



RF MEASUREMENT REPORT

FCC ID: YY3-14249P
Applicant: Handheld Group AB
Product: Nautiz X9
Product Model: NX9V2-RF1-AS0, NX9V2-RF1-A00
Brand Name: Handheld
FCC Classification: Digital Transmission System (DTS)
FCC Rule Part(s): Part 15 Subpart C (Section 15.247)
Test Date: October 12 ~ November 22, 2021

Reviewed By:

Kevin Guo

Kevin Guo

Approved By:

Robin Wu

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
2109RSU034-U3	Rev. 01	Initial Report	11-26-2021	

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1.4. Product Information

Product Name	Nautiz X9
Model No.	NX9V2-RF1-AS0, NX9V2-RF1-A00
Brand Name	Handheld
Wi-Fi Specification	802.11a/b/g/n/ac
Bluetooth Version	Bluetooth v5.0 Dual Mode
Wi-Fi Specification	802.11a/b/g/n/ac
GSM Bands	GSM850 / 1900
WCDMA Bands	Band II / IV / V
LTE Bands	FDD Band: 2, 4, 5,12, 17 TDD Band: 41
NFC Specification	13.56MHz
GNSS Specification	GPS / GLONASS / Beidou / Galileo
Software version	V000.06.00
Hardware version	DVT
Antenna Information	Refer to section 1.7
IMEI No.	Conducted Measurement: 358591250000136 Radiated Measurement: 35859125000698
Accessories	
Battery	Brand Name: Handheld Model: NX9V2-1004 Capacity: Typical 3.8V, 4800mAh, 18.24Wh
Power Adapter	MFR: Phihong Technology Co. Ltd. Model: PSAF10R-050Q Input: AC 100-240V~0.3A, 50-60Hz Output: DC 5V-2.0A
Micro USB Cable	Length: Shielded, 1.0m
Remark:	
1. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

Note:

1. Model Difference Description (declared by the manufacturer)

Model Number	Model Difference	Note
NX9V2-RF1-AS0	Support Barcode	--
NX9V2-RF1-A00	Not Barcode	Remove barcode hardware

2. The difference does not affect the RF test result, so we selected NX9V2-RF1-AS0 for all RF testing.

1.5. Radio Specification

Frequency Range	BLE: 2402 ~ 2480MHz
Channel Number	39
Type of Modulation	GFSK
Data Rate	1Mbps, 2Mbps

Note: For other features of this EUT, test report will be issued separately.

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	--	--	--	--

1.7. Antenna Details

Antenna Type	Frequency Band (MHz)	T _x Paths	Max Antenna Gain (dBi)
Wi-Fi and Bluetooth			
FPC Antenna	2400 ~ 2500	1	2.25
	5150 ~ 5250	1	1.92
	5725 ~ 5850		

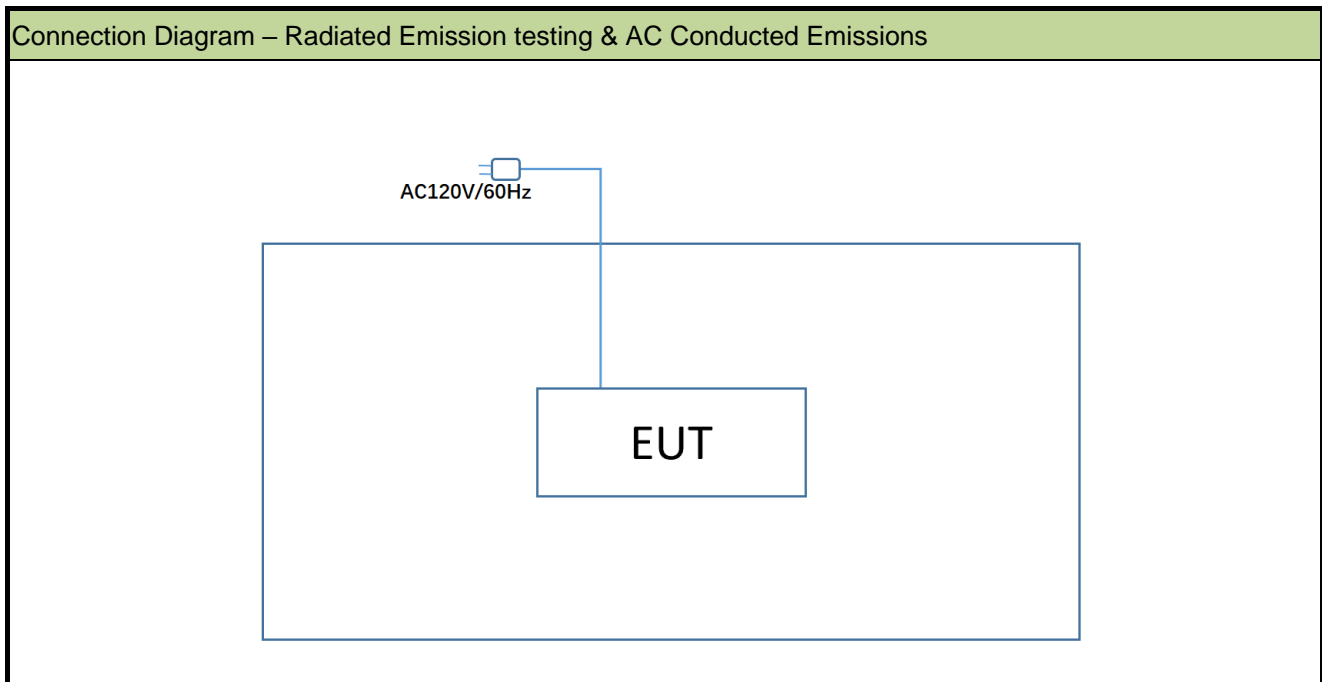
2. Test Configuration

2.1. Test Mode

Mode 1: Transmit by BLE-1Mbps
Mode 2: Transmit by BLE-2Mbps

2.2. 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.



2.3. Test System Details

Product	Manufacturer	Model No.
1 N/A	N/A	N/A

2.4. Test Software

The test utility software used during testing was “Engineer mode”.

Note: Final power setting please refer to operational description.

2.5. 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

2.6. Duty Cycle

The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than $50/T$, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
BLE-1Mbps	84%
BLE-2Mbps	56%
Duty Cycle (T = Transmission Duration)	
BLE-1Mbps (T = 2.100ms)	802.11g (T = 1.050ms)

1.8. Test Environment Condition

Ambient Temperature	15°C~35°C
Relative Humidity	20%RH ~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. Measuring Instrument

No.	Instrument	Manufacturer	Model No.	Asset No.	Last Cali. Date	Cali. Due Date	Test Site
1	Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06292	1 year	2022/10/20	NS-AC1
2	Anechoic Chamber	BOOMWAVE	NS-AC1	MRTSUE06496	1 year	2022/07/24	NS-AC1
3	Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06572	1 year	2022/03/14	NS-AC1
4	TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06573	1 year	2022/06/29	NS-AC1
5	Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06574	1 year	2022/07/12	NS-AC1
6	EMI Test Receiver	R&S	ESR3	MRTSUE06575	1 year	2022/06/27	NS-AC1
7	Thermohygrometer	DELI	NO.8813	MRTSUE06588	1 year	2022/06/30	NS-AC1
8	Preamplifier	EMCI	EMC184045SE	MRTSUE06641	1 year	2022/1/14	NS-AC1
9	Signal Analyzer	Agilent	N9010A	MRTSUE06195	1 year	2022/03/17	NS-AC1/NS-TR2
10	Signal Analyzer	Keysight	N9020A	MRTSUE10065	1 year	2022/06/17	NS-AC1/NS-TR2
11	Shielding Room	BOOMWAVE	NS-SR1	MRTSUE06550	/	/	NS-SR1
12	Shielding Room	BOOMWAVE	NS-SR2	MRTSUE06551	/	/	NS-SR2
13	Two-Line V-Network	R&S	ENV216	MRTSUE06577	1 year	2022/07/4	NS-SR2
14	Two-Line V-Network	R&S	ENV216	MRTSUE06578	1 year	2022/07/4	NS-SR2
15	USB Power Sensor	Keysight	U2021XA	MRTSUE06581	1 year	2022/8/15	NS-TR2

