

# ***FCC TEST REPORT***

**FCC ID** : ZRR-FM23  
**Applicant** : Shenzhen Addition Audio Science & Technology CO., LTD.  
**Address** : Mingzhuo Industry Park, Guangming Main Street, Guangming New District, Shenzhen, China

**Equipment Under Test (EUT) :**

Product Name : FM TRANSMITTER CASE  
Model No. : FM23

**Standards** : FCC Part 15 Section 15.239:2010

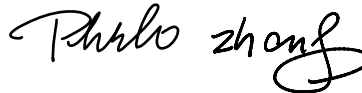
**Date of Test** : January 4 ~ February 2, 2012

**Date of Issue** : February 10, 2012

**Test Engineer** : Hunk yan / Engineer



**Reviewed By** : Philo zhong / Manager



<b>Test Result</b>	<b>: PASS</b>
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**Prepared By:**

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\* The sample detailed above has been tested to the requirements of Council Directives ANSI C63.4:2003. The test results have been reviewed against the Directives above and found to meet their essential requirements.

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### 3 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Band Edge	15.239	ANSI C63.4: 2003	Note	PASS
Bandwidth	15.239	ANSI C63.4: 2003	Note	PASS
Radiated Emission (30MHz to 1GHz)	15.209 15.239	ANSI C63.4: 2003	Class B	PASS
Conducted Emission (150KHz to 30MHz)	15.207	ANSI C63.4: 2003	N/A	N/A

**Note :** denote that for more details of the EUT , please refer to the relating test items as below .

**Remark :** the methods of measurement in all the test items were according to ANSI C63.4: 2003.

## 4 General Information

### 4.1 Client Information

**Applicant** : Shenzhen Addition Audio Science & Technology CO., LTD.  
**Address of Applicant** : Mingzhuo Industry Park, Guangming Main Street, Guangming New District, Shenzhen, China

**Manufacturer** : Shenzhen Addition Audio Science & Technology CO., LTD.  
**Address of Manufacturer** : Mingzhuo Industry Park, Guangming Main Street, Guangming New District, Shenzhen, China

### 4.2 General Description of E.U.T.

**Product Name** : FM TRANSMITTER CASE  
**Model No.** : FM23  
**Operation Frequency** : 88.1 MHz ~ 107.9MHz

### 4.3 Details of E.U.T.

**Technical Data** : 5.0VDC (Powered by iPhone)

### 4.4 Description of Support Units

The EUT has been tested as an independent unit.

### 4.5 Standards Applicable for Testing

The customer requested FCC tests for a FM TRANSMITTER CASE . The FM TRANSMITTER CASE tests were done in this report. The standards used were FCC CFR47 Part15 Section 15.203, Section 15.207, Section 15.209 and Section 15.239.

### 4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC – Registration No.: 880581**  
Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 880581, May 26, 2011.
- **IC – Registration No.:IC 7760**  
Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration IC7760, August 3, 2010.

### 4.7 Test Location

All Emissions tests were performed at:-  
 1/F, Fukangtai Building, West Baima Rd., Songgang Street, Baoan District, Shenzhen 518105, Guangdong, China.

## 5 Equipment Used during Test

Equipment Name	Manufacturer Model	Equipment No.	Internal No.	Specification	Cal. Date	Due Date	Cert. No.	Uncertainty
EMC Analyzer	Agilent/ E7405A	MY4511494 3	W200800 1	9k-26.5GHz	Aug.2, 2011	Aug.1, 2012	Wws200 81596	±1dB
Trilog Broadband Antenne 30- 3000 MHz	SCHWARZBE CK MESS- ELEKTROM/ VULB9163	336	W200800 2	30-3000 MHz	Aug.2, 2011	Aug.1, 2012	-	±1dB
Broad-band Horn Antenna 1-18 GHz	SCHWARZBE CK MESS- ELEKTROM/ BBHA9120D	667	W200800 3	1-18GHz	Aug.2, 2011	Aug.1, 2012	-	f < 10 GHz : ±1dB 10GHz < f < 18GHz : ±1.5dB
Broadband Preamplifier 0.5-18 GHz	SCHWARZBE CK MESS- ELEKTROM/ BBV 9718	9718-148	W200800 4	0.5-18GHz	Aug.2, 2011	Aug.1, 2012	-	±1.2dB
10m Coaxial Cable with N- male Connectors usable up to 18GHz,	SCHWARZBE CK MESS- ELEKTROM/ AK 9515 H	-	-	-	Aug.2, 2011	Aug.1, 2012	-	-
10m 50 Ohm Coaxial Cable with N-plug, individual length, usable up to 3(5)GHz, Connector	SCHWARZBE CK MESS- ELEKTROM/ AK 9513	-	-	-	Aug.2, 2011	Aug.1, 2012	-	-
Positioning Controller	C&C LAB/ CC-C-IF	-	-	-	N/A	N/A	-	-
Color Monitor	SUNSP0/ SP- 14C	-	-	-	N/A	N/A	-	-
Test Receiver	ROHDE&SCH WARZ/ ESPI	101155	W200500 1	9k-3GHz	Aug.2, 2011	Aug.1, 2012	Wws200 80942	±1dB
Two-Line V- Network	ROHDE&SCH WARZ/ ENV216	100115	W200500 2	50Ω/50μH	Aug.2, 2011	Aug.1, 2012	Wws200 80941	±10%
V—LISN	SCHWARZBE CK MESS- ELEKTRONI K	NSLK 8128	8128-259	9k-30MHz	Aug.2, 2011	Aug.1, 2012	-	-
PC	Lenovo	T2900D	-	-	Aug.2, 2011	Aug.1, 2012	-	±1dB

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## 6 Conducted Emission Test

Test Requirement:	FCC Part15 Section 15.207
Test Method:	Based on ANSI C63.4:2003
Frequency Range:	150kHz to 30MHz
Class:	Class B
Detector:	Peak for pre-scan (9kHz Resolution Bandwidth) Quasi-Peak & Average if maximised peak within 6dB of Average Limit

