FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

Bang & Olufsen a/s

Bluetooth Speaker

Model Number: Beoplay A2 Active

FCC ID: TTUA2ACTIVE

Prepared for : Bang & Olufsen a/s
Peter Bangs Vej 15, 7600 Struer, Denmark

Prepared By : EST Technology Co., Ltd.
Santun(guantai Road), Houjie Town, DongGuan City,
GuangDong, China.

Tel: 86-769-83081888-808

Report Number: ESTE-R1610002
Date of Test ：September 08 - 30, 2016
Date of Report：October 10, 2016

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Test Report Verification

Applicant: **Address:**	Bang & Olufsen a/s Peter Bangs Vej 15, 7600 Struer, Denmark
Manufacturer **Address:**	Bang & Olufsen a/s Peter Bangs Vej 15, 7600 Struer, Denmark
E.U.T:	Bluetooth Speaker
Model Number:	Beoplay A2 Active
Power Supply:	DC 7.2V From Internal Battery DC 15V or 5V From USB Type C Adapter Input AC 100~240V 50/60Hz
Test Voltage:	DC 7.2V From Internal Battery DC 15V or 5V From USB Type C Adapter Input AC 120V/60Hz DC 15V or 5V From USB Type C Adapter Input AC 240V/60Hz
Trade Name:	Bang & Olufsen Serial No.: ------
Date of Receipt:	September 08, 2016 Date of Test: September 08 - 30, 2016
Test Specification:	FCC Rules and Regulations Part 15 Subpart C:2015 ANSI C63.10:2013
Test Result:	The device described above is tested by EST Technology Co., Ltd.. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart C requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd. **Date:** October 10, 2016

Prepared by:	Tested by:	Approved by:
Ada / Assistant	Tony.Tang/ Engineer	IcemanHu / Manager

Other Aspects:

None.

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested

This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name	:	Bluetooth Speaker	
Model Number	:	DS6	
FCC ID	:	TTUA2ACTIVE	
Operation frequency	:	2402MHz~2480MHz	
Number of channel	:	79	40
Antenna	:	Internal antenna, 0.09dBi gain	
Modulation	:	Dual-mode Bluetooth 4.0 BT BDR: GFSK BT EDR: π/4-DQPSK BT EDR: 8-DPSK	Dual-mode Bluetooth 4.0 BLE: GFSK
Sample Type	:	Prototype production	

2. SUMMARY OF TEST

2.1. Summary of test result

Description of Test Item	Standard	Results
Power Line Conducted Emission	FCC Part 15: 15.207	PASS
Radiated Emissions	FCC Part 15: 15.209 FCC Part 15: 15.247(d)	PASS
Band Edge Compliance	FCC Part 15: 15.209 FCC Part 15: 15.247(d)	PASS
Conducted spurious emissions	FCC Part 15: 15.247(d)	PASS
6dB Bandwidth	FCC Part 15: 15.247 (a)(2)	PASS
Peak Output Power	FCC Part 15: 15.247 (b)	PASS
Power Spectral Density	FCC Part 15: 15.247 (e)	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2.2. Test Facilities

EMC Lab : Certificated by CNAL, CHINA
Registration No.: L5288
Date of registration: December 07, 2015

Certificated by FCC, USA
Registration No.: 989591
Date of registration: November 20, 2013

Certificated by Industry Canada
Registration No.: 9405A-1
Date of registration: December 30, 2015

Certificated by VCCI, Japan
Registration No.: R-3663 & C-4103
Date of registration: July 25, 2011

Certificated by TUV Rheinland, Germany
Registration No.: UA 50195514 0001
Date of registration: January 07, 2011

Certificated by TUV/PS, Shenzhen
Registration No.: SCN1017
Date of registration: January 27, 2011

Certificated by Intertek ETL SEMKO
Registration No.: 2011-RTL-L1-18
Date of registration: April 28, 2011

Certificated by Siemic, Inc.
Registration No.: SLCN021
Date of registration: November 8, 2011

Certificated by Nemko, Hong Kong
Registration No.: 175193
Date of registration: May 4, 2011

Name of Firm : EST Technology Co., Ltd.

Site Location : San Tun Management Zone, Houjie Town, Dongguan, Guangdong, China

2.3. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.54dB
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.62
Uncertainty for Radiation Emission test (1GHz to 18GHz)	4.86
Uncertainty for radio frequency	7×10-8
Uncertainty for conducted RF Power	0.20dB
Uncertainty for Power density test	0.26dB

Note：This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2.4. Assistant equipment used for test

2.4.1. USB Power Adapter

Manufacturer : Apple
M/N : A1357
Input : AC 100-240V~50-60Hz
Output : DC 5.1V/2.1A

2.4.2. USB-C Power Adapter

Manufacturer : Apple
M/N : A1540
Input : AC 100-240V~50-60Hz
Output : DC 14.5V/2.0A

2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 or 1.5 meter high above ground. EUT was be set into BT test mode by Bluesuite software before test.

(EUT: Bluetooth Speaker*)*

2.6. Test mode

A special test software was used to control EUT work in Continuous TX mode(100% duty cycle), and select test channel, wireless mode and data rate.

Mode	Channel	Frequency
BT 4.0-BLE GFSK	Low	2402MHz
	Middle	2440MHz
	High	2480MHz

2.7. Channel List for Bluetooth

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	2402	2	2404
3	2406	4	2408
5	2410	6	2412
7	2414	8	2416
9	2418	10	2420
11	2422	12	2424
13	2426	14	2428
15	2430	16	2432
17	2434	18	2436
19	2438	20	2440
21	2442	22	2444
23	2446	24	2448
25	2450	26	2452
27	2454	28	2456
29	2458	30	2460
31	2462	32	2464
33	2466	34	2468
35	2470	36	2472
37	2474	38	2476
39	2478	40	2480

2.8. Test Equipment

2.8.1. For conducted emissions test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	June,25,16	1 Year
Artificial Mains Networ	Rohde & Schwarz	ENV216	101260	June,25,16	1 Year
Pulse Limiter	Rohde & Schwarz	ESDS6-Z2	101100	June,25,16	1 Year

2.8.2. For radiated emission test(9 kHz-30MHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESCI	100435	June,25,16	1 Year
Loop Antenna	ETS-LINDGREN	6502	00071730	June,25,16	1 Year

2.8.3. For radiated emissions test (30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESVS10	100004	June,25,16	1 Year
Spectrum Analyzer	Agilent	E4411B	MY50140697	June,25,16	1 Year
Bilog Antenna	Teseq	CBL 6111D	27090	June,28,15	3 Year
Signal Amplifier	Agilent	310N	187037	June,25,16	1 Year

2.8.4. For radio & radiated emissions test (above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120D1002	June,28,15	3 Year
Board-Band Horn Antenna	SCHWARZBECK	BBHA 9170	9170-497	June,28,15	3 Year
Signal Amplifier	SCHWARZBECK	BBV9718	9718-212	June,25,16	1 Year
Spectrum Analyzer	Agilent	E4408B	MY44211139	June,25,16	1 Year
Spectrum Analyzer	Rohde &Schwarz	FSV	103173	June,25,16	1 Year
RF Cable	Hubersuhner	RG 214/U	513423	June,25,16	1 Year

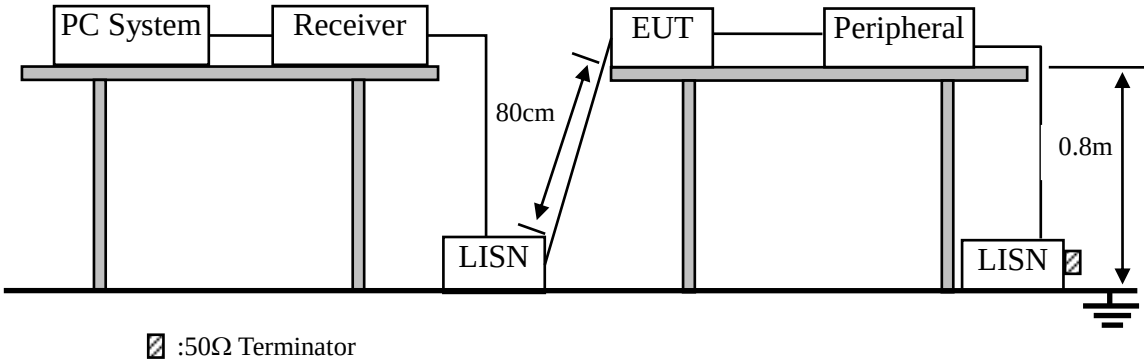
3 POWER LINE CONDUCTED EMISSION TEST

3.1. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.2. Block Diagram of Test Setup



3.3 Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2009 on Conducted Emission Test.

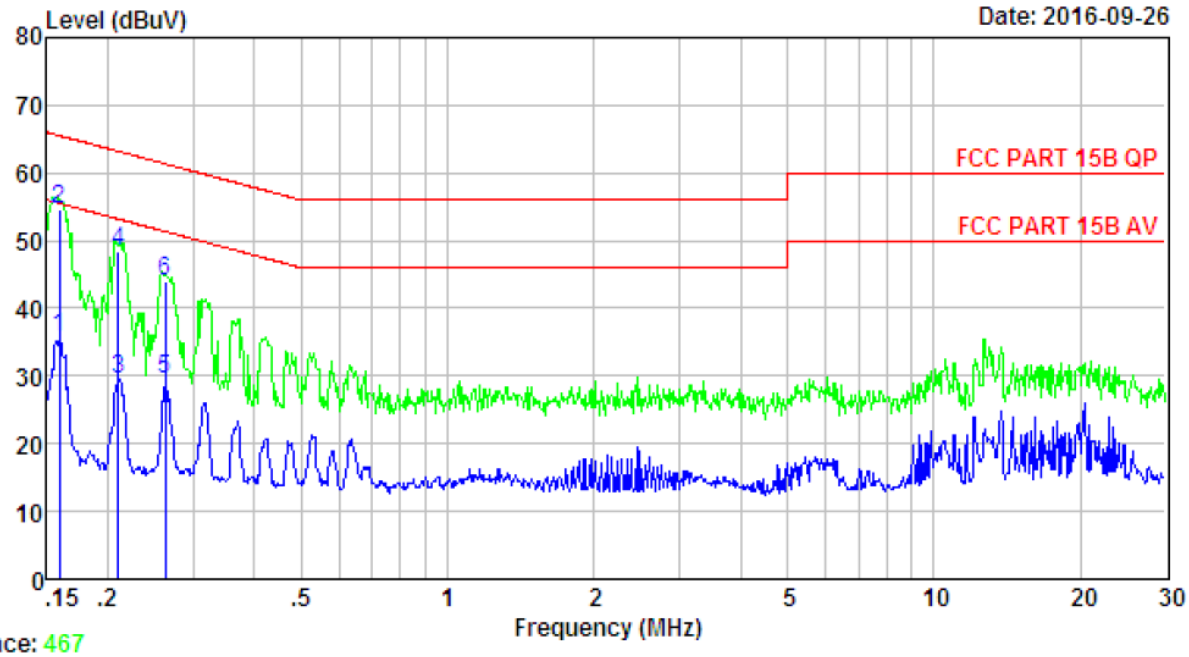
The bandwidth of test receiver (R & S ESHS30) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

3.4. Test Result

PASS. **(**All emissions not reported below are too low against the prescribed limits.)

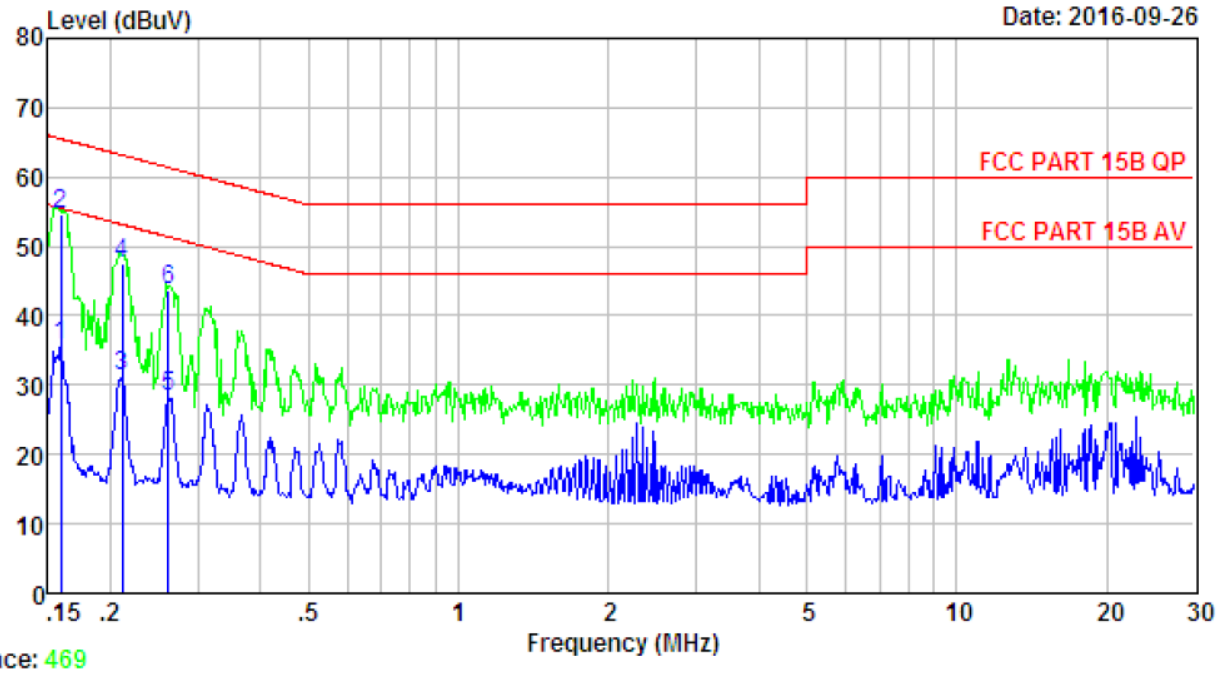
3.5. Test data



Trace: 467

Site no : 844 Shield Room Data no. : 468
Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : NEUTRAL
Limit : FCC PART 15B QP
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 15V From Adapter Input AC 240V/50Hz
M/N : Beoplay A2 Active
Test Mode : TX Mode

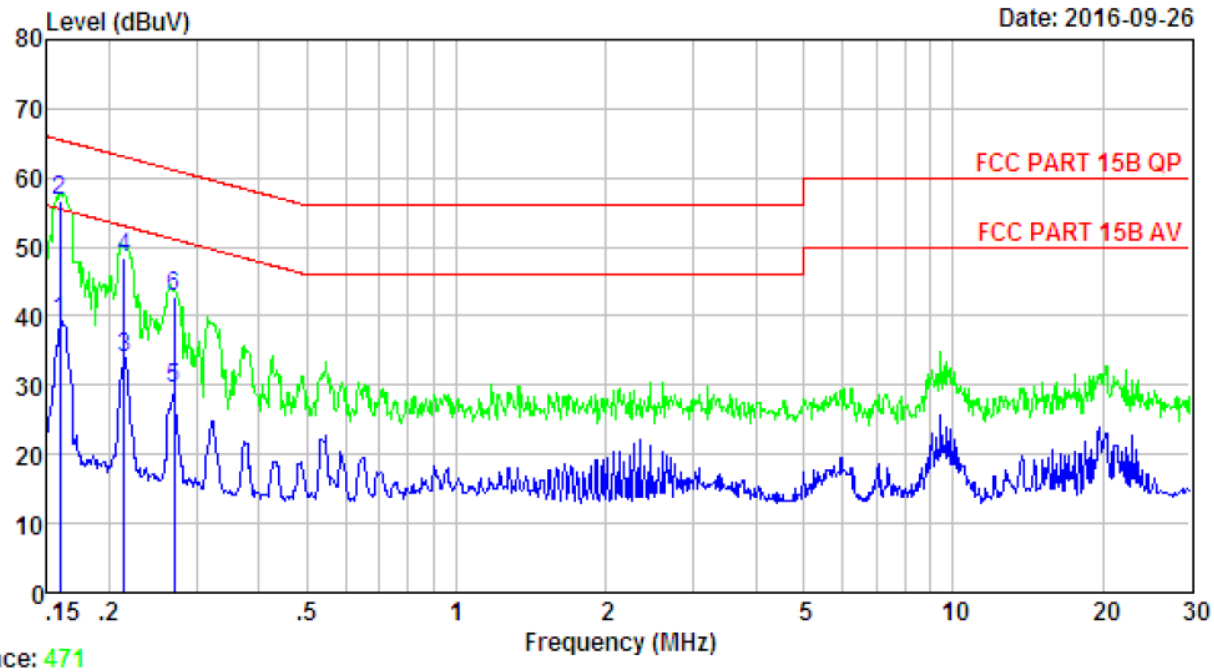
	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.16	9.49	9.81	16.37	35.67	55.52	19.85	Average
2	0.16	9.49	9.81	35.33	54.63	65.52	10.89	QP
3	0.21	9.60	9.80	10.21	29.61	53.18	23.57	Average
4	0.21	9.60	9.80	29.06	48.46	63.18	14.72	QP
5	0.26	9.60	9.82	10.11	29.53	51.34	21.81	Average
6	0.26	9.60	9.82	24.55	43.97	61.34	17.37	QP



