

FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

Tymphany HK Limited

Portable Bluetooth Speaker

Model Number: Groove

FCC ID: 2AAGJGROOVE

Prepared for : Tymphany HK Limited
Room 1307-8 Dominion Centre 43-59 Queens Road East, WanChai,
Hong Kong

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

Tel: 86-769-83081888-808

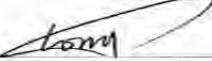
Report Number : ESTE-R1509001
Date of Test : August 06~31,2015
Date of Report : September 06, 2015

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Test Report Verification

Applicant:	Tymphany HK Limited							
Address:	Room 1307-8, Dominion Centre, 43-59 Queen's Road East, WanChai, Hong Kong							
Manufacturer	Klipsch Group, Inc.							
Address:	3502 Woodview Trace, Indianapolis, IN 46268							
E.U.T:	Portable Bluetooth Speaker							
Model Number:	Groove							
Power Supply:	DC 5V From Adapter Input AC 100-240V~50/60Hz Adapter 1: APP521-050100U; Adapter 2:DYS052-050100S-2							
Test Voltage:	AC 120V/60Hz AC 240V/60Hz							
Trade Name:	Klipsch	Serial No.:	-----					
Date of Receipt:	August 06 ,2015	Date of Test:	August 06~31,2015					
Test Specification:	FCC Rules and Regulations Part 15 Subpart C:2014 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: September 06, 2015								
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	:	Portable Bluetooth Speaker
Model Number	:	Groove
FCC ID	:	2AAGJGROOVE
Operation frequency	:	2402MHz~2480MHz
Number of channel	:	79 40
Antenna	:	Integrated PCB antenna, 0 dBi gain
Modulation	:	FHSS BT BDR: GFSK BT EDR: π/4-DQPSK BT EDR: 8-DPSK
Sample Type	:	Prototype production

2. SUMMARY OF TEST

2.1. Summary of test result

Description of Test Item	Standard	Results
Maximum Peak Output Power	FCC Part 15: 15.247(b)(1) DA 00-705	PASS
20dB Bandwidth	FCC Part 15: 15.215 DA 00-705	PASS
Carrier Frequency Separation	FCC Part 15: 15.247(a)(1) DA 00-705	PASS
Number Of Hopping Channel	FCC Part 15: 15.247(a)(1)(iii) DA 00-705	PASS
Dwell Time	FCC Part 15: 15.247(a)(1)(iii) DA 00-705	PASS
Radiated Emission	FCC Part 15: 15.209 FCC Part 15: 15.247(d) ANSI C63.10: 2013 DA 00-705	PASS
Band Edge Compliance	FCC Part 15: 15.247(d) DA 00-705	PASS
Power Line Conducted Emissions	FCC Part 15: 15.207 ANSI C63.4: 2003 DA 00-705	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: November 13, 2014

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

Certificated by Industry Canada
Registration No.: 46405-9405
Test Side Number: 9405A-1
Date of registration: January 03, 2013

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. Adapter 1

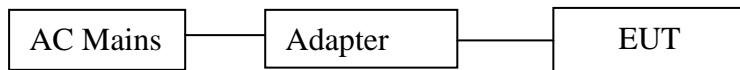
M / N	:	APP521-050100U
Manufacturer	:	DYS
INPUT	:	AC 100-240V, 50/60Hz, 0.45A Max.
OUTPUT	:	DC 5V, 1A

2.4.2. Adapter 2

M / N	:	DYS052-050100S-2
Manufacturer	:	DYS
INPUT	:	AC 100-240V, 50/60Hz, 0.15A Max.
OUTPUT	:	DC 5V, 1A

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 set into BT test mode by software before test.



(EUT: Portable Bluetooth Speaker)

2.6. Test mode

The test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode

Mode	Channel	Frequency
GFSK	Low	2402MHz
	Middle	2441MHz
	High	2480MHz
8-DPSK	Low	2402MHz
	Middle	2441MHz
	High	2480MHz

2.7. Channel List for Bluetooth

Channel No.	Frequency (MHz)						
1	2402	2	2403	3	2404	4	2405
5	2406	6	2407	7	2408	8	2409
9	2410	10	2411	11	2412	12	2413
13	2414	14	2415	15	2416	16	2417
17	2418	18	2419	19	2420	20	2421
21	2422	22	2423	23	2424	24	2425
25	2426	26	2427	27	2428	28	2429
29	2430	30	2431	31	2432	32	2433
33	2434	34	2435	35	2436	36	2437
37	2438	38	2439	39	2440	40	2441
41	2442	42	2443	43	2444	44	2445
45	2446	46	2447	47	2448	48	2449
49	2450	50	2451	51	2452	52	2453
53	2454	54	2455	55	2456	56	2457
57	2458	58	2459	59	2460	60	2461
61	2462	62	2463	63	2464	64	2465
65	2466	66	2467	67	2468	68	2469
69	2470	70	2471	71	2472	72	2473
73	2474	74	2475	75	2476	76	2477
77	2478	78	2479	79	2480	-	-

2.8. Test Equipment

2.8.1. For conducted emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	June,28,15	1 Year
Artificial Mains Network	Rohde & Schwarz	ENV216	101260	June,28,15	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101100	June,28,15	1 Year

2.8.2. For radiated emission test(30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESVS10	100004	June,28,15	1 Year
Spectrum Analyzer	Agilent	E4411B	MY5014069 7	June,28,15	1 Year
Bilog Antenna	Teseq	CBL 6111D	27090	June,28,15	1 Year
Signal Amplifier	Agilent	310N	187037	June,28,15	1 Year

2.8.3. For radiated emission test(above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120D1 002	June,28,15	1 Year
Signal Amplifier	SCHWARZBECK	BBV9718	9718-212	June,28,15	1 Year
Spectrum Analyzer	Agilent	E4408B	MY44211139	June,28,15	1 Year

3. MAXIMUM PEAK OUTPUT POWER

3.1. Limit

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts, the e.i.r.p shall not exceed 4W

3.2. Test Procedure

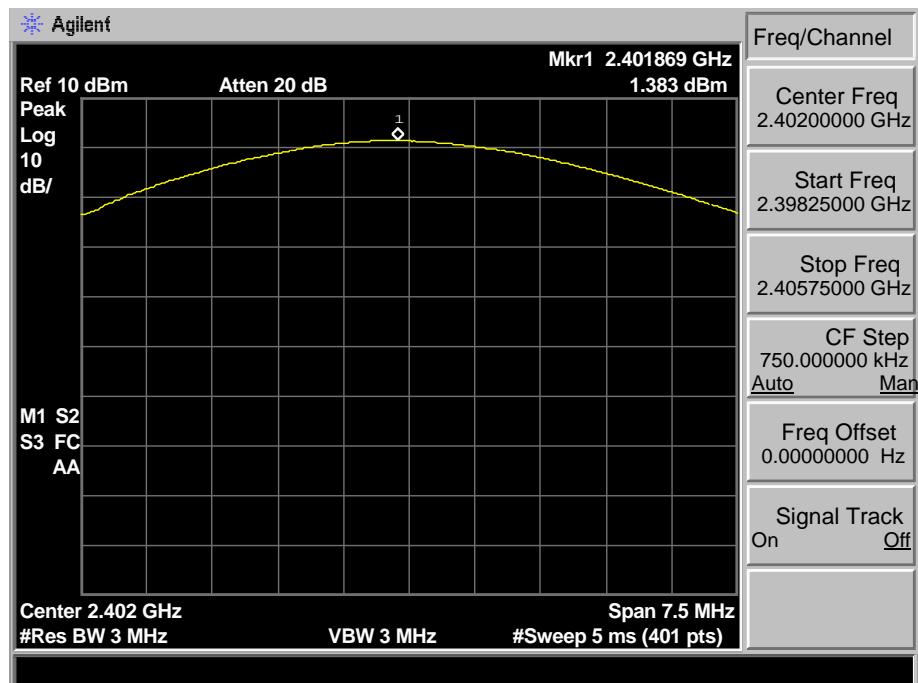
The transmitter output (antenna port) was connected to the spectrum analyzer

3.3. Test Result

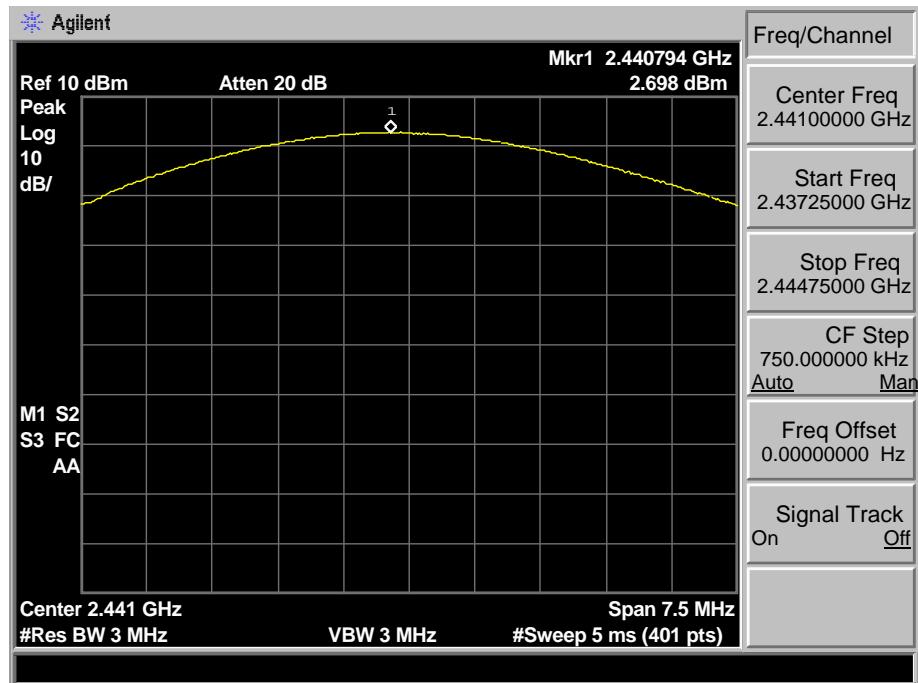
EUT: Portable Bluetooth Speaker M/N: Groove					
Test date: 2015-08-20		Test site: RF site		Tested by: Tony Tang	
Mode	Freq (MHz)	Result (dBm)	Limit		Margin (dB)
			dBm	W	
Adapter 1					
GFSK	2402	1.383	30.00	1	28.617
	2441	2.698	30.00	1	27.302
	2480	2.499	30.00	1	27.501
8-DPSK	2402	1.335	21.00	0.125	19.665
	2441	2.698	21.00	0.125	18.302
	2480	2.465	21.00	0.125	18.535
Adapter 2					
GFSK	2402	1.353	30.00	1	28.647
	2441	2.682	30.00	1	27.318
	2480	2.463	30.00	1	27.537
8-DPSK	2402	1.322	21.00	0.125	19.678
	2441	2.713	21.00	0.125	18.287
	2480	2.474	21.00	0.125	18.526
Conclusion: PASS					

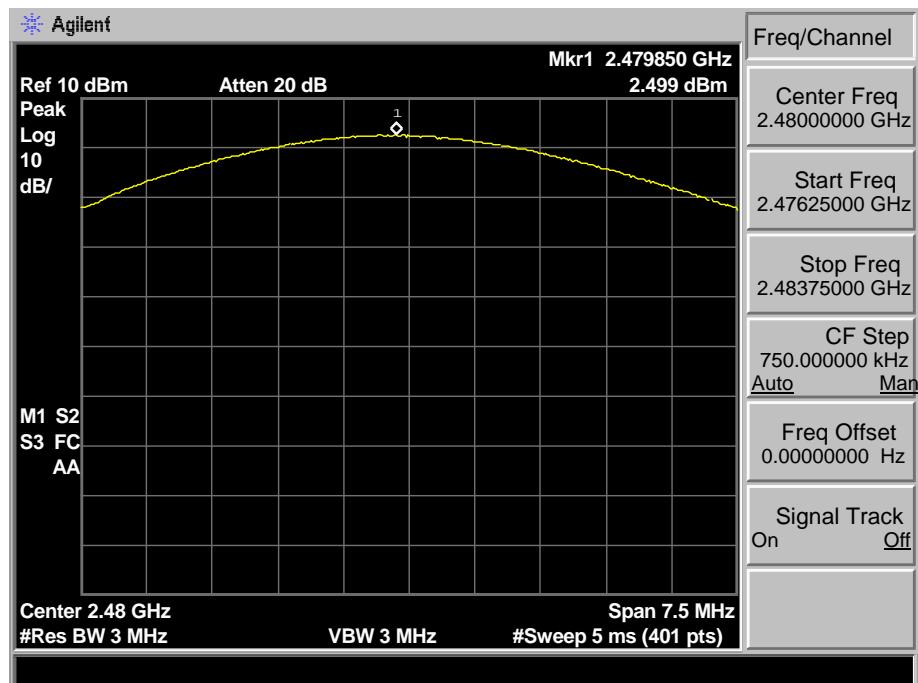
3.4. Test Data

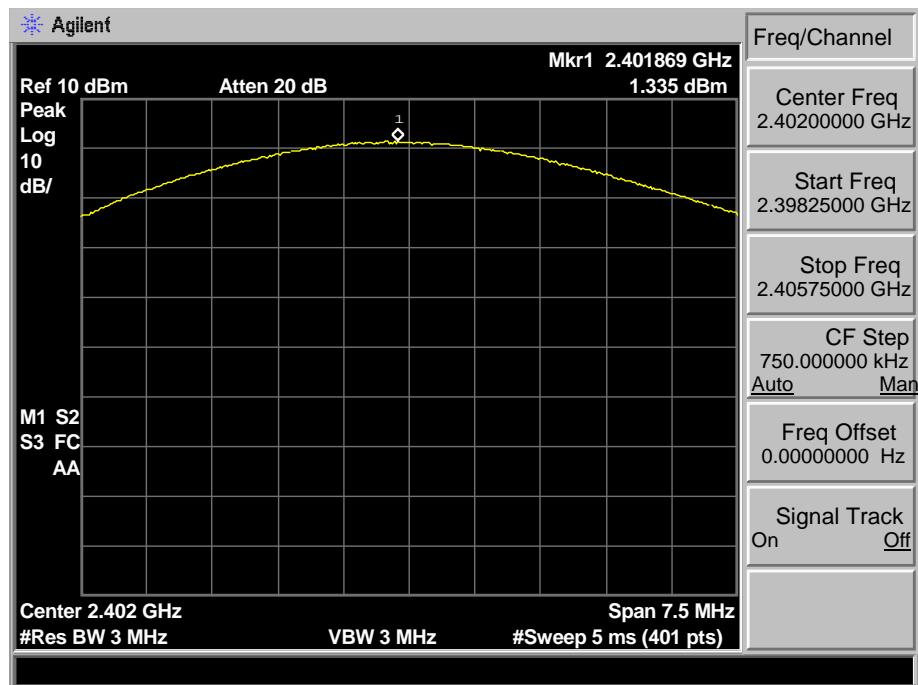
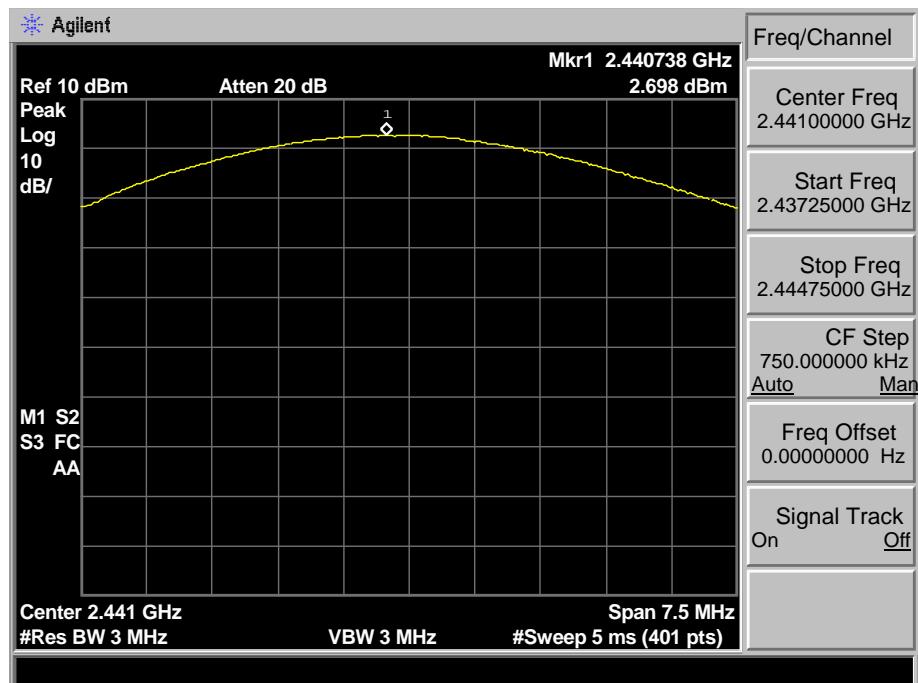
Adapter 1 GFSK 2402 MHz

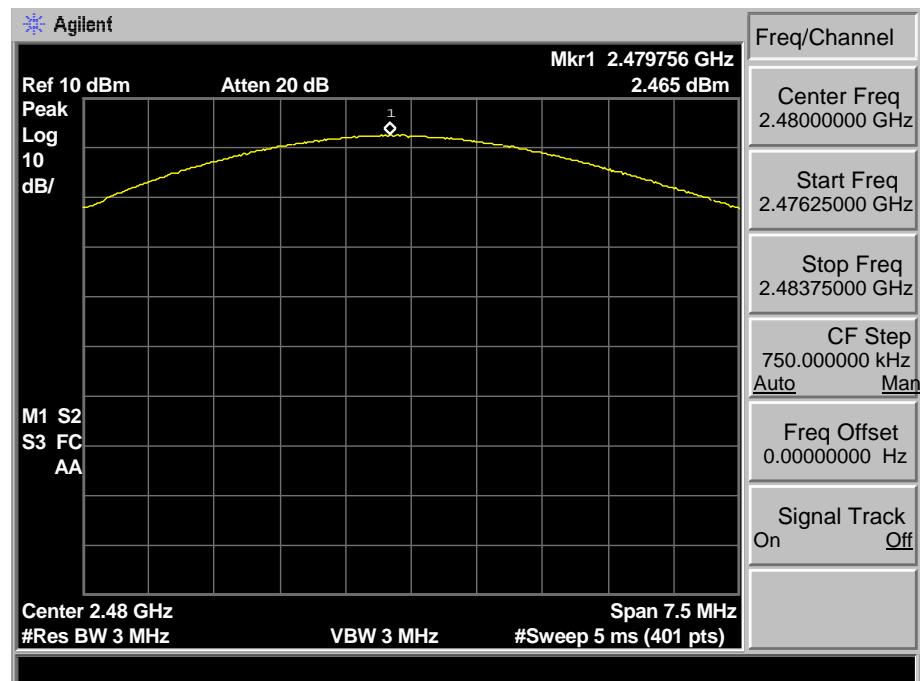


GFSK 2441 MHz



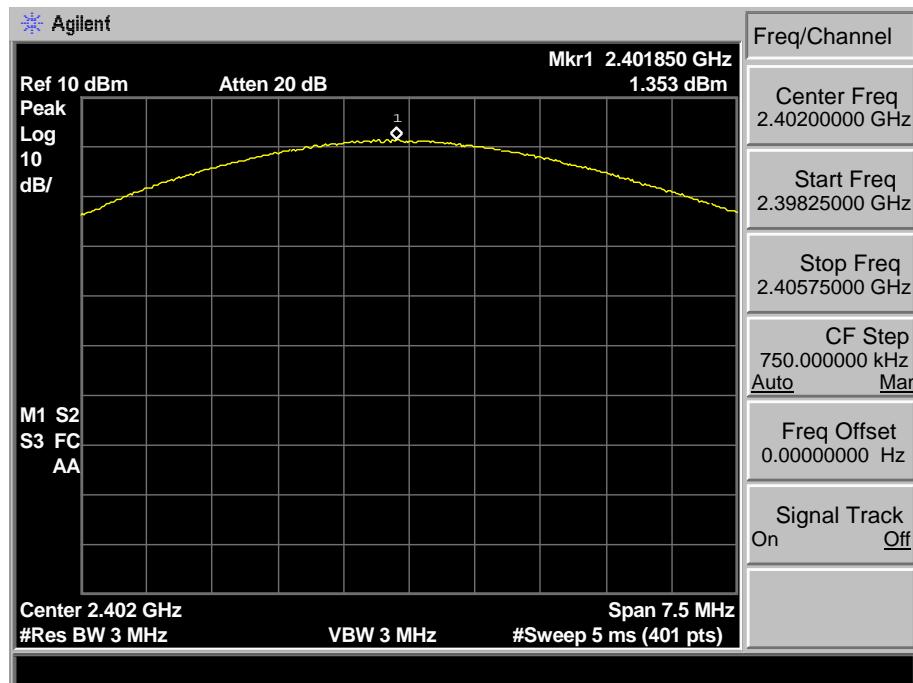
GFSK 2480 MHz

8-DPSK 2402 MHz**8-DPSK 2441 MHz**

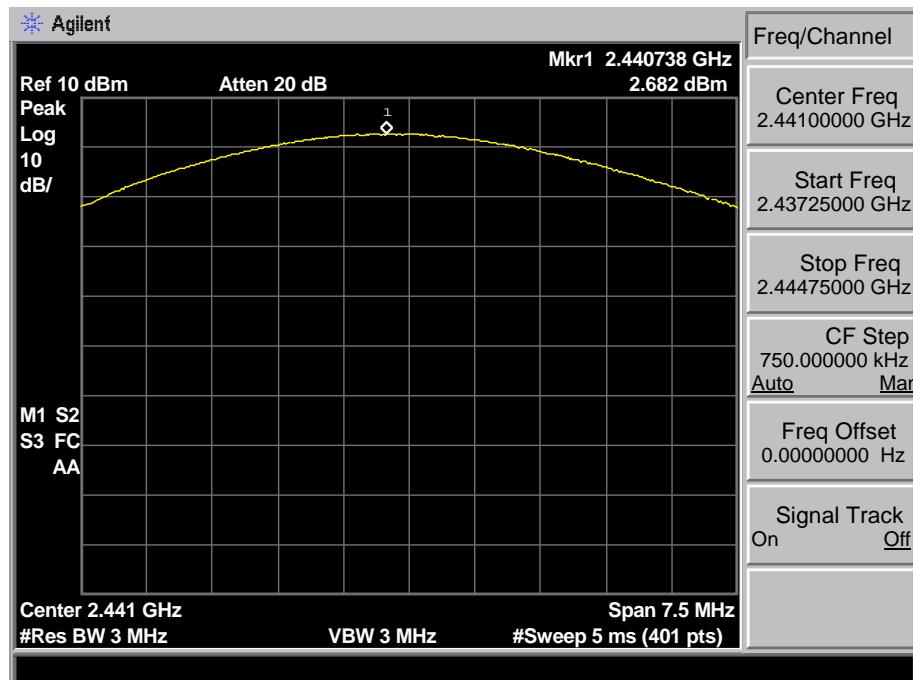
8-DPSK 2480 MHz

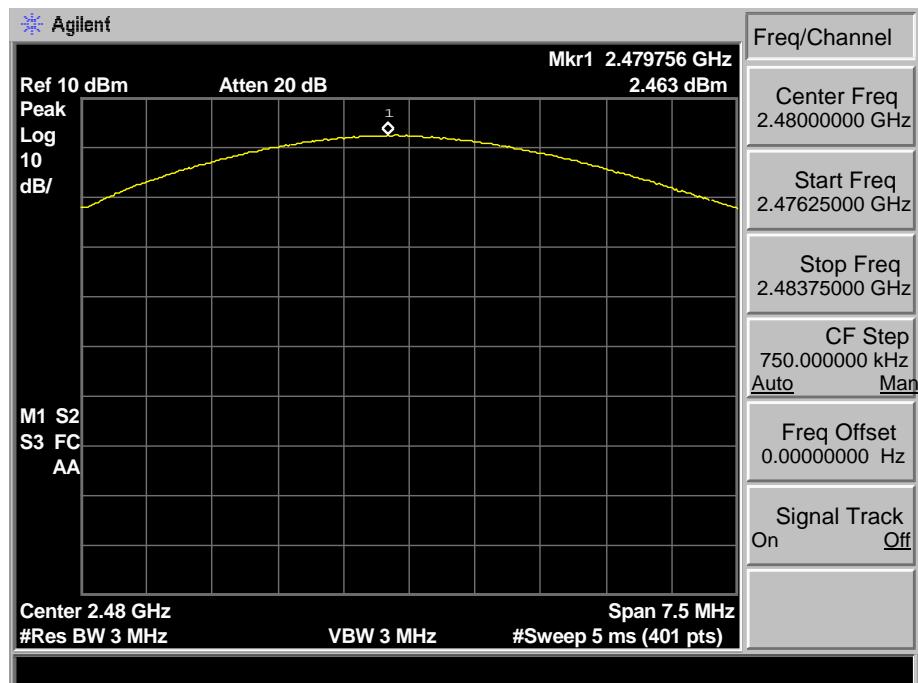
Adapter 2

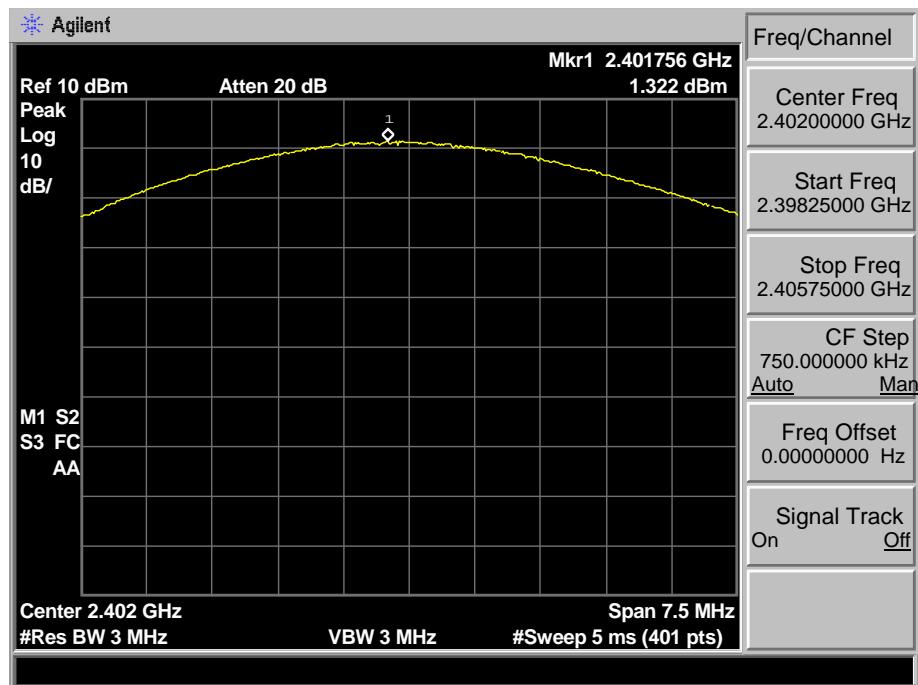
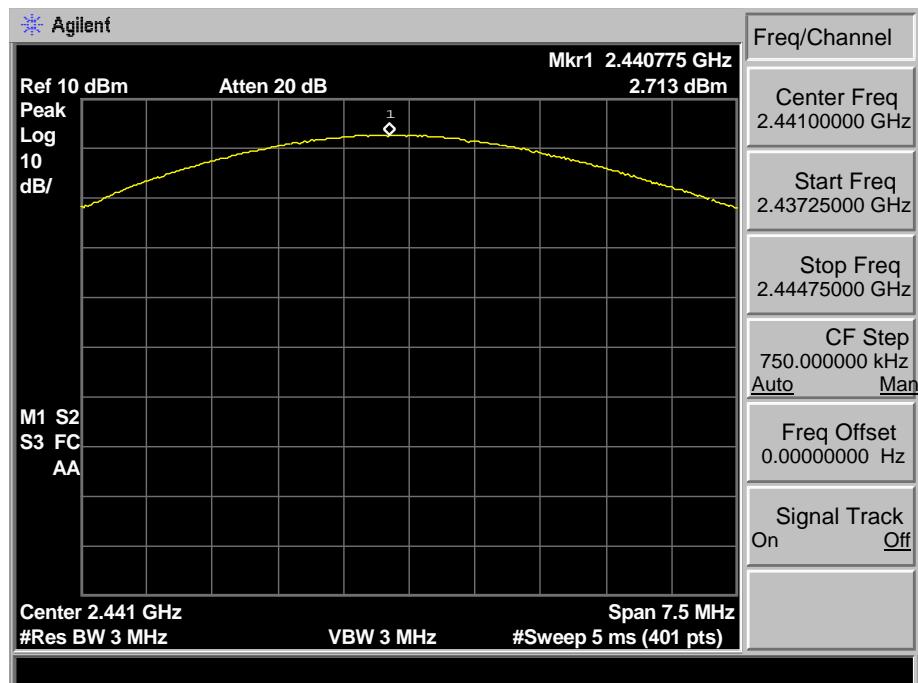
GFSK 2402 MHz

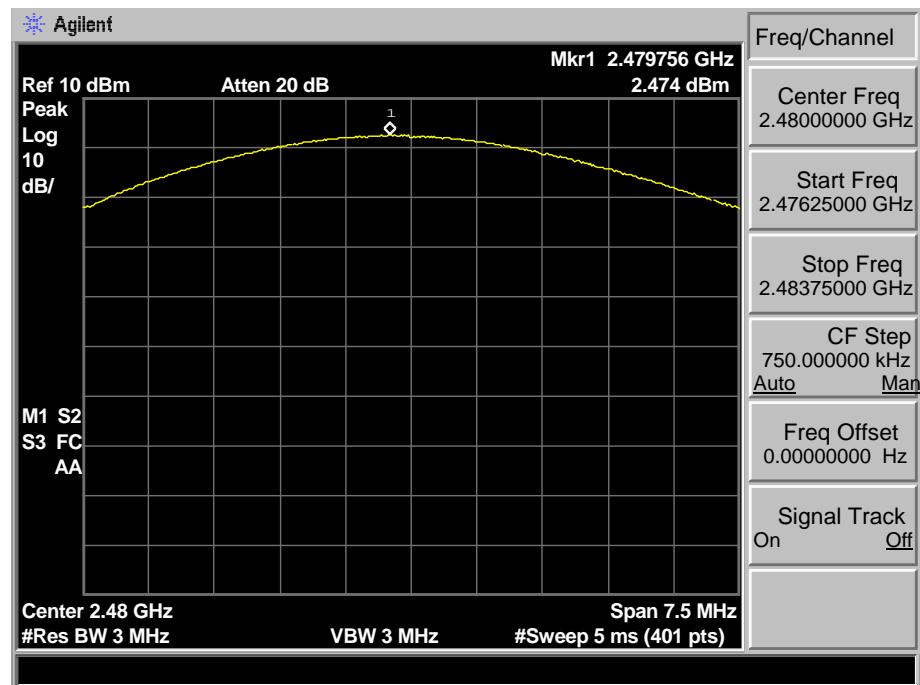


GFSK 2441 MHz



GFSK 2480 MHz

8-DPSK 2402 MHz**8-DPSK 2441 MHz**

8-DPSK 2480 MHz

4. 20 DB BANDWIDTH

4.1. Limit

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

4.2. Test Procedure

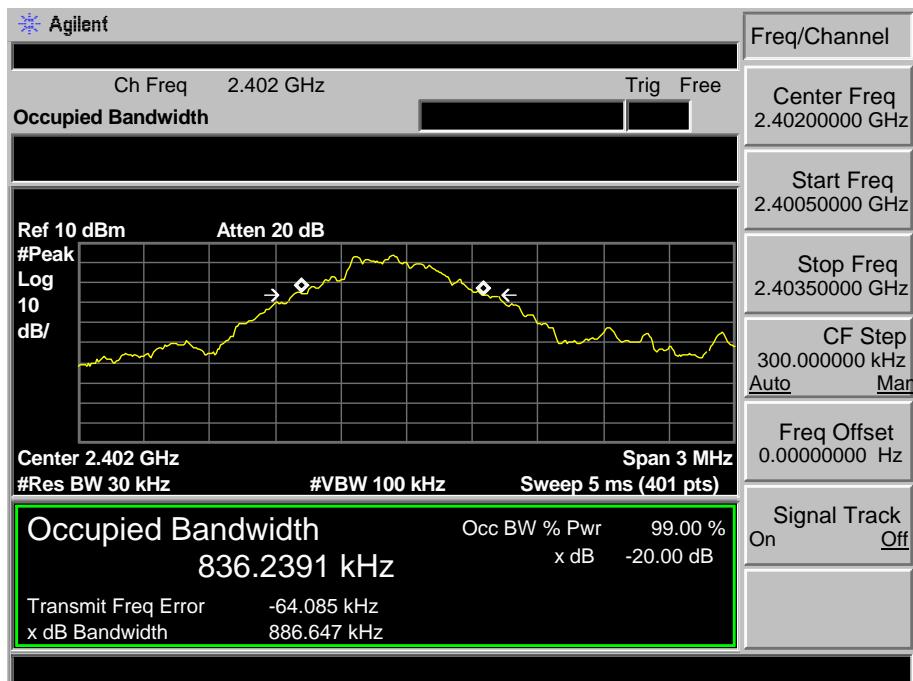
The transmitter output was coupled to a spectrum analyzer via a antenna. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30kHz RBW and 100kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

4.3. Test Result

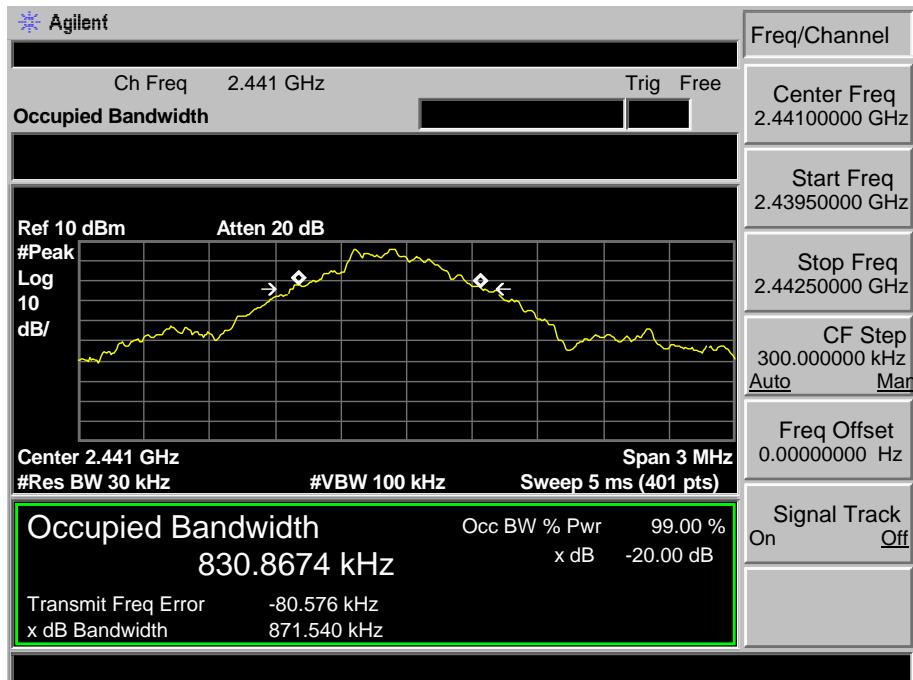
EUT: Portable Bluetooth Speaker M/N: Groove				
Test date: 2015-08-20		Test site: RF site		Tested by: Tony Tang
Mode	Freq (MHz)	20dB Bandwidth (MHz)	Limit (kHz)	Conclusion
Adapter 1				
GFSK	2402	0.887	/	PASS
	2441	0.872	/	PASS
	2480	0.874	/	PASS
8-DPSK	2402	1.211	/	PASS
	2441	1.219	/	PASS
	2480	1.218	/	PASS
Adapter 2				
GFSK	2402	0.924	/	PASS
	2441	0863	/	PASS
	2480	0.870	/	PASS
8-DPSK	2402	1.215	/	PASS
	2441	1.227	/	PASS
	2480	1.223	/	PASS

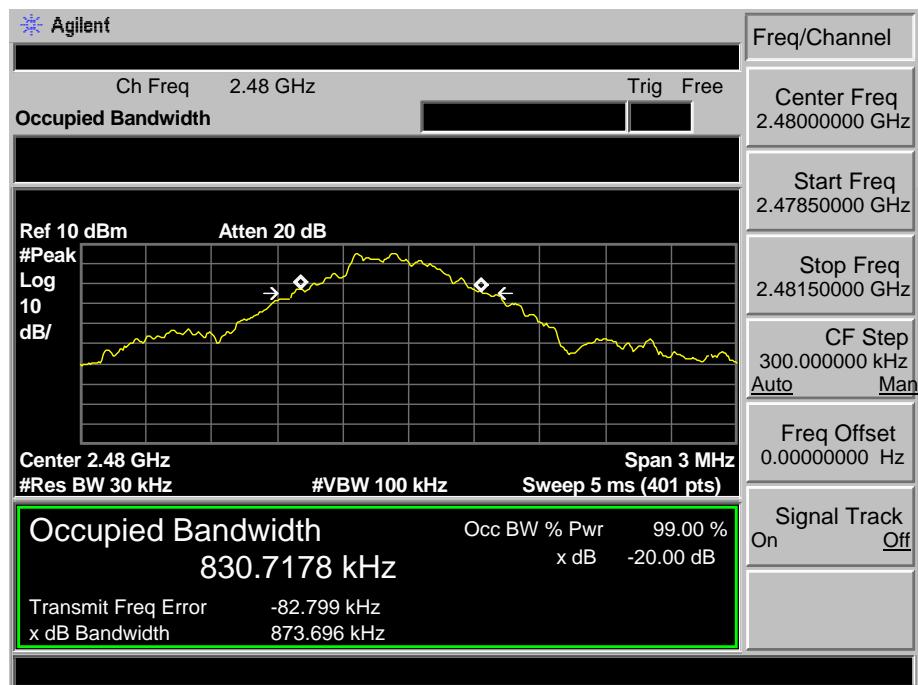
4.4. Test Data

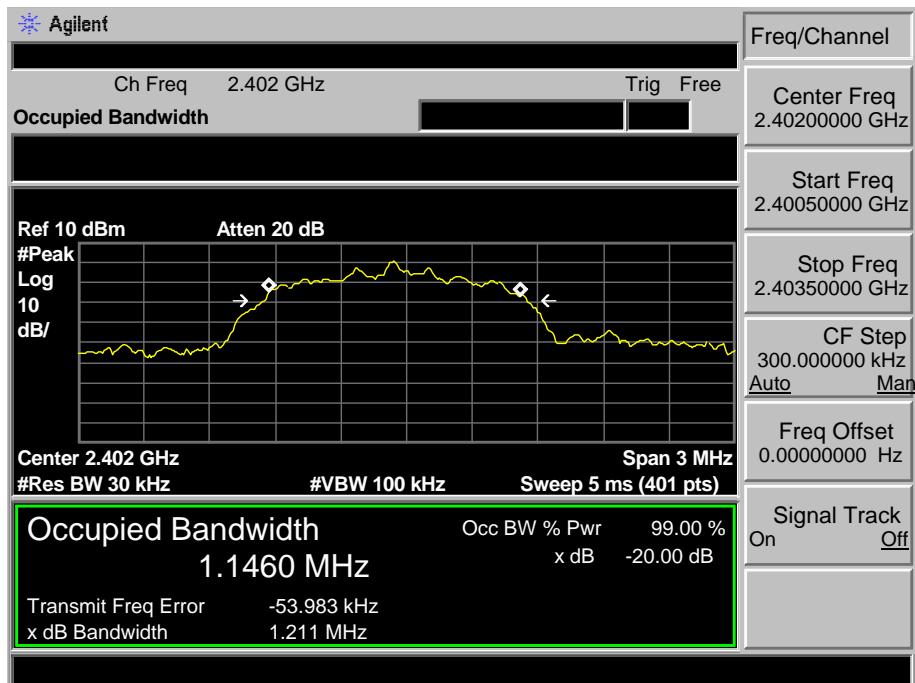
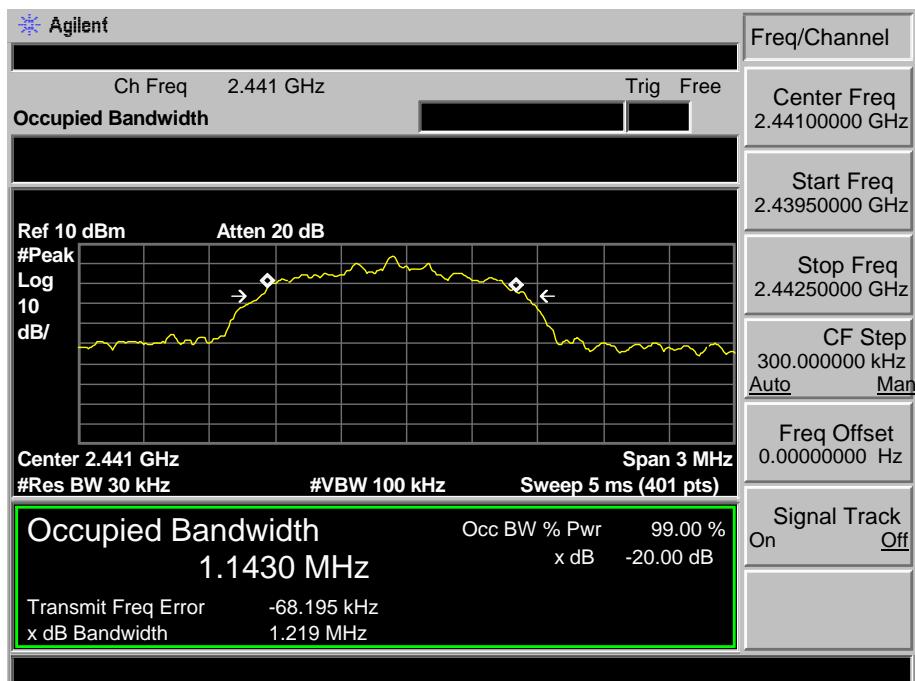
Adapter 1 GFSK 2402MHz



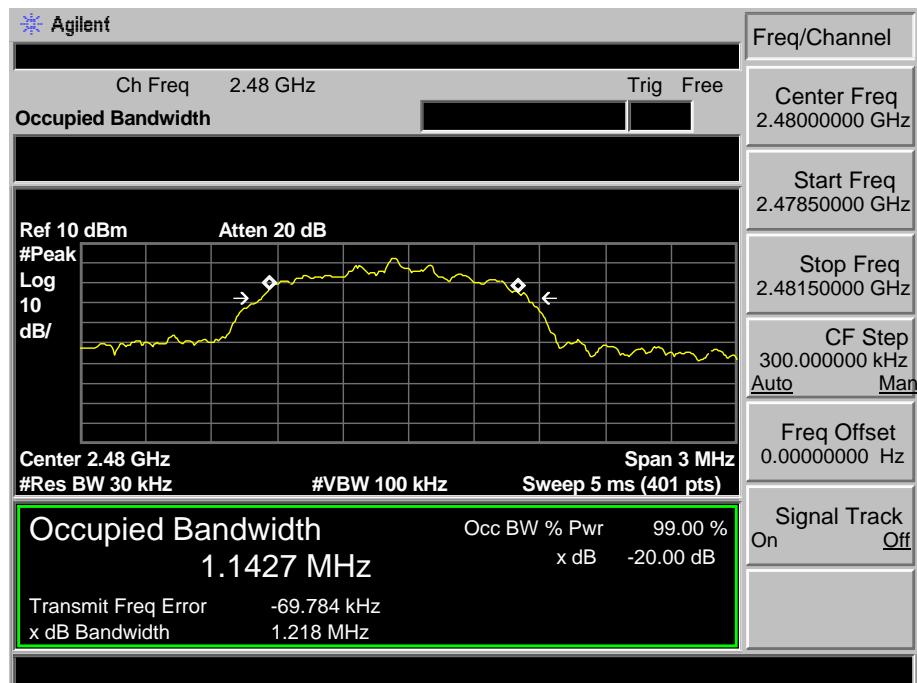
GFSK 2441MHz



GFSK 2480MHz

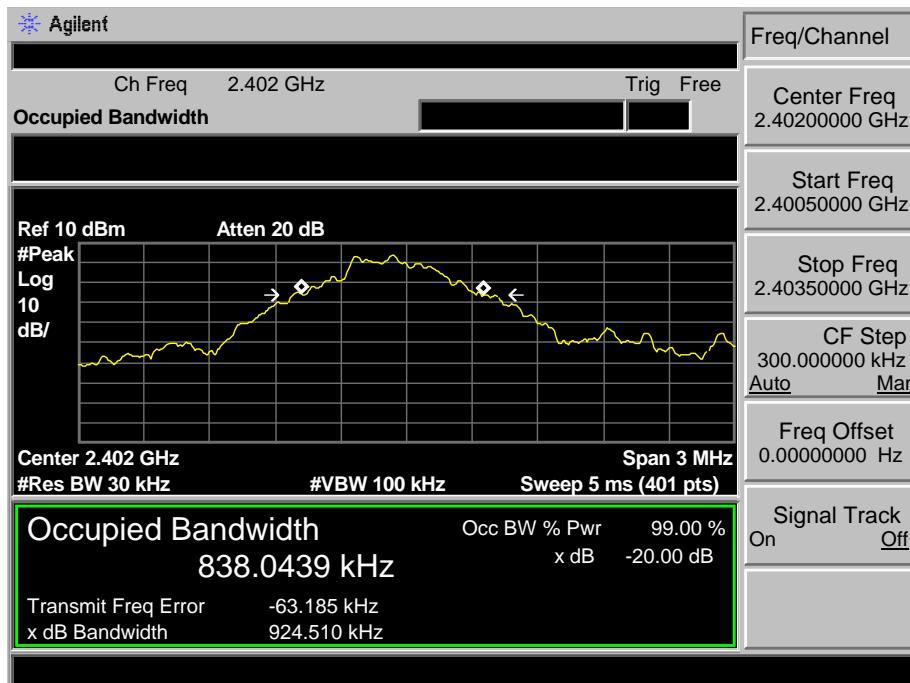
8-DPSK 2402MHz**8-DPSK 2441MHz**

8-DPSK 2480MHz



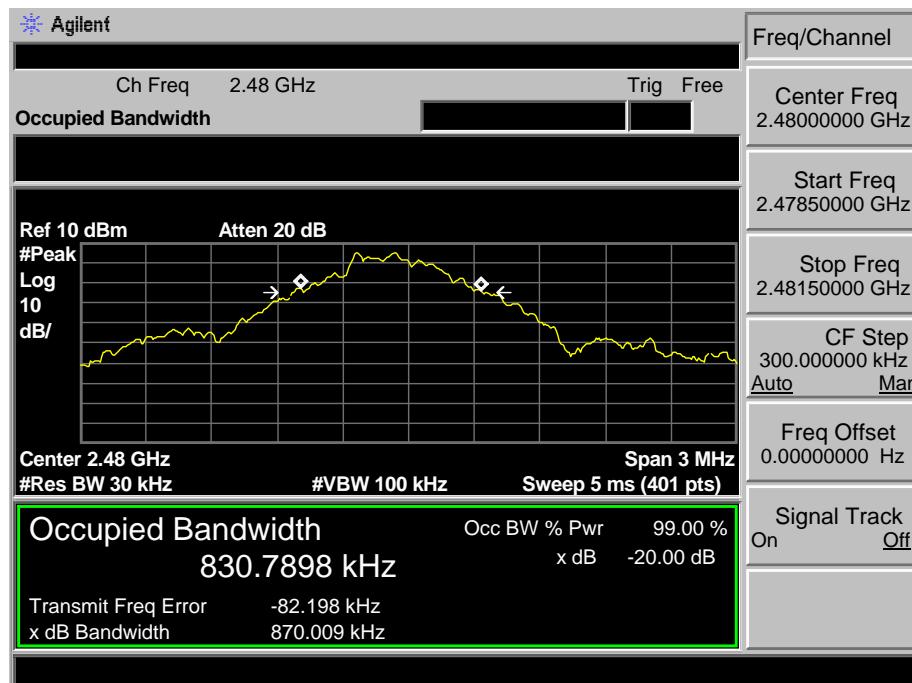
Adapter 2

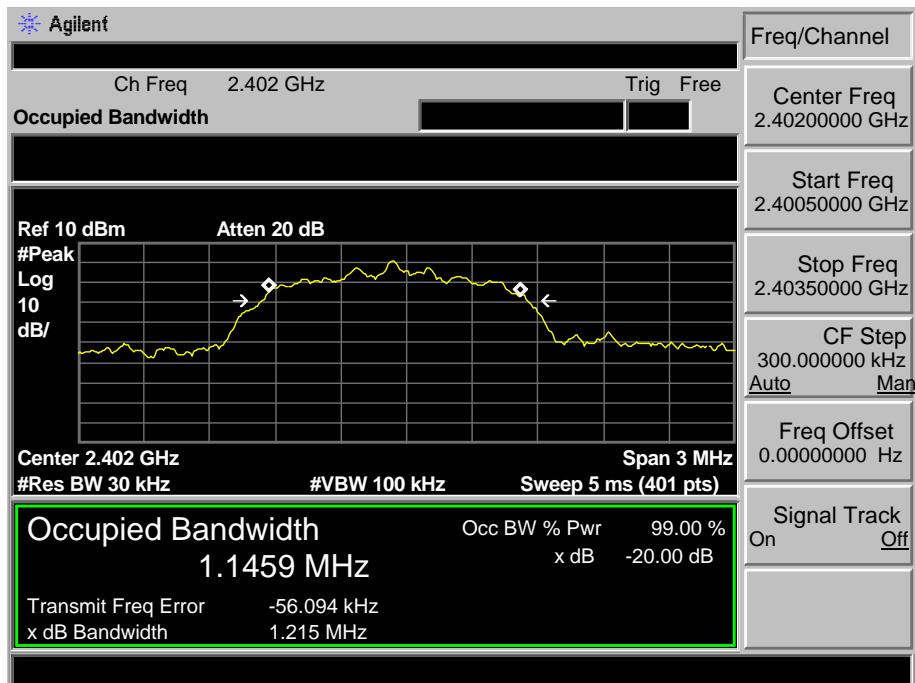
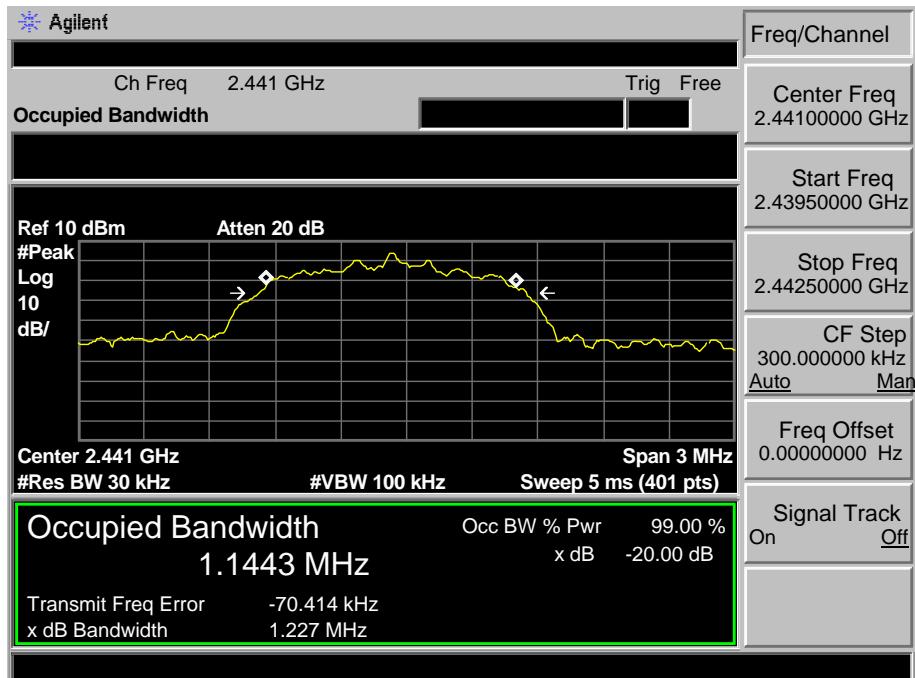
GFSK 2402MHz

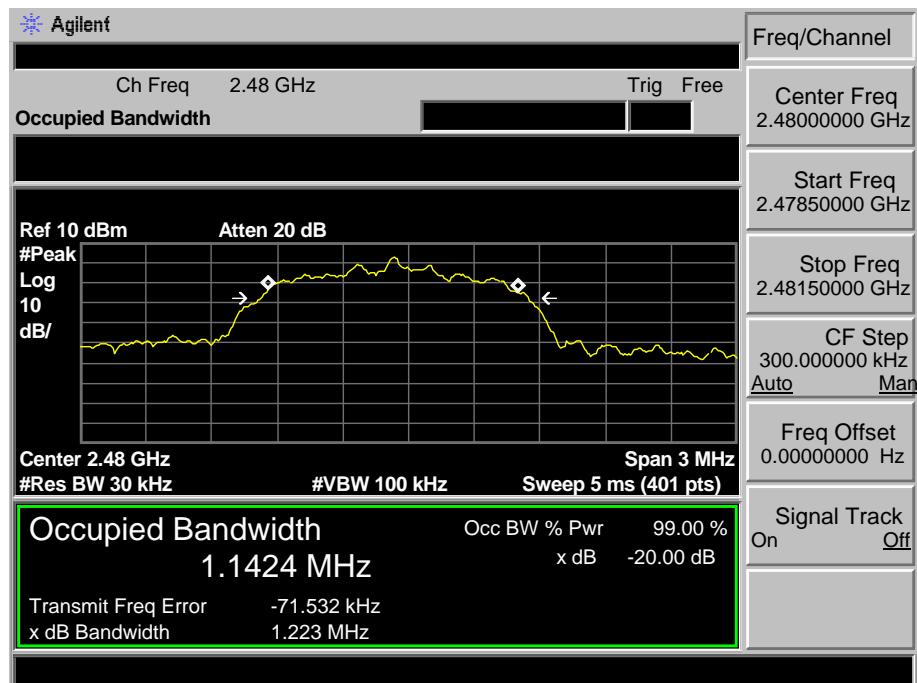


GFSK 2441MHz



GFSK 2480MHz

8-DPSK 2402MHz**8-DPSK 2441MHz**

8-DPSK 2480MHz

5. CARRIER FREQUENCY SEPARATION

5.1. Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW

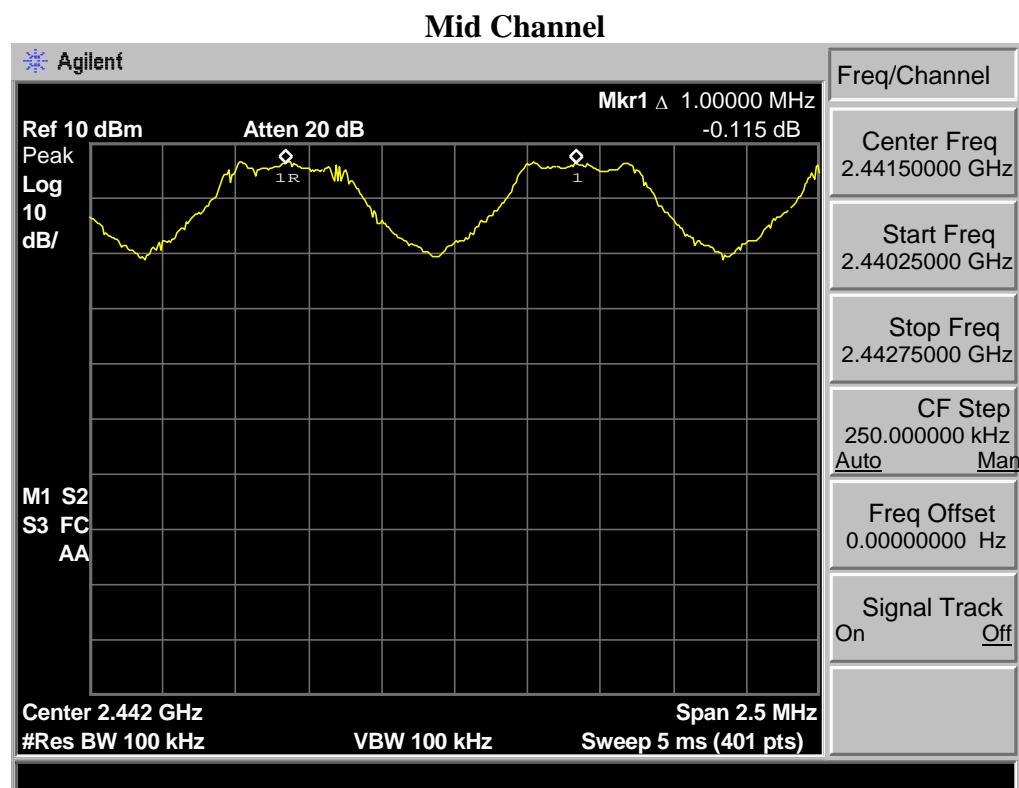
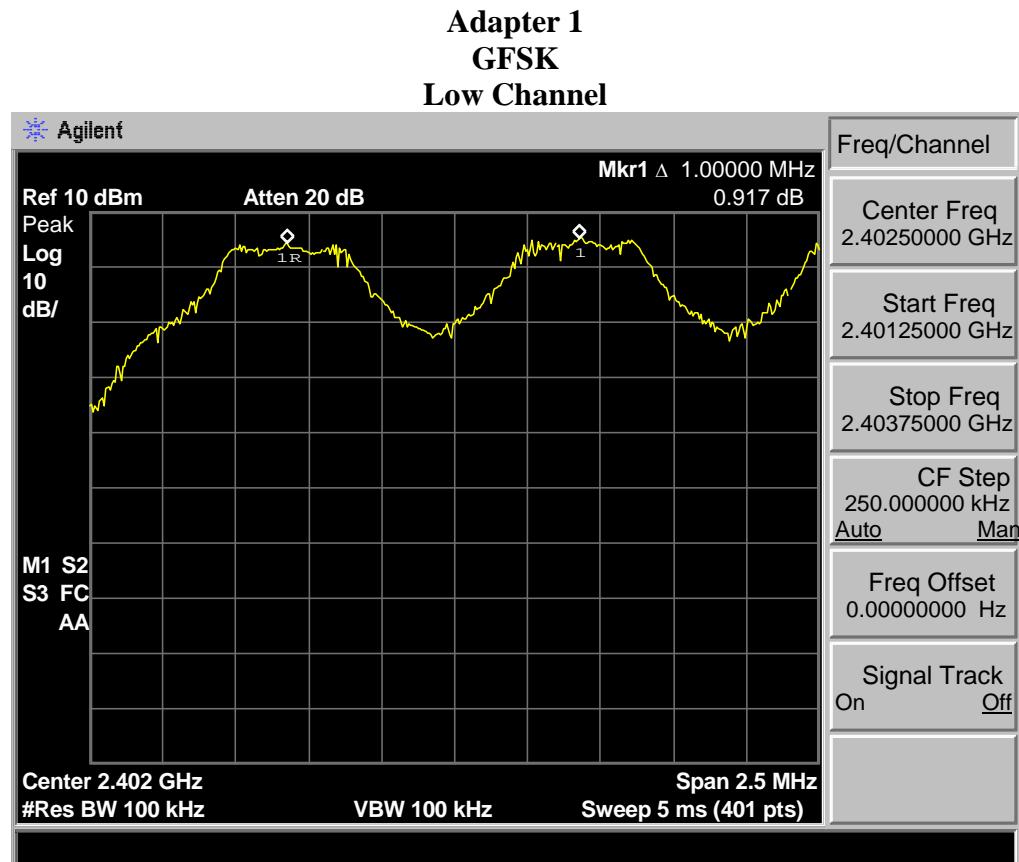
5.2. Test Procedure

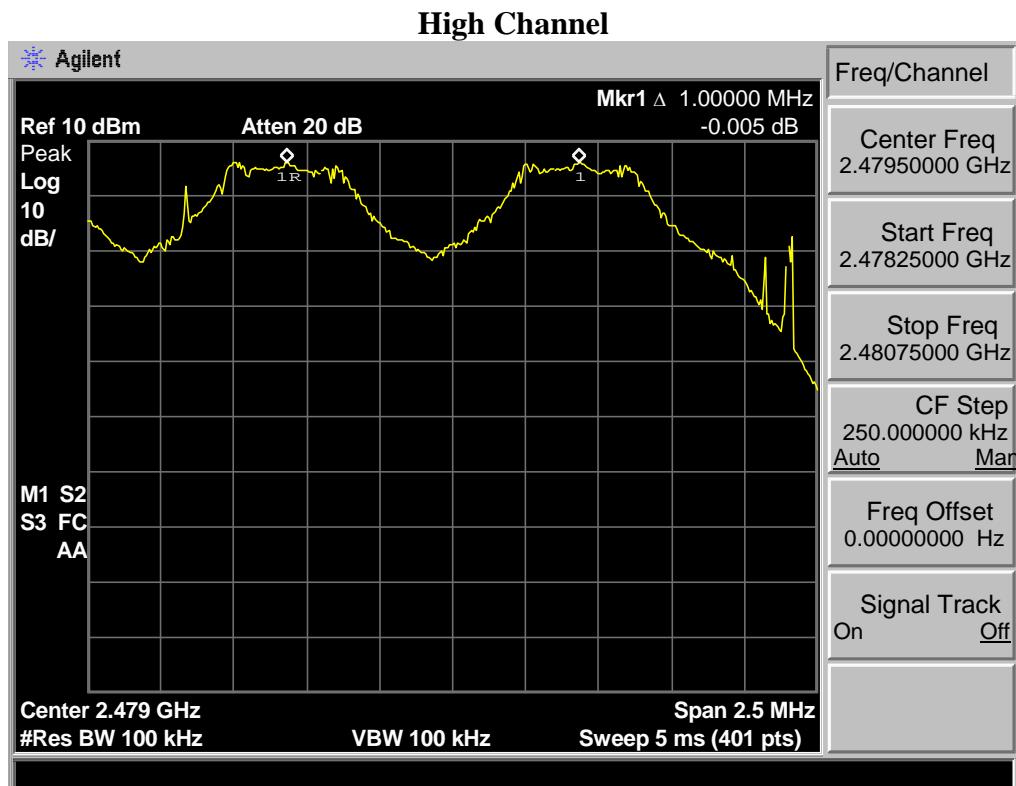
The transmitter output was coupled to a spectrum analyzer via a antenna. The carrier frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW.

