FCC TEST REPORT

Test report
On Behalf of
RoyStyle Technology Co., Ltd.
For
BLUETOOTH HEADPHONE
Model No.: BT-011, BTH11,BH11,P6, UB-BTH11-101, UB-BTH11-199

FCC ID: 2AFLX-BT011

Prepared for :	**RoyStyle Technology Co., Ltd.** **Room 2889, Floor 28th, Electronic Technology Building Block C, Huaqiang North, Futian District, Shenzhen**
Prepared By :	**WST Certification & Testing (HK) Limited** **12/F., San Toi Building,137-139 Connaught Road Central,Hong Kong**
Date of Test:	**Mar. 08, 2016 ~ Mar. 12, 2016**
Date of Report:	**Mar. 12, 2016**
Report Number:	**WST160303008-E**

TEST RESULT CERTIFICATION

Applicant's name	:	RoyStyle Technology Co., Ltd.
Address	:	Room 2889, Floor 28th, Electronic Technology Building Block C, Huaqiang North, Futian District, Shenzhen
Manufacture's Name	:	RoyStyle Technology Co., Ltd.
Address	:	Room 2889, Floor 28th, Electronic Technology Building Block C, Huaqiang North, Futian District, Shenzhen
Product description		
Trade Mark:		N/A
Product name	:	BLUETOOTH HEADPHONE
Model and/or type reference	:	BT-011, BTH11,BH11,P6, UB-BTH11-101, UB-BTH11-199
Standards	:	FCC Rules and Regulations Part 15 Subpart C Section 15.249 ANSI C63.10: 2013

Date of Test	:	
Date (s) of performance of tests	:	**Mar. 08, 2016 ~ Mar. 12, 2016**
Date of Issue	:	**Mar. 12, 2016**
Test Result	:	**Pass**

Testing Engineer : Eric Xie

(Eric Xie)

Technical Manager : Dora Qin

(Dora Qin)

Authorized Signatory :

(Kait Chen)

Table of Contents **Page**

1.. TEST SUMMARY

1.1. TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST	RESULT
CONDUCTED EMISSIONS TEST	COMPLIANT
RADIATED EMISSION TEST	COMPLIANT
BAND EDGE	COMPLIANT
OCCUPIED BANDWIDTH MEASUREMENT	COMPLIANT
ANTENNA REQUIREMENT	COMPLIANT

1.2. TEST FACILITY

Test Firm	:	Shenzhen WST Testing Technology Co., Ltd. Certificated by FCC, Registration No.: 939433
Address	:	1F,No.9 Building,TGK Science & Technology Park,Yangtian Rd., NO.72 Bao'an Dist., Shenzhen,Guangdong,China. 518101
Tel	:	(86)755-33916437
Fax	:	(86)755-27822175

1.3. MEASUREMENT UNCERTAINTY

Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty(9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty(30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty(Above 1GHz)	=	4.06dB, k=2

2.. GENERAL INFORMATION

2.1. GENERAL DESCRIPTION OF EUT

Equipment	BLUETOOTH HEADPHONE
Model Name	BT-011
Serial No	BTH11,BH11,P6, UB-BTH11-101, UB-BTH11-199
Model Difference	All model's the function, software and electric circuit are the same, only with a product color and model named different.Test sample model: BT-011
FCC ID	2AFLX-BT011
Antenna Type	Internal Antenna
Antenna gain	0dBi
BT Operation frequency	2402-2480MHz
Number of Channels	79CH
Modulation Type	GFSK
Power Source	DC voltage
Power Rating	DC 5V
Adapter Model	/

2.1.1. Carrier Frequency of Channels

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2402	31	2432	61	2462
02	2403	32	2433	62	2463
03	2404	33	2434	63	2464
04	2405	34	2435	64	2465
05	2406	35	2436	65	2466
06	2407	36	2437	66	2467
07	2408	37	2438	67	2468
08	2409	38	2439	68	2469
09	2410	39	2440	69	2470
10	2411	40	2441	70	2471
11	2412	41	2442	71	2472
12	2413	42	2443	72	2473
13	2414	43	2444	73	2474
14	2415	44	2445	74	2475
15	2416	45	2446	75	2476
16	2417	46	2447	76	2477
17	2418	47	2448	77	2478
18	2419	48	2449	78	2479
19	2420	49	2450	79	2480
20	2421	50	2451		
21	2422	51	2452		
22	2423	52	2453		
23	2424	53	2454		
24	2425	54	2455		
25	2426	55	2456		
26	2427	56	2457		
27	2428	57	2458		
28	2429	58	2459		
29	2430	59	2460		
30	2431	60	2461		

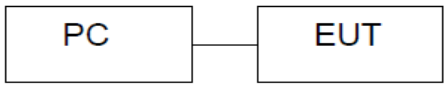
Operation of EUT during testing

Operating Mode
The mode is used: **Transmitting mode**
Low Channel: 2402MHz
Middle Channel: 2441MHz
High Channel: 2480MHz

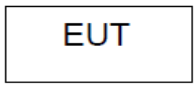
2.2. DESCRIPTION OF TEST SETUP

Operation of EUT during testing

Mode1



Mode 2



Setup: Transmitting mode

2.3. MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Receiver	Rohde & Schwarz	ESCI	100627	May 19, 2015	1 Year
2.	LISN	SchwarzBeck	NSLK 8126	8126377	May 19, 2015	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 19, 2015	1 Year
4.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
5.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	May 19, 2015	1 Year
6.	Trilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	May 17, 2015	1 Year
7.	Pre-amplifier	Compliance Direction	PAP-0203	22008	May 19, 2015	1 Year
8.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
9.	EMI Receiver	Rohde & Schwarz	ESCI	100627	May 19, 2015	1 Year
10.	LISN	SchwarzBeck	NSLK 8126	8126377	May 19, 2015	1 Year
11.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 19, 2015	1 Year
12.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
13.	EMI Receiver	Rohde & Schwarz	ESCI	100627	May 19, 2015	1 Year
14.	EMI Receiver	Rohde & Schwarz	ESCI	100627	May 19, 2015	1 Year
15.	LISN	SchwarzBeck	NSLK 8126	8126377	May 19, 2015	1 Year
16.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 19, 2015	1 Year
17.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
18.	Programmable AC Power source	SOPH POWER	PAG-1050	630250	May 26, 2015	1 Year
19.	Harmonic and Flicker Analyzer	LAPLACE	AC2000A	272629	May 26, 2015	1 Year
20.	Harmonic and Flicker Test Software AC 2000A	LAPLACE	N/A	N/A	N/A	N/A
21.	ESD Simulators	KIKUSUI	KES4021	LJ003477	May 25, 2015	1 Year
22.	EFT Generator	EMPEK	EFT-4040B	0430928N	May 19, 2015	1 Year
23.	Shielding Room	ChangZhou ZhongYu	JB88	SEL0166	May 19, 2015	1 Year
24.	Signal Generator 9KHz~2.2GHz	R&S	SML02	SEL0143	May 19, 2015	1 Year
25.	Signal Generator 9KHz~1.1GHz	R&S	SML01	SEL0135	May 19, 2015	1 Year
26.	Power Meter	R&S	NRVS	SEL0144	May 19, 2015	1 Year
27.	RF Level Meter		URV35	SEL0137	May 19, 2015	1 Year
28.	Audio Analyzer	R&S	UPL	SEL0136	May 19, 2015	1 Year
29.	RF-Amplifier 150KHz~150MHz	BONN Elektronik	BSA1515-25	SEL0157	May 19, 2015	1 Year