Software	Version	Function
EMI Software	V3	EMI Test Software

5. 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
Measurement Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 9kHz~150kHz: 3.74dB 150kHz~30MHz: 3.44dB
Radiated Disturbance
Measurement Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): Horizontal: 30MHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~40GHz: 6.40dB Vertical: 30MHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~40GHz: 6.40dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.78dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.13dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.15dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.28%

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

Remark:

- 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.
- For radiated emission tests, 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

6.2.1. Test Limit

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

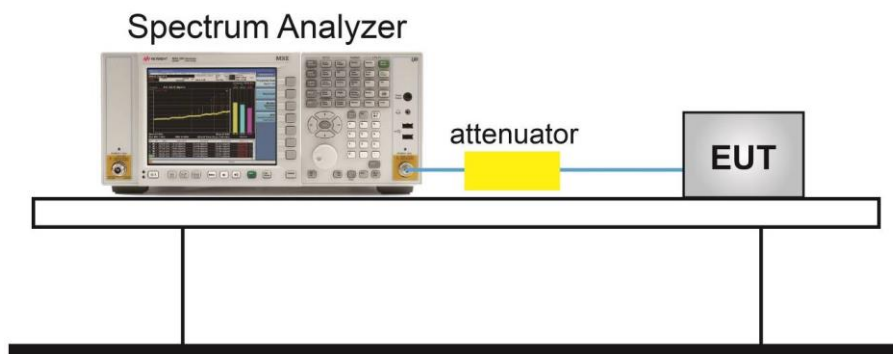
6.2.2. Test Procedure used

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.1.

6.3. Output Power

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 Used

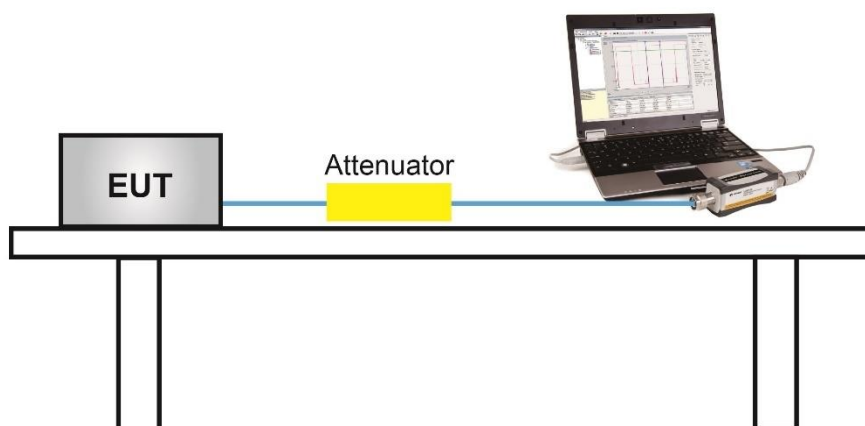
ANSI C63.10 - 2013 - Section 11.9.2.3.2

6.3.3. Test Setting

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.2.

6.4. Power Spectral Density

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.

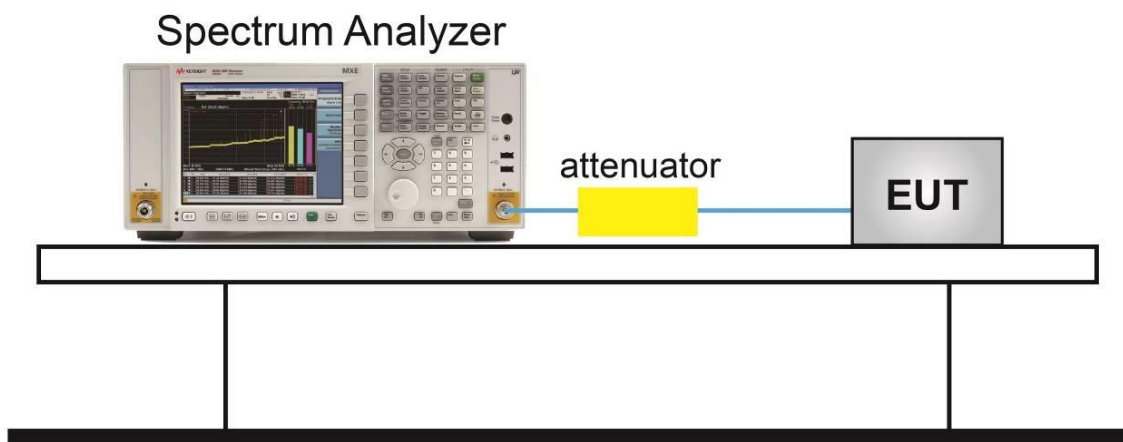
6.4.2. Test Procedure Used

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.3.

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

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 Used

ANSI C63.10-2013 - Section 11.11

6.5.3. Test Setting

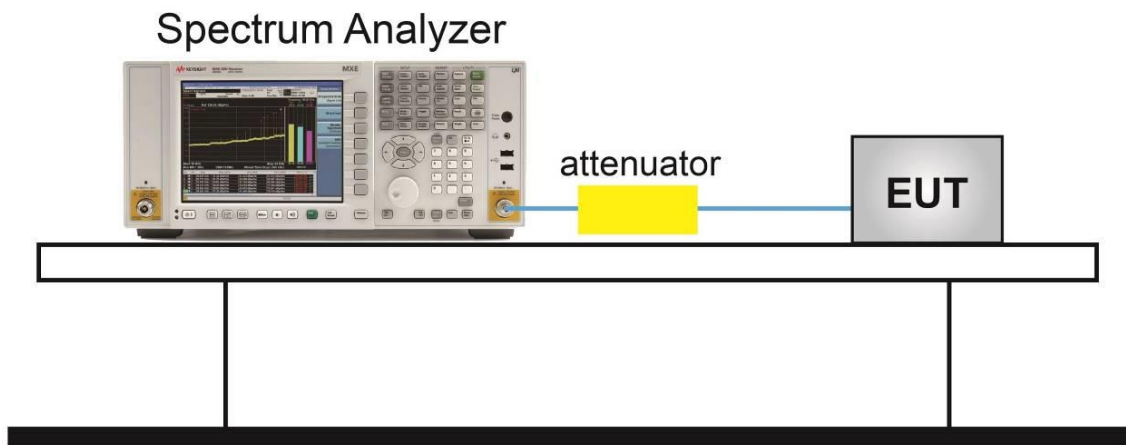
Reference level measurement

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.4.