5.3. Test Result

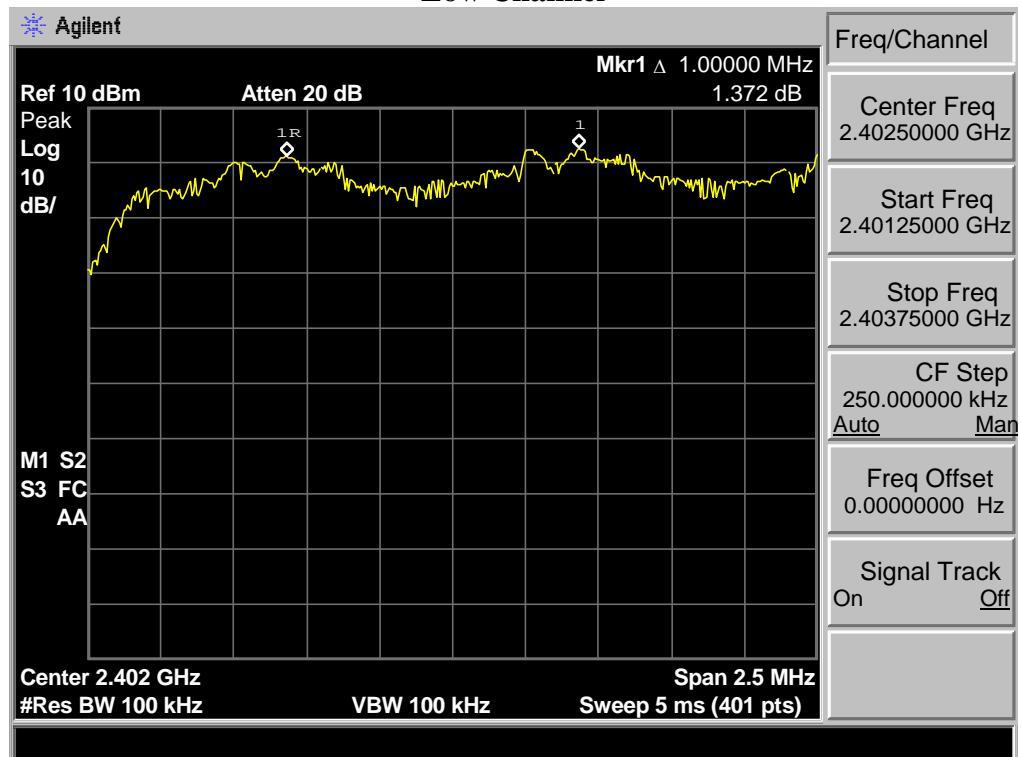
EUT: Portable Bluetooth Speaker M/N: Groove				
Test date: 2015-08-20		Test site: RF site		Tested by: Tony Tang
Mode	Channel	Channel separation (MHz)	Limit	Conclusion
Adapter 1				
GFSK	Low CH	1.000	0.887 MHz	PASS
	Mid CH	1.000	0.872 MHz	PASS
	High CH	1.000	0.874 MHz	PASS
8-DPSK	Low CH	1.000	> 2/3 of the 20dB Bandwidth or 25[kHz](whichever is greater)	PASS
	Mid CH	1.000		PASS
	High CH	1.000		PASS
Adapter 2				
GFSK	Low CH	1.000	0.924 MHz	PASS
	Mid CH	1.000	0.863 MHz	PASS
	High CH	1.013	0.870 MHz	PASS
8-DPSK	Low CH	1.000	> 2/3 of the 20dB Bandwidth or 25[kHz](whichever is greater)	PASS
	Mid CH	1.000		PASS
	High CH	1.000		PASS

5.4. Test Data

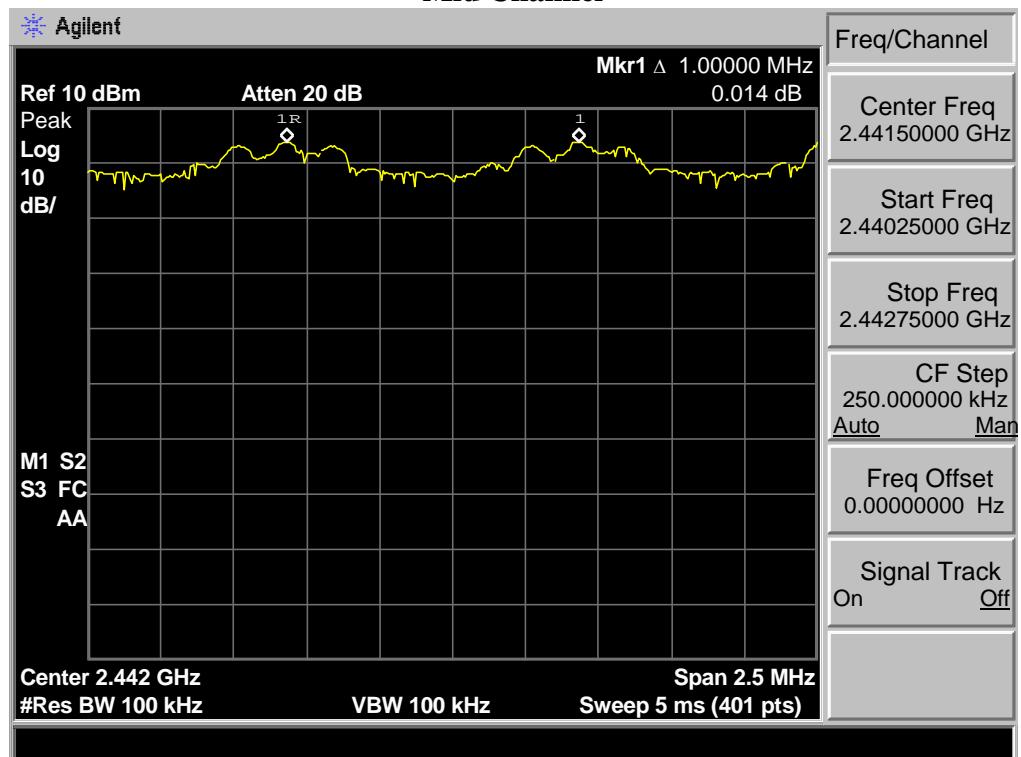


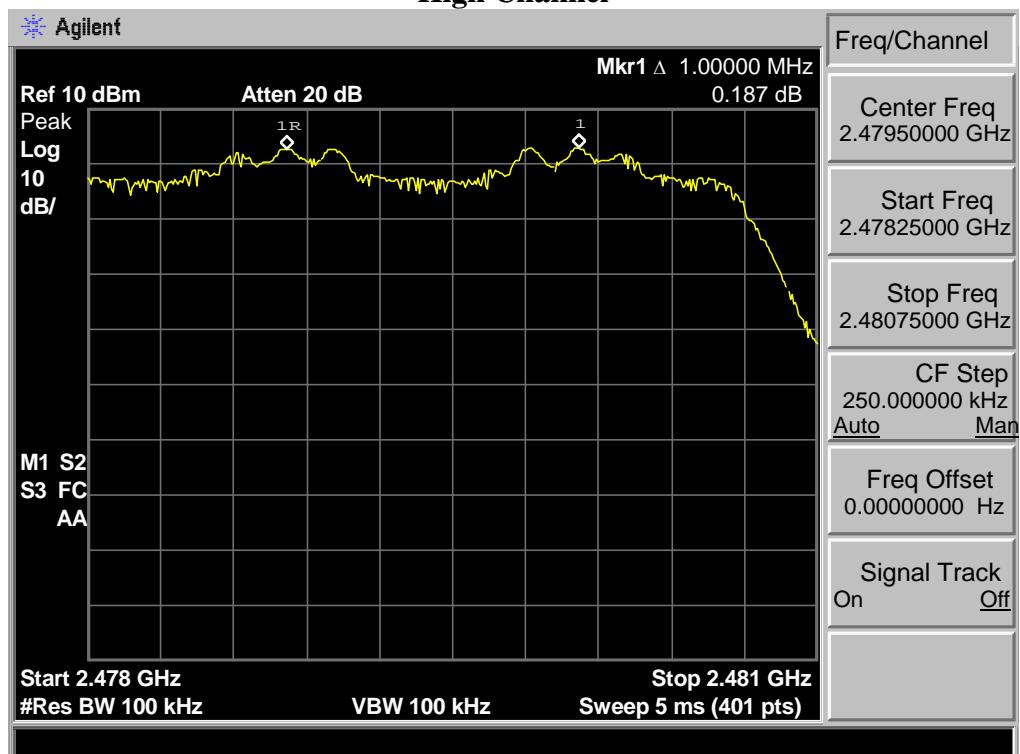


8-DPSK Low Channel

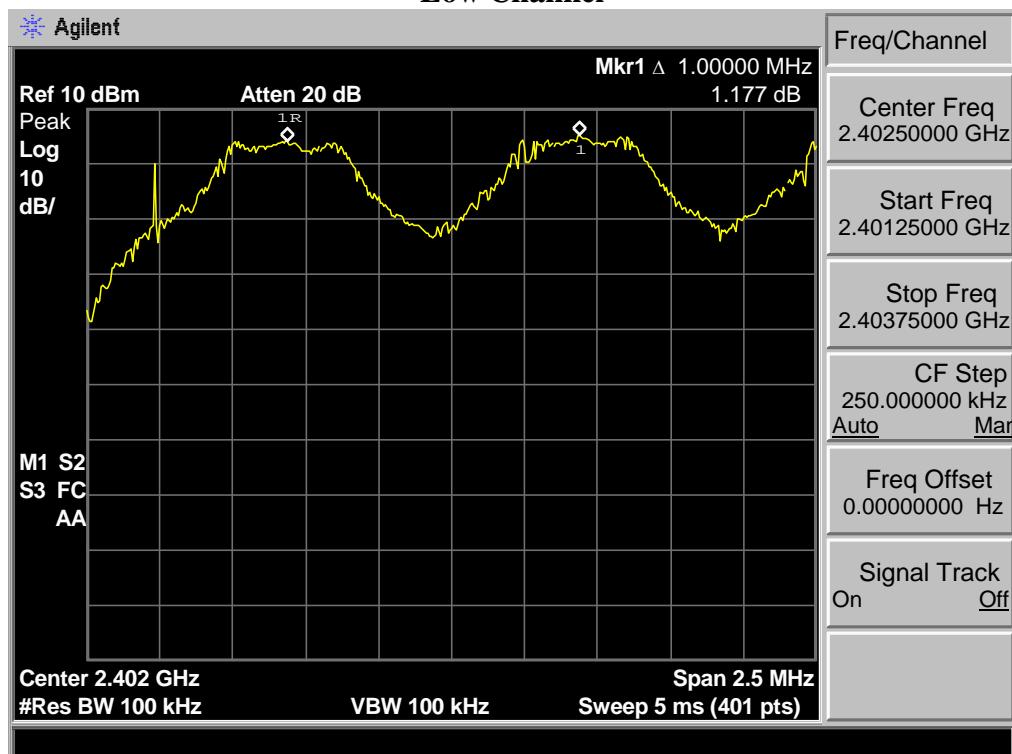


Mid Channel

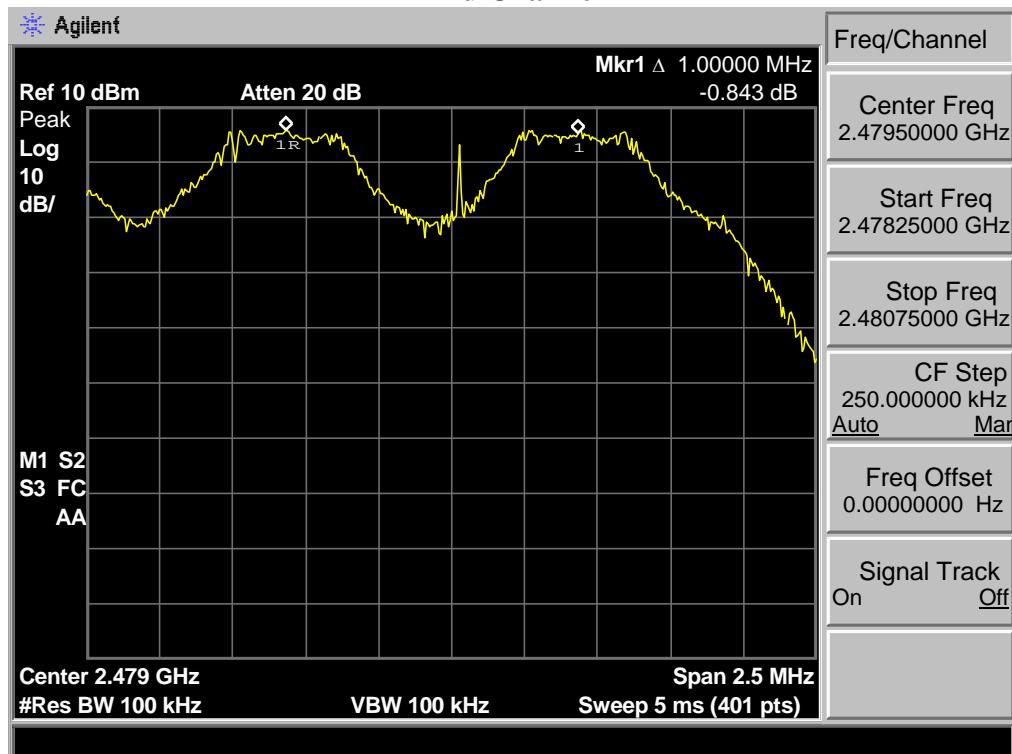


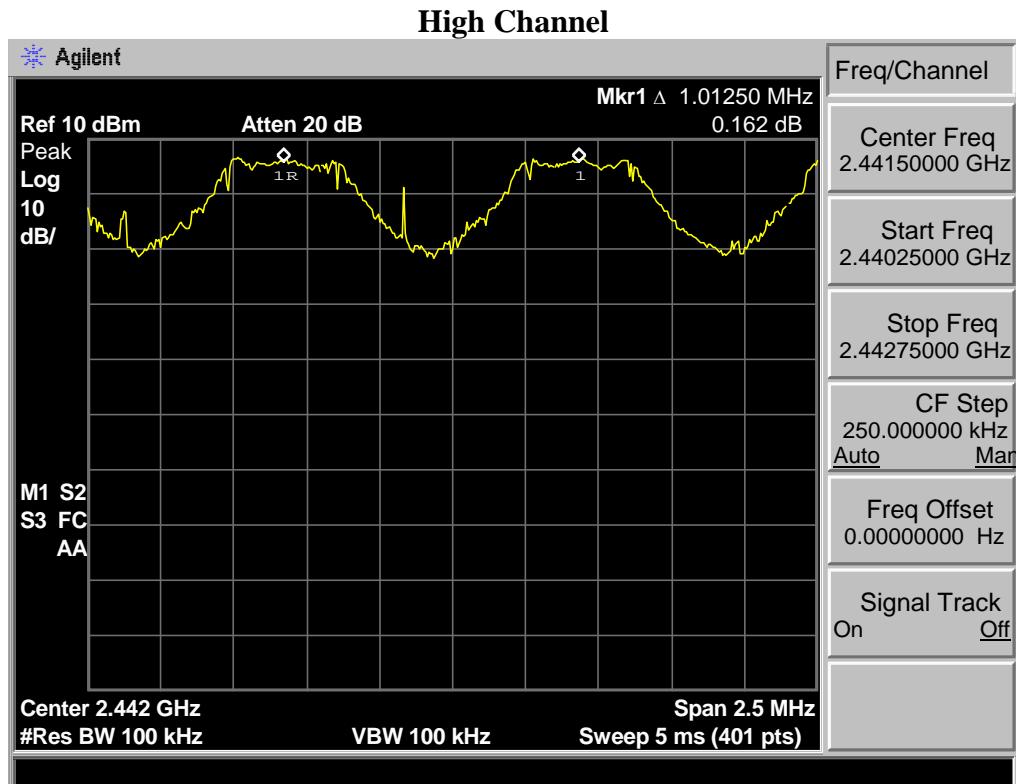
High Channel

**Adapter 2
GFSK
Low Channel**

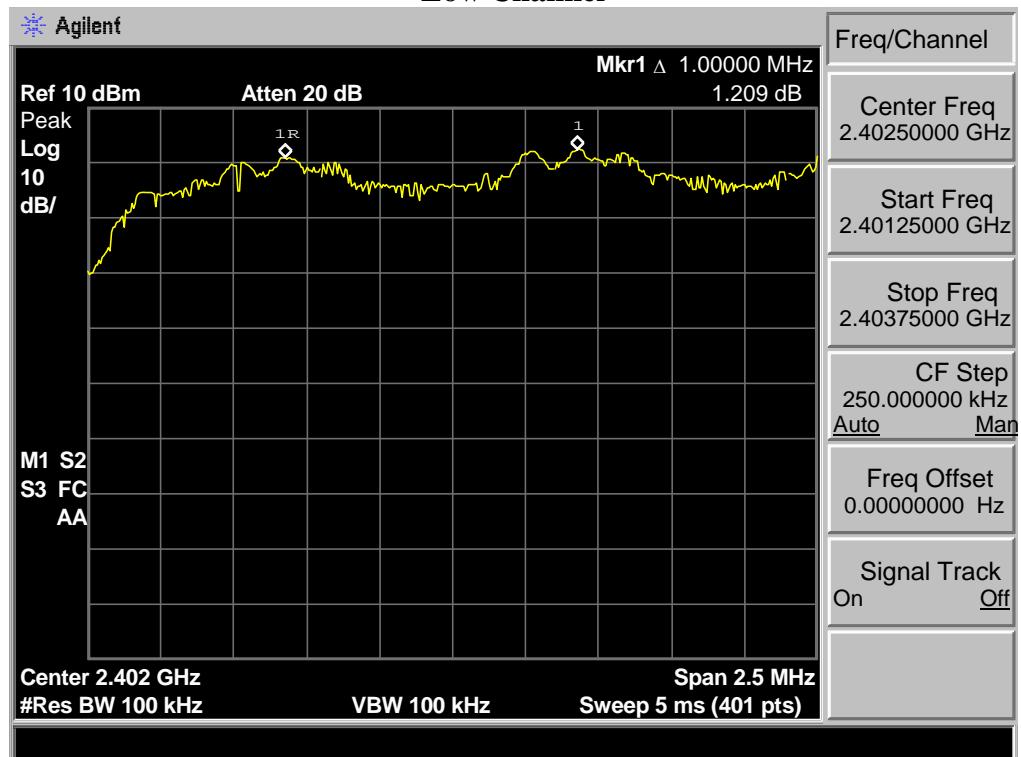


Mid Channel

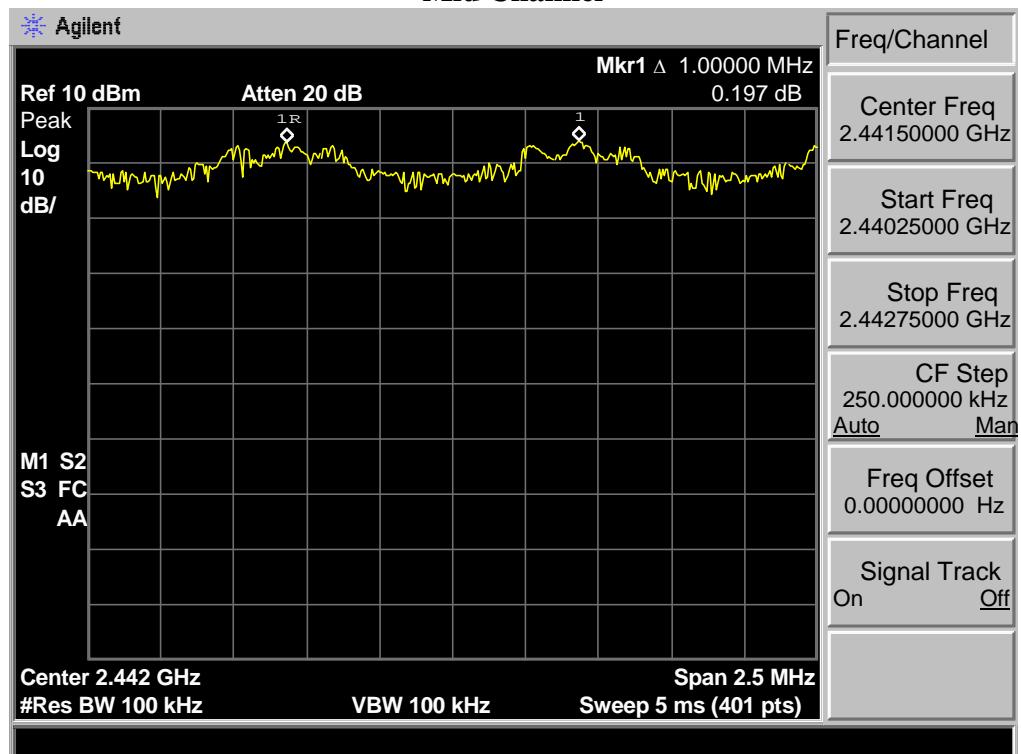


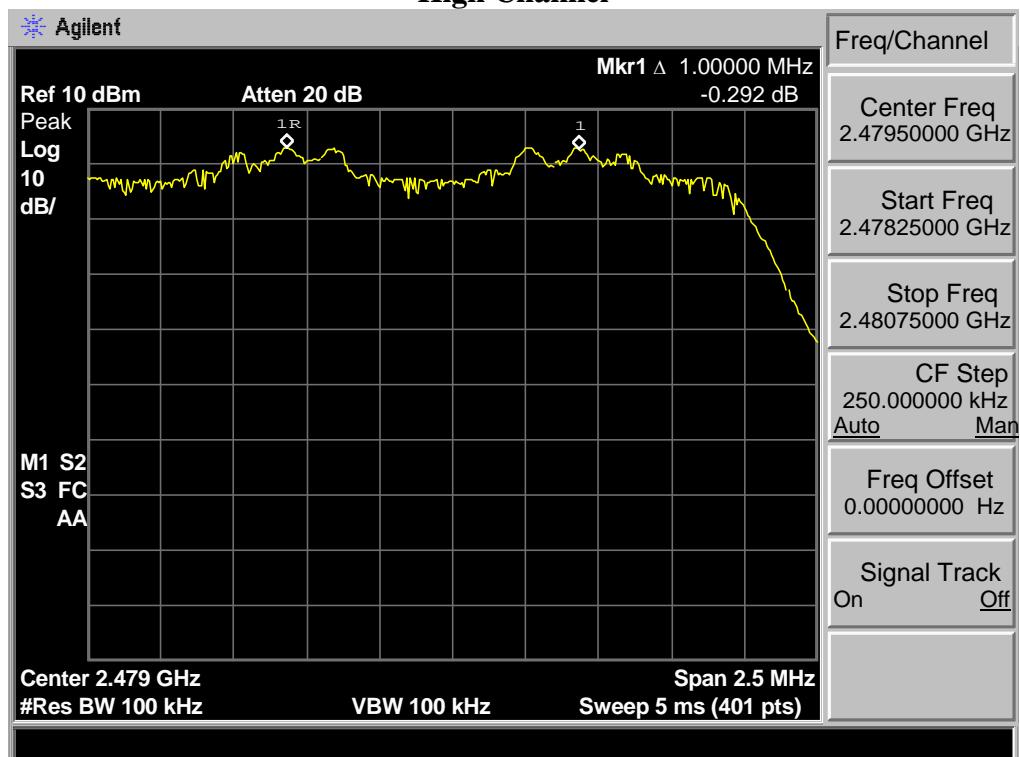


8-DPSK Low Channel



Mid Channel



High Channel

6. NUMBER OF HOPPING CHANNEL

6.1. Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels

6.2. Test Procedure

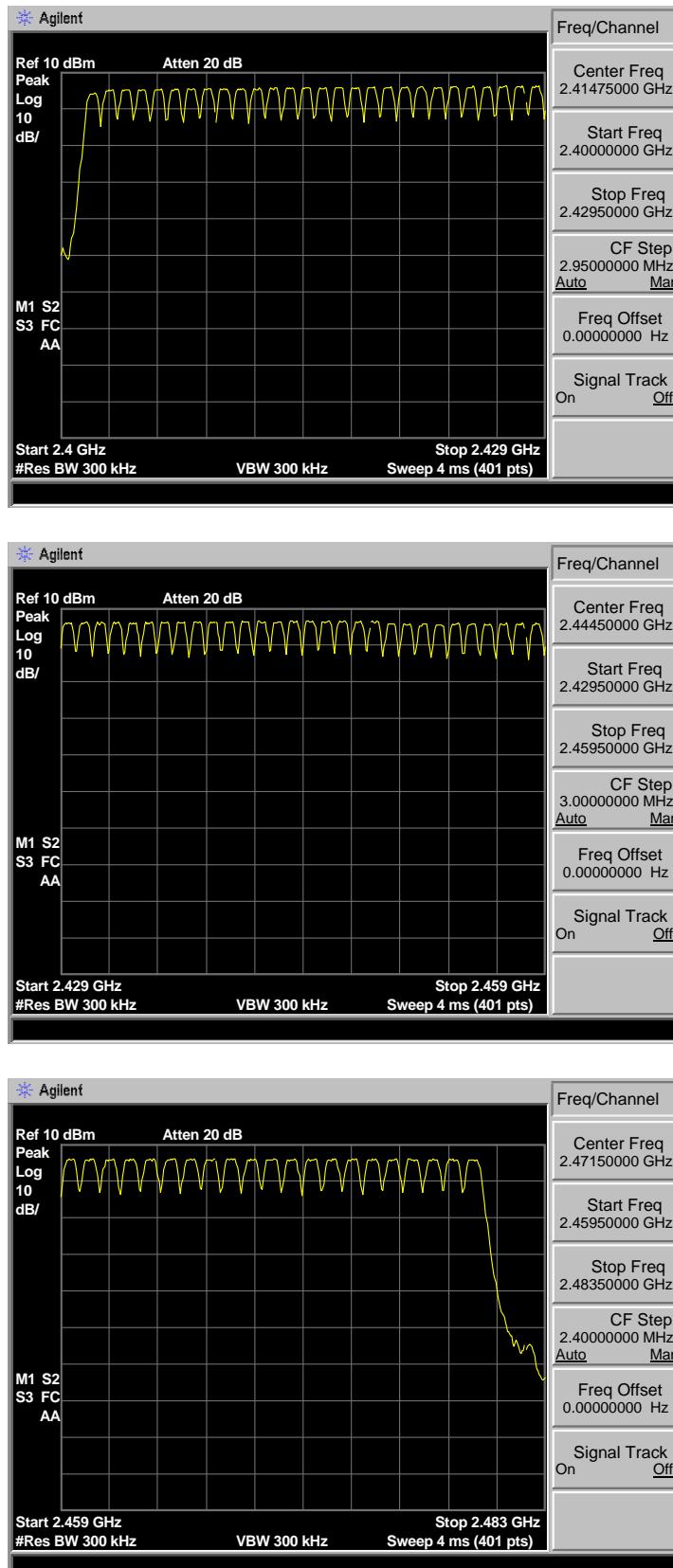
The transmitter output was coupled to a spectrum analyzer via a antenna. The number of hopping channel was measured by spectrum analyzer with 300kHz RBW and 300kHz VBW.

6.3. Test Result

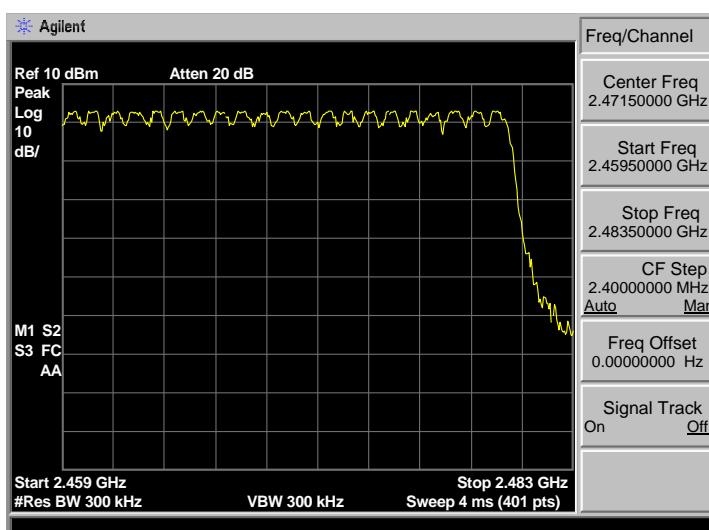
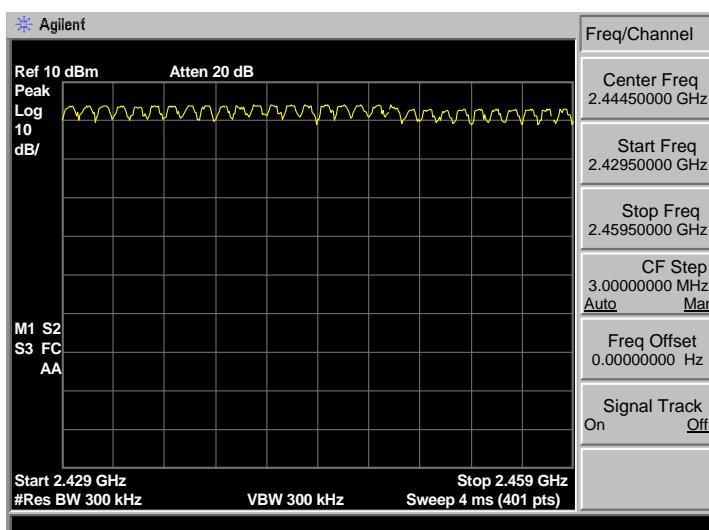
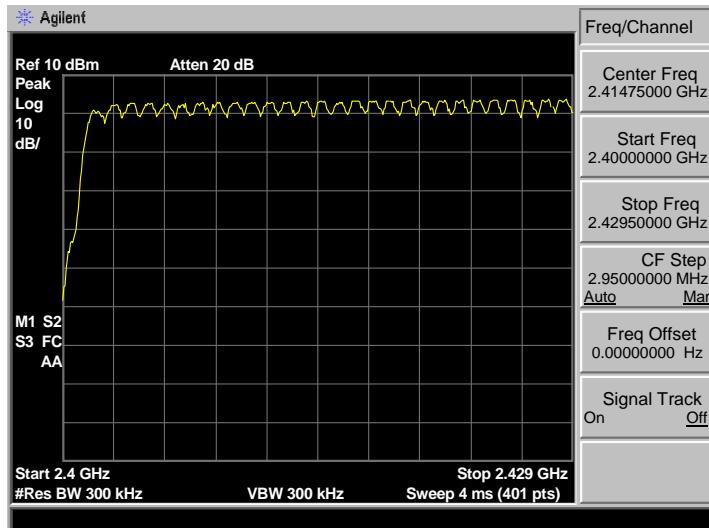
EUT: Portable Bluetooth Speaker M/N: Groove			
Test date: 2015-08-20	Test site: RF site		Tested by: Tony.Tang
Mode	Number of hopping channel	Limit	Conclusion
Adapter 1			
GFSK	79	>15	PASS
8-DPSK	79	>15	PASS
Adapter 2			
GFSK	79	>15	PASS
8-DPSK	79	>15	PASS

6.4. Test Data

Adapter 1 GFSK

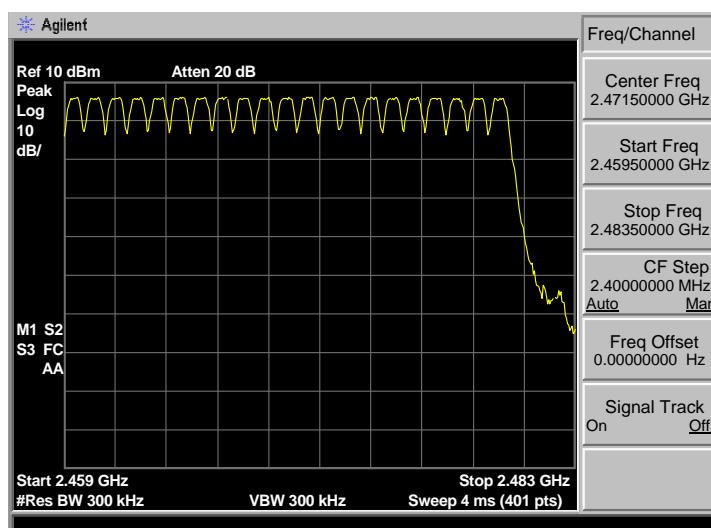
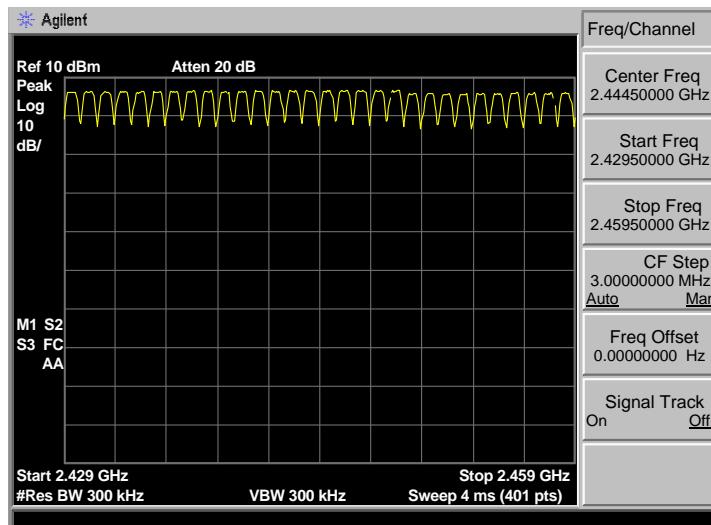
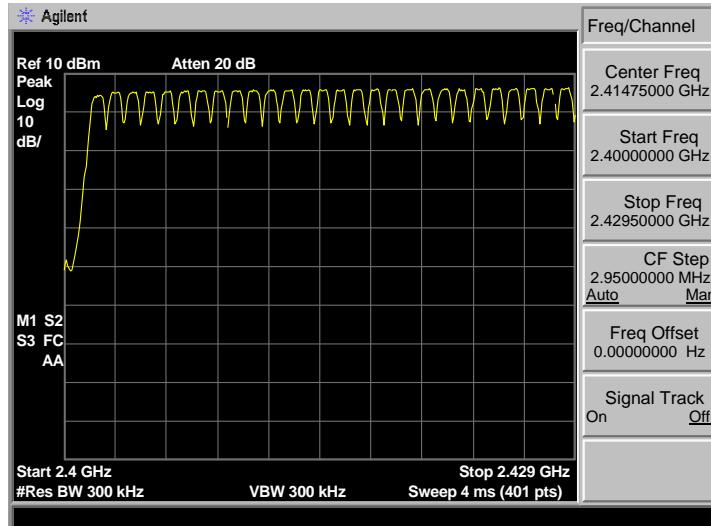


8-DPSK

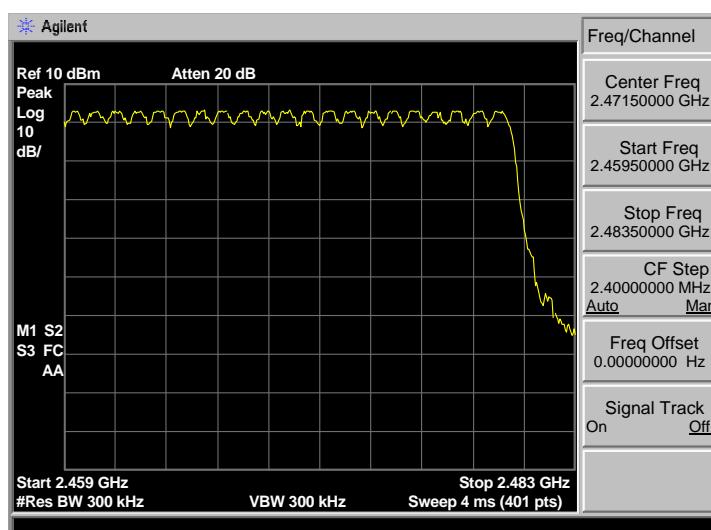
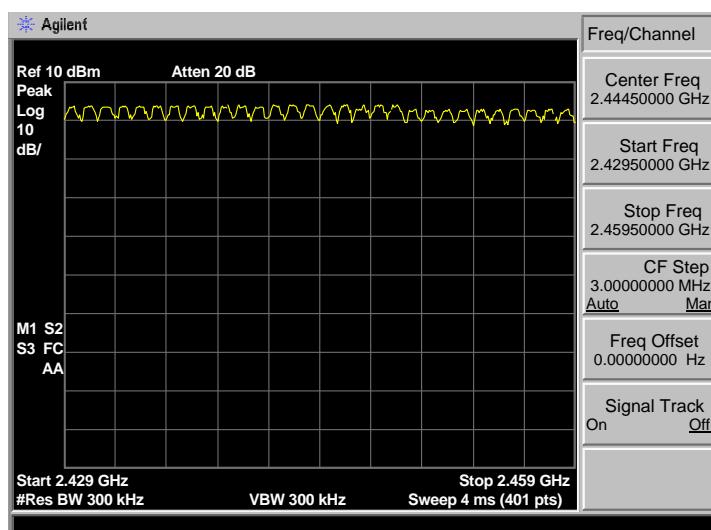
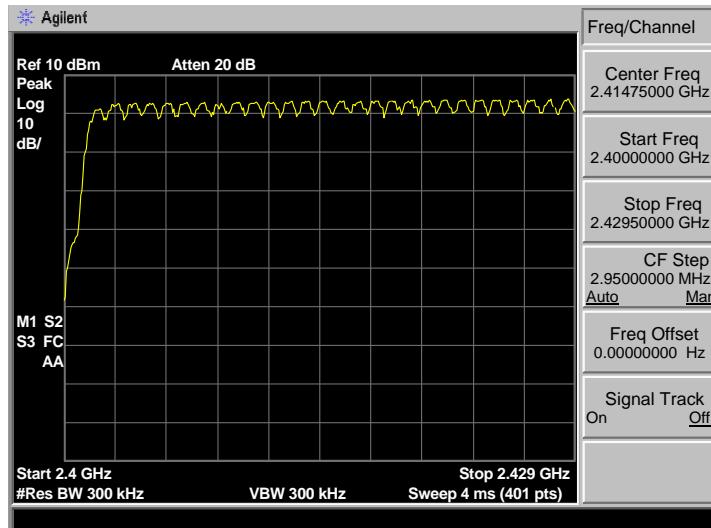


Adapter 2

GFSK



8-DPSK



7. DWELL TIME

7.1. Limit

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

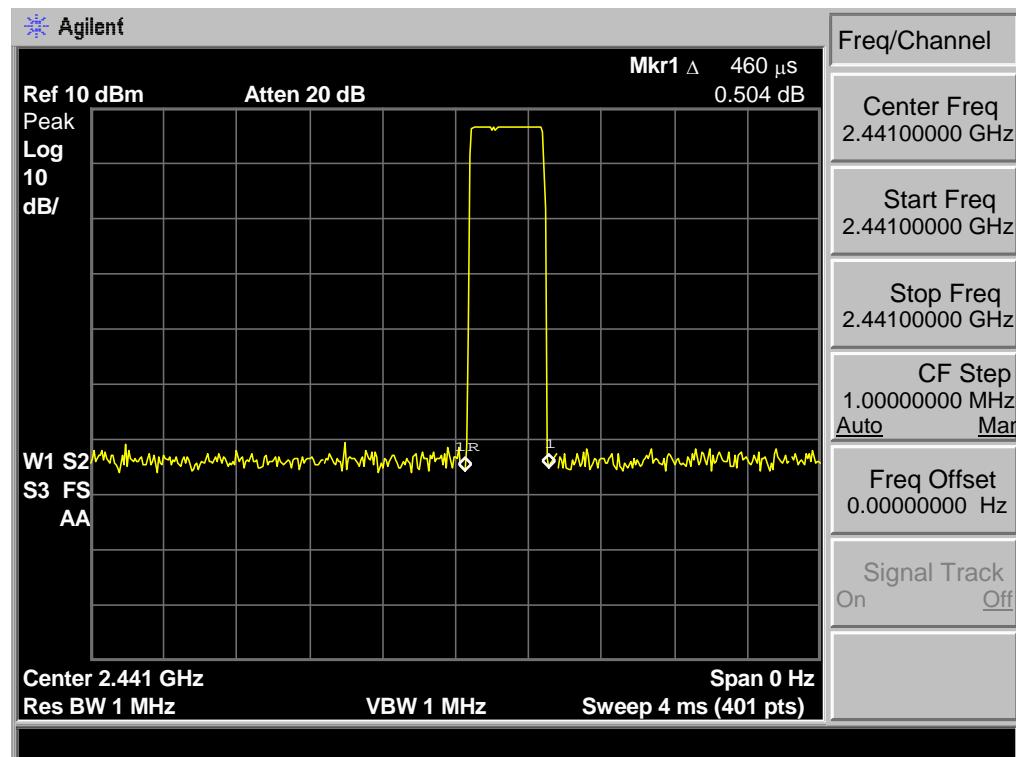
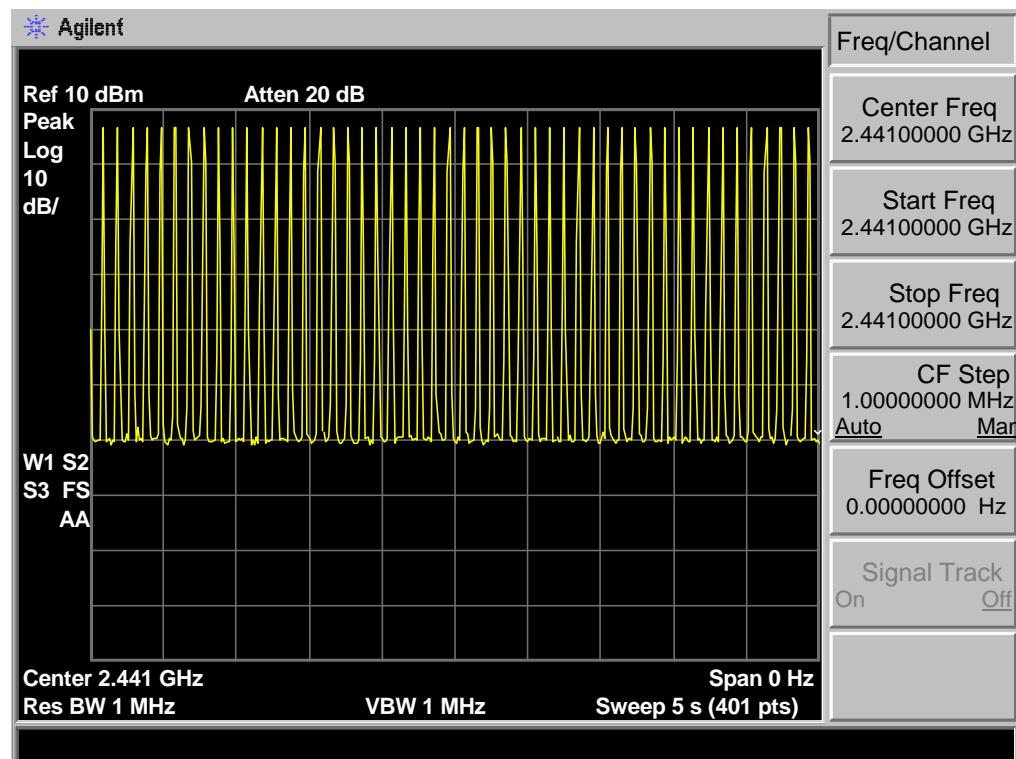
7.2. Test Result

EUT: Portable Bluetooth Speaker M/N: Groove			
Test date: 2015-08-21		Test site: RF site	Tested by: Tony Tang
Mode	Dwell time (ms)	Limit	Conclusion
Adapter 1			
GFSK DH1	145.36	<400ms	PASS
GFSK DH3	270.18	<400ms	PASS
GFSK DH5	316.95	<400ms	PASS
8-DPSK DH1	151.68	<400ms	PASS
8-DPSK DH3	278.08	<400ms	PASS
8-DPSK DH5	316.95	<400ms	PASS
Adapter 2			
GFSK DH1	148.52	<400ms	PASS
GFSK DH3	270.18	<400ms	PASS
GFSK DH5	316.95	<400ms	PASS
8-DPSK DH1	142.20	<400ms	PASS
8-DPSK DH3	276.50	<400ms	PASS
8-DPSK DH5	320.17	<400ms	PASS

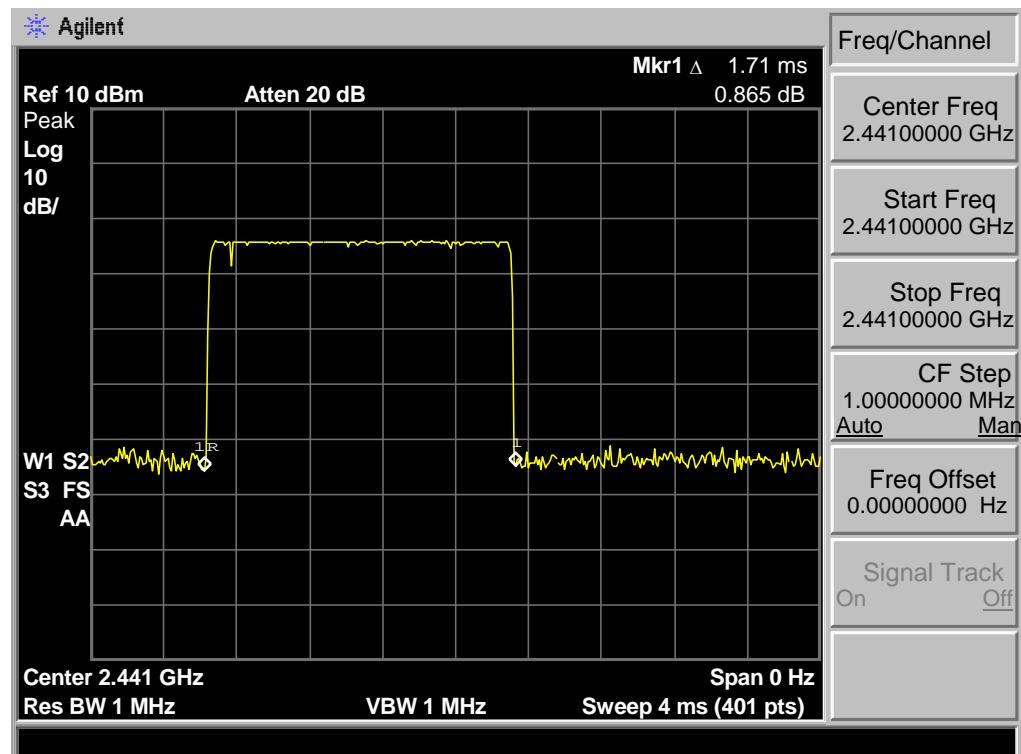
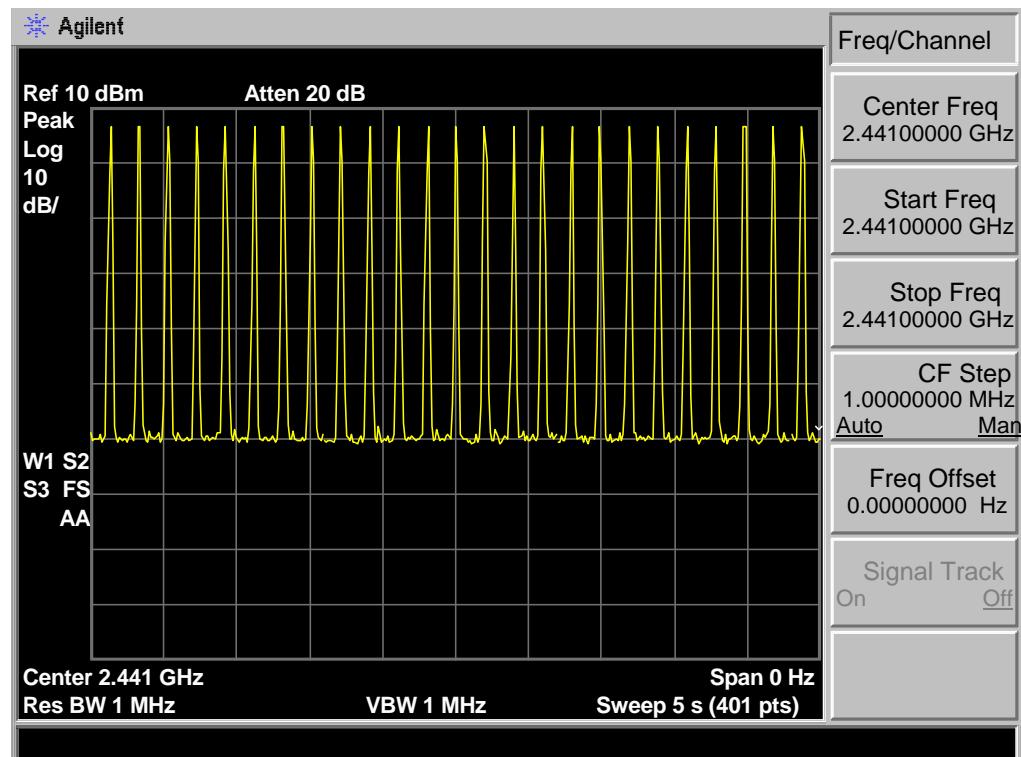
7.3. Test Data

Adapter 1

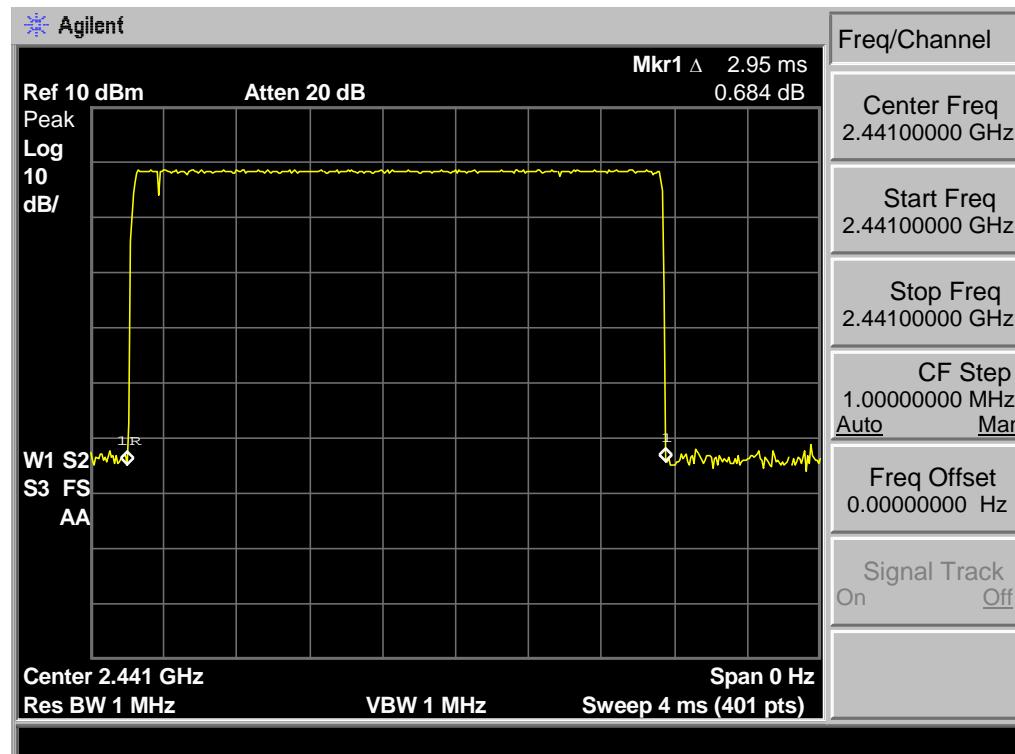
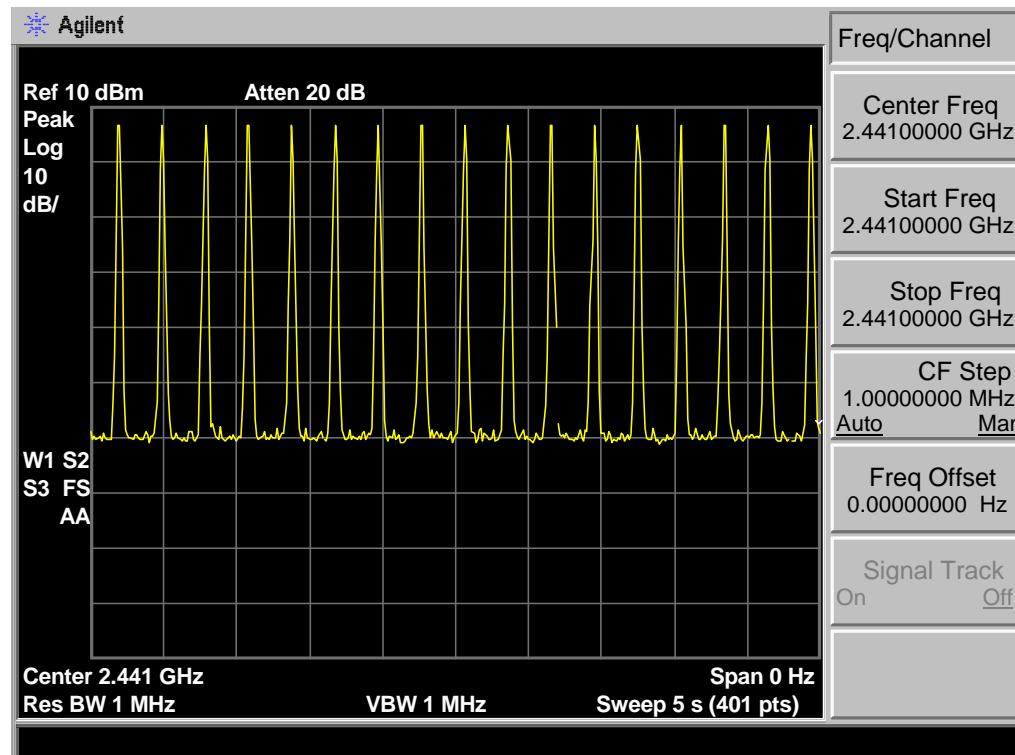
GFSK DH1 : $50\text{hop}/5\text{s} * 0.4 * 79 * 0.46\text{ms} = 145.36\text{ms}$



