

Mike Martin

LEAD RF SYSTEMS ENGINEER · DENVER, CO

RF systems engineer with technical leadership in space and defense: system-level architecture, RF front-end design, link budgets and business development. I lead customer-facing architecture trades and proposals, and I scale engineering through automation — increasingly by building the tools myself with AI agents.

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ENGINEERING EXPERIENCE

Jan 2024 – Present
Longmont, CO

Lead RF Design / Systems Engineer Redwire Space

- ▣ Lead engineer for R-GPS: technical discussions, architecture trades and link budget development.
- ▣ Own RF architecture for high-stakes proposals and represent the company as the technical authority.
- ▣ Built a web-based data-processing tool that cut review time from 60 minutes to 1, saving about 1,500 hours.
- ▣ Institutionalized standardized design reviews and "test like you fly" protocols, reducing non-conformances and improving test repeatability.
- ▣ Designed and managed L/S-band RF front ends from simulation through procurement and flight test.
- ▣ Directed CapEx lab outfitting and explored supplier financing models to modernize lab capability.

May 2023 – Jan 2024
Boulder, CO

Senior RF Engineer Lockheed Martin

- ▣ Led a trade study on RF-over-fiber for ground-to-satellite links: gathered cross-functional requirements and evaluated architectures.
- ▣ Defined link budgets and system specs; coordinated vendor technical inputs for RFQ packages.
- ▣ Designed S-band communications hardware, balancing RF, mechanical and system constraints.
- ▣ Captured schematics in Mentor Graphics to electrical and interface standards.

Jun 2021 – Apr 2023
Westminster, CO

RF Design Engineer II Ball Aerospace

- ▣ Designed the RF front end for a high-frequency system spanning L, S and C bands.
- ▣ Directed two engineers on schematic, layout and fabrication of test hardware.
- ▣ Wrote STM32 AGC control firmware over I²C, SPI and UART.
- ▣ Built bare-metal firmware for a phased-array T/R switch board with high-speed control logic.

Jan 2019 – Jun 2021
Westminster, CO

RF Design Engineer I Ball Aerospace

- ▣ Designed and tested custom RF boards for digital beamforming.
- ▣ Simulated link performance in Microwave Office, HFSS and QUCS; analyzed results in MATLAB.
- ▣ Developed a Ku-band RF distribution board with connector and via optimizations.
- ▣ Verified a 1:16 gain distribution network: 35 dB gain, 40 A power delivery.
- ▣ Led design of passive and active RF boards for a ground-based phased-array demonstrator.
- ▣ Automated RF testing with SCPI scripting and lab instrumentation.

May 2017 – Aug 2018
Plano, TX

Electrical Engineer L3 Mustang Technology

- ▣ Design verification on five DC/DC converters (buck, boost, buck-boost) for defense systems.
- ▣ Helped design and test magnetometer-based ICs, optimizing gain, bias and noise.
- ▣ Built a MATLAB/Simulink solution using a 9-axis sensor to automate radar test alignment.

- ▣ Wrote and ran test plans for drone-related defense hardware.
- ▣ Offered a continued role beyond the internship.

BEFORE ENGINEERING

May 2010 – Nov 2014 · Austin, TX · London, UK

Senior Supply Chain Analyst

Apple

Operations and finance roles supporting high-volume product delivery.
Inventory planning and cross-functional process improvement.

Jan 2006 – May 2010 · Tucson, AZ · Dallas, TX

Global Business Planner

Texas Instruments

Led production planning and operations for a \$225M product line.
Data-driven decisions with a focus on customer alignment.

SKILLS

RF systems

RF system & architecture design,
Link budgets, Front-end design,
Phased arrays, Trade studies,
Technical proposals

Simulation

HFSS, Microwave Office, ADS,
openEMS (FDTD), QUCS, MATLAB / Simulink

Hardware

Schematic capture, PCB design,
Altium Designer, KiCad, Mentor Graphics,
Mains & power design

Embedded

STM32, ESP32-S3, Bare-metal firmware,
I²C · SPI · UART

Test & measurement

Network analyzers,
Spectrum / signal analyzers, Power meters,
SCPI automation, Test planning

Software & AI

Claude Code / agentic development,
Python · FastAPI, TypeScript · React,
Postgres, Docker · Proxmox,
LLM apps (vision, voice, RAG)

EDUCATION

M.S. Electrical Engineering The University of Texas at Dallas	2015 – 2018
MBA, Marketing / IT & Operations Management SMU Cox School of Business	2008 – 2010
B.S. Business Administration, Finance & Operations University of Arizona	2001 – 2005