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FCC TESTREPORT

Report No: STS1503011F03

Issued for

DONGGUAN TAIDE INDUSTRIAL CO., LTD.

**Phase 2, Jinfenghuang Industrial District, Huangdong Village,
Fenggang Town, Dongguan City, China.**

Application Purpose:	Class II Permissive Change
Product Name:	Bluetooth speaker
Brand Name:	N/A
Model No.:	See page 6
FCC ID:	OYCBT008
Test Standard:	FCC Part 15.247

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Shenzhen STS Test Services Co., Ltd.

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**TEST RESULT CERTIFICATION**

Applicant's name DONGGUAN TAIDE INDUSTRIAL CO., LTD.
Address Phase 2, Jinfenghuang Industrial District, Huangdong Village,
Fenggang Town, Dongguan City, China.
Manufacture's Name DONGGUAN TAIDE INDUSTRIAL CO.,LTD.
Address Phase 2, Jinfenghuang Industrial District, Huangdong Village,
Fenggang Town, Dongguan City, China.

Product description

Product name Bluetooth speaker
Band name N/A
Model and/or type reference BT008
Ratings DC 3.7V by Battery

Standards FCC Part15.247

Test procedure ANSI C63.4-2009

This device described above has been tested by STS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test

Date (s) of performance of tests.. Dec.30,2014 to Jan.04,2015

Date of Issue..... Jan.05,2015

Test Result **Pass**

Testing Engineer :

(Tony Liu)

Technical Manager :

(Vita Li)

Authorized Signatory :

(Bovey Yang)





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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Judgment	Remark
§15.203	Antenna Requirement	Compliant	
§15.209 §15.247(d)	Radiated Emission	Compliant	
§15.247(d)	Band Edges	Compliant	





1.1 TEST FACILITY

Shenzhen STS Test Services Co., Ltd.

Add. : 1/F, Building 2, Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China.

FCC Registration No.: 842334; IC Registration No.: 12108A-1

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 3.18\text{dB}$
2	RF power,conducted	$\pm 0.16\text{dB}$
3	Spurious emissions,conducted	$\pm 0.21\text{dB}$
4	All emissions,radiated(<1G)	$\pm 4.68\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.71\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Bluetooth speaker
Trade Name	N/A
Model Name	BT008
Series Model	BT7500BLK,7xxxxB(X means number from 0 to 9), 3xxxB(X means number from 0 to 9),NGS-008BT, SSBT008,ETC
Model difference	All the same except for the model name
Channel List	Please refer to the Note 2.
Bluetooth	Frequency:2402 – 2480 MHz Modulation: GFSK
Battery	Rated Voltage: 3.7V Charge Limit: 4.2V
Hardware version number	N/A
Software versioning number	N/A
Connecting I/O Port(s)	Please refer to the User's Manual

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. The Model is all the same to the original model except for some internal components on the board but not module, so that only Radiated Emission were verified for the differences based on the original product. The original report can be referred to AGC00931140305FE08.



2.

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2.402 MHz	14	2.430MHz	28	2.458 MHz
1	2.404MHz	15	2.432 MHz	29	2.460 MHz
2	2.406 MHz	16	2.434 MHz	30	2.462 MHz
3	2.408 MHz	17	2.436 MHz	31	2.464 MHz
4	2.410 MHz	18	2.438 MHz	32	2.466 MHz
5	2.412 MHz	19	2.440 MHz	33	2.468 MHz
6	2.414 MHz	20	2.442MHz	34	2.470 MHz
7	2.416 MHz	21	2.444 MHz	35	2.472 MHz
8	2.418 MHz	22	2.446 MHz	36	2.474 MHz
9	2.420 MHz	23	2.448 MHz	37	2.476 MHz
10	2.422 MHz	24	2.450 MHz	38	2.478 MHz
11	2.424 MHz	25	2.452 MHz	39	2.480 MHz
12	2.426 MHz	26	2.454 MHz		
13	2.428 MHz	27	2.456 MHz		

3. Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	PCB Antenna	NA	0	BT Antenna

The EUT antenna is PCB Antenna. no antenna other than that furnished by the responsible party shall be used with the device.



2.1 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Low channel TX
Mode 2	Middle channel TX
Mode 3	High channel TX

For Conducted Emission	
Final Test Mode	Description
Mode 4	keeping TX

For Radiated Emission	
Final Test Mode	Description
Mode 1	Low channel TX
Mode 2	Middle channel TX
Mode 3	High channel TX

Note:

(1) The measurements are performed at the highest, middle, lowest available channels.

2.2 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of DSSS

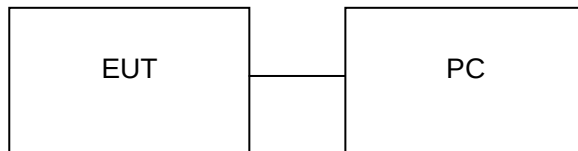
Test software Version	Test program: N/A		
Frequency	2402 MHz	2440 MHz	2480 MHz
Parameters(GFSK)	DEF	DEF	DEF

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

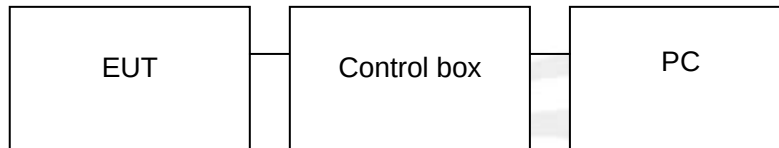
During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of DSSS

Radiated Spurious Emission Test

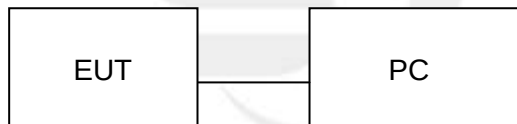
Configure 1: (Normal hopping)



Configure 2: (Control continuous TX)



Conducted Emission Test





2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1	Bluetooth speaker	N/A	BT008	N/A	EUT
2	PC	Dell	INSPIRON	N/A	FCC DOC approval
3	Control box	N/A	N/A	N/A	A.E

Item	Shielded Type	Ferrite Core	Length	Note

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.
- (4) N/A means not applicable.



2.5EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Spectrum Analyzer	Agilent	E4407B	MY50140340	2014.10.25	2015.10.24
Test Receiver	R&S	ESCI	101427	2014.10.25	2015.10.24
Bilog Antenna	TESEQ	CBL6111D	34678	2014.10.27	2015.10.26
50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2014.06.06	2015.06.06
Horn Antenna	R&S	9120D	152265	2014.10.27	2015.10.26
Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2014.07.06	2015.07.05
Amplifier	EM	EM-30180	060538	2014.12.22	2015.12.21
Loop Antenna	ARA	PLA-1030/B	1029	2014.06.08	2015.06.07
Power Meter	Anritsu	ML2495A	1204003	2014.10.25	2015.10.24
Power Sensor	Anritsu	MA2411B	100309	2014.10.25	2015.10.24

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	102086	102086	2014.10.25	2015.10.24
LISN	R&S	ENV216	101242	2014.10.25	2015.10.24
LISN	EMCO	3810/2NM	000-23625	2014.10.25	2015.10.24
50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2014.06.06	2015.06.06
Passive Voltage Probe	R&S	ESH2-Z3	100196	2014.06.06	2015.06.06
Absorbing clamp	R&S	MDS-21	100668	2014.10.27	2015.10.26



3. EMC EMISSION TEST

3.1 RADIATED EMISSION MEASUREMENT

3.1.1 RADIATED EMISSION LIMITS

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on Part 15247&205(a), then the Part 15 247&209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (30MHz - 1000MHz)

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower



Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier harmonic(Peak/AV)
RB / VB (emission in restricted band)	RBW 1MHz / VBW 1MHz Peak detector for Pk value RBW 1MHz / VBW 10Hz RMS detector for AV value

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.1.2 TEST PROCEDURE

- 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.
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- 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.
- 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 QuasiPeak detector mode re-measured.
- 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.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

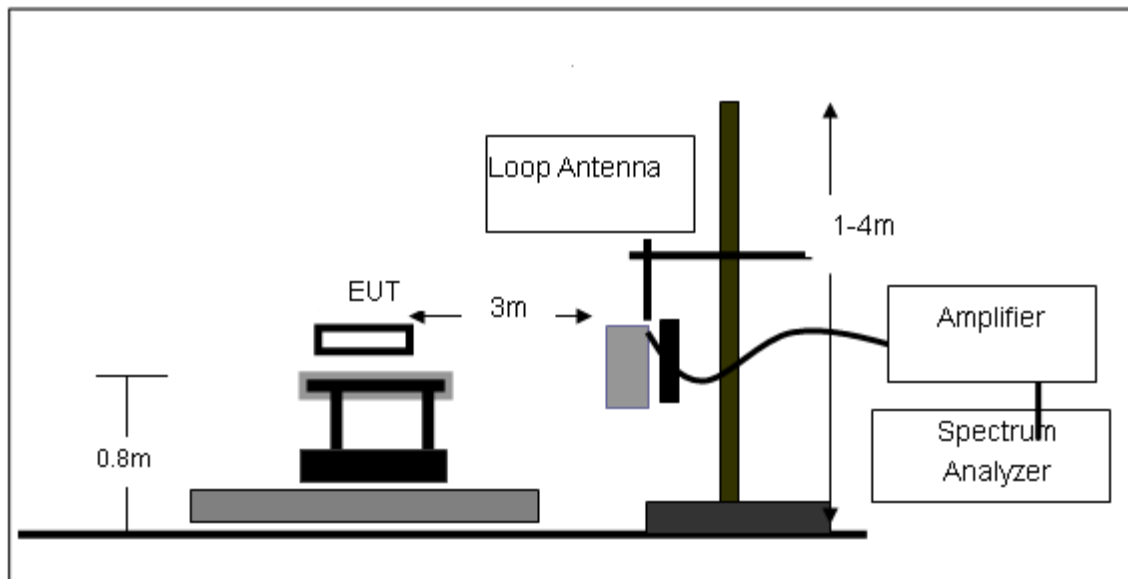
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.1.3 DEVIATION FROM TEST STANDARD

