

## *Job Description*

# *Antenna Designer*

### ***Main Purpose and Scope of Job***

The main purpose and scope of this role is to design antennas using dielectric-loaded, multi-filar helix antenna technology.

The Antenna Designer will work alongside other Antenna Designers reporting to the Technical Director and will initially be designated Associate Antenna Designer whilst developing the skills to independently design dielectric-loaded, multi-filar helix antennas to meet specific customer requirements.

### ***Principal Duties and Responsibilities***

The principal duties and responsibilities of the Antenna Designer include:-

1. Using the CST Studio Suite electro-magnetic simulation programme and the Helix proprietary optimiser tool to develop, simulate and optimise dielectric-loaded, helix antenna designs for telecommunications and GNSS applications to meet specific customer requirements and/or generic applications
2. Liaising with existing and potential customers to understand and address specific antenna design requirements and improvements
3. Designing test jigs, writing test plans and specifying test equipment for the test and performance evaluation of the antennas at all stages of the development, prototyping and manufacture
4. Producing detailed CAD drawings for the manufacture of the antennas and associated jigs and tools for input to the CAM systems
5. Developing the technology to enhance the antenna performance or extend its capabilities to address new commercial opportunities such as operation at frequencies beyond ~6 GHz or incorporation of the antenna elements into arrays
6. Working with the Technical Director to implement a continuous programme of improvement and innovation

### ***Skills and Experience Required***

In order to be able to successfully fulfil these responsibilities it is expected that the Antenna Designer will be strongly results orientated and have good knowledge, skills and experience in several (or all!) of the following areas:-

- Research experience of solving electro-magnetic science/engineering problems at post-graduate level
- Experience of electro-magnetic simulation – preferably with the CST Microwave Studio Suite™ tool-set

- Experience of antenna design using dielectric materials and antenna array design would be advantageous
- Experience of using SolidWorks to create engineering drawings and familiarity with the Solidworks PDM vault and revision control systems
- Experience of using the NI/AWR Microwave Office circuit simulator and microwave layout tool.
- Experience of low-noise amplifier and filter design.
- Good knowledge of antenna theory
- Strong commercial awareness and recognition of the business goals of the company