



FCC TEST REPORT

**Test report
On Behalf of
INNOVATIVE CONCEPTS AND DESIGN LLC
For
Bamboo speaker
Model No.: BRS-130,BRS-230,BRS-330,BRS-430
FCC ID: 2AE6G-BRS130**

Prepared for : INNOVATIVE CONCEPTS AND DESIGN LLC
107 Trumbull Street – Bldg. F8,Elizabeth, NJ 07206 USA

Prepared By : Shenzhen HUAK Testing Technology Co., Ltd.
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Bao'an District, Shenzhen City, China

Date of Test: Jun. 27, 2018 ~ Jul. 16, 2018

Date of Report: Jul. 16, 2018

Report Number: HK1904300959-E



TEST RESULT CERTIFICATION

Applicant's name : INNOVATIVE CONCEPTS AND DESIGN LLC
 Address : 107 Trumbull Street – Bldg. F8,Elizabeth, NJ 07206 USA
Manufacturer's Name..... : CHRIES TECHNOLOGY CO.,LTD
 Address : Honghualing Industrial Zone 1,Yuhu Village Longgang Distrst,
 shenzhen,china

Product description
 Trade Mark: GEMINI
 Product name..... : Bamboo speaker
 Model and/or type reference : BRS-130,BRS-230,BRS-330,BRS-430
Standards..... : FCC Rules and Regulations Part 15 Subpart C Section 15.249
 ANSI C63.10: 2013

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Date of Test :
 Date (s) of performance of tests : **Apr. 29, 2019~ Jun. 12, 2019**
 Date of Issue..... : **Jun. 12, 2019**
 Test Result..... : **Pass**

Testing Engineer : Gary Qian
 (Gary Qian)

Technical Manager : Eden Hu
 (Eden Hu)

Authorized Signatory : Jason Zhou
 (Jason Zhou)



Table of Contents	Page
1 . TEST SUMMARY	4
2 . GENERAL INFORMATION	5
2.1 GENERAL DESCRIPTION OF EUT	5
2.2 Operation of EUT during testing	6
2.3 DESCRIPTION OF TEST SETUP	7
2.4 MEASUREMENT INSTRUMENTS LIST	8
3 . CONDUCTED EMISSIONS TEST	9
3.1 Conducted Power Line Emission Limit	9
3.2 Test Setup	9
3.3 Test Procedure	9
3.4 Test Result	9
4 RADIATED EMISSION TEST	12
4.1 Radiation Limit	12
4.2 Test Setup	12
4.3 Test Procedure	13
4.4 Test Result	13
5 BAND EDGE	20
5.1 Limits	20
5.2 Test Procedure	20
5.3 Test Result	20
6 OCCUPIED BANDWIDTH MEASUREMENT	22
6.1 Test Setup	22
6.2 Test Procedure	22
6.3 Measurement Equipment Used	22
6.4 Test Result	22
7 ANTENNA REQUIREMENT	24
8 PHOTOGRAPH OF TEST	25
8.1 Radiated Emission	25
8.2 Conducted Emission	26



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 HUAKE Testing Technology Co., Ltd.

Address : 1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street, Bao'an District, Shenzhen City, China

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	Bamboo speaker
Model Name	BRS-130
Serial No	BRS-230,BRS-330,BRS-430
Model Difference	All models are identical except model name.
FCC ID	2AE6G-BRS130
Antenna Type	PCB onboard antenna
Antenna Gain	0 dBi
BT Operation frequency	2402-2480MHz
Number of Channels	40CH
Modulation Type	GFSK
PowerSource	DC7.4V From Battery or DC 5V from adapter with
Power Rating	DC7.4V From Battery or DC 5V from adapter with



2.1.1 Carrier Frequency of Channels

Channel	Frequency (MHz)
00	2402
01	2404
19	2440
.....
38	2478
39	2480

2.2 Operation of EUT during testing

Operating Mode

The mode is used: **Transmitting mode**

Low Channel: 2402MHz

Middle Channel: 2440MHz

High Channel: 2480MHz



2.3 DESCRIPTION OF TEST SETUP

Operation of EUT during Conducted testing:



Operation of EUT during Radiation and Above 1GHz Radiation testing:



● Adapter

Model: PL0652

Input: 100-240V~, 50/60Hz, 0.5A

Output: 5VDC, 1A



2.4 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 28, 2018	1 Year
2.	Receiver	R&S	ESCI 7	HKE-010	Dec. 28, 2018	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 28, 2018	1 Year
4.	Spectrum analyzer	R&S	FSP40	HKE-025	Dec. 28, 2018	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 28, 2018	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 28, 2018	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Dec. 28, 2018	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 28, 2018	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 28, 2018	1 Year
10.	Horn Antenna	Schwarzbeck	9120D	HKE-013	Dec. 28, 2018	1 Year
11.	Pre-amplifier	EMCI	EMC051845 SE	HKE-015	Dec. 28, 2018	1 Year
12.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 28, 2018	1 Year
13.	EMI Test Software EZ-EMC	Tonscend	JS1120-B Version	HKE-083	Dec. 28, 2018	N/A
14.	Power Sensor	Agilent	E9300A	HKE-086	Dec. 28, 2018	1 Year
15.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 28, 2018	1 Year
16.	Signal generator	Agilent	N5182A	HKE-029	Dec. 28, 2018	1 Year
17.	Signal Generator	Agilent	83630A	HKE-028	Dec. 28, 2018	1 Year
18.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 28, 2018	3 Year

3. CONDUCTED EMISSIONS TEST

3.1 Conducted Power Line Emission Limit

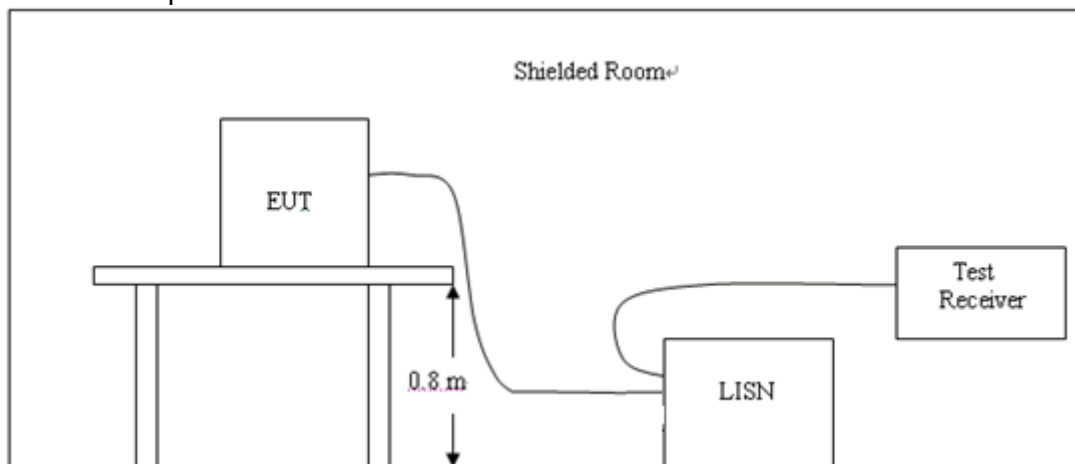
For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

