47 CFR PART 15 SUBPART B

TEST REPORT

of

GSM Mobile

Model Name: Q60
Trade Name: AEG
Brand Name: AEG
Report No.: SH11090014E01
FCC ID: XM8AEGQ2011Q60

prepared for

AEG Portuguesa de Telecomunicações, SA
Rua João Saraiva, 4-6 1700-249 Lisboa Portugal

prepared by
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Bluetooth® CTIA Authorized Test Lab LAB CODE 20081223-00

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1. TEST CERTIFICATION

Equipment under Test:	GSM Mobile
Trade Name:	AEG
Brand Name:	AEG
Model Name:	Q60
FCC ID:	XM8AEGQ2011Q60
Applicant:	AEG Portuguesa de Telecomunicações, SA
Applicant Address:	Rua João Saraiva, 4-6 1700-249 Lisboa Portugal
Manufacturer:	Pro Joy Technology Limited
Manufacturer Address:	12F,Building N.82,No1198 Noth QinZhou Rd,Shanghai,China
Test Standards:	47 CFR Part 15 Subpart B ANSI C63.4-2003 ICES-003 Issue 4
Test Date(s):	2011-9-20~2011-9-25
Test Result:	PASS

*** We Hereby Certify That:**

The equipment under test was tested by Shenzhen Electronic Product Quality Testing Center Morlab Laboratory. The test data, data evaluation, test procedures and equipment configurations shown in this report were made in accordance with the requirement of related FCC rules.

The test results of this report only apply for the tested sample equipment identified above. The test report shall be invalid without all the signatures of the test engineer, the reviewer and the approver.

Tested by: Zhang Wen jie Dated: 2011.10.10
Zhang Wenjie

Reviewed by: Zhang Jun Dated: 2011.10.10
Zhang Jun

Approved by: Wei Bei Dated: 2011.10.10
Wei Bei

2. GENERAL INFORMATION

2.1 EUT Description

EUT Type.....:	GSM Mobile	
Model Name .....:	Q60	
Hardware Version …….:	Q120-V1/0	
Software Version ……:	N.RQ1217901.M28202.V1.2.0.1M0916	
Frequency ……..…….:	GSM850/1900 MHz ,ISM 2.4GHz	
Modulation Type.....:	GSM/GPRS : GMSK	
	Bluetooth (1Mbps) : GFSK	
Power Supply.....:	Battery	
	Mode Name.:	BL—6P
	Capacitance:	700mAh
	Rated voltage:	3.7V
	Charge limited:	4.2V
	Manufacturer:	Chi Hang Technology Co., Ltd. Shenzhen
	AC Adapter (Charger for Battery)	
	Mode Name.:	5PIN
	Rated Input:	110-220Vac 50/60Hz 0.2A MAX 4.5W
	Rated Output:	5V 500mA 50/60Hz 2.5W
	Manufacturer:	Accessible Xing Technology Co., Ltd.

Note 1: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

2.2 Test Standards and Results

EMISSION			
Standard	Item	Result	Remarks
FCC 47 CFR Part 15 Subpart B ICES-003 Issue 4 ANSI C63.4-2003	Conducted (Main Port)	PASS	Meet Class B limit
	Radiated	PASS	Meet Class B limit

2.3 Facilities and Accreditations

2.3.1 Facilities

Shenzhen Electronic Product Quality Testing Center Morlab Laboratory is a testing organization accredited by China National Accreditation Service for Laboratories (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

All measurement facilities used to collect the measurement data are located at Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen 518055 CHINA. The test site is constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22; the FCC registration number is 741109.

2.3.2 Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (℃):	20 – 25
Relative Humidity (%):	40 – 60
Atmospheric Pressure (kPa):	106

3. TEST CONDITIONS SETTING

3.1 Test Mode

The test modes of the EUT are showed as below:

Mode 1. EUT+PC Mode

The EUT configuration of the emission test is EUT + Micro SD card + Battery + +PC+Earphone.

In this test mode, a connection was established between the EUT and a PC; date was transmitted between EUT and the PC, and maintained during the measurement.

