PRODUCT TEST ENGINEER

Summary

6+ years of hands-on experience with Analog/RF, Mixed Signal & Wireless IC in Modem system and Notebook integration testing. Working knowledge with GSM, GPRS, EDGE, WCDMA, CDMA, and LTE technologies. Experience with test code automation and enhancement. Test experience includes performance, regression, stability, data throughput, voice/data calls, features, handoffs, multi-PDN, throttling, MIP, SIP, IMS, and tethering. Excellent debugging experience with UE logs and test tool logs, and analyze, track and resolve issues while working closely with development and test teams.

Highlights

- Tools/Equipment
- Test Equipment: Oscilloscope, Logic Analyzers, Agilent 8960, LeCroy Protocol Analyzer, Call Boxes (Octopus, Cube, Panda)
- Tools: QXDM, QPST, PSPICE, Connection Manager, WireShark, Spartan, ModelSim, Xilinx, Project Navigator C++, Python, Perl, MATLAB
- Application: JIRA, SQL, QPST, QXDM, Trace32, iperf, WireShark, Office
- Operating Systems: Linux, Windows

Accomplishments

- Design 802.11b MAC Encryption Layer using Verilog and test performance using Linux operating system.
- Tests include checking the performance (maximum data rate) using only software implementation of the MAC Layer and then using hardware replacement for parts that take the most time to process, thus increasing the performance.
- Programming of C6713 DSK Board Using CCS Program Use the real-time debugging tools provided in CCS, including Watch Window, GEL function, and Time/Freq plot.
- Learn how echo and reverse playback are implemented practically.
- Implement FIR, IIR, Sobel and median filters.
- Least Squares Audio and Speech Compression Using MATLAB Use MATLAB to calculate the least squares estimate of the coefficients of the model and residuals.
- Find the Mean Squared Error between the quantized signal and the original.
- Digital Signal Processing Process signals with Convolution Sum/Integral, Image Deblurring and Decoding, Modulation, Fourier Transform, and Filtering Audio Signal Digital Image Processing: Automatic License Plate Recognition Use MATLAB to write a program that acquires an input license plate image; then using various image processing techniques such as morphological operations, thresholding, image segmentation, etc.
- to output the license plate numbers.

Experience

Product Test Engineer
September 2014 to Current Cirrus Logic, Inc.

- Responsible for developing and executing automated test plans at product level on snapdragon chipsets.
- Setup test environments with wireless technologies GSM/CDMA/UMTS/LTE/VoLTE concurrent to Multimedia/Graphics, Bluetooth and GPS to stress chipset stability.
- Debug system and protocol level issues using QXDM, test tool logs and script logs to find root cause of the functional or stability issues.
- Assist in developing and testing automation tools.
- Report stability and functional issues using JIRA bug tracking system.

Modem Test Engineer
March 2012 to March 2014

- Responsible for verifying modem device functionality and features as well as characterizing modem performance during various phases of modem development and commercialization.
- Performed Modem functional and non-functional tests, features and regression tests in areas such as data throughput, KPIs, handovers, multi-PDN, throttling, VSNCP, EAP, MIP, SIP, IMS, tethering, and stability.
- Worked with a multi-disciplinary team (Modem Firmware, Modem Software, Modem Systems, Modem HW, and RF Software) in the commercialization of modem products.
- Involved in creating, maintaining and modifying automation scripts for developed automation applications.

Modem Test Engineer
June 2010 to September 2011

- Worked with a multi-discipline team (Software Development, System Design, RF Circuits and Hardware Design, etc.) to integrate, test and commercialize products.
- Job responsibilities included system level feature integration and test, developing/executing test strategies and test plans, troubleshooting/analyzing problems, optimizing system performance, executing interoperability tests, and supporting customers with product commercialization.

Education

Bachelor of Science : Electrical Engineering Communications and DSP , June 2010 University of California ï¼ City , State Electrical Engineering

Communications and DSP Communication Theory Digital Signal Processing Probability and Random Processes Digital Image Processing Data Networks Class Projects 802.11b Wireless LAN MAC Layer System Design

Skills

automation, automation tools, C++, Digital Signal Processing, features, functional, GPS, Graphics, GSM, Hardware Design, Image Processing, IMS, Linux, Logic, MAC, MATLAB, Office, Windows, Modem, Multimedia, Navigator, Networks, Operating Systems, Oscilloscope, Perl, Processes, Programming, PSPICE, Python, scripts, script, Software Development, SQL, System Design, Test Equipment, troubleshooting, UMTS, Wireless LAN