



RF MEASUREMENT REPORT

FCC ID: Z9G-EDF201

Applicant: Edifier International Limited

Product: True Wireless Noise Cancellation Earbuds Headphones

Model No.: EDF200117

Brand Name: EDIFIER

FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part 15 Subpart C (Section 15.247)

Result: Complies

Received Date: 2023-02-09

Test Date: 2023-02-10 ~ 2023-02-22

Reviewed By:

Sunny Sun

Approved By:

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Shenzhen) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2302RSZ025-U2	V01	Initial Report	2023-03-10	Invalid
2302RSZ025-U2	V02	Add the Note of Test Site	2023-03-15	Valid

CONTENTS

Description	Page
1. General Information	5
1.1. Applicant	5
1.2. Manufacturer	5
1.3. Testing Facility	5
1.4. Product Information.....	6
1.5. Radio Specification under Test	6
1.6. Working Frequencies	7
2. Test Configuration	8
2.1. Test System Connection Diagram	8
2.2. Test Software	8
2.3. Applied Standards.....	8
2.4. Test Environment Condition	9
3. Antenna Requirements	10
4. Measurement Instrument.....	11
5. Decision Rules and Measurement Uncertainty	12
5.1. Decision Rules	12
5.2. Measurement Uncertainty	12
6. Test Result.....	13
6.1. Summary	13
6.2. 6dB Bandwidth Measurement.....	14
6.2.1. Test Limit	14
6.2.2. Test Procedure	14
6.2.3. Test Setting	14
6.2.4. Test Setup	14
6.2.5. Test Result	14
6.3. Output Power Measurement	15
6.3.1. Test Limit	15
6.3.2. Test Procedure	15
6.3.3. Test Setting	15
6.3.4. Test Setup	15
6.3.5. Test Result	15
6.4. Power Spectral Density Measurement	16
6.4.1. Test Limit	16
6.4.2. Test Procedure	16
6.4.3. Test Setting	16

6.4.4.	Test Setup	16
6.4.5.	Test Result	16
6.5.	Conducted Band Edge and Out-of-Band Emissions Measurement	17
6.5.1.	Test Limit	17
6.5.2.	Test Procedure	17
6.5.3.	Test Settintg	17
6.5.4.	Test Setup	18
6.5.5.	Test Result	18
6.6.	Radiated Spurious Emission Measurement.....	19
6.6.1.	Test Limit	19
6.6.2.	Test Procedure	19
6.6.3.	Test Setting	19
6.6.4.	Test Setup	21
6.6.5.	Test Result	22
6.7.	Radiated Restricted Band Edge Measurement	23
6.7.1.	Test Limit	23
6.7.2.	Test Procedure	24
6.7.3.	Test Setting	24
6.7.4.	Test Setup	25
6.7.5.	Test Result	25
6.8.	AC Conducted Emissions Measurement	26
6.8.1.	Test Limit	26
6.8.2.	Test Setup	26
6.8.3.	Test Result	26
Appendix A - Test Result.....		27
A.1	Duty Cycle Test Result.....	27
A.2	6dB Bandwidth Test Result	28
A.3	Output Power Test Result	30
A.4	Power Spectral Density Test Result.....	31
A.5	Conducted Band Edge and Out-of-Band Emissions Test Result.....	33
A.6	Radiated Spurious Emission Test Result.....	38
A.7	Radiated Restricted Band Edge Test Result.....	42
A.8	AC Conducted Emissions Test Result	58
Appendix B - Test Setup Photograph		59
Appendix C - EUT Photograph		60

1. General Information

1.1. Applicant

Edifier International Limited
P.O. Box 6264 General Post Office Hong Kong

1.2. Manufacturer

Beijing Edifier Technology Co., Ltd.
8th floor,ZuoAn Building,NO.68 BeiSiHuanXiLu,Haidian District, Beijing 100080,CHINA

1.3. Testing Facility

☐	Test Site – MRT Suzhou Laboratory Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China Laboratory Accreditations A2LA: 3628.01 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104
☒	Test Site – MRT Shenzhen Laboratory Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China Laboratory Accreditations A2LA: 3628.02 CNAS: L10551 FCC: CN1284 ISED: CN0105
☐	Test Site – MRT Taiwan Laboratory Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) Laboratory Accreditations TAF: L3261-190725 FCC: 291082, TW3261 ISED: TW3261

1.4. Product Information

Product Name	True Wireless Noise Cancellation Earbuds Headphones
Model No.	EDF200117
EUT Identification No.	20230208Sample#10-L (Left Earbud for conducted) 20230208Sample#10-R (Right Earbud for conducted) 20230208Sample#09-L (Left Earbud for Radiated) 20230216Sample#01-R (Right Earbud for Radiated)
Bluetooth Specification	Bluetooth 5.3 (Dual Mode)
Antenna Information	Refer to Section 1.5
Working Voltage (Earbuds)	Battery (3.85V DC)
Note: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Test

Bluetooth Frequency	2402 ~ 2480MHz
Channel Number	40
Type of modulation	GFSK
Data Rate	1Mbps
Antenna Type	Chip Antenna
Antenna Gain	Left Earbud Gain: -1.6dBi Right Earbud Gain: -3.0dBi

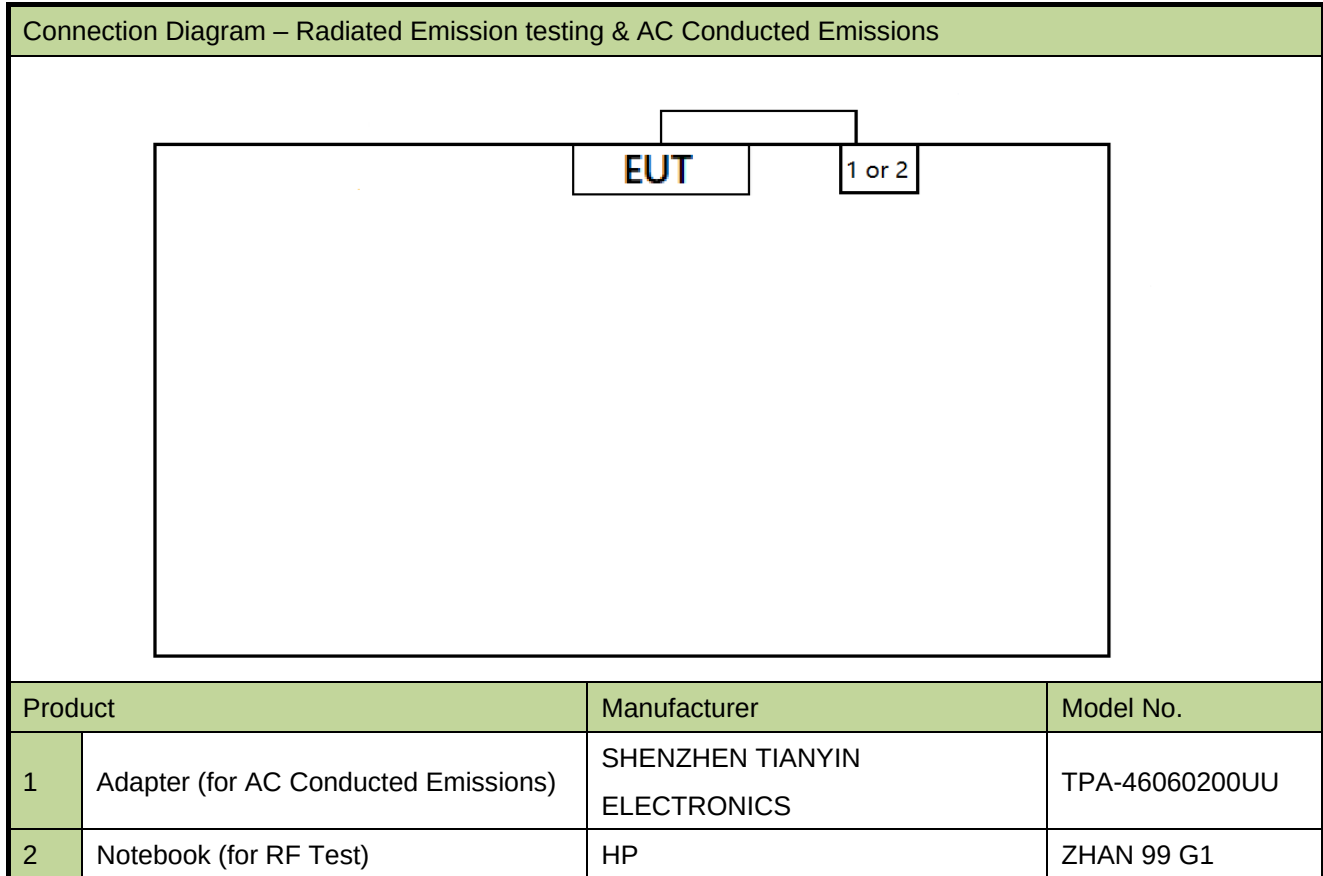
1.6. Working Frequencies

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 MHz
21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz
27	2456 MHz	28	2458 MHz	29	2460 MHz
30	2462 MHz	31	2464 MHz	32	2466 MHz
33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz
39	2480 MHz	--	--	--	--

2. Test Configuration

2.1. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.



2.2. Test Software

The test utility software used during testing was “BQB”, and the version was 20201012.

2.3. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.247
- KDB 558074 D01v05r02
- ANSI C63.10-2013

2.4. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20 ~75%RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 antenna of the device is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. Measurement Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
USB Power Sensor	Keysight	U2021XA	MRTSUE06581	1 year	2023-07-13	NS-TR2
Thermohygrometer	DELI	NO.8813	MRTSUE06783	1 year	2023-12-28	NS-TR2
Temperature Chamber	OUKE	OK-TH-100C	MRTSUE06899	1 year	2023-07-13	NS-TR2
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2023-09-29	NS-AC1
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06292	1 year	2023-10-18	NS-AC1
Anechoic Chamber	BOOMWAVE	NS-AC1	MRTSUE06496	1 year	2023-07-23	NS-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06572	1 year	2023-04-01	NS-AC1
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06573	1 year	2023-06-21	NS-AC1
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06574	1 year	2023-07-11	NS-AC1
EMI Test Receiver	R&S	ESR3	MRTSUE06575	1 year	2023-06-19	NS-AC1
Preamplifier	EMCI	EMC184045SE	MRTSUE06641	1 year	2024-01-12	NS-AC1
Thermohygrometer	testo	608-H1	MRTSUE11020	1 year	2023-05-15	NS-AC1
Thermohygrometer	testo	608-H1	MRTSUE11104	1 year	2023-05-03	NS-AC1
Signal Generator	Agilent	E4438C	MRTSUE06026	1 year	2023-07-13	NS-SR2
Shielding Room	BOOMWAVE	NS-SR2	MRTSUE06551	5 years	2024-06-03	NS-SR2
EMI Test Receiver	R&S	ESL3	MRTSUE06576	1 year	2023-06-19	NS-SR2
Two-Line V-Network	R&S	ENV216	MRTSUE06577	1 year	2023-07-03	NS-SR2
Two-Line V-Network	R&S	ENV216	MRTSUE06578	1 year	2023-07-03	NS-SR2
ISN	R&S	ENY81	MRTSUE06579	1 year	2023-06-29	NS-SR2
ISN	R&S	ENY81-CA6	MRTSUE06580	1 year	2023-06-09	NS-SR2
Thermohygrometer	testo	608-H1	MRTSUE11106	1 year	2023-05-03	NS-SR2
Signal Analyzer	Agilent	N9010A	MRTSUE06195	1 year	2023-12-20	NS-AC1/NS-TR2
Signal Analyzer	Keysight	N9020A	MRTSUE10065	1 year	2023-12-20	NS-AC1/NS-TR2

Note: The test site with "NS" code is in the MRT Shenzhen Laboratory.

Software	Version	Function
EMI Software	V3.0.0	EMI Test Software
Controller_T-E-TAC-2	1.02	RE Antenna & Turntable
Agilent Power Panel	V 3.9	Power

5. Decision Rules and Measurement Uncertainty

5.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2.
(Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement
The maximum measurement uncertainty is evaluated as: 9kHz~150kHz: 3.58dB 150kHz~30MHz: 3.20dB
Radiated Emission Measurement
The maximum measurement uncertainty is evaluated as: Coaxial: 9kHz~30MHz: 2.59dB Coplanar: 9kHz~30MHz: 2.60dB Horizontal: 30MHz~200MHz: 3.85dB 200MHz~1GHz: 4.36dB 1GHz~40GHz: 4.98dB Vertical: 30MHz~200MHz: 4.06dB 200MHz~1GHz: 5.28dB 1GHz~40GHz: 4.91dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 2.3dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.5dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 3.2%

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.247(a)(2)	6dB Bandwidth	Conducted	Pass
15.247(b)(3)	Output Power		Pass
15.247(e)	Power Spectral Density		Pass
15.247(d)	Band Edge / Out-of-Band Emissions		Pass
15.205 15.209	General Field Strength (Restricted Bands and Radiated Emission)	Radiated	Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	Pass

Notes:

1. The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
2. All modes of operation and data rates were investigated. For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.

6.2. 6dB Bandwidth Measurement

6.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

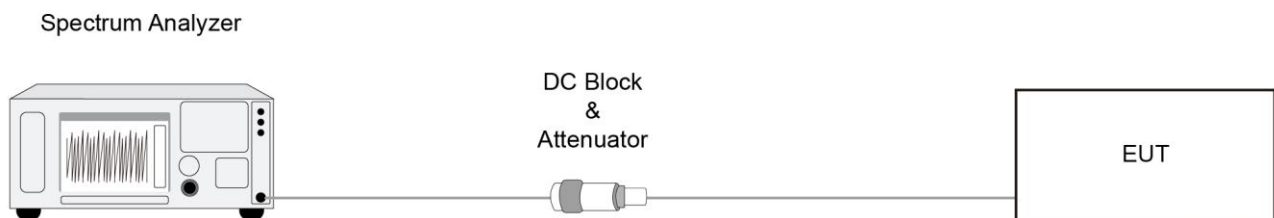
6.2.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.8

6.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 6$. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3. $VBW \geq 3 \times RBW$
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep = Auto couple
7. Allow the trace to stabilize

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.2.

6.3. Output Power Measurement

6.3.1. Test Limit

The maximum output power shall be less 1 Watt (30dBm).

The conducted output power limit specified in paragraph FCC Part 15.247(b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs FCC Part 15.247(b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.3.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.9.1.3

ANSI C63.10 - 2013 - Section 11.9.2.3.2

6.3.3. Test Setting

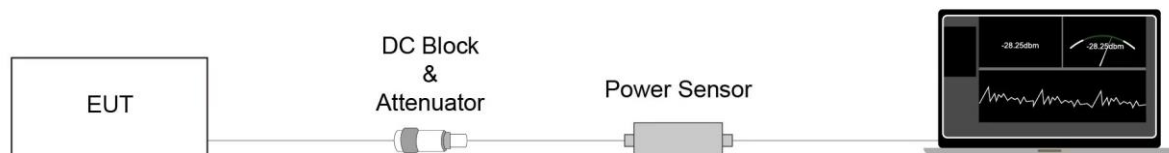
Method PKPM1 (Peak Power Measurement of Signals with DTS BW $\leq$ 50MHz)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

Average Power Measurement

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

6.3.4. Test Setup



6.3.5. Test Result

Refer to Appendix A.3.