30.	Stripline Test Cell	Erika Fiedler	VDE0872	SEL0167	N/A	N/A
31.	TV Test Transmitter	R&S	SFM	SEL0159	May 17, 2015	1 Year
32.	TV Generator PAL	R&S	SGPF	SEL0138	May 19, 2015	1 Year
33.	TV Generator Ntsc	R&S	SGMF	SEL0140	May 19, 2015	1 Year
34.	TV Generator Secam	R&S	SGSF	SEL0139	May 19, 2015	1 Year
35.	TV Test Transmitter 0.3MHz~3300MHz	R&S	SFQ	SEL0142	May 19, 2015	1 Year
36.	MPEG2 Measurement Generator	R&S	DVG	SEL0141	May 19, 2015	1 Year
37.	Spectrum Analyzer	R&S	FSP	SEL0177	May 19, 2015	1 Year
38.	Matching	R&S	RAM	SEL0146	N/A	N/A
39.	Matching	R&S	RAM	SEL0148	N/A	N/A
40.	Absorbing Clamp	R&S	MDS21	SEL0158	May 17, 2015	1 Year
41.	Coupling Set	Erika Fiedler	Rco, Rci, MC, AC, LC	SEL0149	N/A	N/A
42.	Filters	Erika Fiedler	Sr, LBS	SEL0150	N/A	N/A
43.	Matching Network	Erika Fiedler	MN, T1	SEL0151	N/A	N/A
44.	Fully Anechoic Room	ChangZhou ZhongYu	854	SEL0169	Jun. 10, 2015	1 Year
45.	Signal Generator	R&S	SML03	SEL0068	May 17, 2015	1 Year
46.	RF-Amplifier 30M~1GHz	Amplifier Reasearch	250W1000A	SEL0066	Oct. 24, 2015	1 Year
47.	RF-Amplifier 0.8~3.0GHz	Amplifier Reasearch	60S1G3	SEL0065	Oct. 24, 2015	1 Year
48.	Power Meter	R&S	NRVD	SEL0069	May 17, 2015	1 Year
49.	Power Sensor	R&S	URV5-Z2	SEL0071	May 17, 2015	1 Year
50.	Power Sensor	R&S	URV5-Z2	SEL0072	May 17, 2015	1 Year
51.	Software EMC32	R&S	EMC32-S	SEL0082	N/A	N/A
52.	Log-periodic Antenna	Amplifier Reasearch	AT1080	SEL0073	N/A	N/A
53.	Antenna Tripod	Amplifier Reasearch	TP1000A	SEL0074	N/A	N/A
54.	High Gain Horn Antenna(0.8-5G Hz)	Amplifier Reasearch	AT4002A	SEL0075	N/A	N/A

3.. CONDUCTED EMISSIONS TEST

3.1 Conducted Power Line Emission Limit

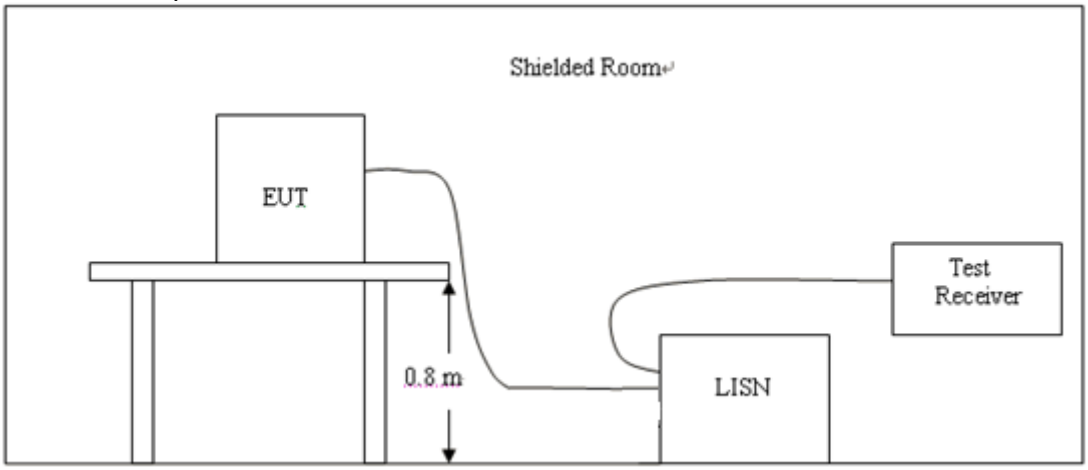
For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

Frequency (MHz)	Maximum RF Line Voltage (dBμV)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15 - 0.50	79	66	66-56*	56-46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

* Decreasing linearly with the logarithm of the frequency

For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

3.2 Test Setup

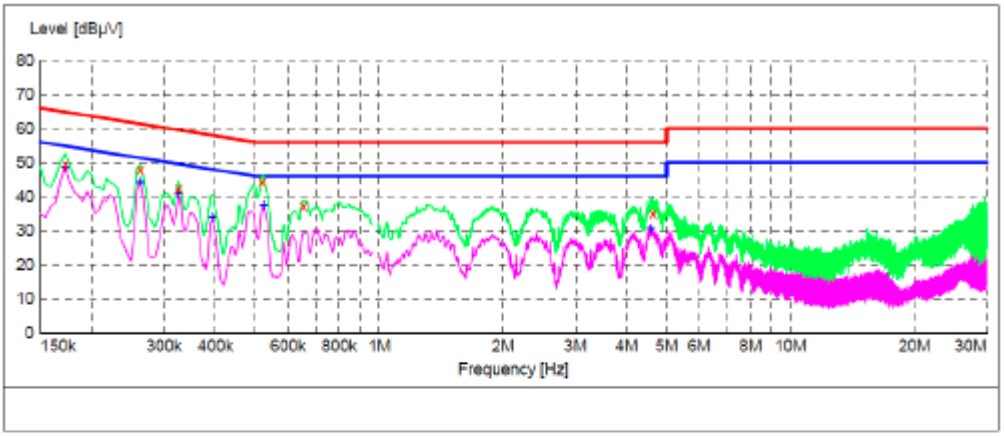


3.3 Test Procedure

1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
2, Support equipment, if needed, was placed as per ANSI C63.10
3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5, All support equipments received AC power from a second LISN, if any.
6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7, Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

