



Job Description	
Job Title:	Senior Digital Signal Processing Engineer
Location/Based:	Swindon
Salary:	£70,000
General Overview of the position:	<p>Arralis is a fast scaling millimetre wave company with expertise in MMICs, modules, radars and satellite payload. It operates in the CAV, Satellite and 5G markets space with worldwide activity.</p> <p>We are now searching for an ambitious Senior Digital Signal Processing Engineer to lead the DSP team as part of a larger development to deliver a cutting-edge satellite communications project on time and on budget, and meeting full specifications.</p>
Main duties and responsibilities:	<p>Duties will include:</p> <ul style="list-style-type: none"> • Day-to-day management and direction of a small team of DSP engineers and determine what is the engineering requirement from high level specifications. • Implement digital signal processing (DSP) algorithms in hardware description language (HDL) for an FPGA-based high-speed modem. • HDL design, implementation, simulation and verification. • Documentation of design, simulation results and verification procedures. • Implement low-level device drivers in embedded C/C++. • Work closely with hardware engineers in project specification, development and validation.
Essential Criteria:	<ul style="list-style-type: none"> • Ph.D degree in Wireless Communications. • 5+ years' experience in a related field. • Well-developed digital design skills for FPGA implementations using HDLs such as VHDL or Verilog. • Knowledge of DSP algorithms such as modulation/demodulation techniques, adaptive modulation, digital filters, FFTs, error-correction coding. • Experience of system modelling/testing with MATLAB/Simulink. • Embedded system skills, e.g. C/C++ programming. • Excellent verbal communication and writing skills in areas of project documentation, reports, white papers. • Team management and product management experience
Desirable Criteria:	<ul style="list-style-type: none"> • Experience with working on a SoC FPGA platform, e.g. Xilinx Zynq-7000 series. • Experience of working with Real-Time OS, embedded Linux, programming ARM processors or 16-bit/32-bit MCUs. • Knowledge of TCP-IP/SPI/I2C/UART/USB protocols. • Experience of interfacing with high-speed ADC/DAC data paths.