CFR 47 Part 15 Test Report

Test Report Number: WR901.004

Terminal device: FCC ID: QMNRM-124 Model: 2855i Type: RM-124 HW: 2001 SW: VR100_05wk21_18.nep (Detailed information is listed in section 4).

Originator:	Mark Severson
Function:	TCC - Dallas – EMC
Version/Status:	1.0 Approved
Location:	TCC Directories
Date:	November 14, 2005

Change History:

Version	*Date*	*Status*	*Handled By*	*Comments*
0.1	14-Nov-05	Draft	Mark Severson	
0.2	14-Nov-05	Proposal	Mark Severson	
0.3	14-Nov-05	Reviewed	Cindy Trinh	
1.0	14-Nov-05	Approved	Cindy Trinh	

Testing laboratory:

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Date and signatures: **November 14, 2005**

For the contents:

Mark Severson	Cindy Trinh
Test Operator	**Technical Review**

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1. GENERAL

1.1 Quality System

The quality system in place for TCC-Dallas conforms to ISO/IEC 17025 and has been audited to the standard by A2LA (American Association of Laboratory Accreditation). TCC - Dallas has also been audited using the ISO 9000 Quality System, as part of Nokia Mobile Phones, Inc., by ABS (American Bureau of Shipping) Quality Evaluations Inc.

TCC-Dallas is a recognized laboratory with the Federal Communications Commission in filing applications for Certification under Parts 15 and 18, Registration Number 100060, and Industry Canada, Registration Number IC 661N.

1.2 Objective

All tests and measurement data shown was performed to determine whether the selected handset was in compliance as specified in FCC: CFR47 Parts 15.109.

1.3 Test Summary

Test Results: *The test result relates only to those tested devices mentioned in Section 4 of this test report.*

Test Performed	Reference	Section of Report	Complies / Does not comply / Not Tested
Idle Mode Radiated Emissions	FCC Part 15.109	6	Complies with FCC part 15.109

2. STANDARDS BASIS

Testing has been carried out in accordance with:

REF.	Code of the standard	Name of the standard
1	ANSI C63.4	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40GHz.
2	FCC: CFR 47 Part 15	Code of Federal Regulations (CFR) Title 47, Part 15 – Radio Frequency Devices: Subpart B – Unintentional Radiators and Subpart C – Intentional Radiators
3	CISPR 22 / EN55022	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.
4	ICES-003	Digital Apparatus, Industry Canada
5	RSS-129	800 MHz Dual-Mode Cellular Telephones
6	RSS-132	800 MHz Cellular Telephones Employing New Technologies
7	RSS-133	2 GHz Personal Communications Services, Industry Canada
8	RSS-212	Test Facilities and Test Methods for Radio Equipment, Industry Canada (Provisional)
9	RSP-100	Radio Equipment Certification Procedure

Note: Unless otherwise stated, (by reference to a version number and a publication date), the latest version of the above documents applies.

Deviations:

Not Applicable.

3. LIST OF ABBREVIATIONS, ACRONYMS AND TERMS

3.1 Abbreviations

dB - decibel

dBm - decibels per milliwatt (absolute measurement)

dBµV - decibel per microvolt

dBµV/m - decibel of microvolt per meter

GHz - gigahertz or 1000000000 hertz

kHz - kilohertz or 1000 hertz

MHz - megahertz or 1000000 hertz

3.2 Acronyms

AMPS - Advanced Mobile Phone System

BSS - Base Station Simulator

CDMA - Code Division Multiple Access

EMC - Electromagnetic Compatibility

EMI - Electromagnetic Interference

EUT - Equipment under Test

GSM - Global System for Mobile communications

PCS - Personal Communications Services

RF - Radio Frequency

3.3 Terms

Base Station Simulator (BSS) - simulates all the necessary signals that a phone would experience while on a live network. There are many types of base station simulators catering for all current protocols, i.e., GSM, AMPS, and CDMA.

Cellular - refers to a frequency in the 800MHz band.

PCS - refers to a frequency in the 1900MHz band.