3.2 Description Of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

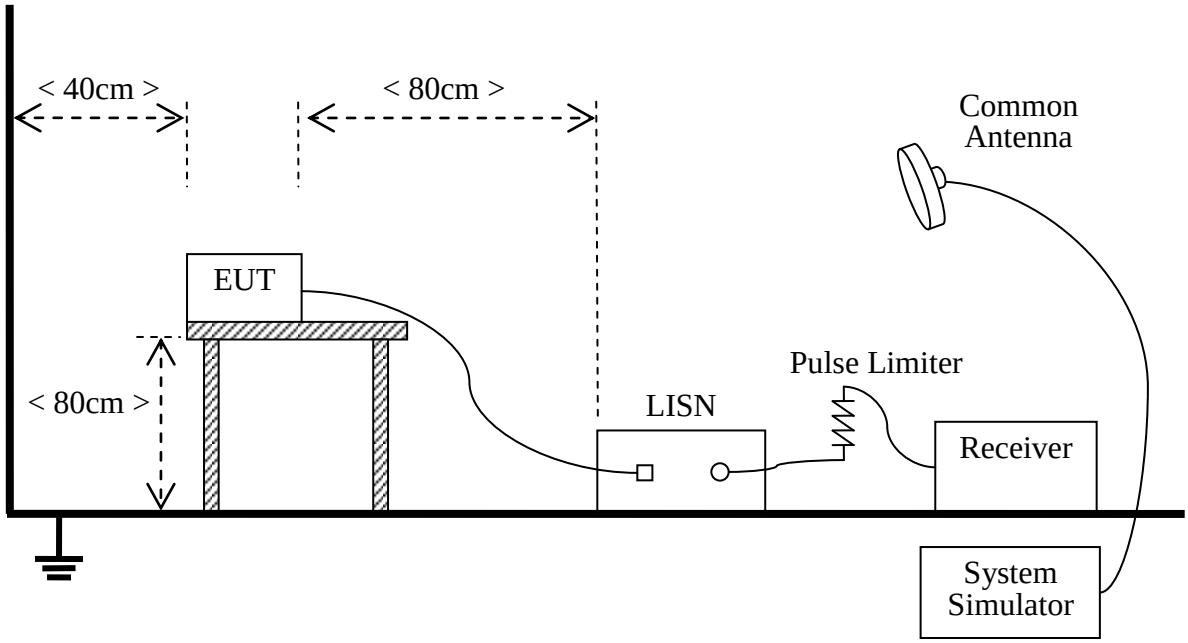
No.	Equipment	Model No.	Serial No.	Trade Name
1	Notebook	11#	11#	DELL
2	Micro SD card	1#	1#	N/A

Note: Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

3.3 Test Setup and Equipments List

3.3.1 Conducted Emission

A. Test Setup:



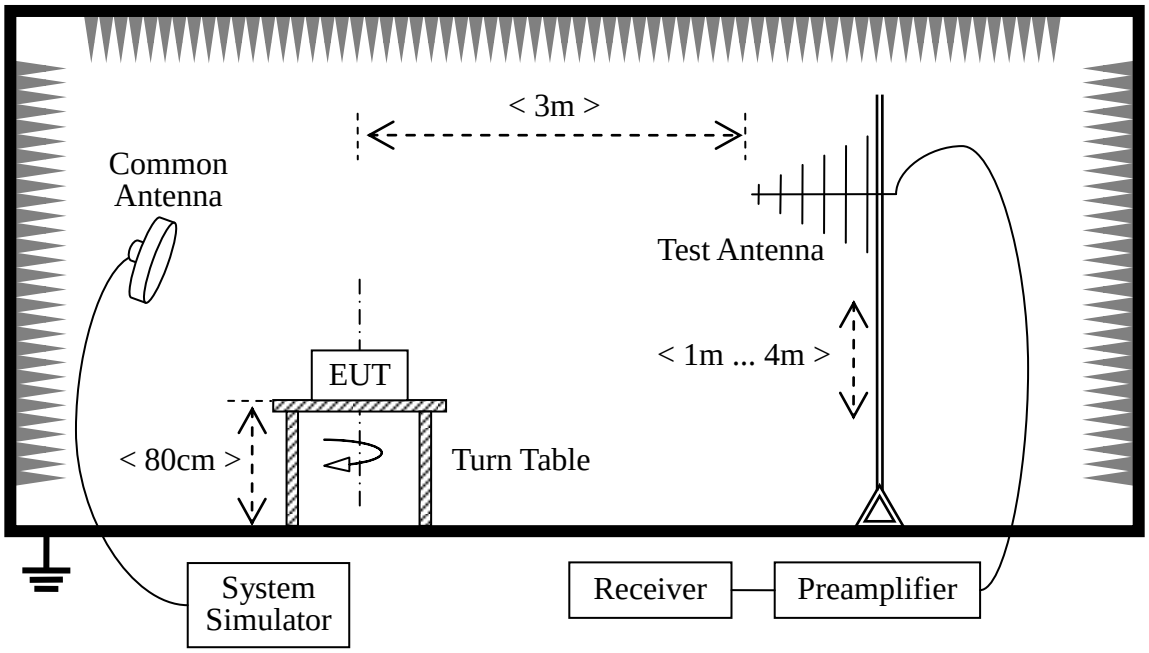
The EUT is placed on a 0.8m high insulating table, which stands on the grounded conducting floor, and keeps 0.4m away from the grounded conducting wall. The EUT is connected to the power mains through a LISN which provides 50Ω/50μH of coupling impedance for the measuring instrument. The Common Antenna is used for the call between the EUT and the System Simulator (SS). A Pulse Limiter is used to protect the measuring instrument. The factors of the whole test system are calibrated to correct the reading.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Rohde&Schwarz	ESCI3	100666	2011.08	1year
LISN	Rohde&Schwarz	ENV216	812744	2011.08	1year
System Simulator	Rohde&Schwarz	CMU200	105571	2011.08	1year
Personal Computer	Lenovo	(n.a.)	(n.a.)	(n.a.)	(n.a.)

