

Electrical Test Engineer

Job description

Paradromics is looking for an Electrical Test Engineer to contribute to the hardware development of key components of our neural implant system. This includes the design and bring-up of circuit boards and full-custom analog integrated circuits for both prototype and production systems. Experience with bring-up and characterization of complex electronic systems and an in-depth understanding of low-noise analog circuits and digital electronics building blocks are required. Close coordination with other engineers in the team will be essential, therefore excellent communication and interpersonal skills are crucial in excelling at this role. If you like big challenges, working at the frontier of human technology, and have worked on and shipped high-performance electronic hardware in the past, we would like to hear from you.

Required Skills & Experience

- Very strong analytical and debugging skills
- In-depth understanding of analog and digital electronics building blocks
- 4+ years of experience of bringing up and debugging custom hardware systems (ASICs, FPGAs, advanced sensors, mixed-signal processors etc.)
- Experience with lab automation systems and custom scripting
- Rapid electronics prototyping skills (microcontroller, analog and digital interfacing, etc.)
- Experience with debugging standard communication busses (I²C, SPI, UART, etc.)
- High degree of proficiency with advanced lab instruments (oscilloscope, spectrum analyzer, logic analyzer, etc.)
- Advanced signal integrity analysis such as jitter and crosstalk
- Proficiency with professional grade PCB design tools
- Excellent programming skills with Python, Tcl, Matlab, etc
- High degree of proficiency with Linux, shell scripting and Linux programming environment
- Proficiency with Git version control system and collaborative software engineering practices
- Attention to detail and ability to dig out obscure information from technical documents
- Excellent verbal and non-verbal communication skills
- Ability to produce well-written technical reports and documentation
- Bachelor's or Master's degree in electrical engineering or a closely related discipline

Preferred Skills & Experience

- Experience with bring-up and characterization of array-based analog integrated circuits (CCD, CMOS camera, sensor arrays, etc.)
- Experience with wafer probing systems
- Experience with data acquisition platforms (National Instruments, etc.)
- PCB circuit design and layout with Altium Designer
- Signal integrity aware and low-noise PCB layout skills
- Prior experience with ultra low-noise and/or biomedical instrumentation systems
- Experience writing and debugging HDL code
- Programming skills with at least one compiled language (C, C++, Java, Rust, etc.)

Qualified candidates should send cover letter and resume to HR@paradromics.com