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

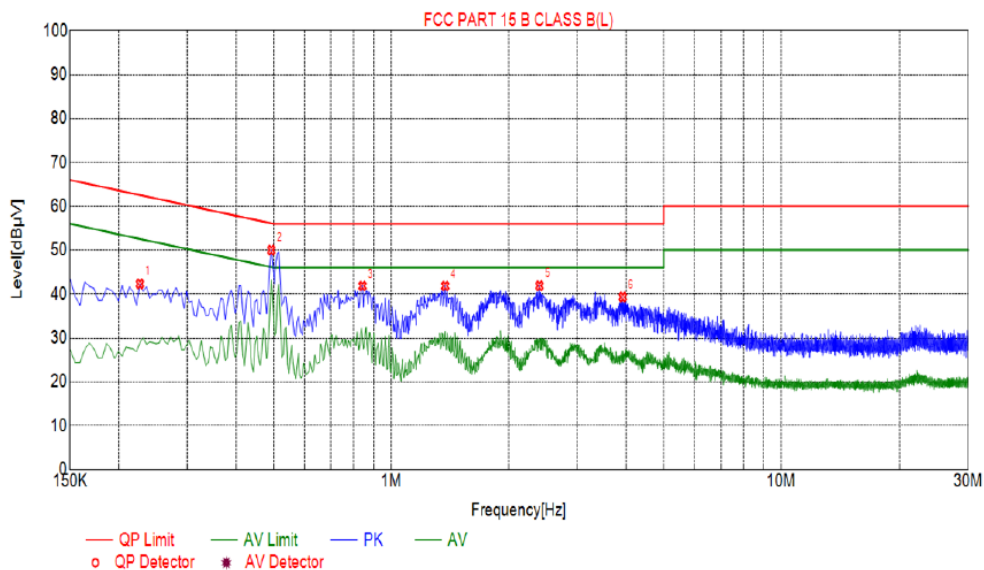
All the test modes completed for test.



Test Specification: Line

EUT :	Bamboo speaker	Model Name. :	BRS-130
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2019-06-06
Test Mode :	BT	Phase :	L
Test Voltage :	DC 5V by Adapter AC 120V/60Hz		

Test Graph



Suspected List						
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Detector
1	0.2265	42.32	10.03	62.58	20.26	PK
2	0.4920	50.03	10.04	56.13	6.10	PK
3	0.8430	41.84	10.06	56.00	14.16	PK
4	1.3740	41.83	10.11	56.00	14.17	PK
5	2.4000	41.88	10.18	56.00	14.12	PK
6	3.9255	39.32	10.25	56.00	16.68	PK

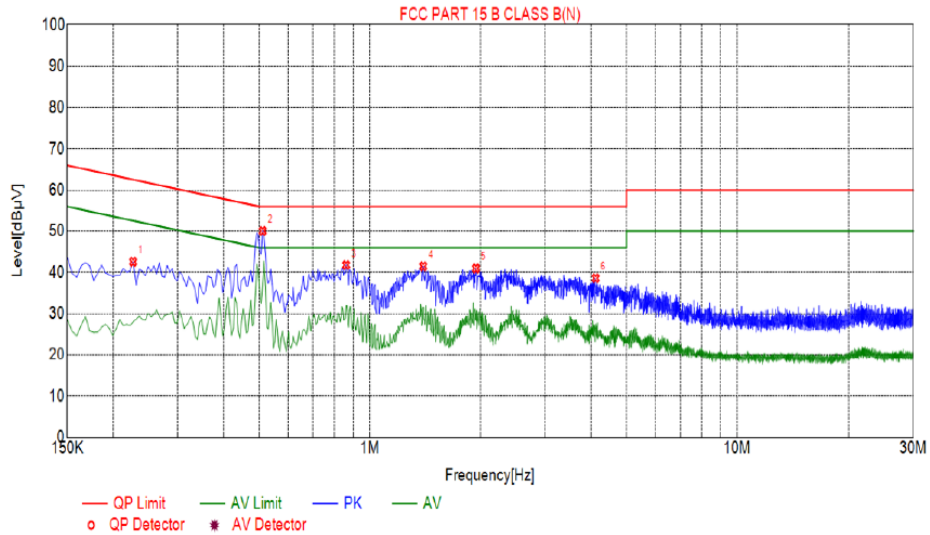
Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level



Test Specification: Neutral

EUT :	Bamboo speaker	Model Name. :	BRS-130
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2019-06-06
Test Mode :	BT	Phase :	N
Test Voltage :	DC 5V by Adapter AC 120V/60Hz		

Test Graph



Suspected List						
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Detector
1	0.2265	42.59	10.03	62.58	19.99	PK
2	0.5100	50.06	10.04	56.00	5.94	PK
3	0.8610	41.78	10.06	56.00	14.22	PK
4	1.3965	41.47	10.11	56.00	14.53	PK
5	1.9455	40.97	10.14	56.00	15.03	PK
6	4.1190	38.62	10.25	56.00	17.38	PK

Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level

4 RADIATED EMISSION TEST

4.1 Radiation Limit

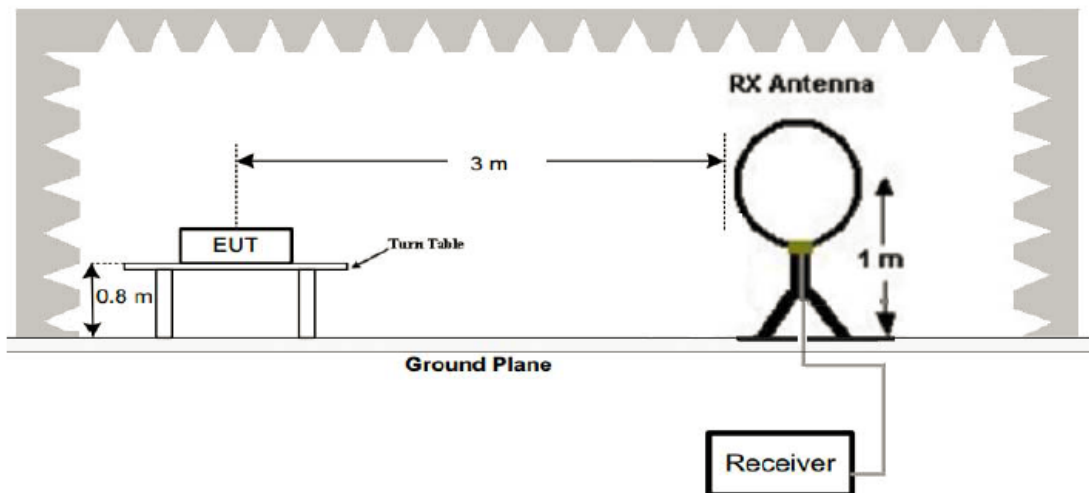
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
0.009-0.49	3	$20\log(2400/F(\text{KHz}))+40\log(300/3)$	$2400/F(\text{KHz})$
0.49-1.705	3	$20\log(24000/F(\text{KHz}))+40\log(30/3)$	$24000/F(\text{KHz})$
1.705-30	3	$20\log(30)+40\log(30/3)$	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

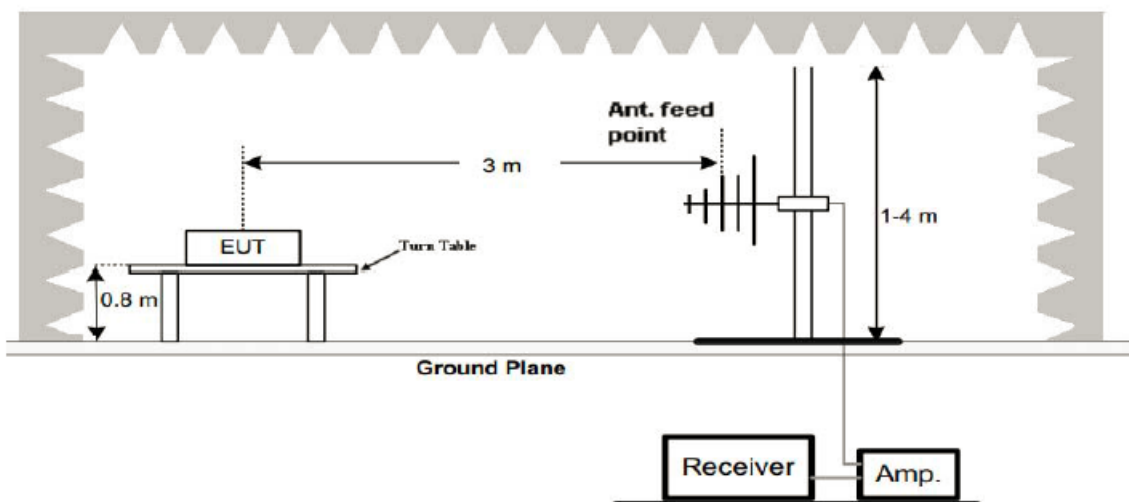
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2 Test Setup