6.4. Power Spectral Density Measurement

6.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

The same method of determining the conducted output power shall be used to determine the power spectral density.

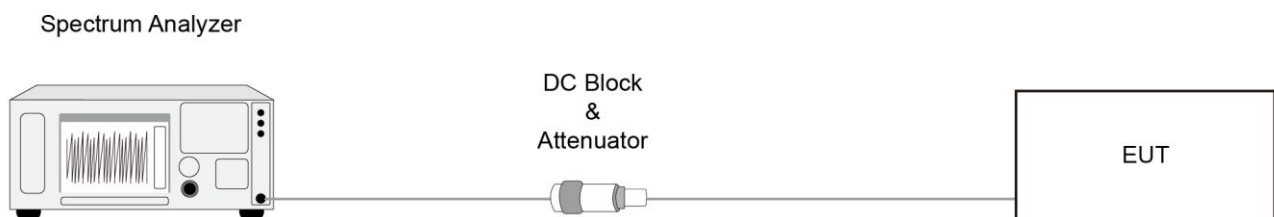
6.4.2. Test Procedure

ANSI C63.10-2013 Section 11.10.2

6.4.3. Test Setting

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3kHz
4. VBW = 10kHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.4.

6.5. Conducted Band Edge and Out-of-Band Emissions Measurement

6.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

6.5.2. Test Procedure

ANSI C63.10-2013 - Section 11.11

6.5.3. Test Settling

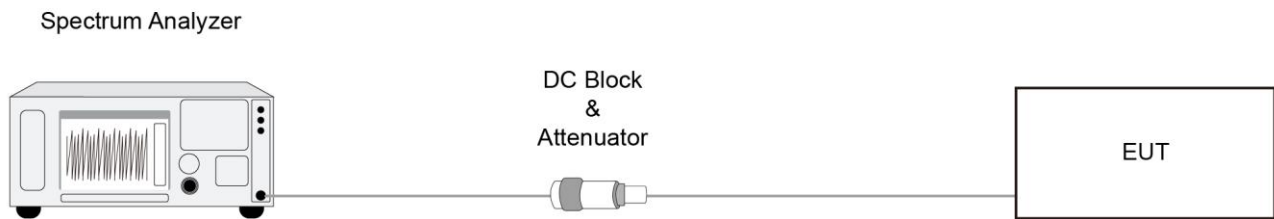
Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to ≥ 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW $\geq 3 \times$ RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

Emission level measurement

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

6.5.4. Test Setup



6.5.5. Test Result

Refer to Appendix A.5.

6.6. Radiated Spurious Emission Measurement

6.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.6.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.11 & 11.12

ANSI C63.10 - 2013 - Section 6.3 (General Requirements)

ANSI C63.10 - 2013 - Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 - 2013 - Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 - 2013 - Section 6.6 (Standard test method above 1GHz)

6.6.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000MHz	1MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

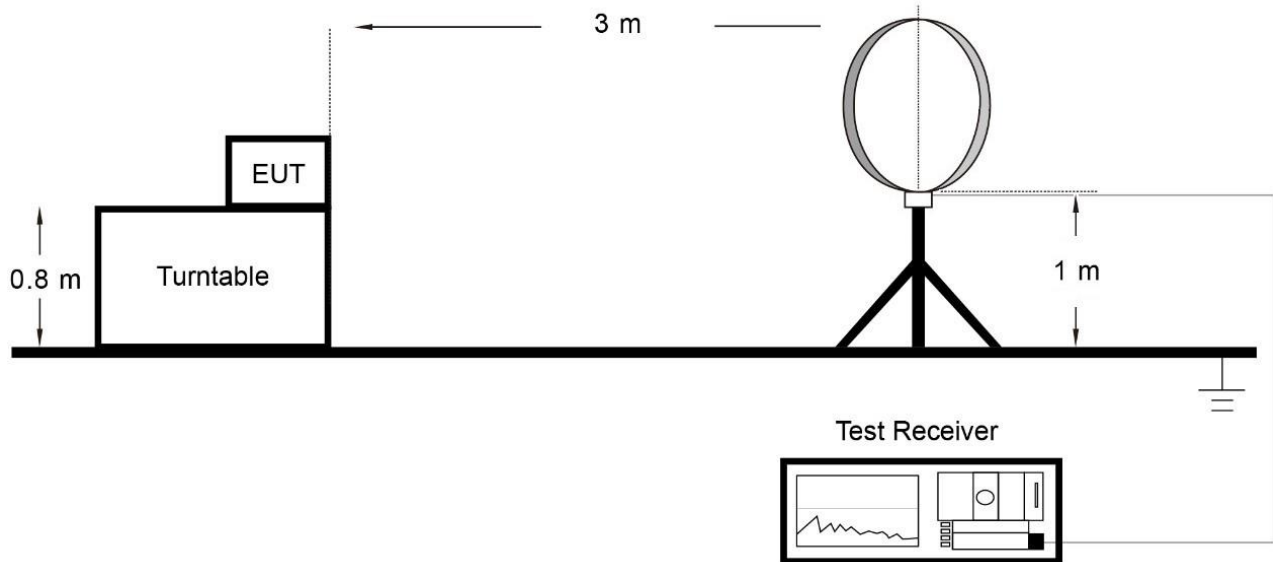
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

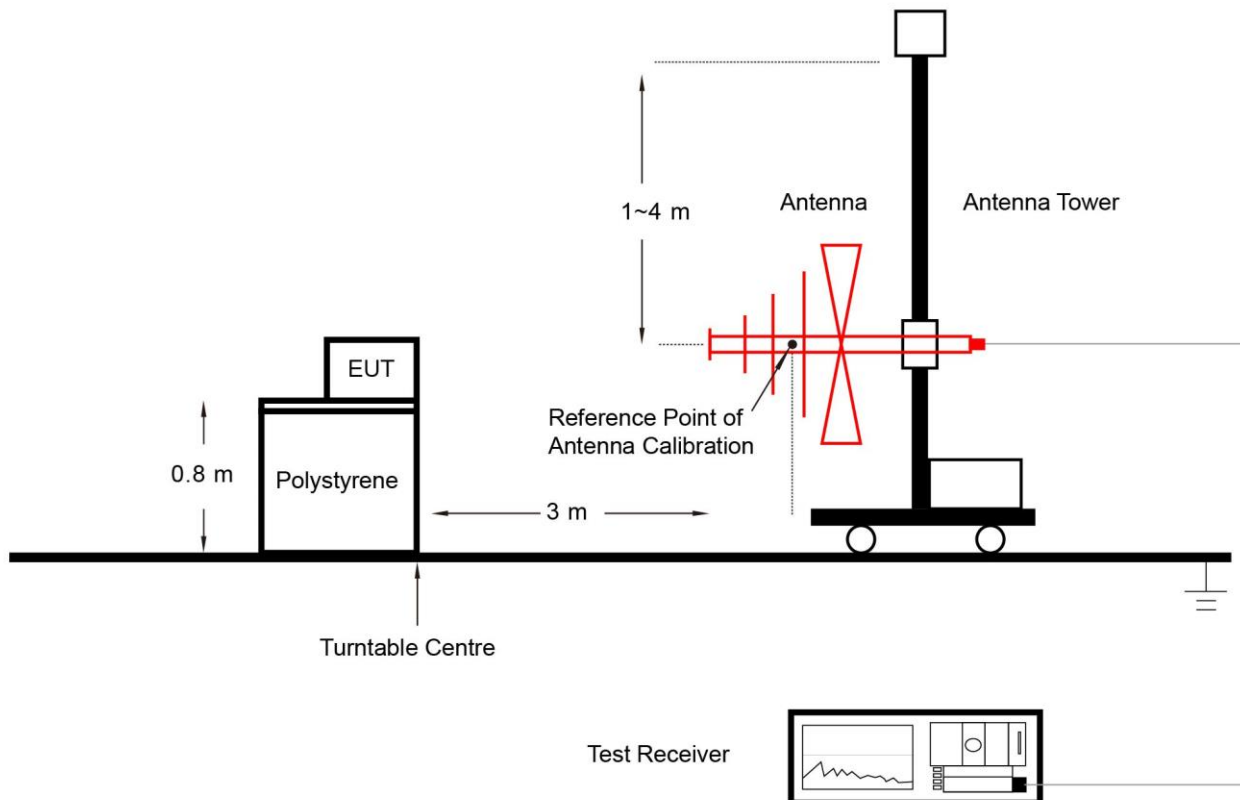
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set $\text{VBW} \geq 1/T$. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.6.4. Test Setup

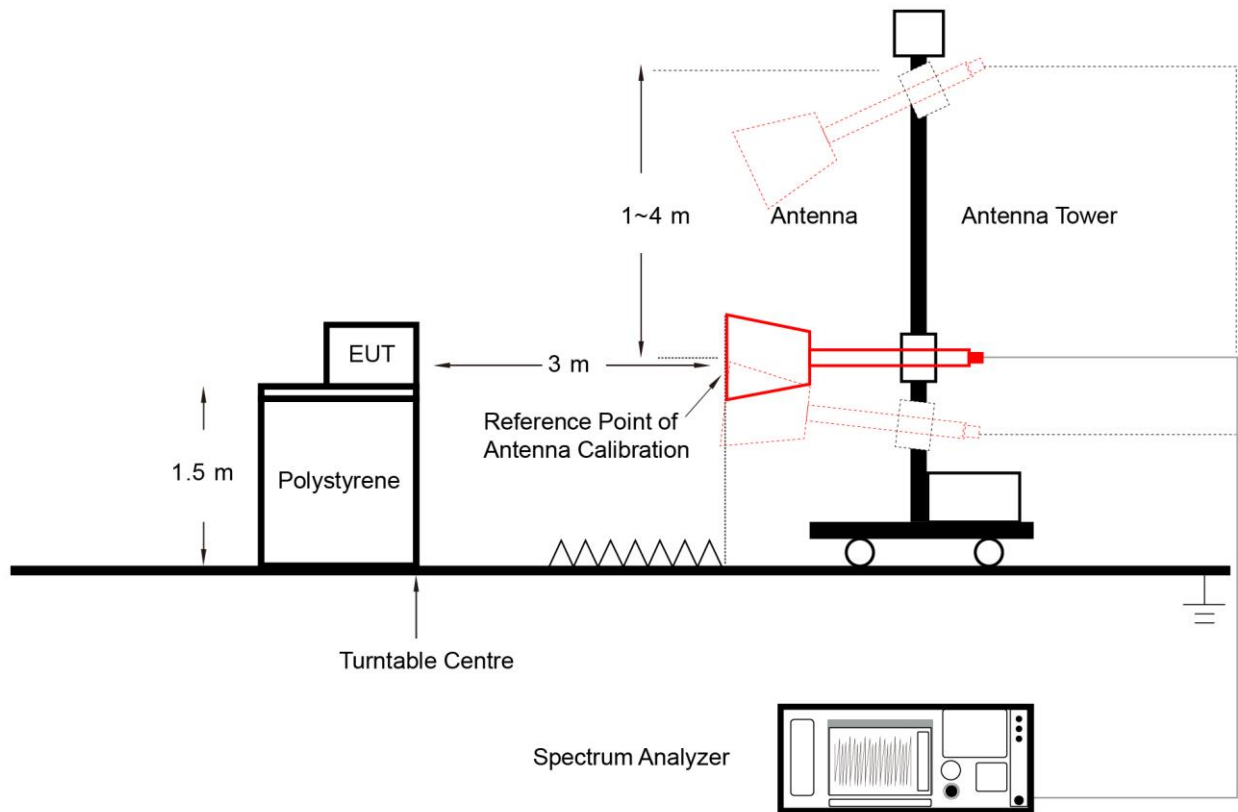
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.6.5. Test Result

Refer to Appendix A.6.

6.7. Radiated Restricted Band Edge Measurement

6.7.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.7.2. Test Procedure

ANSI C63.10-2013 Section 6.3 & 6.6 & 11.13

6.7.3. Test Setting

Peak Field Strength Measurements

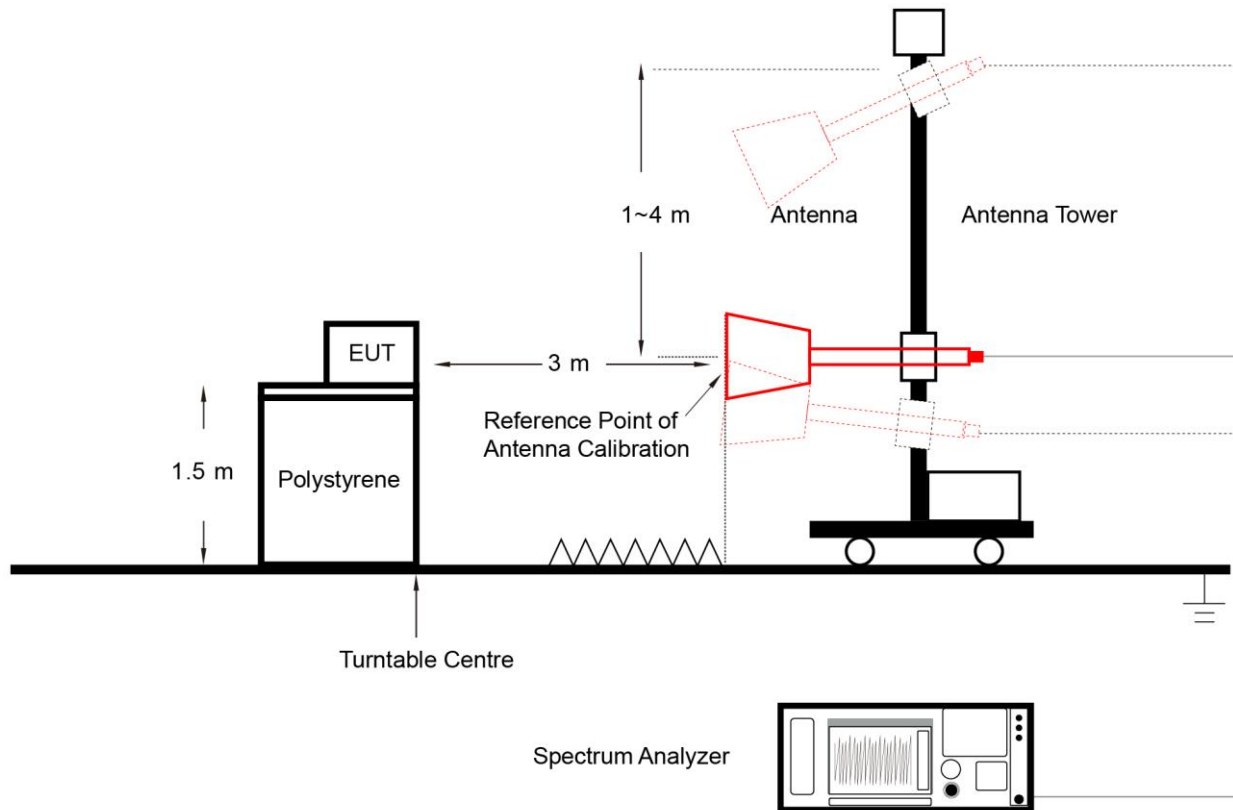
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak

6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

6.7.4. Test Setup



6.7.5. Test Result

Refer to Appendix A.7.