Limit:

Frequency (MHz)	Limit (dB $\mu$ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0
NOTE1: The lower limit shall apply at the transition frequencies. NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

### 6.1 Test Equipment

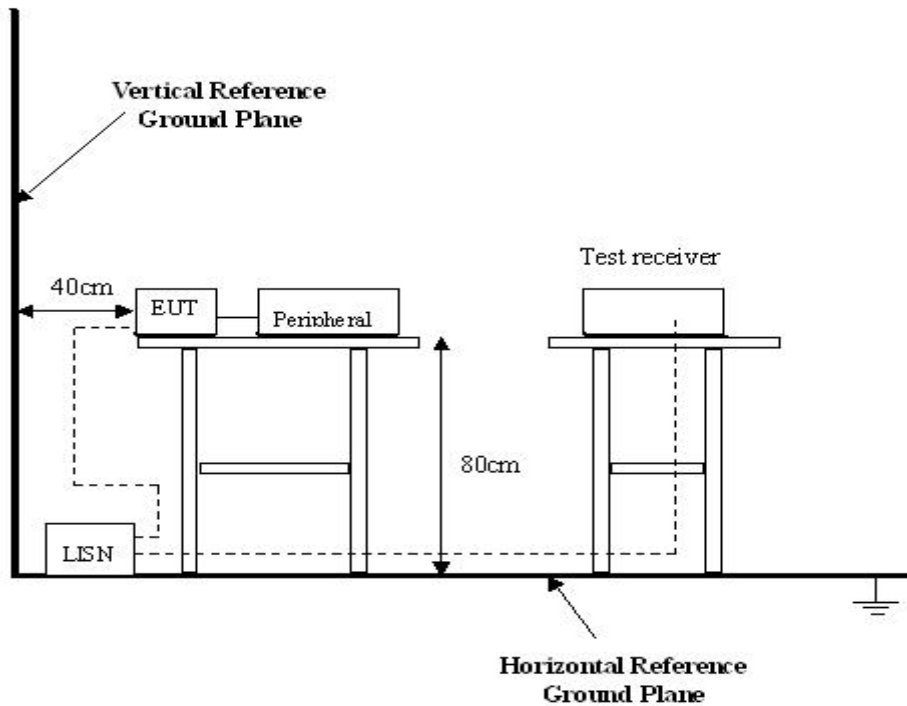
Please refer to Section 5 this report.

### 6.2 Test Procedure

1. The EUT was tested according to ANSI C63.4:2003. The frequency spectrum from 150kHz to 30MHz was investigated.
2. The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.
3. Compliance test was performed test in the EUT was connect the adaptor output.

### 6.3 Conducted Test Setup

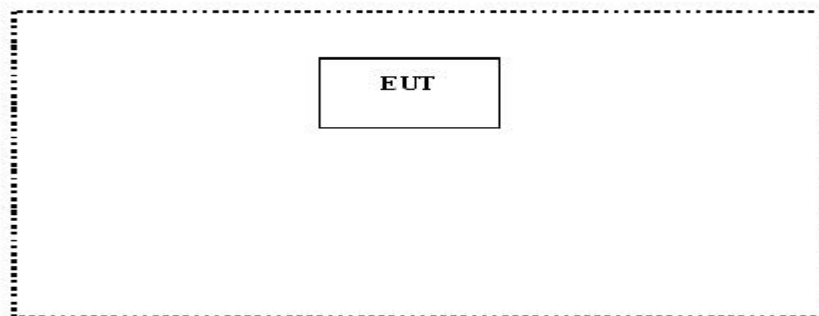
The conducted emission tests were performed using the setup accordance with the ANSI C63.4:2003, The specification used in this report was the FCC Part15 Section 15.207 limits.



### 6.4 EUT Operating Condition

Operating condition is according to ANSI C63.4:2003.

- A. Setup the EUT and simulators as shown on follow.
- B. Enable RF signal and confirm EUT active.
- C. Modulate output capacity of EUT up to specification.



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## **6.5 Conducted Emission Test Result**

Owing to the EUT powered by iPhone , so this test was not performed.

## 7 Radiation Emission Test

Test Requirement:	FCC Part15 Section 15.239
Test Method:	Based on ANSI C63.4:2003
Frequency Range:	9kHz to 1GHz
Measurement Distance:	3m
Detector:	Peak for pre-scan (120kHz resolution bandwidth) Quasi-Peak if maximised peak within 6dB of limit

### 7.1 Test Equipment

Please refer to Section 5 this report.

### 7.2 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

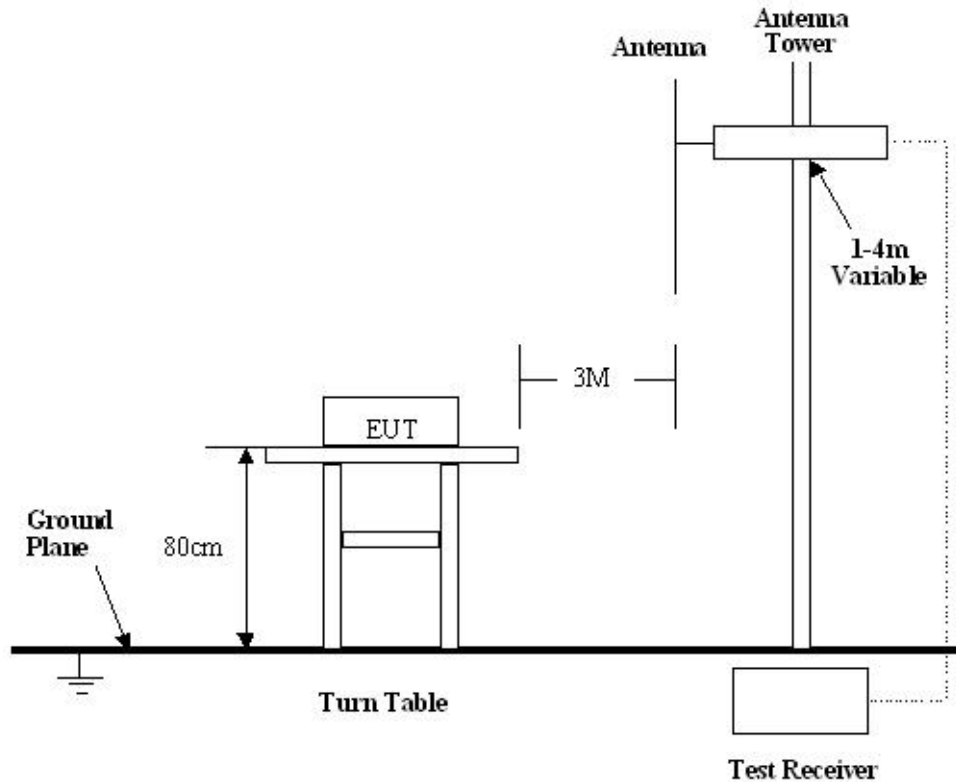
Based on ANSI C63.4:2003, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Waltek EMC Laboratory is +5.03dB.