6.6. Radiated Spurious Emission

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 Used

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

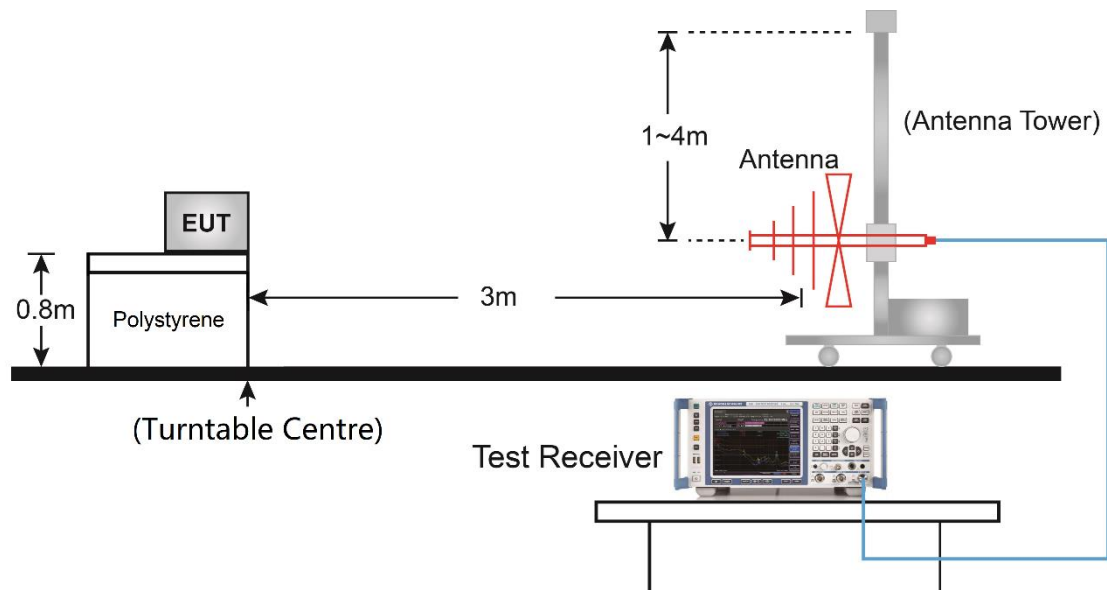
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

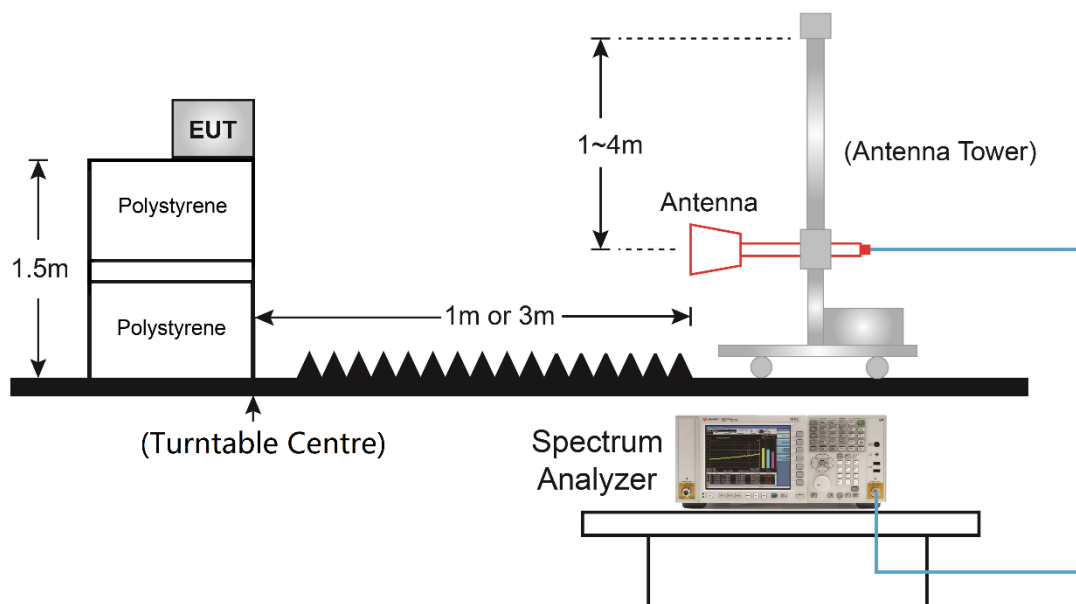
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4.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

6.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.6.5. Test Result

Refer to Appendix A.5.

6.7. Radiated Restricted Band Edge

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 Used

ANSI C63.10-2013 Section 6.3

ANSI C63.10-2013 Section 6.6

ANSI C63.10-2013 Section 11.13

6.7.3. Test Setting

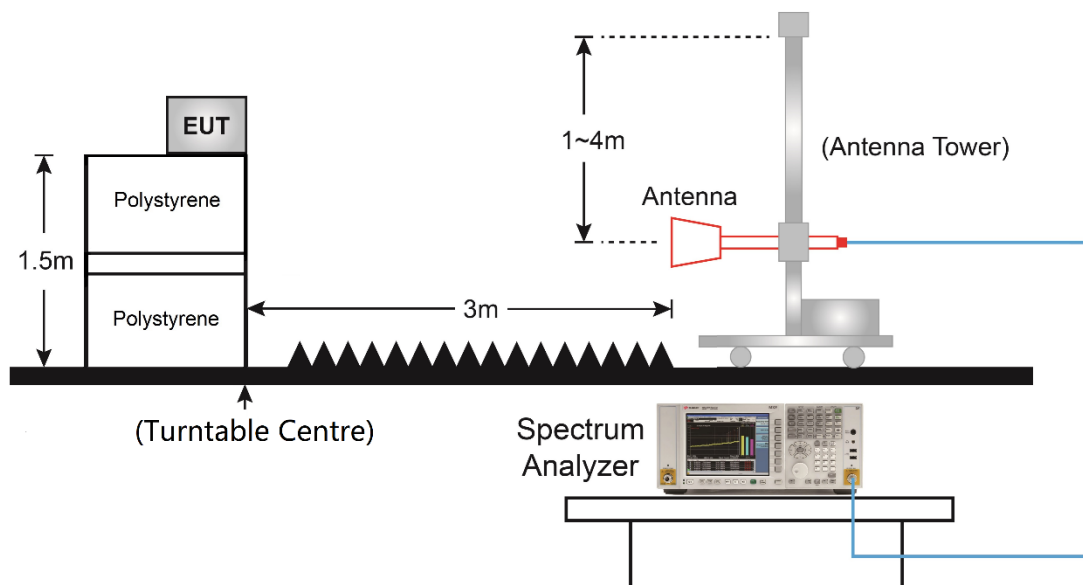
Peak Field Strength Measurements

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.6.

6.8. AC Conducted Emissions

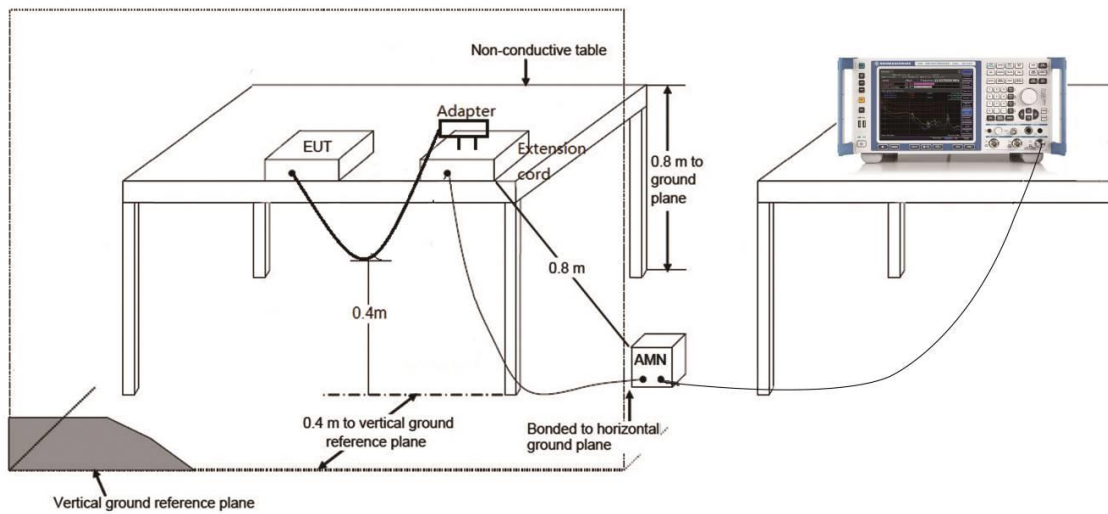
6.8.1. Test Limit

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.7.

