


FCC Test Report

Product Name : Headphone

Trade Name : 

Model No. : VIE SHAIR

FCC ID. : NGVVIEH10001

Applicant : Airwave Technologies INC.

Address : 4F, NO.9. INDUSTRY E. 9TH ROAD SCIENCE-BASED
INDUSTRIAL PART, HSINCHU, TAIWAN, R.O.C.

Date of Receipt : Oct. 28, 2016

Issued Date : Dec. 20, 2016

Report No. : 16B0054R-RFUSP01V00

Report Version : V1.0



The test results relate only to the samples tested.


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Test Report Certification

Issued Date : Dec. 20, 2016

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Applicant : Airwave Technologies INC.
Address : 4F, NO.9. INDUSTRY E. 9TH ROAD SCIENCE-BASED
INDUSTRIAL PART, HSINCHU, TAIWAN, R.O.C.
Manufacturer : Airwave Technologies INC.
Model No. : VIE SHAIR
FCC ID. : NGVVIEH10001
EUT Voltage : DC 4.2V (Power by Battery)
AC 110V/60Hz (Power by PC)
Testing Voltage : DC 4.2V (Power by Battery)
AC 110V/60Hz (Power by PC)
Trade Name : 
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2015
Test Lab : Hsin Chu Laboratory
Test Result : Complied

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Documented By :



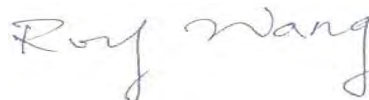
(Demi Chang / Senior Engineering Adm. Specialist)

Tested By :



(Scott Chang / Assistant Engineer)

Approved By :



(Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
16B0054R-RFUSP01V00	V1.0	Initial issue of report	Dec. 20, 2016

Laboratory Information

We, **Quietek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C.	:	TAF, Accreditation Number: 3024
USA	:	FCC, Registration Number: 834100
Canada	:	IC, Submission No: 181665 / IC Registration Number: 4075C-4

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site:<http://www.quietek.com/english/about/certificates.aspx?bval=5>

The address and introduction of Quietek Corporation's laboratories can be founded in our Web site :
http://www.quietek.com/index_en.aspx

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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1. General Information

1.1. EUT Description

Product Name	Headphone
Trade Name	
Model No.	VIE SHAIR
Frequency Range/Channel Number	2402~2478MHz / 26 Channels
Type of Modulation	GFSK

Antenna Information	
Antenna Type	PCB Antenna
Antenna Gain	4.75dBi

Accessories Information	
Audio Cable	Non-Shielded, 1.2m
micro USB Cable	Non-Shielded, 1.5m

Working Frequency of Each Channel					
Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01	2403 MHz	Channel 10	2430 MHz	Channel 19	2457 MHz
Channel 02	2406 MHz	Channel 11	2433 MHz	Channel 20	2460 MHz
Channel 03	2409 MHz	Channel 12	2436 MHz	Channel 21	2463 MHz
Channel 04	2412 MHz	Channel 13	2439 MHz	Channel 22	2466 MHz
Channel 05	2415 MHz	Channel 14	2442 MHz	Channel 23	2469 MHz
Channel 06	2418 MHz	Channel 15	2445 MHz	Channel 24	2472 MHz
Channel 07	2421 MHz	Channel 16	2448 MHz	Channel 25	2475 MHz
Channel 08	2424 MHz	Channel 17	2451 MHz	Channel 26	2478 MHz
Channel 09	2427 MHz	Channel 18	2454 MHz		

Note:

1. This device is Headphone including BT3.0, BT4.2 and 2.4G transmitting function.
2. These test results on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regards to the frequency band operation; the lowest 、middle and highest frequency of channel were selected to perform the test, and then shown on this report.

1.2. Test Mode

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Pre-Test Mode	
Test Mode	Mode 1: Transmit Mode Mode 2: Transmit Mode-Power by PC
Final Test Mode	
Test Mode	Mode 1: Transmit Mode Mode 2: Transmit Mode-Power by PC

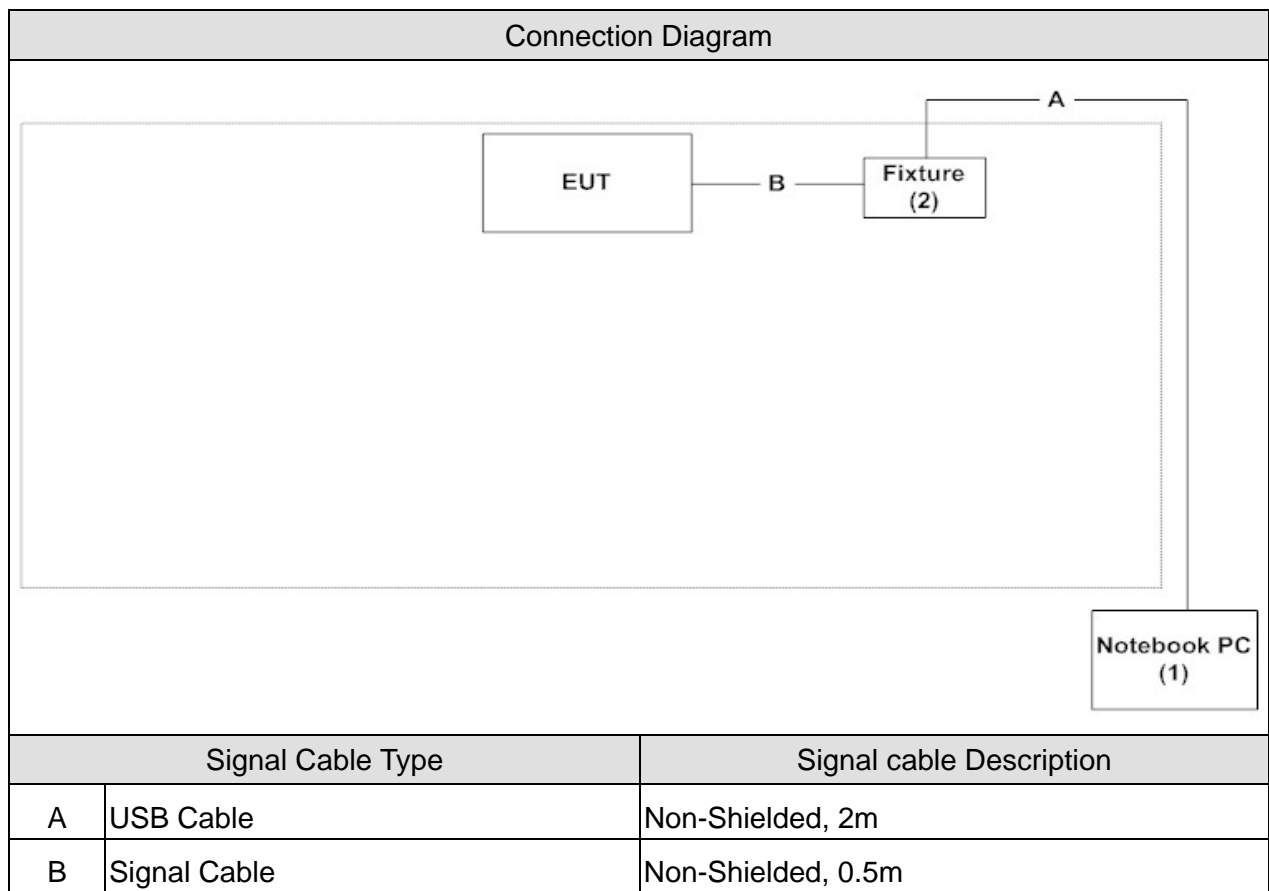
Test Items	Mode	Modulation	Channel	Antenna	Result
Conducted Emission	2	GFSK	13	0	Complies
Peak Power Output	1	GFSK	01/13/26	0	Complies
Radiated Emission	1/2	GFSK	01/13/26	0	Complies
RF antenna conducted test	1	GFSK	01/13/26	0	Complies
Radiated Emission Band Edge	1	GFSK	01/26	0	Complies
Occupied Bandwidth	1	GFSK	01/13/26	0	Complies
Power Density	1	GFSK	01/13/26	0	Complies

1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	ASUS	K45VD 3110M	DoC	Non-Shielded, 1.8m
2	Fixture	Airwave	N/A	DoC	--

1.4. Configuration of tested System



1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5.
2	Turn on the EUT and tested equipment power.
3	Configure the test mode, the test channel, and the data rate.
4	Press "Start TX" to start the continuous transmitting.
5	Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission	15 - 35	24
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission	15 - 35	25
Humidity (%RH)		25 - 75	54
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge	15 - 35	25
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 RF antenna conducted test	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Power Density	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

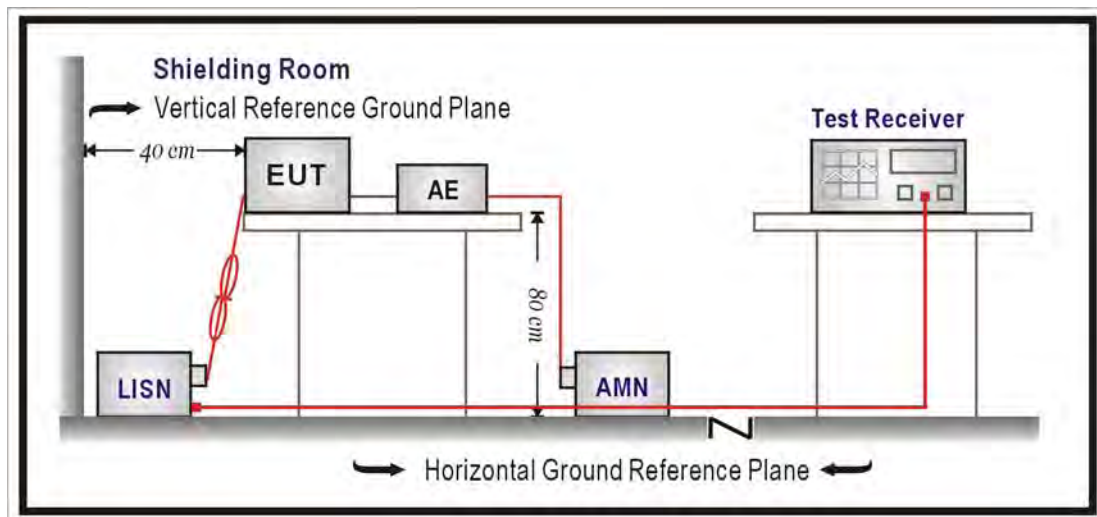
The following test equipments are used during the test:

Conducted Emission / SR2

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2017/01/20
LISN	R&S	ENV216	100092	2017/08/16
Test Receiver	R&S	ESCS 30	825442/014	2017/06/29

Note: All equipments that need to calibrate are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.5. Test Specification

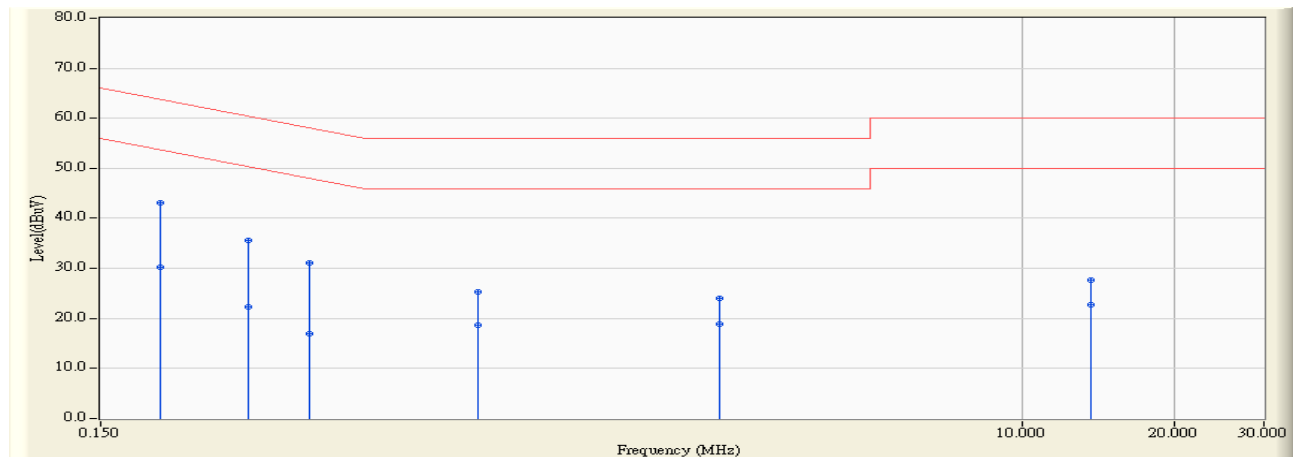
According to FCC Part 15 Subpart C Paragraph 15.207: 2015

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR2	Time : 2016/12/13 - 11:24
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR2_LISN(16A)-6_0712 - Line1	Power : AC 120V / 60Hz
EUT : Headphone	Note : Mode 2: Transmit Mode-Power by PC

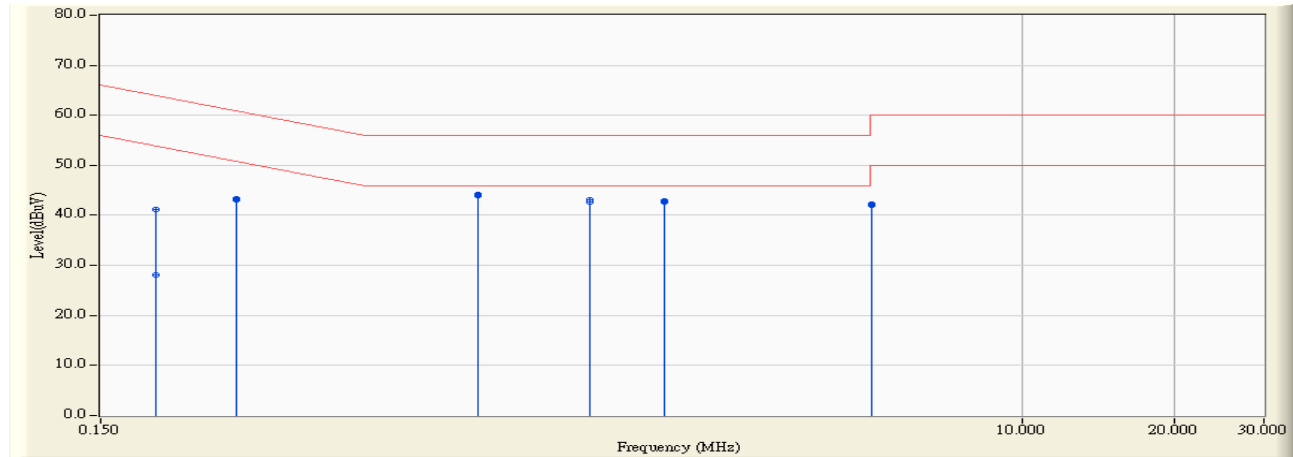


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.197	9.750	33.400	43.150	-20.591	63.741	QUASIPeAK
2		0.197	9.750	20.400	30.150	-23.591	53.741	AVERAGE
3		0.295	9.741	25.880	35.621	-24.775	60.396	QUASIPeAK
4		0.295	9.741	12.660	22.401	-27.995	50.396	AVERAGE
5		0.388	9.731	21.320	31.051	-27.049	58.100	QUASIPeAK
6		0.388	9.731	7.200	16.931	-31.169	48.100	AVERAGE
7		0.838	9.790	15.560	25.350	-30.650	56.000	QUASIPeAK
8		0.838	9.790	8.950	18.740	-27.260	46.000	AVERAGE
9		2.505	9.875	14.240	24.115	-31.885	56.000	QUASIPeAK
10		2.505	9.875	9.020	18.895	-27.105	46.000	AVERAGE
11		13.654	10.196	17.460	27.656	-32.344	60.000	QUASIPeAK
12		13.654	10.196	12.500	22.696	-27.304	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR2	Time : 2016/12/13 - 11:28
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR2_LISN(16A)-6_0712 - Line2	Power : AC 120V / 60Hz
EUT : Headphone	Note : Mode 2: Transmit Mode-Power by PC



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.193	9.751	31.420	41.171	-22.737	63.908	QUASIPeAK
2		0.193	9.751	18.350	28.101	-25.807	53.908	AVERAGE
3		0.279	9.750	33.660	43.410	-17.438	60.848	QUASIPeAK
4		0.279	9.750	33.280	43.030	-7.818	50.848	AVERAGE
5		0.838	9.795	34.300	44.095	-11.905	56.000	QUASIPeAK
6	*	0.838	9.795	34.110	43.905	-2.095	46.000	AVERAGE
7		1.392	9.832	33.180	43.012	-12.988	56.000	QUASIPeAK
8		1.392	9.832	32.910	42.742	-3.258	46.000	AVERAGE
9		1.951	9.849	33.120	42.969	-13.031	56.000	QUASIPeAK
10		1.951	9.849	32.910	42.759	-3.241	46.000	AVERAGE
11		5.021	9.860	32.320	42.180	-17.820	60.000	QUASIPeAK
12		5.021	9.860	32.170	42.030	-7.970	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

3. Peak Power Output

3.1. Test Equipment

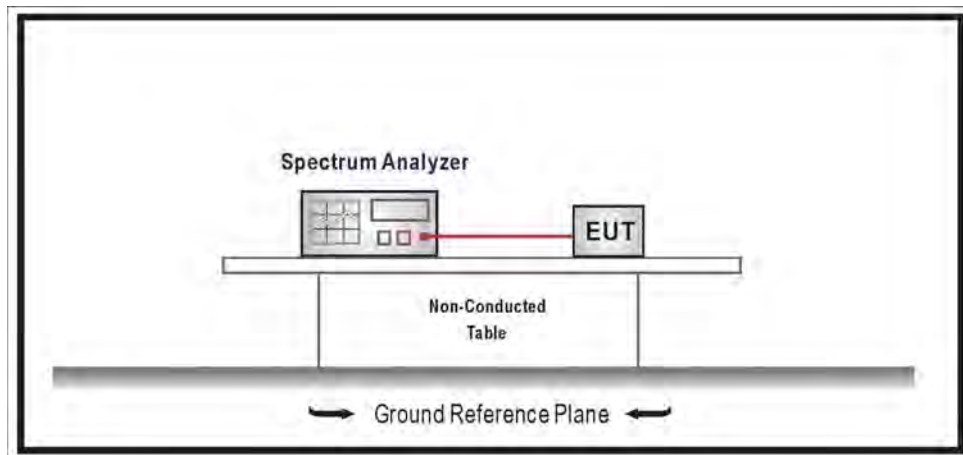
The following test equipment is used during the test:

Peak Power Output / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	US47140172	2017/08/08
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05
Signal Analyzer	R&S	FSV7	101650	2017/11/15

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

3.2. Test Setup



3.3. Test procedures

The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements.