3.4 Test Result

PASS

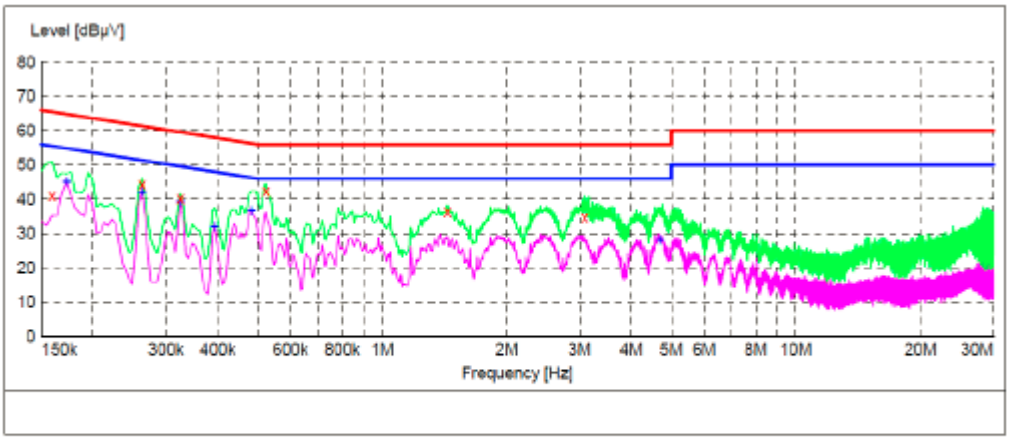


MEASUREMENT RESULT:

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.172500	49.30	20.1	65	15.5	QP	N	GND
0.262500	48.00	20.1	61	13.4	QP	N	GND
0.325500	42.40	20.1	60	17.2	QP	N	GND
0.519000	44.30	20.1	56	11.7	QP	N	GND
0.654000	37.10	20.1	56	18.9	QP	N	GND
4.627000	35.10	20.5	56	20.9	QP	N	GND

MEASUREMENT RESULT:

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.172500	48.60	20.1	55	6.2	AV	N	GND
0.262500	44.30	20.1	51	7.1	AV	N	GND
0.325500	40.90	20.1	50	8.7	AV	N	GND
0.393000	34.00	20.1	48	14.0	AV	N	GND
0.523500	37.40	20.1	46	8.6	AV	N	GND
4.568500	30.60	20.5	46	15.4	AV	N	GND



MEASUREMENT RESULT:

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.159000	41.00	20.1	66	24.5	QP	L1	GND
0.262500	44.40	20.1	61	17.0	QP	L1	GND
0.325500	40.10	20.1	60	19.5	QP	L1	GND
0.523500	42.40	20.1	56	13.6	QP	L1	GND
1.436500	36.30	20.3	56	19.7	QP	L1	GND
3.088000	34.60	20.4	56	21.4	QP	L1	GND

MEASUREMENT RESULT:

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.172500	45.10	20.1	55	9.7	AV	L1	GND
0.262500	42.10	20.1	51	9.3	AV	L1	GND
0.325500	39.40	20.1	50	10.2	AV	L1	GND
0.393000	32.00	20.1	48	16.0	AV	L1	GND
0.483000	36.70	20.1	46	9.6	AV	L1	GND
4.694500	28.30	20.5	46	17.7	AV	L1	GND

4 RADIATED EMISSION TEST

4.1 Radiation Limit

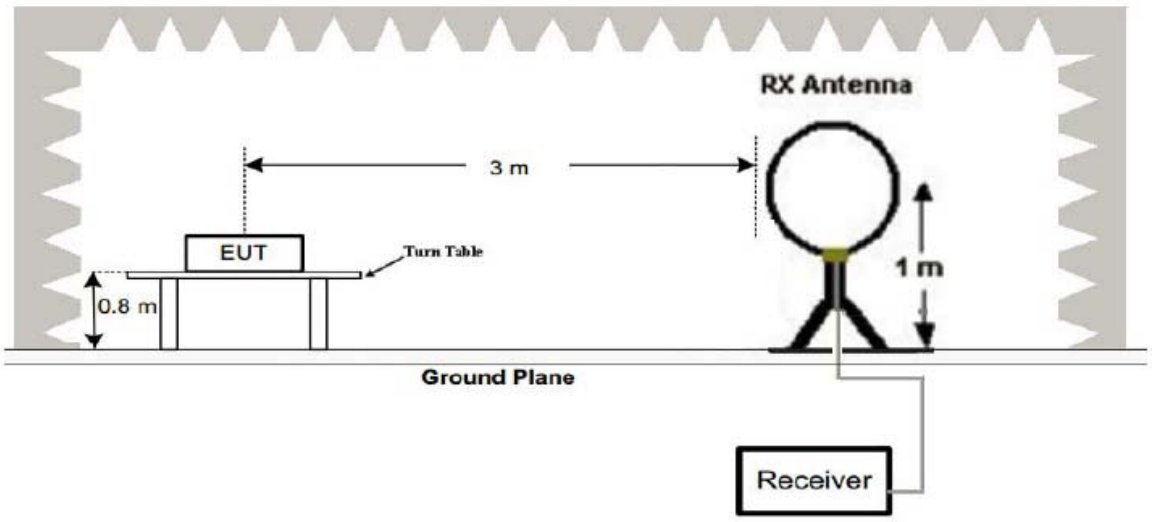
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values：

Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
30-88	3	40	100
88-216	3	43.5	150
216-960	3	46	200
Above 960	3	54	500

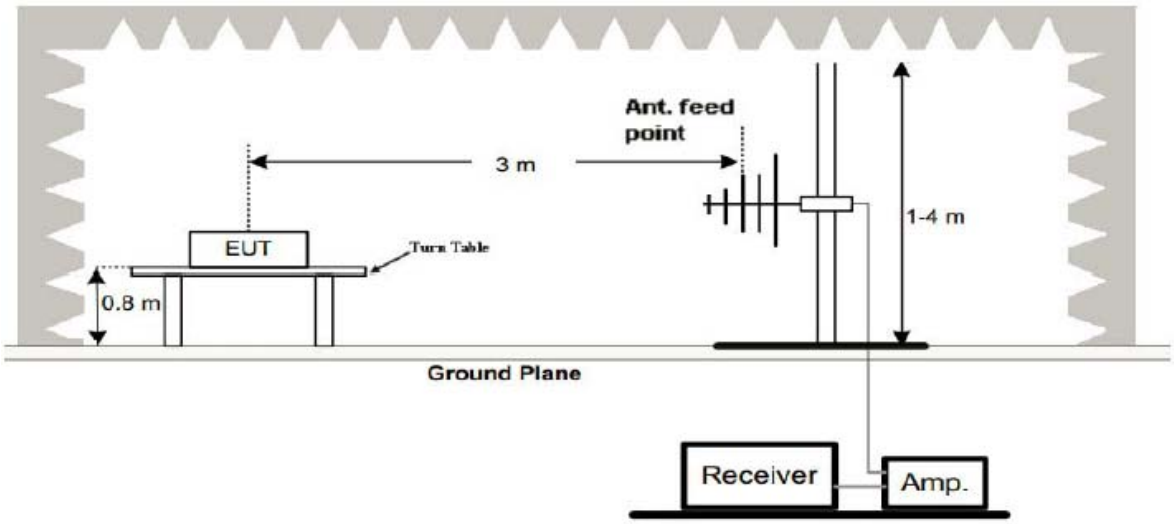
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2 Test Setup

