

JOHN-ROBERT CHARLES

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PROFESSIONAL SUMMARY

Senior RF Drive Test and Optimization Engineer with extensive experience supporting nationwide cellular networks across 2G, 3G, 4G LTE, and 5G NR technologies. Proven expertise in drive testing, benchmarking, E911 Phase I/II compliance testing, propagation modeling, and RF optimization. Highly proficient with industry-standard tools including TEMS, NEMO, JDSU, Keysight, Atoll, and XCAL, with a strong record of delivering data-driven insights that improve network performance, regulatory compliance, and customer experience.

CORE TECHNICAL SKILLS

- RF Drive Testing & Optimization (Mobility, SSD, SSV, Cluster, Benchmarking)
 - 5G NR (mmWave 24 GHz / 39 GHz), LTE, UMTS, GSM, CDMA, VoLTE
 - E911 Phase I & Phase II (10-Meter Accuracy) PSAP Testing
 - KPI Analysis (RSRP, SINR, Ec/Io, Throughput, Drop/Block Rates)
 - Propagation Modeling & RF Design
 - Spectrum Planning & FCC Coordination
 - Call Trace Analysis & Handover Optimization
 - Tools: TEMS Investigation (10.x-17.x), TEMS Paragon, NEMO, JDSU, Keysight FieldFox, Atoll, XCAL, ANOVA, MapInfo, Street Atlas
 - Equipment: Spectrum Analyzers, Signal Generators, Pilot Scanners, T-Birds, Applanix
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PROFESSIONAL EXPERIENCE

NETSCOUT – RF Engineer

Contract Role - Installed and commissioned 5G radio equipment supporting 24 GHz and 39 GHz mmWave deployments. - Performed 5G drive testing and optimization using Keysight FieldFox and Applanix systems. - Analyzed collected RF data to develop 5G propagation models and performance reports. - Supported troubleshooting and performance validation for pre- and post-launch activities.

GCB Services – RF PSAP Test Engineer - Conducted E911 Phase I and Phase II PSAP testing to ensure regulatory compliance. - Executed live and simulated emergency/non-emergency call testing. - Validated latitude/longitude accuracy and address resolution across multiple carriers.

Cellular One – RF Performance & Optimization Engineer - Monitored and analyzed network KPIs to improve coverage, capacity, and quality. - Developed UMTS and LTE growth plans, including frequency retunes and spectrum optimization. - Coordinated spectrum utilization and compliance activities with the FCC. - Authored RF guidelines and procedures to standardize engineering operations.

Sublime Wireless Inc. – Associate RF Engineer - Performed multi-carrier stationary and mobility testing using ANOVA, JDSU, and NEMO. - Executed VoLTE testing on WCS (2300 MHz) spectrum. - Conducted site shakedowns, cluster drives, and E911 Phase II testing across UMTS and LTE bands.

Global Wireless Solutions – Associate RF Engineer / Benchmarking Engineer - Collected competitive benchmarking data for nationwide carriers. - Performed E911 Phase II (10-meter accuracy) testing with live PSAP calls. - Conducted NSB testing using simulated and live emergency call scenarios.

Enternext – RF Drive Test & Optimization Engineer - Optimized GSM, CDMA, 1xEV-DO, UMTS, LTE, and iDEN networks through extensive drive testing. - Analyzed SINR, Ec/Io, pilot pollution, neighbor relations, and handover performance. - Conducted RF call tracing and troubleshooting of dropped and blocked calls. - Validated single-site shakedowns prior to commercial launch. - Performed baseline and cluster testing using TEMS Investigation (v14–17) and JDSU/NEMO tools.

Mobilecom – E911 Drive Tester / Assistant RF Data Engineer - Supported integration and optimization of new and dual-band cell sites. - Conducted E911 Phase II testing with PSAP call validation and reporting. - Utilized TEMS, MapInfo, and RF analysis tools for data collection and reporting.

EDUCATION

Bachelor of Science – Computer Science
Hesser College, Manchester, NH
