

Senior Electronics Engineer

Job Description: Senseeker is looking for an experienced Electronics Engineer, proficient in analog and mixed-signal embedded systems, to work on infrared image sensor and camera electronics in support of Senseeker's semiconductor products, cryogenic sensor test equipment and our customers' sensor projects. This position will work on electronics board and system design and layout for image sensor systems and design personality boards for various readout ICs and image sensors. You will work with mechanical engineers on packaging and thermal issues for cryogenic electronics, modules and ceramics. You will also contribute to FPGA firmware builds and work closely with our suppliers and collaborators on System-on-Module (SoM)-based embedded systems. We are building an embedded systems group (HW/FW/SW) to complement our integrated circuits products and this position will be an anchor position for this group for the hardware and firmware boundary. As we grow, you will also contribute significantly to the company's electronics portfolio and mentor junior electrical and computer engineers. We are a hardware-in-the-loop company looking for a hands-on person who isn't afraid to test and modify your creations as part of your development activities. You should be comfortable working in a relaxed yet professional small business environment in collaboration with a highly capable team.

Work Experience: 5 years required, 7+ years preferred

Required Education: Bachelor's degree in Electrical or Computer Engineering

Preferred Education: Master's degree in Electrical or Computer Engineering

Job Responsibilities

- Understand Senseeker digital readout integrated circuits (DROICs) for optimized knowledgeable design of associated interface electronics
- Design, test and debug mixed-signal electronics and systems for DROICs
- Circuit design, schematics capture, simulations and layout for PCBs, flex circuits and ceramics when not outsourced (which will be your decision)
- Own the board-level analog components and properties such as signal distribution, matching, cross-talk and analog component wrappers
- Work closely with subcontractors to manage outsourced board layouts and activities as well as help set Senseeker outsourcing strategies for electronics
- Collaborate with SoM and firmware suppliers to ensure Senseeker's systems are elegant and robust
- Continually work to improve our electronics by developing plans and proposing directions of development in line with the latest embedded systems technology available
- Work with internal test teams to smooth electronics and firmware interfaces to software systems
- Perform general troubleshooting for internal teams and external customers
- Document your work through design notes, well annotated schematics, data sheets, customer presentations and user's manuals
- Work with Production Control and Project Management to update schedules and complete action items
- Interface with IC Designers early in the design cycle to ensure new electronics plans are tightly linked with new integrated circuit designs

Required Attributes:

- US Person status **required**, pursuant to the terms of government contracts with Senseeker*
- Proficient with analog electronics design and development (noise, routing, cross-talk, floor planning)
- Understanding of Verilog and/or VHDL and experience with associated digital data flow systems
- Proficient with various phy I/O protocols and highly parallel bus architectures
- General understanding of analog data transmission and associated digital conversion
- Highly organized with a drive to build new and better processes for a fledgling group
- Able to follow detailed descriptions, block diagrams, schematics and lists of parts and pins
- Hands-on experience testing advanced electronics
- Expertise with PCB design and layout software, preferably Altium

Desired Attributes:

- Comfortable with image sensor transmission standards such as MIPI, CoaXPress, GigE and Camera Link
- Experience with serial communication interfaces (e.g., SPI, I²C, SMBus, PMBus)
- Experience with vacuum and cryogenic systems (e.g., feedthrough technologies, vacuum/thermal packaging and hardware considerations)
- System-level modeling expertise (e.g., noise modeling and propagation, power budgeting)
- Experience working with Xilinx, Altera, and Lattice FPGA systems
- Experience in the sensor design industries
- MATLAB/Simulink experience

Job Type and Location: Full-time, onsite with some hybrid OK, in Santa Barbara, CA, USA

Base Salary Range: \$120k to \$220k per year, set with experience, education and qualifications

Benefits: Competitive compensation, development opportunity, flexible schedule, relaxed working environment, located in a great beachside community.

Submit your resume at www.senseker.com or email it to careers@senseker.com

**This position requires work on projects which are protected under US ITAR laws, consequently, only US Persons will be considered for this position by law. For this purpose, the term "US person" means an individual who is a citizen of the United States, a lawful permanent resident alien of the US (e.g., a "Green Card" holder), a refugee, or someone in the US as a protected political asylee, or under amnesty.*

Senseker Corp is an equal opportunity employer and considers qualified applications for employment without regard to sexual orientation, gender identity, gender expression, race, color, sex, creed, religion, national origin, age, disability, veteran status, or any other protected class.