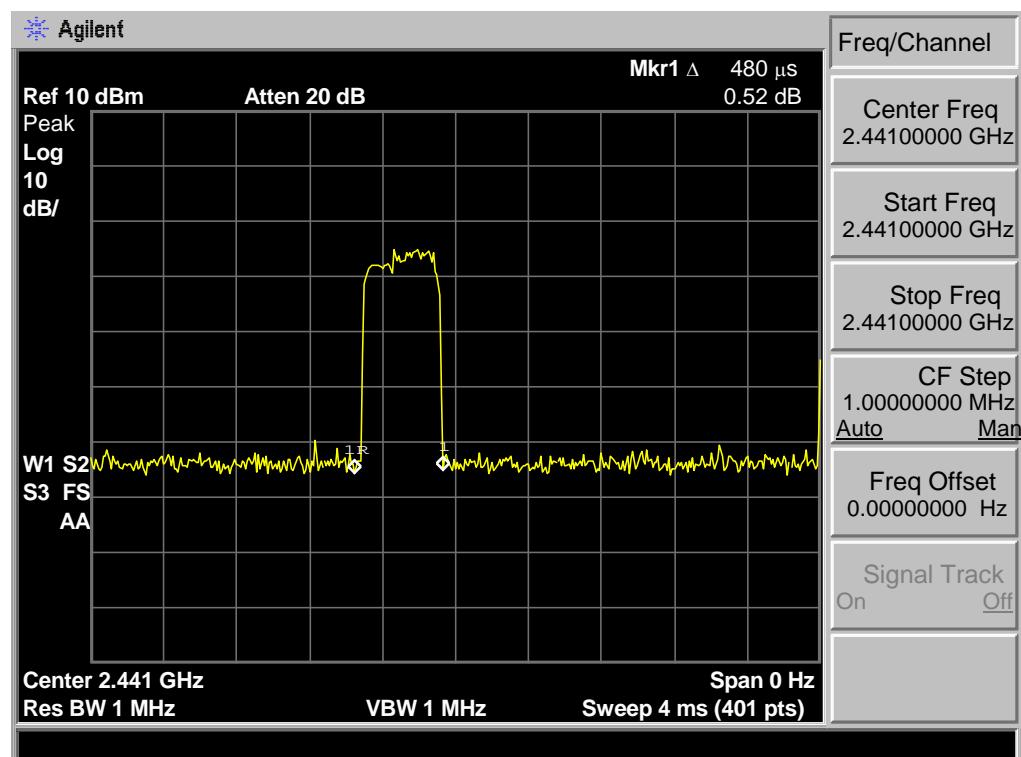
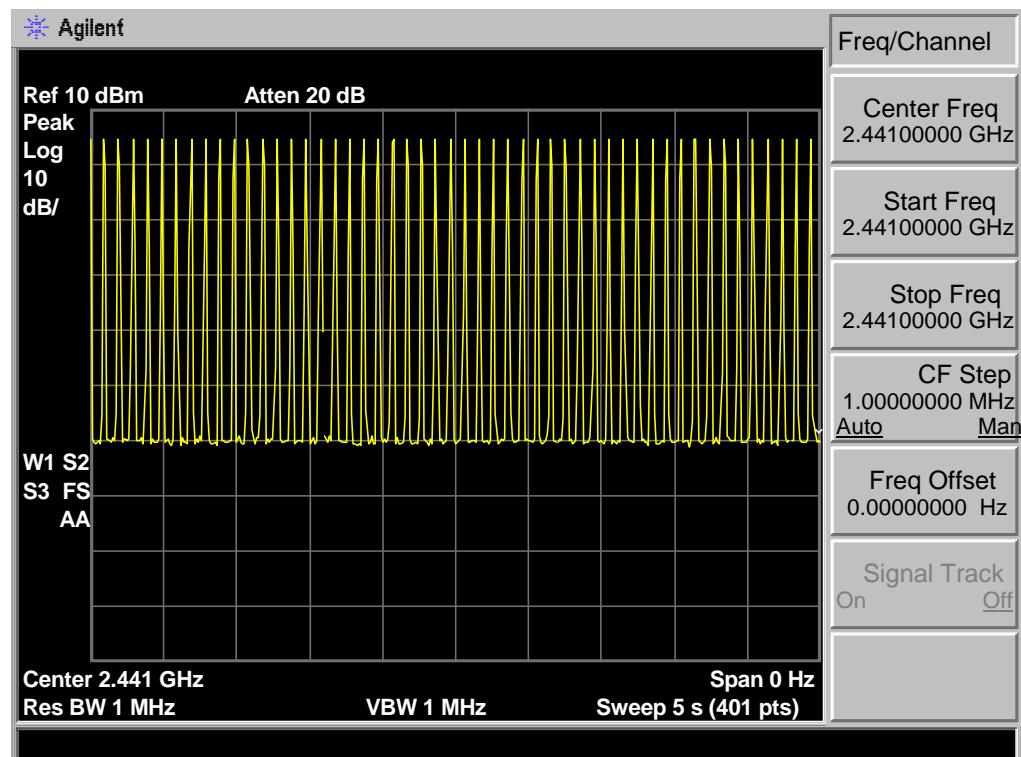
GFSK DH3 : 25hop/5s * 0.4 * 79 * 1.71ms=270.18ms



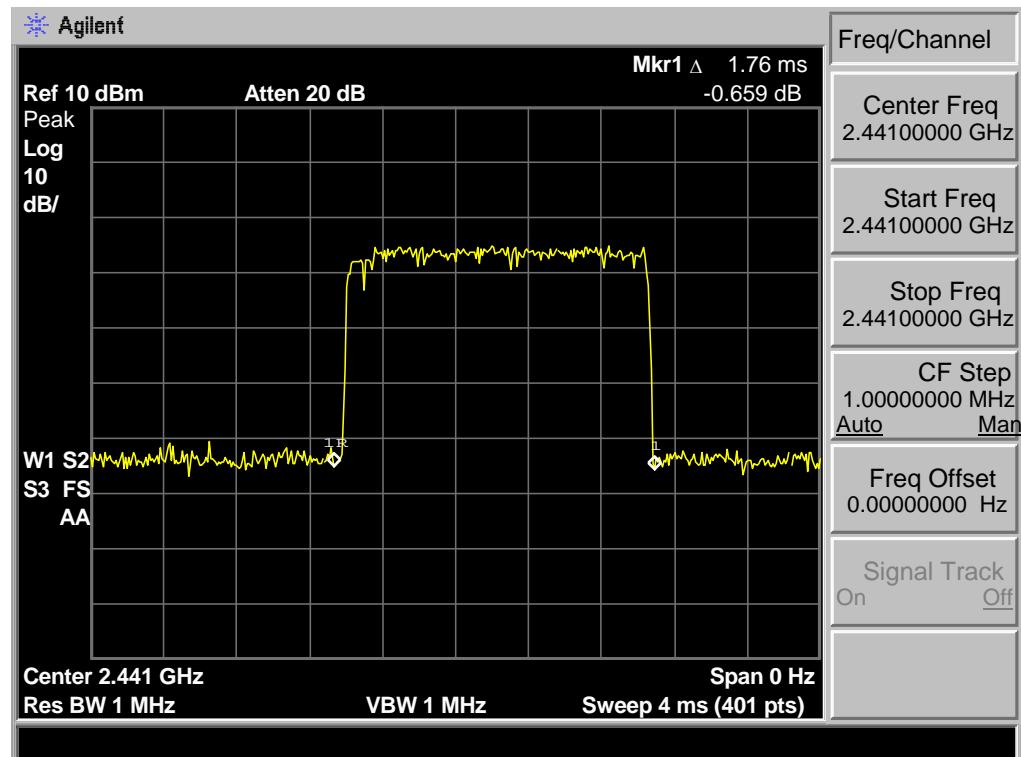
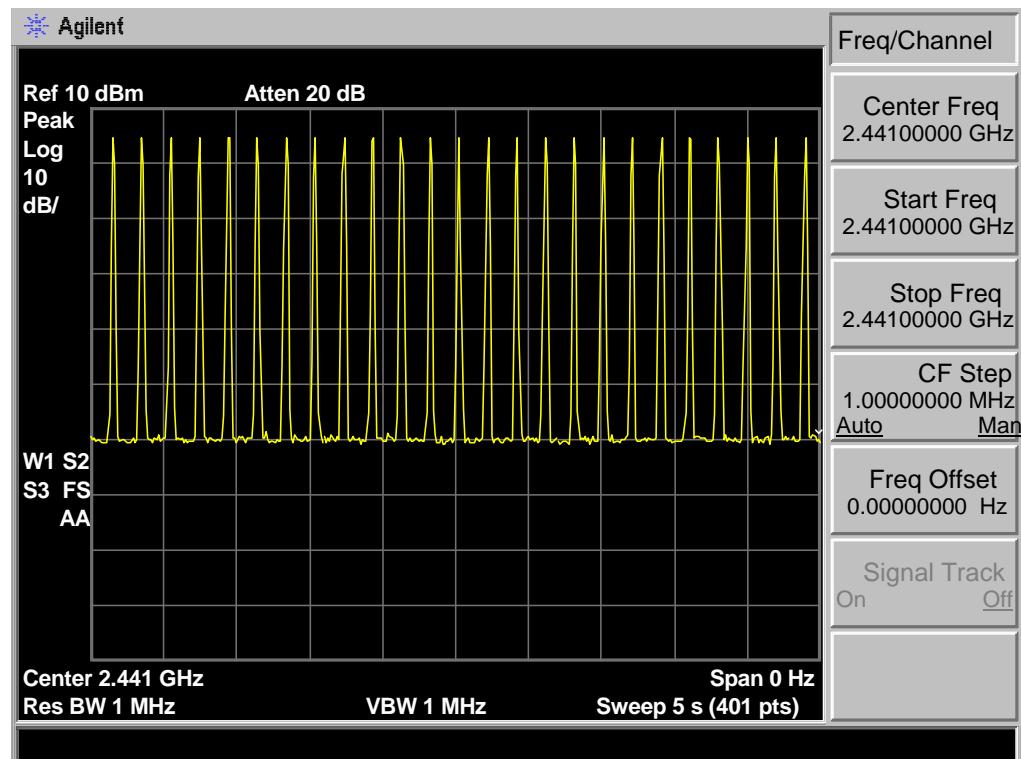
GSFK DH5 : 17hop/5s * 0.4 * 79 *2.95ms = 316.95ms



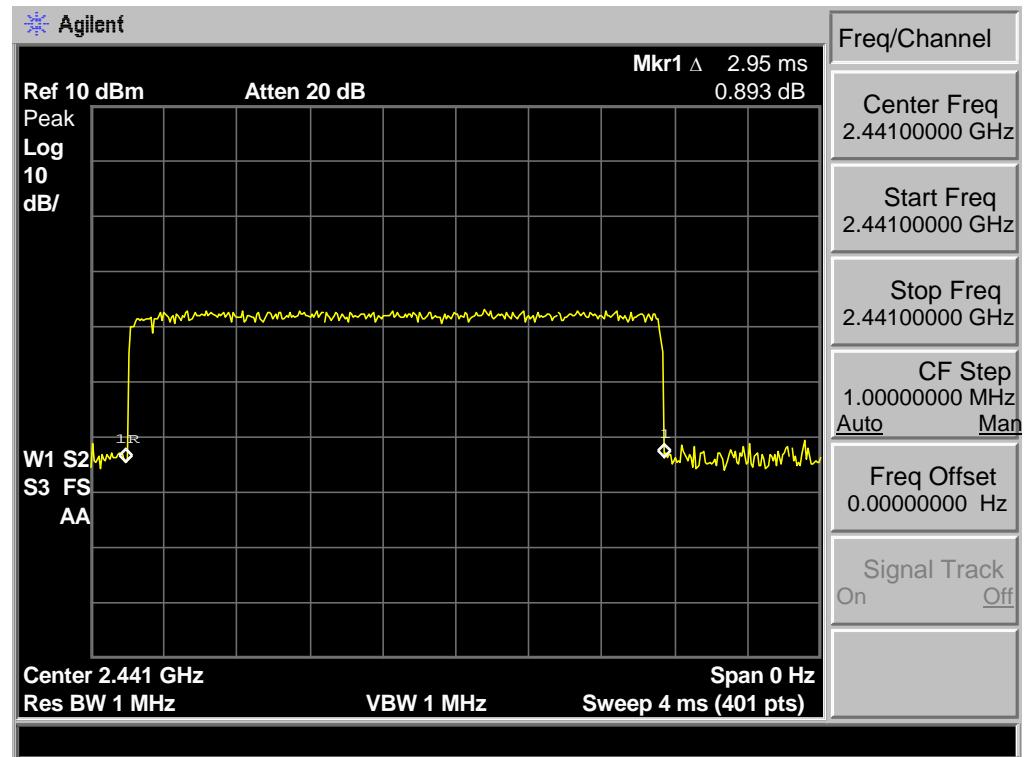
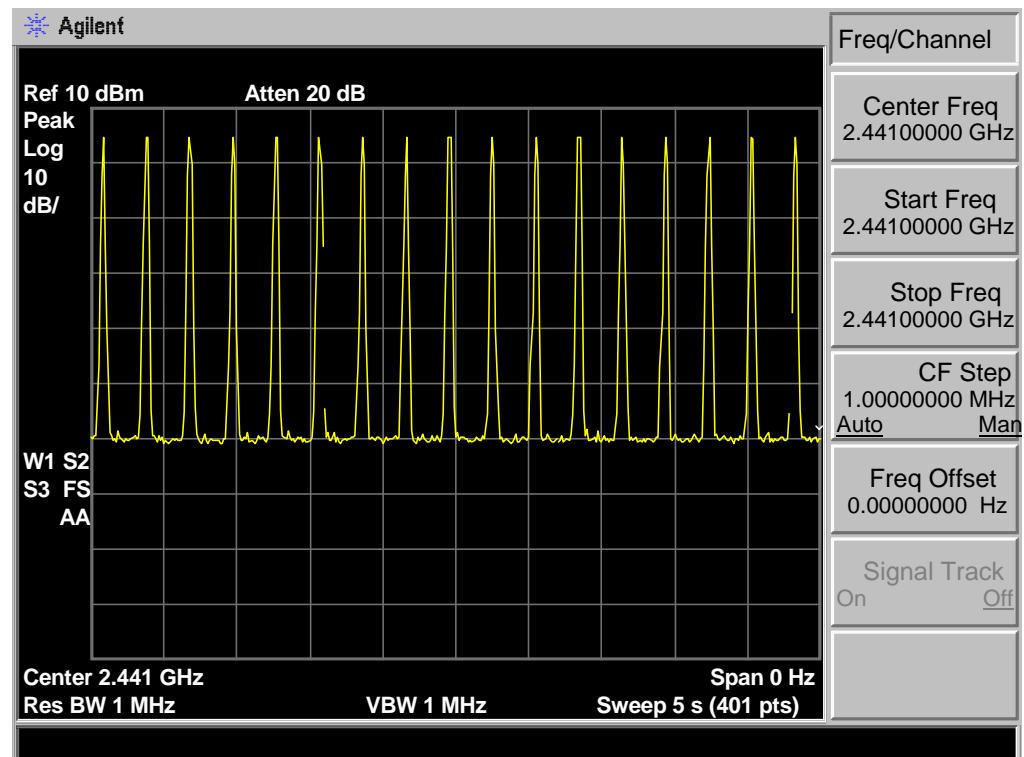
8-DPSK DH1 : 50hop/5s * 0.4 * 79 * 0.48ms = 151.68ms

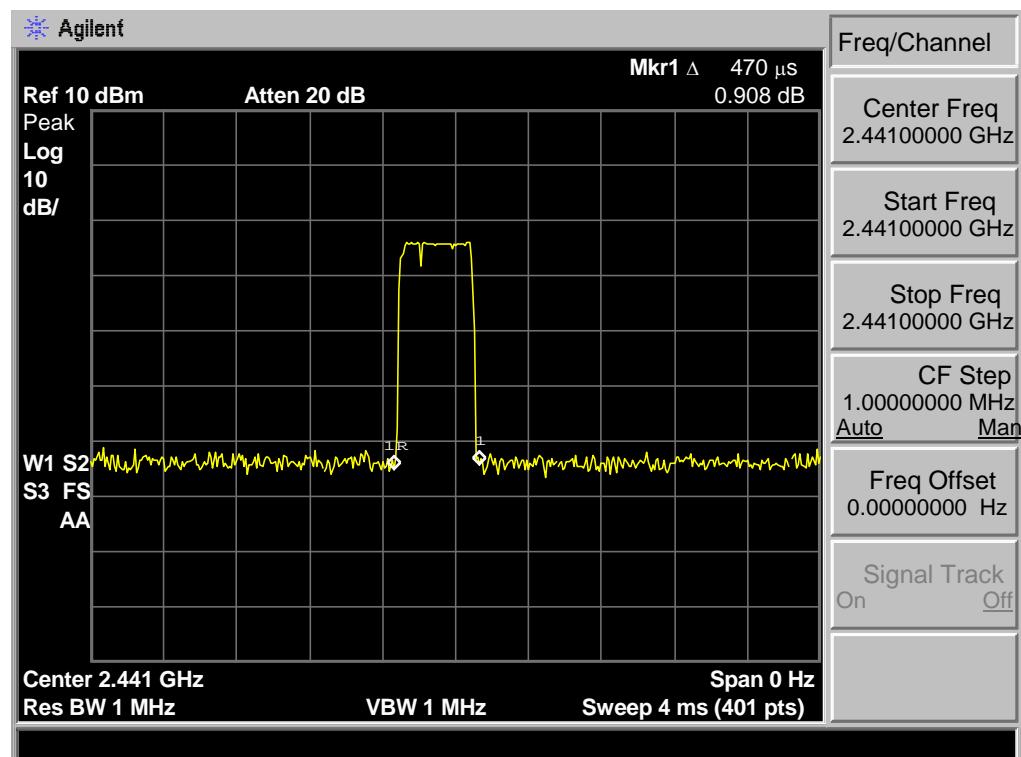
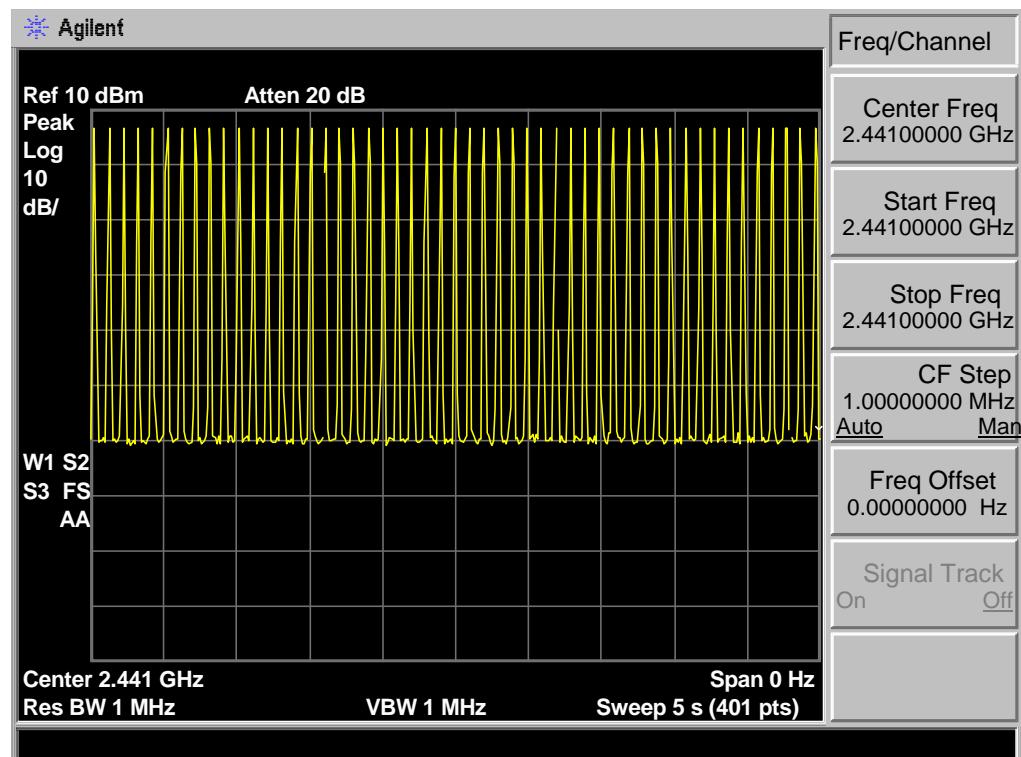


8-DPSK DH3 : 25hop/5s * 0.4 * 79 * 1.76ms= 278.08ms

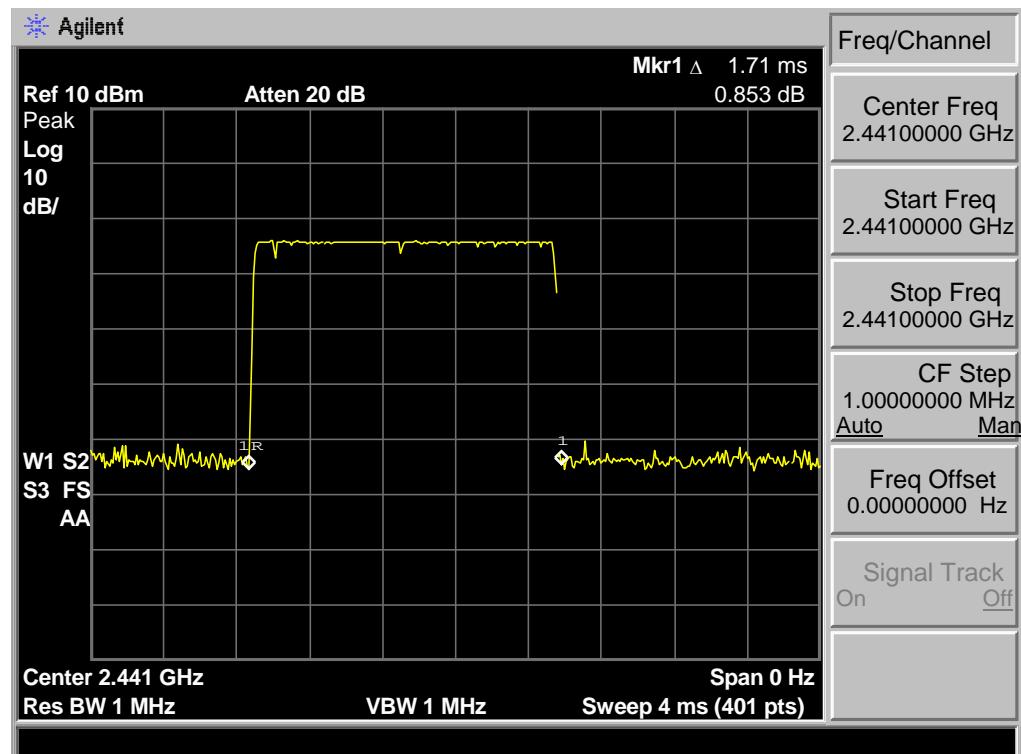
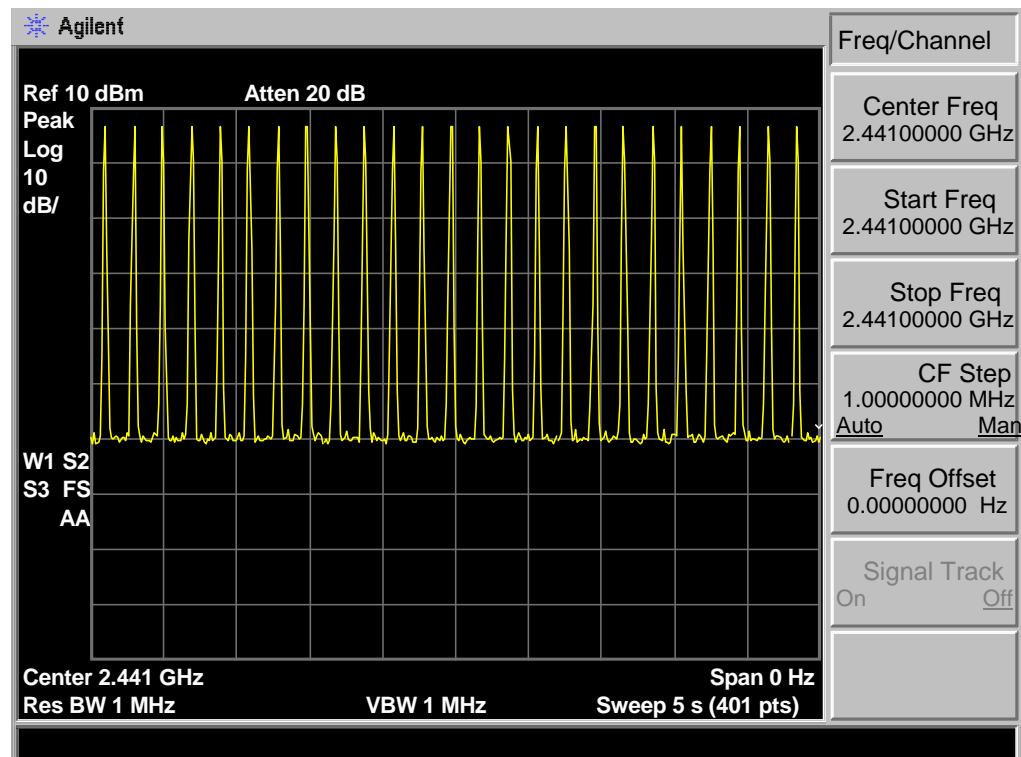


8-DPSK DH5 : 17hop/5s * 0.4 * 79 *2.95ms = 316.95ms

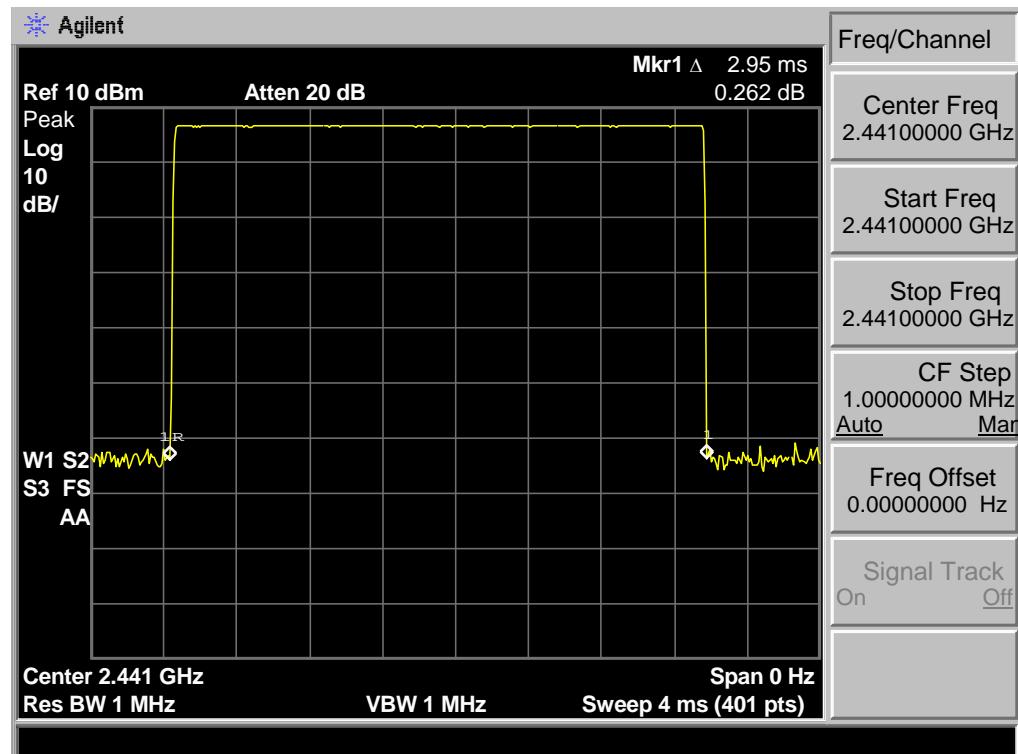
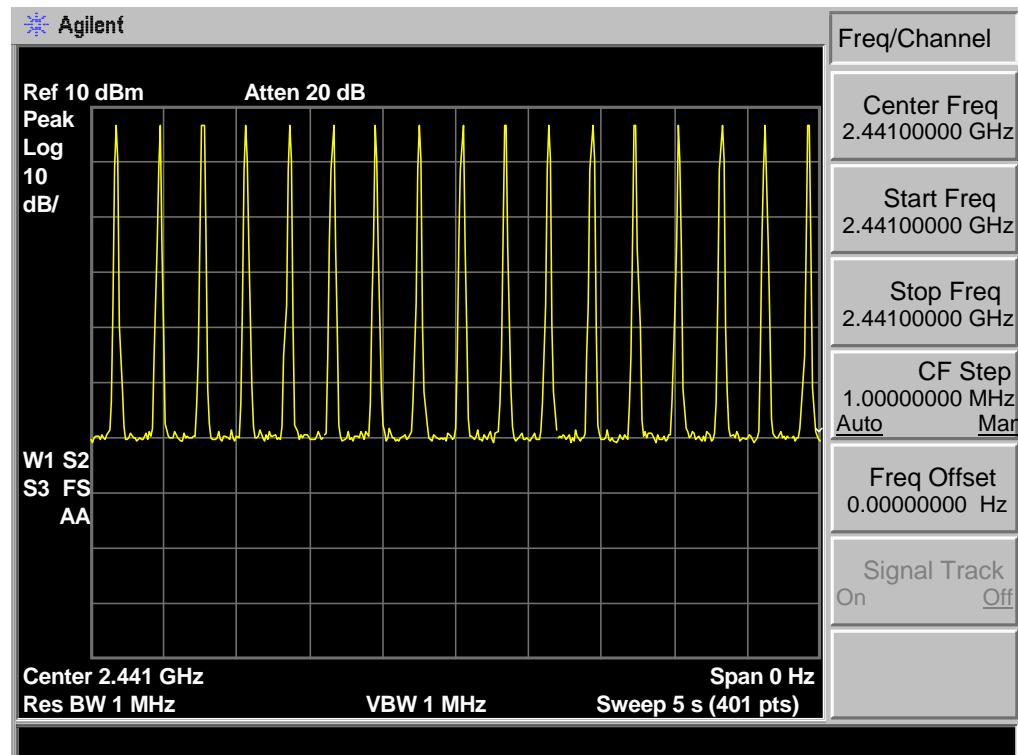


Adapter 2**GFSK DH1 : 50hop/5s * 0.4 * 79 * 0.47ms = 148.52ms**

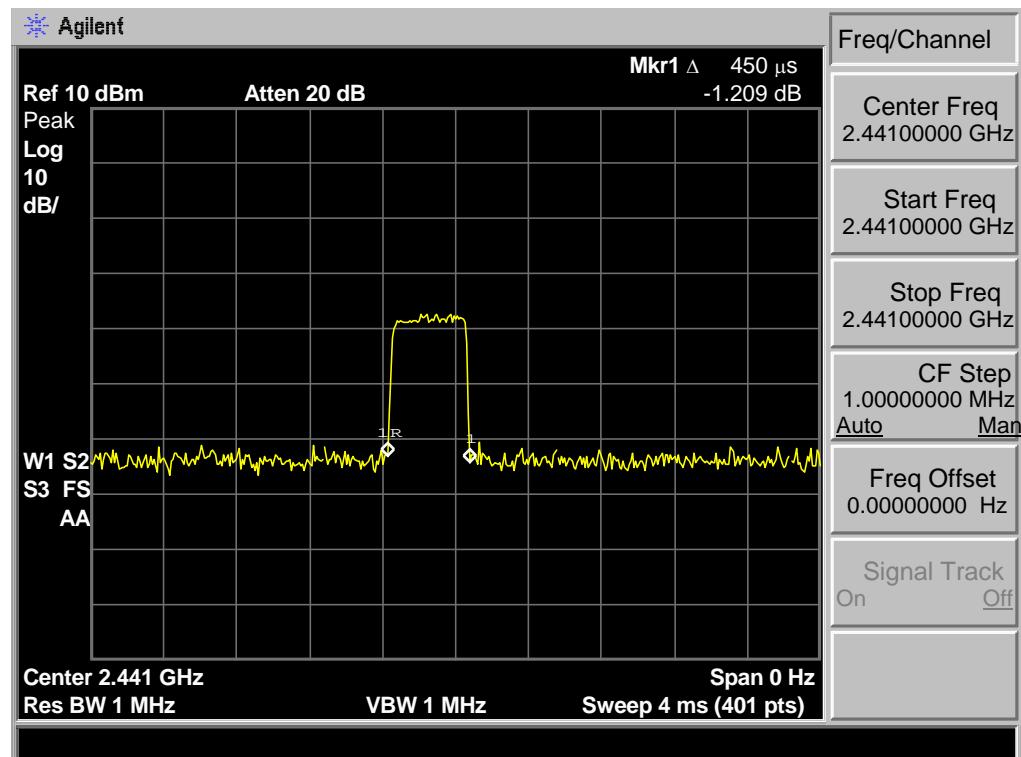
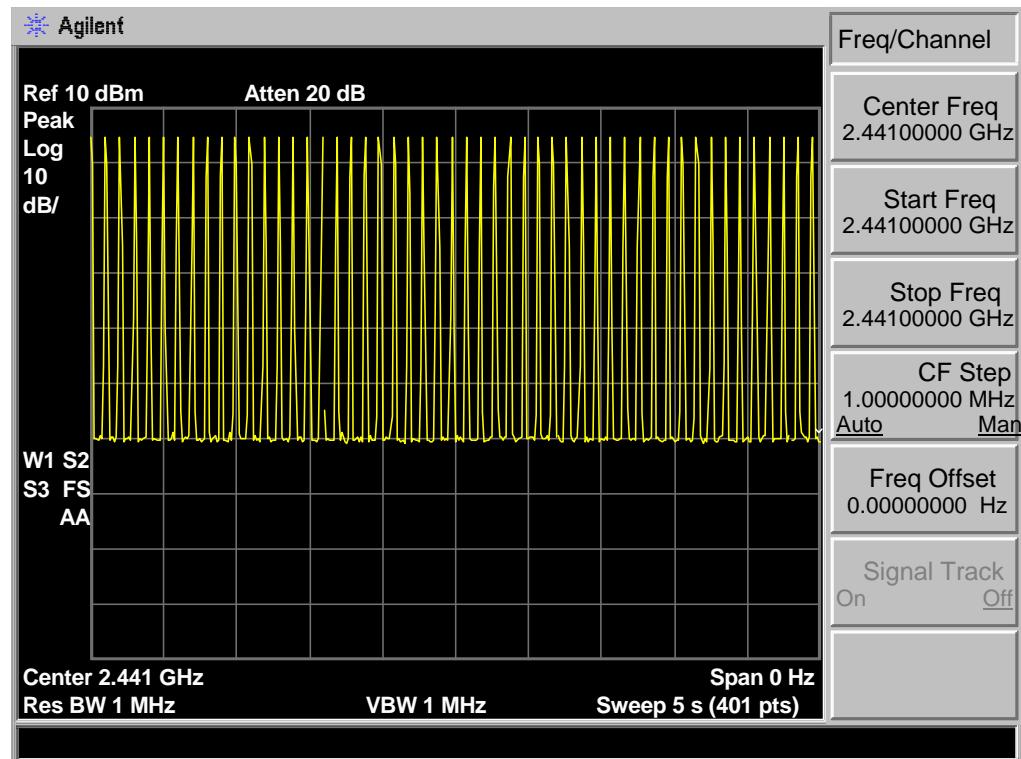
GFSK DH3 : 25hop/5s * 0.4 * 79 * 1.71ms=270.18ms



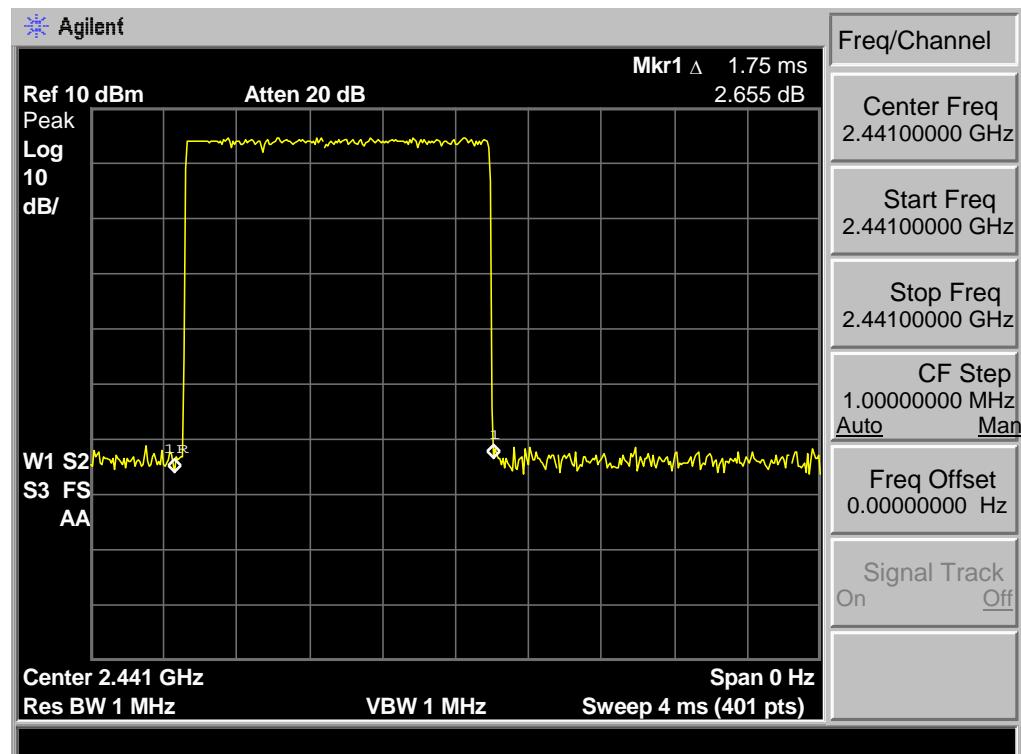
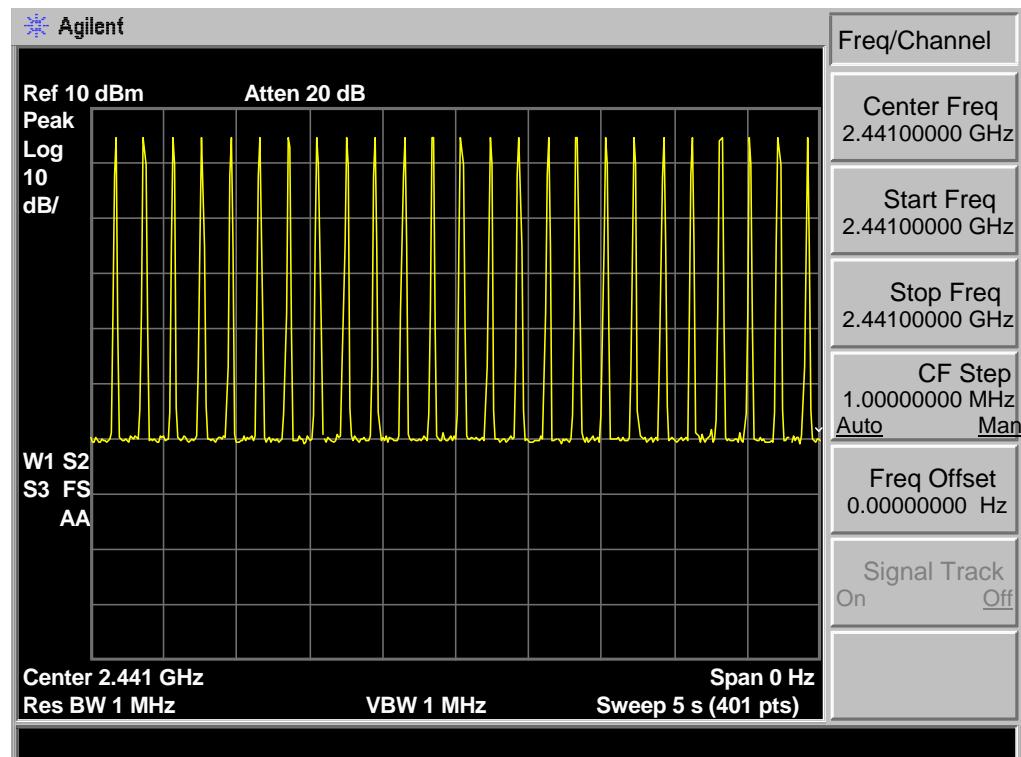
GSFK DH5 : 17hop/5s * 0.4 * 79 *2.95ms = 316.95ms



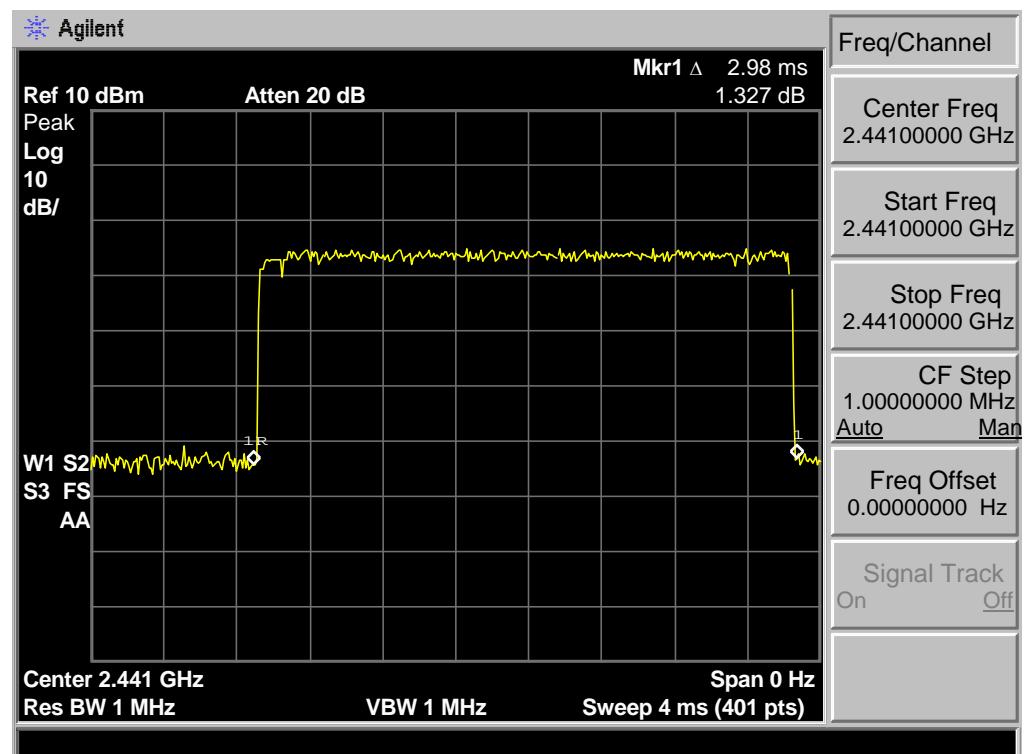
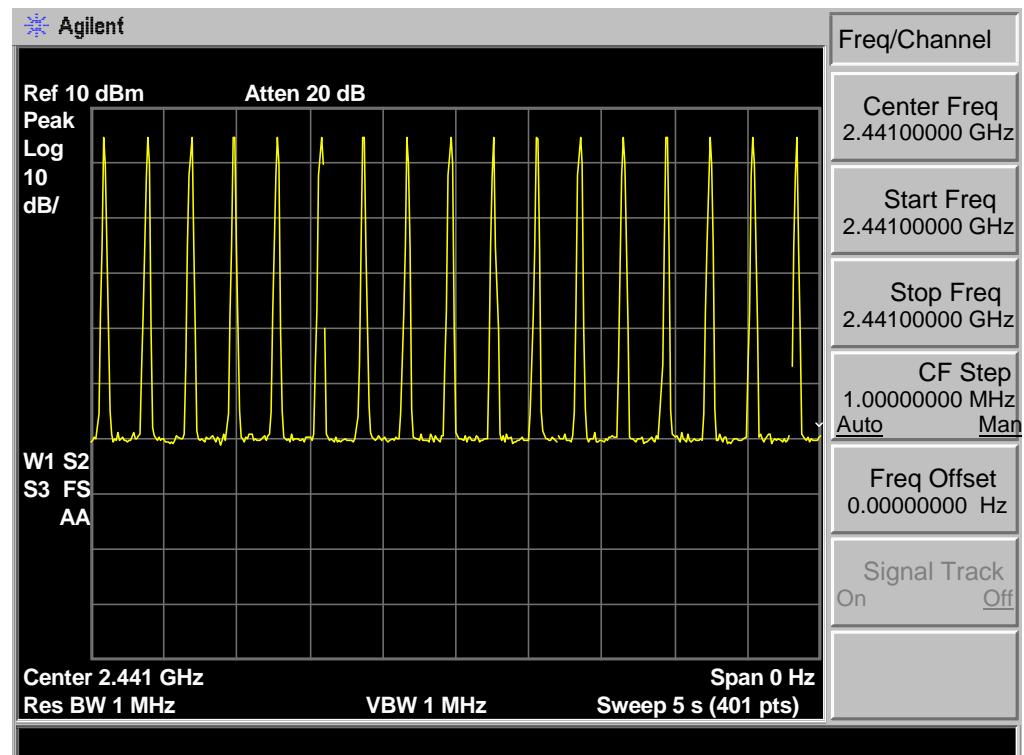
8-DPSK DH1 : 50hop/5s * 0.4 * 79 * 0.45ms = 142.20ms



8-DPSK DH3 : 25hop/5s * 0.4 * 79 * 1.75ms= 276.50ms



8-DPSK DH5 : 17hop/5s * 0.4 * 79 *2.98ms = 320.17ms



8. RADIATED EMISSIONS

8.1. Limit

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.

15.205 Restricted frequency band

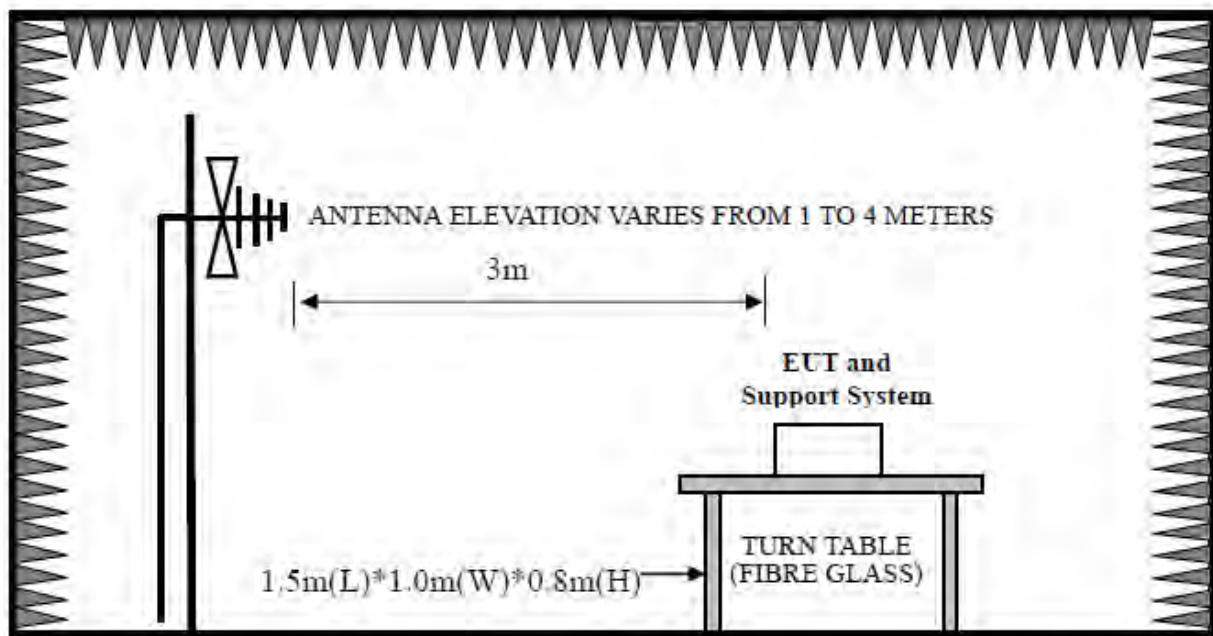
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 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)

15.209 Limit

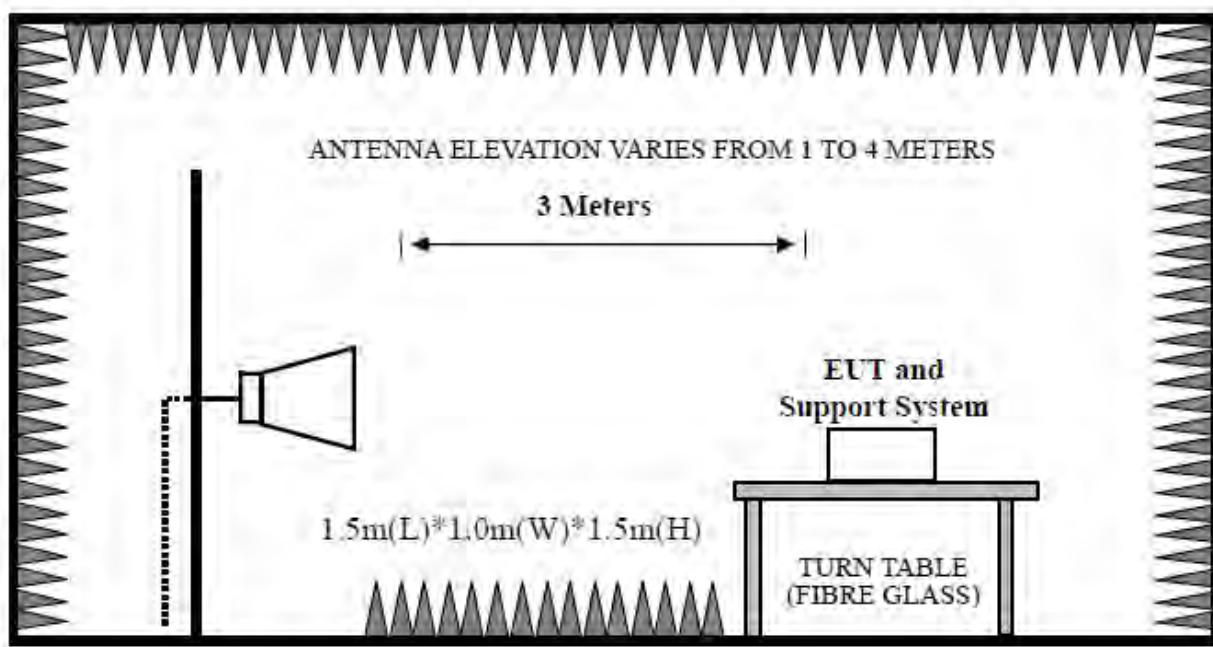
FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		µV/m	dB(µV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(µV)/m (Peak) 54.0 dB(µV)/m (Average)	

8.2. Block Diagram of Test setup

30~1000MHz



Above 1GHz



8.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 30~1000MHz test, and which 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 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.

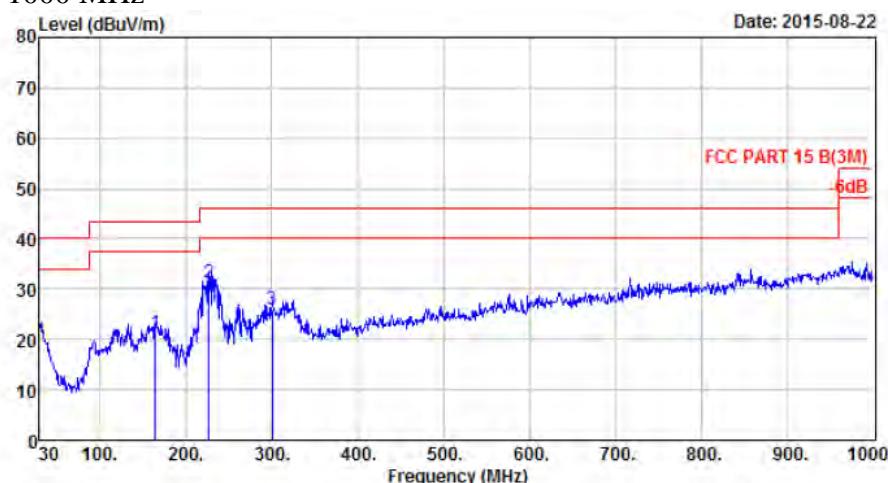
8.4. Test Result

30MHz—25GHz Radiated emissison Test result	
EUT: Portable Bluetooth Speaker	
M/N: Groove	
Power: AC 120V/60Hz	
Test date: 2015-08-09~22	Test site: 3m Chamber
Test mode: Tx Mode	Tested by: Tony Tang
Pass	

- 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 , 2441MHz and 2480MHz 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.