Trace: 469

```
Site no      : 844 Shield Room                      Data no.    : 470
Env. / Ins.  : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : LINE
Limit        : FCC PART 15B QP
Engineer     : Tony
EUT          : Bluetooth Speaker
Power        : DC 15V From Adapter Input AC 240V/50Hz
M/N          : Beoplay A2 Active
Test Mode    : TX Mode
```

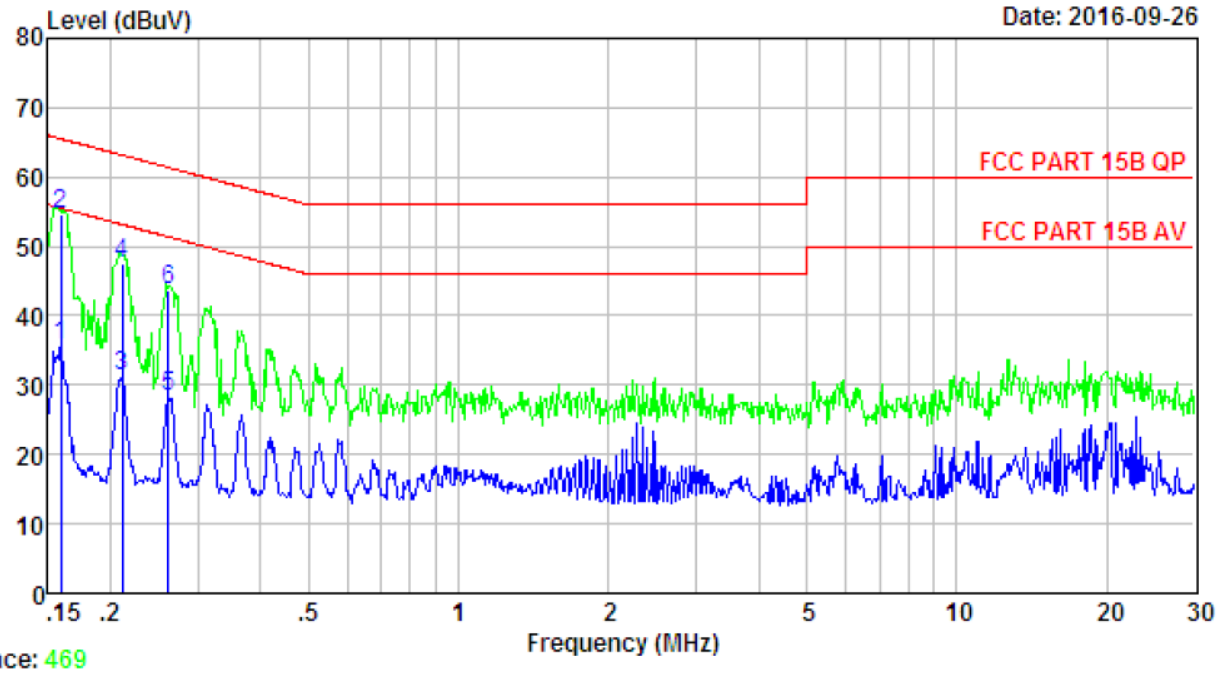
	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.16	9.61	9.81	16.19	35.61	55.52	19.91	Average
2	0.16	9.61	9.81	35.13	54.55	65.52	10.97	QP
3	0.21	9.61	9.80	11.96	31.37	53.14	21.77	Average
4	0.21	9.61	9.80	28.00	47.41	63.14	15.73	QP
5	0.26	9.61	9.82	8.87	28.30	51.38	23.08	Average
6	0.26	9.61	9.82	24.25	43.68	61.38	17.70	QP



Trace: 471

```
Site no      : 844 Shield Room                      Data no.   : 472
Env. / Ins.  : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : LINE
Limit        : FCC PART 15B QP
Engineer     : Tony
EUT          : Bluetooth Speaker
Power        : DC 15V From Adapter Input AC 120V/60Hz
M/N          : Beoplay A2 Active
Test Mode    : TX Mode
```

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.16	9.61	9.81	19.84	39.26	55.52	16.26	Average
2	0.16	9.61	9.81	37.13	56.55	65.52	8.97	QP
3	0.21	9.61	9.80	14.68	34.09	53.05	18.96	Average
4	0.21	9.61	9.80	29.00	48.41	63.05	14.64	QP
5	0.27	9.61	9.83	10.15	29.59	51.12	21.53	Average
6	0.27	9.61	9.83	23.50	42.94	61.12	18.18	QP



Trace: 469

```
Site no      : 844 Shield Room                      Data no.    : 470
Env. / Ins.  : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : LINE
Limit        : FCC PART 15B QP
Engineer     : Tony
EUT          : Bluetooth Speaker
Power        : DC 15V From Adapter Input AC 240V/50Hz
M/N          : Beoplay A2 Active
Test Mode    : TX Mode
```

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.16	9.61	9.81	16.19	35.61	55.52	19.91	Average
2	0.16	9.61	9.81	35.13	54.55	65.52	10.97	QP
3	0.21	9.61	9.80	11.96	31.37	53.14	21.77	Average
4	0.21	9.61	9.80	28.00	47.41	63.14	15.73	QP
5	0.26	9.61	9.82	8.87	28.30	51.38	23.08	Average
6	0.26	9.61	9.82	24.25	43.68	61.38	17.70	QP

4 RADIATED EMISSION TEST

4.1 Limit

4.1.1 15.209 limits

Frequency (MHz)	Field strength (μV/m)	Distance (m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark：(1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

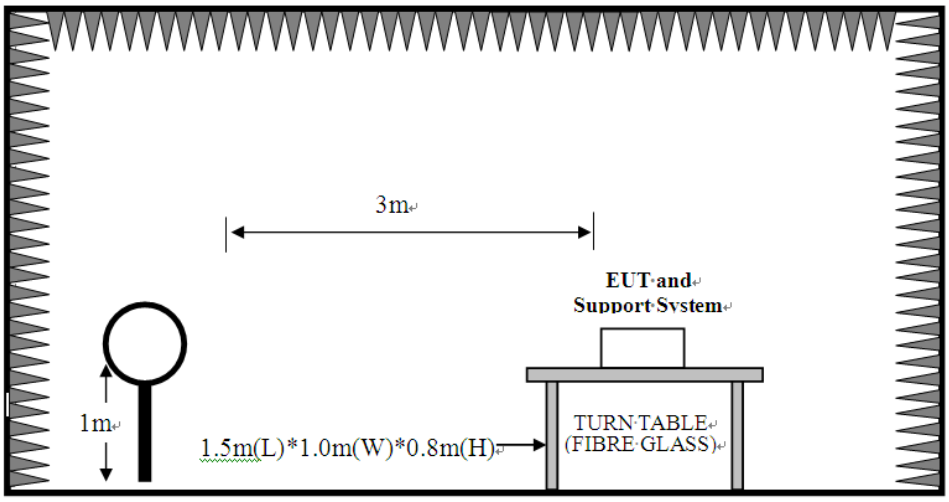
4.1.2 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

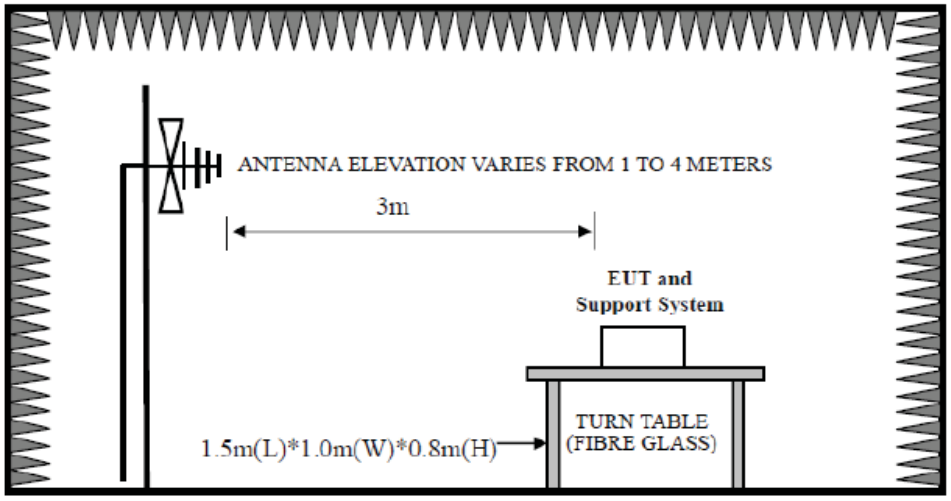
All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.2. Block Diagram of Test setup

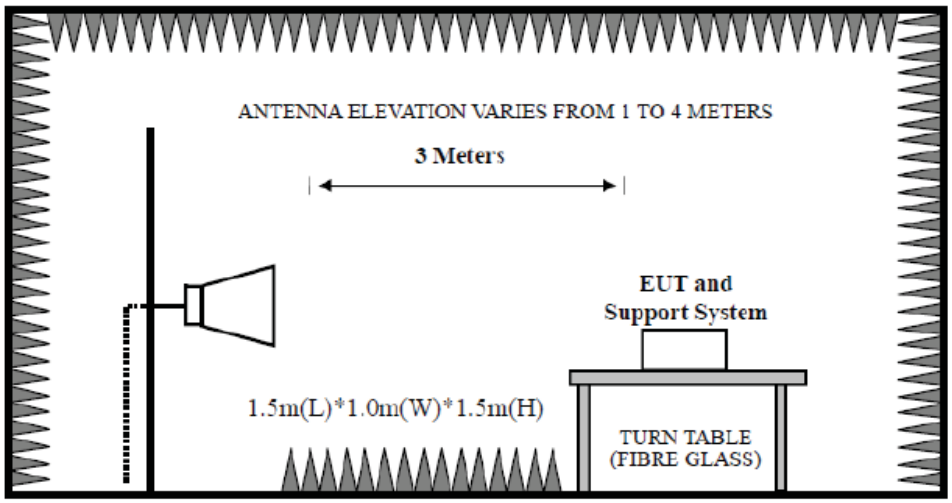
9kHz~30MHz



30~1000MHz



Above 1GHz



4.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 9kHz~1000MHz test, and wiich is 1.5 meter high above ground for above 1GHz test. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

The test frequency analyzer system was set to Peak Detect (300Hz RBW in 9kHz to 150kHz and 10kHz RBW in 150kHz to 30MHz) Function and Specified Bandwidth with Maximum Hold Mode.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

PEAK detector, 1MHz/1MHz for PAEK measurement,

PEAK detector, 1MHz/10Hz for Average measurement

The frequency range from 30MHz to 10th harmonic (25GHz) are checked.

4.4. Test Result

PASS.

All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

Note: 1、For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

2、The frequency 2402MHz 、2440MHz and 2480 MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

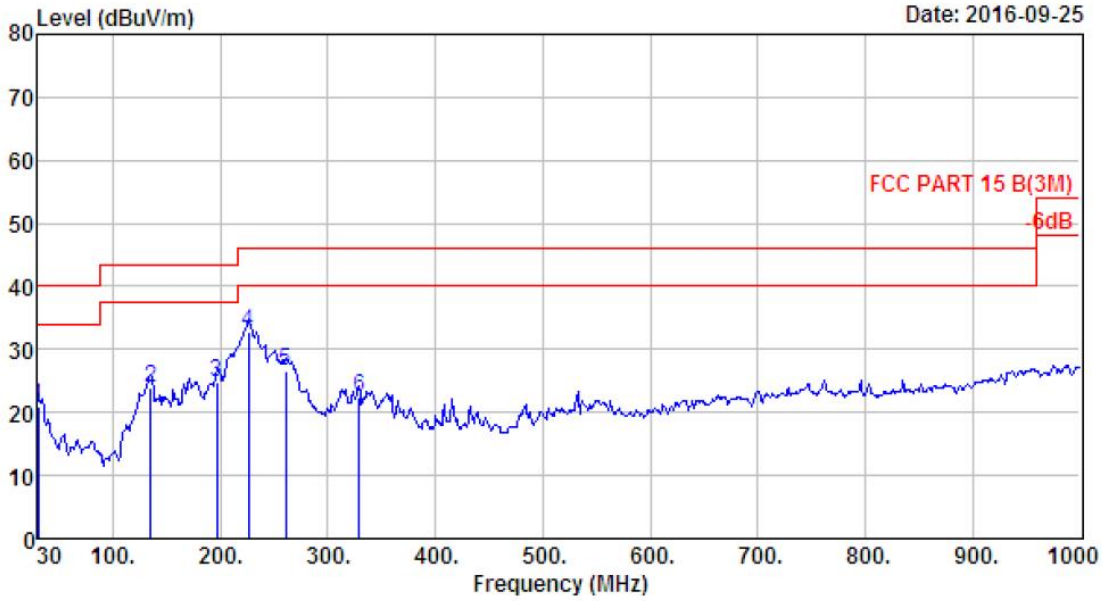
4.5. Test Data

9 kHz – 30 MHz

Pass

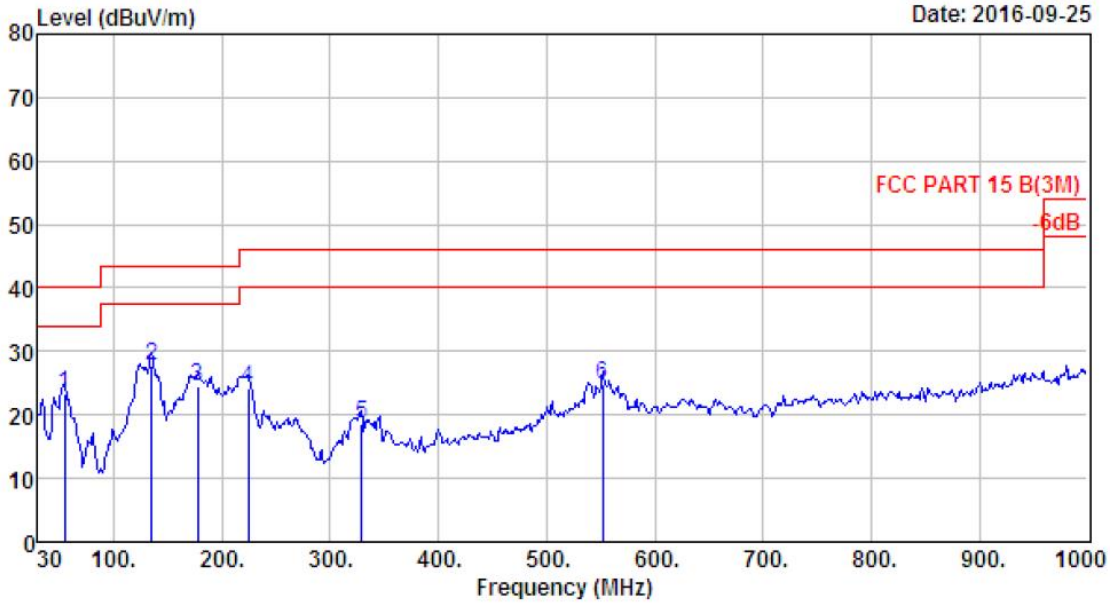
Note: The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