### 7.3 Test Procedure

1. The EUT was connected to the iPhone to make the FM TRANSMITTER CASE in normal working mode.
2. This is a handheld device, The radiation emission should be tested under 3-axes(X, Y, Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.
3. Maximizing procedure was performed on the six (6) highest emissions to ensure EUT is compliant with all installation combinations.
4. All data was recorded in the peak and average detection mode.
5. The EUT was under working mode during the final qualification test and the configuration was used to represent the worst case results.
6. The EUT was testing at the frequency points 88.1MHz, 98.1MHz, 107.9 MHz.

## 7.4 Radiated Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4:2003, The specification used in this report was the FCC Part15 Section 15.209 and Section 15.239 limits.



## 7.5 Spectrum Analyzer Setup

According to FCC Part15 Rules, the system was tested from 9kHz to 1000 MHz.

9kHz ~ 30MHz

Start Frequency .....	9kHz
Stop Frequency .....	30MHz
Sweep Speed.....	Auto
IF Bandwidth.....	10KHz
Video Bandwidth.....	10KHz
Resolution Bandwidth.....	10KHz

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30MHz ~ 1GHz

Start Frequency .....	30 MHz
Stop Frequency .....	1000MHz
Sweep Speed.....	Auto
IF Bandwidth.....	120 KHz
Video Bandwidth.....	100KHz
Quasi-Peak Adapter Bandwidth .....	120 KHz
Quasi-Peak Adapter Mode .....	Normal
Resolution Bandwidth .....	100KHz

## 7.6 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the maximum limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{Class B Limit}$$

## 7.7 Summary of Test Results

According to the data in section 7.10, the EUT complied with the FCC Part15 Section 15.239 standards.

## 7.8 EUT Operating Condition

Same as section 6.4 of this report. Compliance test was performed in the transmitter operation Mode.

## 7.9 Radiated Emissions Limit

### A. FCC Part 15 subpart C Section 15.239 Limit

Fundamental Frequency(MHZ)	Field Strength of Fundamental	
	uV/m	dBuV/m
88-108	250	48

- Note:**
- (1) RF Voltage(dBuV)=20 log RF Voltage(uV)
  - (2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
  - (3) The emission limit in this paragraph is based on measurement instrumentation employing an average detector.Measurement using instrumentation with a peak detector function,corresponding to 20dB above the maximum permitted average limit.

### B. Frequencies in restricted band are complied to limit on Section 15.209

Frequency(MHZ)	Distance(m)	Field strength(dBuV/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

- Note:**
- (1) RF Voltage(dBuV)=20 log RF Voltage(uV)
  - (2) In the Above Table,the tighter limit applies at the band edges.
  - (3) Distance refers to the distance in meters between the measuring instrument antenna.

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.

### 7.10 Radiated Emissions Test Result

Formula of conversion factors:the field strength at 3m was established by adding  
The meter reading of the spectrum analyser (which is set to read in units of dBuV)  
To the antenna correction factor supplied by the antenna manufacturer. The antenna  
Correction factors are stated in terms of dB.The gain of the pressletor was accounted  
For in the spectrum analyser meter reading.

Example:

Freq(MHz) Meter Reading +ACF=FS

33            20dBuV+10.36dB=30.36dBuV/m @3m

Remark: The emissions below 30MHz are more than 20dB below the limit, so the data is not  
show in the report.

**Below is the Fundamental and Harmonic**

Frequency (MHz)	Detector	Antenna Polarization	Emission Level (dBuV/m)	FCC 15 Subpart C Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Turntable Angle (°)
<b>Low Frequency</b>							
88.10	AV	Vertical	39.74	48.00	-8.26	1.0	10
176.20	AV	Vertical	30.85	43.50	-12.65	1.1	50
246.30	AV	Vertical	29.65	46.00	-16.35	1.1	20
352.40	AV	Vertical	29.01	46.00	-16.99	1.1	30
440.50	AV	Vertical	28.67	46.00	-17.33	1.2	150
528.60	AV	Vertical	28.66	46.00	-17.34	1.0	30
616.70	AV	Vertical	28.50	46.00	-17.50	1.1	30
704.80	AV	Vertical	27.65	46.00	-18.35	1.2	180
792.90	AV	Vertical	27.65	46.00	-18.35	1.0	140
881.00	AV	Vertical	24.64	46.00	-21.36	1.2	15
88.10	AV	Horizontal	34.86	48.00	-13.14	1.1	15
176.20	AV	Horizontal	37.43	43.50	-6.07	1.0	20
246.30	AV	Horizontal	31.25	46.00	-14.75	1.0	60
352.40	AV	Horizontal	30.01	46.00	-15.99	1.1	140
440.50	AV	Horizontal	29.65	46.00	-16.35	1.1	15
528.60	AV	Horizontal	29.01	46.00	-16.99	1.0	60
616.70	AV	Horizontal	28.65	46.00	-17.35	1.1	10
704.80	AV	Horizontal	30.27	46.00	-15.73	1.0	20
792.90	AV	Horizontal	28.30	46.00	-17.70	1.2	80