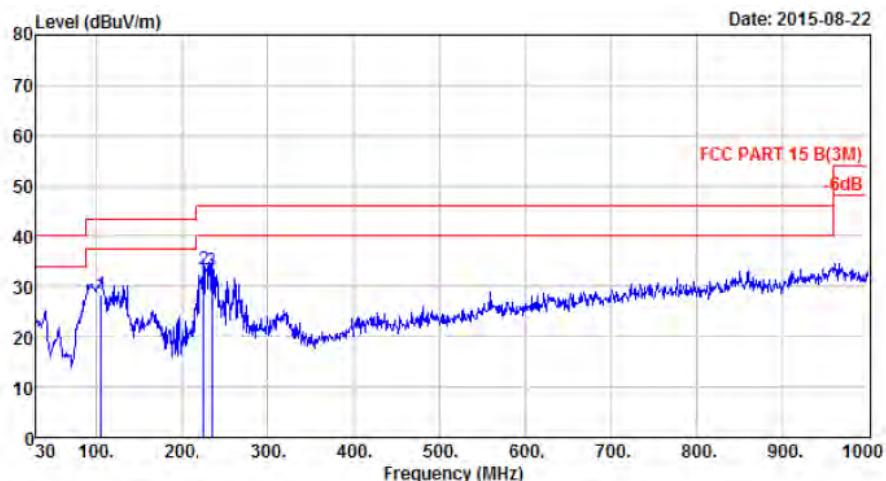
8.5. Test Data

30 MHz – 1000 MHz



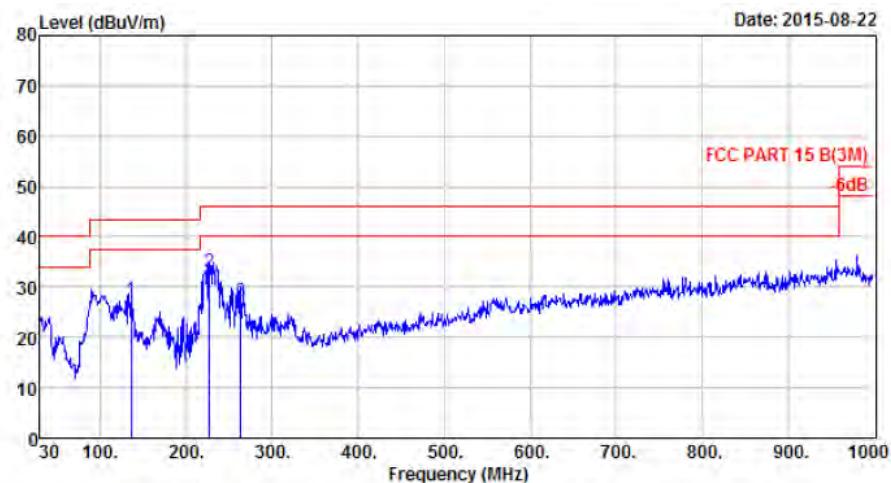
Site no. : 2# 966 chamber
 Dis. / Ant. : 3m 37062
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp: 23. 6°; Humi: 56%; Press: 101. 52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	164.830	9.77	2.05	9.39	21.21	43.50	22.29	QP
2	226.910	9.35	2.27	19.78	31.40	46.00	14.60	QP
3	300.630	12.89	2.45	10.50	25.84	46.00	20.16	QP



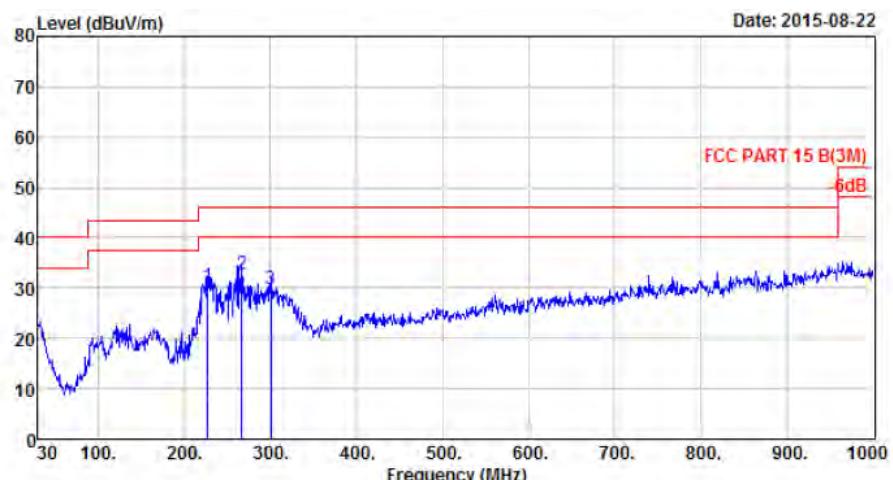
Site no.: 2# 966 chamber Data no.: 90
 Dis. / Ant.: 3m 37062 Ant. pol.: VERTICAL
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp: 23. 6°; Humi: 56%; Press: 101. 52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: GFSK TX 2402MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	105. 660	10. 11	1. 50	16. 84	28. 45	43. 50	15. 05	QP
2	224. 970	9. 29	2. 27	21. 71	33. 27	46. 00	12. 73	QP
3	234. 670	9. 65	2. 11	21. 43	33. 19	46. 00	12. 81	QP



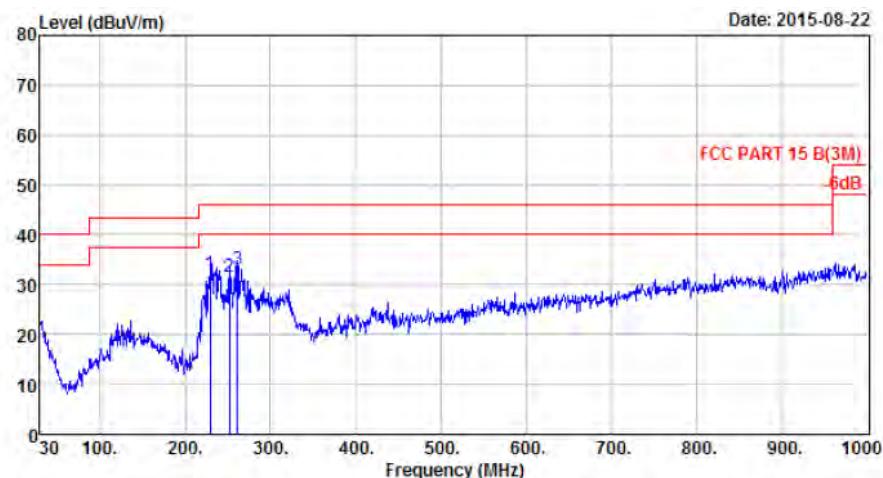
Site no. : 2# 966 chamber Data no. : 91
 Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp:23.6' Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	135.730	11.31	1.69	14.47	27.47	43.50	16.03	QP
2	226.910	9.35	2.27	21.46	33.08	46.00	12.92	QP
3	263.770	13.38	2.27	11.57	27.22	46.00	18.78	QP



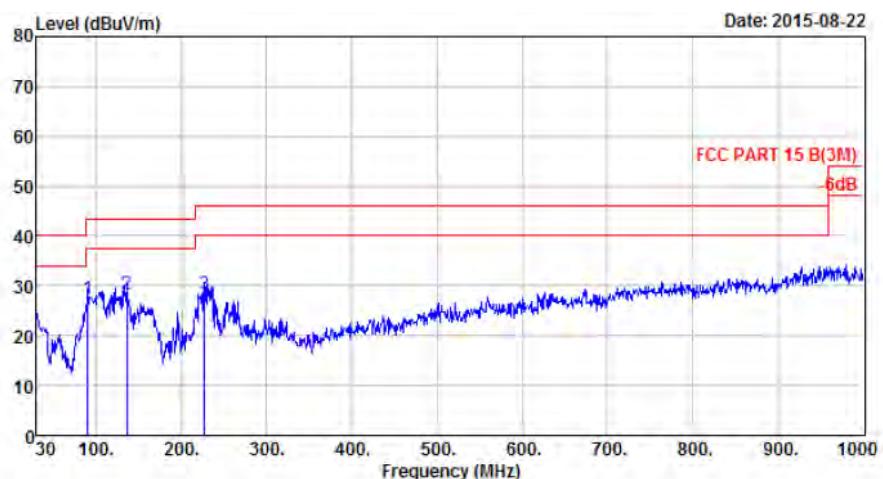
Site no.: 2# 966 chamber Data no.: 92
 Dis. / Ant.: 3m 37062 Ant. pol.: HORIZONTAL
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp: 23. 6' ; Humi: 56%; Press: 101. 52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: GFSK TX 2441MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	226.910	9.35	2.27	18.89	30.51	46.00	15.49	QP
2	266.680	13.10	2.35	17.34	32.79	46.00	13.21	QP
3	300.630	12.89	2.45	14.40	29.74	46.00	16.26	QP



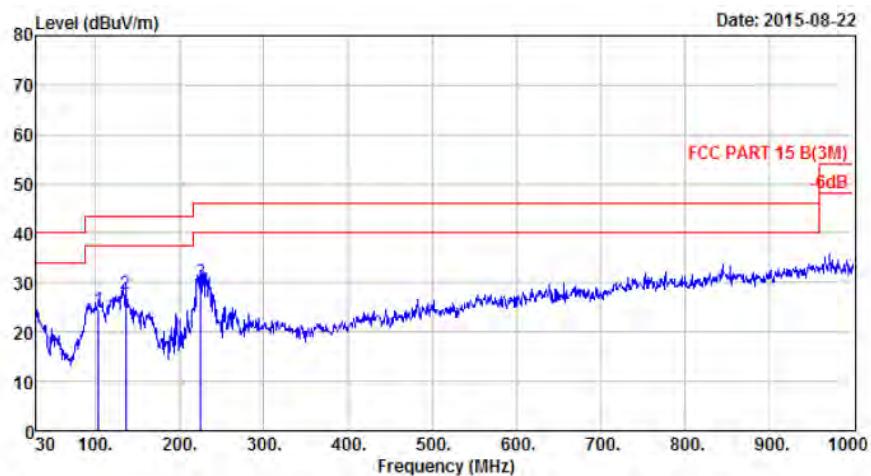
Site no.: 2# 966 chamber Data no.: 93
 Dis. / Ant.: 3m 37062 Ant. pol.: HORIZONTAL
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp:23.6°C;Hum:56%;Press:101.52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: GFSK TX 2480MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	229.820	9.45	2.21	20.65	32.31	46.00	13.69	QP
2	252.130	12.28	2.16	17.28	31.72	46.00	14.28	QP
3	261.830	13.39	2.29	17.28	32.96	46.00	13.04	QP



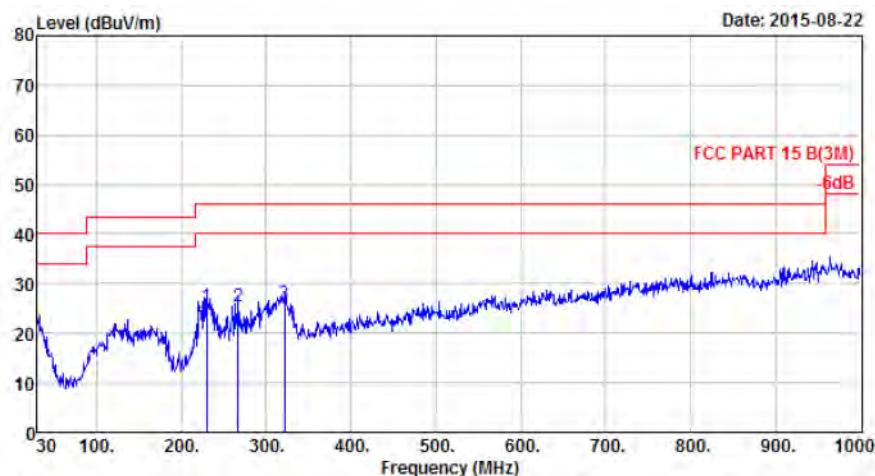
Site no.: 2# 966 chamber Data no.: 94
 Dis. / Ant.: 3m 37062 Ant. pol.: VERTICAL
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp:23.6' ;Humi:56%;Press:101.52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: GFSK TX 2480MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	90.140	8.60	1.85	17.03	27.48	43.50	16.02	QP
2	135.730	11.31	1.69	15.43	28.43	43.50	15.07	QP
3	226.910	9.35	2.27	16.65	28.27	46.00	17.73	QP



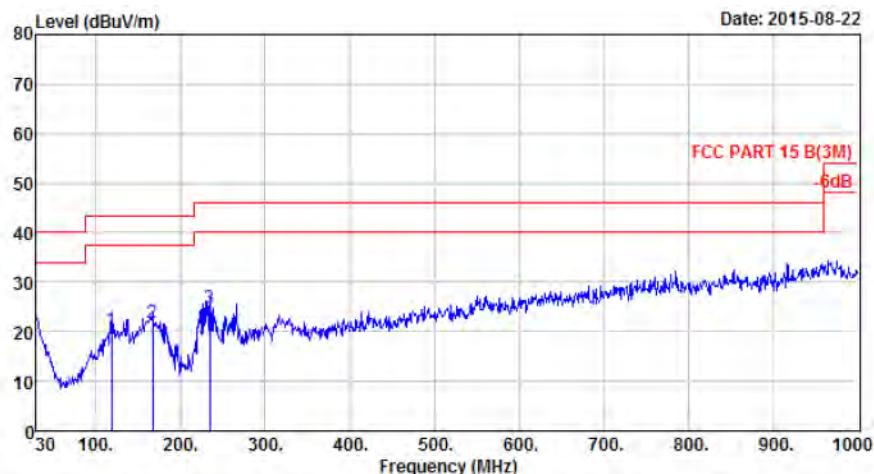
Site no.: 2# 966 chamber
 Dis. / Ant.: 3m 37062
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp: 23. 6°; Humi: 56%; Press: 101. 52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: 8-DPSK TX 2402MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	103.720	9.94	1.59	12.93	24.46	43.50	19.04	QP
2	135.730	11.31	1.69	14.87	27.87	43.50	15.63	QP
3	224.970	9.29	2.27	18.69	30.25	46.00	15.75	QP



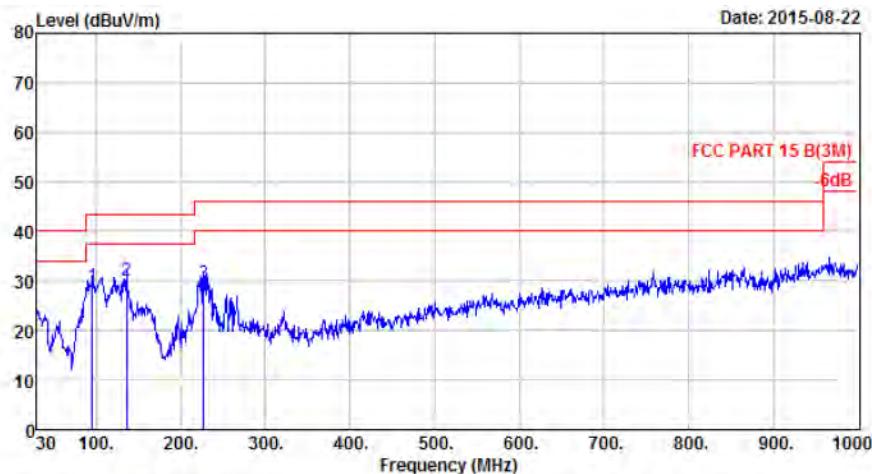
Site no.: 2# 966 chamber Data no.: 96
 Dis. / Ant.: 3m 37062 Ant. pol.: HORIZONTAL
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp: 23. 6°C; Humi: 56%; Press: 101. 52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: 8-DPSK TX 2402MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	229.820	9.45	2.21	13.67	25.33	46.00	20.67	QP
2	266.680	13.10	2.35	9.91	25.36	46.00	20.64	QP
3	321.000	13.60	2.62	9.77	25.99	46.00	20.01	QP



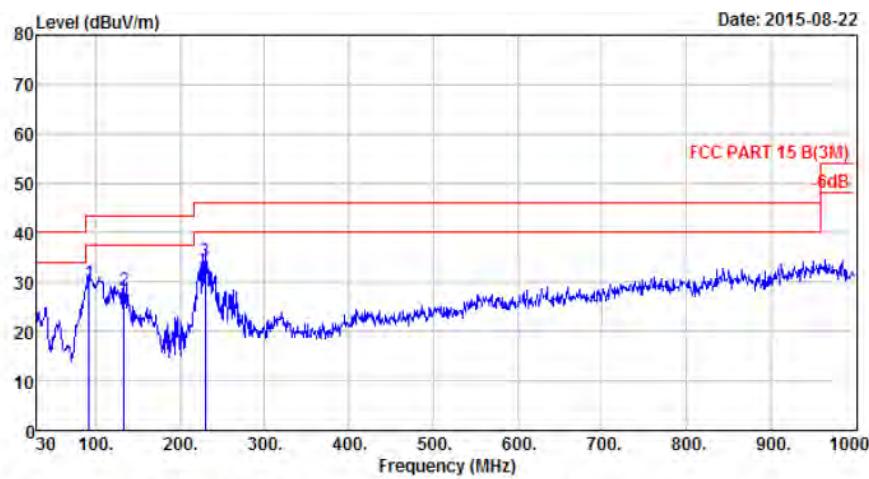
Site no. : 2# 966 chamber Data no. : 97
 Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp:23. 6°;Hum:56%;Press:101. 52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2441MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	118.270	11.06	1.37	7.94	20.37	43.50	23.13	QP
2	166.770	9.57	1.92	10.40	21.89	43.50	21.61	QP
3	234.670	9.65	2.11	13.02	24.78	46.00	21.22	QP



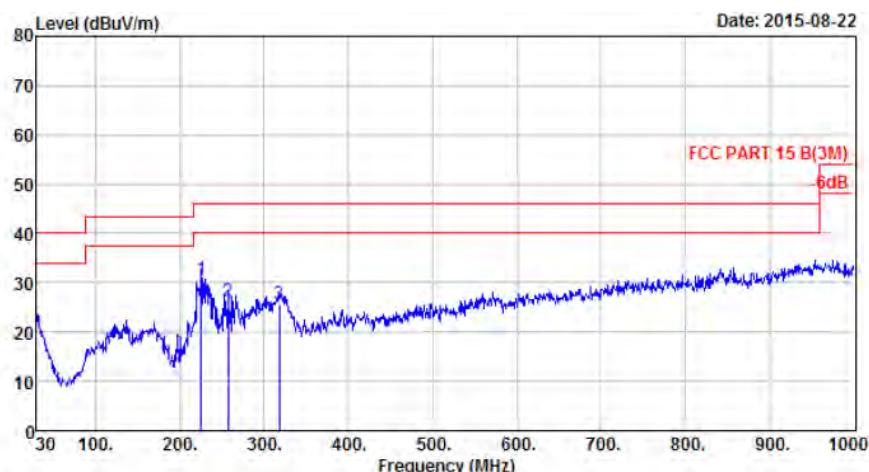
Site no.: 2# 966 chamber Data no.: 98
 Dis. / Ant.: 3m 37062 Ant. pol.: VERTICAL
 Limit: FCC PART 15 B (3M)
 Env. / Ins.: Temp:23.6°C;Humi:56%;Press:101.52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: 8-DPSK TX 2441MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	94.990	9.03	1.69	18.19	28.91	43.50	14.59	QP
2	135.730	11.31	1.69	17.10	30.10	43.50	13.40	QP
3	226.910	9.35	2.27	18.05	29.67	46.00	16.33	QP



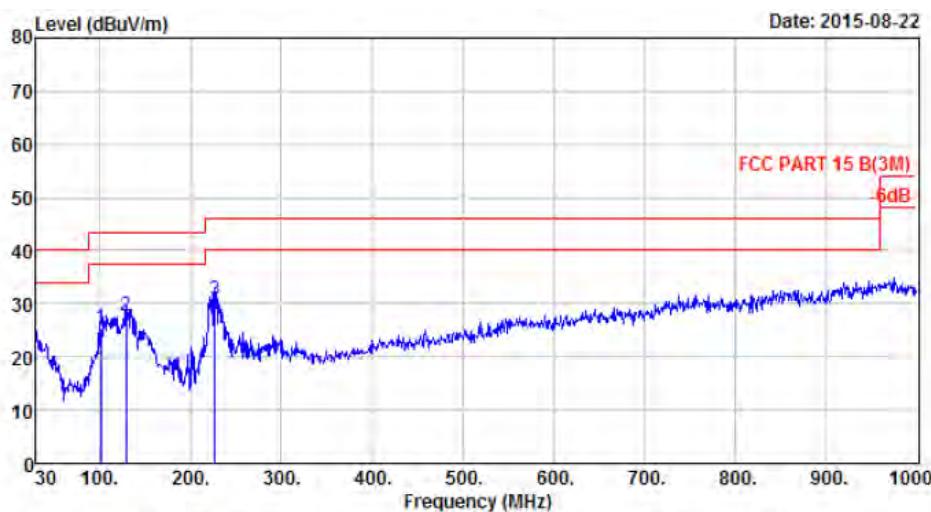
Site no. : 2# 966 chamber Data no. : 99
 Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp:23.6°C;Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	92.080	8.71	1.64	19.34	29.69	43.50	13.81	QP
2	133.790	11.29	1.59	15.51	28.39	43.50	15.11	QP
3	229.820	9.45	2.21	22.57	34.23	46.00	11.77	QP



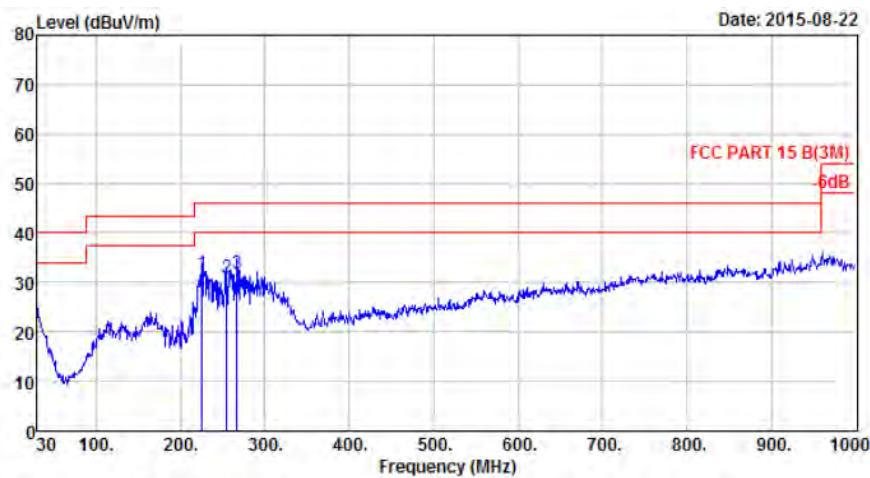
Site no. : 2# 966 chamber Data no. : 100
 Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp:23.6°;Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 1

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	224.970	9.29	2.27	19.19	30.75	46.00	15.25	QP
2	256.980	12.99	2.17	11.08	26.24	46.00	19.76	QP
3	318.090	13.47	2.56	9.58	25.61	46.00	20.39	QP



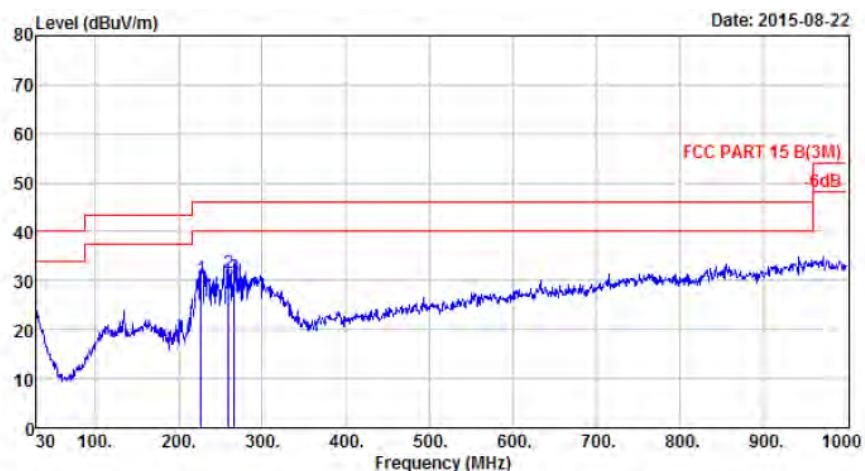
Site no.: 2# 966 chamber Data no.: 67
 Dis. / Ant.: 3m 37062 Ant. pol.: VERTICAL
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp:23. 6°; Humi:56%; Press:101. 52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: GFSK TX 2402MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	101.780	9.75	1.61	13.99	25.35	43.50	18.15	QP
2	128.940	11.20	1.53	15.03	27.76	43.50	15.74	QP
3	226.910	9.35	2.27	19.04	30.66	46.00	15.34	QP



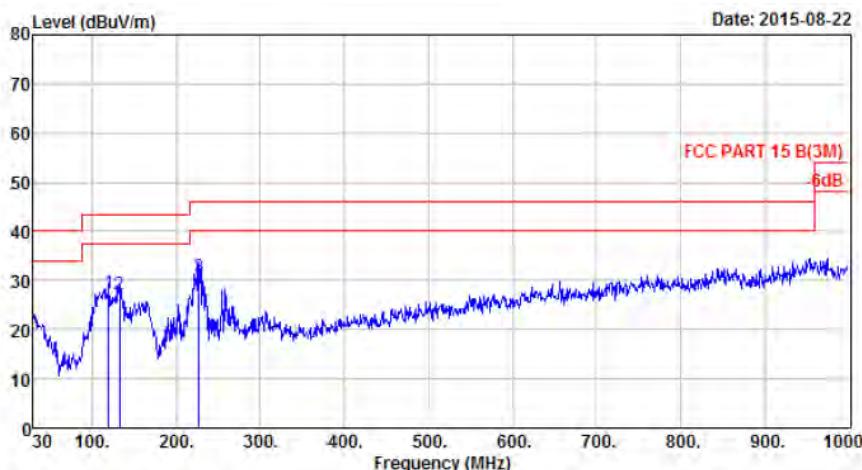
Site no. : 2# 966 chamber
 Dis. / Ant. : 3m 37062
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp:23.6°C;Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	224.970	9.29	2.27	20.38	31.94	46.00	14.06	QP
2	255.040	12.72	2.22	16.17	31.11	46.00	14.89	QP
3	266.680	13.10	2.35	16.48	31.93	46.00	14.07	QP



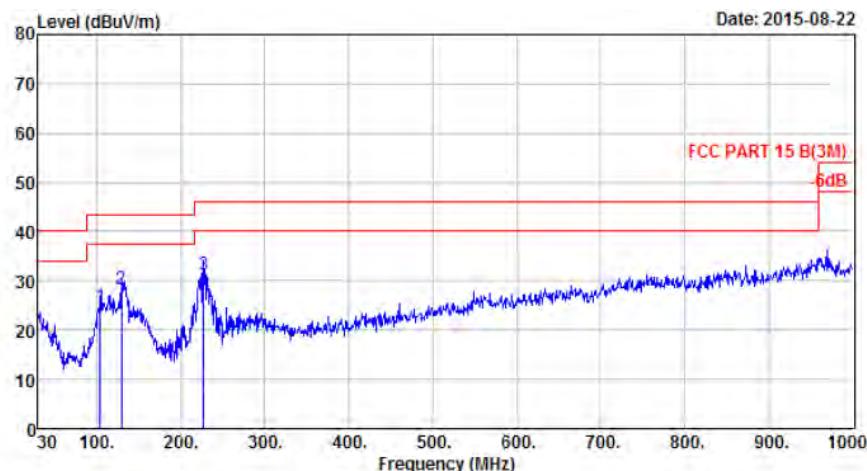
Site no. : 2# 966 chamber Data no. : 69
 Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp:23.6°;Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	226.910	9.35	2.27	18.67	30.29	46.00	15.71	QP
2	259.890	13.40	2.37	15.69	31.46	46.00	14.54	QP
3	266.680	13.10	2.35	15.12	30.57	46.00	15.43	QP



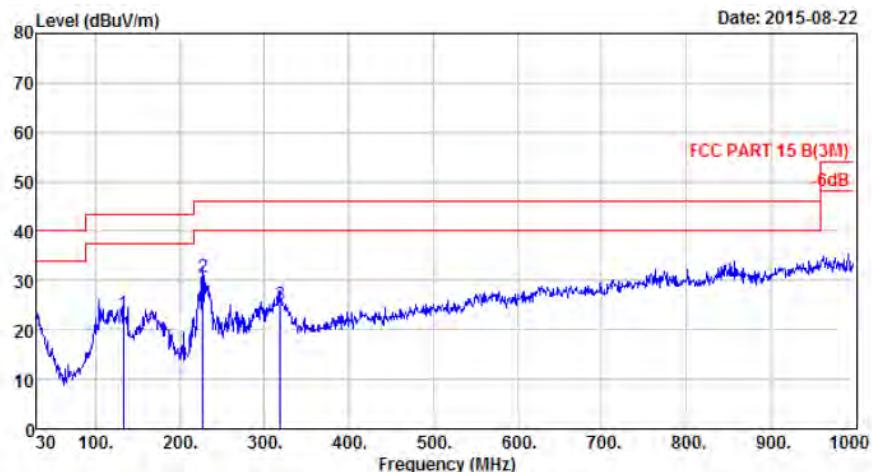
Site no. : 2# 966 chamber Data no. : 70
 Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp:23.6' ;Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	119.240	11.09	1.37	14.94	27.40	43.50	16.10	QP
2	132.820	11.27	1.53	14.48	27.28	43.50	16.22	QP
3	226.910	9.35	2.27	19.10	30.72	46.00	15.28	QP



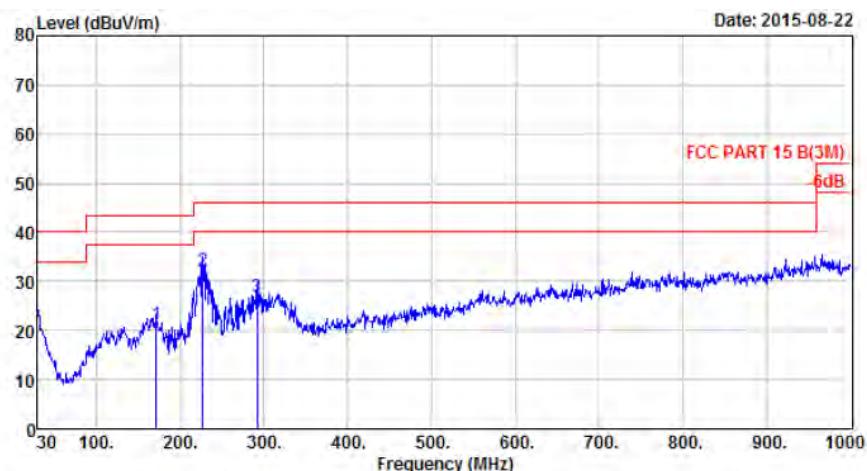
Site no.: 2# 966 chamber Data no.: 71
 Dis. / Ant.: 3m 37062 Ant. pol.: VERTICAL
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp: 23.6°C; Humi: 56%; Press: 101.52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: GFSK TX 2480MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	103.720	9.94	1.59	13.33	24.86	43.50	18.64	QP
2	128.940	11.20	1.53	15.58	28.31	43.50	15.19	QP
3	226.910	9.35	2.27	19.56	31.18	46.00	14.82	QP



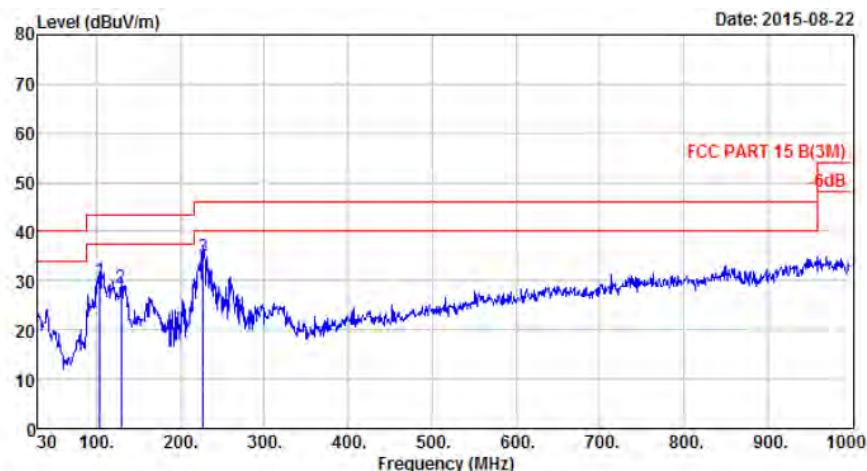
Site no. : 2# 966 chamber Data no. : 72
 Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp:23. 6';Humi:56%;Press:101. 52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	132.820	11.27	1.53	10.50	23.30	43.50	20.20	QP
2	226.910	9.35	2.27	19.02	30.64	46.00	15.36	QP
3	319.060	13.52	2.57	8.96	25.05	46.00	20.95	QP



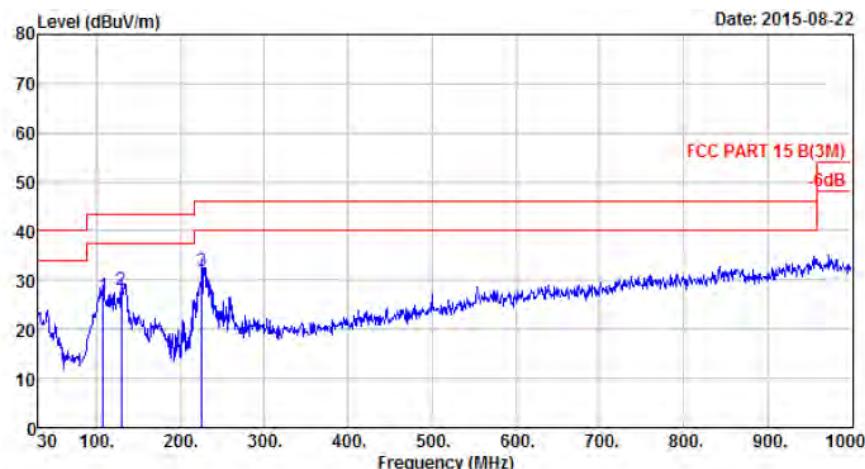
Site no. : 2# 966 chamber
 Dis. / Ant. : 3m 37062
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp: 23. 6° Humi: 56%; Press: 101. 52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	171.620	9.17	2.05	9.95	21.17	43.50	22.33	QP
2	226.910	9.35	2.27	20.52	32.14	46.00	13.86	QP
3	291.900	12.72	2.43	11.59	26.74	46.00	19.26	QP



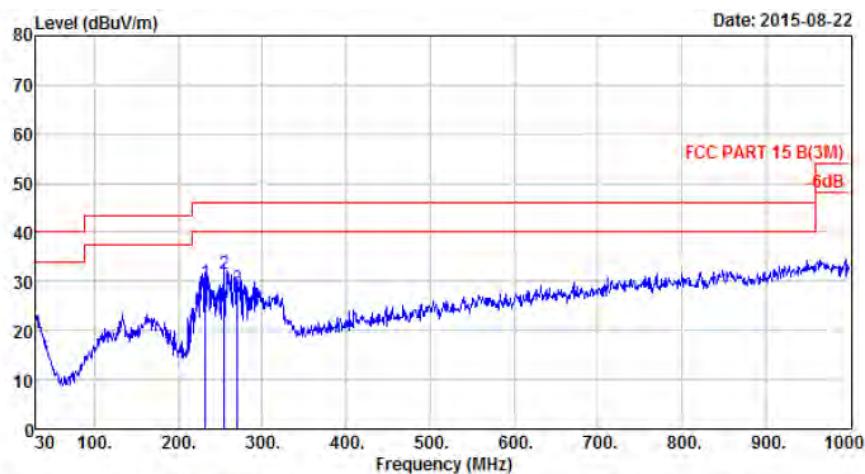
Site no.: 2# 966 chamber
 Dis. / Ant.: 3m 37062
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp: 23. 6' ,Humi: 56%;Press: 101. 52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: 8-DPSK TX 2402MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	103.720	9.94	1.59	18.49	30.02	43.50	13.48	QP
2	128.940	11.20	1.53	15.97	28.70	43.50	14.80	QP
3	226.910	9.35	2.27	23.32	34.94	46.00	11.06	QP



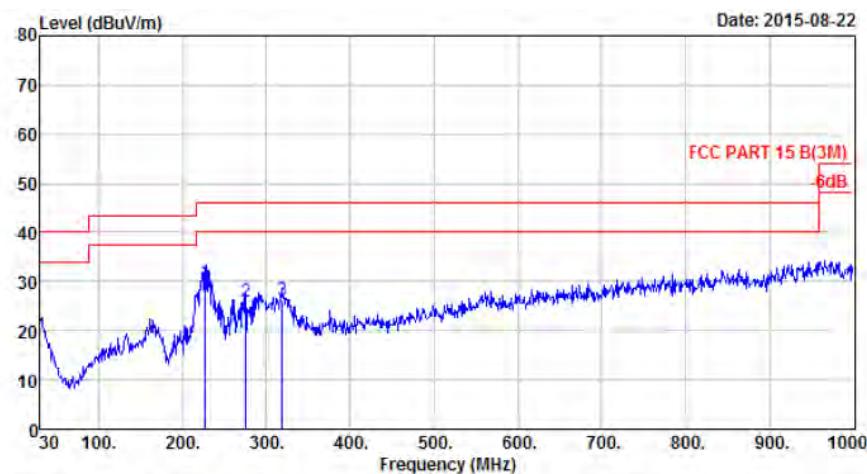
Site no.: 2# 966 chamber Data no.: 75
 Dis. / Ant.: 3m 37062 Ant. pol.: VERTICAL
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp:23.6° Humi:56%;Press:101.52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: 8-DPSK TX 2441MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	107.600	10.26	1.50	15.09	26.85	43.50	16.65	QP
2	128.940	11.20	1.53	15.38	28.11	43.50	15.39	QP
3	224.970	9.29	2.27	20.40	31.96	46.00	14.04	QP



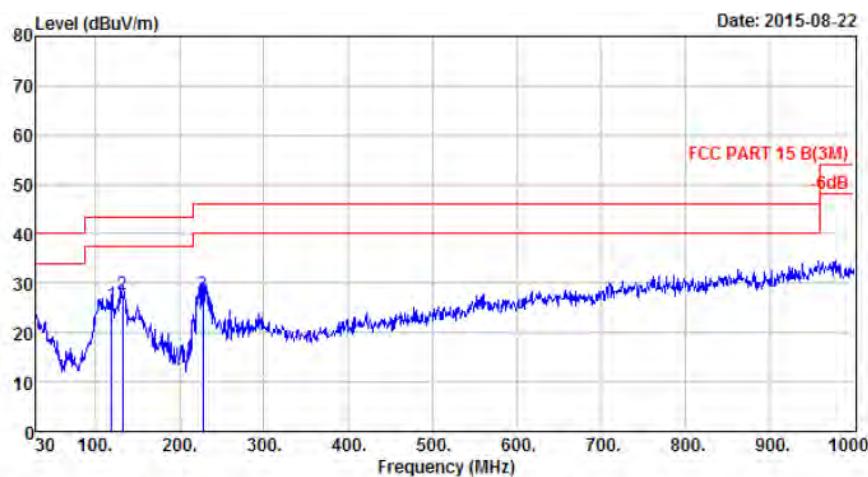
Site no. : 2# 966 chamber
 Dis. / Ant. : 3m 37062
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp: 23.6°, Humi: 56%, Press: 101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2441MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	231.760	9.53	2.19	18.04	29.76	46.00	16.24	QP
2	255.040	12.72	2.22	16.57	31.51	46.00	14.49	QP
3	270.560	12.66	2.32	13.52	28.50	46.00	17.50	QP



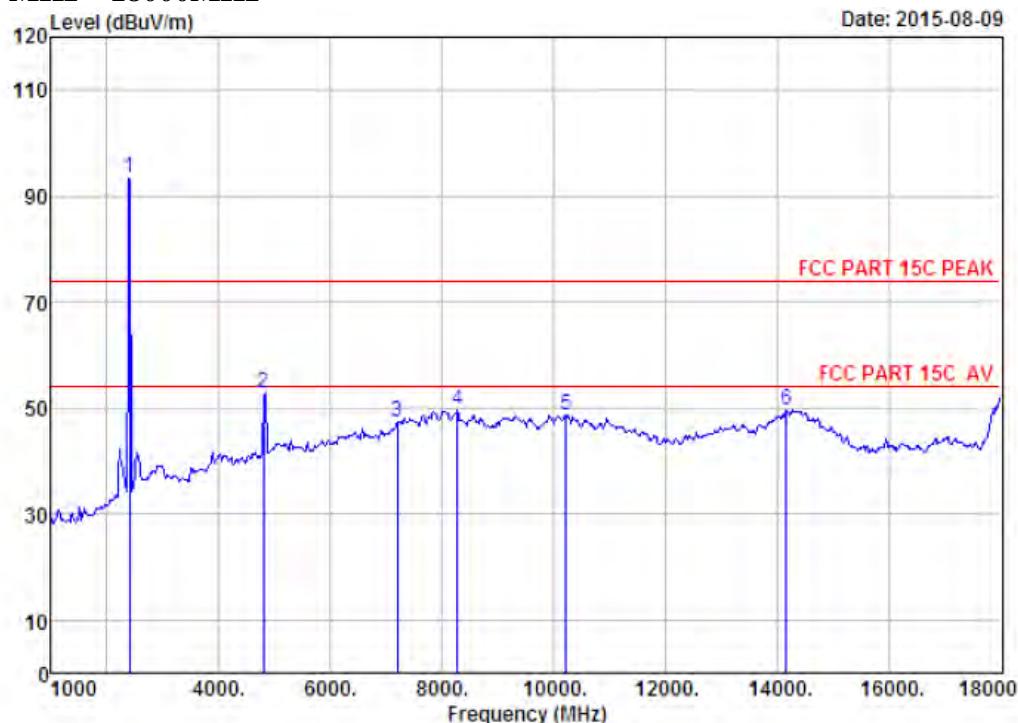
Site no.: 2# 966 chamber Data no.: 77
 Dis. / Ant.: 3m 37062 Ant. pol.: HORIZONTAL
 Limit: FCC PART 15 B(3M)
 Env. / Ins.: Temp:23.6°C;Humi:56%;Press:101.52kPa
 Engineer: Tony
 EUT: Portable Bluetooth Speaker
 Power: DC 5V From Adapter Input AC 120V/60Hz
 M/N: Groove
 Test Mode: 8-DPSK TX 2480MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	226.910	9.35	2.27	18.17	29.79	46.00	16.21	QP
2	275.410	12.53	2.39	10.93	25.85	46.00	20.15	QP
3	319.060	13.52	2.57	10.27	26.36	46.00	19.64	QP



Site no. : 2# 966 chamber Data no. : 78
 Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp: 23. 6° ;Humi: 56% ;Press: 101. 52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 2

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	119.240	11.09	1.37	13.22	25.68	43.50	17.82	QP
2	132.820	11.27	1.53	14.85	27.65	43.50	15.85	QP
3	227.880	9.39	2.18	16.28	27.85	46.00	18.15	QP

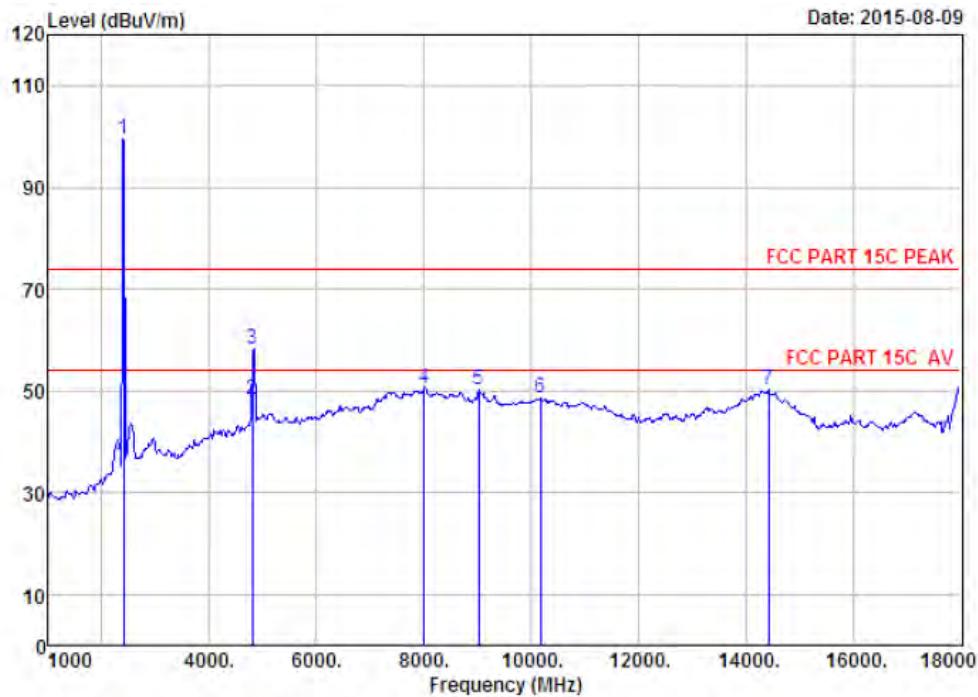
1000 MHz – 18000MHz

Site no. : 1# 966 chamber Data no. : 829
 Dis. / Ant. : 3m ANT 1-16G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz
 Adapter 1

Freq. (MHz)	Ant.			Reading (dBuV)	Emission			
	Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)		Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2402.00	27.61	6.62	34.18	93.45	93.50	74.00	-19.50	Peak
2 4804.00	31.25	11.77	31.81	41.72	52.93	74.00	21.07	Peak
3 7205.00	36.52	11.54	32.11	31.53	47.48	74.00	26.52	Peak
4 8276.00	36.67	11.43	31.55	32.93	49.48	74.00	24.52	Peak
5 10214.00	38.48	11.47	32.17	30.85	48.63	74.00	25.37	Peak
6 14175.00	41.61	10.91	33.44	30.60	49.68	74.00	24.32	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.

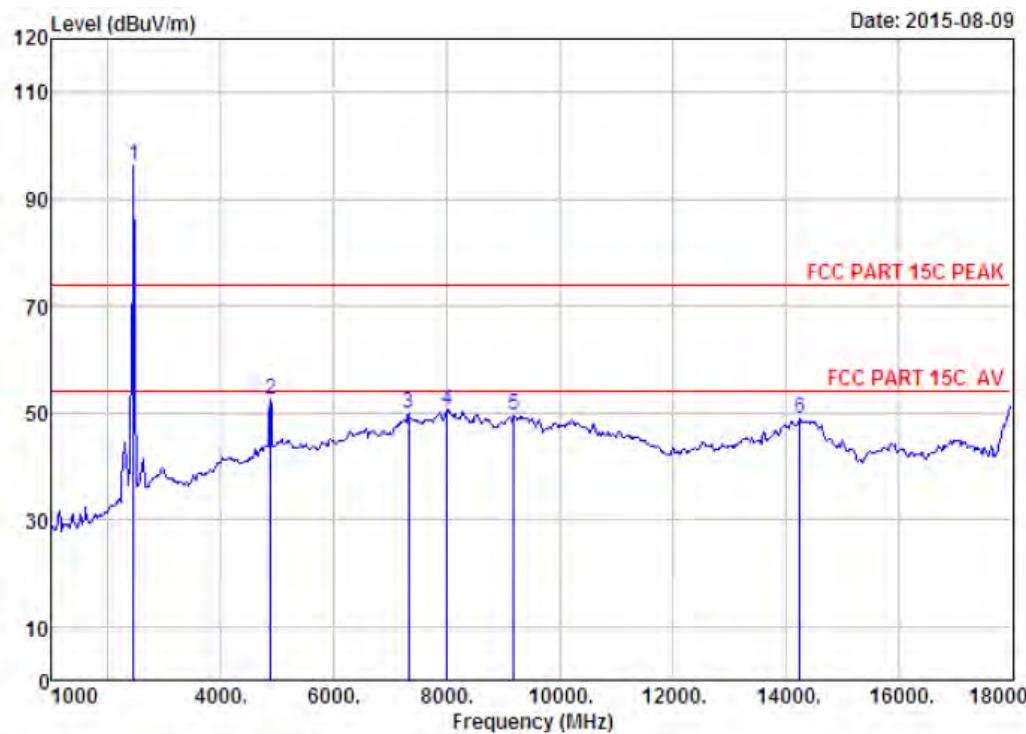


Site no. : 1# 966 chamber Data no. : 830
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 2402.00	27.61	6.62	34.18	99.59	99.64	74.00	-25.64	Peak
2 4804.00	31.25	11.77	31.81	37.01	48.22	54.00	5.78	Average
3 4804.00	31.25	11.77	31.81	47.13	58.34	74.00	15.66	Peak
4 8004.00	37.01	11.40	31.22	33.48	50.67	74.00	23.33	Peak
5 9024.00	37.43	11.47	32.62	33.87	50.15	74.00	23.85	Peak
6 10180.00	39.42	11.49	32.11	30.82	48.62	74.00	25.38	Peak
7 14430.00	41.82	10.93	32.84	30.22	50.13	74.00	23.87	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

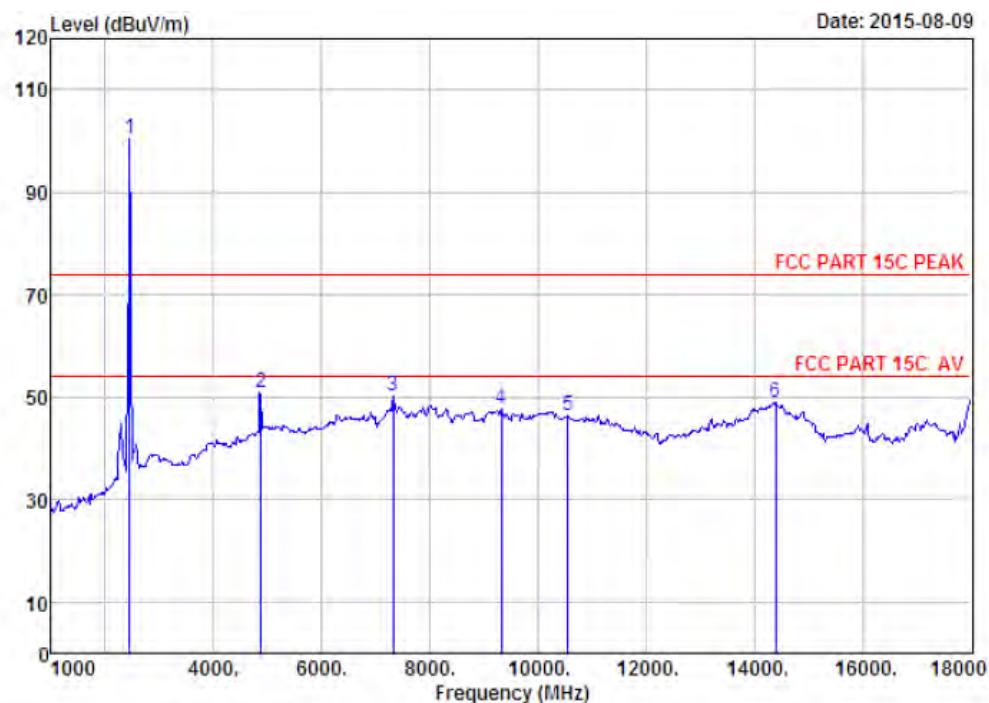
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 833
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2441.00	27.60	6.67	34.12	96.13	96.28	74.00	-22.28	Peak	
2 4882.00	31.37	12.07	31.90	41.01	52.55	74.00	21.45	Peak	
3 7324.00	36.55	11.57	31.99	33.85	49.98	74.00	24.02	Peak	
4 8004.00	37.01	11.40	31.22	33.39	50.58	74.00	23.42	Peak	
5 9194.00	37.75	11.55	32.35	32.53	49.48	74.00	24.52	Peak	
6 14260.00	41.68	10.92	33.19	29.44	48.85	74.00	25.15	Peak	

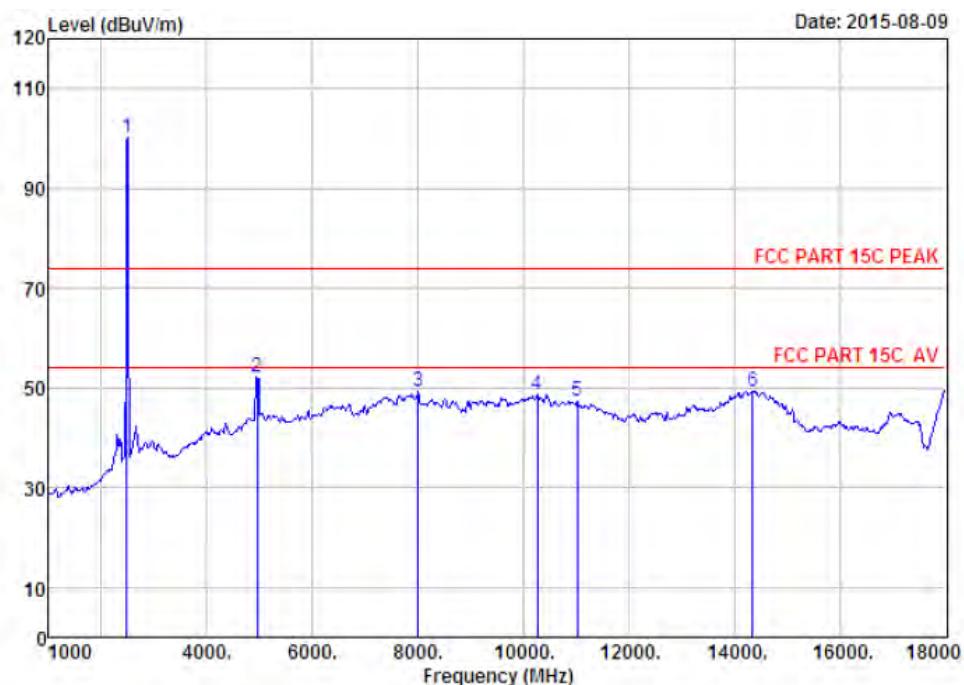
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 834
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 1

	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	2441.00	27.60	6.67	34.12	100.47	100.62	74.00	-26.62	Peak
2	4882.00	31.37	12.07	31.90	39.29	50.83	74.00	23.17	Peak
3	7324.00	36.55	11.57	31.99	34.00	50.13	74.00	23.87	Peak
4	9330.00	37.97	11.62	32.12	30.16	47.63	74.00	26.37	Peak
5	10554.00	39.04	11.31	32.82	28.90	46.43	74.00	27.57	Peak
6	14396.00	41.79	10.92	32.83	29.14	49.02	74.00	24.98	Peak

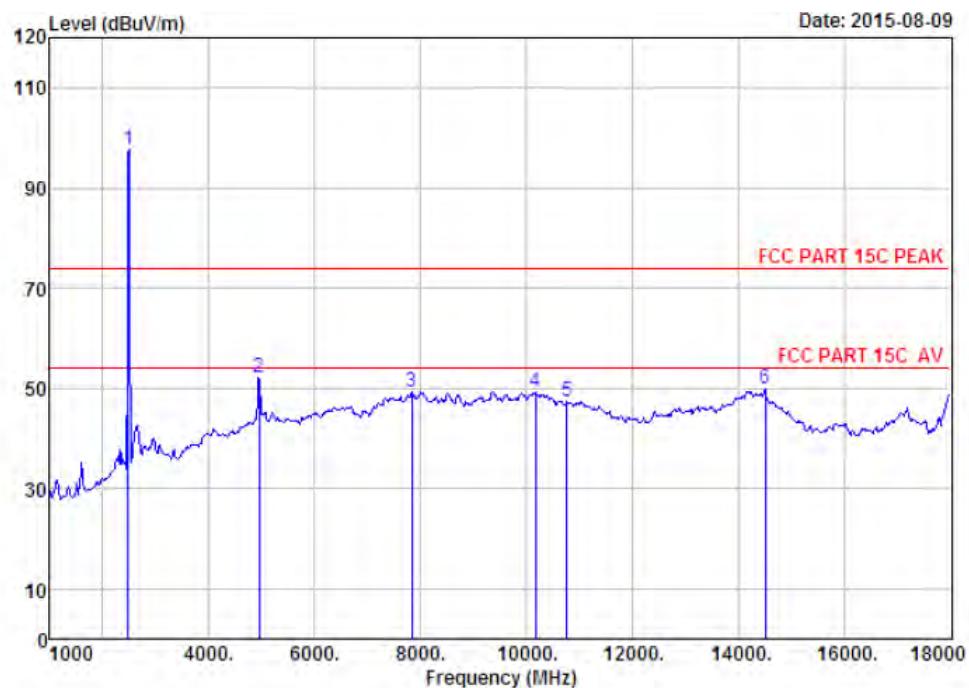
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 835
 Dis. / Ant. : 3m ANT. 1-16G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz
 Adapter 1

	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	34.03	99.89	100.15	74.00	-26.15	Peak
2	4960.00	31.49	12.44	31.97	40.06	52.02	74.00	21.98	Peak
3	8004.00	37.01	11.40	31.22	32.03	49.22	74.00	24.78	Peak
4	10265.00	38.56	11.44	32.27	30.94	48.67	74.00	25.33	Peak
5	11030.00	39.50	11.27	33.71	30.15	47.21	74.00	26.79	Peak
6	14345.00	41.76	10.92	32.93	29.66	49.41	74.00	24.59	Peak

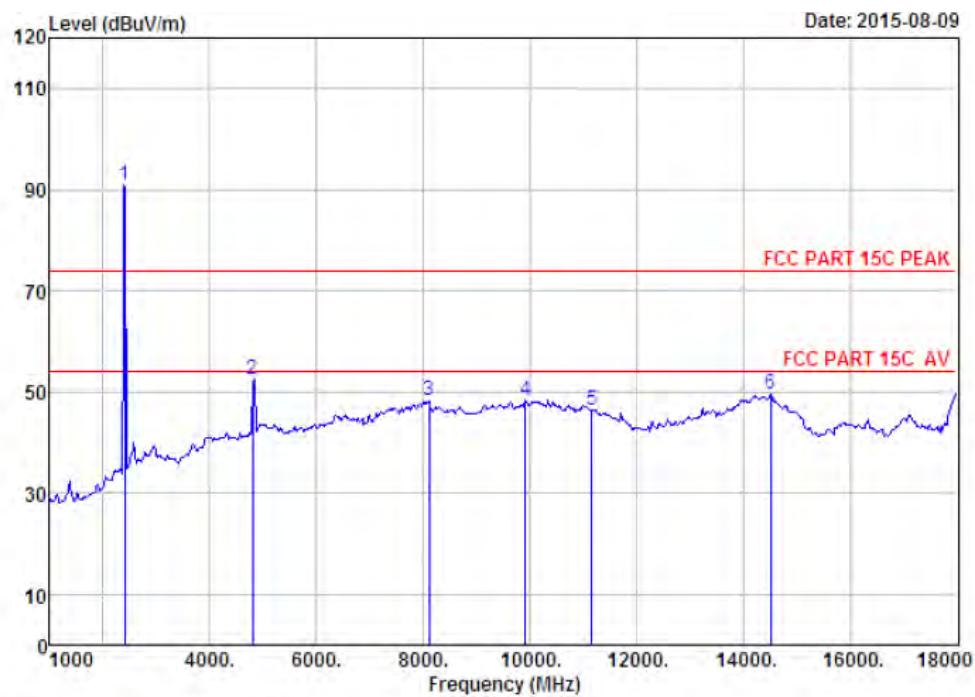
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 1# 966 chamber Data no. : 836
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz
 Adapter 1