30-1000 MHz



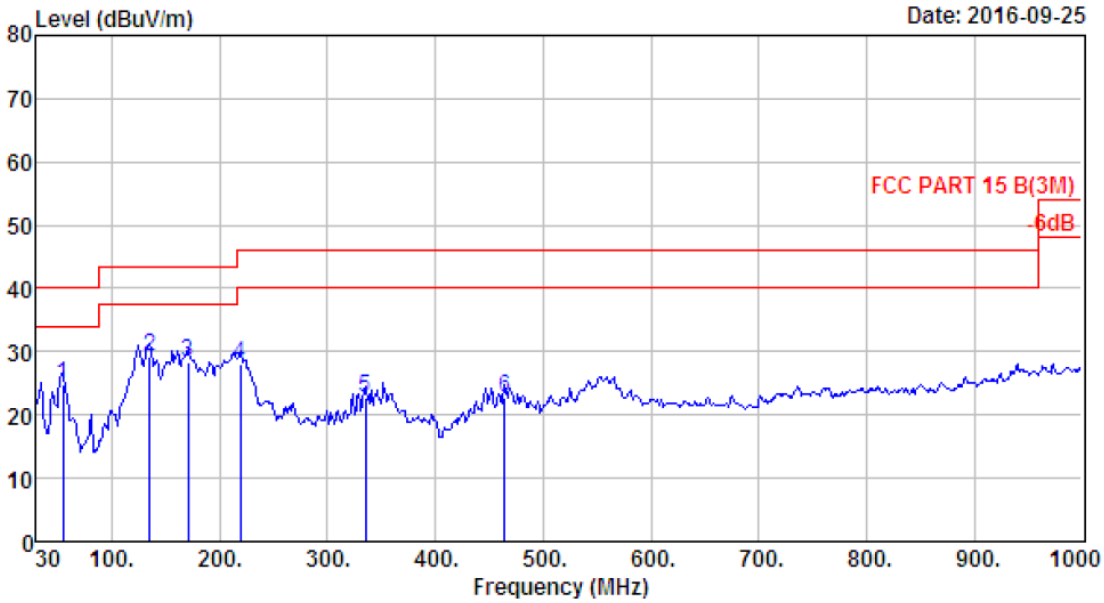

```
Site no.      : 966 1# chamber              Data no.  : 305
Dis. / Ant.   : 3m   27137                  Ant. pol. : HORIZONTAL
Limit         : FCC PART 15 B(3M)
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : Bluetooth Speaker
Power         : DC 7.2V
M/N           : Beoplay A2 Active
Test Mode     : GFSK TX 2402MHz
```

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	18.51	0.65	1.90	21.06	40.00	18.94	QP
2	134.76	11.37	1.57	10.90	23.84	43.50	19.66	QP
3	196.84	7.72	1.81	15.38	24.91	43.50	18.59	QP
4	225.94	9.47	1.99	21.29	32.75	46.00	13.25	QP
5	260.86	12.96	2.22	11.50	26.68	46.00	19.32	QP
6	328.76	13.82	2.44	6.05	22.31	46.00	23.69	QP



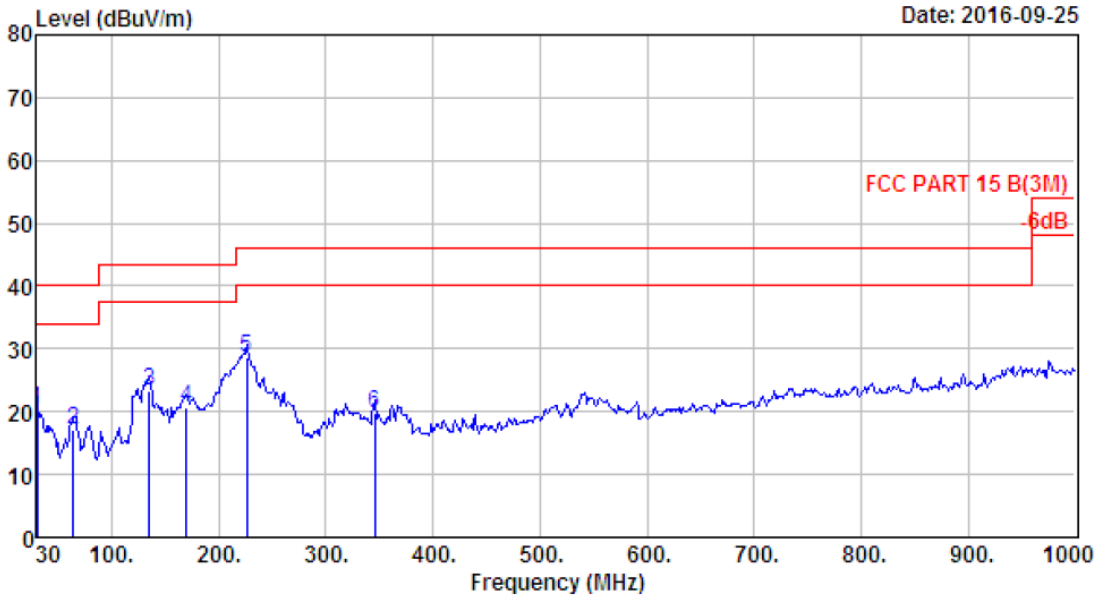
Site no. : 966 1# chamber Data no. : 306
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2402MHz

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	54.25	5.82	0.93	16.47	23.22	40.00	16.78	QP
2	134.76	11.37	1.57	14.88	27.82	43.50	15.68	QP
3	177.44	8.97	1.67	13.94	24.58	43.50	18.92	QP
4	224.00	9.42	2.01	12.91	24.34	46.00	21.66	QP
5	328.76	13.82	2.44	2.34	18.60	46.00	27.40	QP
6	551.86	19.50	3.29	1.96	24.75	46.00	21.25	QP



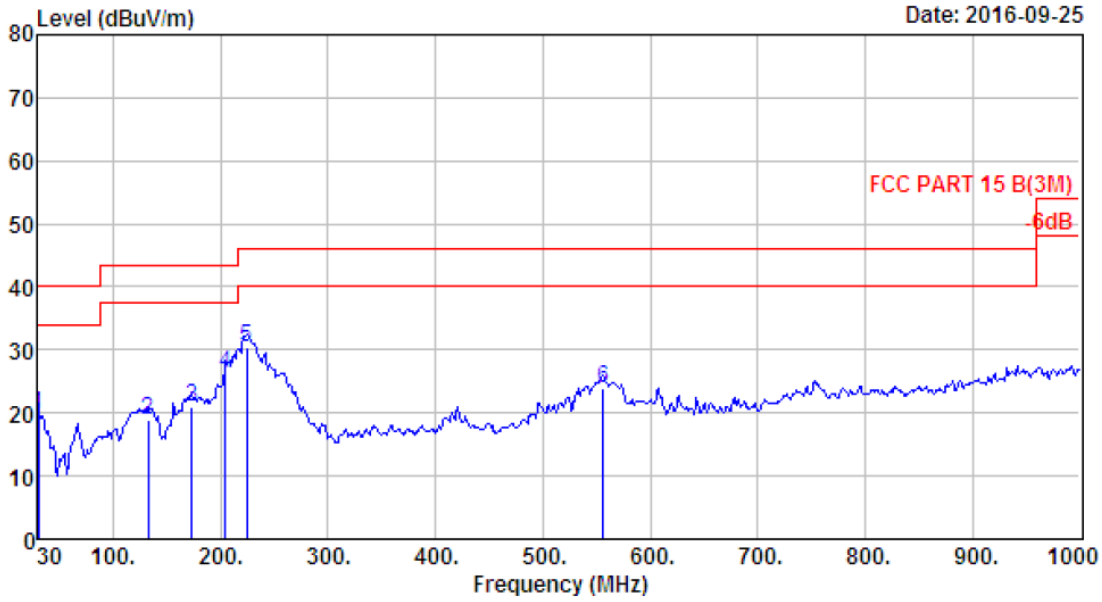
Site no. : 966 1# chamber Data no. : 307
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2440MHz

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	54.25	5.82	0.93	17.99	24.74	40.00	15.26	QP
2	134.76	11.37	1.57	16.35	29.29	43.50	14.21	QP
3	170.65	9.16	1.69	17.48	28.33	43.50	15.17	QP
4	219.15	9.10	1.94	16.95	27.99	46.00	18.01	QP
5	335.55	14.02	2.50	6.08	22.60	46.00	23.40	QP
6	464.56	17.01	3.02	2.82	22.85	46.00	23.15	QP



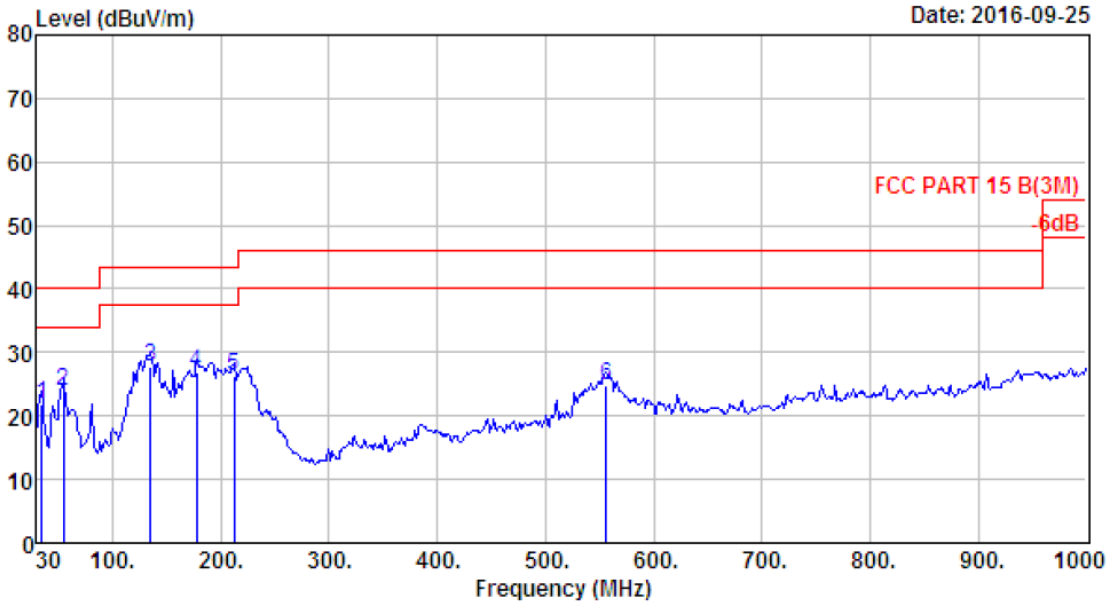
Site no. : 966 1# chamber Data no. : 308
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2440MHz

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	18.51	0.65	1.28	20.44	40.00	19.56	QP
2	63.95	4.87	1.02	11.31	17.20	40.00	22.80	QP
3	134.76	11.37	1.57	10.46	23.40	43.50	20.10	QP
4	169.68	9.20	1.69	9.83	20.72	43.50	22.78	QP
5	225.94	9.47	1.99	17.10	28.56	46.00	17.44	QP
6	345.25	14.32	2.54	2.93	19.79	46.00	26.21	QP



Site no. : 966 1# chamber Data no. : 309
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2480MHz

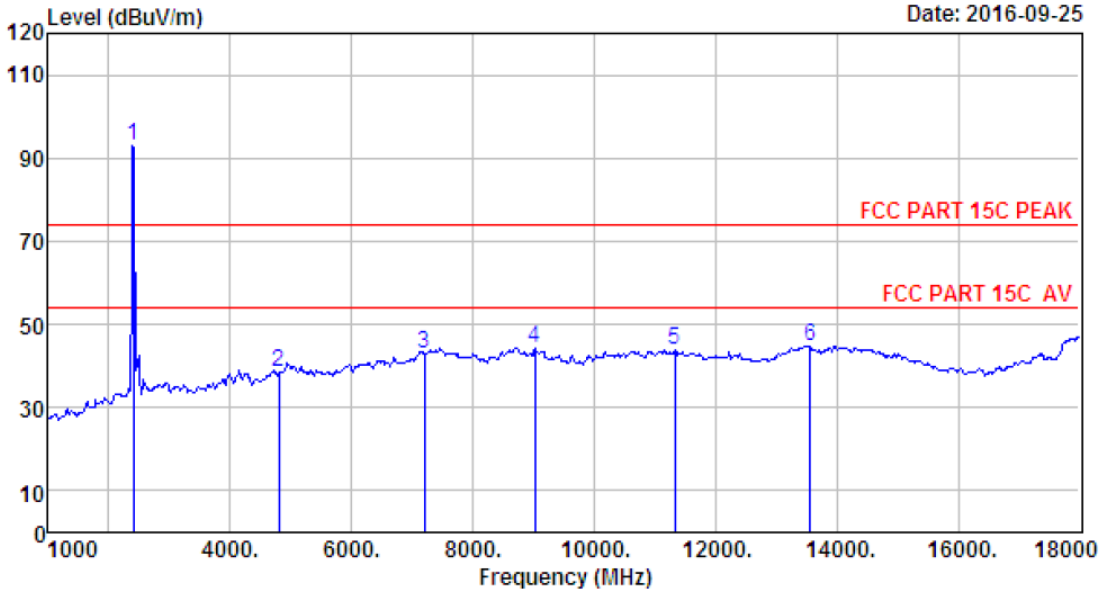
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	18.51	0.65	0.52	19.68	40.00	20.32	QP
2	132.82	11.35	1.53	5.98	18.86	43.50	24.64	QP
3	173.56	9.03	1.68	10.22	20.93	43.50	22.57	QP
4	204.60	7.91	1.88	16.54	26.33	43.50	17.17	QP
5	224.00	9.42	2.01	19.00	30.43	46.00	15.57	QP
6	555.74	19.61	3.25	1.16	24.02	46.00	21.98	QP



Site no. : 966 1# chamber Data no. : 310
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2480MHz

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	34.85	15.55	0.72	5.64	21.91	40.00	18.09	QP
2	54.25	5.82	0.93	17.23	23.98	40.00	16.02	QP
3	134.76	11.37	1.57	14.75	27.69	43.50	15.81	QP
4	177.44	8.97	1.67	16.27	26.91	43.50	16.59	QP
5	212.36	8.56	1.91	15.94	26.41	43.50	17.09	QP
6	555.74	19.61	3.25	1.92	24.78	46.00	21.22	QP

