



Principal Engineer Systems Design

Job description

As a Senior member in WLAN systems team you will play a key role spanning from development and implementation hardware accurate reference model for wireless LAN PHY baseband processing in pre-Silicon phase to PHY-Firmware bring-up in post Si phase.

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Your key responsibilities in Pre-Si design phase would be

- a. Design, analysis, development & maintenance of WLAN Physical layer reference model in C/C++, System C and Matlab
- b. Identify post-Si bring-up issues and articulate them into improvements in PHY layer design
- c. Use case definition and generation of reference vectors for pre-SiRTL verification of the PHY blocks and working with the PHY design team to complete design verification.
- d. Collaborating with RF and Analog design teams in creation of the specs of the RF and modelling it in the simulation environment.
- e. Working with various Cross functional teams like MAC systems, Firmware development, Hardware board design teams, RF design teams to define, document the interfaces to PHY layer and model them in reference design to enable verification

In Post- Silicon phase, your core responsibilities would involve

- a. Functional validation of WLAN PHY and its interfaces on emulation platforms
- b. Hands on silicon bring-up and validation with characterization over PVT to meet KPI's in the datasheet in the test/productional environment.
- c. Debugging and solving cross layer customer issues – working across boundaries of WLAN PHY, MAC, RF and board – while staying focused on the underlying problem.

You role would also require you to

- a. Identifying issues and proposing design and methodology improvements while driving compliance of existing design flow
- b. Mentoring and training other team members as necessary
- c. Creating collateral for internal and external use as necessary

Profile

Required Skills:

Solid knowledge of Communication Theory /Signal processing concept/Wireless Communication and ability to apply these concepts to analyze and solve system level issues.

Knowledge of PHY layer blocks like Carrier detection, Timing and frequency synchronization, AGC, filters, demodulators, tracking loops, decoders and their practical implementations in a wireless/wireline modem

At a glance

Location:

Job ID: **352066**

Start date: **as soon as possible**

Entry level: **5+ years**

Type: **Full time**

Contract: **Permanent**

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Contact

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Good understanding of RF impairments and system level understanding of RF architectures
Hands on Post-silicon experience of bring-up of chips with familiarity of typical lab equipment like Spectrum analyzer, signal generators and general lab automation
Hands on experience of programming in Matlab/C fixed point models is essential
Good debugging skills in C, using gdb, analyzing crashes using stacktrace are essential
Familiarity with IEEE 802.11/802.15/3GPP standards is desirable
Knowledge of C++/Tcl/Python/System C and HLS tools would be plus
Ability to work with large, global, cross functional team
Good communication and presentation skills.

Benefits

- **Bangalore:** Coaching, mentoring & networking possibilities ; Wide range of training offers & planning of career development; Regional and local talent programs; International assignments; Career paths: Management career, Project management career, Technical ladder career, Individual contributor career, Professional career; Flexible work timing, Part time work, Work from home; Home office; Health & wellness reimbursement, Employee motivation forum, Spoorthi – Diversity club, Master health check up, Health promotion campaigns; Crèche facility; Annual success bonus; Mediclaim (dependents & top up), Personal accident, Term life; National Pension Scheme; Health promotion programs; Statutory benefits; Access for wheelchairs; On-site canteen; Paid sick leave, long term illness leave; On site Yoga classes, Sports club

Why Us

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Infineon is a world leader in semiconductor solutions that make life easier, safer, and greener. Our solutions for efficient energy management, smart mobility, and secure, seamless communications link the real and the digital world.