7. Conclusion

The data collected relate only the item(s) tested and show that the device is in compliance with Part 15C of the FCC rules.

Appendix A – Test Result

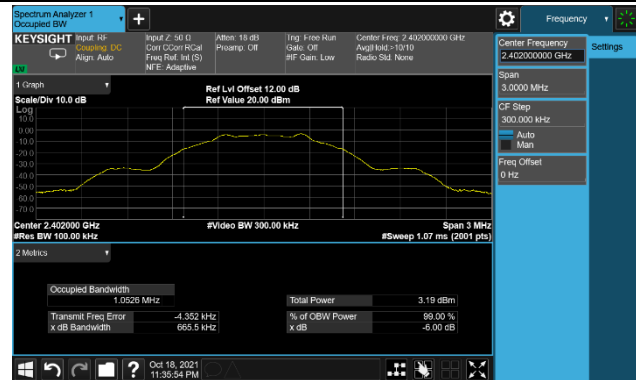
A.1 6dB Bandwidth Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2021/10/19		

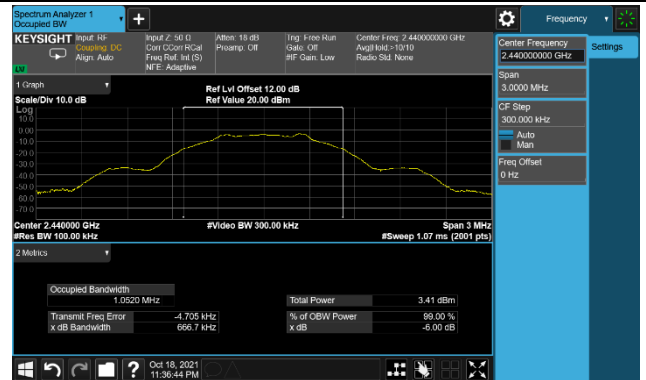
Test Mode	Data Rate / Mbps	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
BLE	1	00	2402	0.6655	≥ 0.5
BLE	1	19	2440	0.6667	≥ 0.5
BLE	1	39	2480	0.6625	≥ 0.5
BLE	2	00	2402	1.162	≥ 0.5
BLE	2	19	2440	1.163	≥ 0.5
BLE	2	39	2480	1.167	≥ 0.5

BLE-1Mbps 6dB Bandwidth

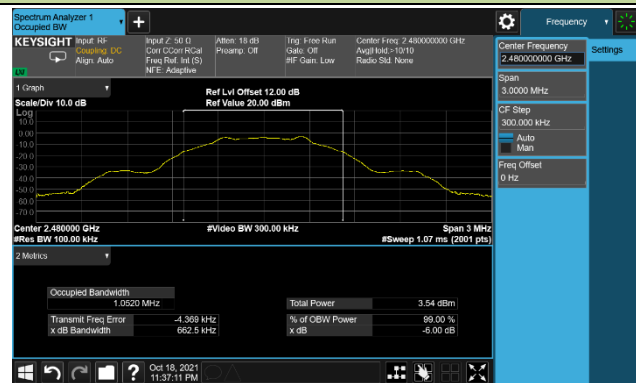
Channel 00 (2402MHz)



Channel 19 (2440MHz)

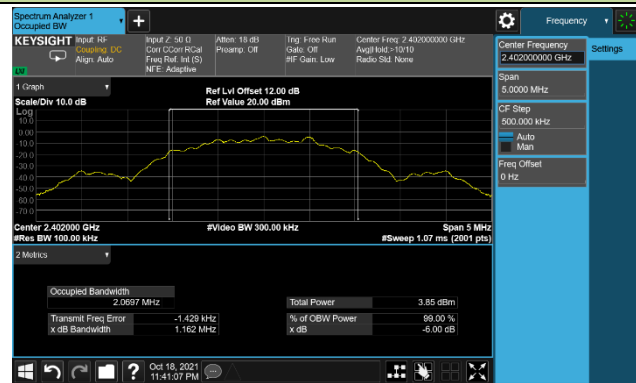


Channel 39 (2480MHz)

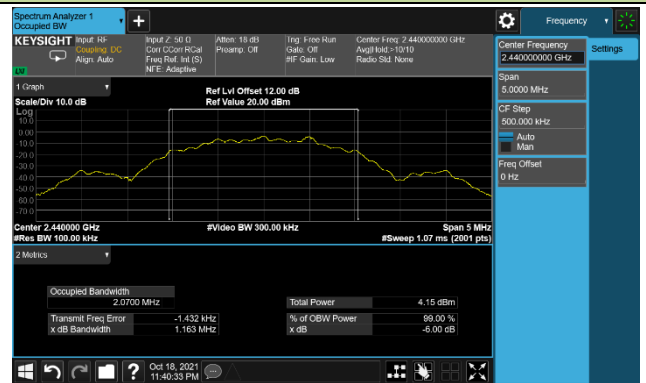


BLE-2Mbps 6dB Bandwidth

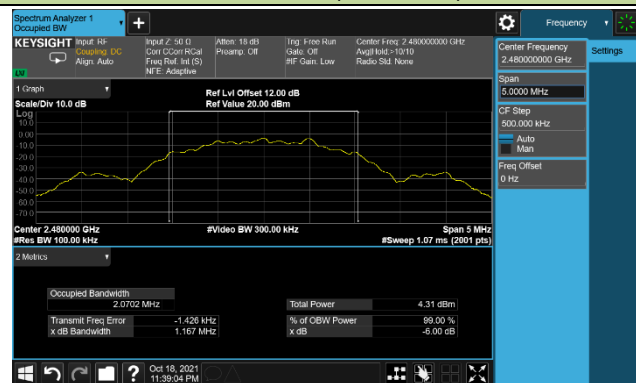
Channel 00 (2402MHz)



Channel 19 (2440MHz)



Channel 39 (2480MHz)



A.2 Output Power Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2021/10/19		

Test Result of Peak Output Power

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Peak Power (dBm)	Limit (dBm)	Result
BLE	1	00	2402	-2.72	≤ 30.00	Pass
BLE	1	19	2440	-2.58	≤ 30.00	Pass
BLE	1	39	2480	-2.37	≤ 30.00	Pass
BLE	2	00	2402	-2.70	≤ 30.00	Pass
BLE	2	19	2440	-2.57	≤ 30.00	Pass
BLE	2	39	2480	-2.43	≤ 30.00	Pass

Test Result of Average Output Power (Reporting Only)

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power (dBm)	Limit (dBm)	Result
BLE	1	00	2402	-3.46	≤ 30.00	Pass
BLE	1	19	2440	-3.25	≤ 30.00	Pass
BLE	1	39	2480	-3.04	≤ 30.00	Pass
BLE	2	00	2402	-3.45	≤ 30.00	Pass
BLE	2	19	2440	-3.28	≤ 30.00	Pass
BLE	2	39	2480	-3.12	≤ 30.00	Pass

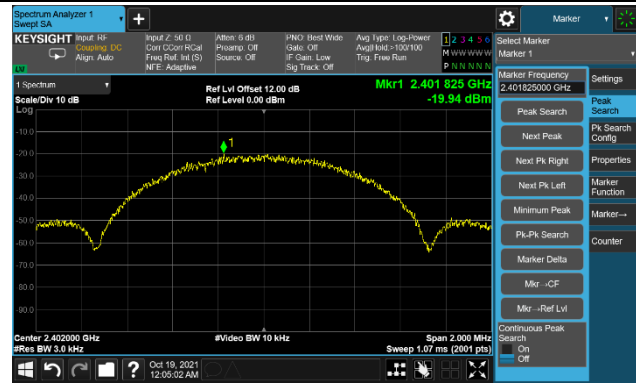
A.3 Power Spectral Density Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2021/10/19		