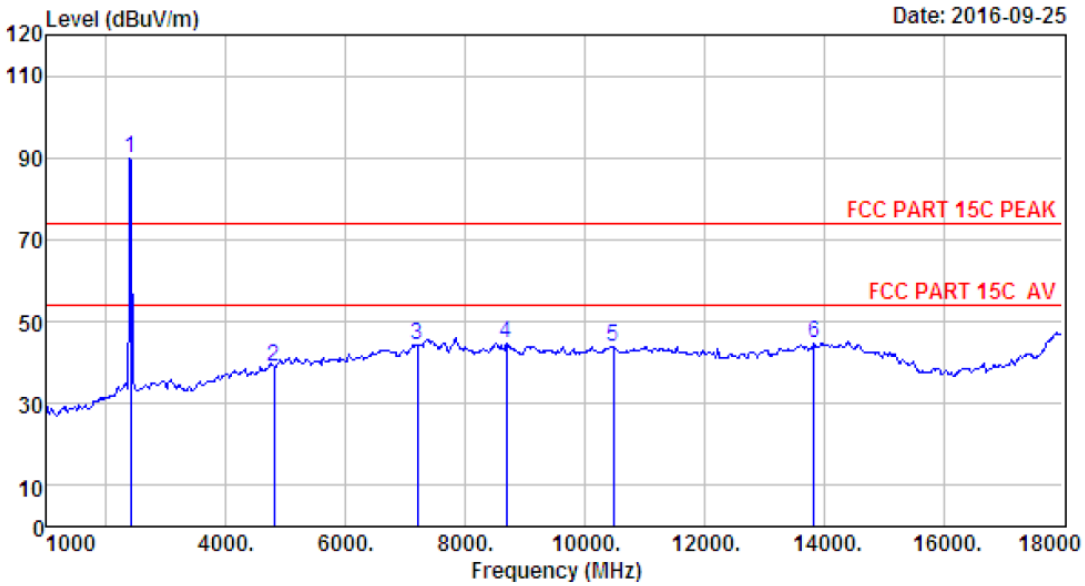
1000-18000 MHz




```
Site no.      : 966 1# chamber              Data no.  : 277
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : VERTICAL
Limit         : FCC PART 15C PEAK
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : Bluetooth Speaker
Power         : DC 7.2V
M/N           : Beoplay A2 Active
Test Mode     : GFSK TX 2402MHz
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27.61	6.62	34.64	93.47	93.06	74.00	-19.06	Peak
2	4804.00	31.25	11.77	35.64	31.00	38.38	74.00	35.62	Peak
3	7206.00	36.52	11.54	33.95	28.77	42.88	74.00	31.12	Peak
4	9024.00	37.43	11.47	34.30	29.78	44.38	74.00	29.62	Peak
5	11336.00	39.30	11.04	33.44	26.94	43.84	74.00	30.16	Peak
6	13563.00	40.26	11.42	32.62	25.81	44.87	74.00	29.13	Peak

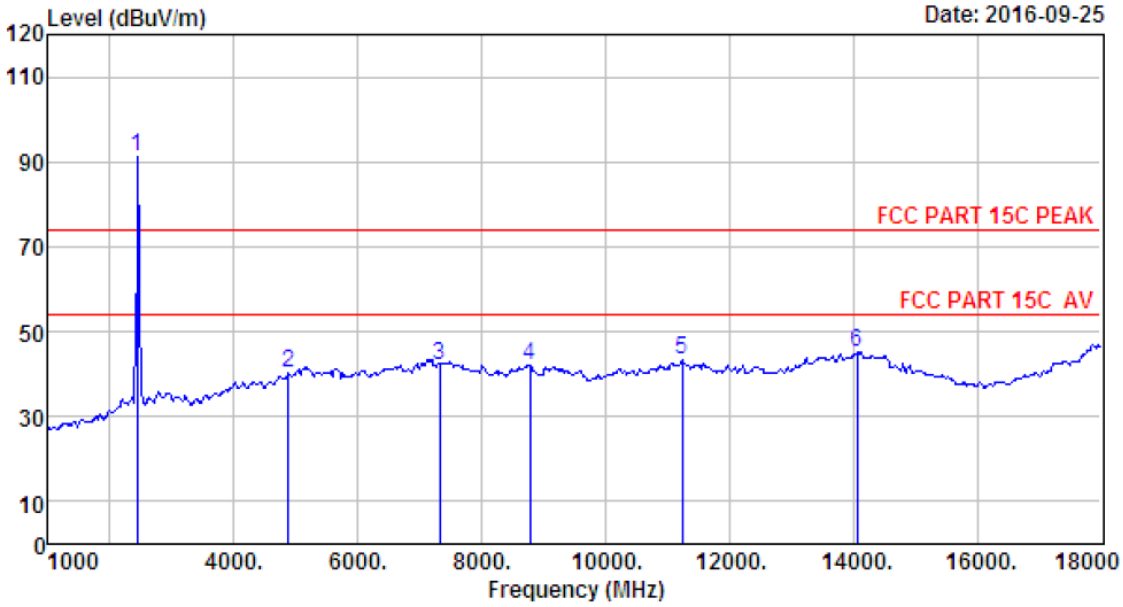
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 278
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27.61	6.62	34.64	90.21	89.80	74.00	-15.80	Peak
2	4804.00	31.25	11.77	35.64	31.79	39.17	74.00	34.83	Peak
3	7206.00	36.52	11.54	33.95	30.38	44.49	74.00	29.51	Peak
4	8684.00	37.32	11.45	33.66	29.64	44.75	74.00	29.25	Peak
5	10486.00	38.95	11.32	34.50	28.19	43.96	74.00	30.04	Peak
6	13835.00	41.02	11.10	33.06	25.58	44.64	74.00	29.36	Peak

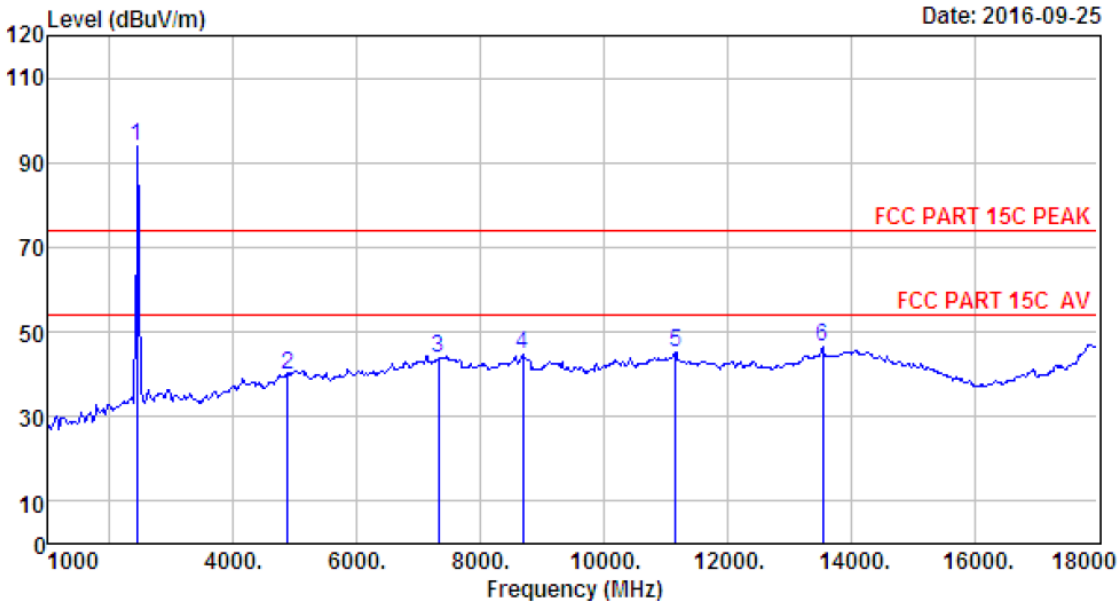
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 279
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2440MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.00	27.60	6.67	34.85	91.95	91.37	74.00	-17.37	Peak
2	4880.00	31.37	12.07	35.76	32.43	40.11	74.00	33.89	Peak
3	7320.00	36.55	11.57	34.14	28.29	42.27	74.00	31.73	Peak
4	8786.00	37.48	11.46	33.90	27.05	42.09	74.00	31.91	Peak
5	11234.00	39.37	11.12	33.25	26.07	43.31	74.00	30.69	Peak
6	14056.00	41.51	10.90	33.06	25.93	45.28	74.00	28.72	Peak

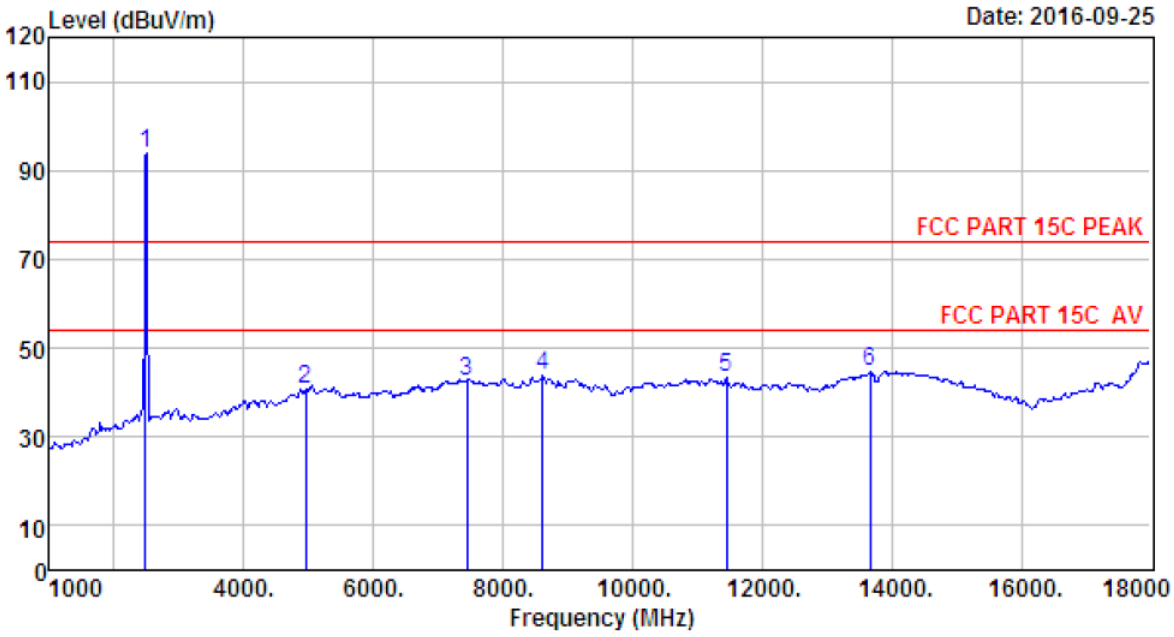
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 280
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2440MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.00	27.60	6.67	34.85	94.40	93.82	74.00	-19.82	Peak
2	4880.00	31.37	12.07	35.76	32.24	39.92	74.00	34.08	Peak
3	7320.00	36.55	11.57	34.14	29.91	43.89	74.00	30.11	Peak
4	8684.00	37.32	11.45	33.66	29.47	44.58	74.00	29.42	Peak
5	11166.00	39.41	11.17	33.31	28.07	45.34	74.00	28.66	Peak
6	13546.00	40.21	11.44	32.61	27.41	46.45	74.00	27.55	Peak

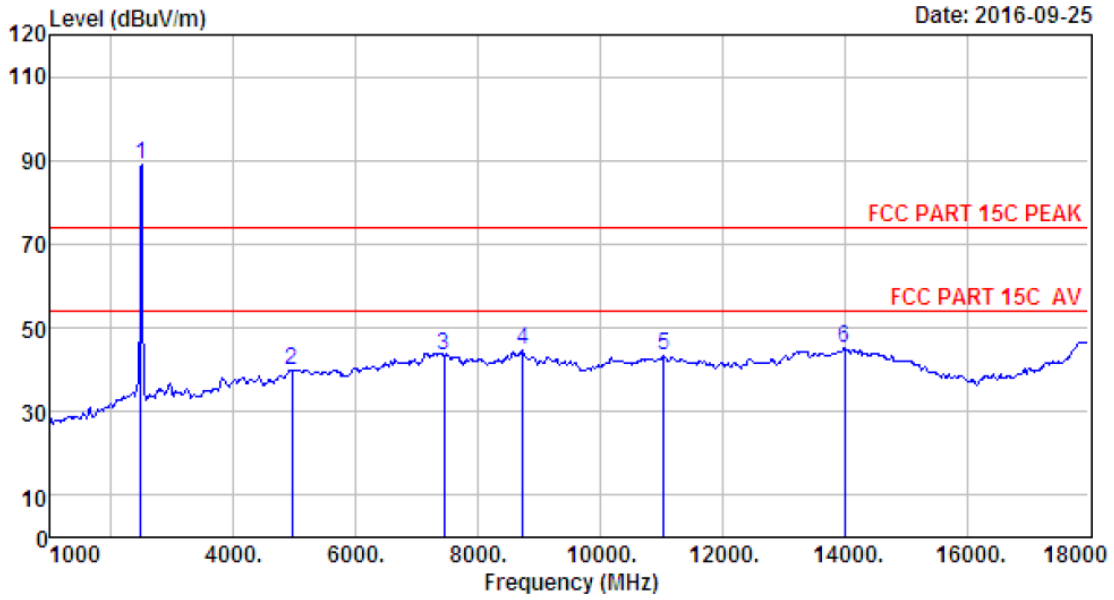
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 281
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	35.11	94.49	93.67	74.00	-19.67	Peak
2	4960.00	31.49	12.44	36.01	32.81	40.73	74.00	33.27	Peak
3	7440.00	36.54	11.61	34.22	28.69	42.62	74.00	31.38	Peak
4	8616.00	37.22	11.45	33.77	28.90	43.80	74.00	30.20	Peak
5	11455.00	39.23	10.96	33.53	26.55	43.21	74.00	30.79	Peak