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2480.00	27.55	6.71	34.03	97.30	97.56	74.00	-23.56	Peak	
2 4960.00	31.49	12.44	31.97	40.36	52.32	74.00	21.68	Peak	
3 7834.00	36.68	11.47	31.40	32.62	49.37	74.00	24.63	Peak	
4 10180.00	38.42	11.49	32.11	31.52	49.32	74.00	24.68	Peak	
5 10775.00	39.28	11.30	33.23	29.97	47.92	74.00	26.68	Peak	
6 14515.00	41.89	10.93	33.14	30.14	49.82	74.00	24.18	Peak	

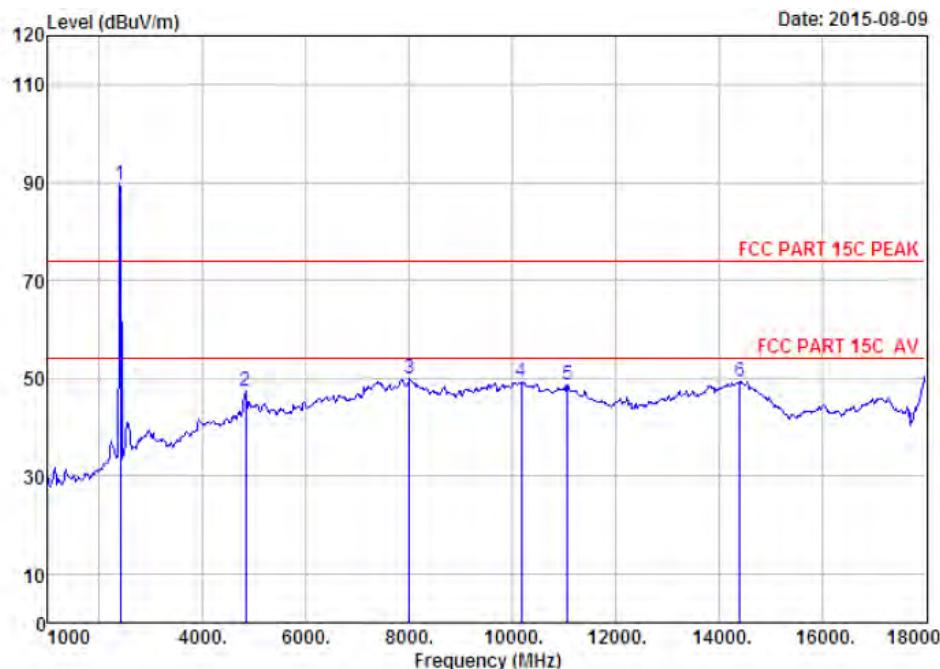
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 1# 966 chamber Data no. : 839
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz
 Adapter 1

	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	34.18	90.69	90.74	74.00	-16.74	Peak
2	4804.00	31.25	11.77	31.81	41.18	52.39	74.00	21.61	Peak
3	8106.00	36.82	11.41	31.38	31.42	48.27	74.00	25.73	Peak
4	9925.00	38.14	11.61	31.76	30.38	48.37	74.00	25.63	Peak
5	11166.00	39.41	11.17	33.97	29.83	46.44	74.00	27.56	Peak
6	14515.00	41.89	10.93	33.14	29.96	49.64	74.00	24.36	Peak

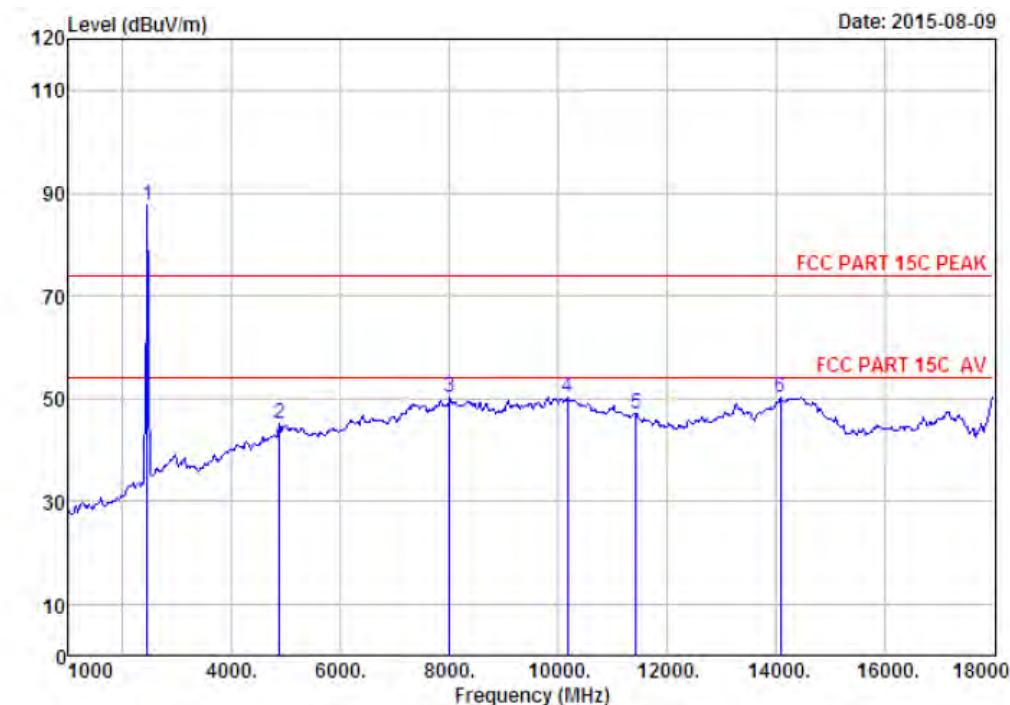
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading,
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 1# 966 chamber Data no. : 840
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : B-DPSK TX 2402MHz
 Adapter 1

Freq. (MHz)	Ant.			Cable			Amp			Emission			
	Factor (dB/m)	Loss (dB)	Factor (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark				
1 2402.00	27.61	6.62	34.15	89.47	89.52	74.00	-15.52	Peak					
2 4825.00	31.28	11.84	31.83	35.98	47.27	74.00	26.73	Peak					
3 8004.00	37.01	11.40	31.22	32.74	49.93	74.00	24.07	Peak					
4 10180.00	38.42	11.49	32.11	31.34	49.14	74.00	24.86	Peak					
5 11064.00	39.48	11.24	33.78	31.57	48.51	74.00	25.49	Peak					
6 14413.00	41.80	10.92	32.76	29.28	49.22	74.00	24.78	Peak					

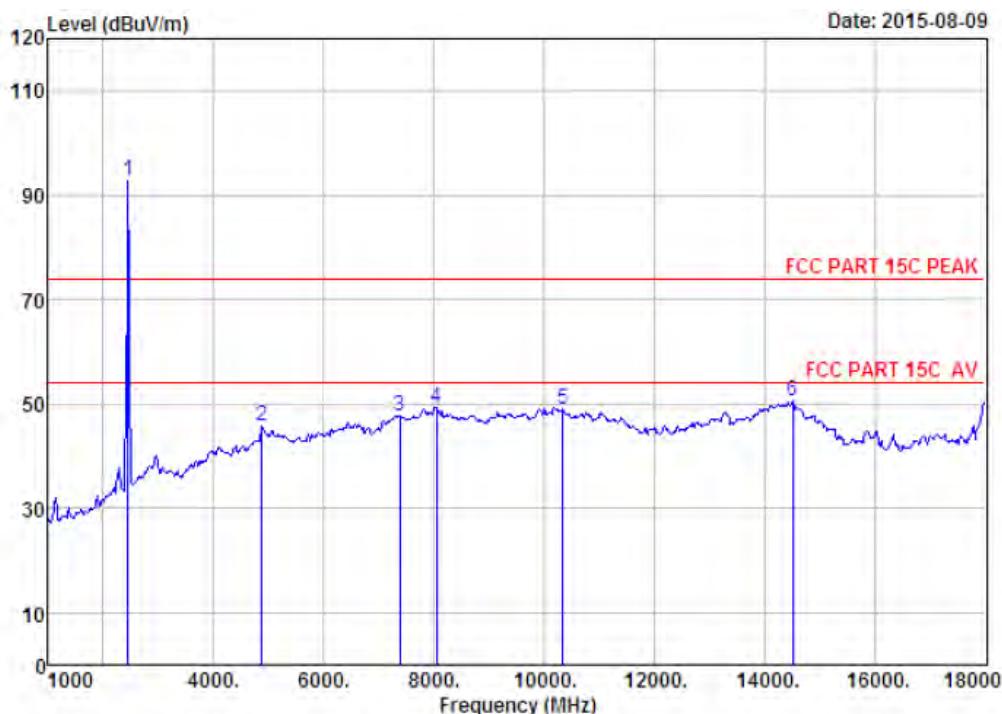
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 843
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2441MHz
 Adapter 1

	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	2441.00	27.60	6.67	34.12	87.50	87.65	74.00	-13.65	Peak
2	4876.00	31.37	12.07	31.90	33.43	44.97	74.00	29.03	Peak
3	8004.00	37.01	11.40	31.22	33.09	50.28	74.00	23.72	Peak
4	10180.00	38.42	11.49	32.11	32.47	50.27	74.00	23.73	Peak
5	11438.00	39.24	10.97	34.45	31.34	47.10	74.00	26.90	Peak
6	14090.00	41.54	10.91	33.69	31.49	50.25	74.00	23.75	Peak

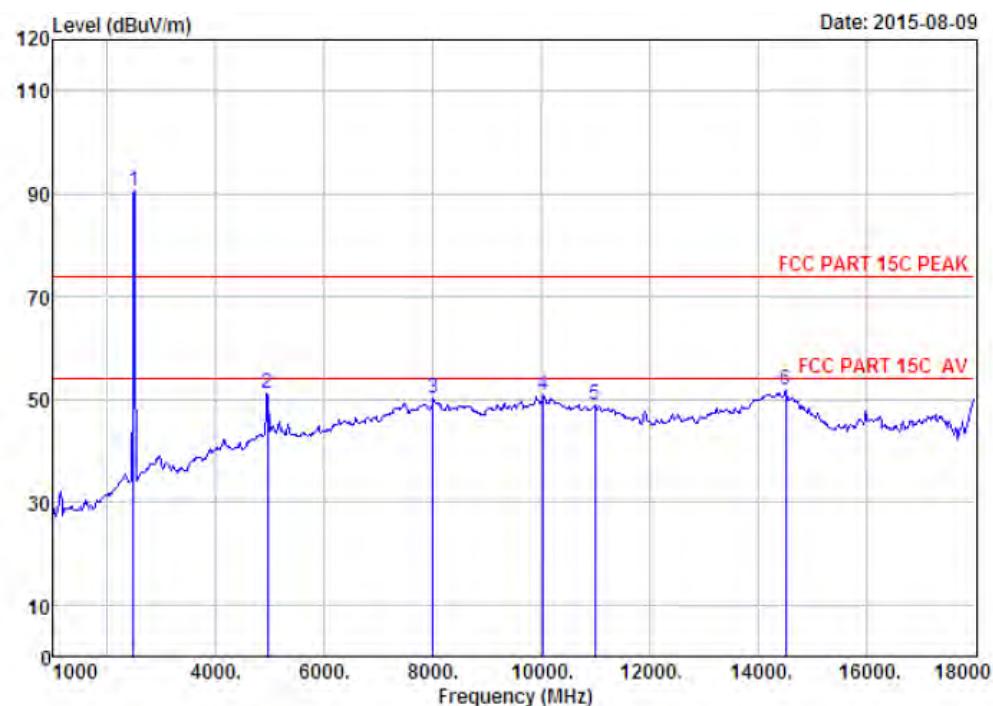
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 844
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2441MHz
 Adapter 1

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Reading (dBuV)	Emission				Margin (dB)	Remark
					Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Margin (dB)		
1 2441.00	27.60	6.67	34.12	92.63	92.78	74.00	-18.78	-18.78	Peak	
2 4276.00	31.37	12.07	31.90	34.10	45.64	74.00	28.36	28.36	Peak	
3 7375.00	36.57	11.59	31.98	31.54	47.72	74.00	26.28	26.28	Peak	
4 8055.00	36.91	11.41	31.31	32.39	49.40	74.00	24.60	24.60	Peak	
5 10350.00	38.71	11.39	32.43	31.30	48.97	74.00	25.03	25.03	Peak	
6 14515.00	41.89	10.93	33.14	30.94	50.62	74.00	23.38	23.38	Peak	

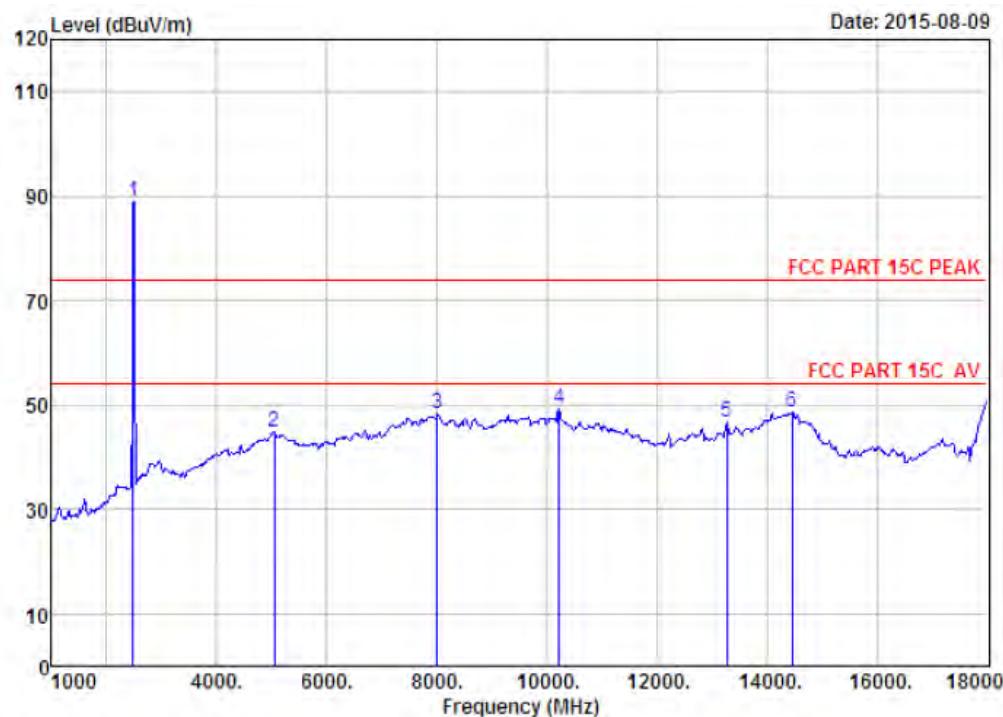
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. ; 845
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 1

	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	34.03	90.39	90.65	74.00	-16.65	Peak
2	4960.00	31.49	12.44	31.97	39.18	51.14	74.00	22.86	Peak
3	8004.00	37.01	11.40	31.22	32.90	50.09	74.00	23.91	Peak
4	10044.00	38.18	11.56	31.85	33.05	50.94	74.00	23.06	Peak
5	10996.00	39.52	11.29	33.65	31.72	48.88	74.00	25.12	Peak
6	14515.00	41.89	10.93	33.14	32.12	51.80	74.00	22.20	Peak

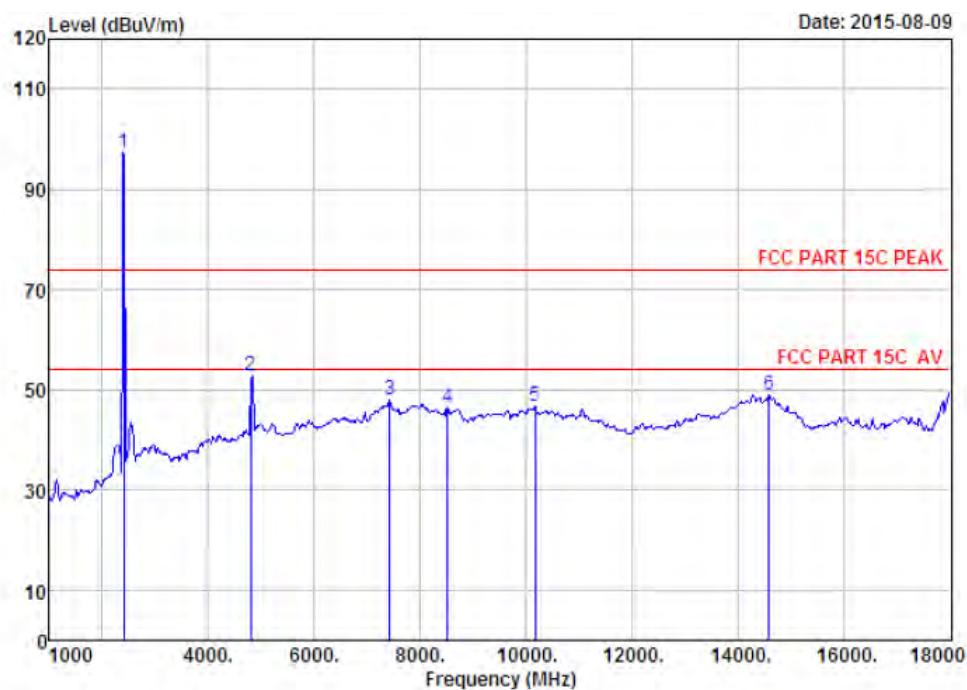
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 846
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 1

Freq. (MHz)	Ant. Factor	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2480.00	27.58	6.71	34.03	88.79	89.05	74.00	-15.05	Peak	
2 5046.00	31.57	12.53	32.08	32.89	44.91	74.00	29.09	Peak	
3 8004.00	37.01	11.40	31.22	31.13	48.32	74.00	25.68	Peak	
4 10214.00	38.48	11.47	32.17	31.47	49.25	74.00	24.75	Peak	
5 13274.00	39.54	11.47	34.79	30.40	46.62	74.00	27.38	Peak	
6 14464.00	41.85	10.93	32.96	28.69	48.51	74.00	25.49	Peak	

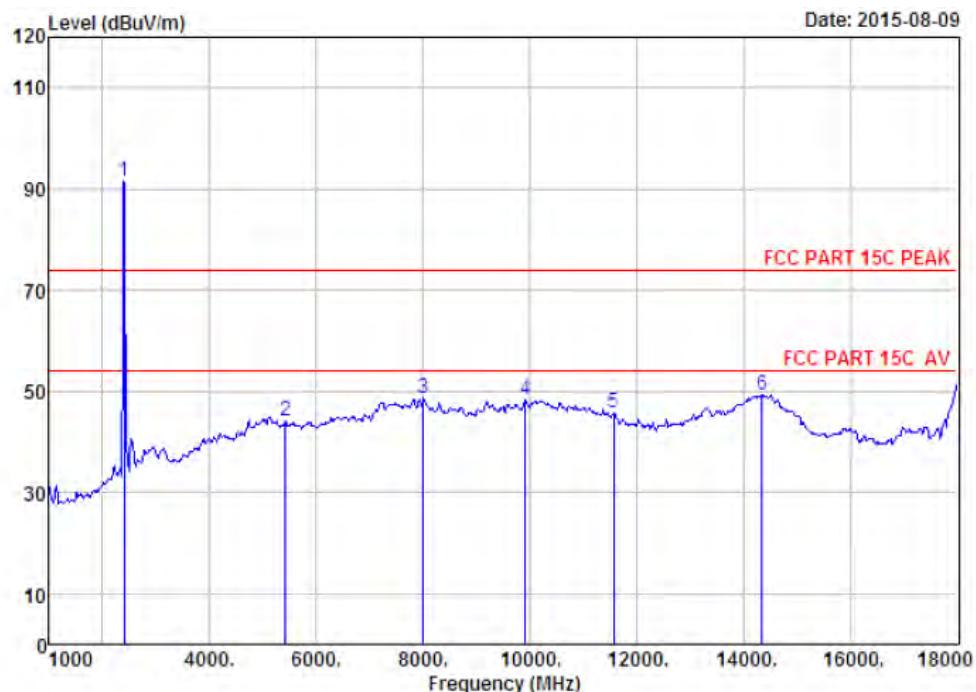
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. ; 907
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK IX 2402MHz
 Adapter 2

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission			Limits (dBuV/m)	Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)				
1 2402.00	27.61	6.62	34.18	97.20	97.25	74.00	-23.25	Peak	
2 4804.00	31.25	11.77	31.81	41.75	52.96	74.00	21.04	Peak	
3 7426.00	36.56	11.60	31.95	31.65	47.86	74.00	26.14	Peak	
4 8514.00	36.96	11.45	31.91	29.98	46.48	74.00	27.52	Peak	
5 10180.00	38.42	11.49	32.11	28.91	46.71	74.00	27.29	Peak	
6 14600.00	41.59	10.92	33.44	29.98	49.05	74.00	24.95	Peak	

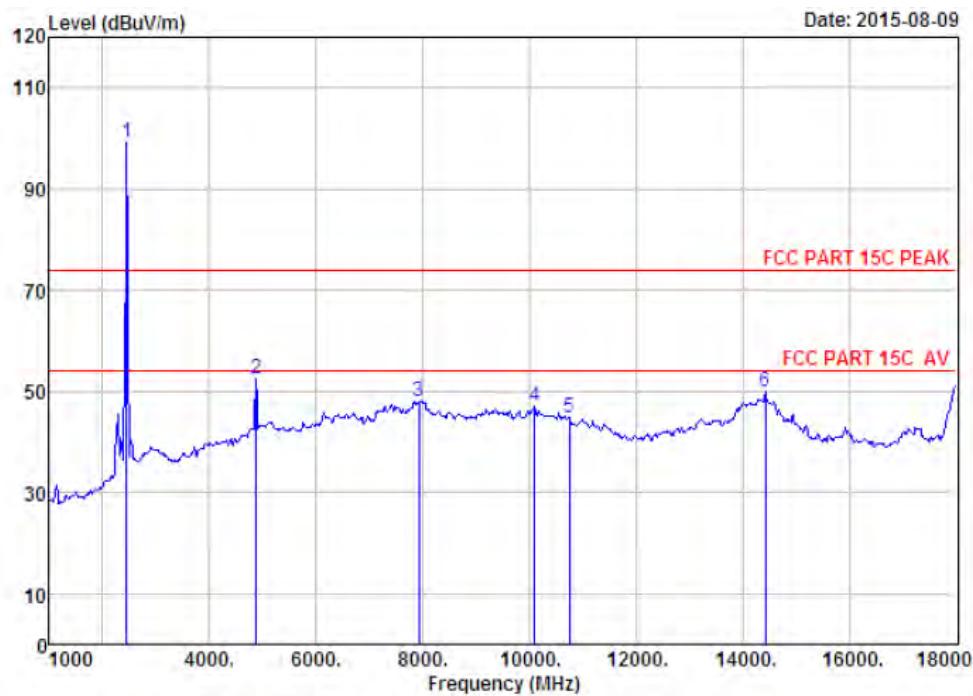
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 908
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz
 Adapter 2

Freq. (MHz)	Ant.		Cable		Amp		Emission			Remark	
	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)				
1 2402.00	27.61	6.62	34.18	91.47	91.52	74.00	-17.52	Peak			
2 5420.00	31.76	12.09	32.48	32.83	44.22	74.00	29.78	Peak			
3 8004.00	37.01	11.40	31.22	31.53	48.72	74.00	25.28	Peak			
4 9925.00	38.14	11.61	31.76	30.36	48.35	74.00	25.65	Peak			
5 11574.00	39.12	10.99	34.71	30.27	45.67	74.00	28.33	Peak			
6 14345.00	41.76	10.92	32.93	29.53	49.28	74.00	24.72	Peak			

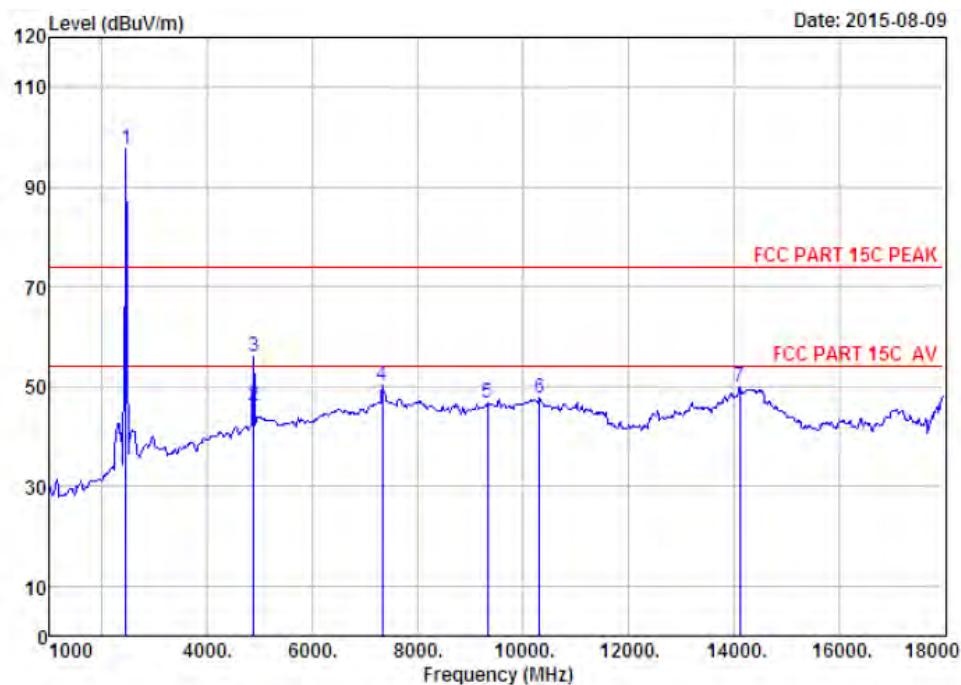
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 911
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 2441.00	27.60	6.67	34.12	98.91	99.06	74.00	-25.06	Peak
2 4882.00	31.37	12.07	31.90	40.92	52.46	74.00	21.54	Peak
3 7936.00	36.88	11.43	31.28	30.95	47.98	74.00	26.02	Peak
4 10095.00	38.27	11.53	31.95	29.08	46.93	74.00	27.07	Peak
5 10758.00	39.26	11.30	33.20	27.32	44.68	74.00	29.32	Peak
6 14430.00	41.82	10.93	32.84	30.10	50.01	74.00	23.99	Peak

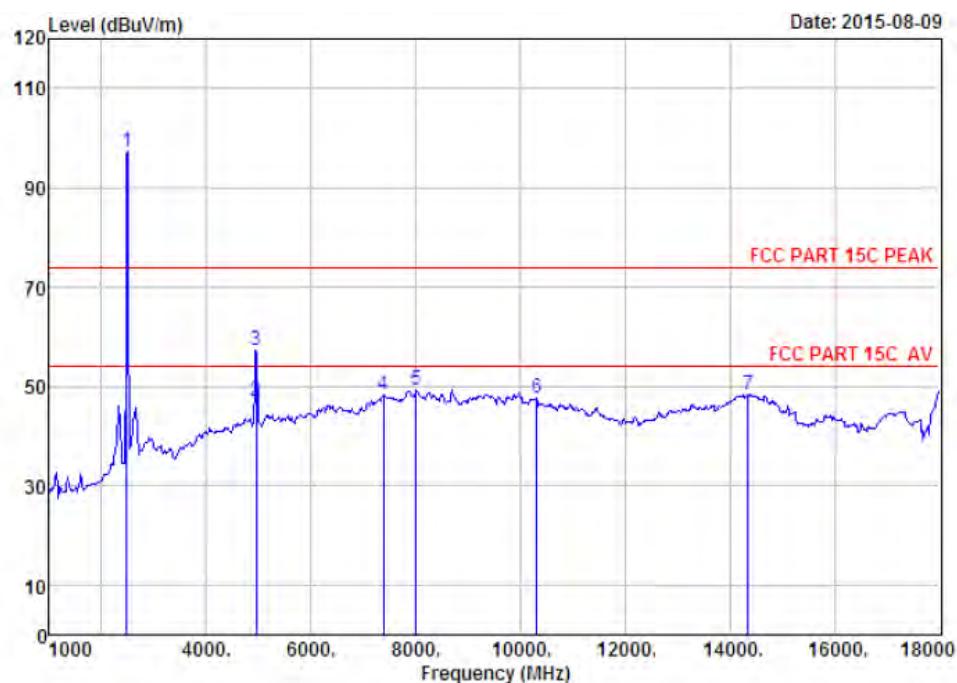
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 912
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 2

	Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
<hr/>									
1	2441.00	27.60	6.67	34.12	97.50	97.65	74.00	-23.65	Peak
2	4882.00	31.37	12.07	31.90	34.56	46.10	54.00	7.90	Average
3	4882.00	31.37	12.07	31.90	44.44	55.98	74.00	18.02	Peak
4	7324.00	36.55	11.57	31.99	34.02	50.15	74.00	23.85	Peak
5	9330.00	37.97	11.62	32.12	29.25	46.72	74.00	27.28	Peak
6	10316.00	38.65	11.41	32.37	29.88	47.57	74.00	26.43	Peak
7	14124.00	41.57	10.91	33.59	30.97	49.86	74.00	24.14	Peak

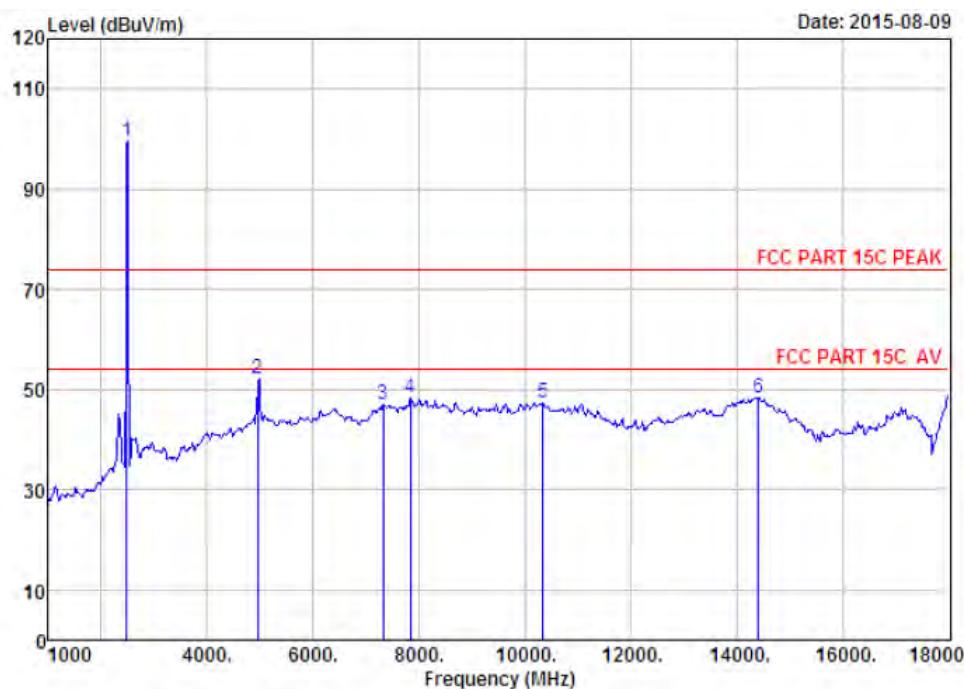
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 913
 Dis. / Ant. : 3m ANTI 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz
 Adapter 2

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Reading (dBuV)	Emission			
					Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2480.00	27.58	6.71	34.03	97.18	97.44	74.00	-23.44	Peak
2 4960.00	31.49	12.44	31.97	35.12	47.08	54.00	6.92	Average
3 4960.00	31.49	12.44	31.97	45.33	57.29	74.00	16.71	Peak
4 7375.00	36.57	11.59	31.98	32.22	48.40	74.00	25.60	Peak
5 8004.00	37.01	11.40	31.22	31.99	49.18	74.00	24.82	Peak
6 10316.00	38.65	11.41	32.37	30.07	47.76	74.00	26.24	Peak
7 14345.00	41.76	10.92	32.93	28.71	48.46	74.00	25.54	Peak

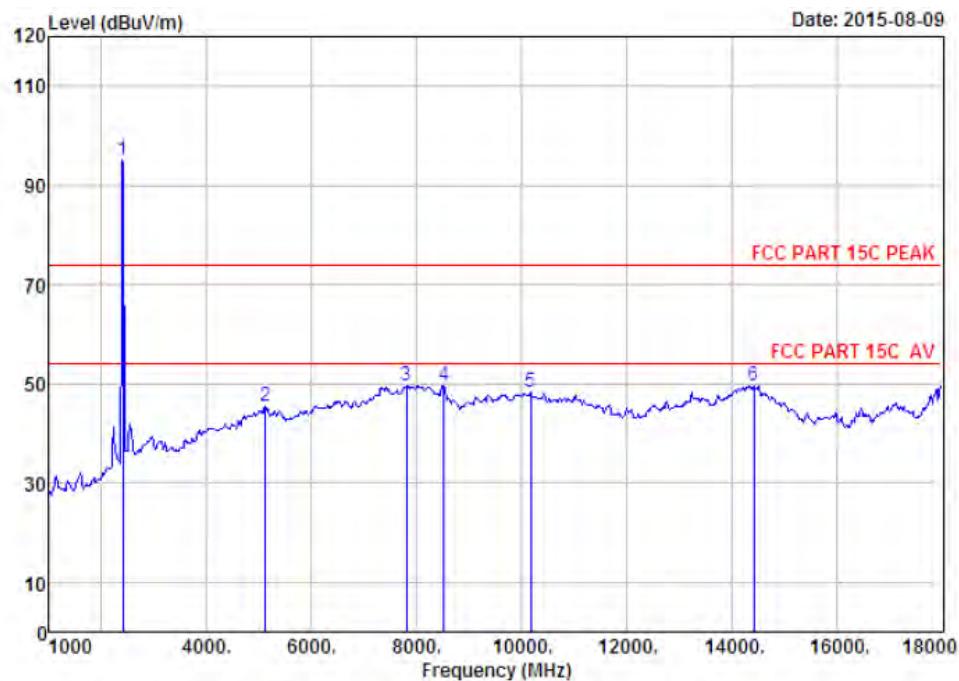
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 914
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 2480.00	27.58	6.71	34.03	99.18	99.44	74.00	-25.44	Peak
2 4960.00	31.49	12.44	31.97	40.14	52.10	74.00	21.90	Peak
3 7324.00	36.55	11.57	31.99	30.93	47.06	74.00	26.94	Peak
4 7834.00	36.68	11.47	31.40	31.47	48.22	74.00	25.78	Peak
5 10350.00	38.71	11.39	32.43	29.70	47.37	74.00	26.63	Peak
6 14413.00	41.80	10.92	32.78	28.41	48.35	74.00	25.65	Peak

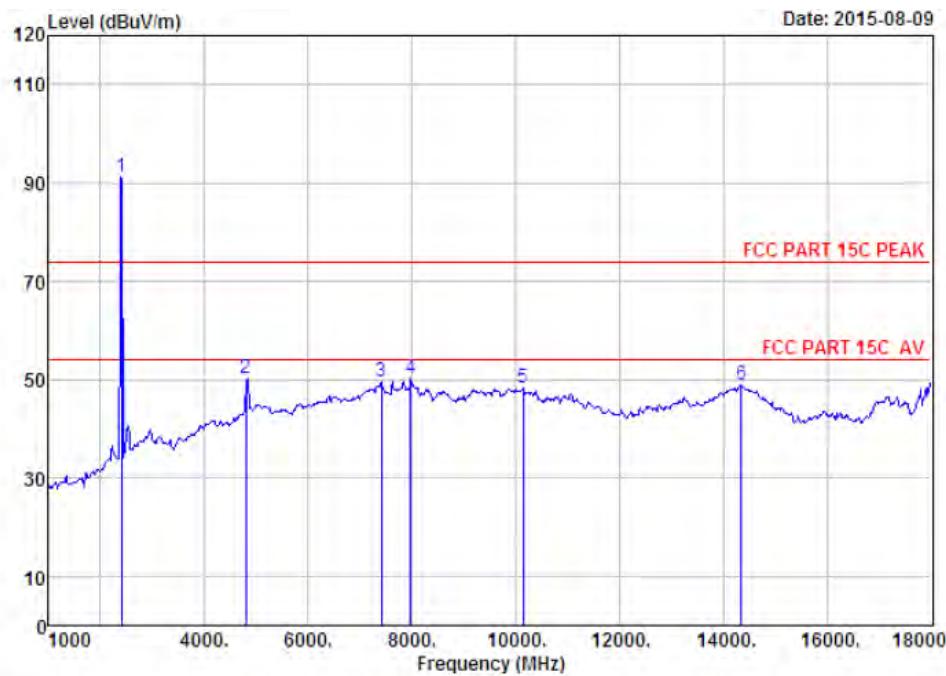
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 917
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : S-DPSK TX 2402MHz
 Adapter 2

Freq. (MHz)	Ant.	Cable	Amp	Emission				Margin (dB)	Remark
	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2402.00	27.61	6.62	34.18	95.08	95.13	74.00	-21.13	Peak	
2 5114.00	31.62	12.45	32.17	33.49	45.39	74.00	28.61	Peak	
3 7800.00	36.61	11.49	31.44	32.91	49.57	74.00	24.43	Peak	
4 8514.00	36.96	11.45	31.91	33.25	49.75	74.00	24.25	Peak	
5 10180.00	35.42	11.49	32.11	30.39	48.19	74.00	25.81	Peak	
6 14430.00	41.82	10.93	32.84	29.63	49.54	74.00	24.46	Peak	

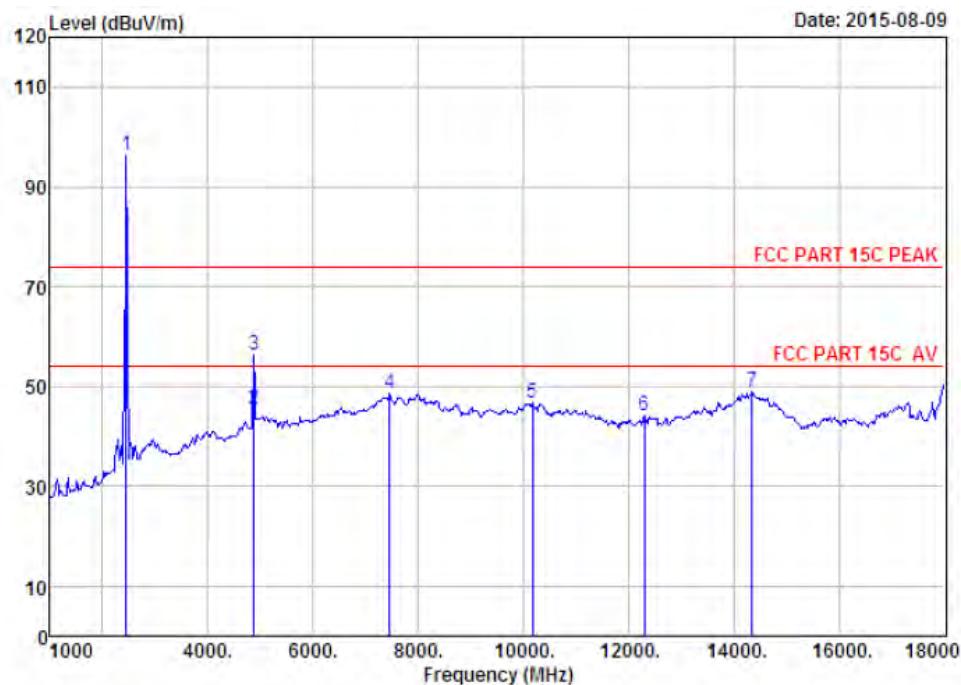
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 918
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz
 Adapter 2

Freq. (MHz)	Ant.	Cable	Amp	Emission				Margin (dB)	Remark
	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2402.00	27.61	6.62	34.18	91.31	91.36	74.00	-17.36	Peak	
2 4804.00	31.25	11.77	31.81	39.10	50.31	74.00	23.69	Peak	
3 7409.00	36.58	11.60	31.97	33.35	49.56	74.00	24.44	Peak	
4 7970.00	36.94	11.41	31.25	33.05	50.15	74.00	23.85	Peak	
5 10146.00	38.36	11.51	32.05	30.57	48.39	74.00	25.61	Peak	
6 14345.00	41.76	10.92	32.93	29.21	48.96	74.00	25.04	Peak	

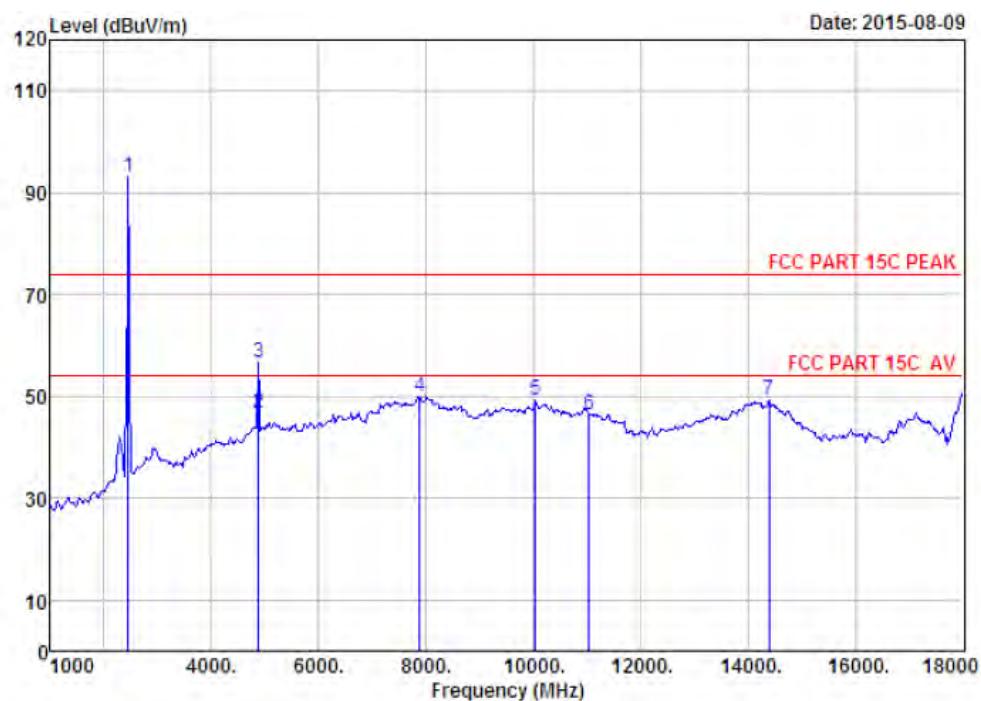
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber
 Dis. / Ant. : 3m ANT 1-18G
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2441MHz
 Adapter 2

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2441.00	27.60	6.67	34.12	96.04	96.19	74.00	-22.19	Peak	
2 4882.00	31.37	12.07	31.90	34.01	45.55	54.00	8.45	Average	
3 4882.00	31.37	12.07	31.90	44.80	56.34	74.00	17.66	Peak	
4 7460.00	36.52	11.61	31.91	32.42	48.64	74.00	25.36	Peak	
5 10180.00	38.42	11.49	32.11	28.88	46.68	74.00	27.32	Peak	
6 12305.00	35.70	11.10	35.52	29.58	44.16	74.00	29.84	Peak	
7 14345.00	41.76	10.92	32.93	29.36	49.11	74.00	24.89	Peak	

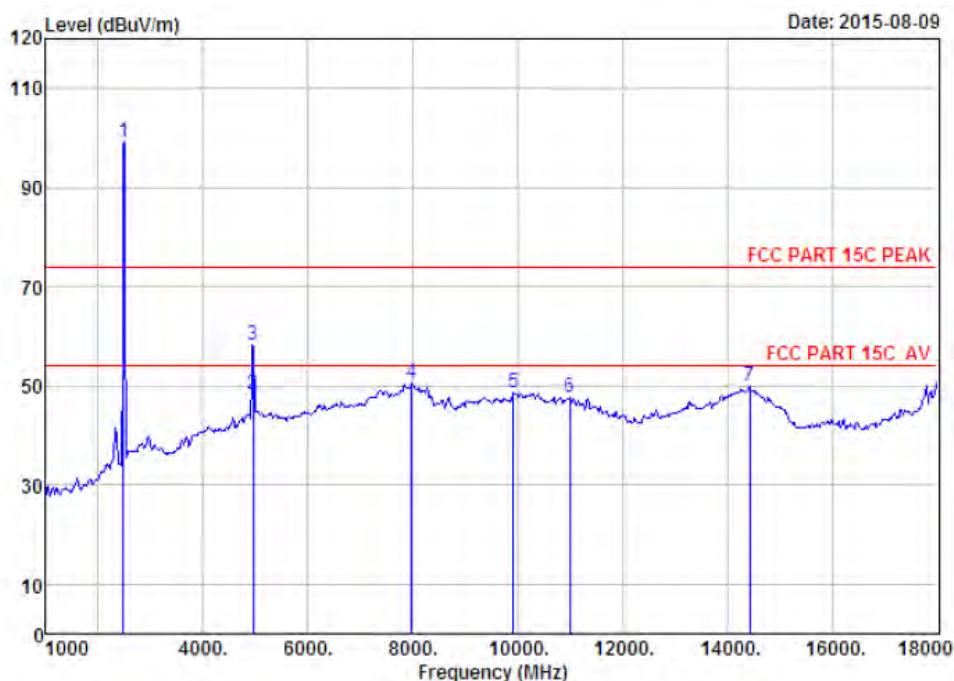
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 922
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK IX 2441MHz
 Adapter 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.00	27.60	6.67	34.12	92.83	92.95	74.00	-18.95	Peak
2	4882.00	31.37	12.07	31.90	35.06	46.60	54.00	7.40	Average
3	4882.00	31.37	12.07	31.90	45.13	56.67	74.00	17.33	Peak
4	7885.00	36.78	11.45	31.33	33.06	49.96	74.00	24.04	Peak
5	10044.00	38.18	11.56	31.85	31.45	49.34	74.00	24.66	Peak
6	11047.00	39.49	11.25	33.75	29.57	46.56	74.00	27.44	Peak
7	14396.00	41.79	10.92	32.83	29.35	49.23	74.00	24.77	Peak

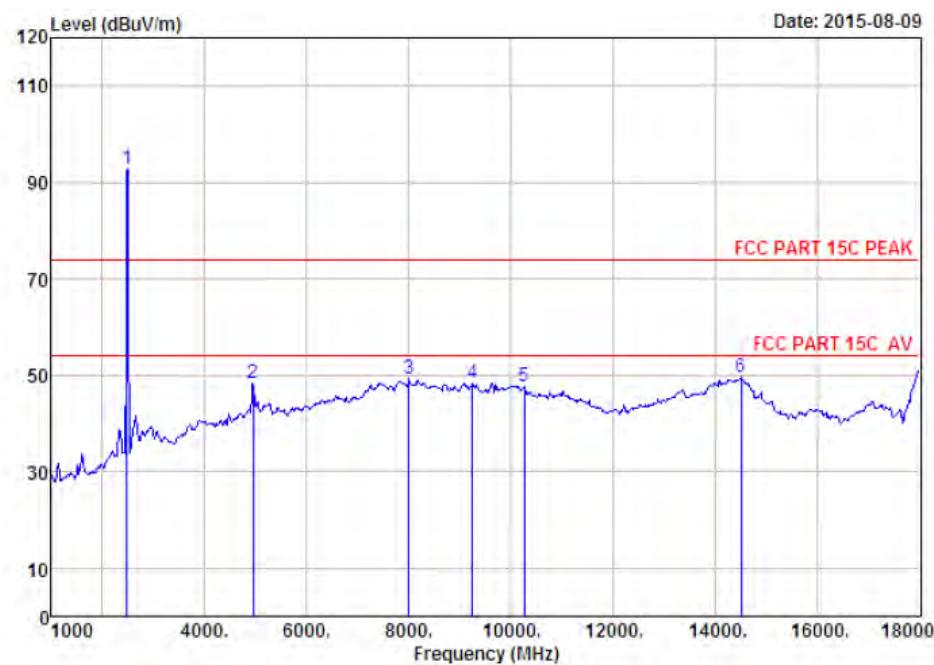
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 923
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 2

	Ant.	Cable	Amp	Emission					
Freq.	Factor	Loss	Factor	Reading	Level	Limits	Margin	Remark	(dB)
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)		-----
1	2480.00	27.58	6.71	34.03	98.91	99.17	74.00	-25.17	Peak
2	4960.00	31.49	12.44	31.97	36.33	48.29	54.00	5.71	Average
3	4960.00	31.49	12.44	31.97	46.20	58.16	74.00	15.84	Peak
4	7970.00	36.94	11.41	31.25	33.37	50.47	74.00	23.53	Peak
5	9925.00	38.14	11.61	31.76	30.52	48.51	74.00	25.49	Peak
6	10996.00	39.52	11.29	33.65	30.40	47.56	74.00	26.44	Peak
7	14430.00	41.82	10.93	32.84	30.14	50.05	74.00	23.95	Peak

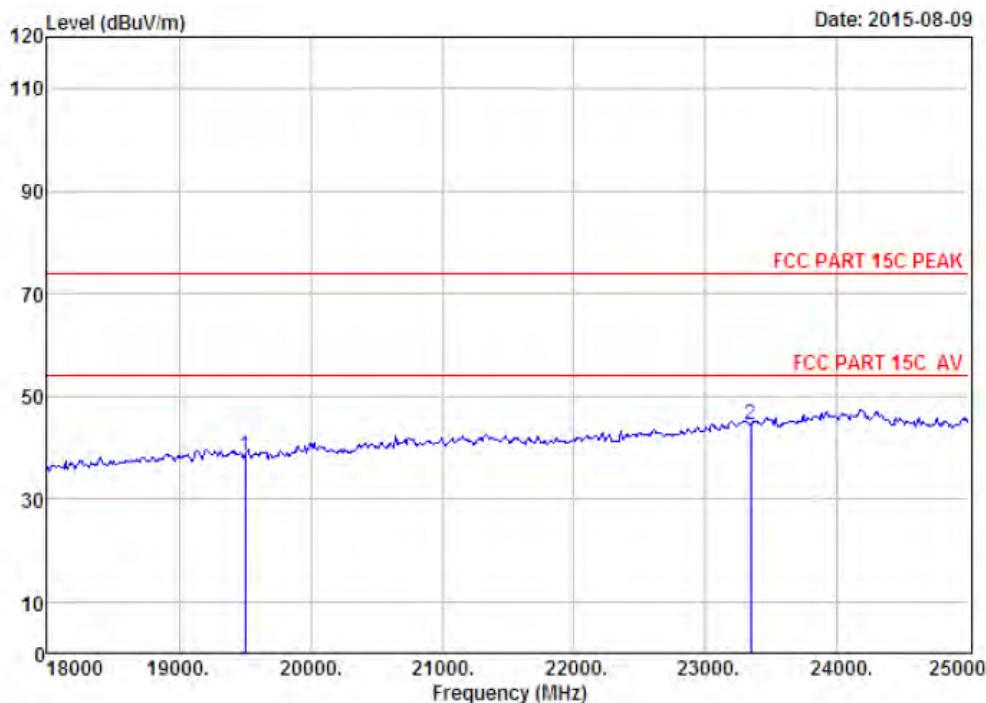
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 924
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2480.00	27.58	6.71	34.03	92.61	92.87	74.00	-18.87	Peak	
2 4960.00	31.49	12.44	31.97	36.27	48.23	74.00	25.77	Peak	
3 8004.00	37.01	11.40	31.22	31.95	49.14	74.00	24.86	Peak	
4 9245.00	37.83	11.58	32.26	31.33	48.48	74.00	25.52	Peak	
5 10265.00	38.56	11.44	32.27	30.03	47.76	74.00	26.24	Peak	
6 14515.00	41.89	10.93	33.14	29.80	49.48	74.00	24.52	Peak	

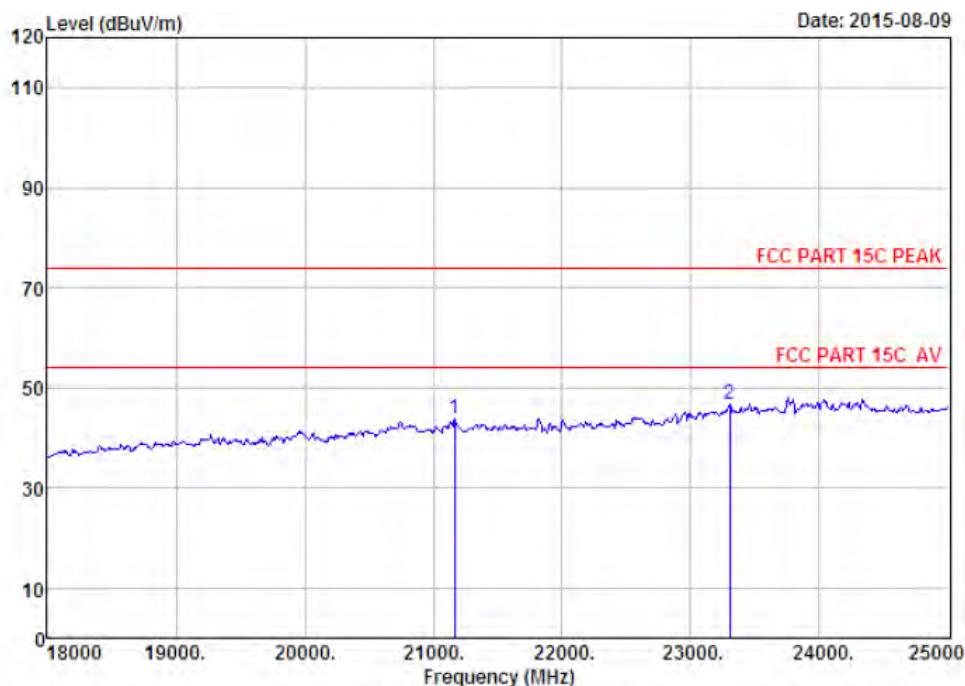
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

18000MHz – 25000MHz

Site no. : 1# 966 chamber Data no. : 857
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz
 Adapter 1

Freq. (MHz)	Ant.	Cable	Amp	Emission			Margin (dB)	Remark
	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 19505.00	45.90	19.12	36.28	9.65	38.39	74.00	35.61	Peak
2 23341.00	45.67	21.45	33.48	11.00	44.64	74.00	29.36	Peak

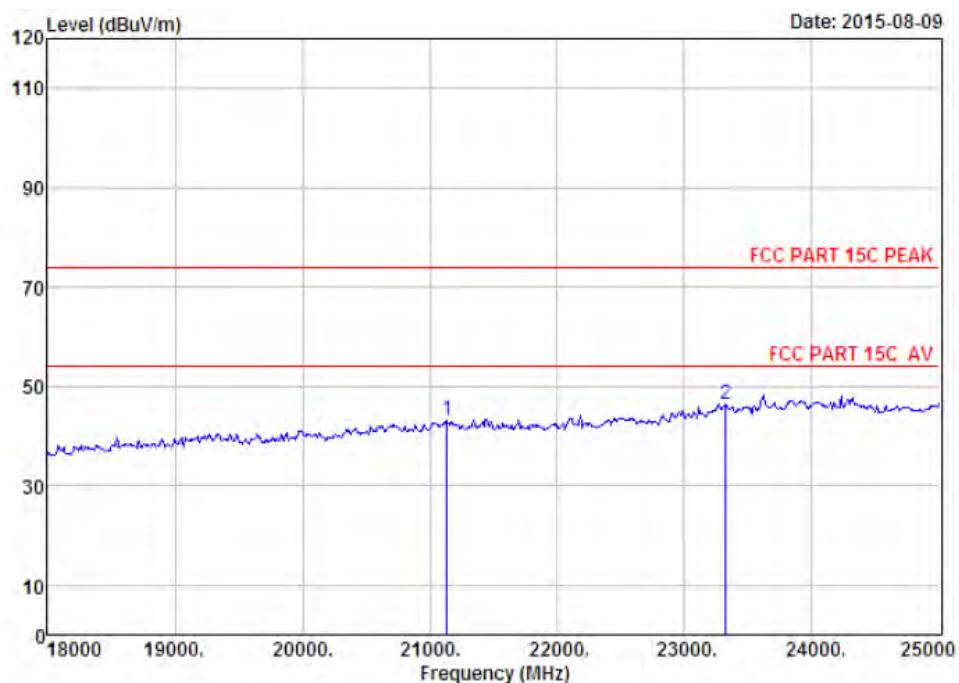
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 858
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz
 Adapter 1

Freq. (MHz)	Ant.	Cable	Amp	Emission			Limits (dBuV/m)	Margin (dB)	Remark
	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)				
1 21164.00	46.20	20.20	35.64	13.24	44.00	74.00	30.00	Peak	
2 23306.00	45.66	21.43	33.53	13.25	46.81	74.00	27.19	Peak	