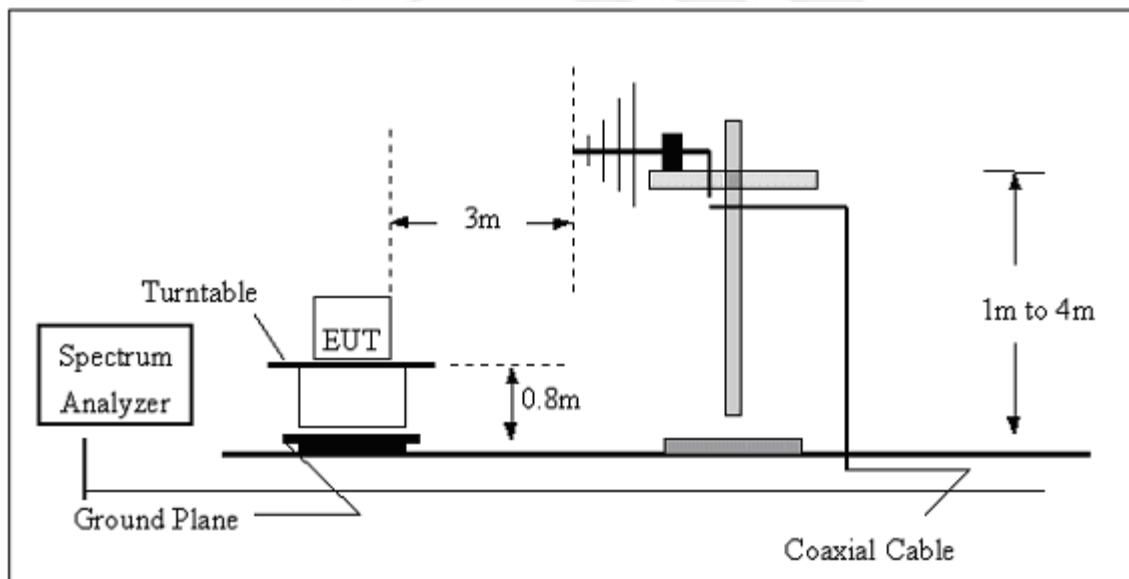
No deviation

3.1.4 TESTSETUP

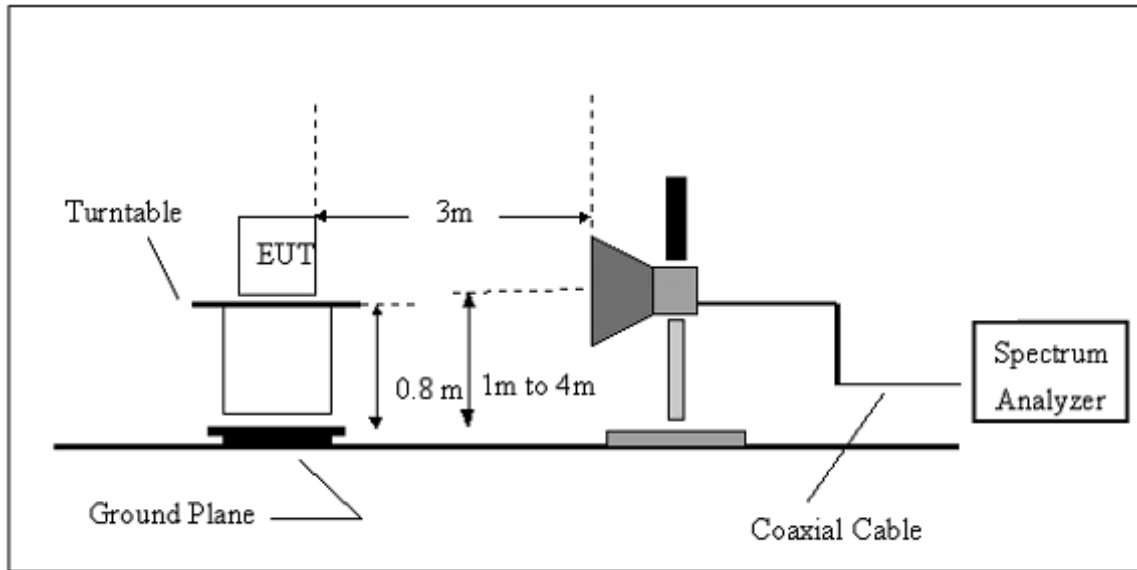
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



3.1.5EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



3.1.6 TEST RESULTS

Below 30 MHz

EUT :	Bluetooth speaker	Model Name. :	BT008
Temperature :	23 °C	Relative Humidity :	50%
Pressure :	1010hPa	Polarization :	---
Test Voltage :	DC 3.7V		
Test Mode :	TX Mode		

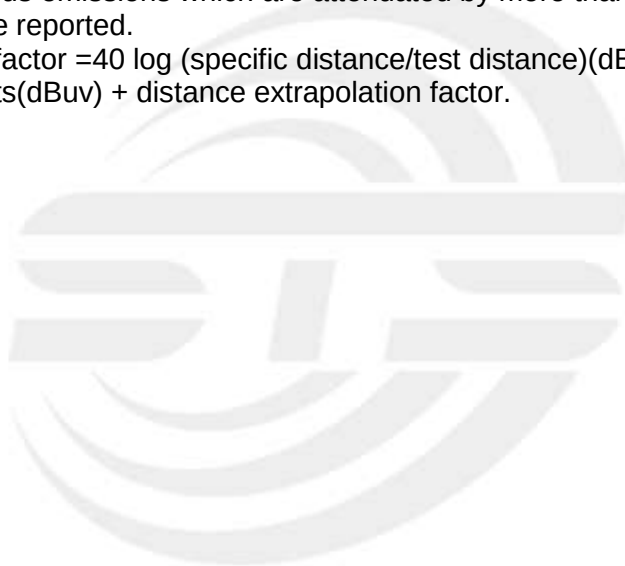
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance}/\text{test distance})$ (dB);

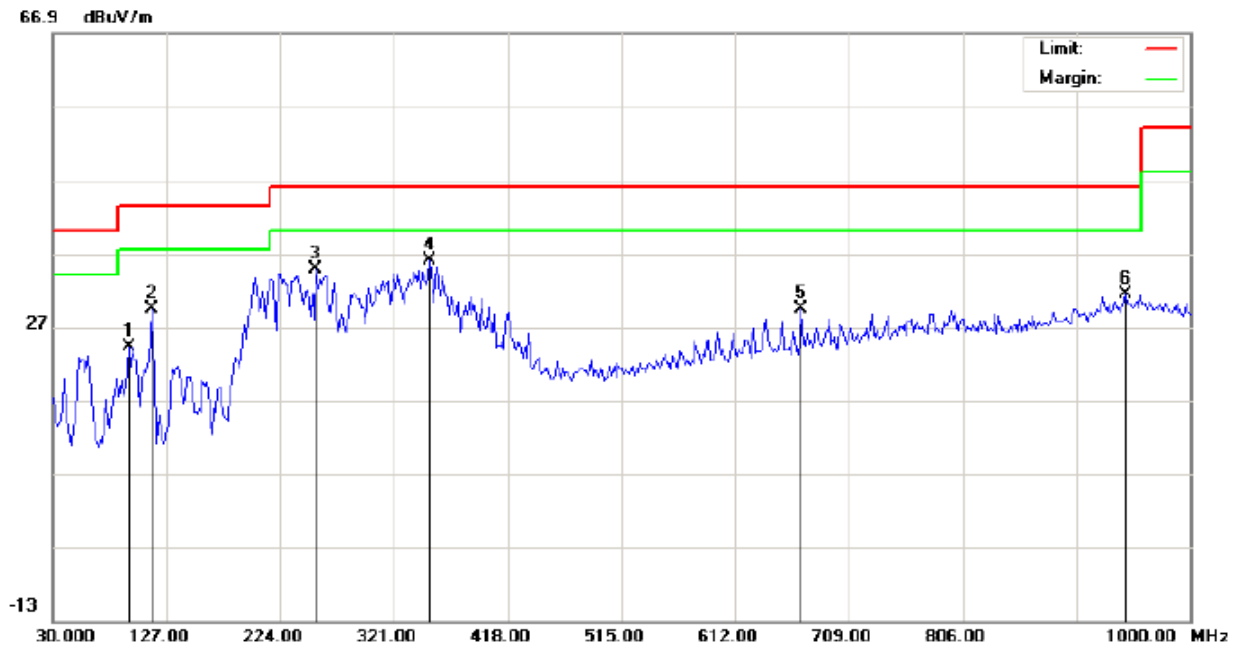
Limit line = specific limits(dBuV) + distance extrapolation factor.





