Test Report

Report No.:	MTi210223014-04E1
Date of issue:	June 09, 2021
Applicant:	Cherub Technology Co., Ltd
Product name:	2.4GHz Wireless Microphone System
Model(s):	B-3 PLUS, B-4 PLUS
FCC ID:	2AOAA-B-3PLUS

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

Address: 101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao' an District, Shenzhen, Guangdong, China.
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Instructions

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5. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

Table of Contents

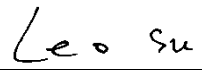
TEST RESULT CERTIFICATION

Applicant's name ..... :	Cherub Technology Co., Ltd
Address ..... :	Room507, Block 1, Nanhai E-Cool, No. 6 Xinghua Road, Shekou, Nanshan District, Shenzhen City, Guangdong Province, China, 518067
Manufacturer's Name ..... :	Cherub Technology Co., Ltd
Address ..... :	Room507, Block 1, Nanhai E-Cool, No. 6 Xinghua Road, Shekou, Nanshan District, Shenzhen City, Guangdong Province, China, 518067
Factory's Name ..... :	Cherub Technology Co., Ltd（Zhuhai High-tech Park）
Address ..... :	No.10, Keji No.9Rd,Tangjiawan Town, Zhuhai National Hi-tech Industrial Development Zone, Zhuhai City, Guangdong Province, China, 519080
Product description	
Product name ..... :	2.4GHz Wireless Microphone System
Trademark ..... :	NUX
Model Name ..... :	B-3 PLUS
Serial Model	B-4 PLUS
Standards ..... :	FCC Part 15.249
Test procedure ..... :	ANSI C63.10-2013
Date of Test	
Date (s) of performance of tests ..... :	Mar. 02, 2021 ~ Mar. 26, 2021
Test Result ..... :	Pass

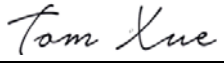
This device described above has been tested by Shenzhen Microtest Co., Ltd. and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Testing Engineer : 

(Danny Xu)

Technical Manager : 

(Leo Su)

Authorized Signatory : 

(Tom Xue)

1 General description

1.1 Feature of equipment under test (EUT)

Equipment:	2.4GHz Wireless Microphone System
Trade Name:	NUX
Model Name:	B-3 PLUS
Serial Model:	B-4 PLUS
Model Difference:	All the models are of the same circuit and RF module, except the appearance shape and model No..
Operation Frequency:	2404-2479MHz
Modulation Type:	GFSK
Antenna Type:	Spring antenna
Antenna Gain:	2.85dBi
Max. Field Strength:	96.86dBuV/m
Power Source:	DC 3.7V from battery
Battery:	DC 3.7V 700mAh
Hardware version:	V1.0
Software version:	V1.0

1.2 Operation channel list

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
0	2404	16	2462
1	2408	17	2465
2	2412	18	2469
3	2416	19	2472
4	2420	20	2476
5	2424	21	2479
6	2428	/	/
7	2431	/	/
8	2434	/	/
9	2437	/	/
10	2441	/	/
11	2444	/	/
12	2448	/	/
13	2451	/	/
14	2455	/	/
15	2458	/	/

1.3 Test Frequency Channel

Channel	Frequency(MHz)
Low	2404
Middle	2441
High	2479

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	N/A
3	FCC Part15.249(a)	Field strength of fundamental and harmonic emissions	Pass
4	FCC Part 15.215	20dB and 99% Bandwidth	Pass
5	FCC Part15.249(d)	Radiated spurious emission	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
Bluetooth and WiFi 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 9120D	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;

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 Spring antenna, which was permanently affixed to the device and un-replaced, complies with 15.203. In addition, the maximum antenna gain is 2.85dBi.

5.2 AC power line conducted emission

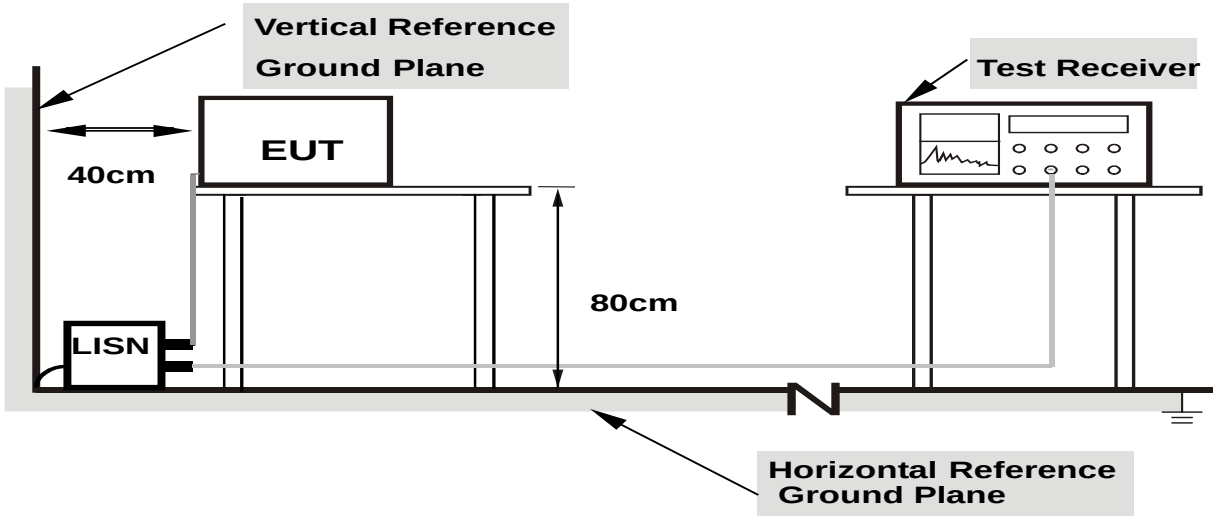
5.2.1 Limits

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 equipment's 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

Note: The device can not TX when it charging..

5.3 Field strength of fundamental and harmonic emissions

5.3.1 Limits

FCC §15.249(a);

The field strength of fundamental and harmonic emissions, measured at 3 m, shall not

exceed 50 mV/m and 0.5 mV/m respectively.

The field strength limits shall be measured using an average detector, except for the fundamental emission in the frequency band 902-928 MHz, which is based on measurements using an International Special Committee on Radio Interference (CISPR) quasi-peak detector

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

Frequency	Field Strength(dBuv/m)	Detector
Fundamental	114	PK
Fundamental	94	AV
Harmonic emissions	74	PK
Harmonic emissions	54	AV

Note: 50mV/m=50000uv/m

20*log(50000uV/m)=94dBuv/m

PK limit reference 15.249(e)

5.3.2 Test Method

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

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

3. Use the following spectrum analyser settings:

Span = wide enough to fully capture the emission being measured, RBW = 1 MHz for f ≥ 1GHz, 100 kHz for f < 1 GHz, VBW ≥ RBW, Sweep = auto, Detector function = peak, Trace = max hold

4. 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.

5. 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

Frequency	Ant. Polarization	Emission level	Limits	Detector	Result
(MHz)	H / V	dBμV/m	dBμV/m		
2404	H	96.17	114	PK	PASS
2404	H	81.32	94	AV	PASS
2404	V	75.09	114	PK	PASS
2404	V	63.12	94	AV	PASS

Frequency	Ant. Polarization	Emission level	Limits	Detector	Result
(MHz)	H / V	dBμV/m	dBμV/m		
2441	H	96.25	114	PK	PASS
2441	H	81.26	94	AV	PASS
2441	V	78.13	114	PK	PASS
2441	V	65.37	94	AV	PASS

Frequency	Ant. Polarization	Emission level	Limits	Detector	Result
(MHz)	H / V	dBμV/m	dBμV/m		
2479	H	96.86	114	PK	PASS
2479	H	81.32	94	AV	PASS
2479	V	81.53	114	PK	PASS
2479	V	69.22	94	AV	PASS