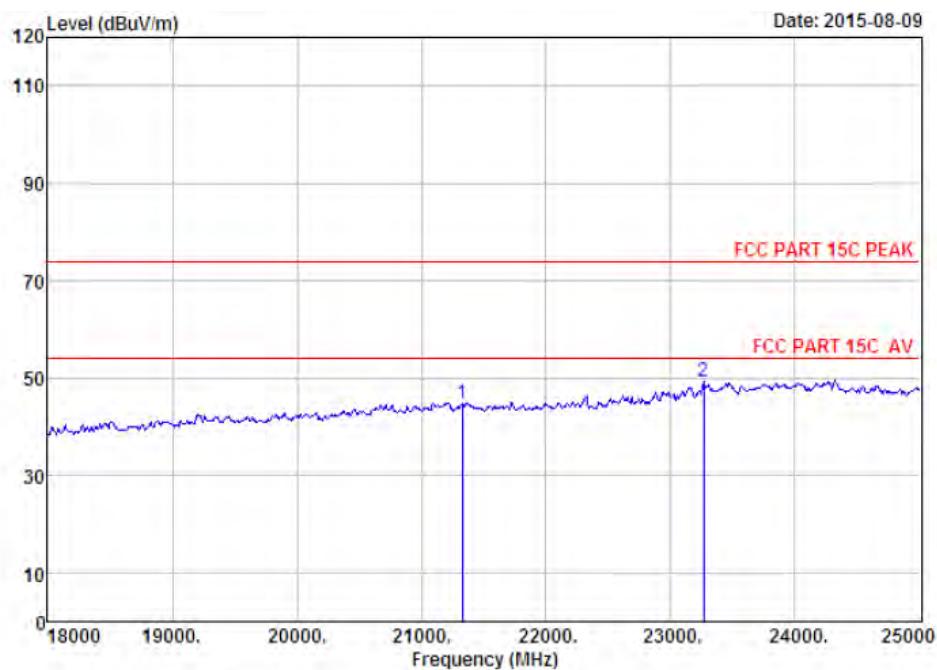
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 859
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 21136.00	46.21	20.19	35.69	12.41	43.12	74.00	30.88	Peak
2 23320.00	45.67	21.43	33.51	12.81	46.40	74.00	27.60	Peak

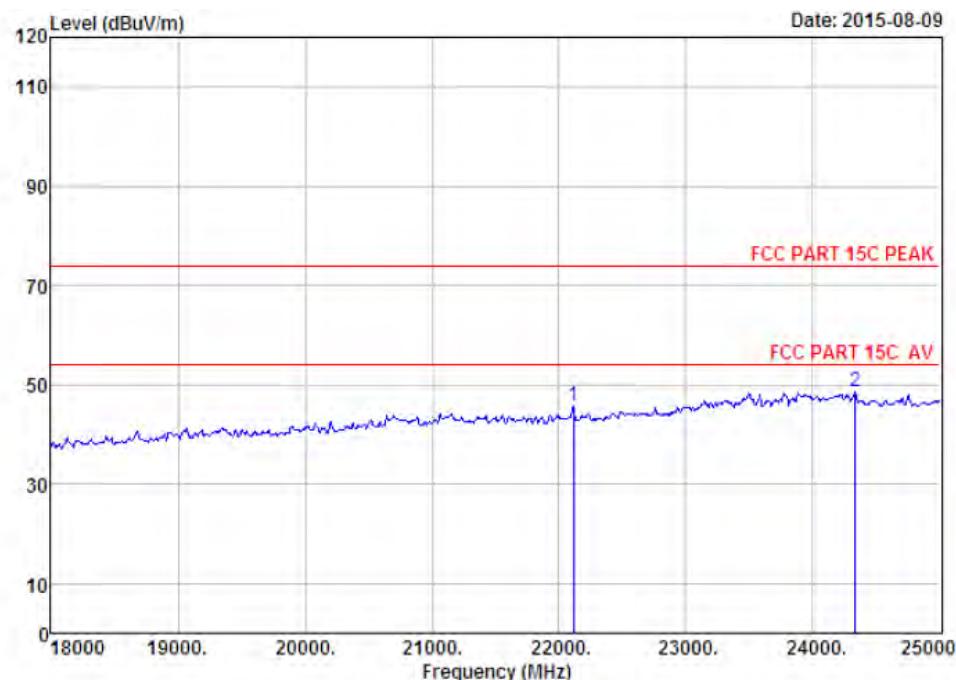
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. ; 860
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK IX 2441MHz
 Adapter 1

Freq. (MHz)	Ant. Factor	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 21325.00	46.10	20.27	35.51	14.07	44.93	74.00	29.07		Peak
2 23264.00	45.65	21.39	33.56	15.64	49.12	74.00	24.88		Peak

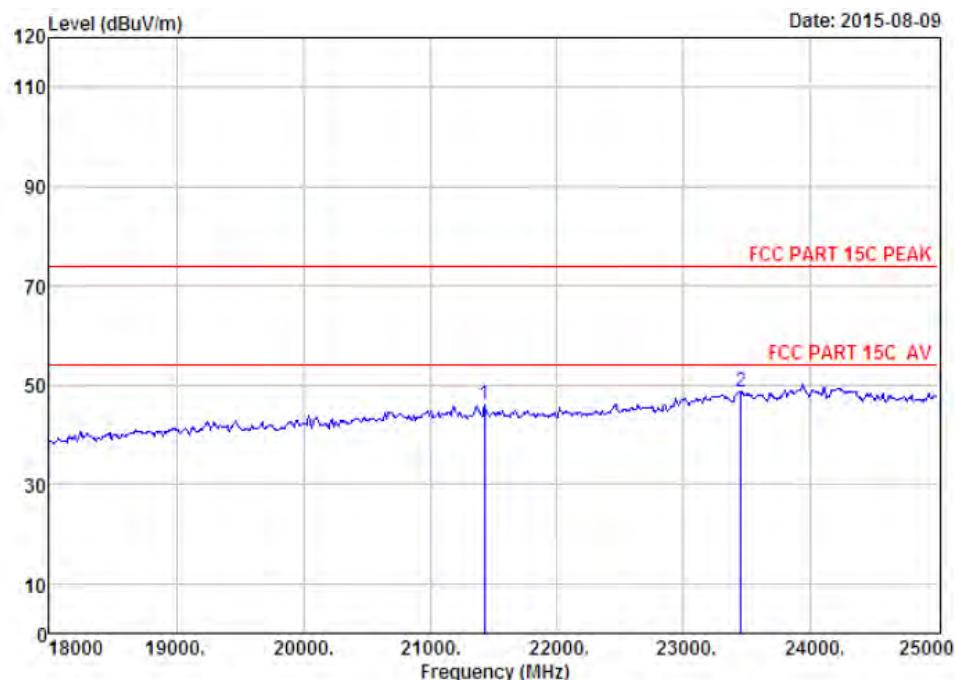
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 861
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK IX 2480MHz
 Adapter 1

Freq. (MHz)	Ant.			Cable			Amp			Emission		
	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark				
1 22116.00	45.72	20.63	34.77	14.17	45.75	74.00	28.25	Peak				
2 24335.00	45.67	22.23	33.30	14.13	46.73	74.00	25.27	Peak				

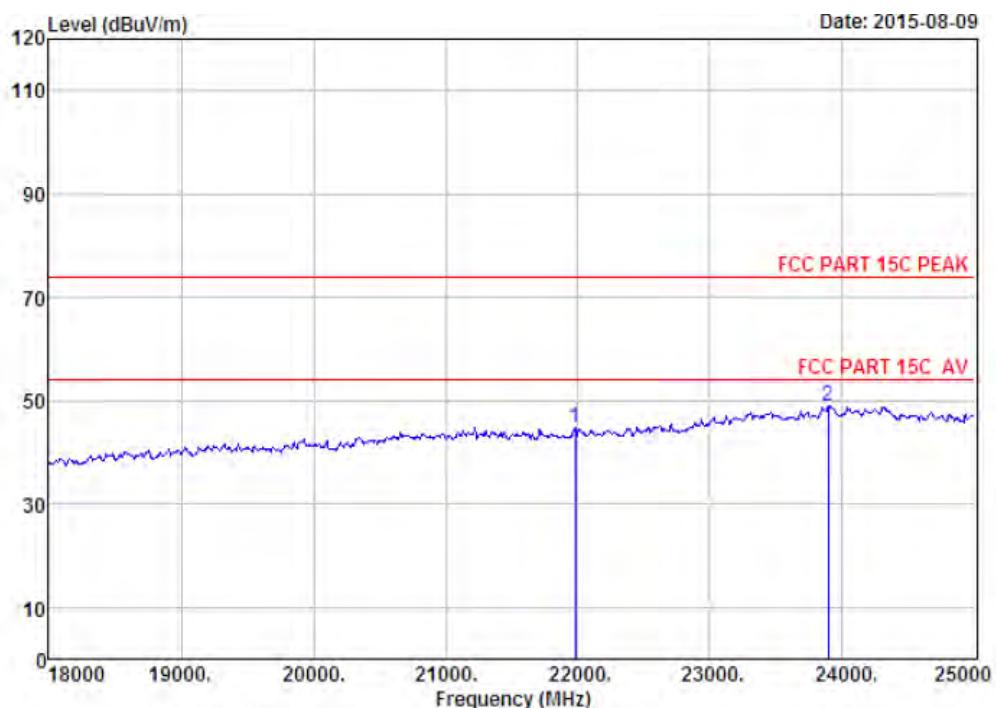
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 662
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission				Remark
					Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 21430.00	46.04	20.32	35.42	15.22	46.16	74.00	27.84		Peak
2 23446.00	45.69	21.55	33.38	14.91	48.77	74.00	25.23		Peak

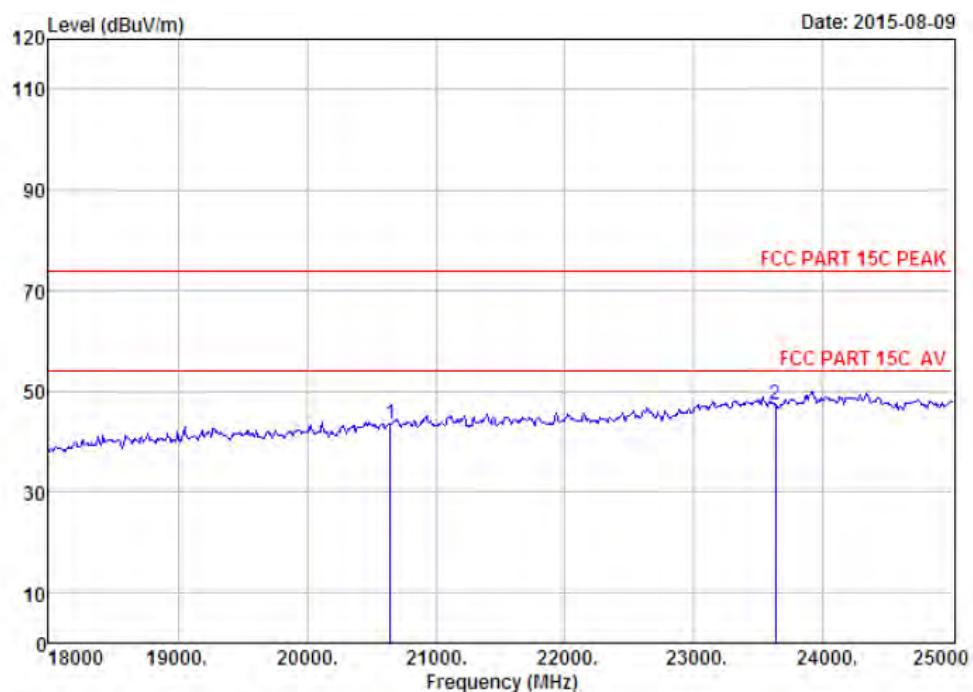
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 863
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Limits (dBuV/m)	Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)				
1 21976.00	45.71	20.55	34.92	13.37	44.71	74.00	29.29	Peak	
2 23894.00	45.62	21.95	32.90	14.29	48.96	74.00	25.04	Peak	

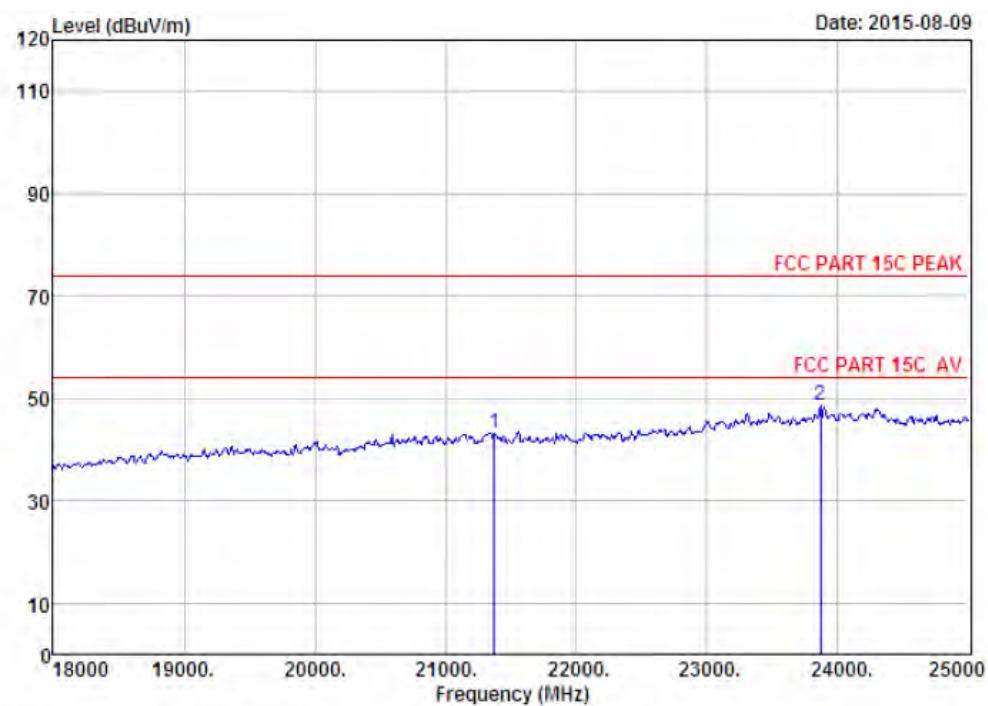
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 864
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz
 Adapter 1

Freq. (MHz)	Ant.			Cable		Amp		Emission			Remark
	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)				
1 20646.00	46.08	19.97	36.12	13.68	43.61	74.00	30.39	Peak			Peak
2 23628.00	45.67	21.71	33.19	13.09	47.28	74.00	26.72	Peak			Peak

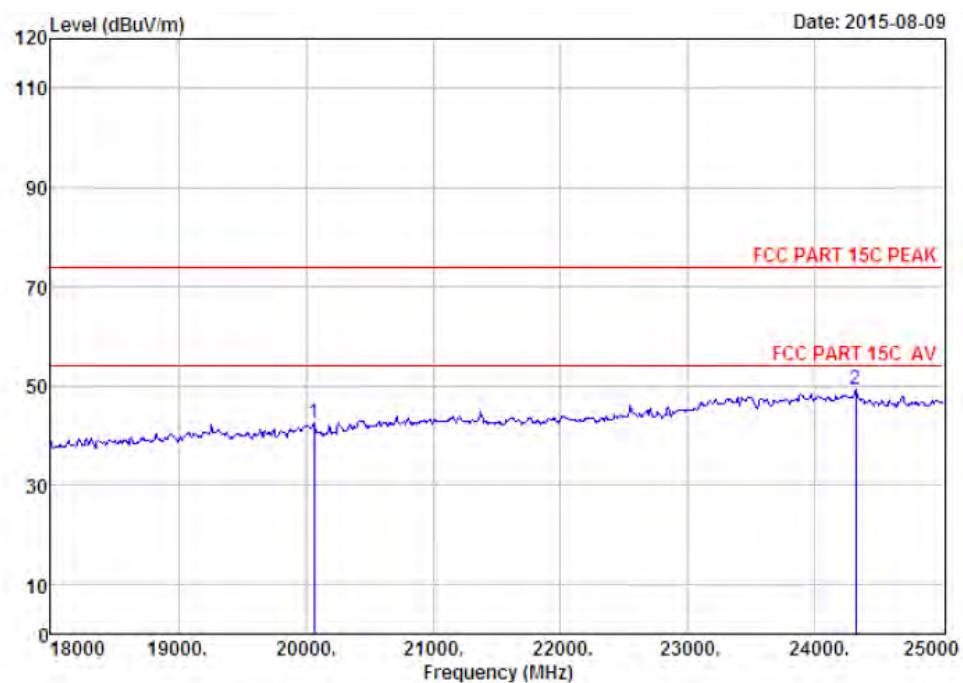
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 865
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : F-PSK TX 2441MHz
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 21374.00	46.08	20.29	35.46	12.37	43.28	74.00	30.72	Peak
2 23866.00	45.63	21.93	32.93	13.94	48.57	74.00	25.43	Peak

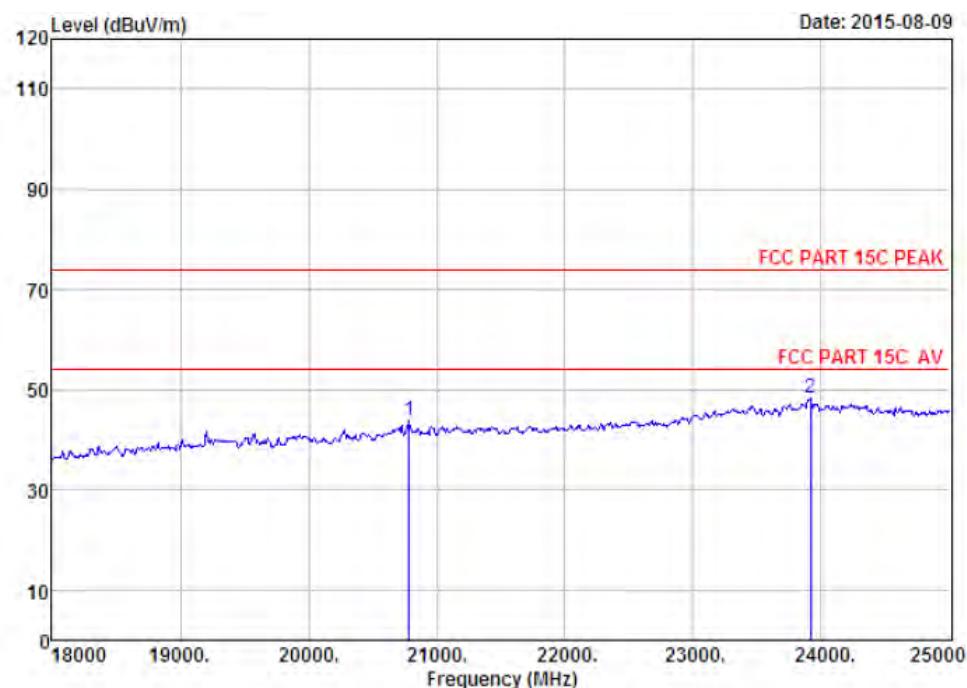
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. ; 866
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK IX 2441MHz
 Adapter 1

	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	20065.00	46.09	19.71	36.63	13.44	42.61	74.00	31.39	Peak
2	24314.00	45.66	22.22	33.30	14.80	49.38	74.00	24.62	Peak

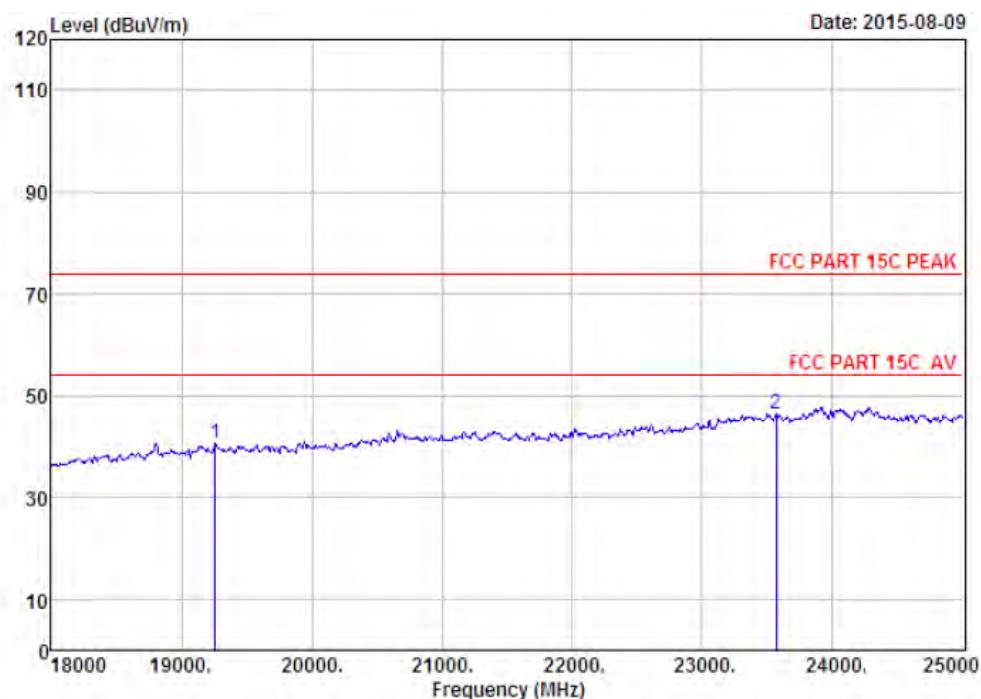
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 867
 Dis. / Ant. : 3m ANTI ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/H : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 1

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 20786.00	46.18	20.04	36.00	13.65	43.87	74.00	30.13	Peak	
2 23915.00	45.62	21.97	32.88	13.52	48.23	74.00	25.77	Peak	

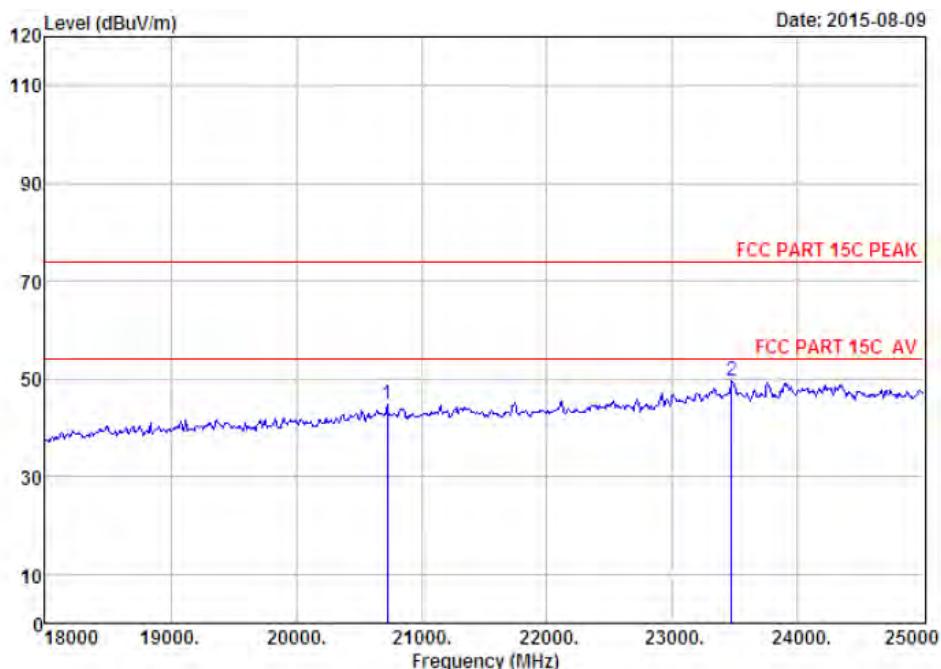
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 866
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 6-DPSK TX 2480MHz
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 19260.00	45.66	18.84	36.06	12.13	40.57	74.00	33.43	Peak
2 23565.00	45.69	21.65	33.25	12.46	46.55	74.00	27.45	Peak

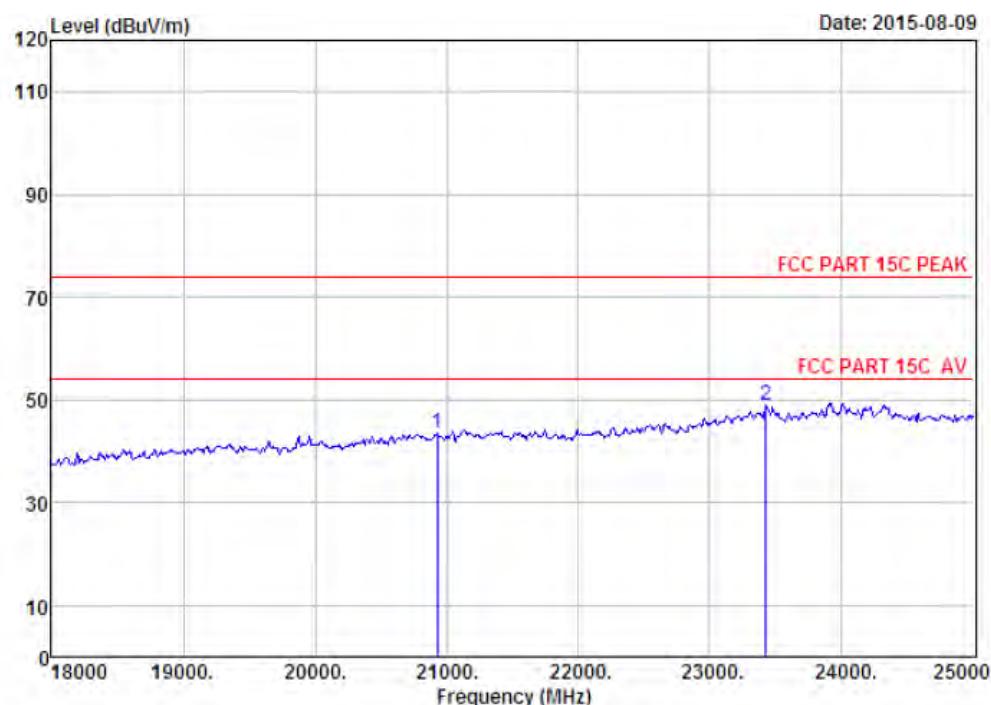
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 949
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 20730.00	46.14	20.01	36.05	14.68	44.78	74.00	29.22	Peak	
2 23474.00	45.70	21.57	33.35	15.73	49.65	74.00	24.35	Peak	

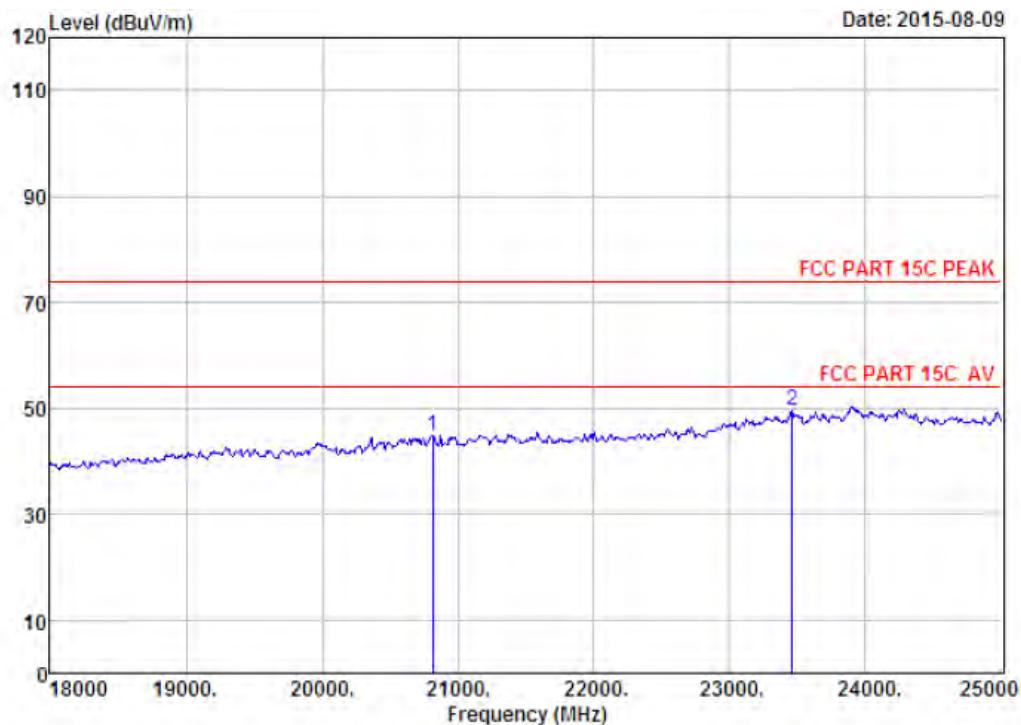
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 950
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 20926.00	46.26	20.10	35.87	12.98	43.47	74.00	30.53	Peak
2 23425.00	45.69	21.53	33.40	15.20	49.02	74.00	24.98	Peak

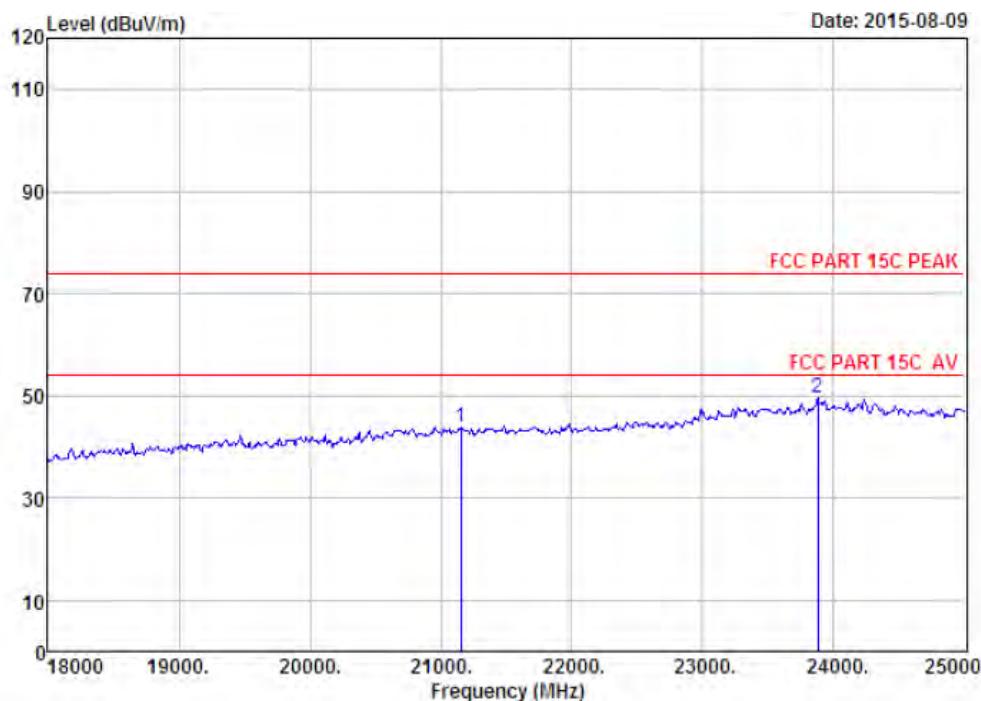
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 951
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 20814.00	46.19	20.05	35.96	14.62	44.90	74.00	29.10	Peak	
2 23460.00	45.69	21.56	33.38	15.78	49.65	74.00	24.35	Peak	

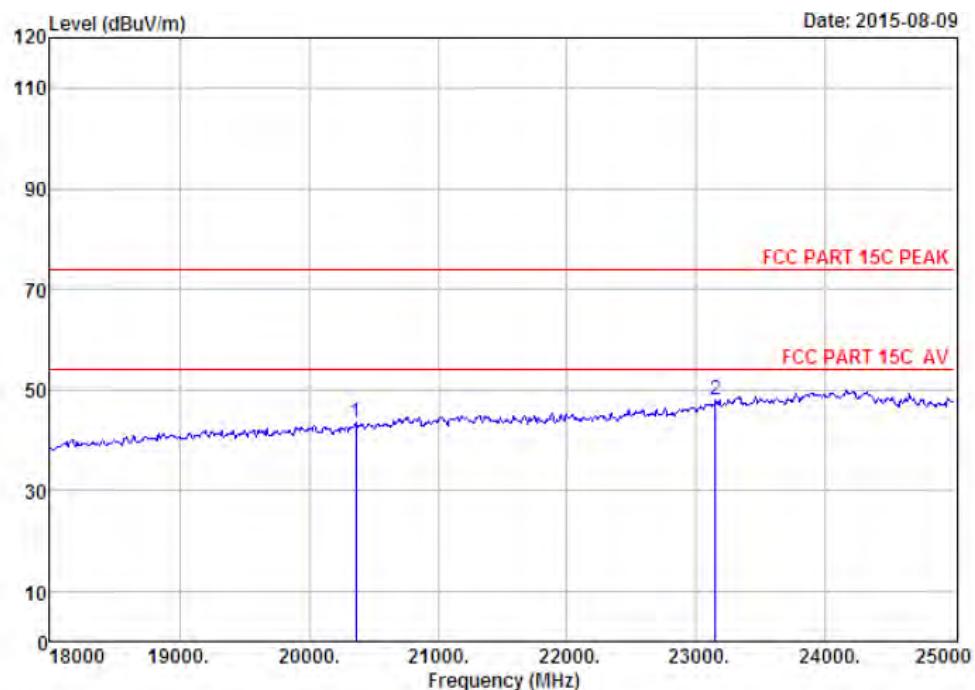
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 1# 966 chamber Data no. : 952
 Dis. / Ant. : 3m ANT ABOVE 15G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2441MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 21150.00	46.21	20.20	35.67	13.16	43.90	74.00	30.10	Peak	
2 23880.00	45.63	21.94	32.93	14.82	49.46	74.00	24.54	Peak	

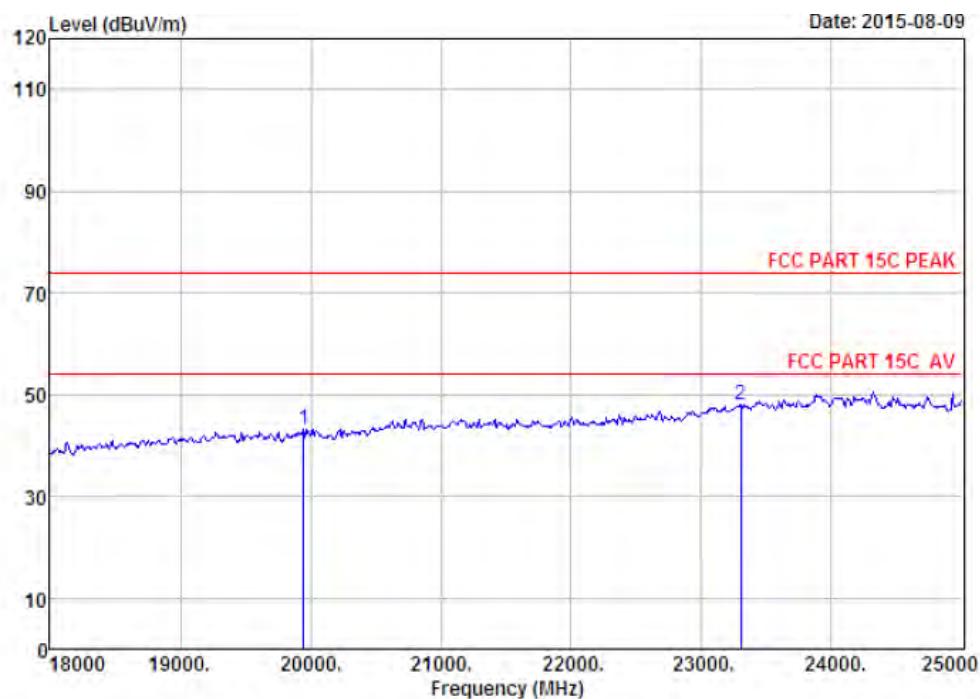
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 953
 Dis. / Ant. : 3m ANTI ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz
 Adapter 2

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 20366.00	46.03	19.85	36.36	13.97	43.49	74.00	30.51	Peak	
2 23145.00	45.63	21.28	33.69	14.63	47.85	74.00	26.15	Peak	

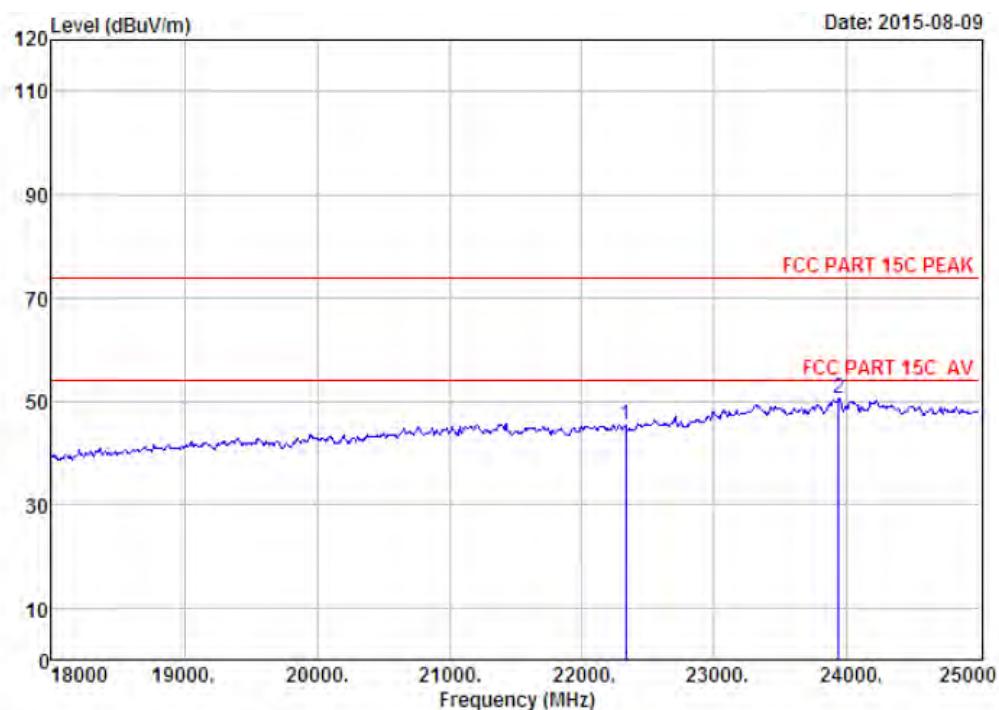
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 954
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 19946.00	46.07	19.62	36.66	14.12	43.15	74.00	30.85	Peak	
2 23306.00	45.66	21.43	33.53	14.42	47.96	74.00	26.02	Peak	

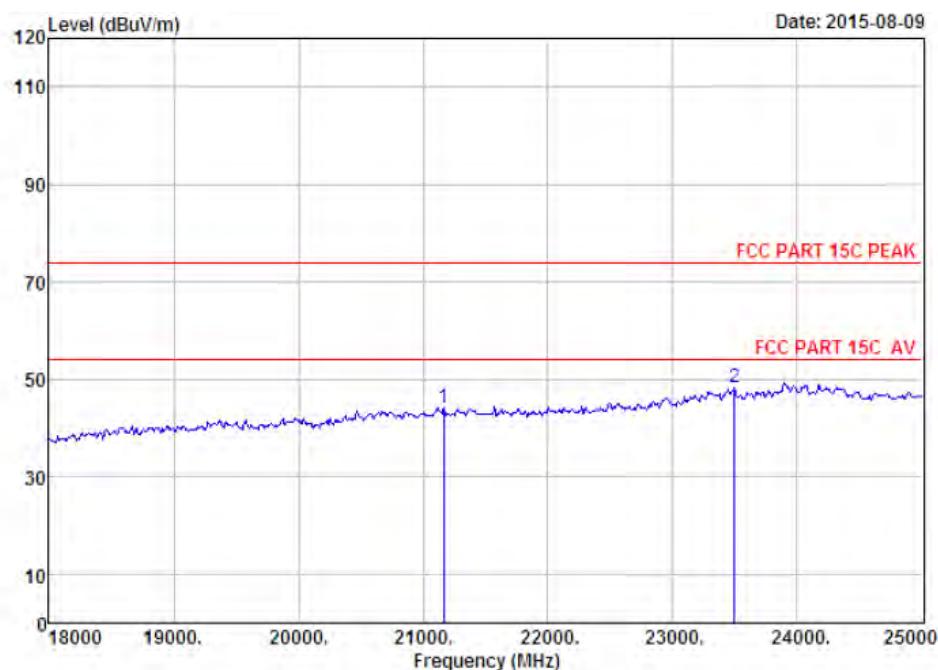
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 955
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission				Remark
					Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 22326.00	45.77	20.75	34.56	13.59	45.55	74.00	28.45	Peak	
2 23936.00	45.61	21.99	32.88	15.71	50.43	74.00	23.57	Peak	

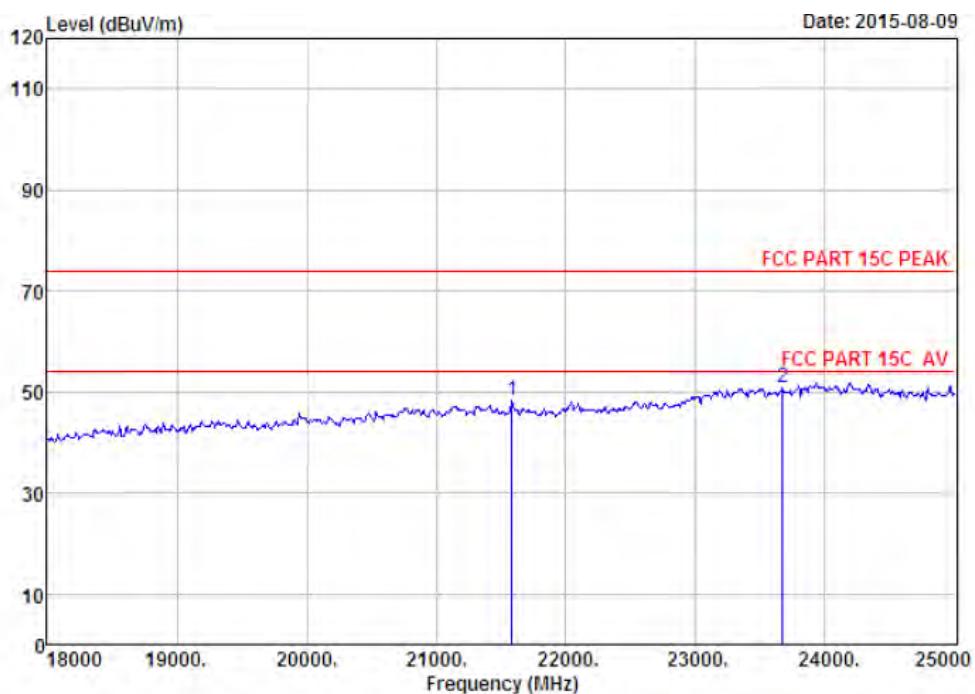
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. ; 956
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 21164.00	46.20	20.20	35.64	13.31	44.07	74.00	29.93	Peak	
2 23495.00	45.70	21.60	33.33	14.48	48.45	74.00	25.55	Peak	

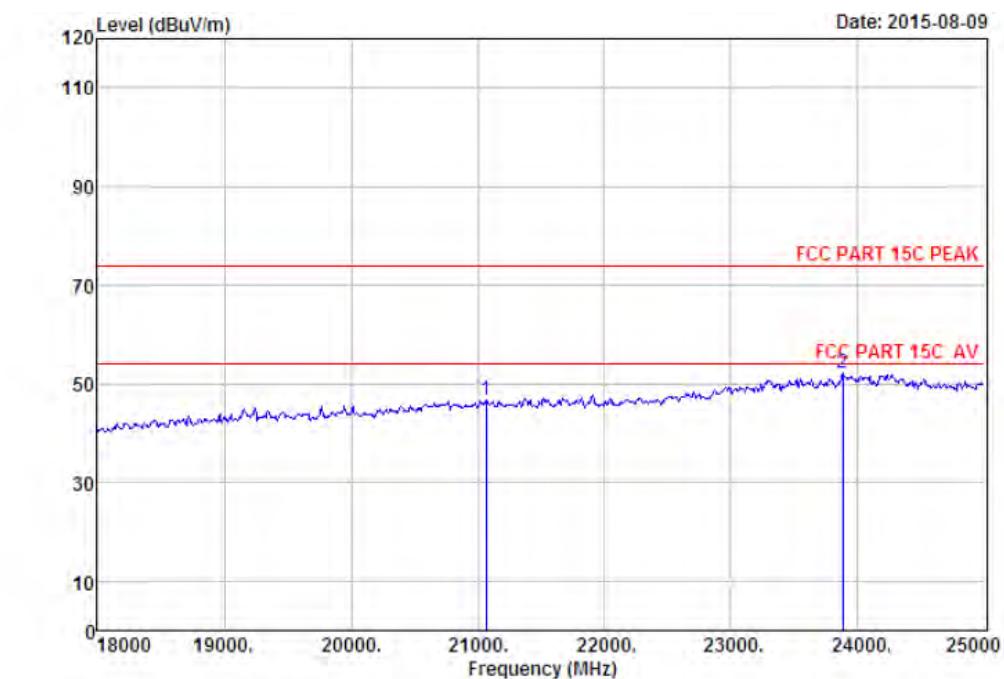
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 957
 Dis. / Ant. : 3m ANTI ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2441MHz
 Adapter 2

	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	21584.00	45.95	20.38	35.28	17.24	48.29	74.00	25.71	Peak
2	23670.00	45.67	21.75	33.14	16.45	50.73	74.00	23.27	Peak

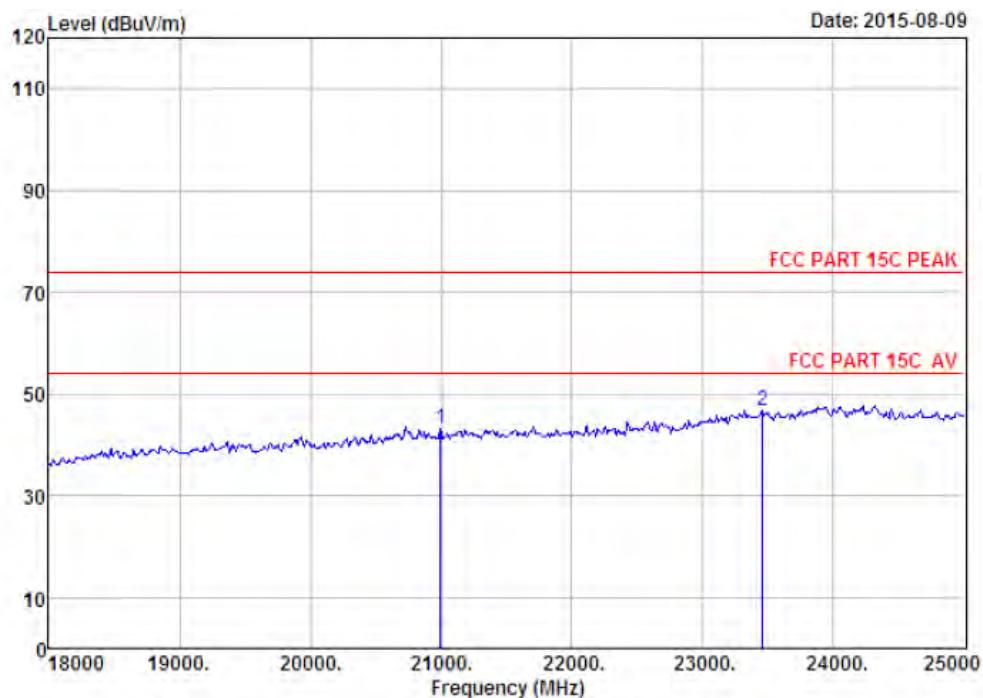
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 958
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2441MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 21066.00	46.26	20.16	35.73	16.00	46.69	74.00	27.31	Peak
2 23880.00	45.63	21.94	32.93	17.44	52.08	74.00	21.92	Peak

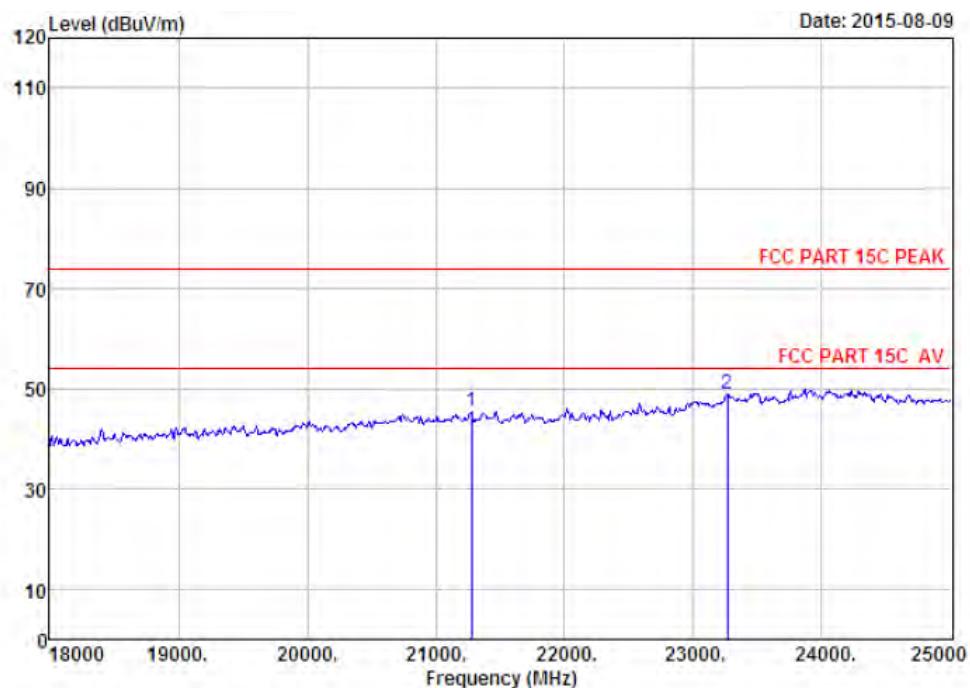
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 959
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission				Remark
					Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 20996.00	46.30	20.13	35.80	12.60	43.23	74.00	30.77	Peak	
2 23460.00	45.69	21.56	33.38	12.91	46.78	74.00	27.22	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. : 1# 966 chamber Data no. ; 960
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 21276.00	46.13	20.25	35.55	14.76	45.59	74.00	28.41	Peak	
2 23264.00	45.65	21.39	33.56	15.58	49.06	74.00	24.94	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.

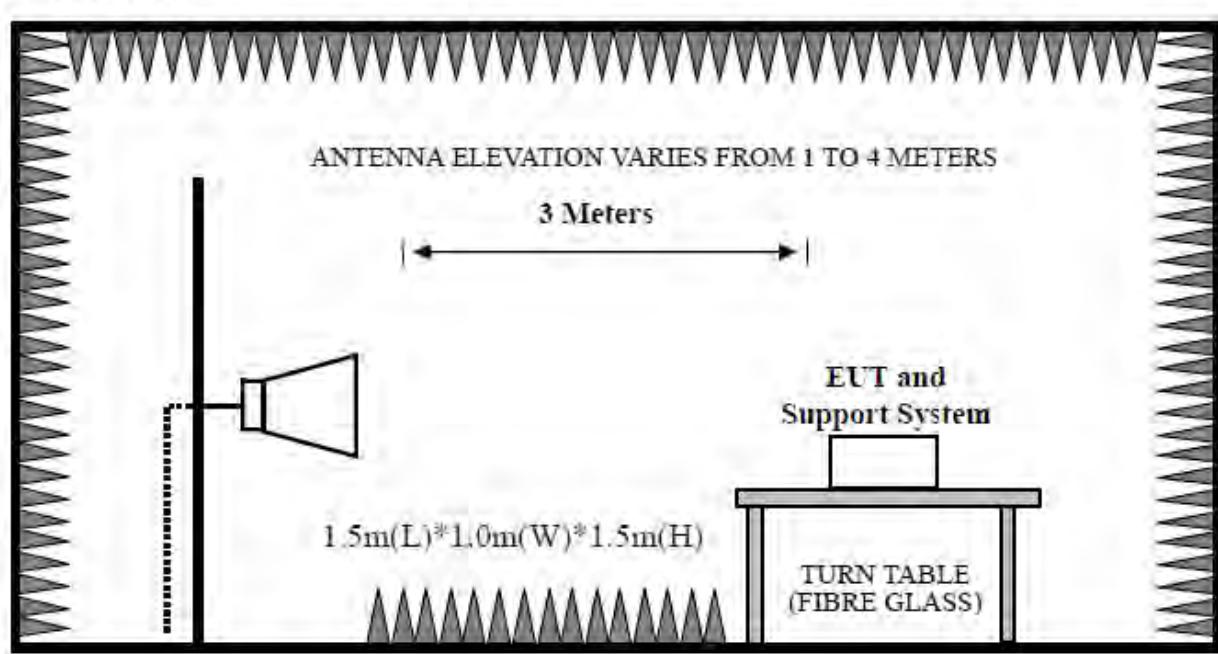
9. BAND EDGE COMPLIANCE

9.1. 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.

9.2. Block Diagram of Test setup

Above 1GHz



9.3. Test Procedure

EUT was placed on a turn table, which is 1.5 meter high above ground. 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.

Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of emissions

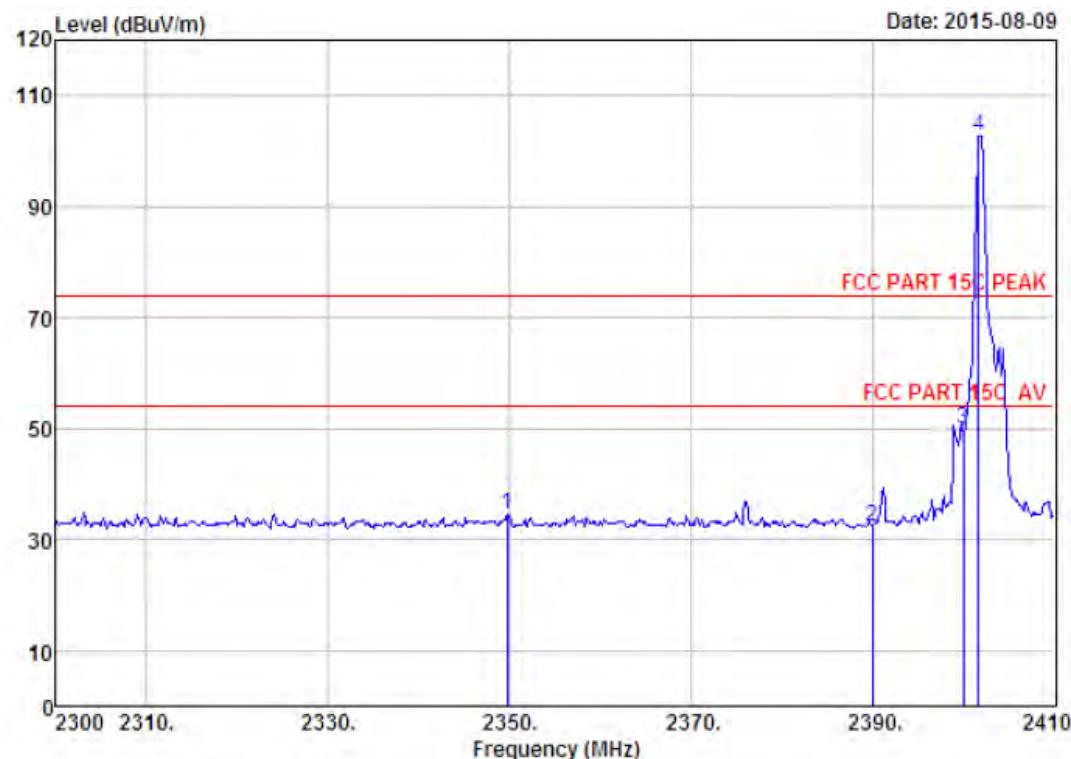
- (a) Peak : RBW = 1MHz, VBW = 1MHz, Detector=PEAK detector, Sweep time = auto
- (b) AV : RBW = 1MHz, VBW = 10Hz, Detector=PEAK detector, Sweep time = auto .

9.4. Test Result

EUT: Portable Bluetooth Speaker
M/N: Groove
Power: AC 120V/60Hz
Test date: 2015-08-09 Test site: 3m Chamber Tested by: Tony Tang
Test mode: Tx Mode (Hopping On & No Hopping)
Pass

- 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 、2441MHz and 2480MHz 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.