Between 30MHz – 1000 MHz

RADIATED EMISSION TEST- (30MHZ-1GHZ)-LOW CHANNEL-HORIZONTAL



Site: site #1

Limit: FCC Class B 3M Radiation

EUT: Bluetooth Speaker

M/N: BT008

Mode: Low Channel TX

Note:

Polarization: *Horizontal*

Power:

Distance: 3m

Temperature: 26

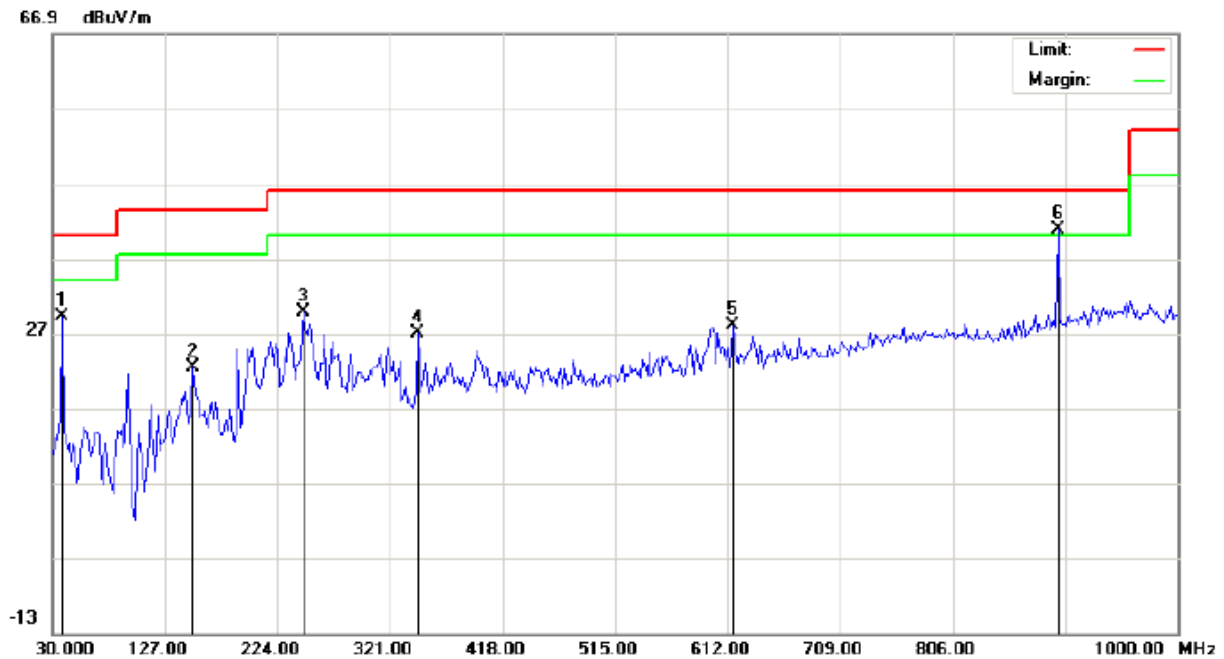
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		94.6667	14.40	9.89	24.29	43.50	-19.21	peak			
2		114.0667	18.01	11.45	29.46	43.50	-14.04	peak			
3		254.7167	20.74	14.04	34.78	46.00	-11.22	peak			
4	*	351.7167	17.33	18.75	36.08	46.00	-9.92	peak			
5		668.5833	4.96	24.35	29.31	46.00	-16.69	peak			
6		945.0333	1.63	29.86	31.49	46.00	-14.51	peak			

RESULT: PASS



RADIATED EMISSION TEST- (30MHZ-1GHZ)-LOW CHANNEL -VERTICAL



Site: site #1

Limit: FCC Class B 3M Radiation

EUT: Bluetooth Speaker

M/N: BT008

Mode: Low Channel TX

Note:

Polarization: **Vertical**

Power:

Distance: 3m

Temperature: 26

Humidity: 60 %

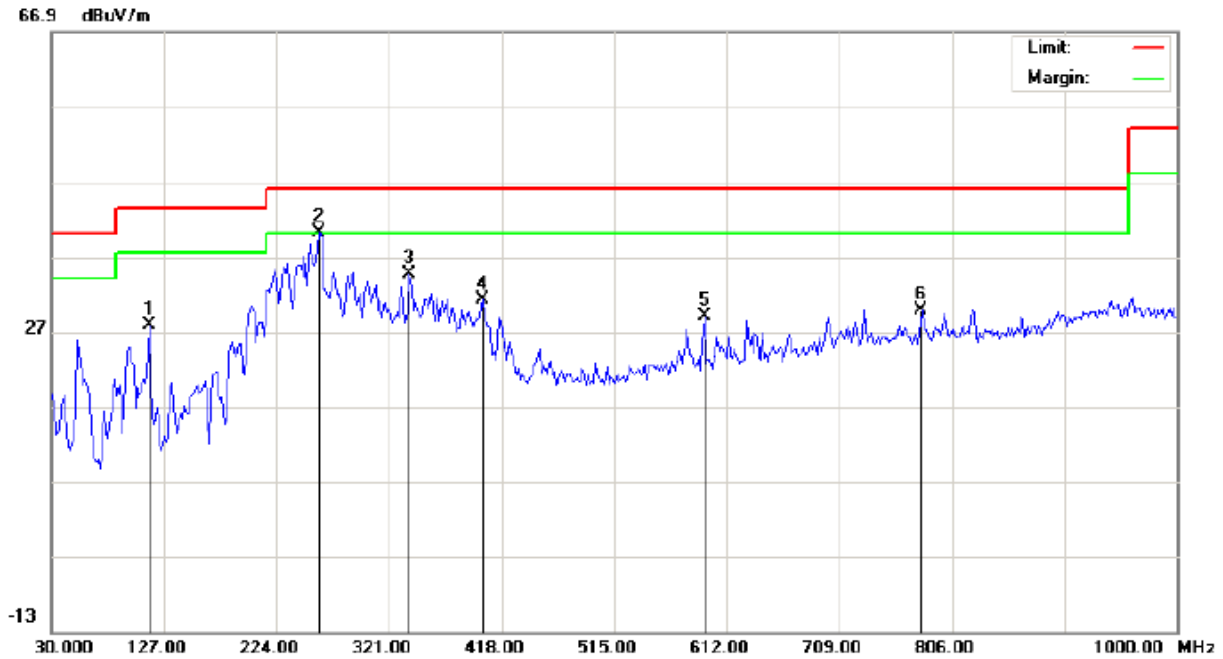
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		38.0833	22.89	6.39	29.28	40.00	-10.72	peak			
2		151.2500	7.17	15.27	22.44	43.50	-21.06	peak			
3		246.6333	16.25	13.57	29.82	46.00	-16.18	peak			
4		345.2500	8.58	18.42	27.00	46.00	-19.00	peak			
5		616.8500	4.97	23.11	28.08	46.00	-17.92	peak			
6	*	896.5333	12.34	28.52	40.86	46.00	-5.14	peak			

RESULT: PASS**Note:** 1. Factor=Antenna Factor+ Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.



