Test Report

Report No.:	MTi210326007-03E1
Date of issue:	Apr. 25, 2021
Applicant:	HUMBOLDT TECHNOLOGY (HK) LIMITED
Product name:	Wireless TV Headphones
Model(s):	HW2
FCC ID:	2AW9K-HW2

Shenzhen Microtest Co., Ltd.
http://www.mtitest.com

Table of Contents

1 GENERAL DESCRIPTION 4

1.1 FEATURE OF EQUIPMENT UNDER TEST (EUT) 4
1.2 OPERATION CHANNEL LIST 4
1.3 TEST FREQUENCY CHANNEL 4
1.4 EUT OPERATION MODE 4
1.5 ANCILLARY EQUIPMENT LIST 4

2 SUMMARY OF TEST RESULT 5

3 TEST FACILITIES AND ACCREDITATIONS 6

3.1 TEST LABORATORY 6
3.2 ENVIRONMENTAL CONDITIONS 6
3.3 MEASUREMENT UNCERTAINTY 6
3.4 TEST SOFTWARE 6

4 LIST OF TEST EQUIPMENT 7

5 TEST RESULT 8

5.1 ANTENNA REQUIREMENT 8
5.1.1 Standard requirement 8
5.1.2 EUT Antenna 8
5.2 CONDUCTED EMISSION 9
5.2.1 Limits 9
5.2.2 Test setup 9
5.2.3 Test procedure 10
5.2.4 Test results 11
5.3 RADIATED SPURIOUS EMISSION 15
5.3.1 Limit 15
5.3.2 Test method 16
5.3.3 Test Result 17
5.3.4 Test Result 18
5.3.5 Band edge–Field strength of fundamental 30
5.3.6 Band edge-radiated 31
5.4 20DB AND 99% BANDWIDTH 35
5.4.1 Limits 35
5.4.2 Test method 35
5.4.3 Test result 36

PHOTOGRAPHS OF THE TEST SETUP 38

PHOTOGRAPHS OF THE EUT 40

TEST RESULT CERTIFICATION

Applicant's name ..... :	HUMBOLDT TECHNOLOGY (HK) LIMITED
Address ..... :	ROOM 13 27/F HO KING COMMERCIAL CENTRE 2-16 FA YUEN STREET, MONGKOK, KL, HONGKONG
Manufacturer's Name..... :	HUMBOLDT TECHNOLOGY (HK) LIMITED
Address ..... :	ROOM 13 27/F HO KING COMMERCIAL CENTRE 2-16 FA YUEN STREET, MONGKOK, KL, HONGKONG
Product description	
Product name ..... :	Wireless TV Headphones
Trademark ..... :	LETSCOM, Letsfit, ANBES
Model Name ..... :	HW2
Serial Model	N/A
Standards ..... :	FCC Part 15.249
Test procedure..... :	ANSI C63.10-2013
Date of Test	
Date (s) of performance of tests..... :	Apr. 07, 2021 ~Apr. 25, 2021
Test Result..... :	Pass

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

Testing Engineer : Danny Xu

(Danny Xu)

Technical Manager : Leo Su

(Leo Su)

Authorized Signatory : Tom Xue

(Tom Xue)

1 General description

1.1 Feature of equipment under test (EUT)

Equipment:	Wireless TV Headphones
Trade name:	LETSCOM, Letsfit, ANBES
Model name:	HW2
Serial model:	N/A
Model difference:	N/A
Operation frequency:	912-913MHz
Modulation type:	FM
Antenna type:	PCB antenna
Antenna gain:	0dBi
Power source:	DC 8V from adapter AC 120V/60Hz
Battery:	N/A
Adapter information:	MODEL: YLJXA-T080040 INPUT: 100-240V~ 50/60Hz 0.5A Max OUTPUT: 8.0V 0.4A
Hardware version:	V1.0
Software version:	V1.0

1.2 Operation channel list

Channel	Frequency(MHz)
1	912
2	912.5
3	913

1.3 Test Frequency Channel

Channel	Frequency(MHz)
Low	912
Middle	912.5
High	913

1.4 EUT operation mode

During testing, RF test program provided by the manufacture to control the Tx operation followed the test requirement.

1.5 Ancillary equipment list

Equipment	Model	S/N	Manufacturer
/	/	/	/

2 Summary of Test Result

Test procedures according to the technical standards:

Item	FCC Part No.	Description of Test	Result
1	FCC Part15.203	Antenna Requirement	Pass
2	FCC Part15.207	AC power line conducted emission	Pass
3	FCC Part15.249(d)	Radiated spurious emission	Pass
4	FCC Part 15.215	20dB and 99% Bandwidth	Pass

3 Test Facilities and Accreditations

3.1 Test laboratory

Test Laboratory	Shenzhen Microtest Co., Ltd
Location	101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao' an District, Shenzhen, Guangdong, China.
FCC Registration No.	448573

3.2 Environmental conditions

Temperature:	15ºC~35ºC
Humidity	20%~75%
Atmospheric pressure	98kPa~101kPa

3.3 Measurement uncertainty

The reported uncertainty of measurement y ± U，where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2，providing a level of confidence of approximately 95 %

RF frequency	1 x 10-7
RF power, conducted	± 1 dB
Conducted emission(150kHz~30MHz)	± 2.5 dB
Radiated emission(30MHz~1GHz)	± 4.2 dB
Radiated emission (above 1GHz)	± 4.3 dB
Temperature	±1 degree
Humidity	± 5 %

3.4 Test software

Software Name	Manufacturer	Model	Version
RF Test System	Shenzhen JS tonscend Co., Ltd	JS1120-3	2.5.77.0418

4 List of test equipment

Equipment No.	Equipment Name	Manufacturer	Model	Serial No.	Calibration date	Due date
MTI-E043	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2020/06/04	2021/06/03
MTI-E044	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2020/06/05	2021/06/04
MTI-E047	Amplifier	Hewlett-Packard	8447F	3113A06150	2020/06/04	2021/06/03
MTI-E089	ESG Vector Signal Generator	Agilent	N5182A	MY49060455	2020/06/03	2021/06/02
MTI-E058	ESG Series Analog Ssignal Generator	Agilent	E4421B	GB40051240	2020/07/03	2021/07/04
MTI-E062	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2020/06/04	2021/06/03
MTI-E066	MXA Signal Analyzer	Agilent	N9020A	MY50143483	2020/06/04	2021/06/03
MTI-E078	Synthesized Sweeper	Agilent	83752A	3610A01957	2020/06/04	2021/06/03
MTI-E079	DC Power Supply	Agilent	E3632A	MY40027695	2020/06/04	2021/06/03
MTI-E045	Double Ridged Broadband Horn Antenna	schwarabeck	BBHA 9120 D	9120D-2278	2020/06/05	2021/06/04
MTI-E021	EMI Test Receiver	Rohde&schwarz	ESCS30	100210	2020/06/04	2021/06/03
MTI-E022	Pulse Limiter	Schwarzbeck	VSTD 9561-F	00679	2020/06/03	2021/06/02
MTI-E023	Artificial mains network	Schwarzbeck	NSLK 8127	NSLK 8127 #841	2020/06/04	2021/06/03
MTI-E046	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00044	2020/06/05	2021/06/04
MTI-E048	Amplifier	Agilent	8449B	3008A02400	2020/07/03	2021/07/04
MTI-E072	Thermometer Clock Humidity Monitor	-	HTC-1	/	2020/06/07	2021/06/06

Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

5 Test Result

5.1 Antenna requirement

5.1.1 Standard requirement

FCC PART 15.203 and 15.247(b);

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

5.1.2 EUT Antenna

The antenna is an PCB antenna, which was permanently affixed to the device and un-replaced, complies with 15.203. In addition, the maximum antenna gain is 0dBi.

5.2 Conducted emission

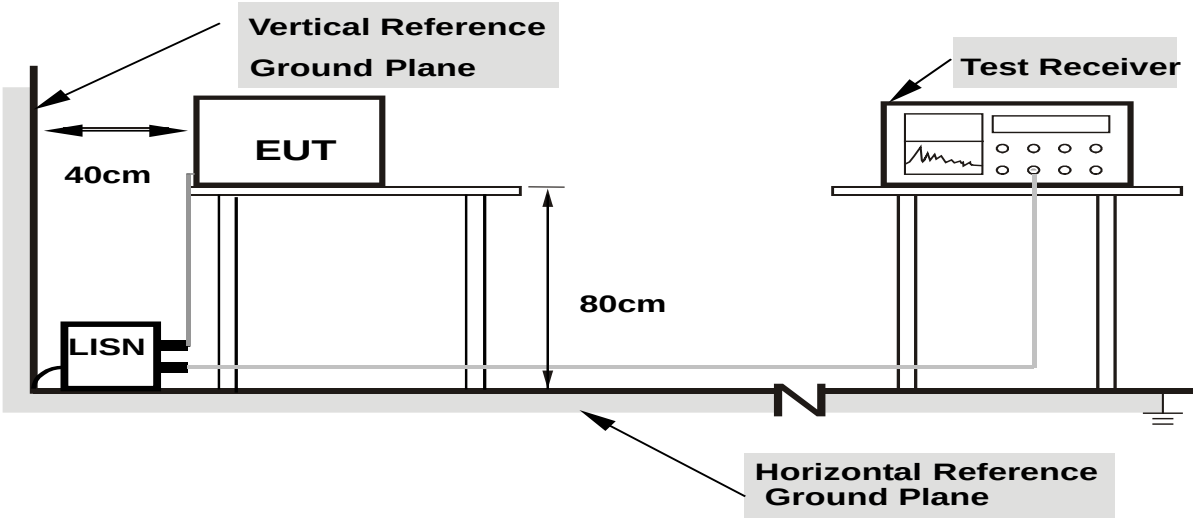
5.2.1 Limits

FCC §15.207;

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 note2	56 - 46 note2
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00
Note1**:** The tighter limit applies at the band edges. Note2: The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.		

5.2.2 Test setup



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

5.2.3 Test procedure

a. EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

b. The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

c. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

d. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

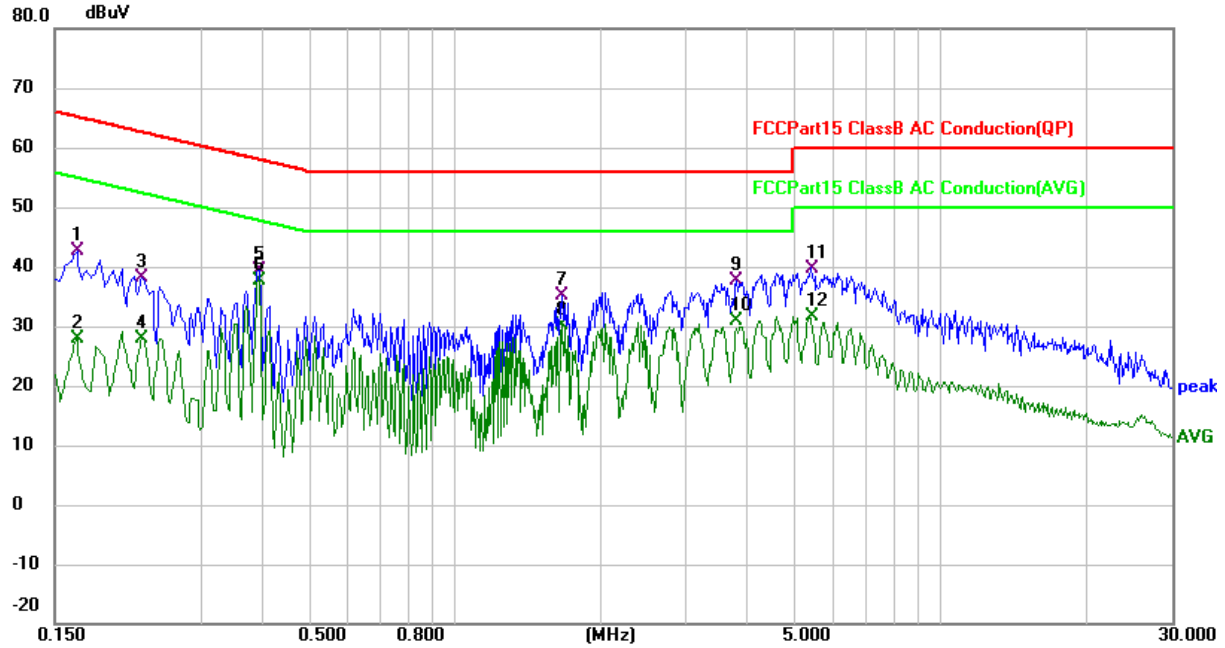
e. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

f. LISN at least 80 cm from nearest part of EUT chassis.

