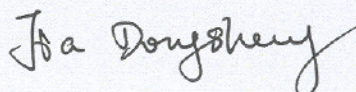


## FCC Part 22/24 Compliance Test Report

<b>Test Report no.:</b>	Bej_FCC_0533_01.doc	<b>Date of Report:</b>	21.08.2005
<b>Number of pages:</b>	6	<b>Customer's Contact person:</b>	Liu Haiping
<b>Testing laboratory:</b>	TCC Beijing Nokia Tower Pacific Century Place 2A Gong Ti Bei Lu Chaoyang District 100027 BEIJING, PRC Tel. +86 10 65392828 Fax. +86 10 65393838	<b>Client:</b>	Nokia Corporation Nokia Tower Pacific Century Place 2A Gong Ti Bei Lu Chaoyang District 100027 BEIJING, PRC Tel. +86 10 65392828 Fax. +86 10 65393838
<b>FCC listing no.:</b>	884453		
<b>IC recognition no.:</b>	4917		
<b>Tested devices/ accessories:</b>	<b>Phone RM-75, Battery BL-5C</b>		
<b>FCC ID:</b>	QTLRM-75	<b>IC:</b>	661AB-RM75
<b>Supplement reports:</b>	-		
<b>Testing has been carried out in accordance with:</b>	CFR 47, FCC rules Parts 22 and 24, TIA-603-B-2002 and IC standards RSS-132 and RSS-133. Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".		
<b>Documentation:</b>	The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 15 years at TCC Beijing.		
<b>Test Results:</b>	The EUT complies with the requirements in respect of all parameters subject to the test. The test results relate only to devices specified in this document.		

**Date and signature for the contents:**



Jia Dongsheng, Engineer

## 1. Summary for FCC Part 22/24 Compliance Test Report

Date of receipt	18.08.2005
Testing completed	21.08.2005
The customer's contact person	Liu Haiping
Test Plan referred to	T:\Projects\RM-75\testplans\EMC\TCC\Test plan for RM-75.xls
Notes	-
Document name	T:\Projects\RM-75\results\emc\FCC\Bej_FCC_0533_01.doc

### 1.1. EUT and Accessory Information

The EUT is a dual band (GSM850/1900) mobile phone. The EUT is tested with maximum rated TX power, modulated with pseudo random bit sequence (PRBS9).

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-75	001004/00/182312/0	0515	-	Vpm05w07_05w29	50083
Battery	BL-5C	0670400363807 M015B2BS08934	10.8	-	-	50085

### 1.2. Summary of Test Results

#### GSM 850:

Section in CFR 47	Section in RSS-132	Name of the test	Result
§2.1046(a), 22.913(a)	4.4	Conducted RF output power	-
§22.913(a)	4.4, 6.4	Radiated RF output power	PASSED
§2.1049(h)	4.2	99 % occupied bandwidth	-
§22.917(a)	4.5	Band edge compliance	-
§22.917(a), §2.1051	4.5	Spurious emissions at antenna terminals	-
§22.917(a), §2.1053	4.5	Spurious radiated emissions	-
§2.1055(a)	4.3, 6.3	Frequency stability, temperature variation	-
§2.1055(d)	4.3, 6.3	Frequency stability, voltage variation	-

#### GSM 1900:

Section in CFR 47	Section in RSS-133	Name of the test	Result
§2.1046(a)	6.2	Conducted RF output power	-
§24.232(b)	6.2	Radiated RF output power	PASSED
§2.1049(h)	5.6	99 % occupied bandwidth	-
§24.238(a)	6.3	Band edge compliance	-
§24.238(a), §2.1051	6.3	Spurious emissions at antenna terminals	-
§24.238(a), §2.1053	6.3	Spurious radiated emissions	-
§2.1055(a)	7	Frequency stability, temperature variation	-
§2.1055(d)	7	Frequency stability, voltage variation	-

PASSED  
FAILED  
NP

The EUT complies with the essential requirements in the standard.  
The EUT does not comply with the essential requirements in the standard.  
The test was not performed by the TCC Beijing.

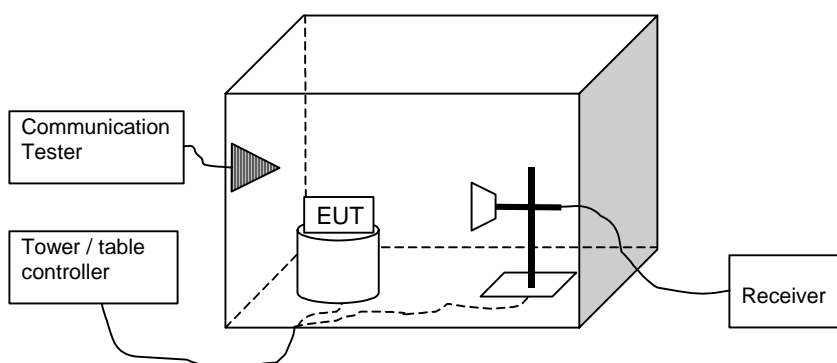
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## 2. Radiated RF output power (FCC §22.913(a), §24.232(b), RSS-132 6.4, RSS-133 6.2)