RADIATED EMISSION TEST- (30MHZ-1GHZ)-MIDDLE CHANNEL-HORIZONTAL



Site: site #1

Polarization: *Horizontal*

Temperature: 26

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance: 3m

M/N: BT008

Mode: Middle Channel TX

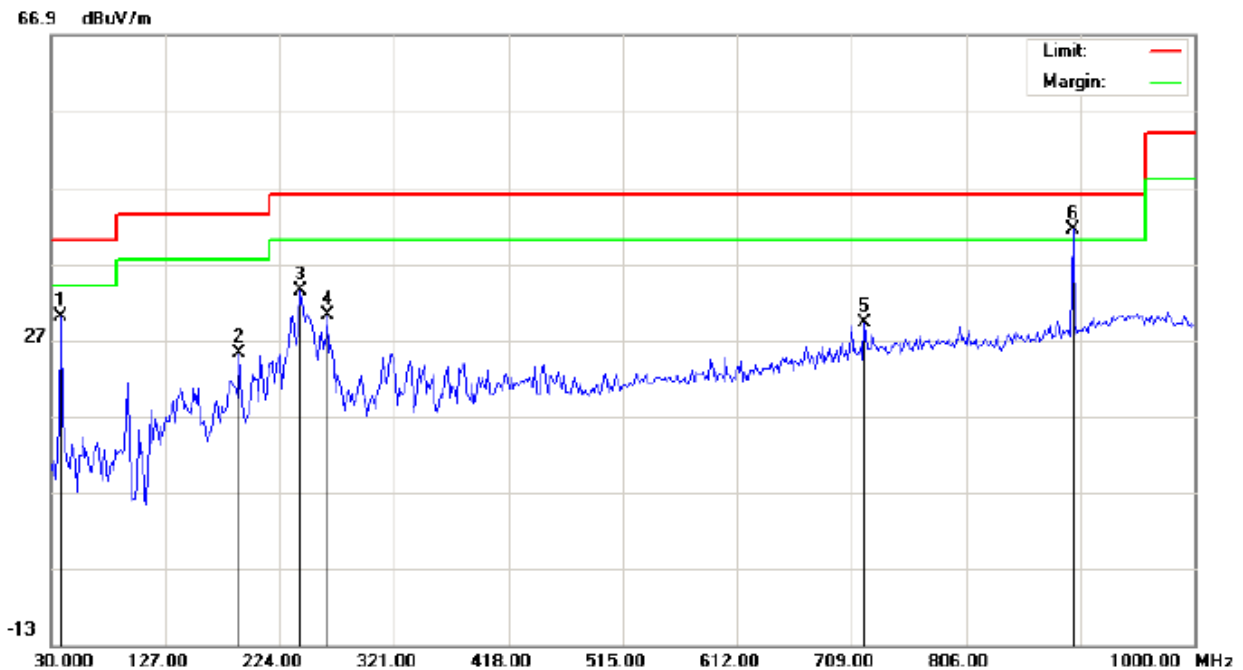
Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		114.0667	16.45	11.45	27.90	43.50	-15.60	peak			
2	*	261.1833	25.92	14.24	40.16	46.00	-5.84	peak			
3		338.7833	16.52	17.99	34.51	46.00	-11.49	peak			
4		401.8333	12.04	19.13	31.17	46.00	-14.83	peak			
5		592.6000	5.54	23.55	29.09	46.00	-16.91	peak			
6		780.1332	2.75	27.05	29.80	46.00	-16.20	peak			

RESULT: PASS



RADIATED EMISSION TEST- (30MHZ-1GHZ)- MIDDLE CHANNEL -VERTICAL



Site: site #1

Polarization: **Vertical**

Temperature: 26

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance: 3m

M/N: BT008

Mode: Middle Channel TX

Note:

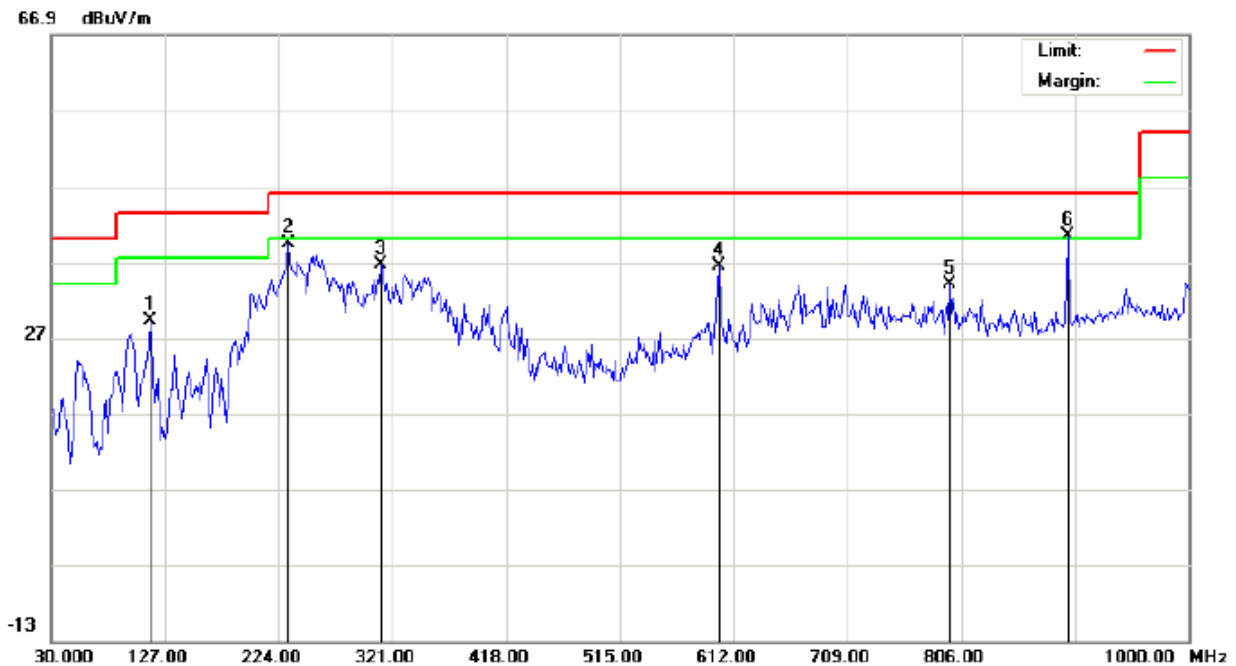
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		38.0833	23.58	6.39	29.97	40.00	-10.03	peak			
2		190.0500	13.68	11.52	25.20	43.50	-18.30	peak			
3		241.7833	20.32	13.09	33.41	46.00	-12.59	peak			
4		264.4166	15.90	14.34	30.24	46.00	-15.76	peak			
5		720.3167	3.51	25.78	29.29	46.00	-16.71	peak			
6	*	896.5333	12.98	28.52	41.50	46.00	-4.50	peak			

RESULT: PASS**Note:** 1. Factor=Antenna Factor+ Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.



RADIATED EMISSION TEST- (30MHZ-1GHZ)-HIGH CHANNEL-HORIZONTAL



Site: site #1

Polarization: *Horizontal*

Temperature: 26

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance: 3m

M/N: BT008

Mode: High Channel TX

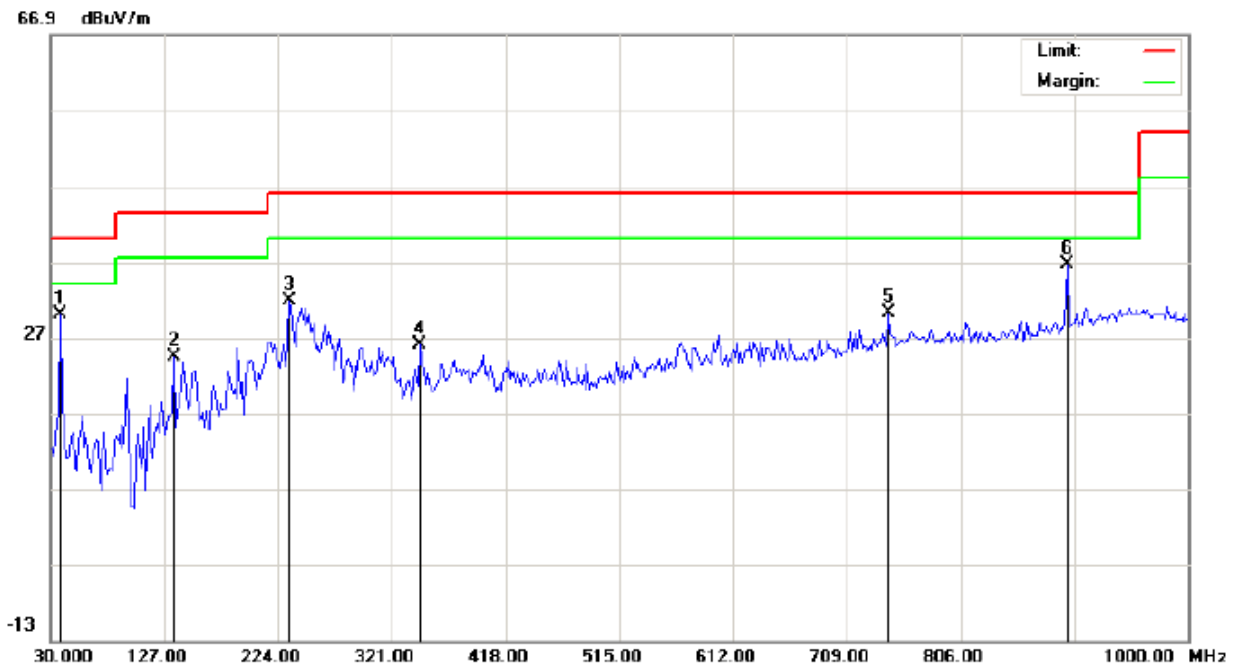
Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		114.0667	17.74	11.45	29.19	43.50	-14.31	peak			
2		232.0833	26.18	13.22	39.40	46.00	-6.60	peak			
3		311.3000	20.43	16.16	36.59	46.00	-9.41	peak			
4		599.0667	12.75	23.71	36.46	46.00	-9.54	peak			
5		796.3000	6.64	27.27	33.91	46.00	-12.09	peak			
6	*	896.5333	11.81	28.52	40.33	46.00	-5.67	peak			

