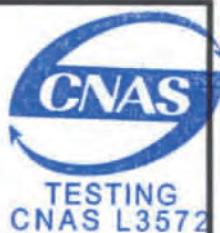




Report No.: SZ11100091E02



# FCC TEST REPORT

*Issued to*

**Goodbetterbest Limited**

*For*

## **EX-05 MILITARY STYLE HEADSET CRISP&DEEP WIRED STEREO HEADPHONES**

Model Name:	EX5UNI-11
Trade Name:	N/A
FCC ID:	VS9-5U11
Brand Name:	Gioteck
Standard:	47 CFR Part 15 Subpart B
Test date:	October 30, 2011 – November 8, 2011
Issue date:	November 30, 2011

**Shenzhen Morlab Communications Technology Co., Ltd.**

Tested by Xiao Xiong  
Xiao Xiong  
Date 2011.11.30



Review by Tu Lang  
Tu Lang  
Date 2011.11.30

CTIA Authorized Test Lab  
LAB CODE 20081223-00  
IEEE 1725

OTA

OFTA  
電訊管理局



GCF  
Official Observer of  
Bluetooth

Bluetooth  
BQTF

FCC  
Reg. No.  
741109

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## TABLE OF CONTENTS

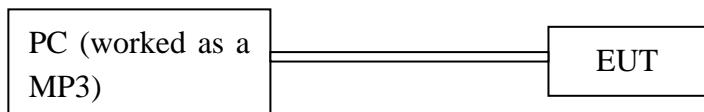
<b>1. GENERAL INFORMATION .....</b>	<b>3</b>
<b>1.1 EUT Description .....</b>	<b>3</b>
<b>1.2 Test Standards and Results .....</b>	<b>4</b>
<b>1.3 Facilities and Accreditations.....</b>	<b>5</b>
1.3.1 Facilities .....	5
1.3.2 Test Environment Conditions.....	5
1.3.3 Measurement Uncertainty .....	5
<b>2. TEST CONDITIONS SETTING.....</b>	<b>6</b>
<b>2.1 Test Mode .....</b>	<b>6</b>
<b>2.2 Test Setup and Equipments List.....</b>	<b>7</b>
2.2.1 Radiated Emission.....	7
<b>3. 47 CFR PART 15B REQUIREMENTS .....</b>	<b>9</b>
<b>3.1 Radiated Emission .....</b>	<b>9</b>
3.1.1 Requirement .....	9
3.1.2 Test Description .....	9
3.1.3 Test Result.....	10
<b>ANNEX A PHOTOS OF THE EUT.....</b>	<b>12</b>
<b>ANNEX B PHOTOS OF TEST SETUP .....</b>	<b>17</b>

Change History		
Issue	Date	Reason for change
1.0	November 30, 2011	First edition



## 1. GENERAL INFORMATION

## 1.1 EUT Description



## NOTE:

1. The EUT is a Headset. During the measurement, the EUT was connected with a PC via the USB port all the time.
2. Please refer to ANNEX A for the photographs of the EUT. For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



## 1.2 Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart B:

No.	Identity	Document Title
1	47 CFR Part 15 (10-1-09 Edition)	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Result
2	15.109	Radiated Emission	PASS

NOTE: The tests were performed according to the method of measurements prescribed in ANSI C63.4 2009.

## 1.3 Facilities and Accreditations

### 1.3.1 Facilities

Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L3572.

All measurement facilities used to collect the measurement data are located at 3/F, Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen, 518055 P. R. 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.

### 1.3.2 Test Environment Conditions

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

Temperature (°C):	15 - 35
Relative Humidity (%):	30 - 60
Atmospheric Pressure (kPa):	86 -106

### 1.3.3 Measurement Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

Uncertainty of Conducted Emission:	±1.8dB
Uncertainty of Radiated Emission:	±3.1dB

## 2. TEST CONDITIONS SETTING

### 2.1 Test Mode

During the measurement, the EUT was connected with a PC all the time. The PC was playing music as a mp3 normally, the voice input function of the EUT via the Flexible Rubber Mic Boom was active too.

