Raymond Jensen

RF/Microwave Electrical Engineering Consultant
Clinton, UT
-Email me on Indeed: http://www.indeed.com/r/Raymond-Jensen/55ae5d7047acb8c0

My objective is to provide RF/Microwave electrical engineering consultation.

Work Experience

Electrical Engineering Consultant

RF Design
April 2015 to Present

• Designed multiple C-band GaN HPA modules using AWR Microwave Office.
• Designed Ka-band GaN HPA module using AWR Microwave Office.
• Completed multiple circuit board layout designs using Altium Designer.
• Designed a 915 MHz Patch Antenna for locator system.
• Designed multiple RF test systems using NI PXI hardware and LabVIEW software.

Electronics Engineer

Hill AFB, UT
February 2003 to Present

• Redesigned SRS (Solar Radio Spectrograph) RF front end using PXIE VSA hardware. The device was programed using and LabVIEW software.
• Hardware design including the following:
1. Designed GaN 400 Watt L-band High Power Amplifier for AN/FPS-124 Radar.
2. Designed LDMOS 400 Watt L-band High Power Amplifier for AN/FPS-124 Radar.
3. Designed target injection circuit for F-16 Radar Software Test Bench and FPGA interface control board.
4. Low pass filter for use in phase noise testing.
• Proposed design for and oversaw development of redesign of RIMS (Radio Interference Measurement Set) using software defined radios.
• Conducted multiple RF site surveys for selecting new radiometer sites.
• Maintained and designed upgrades for F-16 Radar Software Test Bench
• Design Agent for Marine EFV (Expeditionary Fighting Vehicle) communications subsystem and LRUs.
• Designed, integrated, and maintained SIL (System Integration Lab) for testing developmental software on EFV communications equipment and network.
• Microwave Automated Test Equipment (ATE) development for testing analog and microwave electronic communications/radar systems in military aircraft. Work included design of interface test adapter, circuit analyses/simulation, generation of test procedure/documentation, and testing software using LabWindows CVI, C, and Atlas.
• Execution of investigations of complex transceiver and Radar/Microwave component malfunctions in military aircraft in order to improve test reliability for maintenance.

Microwave Engineer

US Monolithics - Chandler, AZ
April 2000 to April 2002

• MMIC (Monolithic Microwave Integrated Circuit) design in GAAS on .25 micron PHEMT process. Designs include: 2 watt PA (Power Amplifier) at 38 GHz, 2 watt PA at 30 GHz, 4 watt PA at 14.5 GHz, driver amp at 30 GHz, integrated mixer/RF amp/LO amp chip.
• Product application development.
• PSPICE modeling of transceiver module hardware.
• Transceiver and component test plan generation and documentation.

RF Engineer and Systems Engineer, Motorola

Ceramic Technology Group and Satellite Communications Group - Tempe, AZ
June 1998 to April 2000

• RF Filter design using LTCC (Low Temperature Co-fired Ceramic) Technology. Design work included design of LTCC circuitry for integration of SAW filter die.
• System integration and testing of Iridium and Teledesic Satellite projects. Work included generation of STE (Special Test Equipment) specification for RF link effects model simulator and other STEs, testing of Iridium GSM TDMA FDMA network in simulated lab environment and development of software tools using C++ for GSM protocol analysis.

Student RF Engineer

University of Utah Team Member for Motorola - Salt Lake City, UT
June 1997 to May 1998

Utah
• With a team of undergrads, worked on the design of an electronically steerable phased array antenna using CTS (Continuous Transverse Stub) technology.
• Analyzed radiation characteristics using FDTD software and phased array antenna analysis software.

Engineering Intern, Pacificorp

University of Utah Team Member for Motorola - Salt Lake City, UT
June 1997 to September 1997

• Assisted engineers in the design of microwave communications networks.
• Documented system level design changes to existing communications networks.

Student Intern

Varian - Salt Lake City, UT
June 1996 to November 1996

• Teamed with Engineers to improve production efficiency of X-ray tube products.
• Implemented computer formatted instructions using visual images for X-ray tube production.

SECURITY CLEARANCE:
I posses a secret clearance

Education

BS in Electrical Engineering

University of Utah - Salt Lake City, UT
June 1998

Skills

- ANTENNA (3 years)
- MICROWAVE (10+ years)
- PSPICE (8 years)
- LABVIEW (10+ years)
- C++ (5 years)
- Electrical Engineering (10+ years)
- PCB (10+ years)
- RF Circuit Design (10+ years)
- Electrical Design (10+ years)
- Analog (8 years)
- Embedded (6 years)
- MATLAB (7 years)
- Visio (10+ years)

Additional Information

SOFTWARE TOOLS USED:
ADS, Libra EEsof Series IV, Sonnet, IE3D, Momentum, MDS, AWR Microwave Office, Touchstone, Altium Designer, Mentor Graphics Expedition PCB, Orcad, PSPICE, C/C++, Python, Matlab, AutoCAD, LabView, Labwindows CVI, Microsoft Office, Visio, Atlas, Lazar, UNIX, Pascal, FDTD Software (University of Utah developed), AR2 (University of Utah developed antenna radiation pattern software)