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881.00	AV	Horizontal	26.40	46.00	-19.60	1.0	0
88.10	PK	Vertical	46.85	67.96	-21.11	1.0	0
176.20	PK	Vertical	36.23	43.50	-7.27	1.2	10
246.30	PK	Vertical	34.68	46.00	-11.32	1.2	120
352.40	PK	Vertical	32.42	46.00	-13.58	1.2	120
440.50	PK	Vertical	30.63	46.00	-15.37	1.0	180
528.60	PK	Vertical	31.22	46.00	-14.78	1.0	0
616.70	PK	Vertical	30.89	46.00	-15.11	1.0	120
704.80	PK	Vertical	30.67	46.00	-15.33	1.2	0
792.90	PK	Vertical	30.20	46.00	-15.80	1.1	50
881.00	PK	Vertical	28.82	46.00	-17.18	1.2	140
88.10	PK	Horizontal	42.27	67.96	-25.69	1.1	0
176.20	PK	Horizontal	35.05	43.50	-8.45	1.2	40
246.30	PK	Horizontal	34.53	46.00	-11.47	1.1	100
352.40	PK	Horizontal	33.49	46.00	-12.51	1.2	190
440.50	PK	Horizontal	31.68	46.00	-14.32	1.0	60
528.60	PK	Horizontal	31.19	46.00	-14.81	1.2	60
616.70	PK	Horizontal	29.69	46.00	-16.31	1.2	110
704.80	PK	Horizontal	28.41	46.00	-17.59	1.1	10
792.90	PK	Horizontal	28.84	46.00	-17.16	1.2	0
881.00	PK	Horizontal	28.84	46.00	-17.16	1.1	10
<b>Middle Frequency</b>							
98.10	AV	Vertical	40.51	48.00	-7.49	1.2	0
196.20	AV	Vertical	31.05	43.50	-12.45	1.2	0
294.30	AV	Vertical	26.71	46.00	-19.29	1.1	60
392.40	AV	Vertical	26.41	46.00	-19.59	1.1	10
490.50	AV	Vertical	25.41	46.00	-20.59	1.2	120
588.60	AV	Vertical	25.85	46.00	-20.15	1.1	100
686.70	AV	Vertical	23.71	46.00	-22.29	1.1	105
784.80	AV	Vertical	22.80	46.00	-23.20	1.6	20
882.90	AV	Vertical	20.09	46.00	-25.91	1.5	100
980.00	AV	Vertical	17.30	54.00	-36.70	1.2	45
98.10	AV	Horizontal	40.13	48.00	-7.87	1.4	0
196.20	AV	Horizontal	28.41	43.50	-15.09	1.0	10
294.30	AV	Horizontal	26.63	46.00	-19.37	1.2	60
392.40	AV	Horizontal	25.77	46.00	-20.23	1.0	40
490.50	AV	Horizontal	26.11	46.00	-19.89	1.8	135

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588.60	AV	Horizontal	26.11	46.00	-19.89	1.0	60
686.70	AV	Horizontal	25.11	46.00	-20.89	1.3	10
784.80	AV	Horizontal	24.03	46.00	-21.97	1.0	90
882.90	AV	Horizontal	22.02	46.00	-23.98	1.5	60
980.00	AV	Horizontal	20.17	54.00	-33.83	1.0	10
98.10	PK	Vertical	49.05	67.96	-18.91	1.2	0
196.20	PK	Vertical	33.86	43.50	-9.64	1.1	10
294.30	PK	Vertical	36.65	46.00	-9.35	1.2	120
392.40	PK	Vertical	33.64	46.00	-12.36	1.3	120
490.50	PK	Vertical	32.28	46.00	-13.72	1.0	180
588.60	PK	Vertical	29.87	46.00	-16.13	1.5	20
686.70	PK	Vertical	29.54	46.00	-16.46	1.0	120
784.80	PK	Vertical	28.31	46.00	-17.69	1.2	30
882.90	PK	Vertical	26.65	46.00	-19.35	1.1	10
980.00	PK	Vertical	25.67	54.00	-28.33	1.2	20
98.10	PK	Horizontal	41.16	67.96	-26.80	1.3	10
196.20	PK	Horizontal	34.95	43.50	-8.55	1.2	40
294.30	PK	Horizontal	31.90	46.00	-14.10	1.5	100
392.40	PK	Horizontal	30.98	46.00	-15.02	1.0	90
490.50	PK	Horizontal	29.84	46.00	-16.16	1.0	60
588.60	PK	Horizontal	29.28	46.00	-16.72	1.1	0
686.70	PK	Horizontal	27.38	46.00	-18.62	1.2	10
784.80	PK	Horizontal	27.22	46.00	-18.78	1.3	30
882.90	PK	Horizontal	23.66	46.00	-22.34	1.3	90
980.00	PK	Horizontal	23.65	54.00	-30.35	1.1	20
<b>High Frequency</b>							
107.90	AV	Vertical	37.41	48.00	-10.59	1.0	200
215.80	AV	Vertical	30.14	43.50	-13.36	1.2	100
323.70	AV	Vertical	29.43	46.00	-16.57	1.2	60
431.60	AV	Vertical	30.53	46.00	-15.47	1.1	120
539.50	AV	Vertical	30.83	46.00	-15.17	1.1	120
647.40	AV	Vertical	28.55	46.00	-17.45	1.2	90
755.30	AV	Vertical	26.43	46.00	-19.57	1.2	10
863.20	AV	Vertical	25.52	46.00	-20.48	1.3	120
971.10	AV	Vertical	22.81	54.00	-31.19	1.1	100
1079.0	AV	Vertical	20.02	54.00	-33.98	1.2	135
107.90	AV	Horizontal	34.76	48.00	-13.24	1.4	100