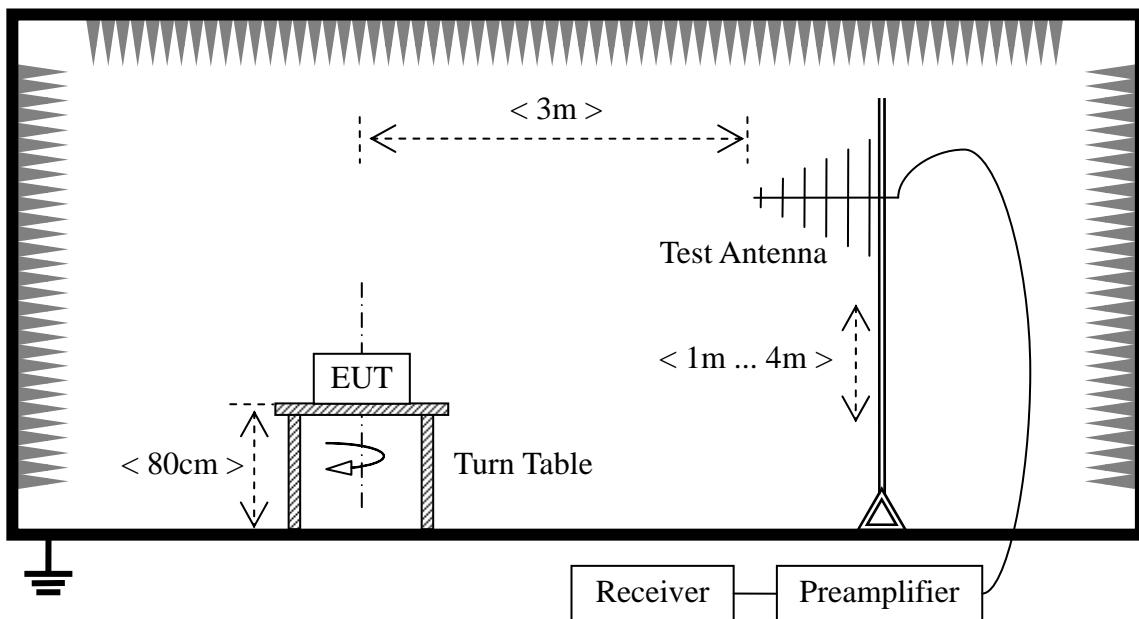
## 2.2 Test Setup and Equipments List

### 2.2.1 Radiated Emission

#### A. Test Procedure

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### B. 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.

**C. Equipments List:**

Description	Manufacturer	Model	Serial No.	Cal. Date
Receiver	Agilent	E7405A	US44210471	2011.05
Semi-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2011.05
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2011.05
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2011.05
Test Antenna -Monopole	Schwarzbeck	VAMP 9243	9243236	2011.05
Personal Computer	IBM	IBM_T20	(n.a)	(n.a.)

### 3. 47 CFR PART 15B REQUIREMENTS

#### 3.1 Radiated Emission

##### 3.1.1 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		Field Strength Limitation at 3m Measurement Dist	
	μV/m	Dist	(uV/m)	(dBuV/m)
0.009 - 0.490	2400/F(KHz)	300m	10000* 2400/F(KHz)	20log 2400/F(KHz) + 80
0.490 - 1.705	2400/F(KHz)	30m	100* 2400/F(KHz)	20log 2400/F(KHz) + 40
1.705 - 30.00	30	30m	100*30	20log 30 + 40
30.0 - 88.0	100	3m	100	20log 100
88.0 - 216.0	150	3m	150	20log 150
216.0 - 960.0	200	3m	200	20log 200
Above 960.0	500	3m	500	20log 500

As shown in FCC section 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

Note:

- 1) The tighter limit shall apply at the boundary between two frequency range.
- 2) Limitation expressed in dBuV/m is calculated by 20log Emission Level(uV/m).
- 3) If measurement is made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula of  $Ld1 = Ld2 * (d2/d1)^2$ .

