

# UMBRA

## Radio Frequency (RF) Engineer

Umbra Lab, Inc. (“Umbra”) is a technology company which builds next-generation space systems. Umbra is launching an unrivaled constellation of space-based radar satellites with synthetic aperture radar (SAR) capabilities, to produce all weather day-night imagery with sub-meter resolution for low cost distribution via an integrated web platform. We are a bold, experienced team of developers, engineers, product specialists, and other professionals working to aggressively expand the state-of-the-art for commercial remote sensing.

We are looking for a Radio Frequency (RF) Engineer with senior level experience who will be developing microwave hardware for next-generation space radar systems. The individual filling this position will collaborate with the electrical engineering team to rapidly develop, analyze, manufacture, and test microwave systems. Work may support a variety of applications including radar, communications, SIGINT, ELINT, etc.

### Key Responsibilities

- Collaborate with engineering team develop microwave electronics for space-radar and communication systems
- Design, analyze, and test RF components and systems
- Support delivery of novel microwave systems, including PCB assembly, mechanical integration, EMI/EMC compliance, test, and documentation
- Interface with vendors as the technical representative and subcontracts manager
- Develop and implement microwave system operating procedures, test procedures and documentation
- Support subsystem and spacecraft assembly, integration, test, and production sustainment with focus continuous improvement

### Basic Qualifications

- Bachelor of Science in relevant STEM discipline such as electrical engineering
- 5+ years relevant experience developing microwave systems
- Familiarity designing with microwave components (antennas, amplifiers, synthesizers, etc.)
- Working knowledge of antennas, transmission line theory and RF test techniques
- Experience with RF design and analysis tools (i.e. CST, TICRA, HFSS etc.)
- Experience with RF design implementation on PCBs or mechanical waveguide systems
- Experience with MMIC devices with low-loss dielectric substrates
- Familiarity with test equipment such as oscilloscopes and network analyzers
- Comfortable working in a dynamic and fast-paced development environment

### Desired Qualifications

- Advanced degree in an engineering discipline with emphasis in RF, microwave circuits or electromagnetic theory
- Familiarity with FCC Rules and Regulations
- Previous experience with spacecraft systems is a big plus
- Experiences with manufacturing and production testing of RF components and systems
- Knowledge of digital modulation types such as QPSK, APSK and QAM

### Benefits

- Flexible Vacation / Paid Time Off
- Medical, Dental, Vision, 401(k)
- Stock Options

### Location

- Santa Barbara, CA

# **UMBRA**

## **Additional Requirements**

In compliance with federal law, all persons hired will be required to verify identity and eligibility to work in the United States and to complete the required employment eligibility verification form upon hire. All persons hired will be required to be a U.S. citizen, a lawful permanent resident of the U.S., or protected individual as defined by 8 U.S.C. 1324b(a)(3), or eligible to obtain the required authorizations from the U.S. Department of State. Umbra is an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.

To apply: Email resume to [careers@umbralab.com](mailto:careers@umbralab.com)