6.8. AC Conducted Emissions Measurement

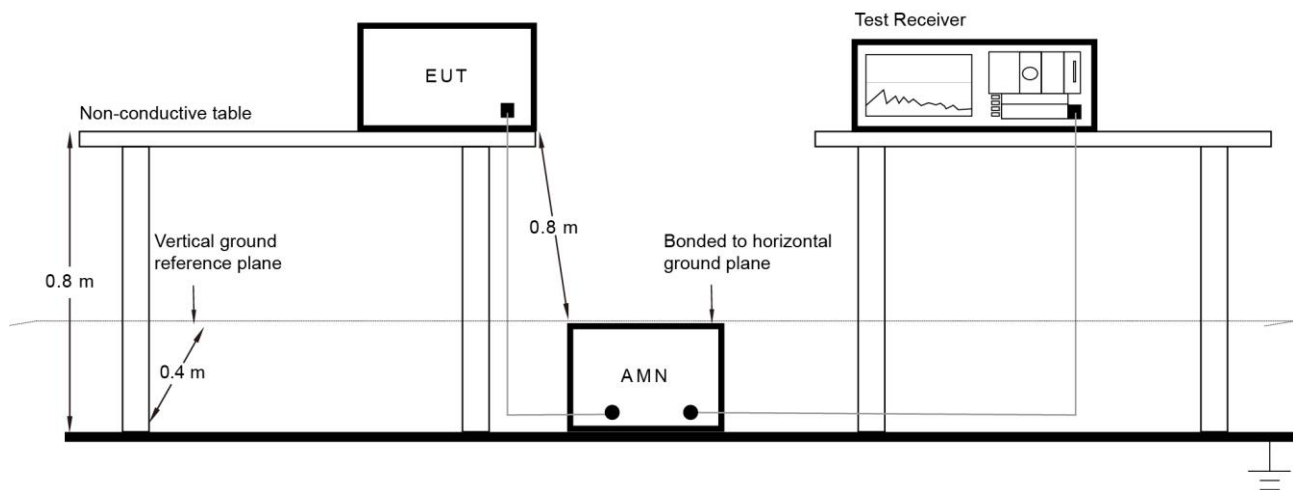
6.8.1. Test Limit

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

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

6.8.2. Test Setup



6.8.3. Test Result

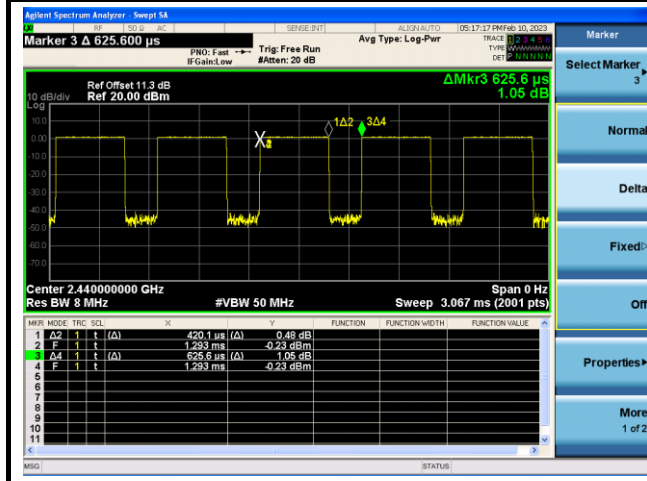
Refer to Appendix A.8.

Appendix A - Test Result

A.1 Duty Cycle Test Result

Test Site	NS-TR2	Test Engineer	Flag Yang
Test Date	2023-02-10		

Test Mode	Duty Cycle
BLE - Left Earbud	67.15%
BLE - Right Earbud	67.88%
Duty Cycle (T = Transmission Duration)	
BLE- Left Earbud (T = 420.1µs)	BLE- Right Earbud (T = 427.8µs)



Agilent Spectrum Analyzer - Sweep 5A

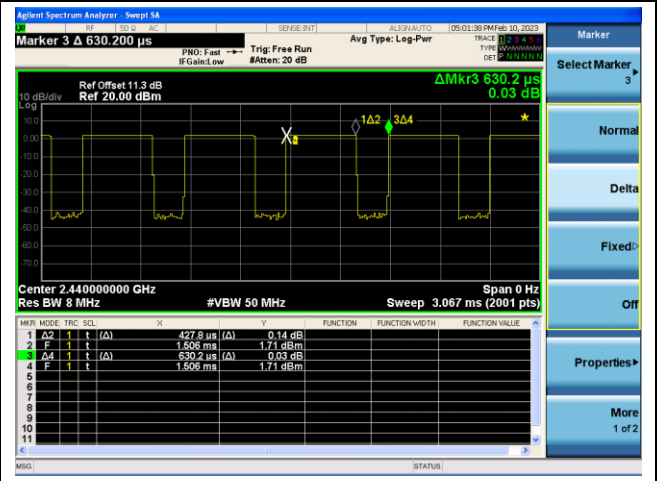
Marker 3 Δ 625.600 µs

Ref Offset 11.3 dB
Ref 20.00 dBm

ΔMkr3 625.6 µs
1.05 dB

Center 2.440000000 GHz
Res BW 8 MHz
#VBW 50 MHz
Sweep 3.067 ms (2001 pts)

MR	MODE	TRG	SC	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	Δ2	1	t	(Δ)	420.1 µs (Δ)	0.48 dB		
2	F	1	t		1.293 ms	-0.23 dBm		
3	Δ4	1	t	(Δ)	625.6 µs (Δ)	1.05 dB		
4	F	1	t		1.293 ms	-0.23 dBm		



Agilent Spectrum Analyzer - Sweep 5A

Marker 3 Δ 630.200 µs

Ref Offset 11.3 dB
Ref 20.00 dBm

ΔMkr3 630.2 µs
0.03 dB

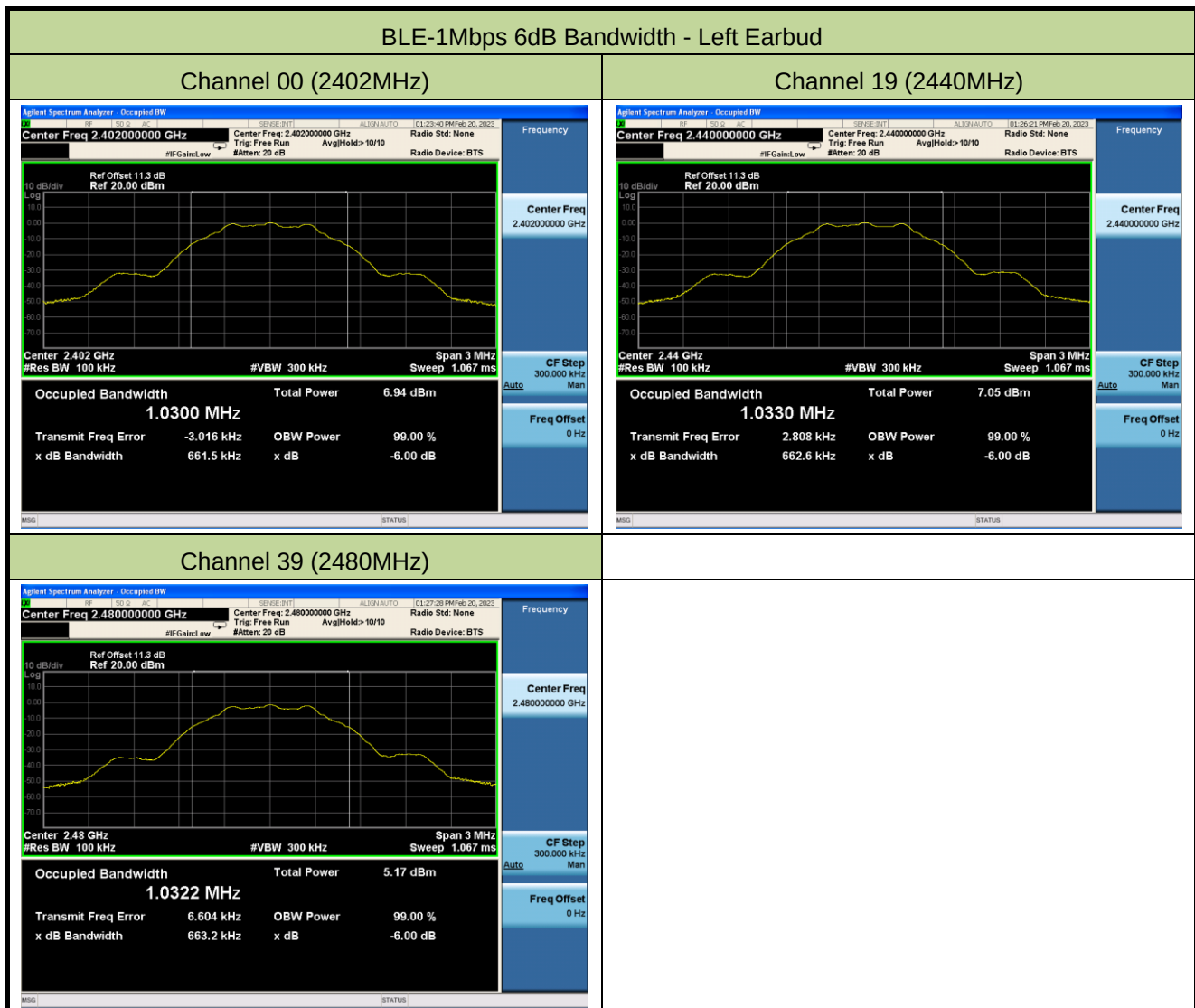
Center 2.440000000 GHz
Res BW 8 MHz
#VBW 50 MHz
Sweep 3.067 ms (2001 pts)

MR	MODE	TRG	SC	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	Δ2	1	t	(Δ)	427.8 µs (Δ)	0.14 dB		
2	F	1	t		1.506 ms	-1.71 dBm		
3	Δ4	1	t	(Δ)	630.2 µs (Δ)	0.03 dB		
4	F	1	t		1.506 ms	-1.71 dBm		

A.2 6dB Bandwidth Test Result

Test Site	NS-TR2	Test Engineer	Flag Yang
Test Date	2023-02-20		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	6dB Bandwidth (kHz)	Limit (MHz)
Left Earbud					
BLE	1Mbps	00	2402	661.5	≥ 0.5
	1Mbps	19	2440	662.6	≥ 0.5
	1Mbps	39	2480	663.2	≥ 0.5
Right Earbud					
BLE	1Mbps	00	2402	665.8	≥ 0.5
	1Mbps	19	2440	664.6	≥ 0.5
	1Mbps	39	2480	665.2	≥ 0.5



BLE-1Mbps 6dB Bandwidth - Right Earbud

Channel 00 (2402MHz)



Channel 19 (2440MHz)



Channel 39 (2480MHz)



A.3 Output Power Test Result

Test Site	NS-TR2	Test Engineer	Flag Yang
Test Date	2023-02-15		

Test Result of Peak Output Power

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Result
Left Earbud						
BLE	1Mbps	00	2402	1.38	≤ 30.00	Pass
	1Mbps	19	2440	1.31	≤ 30.00	Pass
	1Mbps	39	2480	-0.54	≤ 30.00	Pass
Right Earbud						
BLE	1Mbps	00	2402	2.44	≤ 30.00	Pass
	1Mbps	19	2440	2.05	≤ 30.00	Pass
	1Mbps	39	2480	0.13	≤ 30.00	Pass

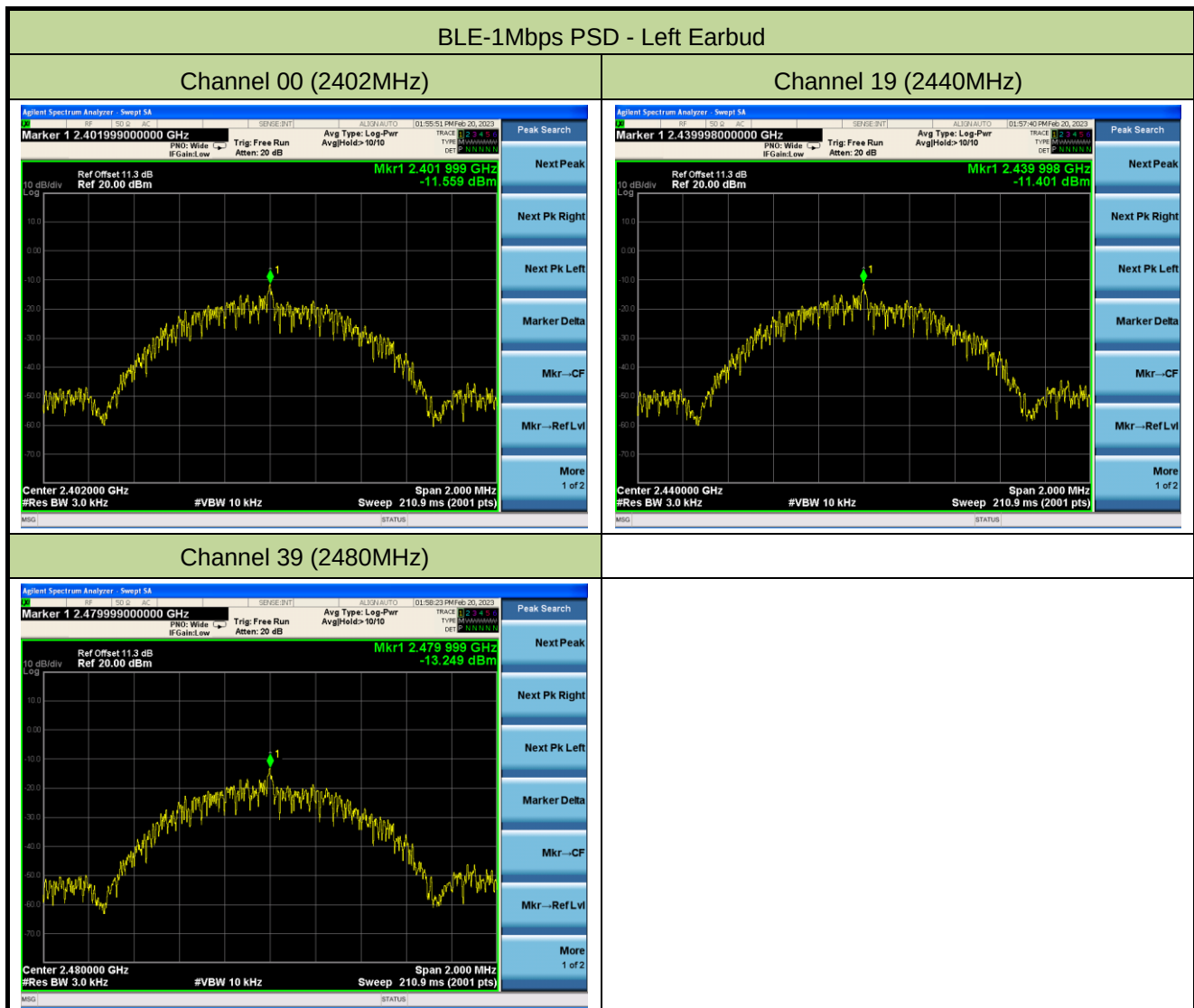
Test Result of Average Output Power (Reporting Only)