For the actual test configuration, please refer to the related Item –EUT Test Photos.

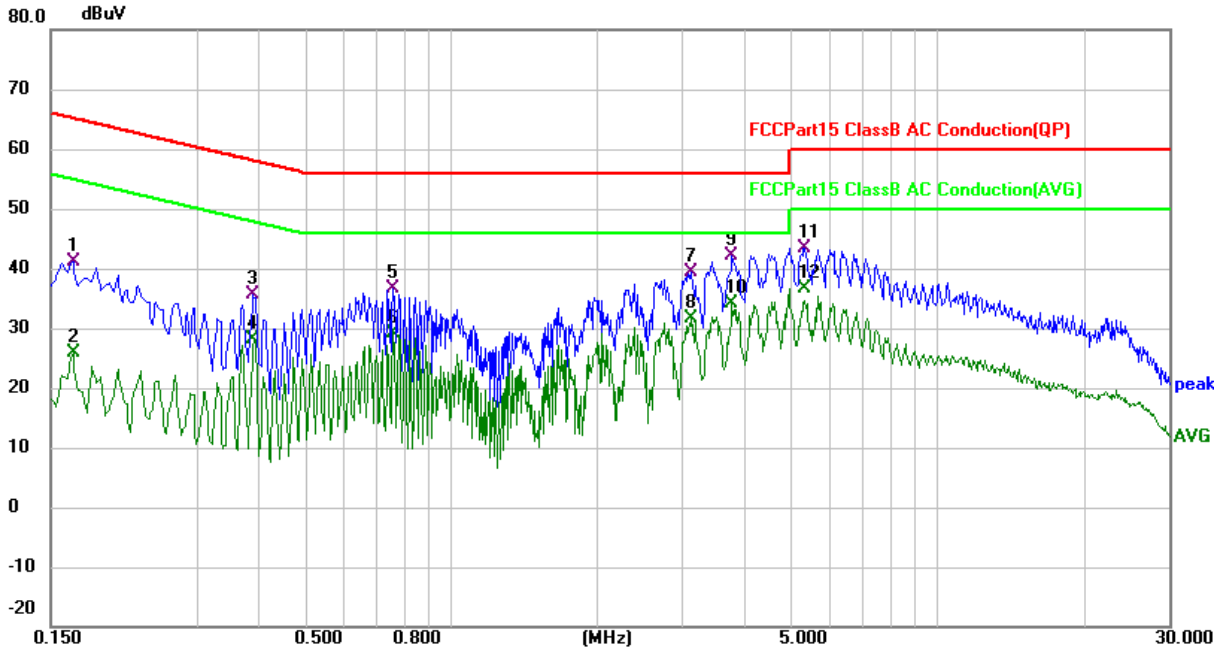
5.2.4 Test results

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	1010hPa	Phase:	L
Test Voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX



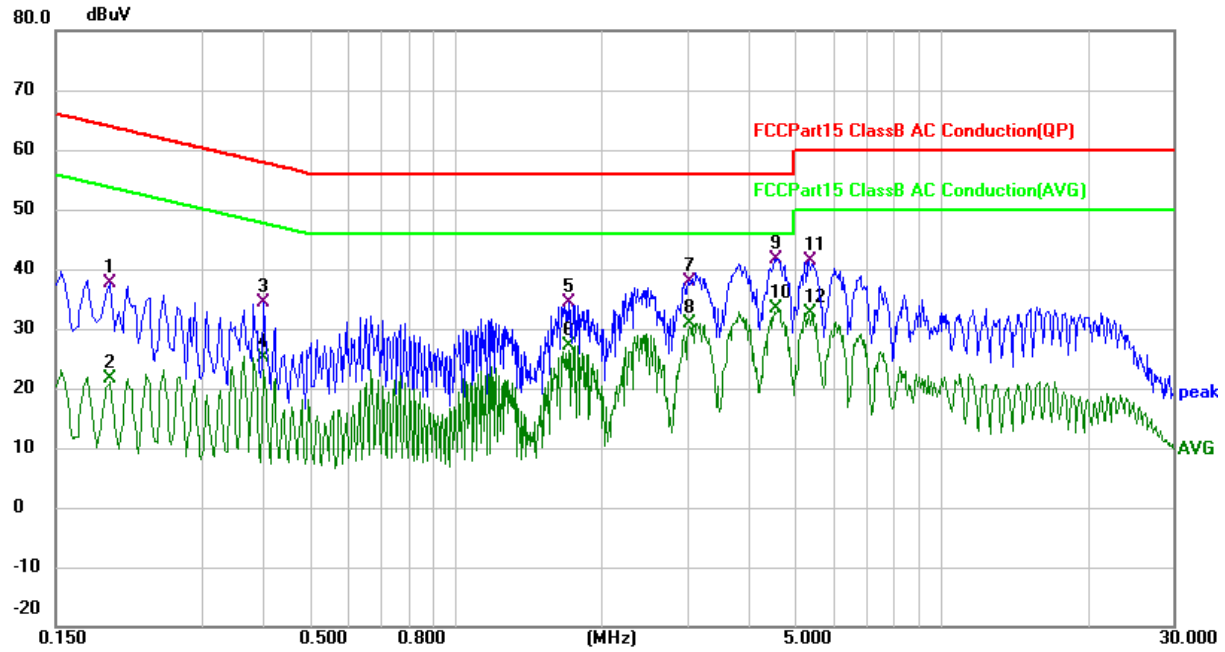
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1660	31.53	10.99	42.52	65.16	-22.64	QP
2		0.1660	17.01	10.99	28.00	55.16	-27.16	AVG
3		0.2260	27.21	10.98	38.19	62.60	-24.41	QP
4		0.2260	16.90	10.98	27.88	52.60	-24.72	AVG
5		0.3940	28.38	11.00	39.38	57.98	-18.60	QP
6	*	0.3940	26.72	11.00	37.72	47.98	-10.26	AVG
7		1.6700	20.52	14.71	35.23	56.00	-20.77	QP
8		1.6700	15.50	14.71	30.21	46.00	-15.79	AVG
9		3.8140	26.18	11.42	37.60	56.00	-18.40	QP
10		3.8140	19.39	11.42	30.81	46.00	-15.19	AVG
11		5.4260	28.24	11.51	39.75	60.00	-20.25	QP
12		5.4260	20.23	11.51	31.74	50.00	-18.26	AVG

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	1010hPa	Phase:	N
Test Voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX



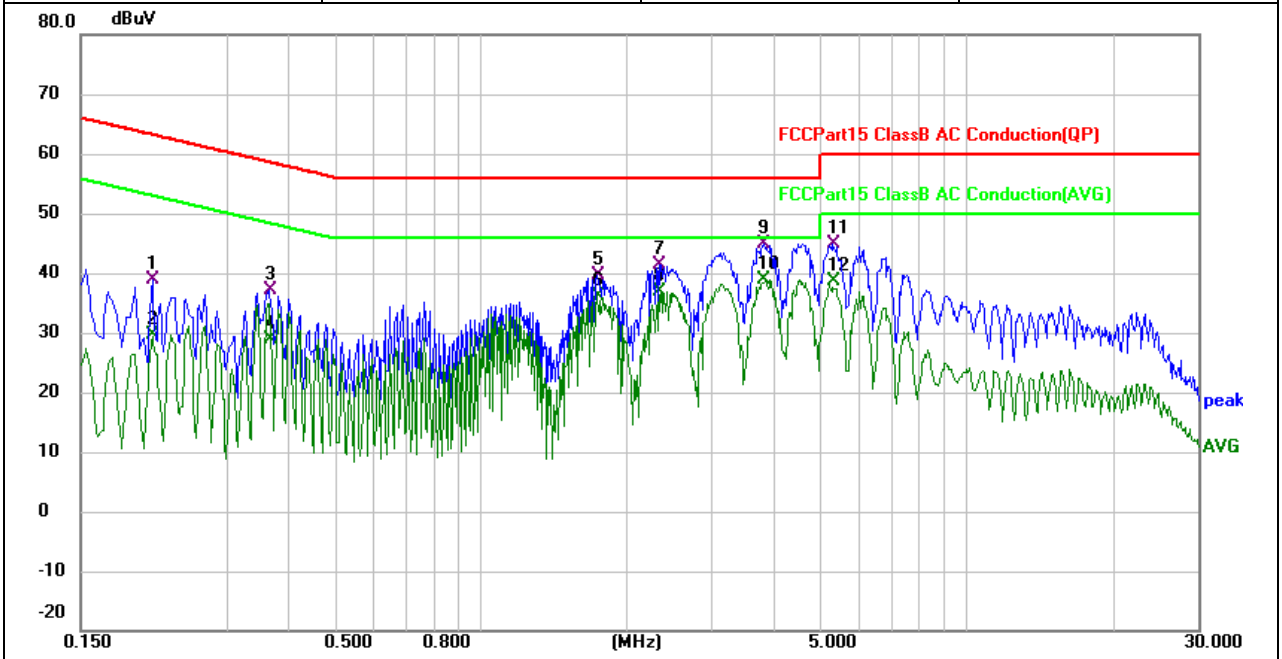
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1660	30.27	10.93	41.20	65.16	-23.96	QP
2		0.1660	14.92	10.93	25.85	55.16	-29.31	AVG
3		0.3899	24.71	10.89	35.60	58.07	-22.47	QP
4		0.3899	17.21	10.89	28.10	48.07	-19.97	AVG
5		0.7620	25.45	11.10	36.55	56.00	-19.45	QP
6		0.7620	18.15	11.10	29.25	46.00	-16.75	AVG
7		3.1099	27.88	11.39	39.27	56.00	-16.73	QP
8		3.1099	20.21	11.39	31.60	46.00	-14.40	AVG
9		3.7900	30.73	11.38	42.11	56.00	-13.89	QP
10	*	3.7900	22.84	11.38	34.22	46.00	-11.78	AVG
11		5.3140	32.10	11.39	43.49	60.00	-16.51	QP
12		5.3140	25.21	11.39	36.60	50.00	-13.40	AVG

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	1010hPa	Phase:	N
Test Voltage:	DC 8V from adapter AC 240V/60Hz	Test Mode:	TX



