



Wireless That Just Works

RF Architect

Scope of Responsibilities & Position Expectations

The hardware team is in search of candidates responsible for leading the identification and development of the next generation of integrated antenna/radio systems used in Massive MIMO and MuMIMO systems. Your expertise will lead us in the design, specifications, and development of point-to-point, and point-to-multi-point technologies for outdoor, split-mount, and indoor radio systems for both sub 6 and mmwave (>26 GHz) frequencies.

- You will lead the analysis, design, and specification of the overall radio and sub-systems required for developing wireless platforms.
- You will work closely with hardware engineers to develop the requirement specification documents for radio sub-systems such as transceivers, RFICs, and IF and Baseband assemblies, and work closely with software and firmware (FPGA developers) engineers to generate software and firmware requirement documents.
- You will collaborate closely with ATE engineers to develop radio level test strategies and factory implementations.
- Your previous experience will help you devise radio calibration strategy, design calibration algorithms in support of factory room temperature test and calibration.
- As the leader, you will conduct Preliminary Design and Critical Design Reviews during development cycle.
- You will work closely with the team to specify design and performance requirements of vendor-supplied measurement systems and sub-assemblies.
- You will lead the performance system cascade analysis considering linearity, phase noise, gain, group delay, receiver sensitivity, and all other channel impairments and spurious response.

Knowledge/ Skill Requirement

Required Skills

- 10 to 15 years of experience in RF/Microwave radio system and sub-assembly design and development.
- Understand wireless communication/radio system architecture and basic building blocks, such as antenna radiation element, RF frontend transceiver, IF process, digital up/down converters, RRH and baseband unit.
- Understand basic digital signal processing and software control principles.
- Has knowledge on MIMO, beamforming and beam steering.
- Working knowledge of test equipment including: signal generators and sweepers, power meters, scalar and vector network analyzers, spectrum analyzers, signal source analyzers, BER testers, switches, relays, step attenuators, etc.

- Proficiency in performing transmit/receive cascade analyses to optimize NF, gain, IIP3, noise power density, and linearity.
- Thorough knowledge of FCC and ETSI
- Understand RF circuit and antenna design theory and practical rule, test equipment, and manufacturing methods
- Electromagnetics (especially propagation and antenna theory)
- Fourier analysis
- Microwave circuit theory
- Digital communications

Desired Skills & Experience

- Working knowledge of transceivers from ADI, Qualcomm, and Broadcom
- Working knowledge of transceivers for >28 GHz.
- Familiarity with Cadence design suite
- Co-existence management across multiple technologies.

Additional Job Requirements:

- BS or MS Electrical Engineering
- Willingness / ability to travel occasionally for 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