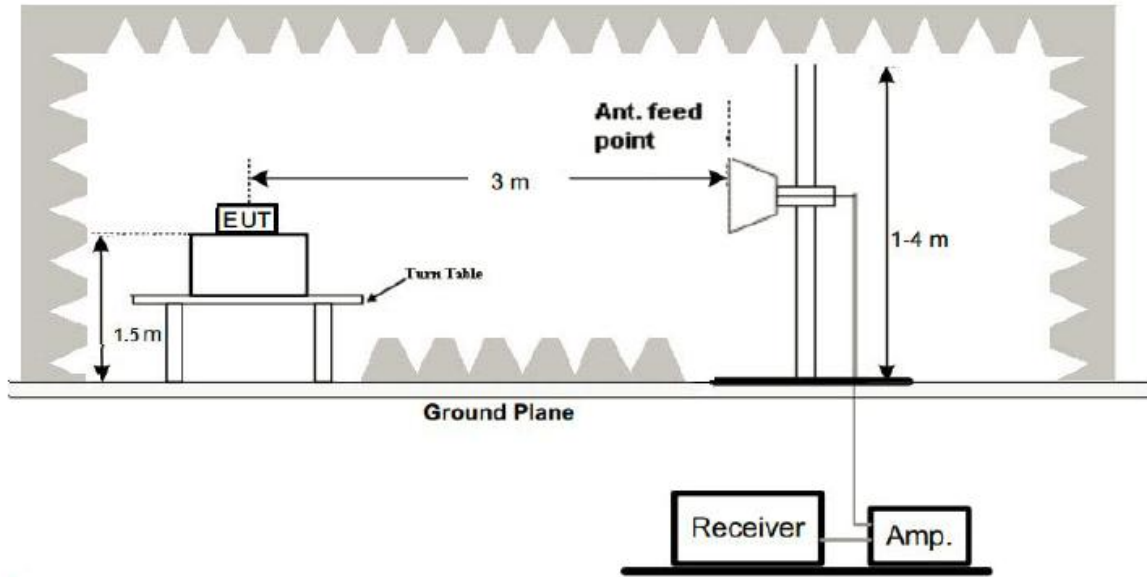
(1) Radiated Emission Test-Up Frequency Below 30MHz



(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

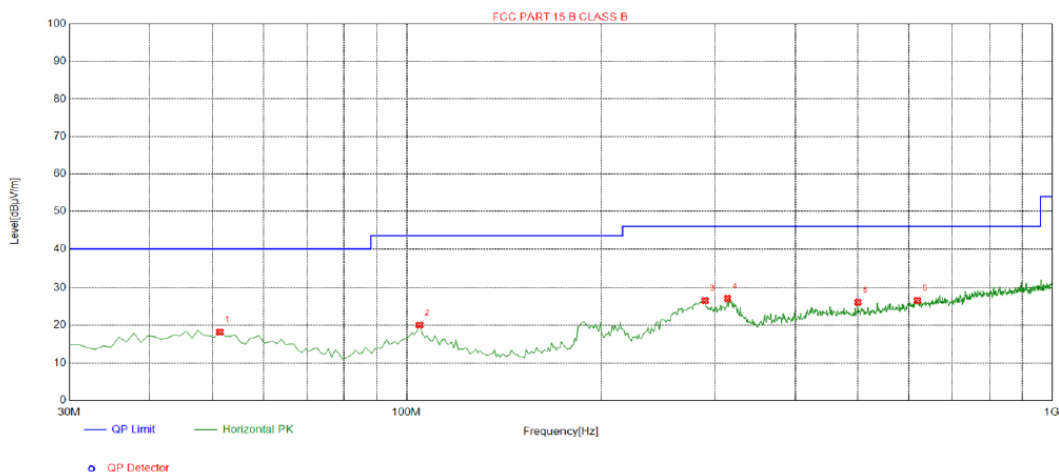
All the test modes completed for test. The worst case of Radiated Emission is CH 2402; the test data of this mode was reported.



Below 1GHz Test Results:

EUT :	Bamboo speaker	Model Name :	BRS-130
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2019-06-06
Test Mode :	BT	Polarization :	Horizontal
Test Power :	DC 5V by Adapter AC 120V/60Hz		

Test Graph



Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	51.3400	18.18	-13.85	40.00	21.82	100	348	Horizontal
2	104.690	20.08	-15.41	43.50	23.42	100	183	Horizontal
3	289.960	26.56	-12.84	46.00	19.44	100	348	Horizontal
4	314.210	27.12	-12.40	46.00	18.88	100	108	Horizontal
5	500.450	26.13	-8.29	46.00	19.87	100	226	Horizontal
6	618.790	26.60	-5.52	46.00	19.40	100	0	Horizontal

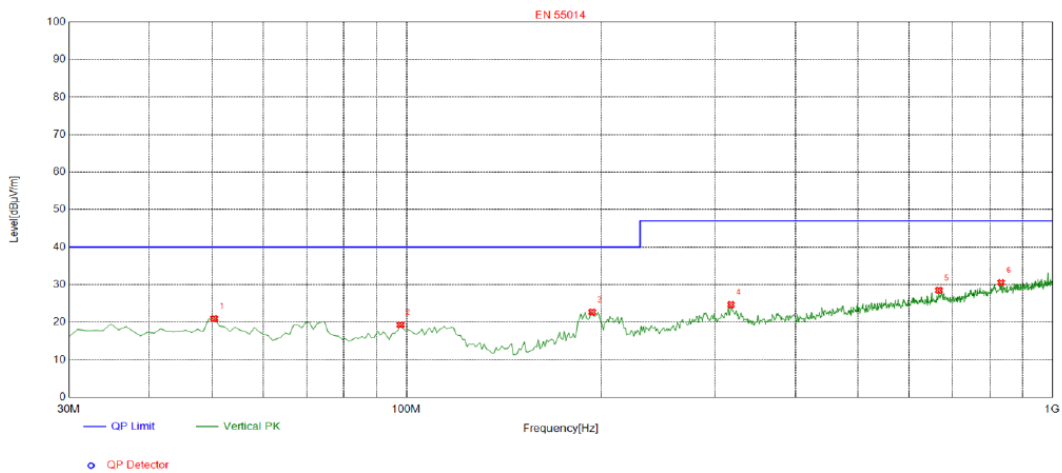
Final Data List

Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level



EUT :	Bamboo speaker	Model Name :	BRS-130
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2019-06-06
Test Mode :	BT	Polarization :	Vertical
Test Power :	DC 5V by Adapter AC 120V/60Hz		

Test Graph



Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	50.3700	20.98	-13.71	40.00	19.02	100	74	Vertical
2	97.9000	19.30	-15.75	40.00	20.70	100	237	Vertical
3	193.930	22.71	-15.64	40.00	17.29	100	116	Vertical
4	318.090	24.68	-12.20	47.00	22.32	100	129	Vertical
5	667.290	28.50	-4.73	47.00	18.50	100	13	Vertical
6	833.160	30.56	-2.48	47.00	16.44	100	165	Vertical

Final Data List

Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level

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:

CH Low (2402MHz)

Horizontal:

Frequency (MHz)	Reading Result (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
2402	105.76	-5.84	99.92	114	-14.08	
2402	81.43	-5.84	75.59	94	-18.41	AVG
4804	61.52	-3.64	57.88	74	-16.12	Peak
4804	42.78	-3.64	39.14	54	-14.86	AVG
7206	60.15	-0.95	59.2	74	-14.8	Peak
7206	42.07	-0.95	41.12	54	-12.88	AVG

