FCC TEST REPORT

of

BT-CUP

FCC ID： TQN08FTC0IB

Model No.： BT-CUP

Brand Name： Macally.

Report No.： FCC07-8085

Date： June 23, 2008

Prepared for

POWER 7 TECHNOLOGY CO., LTD

Building A, ZhangKen Industry Zone, Ming Zhi Village, Long Hua Town, Bao An District, Shenzhen, China

Prepared by

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1 Test Report Certification

Product:	BT-CUP
FCC ID:	TQN08FTC0IB
Model No.:	BT-CUP
Applicant:	POWER 7 TECHNOLOGY CO., LTD
Applicant Address:	Building A, ZhangKen Industry Zone, Ming Zhi Village, Long Hua Town, Bao An District, Shenzhen, China
Manufacturer:	POWER 7 TECHNOLOGY CO., LTD
Manufacturer Address:	Building A, ZhangKen Industry Zone, Ming Zhi Village, Long Hua Town, Bao An District, Shenzhen, China
Test Standards:	47 CFR Part 2 47 CFR Part 15, Subpart C
Test Result:	**PASS**

We, Shenzhen Electronic Product Quality Testing Center, hereby certify that the submitted samples of the above item, as detailed in chapter 2.1 of this report, has been tested in our facility. The test record, data evaluation and test configuration represented herein are true and accurate accounts of measurements of the sample's EMC characteristics under the conditions herein specified.

Tested by: Sheng Yongpan, Date: Jan. 23, 2008
Sheng Yongpan

Checked by: Smart Li, Date: Jan. 23, 2008
Smart Li

Approved by: Wang Keqin, Date: Jan. 23, 2008
Wang Keqin

2 General Information

2.1 Description of EUT

Description:	BT-CUP
Model No.:	10TD433HH4
Type of Antenna:	Integral Antenna
Operation Frequency:	**88.1-107.9MHz**
Power Supply:	12VDC
Ports:	Audio In

NOTE:

1. The EUT is a BTCup. It supports Bluetooth function, operating at 2.4GHz ISM band. The Bluetooth modulation is Frequency Hopping Spread Spectrum (FHSS). The Channels and transmitter center frequencies are: F(MHz)=2401+1*n, 1≦n≦**79**. It also supports FM broadcasting function. For FM function, It's working frequency range is from 88.1MHz to 107.9MHz.
2. Only the FM function was tested according to FCC part 15. For the Bluetooth function, please refer to the test report: **FCC07-8086**.
3. Please refer to Appendix I for the photographs of the EUT. For a more detailed features description about the EUT, please refer to User's Manual.

2.2 Objective

Perform EMC test according to FCC rules Part 2, Part 15 for FCC ID Certification.

2.3 Test Standards and Results

The EUT has been tested according to 47 CFR

- Part 2 Frequency Allocations and Radio Treaty Matters: General Rules and Regulations (10-1-05 Edition)
- Part 15 Radio Frequency Devices (2006-10-01 Edition)

Test items and the results are as bellow:

?	FCC Rules	Test Type	Result	Test Date
1	§15.239(a)	Bandwidth measurement	PASS	2007.12.15
2	§15.239(b)(c) §15.209	Radiated Emission	PASS	2007.12.15

2.4 List of Equipments Used

Description	Manufacturer	Model No.	Cal. Due Date	Serial No.
Test Receiver	Rohde & Schwarz	ESIB26	2008.06.05	A0304218
Loop Antenna	Rohde & Schwarz	HFH2-Z2	2008.06.05	A0304220
Ultra Broadband Ant.	Rohde & Schwarz	HL562	2008.06.05	A0304224
Shield Room	Nanbo Tech	Site 1	2009.01.10	A0304188
Anechoic Chamber	Albatross	EMC12.8× 6.8× 6.4m^3	2008.04.10	A0304210
Horn Ant.	Rohde & Schwarz	HF906	2008.06.05	100150

2.5 Test Facility

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

The EMC chamber site No.1 (EMC12.8× 6.8× 6.4(m)), and the radiated and conducted Emission test equipments of SET are constructed and calibrated to meet the FCC requirements ANSI C63.4:2001 and CISPR 22/EN 55022. The FCC Registration Number is **261302**.