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1940	26.71	10.92	37.63	63.86	-26.23	QP
2		0.1940	10.70	10.92	21.62	53.86	-32.24	AVG
3		0.4020	23.44	10.89	34.33	57.81	-23.48	QP
4		0.4020	14.25	10.89	25.14	47.81	-22.67	AVG
5		1.7100	19.59	14.76	34.35	56.00	-21.65	QP
6		1.7100	12.40	14.76	27.16	46.00	-18.84	AVG
7		3.0140	26.40	11.39	37.79	56.00	-18.21	QP
8		3.0140	19.60	11.39	30.99	46.00	-15.01	AVG
9		4.5500	30.34	11.39	41.73	56.00	-14.27	QP
10	*	4.5500	21.92	11.39	33.31	46.00	-12.69	AVG
11		5.3580	29.90	11.39	41.29	60.00	-18.71	QP
12		5.3580	21.35	11.39	32.74	50.00	-17.26	AVG

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	1010hPa	Phase:	L
Test Voltage:	DC 8V from adapter AC 240V/60Hz	Test Mode:	TX



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.2100	27.82	10.97	38.79	63.21	-24.42	QP
2		0.2100	18.56	10.97	29.53	53.21	-23.68	AVG
3		0.3660	26.14	10.99	37.13	58.59	-21.46	QP
4		0.3660	17.90	10.99	28.89	48.59	-19.70	AVG
5		1.7420	24.66	14.85	39.51	56.00	-16.49	QP
6		1.7420	21.19	14.85	36.04	46.00	-9.96	AVG
7		2.3340	25.32	16.05	41.37	56.00	-14.63	QP
8		2.3340	20.91	16.05	36.96	46.00	-9.04	AVG
9		3.8300	33.37	11.42	44.79	56.00	-11.21	QP
10	*	3.8300	27.42	11.42	38.84	46.00	-7.16	AVG
11		5.3260	33.28	11.50	44.78	60.00	-15.22	QP
12		5.3260	27.22	11.50	38.72	50.00	-11.28	AVG

Note:
1. Emission Level =Reading Level + Factor;
2. Margin= Emission Level- Limit;
3. Factor = LISN modulus + Cable Loss.

5.3 Radiated spurious emission

5.3.1 Limit

FCC PART 15.249(a);

Except as provided in paragraph (a) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Frequency (MHz)	Field Strength of Fundamental (mV/m)	Field Strength of Harmonics (μV/m)
902-928	50	500
2400-2483.5	50	500
5725-5875	50	500

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

5.3.2 Test method

a) The EUT is placed on a turntable, which is 0.8m above ground plane for test frequency range blew 1GHz, and 1.5m above ground plane for test frequency range above 1GHz.

b) EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.

c) Use the following spectrum analyzer settings:

1) Span = wide enough to fully capture the emission being measured

2) RBW = 1 MHz for f ≥ 1GHz, 100 kHz for f < 1 GHz

3) VBW ≥ RBW, Sweep = auto

4) Detector function = peak

5) Trace = max hold

d) Follow the guidelines in ANSI C63.4-2014 with respect to maximizing the emission by rotating the EUT, adjusting the measurement antenna height and polarization, etc. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, submit this data. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

e) The peak level, once corrected, must comply with the limit specified in Section 15.209. Set the RBW = 1MHz, VBW = 10Hz, Detector = PK for AV value, while maintaining all of the other instrument settings.

5.3.3 Test Result

Below 30MHz

EUT：	Wireless TV Headphones	Model Name. ：	HW2
Pressure：	1010 hPa	Test Voltage：	DC 8V from adapter AC 120V/60Hz
Test Mode：	TX	Polarization :	--

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

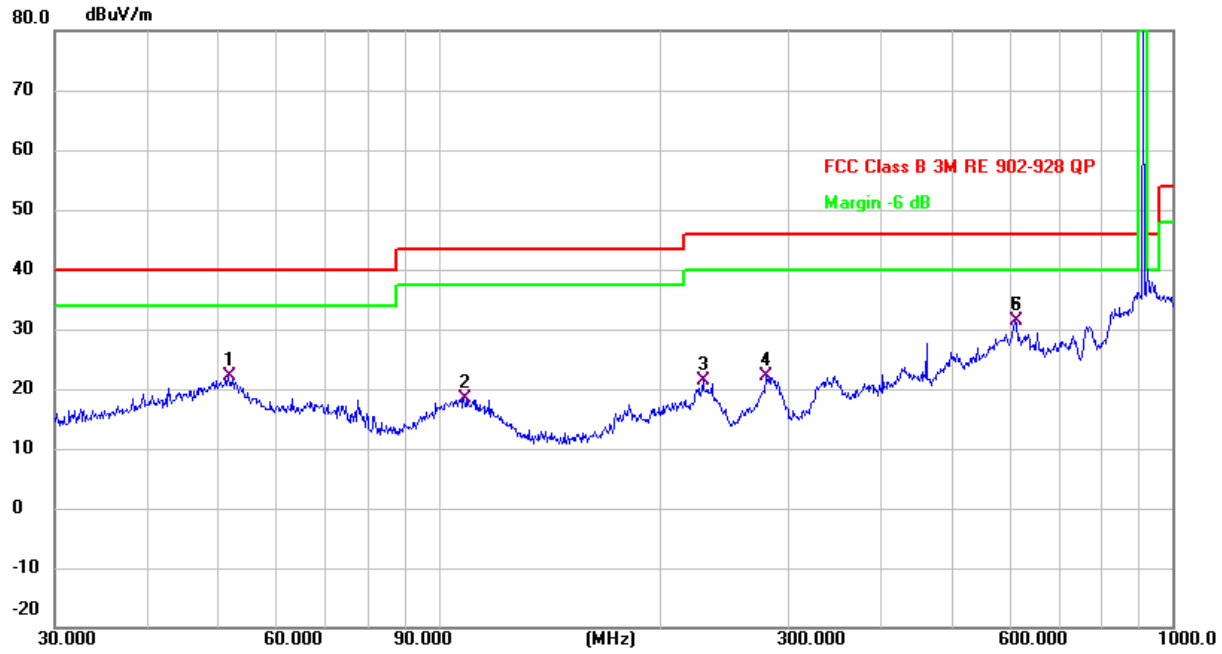
Note:

1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Distance extrapolation factor =40 log (specific distance/test distance)(dB).
3. Limit line = specific limits (dBuV) + distance extrapolation factor.

5.3.4 Test Result

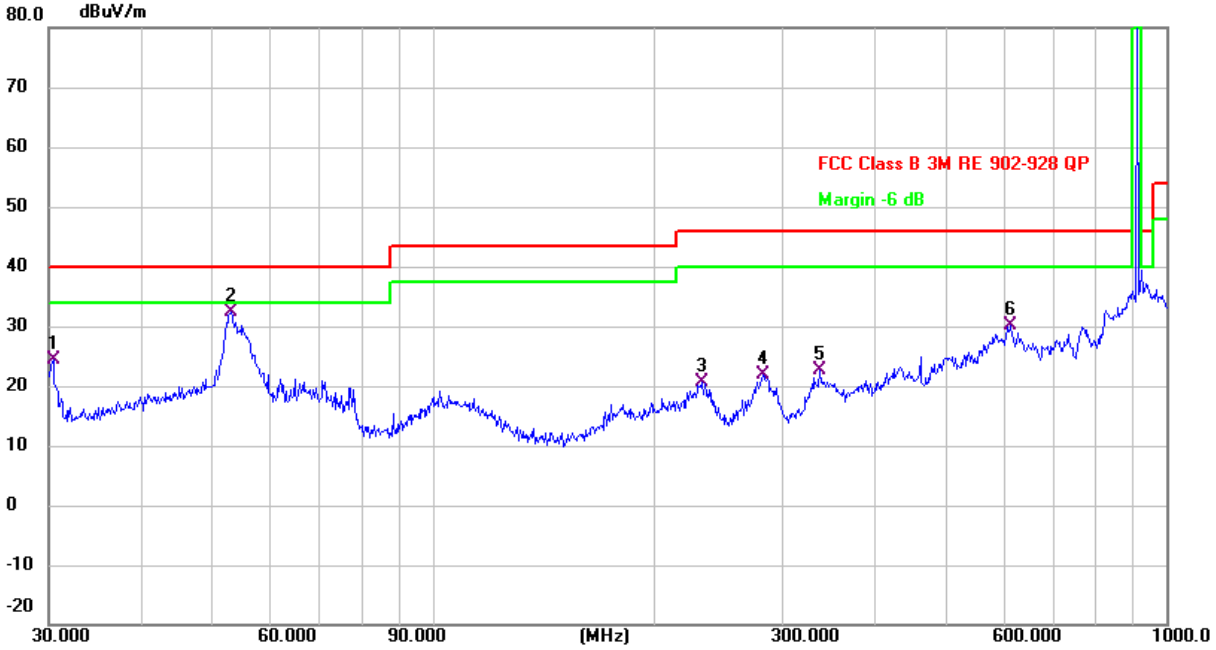
30MHz-1GHz

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912MHz



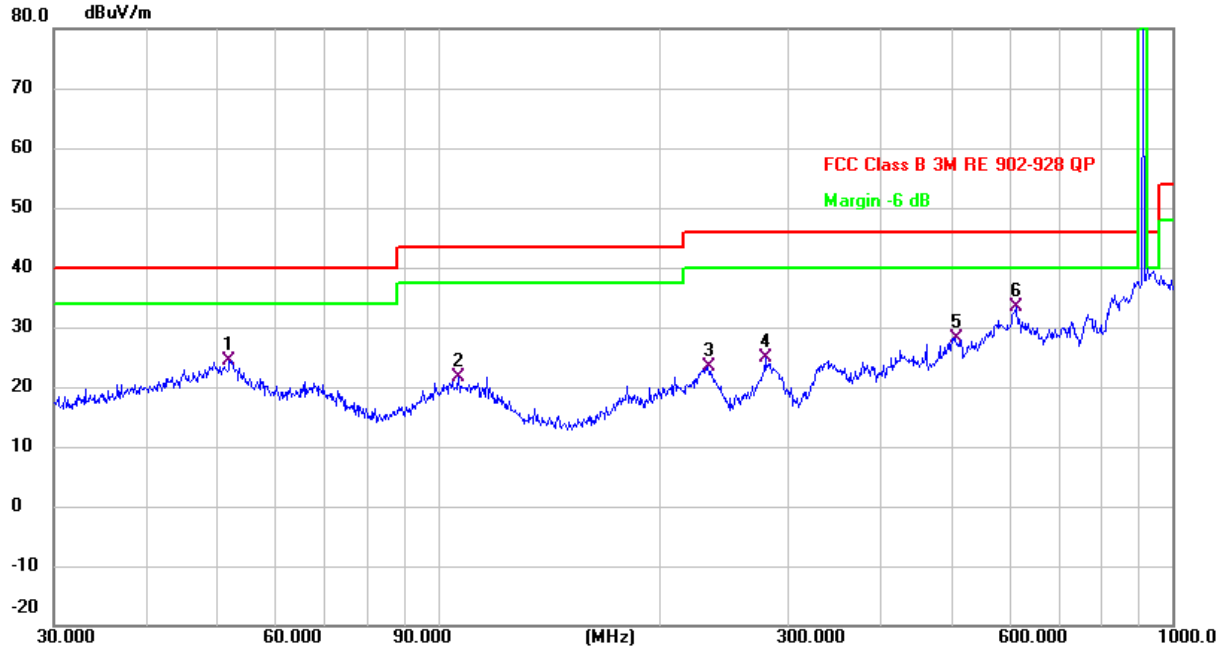
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		51.6616	37.26	-15.22	22.04	40.00	-17.96	QP
2		108.2667	30.73	-12.44	18.29	43.50	-25.21	QP
3		229.2931	33.02	-11.66	21.36	46.00	-24.64	QP
4		279.0436	32.32	-10.22	22.10	46.00	-23.90	QP
5	*	609.9217	36.94	-5.51	31.43	46.00	-14.57	QP
6	*	609.9217	36.94	-5.51	31.43	46.00	-14.57	QP