4. EQUIPMENT-UNDER-TEST (EUT)

The results in this report relate only to the items listed below:

4.1 Description of Tested Device(s):

Test Performed	Mode of Operation	Date of Receipt	Condition of Sample	Item	Identifying Information
FCC Part 15.109	AMPS, CDMA 800/1900	18-Oct-05	Functional	Phone	FCC ID: QMNRM-124 Type: RM-124 HW: 2001 SW: VR100_05wk21_18.nep ESN: 03306001526
FCC Part 15.109	AMPS, CDMA 800/1900	18-Oct-05	N/A	Battery	Type: BL-6C Other: 3.7vdc
FCC Part 15.109	AMPS, CDMA 800/1900	18-Oct-05	N/A	Charger	Type: AC-3U
FCC Part 15.109	AMPS, CDMA 800/1900	18-Oct-05	N/A	Headset	Type: HS-9

5. TEST EQUIPMENT LIST

The listing below indicates the test equipment utilized for the test (s). Calibration interval on all items listed can be obtained from the Engineering Services Group within NMP, Product Creation - Dallas. Where relevant, measuring equipment is subjected to in-service checks between testing. TCC - Dallas shall notify clients promptly, in writing, of identification of defective measuring equipment that casts doubt on the validity of results given in this report.

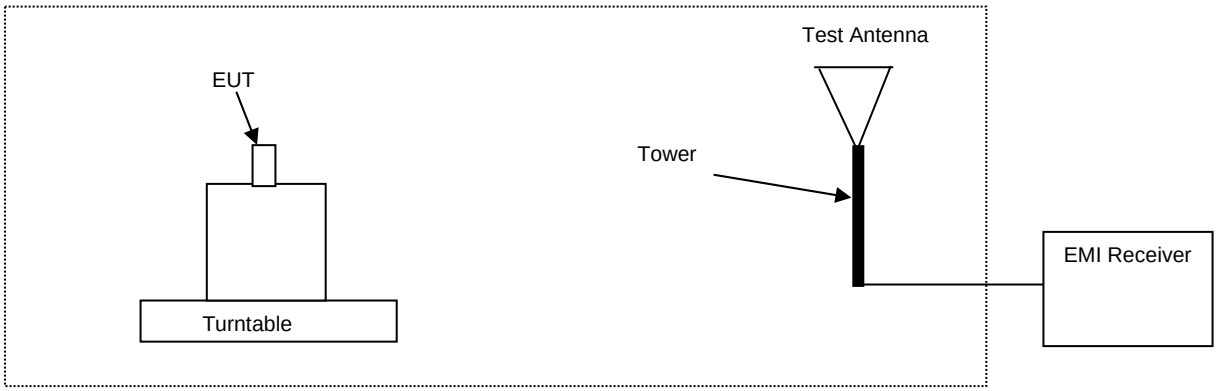
Section of Report	NMP#	Test Equipment	Mfr. #	Model #	Calibration Due Date	Calibration Interval
6	02661	EMI Receiver	Rhode & Schwarz	ESIB 26	03-Aug-06	12 months
6	4064	Base Station	Rhode & Schwarz	CMU-200	21-July-06	12 months
6	01472	Biconilog Antenna	EMC Automation	3003C	08-July-06	12 months
6	04076	Horn Antenna	ETS	3117	18-Aug-06	12 months
6	02836	Turntable and Tower Controller	Sunol	FM2022 & 2846	N/A	NCR

6. IDLE MODE RADIATED EMISSIONS

Specification: FCC Part 15.109

6.1 Setup

Testing was performed in accordance with ANSI C63.4, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40GHz.