3.4. Limits

The maximum peak power shall be less 1 Watt.

3.5. Test Specification

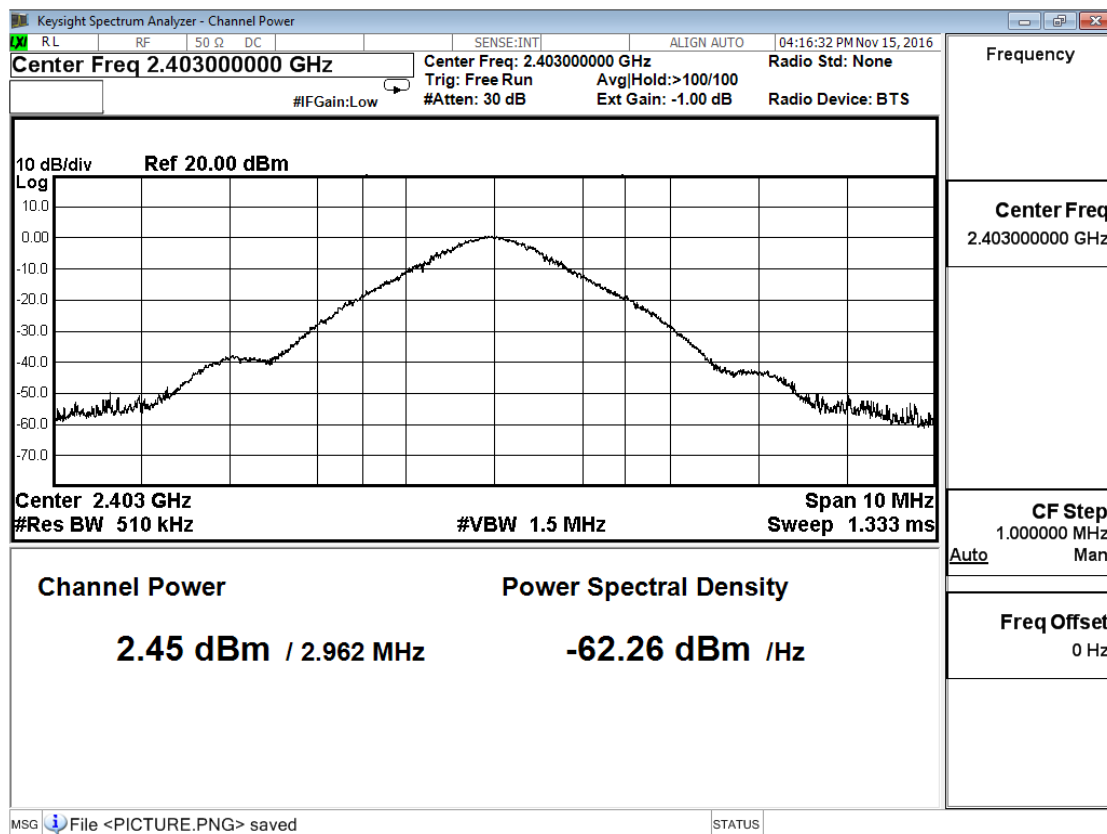
According to FCC Part 15 Subpart C Paragraph 15.247

3.6. Test Result

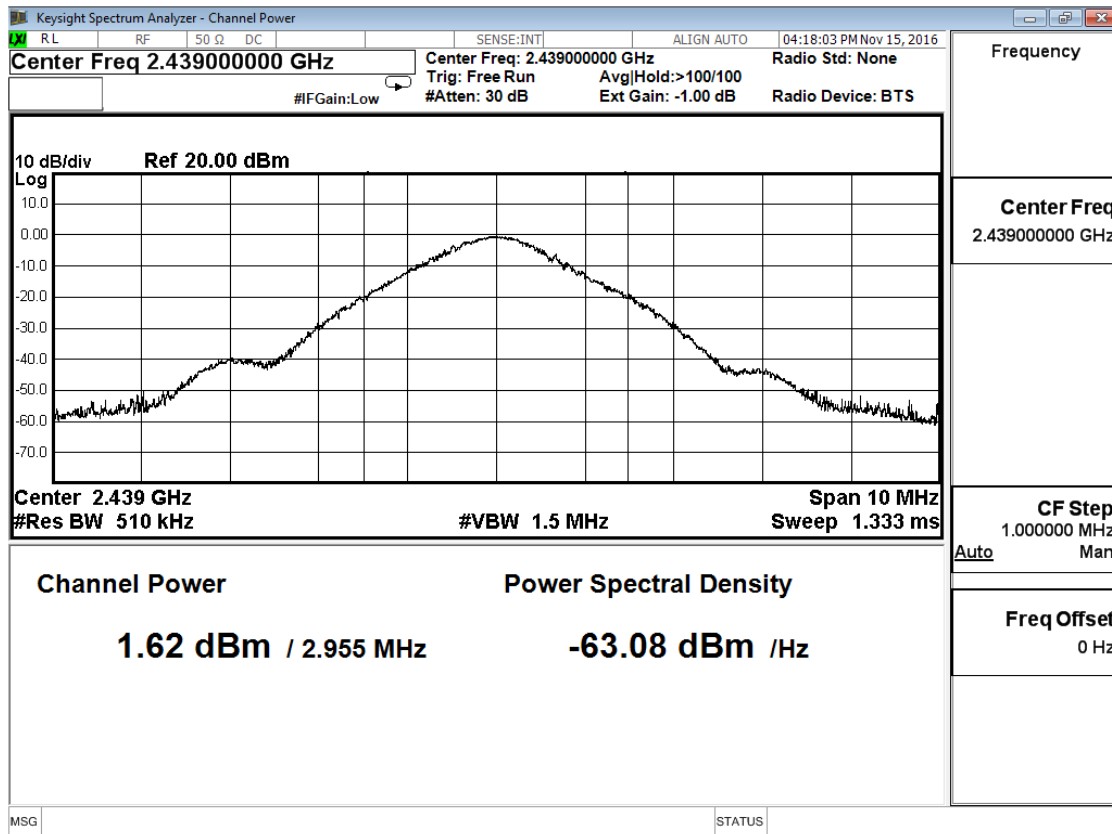
Product	Headphone		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2016/11/15	Test Site	SR7

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2403	2.45	≤ 30	Pass
13	2439	1.62	≤ 30	Pass
26	2478	1.47	≤ 30	Pass

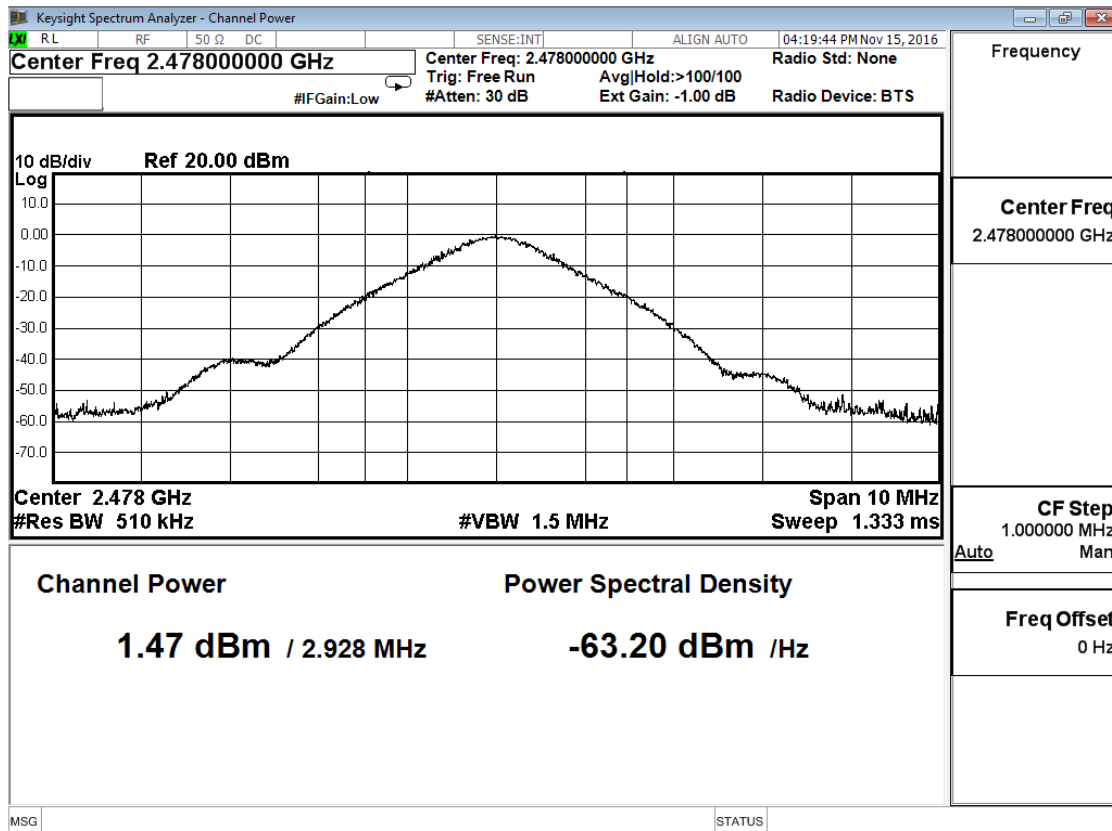
2403 MHz



2439MHz



2478MHz



4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

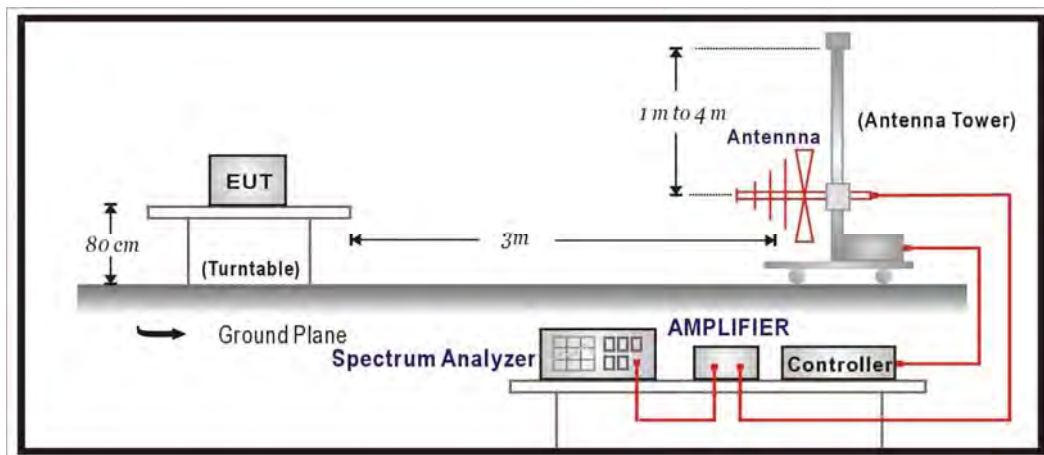
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	Schaffner	CBL6112B	2895	2017/08/14
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2017/01/14
Pre-Amplifier	EMCI	EMC0031835	980233	2017/01/26
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2017/01/03
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/12/24
k Type Cable	Huber+Suhner	SF 102	25623/2	2017/01/11

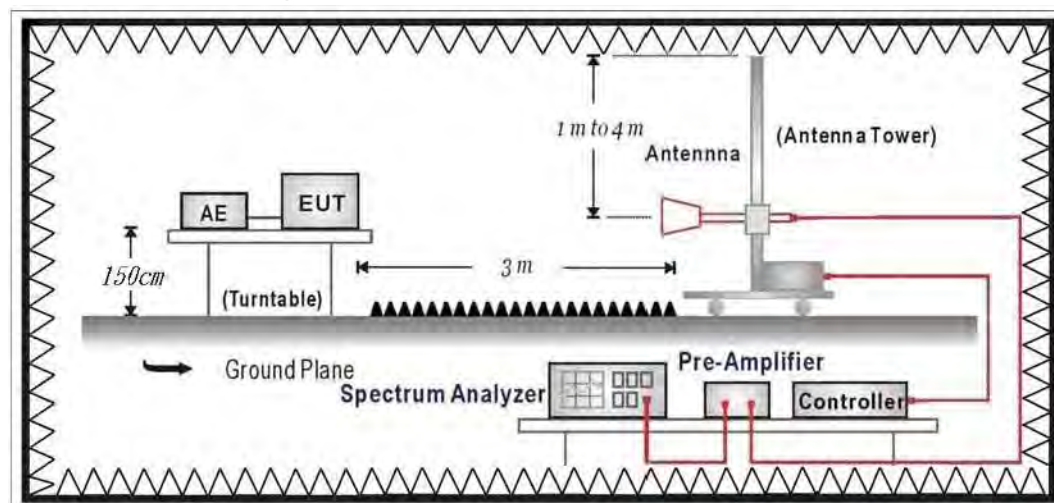
Note: All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m	dBuV/m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements.

