

# Building the future of WiGig/60GHz

Tensorcom is a leading provider of ultra-low power WiGig/60GHz technologies for markets as diverse as 60GHz solutions to wireless medical applications such as secure, wireless, Personal Medical Information Cards. If you are an individual who has high energy, are a critical thinker, are passionate about what you do and would like to apply for any of our open positions, please contact us ([career@tensorcom.com](mailto:career@tensorcom.com)). Thank you in advance for your consideration and we look forward to talking with you soon.



## Our Current Job Openings

### **ASIC Design Engineer**

Tensorcom, a pioneer in developing innovative semiconductors for high-speed millimeter wave, ultra-low power, wireless communication chipsets, is looking for a candidate who is interested in working on complex, low power, ASIC designs for our next generation WiGig/IEEE 802.11ad compliant SoCs. The interested candidate will participate in a range of ASIC development activities such as defining the SoC architecture, the development of RTL code, the taping-out of the chip, and the evaluation of chip performance.

In addition to excellent technical skills, good English communication skills are required.

---

## **Responsibilities**

The interested candidate will be responsible for:

- Defining the architecture and micro-architecture of WiGig/802.11ad MAC digital subsystems
- SoC development and integration
- RTL design using Verilog/System Verilog
- Testbench and test cases development
- ASIC emulation on an FPGA platform
- Collaborating with the software and physical design teams to resolve any issues during the development process
- Paying attention to design and implementation details, and documentation

## **Qualifications:**

The interested candidate shall have demonstrable experience in:

- ASIC flow activities such as:
  - Using front-end ASIC tools to perform simulations, lint/CDC, synthesis, formal verification, static timing, and power analysis
  - Using Verilog and/or System Verilog proficiently
- Processor Subsystem:
  - Understanding of ARM/RISC-V processor, memory, bus fabric, and interface IPs
  - Hardware/Software interfacing
  - Processor subsystems bring up
- Verification activities such as:
  - Developing a testbench and test cases
  - Emulating an ASIC on an FPGA development platform
- SoC system architecture and common peripheral interfaces such as SPI, I2C, UART, GPIO, and JTAG

Previous working experience on WLAN SoCs, Ethernet NICs, or Storage SoCs is desirable.

## **EDUCATION / MAJOR**

■ BS   ■ MS   ■ PhD

Electrical or Computer Engineering, Communications Engineering, or similar applicable technical degrees.

## **EXPERIENCE**

5+ years

---

## **Modem Design Engineer**

Tensorcom, a pioneer in developing innovative semiconductors for high-speed millimeter wave, ultra-low power, wireless communication chipsets, is looking for a candidate who is interested in working on complex ASIC designs for our next generation 60GHz, IEEE 802.11ad/WiGig compliant SoCs with specific emphasis on developing RTL code for the digital baseband module. The candidate will participate in a range of ASIC development activities such as defining the digital modem architecture, the evaluation of competing efficient, compact signal processing algorithms, the development of RTL code, the taping-out of the chip, and the evaluation of the chip's performance.

In addition to excellent technical skills, good English communication skills are required.

### **Responsibilities**

The interested candidate will be responsible for:

- Defining the micro-architecture of IEEE 802.11ad compliant Wireless Modem's Digital Signal Processing (DSP) blocks.
- Developing and verifying the Register-Transfer-Level (RTL) code using Verilog / System Verilog
- Performing block level verification against a cycle-accurate, finite precision, behavioral model
- Performing block level static timing and power estimation/analysis/optimization
- Evaluating the digital modem's performance using an FPGA platform
- Creating detailed documentation.

### **Qualifications:**

The interested candidate shall have demonstrable experience and/or knowledge in:

- ASIC flow activities such as:
  - Using front-end ASIC tools to perform simulations, CDC, synthesis, static timing, and power analysis
  - Using Verilog and/or System Verilog proficiently
- Modem development activities such as:
  - Implementing DSP blocks such as digital filters, time or frequency domain equalizers, channel encoder/decoders and/or signal acquisition
  - Understanding the general concepts of communications and information theory
  - Being familiar with general forms of signal impairments within a wireless channel
- Verification activities such as:
  - Developing a test bench and test cases
  - Emulating an ASIC on an FPGA development platform
- SoC system architecture and common interfaces

Previous work experience with high-speed Wireless Modems is desirable

### **EDUCATION / MAJOR**

■ BS ■ MS

Electrical or Computer Engineering, Communications Engineering, or similar applicable technical

degrees.

## **EXPERIENCE**

5+ years

### **IC Layout Engineer**

Tensorcom, a pioneer in developing innovative semiconductors for high-speed millimeter wave, ultra-low power, wireless communication chipsets, is looking for a candidate who is interested in analog circuit layout for our next generation 60GHz, IEEE 802.11ad/ay compliant SoCs.

In addition to excellent technical skills, good English communication skills are required.

### **Responsibilities**

The interested candidate will be responsible for:

- Setting up the LVS, DRC, ERC environments and debugging verification issues using the Cadence tool suite
- Collaborating with an interdisciplinary functional team to define and develop the design flow, optimization of the silicon floor plan, and bump and package pinouts.
- Setting up design rules and implementing in-house packaging layout to meet product requirements.
- Optimizing package design to maintain signal and power integrity
- Paying attention to lay out details and providing documentation

### **Qualifications:**

The interested candidate shall have demonstrable experience and/or knowledge in:

- The proficient use of the IC5 & 6.x Cadence Virtuoso tool suite
- Layout techniques for device matching, parasitic minimization, RF shielding, and high frequency routing
- The fundamentals of RC delay, EMI, and Crosstalk
- IC packaging structures, chip-packaging, and package-board interactions.
- The details of the semiconductor process and device physics
- Laying out high speed I/O interfaces such as PCIe3.x, USB3.x, and GigE.