The EMC chamber site No.1 (EMC12.8× 6.8× 6.4(m)) also complies with Canada standard RSS 212, and acceptable to Industry Canada for the performance of radiated measurements. The Industry Canada Registration Number is **IC 5915**.

2.6 Environmental conditions

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

- Temperature: 15-35ºC
- Humidity: 30-60 %
- Atmospheric pressure: 86-106 kPa

3 Radiated Emission Test

3.1 Limits of Radiated Emission

(a) According to 15.239, the field strength of emissions from intentional radiators operated under these frequency bands shall not exceed the following:

Frequency of Emission (MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)
88 – 108	250	48

(b) Field strength limits are at the distance of 3 meters, emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209, as following table:

Frequency of Emission (MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)
30 – 88	100	40
88 – 216	150	43.5
216 – 960	200	46
Above 960	500	54

(c) As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

NOTE:

1. Field Strength (dBμV/m) =20log Field Strength (μV/m).
2. In the emission tables above, the tighter limit applies at the band edges.

3.2 Test Procedure

a. The EUT was placed on the top of a ratable 0.8 meters above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

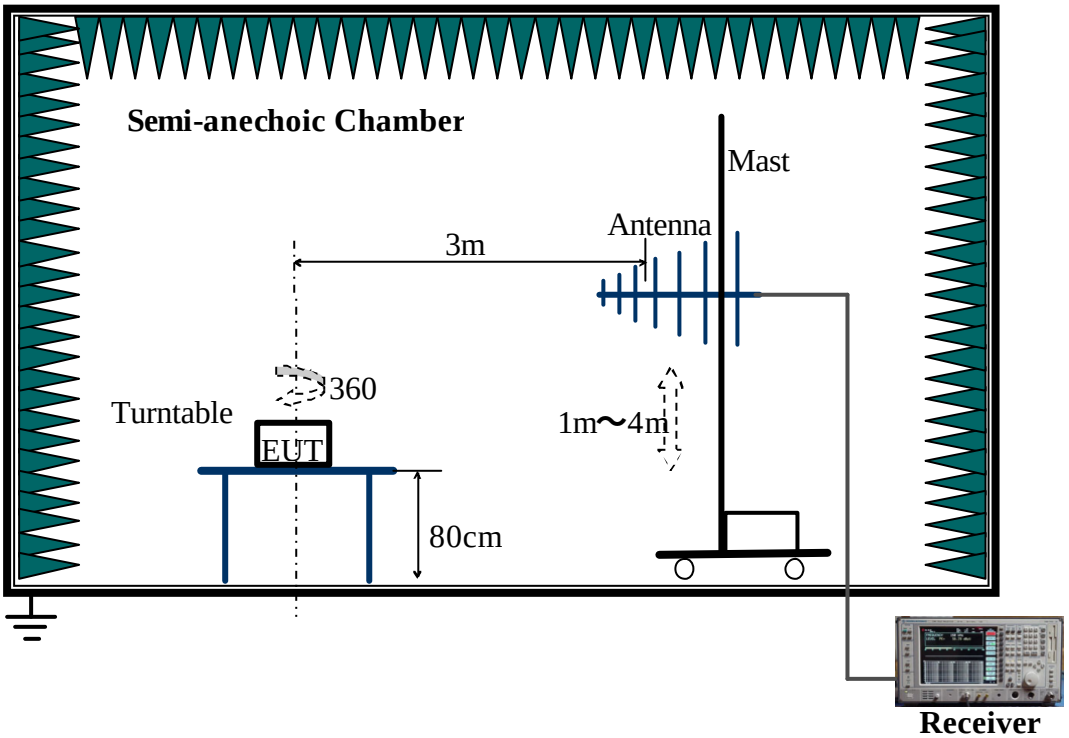
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. For the below 1000MHz test, the antenna is a broadband antenna. For the above 1000MHz test, the antenna is a horn antenna, and its height is varied from one meter to four meter above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to the heights from 1 to 4 meters and the ratable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to applied detector function and specified bandwidth with Maximum Hold Mode.

3.3 Test Setup



For the actual test configuration, please refer to the related item-Photographs of the Test Configuration.

3.4 EUT Setup and Operating Conditions

The first button of the EUT was pressed to produce the highest emission.

Since the EUT is considered a potable unit, it was pre-tested on the positioned of each 3 axis. There for only the test data of the worse case- y axis was used for Radiated test.