EUT with DUT number	RM-75 (50083)
Accessories with DUT numbers	BL-5C (50085)
Operation Voltage [V] / [Hz]	-
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [mbar]	21 °C / 66 % / 1005 mbar
Date of measurements	21.08.2005
Measured by	Jia Dongsheng

### 2.1. Test setup



### 2.2. Test method and limit

The measurement is made according to TIA-603-B-2002 as follows:

The EUT was set on a non-conductive turn table in a semi anechoic chamber with metal floor. In the corner of the chamber there was a communication antenna, which was connected to the BS simulator located outside the chamber. The radiated power from the EUT was measured with an antenna fixed to a antenna tower. The tower and turn table were remotely controlled to turn the EUT and change the antenna polarization. The test is done using a substitution method with antenna height scan. The turn table step size is 45 degree. The measured signal was routed from the measuring antenna to the spectrum analyzer. The BS simulator was used to set the TX channel and power level and modulate the TX signal with different bit patterns.

The substitution corrections are obtained as described below:

$$A_{SUBST} = P_{SUBST\_TX} - P_{SUBST\_RX} - L_{SUBST\_CABLES} + G_{SUBST\_TX\_ANT}$$

Where  $A_{SUBST}$  is the final substitution correction including receive antenna gain.  $P_{SUBST\_TX}$  is signal generator level,  $P_{SUBST\_RX}$  is receiver level,  $L_{SUBST\_CABLES}$  is cable losses including both TX and RX cables and  $G_{SUBST\_TX\_ANT}$  is substitution antenna gain.

The measurement results are obtained as described below:

$$P [dBm] = P_{MEAS} + A_{TOT}$$

Where  $P_{MEAS}$  is receiver reading in dBm and  $A_{TOT}$  is total correction factor including cable loss and substitution correction ( $A_{TOT} = L_{CABLES} + A_{SUBST}$ ).

Limits for radiated RF output power measurements

Frequency range [MHz]	Limit [W]	Limit [dBm]
824 - 849	7	38.5
1850 - 1910	2	33

## 2.3. GSM 850 Test results

GSM mode

Channel	ERP [dBm]	ERP [W]	$P_{MEAS}$ [dBm]	$A_{TOT}$ [dB]	Polarisation	Result
128	28.20	0.661	-5.1	33.3	VERTICAL	PASSED
190	29.50	0.891	-3.6	33.1	VERTICAL	PASSED
251	29.1	0.813	-3.8	32.9	VERTICAL	PASSED

GPRS mode, 2 TX Slots

Channel	ERP [dBm]	ERP [W]	$P_{MEAS}$ [dBm]	$A_{TOT}$ [dB]	Polarisation	Result
128	26.70	0.468	-6.6	33.3	VERTICAL	PASSED
190	27.20	0.525	-5.9	33.1	VERTICAL	PASSED
251	27.40	0.55	-5.5	32.9	VERTICAL	PASSED

## 2.4. GSM 1900 Test results

GSM mode

Channel	EIRP [dBm]	EIRP [W]	$P_{MEAS}$ [dBm]	$A_{TOT}$ [dB]	Polarisation	Result
512	31.60	1.445	-12.8	44.4	VERTICAL	PASSED
661	31.13	1.297	-12.67	43.8	VERTICAL	PASSED
810	31.10	1.288	-13.1	44.2	VERTICAL	PASSED

GPRS mode, 2 TX Slots

Channel	EIRP [dBm]	EIRP [W]	$P_{MEAS}$ [dBm]	$A_{TOT}$ [dB]	Polarisation	Result
512	31.50	1.413	-12.9	44.4	VERTICAL	PASSED
661	31.00	1.259	-12.8	43.8	VERTICAL	PASSED
810	30.80	1.202	-13.4	44.2	VERTICAL	PASSED



### 3. Test Equipment

#### 3.1. Radiated measurements

Equipment	Manufacturer	Model
AMPLIFIER	J52-00100400	ROHDE&SCHWARZ
AMPLIFIER	JS2-00100400	MITEQ
ANTENNA	HF906	ROHDE&SCHWARZ
ANTENNA	HF906	ROHDE&SCHWARZ
ANTENNA	VUBA 9117	SWARZBECK
DC SOURCE	66319B	AGILENT
FILTER	WRCD1800/2000-0	WAINWRIGHTINSTRUMENTS
REFERENCE GENERATOR	CG-520	COM-POWER
RELAY UNIT	TS-RSP	ROHDE&SCHWARZ
RELAY UNIT	TS-RSP	ROHDE&SCHWARZ
RELAY UNIT	512670	SPINNER
SIGNAL GENERATOR	SMR 20	ROHDE&SCHWARZ
TEST RECEIVER	ESI 26	ROHDE&SCHWARZ