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
Left Earbud						
BLE	1Mbps	00	2402	0.92	≤ 30.00	Pass
	1Mbps	19	2440	0.84	≤ 30.00	Pass
	1Mbps	39	2480	-1.07	≤ 30.00	Pass
Right Earbud						
BLE	1Mbps	00	2402	2.13	≤ 30.00	Pass
	1Mbps	19	2440	1.80	≤ 30.00	Pass
	1Mbps	39	2480	-0.27	≤ 30.00	Pass

A.4 Power Spectral Density Test Result

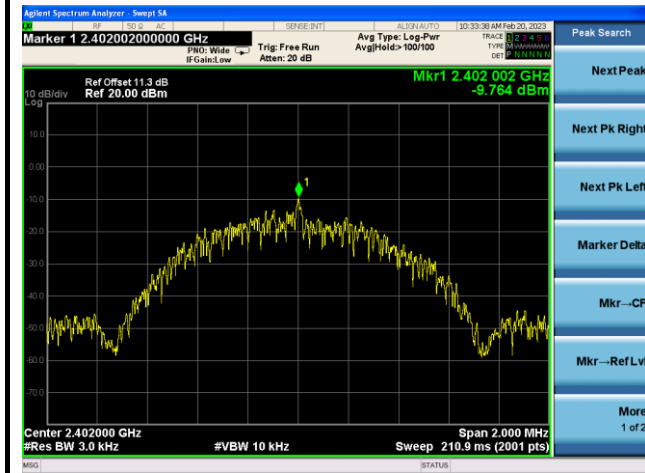
Test Site	NS-TR2	Test Engineer	Flag Yang
Test Date	2023-02-20		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	PSD Result (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
Left Earbud						
BLE	1Mbps	00	2402	-11.559	≤ 8.00	Pass
	1Mbps	19	2440	-11.401	≤ 8.00	Pass
	1Mbps	39	2480	-13.249	≤ 8.00	Pass
Right Earbud						
BLE	1Mbps	00	2402	-9.764	≤ 8.00	Pass
	1Mbps	19	2440	-10.398	≤ 8.00	Pass
	1Mbps	39	2480	-12.640	≤ 8.00	Pass

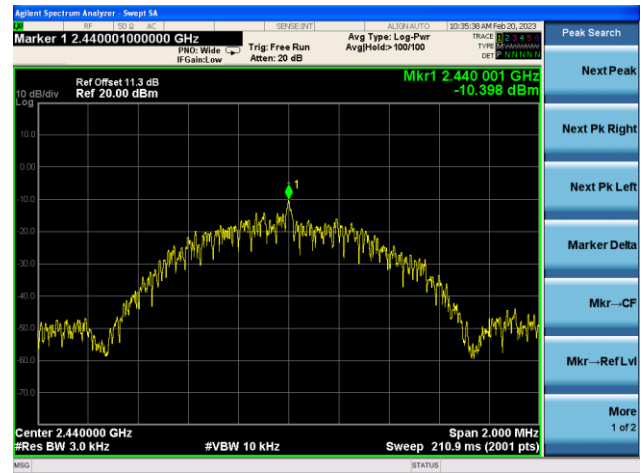


BLE-1Mbps PSD - Right Earbud

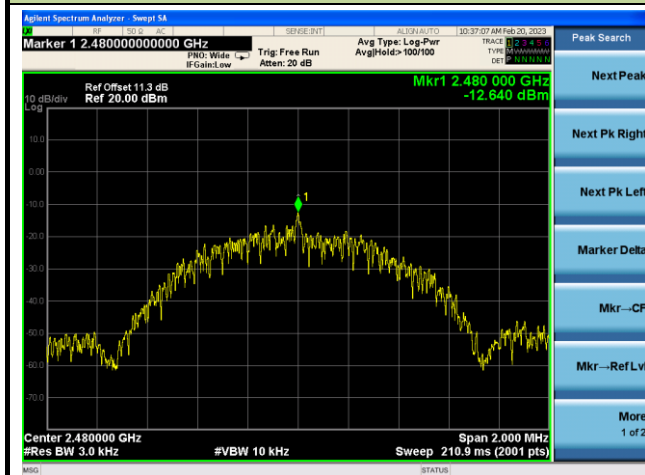
Channel 00 (2402MHz)



Channel 19 (2440MHz)



Channel 39 (2480MHz)



A.5 Conducted Band Edge and Out-of-Band Emissions Test Result

Test Site	NS-TR2	Test Engineer	Flag Yang
Test Date	2023-02-20 ~ 2023-02-21		

Test Mode	Data Rate / Mbps	Channel No.	Frequency (MHz)	Limit (dBc)	Result
Left Earbud					
BLE	1Mbps	00	2402	20	Pass
	1Mbps	19	2440	20	Pass
	1Mbps	39	2480	20	Pass
Right Earbud					
BLE	1Mbps	00	2402	20	Pass
	1Mbps	19	2440	20	Pass
	1Mbps	39	2480	20	Pass

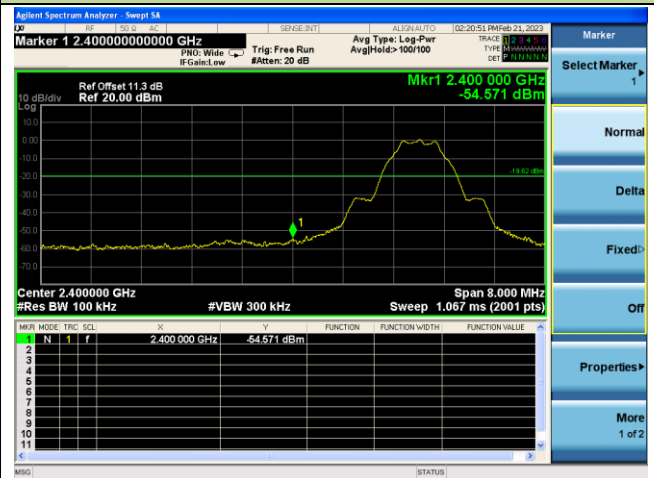
BLE Out-of-Band Emissions – Left Earbud

Channel 00 (2402MHz)

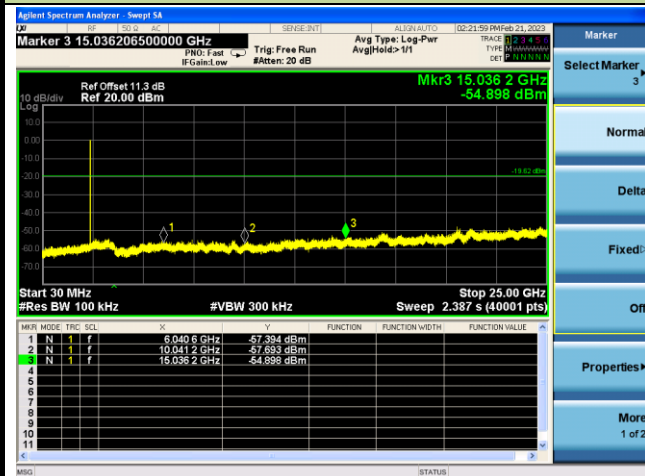
100kHz PSD reference Level

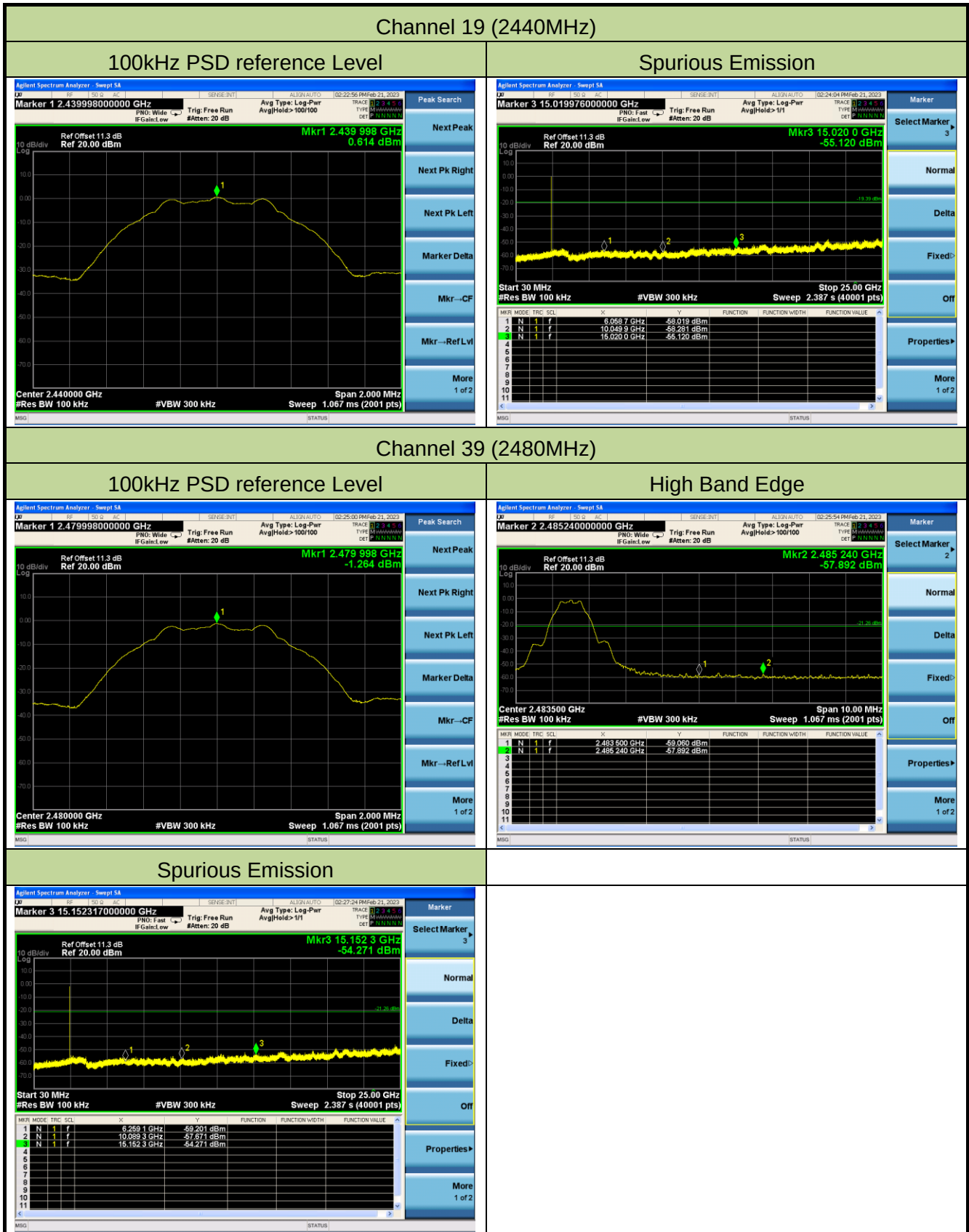


Low Band Edge



Spurious Emission

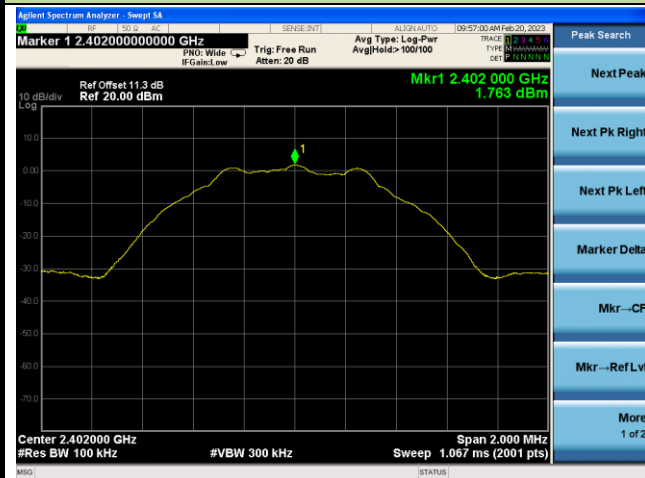




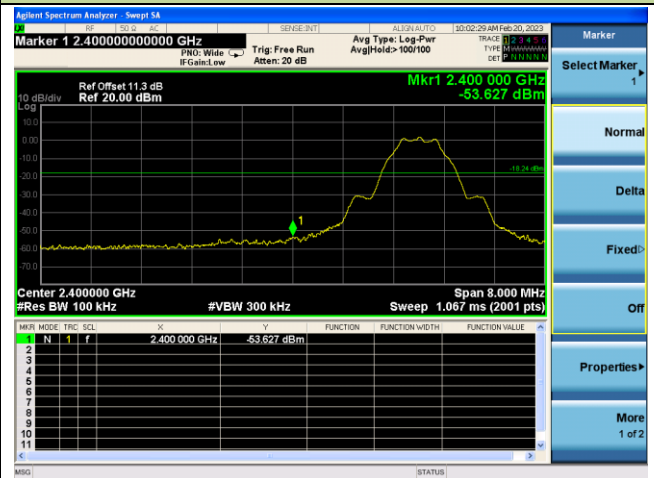
BLE Out-of-Band Emissions – Right Earbud

Channel 00 (2402MHz)