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground (under 1GHz) or 1.5 meter above ground (above 1GHz). The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The antenna can move 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 measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

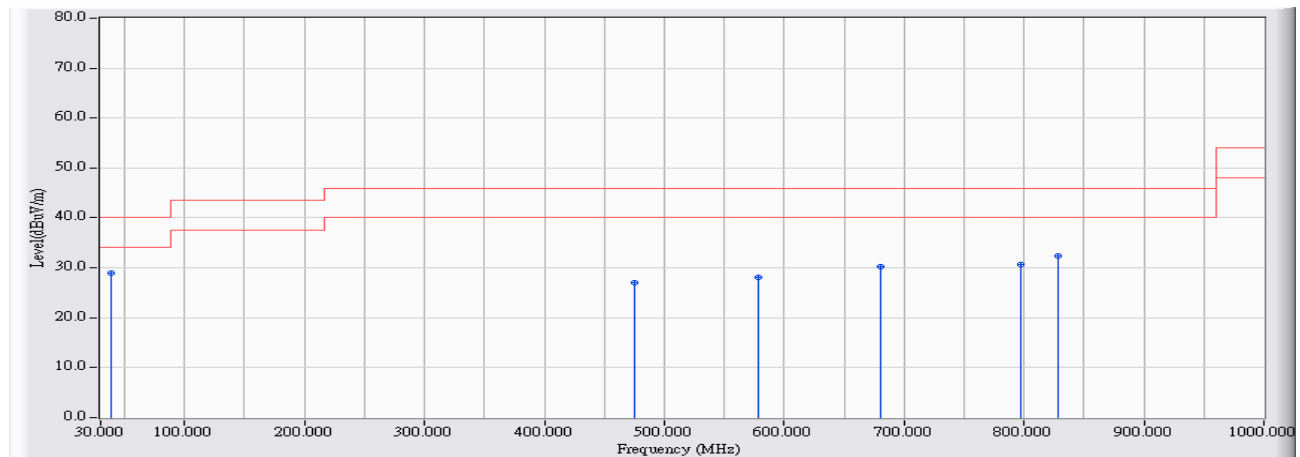
4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247

4.6. Test Result

30MHz-1GHz Spurious

Site : CB1	Time : 2016/11/21 - 16:43
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_30M-1G-4_9161 - HORIZONTAL	Power : DC 4.2V(Power By Battery)
EUT : Headphone	Note : 2.4G_2439MHz

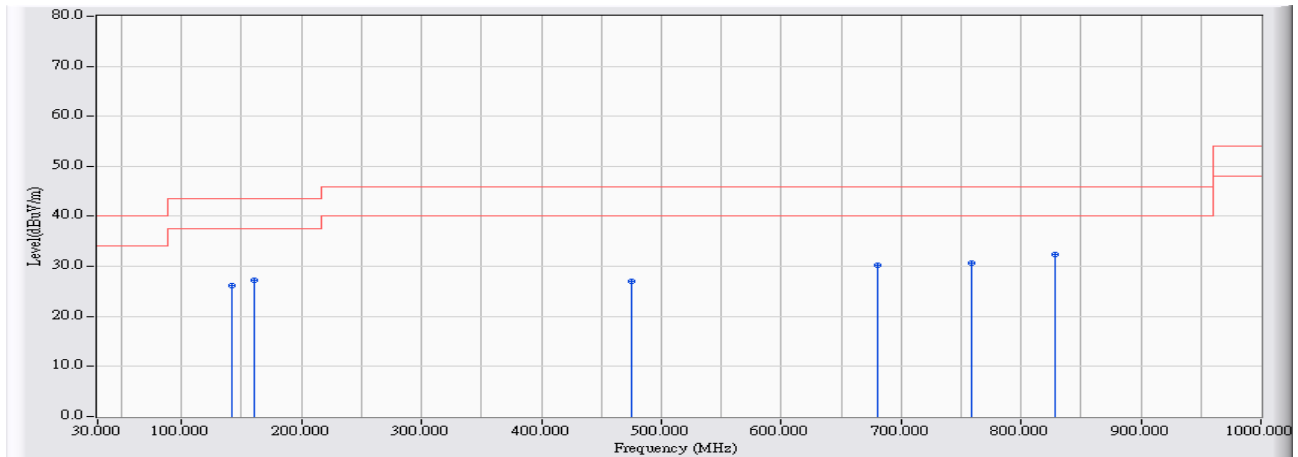


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	39.020	12.115	16.842	28.957	-11.043	40.000	QUASIPeAK
2		475.767	17.413	9.633	27.047	-18.953	46.000	QUASIPeAK
3		578.965	19.292	8.843	28.134	-17.866	46.000	QUASIPeAK
4		680.514	21.001	9.309	30.309	-15.691	46.000	QUASIPeAK
5		797.581	22.404	8.226	30.630	-15.370	46.000	QUASIPeAK
6		827.842	22.685	9.800	32.485	-13.515	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	Time : 2016/11/21 - 16:43
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_30M-1G-4_9161 - VERTICAL	Power : DC 4.2V(Power By Battery)
EUT : Headphone	Note : 2.4G_2439MHz



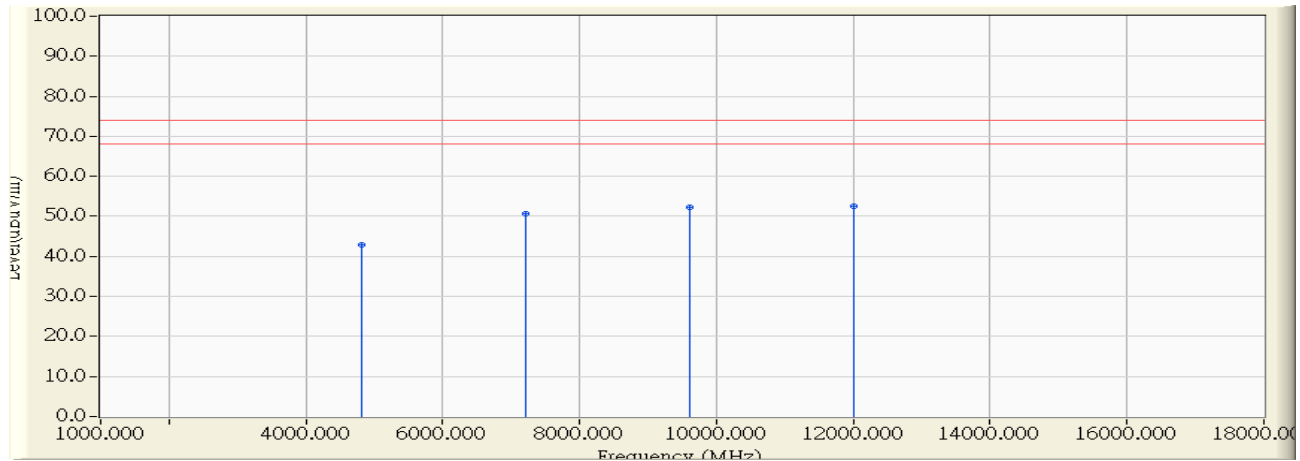
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		142.412	16.413	9.815	26.228	-17.272	43.500	QUASIPeAK
2		160.549	17.817	9.503	27.319	-16.181	43.500	QUASIPeAK
3		475.767	17.413	9.633	27.047	-18.953	46.000	QUASIPeAK
4		680.514	21.001	9.309	30.309	-15.691	46.000	QUASIPeAK
5		758.397	21.816	8.870	30.686	-15.314	46.000	QUASIPeAK
6	*	827.842	22.685	9.800	32.485	-13.515	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Harmonic & Spurious:

Site : CB1	Time : 2016/11/18 - 11:44
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 4.2V
EUT : Headphone	Note : 2403MHz

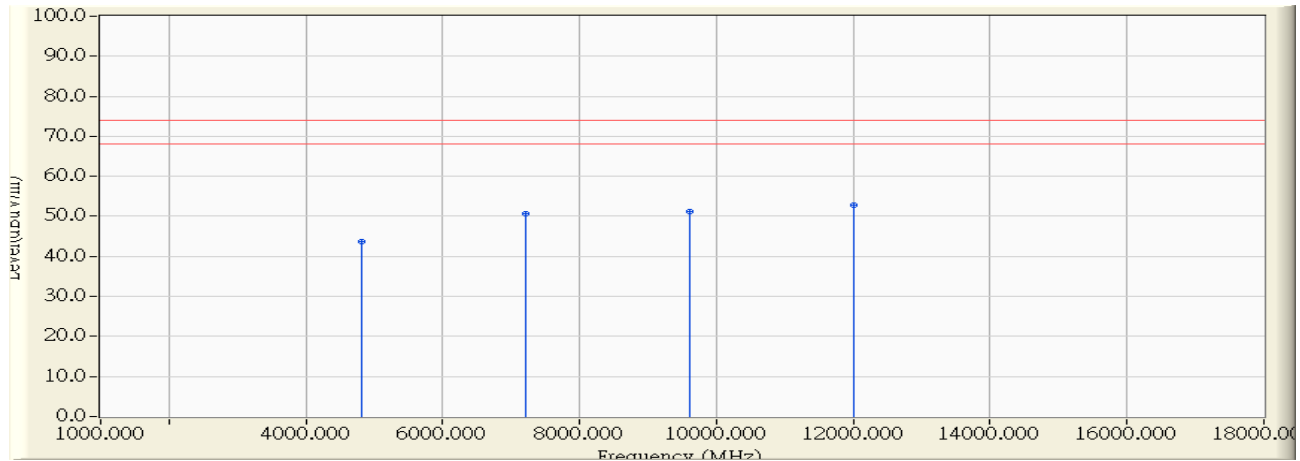


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4805.000	-2.610	45.500	42.890	-31.110	74.000	PEAK
2		7209.000	5.873	44.880	50.753	-23.247	74.000	PEAK
3		9608.000	7.442	44.910	52.352	-21.648	74.000	PEAK
4	*	12011.000	10.395	42.230	52.626	-21.374	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/11/18 - 11:51
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 4.2V
EUT : Headphone	Note : 2403MHz

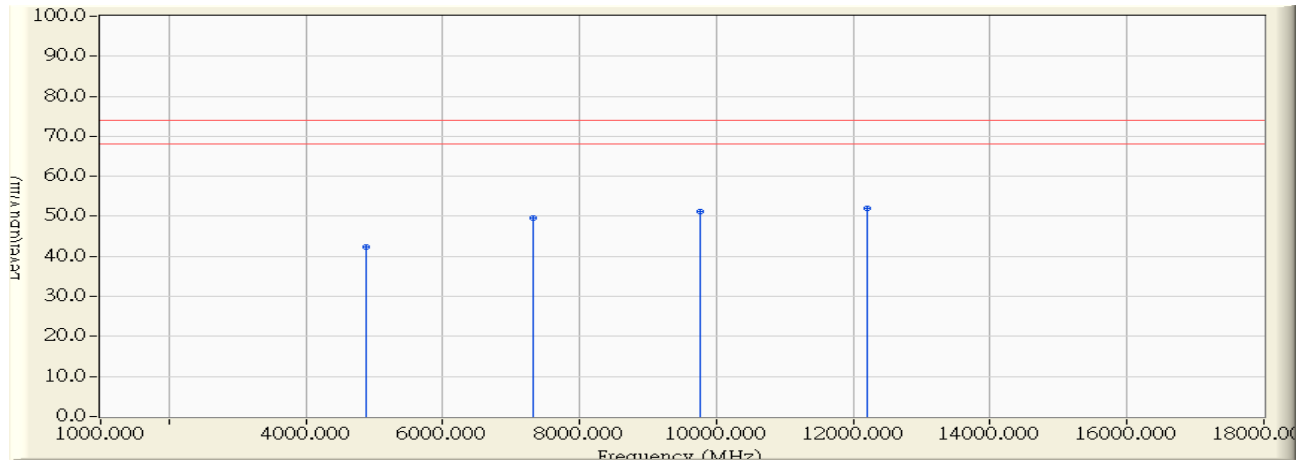


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4806.000	-1.665	45.330	43.665	-30.335	74.000	PEAK
2		7212.000	5.378	45.330	50.709	-23.291	74.000	PEAK
3		9610.000	7.012	44.120	51.132	-22.868	74.000	PEAK
4	*	12013.000	9.923	42.970	52.893	-21.107	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/11/18 - 12:02
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 4.2V
EUT : Headphone	Note : 2439MHz

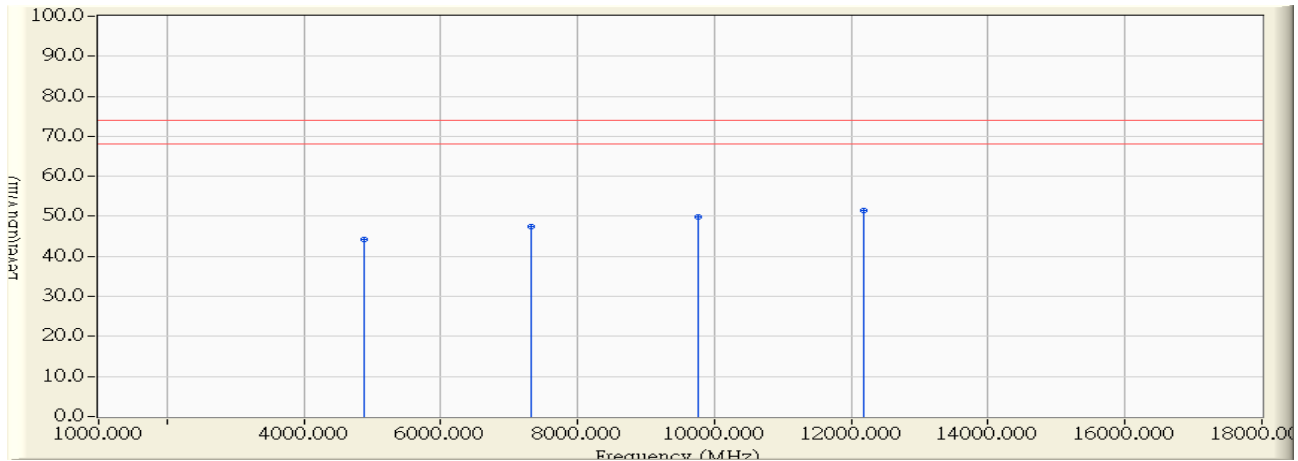


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4878.000	-2.415	44.870	42.455	-31.545	74.000	PEAK
2		7316.000	6.083	43.570	49.653	-24.347	74.000	PEAK
3		9751.000	8.216	42.880	51.097	-22.903	74.000	PEAK
4	*	12196.000	10.174	41.910	52.085	-21.915	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/11/18 - 12:29
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 4.2V
EUT : Headphone	Note : 2439MHz

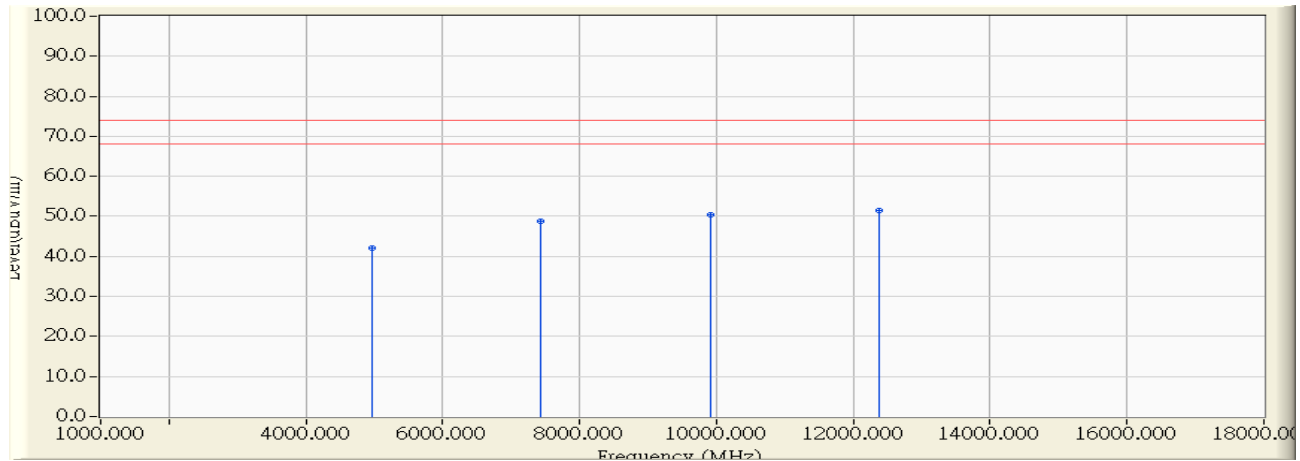


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4878.000	-1.652	45.930	44.278	-29.722	74.000	PEAK
2		7314.000	5.580	41.790	47.369	-26.631	74.000	PEAK
3		9753.000	7.572	42.330	49.902	-24.098	74.000	PEAK
4	*	12190.000	9.890	41.490	51.379	-22.621	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/11/18 - 13:13
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 4.2V
EUT : Headphone	Note : 2478MHz

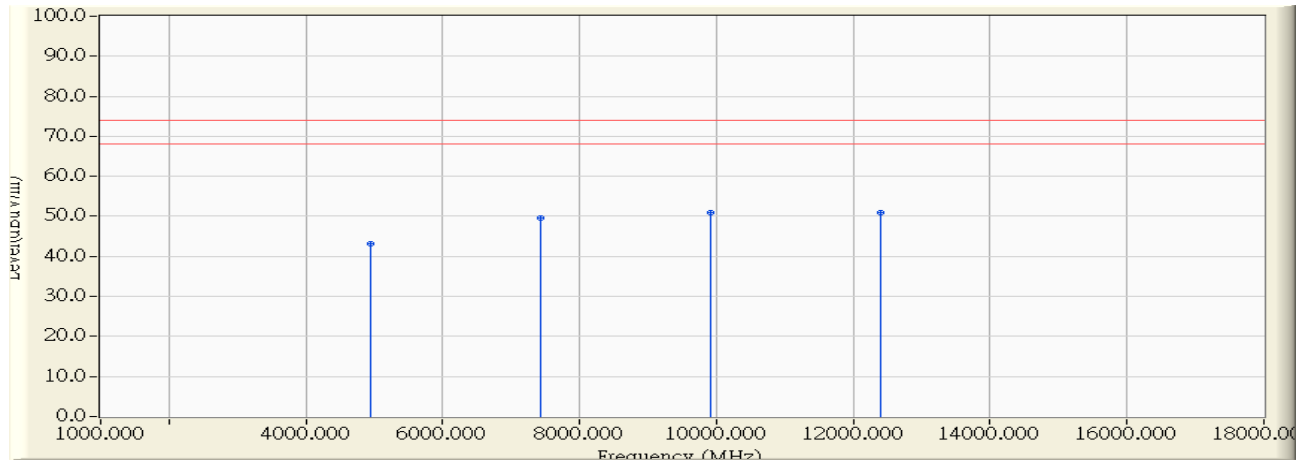


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4960.000	-2.195	44.250	42.055	-31.945	74.000	PEAK
2		7426.000	6.299	42.610	48.910	-25.090	74.000	PEAK
3		9919.000	9.126	41.230	50.356	-23.644	74.000	PEAK
4	*	12385.000	9.950	41.580	51.530	-22.470	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/11/18 - 13:15
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 4.2V
EUT : Headphone	Note : 2478MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4953.000	-1.638	44.830	43.192	-30.808	74.000	PEAK
2		7424.000	5.796	43.710	49.506	-24.494	74.000	PEAK
3	*	9915.000	8.207	42.620	50.827	-23.173	74.000	PEAK
4	*	12395.000	9.850	41.110	50.960	-23.040	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipment is used during the test:

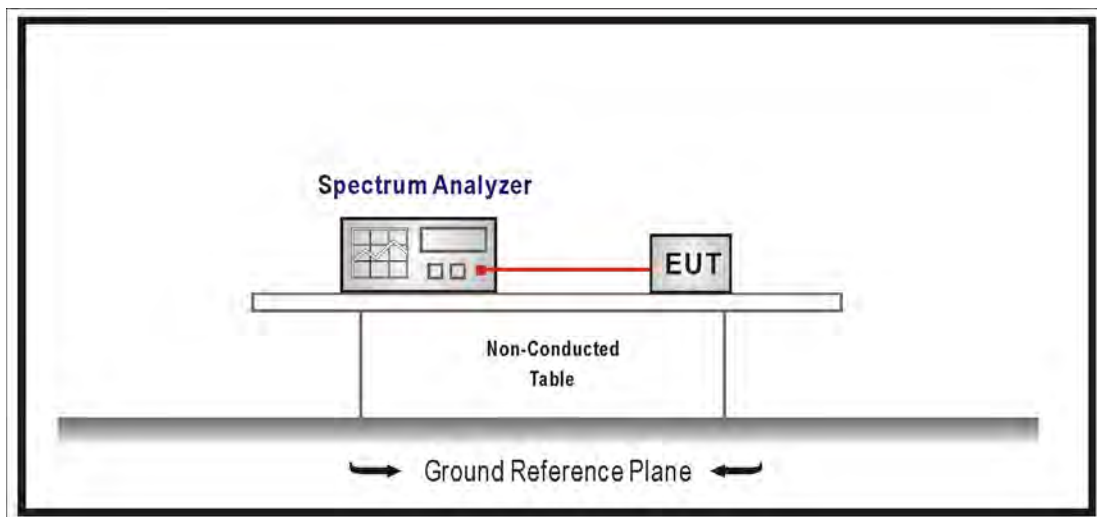
RF antenna conducted test / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	US47140172	2017/08/08
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05
Signal Analyzer	R&S	FSV7	101650	2017/11/15

Note: All equipments that need to calibrate are with calibration period of 1 year.