Remark:Factor=Antenna Factor+Cable Loss-Pre-amplifier

Vertical:

Frequency (MHz)	Reading Result (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
2402	104.65	-5.84	98.81	114	-15.19	
2402	82.03	-5.84	76.19	94	-17.81	AVG
4804	61.37	-3.64	57.73	74	-16.27	Peak
4804	43.58	-3.64	39.94	54	-14.06	AVG
7206	61.24	-0.95	60.29	74	-13.71	Peak
7206	42.06	-0.95	41.11	54	-12.89	AVG

Remark:Factor=Antenna Factor+Cable Loss-Pre-amplifier



CH Middle (2440MHz)

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
2440	107.03	-5.71	101.32	114	-12.68	Peak
2440	82.59	-5.71	76.88	94	-17.12	AVG
4880	60.17	-3.51	56.66	74	-17.34	Peak
4880	41.52	-3.51	38.01	54	-15.99	AVG
7320	60.14	-0.82	59.32	74	-14.68	Peak
7320	39.73	-0.82	38.91	54	-15.09	AVG

Remark:Factor=Antenna Factor+Cable Loss-Pre-amplifier

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
2440	106.85	-5.71	101.14	114	-12.86	Peak
2440	81.38	-5.71	75.67	94	-18.33	AVG
4880	60.27	-3.51	56.76	74	-17.24	Peak
4880	43.16	-3.51	39.65	54	-14.35	AVG
7320	59.74	-0.82	58.92	74	-15.08	Peak
7320	40.59	-0.82	39.77	54	-14.23	AVG

Remark:Factor=Antenna Factor+Cable Loss-Pre-amplifier



CH High (2480MHz)

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
2480	107.36	-5.56	101.8	114	-12.2	Peak
2480	81.47	-5.56	75.91	94	-18.09	AVG
4960	61.52	-3.43	58.09	74	-15.91	Peak
4960	42.85	-3.43	39.42	54	-14.58	AVG
7440	62.94	-0.75	62.19	74	-11.81	Peak
7440	41.07	-0.75	40.32	54	-13.68	AVG

Remark:Factor=Antenna Factor+Cable Loss-Pre-amplifier

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
2480	105.34	-5.56	99.78	114	-14.22	Peak
2480	81.41	-5.56	75.85	94	-18.15	AVG
4960	60.58	-3.43	57.15	74	-16.85	Peak
4960	42.06	-3.43	38.63	54	-15.37	AVG
7440	59.78	-0.75	59.03	74	-14.97	Peak
7440	40.35	-0.75	39.6	54	-14.4	AVG

Remark:Factor=Antenna Factor+Cable Loss-Pre-amplifier



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. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
- (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.
- (7) All modes of operation were investigated and the worst-case emissions are reported.



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 ANSIC63.10 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 VBW 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 Band Edge Test:

Operation Mode: TX CH Low (2402MHz)

Horizontal (Worst case)

Frequency (MHz)	Reading Result (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
2310	53.12	-5.81	47.31	74	-26.69	Peak
2310	41.59	-5.81	35.78	54	-18.22	AVG
2390	54.19	-5.84	48.35	74	-25.65	Peak
2390	42.25	-5.84	36.41	54	-17.59	AVG
2400	53.86	-5.95	47.91	74	-26.09	Peak
2400	41.81	-5.95	35.86	54	-18.14	AVG

Remark: Factor=Antenna Factor+Cable Loss-Pre-amplifier

Vertical:

Frequency (MHz)	Reading Result (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
2310	54.28	-5.81	48.47	74	-25.53	Peak
2310	42.54	-5.81	36.73	54	-17.27	AVG
2390	53.16	-5.84	47.32	74	-26.68	Peak
2390	42.87	-5.84	37.03	54	-16.97	AVG
2400	56.55	-5.95	50.6	74	-23.4	Peak
2400	42.83	-5.95	36.88	54	-17.12	AVG

Remark: Factor=Antenna Factor+Cable Loss-Pre-amplifier



Operation Mode: TX CH High (2480MHz)

Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
2483.5	56.28	-5.81	50.47	74	-23.53	Peak
2483.5	42.19	-5.81	36.38	54	-17.62	AVG
2500	55.73	-6.06	49.67	74	-24.33	Peak
2500	41.86	-6.06	35.8	54	-18.2	AVG

Remark:Factor=Antenna Factor+Cable Loss-Pre-amplifier

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
2483.5	55.25	-5.81	49.44	74	-24.56	Peak
2483.5	42.18	-5.81	36.37	54	-17.63	AVG
2500	56.39	-6.06	50.33	74	-23.67	Peak
2500	43.06	-6.06	37	54	-17	AVG

Remark:Factor=Antenna Factor+Cable Loss-Pre-amplifier



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 0.8m above ground plane.
2. Set EUT as normal operation.
3. Based on ANSI C63.10 section 6.9.2: RBW= 30KHz. VBW= 100 KHz, Span=2MHz.
4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