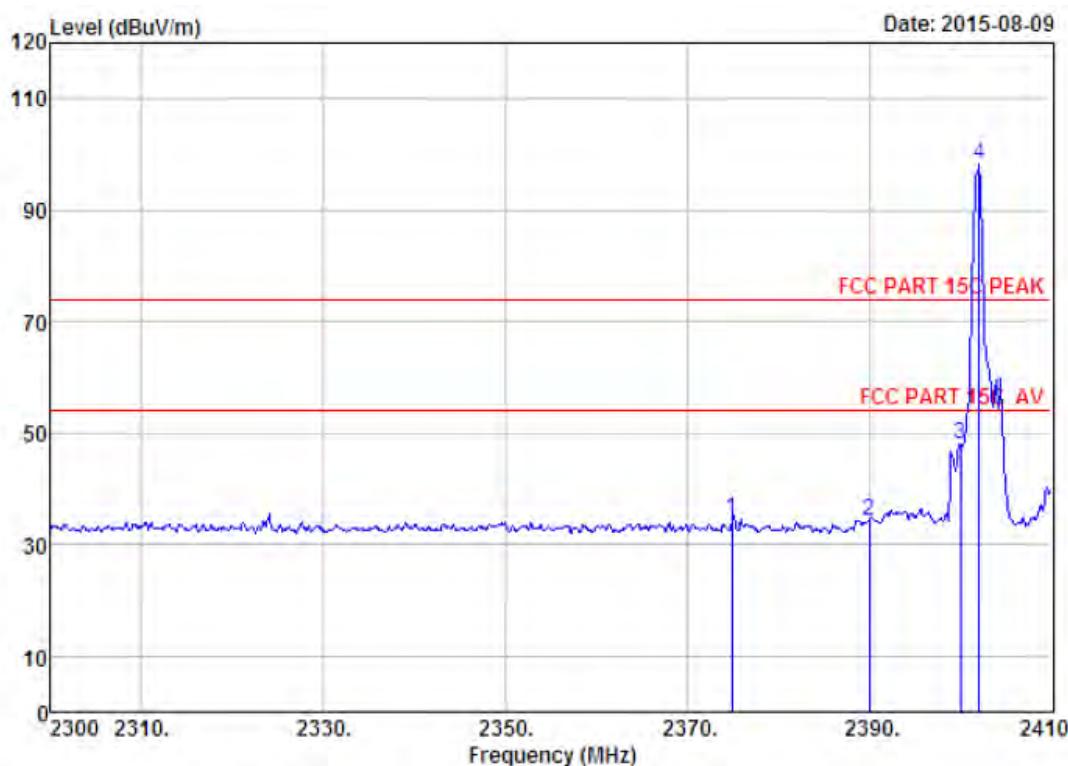
9.5. Test Data



Site no. : 1# 966 chamber Data no. : 831
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz (No Hopping)
 Adapter 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2349.72	27.70	6.56	34.22	34.49	34.53	74.00	39.47	Peak
2	2390.00	27.64	6.62	34.19	32.41	32.48	74.00	41.52	Peak
3	2400.00	27.61	6.62	34.18	50.00	50.05	74.00	23.95	Peak
4	2401.75	27.61	6.62	34.18	102.81	102.86	74.00	-28.86	Peak

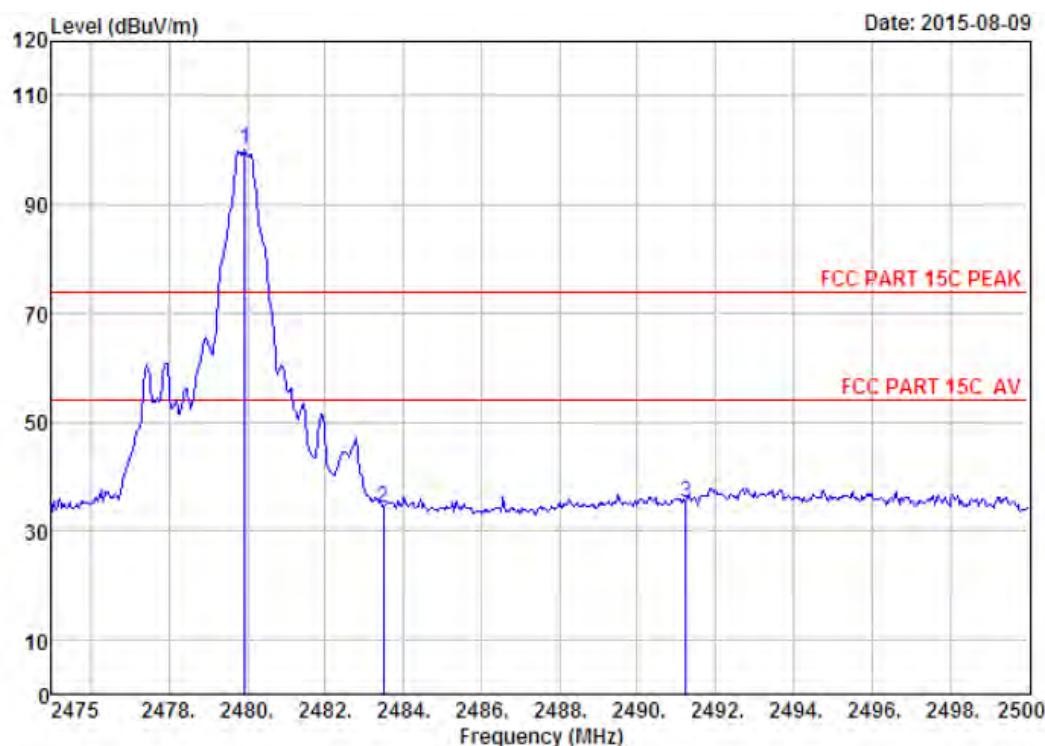
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 832
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz (No Hopping)
 Adapter 1

	Freq. (MHz)	Ant. Factor	Cable Loss (dB/m)	Amp Factor (dB)	Emission Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2374.91	27.64	6.60	34.19	34.38	34.43	74.00	39.57	Peak
2	2390.00	27.64	6.62	34.19	34.24	34.31	74.00	39.69	Peak
3	2400.00	27.61	6.62	34.18	47.92	47.97	74.00	26.03	Peak
4	2402.08	27.61	6.62	34.18	98.07	98.12	74.00	-24.12	Peak

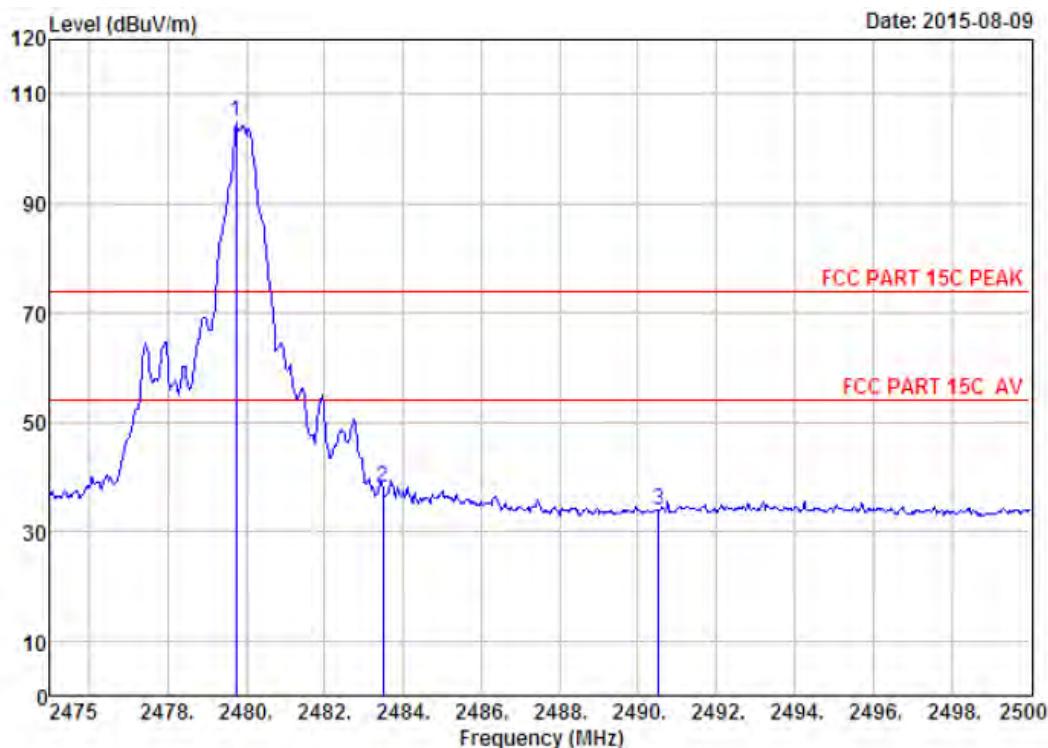
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 837
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz (No Hopping)
 Adapter 1

		Ant.	Cable	Amp	Emission				
Freq.	Factor	Loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2479.95	27.58	6.71	34.03	99.87	100.13	74.00	-26.13	Peak
2	2483.50	27.58	6.71	34.03	34.13	34.39	74.00	39.61	Peak
3	2491.25	27.58	6.73	34.03	35.08	35.36	74.00	38.64	Peak

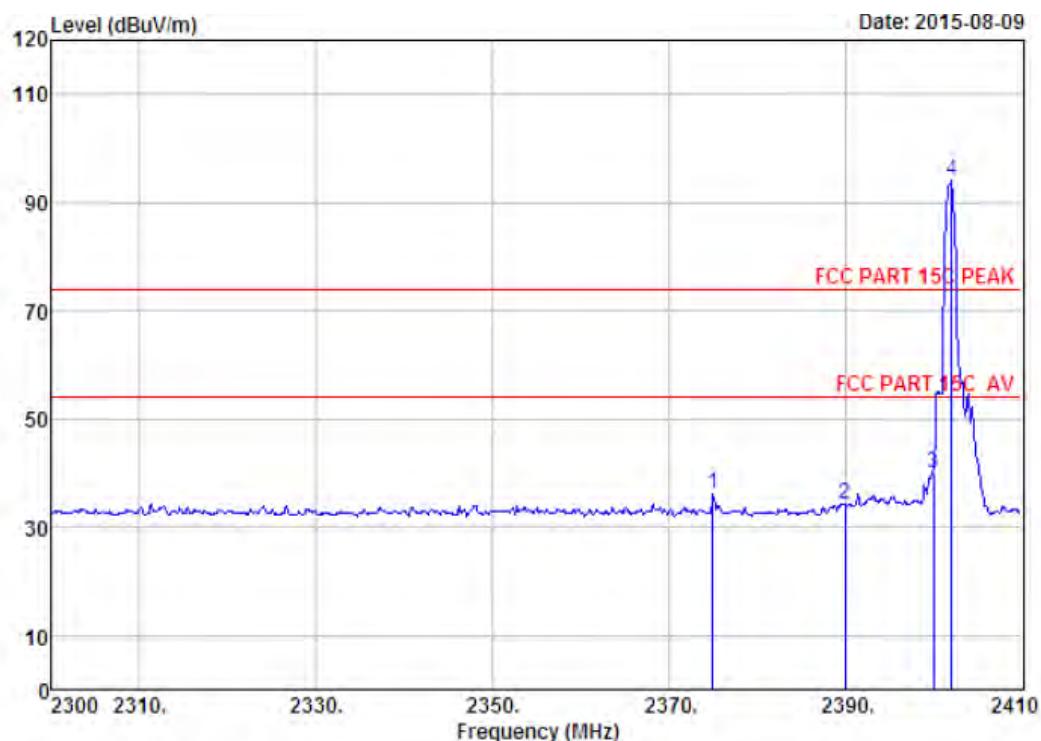
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 838
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humid:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz (No Hopping)
 Adapter 1

	Ant.	Cable	Amp	Emission					Remark
Freq. (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 2479.75	27.58	6.71	34.03	104.61	104.87	74.00	-30.87		Peak
2 2483.50	27.58	6.71	34.03	37.70	37.96	74.00	36.04		Peak
3 2490.53	27.58	6.73	34.03	33.56	33.84	74.00	40.16		Peak

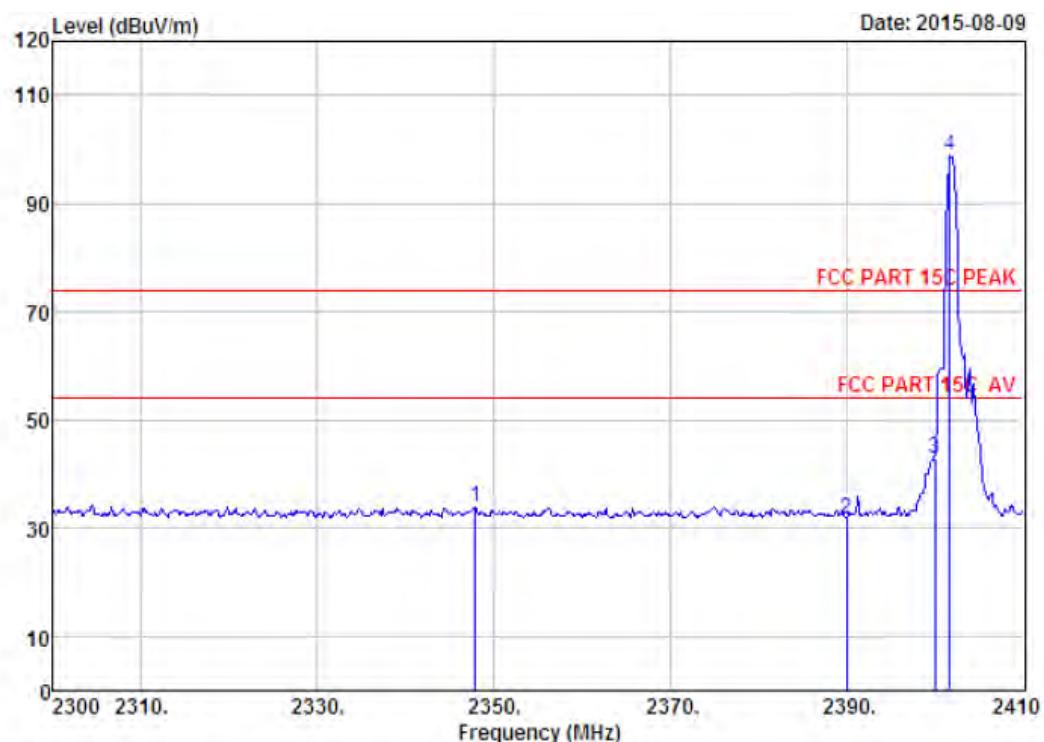
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 841
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz (No Hopping)
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2375.02	27.64	6.60	34.19	36.27	36.32	74.00	37.68	Peak	
2 2390.00	27.64	6.62	34.19	34.05	34.12	74.00	39.88	Peak	
3 2400.00	27.61	6.62	34.18	40.00	40.05	74.00	33.95	Peak	
4 2402.08	27.61	6.62	34.18	93.99	94.04	74.00	-20.04	Peak	

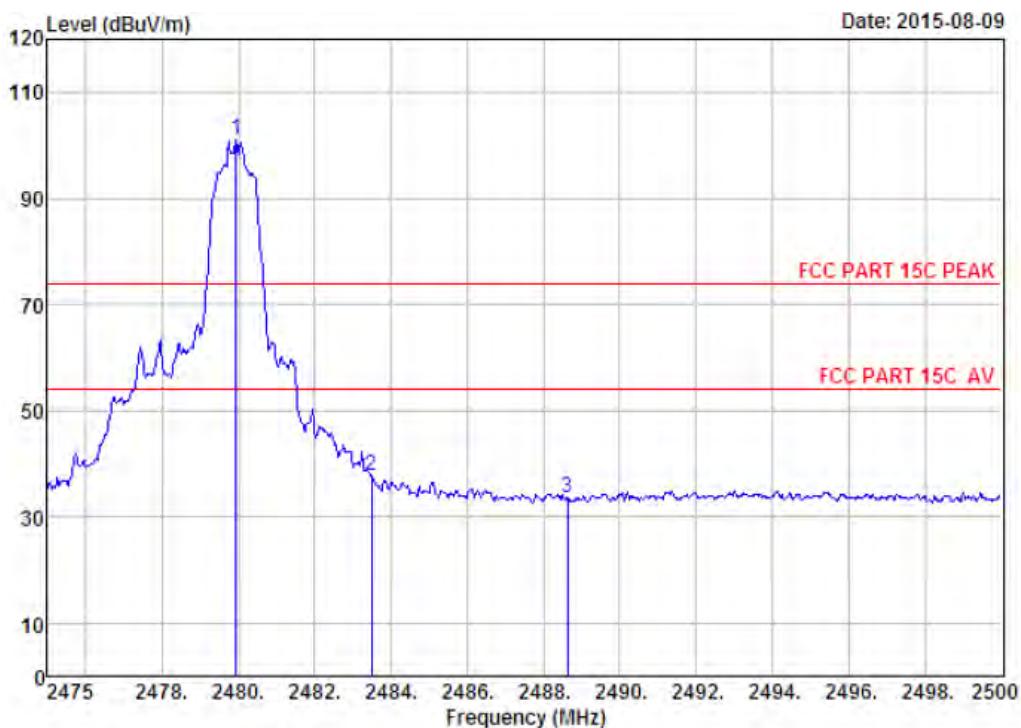
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. ; 842
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz (No Hopping)
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2347.85	27.70	6.56	34.22	34.03	34.07	74.00	39.93	Peak	
2 2390.00	27.64	6.62	34.19	31.66	31.73	74.00	42.27	Peak	
3 2400.00	27.61	6.62	34.18	42.96	43.01	74.00	30.99	Peak	
4 2401.75	27.61	6.62	34.18	98.75	98.80	74.00	-24.80	Peak	

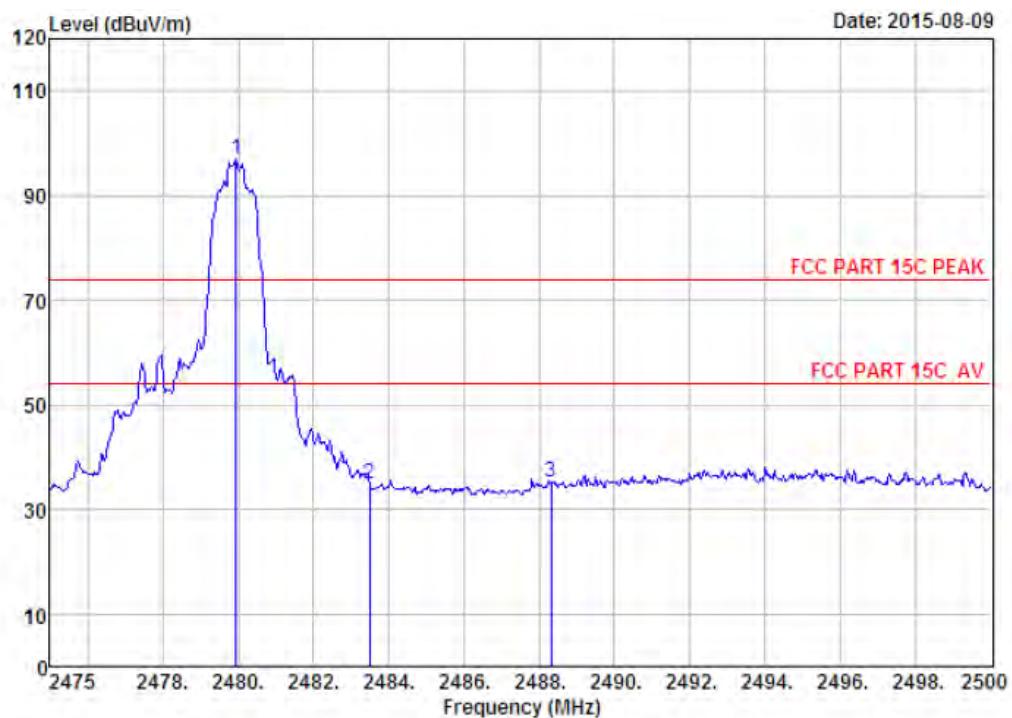
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 847
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz (No Hopping)
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 2479.95	27.58	6.71	34.03	100.71	100.97	74.00	-26.97	Peak
2 2483.50	27.58	6.71	34.03	37.53	37.79	74.00	36.21	Peak
3 2488.63	27.58	6.73	34.03	33.28	33.56	74.00	40.44	Peak

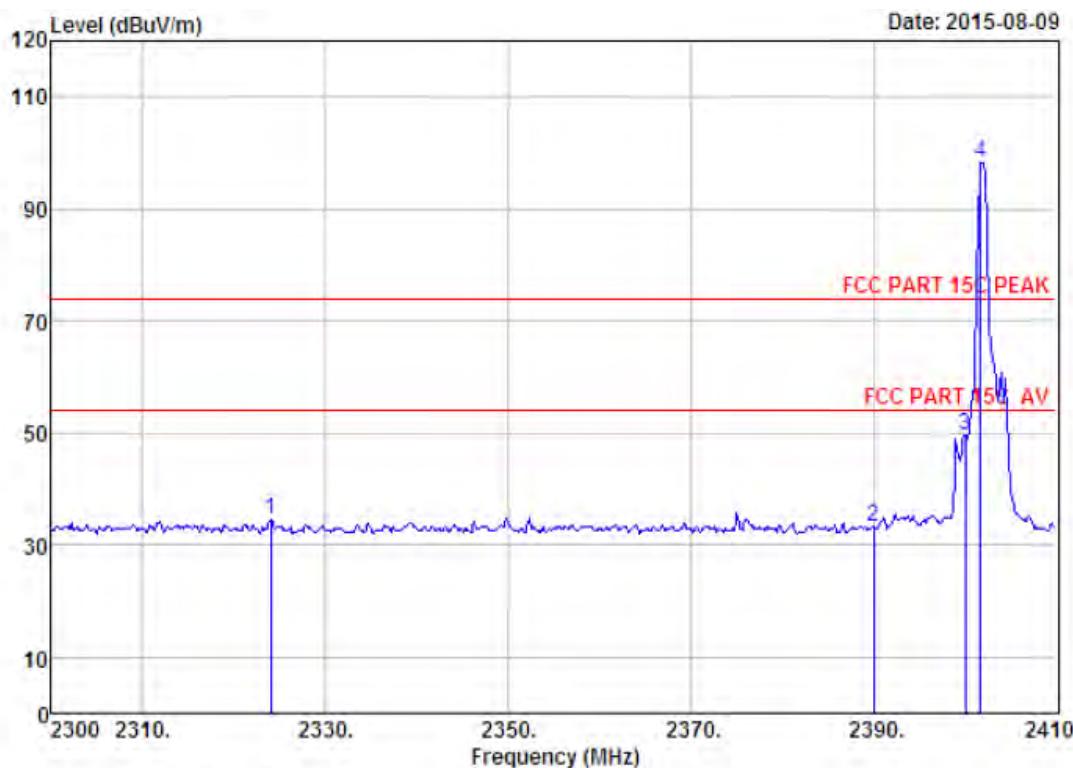
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 848
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz (No Hopping)
 Adapter 1

	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	2479.95	27.58	6.71	34.03	96.85	97.11	74.00	-23.11	Peak
2	2483.50	27.58	6.71	34.03	34.55	34.81	74.00	39.19	Peak
3	2488.33	27.58	6.73	34.03	34.86	35.14	74.00	38.86	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.

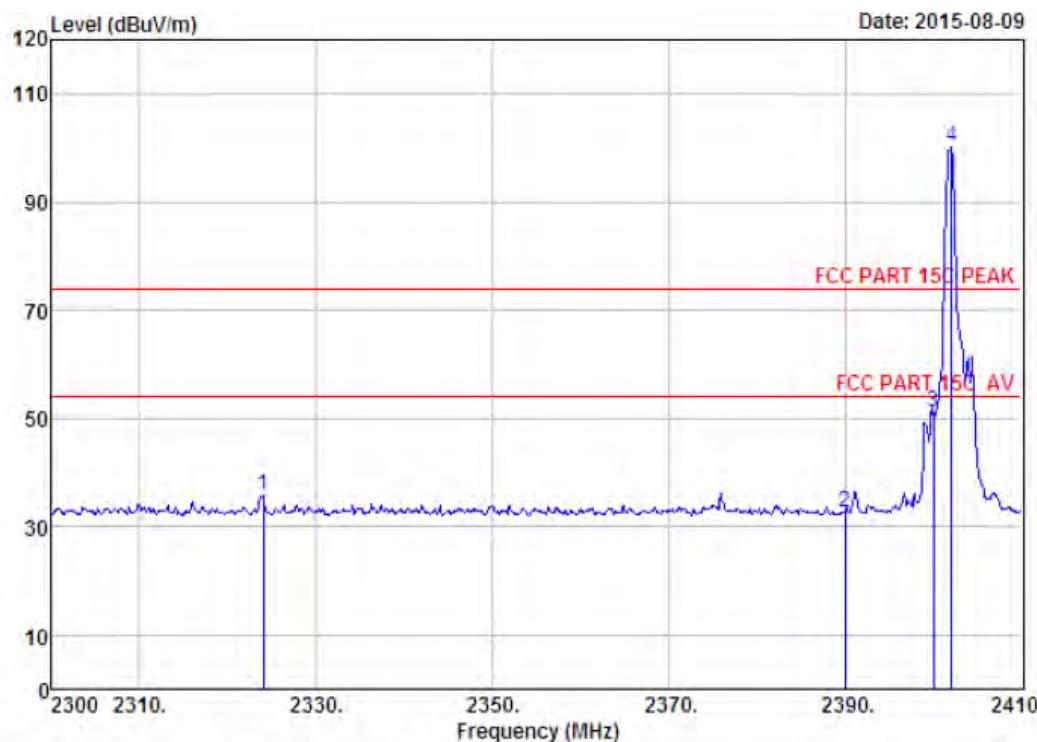


Site no. : 1# 966 chamber Data no. : 909
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101,52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK IX 2402MHz (No Hopping)
 Adapter 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2323.98	27.73	6.54	34.23	34.66	34.70	74.00	39.30	Peak
2	2390.00	27.64	6.62	34.19	33.10	33.17	74.00	40.83	Peak
3	2400.00	27.61	6.62	34.18	49.69	49.74	74.00	24.26	Peak
4	2401.75	27.61	6.62	34.18	98.30	98.35	74.00	-24.35	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

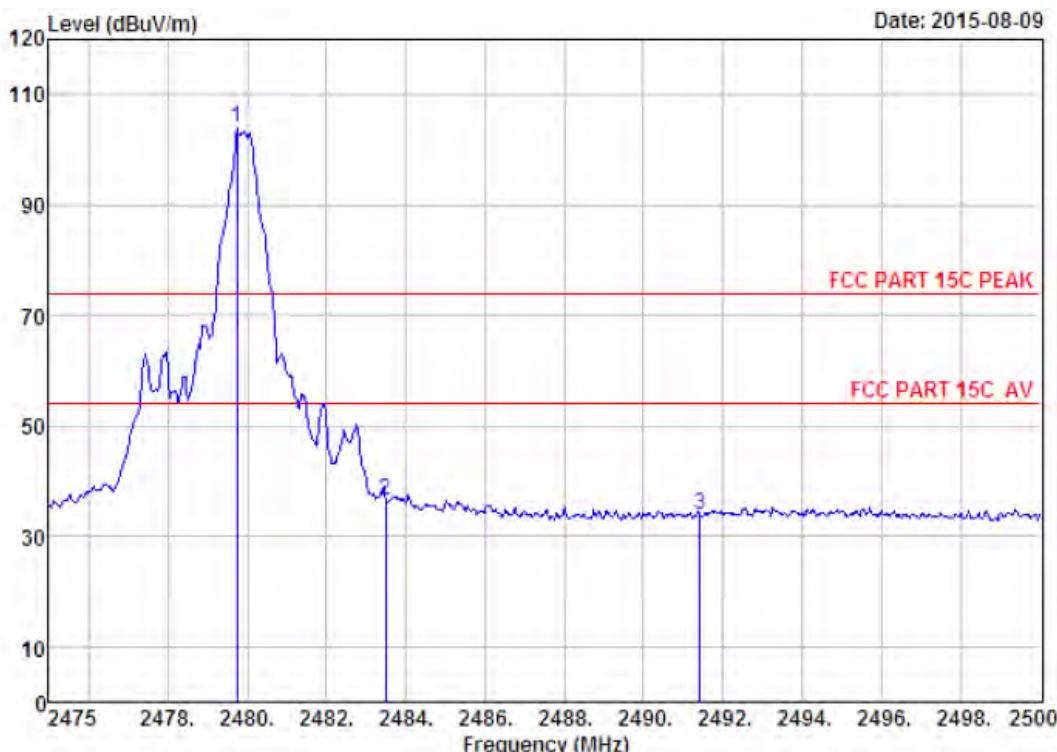
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 910
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz (No Hopping)
 Adapter 2

	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	2323.98	27.73	6.54	34.23	35.66	35.70	74.00	38.30	Peak
2	2390.00	27.64	6.62	34.19	32.63	32.70	74.00	41.30	Peak
3	2400.00	27.61	6.62	34.18	51.18	51.23	74.00	22.77	Peak
4	2402.08	27.61	6.62	34.18	100.01	100.06	74.00	-26.06	Peak

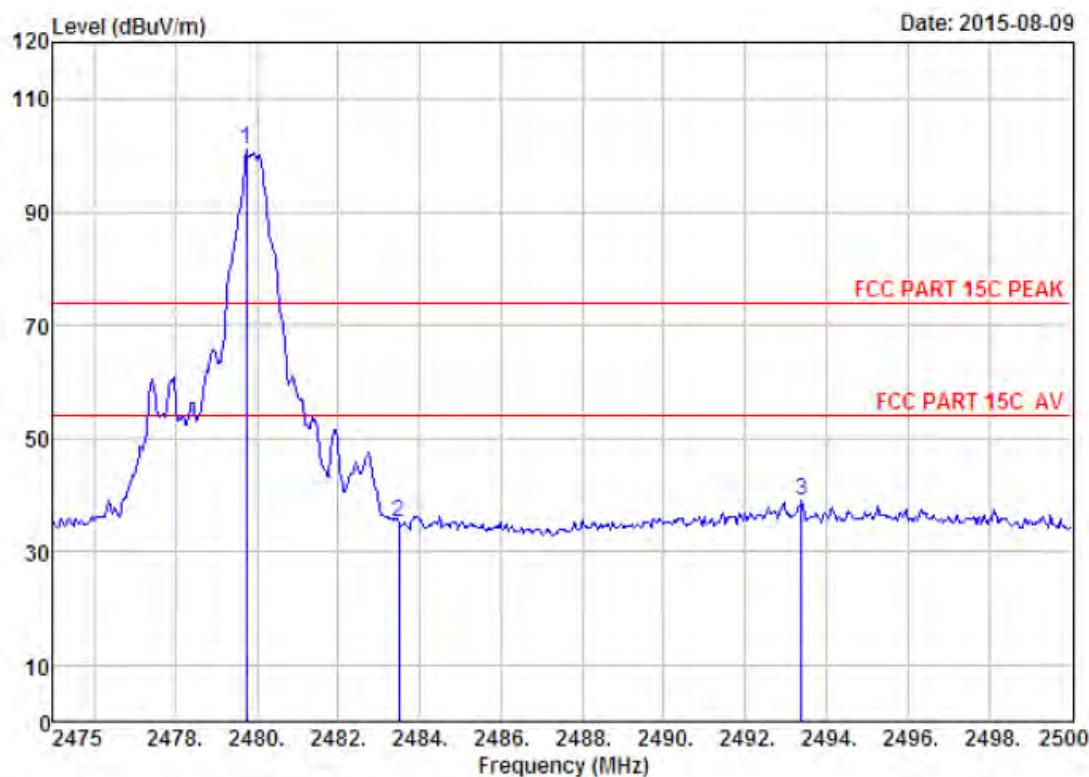
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 915
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz (No Hopping)
 Adapter 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.75	27.58	6.71	34.03	103.85	104.11	74.00	-30.11	Peak
2	2483.50	27.58	6.71	34.03	36.35	36.61	74.00	37.39	Peak
3	2491.43	27.58	6.73	34.03	33.65	33.93	74.00	40.07	Peak

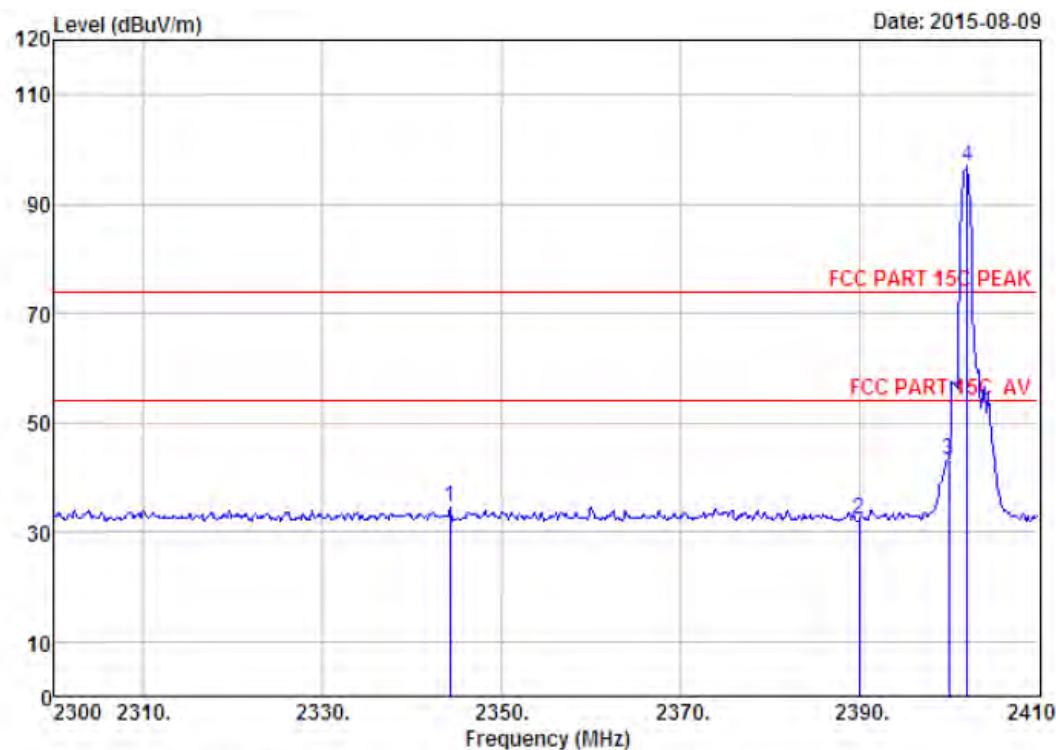
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 916
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz (No Hopping)
 Adapter 2

	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	2479.75	27.58	6.71	34.03	100.94	101.20	74.00	-27.20	Peak
2	2483.50	27.58	6.71	34.03	35.10	35.36	74.00	38.64	Peak
3	2493.38	27.58	6.73	34.03	38.61	38.89	74.00	35.11	Peak

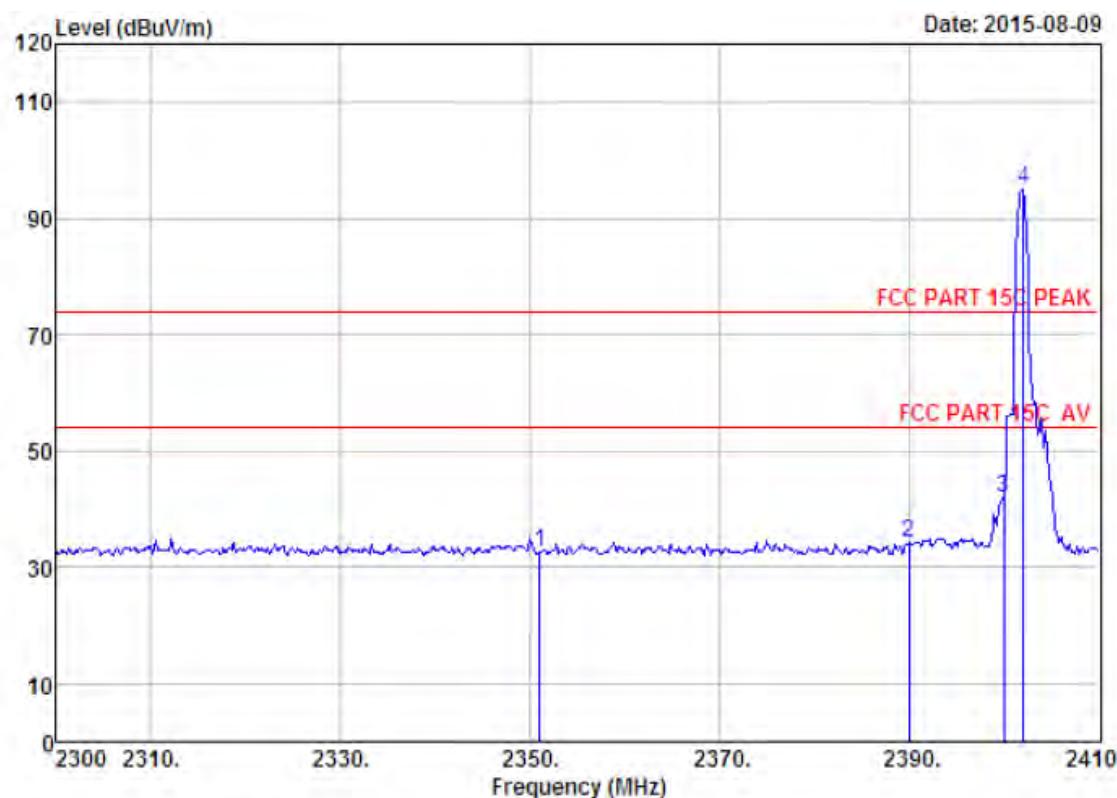
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 919
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK IX 2402MHz (No Hopping)
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission				Remark
					Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 2344.22	27.70	6.56	34.22	34.44	34.48	74.00	-39.52	Peak	
2 2390.00	27.64	6.62	34.19	32.12	32.19	74.00	-41.81	Peak	
3 2400.00	27.61	6.62	34.18	43.24	43.29	74.00	-30.71	Peak	
4 2402.08	27.61	6.62	34.18	96.77	96.82	74.00	-22.82	Peak	

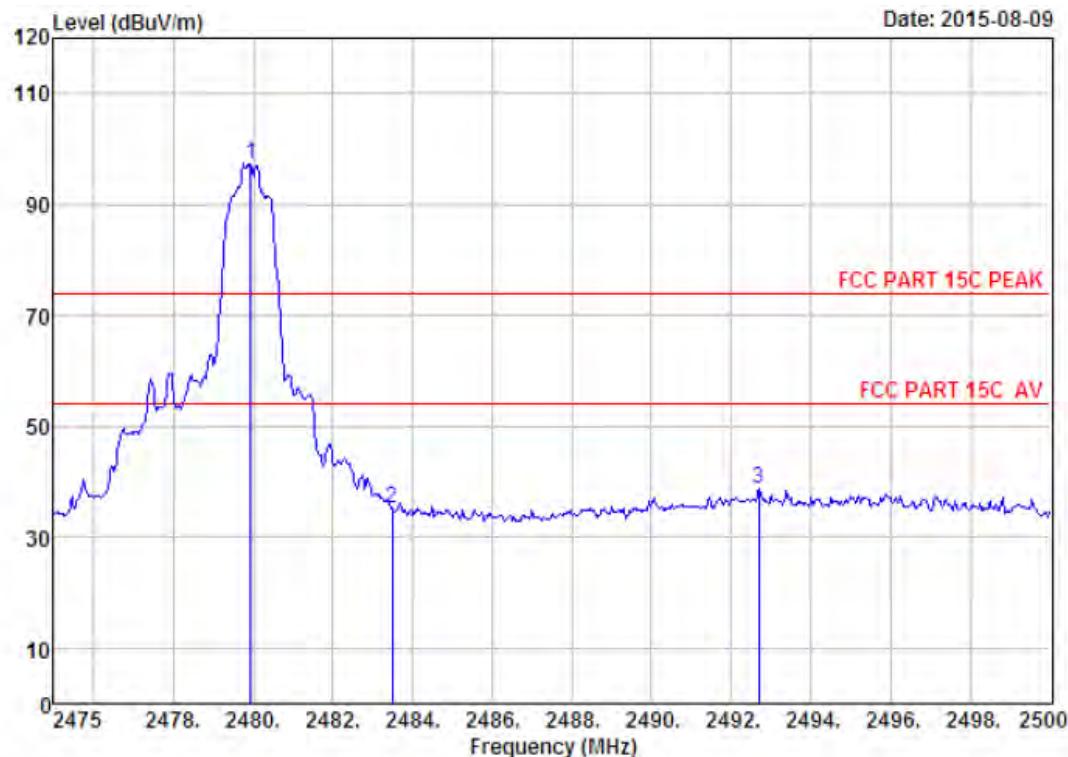
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 920
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK IX 2402MHz (No Hopping)
 Adapter 2

	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	2351.04	27.70	6.56	34.22	32.53	32.57	74.00	41.43	Peak
2	2390.00	27.64	6.62	34.19	34.03	34.10	74.00	39.90	Peak
3	2400.00	27.61	6.62	34.18	41.78	41.83	74.00	32.17	Peak
4	2402.08	27.61	6.62	34.18	95.08	95.13	74.00	-21.13	Peak

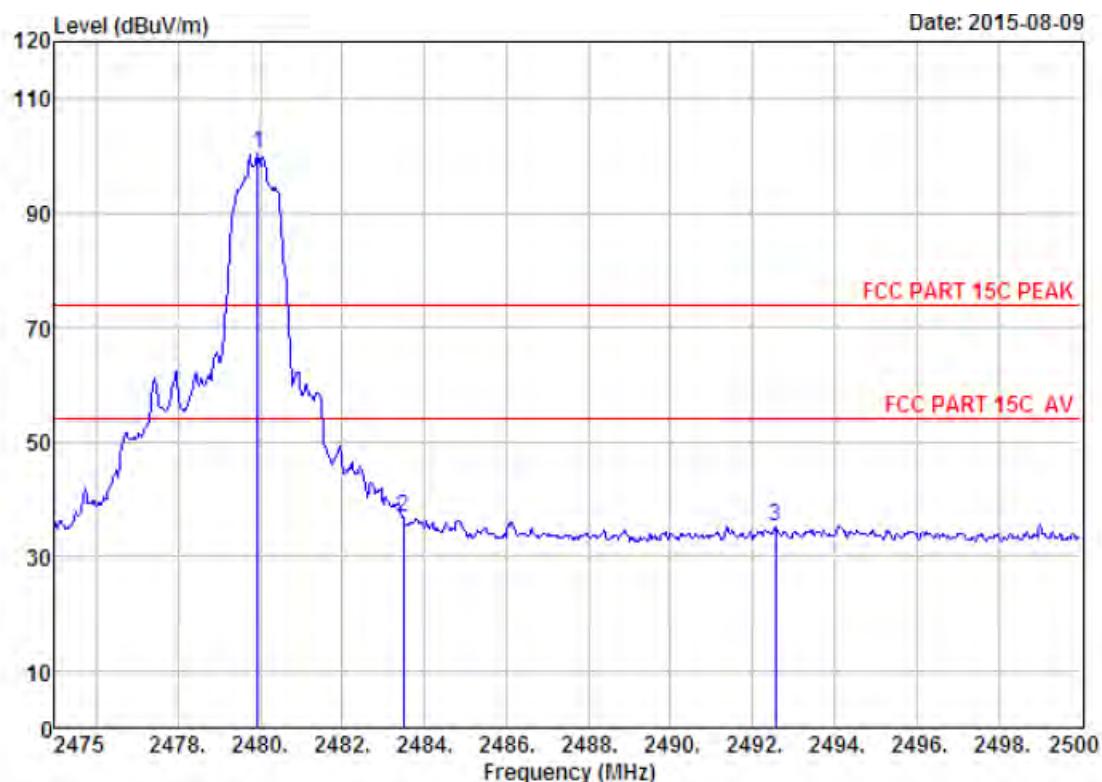
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 925
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz (No Hopping)
 Adapter 2

Freq. (MHz)	Ant, Cable Amp			Emission				Margin (dB)	Remark
	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2479.95	27.58	6.71	34.03	97.09	97.35	74.00	-23.35	Peak	
2 2483.50	27.58	6.71	34.03	34.92	35.18	74.00	38.82	Peak	
3 2492.70	27.58	6.73	34.03	38.47	38.75	74.00	35.25	Peak	

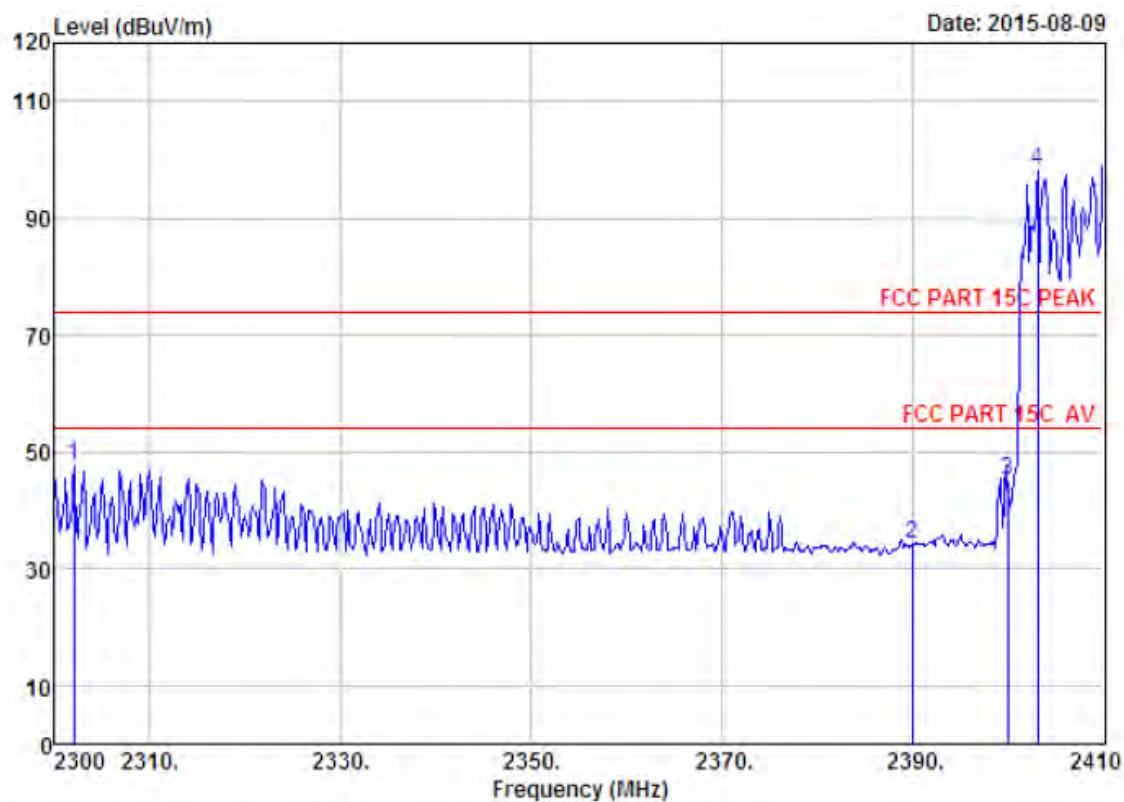
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 926
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz (No Hopping)
 Adapter 2

	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	2479.95	27.58	6.71	34.03	100.32	100.58	74.00	-26.58	Peak
2	2483.50	27.58	6.71	34.03	36.53	36.79	74.00	37.21	Peak
3	2492.55	27.58	6.73	34.03	35.05	35.33	74.00	38.67	Peak

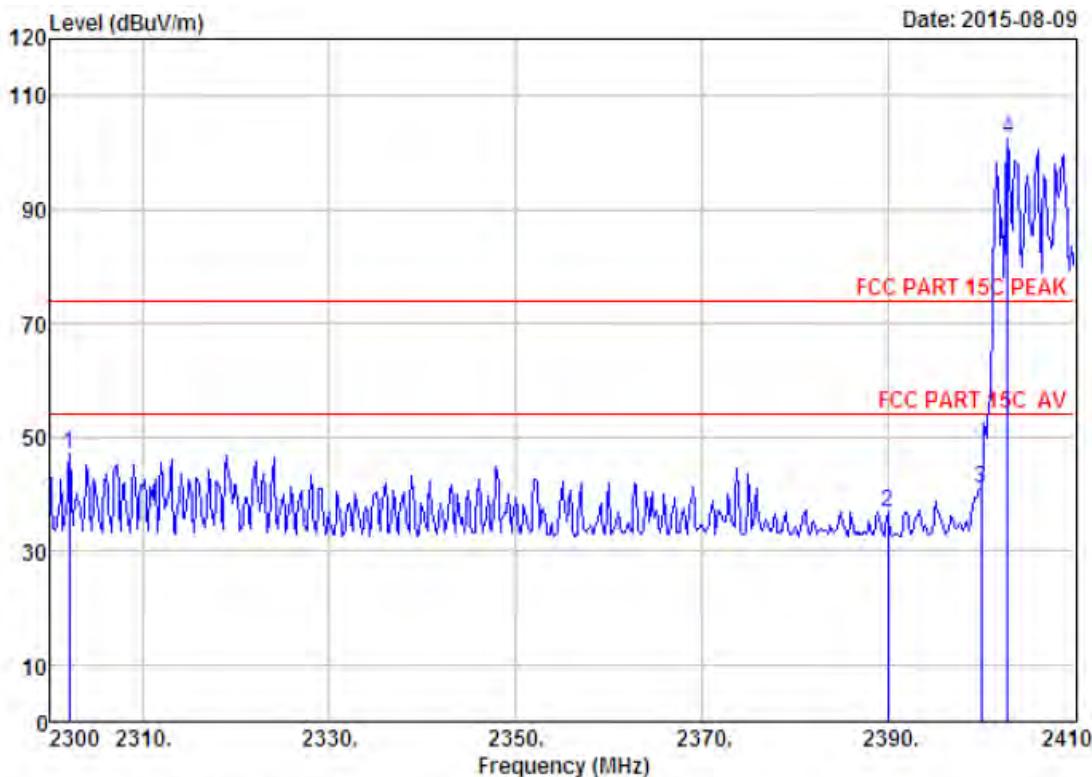
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 849
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humid:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz (Hopping On)
 Adapter 1

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 2301.98	27.79	6.53	34.25	47.74	47.81	74.00	26.19	Peak	
2 2390.00	27.64	6.62	34.19	34.23	34.30	74.00	39.70	Peak	
3 2400.00	27.61	6.62	34.18	45.00	45.05	74.00	28.95	Peak	
4 2403.18	27.61	6.64	34.18	98.13	98.20	74.00	-24.20	Peak	

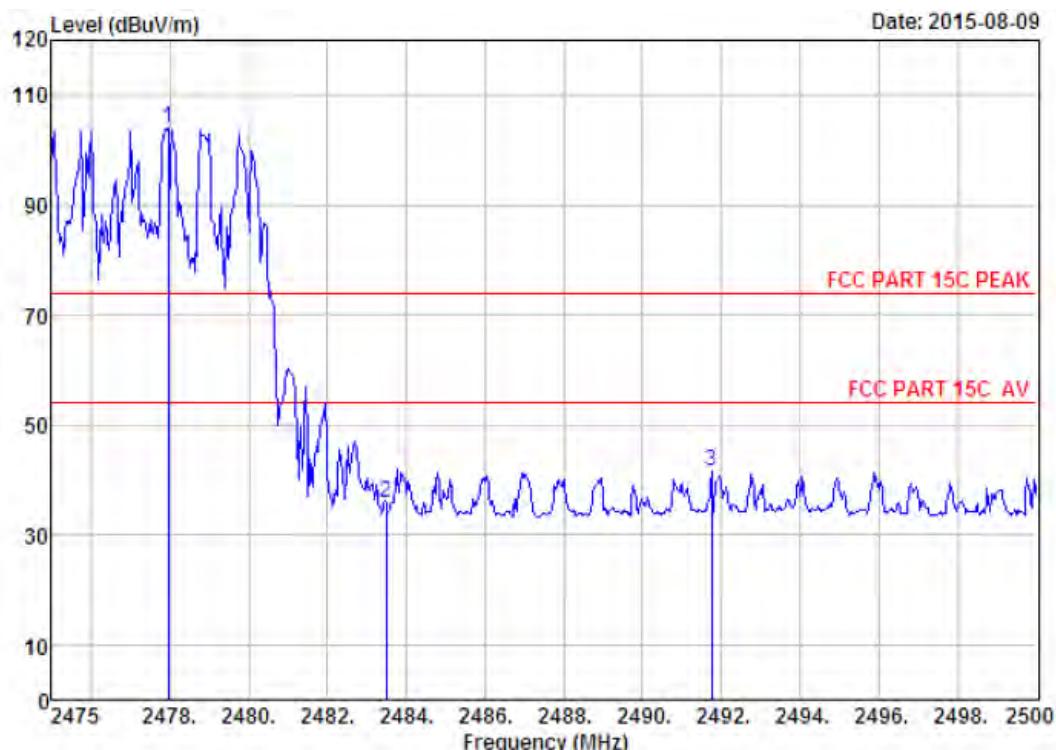
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 850
 Dis. / Ant. : 3m ANTI 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz (Hopping On)
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission				Remark
					Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 2301.98	27.79	6.53	34.25	47.03	47.10	74.00	26.90	Peak	
2 2390.00	27.64	6.62	34.19	36.76	36.83	74.00	37.17	Peak	
3 2400.00	27.61	6.62	34.18	40.87	40.92	74.00	33.08	Peak	
4 2402.85	27.61	6.64	34.18	102.47	102.54	74.00	-28.54	Peak	

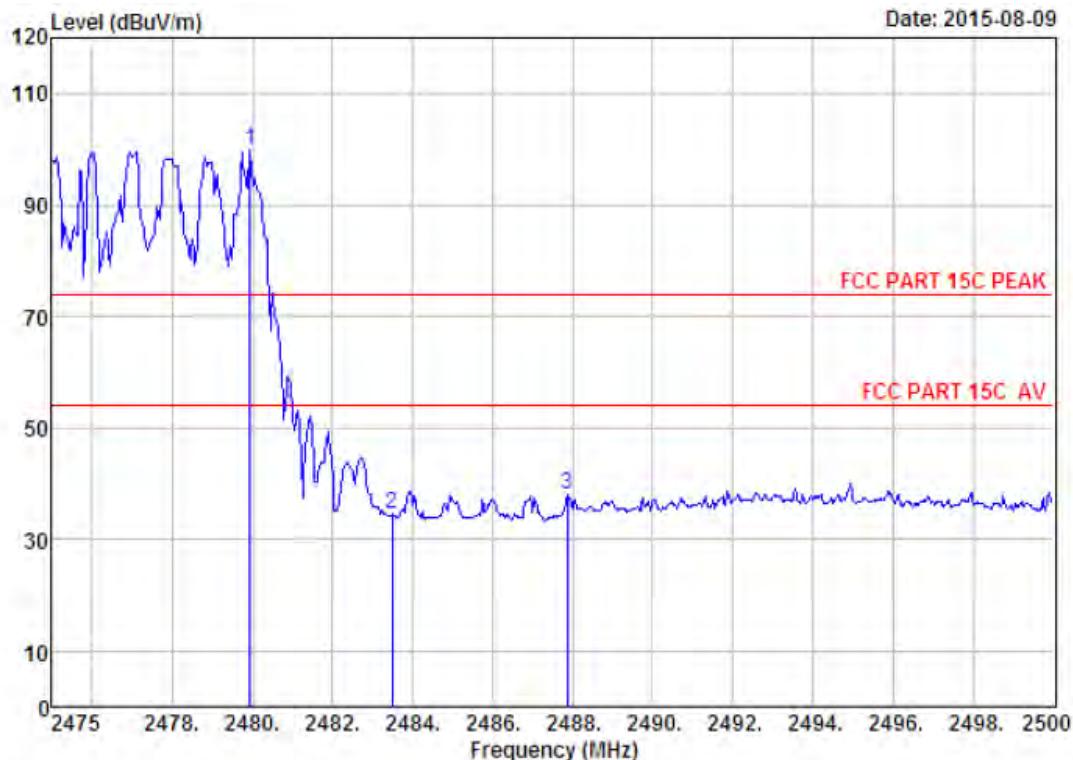
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 851
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz (Hopping On)
 Adapter 1

		Ant.	Cable	Amp	Emission				
Freq.	(MHz)	Factor	Loss	Factor	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2477.95	27.58	6.71	34.03	103.86	104.12	74.00	-30.12	Peak
2	2483.50	27.58	6.71	34.03	35.50	35.76	74.00	38.24	Peak
3	2491.75	27.58	6.73	34.03	41.41	41.69	74.00	32.31	Peak