5.2. Test Setup

RF Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on an RF conducted or radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements. Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247

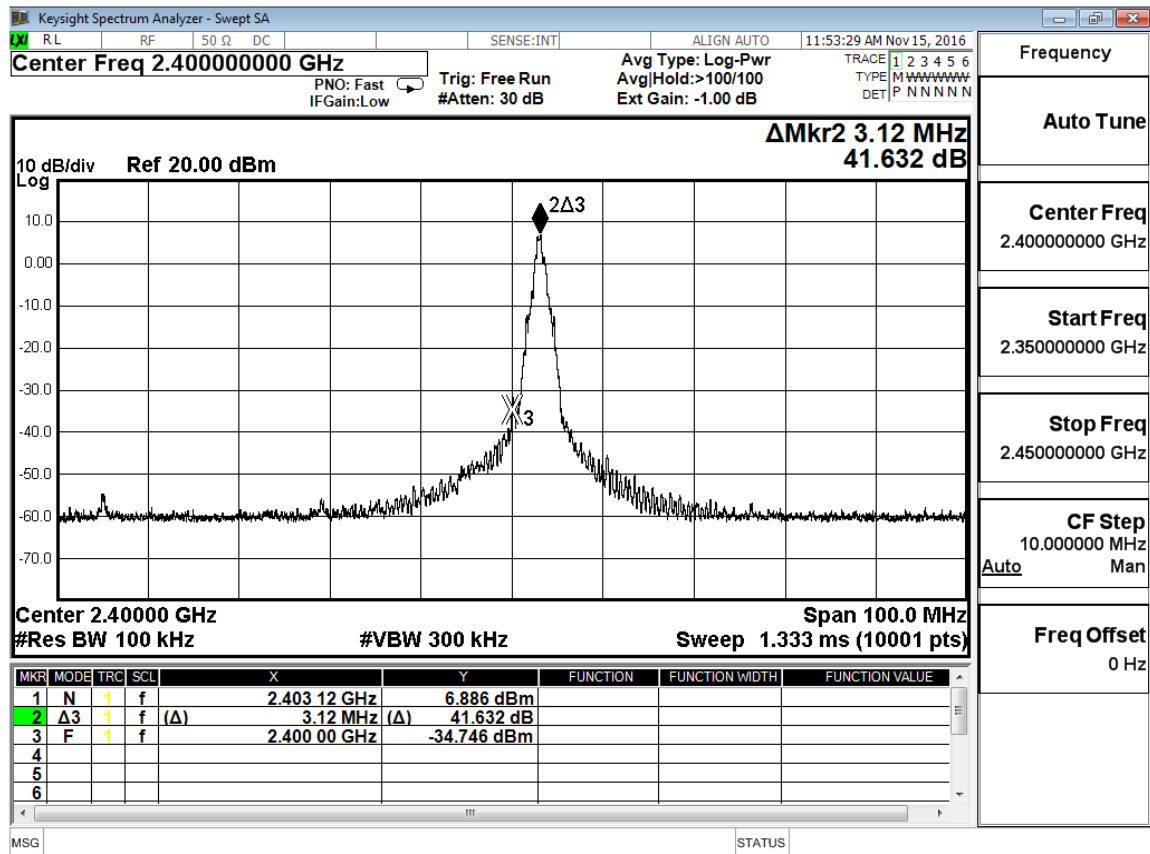
5.6. Test Result

Product	Headphone		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2016/11/15	Test Site	SR7

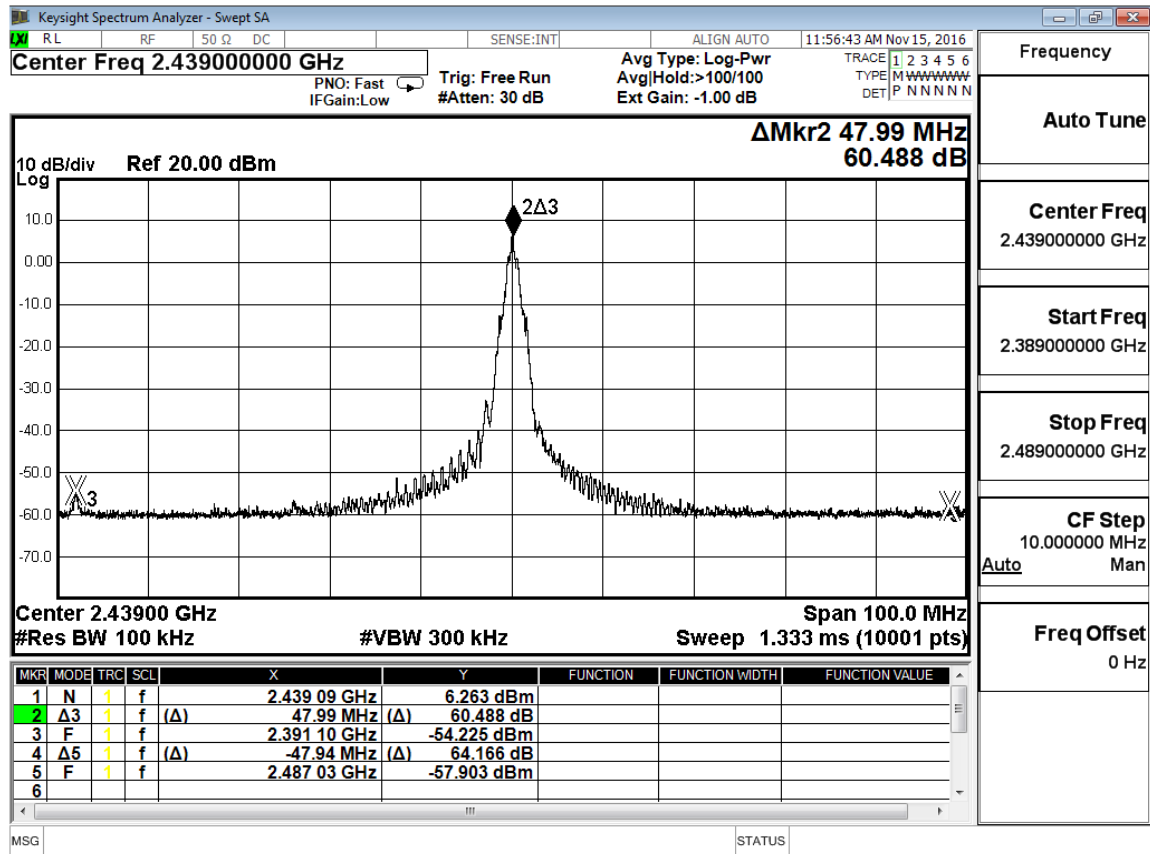
GFSK

Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
01	2403	41.632	≥ 20	Pass
13	2439	60.488	≥ 20	Pass
26	2478	54.365	≥ 20	Pass

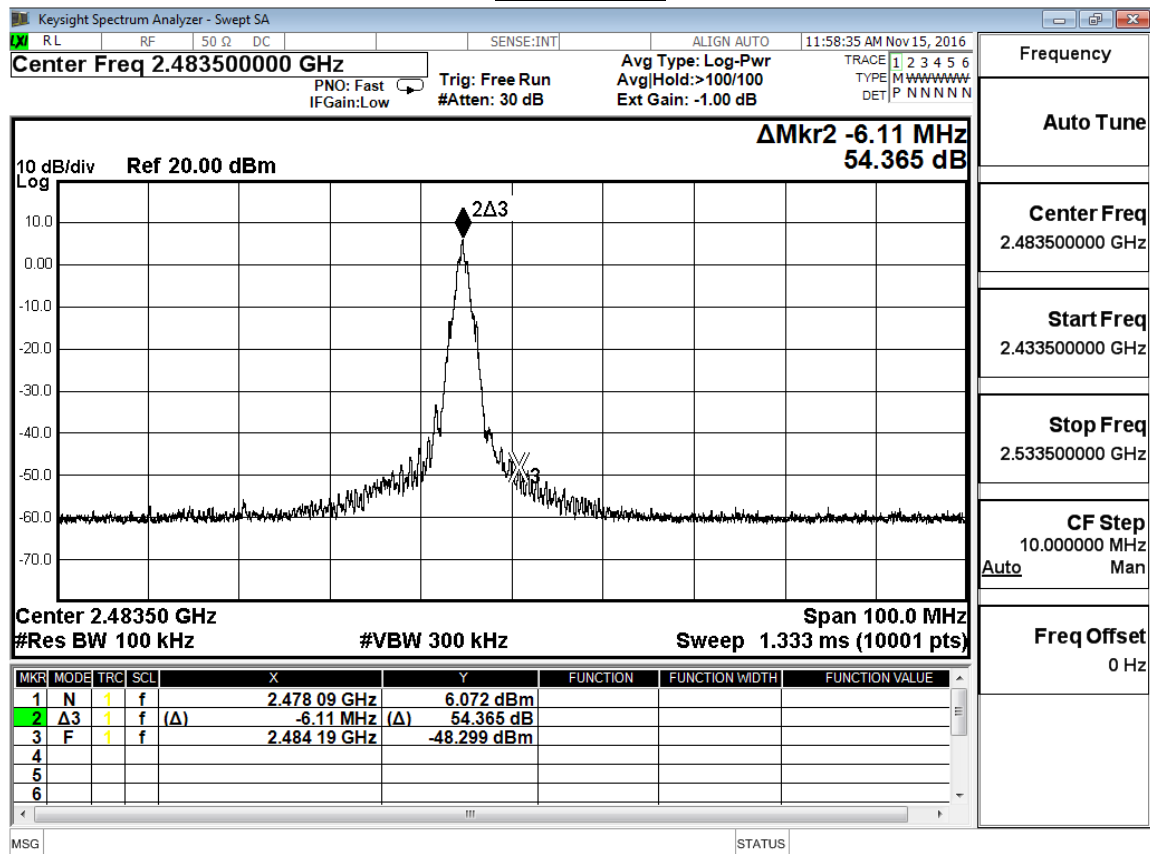
Channel 01



Channel 13

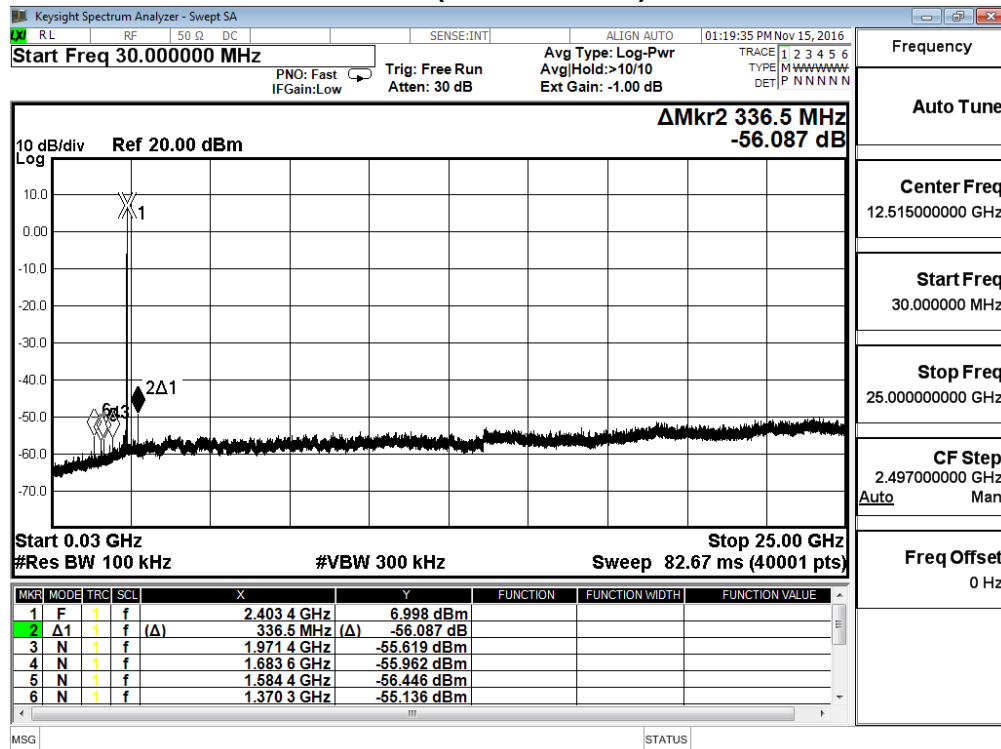


Channel 26

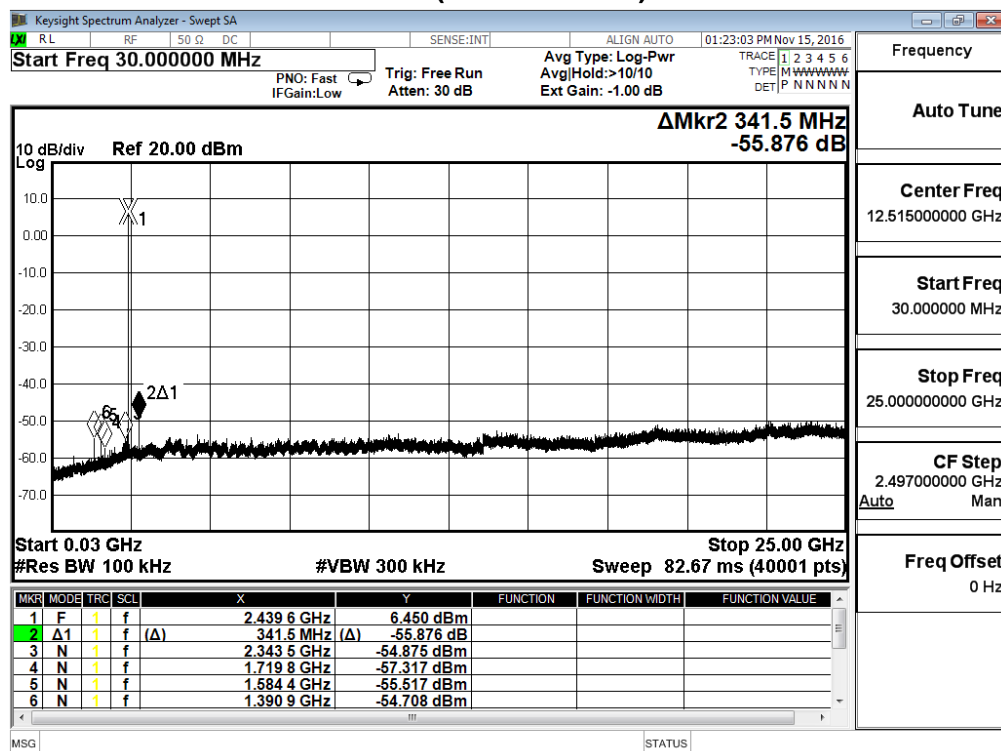


Product	Headphone		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2016/11/15	Test Site	SR7