6.3 Measurement Equipment Used

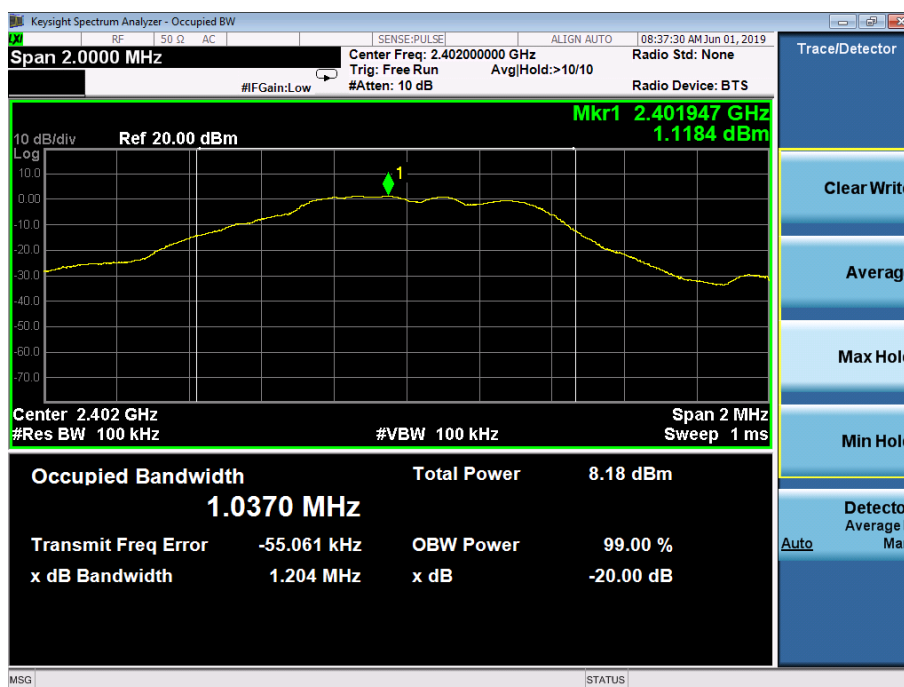
Same as Radiated Emission Measurement

6.4 Test Result

PASS

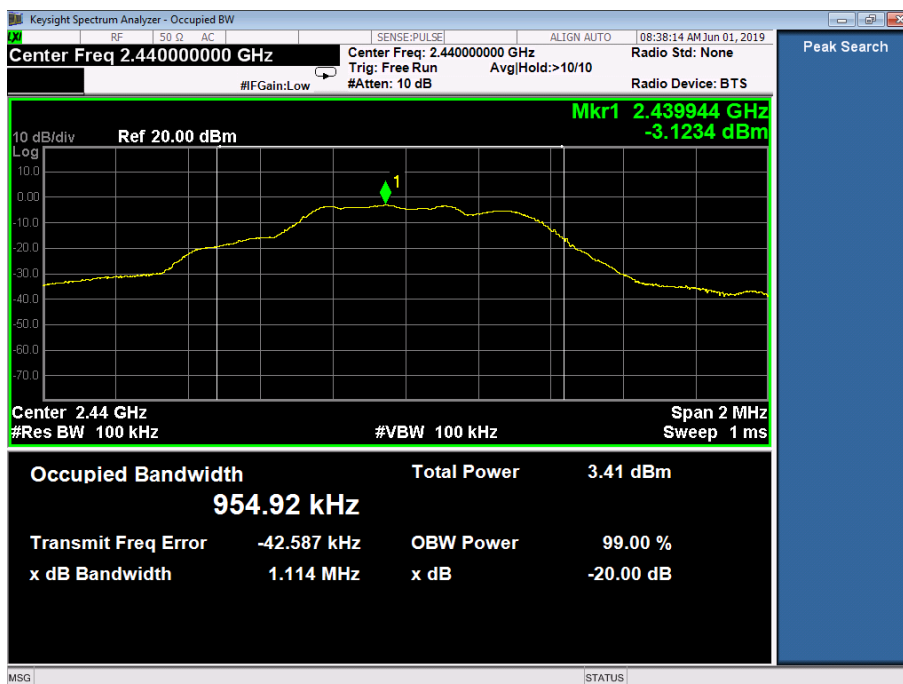
Frequency	20dB Bandwidth (MHz)	Result
2402 MHz	1.037	PASS
2441 MHz	0.955	PASS
2480 MHz	1.026	PASS

CH: 2402MHz

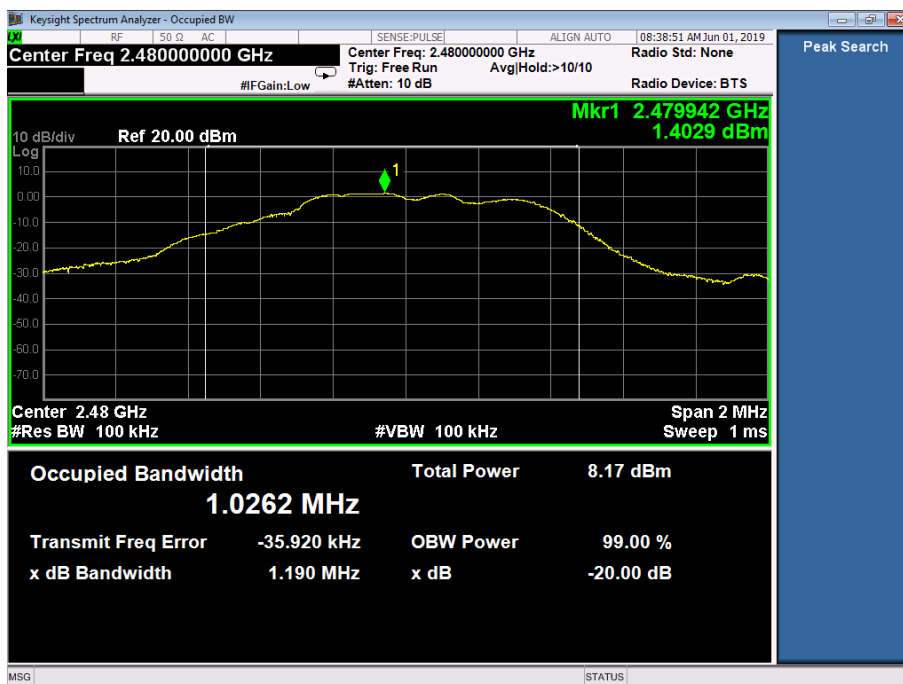




CH: 2441MHz



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.

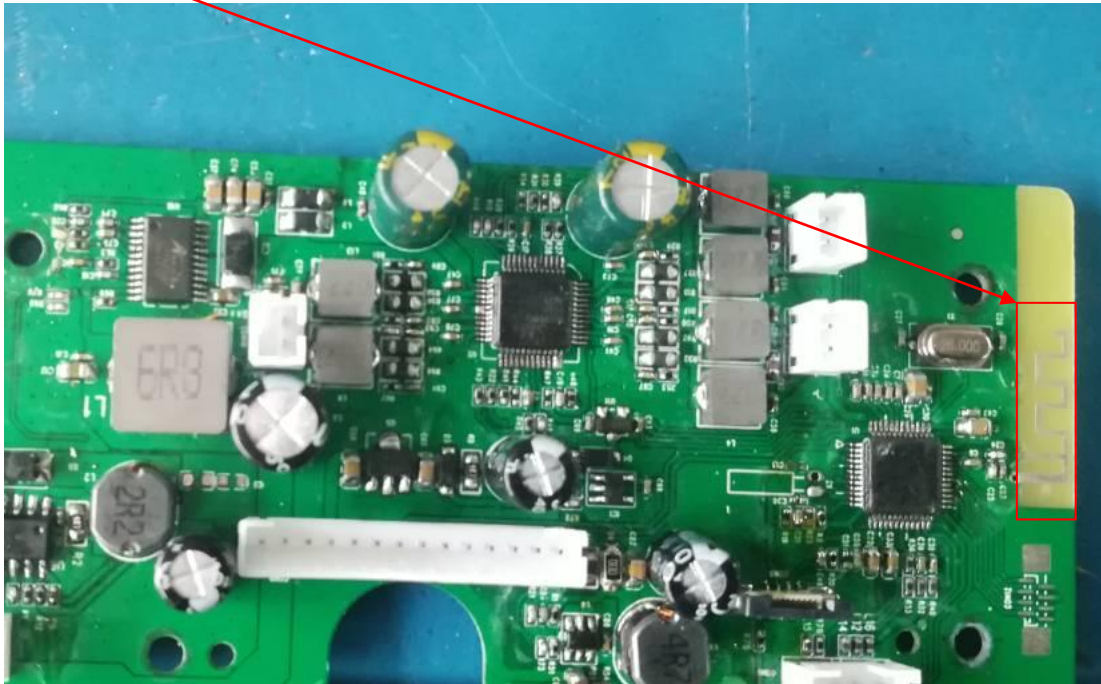
Refer to statement below for compliance.