3.3.2 Radiated Emission

A. Test Setup:



The test is performed in a 3m Semi-Anechoic Chamber; the antenna factor, cable loss and so on of the site (factors) is calculated to correct the reading. The EUT is placed on a 0.8m high insulating Turn Table, and keeps 3m away from the Test Antenna, which is mounted on a variable-height antenna master tower. The Common Antenna is used for the call between the EUT and the System Simulator (SS).

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Rohde&Schwarz	ESCI3	100666	2011.08	1year
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2011.08	1year
Test Antenna - Bi-Log	Rohde&Schwarz	HL562	100385	2011.08	1year
System Simulator	Rohde&Schwarz	CMU200	105571	2011.08	1year
Personal Computer	Lenovo	(n.a.)	(n.a.)	(n.a.)	(n.a.)

4. 47 CFR PART 15B REQUIREMENTS

4.1 Conducted Emission

4.1.1 Requirement

According to FCC section 15.107, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5- 30	60	50

NOTE:

a) The limit subjects to the Class B digital device.

b) The lower limit shall apply at the band edges.

c) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

4.1.2 Test Description

See section 3.3.1 of this report.

4.1.3 Test Result

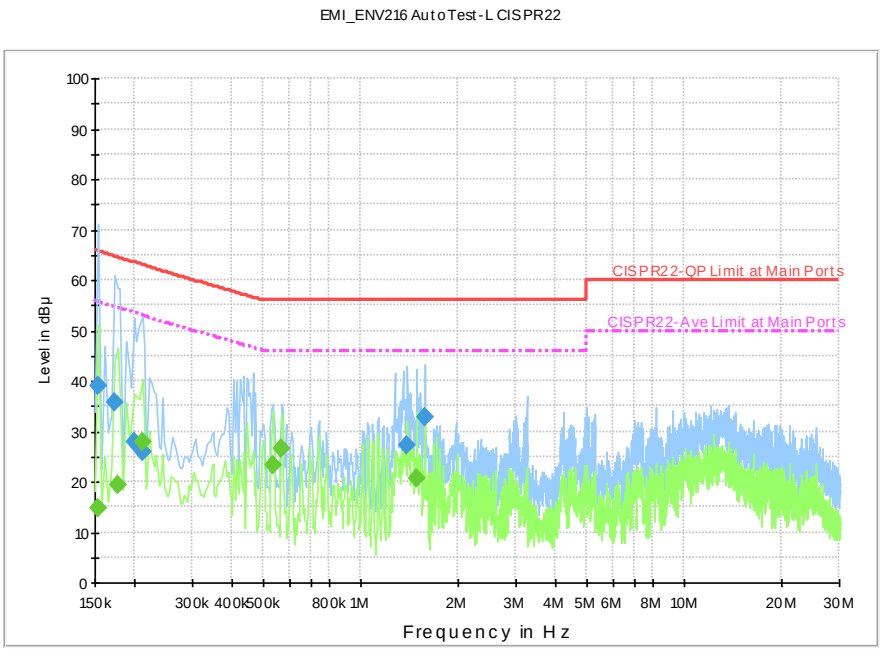
The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. All test modes are considered, refer to recorded points and plots below.