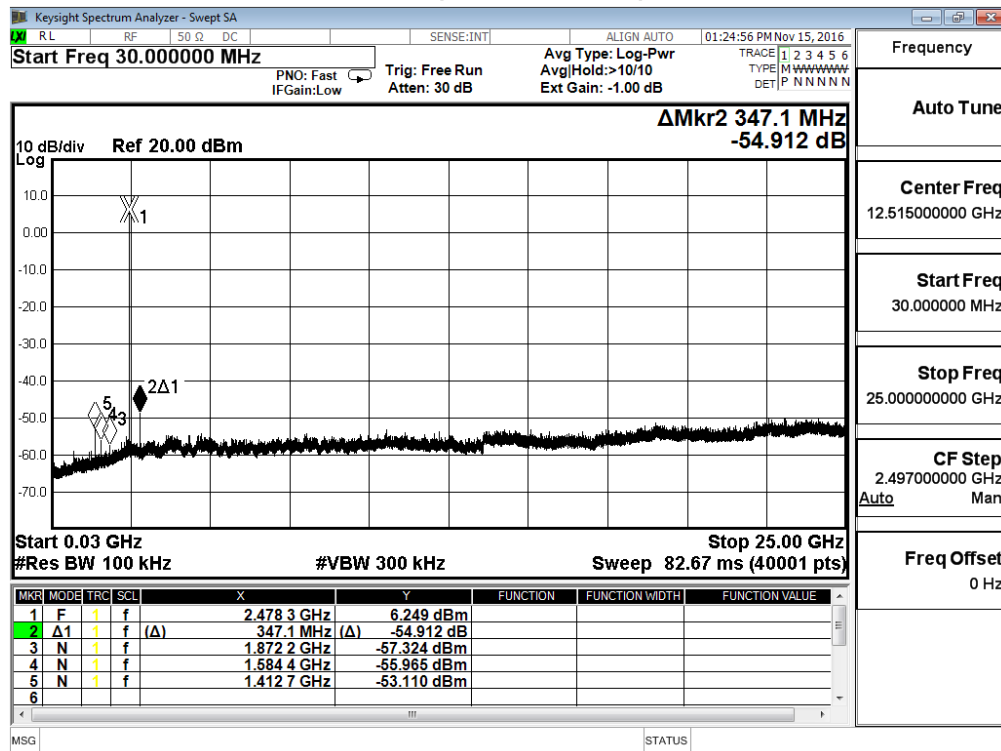
Channel 01 (30MHz-25GHz)- GFSK



Channel 13 (30MHz-25GHz)- GFSK



Channel 26 (30MHz-25GHz)- GFSK



6. Band Edge

6.1. Test Equipment

The following test equipments are used during the test:

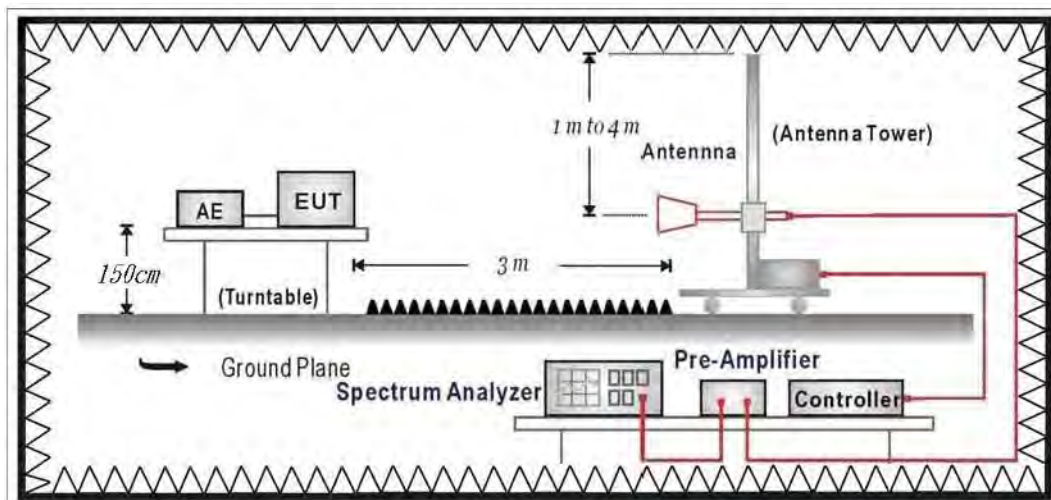
Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2017/01/14
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/12/24
k Type Cable	Huber+Suhner	SF 102	25623/2	2017/01/11

Note: All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup

RF Radiated Measurement:



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements. The EUT and its simulators are placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

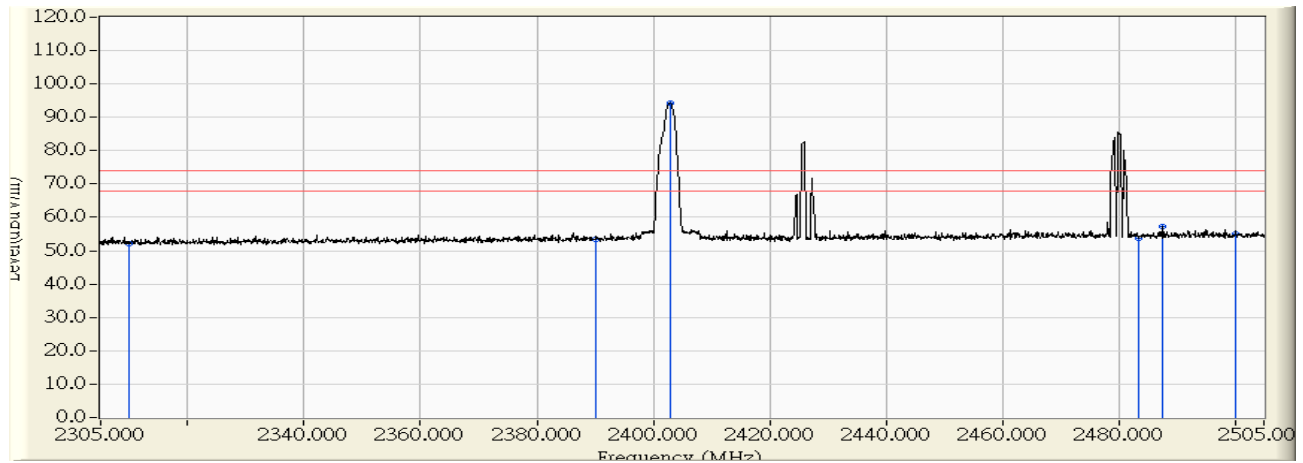
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247

6.6. Test Result

Site : CB1	Time : 2016/11/18 - 11:25
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 4.2V
EUT : Headphone	Note : 2403MHz

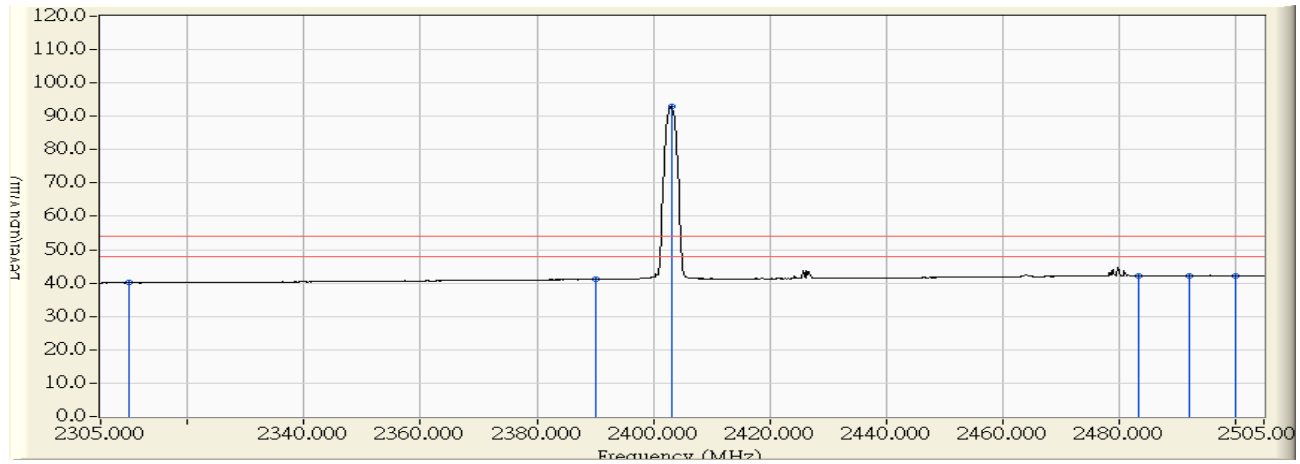


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.130	23.927	52.057	-21.943	74.000	PEAK
2	2390.000	28.933	24.590	53.523	-20.477	74.000	PEAK
3	* 2402.900	29.063	65.255	94.318	20.318	74.000	PEAK
4	2483.500	29.829	23.845	53.674	-20.326	74.000	PEAK
5	2487.500	29.831	27.381	57.212	-16.788	74.000	PEAK
6	2500.000	29.826	25.247	55.072	-18.928	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 11:26
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 4.2V
EUT : Headphone	Note : 2403MHz

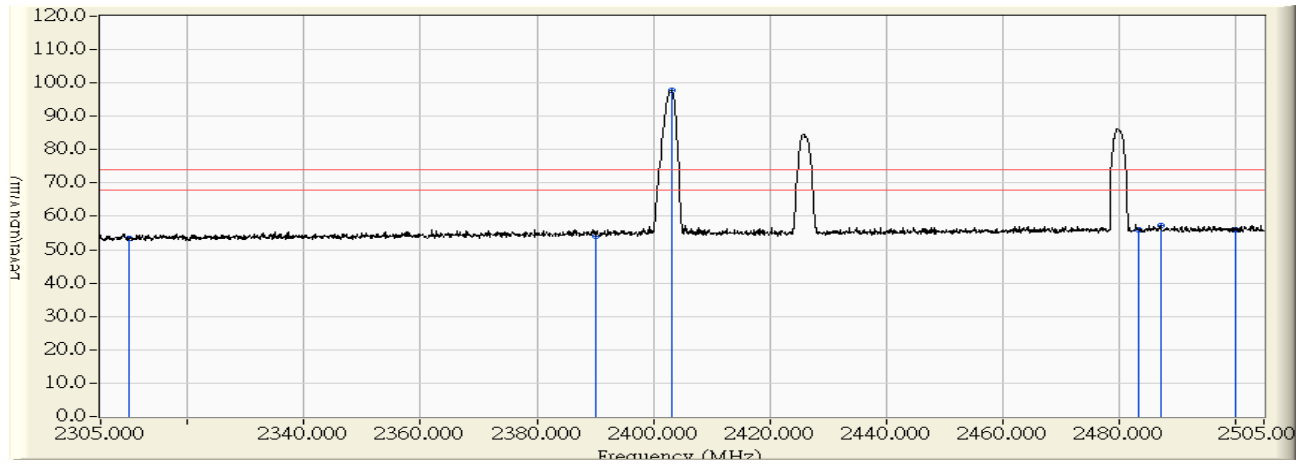


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.130	11.931	40.061	-13.939	54.000	AVERAGE
2	2390.000	28.933	12.156	41.089	-12.911	54.000	AVERAGE
3	* 2403.100	29.065	63.849	92.914	38.914	54.000	AVERAGE
4	2483.500	29.829	12.324	42.153	-11.847	54.000	AVERAGE
5	2492.100	29.833	12.405	42.238	-11.762	54.000	AVERAGE
6	2500.000	29.826	12.318	42.143	-11.857	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 11:29
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 4.2V
EUT : Headphone	Note : 2403MHz

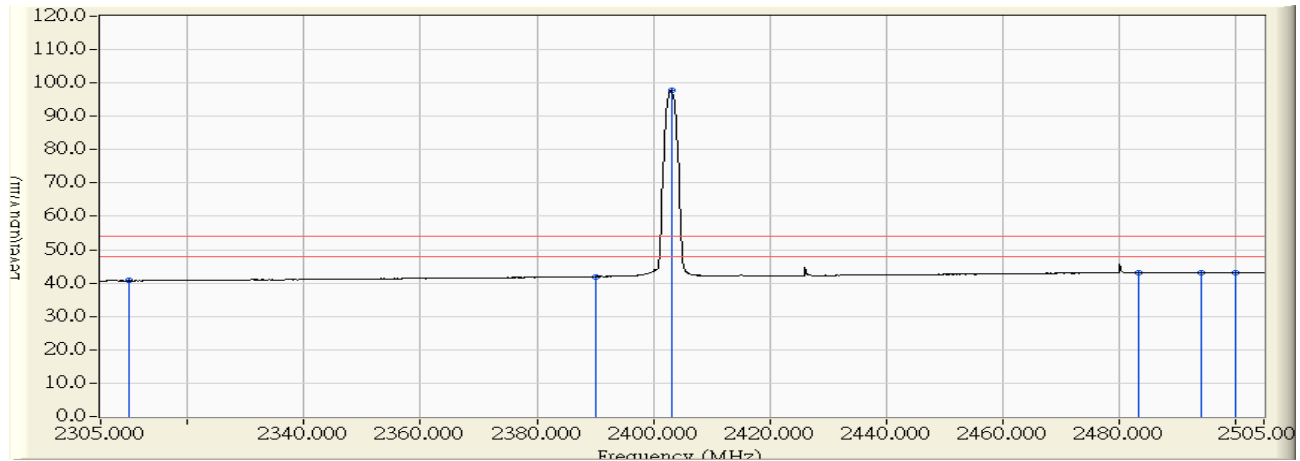


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.784	24.499	53.283	-20.717	74.000	PEAK
2	2390.000	29.747	24.155	53.902	-20.098	74.000	PEAK
3	* 2403.100	29.905	67.933	97.838	23.838	74.000	PEAK
4	2483.500	30.830	25.095	55.925	-18.075	74.000	PEAK
5	2487.300	30.839	26.349	57.189	-16.811	74.000	PEAK
6	2500.000	30.860	25.247	56.106	-17.894	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 11:33
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 4.2V
EUT : Headphone	Note : 2403MHz

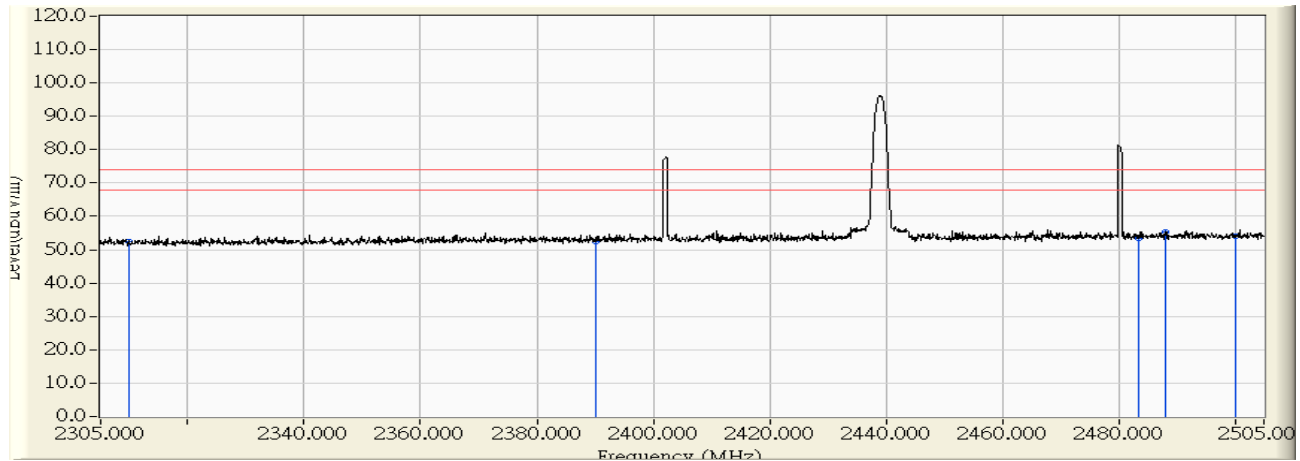


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.784	11.918	40.702	-13.298	54.000	AVERAGE
2	2390.000	29.747	12.175	41.922	-12.078	54.000	AVERAGE
3	* 2403.100	29.905	67.834	97.739	43.739	54.000	AVERAGE
4	2483.500	30.830	12.238	43.068	-10.932	54.000	AVERAGE
5	2494.200	30.857	12.406	43.263	-10.737	54.000	AVERAGE
6	2500.000	30.860	12.320	43.179	-10.821	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 10:46
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 4.2V
EUT : Headphone	Note : 2439MHz