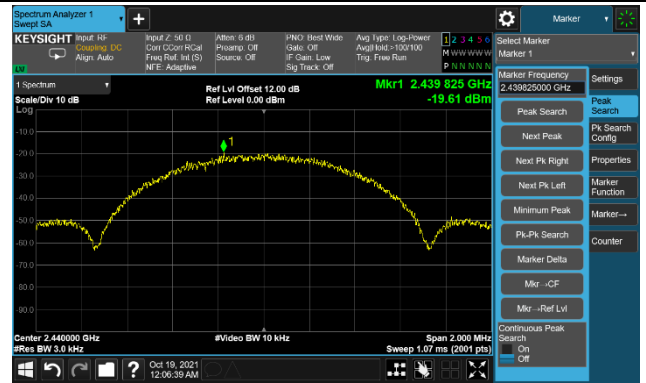
Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Peak PSD (dBm/3KHz)	PSD Limit (dBm/3KHz)	Result
BLE	1	00	2402	-19.94	≤ 8.00	Pass
BLE	1	19	2440	-19.61	≤ 8.00	Pass
BLE	1	39	2480	-19.56	≤ 8.00	Pass
BLE	2	00	2402	-21.93	≤ 8.00	Pass
BLE	2	19	2440	-21.61	≤ 8.00	Pass
BLE	2	39	2480	-21.56	≤ 8.00	Pass

BLE-1Mbps-Peak PSD

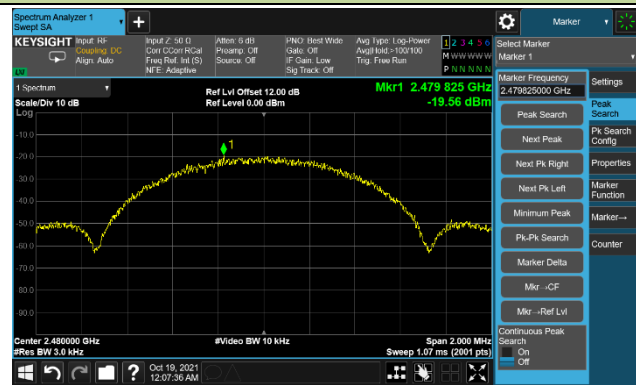
Channel 00 (2402MHz)



Channel 19 (2440MHz)

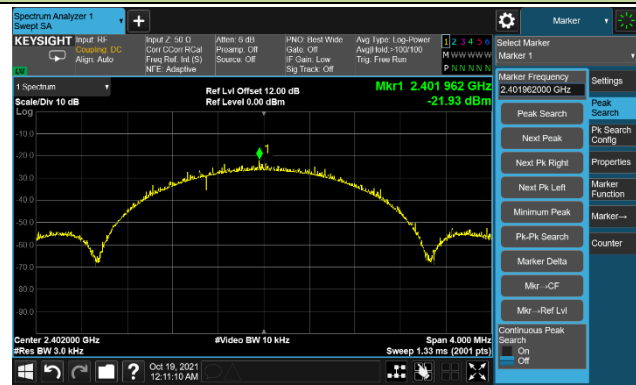


Channel 39 (2480MHz)

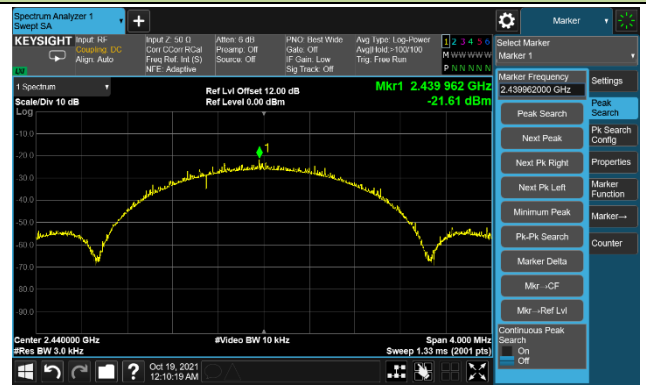


BLE-2Mbps – Peak PSD

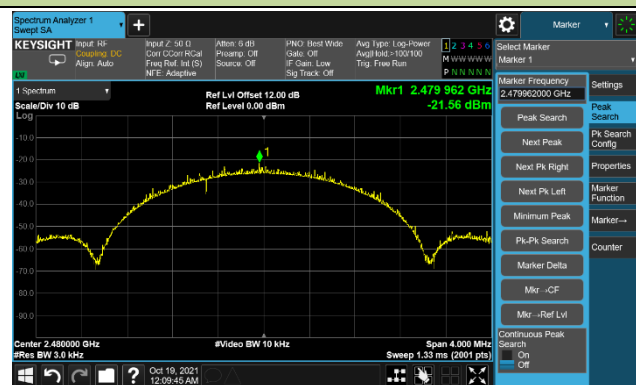
Channel 00 (2402MHz)



Channel 19 (2440MHz)



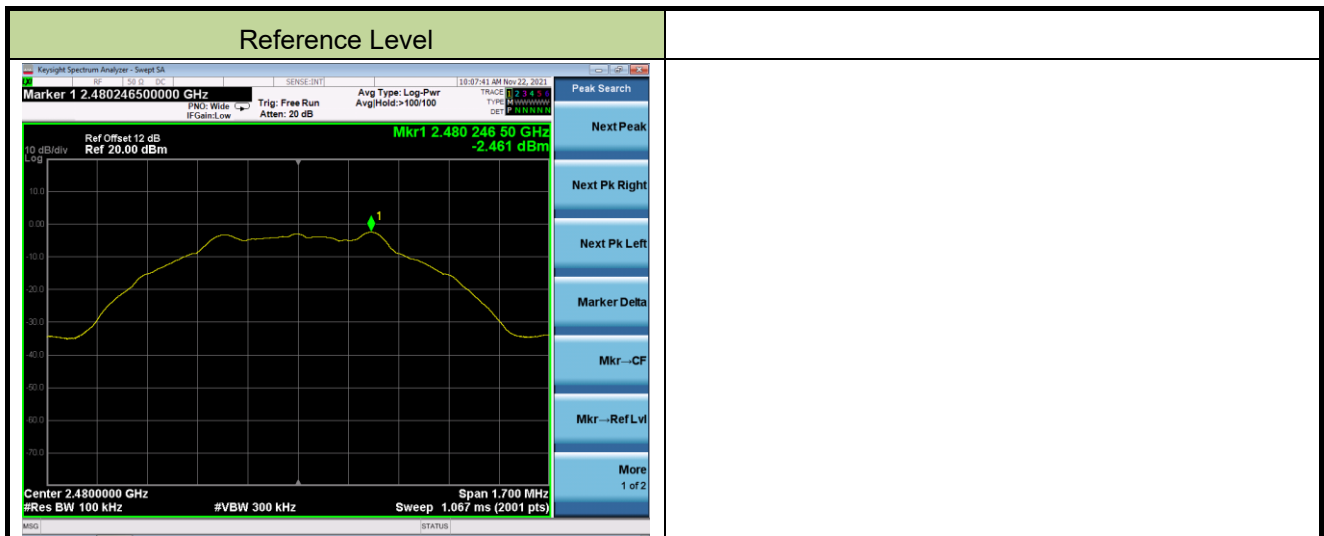
Channel 39 (2480MHz)



A.4 Conducted Band Edge and Out-of-Band Emissions Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2021/11/22		