A. Test Verdict Recorded for Suspicious Points:

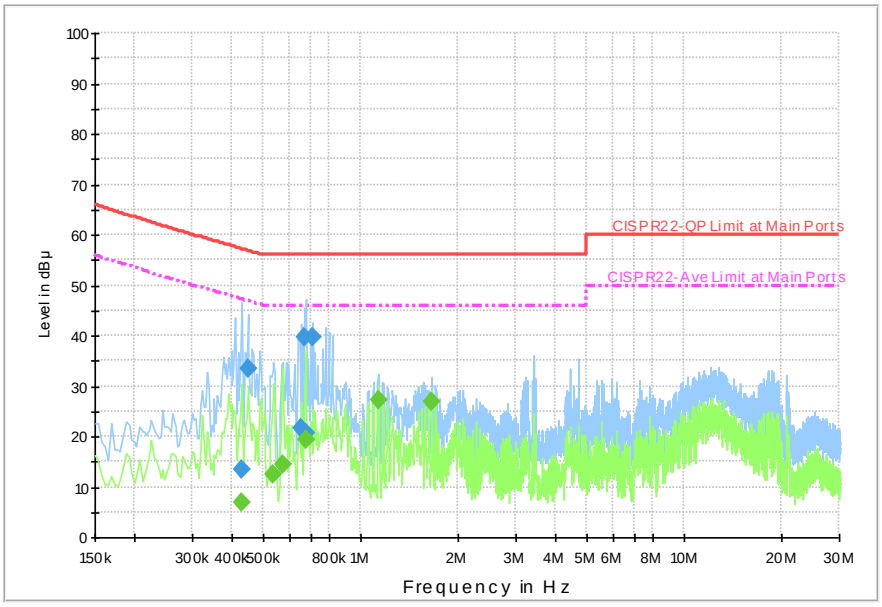
Frequency (MHz)	QuasiPeak (dBμ V)	Meas. Time (ms)	Band width (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμ V)	Comment
0.426112	13.3	150.000	9.000	N	9.7	43.9	57.2	PASS
0.444769	33.6	150.000	9.000	N	9.7	23.3	56.9	PASS
0.653719	21.5	150.000	9.000	N	9.7	34.5	56.0	PASS
0.664912	39.6	150.000	9.000	N	9.7	16.4	56.0	PASS
0.672375	20.8	150.000	9.000	N	9.7	35.2	56.0	PASS
0.709688	39.6	150.000	9.000	N	9.7	16.4	56.0	PASS
0.153731	38.9	150.000	9.000	L	9.5	26.9	65.8	PASS
0.172388	35.9	150.000	9.000	L	9.6	28.9	64.8	PASS
0.198506	27.8	150.000	9.000	L	9.6	35.7	63.5	PASS
0.209700	26.0	150.000	9.000	L	9.6	37.1	63.1	PASS
1.388775	27.2	150.000	9.000	L	9.7	28.8	56.0	PASS
1.567875	32.7	150.000	9.000	L	9.8	23.4	56.0	PASS

Frequency (MHz)	Average (dBμ V)	Meas. Time (ms)	Band width (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμ V)	Comment
0.426112	6.9	150.000	9.000	N	9.7	40.3	47.2	PASS
0.534319	12.3	150.000	9.000	N	9.7	33.7	46.0	PASS
0.571631	14.4	150.000	9.000	N	9.7	31.6	46.0	PASS
0.672375	19.5	150.000	9.000	N	9.7	26.5	46.0	PASS
1.127588	27.3	150.000	9.000	N	9.7	18.7	46.0	PASS
1.649962	26.8	150.000	9.000	N	9.7	19.2	46.0	PASS
0.153731	14.6	150.000	9.000	L	9.5	41.2	55.8	PASS
0.176119	19.3	150.000	9.000	L	9.6	35.3	54.6	PASS
0.209700	28.0	150.000	9.000	L	9.6	25.0	53.0	PASS
0.530588	23.2	150.000	9.000	L	9.7	22.8	46.0	PASS
0.567900	26.5	150.000	9.000	L	9.7	19.5	46.0	PASS
1.482056	20.7	150.000	9.000	L	9.8	25.3	46.0	PASS

B. Test Plot:



(Plot: L Phase)



(Plot: N Phase)

4.2 Radiated Emission

4.2.1 Requirement

According to FCC section 15.109, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency range (MHz)	Field Strength	
	μV/m	dBμV/m
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

NOTE:

a) Field Strength (dBμV/m) = 20*log[Field Strength (μV/m)].

b) In the emission tables above, the tighter limit applies at the band edges.

4.2.2 Test Description

See section 3.2.2 of this report.