6	13665.00	40.55	11.30	32.75	25.66	44.76	74.00	29.24	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 282
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	35.11	89.71	88.89	74.00	-14.89	Peak
2	4960.00	31.49	12.44	36.01	31.94	39.86	74.00	34.14	Peak
3	7440.00	36.54	11.61	34.22	29.50	43.43	74.00	30.57	Peak
4	8735.00	37.40	11.45	33.76	29.48	44.57	74.00	29.43	Peak
5	11047.00	39.49	11.25	33.92	26.71	43.53	74.00	30.47	Peak
6	14005.00	41.46	10.90	33.01	25.91	45.26	74.00	28.74	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

18000-25000 MHz
Pass
Note: The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

5 CONDUCTED SPURIOUS EMISSION

5.1 Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

5.2 Test Procedure

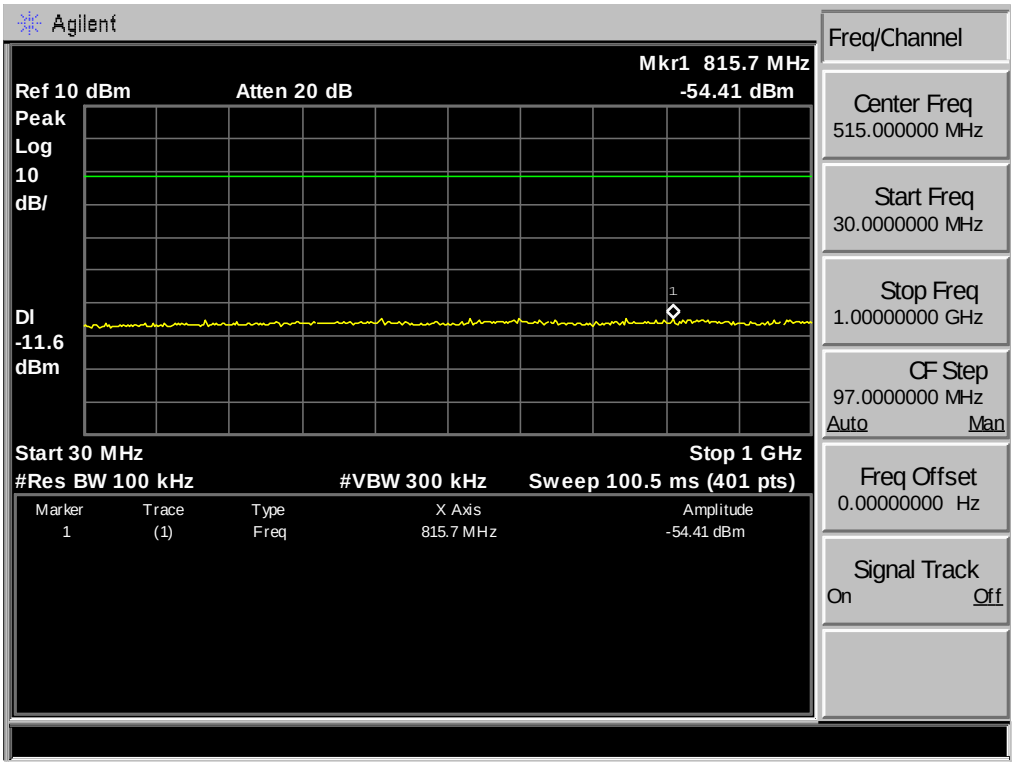
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz for frequency range from 30MHz to 1000 MHz; The resolution bandwidth is set to 1 MHz, The video bandwidth is set to 3 MHz for frequency range from 1000MHz to 25000 MHz.

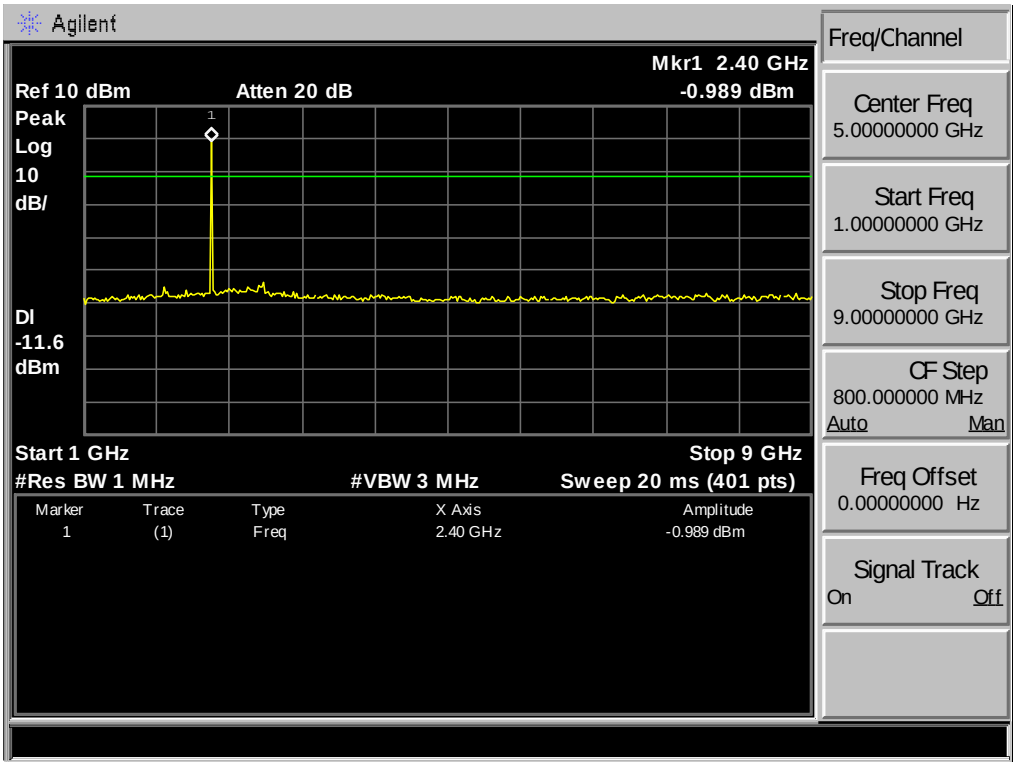
5.3 Test Result

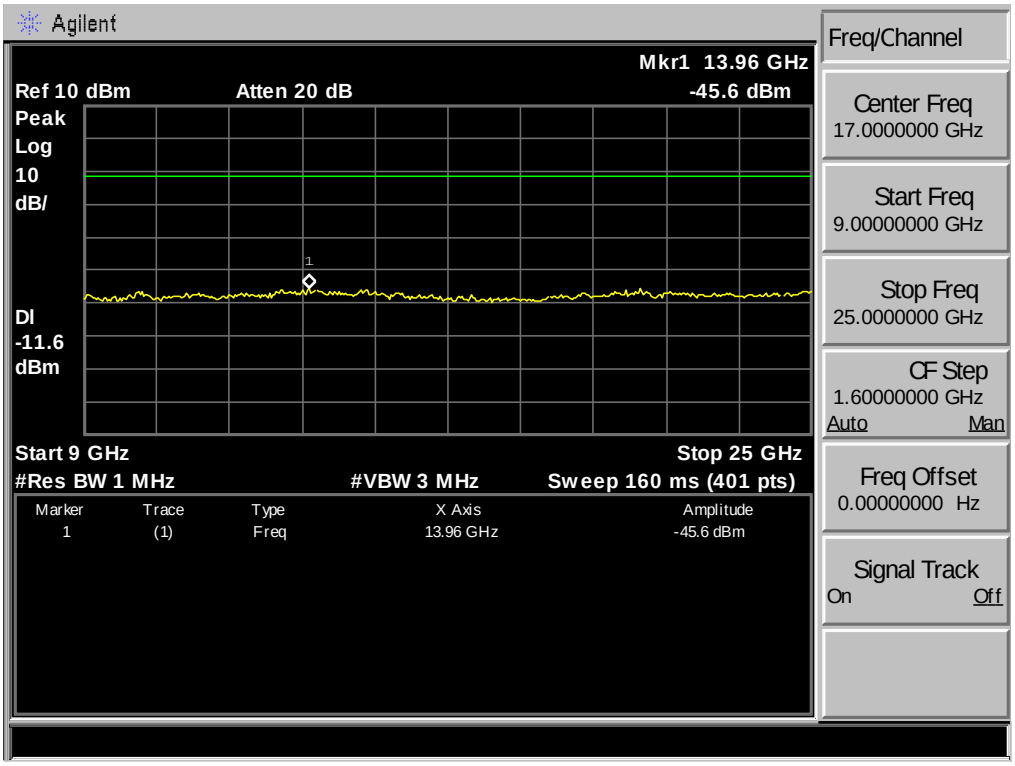
PASS (The testing data was attached in the next pages.)

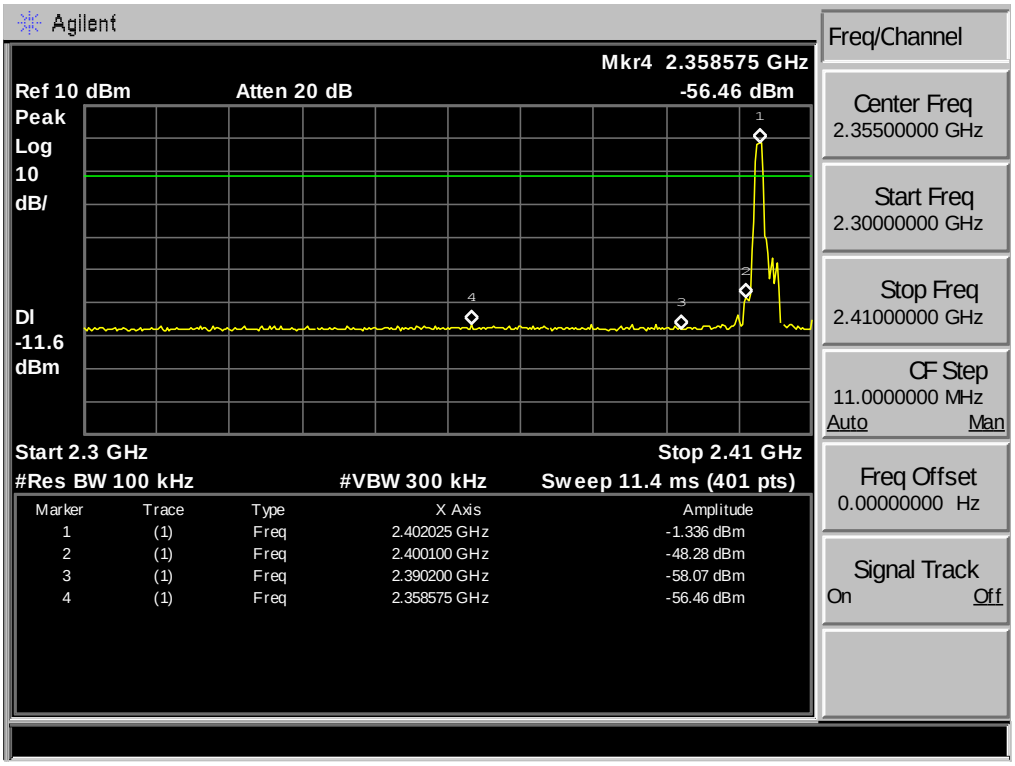
5.4 Test Data

Test Mode: BT 4.0-BLE GFSK 2402MHz

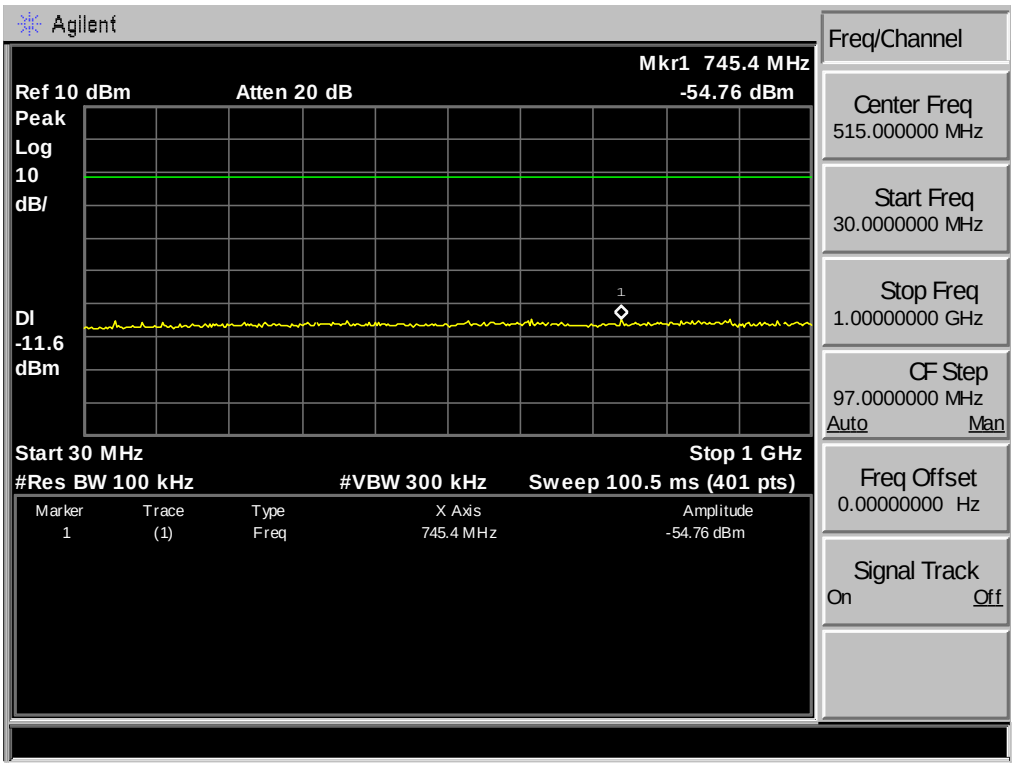


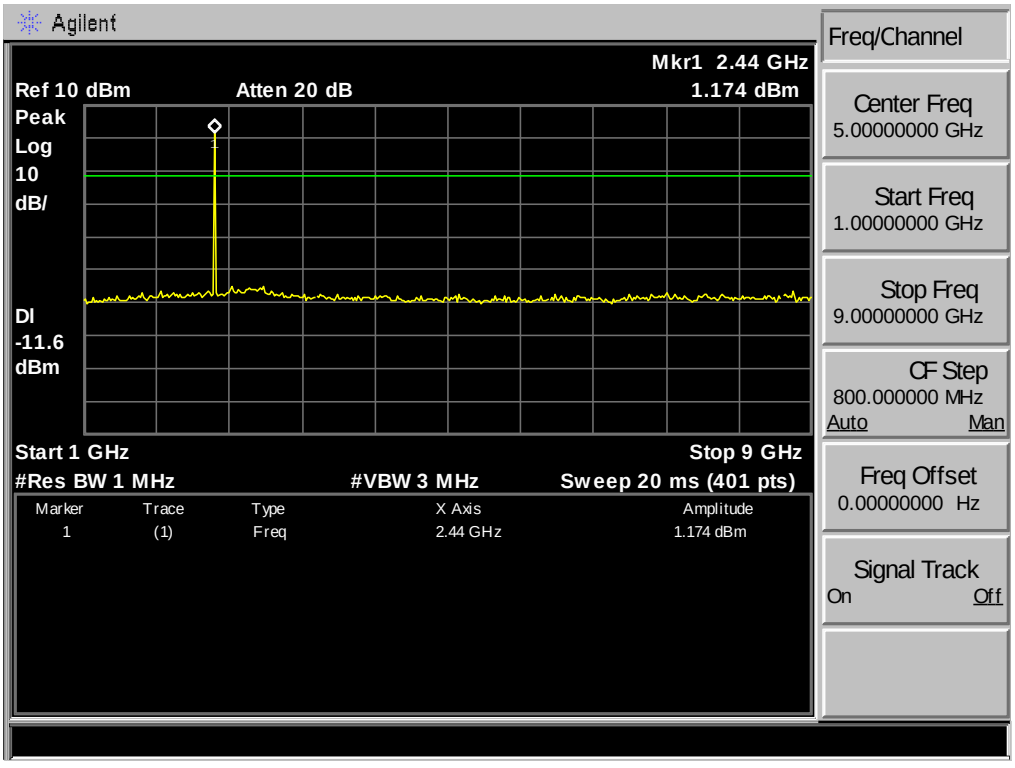


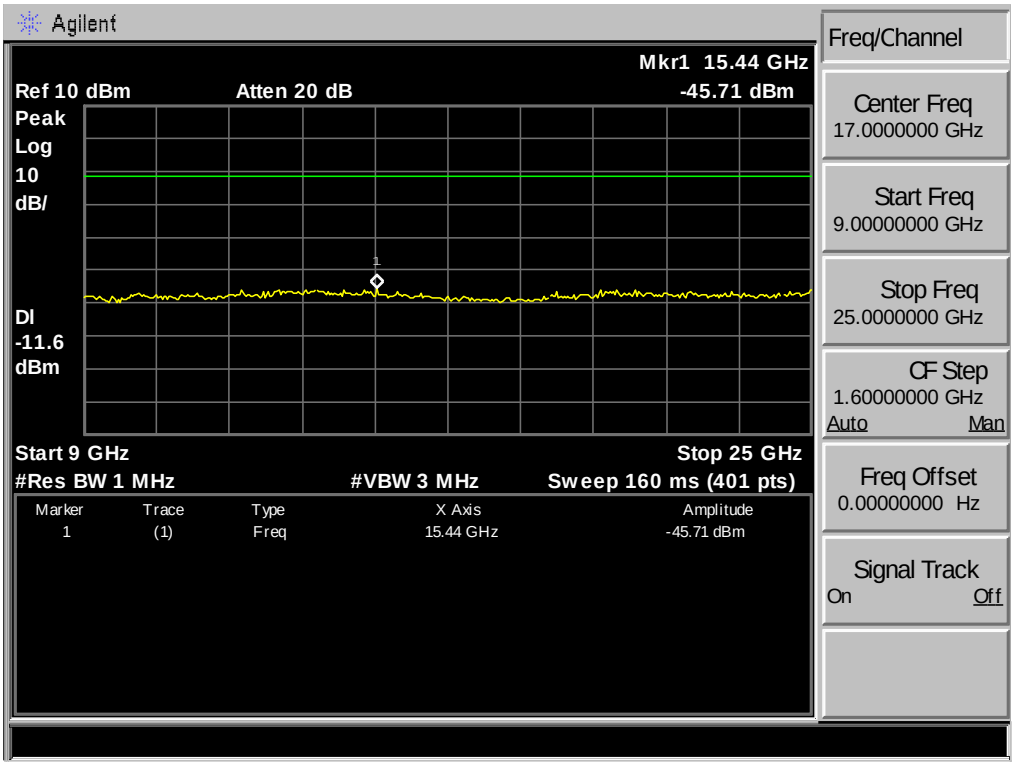

Agilent
Mkr1 13.96 GHz
Ref 10 dBm
Atten 20 dB
-45.6 dBm
Peak
Log
10
dB/
Dl
-11.6
dBm
Start 9 GHz
Stop 25 GHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 160 ms (401 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 13.96 GHz -45.6 dBm
Freq/Channel
Center Freq
17.0000000 GHz
Start Freq
9.00000000 GHz
Stop Freq
25.0000000 GHz
CF Step
1.60000000 GHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off


Agilent
Mkr4 2.358575 GHz
Ref 10 dBm
Atten 20 dB
-56.46 dBm
Peak
Log
10
dB/
Dl
-11.6
dBm
Start 2.3 GHz
Stop 2.41 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 11.4 ms (401 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.402025 GHz -1.336 dBm
2 (1) Freq 2.400100 GHz -48.28 dBm
3 (1) Freq 2.390200 GHz -58.07 dBm
4 (1) Freq 2.358575 GHz -56.46 dBm
Freq/Channel
Center Freq
2.35500000 GHz
Start Freq
2.30000000 GHz
Stop Freq
2.41000000 GHz
CF Step
11.0000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

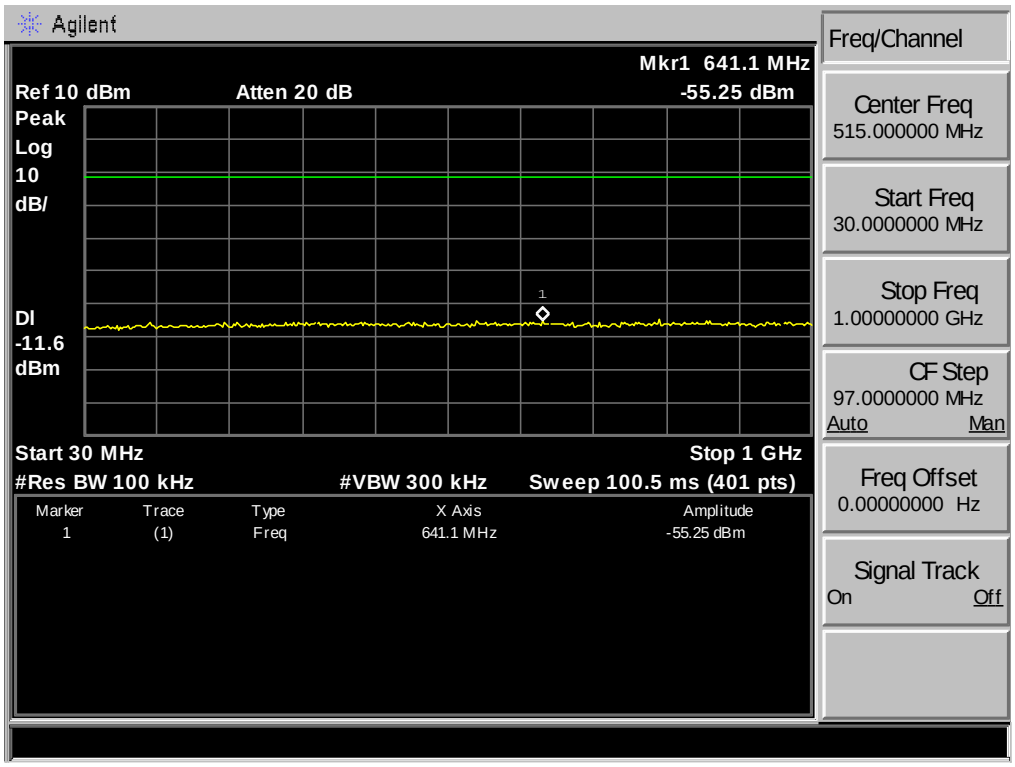
Test Mode: BT 4.0-BLE GFSK 2440MHz

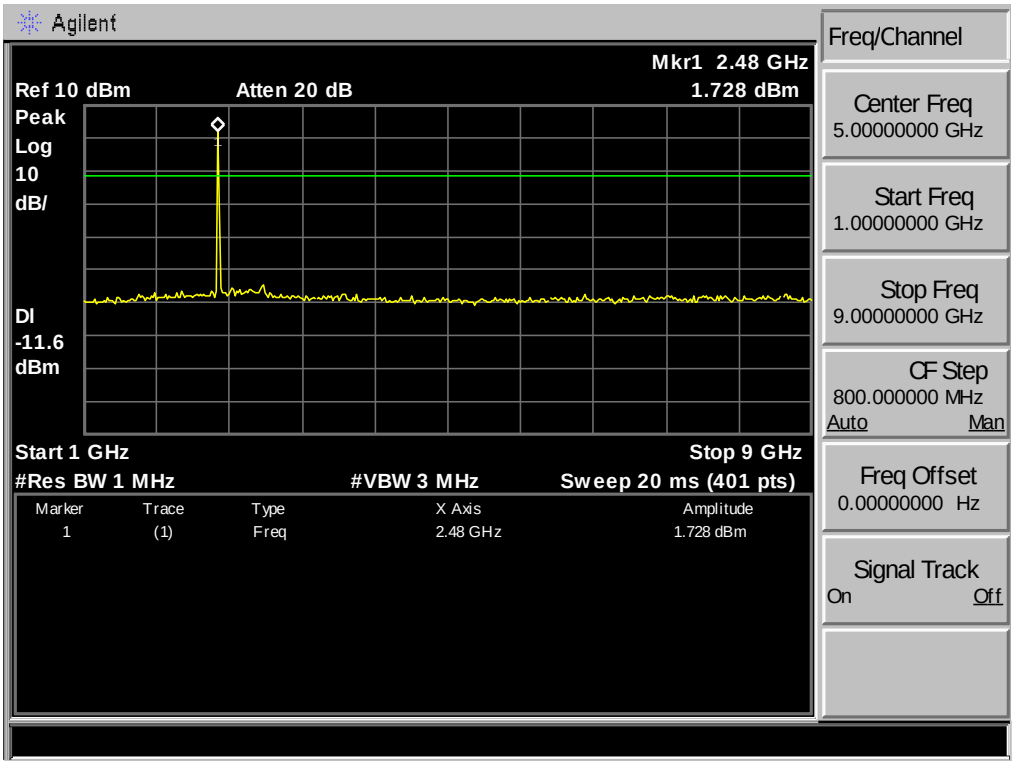


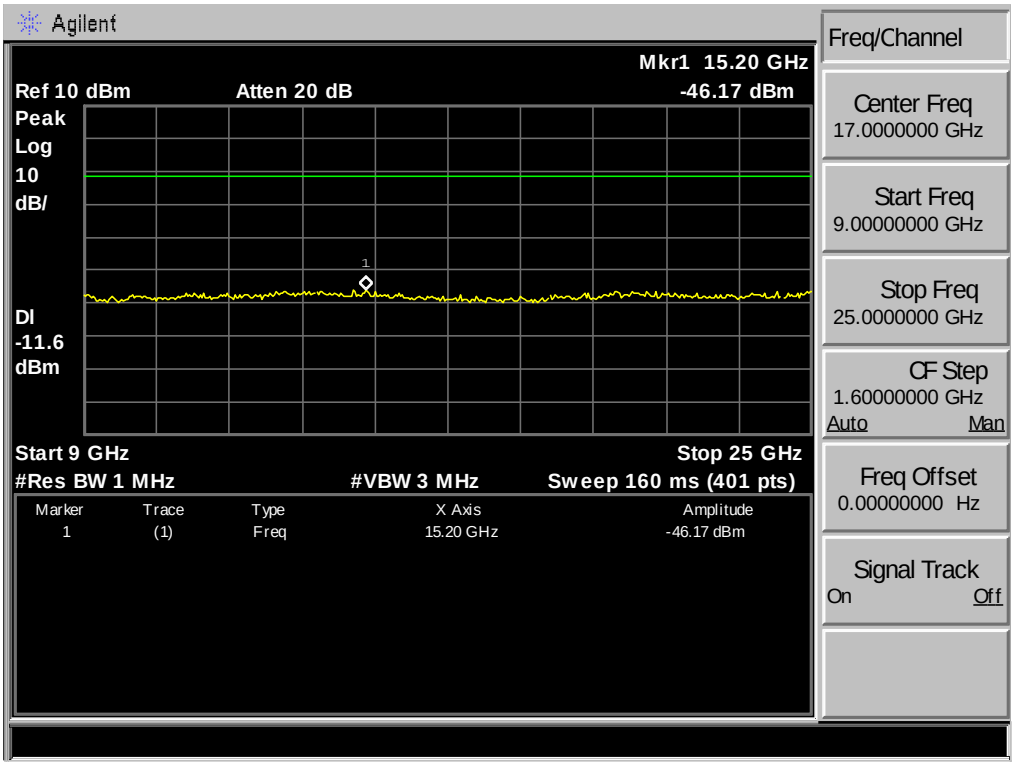


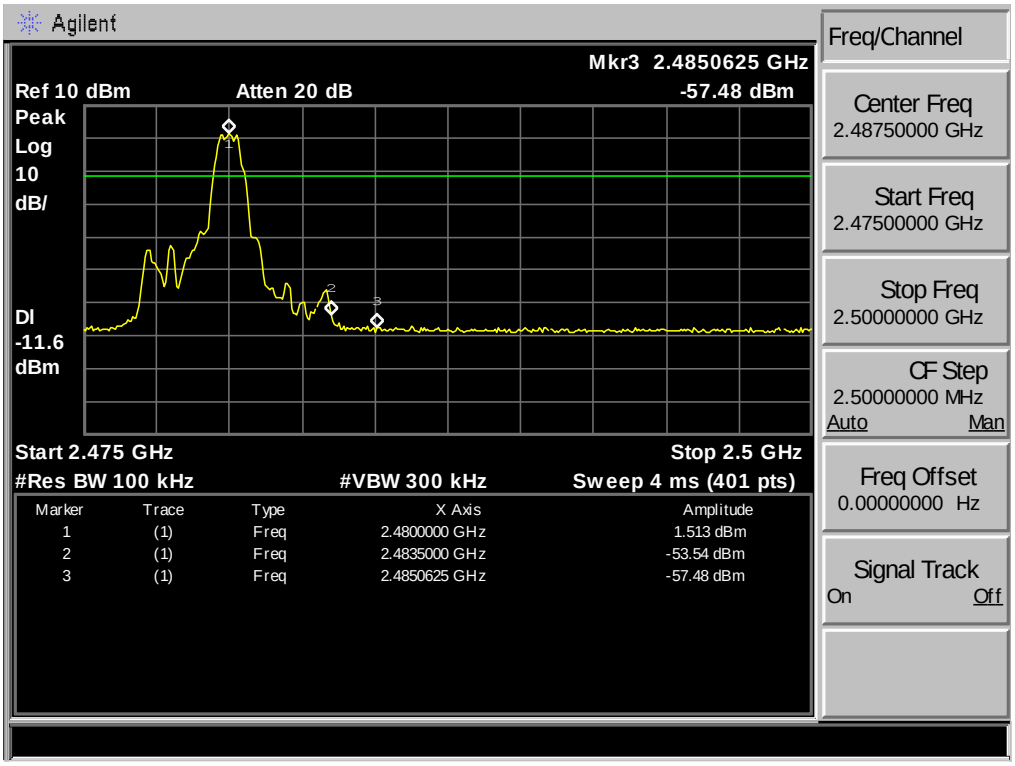

Agilent
Mkr1 15.44 GHz
Ref 10 dBm
Atten 20 dB
-45.71 dBm
Peak
Log
10
dB/
Dl
-11.6
dBm
Start 9 GHz
Stop 25 GHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 160 ms (401 pts)
Marker
Trace
Type
X Axis
Amplitude
1
(1)
Freq
15.44 GHz
-45.71 dBm
