



JOB DESCRIPTION – Principal Engineer – RF HW

Location: Rolling Meadows, IL

Date: July 2021

Scope of Responsibilities & Position Expectations

Cambium Networks is seeking an experienced and motivated Principal Engineer who is interested in contributing to the success of an exciting and fast-moving company. The candidate would have a passion for developing board-level analog and RF hardware related to wireless communications systems. The candidate should be experienced and interested in the entire hardware design cycle, from initial concept to final testing.

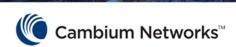
Key Responsibilities:

- Technical leadership.
- Manage technical development.
- Develop man-hour estimates for feature work.
- Help motivate project staff, mentor junior engineers, and actively seek out ways to help team members.
- System Engineering
- Drive product and feature requirements, architecture, design, and test.
- Lead product and feature development, primarily in the embedded communications space.
- Development of technology roadmaps.
- Technical development
- Lead the development of RF components and subsystems and contribute to development of wireless broadband systems including architecture development, requirements management, design/analysis, integration, and test.
- Design knowledge of Radio Frequency transmitters, receivers, synthesizers, duplex/diplex filters and related RF circuits/systems
- Create supporting technical documents and test procedures

Knowledge/ Skill Requirement

Required Skills:

- Hands on experience on multiple air interfaces standards for wireless communications:
 - TDD/FDD
 - One of cellular standards: 5G or 4G or 3G or similar



Wireless That Just Works



Cambium Networks

- TX and RX line up analysis and calculation
- Hands on experience with RF de-sense for both RX and TX
- Design experience with some of the following:
- RF low noise amplifier (LNA)
- RF power amplifier (PA)
- RF frequency synthesizer analysis / design (PLLs)
- RF impedance matching (Smith chart)
- RF filter design (lumped element and/or distributed)
- RF modeling of sub-circuits and/or full system cascade analysis using ADS
- Interfacing with microcontrollers (I2C, SPI, UART)
- Circuit Design with high-speed A/D and D/A converters (serial / parallel)
- High speed printed circuit board techniques.
- Experience with at least one schematic capture / PCB layout package such as Mentor Graphics and/or Cadence
- ESD protection for RF circuits

Desired Skills:

- Experience selecting, specifying, and ordering RF components
- Experience managing a product through FCC compliance and/or type acceptance testing
- Experience developing automated testing suites to verify hardware performance
- Programming experience (C / C++, Labview, HPVEE, Python, Matlab, VHDL / Verilog, or others)
- Experience ordering PCBs and working with contract manufacturers
- Experience in wireless communications industry (cellular and/or software-defined radio experience a big plus)
- Experience with OFDM digital modulation schemes
- Ability to develop trouble shooting guides and to effectively train factory technicians
- Proficient at utilizing simulations tools such as Agilent ADS and Eagleware
- Experience with Agilent and Rhode & Schwarz RF test equipment

Additional Job Requirements:

- BS or MS in Electrical Engineering
- Minimum of 7-10 years of industry experience developing real-world products or systems
- Willingness / ability to travel occasionally for Factory visits / Customer visits / Supplier Visits
- Self-motivated personality and ability to work independently as well as on a team
- Ability to multi-task between two or more projects.