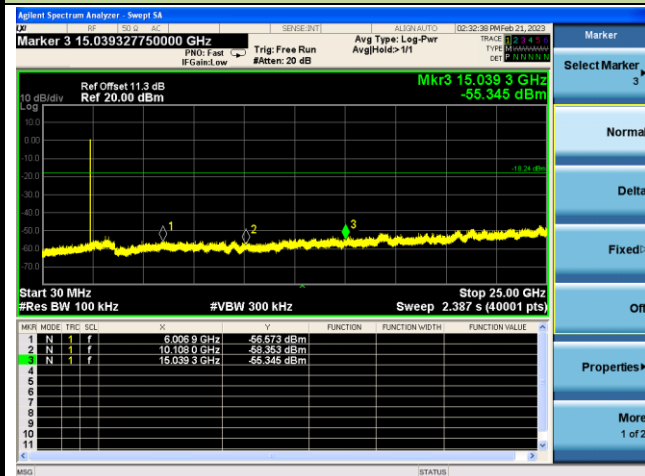
100kHz PSD reference Level

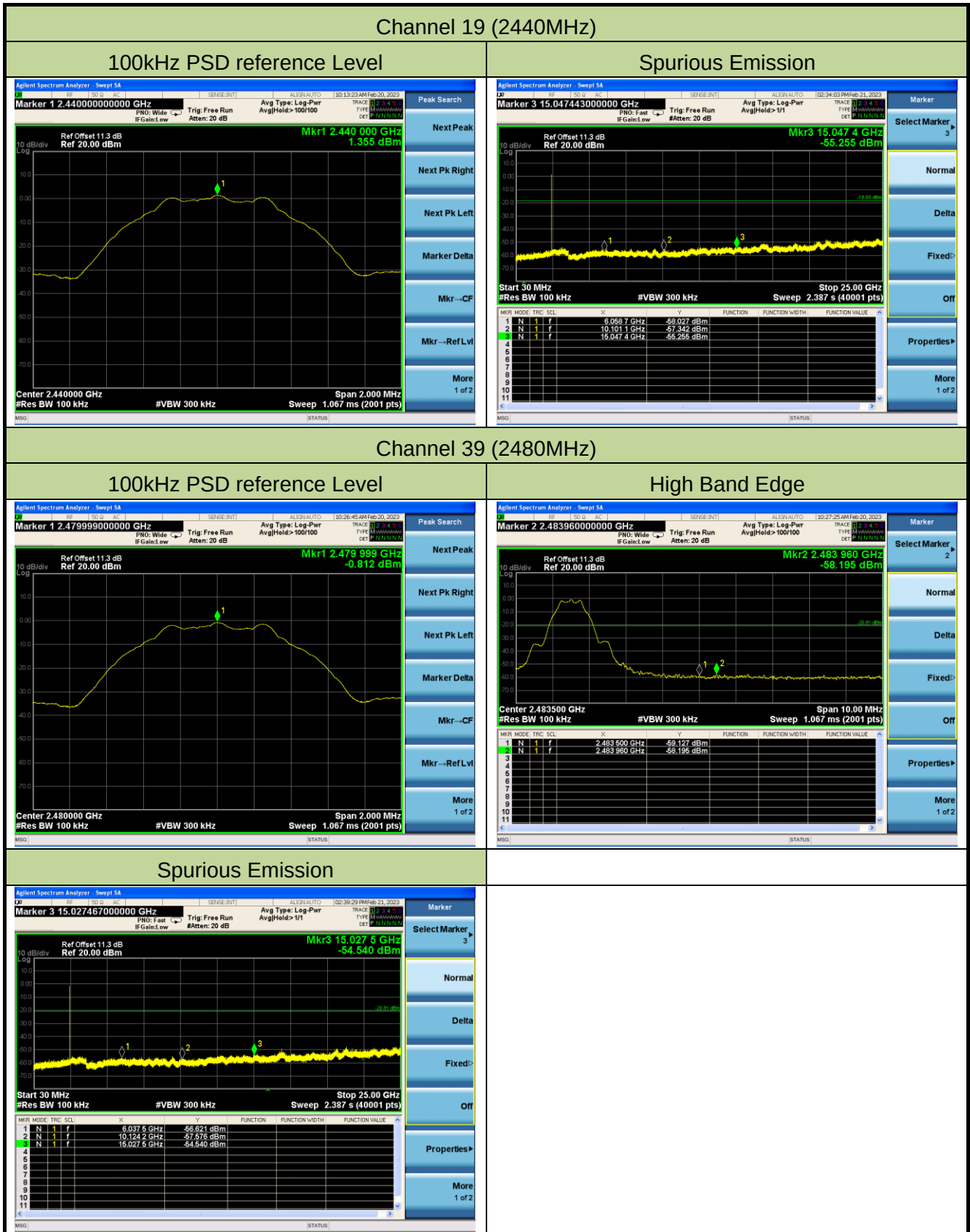


Low Band Edge



Spurious Emission





A.6 Radiated Spurious Emission Test Result

Test Site	NS-AC1	Test Engineer	Flag Yang
Test Date	2023-02-13	Test Mode:	BLE-1Mbps - Left Earbud
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

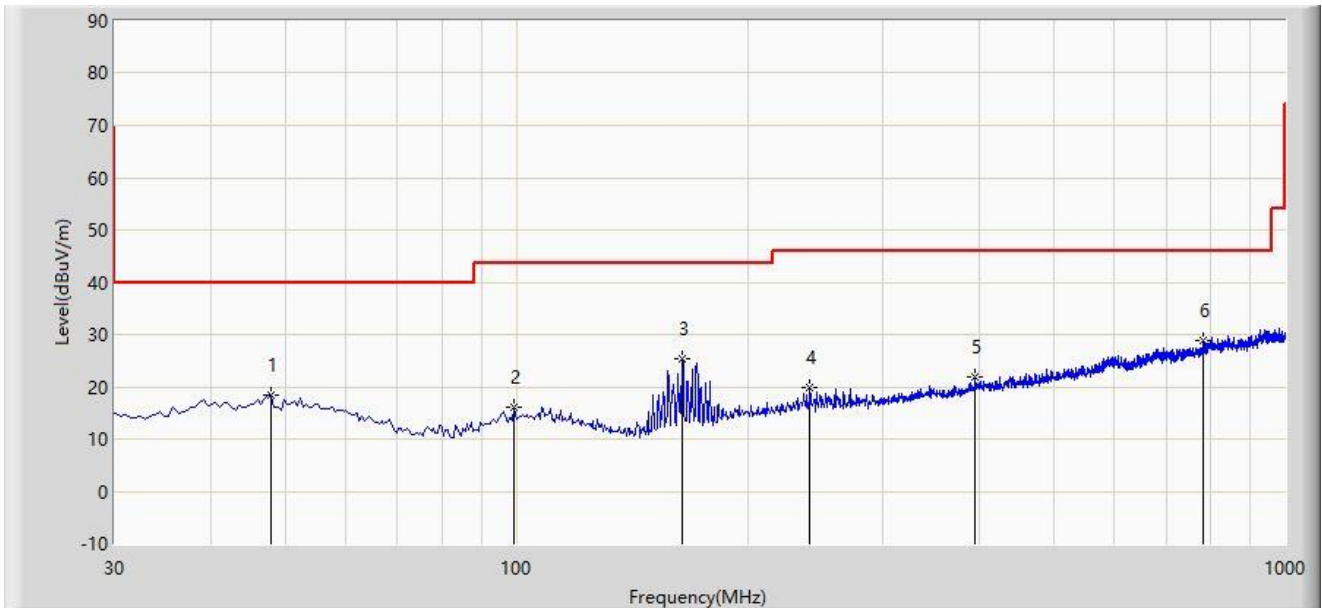
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
00	4017.5	38.1	-1.7	36.4	74.0	-37.6	Peak	Horizontal
	5097.0	38.0	2.6	40.6	74.0	-33.4	Peak	Horizontal
	6414.5	35.6	5.4	41.0	74.0	-33.0	Peak	Horizontal
	3601.0	38.7	-1.8	36.9	74.0	-37.1	Peak	Vertical
	4493.5	37.6	0.8	38.4	74.0	-35.6	Peak	Vertical
	5564.5	37.6	2.6	40.2	74.0	-33.8	Peak	Vertical
19	3660.5	40.6	-1.5	39.1	74.0	-34.9	Peak	Horizontal
	4638.0	39.7	1.5	41.2	74.0	-32.8	Peak	Horizontal
	6074.5	37.6	4.2	41.8	74.0	-32.2	Peak	Horizontal
	3660.5	40.6	-1.5	39.1	74.0	-34.9	Peak	Vertical
	5071.5	38.4	2.2	40.6	74.0	-33.4	Peak	Vertical
	6287.0	37.0	5.0	42.0	74.0	-32.0	Peak	Vertical
39	3737.0	39.1	-1.4	37.7	74.0	-36.3	Peak	Horizontal
	5122.5	38.2	2.3	40.5	74.0	-33.5	Peak	Horizontal
	6805.5	36.6	6.9	43.5	74.0	-30.5	Peak	Horizontal
	3652.0	38.6	-1.6	37.0	74.0	-37.0	Peak	Vertical
	5080.0	37.0	2.3	39.3	74.0	-34.7	Peak	Vertical
	6278.5	35.8	5.0	40.8	74.0	-33.2	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m) Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)								

Test Site	NS-AC1	Test Engineer	Flag Yang
Test Date	2023-02-22	Test Mode:	BLE-1Mbps - Right Earbud
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
00	3669.0	40.0	-1.4	38.6	74.0	-35.4	Peak	Horizontal
	4808.0	39.4	1.5	40.9	74.0	-33.1	Peak	Horizontal
	6593.0	36.1	6.2	42.3	74.0	-31.7	Peak	Horizontal
	3796.5	40.2	-1.4	38.8	74.0	-35.2	Peak	Vertical
	5114.0	38.0	2.3	40.3	74.0	-33.7	Peak	Vertical
	6499.5	36.2	5.8	42.0	74.0	-32.0	Peak	Vertical
19	3660.5	40.7	-1.5	39.2	74.0	-34.8	Peak	Horizontal
	4425.5	38.8	0.4	39.2	74.0	-34.8	Peak	Horizontal
	5581.5	37.8	2.4	40.2	74.0	-33.8	Peak	Horizontal
	3184.5	45.2	-3.7	41.5	74.0	-32.5	Peak	Vertical
	4349.0	38.8	-0.2	38.6	74.0	-35.4	Peak	Vertical
	5488.0	37.6	2.6	40.2	74.0	-33.8	Peak	Vertical
39	3720.0	40.0	-1.6	38.4	74.0	-35.6	Peak	Horizontal
	4961.0	37.9	1.8	39.7	74.0	-34.3	Peak	Horizontal
	6618.5	35.9	6.5	42.4	74.0	-31.6	Peak	Horizontal
	3516.0	39.5	-2.2	37.3	74.0	-36.7	Peak	Vertical
	4595.5	36.9	1.4	38.3	74.0	-35.7	Peak	Vertical
	5836.5	37.0	3.4	40.4	74.0	-33.6	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m) Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)								

The Result of Radiated Emission below 1GHz:

Site: NS-AC1	Test Data: 2023-02-14
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_VULB9162	Polarity: Horizontal
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		47.945	18.547	0.351	-21.453	40.000	18.196	PK
2		99.355	15.961	0.284	-27.539	43.500	15.677	PK
3		164.345	25.344	11.955	-18.156	43.500	13.389	PK
4		240.975	19.902	2.925	-26.098	46.000	16.976	PK
5		395.690	21.966	1.129	-24.034	46.000	20.837	PK
6	*	782.720	28.960	1.819	-17.040	46.000	27.141	PK

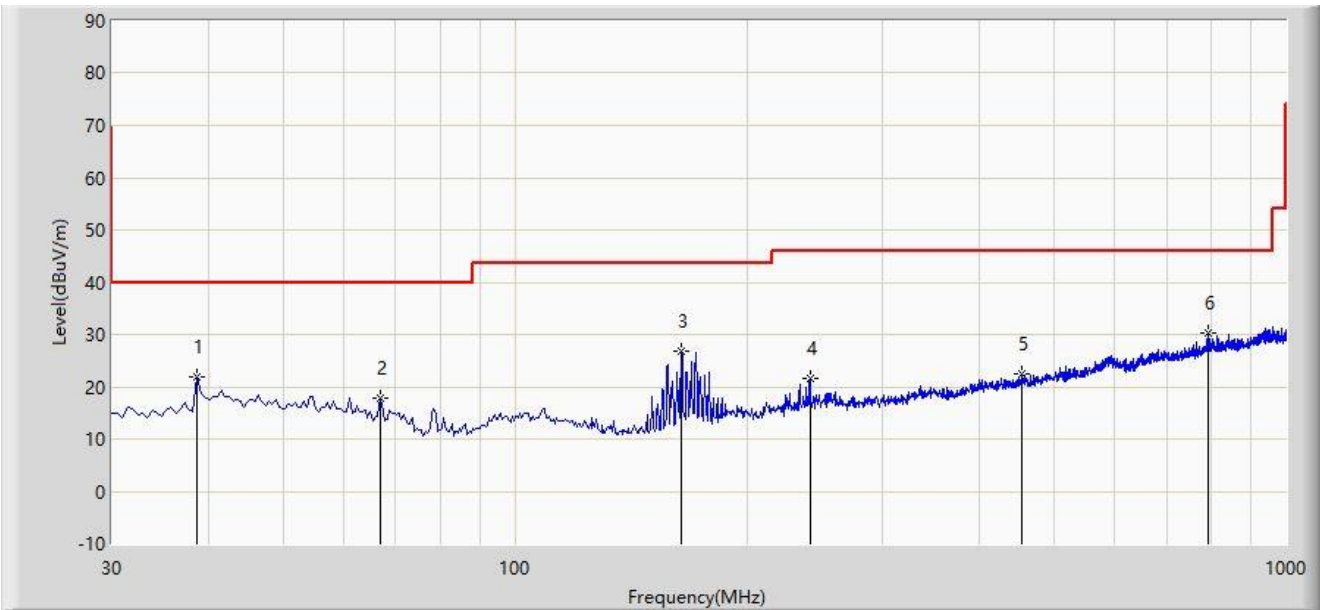
Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Site: NS-AC1	Test Data: 2023-02-14
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_VULB9162	Polarity: Vertical
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		38.730	21.871	4.827	-18.129	40.000	17.044	PK
2		66.860	17.731	3.043	-22.269	40.000	14.688	PK
3		164.345	26.870	13.481	-16.630	43.500	13.389	PK
4		241.460	21.537	4.549	-24.463	46.000	16.988	PK
5		453.405	22.333	0.722	-23.667	46.000	21.611	PK
6	*	794.360	30.371	2.829	-15.629	46.000	27.542	PK

Note 1: " * ", means this data is the worst emission level.