3.5 Test Results

I: Fundamental Frequency

No.	Frequency (MHz)	Antenna Polarization	Emission Detector	Emission Level (dBmV/m)	Limits (dBmV/m)	Margin (dBmV/m)
1	88.1	H	AV	30.5	48	17.5
2	88.1	V	AV	--	48	>20
3	88.1	H	PK	41.2	68	26.8
4	88.1	V	PK	--	68	>20
5	98	H	AV	31.2	48	16.8
6	98	V	AV	--	48	>20
7	98	H	PK	40.4	68	27.6
8	98	V	PK	--	68	>20
9	107.9	H	AV	30.3	48	17.7
10	107.9	V	AV	--	48	>20
11	107.9	H	PK	41.9	68	26.1
12	107.9	V	PK	--		>20

II: Other Emissions

No.	Frequency (MHz)	Antenna Polarization	QP Limits (dBmV/m)	Emission Level (dBmV/m)
1	30.00	Vertical	40	18.16
2	33.12	Vertical	40	15.81
3	800.00	Vertical	43.5	22.14
4	30.00	Horizontal	40	15.81
5	400.00	Horizontal	43.5	14.15
6	800.00	Horizontal	46	23.74

Note: "—"means that the emission level is too low to be measured.

4 Occupied Bandwidth Test

4.1 Limits of Occupied Bandwidth

According to 15.239(a), emissions from the intentional radiator shall be confined within a band 200kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88-108MHz.

4.2 Test Procedure

(a) The EUT was placed on the top of a ratable 0.8 meters above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

(b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

(c) The antenna is a broadband antenna. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to the heights from 1 to 4 meters and the ratable table was turned from 0 degrees to 360 degrees to find the maximum reading.

(d) The test-receiver system was set to Peak Detector Function and Specified Bandwidth with Maximum Hold Mode. RBW= 30kHz. VBW=100kHz

(e) Measure the 20dB bandwidth and compare with the required limit.