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

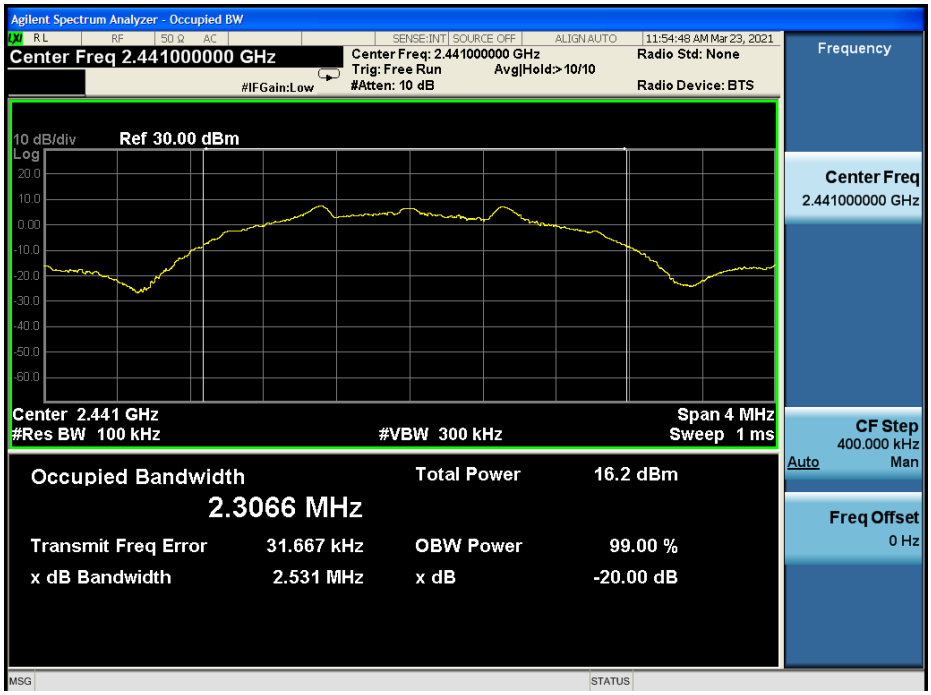
5.4.3 Test result

Frequency (MHz)	20dB bandwidth (MHz)
2404	2.565
2441	2.531
2479	2.546

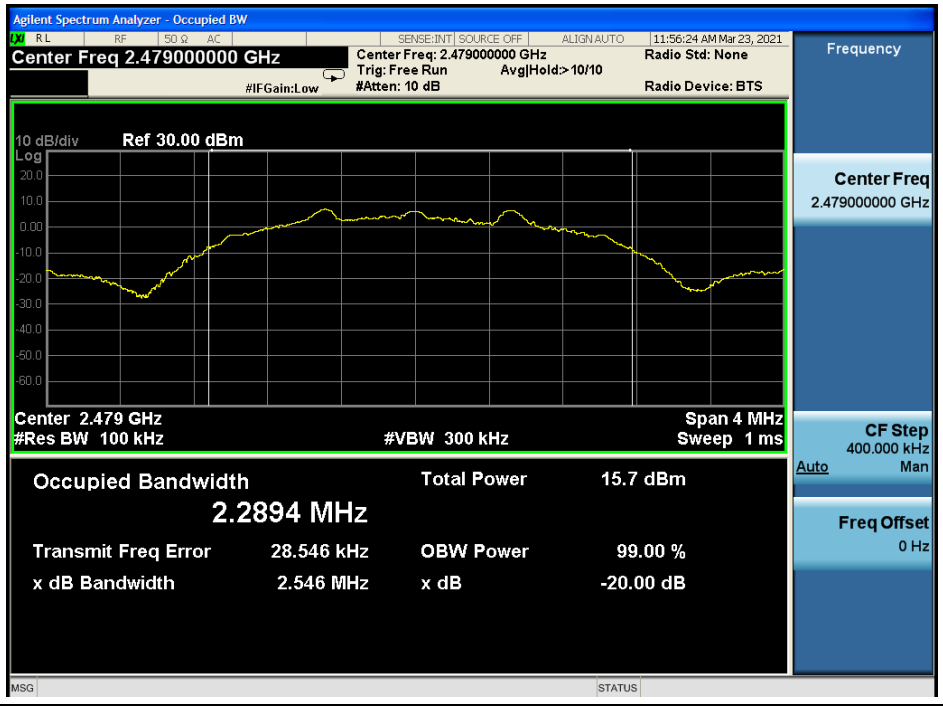
Test plots

2404MHz

2441MHz



2479MHz



5.5 Radiated spurious emission

5.5.1 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

5.5.2 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 analyser 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.

5.5.2.1Test Result

Below 30MHz

EUT：	2.4GHz Wireless Microphone System	Model name. ：	B-3 PLUS
Pressure：	1010 hPa	Test voltage：	DC 3.7V from battery
Test mode：	TX	Polarization :	--

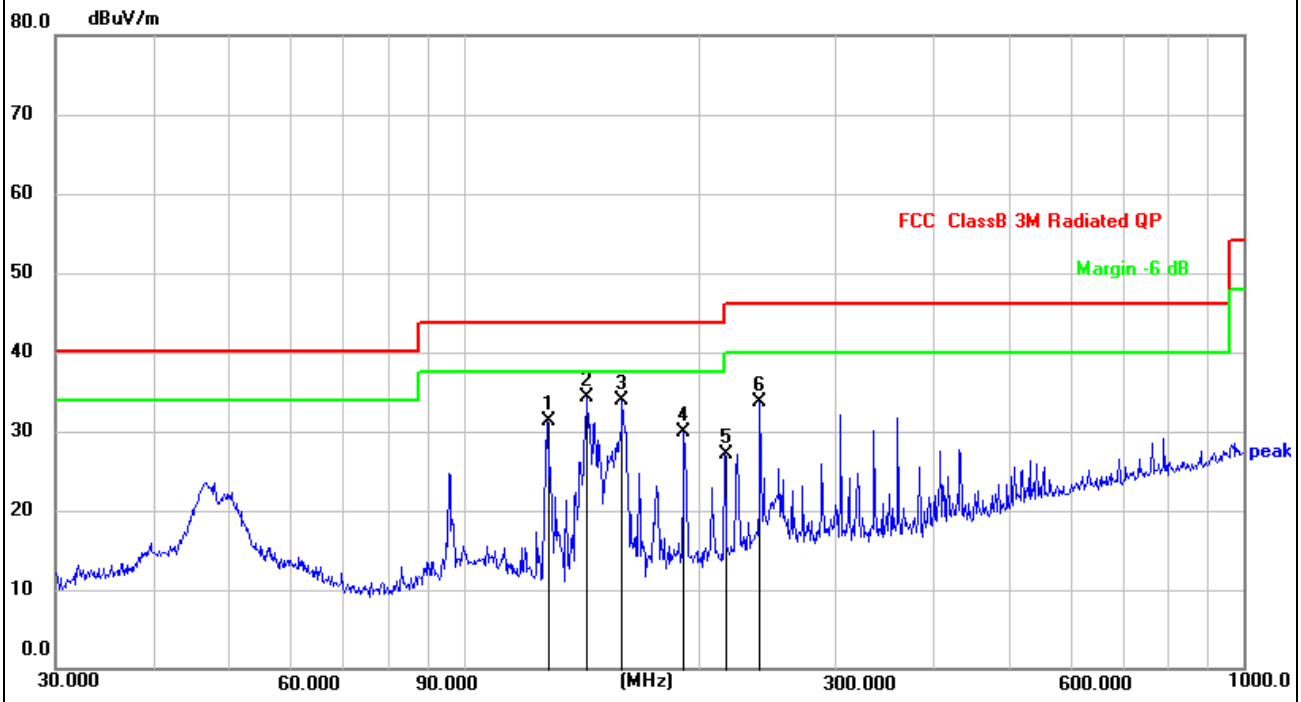
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	Pass
--	--	--	--	Pass

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.