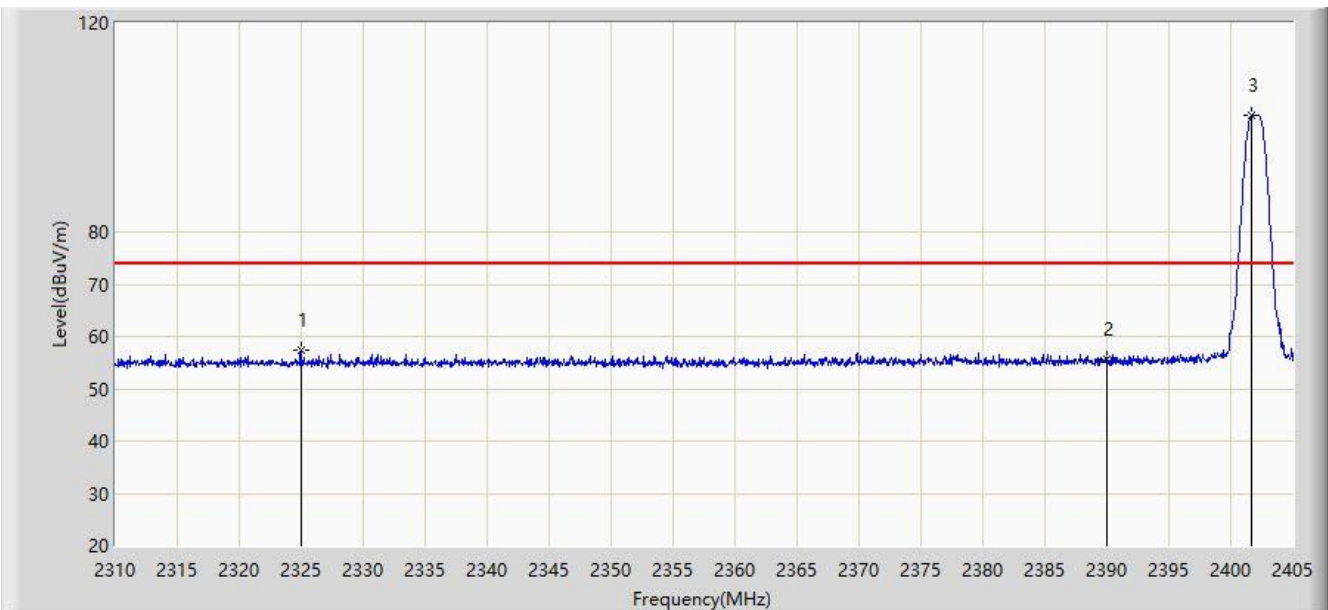
Note 2: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

A.7 Radiated Restricted Band Edge Test Result

Site: NS-AC1	Test Date: 2023-02-13
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



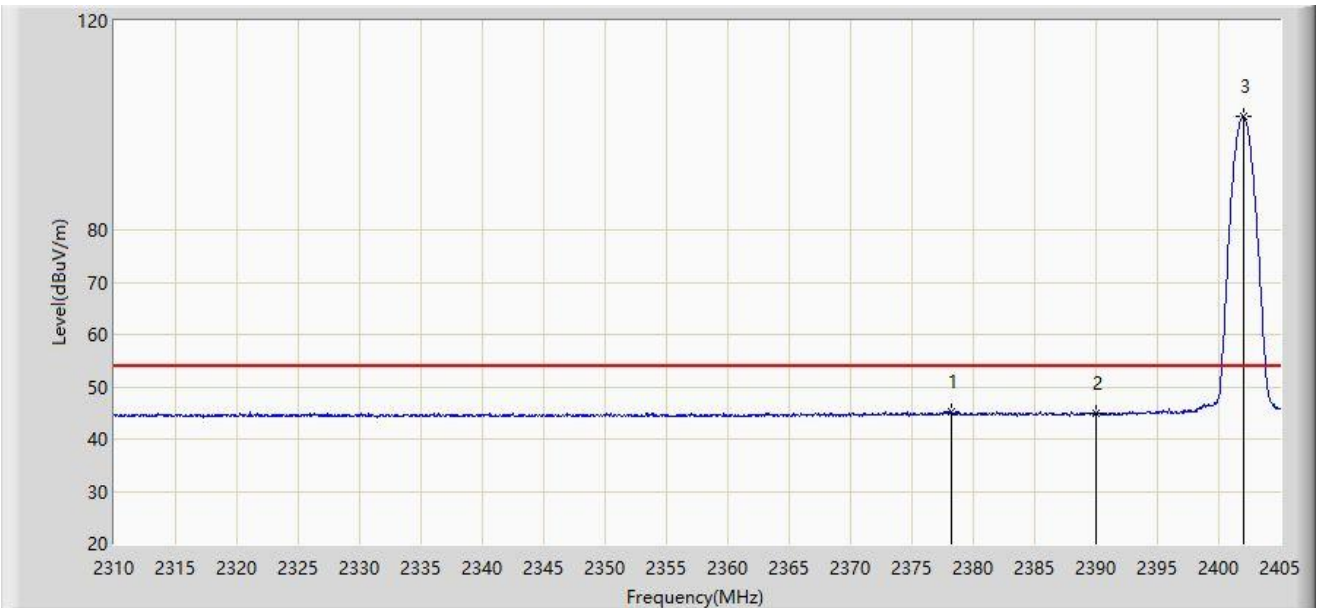
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2324.962	57.415	26.412	-16.585	74.000	31.003	PK
2		2390.000	55.545	24.722	-18.455	74.000	30.823	PK
3		2401.722	102.434	71.622	N/A	N/A	30.813	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-13
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



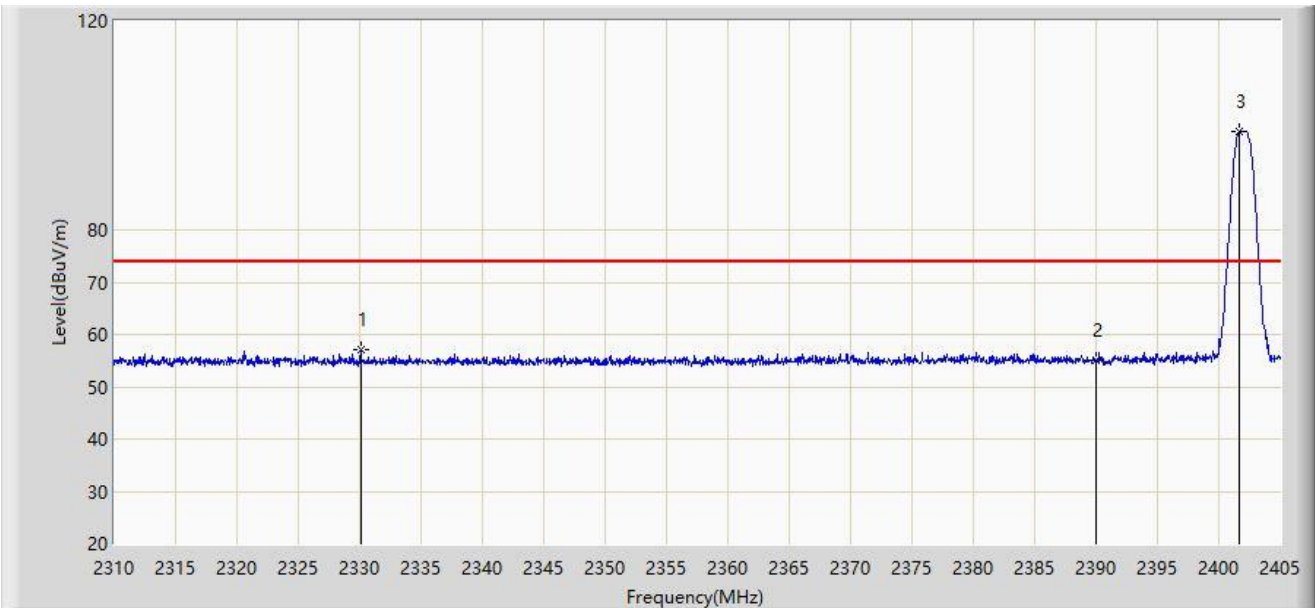
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2378.210	45.225	14.296	-8.775	54.000	30.929	AV
2		2390.000	44.957	14.134	-9.043	54.000	30.823	AV
3		2402.055	101.626	70.812	N/A	N/A	30.813	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-13
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



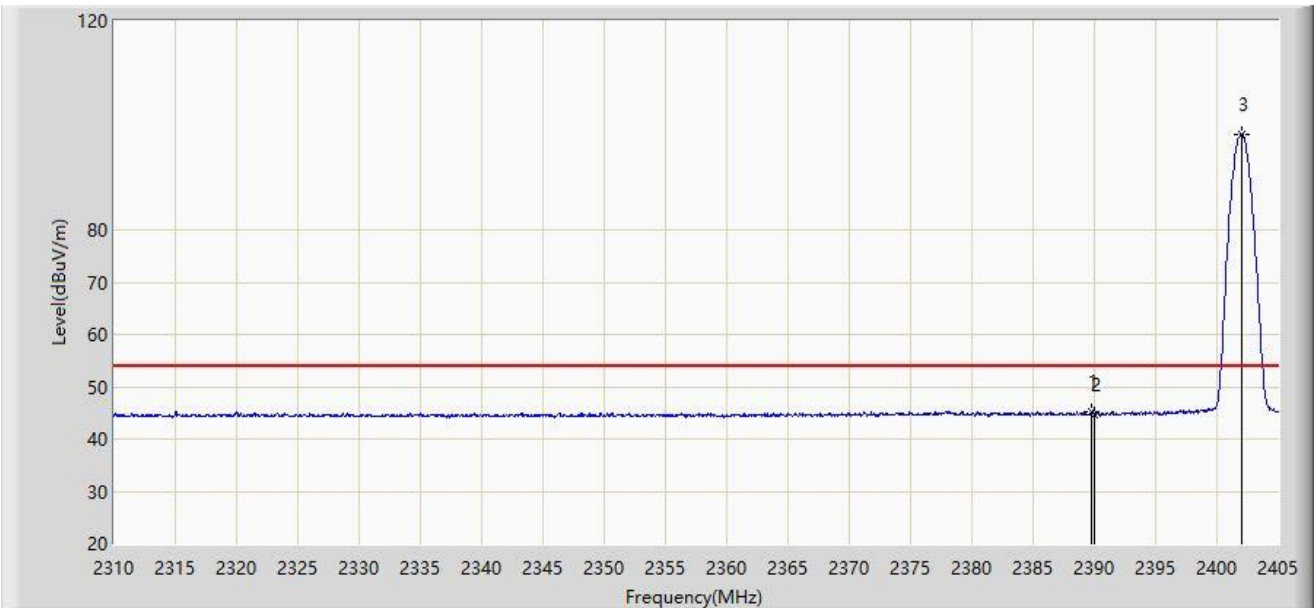
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2330.093	56.966	25.980	-17.034	74.000	30.985	PK
2		2390.000	55.055	24.232	-18.945	74.000	30.823	PK
3		2401.722	98.918	68.106	N/A	N/A	30.813	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-13
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



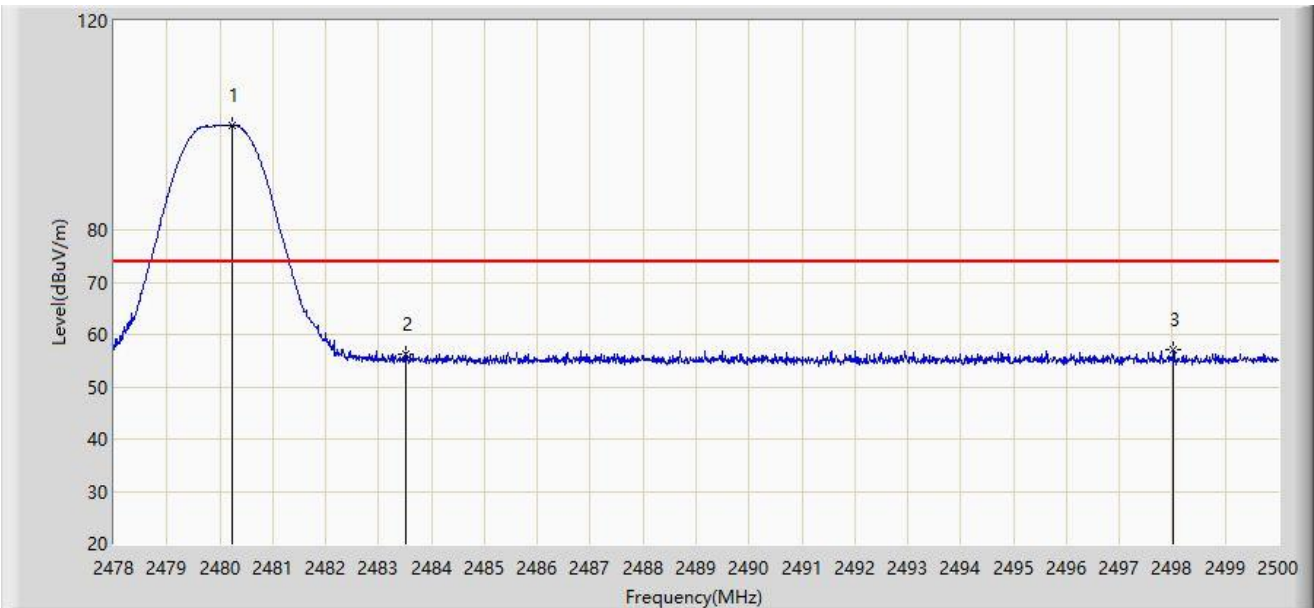
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2389.800	45.277	14.452	-8.723	54.000	30.825	AV
2		2390.000	44.648	13.825	-9.352	54.000	30.823	AV
3		2402.008	98.356	67.543	N/A	N/A	30.813	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-13
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2480MHz	



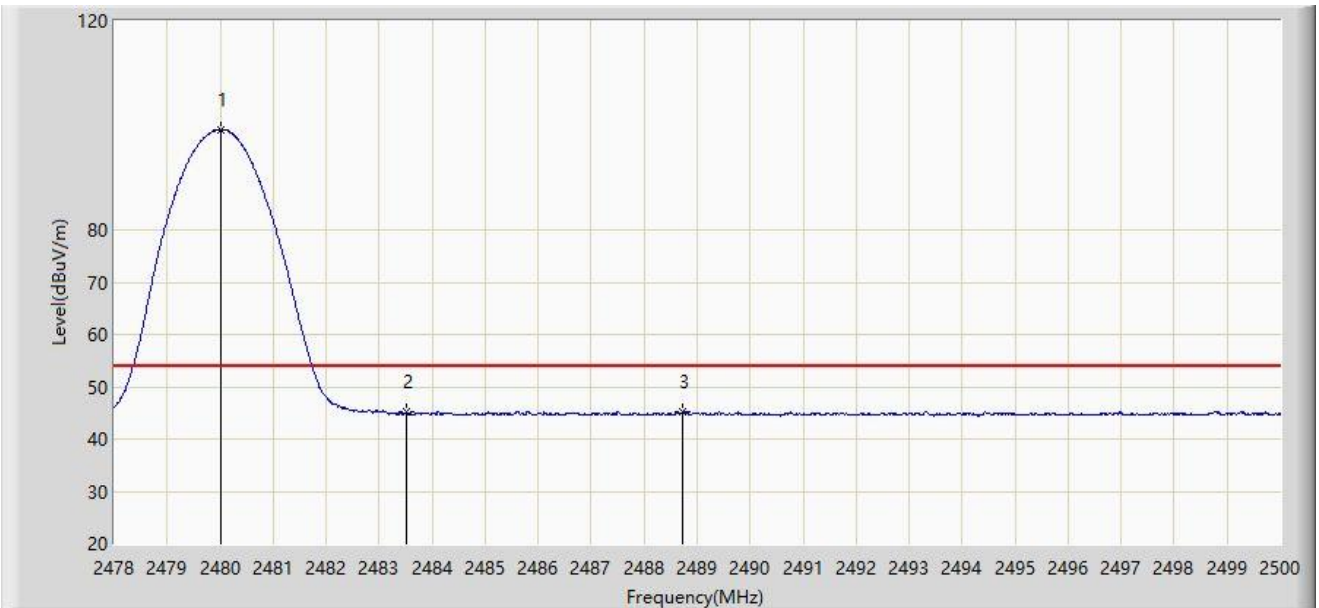
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.244	100.056	69.323	N/A	N/A	30.732	PK
2		2483.500	56.194	25.459	-17.806	74.000	30.734	PK
3	*	2498.020	56.985	26.243	-17.015	74.000	30.742	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-13
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2480MHz	