4.3 Test Setup

Same as 3.3

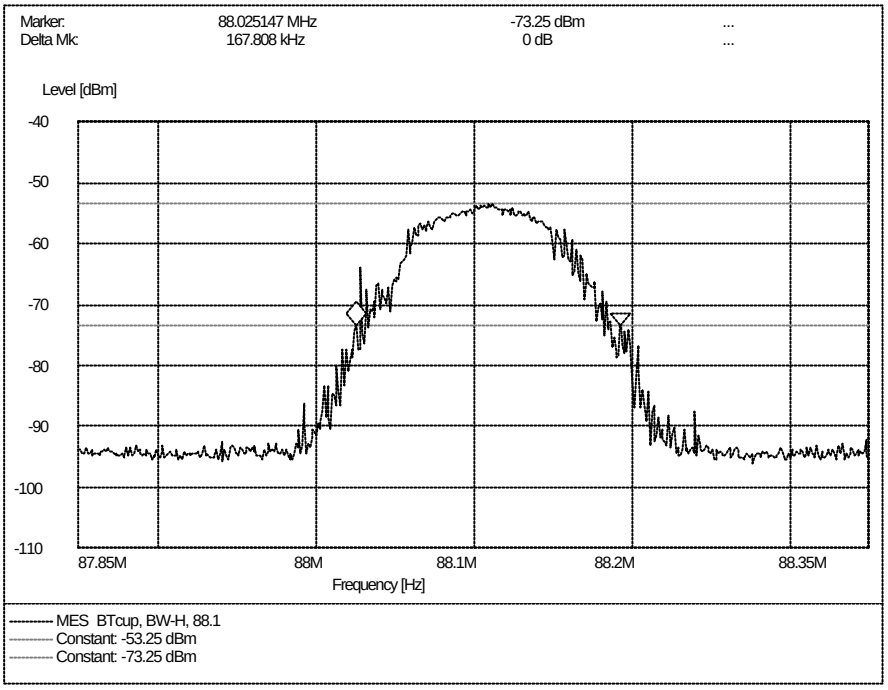
4.4 EUT Setup and Operating Conditions

Same as 3.4

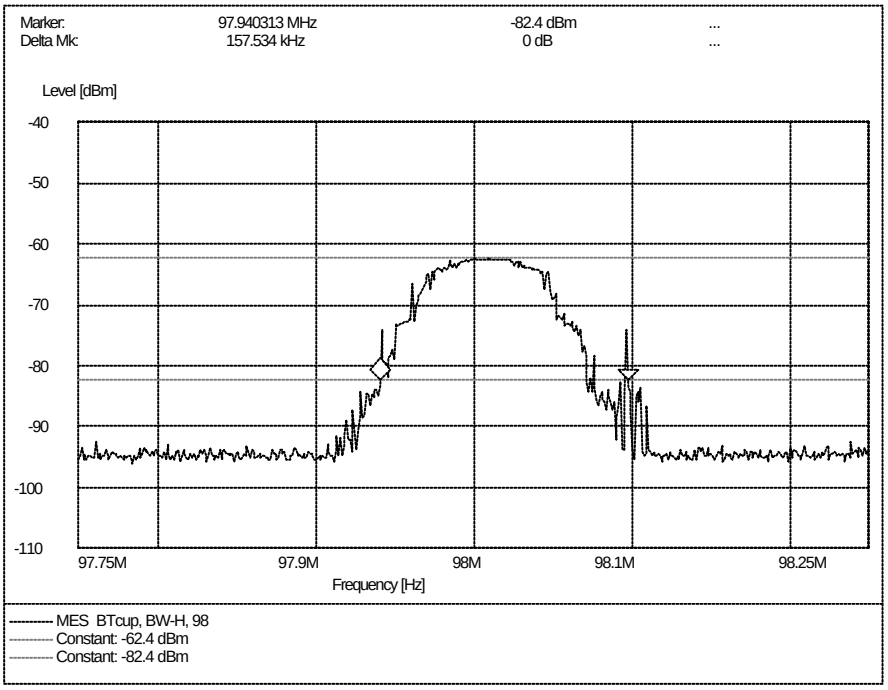
4.5 Test Results

Working Frequency (MHz)	Test Results (kHz) Center freq. offset	Limit (kHz)
88.1	167.81	200
98	157.53	200
107.9	176.61	200

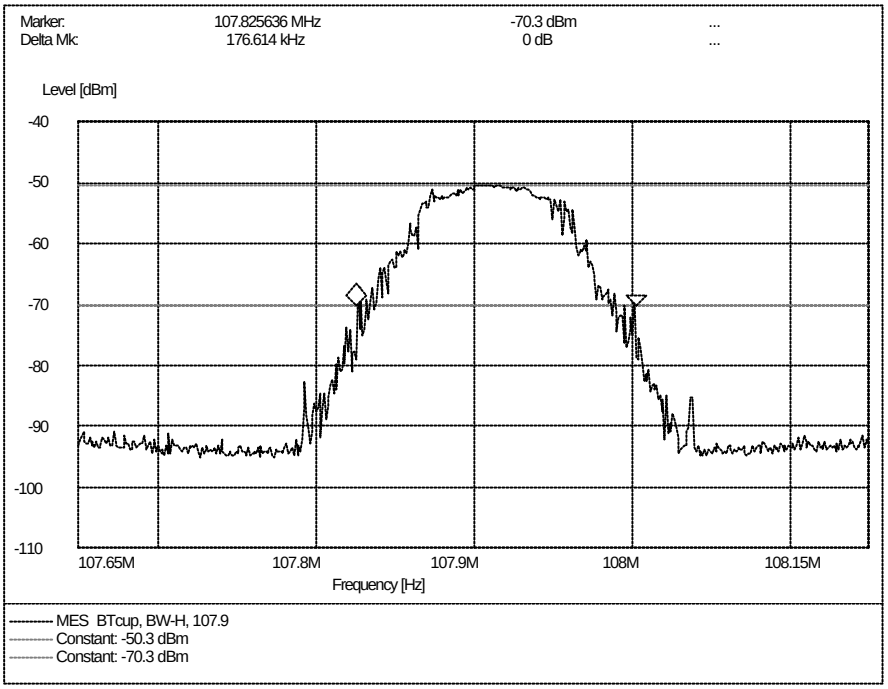
Test plots of Occupied Bandwidth@ 88.1MHz



Test plots of Occupied Bandwidth @ 98MHz



Test plots of Occupied Bandwidth @ 107.9MHz



5 Antenna Requirement

5.1 Standard Applicable

According to 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

5.2 Antenna Construction

The antenna is permanently mounted on the EUT, no consideration of replacement.

Appendix I：Photographs of the Test Configuration

1. Radiated Emission Test