Kevin Nakamura

RF ENGINEER

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Summary

RF engineer with 5 years of experience designing and testing antennas, filters and front-end circuits for cellular and satellite products. Simulates in HFSS, CST and ADS, then verifies hardware with vector network analyzers, spectrum analyzers and signal generators. Writes Python and MATLAB tools that automate RF test and reporting.

Skills

- HFSS
- CST
- ADS
- Vector Network Analyzers
- Spectrum Analyzers
- Signal Generators
- RF Test Equipment
- Antennas
- MATLAB
- Python

Experience

RF Engineer 04/2023 - Present

Point Loma Wireless San Diego, CA

Maker of LTE and 5G modules for industrial IoT devices.

- Design antennas and matching networks for 7 cellular modules covering 600 MHz to 6 GHz.
- Model antenna and enclosure effects in HFSS and CST, cutting prototype spins from 4 to 2 per product.
- Run carrier certification tests with RF test equipment in our chamber, passing **11** of 11 submissions first time.
- Build Python scripts that control vector network analyzers and log S-parameters, saving 10 bench hours a week.

Associate RF Engineer 06/2021 - 03/2023

Mesa Satcom Systems Carlsbad, CA

Supplier of Ku-band and Ka-band satellite terminals.

- Characterized LNAs and block upconverters with spectrum analyzers and signal generators at 3 temperature points.
- Developed microstrip filters in ADS with insertion loss under 1.2 dB for 2 terminal models.
- Analyzed production yield data in MATLAB and traced 2 failure modes to connector torque.
- Led troubleshooting of intermodulation issues on field units and wrote the fix into the assembly procedure.

RF Engineering Intern 06/2020 - 08/2020

Coronado Antenna Labs San Diego, CA

Summer internship with an antenna design and test lab.

- Measured gain and radiation patterns for 30 patch antenna samples in an anechoic chamber.
- Assembled test fixtures and cable sets and kept calibration records for the lab.
- Compared measured patterns with HFSS results and reported a 0.8 dB average gain gap.
- Wrote a MATLAB script that plotted 3D patterns from raw chamber data in under a minute.

Education

Bachelor of Science 05/2021

San Diego State University San Diego, CA

Electrical Engineering