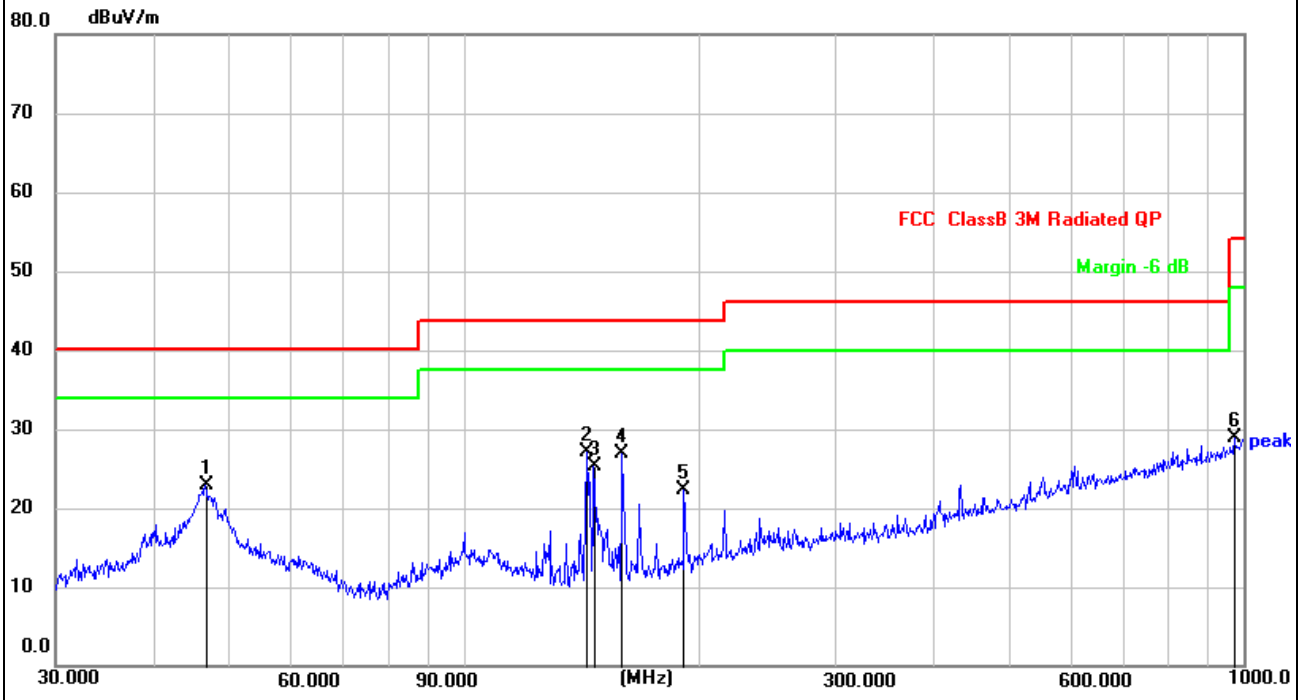
30MHz-1GHz

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2404MHz



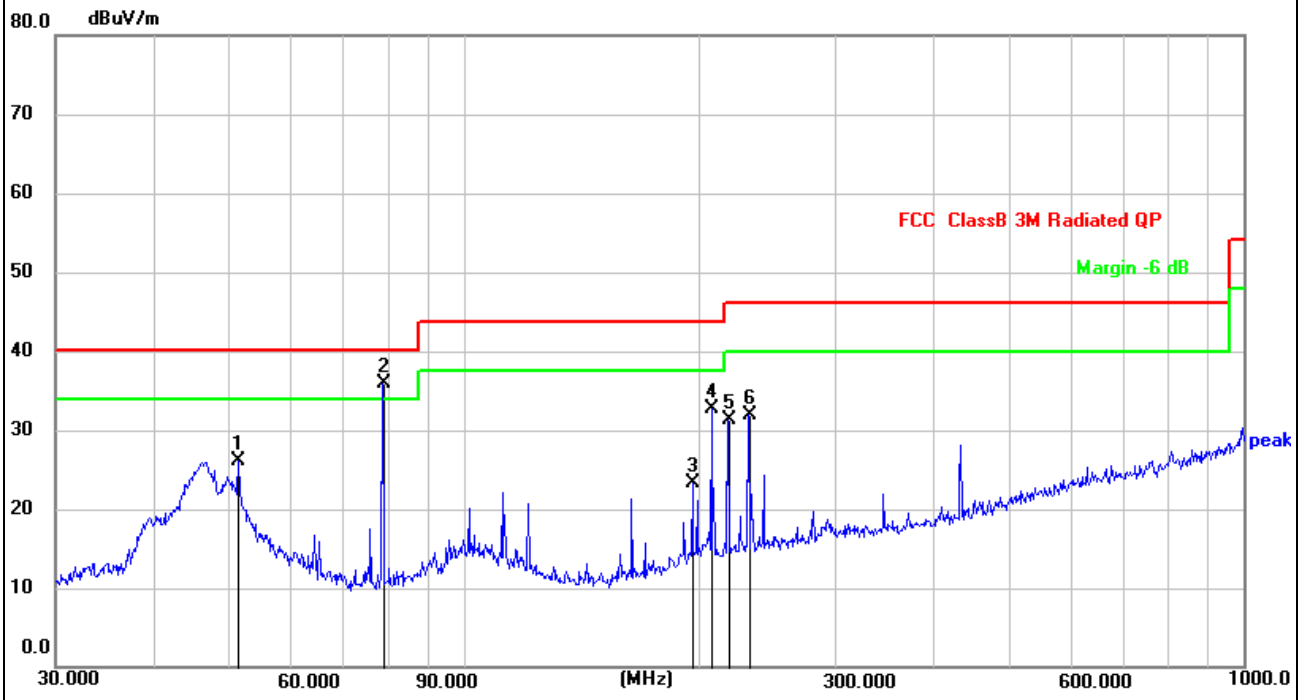
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	128.1130	45.99	-14.66	31.33	43.50	-12.17	QP
2 *	143.8295	49.59	-15.32	34.27	43.50	-9.23	QP
3	159.7844	48.50	-14.50	34.00	43.50	-9.50	QP
4	191.7450	41.99	-12.13	29.86	43.50	-13.64	QP
5	216.0240	38.21	-11.02	27.19	46.00	-18.81	QP
6	239.9873	43.72	-10.10	33.62	46.00	-12.38	QP

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2404MHz



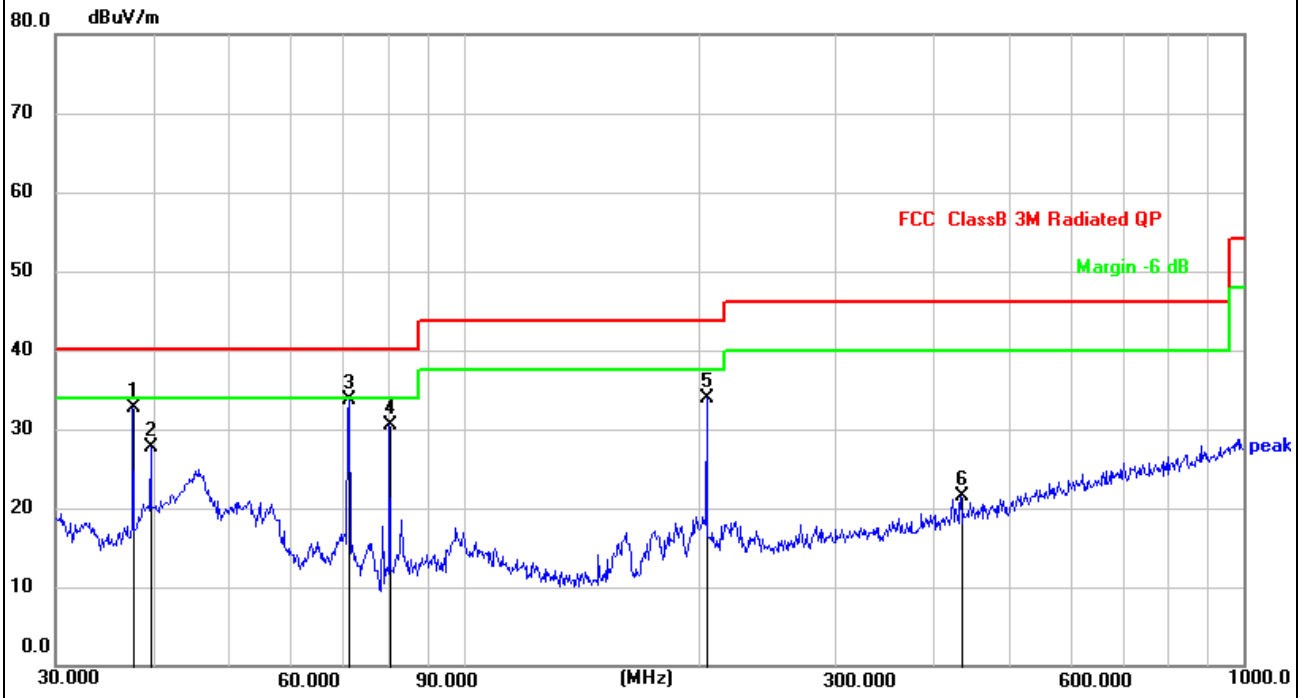
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	46.6664	34.85	-11.92	22.93	40.00	-17.07	QP
2 *	143.8295	42.44	-15.32	27.12	43.50	-16.38	QP
3	146.8877	40.59	-15.36	25.23	43.50	-18.27	QP
4	159.7844	41.38	-14.50	26.88	43.50	-16.62	QP
5	191.7450	34.49	-12.13	22.36	43.50	-21.14	QP
6	972.3374	26.07	2.81	28.88	54.00	-25.12	QP