Freq/Channel
Center Freq
17.0000000 GHz
Start Freq
9.00000000 GHz
Stop Freq
25.0000000 GHz
CF Step
1.60000000 GHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off

Test Mode: BT 4.0-BLE GFSK 2480MHz






Agilent
Mkr1 15.20 GHz
Ref 10 dBm
Atten 20 dB
-46.17 dBm
Peak
Log
10
dB/
Dl
-11.6
dBm
Start 9 GHz
Stop 25 GHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 160 ms (401 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 15.20 GHz -46.17 dBm
Freq/Channel
Center Freq
17.0000000 GHz
Start Freq
9.00000000 GHz
Stop Freq
25.0000000 GHz
CF Step
1.60000000 GHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

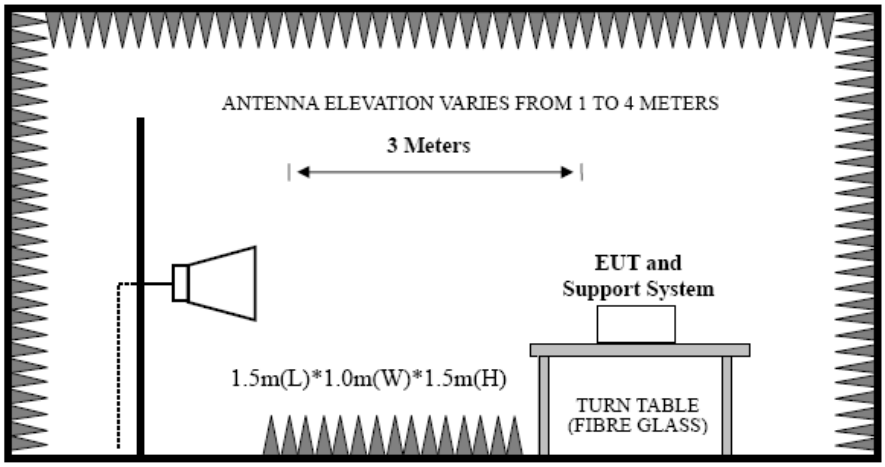

Agilent
Mkr3 2.4850625 GHz
Ref 10 dBm
Atten 20 dB
-57.48 dBm
Peak
Log
10
dB/
Dl
-11.6
dBm
Start 2.475 GHz
Stop 2.5 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 4 ms (401 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.4800000 GHz 1.513 dBm
2 (1) Freq 2.4835000 GHz -53.54 dBm
3 (1) Freq 2.4850625 GHz -57.48 dBm
Freq/Channel
Center Freq
2.48750000 GHz
Start Freq
2.47500000 GHz
Stop Freq
2.50000000 GHz
CF Step
2.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off

6 BAND EDGE COMPLIANCE TEST

6.1 Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits

6.2 Block Diagram of Test setup



6.3 Test Procedure

1. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.

2. The turntable was 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 emission.

4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

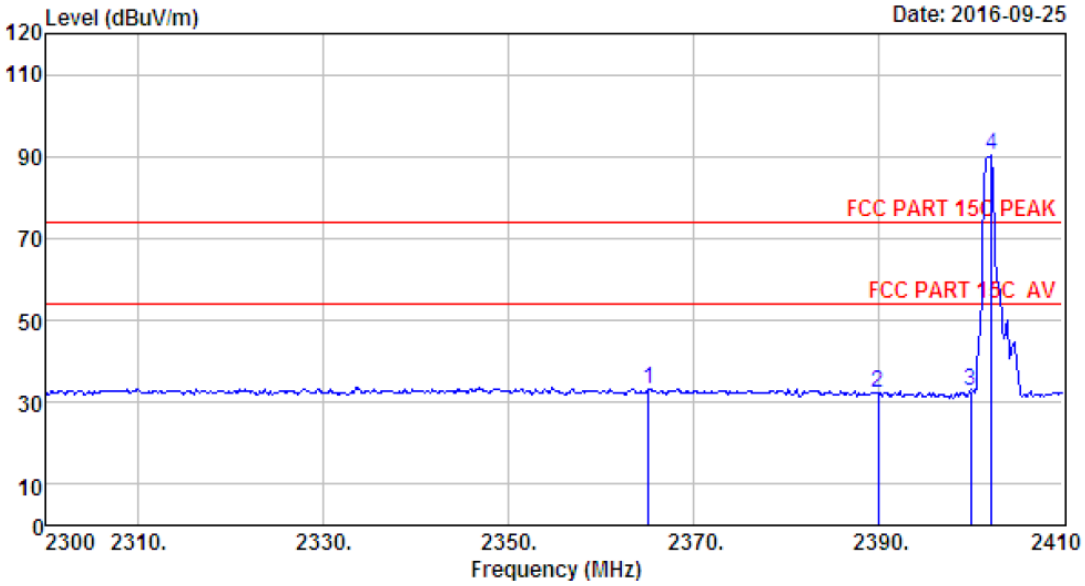
Peak : RBW = 1MHz, VBW = 1MHz, Detector=PEAK detector, Sweep time = auto.
AV : RBW = 1MHz, VBW = 10Hz, Detector=PEAK detector, Sweep time = auto.

6.4 Test Result

Pass (The testing data was attached in the next pages.)

Note: 1、For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
2、The frequency 2402MHz and 2480 MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

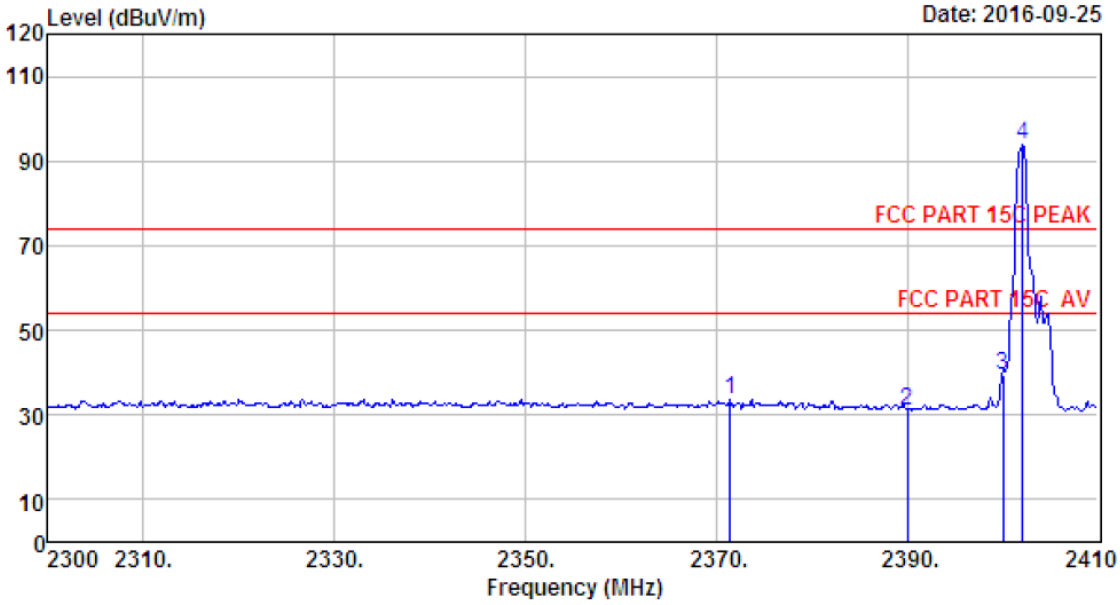
6.5 Test Data



Site no. : 966 1# chamber Data no. : 283
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2365.12	27.67	6.58	34.59	33.54	33.20	74.00	40.80	Peak
2	2390.00	27.64	6.62	34.62	32.63	32.27	74.00	41.73	Peak
3	2400.00	27.61	6.62	34.64	33.15	32.74	74.00	41.26	Peak
4	2402.30	27.61	6.62	34.64	90.58	90.17	74.00	-16.17	Peak

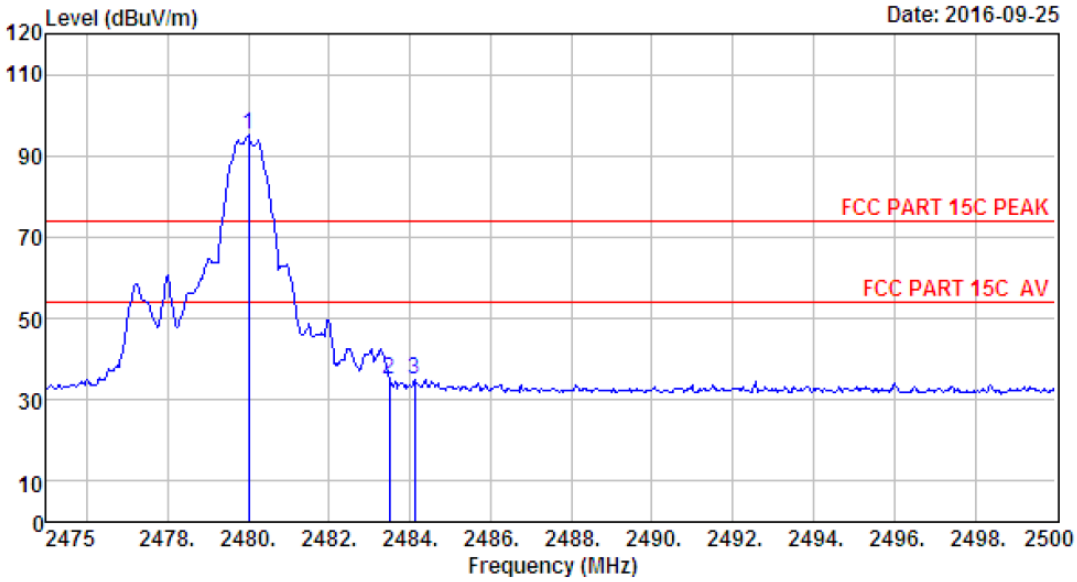
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 284
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2371.50	27.67	6.60	34.59	33.95	33.63	74.00	40.37	Peak
2	2390.00	27.64	6.62	34.62	31.45	31.09	74.00	42.91	Peak
3	2400.00	27.61	6.62	34.64	39.88	39.47	74.00	34.53	Peak
4	2402.08	27.61	6.62	34.64	94.50	94.09	74.00	-20.09	Peak

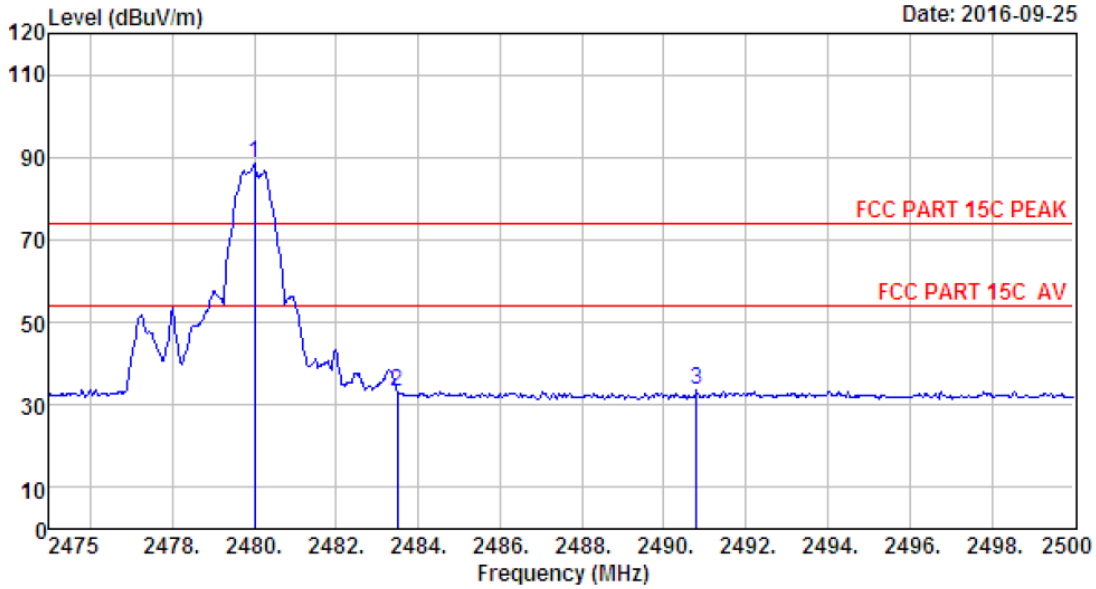
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.