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215.80	AV	Horizontal	28.53	43.50	-14.97	1.1	10
323.70	AV	Horizontal	27.73	46.00	-18.27	1.4	60
431.60	AV	Horizontal	28.49	46.00	-17.51	1.0	40
539.50	AV	Horizontal	28.83	46.00	-17.17	1.2	45
647.40	AV	Horizontal	28.83	46.00	-17.17	1.0	60
755.30	AV	Horizontal	27.83	46.00	-18.17	1.2	10
863.20	AV	Horizontal	26.75	46.00	-19.25	1.5	90
971.10	AV	Horizontal	24.74	54.00	-29.26	1.5	60
1079.0	AV	Horizontal	22.88	54.00	-31.12	1.0	15
107.90	PK	Vertical	49.03	67.96	-18.93	1.2	140
215.80	PK	Vertical	36.65	43.50	-6.85	1.1	10
323.70	PK	Vertical	31.66	46.00	-14.34	1.4	120
431.60	PK	Vertical	31.07	46.00	-14.93	1.2	120
539.50	PK	Vertical	29.28	46.00	-16.72	1.0	180
647.40	PK	Vertical	29.87	46.00	-16.13	1.5	0
755.30	PK	Vertical	29.54	46.00	-16.46	1.0	120
863.20	PK	Vertical	32.32	46.00	-13.68	1.3	0
971.10	PK	Vertical	32.43	54.00	-21.57	1.5	0
1079.0	PK	Vertical	26.67	74.00	-47.33	1.2	50
107.90	PK	Horizontal	44.57	67.96	-23.39	1.3	0
215.80	PK	Horizontal	34.91	43.50	-8.59	1.2	40
323.70	PK	Horizontal	29.90	46.00	-16.10	1.1	100
431.60	PK	Horizontal	30.99	46.00	-15.01	1.1	30
539.50	PK	Horizontal	26.84	46.00	-19.16	1.0	60
647.40	PK	Horizontal	27.27	46.00	-18.73	1.1	60
755.30	PK	Horizontal	24.38	46.00	-21.62	1.3	110
863.20	PK	Horizontal	27.22	46.00	-18.78	1.3	80
971.10	PK	Horizontal	27.80	54.00	-26.20	1.1	15
1079.0	PK	Horizontal	29.99	74.00	-44.01	1.1	120

The results shown in this test report refer only to the sample(s) tested , This Test report cannot be reproduced, except in full, without prior written permission of the Company.

## **8 Antenna Requirement.**

According to the FCC 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. The use of a permanently attached antenna to the intentional radiator shall be considered sufficient to comply with the provisions of this section. This product has a permanent fixed antenna, which may be built in, designed as an indispensable part of the equipment., fulfill the requirement of this section.

## 9 Band Edge Measurements

Test Requirement: FCC Part 15 Section 15.239(c)  
 Test Method: Based on ANSI C63.4:2003  
 Limit: According to 15.239(c), The field strength of any emissions radiated on any frequency outside of the specified 200 kHz band shall not exceed the general radiated emission limits in §15.209.

### 9.1 Test Equipment

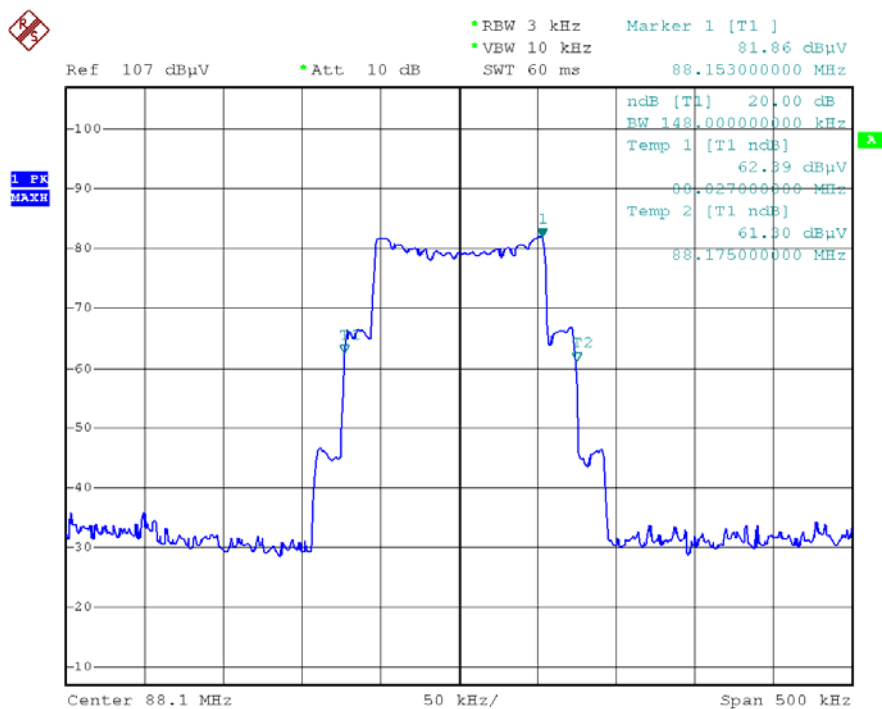
Please refer to Section 5 this report.

### 9.2 Test Procedure

- 1.The EUT, peripherals were put on the turntable which table size is 1m x1.5m, table high 0.8m. All set up is according to ANSI C63.4:2003.
2. The antenna high were varied from 1m to 4m high to find the maximum emission for each frequency.
4. The market sample was tested for frequency testing at 88.1 MHz, 98.1 MHz, 107.9 MHz.