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2479MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	51.4807	37.86	-11.80	26.06	40.00	-13.94	QP
2 *	78.6888	51.92	-15.97	35.95	40.00	-4.05	QP
3	196.5098	35.07	-11.84	23.23	43.50	-20.27	QP
4	207.8501	43.95	-11.33	32.62	43.50	-10.88	QP
5	218.3085	42.29	-10.93	31.36	46.00	-14.64	QP
6	231.7179	42.34	-10.42	31.92	46.00	-14.08	QP

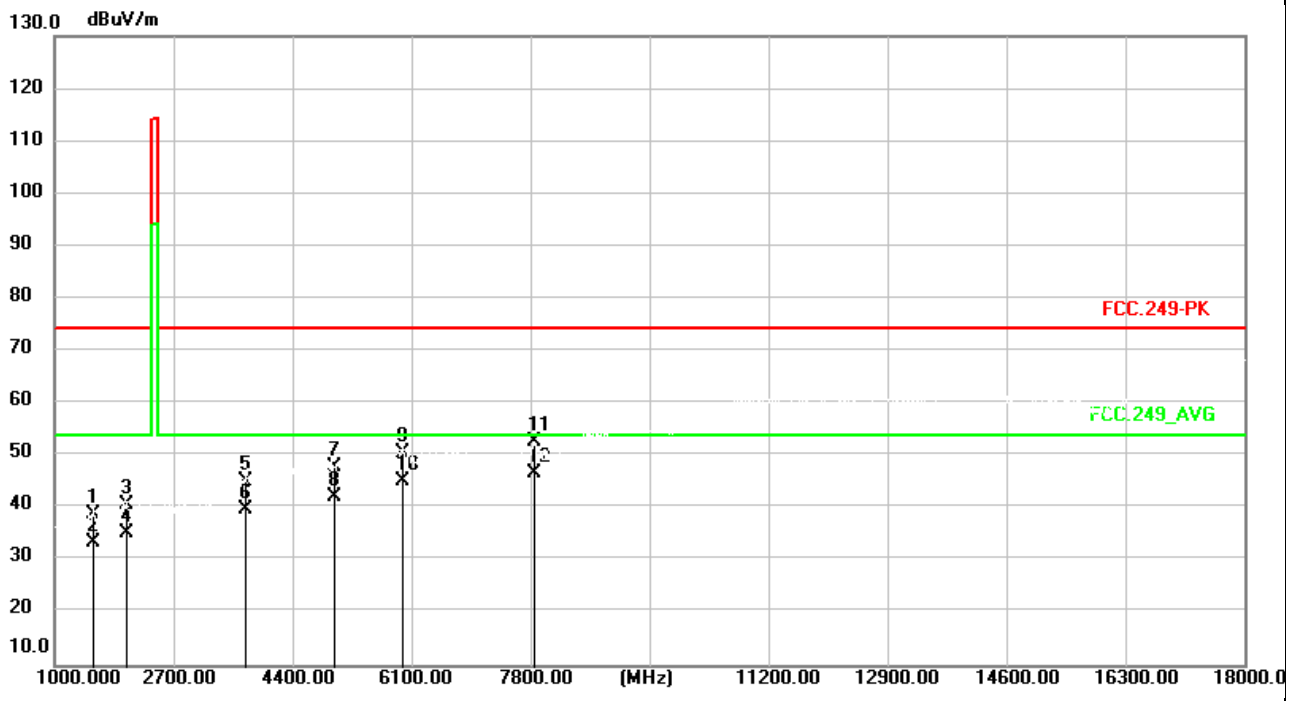
EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2479MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	37.6798	45.80	-13.06	32.74	40.00	-7.26	QP
2	39.7146	40.19	-12.54	27.65	40.00	-12.35	QP
3 *	71.3300	49.41	-15.71	33.70	40.00	-6.30	QP
4	80.3619	46.45	-15.94	30.51	40.00	-9.49	QP
5	204.9551	45.42	-11.44	33.98	43.50	-9.52	QP
6	434.0651	28.13	-6.64	21.49	46.00	-24.51	QP

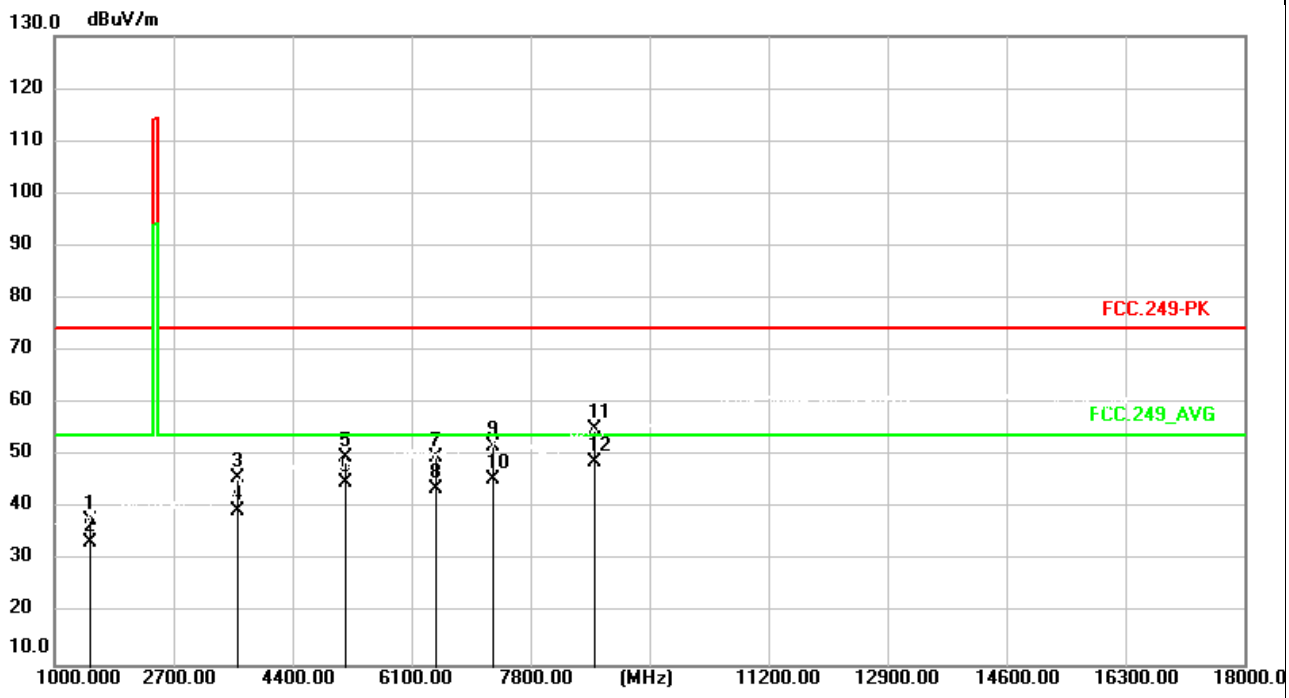
1GHz-18GHz:

EUT：	2.4GHz Wireless Microphone System	Model Name. ：	B-3 PLUS
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 3.7V from battery	Test Mode ：	TX-2404MHz



