## Nasser Osman

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## OBJECTIVE

Experienced 2G/3G/4G Cellular Test Engineer, and Master's degree holder, actively seeking work in the areas of mobile device test and RF System Performance & Optimization.

#### **EDUCATION**

M. Eng. in Electrical Engineering, May 2015 Concentration: Wireless Communications Stevens Institute of Technology, Hoboken, NJ

#### **Relevant Course Work:**

Software-Defined Radio, Wireless Communications, CMOS Mixed Signal IC Design, Wireless Networking (Architectures, Protocols, & Standards), Microwave Circuit Design, Digital Signal Processing

**B.S. in Electrical Engineering,** May 2008 George Mason University, Fairfax, VA

**A.S. in Electrical Engineering Specialization,** May 2005 Northern Virginia Community College, Annandale, VA

## TECHNICAL SKILL SET

Hardware Test Equipment: 8960 Agilent Wireless Test Set, Spirent CDMA/EVDO Network Emulators, Spirent VRS Channel Emulator, Spectrum Analyzers, JTAG, antennas, RF cables/connectors, splitters, combiners Software Tools: QXDM, QPST, QCAT, MTK Catcher, Ecapture, WINDS, PuTTY, Hyperterminal, MS-DOS, ADB, Filezilla, Wireshark, C2K Airaccess, PLTS, JIRA, Bugzilla, HP Quality Center, Comprion, Google Maps/Earth, MS-Office Mobile Operating Systems: Android, Windows Phone, Blackberry, Palm, BREW

## CAREER CORPORATE WORK SUMMARY

Personal Communications Devices (via Nexius) – Sept 2012 – Oct 2013 Hauppauge, NY

### **Device Test Engineer/Product Development**

- Worked with mobile device developers, namely HTC, Pantech, Netgear, Delphi, in the wireless carrier compliance of various cellular products (i.e. handsets, mobile hotspots, routers etc.) during different phases of product lifecycle.
- Reviewed and organized P1 device submissions sent to Verizon for carrier technical acceptance.
- Mainly worked multiple Verizon projects; primarily responsible for VZ Domestic Field Interoperability Testing (both Pre-FITs and Official FITs) for assigned designated carrier test markets within US, working alongside customer (VZ) and OEM Engineers.
- Executed mobility and stationary test cases (i.e. Feature Conformance Tests, 1x/EVDO/LTE Data Throughput Tests etc.); implemented FIT test cases in accordance with test procedures.
- Compiled and sent out FIT test reports; shared issues and test results with team; post-processed DM logs for analysis.
- Used SW tools (i.e. QXDM, QCAT, Wireshark, QPST, Filezilla, DOS) to perform tests; verified key OTA/protocol signaling messages (eg. LTE Attach msgs, CDMA power down registration msgs etc.).
- Assisted in the management of HW/SW device issues (using HP Quality Center SW tool) so as to achieve respective fixes.
- Assisted with Verizon third-party vendor issues.
  - Attended VZ Marketing meetings and VZ Events (eg. Test Fests).

## Alcatel Onetouch - Dec 2011-Apr 2012

Irvine, CA

### **Field Test Engineer**

- Performed GSM/UMTS field testing on mobile devices using the latest software build.
- Executed test cases from carrier test plans as well as nonregression test plans (i.e. ATT-10776, DG.11). Additionally, executed stability testing.
- Performed basic functionality testing (i.e. Voice, Data, Wi-Fi, Bluetooth).
- Used SW tools (i.e. MTK Catcher) to perform tests; verified key network protocol signaling messages (eg. PLMN msgs etc.).
- Fully managed bugs so as to attain respective fixes.
- Worked with R&D team in debugging device issues.
- Resolved HW/SW device defects in a timely fashion.
- Submitted deliverables (i.e. test reports); prioritized testing accordingly.
- Worked multiple projects; provided feedback to teampertaining to testing and bug status.
- Performed regression testing and retests as needed.
- Performed software upgrades on test devices.
- Interfaced with Marketing team.

#### Verizon Wireless - Feb 2010-Feb 2011

Bedminster, NJ

## RF/Features Lab Test Engineer - Co-Op (Grad)

- Completed three consecutive terms under the Verizon Wireless Cooperative (Co-Op)/Internship Program with the Customer Premises Equipment Laboratory (CPE Lab).
- Performed and validated cdmaOne, 3GPP2 CDMA RF parametric testing (i.e. IS-95, IS-2000, IS-866 Rev0, IS-866 RevA; 1x, EVDO);
   CDMA Rx diversity testing; and GPS location-based testing (i.e. GPS Minimum Performance Testing & GPS Privacy Testing) on pre-launch mobile devices using commercial test equipment.
- Also performed 3G Features/Apps validation testing (i.e. MMS, VVM, VZNAV, BUA, SMS, SW Regression) on pre-launch UEs.
- Read over OEM device-specific HW/SW release notes for technical reference related to DUT.
- Submitted test results; documented device issues.
- Participated in Marketing calls; synced up on overall testing status.

