CFR 47 Part 2, 22, and 24 Test Report

Test Report Number: WR 839.001

Terminal device: FCC ID: QMNRM-125 Model: 6165i Type: RM-125 HW: 2001 SW: VAZ100_05w21_16.nbr (Detailed information is listed in section 4).

Originator:	Michael Sundstrom
Function:	TCC - Dallas – EMC
Version/Status:	1.0 / Approved
Location:	TCC Directories
Date:	12-Oct-05

Change History:

Version	*Date*	*Status*	*Handled By*	*Comments*
0.1	10-Oct-05	Draft	Michael Sundstrom	
0.2	11-Oct-05	Proposal	Michael Sundstrom	
1.0	12-Oct-05	Approved	Hai To	

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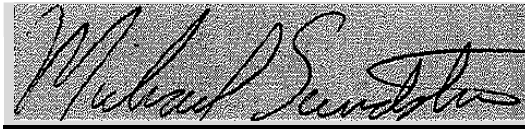
For the contents:



Michael Sundstrom
Test Operator

Hai To
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 661.

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 2.947, 2.1033(c), 2.1041, 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057, Part 22, and Part 24.

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
Frequency Stability (Temperature Variation)	FCC Part 2.1055(a)(1)(b), 24.235	6	Complies
Frequency Stability (Voltage Variation)	FCC Part 2.1055(d)(1)(2), 24.235	7	Complies

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 2	Code of Federal Regulations (CFR) Title 47, Part 2 – Frequency Allocations and Radio Treaty Matters; General Rules and Regulations: Subpart J – Equipment Authorization Procedures
3	FCC: CFR 47 Part 22	Code of Federal Regulations (CFR) Title 47, Part 22 – Public Mobile Services: Subpart H – Cellular Radiotelephone Service
4	FCC: CFR 47 Part 24	Code of Federal Regulations (CFR) Title 47, Part 24 – Personal Communications Services: Subpart E – Broadband PCS
5	RSS-128	800 MHz Dual-Mode TDMA 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

dBc - decibels from carrier

dBm - decibels per milliwatt (absolute measurement)

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

EDRP - Effective Dipole Radiated Power

EIRP - Effective Isotropic Radiated Power

EMC - Electromagnetic Compatibility

EMI - Electromagnetic Interference

ERP - Effective Radiated Power

EUT - Equipment under Test

GSM - Global System for Mobile communications

PCS - Personal Communications Services

RF - Radio Frequency

TDMA - Time Division Multiple Access

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, TDMA, 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 2.1055	AMPS CDMA 800 CDMA 1900	5 Oct 05	Operational	Phone	FCC ID: QMNRM-125 Type: RM-125 Model: 6165i HW: 2001 SW: VAZ100_05w21_16.nbr ESN: 033/10858766

4.2 Photograph of Tested Device(s):

Refer to attached EXHIBITS

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
6,7	04064	Base Station	Rohde & Schwarz	CMU 200	21-Jul-05	12 Mo.
6,7	00485	Multi-Meter	Fluke	87III	12-May-06	12 Mo.
6,7	00837	Temperature Chamber	Tenney Environmental	N/A	20-Jan-06	12 Mo.

6. FREQUENCY STABILITY (TEMPERATURE VARIATION)

Specification: FCC Part 2.1055(a)(1)(b), 24.235

6.1 Setup

The EUT was connected to the base station simulator to measure the RF power output.

6.2 Pass/Fail Criteria

Not Applicable

6.3 Detailed Test Results

Test Technician / Engineer	Michael Sundstrom
Date of Measurement	10-Oct-05
Temperature	20-22°C
Humidity	55-56 %RH
Test Result	Tested in accordance with 2.1055(a)(1)(b), 24.235 at maximum power setting.

Temp. (°C)	AMPS, Channel 384	CDMA 800, Channel 384	CDMA 1900, Channel 600
	Change (Hz)	Change (Hz)	Change (Hz)
-30	-241	12	25
-20	-225	13	26
-10	-215	12	26
0	-231	12	29
10	-243	13	28
20	-231	11	31
30	-242	10	26
40	-236	11	26
50	-225	12	28

7. FREQUENCY STABILITY (VOLTAGE VARIATION)

Specification: FCC Part 2.1055(d)(1)(2), 24.235

7.1 Setup

The EUT was connected to the base station simulator to measure the RF power output.

7.2 Pass/Fail Criteria

Not Applicable

7.3 Detailed Test Results

Test Technician / Engineer	Michael Sundstrom
Date of Measurement	10-Oct-05
Temperature	20-22°C
Humidity	50-56%RH
Test Result	Tested in accordance with 2.1055(d)(1)(2), 24.235 at maximum power setting.

AMPS, Call Mode, Channel 384

% of STV	Voltage	Change (Hz)
85	3.2	-184
100 (Nominal)	3.7	-181
115	4.2	-190
Battery End Point	Same as 115%	N/A

CDMA 800, Call Mode, Channel 384

% of STV	Voltage	Change (Hz)
85	3.2	15
100 (Nominal)	3.7	14
115	4.2	16
Battery End Point	Same as 115%	N/A

CDMA 1900, Call Mode, Channel 600

% of STV	Voltage	Change (Hz)
85	3.2	-49
100 (Nominal)	3.7	-35
115	4.2	-29
Battery End Point	Same as 115%	N/A