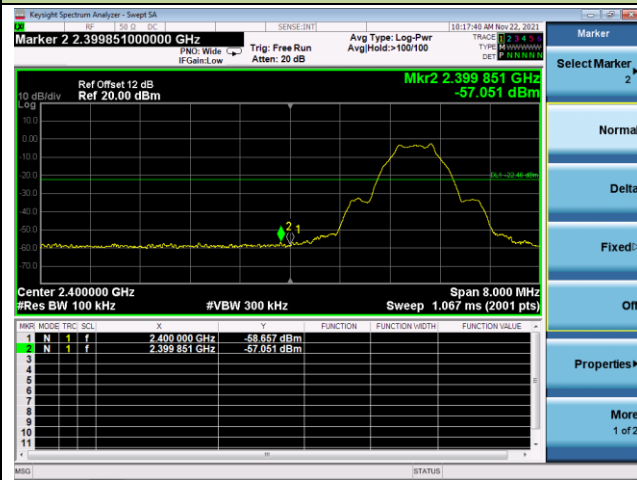
Test Mode	Data Rate / Mbps	Channel No.	Frequency (MHz)	Limit
BLE	1	00	2402	20dBc
BLE	1	19	2440	20dBc
BLE	1	39	2480	20dBc
BLE	2	00	2402	20dBc
BLE	2	19	2440	20dBc
BLE	2	39	2480	20dBc



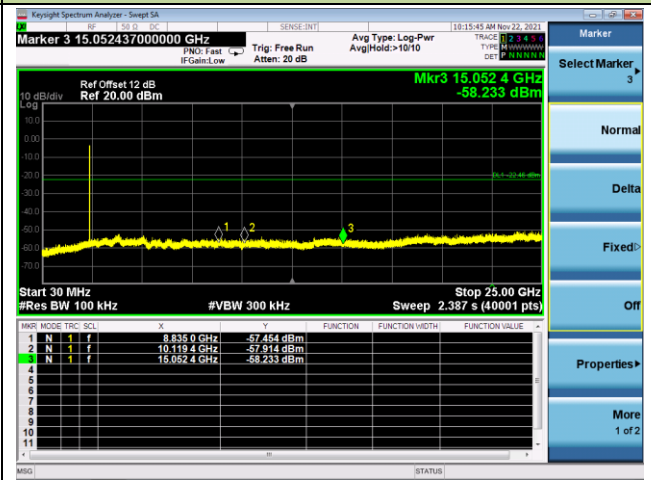
BLE-1Mbps Out-of-Band Emissions

Channel 00 (2402MHz)

Low Band Edge

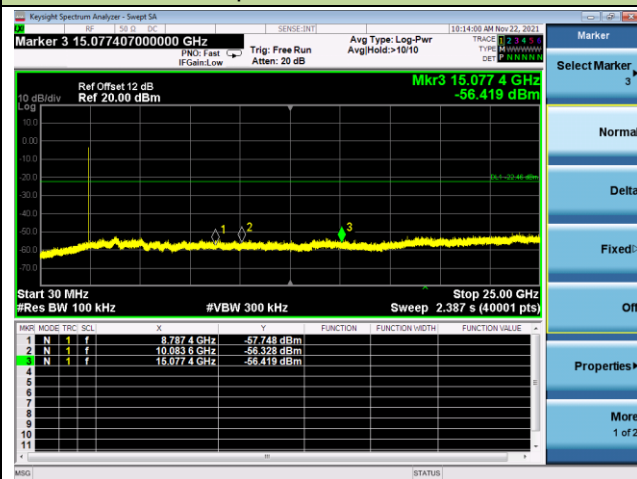


Spurious Emission



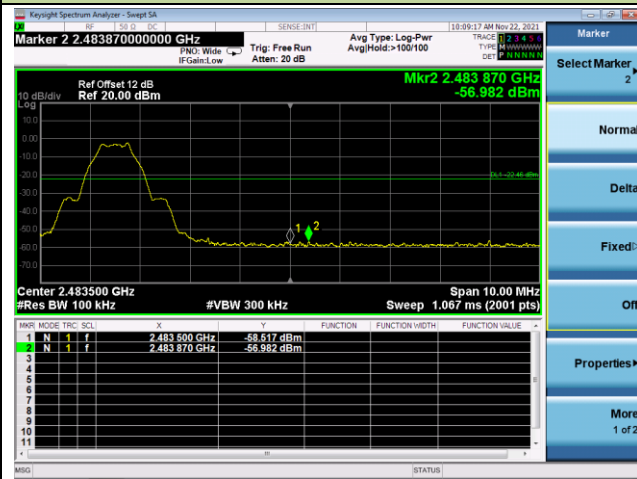
Channel 19 (2440MHz)

Spurious Emission

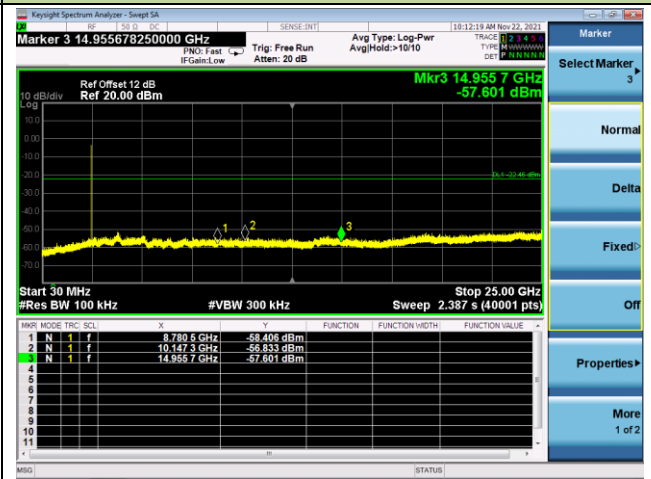


Channel 39 (2480MHz)

High Band Edge



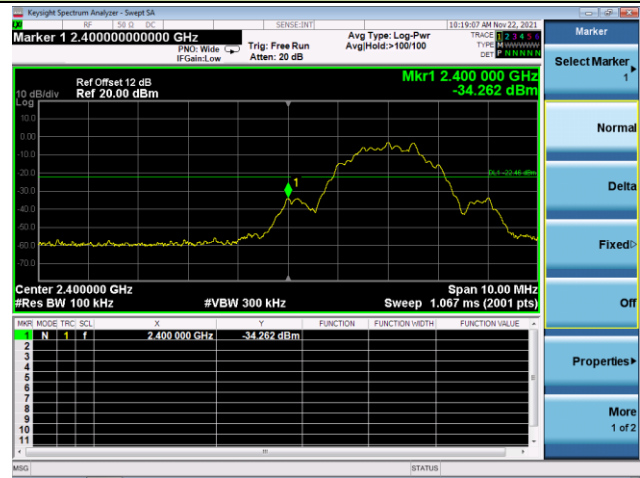
Spurious Emission



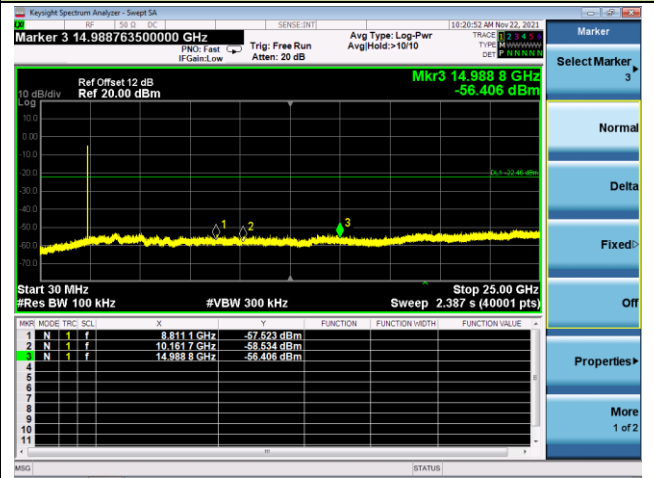
BLE-2Mbps Out-of-Band Emissions

Channel 00 (2402MHz)