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

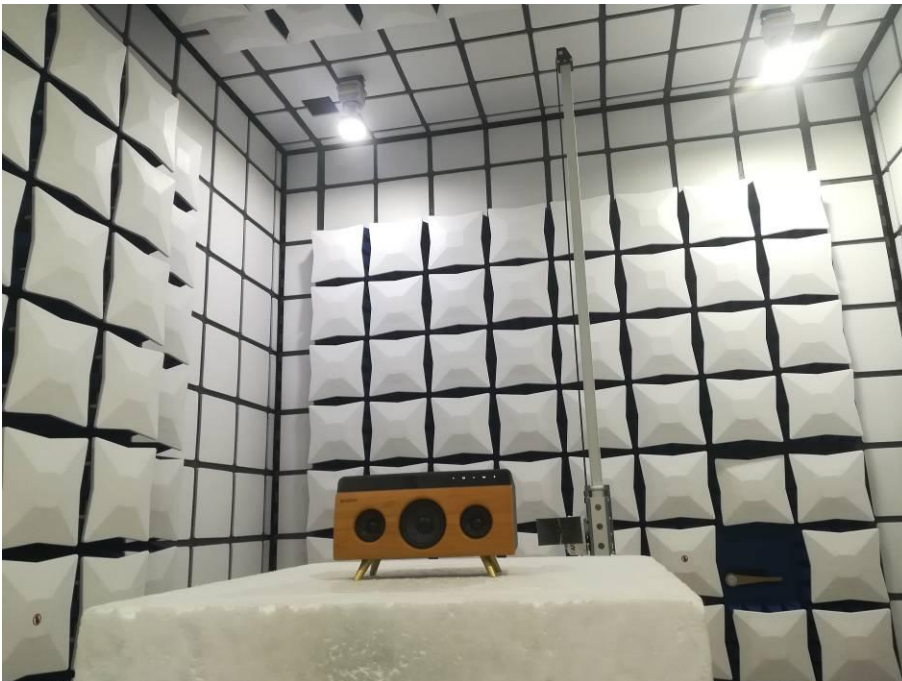
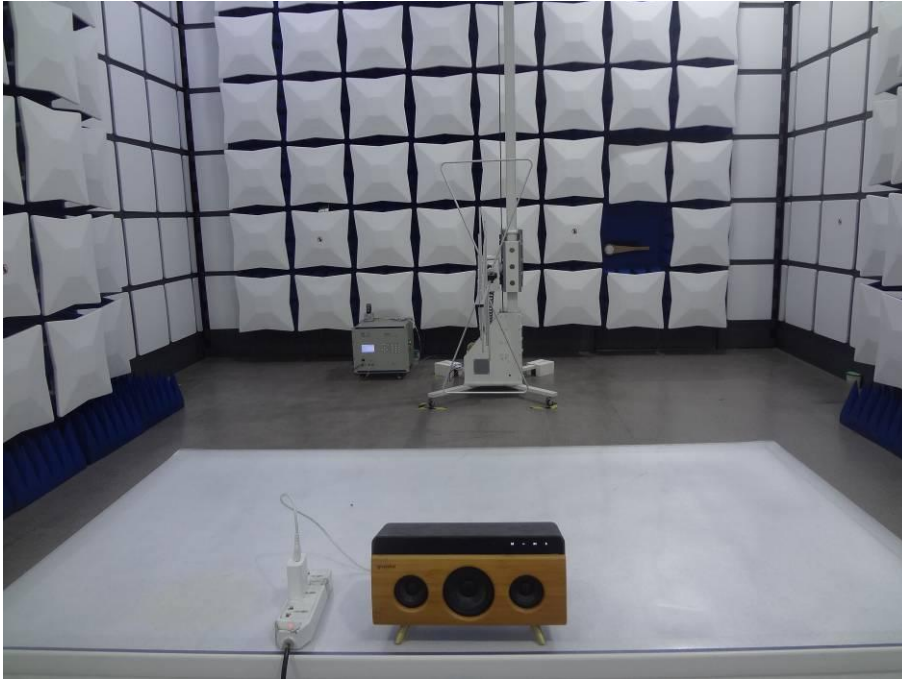
The antenna used in this product is a CHIP Antenna, The directional gains of antenna used for transmitting is 0.8dBi.