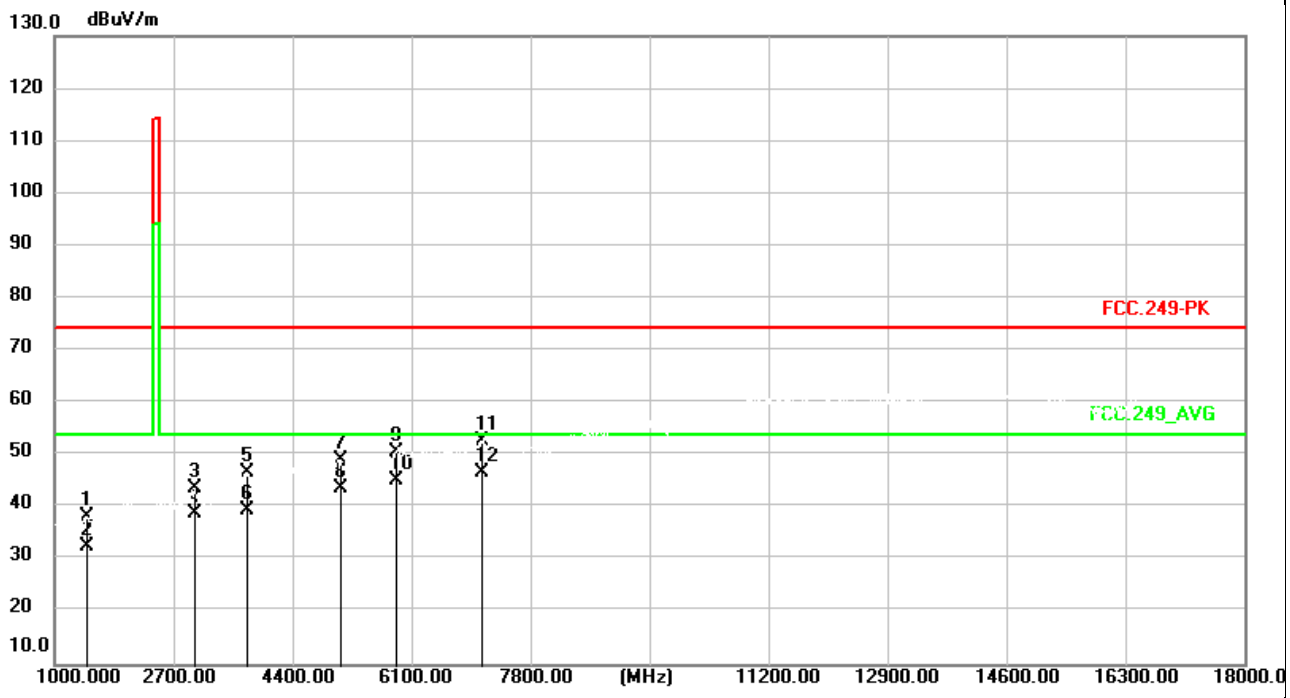
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1544.000	44.67	-5.75	38.92	74.00	-35.08	peak
2	1544.000	39.40	-5.75	33.65	54.00	-20.35	AVG
3	2020.000	43.82	-3.13	40.69	74.00	-33.31	peak
4	2020.000	38.34	-3.13	35.21	54.00	-18.79	AVG
5	3737.000	42.91	2.21	45.12	74.00	-28.88	peak
6	3737.000	37.63	2.21	39.84	54.00	-14.16	AVG
7	4995.000	41.94	6.03	47.97	74.00	-26.03	peak
8	4995.000	36.23	6.03	42.26	54.00	-11.74	AVG
9	5981.000	43.91	6.85	50.76	74.00	-23.24	peak
10	5981.000	38.47	6.85	45.32	54.00	-8.68	AVG
11	7851.000	44.00	8.82	52.82	74.00	-21.18	peak
12 *	7851.000	37.98	8.82	46.80	54.00	-7.20	AVG

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2404MHz



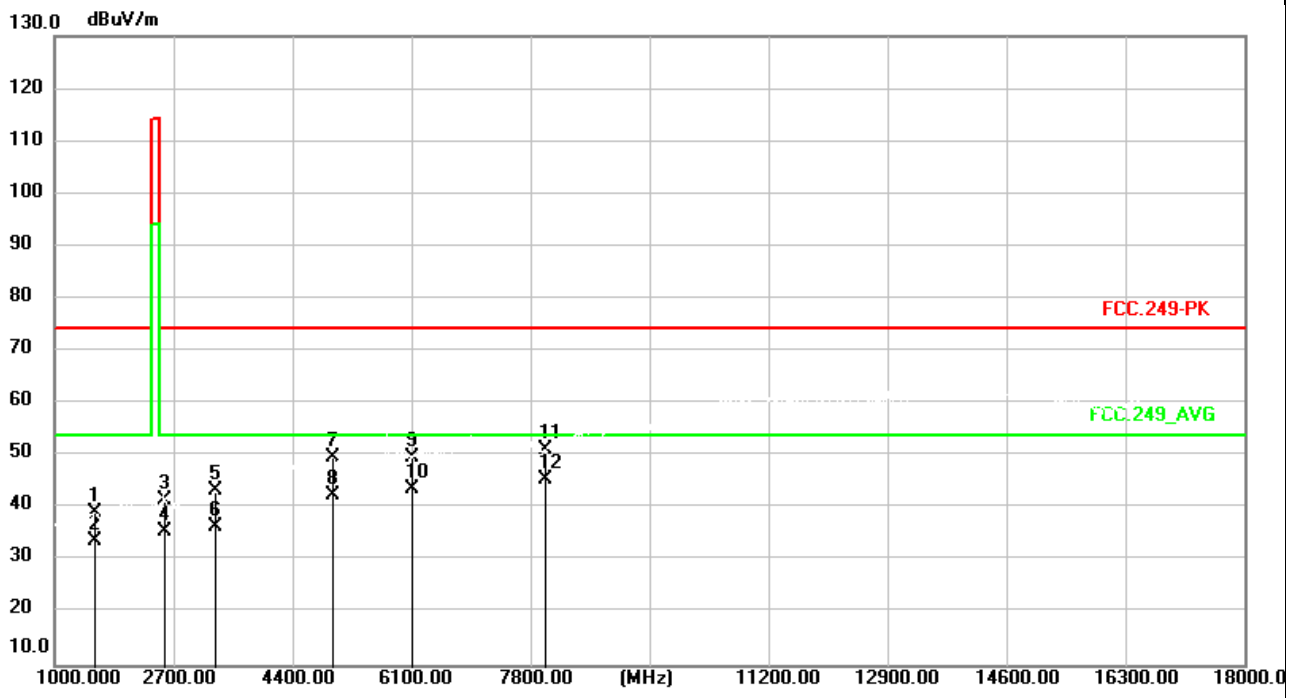
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1510.000	43.74	-5.92	37.82	74.00	-36.18	peak
2	1510.000	39.52	-5.92	33.60	54.00	-20.40	AVG
3	3618.000	44.49	1.46	45.95	74.00	-28.05	peak
4	3618.000	38.19	1.46	39.65	54.00	-14.35	AVG
5	5165.000	44.14	5.68	49.82	74.00	-24.18	peak
6	5165.000	39.22	5.68	44.90	54.00	-9.10	AVG
7	6440.000	41.63	8.17	49.80	74.00	-24.20	peak
8	6440.000	35.63	8.17	43.80	54.00	-10.20	AVG
9	7273.000	42.57	9.27	51.84	74.00	-22.16	peak
10	7273.000	36.33	9.27	45.60	54.00	-8.40	AVG
11	8718.000	43.72	11.44	55.16	74.00	-18.84	peak
12 *	8718.000	37.46	11.44	48.90	54.00	-5.10	AVG