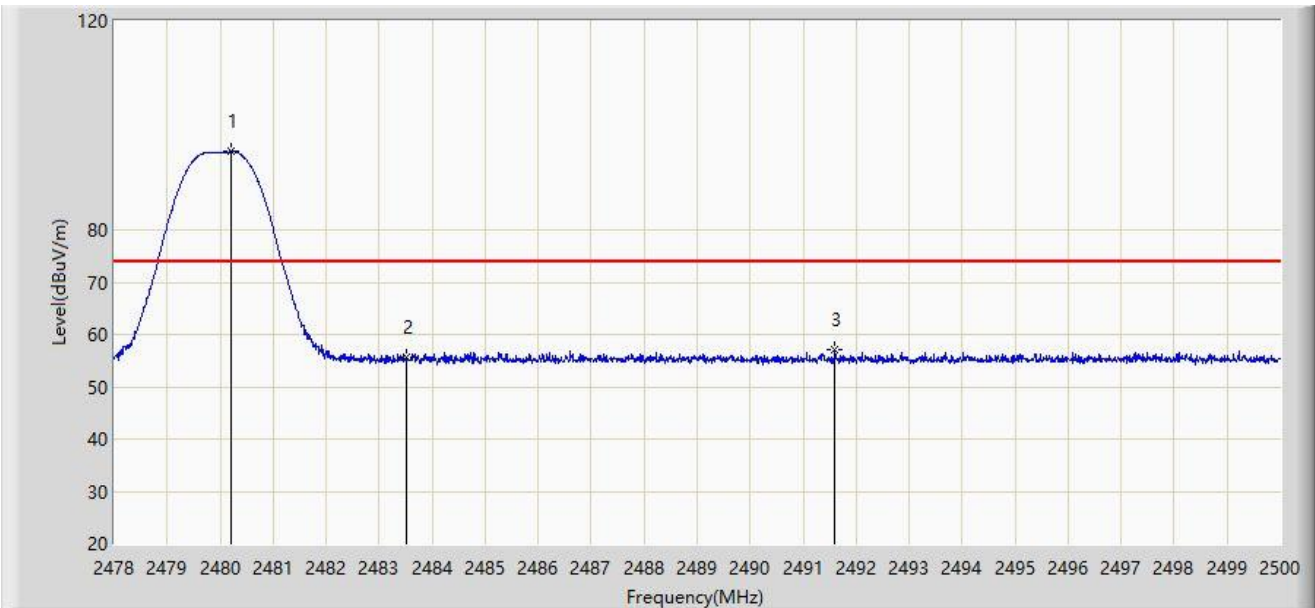
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.002	99.254	68.521	N/A	N/A	30.733	AV
2		2483.500	45.172	14.437	-8.828	54.000	30.734	AV
3	*	2488.725	45.333	14.595	-8.667	54.000	30.738	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-13
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2480MHz	



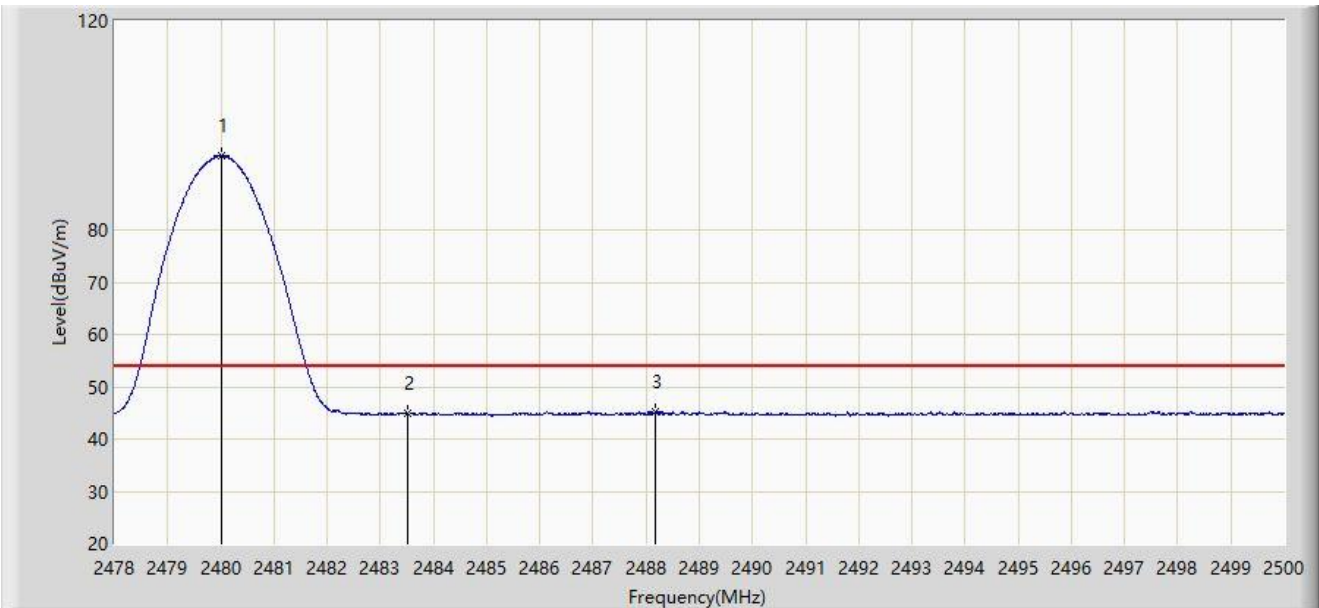
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.211	94.965	64.232	N/A	N/A	30.733	PK
2		2483.500	55.532	24.797	-18.468	74.000	30.734	PK
3	*	2491.596	56.985	26.246	-17.015	74.000	30.740	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-13
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: True Wireless Noise Cancellation Earbuds Headphones - Left	Power: By Battery
Test Mode: Transmit by BLE 1M at 2480MHz	



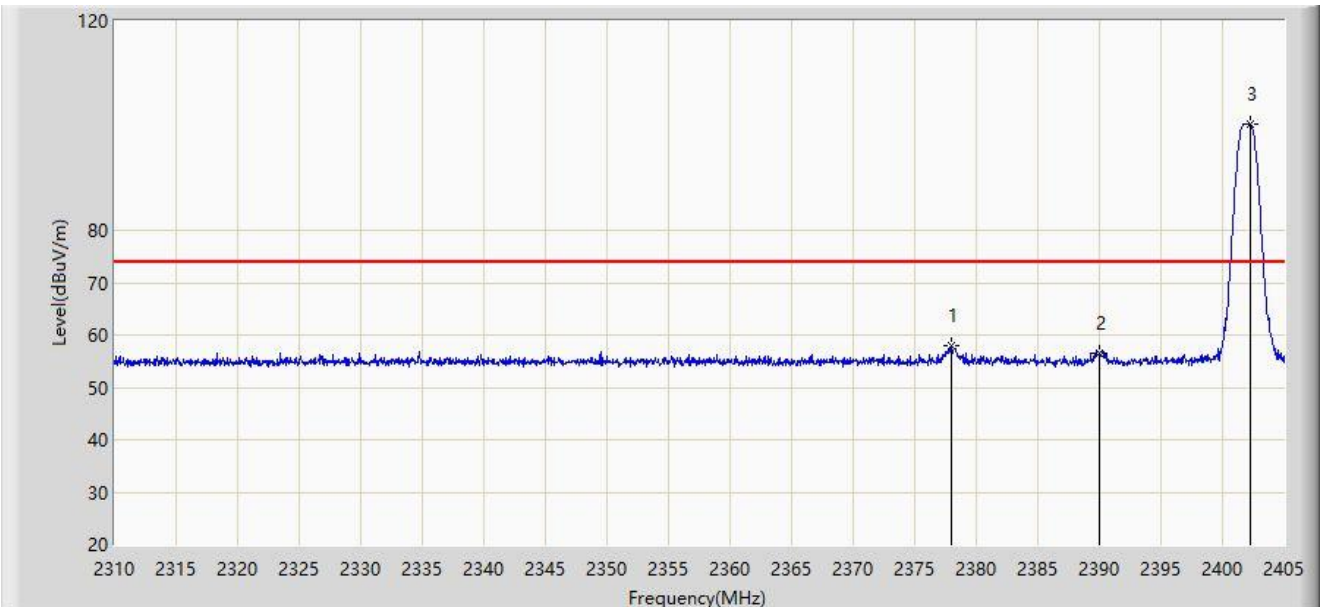
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.002	94.157	63.424	N/A	N/A	30.733	AV
2		2483.500	44.826	14.091	-9.174	54.000	30.734	AV
3	*	2488.186	45.249	14.512	-8.751	54.000	30.737	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-21
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: True Wireless Noise Cancellation Earbuds Headphones - Right	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



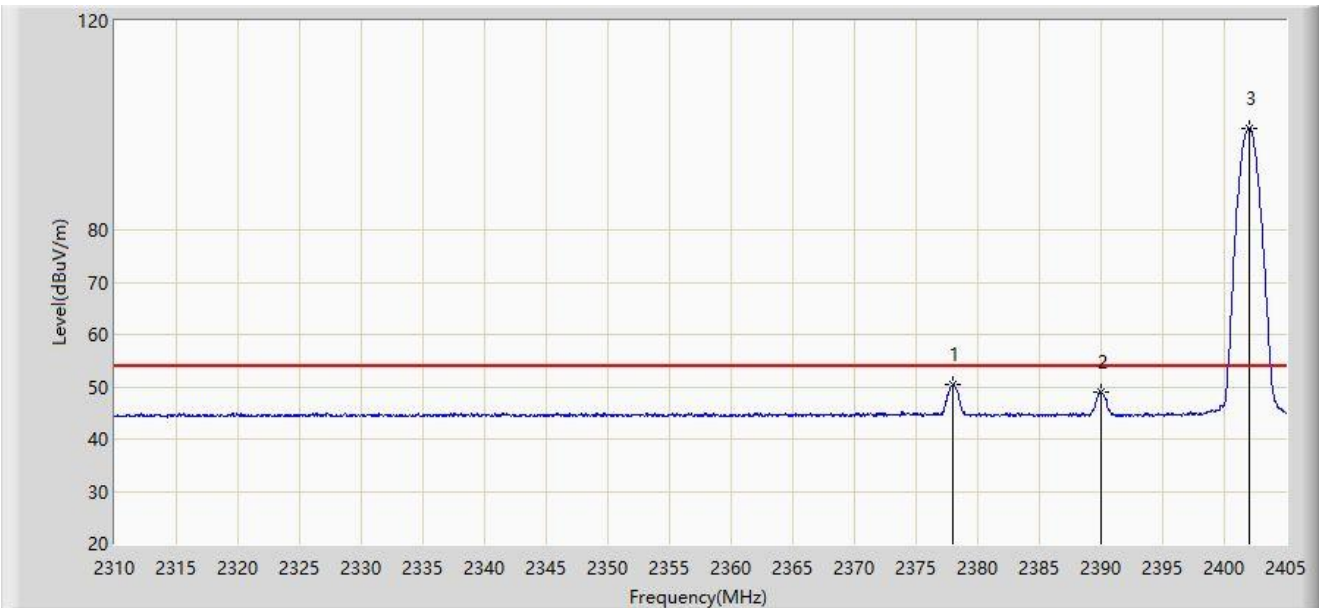
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2377.925	57.972	27.040	-16.028	74.000	30.932	PK
2		2390.000	56.614	25.791	-17.386	74.000	30.823	PK
3		2402.245	100.342	69.528	N/A	N/A	30.814	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-21
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: True Wireless Noise Cancellation Earbuds Headphones - Right	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



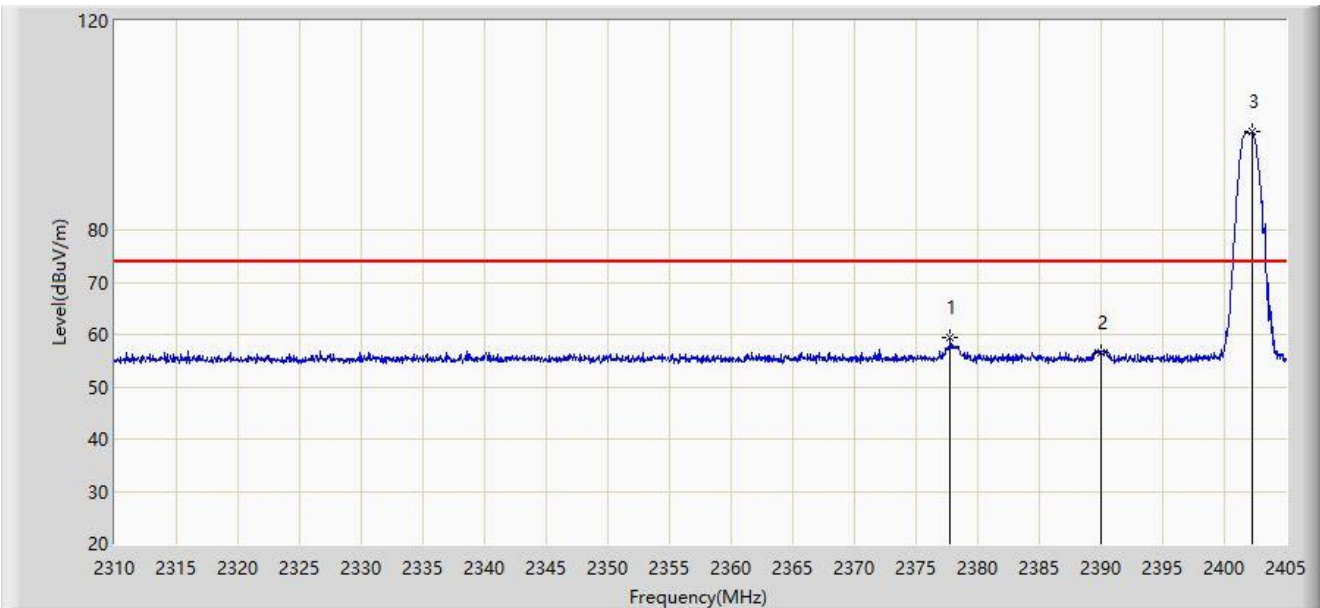
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2377.972	50.491	19.560	-3.509	54.000	30.932	AV
2		2390.000	48.922	18.099	-5.078	54.000	30.823	AV
3		2402.008	99.470	68.657	N/A	N/A	30.813	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-21
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: True Wireless Noise Cancellation Earbuds Headphones - Right	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



