

Senior Power Characterization Device Engineer

Type: Full-time
Reports To: Senior Manager, Modeling and Characterization
Location: San Diego, California

As a Senior Device Characterization Engineer, you will work in an Engineering R&D laboratory setting to support the development of semiconductor technology solutions through the characterization and analysis of semiconductor devices. Most of the characterization work will be performed on-wafer using automatic and manual wafer probe stations. This includes development of test solutions to enable the acquisition of statistical test data and subsequent analysis and reports. You will also be involved in characterizing devices for compact SPICE model development. You will have full responsibility for all aspects of laboratory management and the supervising and mentoring of younger engineers.

- Lead a team in the development of test solutions to enable comprehensive and accurate measurements of a wide variety of semiconductor devices with focus being on BCD and UHV technologies
- Support device characterization for the development of compact modeling SPICE models
- Enable the acquisition and analysis of statistical electrical test data
- Develop characterization solutions to accurately measure all aspects of electrical device behavior
- Train and mentor junior engineers and/or technicians in the Characterization team
- Work closely with device and modeling engineers to understand device behavior and explain observed physical phenomena
- Responsible for all aspects of laboratory management. This includes management of inventory, equipment maintenance, safety procedures, organization, and equipment purchases
- Manage project related aspects of characterization requests

Acceptable candidates must be self-motivated, disciplined, and able to work well in a fast-paced, multifunctional environment.

Qualifications and Education Requirements

- M.S. or PhD in Electrical Engineering, Physics, Materials Science, Solid State Electronics, or equivalent. Will consider B.S. degree candidates if they have higher levels of experience
- 5 years of experience in electrical characterization of semiconductor devices in integrated BCD processes. Experience in higher voltage device(>10V) characterization is a plus
- On-Wafer probing experience required as well as a strong understanding of how to maintain and optimize probe stations
- Experience in the characterization of a wide variety of semiconductor devices – LVMOS, HVMOS, Resistors, Capacitors, JFET's
- Experience in the setup and testing of devices for SPICE compact modeling. Use of ICCAP is a strong plus
- Demonstrated experience in resolving and debugging test issues and developing solutions
- Creativity and good problem-solving and communication skills. Strong desire to get to root cause
- Ability to supervise others in a laboratory setting and work well in a team-oriented environment