Example:

F.S Limit at 30m distance is 30uV/m, then F.S Limitation at 3m distance is adjusted as  
 $Ld1 = L1 = 30uV/m * (10)^2 = 100 * 30uV/m$

##### 3.1.2 Test Description

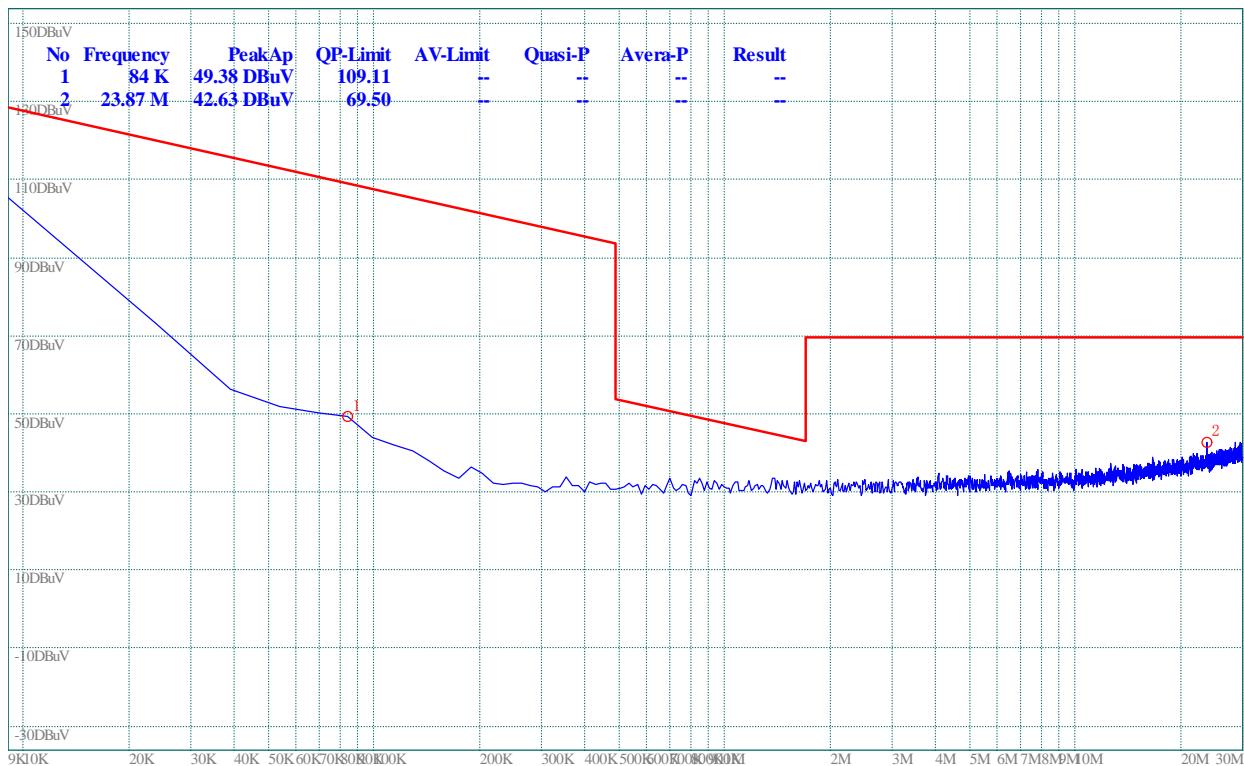
See section 2.2.1 of this report.