### **EDUCATION / MAJOR**

■ BS / ■ MS

Electrical or Computer Engineering, Communications Engineering, or similar applicable technical degrees.

## **EXPERIENCE**

5+ / 3+ years

## **H/W Design Engineer**

Tensorcom, a pioneer in developing innovative semiconductors for high-speed millimeter wave, ultra-low power, wireless communication chipsets is looking for a candidate who is interested in designing and developing highspeed wireless circuit boards that incorporate Tensorcom's millimeter wave wireless communications chipsets.

In addition to excellent technical skills, good English communication skills are required.

### **RESPONSIBILITIES**

The interested candidate will be responsible for:

- Designing and developing highspeed, ultra-low power, millimeter wave circuit boards for chip evaluation, chip testing and customer applications.
- Reviewing PCB Layouts for any issues with EMI, EMC, and any other spurious noise generators
- Using a CAD tool to create design documents such as block diagrams, schematics diagrams and PCB layout files.
- Selecting required parts for the BOM while considering their availability and pricing.
- Initiating the prototyping effort and managing small production runs with contract manufacturers.
- Creating a test plan for board and chip bring-up.
- Providing failure analysis and resolving board level HW issues.

### **QUALIFICATIONS**

The interested candidate shall have demonstrable experience and/or knowledge in:

- Designing circuits for:
  - High speed interface circuits, such as USB, and PCIe.
  - Standard digital interfaces, such as SPI, UART, I2C, etc.
  - Embedded micro controller systems
  - Power supplies such as DC/DC, AC/DC, and linear regulators.
  - RF circuits incorporating PAs, LNAs, Mixers and filters (this requirement is not mandatory but desirable)
- Laying out PCBs for above mentioned circuit designs.
- Board assembly and product production processes. Experience in this area is desirable.
- FCC regulations, CE requirements, UL approval. Experience in this area is desirable.
- Quality control systems. Experience in this area is desirable.

### **EDUCATION / MAJOR**

■ BS ■ MS

Electrical or Computer Engineering, Communications Engineering, or similar applicable degrees

### **EXPERIENCE**

5+ year

## **Software Development Engineer**

Tensorcom, a pioneer in developing innovative semiconductors for high-speed millimeter wave, ultra-low power, wireless communication chipsets is looking for a candidate who is interested in developing software tools, drivers, and firmware for its highspeed wireless millimeter wave network communications products.

As an experienced S/W designer, you will be expected to have deep knowledge of and experience in one or more major specialty functions of one or more programming languages, OS device drivers, technical skills and working experience.

In addition to excellent technical skills, good English communication skills are required.

### **RESPONSIBILITIES**

The interested candidate will be responsible for:

- Developing application software/tools, drivers, and firmware for Tensorcom's wireless networking products.

### **QUALIFICATIONS**

The interested candidate shall have demonstrable experience in:

- Programming Languages such as:
  - The C/C++ programming language
  - One or more of these programming languages: Python, Java, Perl, TCL, etc., which would be a plus
- Developing device drivers for well-known OSes such as:
  - Windows 10/11
  - Android/Linux
  - macOS/iOS
- These S/W knowledge/skill sets such as:
  - Multi-threaded/processing environments
  - Network OSI model architecture
  - Wireless communication protocols
- These H/W knowledge/skill sets such as:
  - Familiarity with H/W system architectures
  - These interfaces: USB, PCIe, GPIO, JTAG, SPI, UART
- Designing and implementing Application Software for product demonstrations
- Developing diagnostic tools for factory verification plan
- Previous working experience on WLAN SoC, Ethernet NIC, storage SoC are highly desirable.

### **EDUCATION / MAJOR**

■ BS ■ MS

Computer Science, Computer Engineering, Electrical Engineering, or similar applicable degrees

### **EXPERIENCE**

5+ years

## **RF Test Engineer Intern**

Tensorcom, a pioneer in developing innovative semiconductors for high-speed millimeter wave, ultra-low power, wireless communication chipsets is looking for a candidate who is interested in defining RF Module test cases, creating RF Module test control scripts, executing RF Module test scripts, accurately recording test results, analyzing the recorded test results, and communicating the test results in concise clearly written report.

In addition to excellent technical skills, good English communication skills are required.

### **RESPONSIBILITIES**

The candidate will be responsible for:

- Conducting RF system (board level) characterizations and verification tests
- Bringing up and debugging RF modules and test/evaluation boards
- Creating test specifications, calibration procedures, and test plans
- Creating automated test scripts for RF testing
- Analyzing test data and generating a test report
- Maintenance of RF test equipment and keeping test tools organized
- Supporting production test

### **QUALIFICATIONS**

The candidate shall have demonstrable experience in:

- Using RF test equipment to measure these items of interest:
  - S-parameters using a VNA
  - TX power levels (e.g., conducted and radiated)
  - RX (receive) sensitivity
  - EVM, BER/FER
  - VCO Phase noise
  - Noise Figure
- RF system characteristics and test methodology
- Working with these test equipment interfaces, GPIB, LAN, RS-232, USB, SPI, etc.
- Using programming/scripting languages such as: C, C++, Python, Java

### **EDUCATION / MAJOR**

BS     MS

Electrical or Computer Engineering, Communications Engineering, or similar applicable degrees

### **EXPERIENCE**

0+ work experience. Assumes candidates with degrees have been exposed to various RF test equipment and measurements while fulfilling “hands-on” laboratory requirements.

## Contact

Email: [career@tensorcom.com](mailto:career@tensorcom.com)

Office: 新竹縣竹北市高鐵七路 65 號

Website: <https://tensorcom.com>

Tensorcom is an equal opportunity employer with a commitment to diversity.