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912MHz



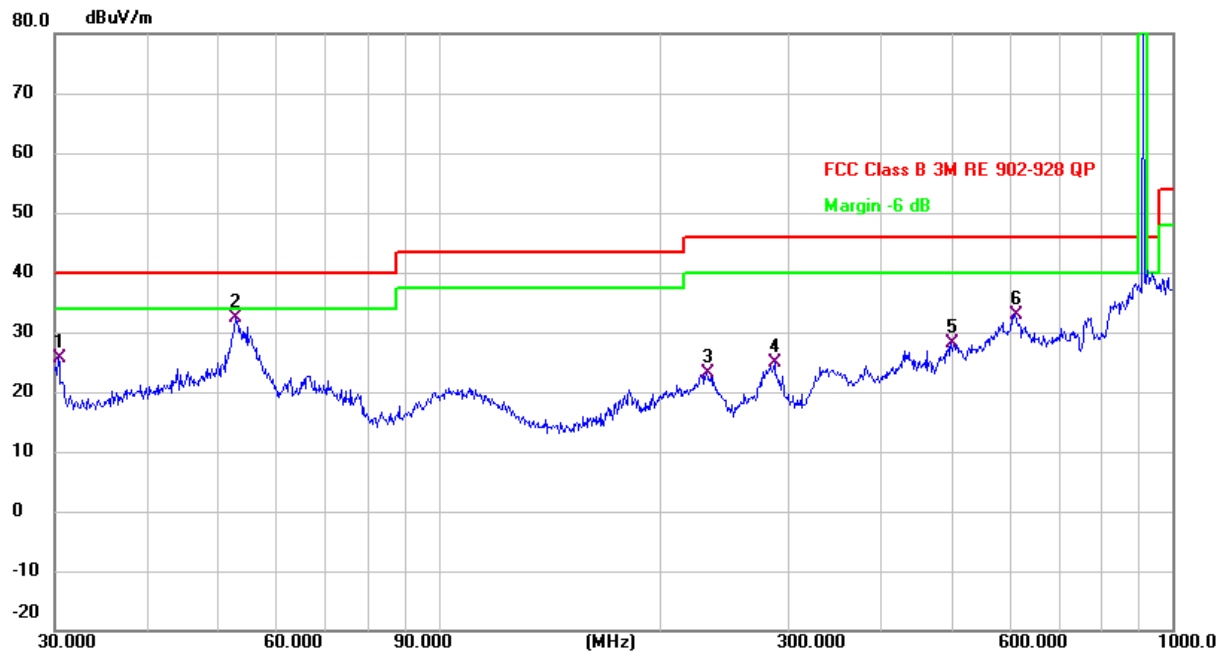
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		30.4237	-21.50	45.99	24.49	40.00	-15.51	QP
2	*	53.1313	42.52	-10.22	32.30	40.00	-7.70	QP
3		233.3486	30.31	-9.72	20.59	46.00	-25.41	QP
4		281.9945	30.44	-8.48	21.96	46.00	-24.04	QP
5		337.2155	30.98	-8.38	22.60	46.00	-23.40	QP
6		614.2142	31.43	-1.28	30.15	46.00	-15.85	QP

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912.5MHz



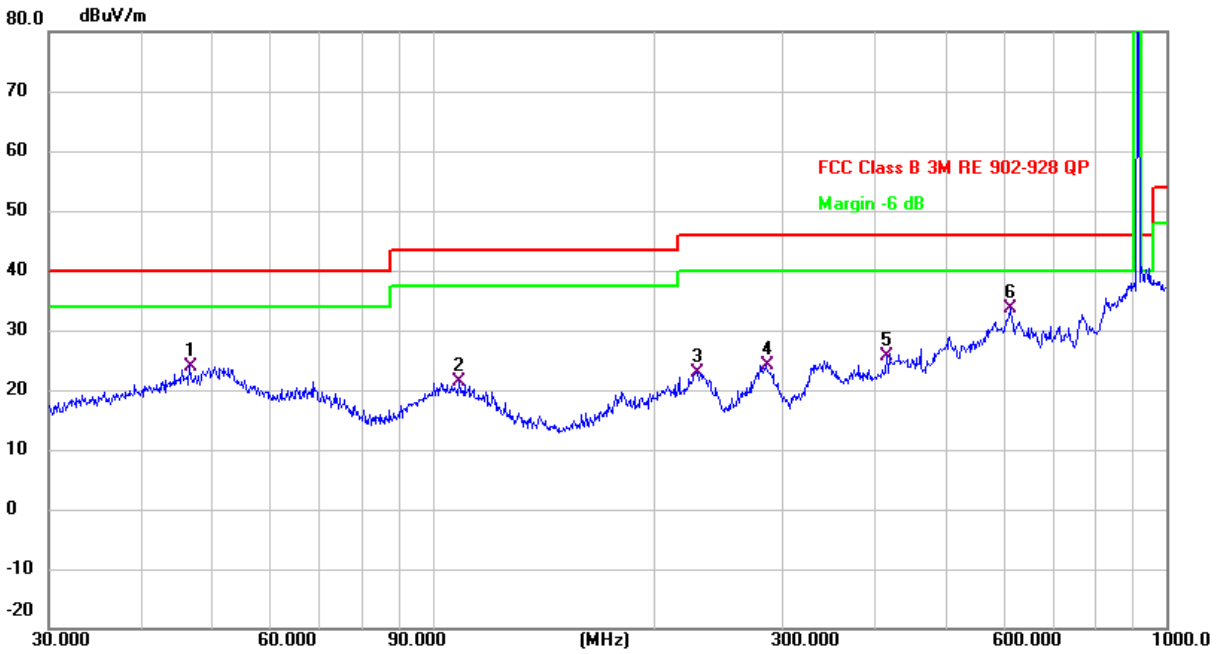
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		52.0251	39.54	-15.19	24.35	40.00	-15.65	QP
2		106.7587	33.80	-12.23	21.57	43.50	-21.93	QP
3		233.3487	34.93	-11.58	23.35	46.00	-22.65	QP
4		279.0436	35.04	-10.22	24.82	46.00	-21.18	QP
5		506.4791	32.44	-4.19	28.25	46.00	-17.75	QP
6	*	612.0642	38.53	-5.25	33.28	46.00	-12.72	QP

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912.5MHz



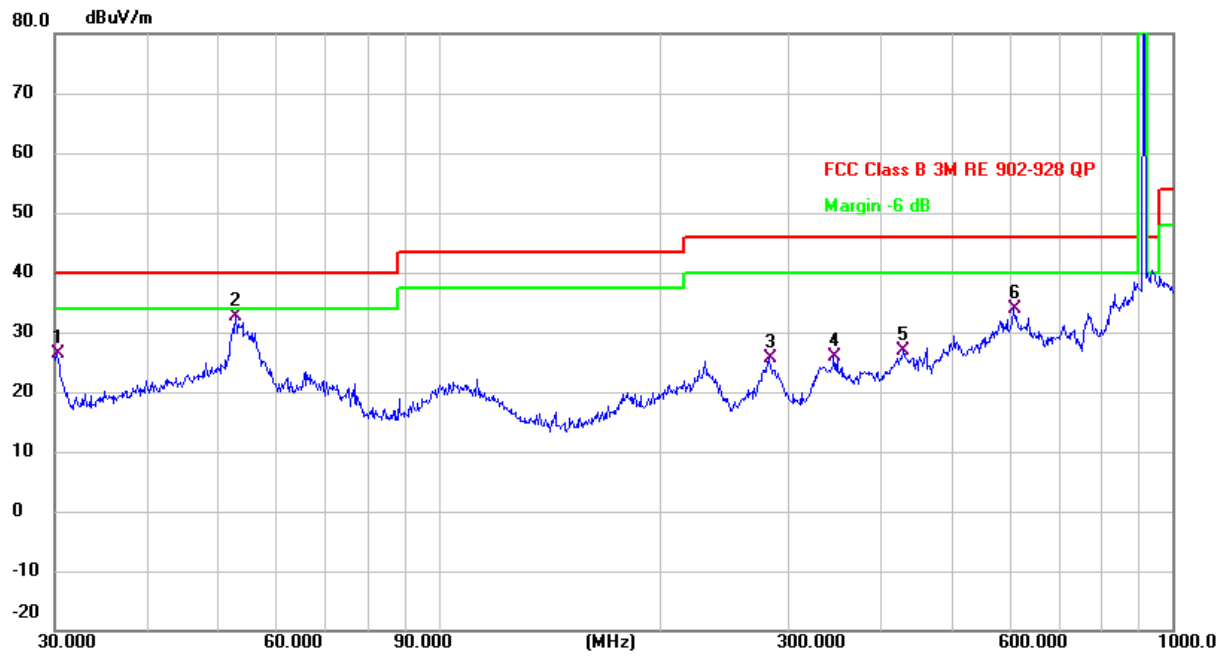
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		30.3173	-20.04	45.76	25.72	40.00	-14.28	QP
2	*	52.9453	42.49	-10.16	32.33	40.00	-7.67	QP
3		231.7179	32.42	-9.27	23.15	46.00	-22.85	QP
4		286.9823	34.05	-9.29	24.76	46.00	-21.24	QP
5		499.4247	33.24	-5.10	28.14	46.00	-17.86	QP
6		609.9217	32.93	0.06	32.99	46.00	-13.01	QP

EUT：	Wireless TV Headphones	Model Name. ：	HW2
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode ：	TX-913MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		46.6664	39.03	-15.03	24.00	40.00	-16.00	QP
2		108.6470	33.88	-12.50	21.38	43.50	-22.12	QP
3		228.4904	34.61	-11.72	22.89	46.00	-23.11	QP
4		284.9767	35.01	-10.77	24.24	46.00	-21.76	QP
5		416.1791	32.83	-7.10	25.73	46.00	-20.27	QP
6	*	612.0642	38.78	-5.25	33.53	46.00	-12.47	QP