### 3.1.3 Test Result

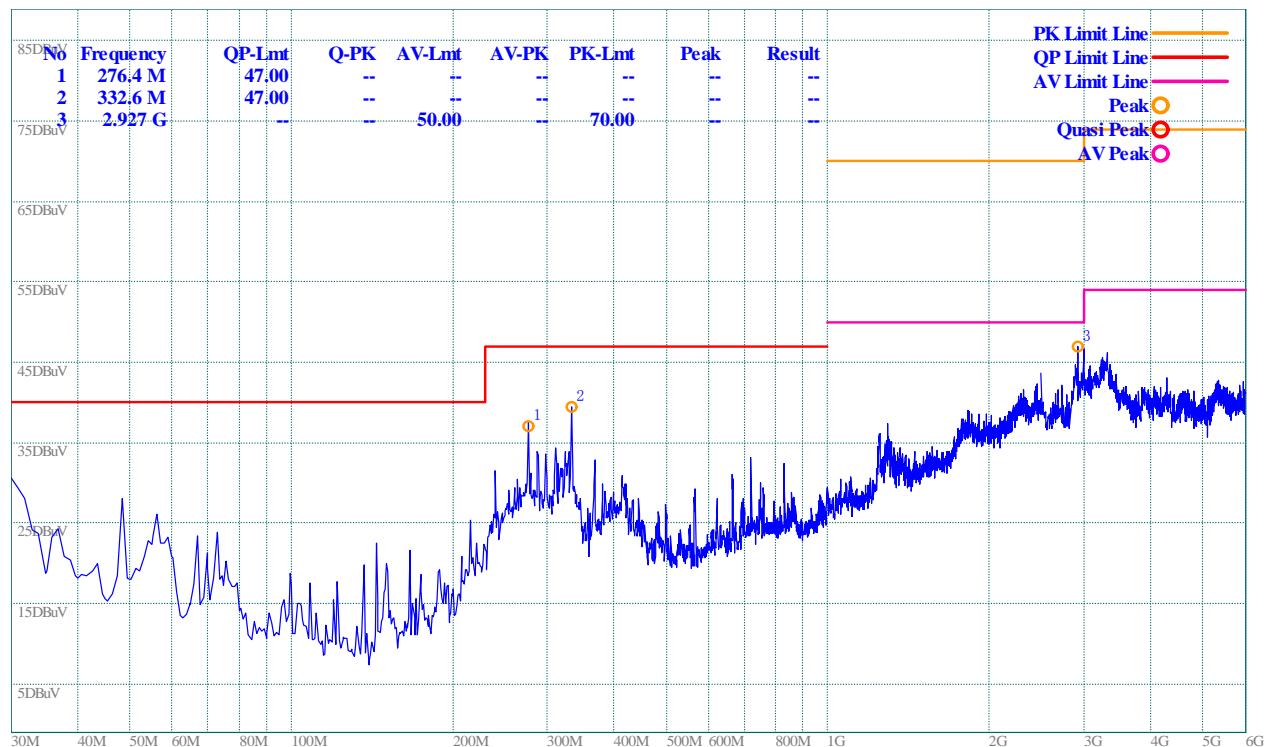
The maximum radiated emission is searched using PK, QP and AV detectors; the emission levels more than the limits, and that have narrow margins from the limits will be re-measured with AV and QP detectors. Both the vertical and the horizontal polarizations of the Test Antenna are considered to perform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