RESULT: PASS



RADIATED EMISSION TEST- (30MHZ-1GHZ)-HIGH CHANNEL -VERTICAL



Site: site #1

Polarization: **Vertical**

Temperature: 26

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance: 3m

M/N: BT008

Mode: High Channel TX

Note:

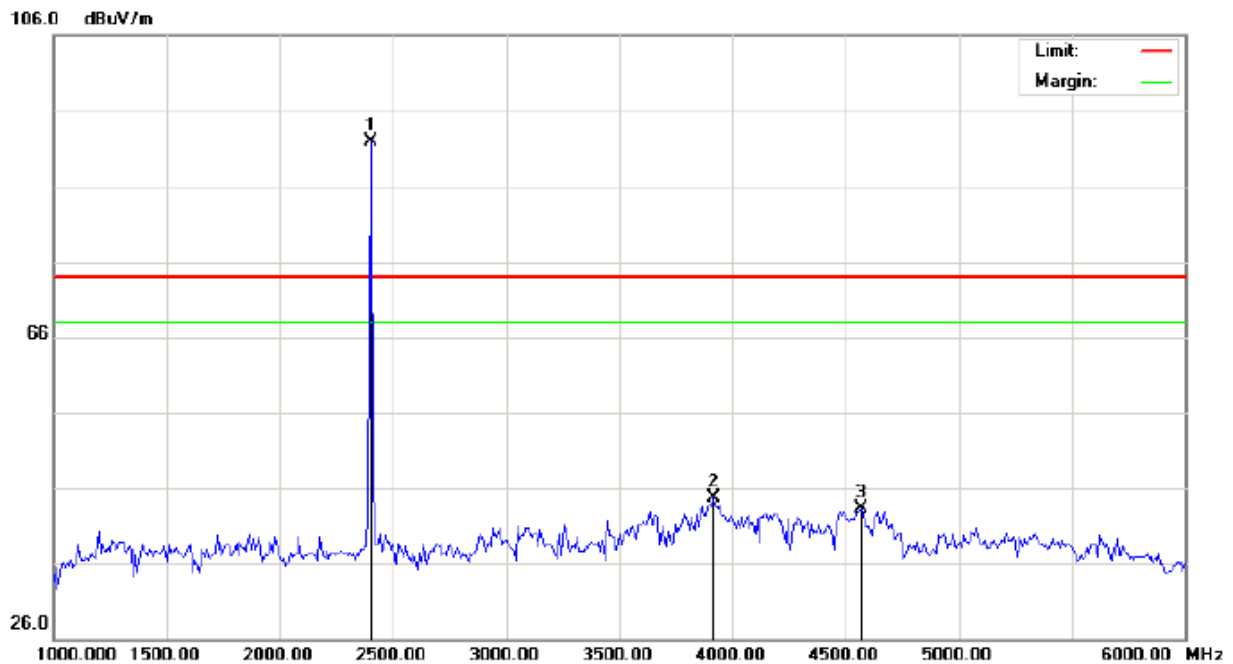
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		38.0833	23.62	6.39	30.01	40.00	-9.99	peak			
2		135.0833	11.21	13.15	24.36	43.50	-19.14	peak			
3		233.7000	19.48	12.30	31.78	46.00	-14.22	peak			
4		345.2500	7.54	18.42	25.96	46.00	-20.04	peak			
5		744.5667	3.65	26.47	30.12	46.00	-15.88	peak			
6	*	896.5333	8.04	28.52	36.56	46.00	-9.44	peak			

RESULT: PASS**Note:** 1. Factor=Antenna Factor+ Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.



Above 1000 MHz

RADIATED EMISSION ABOVE 1GHZ (1-10th Harmonics)-LOW CHANNEL-HORIZONTAL

Site: site #1

Polarization: *Horizontal*

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

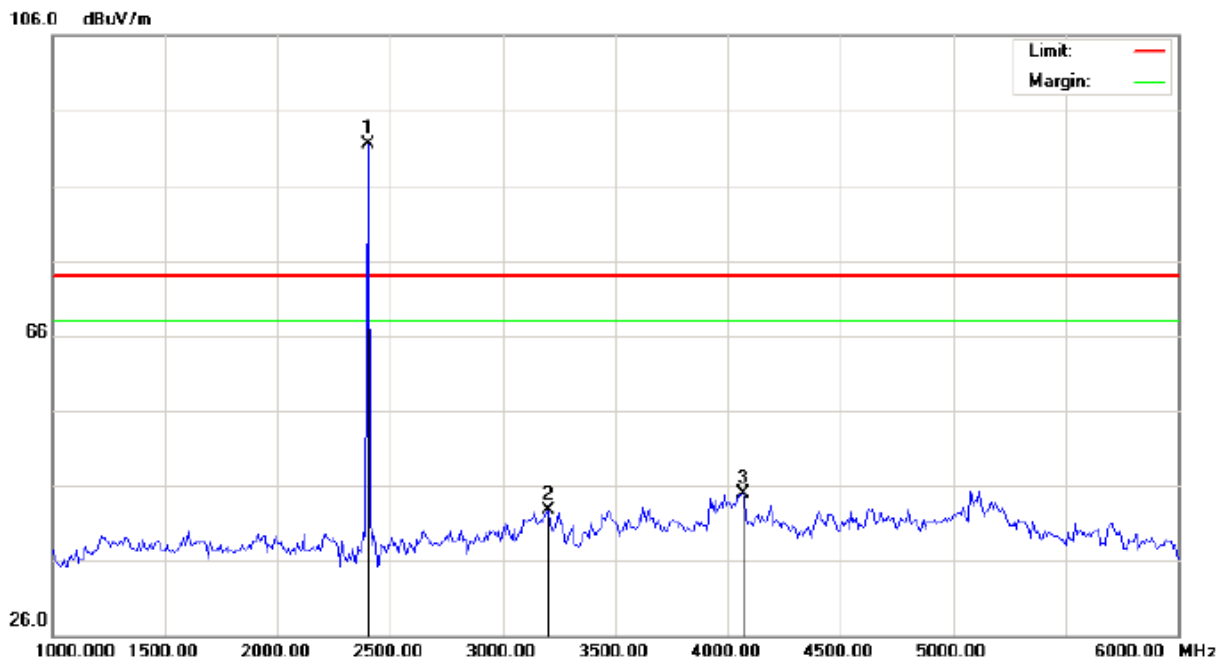
M/N: BT008

Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2402.000	81.61	10.32	91.93	74.00	17.93	peak			
2		3916.667	29.95	14.68	44.63	74.00	-29.37	peak			
3		4566.667	36.28	7.06	43.34	74.00	-30.66	peak			

RESULT: PASS

RADIATED EMISSION ABOVE 1GHZ (1-10th Harmonics)-LOW CHANNEL –VERTICAL

Site: site #1

Polarization: **Vertical**

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

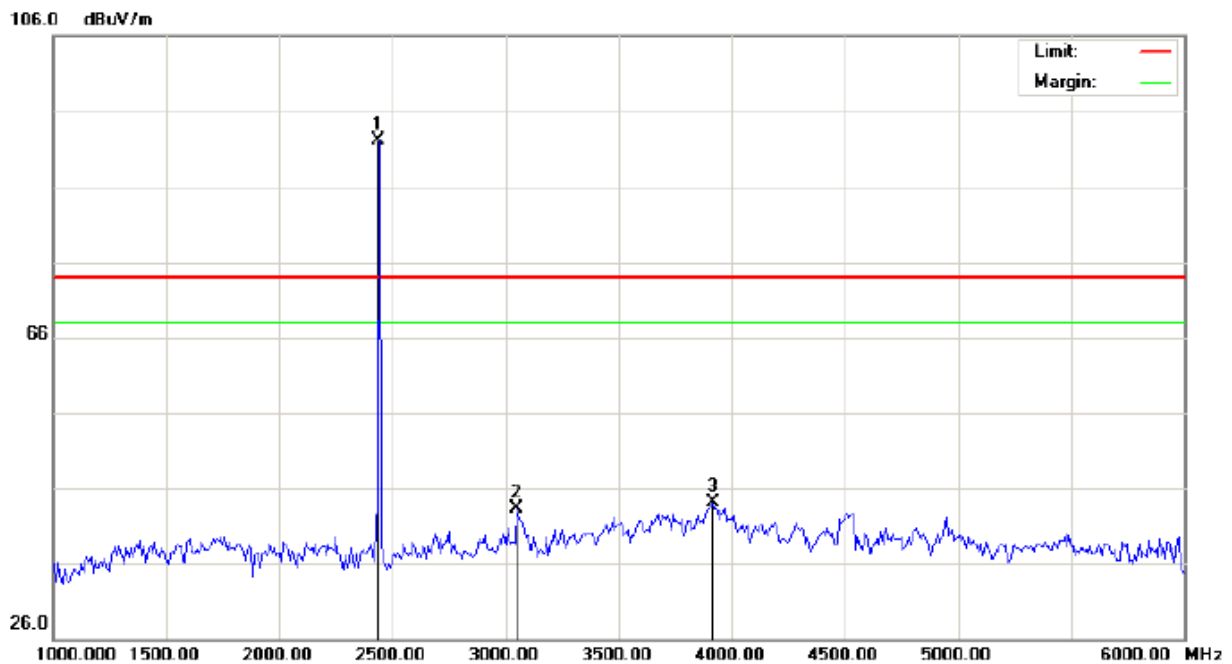
M/N: BT008

Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2402000	81.17	10.32	91.49	74.00	17.49	peak			
2		3200.000	30.83	11.83	42.66	74.00	-31.34	peak			
3		4066.667	30.86	14.08	44.94	74.00	-29.06	peak			