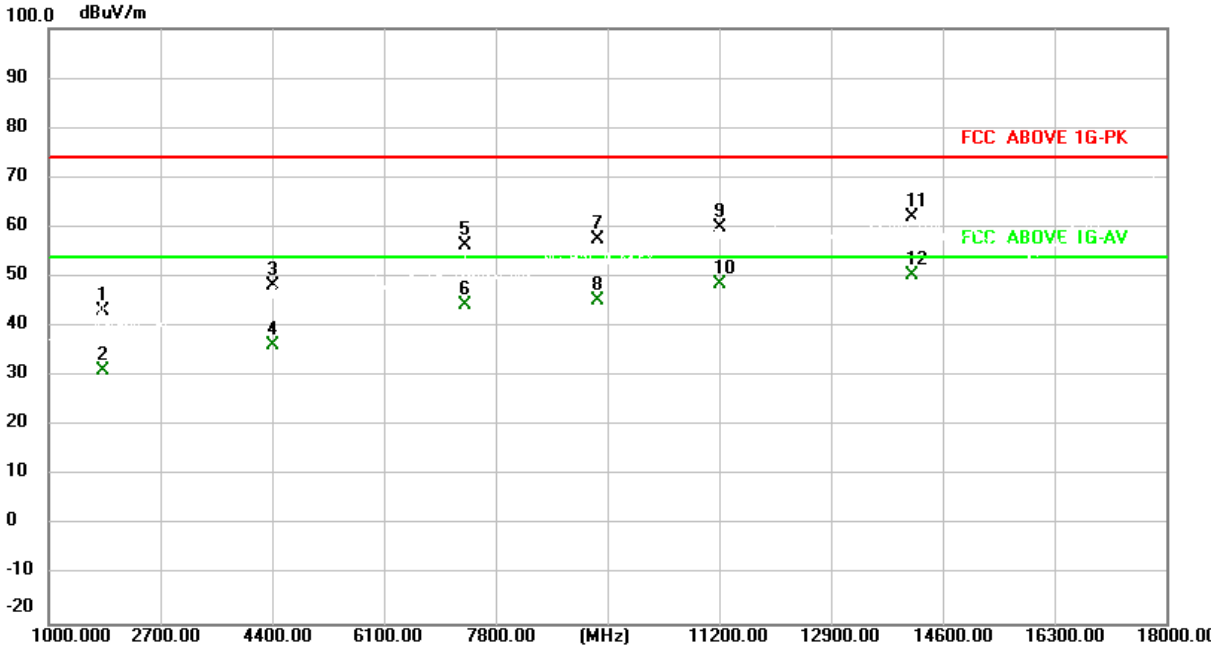
EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-913MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detecto
1		30.2111	-19.11	45.51	26.40	40.00	-13.60	QP
2	*	52.9453	42.88	-10.16	32.72	40.00	-7.28	QP
3		281.9946	34.21	-8.48	25.73	46.00	-20.27	QP
4		345.5952	34.41	-8.42	25.99	46.00	-20.01	QP
5		429.5228	33.76	-6.98	26.78	46.00	-19.22	QP
6		607.7867	34.29	-0.46	33.83	46.00	-12.17	QP

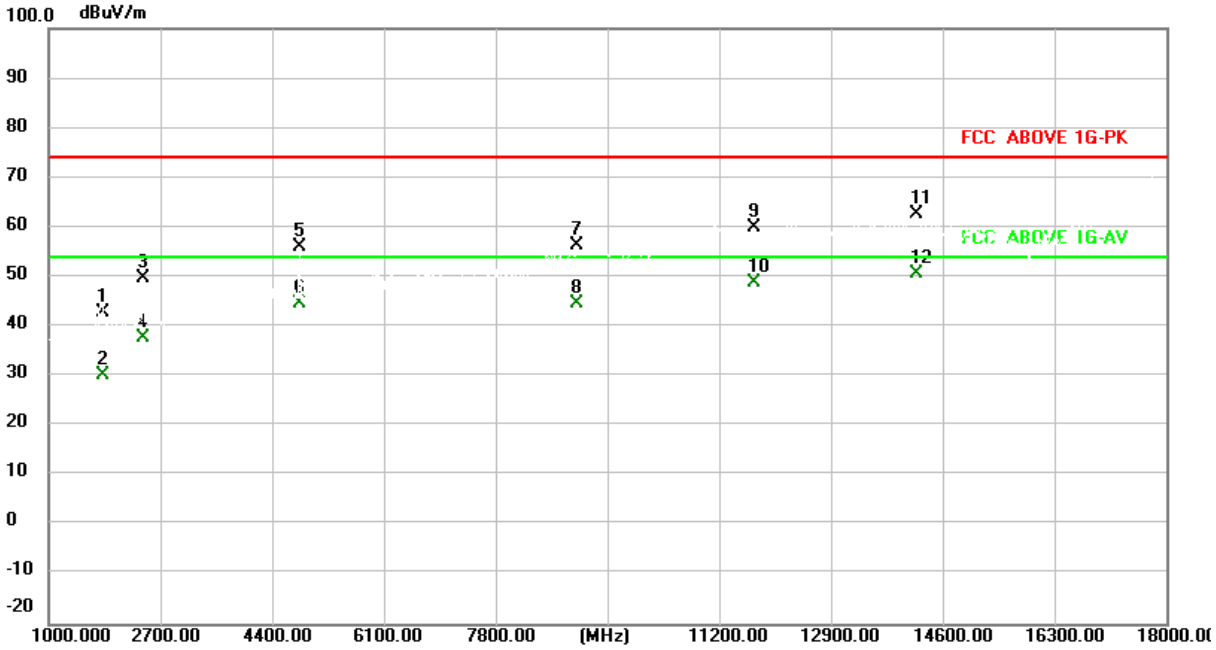
1GHz-18GHz:

EUT:	Wireless TV Headphones	Model Name.:	HW2
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912MHz



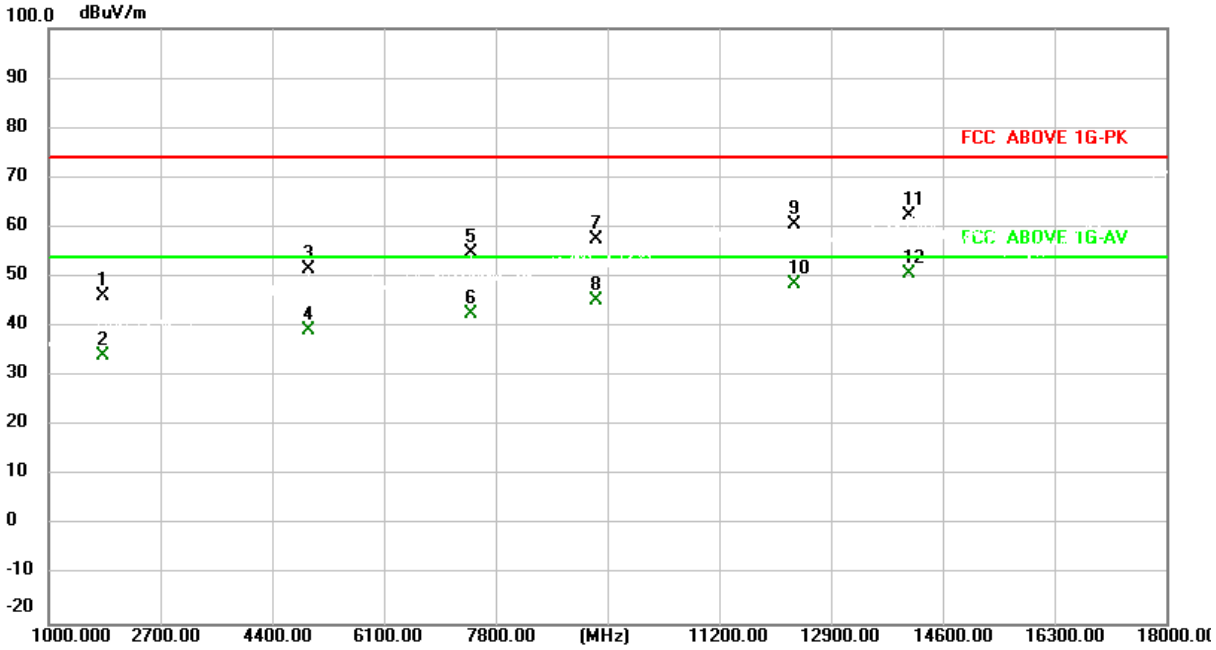
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		1824.000	47.81	-4.65	43.16	74.00	-30.84	peak
2		1824.000	35.86	-4.65	31.21	54.00	-22.79	AVG
3		4417.000	43.72	4.56	48.28	74.00	-25.72	peak
4		4417.000	31.68	4.56	36.24	54.00	-17.76	AVG
5		7341.000	47.30	9.17	56.47	74.00	-17.53	peak
6		7341.000	35.04	9.17	44.21	54.00	-9.79	AVG
7		9347.000	43.67	13.85	57.52	74.00	-16.48	peak
8		9347.000	31.36	13.85	45.21	54.00	-8.79	AVG
9		11217.00	40.46	19.55	60.01	74.00	-13.99	peak
10		11217.00	29.07	19.55	48.62	54.00	-5.38	AVG
11		14141.00	43.19	18.86	62.05	74.00	-11.95	peak
12	*	14141.00	31.35	18.86	50.21	54.00	-3.79	AVG

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912MHz



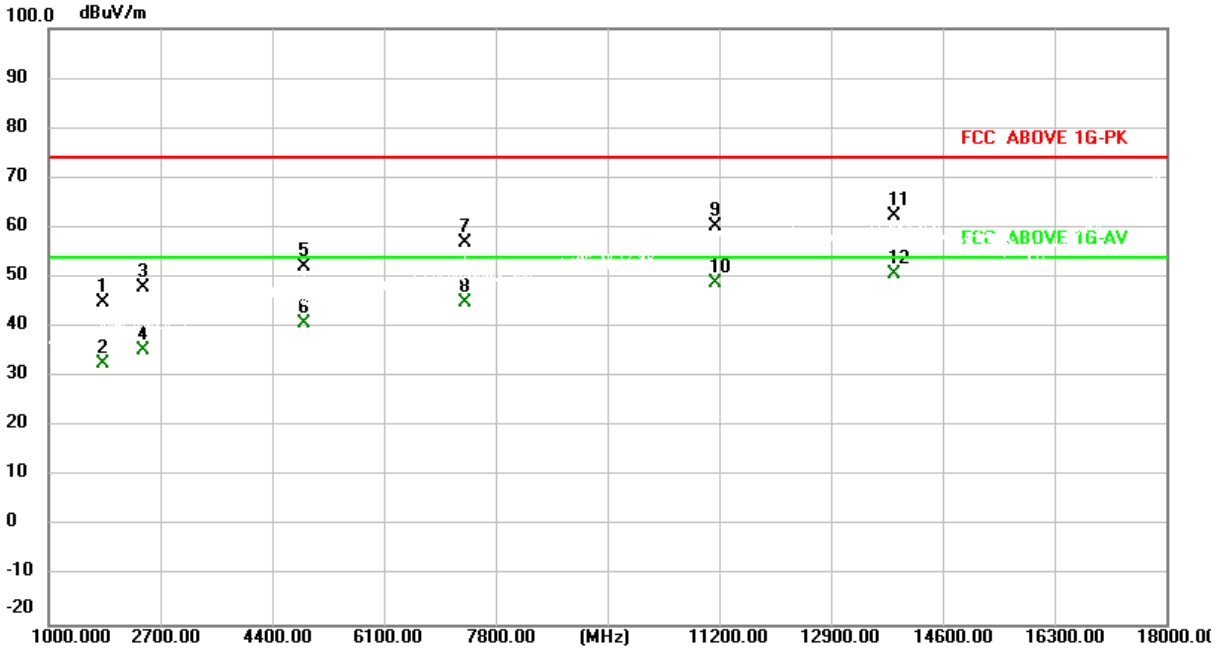
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		1824.000	47.48	-4.65	42.83	74.00	-31.17	peak
2		1824.000	34.89	-4.65	30.24	54.00	-23.76	AVG
3		2428.000	52.47	-2.87	49.60	74.00	-24.40	peak
4		2428.000	40.49	-2.87	37.62	54.00	-16.38	AVG
5		4808.000	52.25	3.94	56.19	74.00	-17.81	peak
6		4808.000	40.58	3.94	44.52	54.00	-9.48	AVG
7		9024.000	43.64	12.61	56.25	74.00	-17.75	peak
8		9024.000	32.08	12.61	44.69	54.00	-9.31	AVG
9		11727.00	41.58	18.42	60.00	74.00	-14.00	peak
10		11727.00	30.50	18.42	48.92	54.00	-5.08	AVG
11		14209.00	43.79	18.89	62.68	74.00	-11.32	peak
12	*	14209.00	31.72	18.89	50.61	54.00	-3.39	AVG