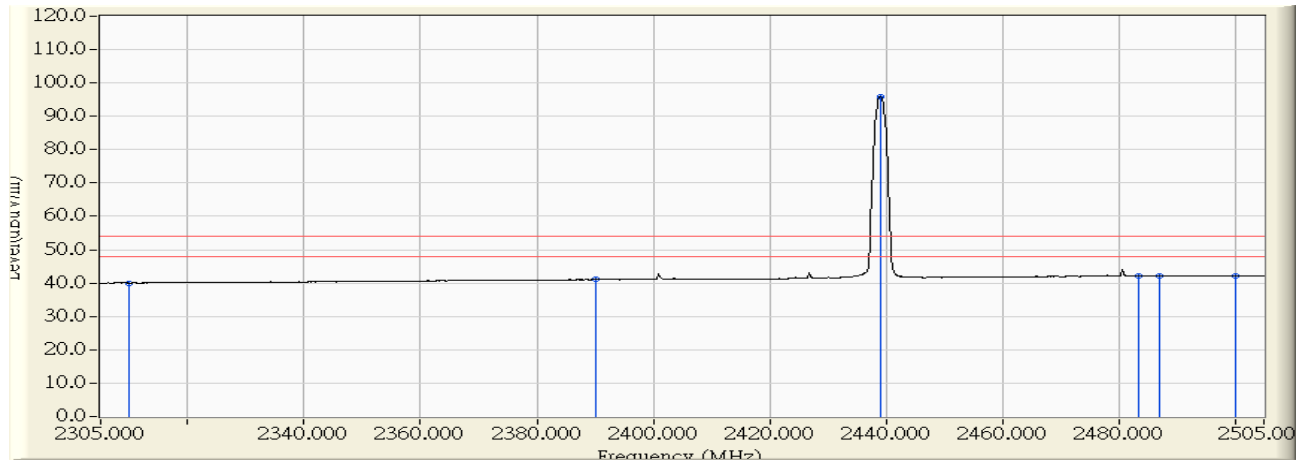


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.130	24.154	52.284	-21.716	74.000	PEAK
2	2390.000	28.933	23.454	52.387	-21.613	74.000	PEAK
3	2483.500	29.829	23.713	53.542	-20.458	74.000	PEAK
4	* 2488.000	29.831	25.465	55.296	-18.704	74.000	PEAK
5	2500.000	29.826	24.373	54.198	-19.802	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 10:46
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 4.2V
EUT : Headphone	Note : 2439MHz

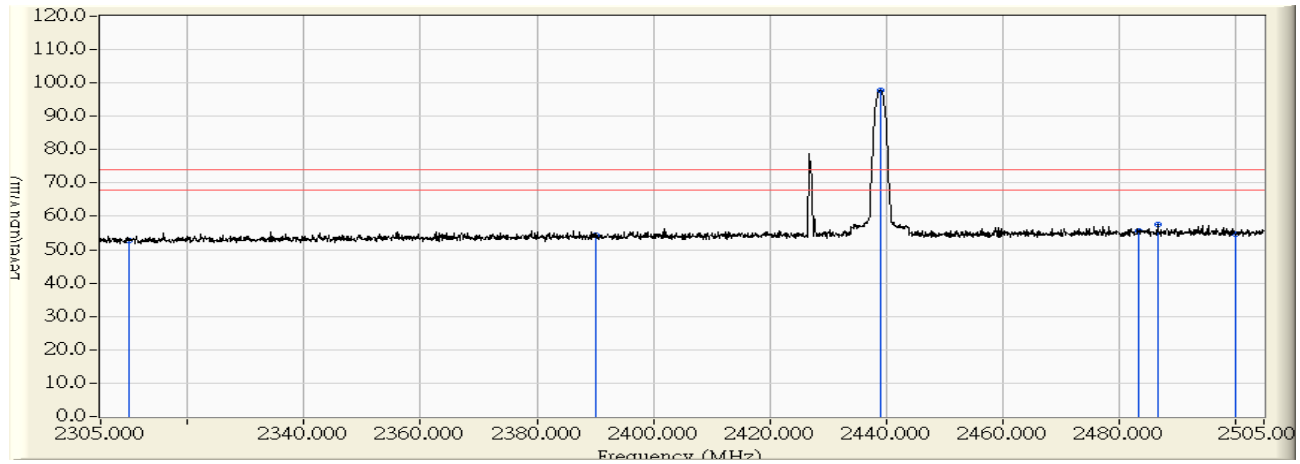


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.130	11.889	40.019	-13.981	54.000	AVERAGE
2	2390.000	28.933	12.165	41.098	-12.902	54.000	AVERAGE
3	* 2439.100	29.426	66.584	96.010	42.010	54.000	AVERAGE
4	2483.500	29.829	12.340	42.169	-11.831	54.000	AVERAGE
5	2487.000	29.831	12.317	42.148	-11.852	54.000	AVERAGE
6	2500.000	29.826	12.273	42.098	-11.902	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 10:57
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 4.2V
EUT : Headphone	Note : 2439MHz

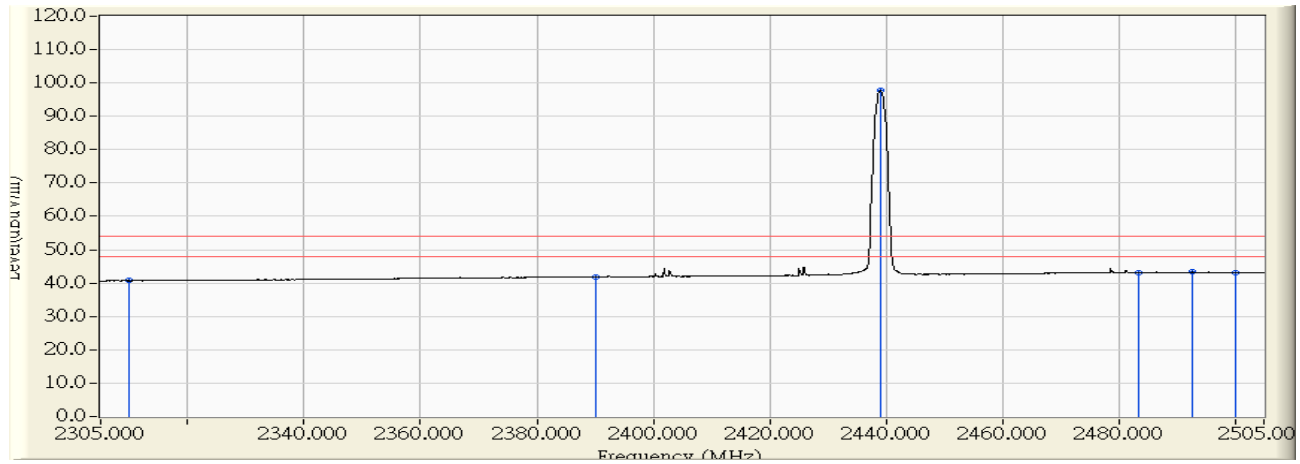


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.784	24.055	52.839	-21.161	74.000	PEAK
2	2390.000	29.747	24.510	54.257	-19.743	74.000	PEAK
3	* 2439.000	30.337	67.494	97.831	23.831	74.000	PEAK
4	2483.500	30.830	24.863	55.693	-18.307	74.000	PEAK
5	2486.700	30.838	26.760	57.598	-16.402	74.000	PEAK
6	2500.000	30.860	23.680	54.539	-19.461	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 10:58
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 4.2V
EUT : Headphone	Note : 2439MHz

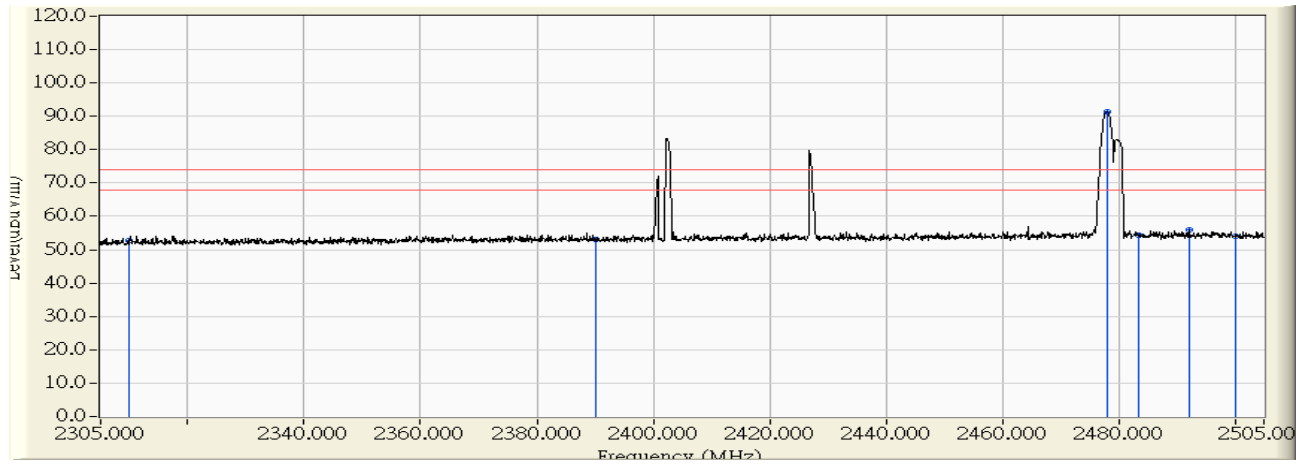


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.784	11.935	40.719	-13.281	54.000	AVERAGE
2	2390.000	29.747	12.146	41.893	-12.107	54.000	AVERAGE
3	* 2439.100	30.338	67.343	97.681	43.681	54.000	AVERAGE
4	2483.500	30.830	12.319	43.149	-10.851	54.000	AVERAGE
5	2492.600	30.852	12.425	43.278	-10.722	54.000	AVERAGE
6	2500.000	30.860	12.300	43.159	-10.841	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 11:20
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 4.2V
EUT : Headphone	Note : 2478MHz

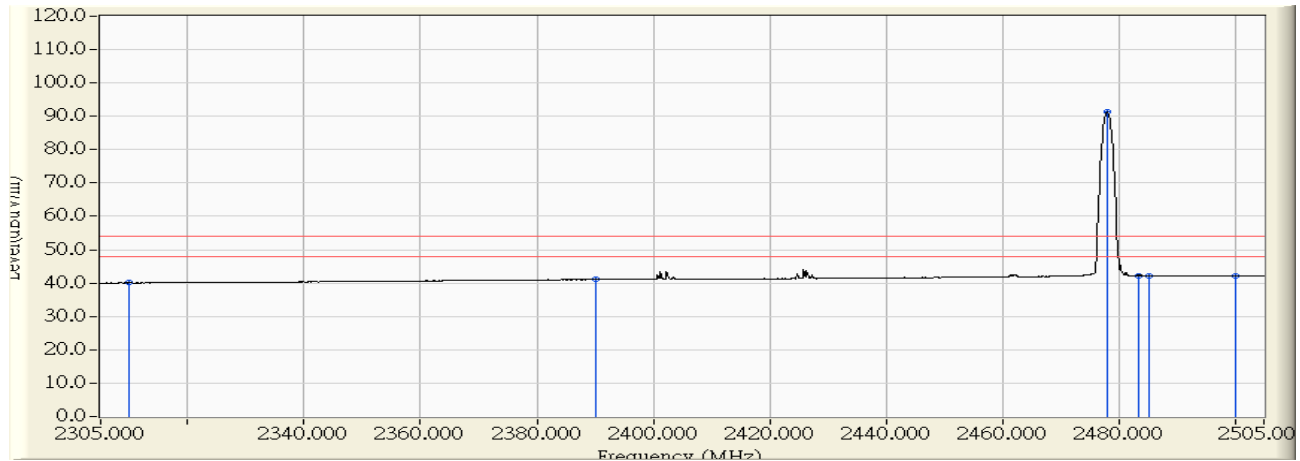


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.130	24.574	52.704	-21.296	74.000	PEAK
2	2390.000	28.933	24.275	53.208	-20.792	74.000	PEAK
3	* 2478.000	29.817	61.617	91.434	17.434	74.000	PEAK
4	2483.500	29.829	24.526	54.355	-19.645	74.000	PEAK
5	2492.100	29.833	26.118	55.951	-18.049	74.000	PEAK
6	2500.000	29.826	24.202	54.027	-19.973	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 11:20
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 4.2V
EUT : Headphone	Note : 2478MHz

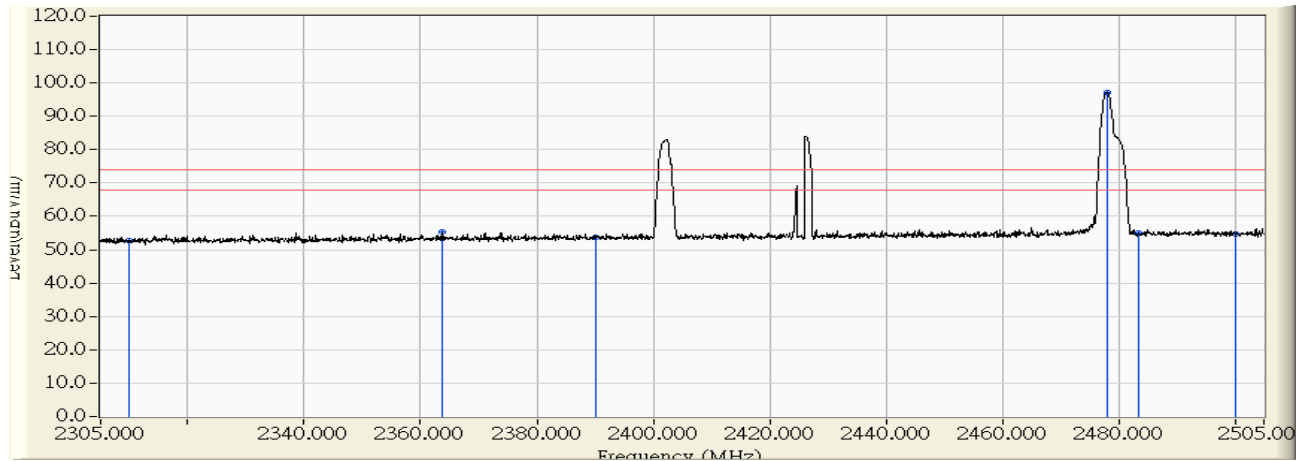


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.130	11.945	40.075	-13.925	54.000	AVERAGE
2	2390.000	28.933	12.139	41.072	-12.928	54.000	AVERAGE
3	* 2478.100	29.817	61.469	91.287	37.287	54.000	AVERAGE
4	2483.500	29.829	12.447	42.276	-11.724	54.000	AVERAGE
5	2485.200	29.830	12.425	42.255	-11.745	54.000	AVERAGE
6	2500.000	29.826	12.309	42.134	-11.866	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 11:14
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 4.2V
EUT : Headphone	Note : 2478MHz

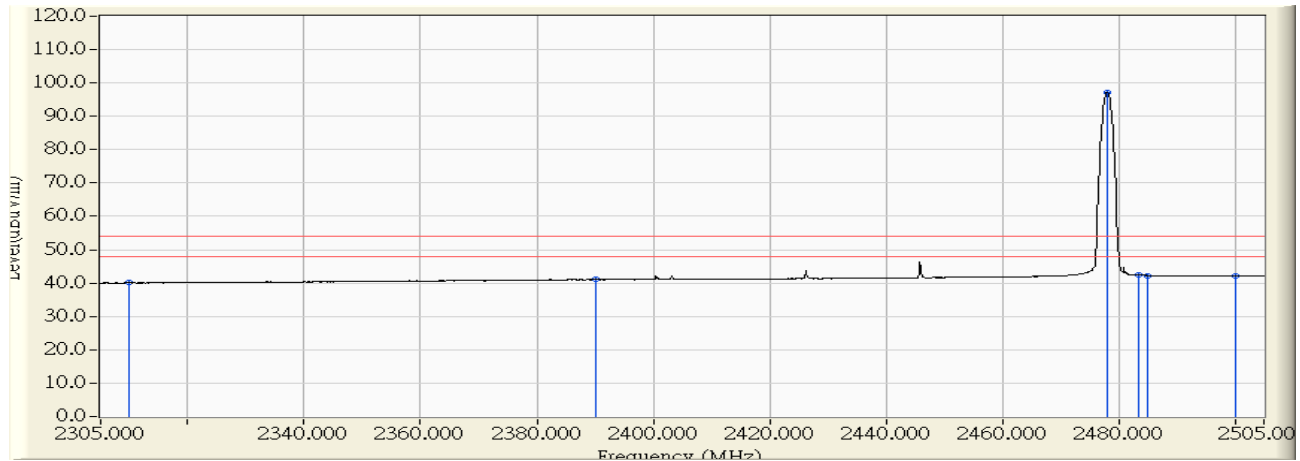


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.130	24.567	52.697	-21.303	74.000	PEAK
2	2363.600	28.668	26.763	55.431	-18.569	74.000	PEAK
3	2390.000	28.933	24.722	53.655	-20.345	74.000	PEAK
4	* 2478.000	29.817	67.453	97.270	23.270	74.000	PEAK
5	2483.500	29.829	25.314	55.143	-18.857	74.000	PEAK
6	2500.000	29.826	24.820	54.645	-19.355	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/11/18 - 11:14
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 4.2V
EUT : Headphone	Note : 2478MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.130	11.993	40.123	-13.877	54.000	AVERAGE
2	2390.000	28.933	12.098	41.031	-12.969	54.000	AVERAGE
3	* 2478.100	29.817	67.339	97.157	43.157	54.000	AVERAGE
4	2483.500	29.829	12.552	42.381	-11.619	54.000	AVERAGE
5	2485.000	29.830	12.391	42.221	-11.779	54.000	AVERAGE
6	2500.000	29.826	12.355	42.180	-11.820	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

7. DTS Occupied Bandwidth

7.1. Test Equipment

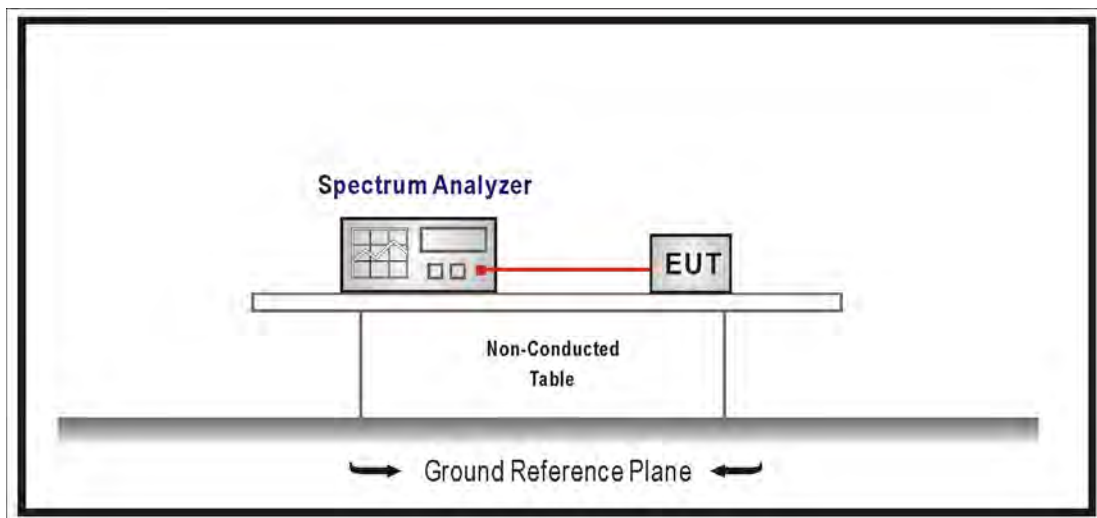
The following test equipments are used during the test:

DTS Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	US47140172	2017/08/08

Note: All equipments that need to calibrate are with calibration period of 1 year.