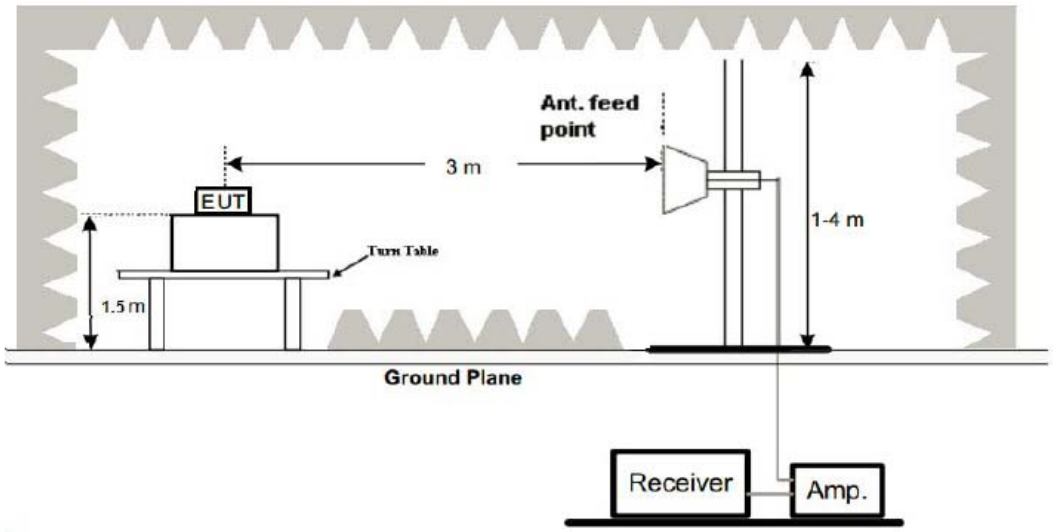
（1）Radiated Emission Test-Up Frequency Below 30MHz



（2）Radiated Emission Test-Up Frequency 30MHz~1GHz



（3）Radiated Emission Test-Up Frequency Above 1GHz



4.3 Test Procedure

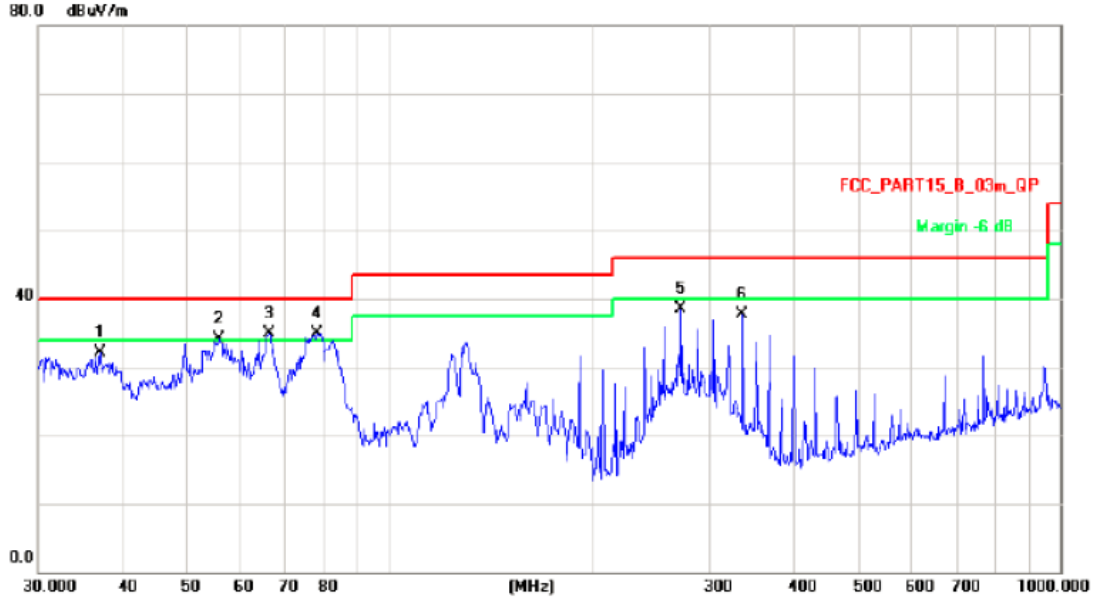
1. Below 1GHz measurement the EUT is placed on turntable which is 0.8m above ground plane. And above 1GHz measurement EUT was placed on low permittivity and low tangent turn table which is 1.5m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The test frequency range from 9KHz to 25GHz per FCC PART 15.33(a).

Note:
For battery operated equipment, the equipment tests shall be performed using a new battery.

4.4 Test Result

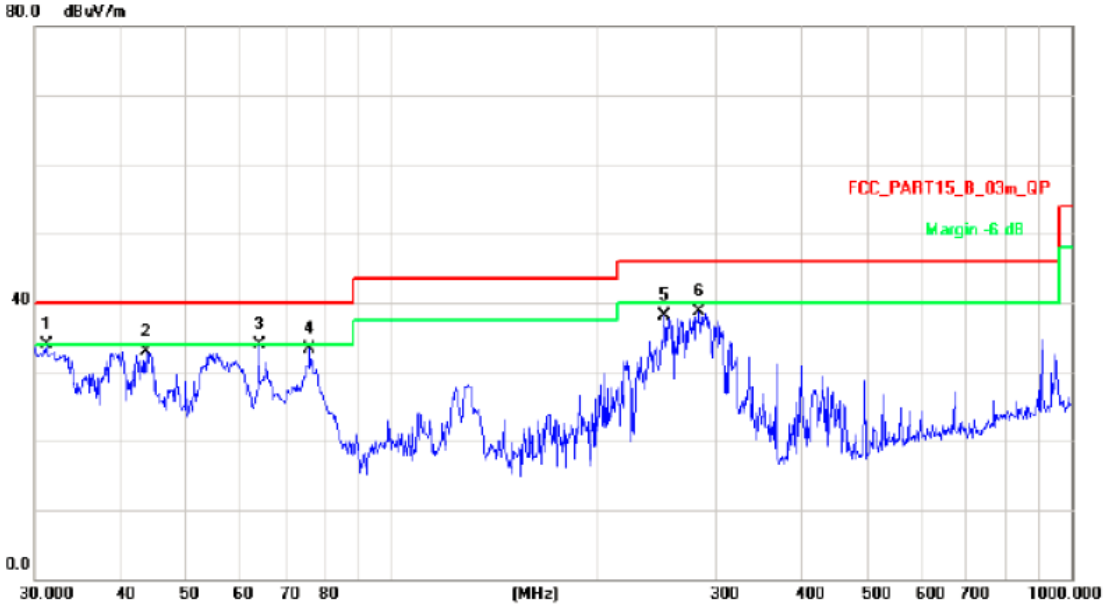
PASS
All the test modes completed for test. The worst case of Radiated Emission is CH 2402; the test data of this mode was reported.