```
Site no.      : 966 1# chamber              Data no.  : 285
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : VERTICAL
Limit         : FCC PART 15C PEAK
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : Bluetooth Speaker
Power         : DC 7.2V
M/N           : Beoplay A2 Active
Test Mode     : GFSK TX 2480MHz
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	35.11	96.08	95.26	74.00	-21.26	Peak
2	2483.50	27.58	6.71	35.11	36.00	35.18	74.00	38.82	Peak
3	2484.13	27.58	6.71	35.11	35.84	35.02	74.00	38.98	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 966 1# chamber Data no. : 286
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : Bluetooth Speaker
Power : DC 7.2V
M/N : Beoplay A2 Active
Test Mode : GFSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	35.11	89.25	88.43	74.00	-14.43	Peak
2	2483.50	27.58	6.71	35.11	33.81	32.99	74.00	41.01	Peak
3	2490.80	27.58	6.73	35.24	34.37	33.44	74.00	40.56	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

7 6dB Bandwidth Test

7.1 Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.2 Test Procedure

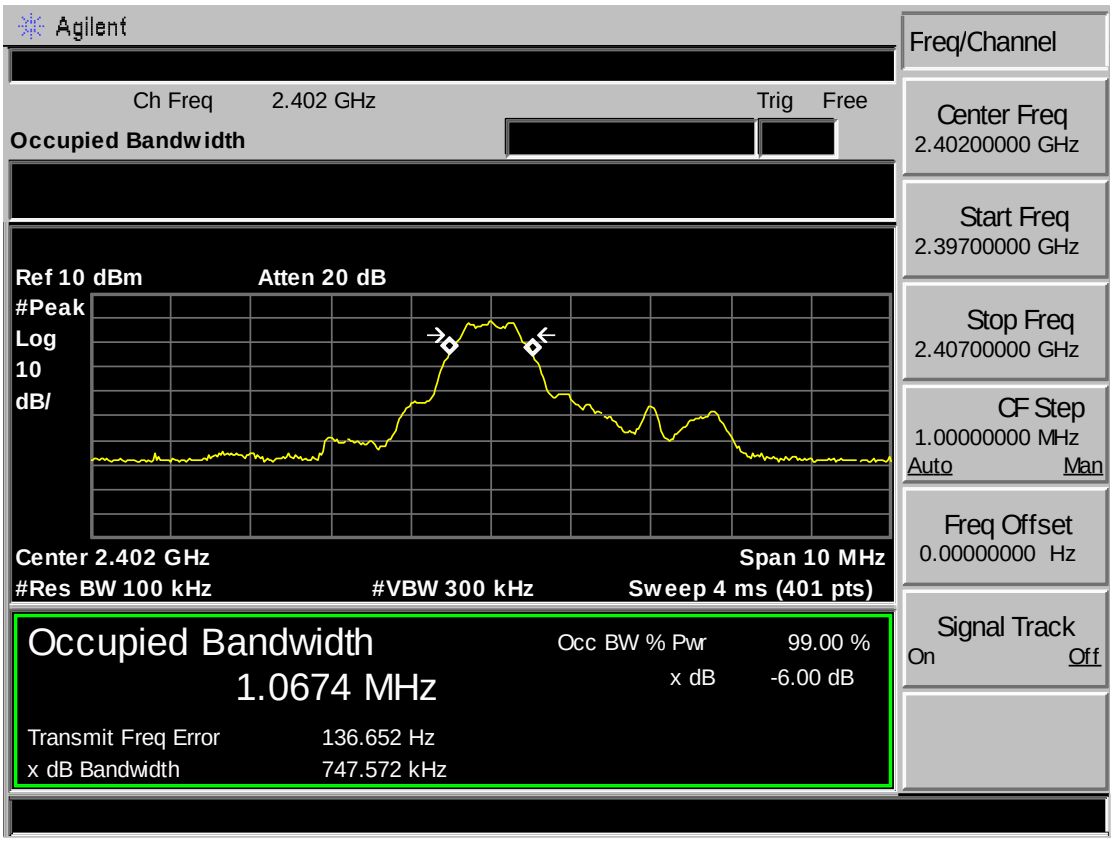
1, Connected the EUT's antenna port to spectrum analyzer device.
2, Follow the test procedure as described in KDB 558074
(1). Set resolution bandwidth (RBW) = 100 kHz.
(2). Set the video bandwidth (VBW) ≥ 3 x RBW.
(3). Detector = Peak.
(4). Trace mode = max hold.
(5). Sweep = auto couple.
(6). Allow the trace to stabilize.
(7). Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3 Test Result

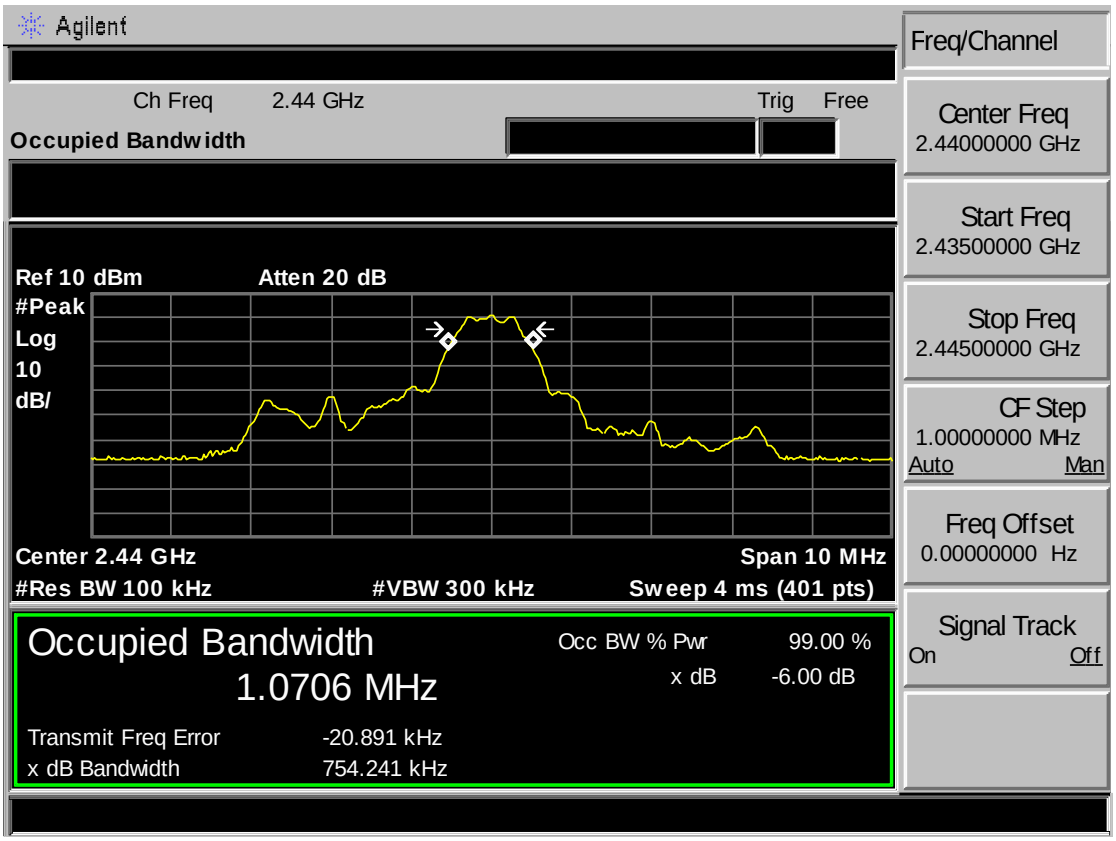
EUT: Bluetooth Speaker			
M/N: Beoplay A2 Active			
Test date: 2016-09-16		Tested by: Tony.Tang	Test site: RF Site
Test Mode	CH	6dB bandwidth（MHz）	Limit (KHz)
BT 4.0-BLE GFSK	CH1	0.748	>500
	CH20	0.754	>500
	CH40	0.761	>500
Conclusion：PASS			

7.4 Test Data

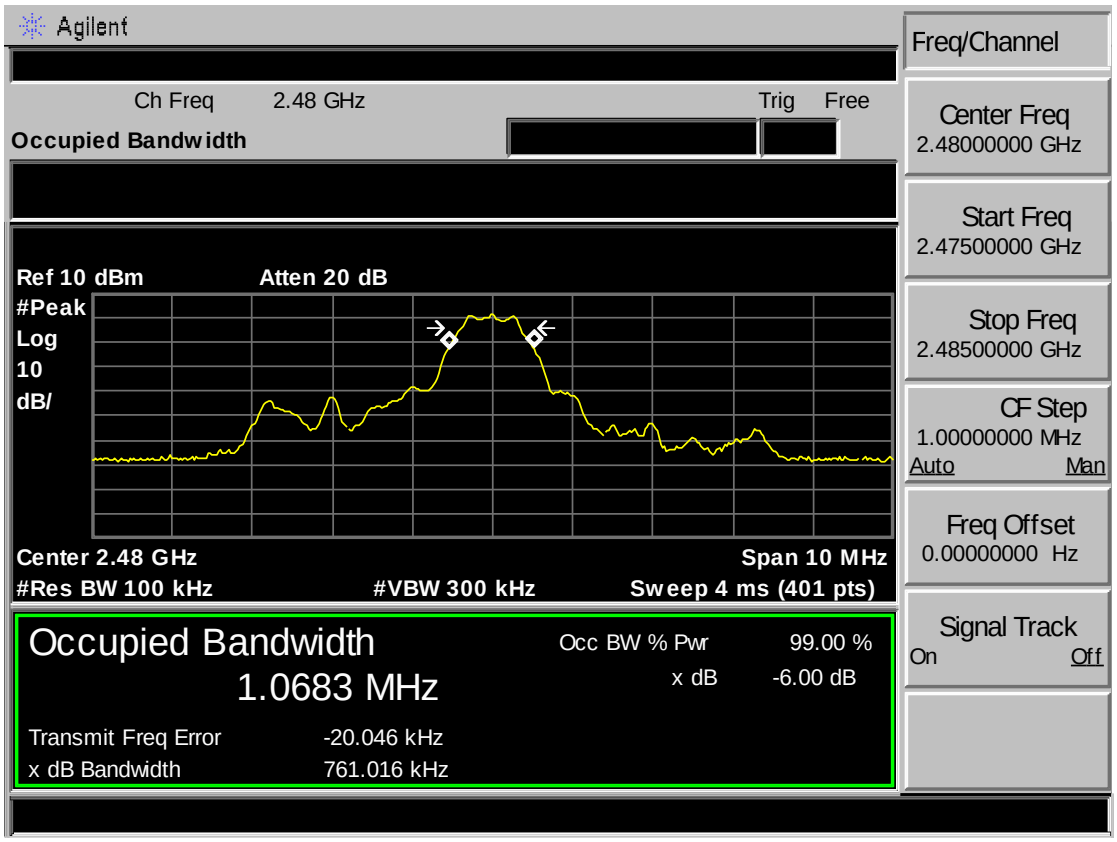
Test Mode: BT 4.0-BLE GFSK 2402MHz



Test Mode: BT 4.0-BLE GFSK 2440MHz



Test Mode: BT 4.0-BLE GFSK 2480MHz



8 OUTPUT POWER TEST

8.1 Limit

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

8.2 Test Procedure

8.3Test Procedure

1, Connected the EUT's antenna port to spectrum analyzer device.
2, Follow the test procedure as described in KDB 558074
(1). Set the RBW ≥ DTS bandwidth.
(2). Set VBW ≥ 3 x RBW.
(3). Set span ≥ 3 x RBW.
(4). Sweep time = auto couple.
(5). Detector = peak.
(6). Trace mode = max hold.
(7). Allow trace to fully stabilize.
(8). Use peak marker function to determine the peak amplitude level.

