

JOB DESCRIPTION - LEAD ENGINEER

Department Description
<p>Want to stop talking about changing the world and actually do it? Cambium Networks is and always will be an engineering company. We hire people with a broad set of technical skills who are ready to tackle some of technology's greatest challenges and make an impact on millions of users. We continuously search for disruptive ideas or potential paradigm shifts that transform the next generations' wireless broadband systems.</p> <p>Cambium Networks is a leading global provider of wireless broadband solutions that connect the unconnected. Through its extensive portfolio of reliable, scalable and secure wireless broadband point-to-point (PTP) and point-to-multipoint (PMP) platforms, Cambium Networks makes it possible for all service providers, enterprises, governmental and military agencies, oil, gas and utility companies, Internet service providers, and public safety networks to build powerful, easily sustainable communications networks. The company currently has millions of its access and backhaul radios deployed in thousands of demanding networks in more than 150 countries. Headquartered outside Chicago and with R&D centers in the U.S., Ashburton, U.K. and Bangalore, India.</p> <p>We need engineers to be versatile and passionate to tackle new problems as we continue to push technology forward. If you get excited about building new things and are not daunted by the challenge of building something from scratch, then our team might be your next career step.</p>
Scope of Responsibilities & Position Expectations
<p>Cambium Networks is seeking an experienced and motivated Lead RF Engineer who is interested in contributing to the success of an exciting and fast-moving company. The candidate will 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.</p> <p>Key Responsibilities:</p> <ul style="list-style-type: none">• Technical Leadership<ul style="list-style-type: none">- 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<ul style="list-style-type: none">- 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<ul style="list-style-type: none">- 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.
- 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, HPVVEE, 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 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.