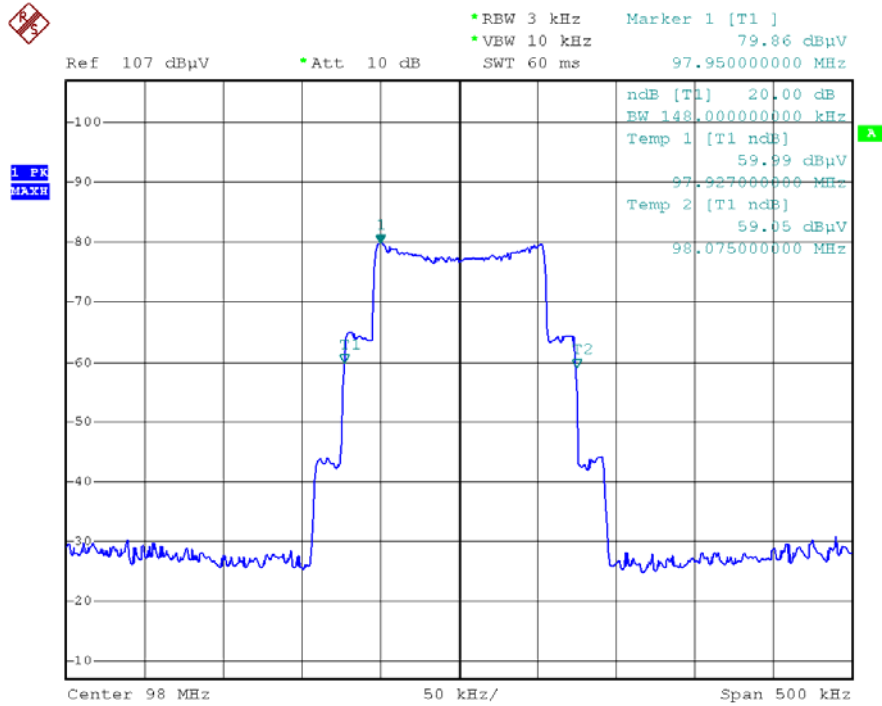
### 9.3 Test Result

Test Plot at 88.1MHz:

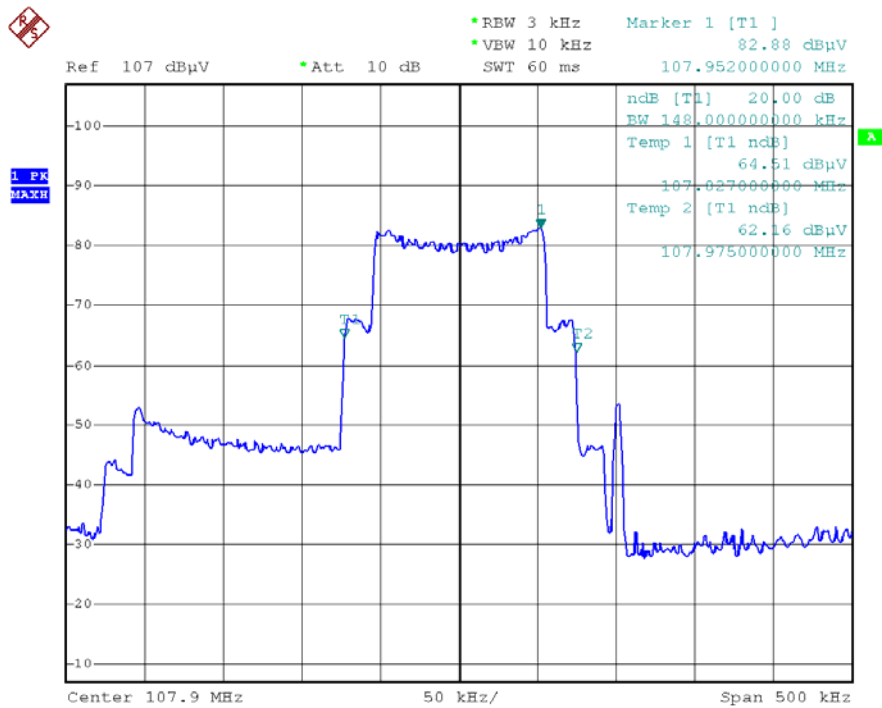


The results shown in this test report refer only to the sample(s) tested , This Test report cannot be reproduced, except in full, without prior written permission of the Company.

98.1MHz:



107.9MHz:



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## 10 Bandwidth Measurements

Test Requirement: FCC Part15 Section 15.239(a)  
 Test Method: Based on ANSI C63.4:2003  
 Limit: According to 15.239(a), emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88–108 MHz.

### 10.1 Test Equipment

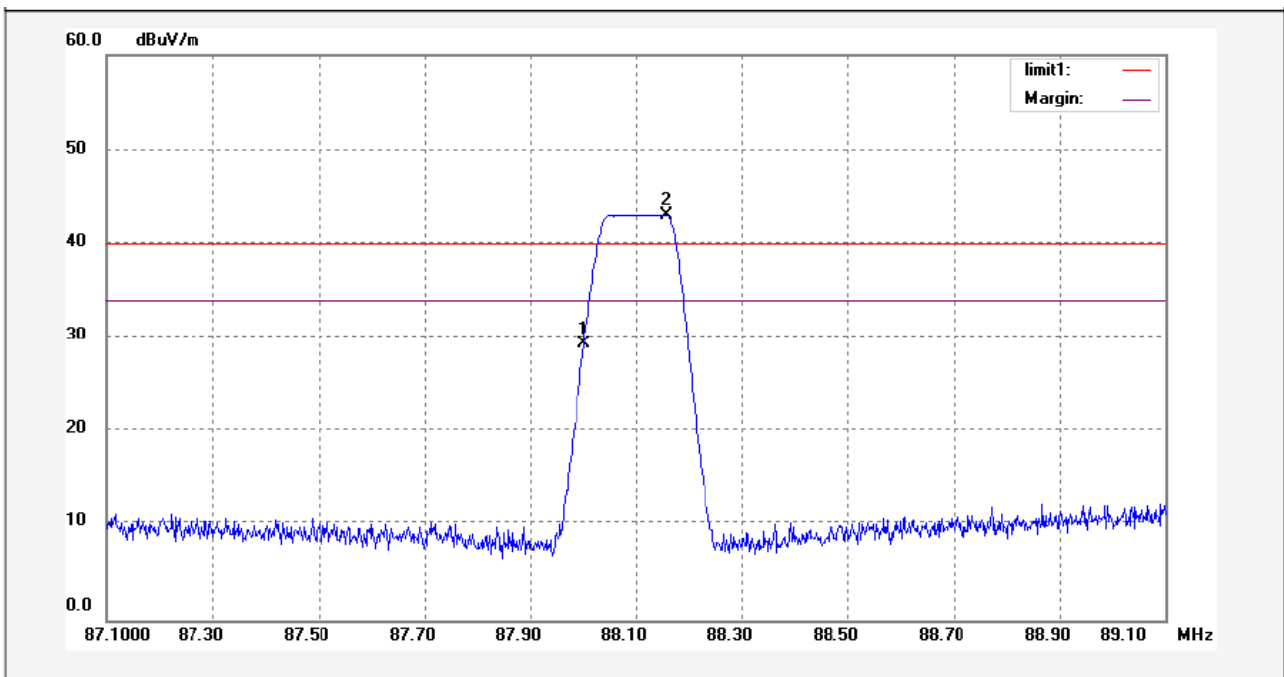
Please refer to Section 5 this report.