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912.5MHz



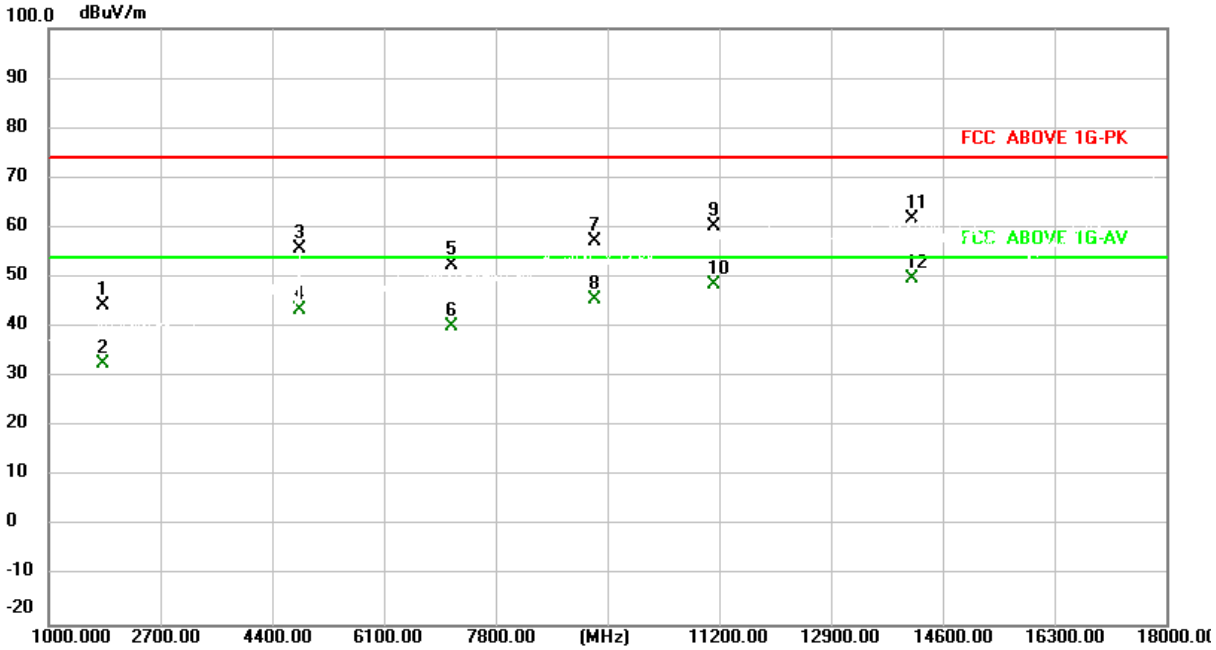
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		1825.000	50.88	-4.64	46.24	74.00	-27.76	peak
2		1825.000	38.85	-4.64	34.21	54.00	-19.79	AVG
3		4944.000	46.11	5.42	51.53	74.00	-22.47	peak
4		4944.000	33.79	5.42	39.21	54.00	-14.79	AVG
5		7426.000	45.65	9.05	54.70	74.00	-19.30	peak
6		7426.000	33.57	9.05	42.62	54.00	-11.38	AVG
7		9330.000	43.77	13.78	57.55	74.00	-16.45	peak
8		9330.000	31.58	13.78	45.36	54.00	-8.64	AVG
9		12339.00	43.18	17.25	60.43	74.00	-13.57	peak
10		12339.00	31.42	17.25	48.67	54.00	-5.33	AVG
11		14090.00	43.59	18.84	62.43	74.00	-11.57	peak
12	*	14090.00	31.77	18.84	50.61	54.00	-3.39	AVG

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912.5MHz



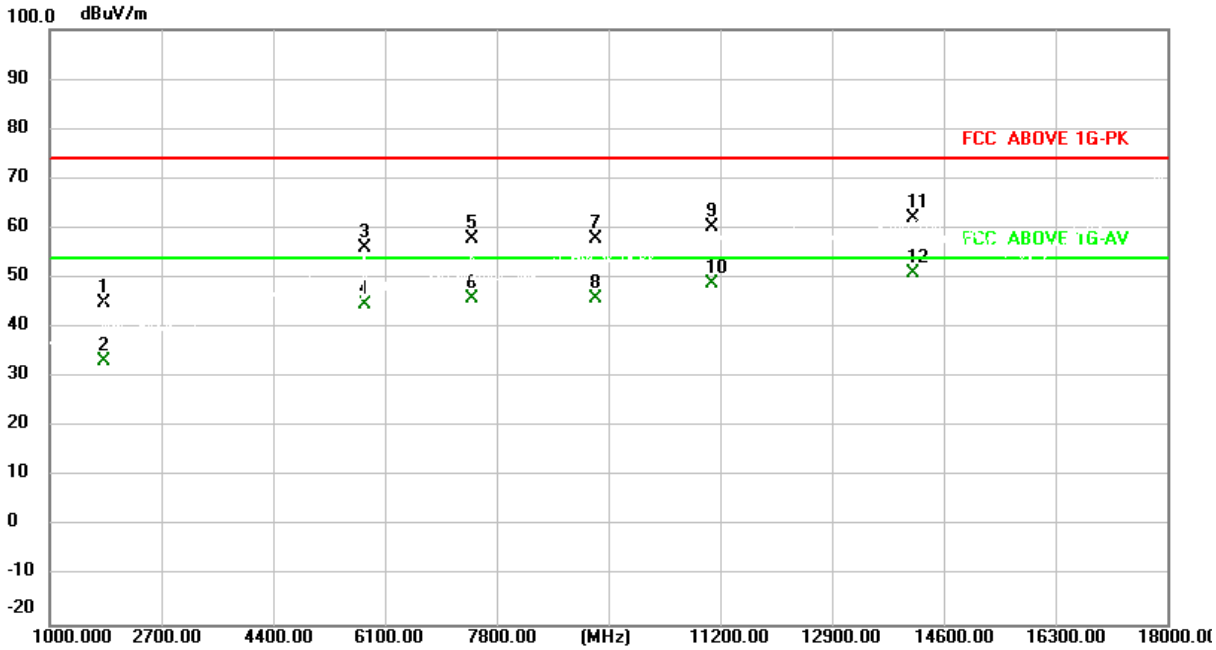
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		1825.000	49.59	-4.64	44.95	74.00	-29.05	peak
2		1825.000	37.15	-4.64	32.51	54.00	-21.49	AVG
3		2428.000	50.75	-2.87	47.88	74.00	-26.12	peak
4		2428.000	38.11	-2.87	35.24	54.00	-18.76	AVG
5		4893.000	47.31	4.83	52.14	74.00	-21.86	peak
6		4893.000	35.79	4.83	40.62	54.00	-13.38	AVG
7		7341.000	47.80	9.17	56.97	74.00	-17.03	peak
8		7341.000	35.68	9.17	44.85	54.00	-9.15	AVG
9		11132.00	40.62	19.67	60.29	74.00	-13.71	peak
10		11132.00	29.28	19.67	48.95	54.00	-5.05	AVG
11		13852.00	43.58	18.64	62.22	74.00	-11.78	peak
12	*	13852.00	31.99	18.64	50.63	54.00	-3.37	AVG

EUT:	Wireless TV Headphones	Model Nam:	HW2
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-913MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		1826.000	49.12	-4.63	44.49	74.00	-29.51	peak
2		1826.000	37.24	-4.63	32.61	54.00	-21.39	AVG
3		4808.000	51.78	3.94	55.72	74.00	-18.28	peak
4		4808.000	39.58	3.94	43.52	54.00	-10.48	AVG
5		7120.000	42.94	9.48	52.42	74.00	-21.58	peak
6		7120.000	30.73	9.48	40.21	54.00	-13.79	AVG
7		9313.000	43.61	13.72	57.33	74.00	-16.67	peak
8		9313.000	31.90	13.72	45.62	54.00	-8.38	AVG
9		11115.00	40.50	19.68	60.18	74.00	-13.82	peak
10		11115.00	28.93	19.68	48.61	54.00	-5.39	AVG
11		14141.00	42.80	18.86	61.66	74.00	-12.34	peak
12	*	14141.00	30.75	18.86	49.61	54.00	-4.39	AVG

EUT：	Wireless TV Headphones	Model Name：	HW2
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode：	TX-913MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		1826.000	49.72	-4.63	45.09	74.00	-28.91	peak
2		1826.000	37.87	-4.63	33.24	54.00	-20.76	AVG
3		5794.000	51.04	5.06	56.10	74.00	-17.90	peak
4		5794.000	39.56	5.06	44.62	54.00	-9.38	AVG
5		7426.000	48.90	9.05	57.95	74.00	-16.05	peak
6		7426.000	36.93	9.05	45.98	54.00	-8.02	AVG
7		9296.000	44.23	13.65	57.88	74.00	-16.12	peak
8		9296.000	32.21	13.65	45.86	54.00	-8.14	AVG
9		11081.00	40.51	19.73	60.24	74.00	-13.76	peak
10		11081.00	28.99	19.73	48.72	54.00	-5.28	AVG
11		14124.00	43.33	18.86	62.19	74.00	-11.81	peak
12	*	14124.00	32.10	18.86	50.96	54.00	-3.04	AVG

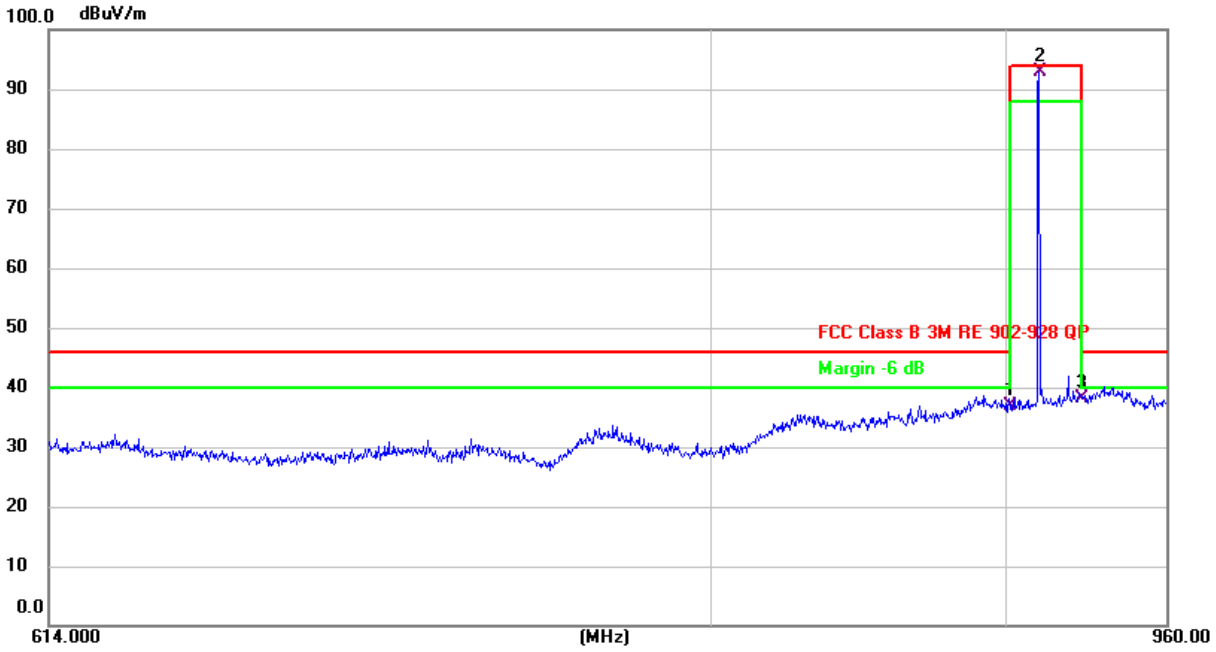
5.3.5 Band edge–Field strength of fundamental

