing relationships by liaising with customers and suppliers

As a small business PPM requires flexibility in the functions this role will undertake. Secondary functions of the role could include:

- Cost estimation for special project tender responses
- Advanced test and characterisation of existing products
- Enhancement of internal engineering processes and supporting quality documents.

**Skills / experience / qualifications:**

The successful candidate will have studied some of the following:

- Practical analogue and RF electronics design.
- Broadband RF greater than 10 GHz
- Design for EMC i.e. EMC regulations etc.
- Single-mode fibre optic systems
- Analogue and digital domain signal conversion
- Microcontrollers or similar system on chip integrated circuits
- Linear & non-linear signal measurements (s-parameter, noise figure, intermodulation)
- Antenna design and signal propagation principles

**Person:**

The successful candidate will work within a multi-disciplined engineering team and will have the opportunity to use their own interpersonal skills to draw upon existing internal expertise, from product designers, mechanical engineers, software developers, photonics experts, and system design specialists. They will also present a confident and collaborative interface when dealing with colleagues, sub-contractors, and suppliers, through either written or verbal communications.

In addition to meeting customer's needs, solutions will be required to exceed the company's documented quality standards and be delivered within agreed timescales and budgets. The successful candidate will have the opportunity to work on a wide variety of development projects and should be comfortable responding to changing business priorities as they arise.

**Required behaviours:**

- *Creativity and innovation* – Possessing a passion for driving continuous improvement by spotting opportunities and seeking the views of others
- *Keeping Commitments* – You demonstrate a can-do attitude and you drive to complete tasks and projects and report that they are completed, even when other opportunities arise which appear to be more interesting
- *Collaboration and Communication* – ability to develop relationships with colleagues outside your department built on mutual trust, respect and drive for sharing and success
- *Impact and influence* – You listen to different perspectives, evaluate, persuade and carefully shape your work to deliver excellent results
- *Teaching and Sharing* – You share what you know with others and seek to learn from the vast pool of knowledge in others at PPM
- *Company Focus* – Put the needs of the company first before your team needs, drive to achieve the goals of the company as well as your own team