### 10.2 Test Procedure

- 1.The EUT, peripherals were put on the turntable which table size is 1m x1.5m, table high 0.8m. All set up is according to ANSI C63.4:2003.
2. The antenna high were varied from 1m to 4m high to find the maximum emission for each frequency.
4. The market sample was tested for frequency testing at 88.1 MHz, 107.9 MHz.

### 10.3 Test Result

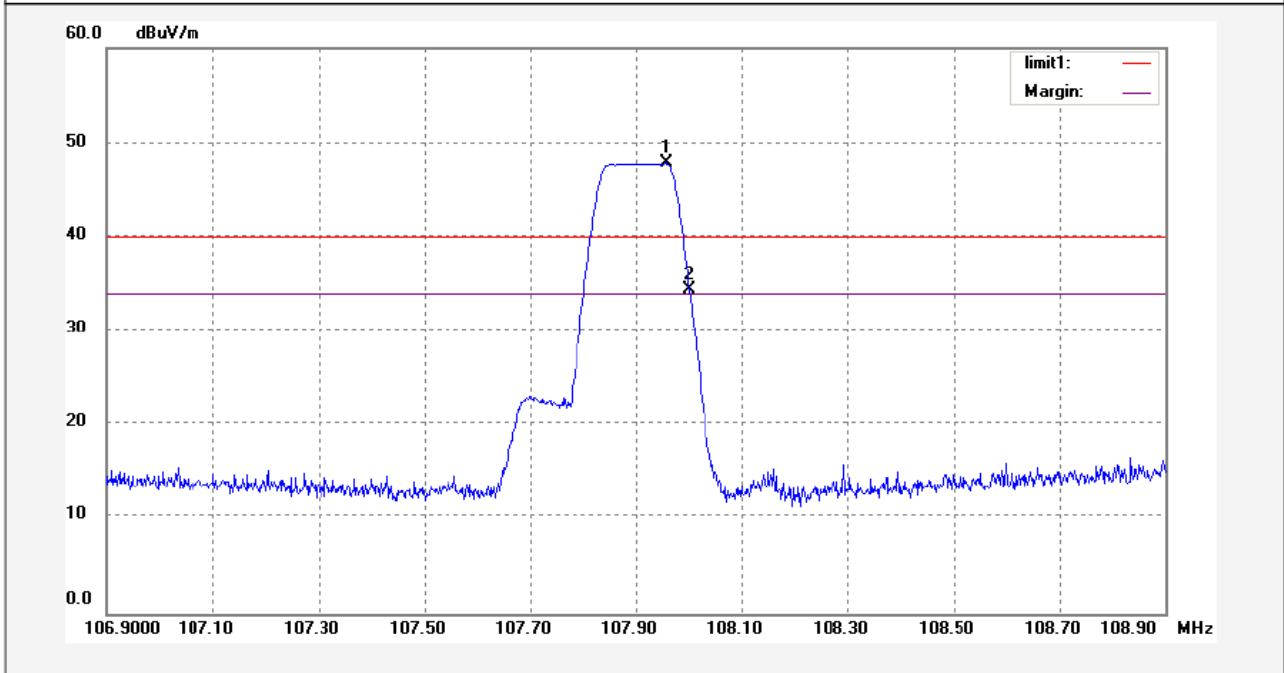
Measurement Data at 88.1MHz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	88.0000	18.30	11.00	29.30	40.00	-10.70	peak	
2	88.1561	31.99	11.05	43.04	40.00	3.04	peak	

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Measurement Data at 107.9MHz

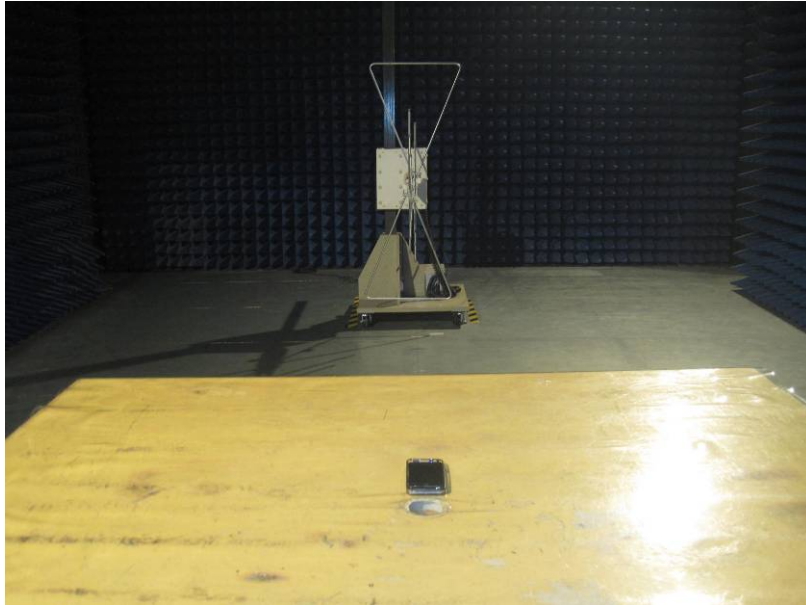


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	107.9581	33.90	13.96	47.86	40.00	7.86	peak	
2	108.0000	20.48	13.95	34.43	40.00	-5.57	peak	

The results shown in this test report refer only to the sample(s) tested , This Test report cannot be reproduced, except in full, without prior written permission of the Company.