RESULT: PASS

RADIATED EMISSION ABOVE 1GHZ (1-10th Harmonics)-MIDDLE CHANNEL-HORIZONTAL

Site: site #1

Polarization: **Horizontal**

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

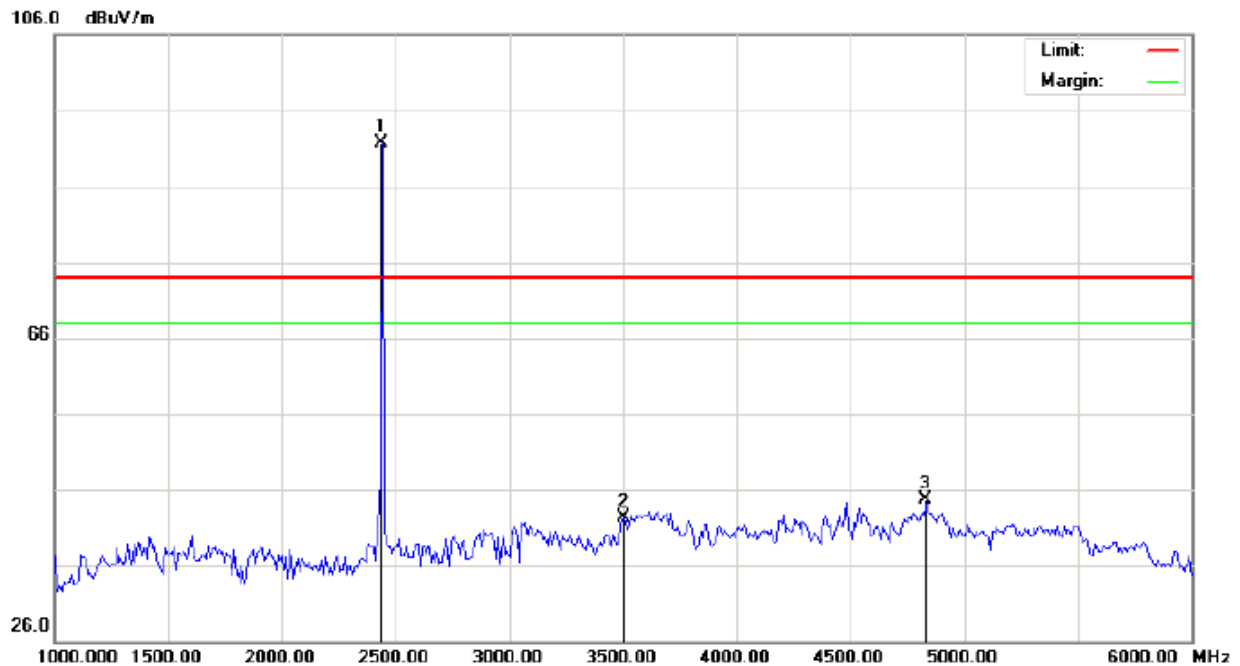
M/N: BT008

Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2440.000	81.73	10.36	92.09	74.00	18.09	peak			
2		3050.000	31.52	11.69	43.21	74.00	-30.79	peak			
3		3916.667	29.43	14.68	44.11	74.00	-29.89	peak			

RESULT: PASS

RADIATED EMISSION ABOVE 1GHZ (1-10th Harmonics)- MIDDLE CHANNEL –VERTICAL

Site: site #1

Polarization: *Vertical*

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

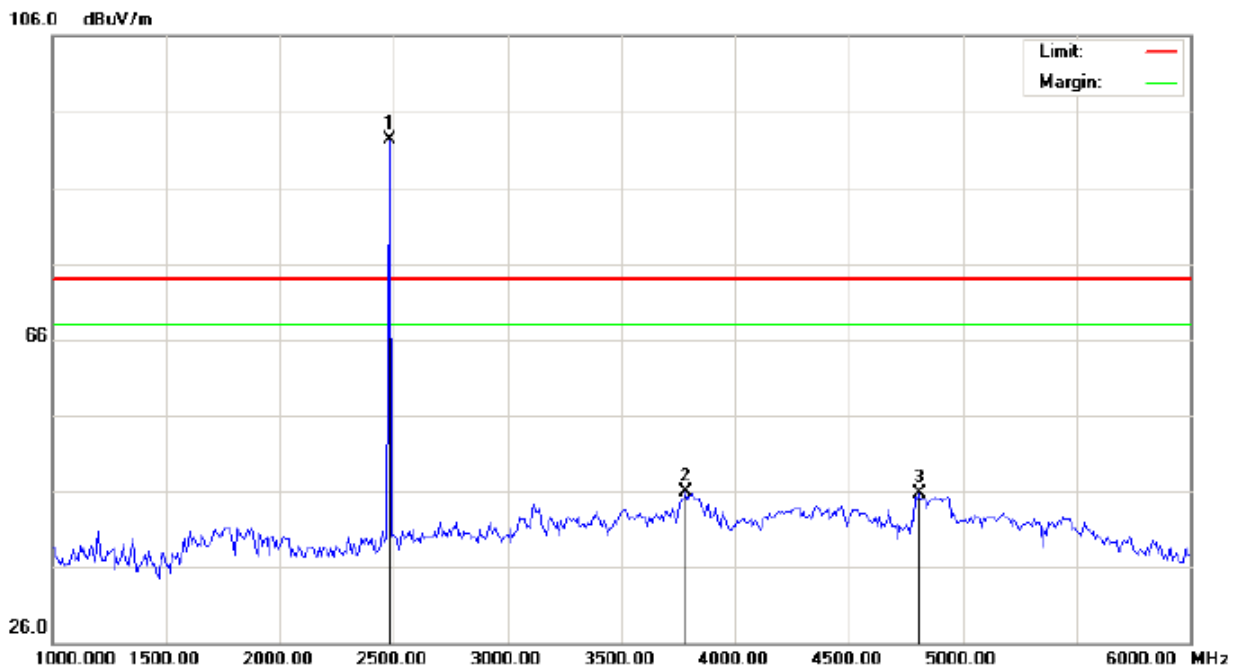
M/N: BT008

Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2440.000	81.39	10.36	91.75	74.00	17.75	peak			
2		3500.000	30.17	12.11	42.28	74.00	-31.72	peak			
3		4833.333	37.03	7.76	44.79	74.00	-29.21	peak			

RESULT: PASS

RADIATED EMISSION ABOVE 1GHZ (1-10th Harmonics)-HIGH CHANNEL-HORIZONTAL

Site: site #1

Polarization: **Horizontal**

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

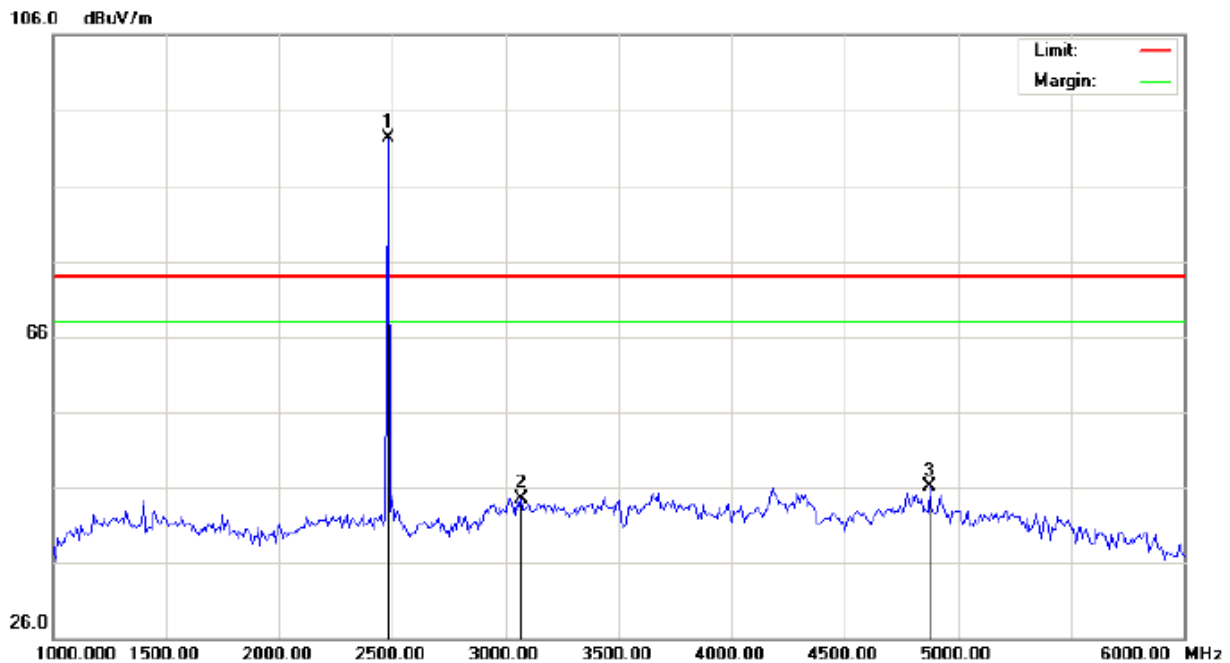
M/N: BT008

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2480.000	81.93	10.41	92.34	74.00	18.34	peak			
2		3783.333	32.04	13.86	45.90	74.00	-28.10	peak			
3		4808.333	38.02	7.70	45.72	74.00	-28.28	peak			