## RELATED CONTRACT WORK (W-2)

CGI (Client: ALU) - May 2014-Aug 2014

New Providence, NJ

## **LTE Test Engineer**

- Worked on Sprint project; tested and configured end-to-end 3-MHz/5-MHz-bandwidth LTE systems and network elements (i.e. BTS, RRH, UE) in a cabled RF environment; utilized various MIMO test configurations (eg. 2x2, 4x2) and eNB SW loads to perform tests; made note of carrier KPIs (i.e. data rates).
- Performed tests such as Idle-Active mode testing, UL/DL Data Throughput, and Handoffs.

- Examined key system parameters (eg. RSRP); captured both uplink and downlink logs for analysis.
- Used SW tools (i.e. Ecapture, WINDS, PuTTY, MS-DOS, QXDM) to perform given tests.

# **Tekmark (Client: Motorola Mobility) -** May 2012-Aug 2012 Libertyville, IL

### **Platform IOT Test Engineer**

- Worked on Verizon project; performed CDMA conformance and protocol regression testing against 3GPP2 industry standards on a development PCB board.
- Software upgraded device (at board-level) with latest software build prior to engaging in new test plan.
- Worked with SW development team in debugging SW issues.
- In addition, supported UICC testing on mobile devices.

# **Technisource (Client: Qualcomm) -** Apr 2011-Sept 2011 Bridgewater, NJ

## **Field Engineer**

- Part of an HTC/ATT Field Test project; tested SW performance and functionality on various QCT multimode radio modem products (i.e. a GSM/UMTS/LTE dual-RF baseband chipset incl. the MDM9200 chip) on live network; also supported Sierra/ATT Field Test project.
- Performed field testing on a CSFB 'Fusion' FFA and an LTE USB 'dongle' FFA at ATT eNB markets within US; used the latest SW build to conduct tests.
- Executed KPI testing (eg. data performance testing under stationary and mobility RF network conditions) as well as stability testing in stationary test environments.
- Testing included System Acquisition, UDP/TCP/FTP Data Throughput, Voice, SMS, iRATs, simultaneous voice and data.
- Captured DM logs and ADB crash logs for analysis.
- Communicated with Network OEMs (i.e. Ericsson) with respect to cell site frequency band switching/reconfiguration, as well as other specific cell site location info, as needed for testing.
- Used HW equipment (i.e. RF cables, antennas) and SW tools (i.e. QXDM, QPST, ADB, MS-DOS, Filezilla) fortesting.
- Compiled and sent out field test reports regularly.
- Documented device issues; reproduced issues for analysis.
- Carried out software upgrades on field test devices.

# ACADEMIC DESIGN PROJECTS

#### **144-MHz RF Power Amp** – Jun 2009

Sub-led a group of four persons in the component-level design and construction of a two-port 144-MHz RF Power Amplifier on a 3.8" x 2.5" mini-PCB (**Specs:** 10-MHz 3-dB Bandwidth, 7.27-dB Power Gain, 12 components including an off-the-shelf RF transistor - NEC46134); terminated and matched at standard 50 ohms; simulated VSWR/s-parameter plots; prototyped and designed using SPICE, Smith Chart, ExpressPCB; tested (@ 100-MHz) and constructed using a customized PCB (with component dimensions), soldering equipment, spectrum analyzers, scopes, meters, frequency generators.

TRAINING/ CERTIFICATIONS	ISO-17025, Verizon Wireless (2010)
OTHER EMPLOYMENT	Amazon/Distribution Logistics - Jun 2019 - Oct 2020 Springfield, VA  Delivery  Delivered packaged and boxed items to customers' houses and other places of delivery. Loaded and unload items into and out of delivery vans.  Advance Auto Parts - Aug 2017 - Apr 2019
	Falls Church, VA
	Team Member - Driver
	<ul> <li>Delivered auto parts and accessories to auto shops.</li> <li>Checked out customers using cash registers and computers.</li> <li>Sold and recommended auto parts/accessories to customers.</li> <li>Stocked store merchandise; worked on inventory.</li> </ul>