## 11 Photographs of Testing

### 11.1 Radiation Emission Test View



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WALTEK SERVICES

Reference No.: WT11126960-D-E-F

## 12 Photographs - Constructional Details

### 12.1 Product View



### 12.2 EUT - Appearance View



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WALTEK SERVICES

Reference No.: WT11126960-D-E-F



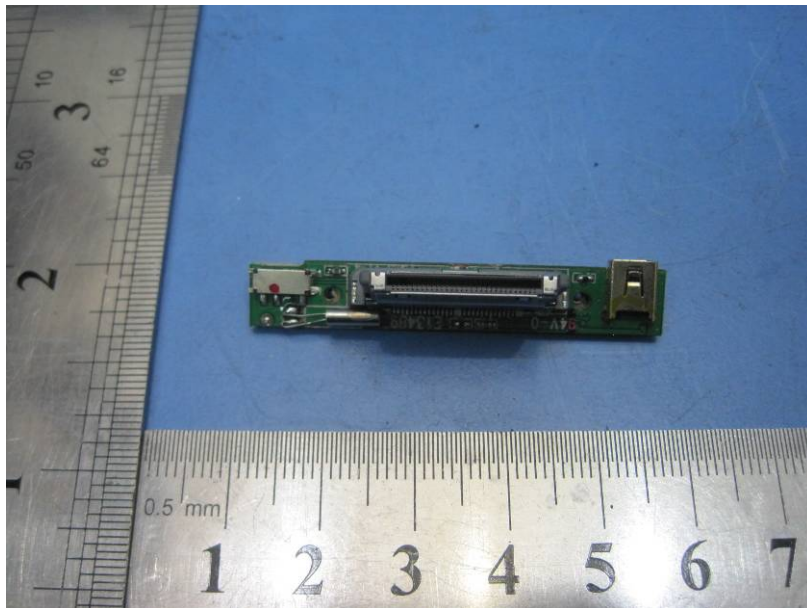


### 12.3 EUT - Open View

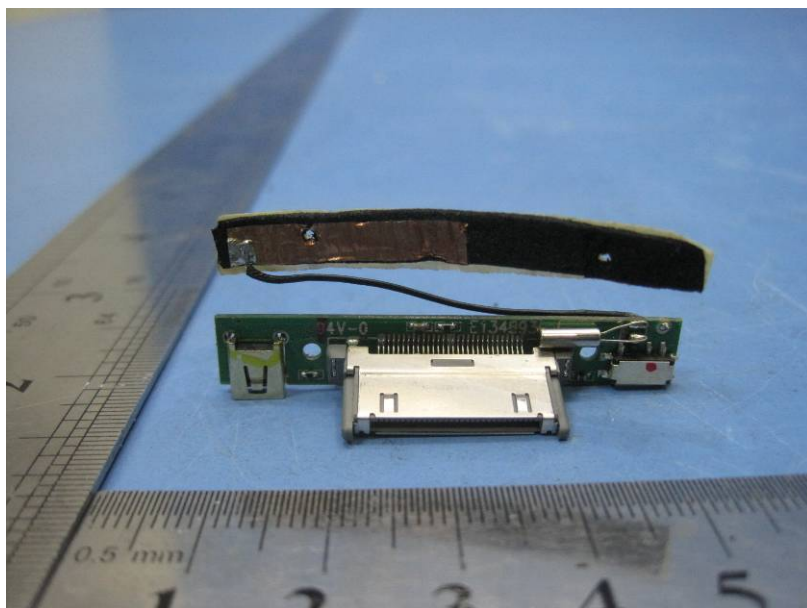
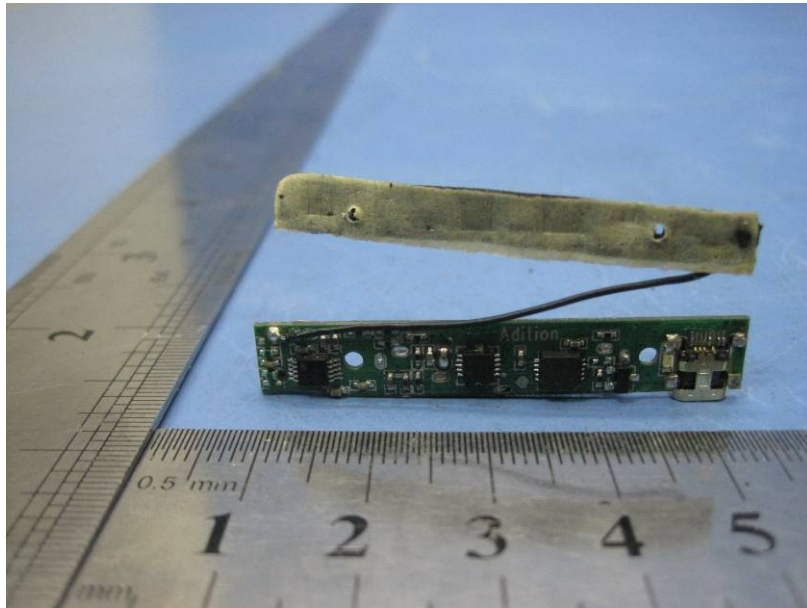




#### 12.4 EUT - PCB View



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### 13 FCC ID Label

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)this device may not cause harmful interference,and (2) this device must accept any interference received, including interference that may cause undesired operation.

The Label must not be a stick-on paper. The Label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Proposed Label Location on EUT  
EUT Bottom View/proposed FCC Label Location