7.2. Test Setup



7.3. Test Procedures

The EUT was setup according to ANSI C63.10:2013; tested procedure section 8.1 of KDB558074 for compliance to FCC 47CFR 15.247 requirements. Set RBW = 100KHz, Set the VBW $\geq 3 \times$ RBW, Sweep Time=Auto, Set Peak Detector.

7.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

7.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

7.6. Uncertainty

The measurement uncertainty is defined as $\pm 150\text{Hz}$

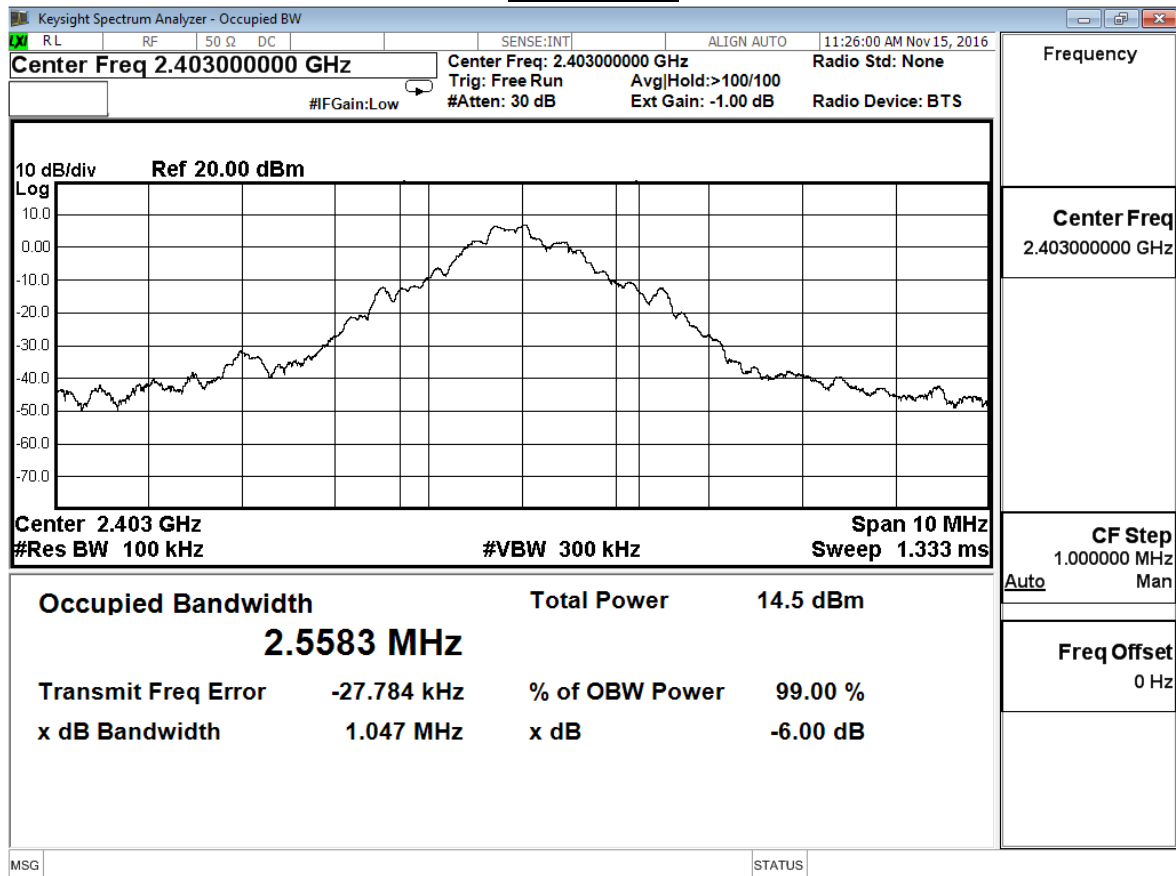
7.7. Test Result

Product	Headphone		
Test Item	DTS Occupied Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2016/11/15	Test Site	SR7

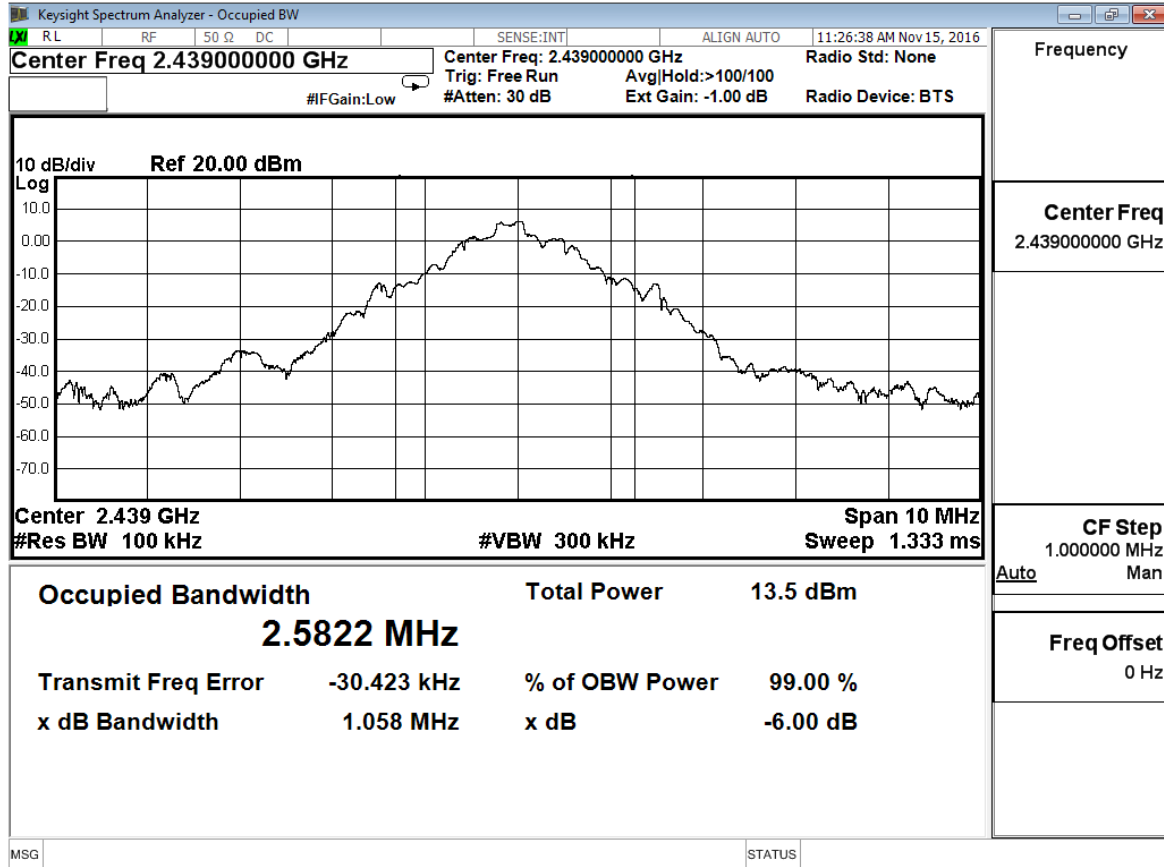
GFSK

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
01	2403	1.047	≥ 0.5	Pass
13	2439	1.058	≥ 0.5	Pass
26	2478	1.023	≥ 0.5	Pass

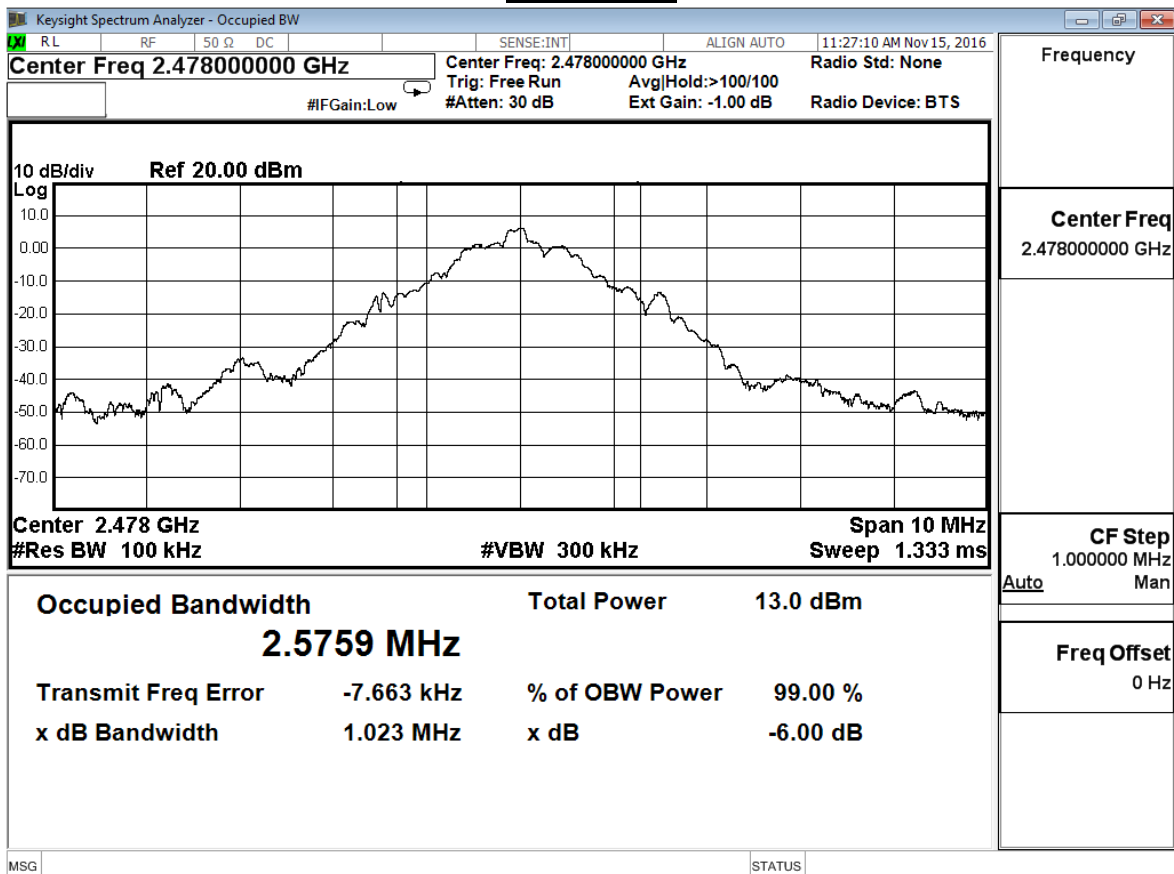
Channel 01



Channel 13



Channel 26



8. Occupied Bandwidth

8.1. Test Equipment

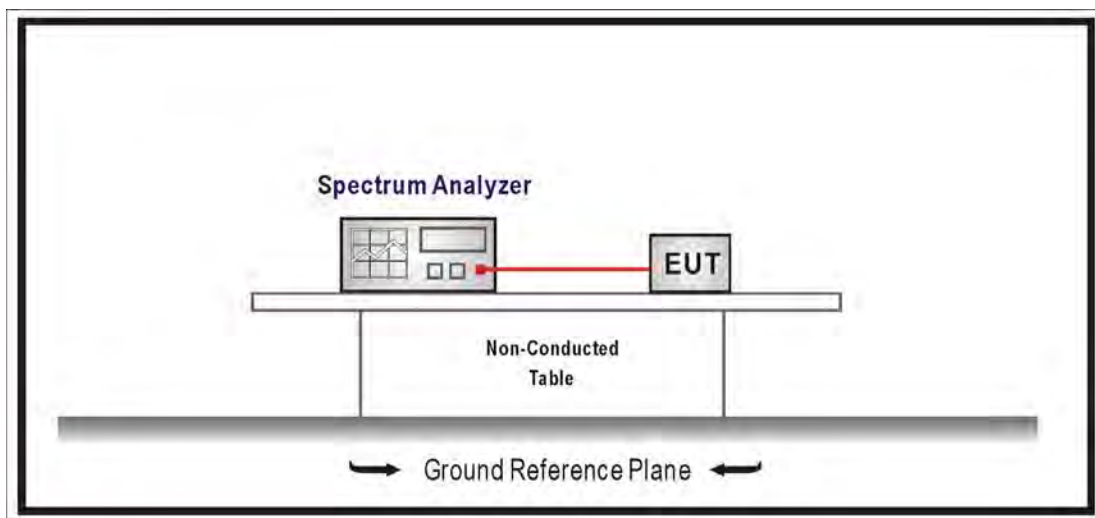
The following test equipments are used during the test:

Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	US47140172	2017/08/08

Note: All equipments that need to calibrate are with calibration period of 1 year.

8.2. Test Setup



8.3. Test Procedures

The EUT was setup according to ANSI C63.10; tested according to DTS test procedure of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 1-5% of the OBW, Set the VBW $\geq 3 \times$ RBW, Sweep Time=Auto.