Frequency	Ant. Polarization	Emission level	Limits	Detector	Result
(MHz)	H / V	dBμV/m	dBμV/m		
912	H	92.97	94	QP	PASS
912.5	H	92.86	94	QP	PASS
913	H	93.53	94	QP	PASS
912	V	91.10	94	QP	PASS
912.5	V	91.16	94	QP	PASS
913	V	91.85	94	QP	PASS

5.3.6 Band edge-radiated

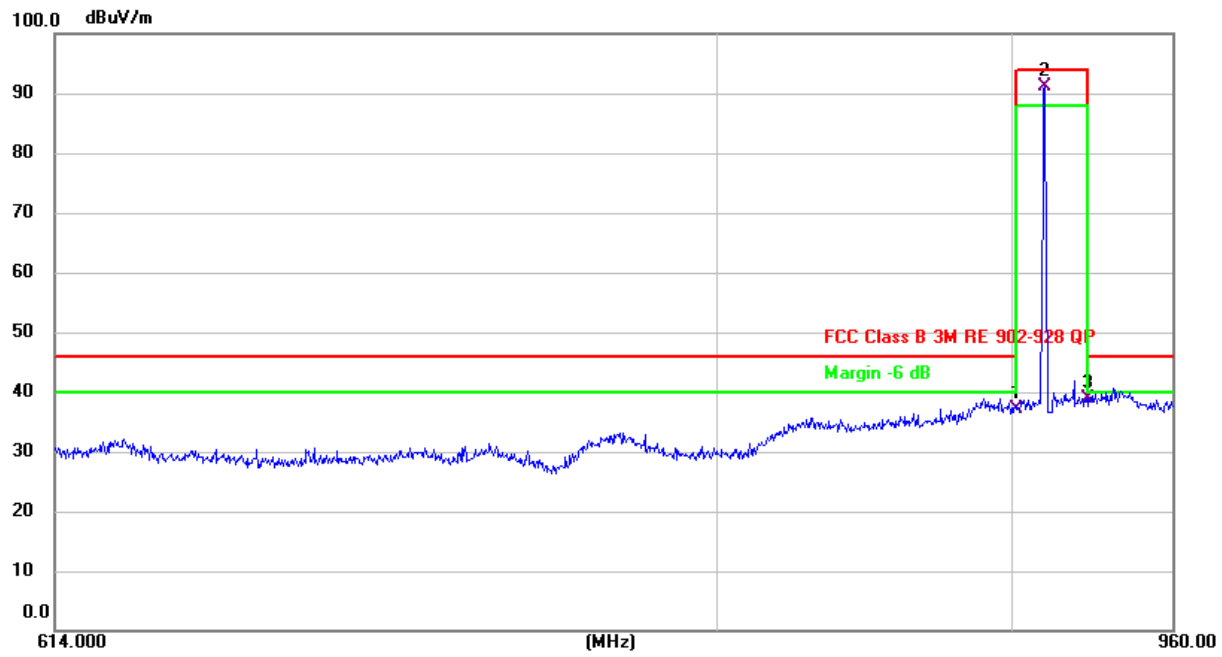
All the modulation modes have been tested, and the worst result was report as below:

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912MHz



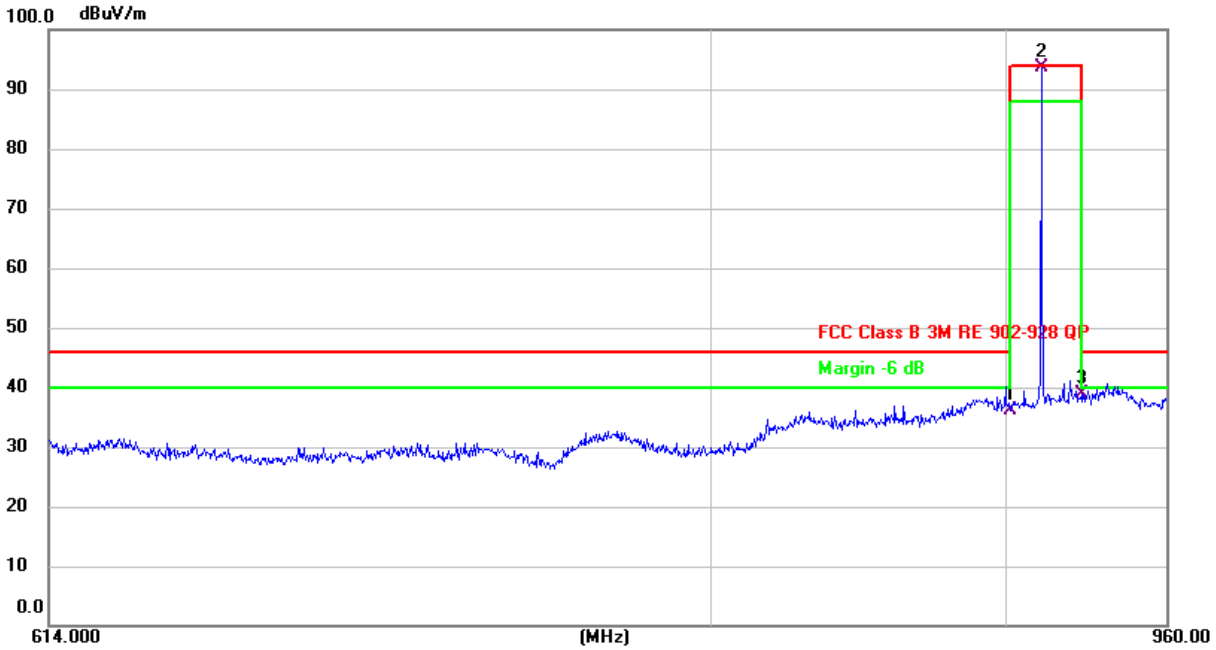
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		902.0000	34.98	1.85	36.83	46.00	-9.17	QP
2	*	912.3123	91.50	1.47	92.97	94.00	-1.03	QP
3		928.0000	36.36	1.72	38.08	46.00	-7.92	QP

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-912MHz



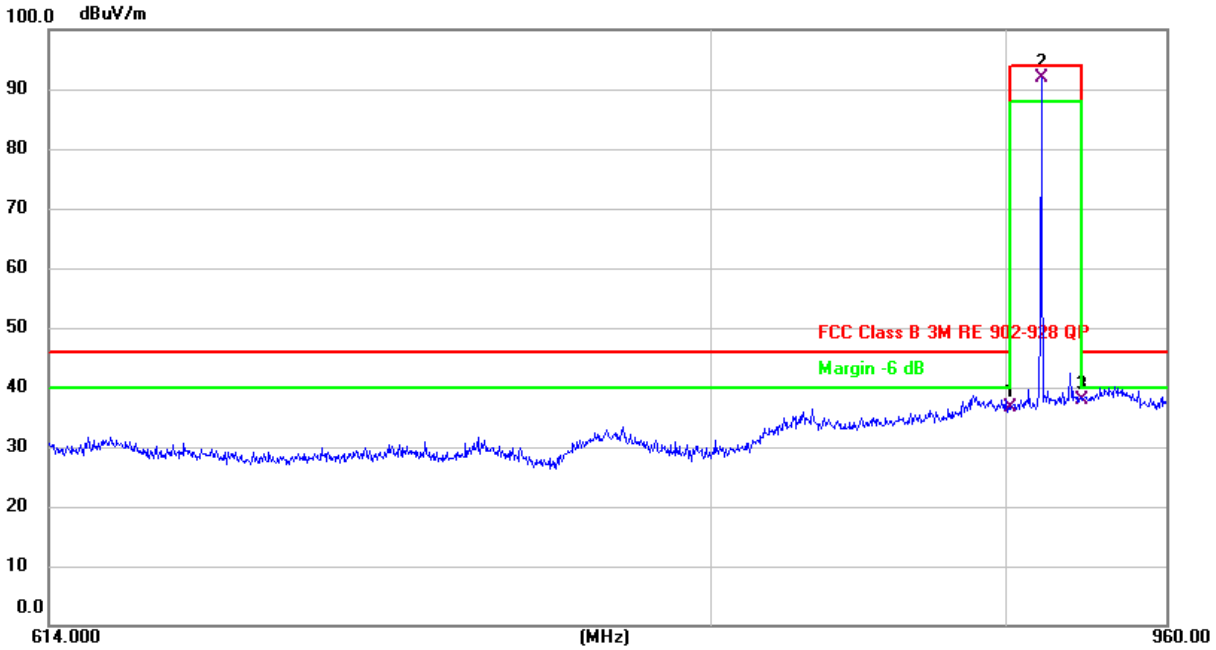
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		902.0000	33.23	4.01	37.24	46.00	-8.76	QP
2	*	912.3120	86.67	4.43	91.10	94.00	-2.90	QP
3		928.0000	33.64	5.22	38.86	46.00	-7.14	QP

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-913MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		902.0000	34.34	1.85	36.19	46.00	-9.81	QP
2	*	913.1281	92.05	1.48	93.53	94.00	-0.47	QP
3		928.0000	37.17	1.72	38.89	46.00	-7.11	QP

EUT:	Wireless TV Headphones	Model Name:	HW2
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 8V from adapter AC 120V/60Hz	Test Mode:	TX-913MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		902.0000	32.68	4.01	36.69	46.00	-9.31	QP
2	*	913.1281	87.35	4.50	91.85	94.00	-2.15	QP
3		928.0000	32.62	5.22	37.84	46.00	-8.16	QP

Note:
1. All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
2. Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor.
3. All other emissions more than 20dB below the limit.

5.4 20dB and 99% bandwidth

5.4.1 Limits

FCC §15.215(c)

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.