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2441MHz



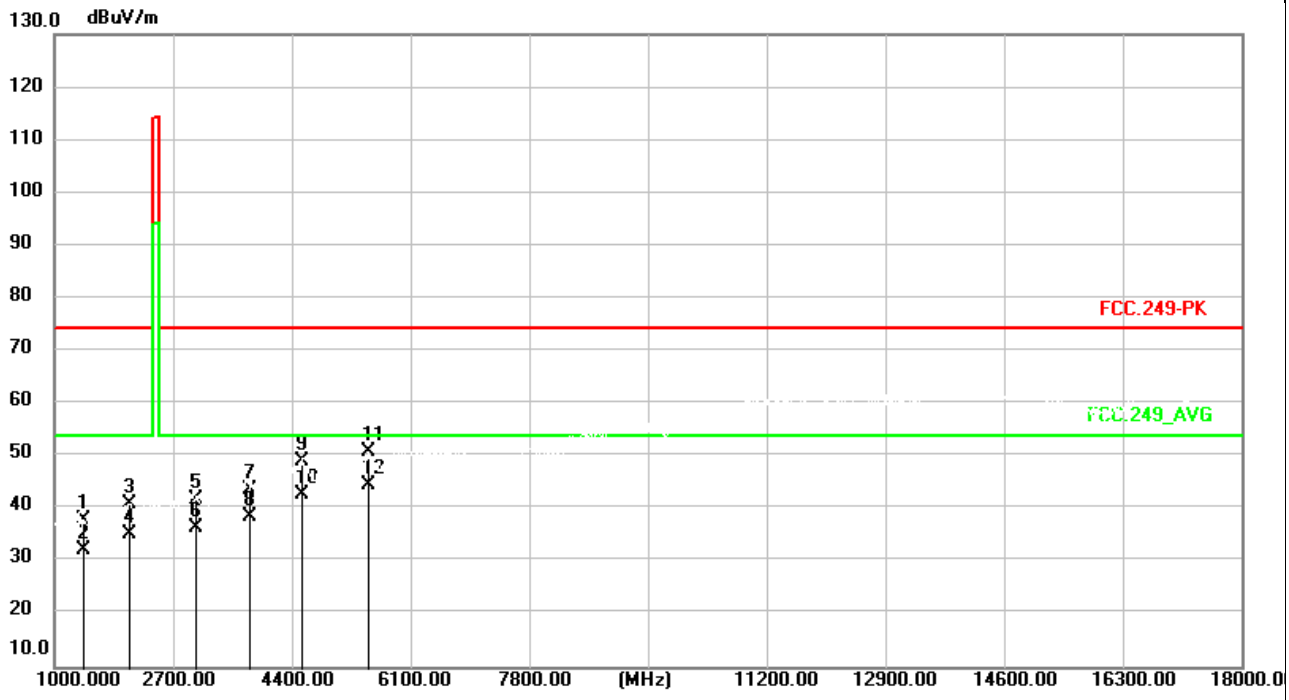
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1459.000	44.72	-6.30	38.42	74.00	-35.58	peak
2	1459.000	39.10	-6.30	32.80	54.00	-21.20	AVG
3	3006.000	44.02	-0.35	43.67	74.00	-30.33	peak
4	3006.000	39.29	-0.35	38.94	54.00	-15.06	AVG
5	3754.000	44.65	2.17	46.82	74.00	-27.18	peak
6	3754.000	37.48	2.17	39.65	54.00	-14.35	AVG
7	5097.000	42.81	6.31	49.12	74.00	-24.88	peak
8	5097.000	37.51	6.31	43.82	54.00	-10.18	AVG
9	5879.000	43.79	7.01	50.80	74.00	-23.20	peak
10	5879.000	38.19	7.01	45.20	54.00	-8.80	AVG
11	7103.000	43.14	9.50	52.64	74.00	-21.36	peak
12 *	7103.000	37.35	9.50	46.85	54.00	-7.15	AVG

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2441MHz



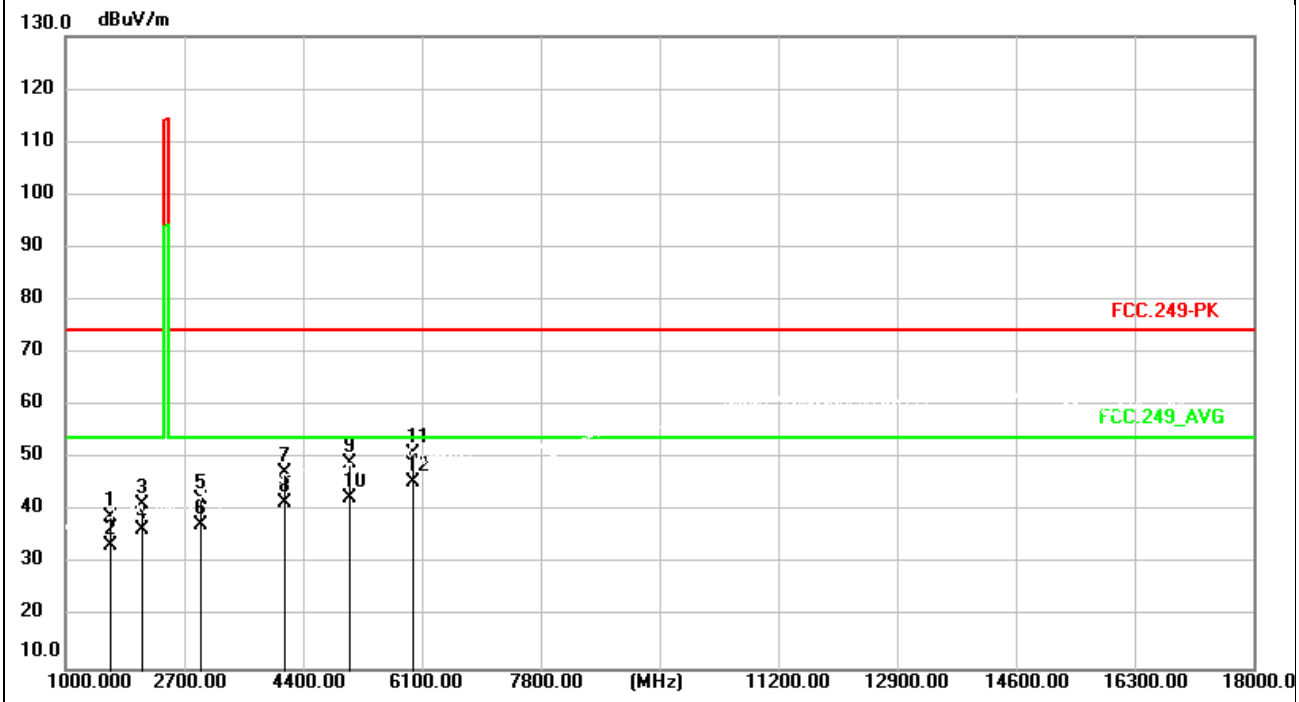
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1578.000	44.93	-5.56	39.37	74.00	-34.63	peak
2	1578.000	39.36	-5.56	33.80	54.00	-20.20	AVG
3	2581.000	43.71	-1.98	41.73	74.00	-32.27	peak
4	2581.000	37.78	-1.98	35.80	54.00	-18.20	AVG
5	3295.000	43.07	0.30	43.37	74.00	-30.63	peak
6	3295.000	36.12	0.30	36.42	54.00	-17.58	AVG
7	4978.000	43.94	5.83	49.77	74.00	-24.23	peak
8	4978.000	36.73	5.83	42.56	54.00	-11.44	AVG
9	6117.000	42.59	7.08	49.67	74.00	-24.33	peak
10	6117.000	36.55	7.08	43.63	54.00	-10.37	AVG
11	8004.000	42.37	8.78	51.15	74.00	-22.85	peak
12 *	8004.000	36.89	8.78	45.67	54.00	-8.33	AVG

EUT:	2.4GHz Wireless Microphone System	Model Nam:	B-3 PLUS
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2479MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1408.000	44.64	-6.69	37.95	74.00	-36.05	peak
2	1408.000	39.19	-6.69	32.50	54.00	-21.50	AVG
3	2071.000	44.37	-3.34	41.03	74.00	-32.97	peak
4	2071.000	38.64	-3.34	35.30	54.00	-18.70	AVG
5	3023.000	42.36	-0.42	41.94	74.00	-32.06	peak
6	3023.000	36.92	-0.42	36.50	54.00	-17.50	AVG
7	3805.000	41.87	2.00	43.87	74.00	-30.13	peak
8	3805.000	36.64	2.00	38.64	54.00	-15.36	AVG
9	4553.000	44.64	4.43	49.07	74.00	-24.93	peak
10	4553.000	38.42	4.43	42.85	54.00	-11.15	AVG
11	5488.000	45.05	5.89	50.94	74.00	-23.06	peak
12 *	5488.000	38.63	5.89	44.52	54.00	-9.48	AVG

EUT：	2.4GHz Wireless Microphone System	Model Name：	B-3 PLUS
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 3.7V from battery	Test Mode：	TX-2479MHz