RESULT: PASS

RADIATED EMISSION ABOVE 1GHZ (1-10th Harmonics)-HIGH CHANNEL –VERTICAL

Site: site #1

Polarization: **Vertical**

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

M/N: BT008

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2480.000	81.97	10.41	92.38	74.00	18.38	peak			
2		3066.667	32.84	11.70	44.54	74.00	-29.46	peak			
3		4875.000	38.21	7.87	46.08	74.00	-27.92	peak			

RESULT: PASS**Note:** 6~25GHz at least have 20dB margin. No recording in the test report.

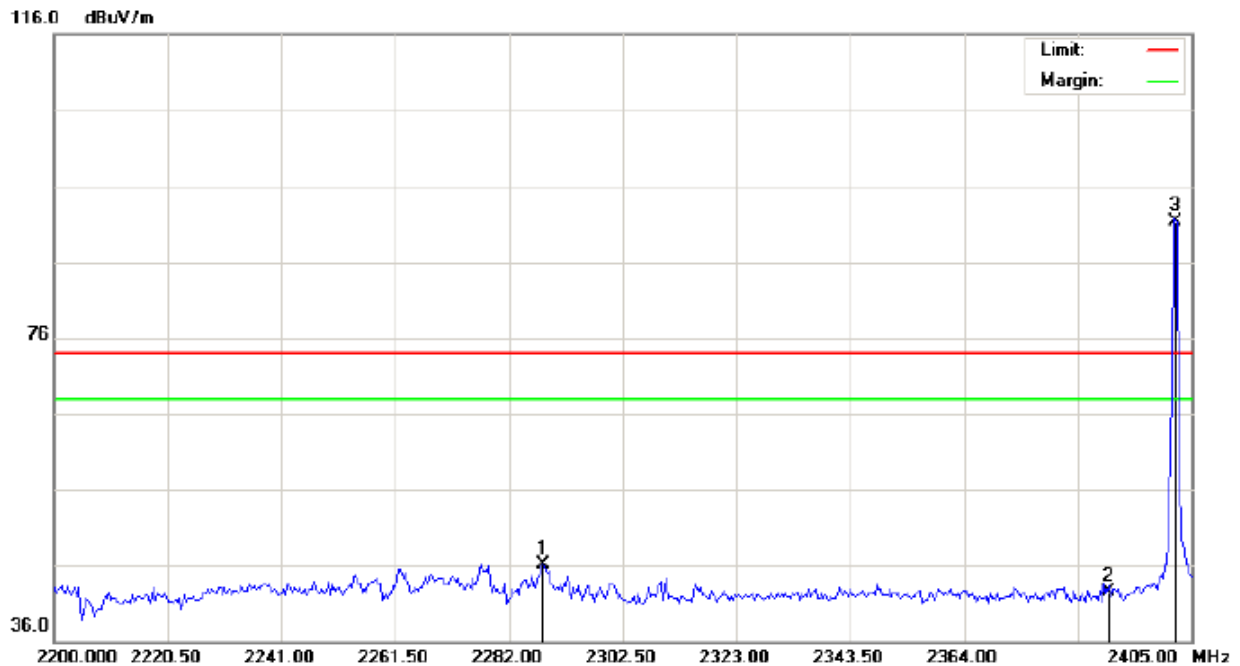
Factor=Antenna Factor+ Cable loss-Amplifier gain, Margin=Measurement-Limit.

The "Factor" value can be calculated automatically by software of measurement system.



BAND EDGE TEST

TEST PLOT OF BAND EDGE FOR LOW CHANNEL -Horizontal



Site: site #1

Polarization: **Horizontal**

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

M/N: BT008

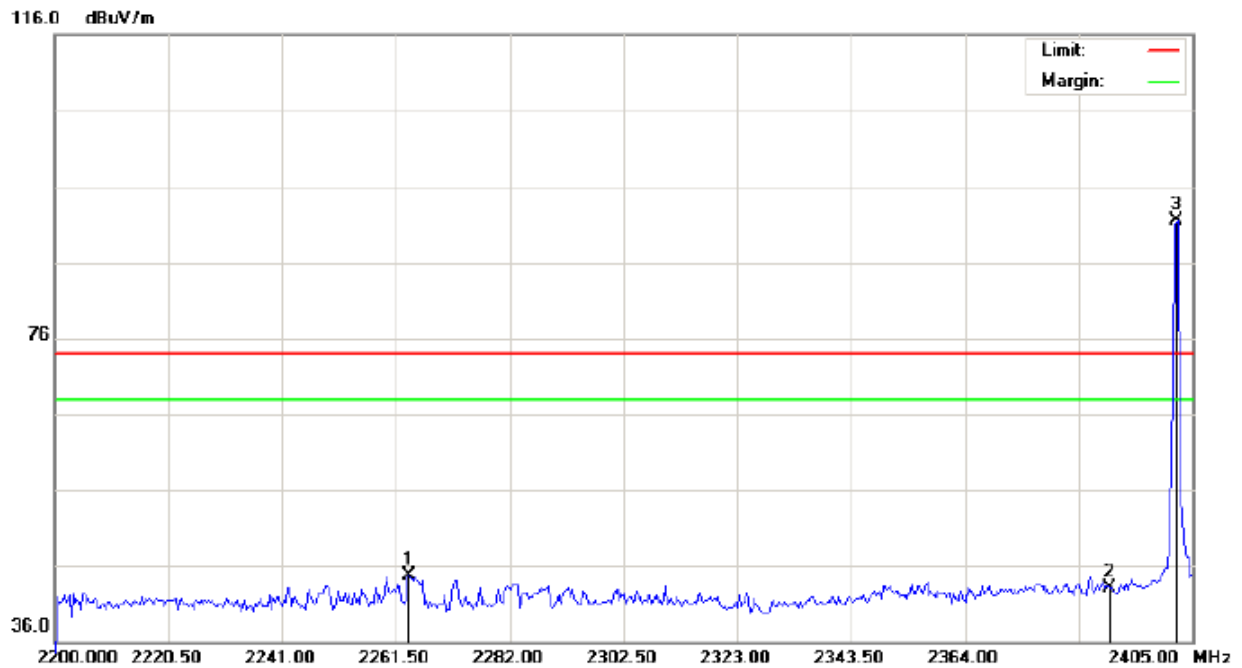
Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2288.150	35.90	10.20	46.10	74.00	-27.90	peak			
2		2390.000	32.12	10.31	42.43	74.00	-31.57	peak			
3	*	2402.000	80.91	10.32	91.23	74.00	17.23	peak			



TEST PLOT OF BAND EDGE FOR LOW CHANNEL -Vertical



Site: site #1

Polarization: **Vertical**

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

M/N: BT008

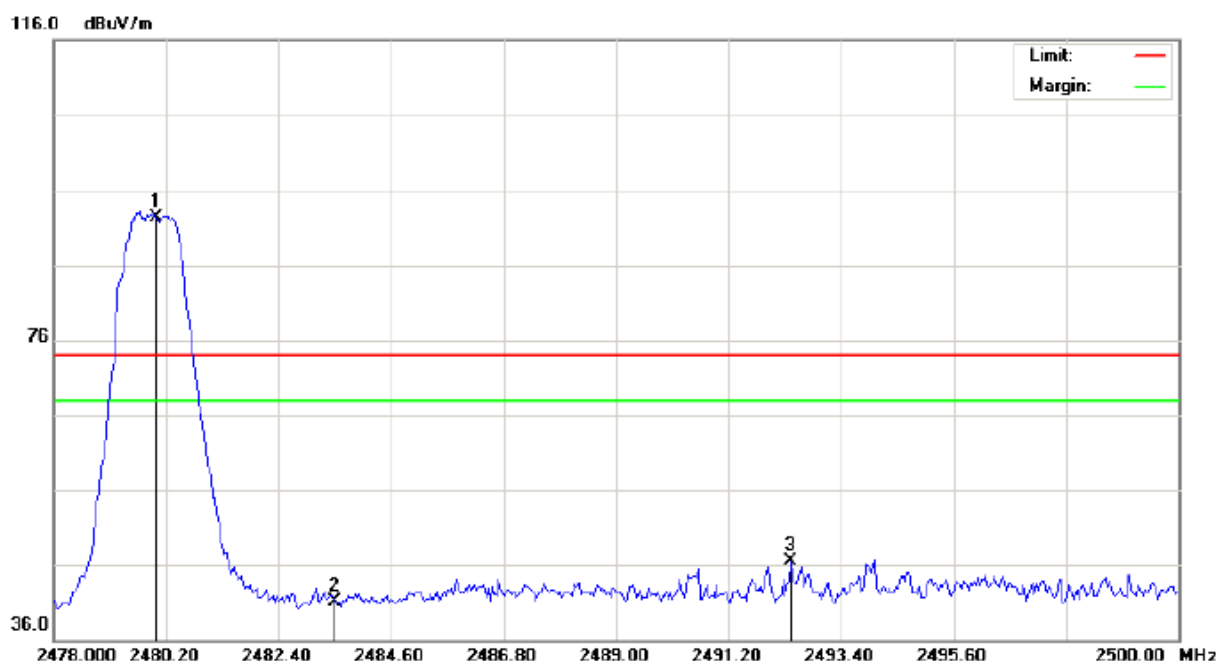
Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2263.892	34.44	10.17	44.61	74.00	-29.39	peak			
2		2390.000	32.85	10.31	43.16	74.00	-30.84	peak			
3	*	2402.000	81.26	10.32	91.58	74.00	17.58	peak			



TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Horizontal



Site: site #1

Polarization: **Horizontal**

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

M/N: BT008

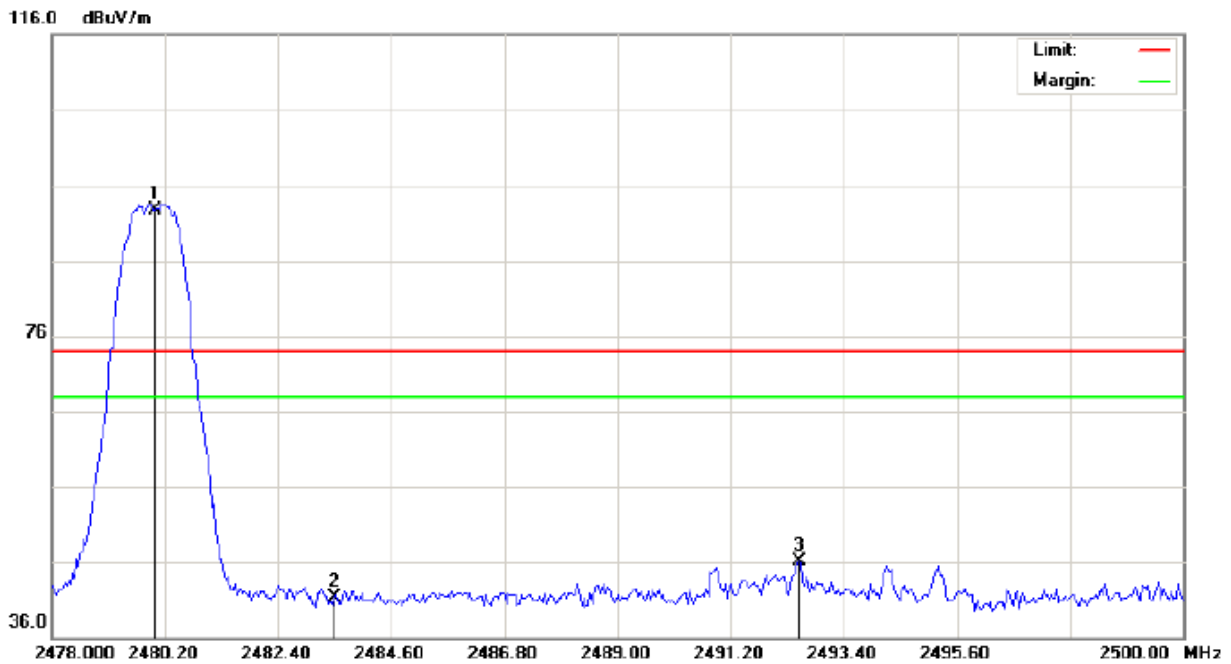
Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2480.000	81.96	10.41	92.37	74.00	18.37	peak			
2		2483.500	30.75	10.41	41.16	74.00	-32.84	peak			
3		2492.410	35.99	10.42	46.41	74.00	-27.59	peak			



TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Vertical



Site: site #1

Polarization: **Vertical**

Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK)

Power:

Humidity: 60 %

EUT: Bluetooth Speaker

Distance:

M/N: BT008

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2480.000	82.35	10.41	92.76	74.00	18.76	peak			
2		2483.500	30.87	10.41	41.28	74.00	-32.72	peak			
3		2492.520	35.74	10.42	46.16	74.00	-27.84	peak			

RESULT: PASS**Note:** 1. Factor=Antenna Factor+ Cable loss, Margin=Measurement-Limit.

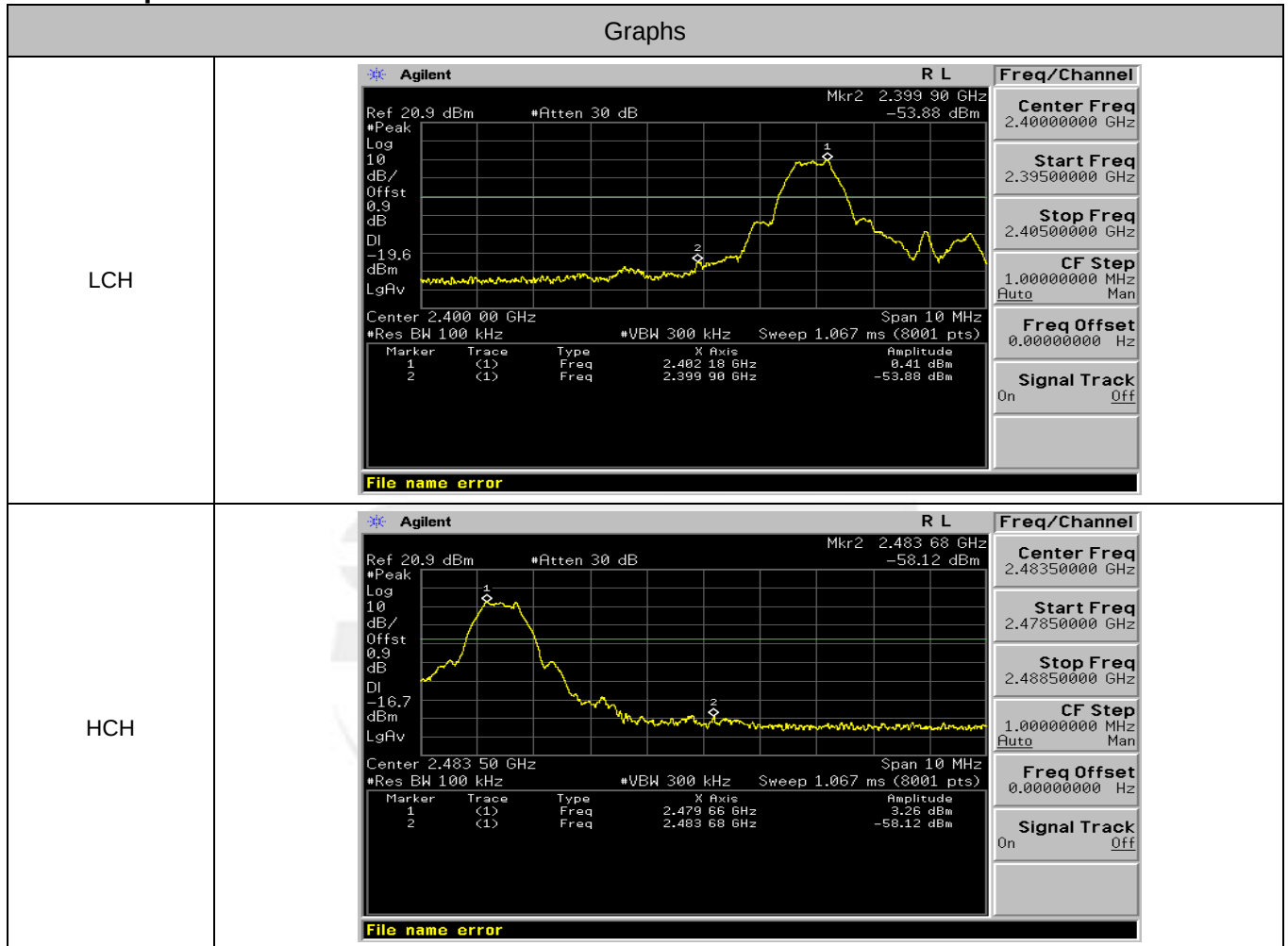
2. The "Factor" value can be calculated automatically by software of measurement system.



CONDUCTED TEST RESULT FOR BANDEDGE

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BLE	LCH	0.41	-53.88	-19.59	PASS
BLE	HCH	3.26	-58.12	-16.74	PASS

Test Graph



APPENDIX-PHOTOS OF TEST SETUP

Radiated Measurement Photos