Low Band Edge

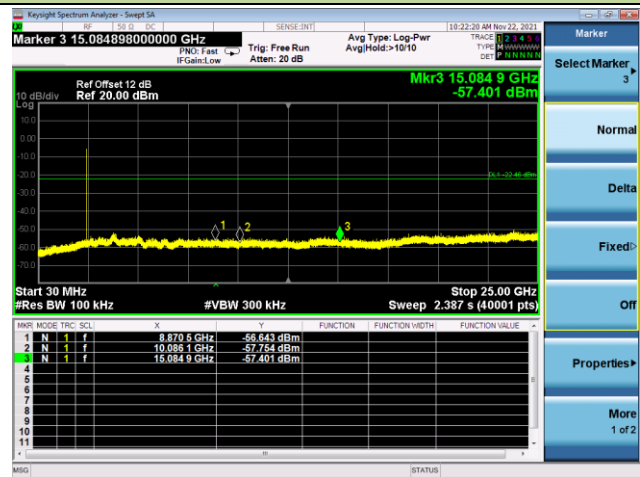


Spurious Emission



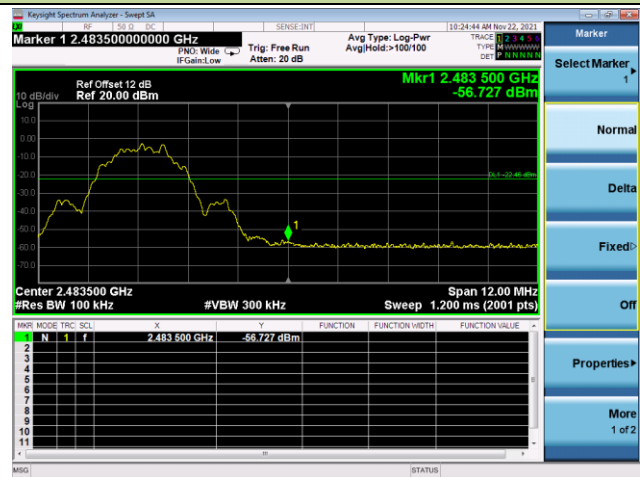
Channel 19 (2440MHz)

Spurious Emission

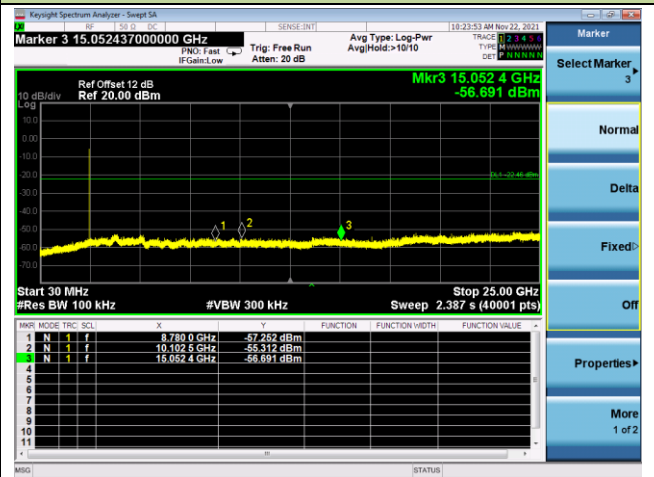


Channel 39 (2480MHz)

High Band Edge



Spurious Emission



A.5 Radiated Spurious Emission Test Result

Test Site	NS-AC1	Test Engineer	Dillon Diao
Test Date	2021/10/18 ~ 2021/11/22	Test Mode:	BLE-1Mbps
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	6134.0	36.3	4.2	40.5	74.0	-33.5	Peak	Horizontal
	7239.0	35.2	8.8	44.0	74.0	-30.0	Peak	Horizontal
	8726.5	34.3	12.2	46.5	74.0	-27.5	Peak	Horizontal
	5326.5	39.0	1.5	40.5	74.0	-33.5	Peak	Vertical
	7162.5	34.4	8.6	43.0	74.0	-31.0	Peak	Vertical
	8811.5	35.9	11.8	47.7	74.0	-26.3	Peak	Vertical
19	6159.5	36.5	4.2	40.7	74.0	-33.3	Peak	Horizontal
	7723.5	34.9	8.6	43.5	74.0	-30.5	Peak	Horizontal
	8743.5	34.4	12.1	46.5	74.0	-27.5	Peak	Horizontal
	7936.0	36.4	9.0	45.4	74.0	-28.6	Peak	Vertical
	8565.0	35.8	11.6	47.4	74.0	-26.6	Peak	Vertical
	11387.0	33.9	15.0	48.9	74.0	-25.1	Peak	Vertical
39	6958.5	34.4	7.4	41.8	74.0	-32.2	Peak	Horizontal
	7706.5	34.8	8.5	43.3	74.0	-30.7	Peak	Horizontal
	8845.5	35.0	11.9	46.9	74.0	-27.1	Peak	Horizontal
	7213.5	34.2	8.6	42.8	74.0	-31.2	Peak	Vertical
	8497.0	34.4	10.7	45.1	74.0	-28.9	Peak	Vertical
	9389.5	35.3	11.7	47.0	74.0	-27.0	Peak	Vertical

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	NS-AC1	Test Engineer	Dillon Diao
Test Date	2021/10/18 ~ 2021/11/22	Test Mode:	BLE-2Mbps
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.		

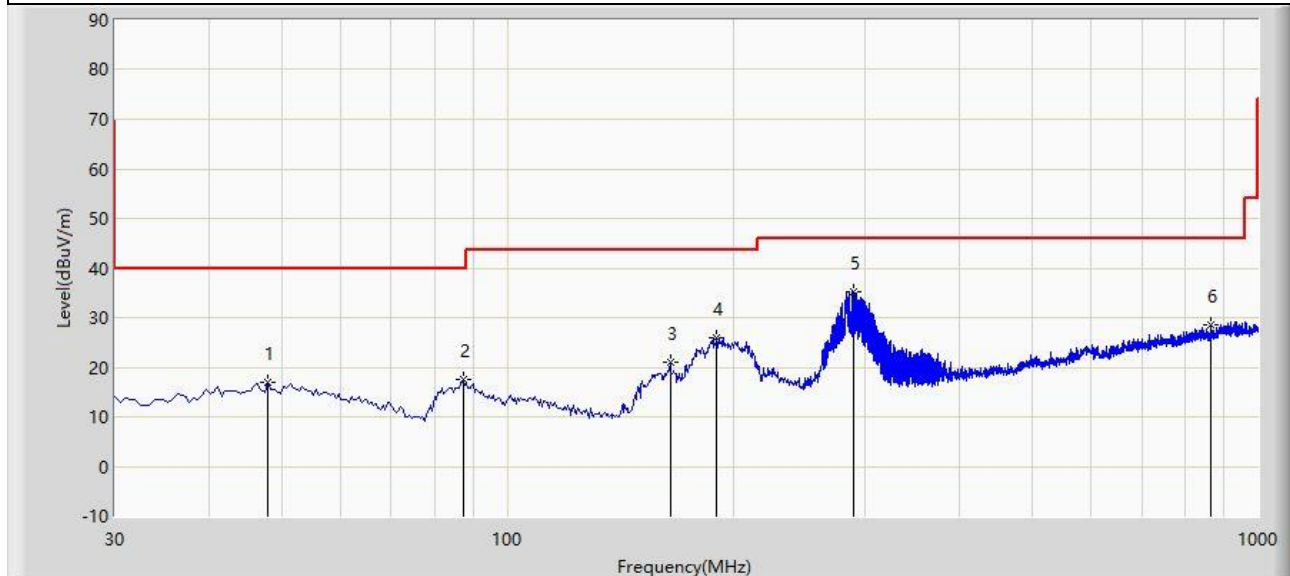
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
00	6117.0	38.0	3.8	41.8	74.0	-32.2	Peak	Horizontal
	7264.5	35.4	9.0	44.4	74.0	-29.6	Peak	Horizontal
	8828.5	35.0	11.9	46.9	74.0	-27.1	Peak	Horizontal
	6839.5	35.1	6.7	41.8	74.0	-32.2	Peak	Vertical
	7970.0	36.0	9.0	45.0	74.0	-29.0	Peak	Vertical
	9415.0	34.7	11.8	46.5	74.0	-27.5	Peak	Vertical
19	6083.0	37.2	4.4	41.6	74.0	-32.4	Peak	Horizontal
	7400.5	34.3	9.3	43.6	74.0	-30.4	Peak	Horizontal
	9627.5	36.2	11.7	47.9	74.0	-26.1	Peak	Horizontal
	7791.5	35.3	8.6	43.9	74.0	-30.1	Peak	Vertical
	9423.5	36.0	11.6	47.6	74.0	-26.4	Peak	Vertical
	10732.5	33.7	14.6	48.3	74.0	-25.7	Peak	Vertical
39	6491.0	36.6	5.4	42.0	74.0	-32.0	Peak	Horizontal
	7443.0	33.6	9.4	43.0	74.0	-31.0	Peak	Horizontal
	8820.0	34.7	11.7	46.4	74.0	-27.6	Peak	Horizontal
	7273.0	34.0	9.1	43.1	74.0	-30.9	Peak	Vertical
	8412.0	34.8	10.2	45.0	74.0	-29.0	Peak	Vertical
	9449.0	35.1	11.7	46.8	74.0	-27.2	Peak	Vertical