#### 3.1.3.1 Test Mode

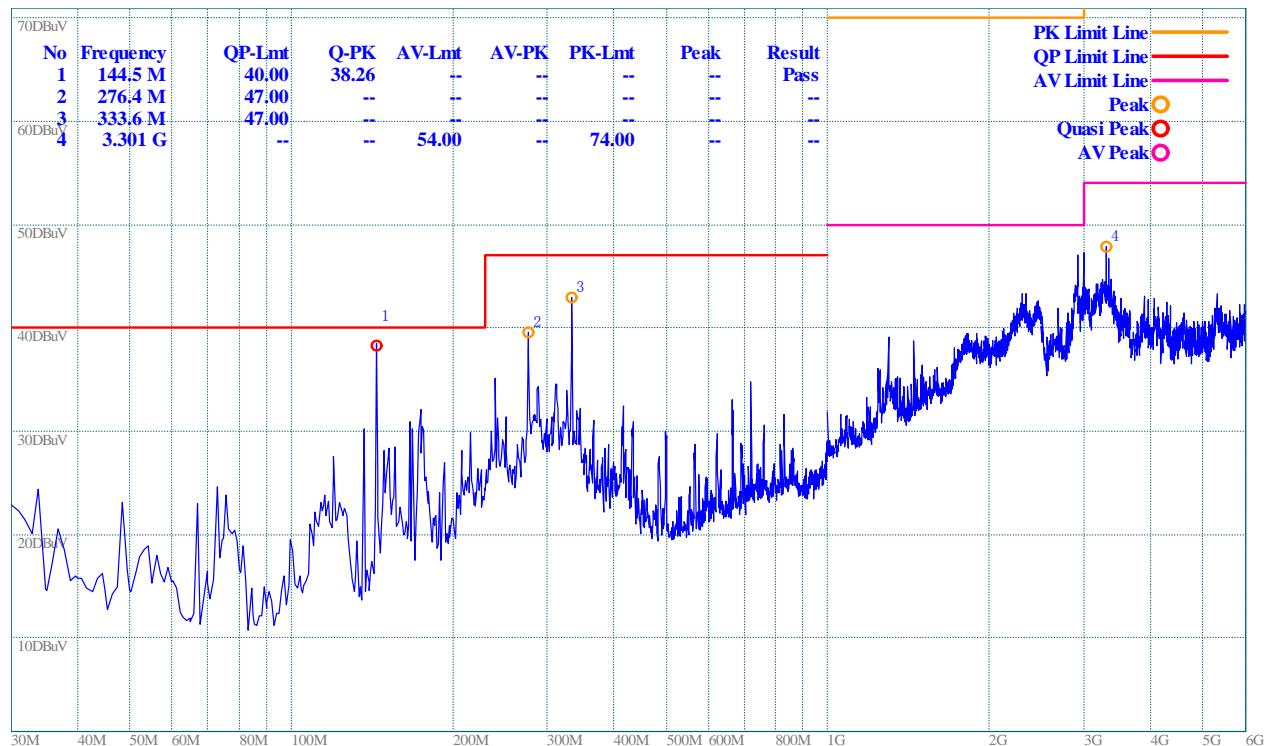
##### A. Test Plots and Suspicious Points:



(Plot A: 9K – 30M)



(Plot B: 30M – 6G, Test Antenna Vertical)



(Plot C: 30M – 6G, Test Antenna Horizontal)