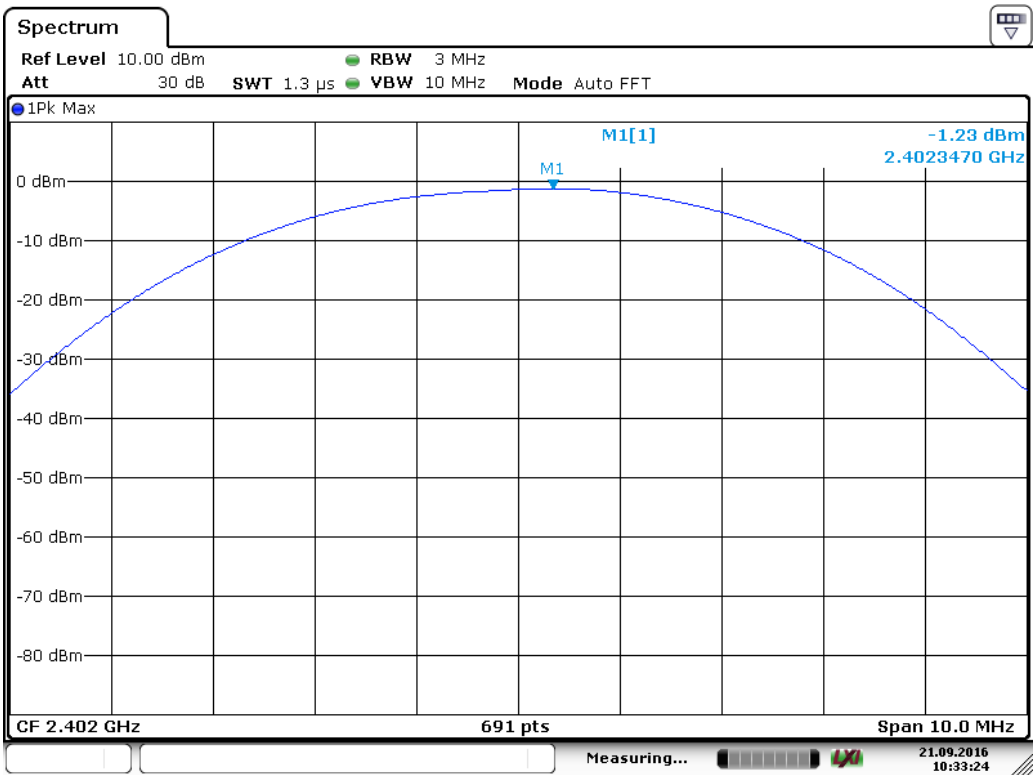
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offs

8.4 Test Result

EUT:Bluetooth Speaker			
M/N:Beoplay A2 Active			
Test date: 2016-09-21		Test site: 3m Chamber	Tested by: Tony Tang
Pass			
Test Mode	CH	Peak output Power（dBm）	Limit (dBm)
BT 4.0-BLE GFSK	CH1	-1.23	30
	CH20	0.97	30
	CH40	1.15	30
Conclusion：PASS			

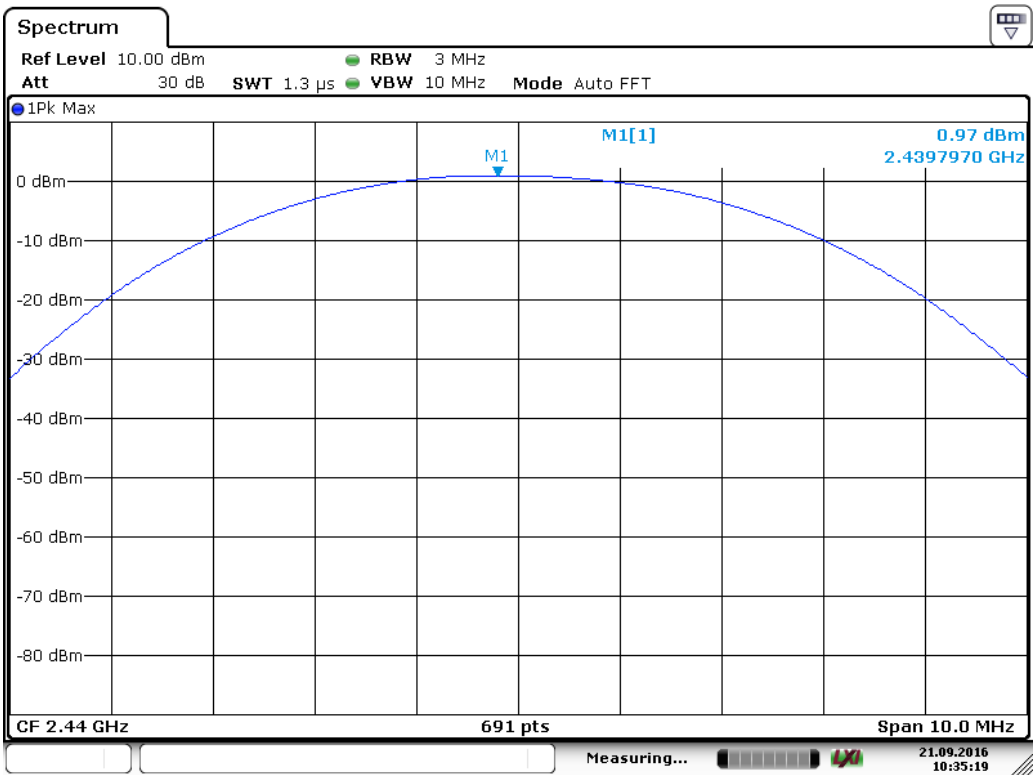
8.5 Test Data

Test Mode: BT 4.0-BLE GFSK 2402MHz



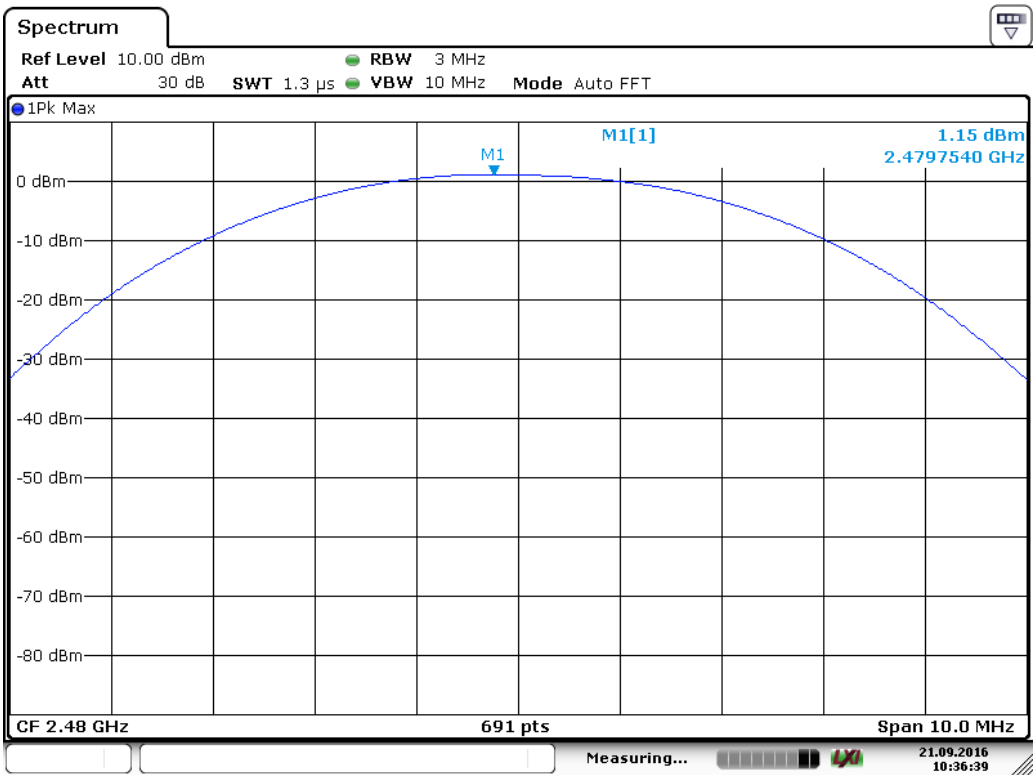
Date:21.SEP.2016 10:33:24

Test Mode: BT 4.0-BLE GFSK 2440MHz



Date:21.SEP.2016 10:35:20

Test Mode: BT 4.0-BLE GFSK 2480MHz



Date:21.SEP.2016 10:36:38

9 POWER SPECTRAL DENSITY TEST

9.1 Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.2 Test Procedure

1, Connected the EUT's antenna port to spectrum analyzer device.

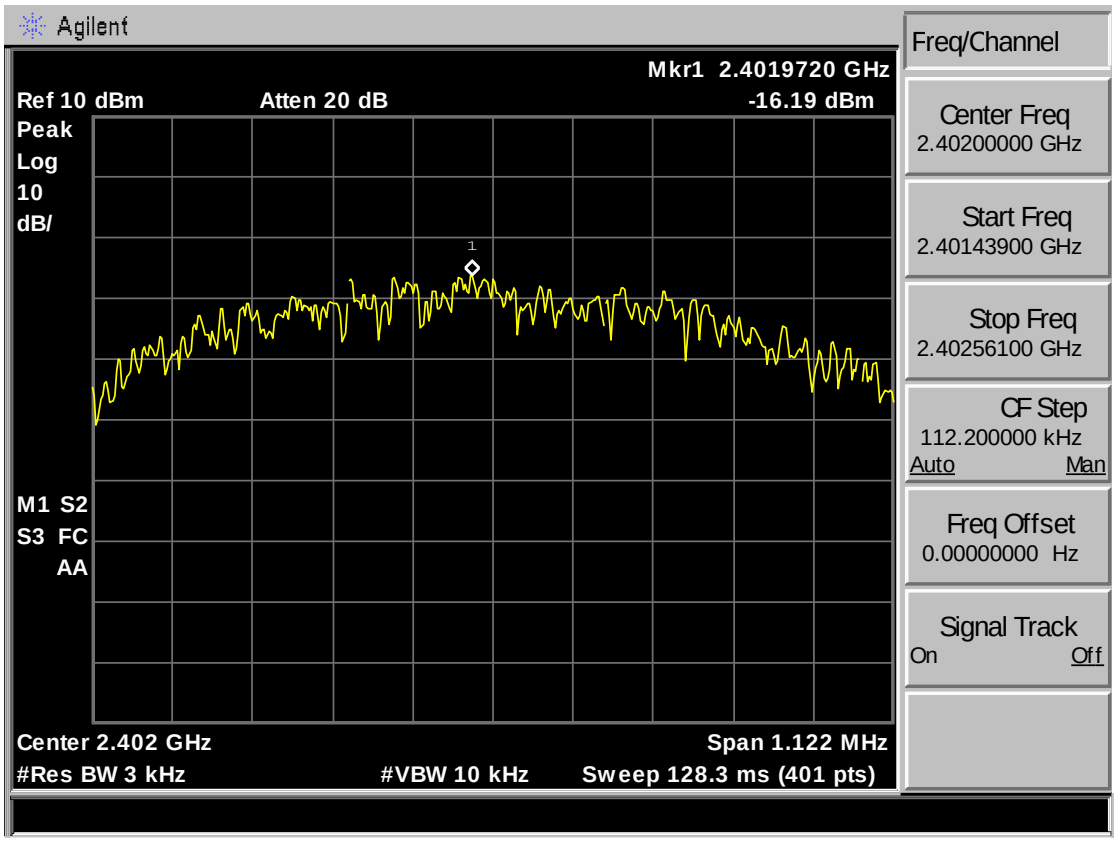
2, Follow the test procedure as described in KDB 558074
(1). Set analyzer center frequency to DTS channel center frequency.
(2). Set the span to 1.5 times the DTS bandwidth.
(3). Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
(4). Set the VBW ≥ 3 RBW.
(5). Detector = peak.
(6). Sweep time = auto couple.
(7). Trace mode = max hold.
(8). Allow trace to fully stabilize.
(9). Use the peak marker function to determine the maximum amplitude level.
(10). If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

9.3 Test Result

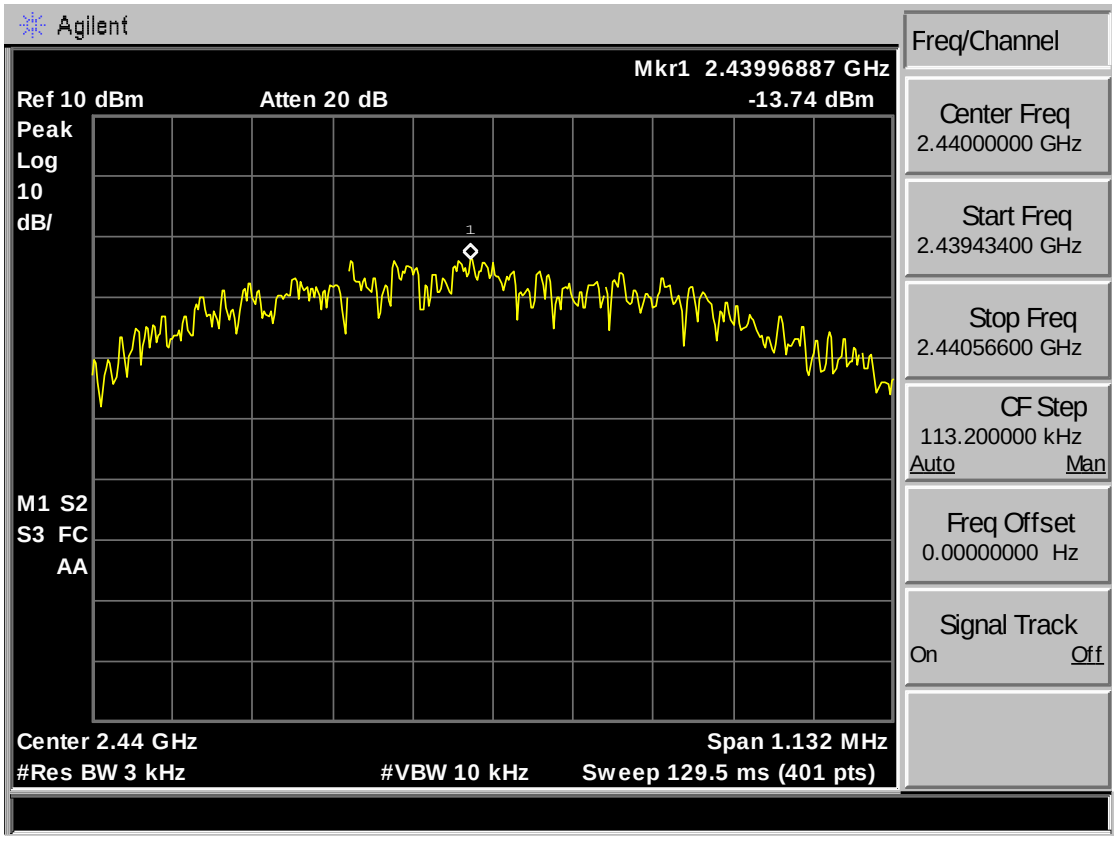
EUT: Bluetooth Speaker			
M/N: Beoplay A2 Active			
Test date: 2016-09-21		Test site: 3m Chamber	Tested by: Tony Tang
Pass			
Test Mode	CH	Power density (dBm/3kHz）	Limit (dBm/3kHz)
BT 4.0-BLE GFSK	CH1	-16.19	8
	CH20	-13.74	8
	CH40	-13.24	8
Conclusion：PASS			

9.4 Test Data

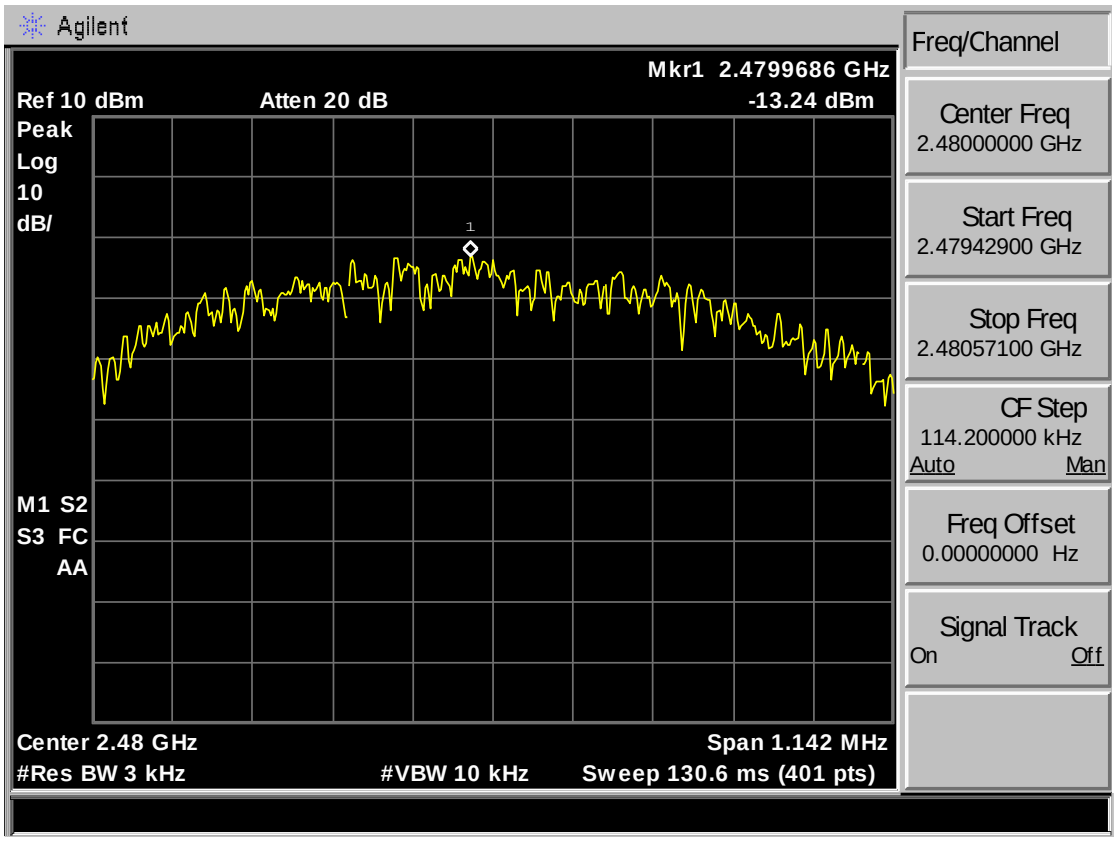
Test Mode: BT 4.0-BLE GFSK 2402MHz



Test Mode: BT 4.0-BLE GFSK 2440MHz



Test Mode: BT 4.0-BLE GFSK 2480MHz



10 ANTENNA REQUIREMENTS

10.1 Limit

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 15.247 (b), 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.

10.2 Result

The antennas used for this product are internal Antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 0.09dBi.