Below 1GHz Test Results:
Antenna polarity: H



Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
37.0248	40.75	-8.68	32.07	40.00	-7.93	QP
55.8046	45.27	-11.19	34.08	40.00	-5.92	QP
66.2661	47.86	-13.03	34.83	40.00	-5.17	QP
78.1389	52.37	-17.43	34.94	40.00	-5.06	QP
272.2776	51.99	-13.42	38.57	46.00	-7.43	QP
336.0351	49.27	-11.66	37.61	46.00	-8.39	QP

Antenna polarity: V



Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
31.1798	42.07	-8.19	33.88	40.00	-6.12	QP
43.6584	42.15	-9.30	32.85	40.00	-7.15	QP
63.9827	46.15	-12.32	33.83	40.00	-6.17	QP
75.9772	50.05	-16.68	33.37	40.00	-6.63	QP
252.0627	52.17	-14.14	38.03	46.00	-7.97	QP
283.9791	51.67	-12.99	38.68	46.00	-7.32	QP

Remark：

(1) Measuring frequencies from 9 KHz to the 1 GHz, Radiated emission test from 9KHz to 30MHz was verified, and no any emission was found except system noise floor.

(2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.

(3) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.

Above 1 GHz Test Results:

Horizontal

CH Low (2402MHz)

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
2402.000	2.17	31.21	35.30	87.45	85.53	114.0	-28.47	Peak
2402.000	2.17	31.21	35.30	84.18	82.26	94.0	-11.74	AV
4804.250	2.56	34.01	34.71	49.57	51.43	74.0	-22.57	Peak
4804.250	2.56	34.01	34.71	34.19	36.05	54.0	-17.95	AV
7206.560	2.98	36.16	35.15	35.98	39.97	74.0	-34.03	Peak
7206.560	2.98	36.16	35.15	23.07	27.06	54.0	-26.94	AV
9608.000	---	---	---	---	---	---	---	---
12010.00	---	---	---	---	---	---	---	---
14412.00	---	---	---	---	---	---	---	---
16814.00	---	---	---	---	---	---	---	---

Vertical

CH Low (2402MHz)

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
2402.000	2.17	31.21	35.30	91.06	89.14	114.0	-24.86	Peak
2402.000	2.17	31.21	35.30	82.62	80.70	94.0	-13.30	AV
4804.250	2.56	34.01	34.71	42.33	44.19	74.0	-29.81	Peak
4804.250	2.56	34.01	34.71	34.20	36.06	54.0	-17.94	AV
7206.560	2.98	36.16	35.15	35.12	39.11	74.0	-34.89	Peak
7206.560	2.98	36.16	35.15	36.08	40.07	54.0	-13.93	AV
9608.000	---	---	---	---	---	---	---	---
12010.00	---	---	---	---	---	---	---	---
14412.00	---	---	---	---	---	---	---	---
16814.00	---	---	---	---	---	---	---	---

Horizontal
CH Low (2441MHz)

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
2441.000	2.19	31.22	34.60	90.12	88.93	114.0	-25.07	Peak
2441.000	2.19	31.22	34.60	82.21	81.02	94.0	-12.98	AV
4882.220	2.57	35.00	34.58	43.74	46.73	74.0	-27.27	Peak
4882.220	2.57	35.00	34.58	36.85	39.84	54.0	-14.16	AV
7323.090	3.00	36.17	35.14	40.31	44.34	74.0	-29.66	Peak
7323.090	3.00	36.17	35.14	38.06	42.09	54.0	-11.91	AV
9764.000	---	---	---	---	---	---	---	---
12205.00	---	---	---	---	---	---	---	---
14646.00	---	---	---	---	---	---	---	---
17087.00	---	---	---	---	---	---	---	---

Vertical
CH Low (2441MHz)

Vertical
CH Middle (2441MHz)

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
2441.000	2.19	31.22	34.60	89.34	88.15	114.0	-25.85	Peak
2441.000	2.19	31.22	34.60	80.23	79.04	94.0	-14.96	AV
4882.220	2.57	35.00	34.58	46.59	49.58	74.0	-24.42	Peak
4882.220	2.57	35.00	34.58	42.18	45.17	54.0	-8.83	AV
7323.090	3.00	36.17	35.14	41.67	45.70	74.0	-28.30	Peak
7323.090	3.00	36.17	35.14	37.25	41.28	54.0	-12.72	AV
9764.000	---	---	---	---	---	---	---	---
12205.00	---	---	---	---	---	---	---	---
14646.00	---	---	---	---	---	---	---	---
17087.00	---	---	---	---	---	---	---	---

Horizontal
CH Low (2480MHz)

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
2480.000	2.20	31.65	36.00	93.56	91.41	114.0	-22.59	Peak
2480.000	2.20	31.65	36.00	82.42	80.27	94.0	-13.73	AV
4960.350	2.58	35.06	34.79	43.64	46.49	74.0	-27.51	Peak
4960.350	2.58	35.06	34.79	39.56	42.41	54.0	-11.59	AV
7440.970	3.02	36.19	34.90	48.41	52.72	74.0	-21.28	Peak
7440.970	3.02	36.20	35.20	39.55	43.57	54.0	-10.43	AV
9920.000	---	---	---	---	---	---	---	---
12400.00	---	---	---	---	---	---	---	---
14880.00	---	---	---	---	---	---	---	---
17360.00	---	---	---	---	---	---	---	---

Vertical
CH Low (2480MHz)

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
2480.000	2.20	31.65	36.00	95.15	93.00	114.0	-21.00	Peak
2480.000	2.20	31.65	36.00	82.13	79.98	94.0	-14.02	AV
4960.350	2.58	35.06	34.79	44.39	47.24	74.0	-26.76	Peak
4960.350	2.58	35.06	34.79	38.45	41.30	54.0	-12.70	AV
7440.970	3.02	36.19	34.90	42.67	46.98	74.0	-27.02	Peak
7440.970	3.02	36.20	35.20	40.33	44.35	54.0	-9.65	AV
9920.000	---	---	---	---	---	---	---	---
12400.00	---	---	---	---	---	---	---	---
14880.00	---	---	---	---	---	---	---	---
17360.00	---	---	---	---	---	---	---	---

Remark：

(1) Measuring frequencies from 1 GHz to the 25 GHz。

(2) “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency.

(3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.

(4) Data of measurement within this frequency range shown “--- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.

(6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.

