

Title Senior RF/Hardware Systems Design Engineer

Degree BSEE, MSEE or Ph.D.

Years Experience 12 + years

MUST BE U.S. Citizen - Personnel possessing an active SECRET clearance desired. All personnel must successfully pass a Commercial Background Investigation (CBI) and obtain a DoD Interim Secret Clearance within 6 months

## **Role**

Lead the development of highly integrated custom RF, AMS and Digital system level solutions for a broad range of wireless applications.

## **Job Description**

RF Integration Inc. has an exciting opportunity for an experienced, passionate and hands-on RF & Analog/Mixed Signal system design engineer. This position is responsible for RF, AMS and Digital system specification, design, simulation, optimization and characterization of board level solutions from DC to 20 GHz used in a wide variety of applications. The ideal candidate will be responsible for performing detailed specification, design and analysis of complex systems which contain RF amplifiers (LNA, VGA, PA), mixers, switches, attenuators, limiters, filters, VCOs, synthesizers, ADCs, DACs and multifunction RFICs, DC power conversion, microcontrollers, FPGAs and DSPs. The job includes systems analysis, specification development, modeling & simulation, schematic entry, PCB layout, test and evaluation, transition to production and leadership and mentoring of junior engineers as required. Experience in preparing proposals including cascade analysis, block diagram generation, labor estimates and performance/cost trade-off analysis is also required. The candidate should have intimate familiarity with RF circuit design software and various system analysis software tools. This position requires significant independent and team work with minimal supervision.

## **Responsibilities**

- Provide leadership in RF & AMS architectures, system level tradeoffs and decision making
- Distill system level specifications into detailed block level specifications
- Develop top level design approach and simulation strategy
- Perform key technical tradeoffs to ensure the success of the development program
- Provide technical management and direction to internal and external team members throughout the design process

- Develop engineering test plans and lead evaluation and debug
- Act as key technical interface with customer on all system related issues during the development process
- Perform circuit level schematic, simulation and layout design tasks using appropriate toolset
- Oversee physical design and verification and take ultimate responsibility for product success
- Prepare and present customer design reviews to meet internal and external quality standards
- Manage projects based on company's New Product Development process flow and according to pre-defined performance metrics
- Provide product engineering support for transition of designs to production
- Proliferate design, analysis and layout experience and knowledge through the ranks of the organization through formal and informal technical interaction
- Act as informal mentor to junior engineers
- Key technical interface with business development manager and potential customers during contract negotiations

### **Skills/Experience**

- Degree: BSEE, MSEE or Ph.D.
- Experience: 12 + years
- In-depth understanding of RF and AMS circuits, system design tools and simulators such as Agilent ADS, ANSYS HFSS, MatLab, Excel and other RF design tools.
- PCB design, layout, analysis and verification methodologies for PCBs with RF, AMS, digital and power conversion circuitry. Prefer individual with hands on tool experience.
- Experience with front-end RF and Analog circuit blocks such as LNAs, mixers, TX modulators, driver amplifiers, Frequency Synthesizers/Phase Lock Loops (PLLs), Continuous-Time Filters and ADC/DAC designs.
- Experience with DC power conversion, microcontrollers, FGPAs, DSPs and embedded firmware.
- Experience and knowledgeable in the use of lab test equipment such as a Network Analyzer, Spectrum Analyzer, RF Generator, Power Meter, Sampling Oscilloscope, Logic Analyzer and Embedded Firmware tools.
- Ability to design, script, run and debug NI LabView.
- Experience working on a small team; having excellent communication skills and ability to present materials for design reviews and customer interaction.



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- Must be a passionate self-starter and team player with experience in project leadership and multi-tasking.