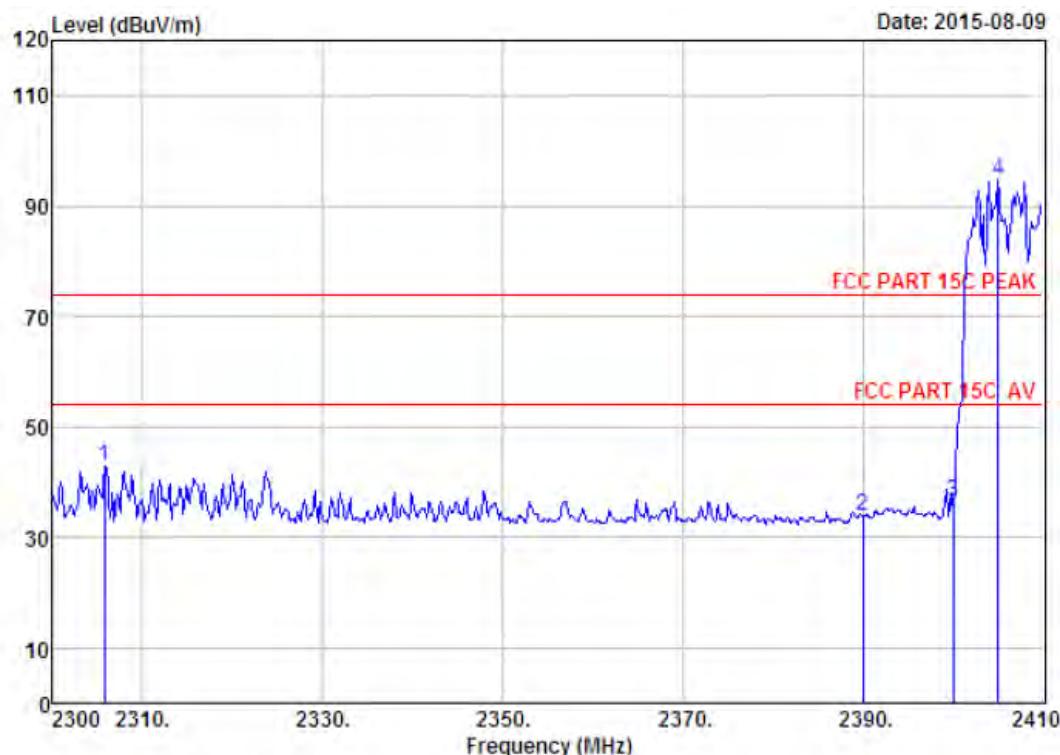
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 852
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz (Hopping On)
 Adapter 1

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 2479.95	27.58	6.71	34.03	99.52	99.78	74.00	-25.78	Peak
2 2483.50	27.58	6.71	34.03	34.34	34.60	74.00	39.40	Peak
3 2487.88	27.58	6.73	34.03	37.83	38.11	74.00	35.89	Peak

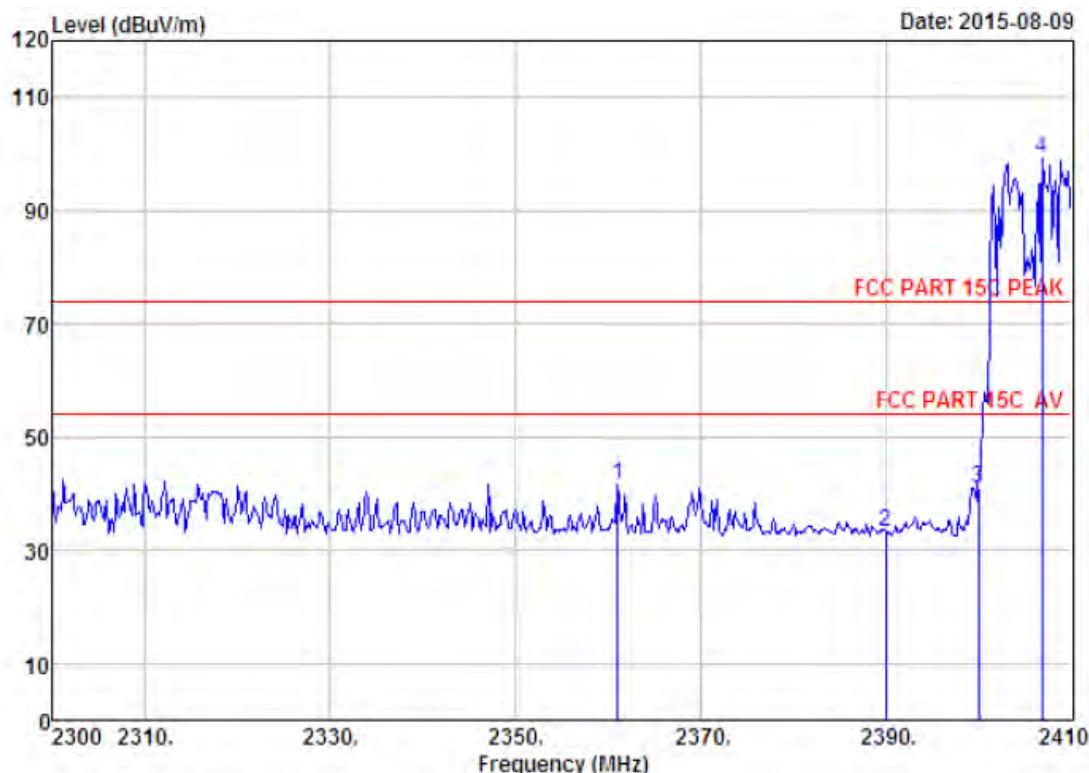
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 853
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz (Hopping On)
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 2305.72	27.76	6.53	34.24	42.81	42.86	74.00	31.14	Peak
2 2390.00	27.64	6.62	34.19	33.89	33.96	74.00	40.04	Peak
3 2400.00	27.61	6.62	34.18	36.40	36.45	74.00	37.55	Peak
4 2405.05	27.61	6.64	34.18	94.58	94.65	74.00	-20.65	Peak

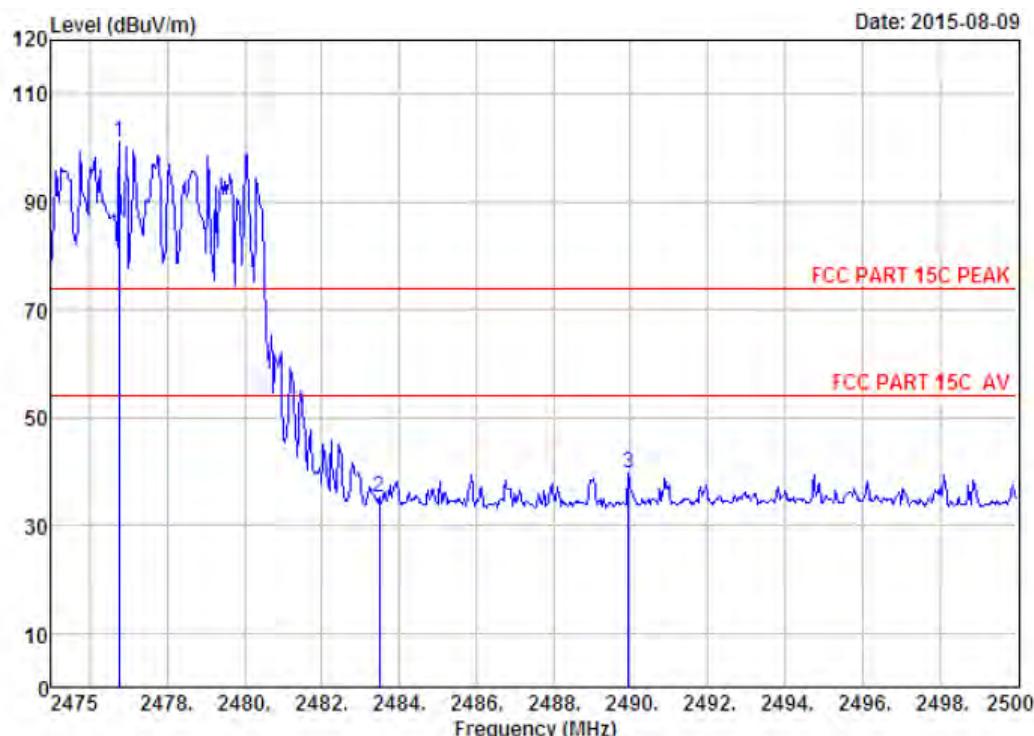
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 854
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz (Hopping On)
 Adapter 1

	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	2361.05	27.67	6.58	34.20	41.53	41.53	74.00	32.42	Peak
2	2390.00	27.64	6.62	34.19	33.26	33.33	74.00	40.67	Peak
3	2400.00	27.61	6.62	34.18	40.56	40.91	74.00	33.09	Peak
4	2406.92	27.61	6.64	34.18	99.22	99.29	74.00	-25.29	Peak

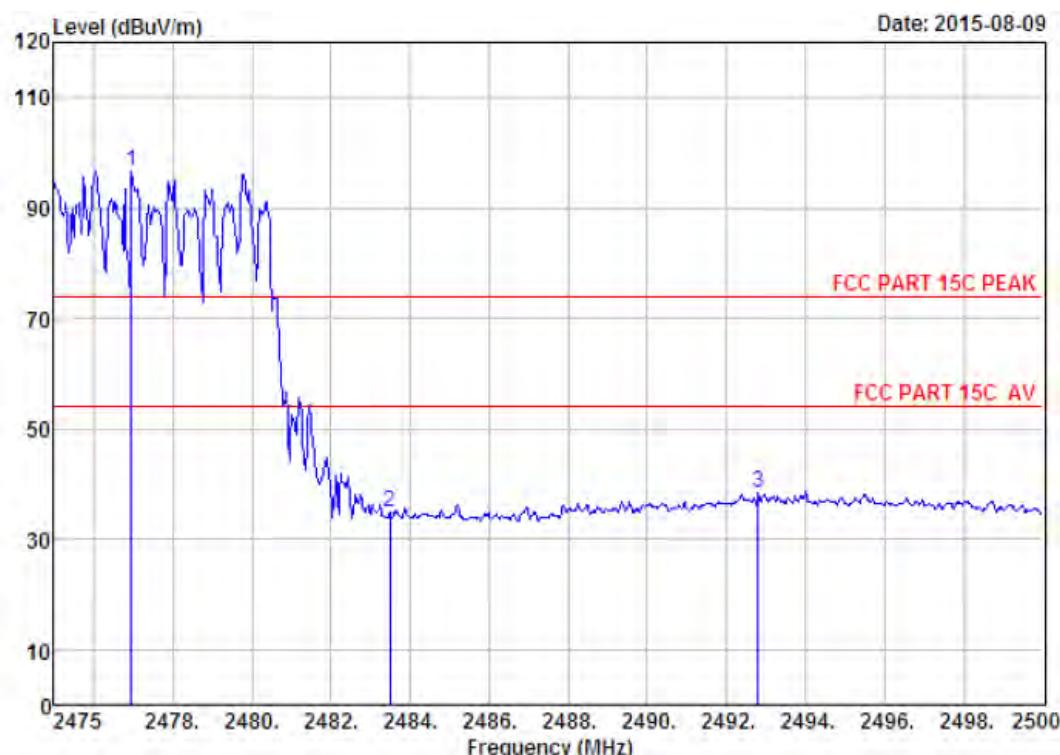
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 855
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz (Hopping On)
 Adapter 1

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1 2476.75	27.58	6.71	34.06	100.86	101.09	74.00	-27.09	Peak
2 2483.50	27.58	6.71	34.03	35.09	35.35	74.00	38.65	Peak
3 2489.95	27.58	6.73	34.03	39.54	39.82	74.00	34.18	Peak

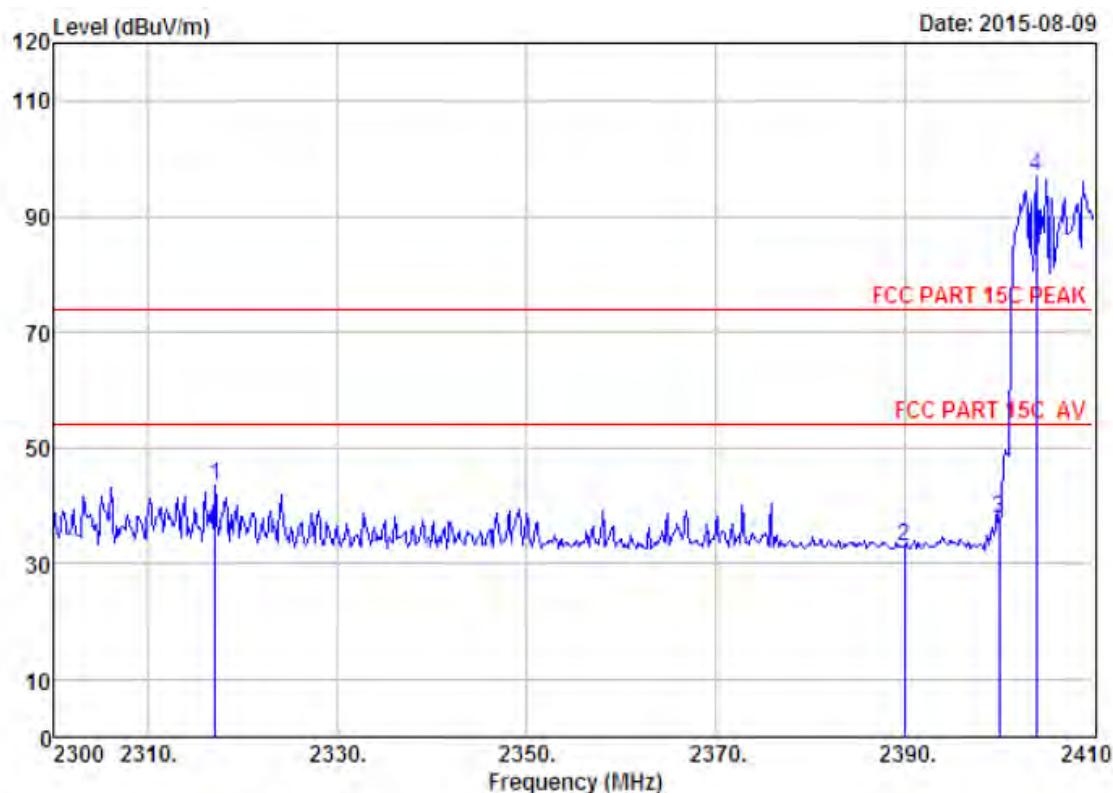
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 856
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK IX 2480MHz (Hopping On)
 Adapter 1

	Freq.	Ant. (MHz)	Cable Factor	Amp Loss	Emission Factor	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2476.95	27.58	6.71	34.06	96.52	96.75	74.00	-22.75	Peak	
2	2483.50	27.58	6.71	34.03	34.77	35.03	74.00	38.97	Peak	
3	2492.80	27.58	6.73	34.03	37.98	38.26	74.00	35.74	Peak	

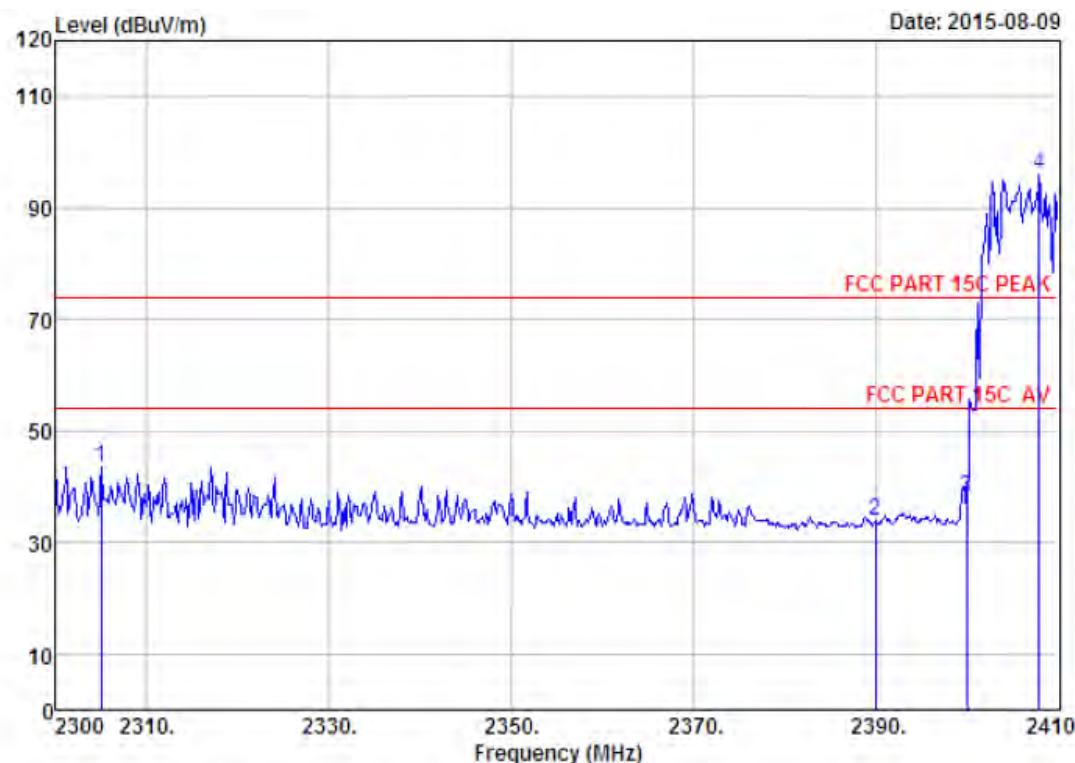
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 927
 Dis. / Ant. : 3m ANT 1-1#G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz (Hopping On)
 Adapter 2

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission				Remark
					Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 2317.05	27.76	6.53	34.24	43.60	43.65	74.00	30.35	Peak	
2 2390.00	27.64	6.62	34.19	32.87	32.94	74.00	41.06	Peak	
3 2400.00	27.61	6.62	34.18	37.61	37.66	74.00	36.34	Peak	
4 2403.95	27.61	6.64	34.18	96.78	96.85	74.00	-22.85	Peak	

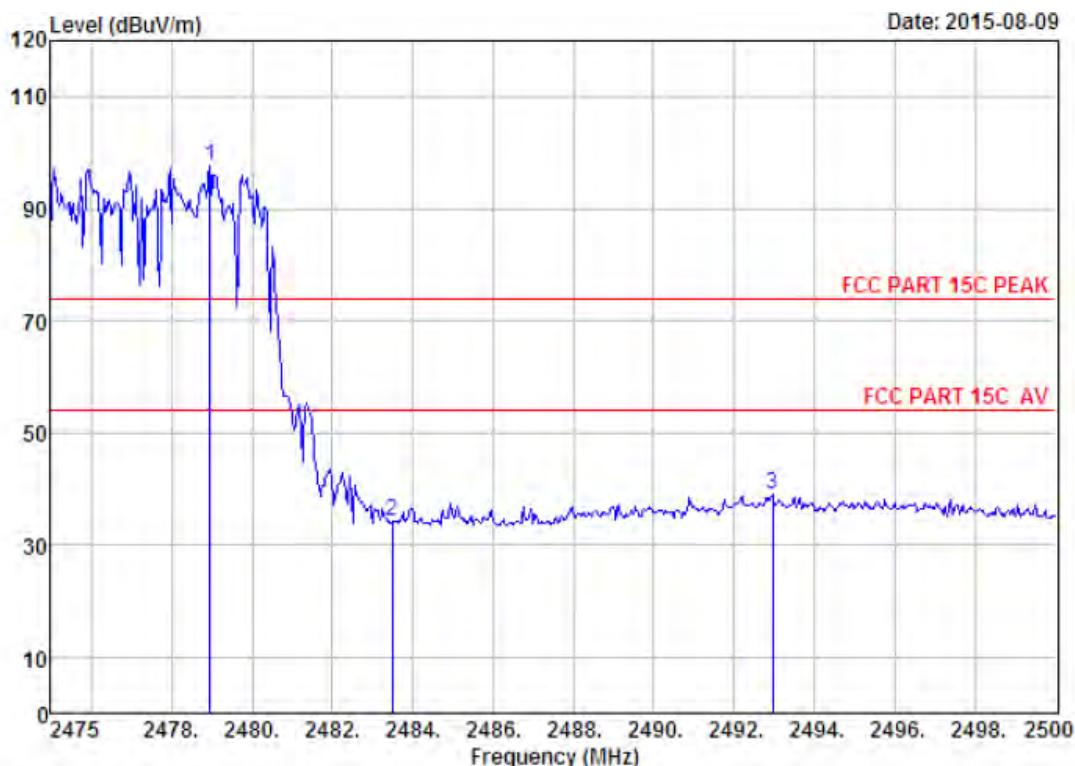
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 928
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2402MHz (Hopping On)
 Adapter 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Level (dBuV/m)	Limita (dBuV/m)	Margin (dB)	Remark
1	2304.95	27.79	6.53	34.25	43.56	43.63	74.00	30.37 Peak
2	2390.00	27.64	6.62	34.19	33.93	34.00	74.00	40.00 Peak
3	2400.00	27.61	6.62	34.18	38.14	38.19	74.00	35.81 Peak
4	2408.02	27.61	6.64	34.18	95.78	95.85	74.00	-21.85 Peak

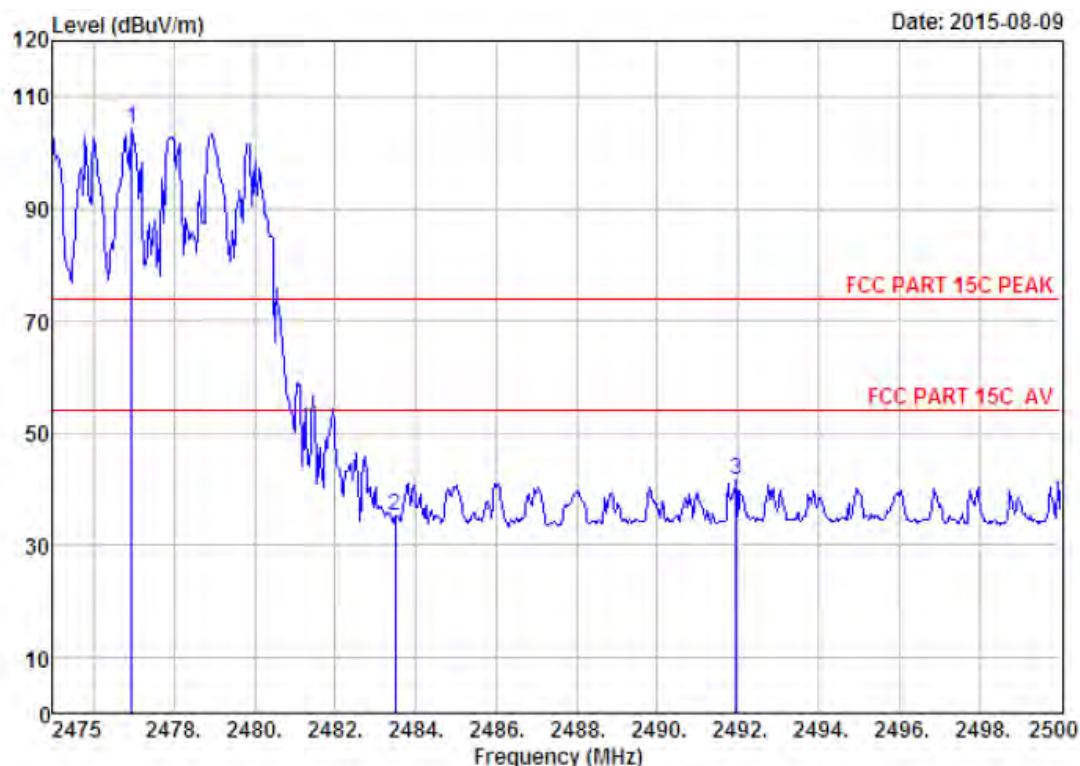
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 929
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK TX 2480MHz (Hopping On)
 Adapter 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2478.95	27.58	6.71	34.03	97.22	97.48	74.00	-23.48	Peak
2	2483.50	27.58	6.71	34.03	34.03	34.29	74.00	39.71	Peak
3	2492.95	27.58	6.73	34.03	38.65	38.93	74.00	35.07	Peak

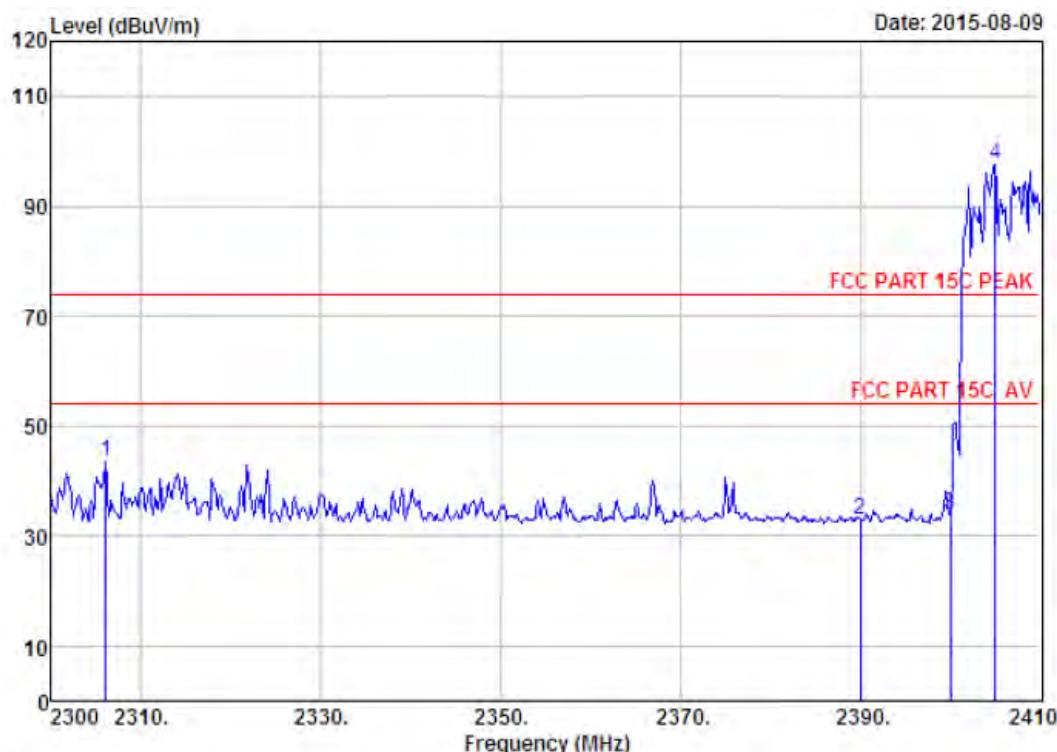
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 930
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : GFSK IX 2480MHz (Hopping On)
 Adapter 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2476.95	27.58	6.71	34.06	104.15	104.38	74.00	-30.38	Peak
2	2483.50	27.58	6.71	34.03	35.03	35.29	74.00	38.71	Peak
3	2491.95	27.58	6.73	34.03	41.20	41.48	74.00	32.52	Peak

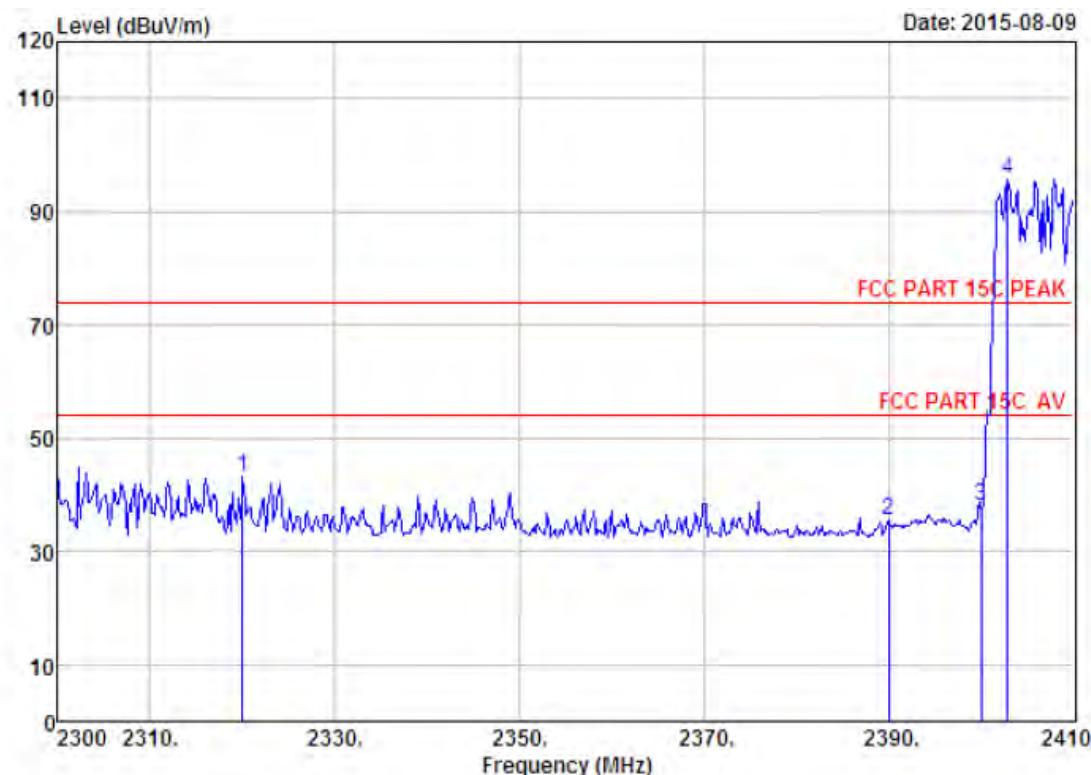
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 931
 Dis. / Ant. : 3m ANTI 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz (Hopping On)
 Adapter 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2306.05	27.76	6.53	34.24	43.61	43.66	74.00	30.34	Peak
2	2390.00	27.64	6.62	34.19	32.96	33.03	74.00	40.97	Peak
3	2400.00	27.61	6.62	34.18	33.94	33.99	74.00	40.01	Peak
4	2405.05	27.61	6.64	34.18	97.65	97.72	74.00	-23.72	Peak

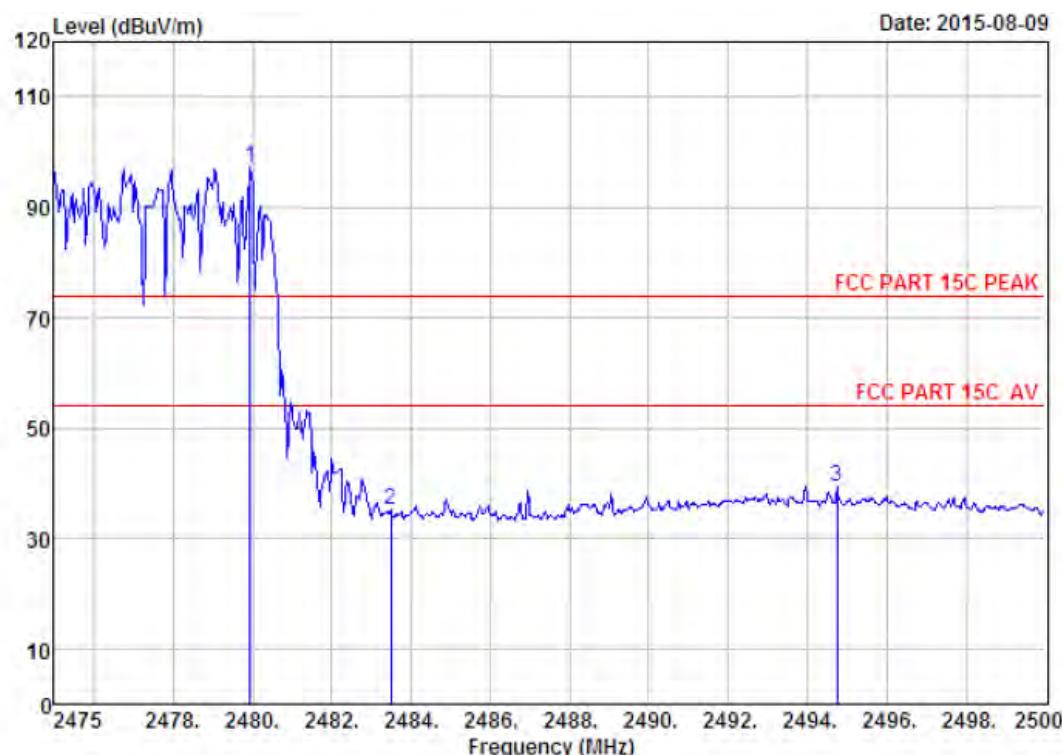
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 932
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2402MHz (Hopping On)
 Adapter 2

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2320.02	27.76	6.54	34.24	43.05	43.11	74.00	30.89	Peak
2	2390.00	27.64	6.62	34.19	35.31	35.38	74.00	38.62	Peak
3	2400.00	27.61	6.62	34.18	37.87	37.92	74.00	36.08	Peak
4	2402.85	27.61	6.64	34.18	95.65	95.72	74.00	-21.72	Peak

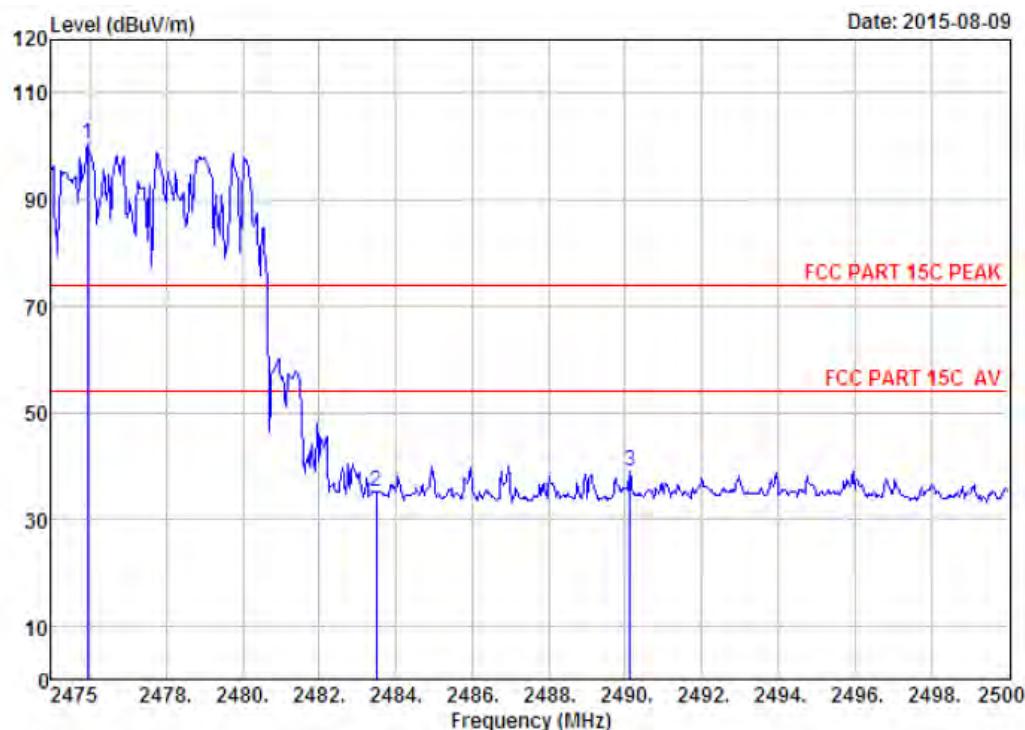
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 chamber Data no. : 933
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DBPSK TX 2480MHz (Hopping On)
 Adapter 2

	Freq.	Ant. (MHz)	Cable Factor (dB/m)	Amp Factor (dB)	Emission Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.95	27.58	6.71	34.03	97.11	97.37	74.00	-23.37	Peak
2	2483.50	27.58	6.71	34.03	34.86	35.12	74.00	38.88	Peak
3	2494.75	27.57	6.73	34.00	39.18	39.48	74.00	34.52	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. : 1# 966 chamber Data no. : 934
 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 : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : 8-DPSK TX 2480MHz (Hopping On)
 Adapter 2

		Ant.	Cable	Amp	Emission			
Freq.	Factor	Loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2475.95	27.58	6.71	34.06	100.39	100.62	74.00	-26.62 Peak
2	2483.50	27.58	6.71	34.03	34.96	35.22	74.00	38.78 Peak
3	2490.13	27.58	6.73	34.03	38.73	39.01	74.00	34.99 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.

10. POWER LINE CONDUCTED EMISSION TEST

10.1. 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.

10.2. Test Procedure

The EUT was placed on a non-metallic table, 10cm 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: 2013 on Conducted Emission Test.

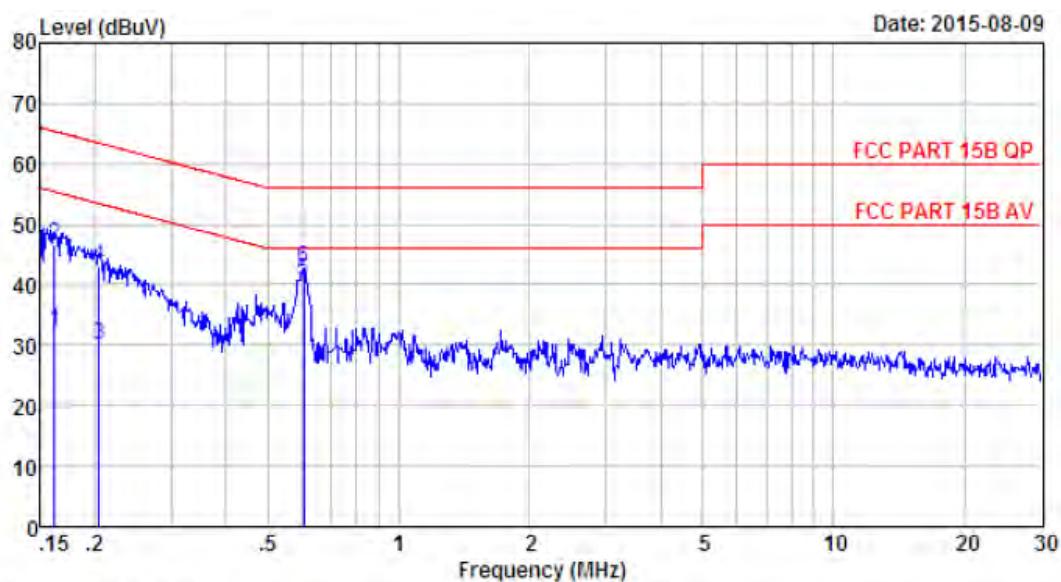
The bandwidth of test receiver (R & S ESHS30) is set at 10kHz.

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

10.3. Result

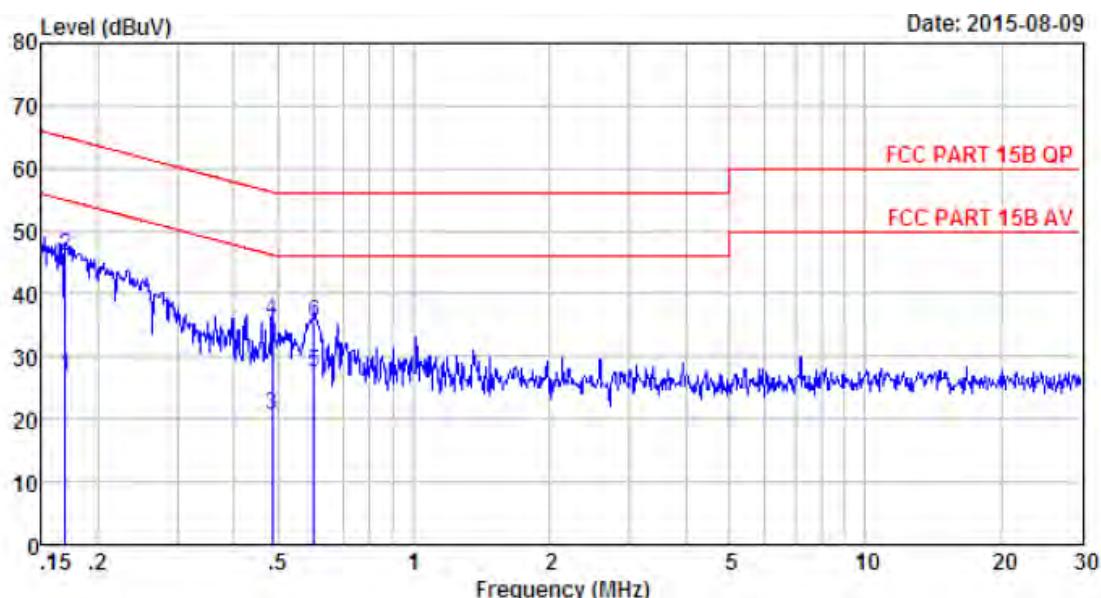
PASS. (All emissions not reported below are too low against the prescribed limits.)

10.4.Data



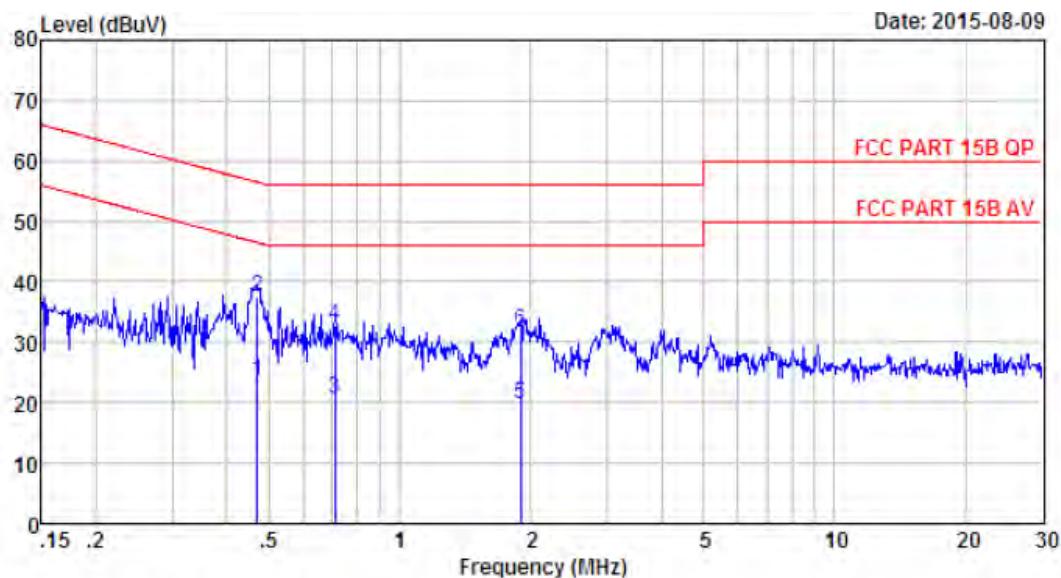
Site no : 844 Shield Room
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa LINE
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : IX Mode
 Adapter 1

	LISN Freq. (MHz)	Cable Factor (dB)	Emission Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
<hr/>								
1	0.16	9.61	9.81	13.12	32.54	55.38	22.84	Average
2	0.16	9.61	9.81	27.12	46.54	65.38	18.84	QP
3	0.20	9.61	9.80	10.65	30.06	53.45	23.39	Average
4	0.20	9.61	9.80	23.65	43.06	63.45	20.39	QP
5	0.60	9.60	9.82	21.36	40.78	46.00	5.22	Average
6	0.60	9.60	9.82	23.36	42.78	56.00	13.22	QP



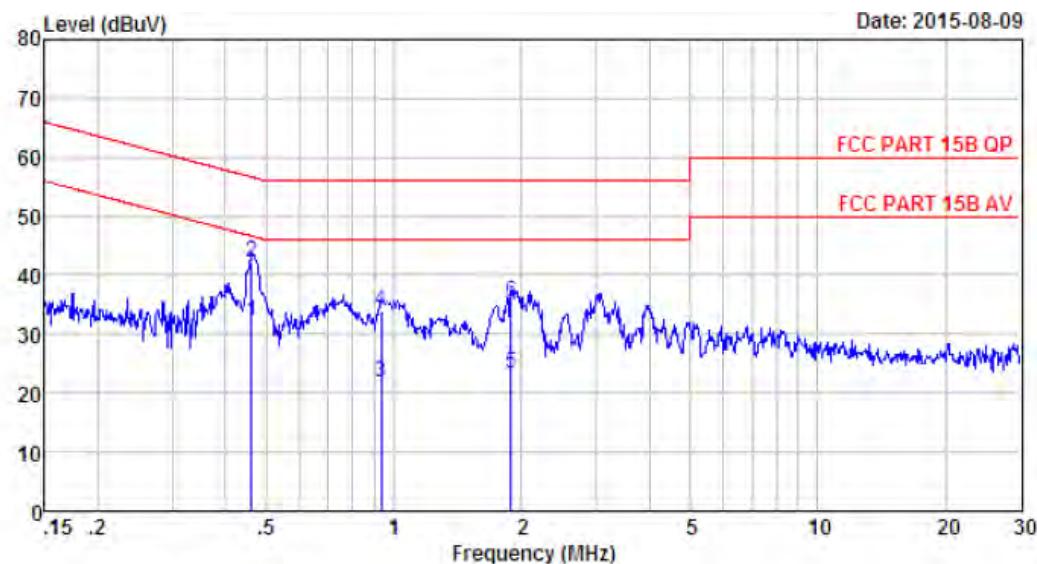
Site no : 844 Shield Room
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa NEUTRAL
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : TX Mode
 Adapter 1

Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Emission				Remark
			Reading (dBuV)	Level (dBuV)	Limits (dBuV)	Margin (dB)	
1 0.17	9.52	9.81	7.67	27.00	54.99	27.99	Average
2 0.17	9.52	9.81	26.67	46.00	64.99	18.99	QP
3 0.49	9.59	9.81	1.33	20.73	46.23	25.50	Average
4 0.49	9.59	9.81	16.33	35.73	56.23	20.50	QP
5 0.60	9.61	9.82	7.98	27.41	46.00	18.59	Average
6 0.60	9.61	9.82	15.98	35.41	56.00	20.59	QP



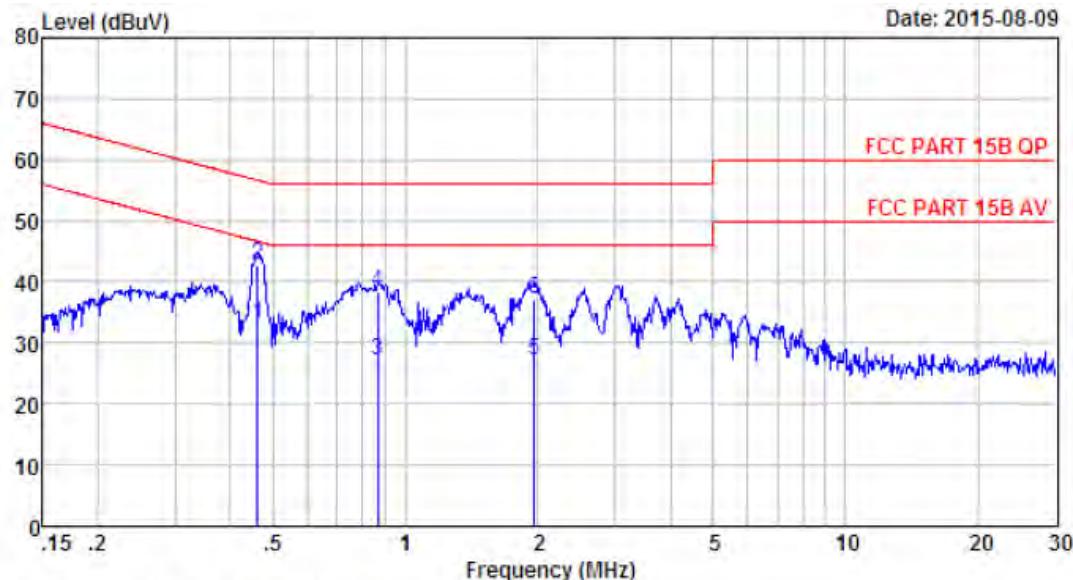
Site no : 844 Shield Room
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa NEUTRAL
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : TX Mode
 Adapter 2

Freq. (MHz)	LISN	Cable	Emission			Margin (dB)	Remark
	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuv)	Limits (dBuv)		
1	0.47	9.59	9.81	4.17	23.57	46.49	Average
2	0.47	9.59	9.81	18.17	37.57	56.49	QP
3	0.71	9.63	9.81	1.26	20.70	46.00	Average
4	0.71	9.63	9.81	13.26	32.70	56.00	QP
5	1.90	9.62	9.84	0.36	19.82	46.00	Average
6	1.90	9.62	9.84	12.36	31.82	56.00	QP



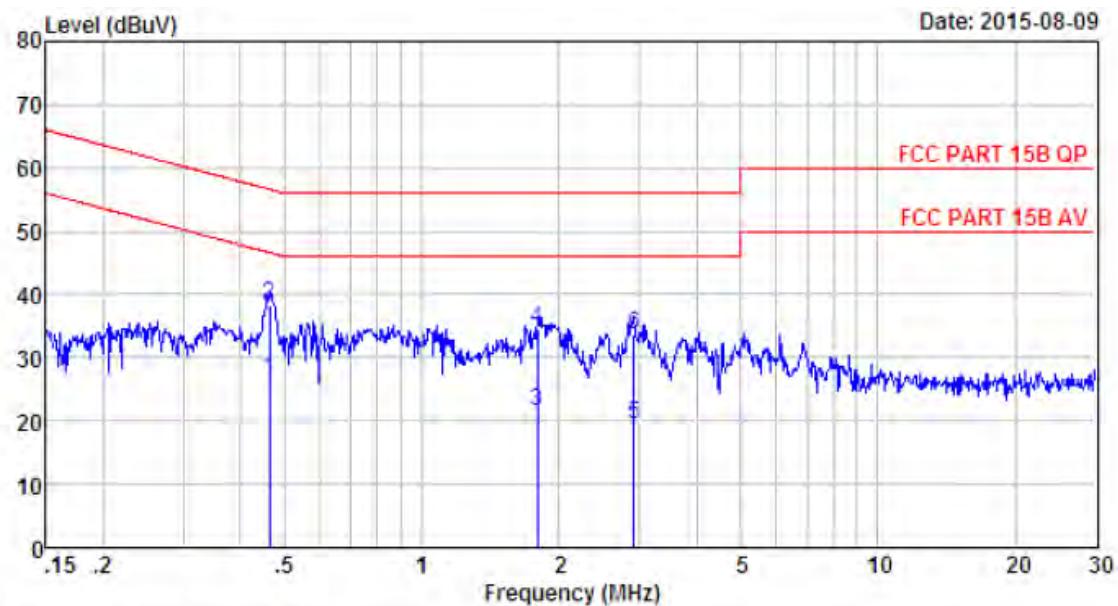
Site no : 844 Shield Room
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa LINE
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : Groove
 Test Mode : TX Mode
 Adapter 2

Freq. (MHz)	LISN	Cable	Emission			Margin (dB)	Remark
	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	Limits (dBuV)		
1	0.46	9.61	9.81	12.67	32.09	46.67	Average
2	0.46	9.61	9.81	22.67	42.09	56.67	QP
3	0.93	9.63	9.82	2.46	21.91	46.00	Average
4	0.93	9.63	9.82	14.46	33.91	56.00	QP
5	1.89	9.61	9.84	3.97	23.42	46.00	Average
6	1.89	9.61	9.84	15.97	35.42	56.00	QP



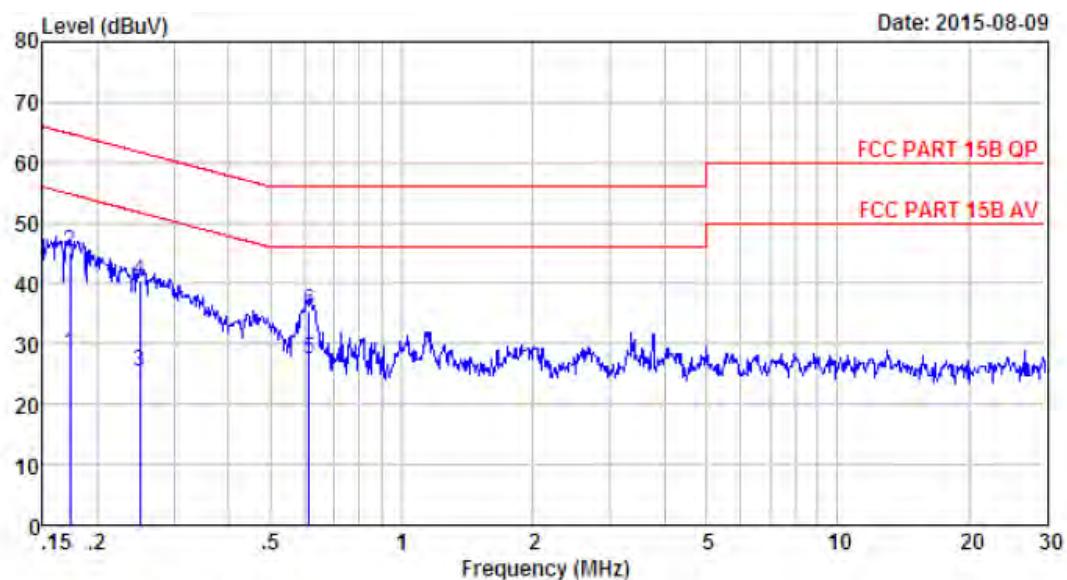
Site no : 844 Shield Room
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa LINE
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 240V/60Hz
 M/N : Groove
 Test Mode : TX Mode
 Adapter 2

Freq. (MHz)	LISN	Cable	Emission			Margin (dB)	Remark
	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	Limits (dBuV)		
1	0.46	9.61	9.81	13.51	32.93	46.67	Average
2	0.46	9.61	9.81	23.51	42.93	56.67	QP
3	0.87	9.62	9.82	7.81	27.25	46.00	Average
4	0.87	9.62	9.82	18.81	36.25	56.00	QP
5	1.96	9.61	9.83	7.70	27.14	46.00	Average
6	1.96	9.61	9.83	17.70	37.14	56.00	QP



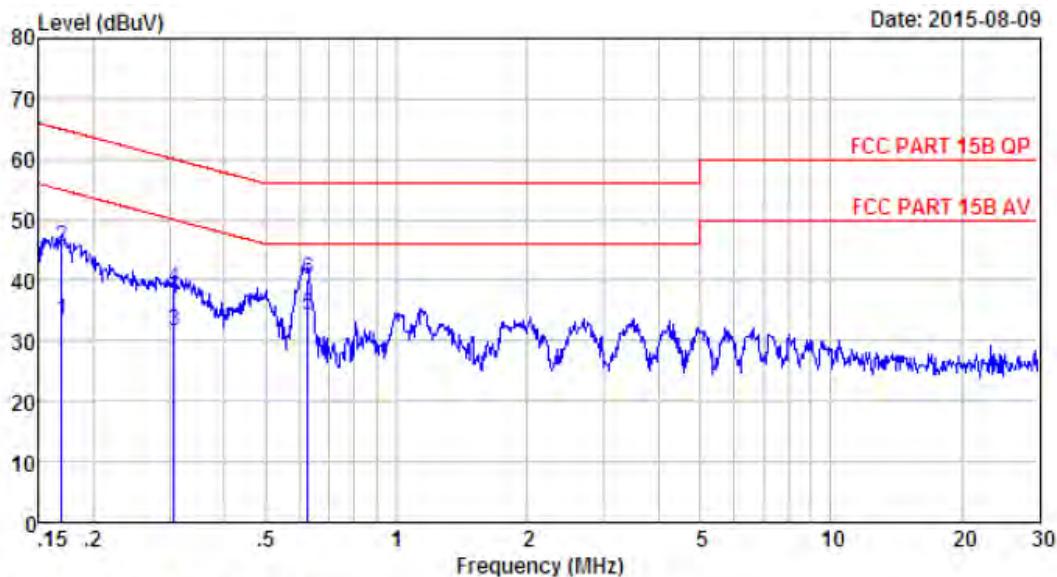
Site no : 844 Shield Room
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa NEUTRAL
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 240V/60Hz
 M/N : Groove
 Test Mode : TX Mode
 Adapter 2

Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission				Remark
				Level (dBuV)	Limits (dBuV)	Margin (dB)		
1	0.46	9.59	9.81	7.12	26.52	46.63	20.11	Average
2	0.46	9.59	9.81	19.12	38.52	56.63	18.11	QP
3	1.79	9.62	9.81	2.09	21.52	46.00	24.48	Average
4	1.79	9.62	9.81	15.09	34.52	56.00	21.48	QP
5	2.92	9.63	9.85	0.13	19.61	46.00	26.39	Average
6	2.92	9.63	9.85	14.13	33.61	56.00	22.39	QP



Site no : 844 Shield Room
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa NEUTRAL
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 240V/60Hz
 M/N : Groove
 Test Mode : TX Mode
 Adapter 1

Freq. (MHz)	LISN	Cable	Emission			Margin (dB)	Remark
	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	Limits (dBuV)		
1	0.17	9.53	9.81	8.94	28.28	54.81	26.53 Average
2	0.17	9.53	9.81	25.94	45.28	64.81	19.53 QP
3	0.25	9.60	9.82	8.99	25.41	51.73	26.32 Average
4	0.25	9.60	9.82	20.99	40.41	61.73	21.32 QP
5	0.61	9.61	9.82	7.95	27.38	46.00	18.62 Average
6	0.61	9.61	9.82	15.95	35.38	56.00	20.62 QP



Site no : 844 Shield Room
 Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa LINE
 Limit : FCC PART 15B QP
 Engineer : Tony
 EUT : Portable Bluetooth Speaker
 Power : DC 5V From Adapter Input AC 240V/60Hz
 M/N : Groove
 Test Mode : TX Mode
 Adapter 1

Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission			Margin (dB)	Remark
				Level (dBuV)	Limits (dBuV)			
1	0.17	9.61	9.81	13.99	33.41	54.99	21.58	Average
2	0.17	9.61	9.81	25.99	45.41	64.99	19.58	QP
3	0.31	9.61	9.83	12.19	31.63	50.06	18.43	Average
4	0.31	9.61	9.83	19.19	38.63	60.06	21.43	QP
5	0.62	9.60	9.81	14.81	34.22	46.00	11.78	Average
6	0.62	9.60	9.81	20.81	40.22	56.00	15.78	QP

11. ANTENNA REQUIREMENTS

11.1. 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.

11.2. Result

The antennas used for this product are Integrated PCB 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 dBi.