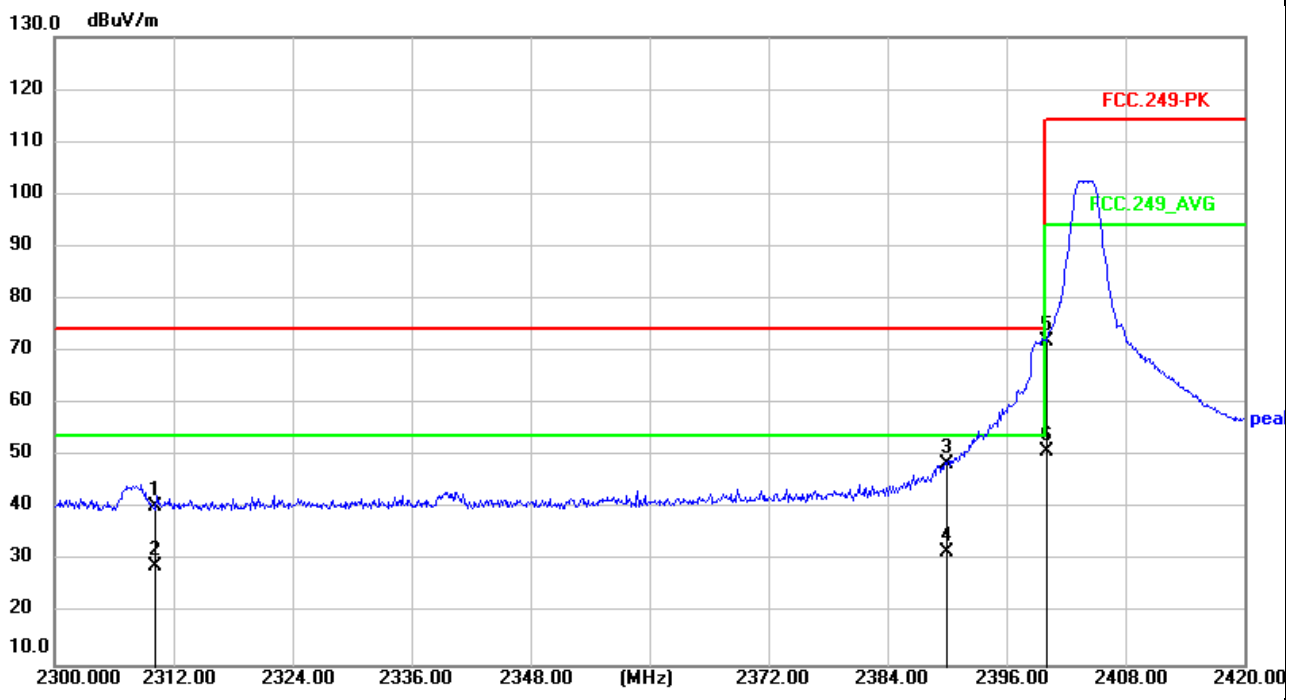


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1646.000	43.77	-4.96	38.81	74.00	-35.19	peak
2	1646.000	38.46	-4.96	33.50	54.00	-20.50	AVG
3	2088.000	44.63	-3.41	41.22	74.00	-32.78	peak
4	2088.000	40.08	-3.41	36.67	54.00	-17.33	AVG
5	2938.000	42.56	-0.29	42.27	74.00	-31.73	peak
6	2938.000	37.71	-0.29	37.42	54.00	-16.58	AVG
7	4145.000	44.01	3.43	47.44	74.00	-26.56	peak
8	4145.000	38.19	3.43	41.62	54.00	-12.38	AVG
9	5063.000	42.97	6.24	49.21	74.00	-24.79	peak
10	5063.000	36.34	6.24	42.58	54.00	-11.42	AVG
11	5981.000	44.24	6.85	51.09	74.00	-22.91	peak
12 *	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AVG

5.5.3 Band edge-radiated

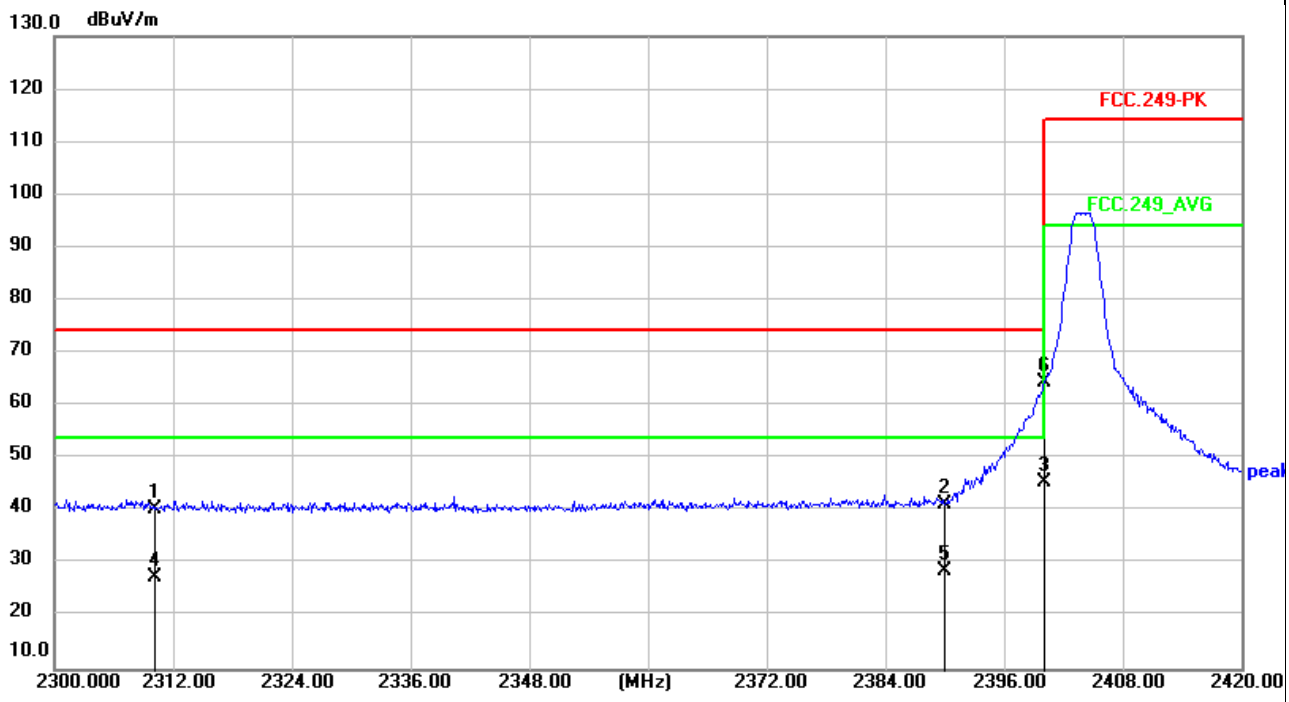
All the modulation modes have been tested, and the worst result was report as below:

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2404MHz



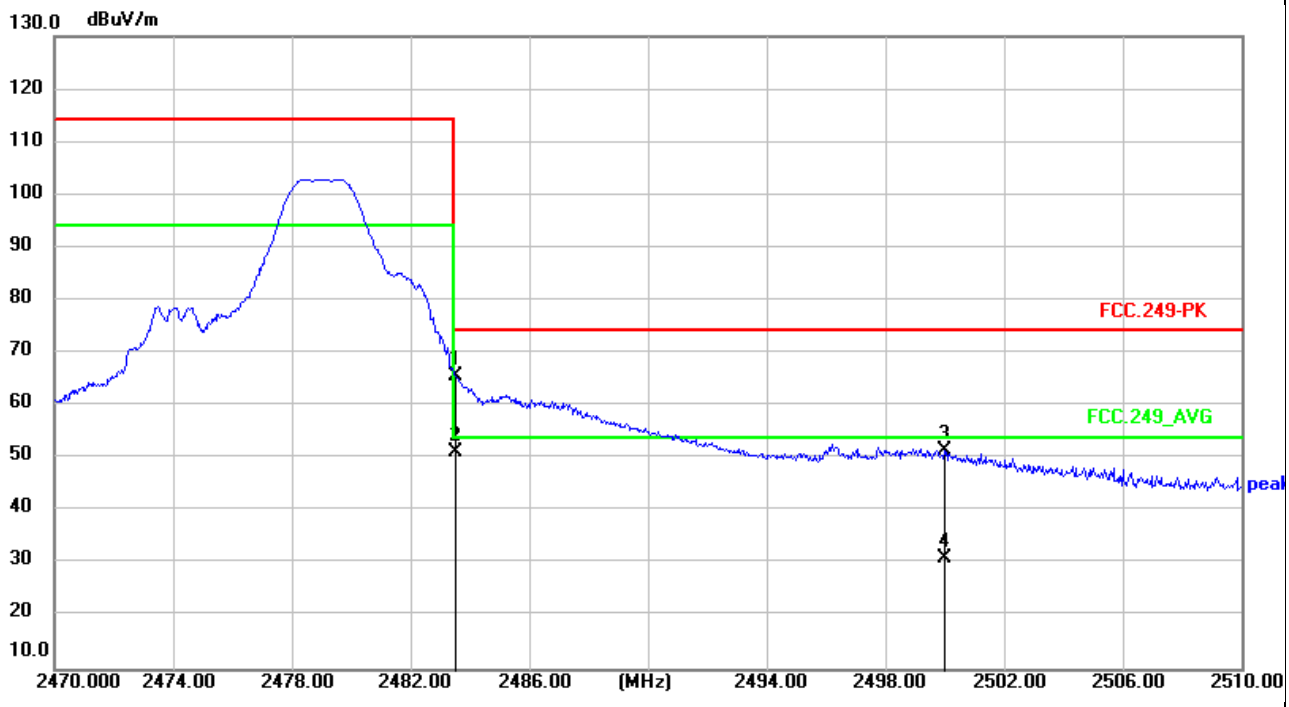
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2310.000	44.03	-3.61	40.42	74.00	-33.58	peak
2	2310.000	32.59	-3.61	28.98	54.00	-25.02	AVG
3	2390.000	51.46	-2.93	48.53	74.00	-25.47	peak
4	2390.000	34.71	-2.93	31.78	54.00	-22.22	AVG
5 *	2400.000	74.89	-2.84	72.05	74.00	-1.95	peak
6	2400.000	53.89	-2.84	51.05	54.00	-2.95	AVG

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2404MHz



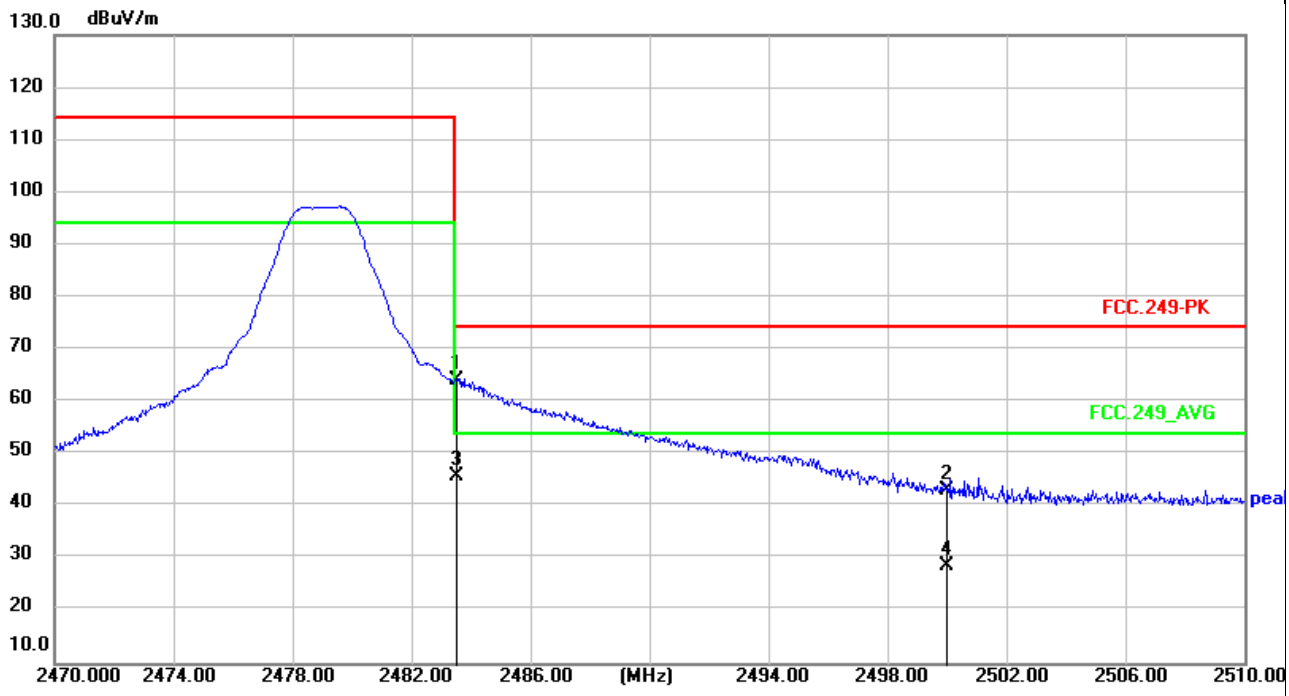
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2310.000	44.03	-3.61	40.42	74.00	-33.58	peak
2	2390.000	44.23	-2.93	41.30	74.00	-32.70	peak
3 *	2400.000	48.31	-2.84	45.47	54.00	-8.53	AVG
4	2310.000	31.27	-3.61	27.66	54.00	-26.34	AVG
5	2390.000	31.83	-2.93	28.90	54.00	-25.10	AVG
6	2400.000	67.16	-2.84	64.32	74.00	-9.68	peak

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2479MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	68.57	-2.93	65.64	74.00	-8.36	peak
2 *	2483.500	54.25	-2.93	51.32	54.00	-2.68	AVG
3	2500.000	54.43	-2.94	51.49	74.00	-22.51	peak
4	2500.000	34.19	-2.94	31.25	54.00	-22.75	AVG

EUT:	2.4GHz Wireless Microphone System	Model Name:	B-3 PLUS
Pressure:	101kPa	Polarization:	Vertical
Test voltage:	DC 3.7V from battery	Test Mode:	TX-2479MHz



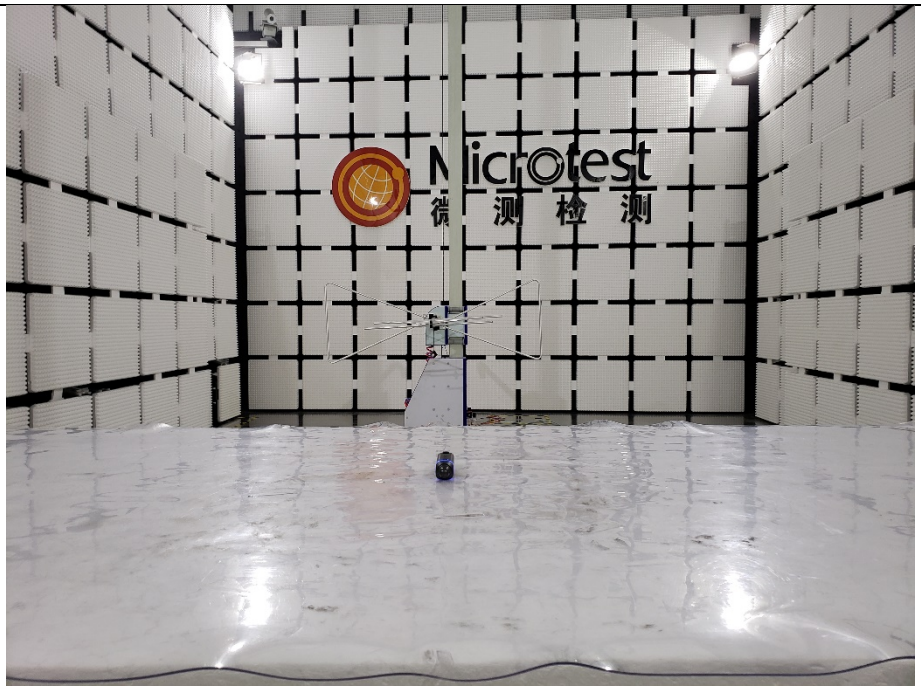
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	66.95	-2.93	64.02	74.00	-9.98	peak
2	2500.000	46.04	-2.94	43.10	74.00	-30.90	peak
3 *	2483.500	48.66	-2.93	45.73	54.00	-8.27	AVG
4	2500.000	31.74	-2.94	28.80	54.00	-25.20	AVG

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.

Photographs of the Test Setup

Radiated emission – below 1GHz

Radiated emission – above 1GHz


Photographs of the EUT

See the APPENDIX 1- EUT PHOTO.

----END OF REPORT----