8.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2015

8.6. Uncertainty

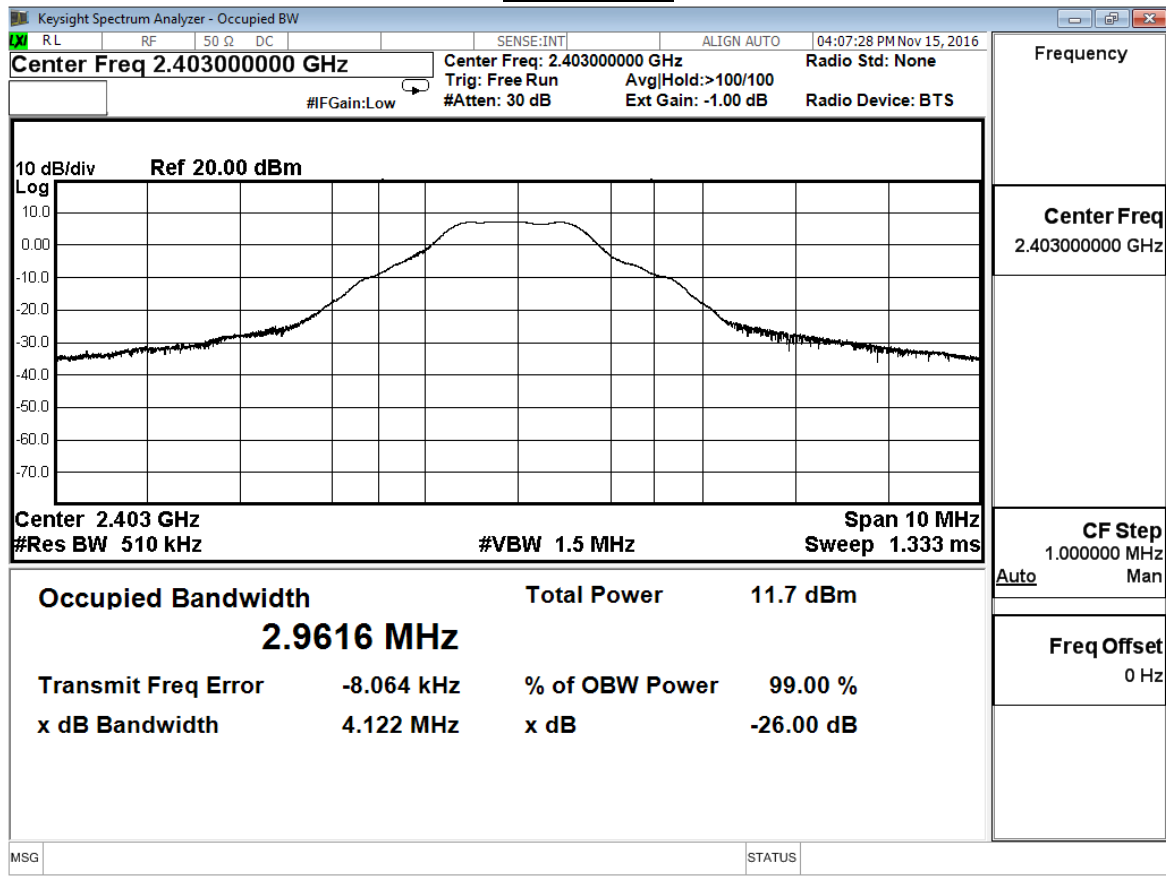
The measurement uncertainty is defined as $\pm 150\text{Hz}$

8.7. Test Result

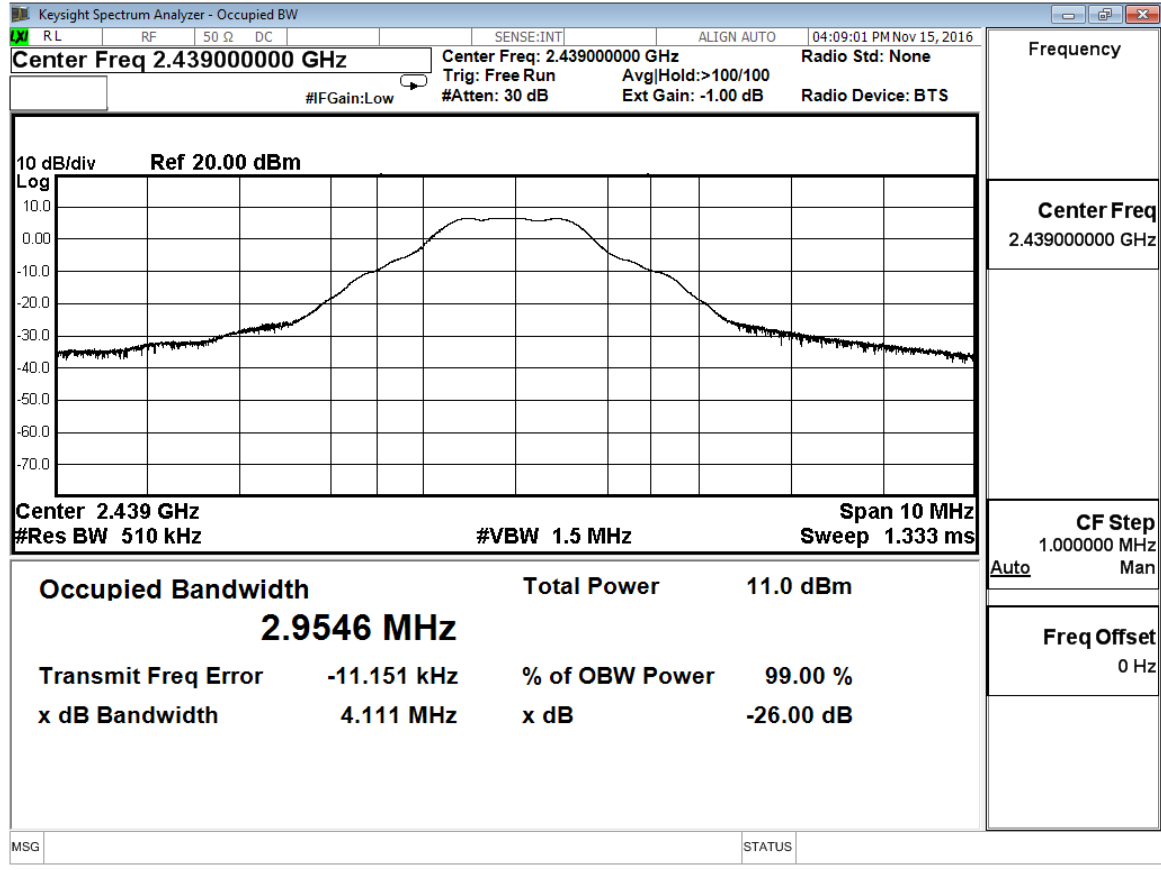
Product	Headphone		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2016/11/15	Test Site	SR7

GFSK				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
01	2403	2.9616	--	Pass
13	2439	2.9546	--	Pass
26	2478	2.9276	--	Pass

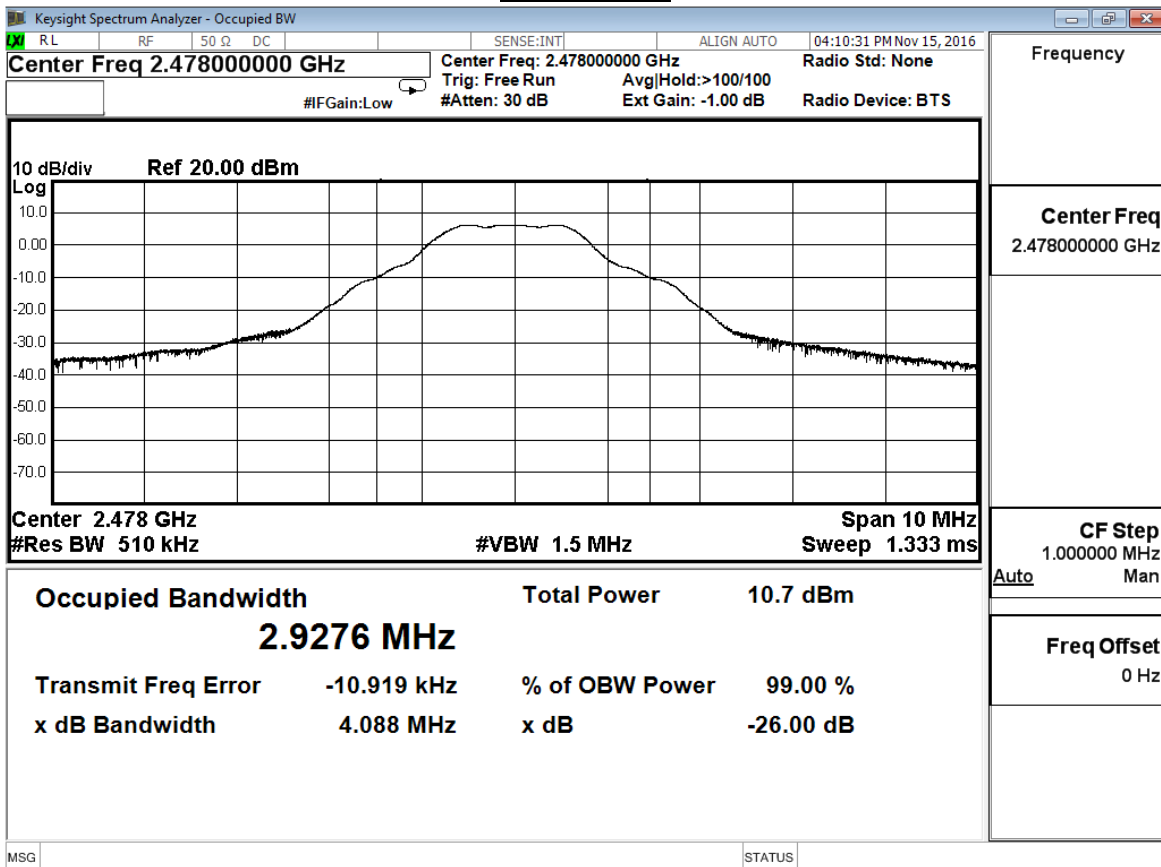
Channel 01



Channel 13



Channel 26



9. Power Density

9.1. Test Equipment

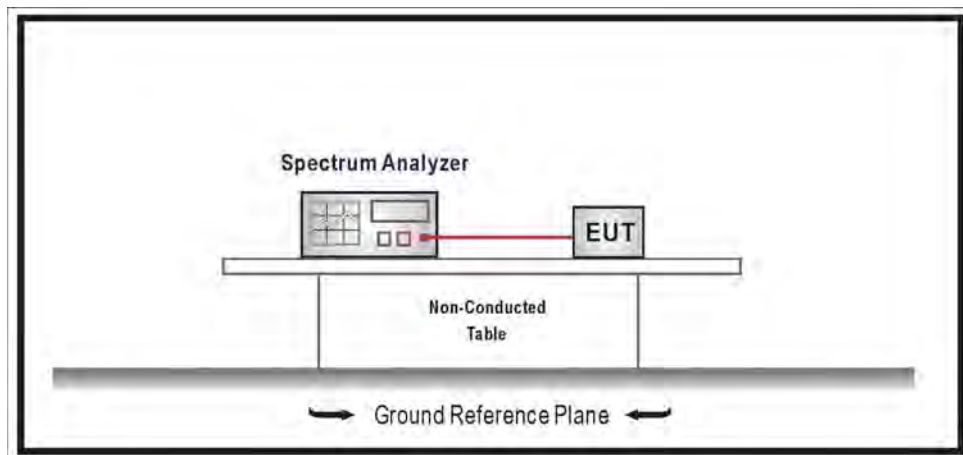
The following test equipment is used during the test:

Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	US47140172	2017/08/08
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05
Signal Analyzer	R&S	FSV7	101650	2017/11/15

Note: All equipments that need to calibrate are with calibration period of 1 year.

9.2. Test Setup



9.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

9.4. Test Procedures

The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements.

9.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247

9.6. Uncertainty

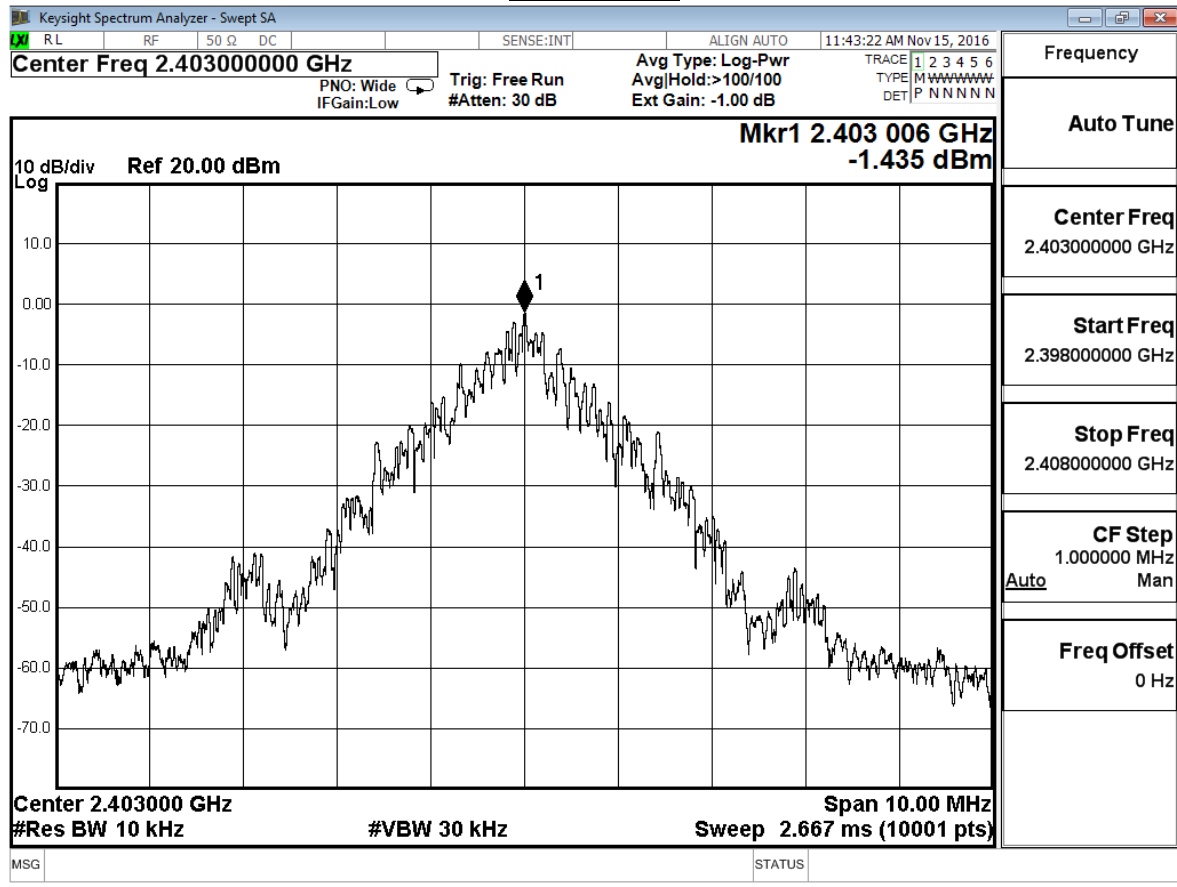
The measurement uncertainty is defined as $\pm 1.27\text{dB}$.

9.7. Test Result

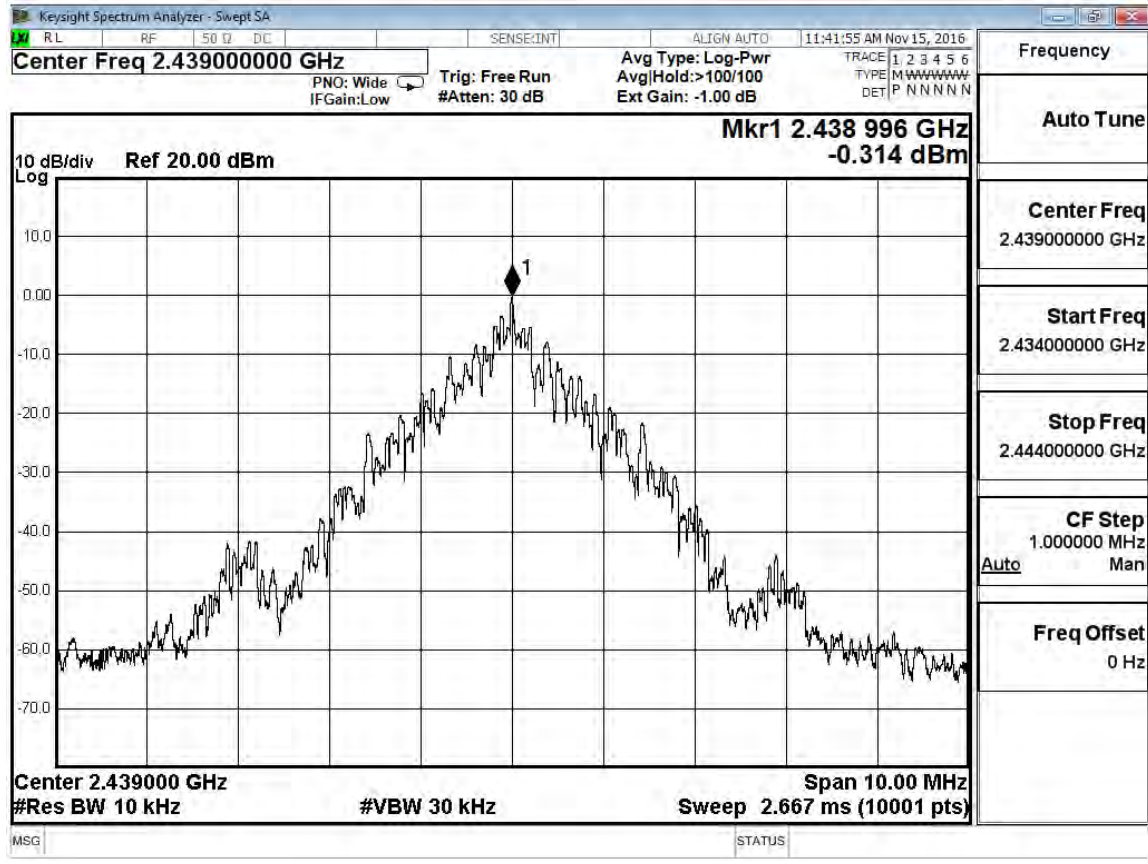
Product	Headphone		
Test Item	Power Density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2016/11/15	Test Site	SR7

Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
01	2403	-1.435	≤ 8	Pass
13	2439	-0.314	≤ 8	Pass
26	2478	1.188	≤ 8	Pass

Channel 01



Channel 13



Channel 26