5.4.2 Test method

Use the following spectrum analyzer settings:

For 20 dB bandwidth

Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel

RBW ≥1% of the 20 dB bandwidth

VBW ≥RBW

Sweep = auto

Detector function = peak

Trace = max hold

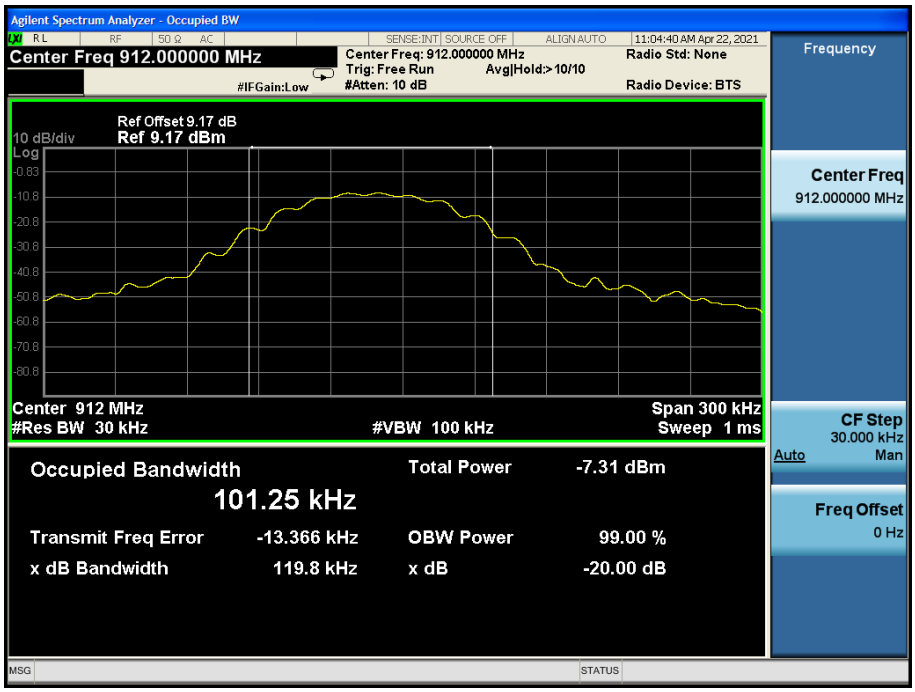
The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth and 99% occupied bandwidth of the emission

5.4.3 Test result

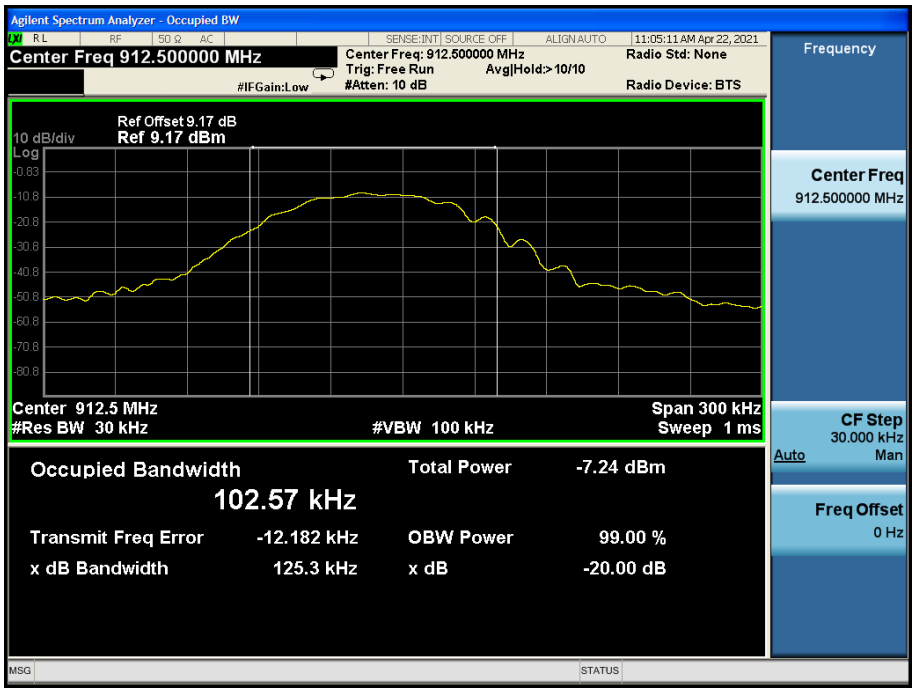
Channel	Frequency(MHz)	20dB bandwidth (MHz)
Low	912	0.1198
Middle	912.5	0.1253
High	913	0.1236

Test plots

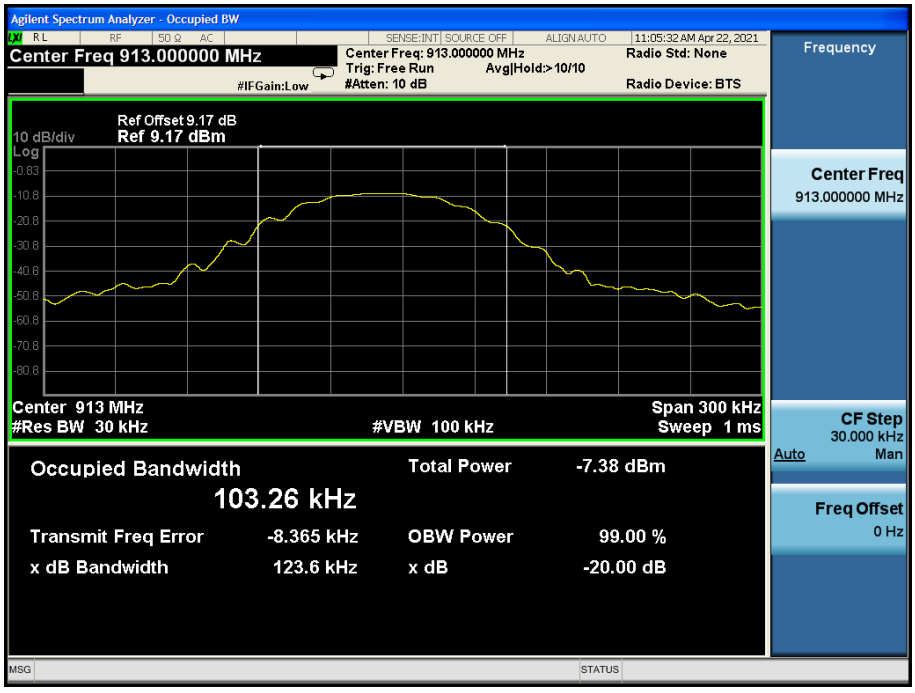
912MHz



912.5MHz

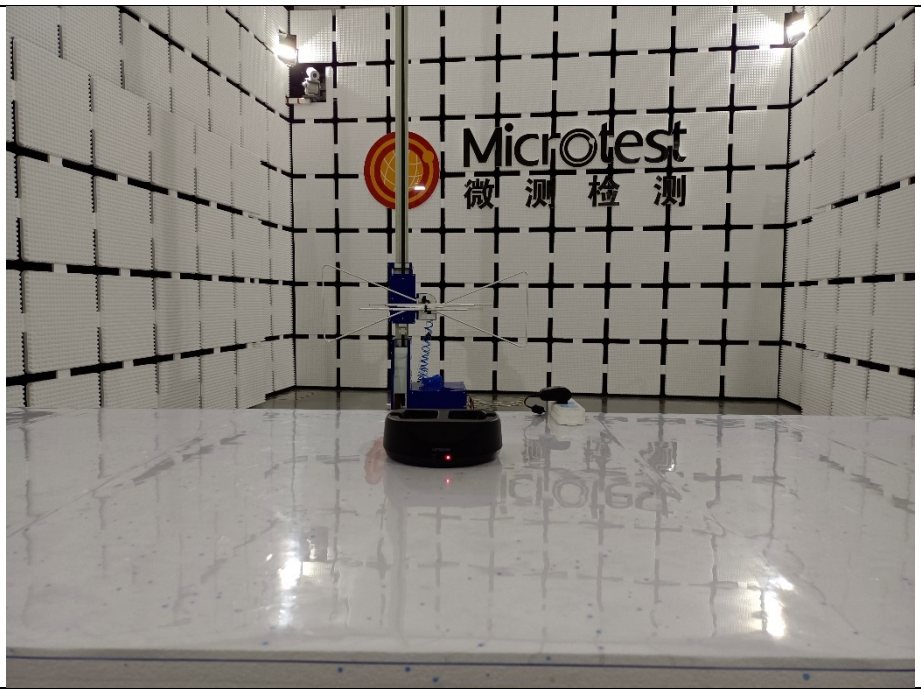


913MHz

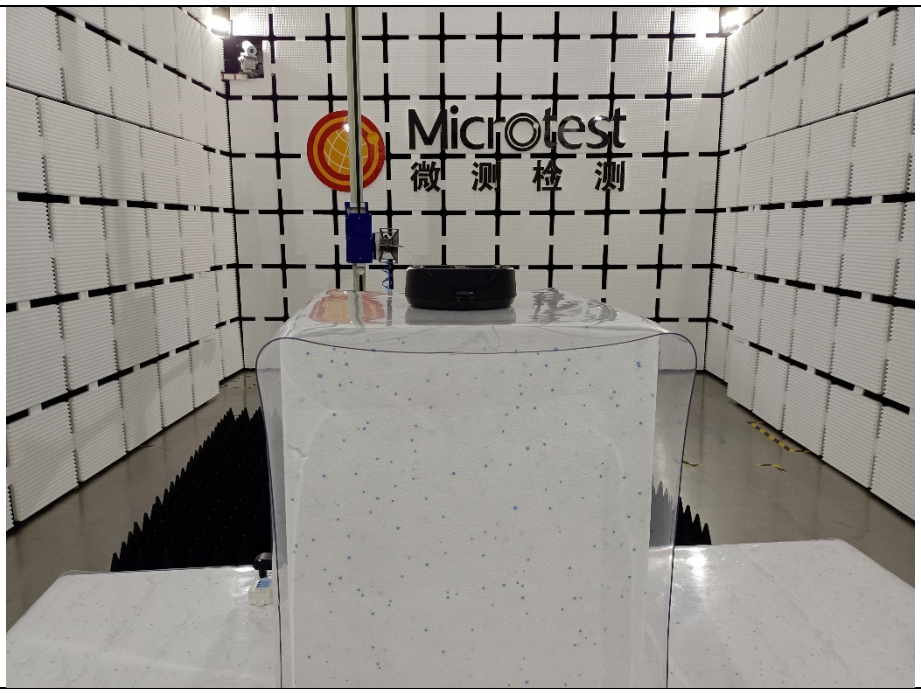


Photographs of the Test Setup

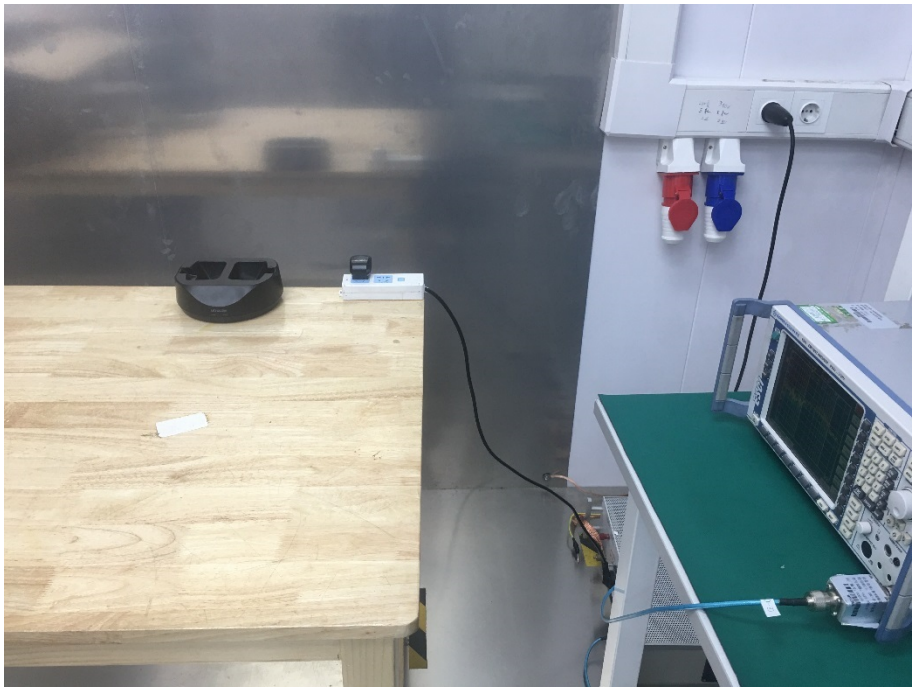
Radiated emission – below 1GHz



Radiated emission – above 1GHz



Conducted emission



Photographs of the EUT

See the APPENDIX 1- EUT PHOTO.

Instructions

1. The report shall not be partially reproduced without the written consent of the laboratory;
2. The test results of this report are only responsible for the samples submitted;
3. This report is invalid without the seal and signature of the laboratory;
4. This report is invalid if transferred, altered or tampered with in any form without authorization;
5. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

----END OF REPORT----