**Test Result :PASS**

## ANNEX A Photos of the EUT

### 1. Appearance of the EUT:

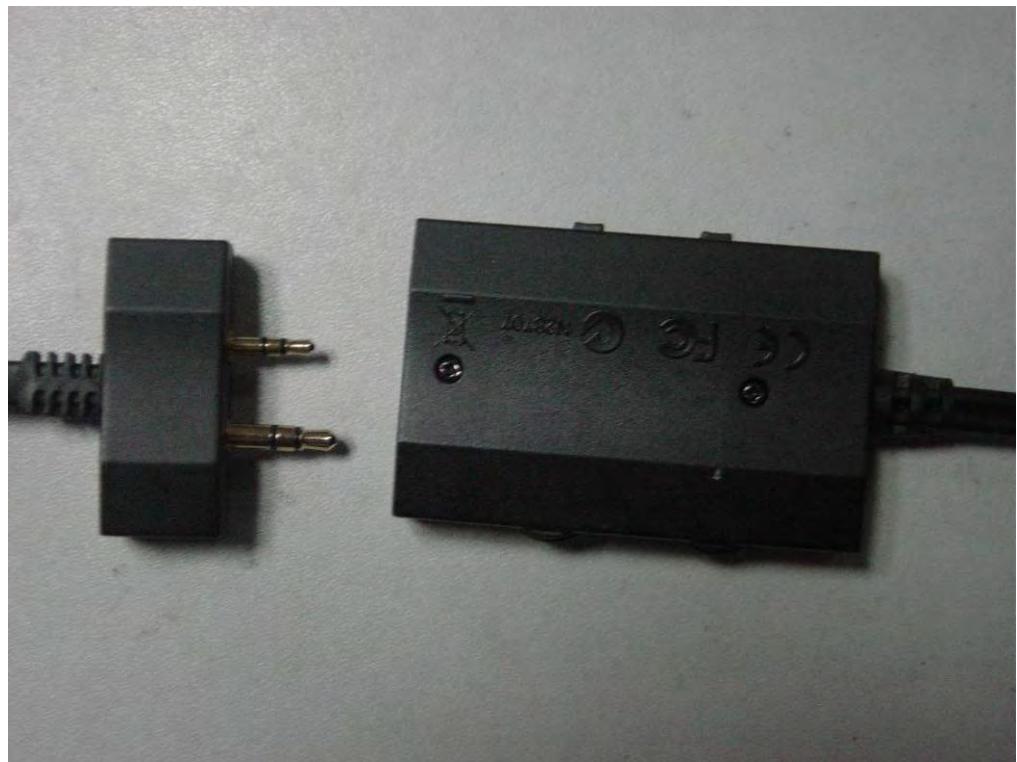


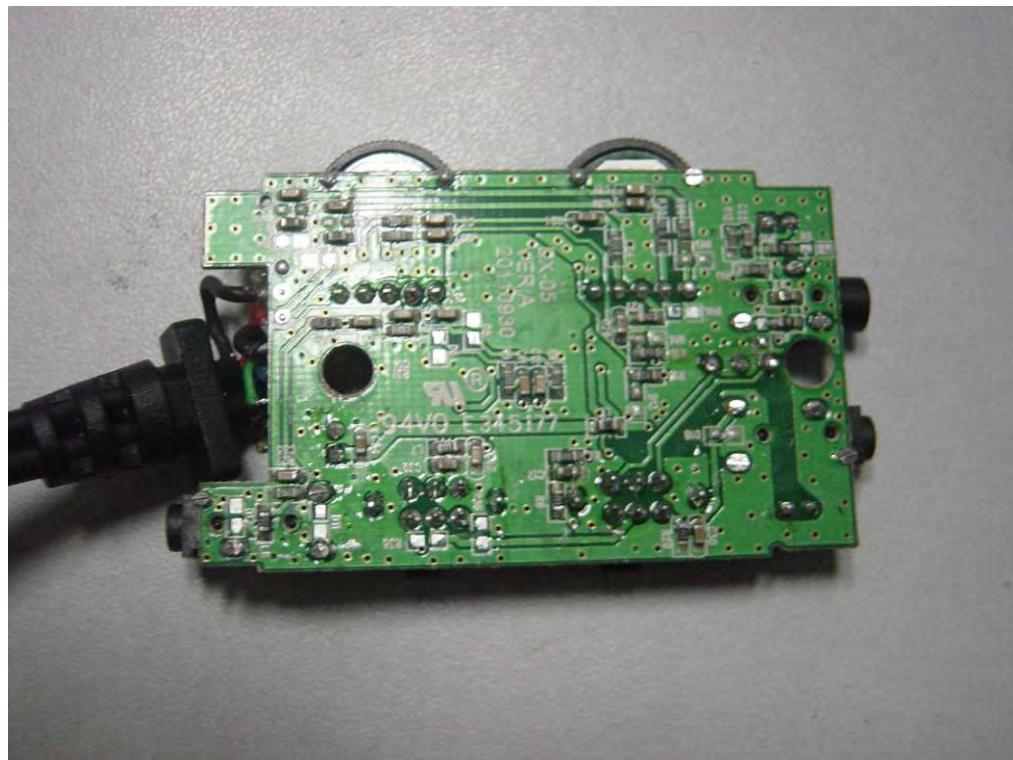




2. Inside of the EUT:







## ANNEX B Photos of Test Setup

### 1. Radiated Field Strength Measurement



\*\* END OF REPORT \*\*