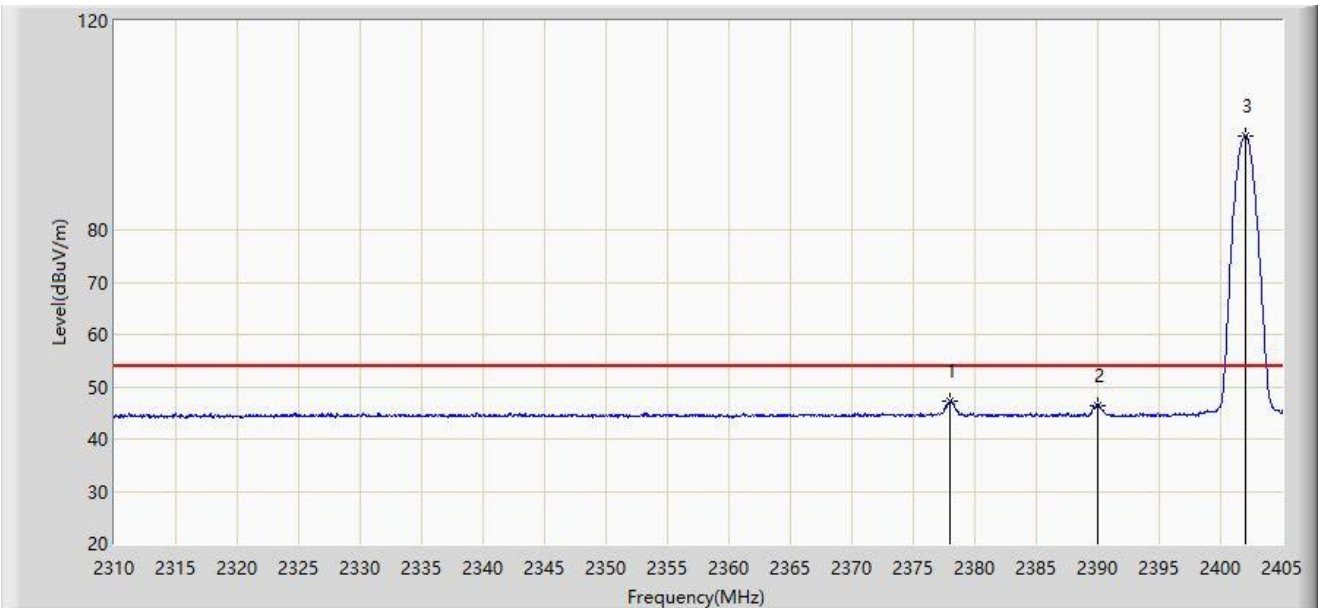
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1	*	2377.782	59.414	28.481	-14.586	74.000	30.933	PK
2		2390.000	56.554	25.731	-17.446	74.000	30.823	PK
3		2402.292	98.716	67.902	N/A	N/A	30.814	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-21
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: True Wireless Noise Cancellation Earbuds Headphones - Right	Power: By Battery
Test Mode: Transmit by BLE 1M at 2402MHz	



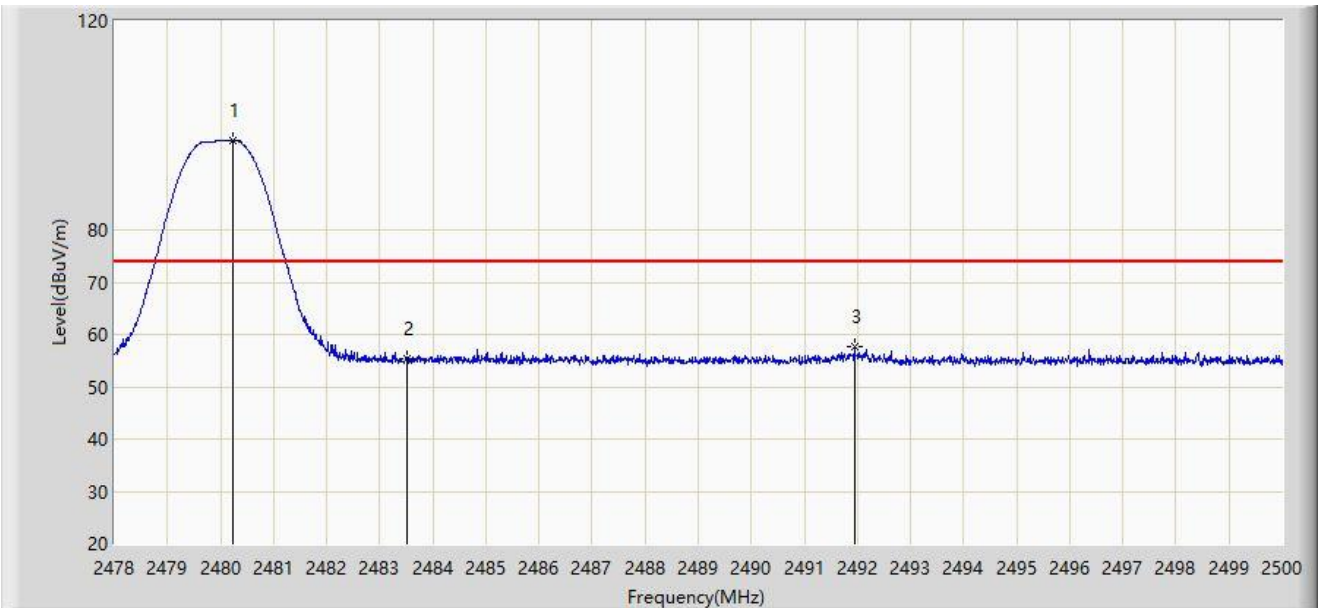
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2378.020	47.252	16.321	-6.748	54.000	30.931	AV
2		2390.000	46.470	15.647	-7.530	54.000	30.823	AV
3		2402.008	97.986	67.173	N/A	N/A	30.813	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-21
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: True Wireless Noise Cancellation Earbuds Headphones - Right	Power: By Battery
Test Mode: Transmit by BLE 1M at 2480MHz	



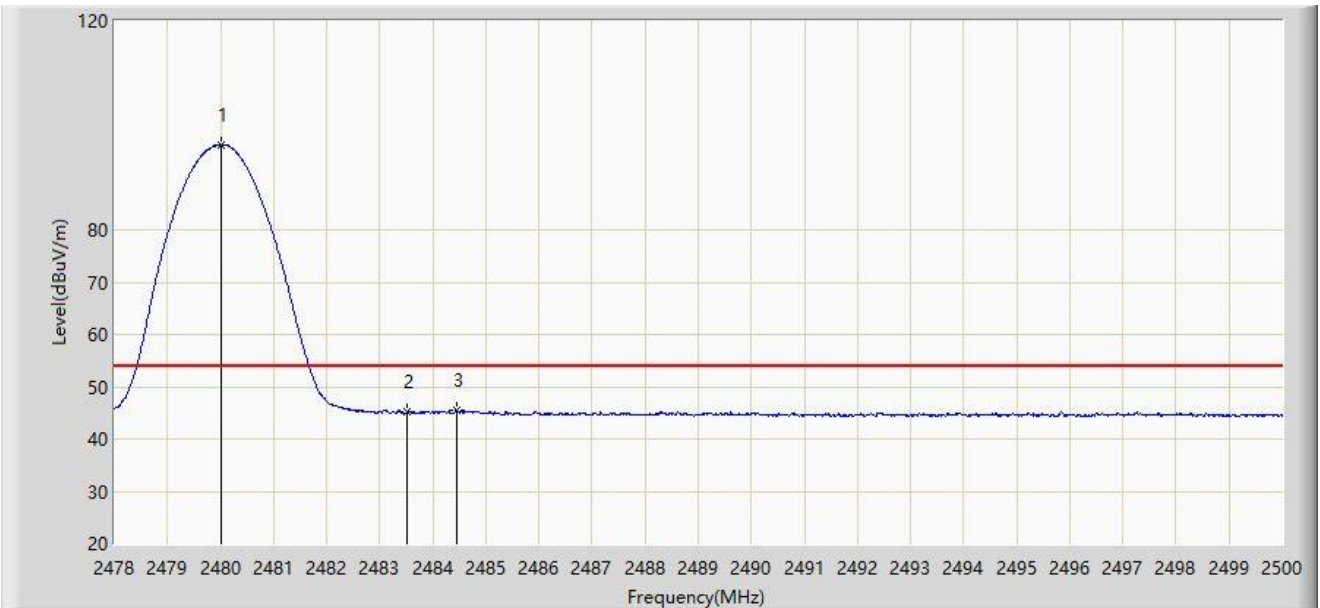
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.244	97.194	66.461	N/A	N/A	30.732	PK
2		2483.500	55.339	24.604	-18.661	74.000	30.734	PK
3	*	2491.937	57.714	26.974	-16.286	74.000	30.740	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-21
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Horizontal
EUT: True Wireless Noise Cancellation Earbuds Headphones - Right	Power: By Battery
Test Mode: Transmit by BLE 1M at 2480MHz	



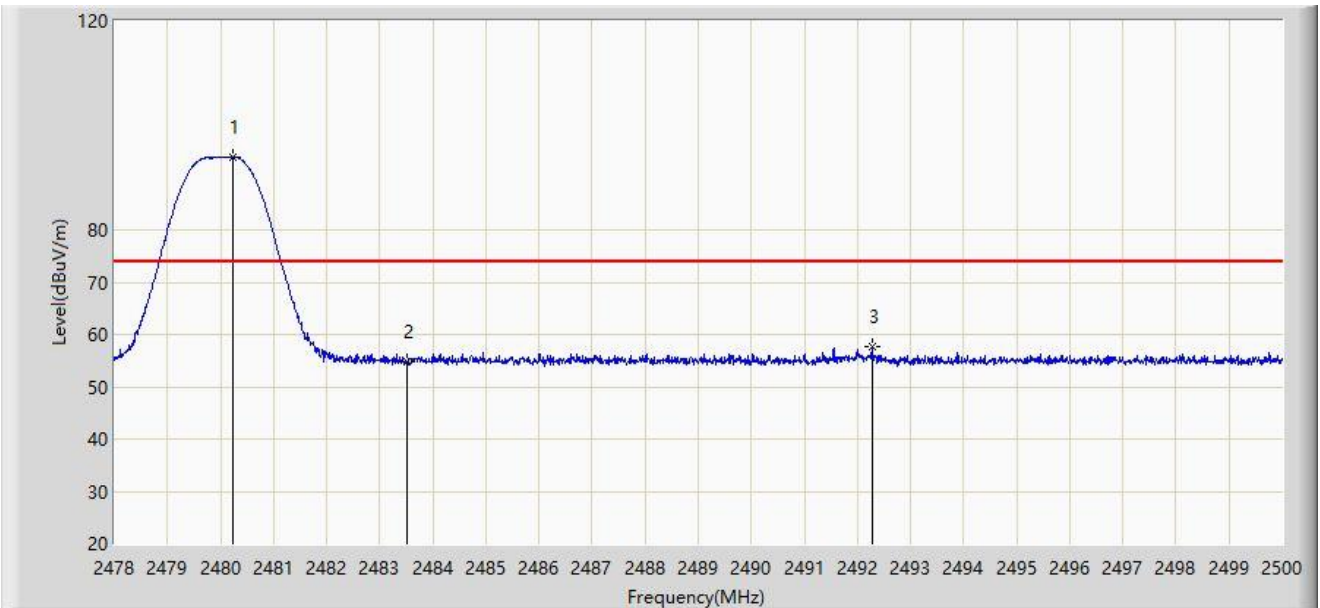
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.013	96.368	65.635	N/A	N/A	30.733	AV
2		2483.500	45.177	14.442	-8.823	54.000	30.734	AV
3	*	2484.457	45.408	14.673	-8.592	54.000	30.735	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-21
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: True Wireless Noise Cancellation Earbuds Headphones - Right	Power: By Battery
Test Mode: Transmit by BLE 1M at 2480MHz	



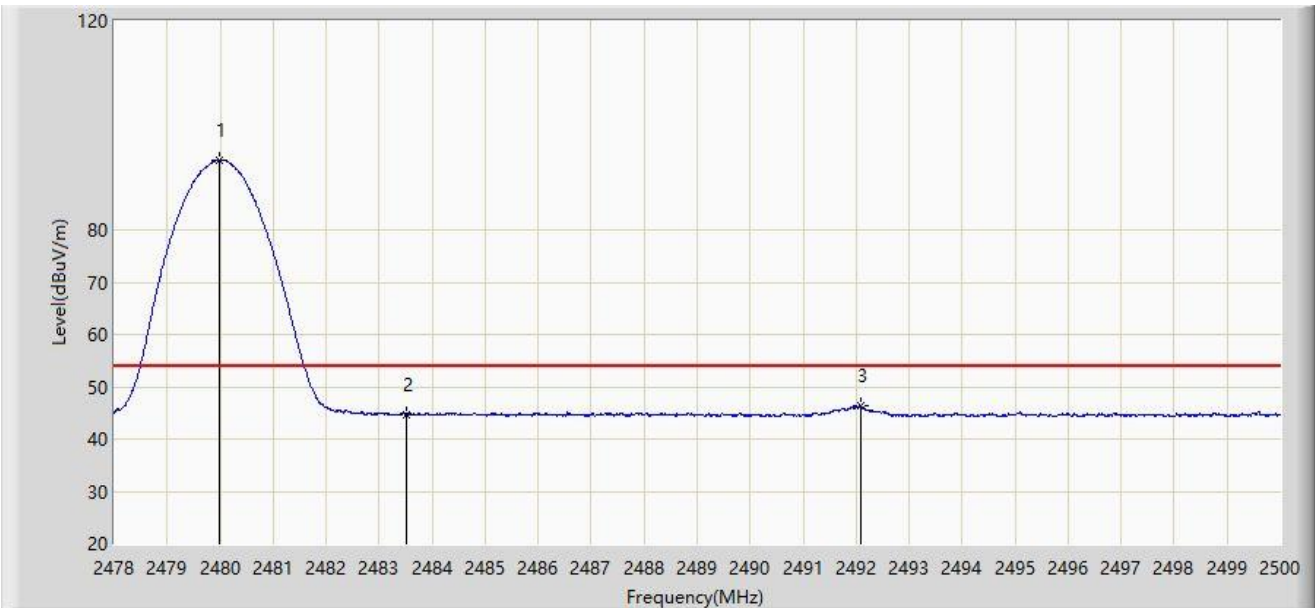
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.233	94.002	63.269	N/A	N/A	30.732	PK
2		2483.500	54.728	23.993	-19.272	74.000	30.734	PK
3	*	2492.267	57.666	26.926	-16.334	74.000	30.740	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Test Date: 2023-02-21
Limit: FCC_2.4G_RE(3m)	Engineer: Flag Yang
Probe: NS-AC1_BBHA9120D_2111_1-18GHz	Polarity: Vertical
EUT: True Wireless Noise Cancellation Earbuds Headphones - Right	Power: By Battery
Test Mode: Transmit by BLE 1M at 2480MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.991	93.341	62.608	N/A	N/A	30.733	AV
2		2483.500	44.644	13.909	-9.356	54.000	30.734	AV
3	*	2492.080	46.263	15.523	-7.737	54.000	30.740	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

A.8 AC Conducted Emissions Test Result

The EUT was powered by battery and the EUT can not work when charging, so the item is not applicable.

Appendix B - Test Setup Photograph

Refer to “2302RSZ025-UT” file.

Appendix C - EUT Photograph

Refer to “2302RSZ025-UE” file.

The End