5 BAND EDGE

5.1 Limits

FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

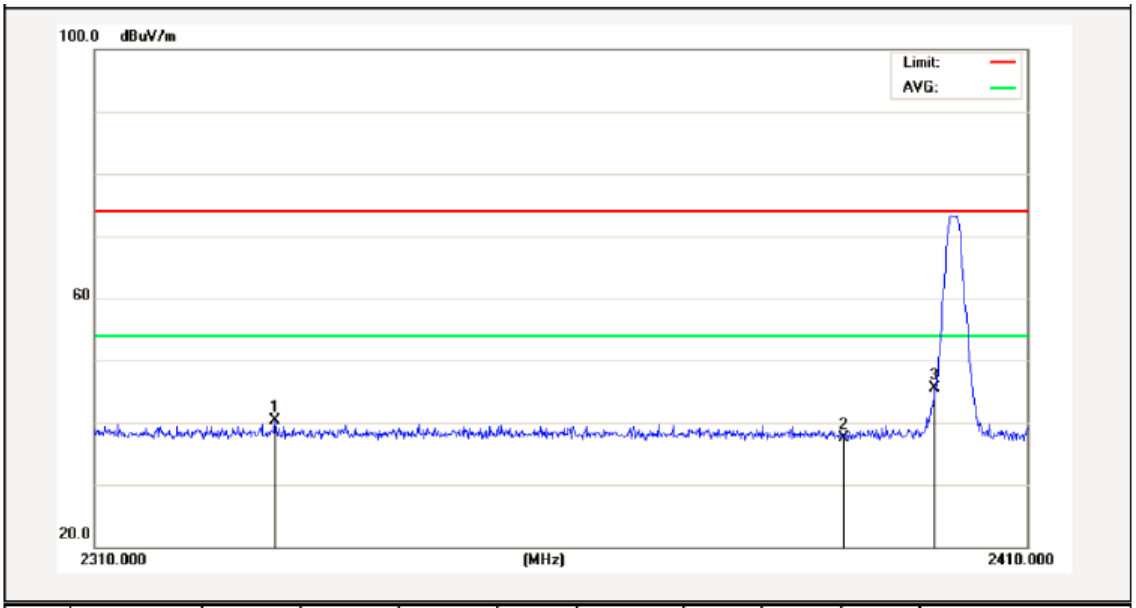
5.2 Test Procedure

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW to 100KHz and VBM to 300KHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength.The conducted RF band edge was measured by using a spectrum analyzer. Set span wide enough to capture the highest in-band emission and the emission at the band edge. Set RBW to 100 KHz and VBW to 300 KHz, to measure the conducted peak band edge.

5.3 Test Result

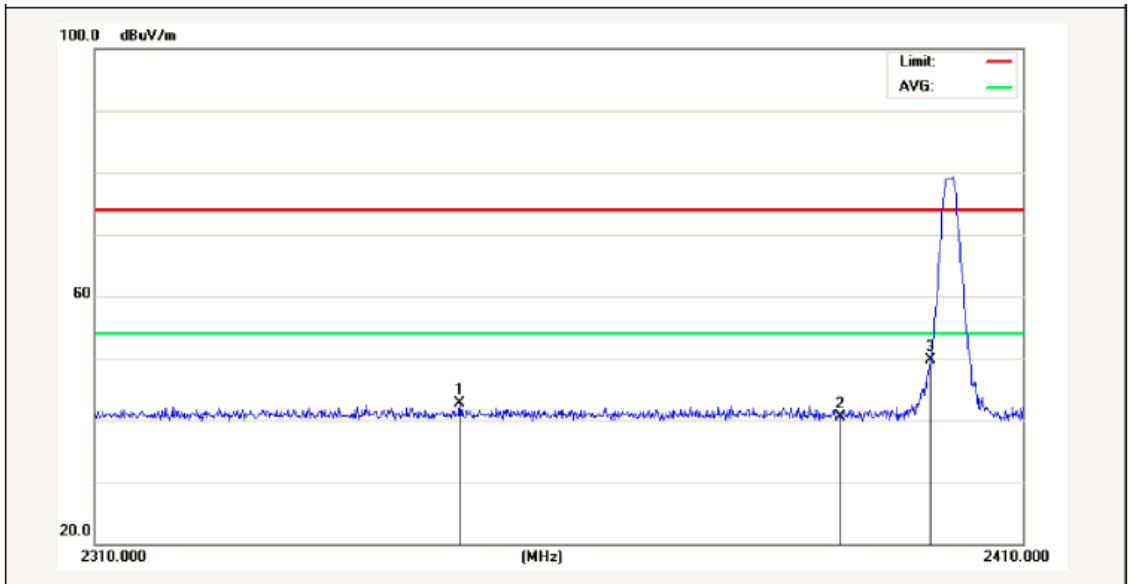
PASS

Radiated Test:
Operation Mode: TX Low CH
Antenna Polarity: Hor.



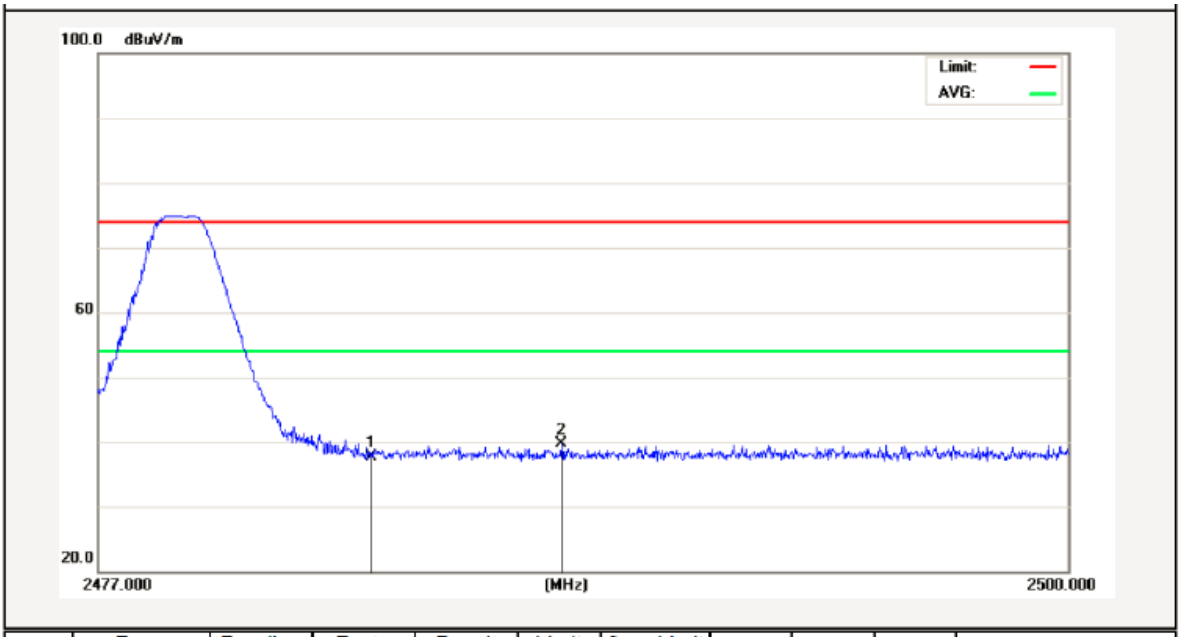
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2329.100	40.60	-0.33	40.27	74.00	-33.73	peak			
2	2390.000	37.92	-0.46	37.46	74.00	-36.54	peak			
3	2400.000	45.95	-0.49	45.46	74.00	-28.54	peak			

Operation Mode: TX Low CH
Antenna Polarity: Ver.