ANTENNA

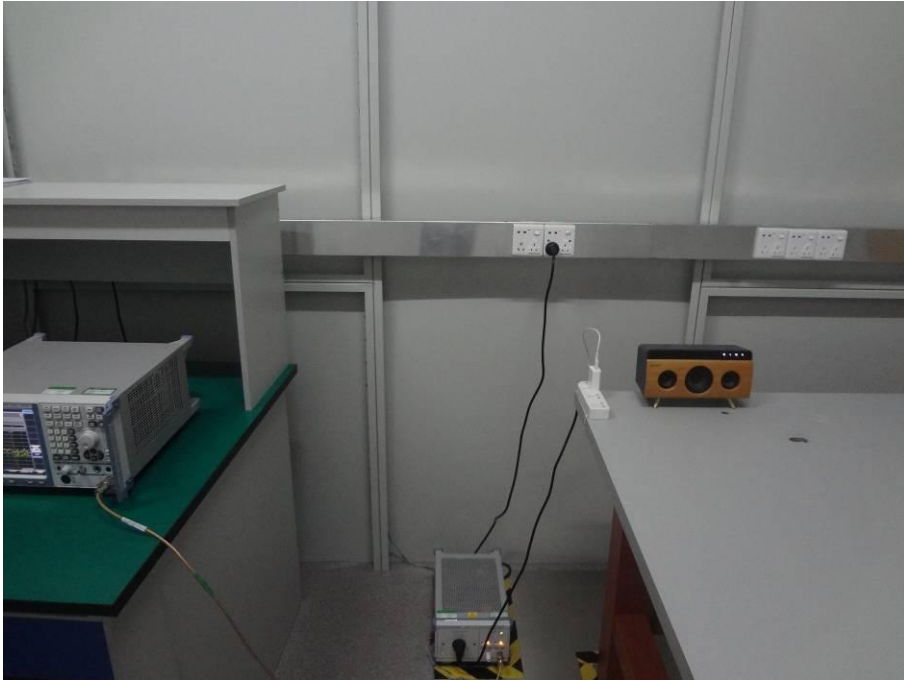


8 PHOTOGRAPH OF TEST

8.1 Radiated Emission



8.2 Conducted Emission



EUT

Photo 1



Photo 2



Photo 3

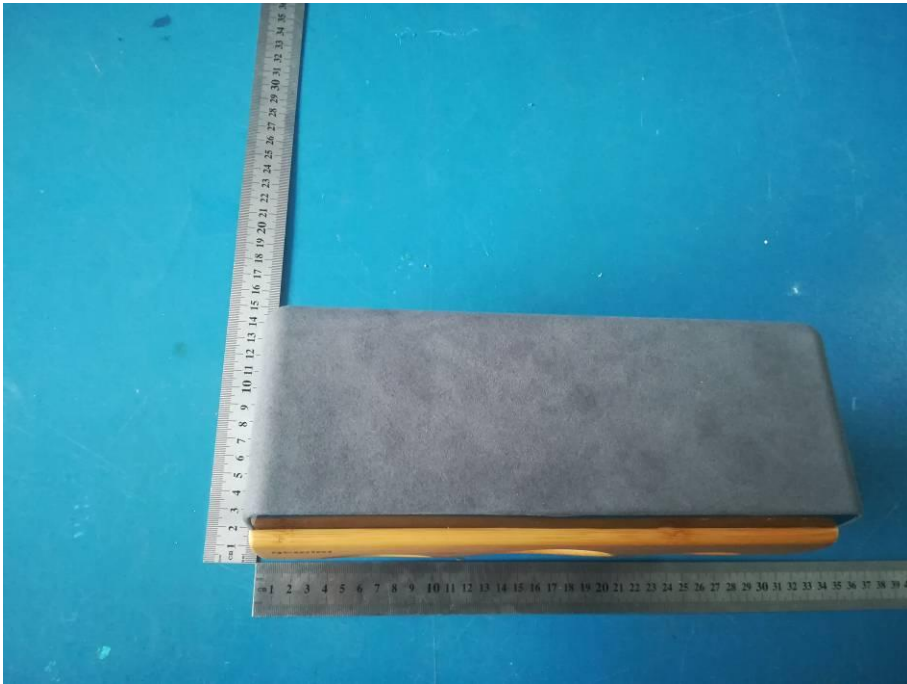


Photo 4



Photo 5

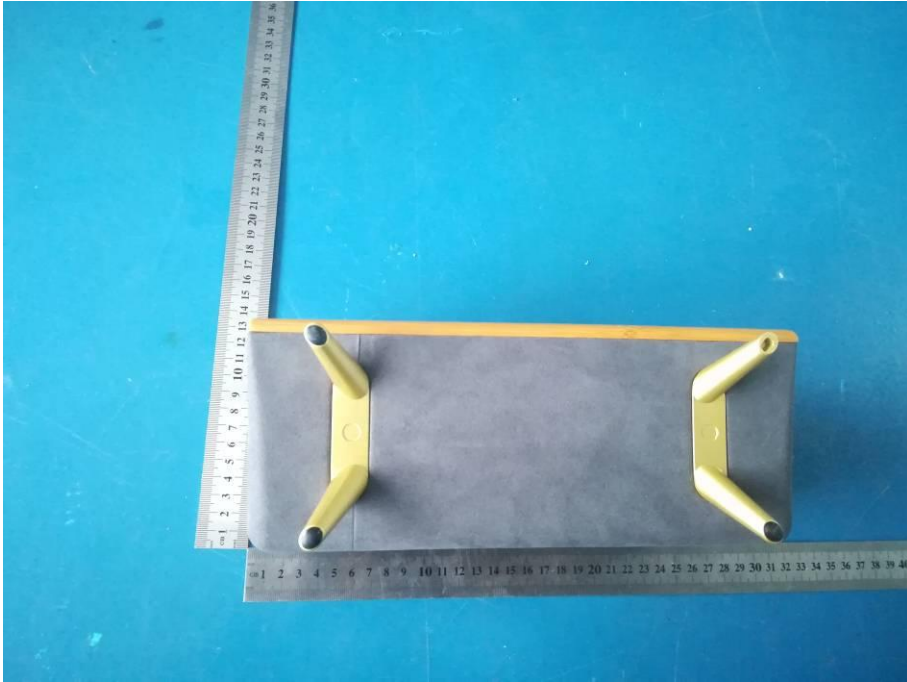


Photo 6

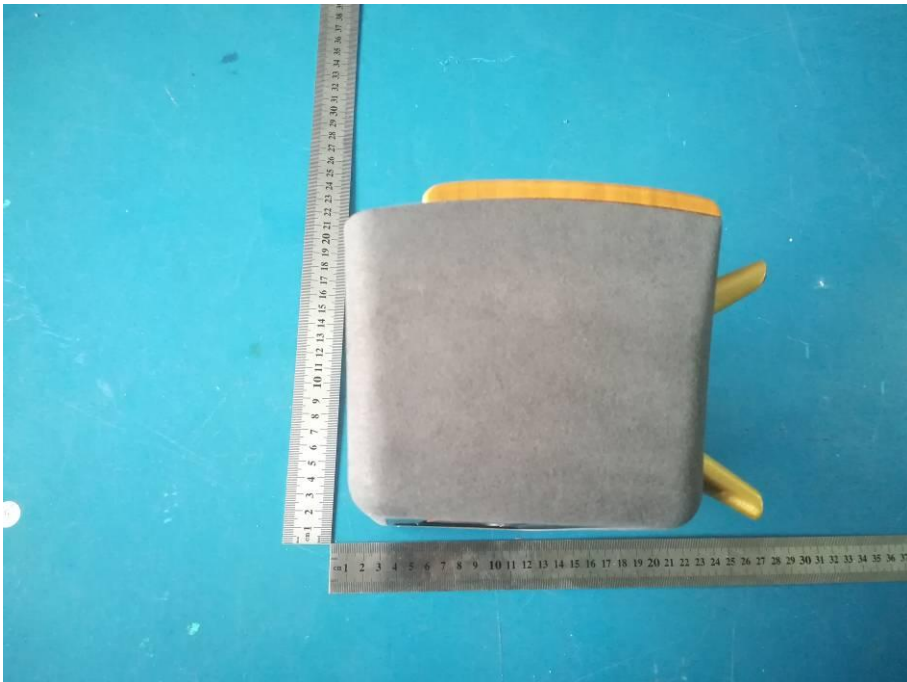


Photo 7

