

FCC Part 22/24 Compliance Test Report

Test Report no.:	Bej_FCC_0546_01.doc	Date of Report:	16.11.2005
Number of pages:	6	Customer's Contact person:	Xu Shanshan
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FCC listing no.:	884453		
IC recognition no.:	4917		
Tested devices/ accessories:	Phone RH-80, Battery BL-5B, AC-charger ACP-12, Headset HDE-2.		
FCC ID:	QTLRH-80	IC:	661AB-RH-80
Supplement reports:	-		
Testing has been carried out in accordance with:	CFR 47, FCC rules Parts 22 and 24, TIA-603-B-2002 and IC standards RSS-GEN, 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".		
Documentation:	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.		
Test Results:	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	14.11.2005
Testing completed	16.11.2005
The customer's contact person	Xu Shanshan
Test Plan referred to	T:\Projects\RH-80\TestPlan_RS\RH-80_RS_Testplan.xls
Notes	-
Document name	T:\Projects\RH-80\EMC\Results\FCC\Bej_FCC_0546_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	RH-80	001004/00/203109/5	0508	-	V2.16	50144
Battery	BL-5B	0670458382066 M244311900017	10.8	-	-	50145
AC-charger	ACP-12	-	1.3	-	-	50109
Headset	HDE-2	-	4.0	1.0	-	50105

1.2. Summary of Test Results

GSM 850:

Section in CFR 47	Section in RSS-GEN or RSS-132	Name of the test	Result
§2.1046(a), 22.913(a)	4.6, 4.4	Conducted RF output power	NP
§22.913(a)	4.6, 4.4	Radiated RF output power	PASSED
§2.1049(h)	4.4.1	99 % occupied bandwidth	NP
§22.917(a)	4.7, 4.5	Band edge compliance	NP
§22.917(a), §2.1051	4.7, 4.5	Spurious emissions at antenna terminals	NP
§22.917(a), §2.1053	4.7, 4.5	Spurious radiated emissions	NP
§2.1055(a)	4.5, 4.3	Frequency stability, temperature variation	NP
§2.1055(d)	4.5, 4.3	Frequency stability, voltage variation	NP

GSM 1900:

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

PASSED

The EUT complies with the essential requirements in the standard.

FAILED

The EUT does not comply with the essential requirements in the standard.

NP

The test was not performed by the TCC Beijing.

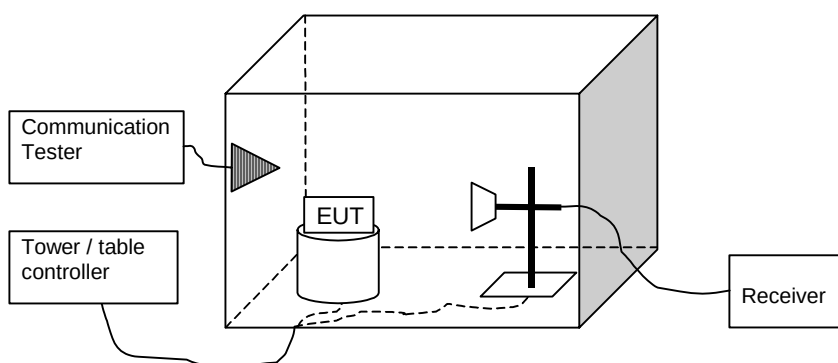
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2. Radiated RF output power (FCC §22.913(a), §24.232(b), RSS-GEN 4.6, RSS-132 4.4, RSS-133 6.2)

EUT with DUT number	RH-80 (50144)
Accessories with DUT numbers	BL-5B (50145), ACP-12 (50109), HDE-2 (50105)
Operation Voltage [V] / [Hz]	220 / 50
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [mbar]	24 °C / 43 % / 1020 mbar
Date of measurements	14.11.2005
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 measurement is performed in the Anechoic Chamber with absorbers on the floor and measuring antenna at fixed height using 2-axis EUT position system. The turntable is rotated 360 degrees and this is repeated for both horizontal and vertical receive antenna polarizations.

The EUT is placed on a nonconductive plate at 170 cm height.

The substitution method is used. Substitution values at each frequencies are measured beforehand and saved to the test software.

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, phone open

Channel	ERP [dBm]	ERP [W]	P _{MEAS} [dBm]	A _{TOT} [dB]	Polarisation	Result
128	30.30	1.0752	-5.4	35.7	HORIZONTAL	PASSED
190	30.60	1.1485	-5.1	35.7	HORIZONTAL	PASSED
251	32.10	1.6218	-4	36.1	HORIZONTAL	PASSED

GSM mode, phone closed

Channel	ERP [dBm]	ERP [W]	P _{MEAS} [dBm]	A _{TOT} [dB]	Polarisation	Result
128	28.40	0.6918	-7.3	35.7	HORIZONTAL	PASSED
190	29.70	0.9332	-6	35.7	HORIZONTAL	PASSED
251	31.30	1.3489	-4.8	36.1	HORIZONTAL	PASSED

2.4. GSM 1900 Test results

GSM mode, phone open

Channel	EIRP [dBm]	EIRP [W]	P _{MEAS} [dBm]	A _{TOT} [dB]	Polarisation	Result
512	31.80	1.5136	-14.8	46.6	VERTICAL	PASSED
661	31.10	1.2882	-16.1	47.2	VERTICAL	PASSED
810	31.00	1.2589	-16	47	VERTICAL	PASSED

GSM mode, phone closed

Channel	EIRP [dBm]	EIRP [W]	P _{MEAS} [dBm]	A _{TOT} [dB]	Polarisation	Result
512	31.50	1.4125	-15.1	46.6	VERTICAL	PASSED
661	31.80	1.5136	-15.4	47.2	VERTICAL	PASSED
810	30.40	1.0965	-16.6	47	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