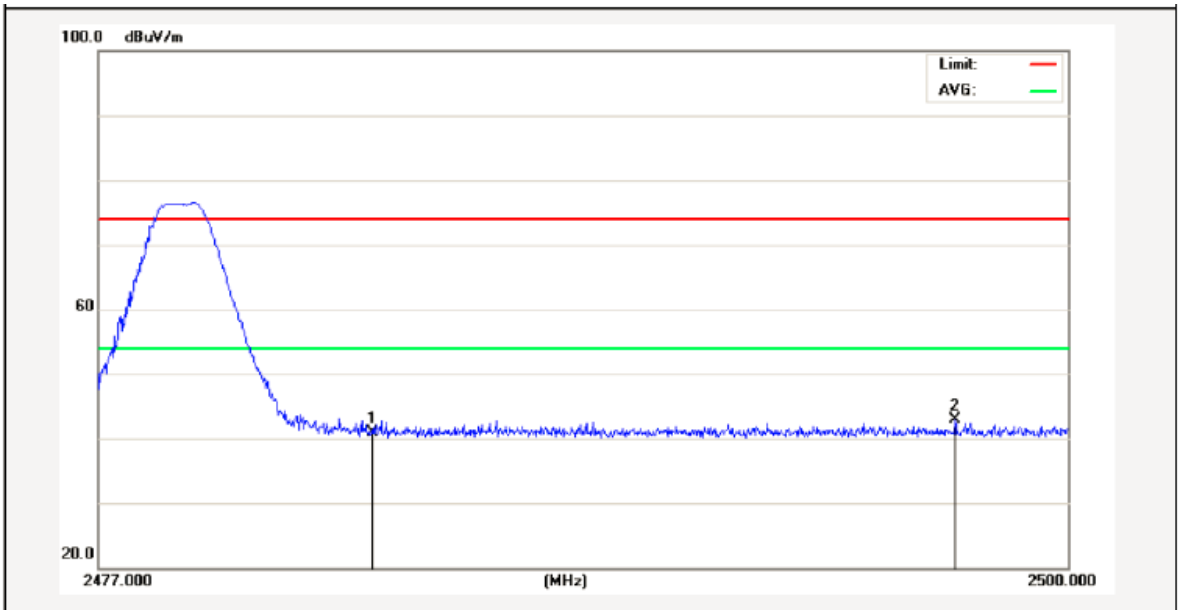
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2348.900	40.41	2.22	42.63	74.00	-31.37	peak			
2	2390.000	38.36	2.22	40.58	74.00	-33.42	peak			
3	2400.000	47.44	2.21	49.65	74.00	-24.35	peak			

Operation Mode: TX High CH
Antenna Polarity: Hor.



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	38.42	-0.67	37.75	74.00	-36.25	peak			
2	2487.971	40.34	-0.68	39.66	74.00	-34.34	peak			

Operation Mode: TX High CH
Antenna Polarity: Ver.



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	2483.500	38.75	2.20	40.95	74.00	-33.05	peak			
2	2497.309	40.65	2.20	42.85	74.00	-31.15	peak			

6 OCCUPIED BANDWIDTH MEASUREMENT

6.1 Test Setup

Same as Radiated Emission Measurement

6.2 Test Procedure

1. The EUT was placed on a turn table which is 1.5m above ground plane.
2. Set EUT as normal operation.
3. Based on FCC Part15 C Section 15.239(a): RBW= 10KHz. VBW= 30 KHz, Span=1MHz.
4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