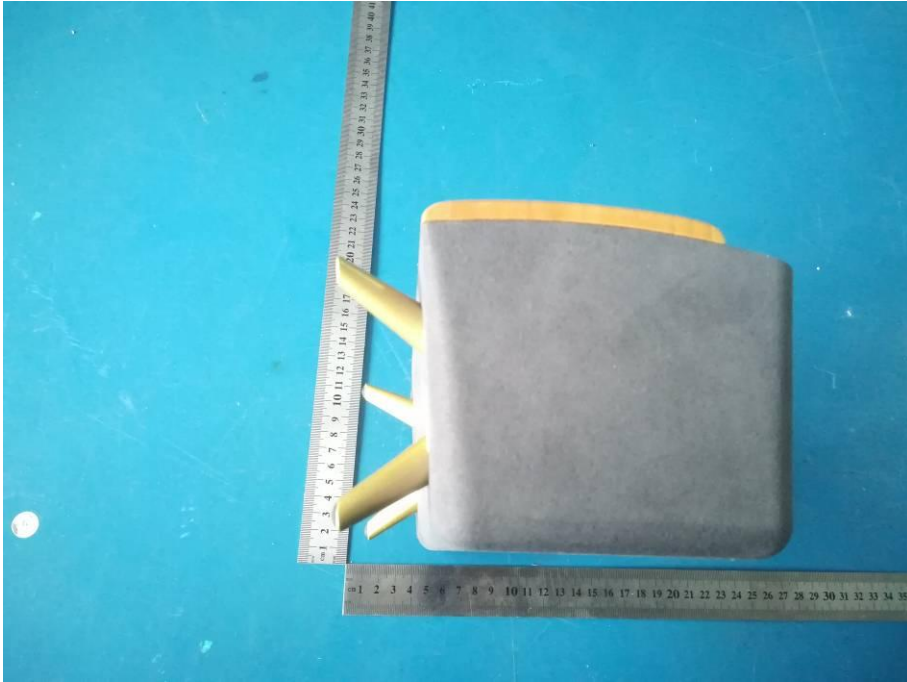


Photo 8



Photo 9

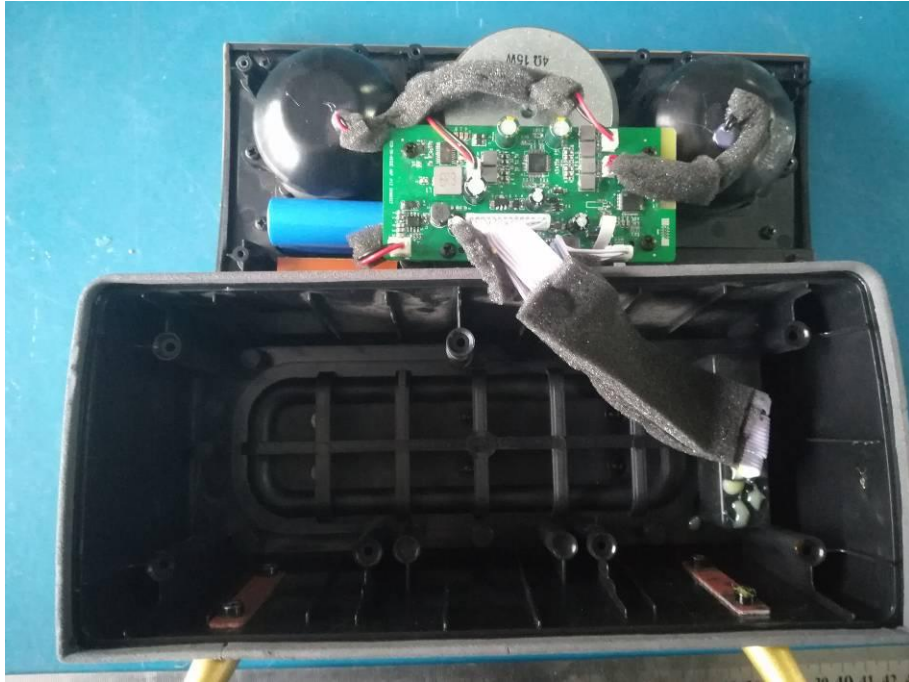


Photo 10

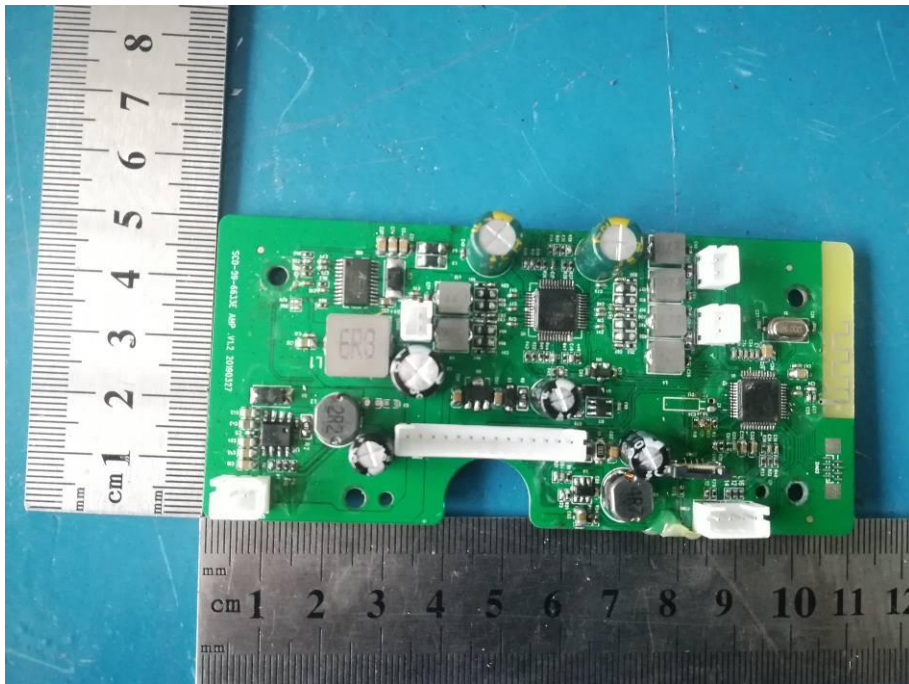


Photo 11

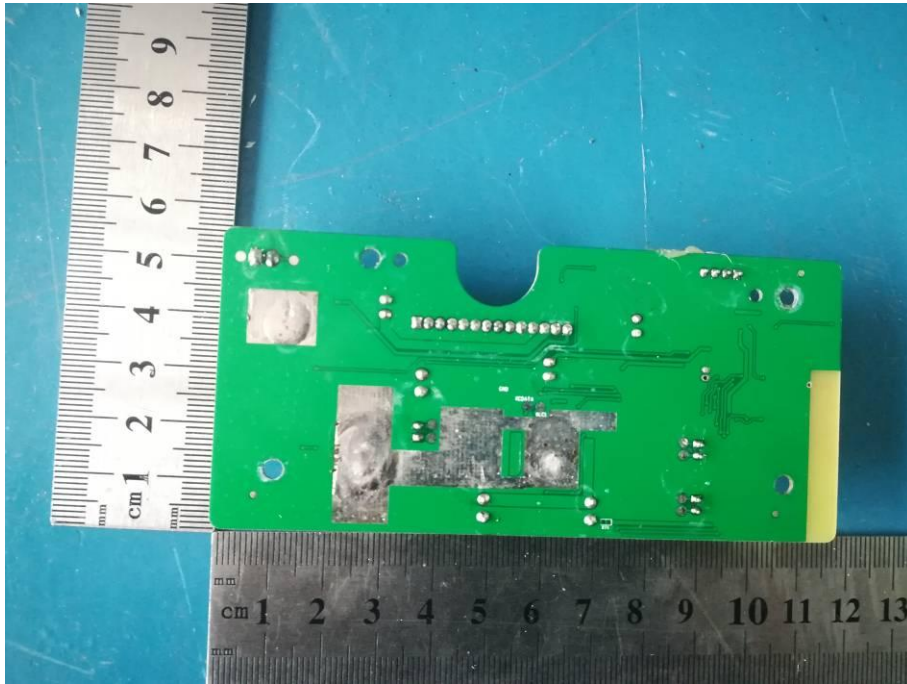


Photo 12



Photo 13

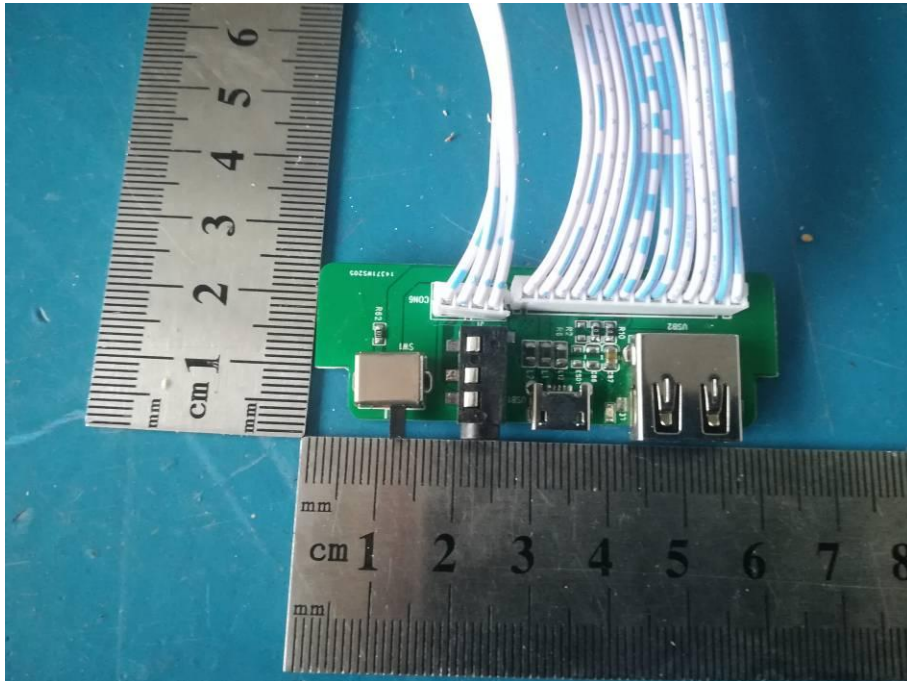
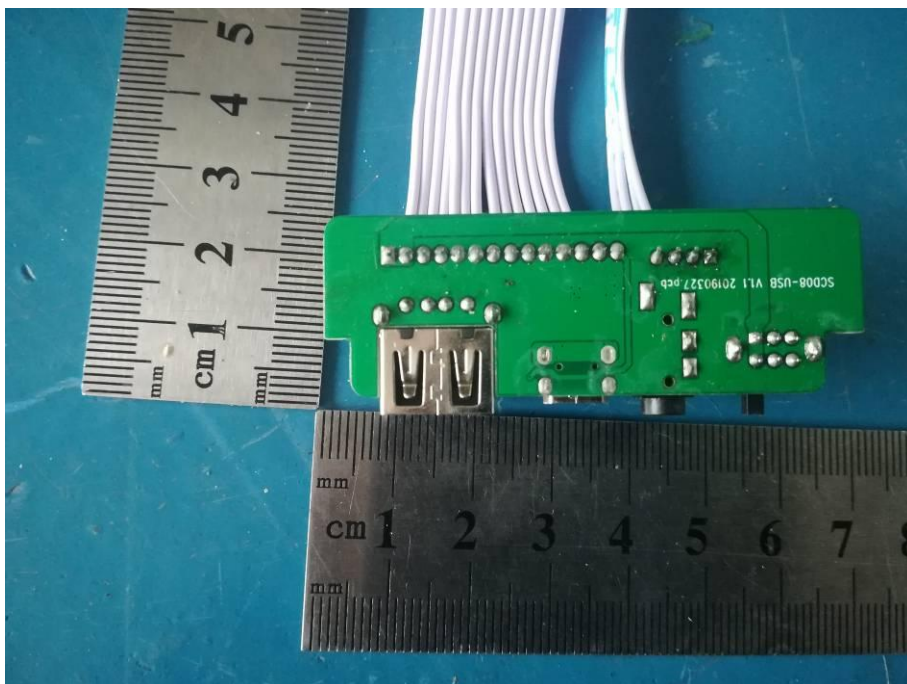


Photo 14



-----End of Report-----