6.2 Pass/Fail Criteria

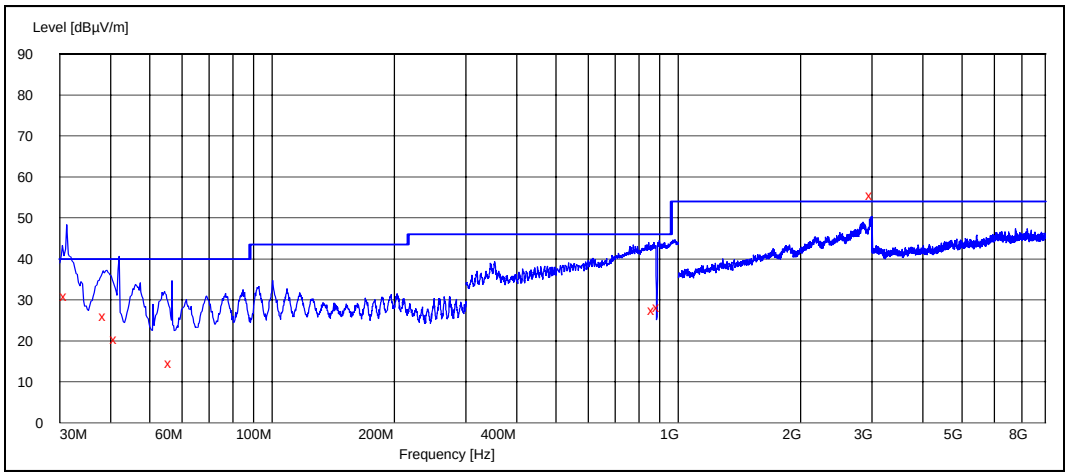
Band	Frequency Range (MHz)	FCC Class B Limit (dBµV/m at 3m)
Cellular	30 – 88	40
Cellular	88 – 216	43.5
Cellular	216 – 960	46
Cellular	> 960 *	54

* Frequency to be investigated up to the 5th harmonic of the highest clock or frequency used

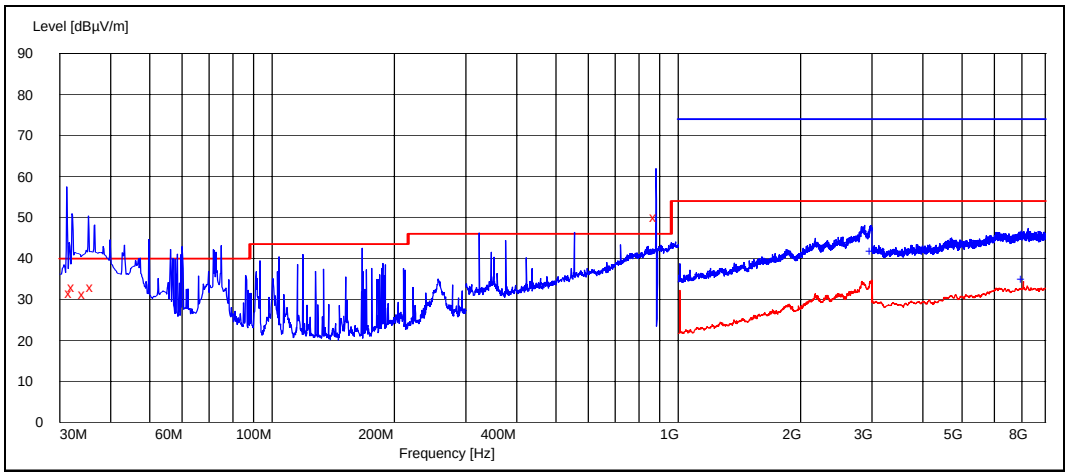
6.3 Detailed Test Results

Test Technician / Engineer	Mark Severson
Date of Measurement	November 14, 2005
Temperature	24°C
Humidity	45 %RH
Test Result	Complies with FCC part 15.109