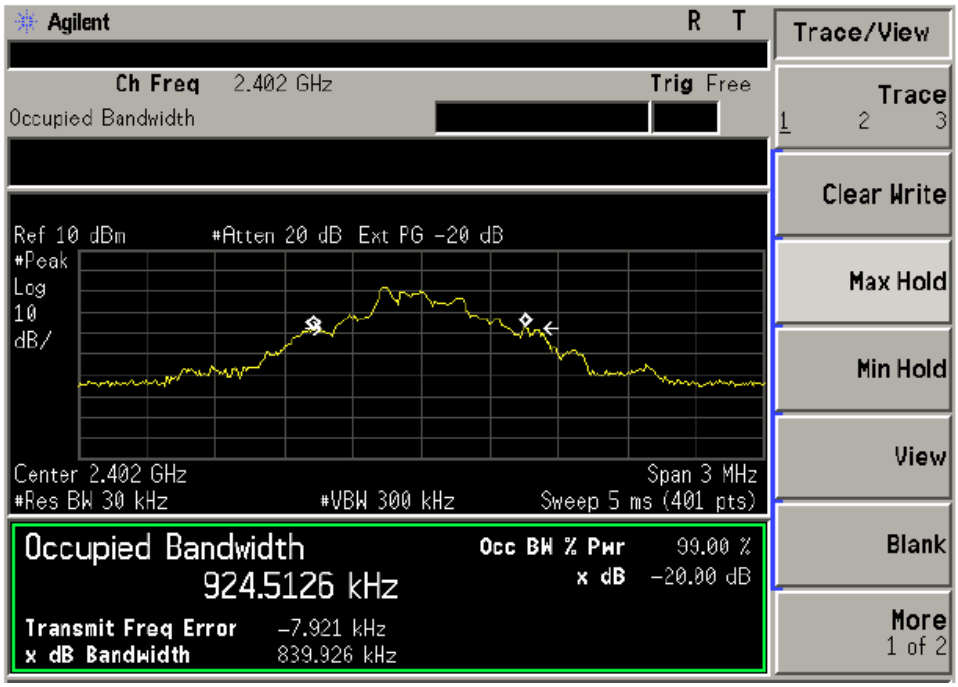
6.3 Measurement Equipment Used

Same as Radiated Emission Measurement

6.4 Test Result

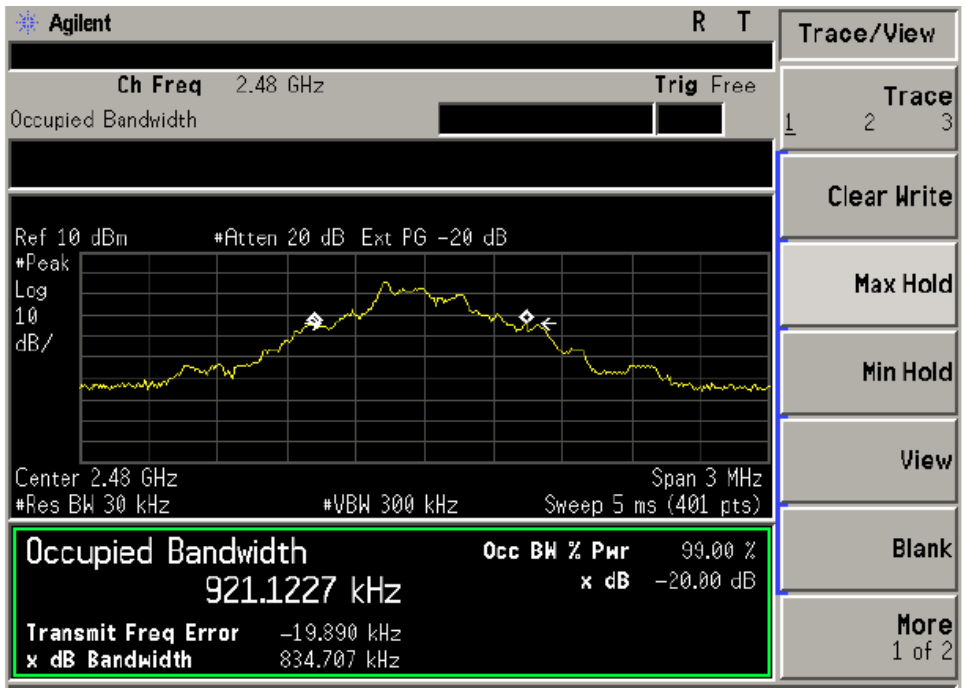
PASS

CH: 2402MHz



CH: 2441MHz

CH: 2480MHz



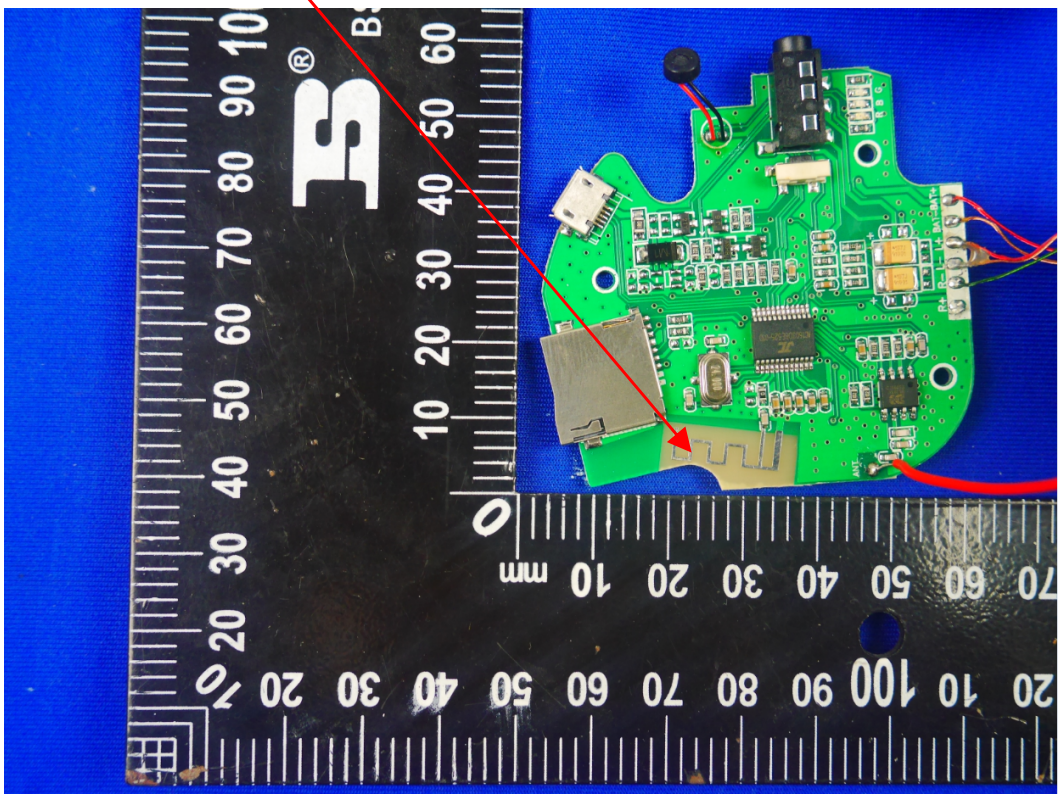
7 ANTENNA REQUIREMENT

Standard Applicable
For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.249, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Refer to statement below for compliance.
The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

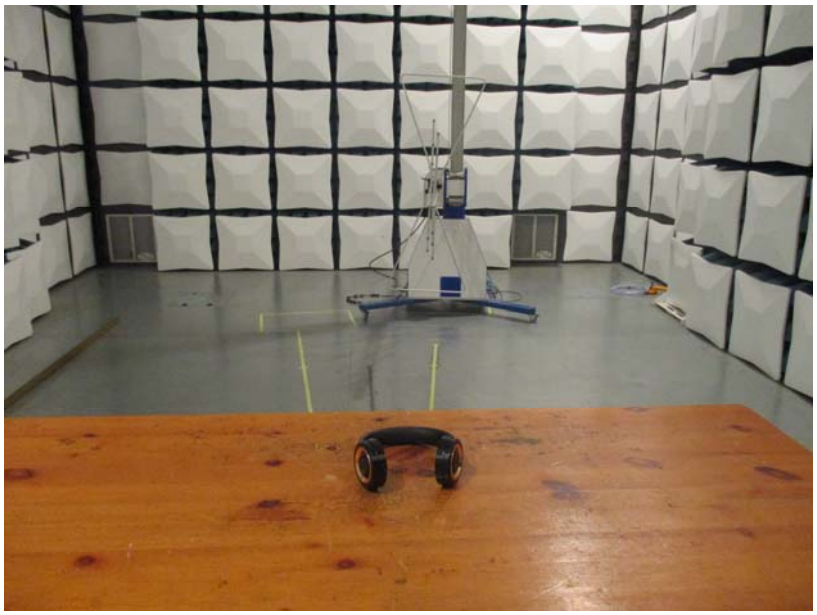
Antenna Connected Construction
The antenna used in this product is a PCB Antenna, The directional gains of antenna used for transmitting is 0dBi.

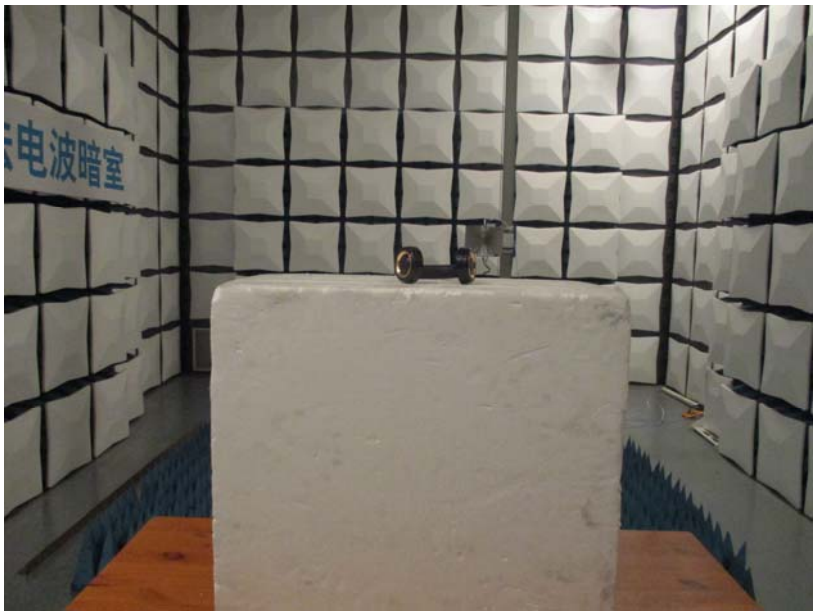
ANTENNA



8 PHOTOGRAPH OF TEST

8.1 Radiated Emission





8.2 Conducted Emission