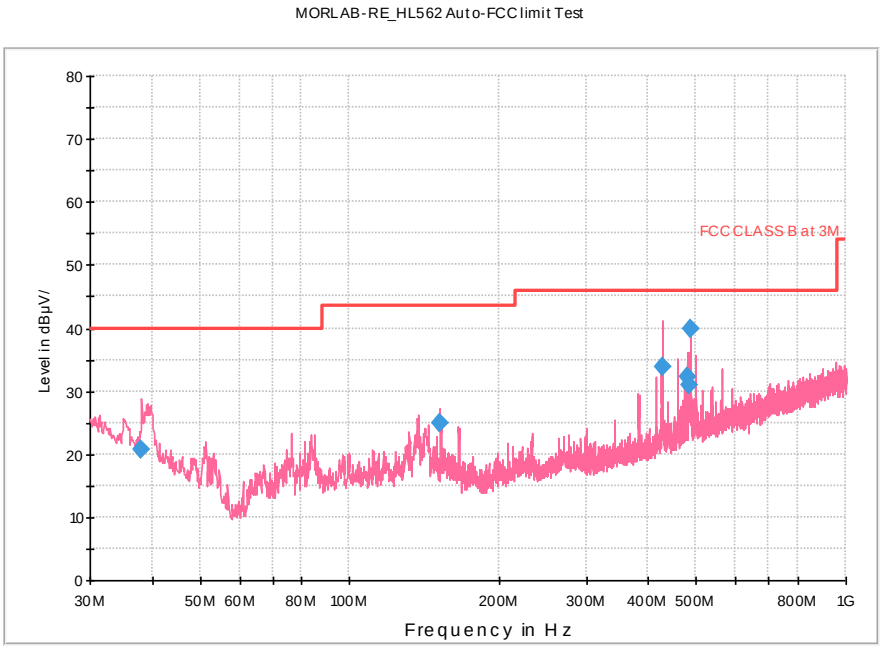
4.2.3 Test Result

The maximum radiated emission is searched using PK, QP and AV detectors; the emission levels more than the limits, and that have narrow margins from the limits will be re-measured with AV and QP detectors. Both the vertical and the horizontal polarizations of the Test Antenna are considered to perform the tests. All test modes are considered, refer to recorded points and plots below.

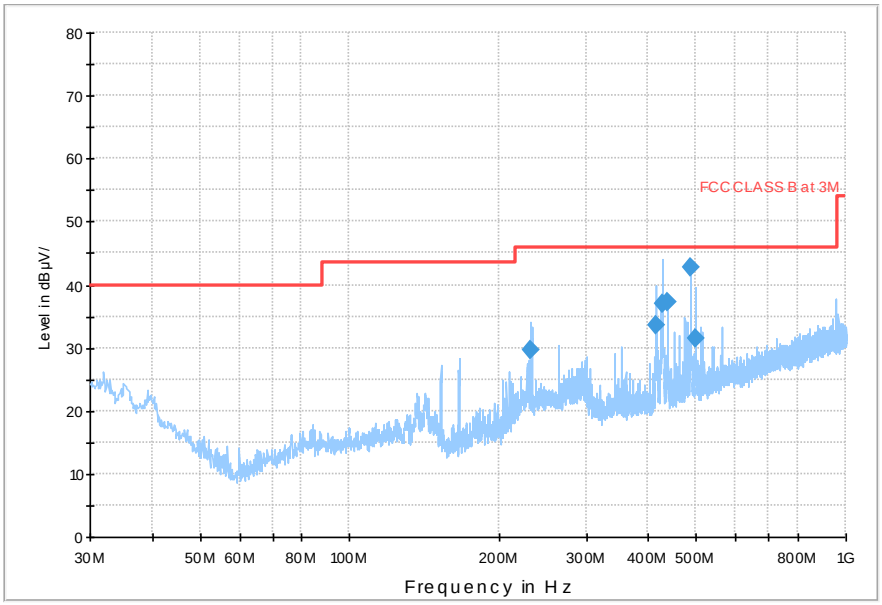
A. Test Verdict Recorded

No.	Frequency (MHz)	Measured Emission Level (dBμV/m)		Limit (dBμV/m)	Margin (dB)	Verdict
		QP	Polarity			
1	38.123750	20.7	V	40.0	19.3	PASS
2	152.462500	25.0	V	43.5	18.5	PASS
3	426.123750	33.8	V	46.0	12.2	PASS
4	478.140000	32.2	V	46.0	13.8	PASS
5	481.777500	30.8	V	46.0	15.2	PASS
6	486.021250	39.8	V	46.0	6.2	PASS
7	232.366250	29.8	H	46.0	16.2	PASS
8	414.120000	33.5	H	46.0	12.5	PASS
9	426.123750	37.0	H	46.0	9.0	PASS
10	438.006250	37.2	H	46.0	8.8	PASS
11	486.021250	42.7	H	46.0	3.3	PASS
12	498.146250	31.4	H	46.0	14.6	PASS

B. Test Plot:



(Plot: Test Antenna Vertical)



(Plot: Test Antenna Horizontal)

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