Ambient



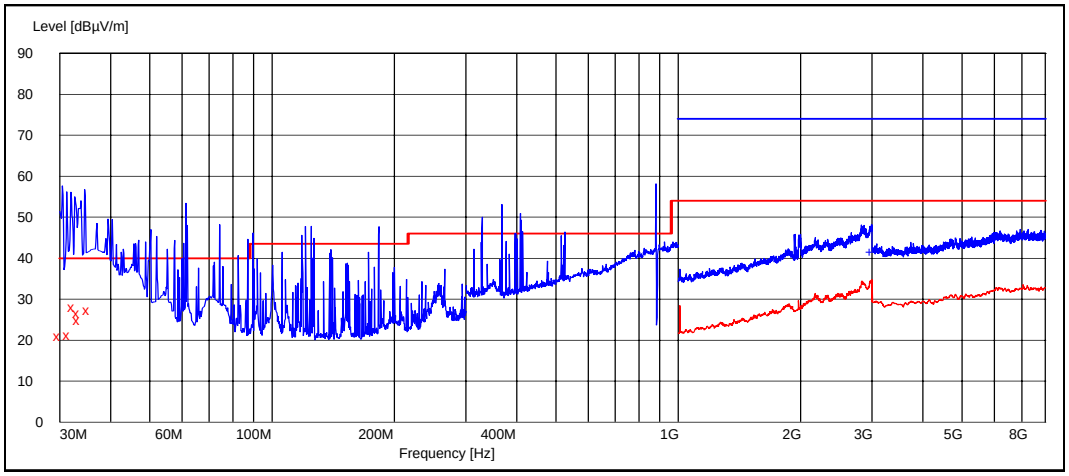
CDMA800



*881.52 MHz frequency is BSS carrier signal and thus ignored.

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
32.002405	31.60	38.02	43.40	-11.80	VERTICAL	Passed
32.564329	33.10	45.19	45.10	-12.00	VERTICAL	Passed
34.590581	31.30	36.73	44.10	-12.80	VERTICAL	Passed
36.092986	33.10	45.19	46.40	-13.30	VERTICAL	Passed

AMPS

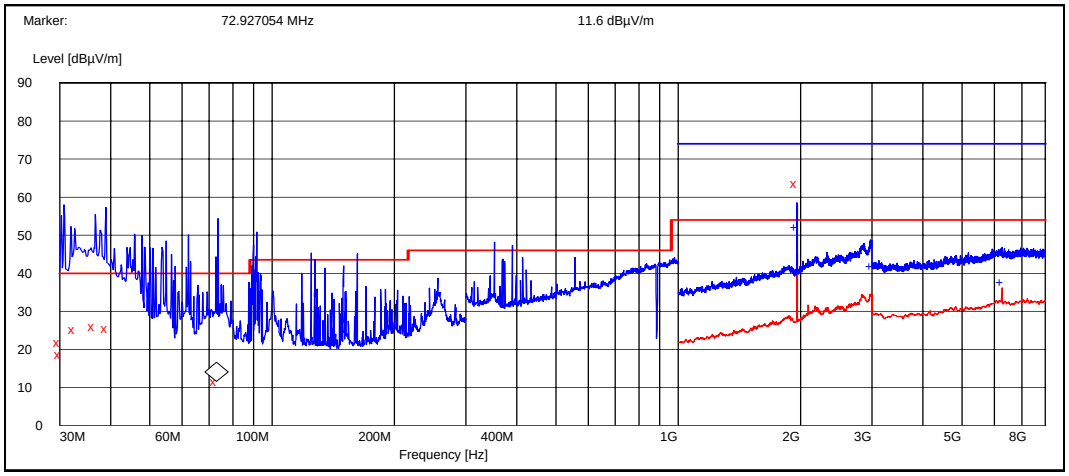


*881.52 MHz frequency is BSS carrier signal and thus ignored.

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
30.000000	21.00	11.22	32.00	-11.00	VERTICAL	Passed
31.702405	21.30	11.61	33.00	-11.70	VERTICAL	Passed
32.523848	28.10	25.41	40.10	-12.00	VERTICAL	Passed
33.445291	26.60	21.38	38.90	-12.30	VERTICAL	Passed
33.547695	25.00	17.78	37.40	-12.40	VERTICAL	Passed
35.369138	27.30	23.17	40.30	-13.00	VERTICAL	Passed

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
2996.997996	41.60	120.23	23.90	17.70	VERTICAL	Passed

CDMA1900



*1960.0 MHz frequency is BSS carrier signal and thus ignored.

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
30.000000	21.80	12.30	32.80	-11.00	VERTICAL	Passed
30.200000	18.60	8.51	29.70	-11.10	VERTICAL	Passed
32.623848	25.30	18.41	37.30	-12.00	VERTICAL	Passed
36.433467	26.00	19.95	39.40	-13.40	VERTICAL	Passed
39.297796	25.60	19.05	40.00	-14.40	VERTICAL	Passed
72.927054	11.60	3.80	27.10	-15.50	HORIZONTAL	Passed

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
2997.497996	41.70	121.62	24.00	17.70	VERTICAL	Passed
6264.029058	37.70	76.74	21.60	16.10	HORIZONTAL	Passed