Principal Systems Engineer – Mobile IoT

Location: Fremont, CA

Job Summary

Sigma Designs, Inc. is the leading provider of system-on-chip (SoC) solutions used to deliver entertainment and control throughout the home. Please visit us at www.sigmadesigns.com

Job Description

- Define and specify industry leading and low power LTE modem solution for IoT applications and generate the technical specifications.
- Architect, model and specify the LTE PHY requirement and RF/BB interface description and specification.
- Work with ASIC engineering and Embedded SW teams to define detailed engineering requirements and architectural system-level design and working with third party vendors for IP evaluation and selection.
- Design and simulate state-of-the-art physical layer wireless communication system algorithms.
- Implement fixed-point models and perform detailed performance investigation to allow performance sign-off and enable RTL bit-exact development.
- Work with digital ASIC designers to realize these algorithms with power and area efficient digital implementations.
- Develop and verify the RF/BB interface and RF impairment calibration algorithms.
- Support silicon and SoC bring-up, evaluation & characterization and perform hardware and software integration and verification.
- Carry out systems performance validation tests based on Cellular Multi-Mode network simulators CMW and Non-Signaling and/or Signaling Litepoint text boxes.

Qualifications and Experience Required

- Understand the RF front-end system design trade-offs and RF architectures.
- Solid understanding of communication theory & signal processing related algorithms design (such as timing recovery, signal estimation and detection, automatic gain control, RF impairment estimation and correction, channel estimation, equalization, coding theory).
- In-depth Cellular Systems knowledge of modem architecture and PHY layer algorithm OFDM based systems.
• Knowledge in state-of-the-art simulation environments based Matlab, C/C++ and in tooling/scripting Python.
• At least 10 years of experience.

**Education Required**

• MS in EE