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Result of Radiated Emission below 1GHz:

Site: NS-AC1	Time: 2021/10/12
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_VULB9162	Polarity: Horizontal
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at channel 2402MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1			47.945	17.036	-0.506	-22.964	40.000	17.542	PK
2			87.230	17.412	5.028	-22.588	40.000	12.384	PK
3			164.830	21.126	8.797	-22.374	43.500	12.329	PK
4			190.050	25.912	11.449	-17.588	43.500	14.463	PK
5		*	288.990	35.326	18.422	-10.674	46.000	16.904	PK
6			866.140	28.592	2.059	-17.408	46.000	26.533	PK

Note 1: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

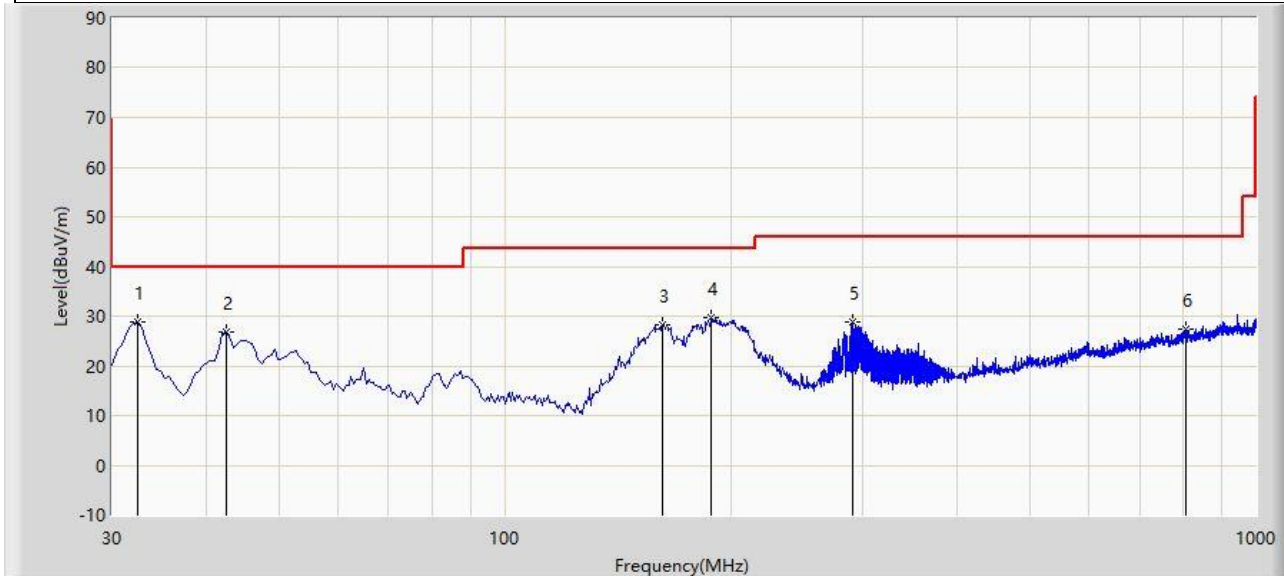
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

Note 3: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: NS-AC1	Time: 2021/10/12
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_VULB9162	Polarity: Vertical
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at channel 2402MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		*	32.425	28.901	14.765	-11.099	40.000	14.136	PK
2			42.610	26.717	9.807	-13.283	40.000	16.910	PK
3			161.920	28.179	15.951	-15.321	43.500	12.228	PK
4			188.595	29.725	15.467	-13.775	43.500	14.258	PK
5			290.445	28.852	11.949	-17.148	46.000	16.903	PK
6			805.030	27.466	1.211	-18.534	46.000	26.255	PK

Note 1: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

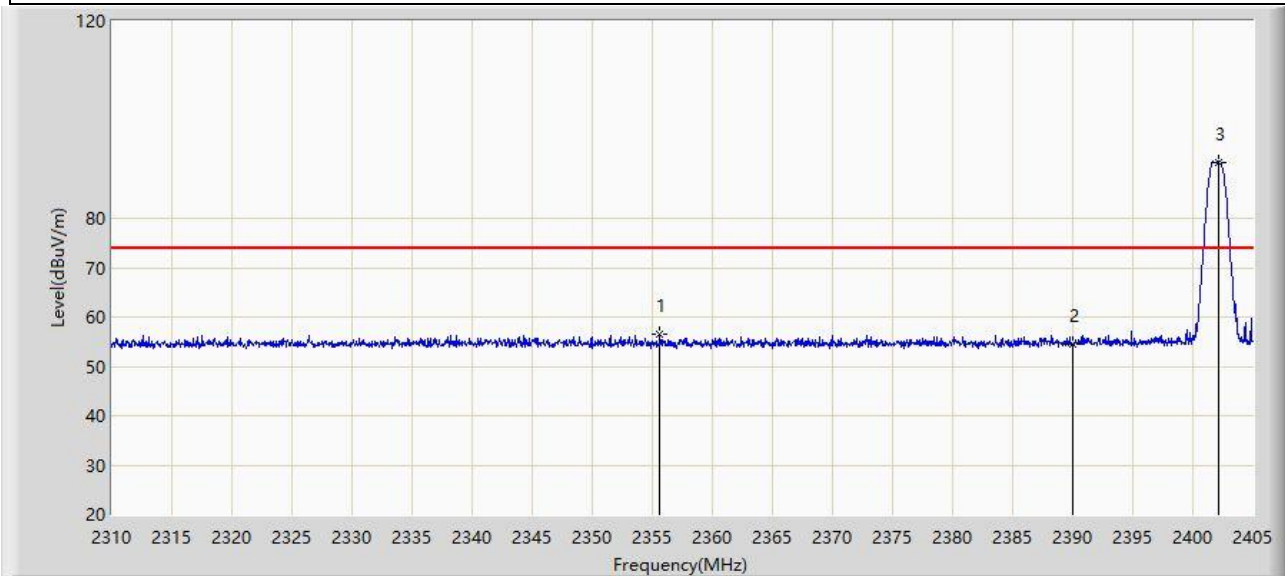
Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

Note 3: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

A.6 Radiated Restricted Band Edge Test Result

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1M at channel 2402MHz	

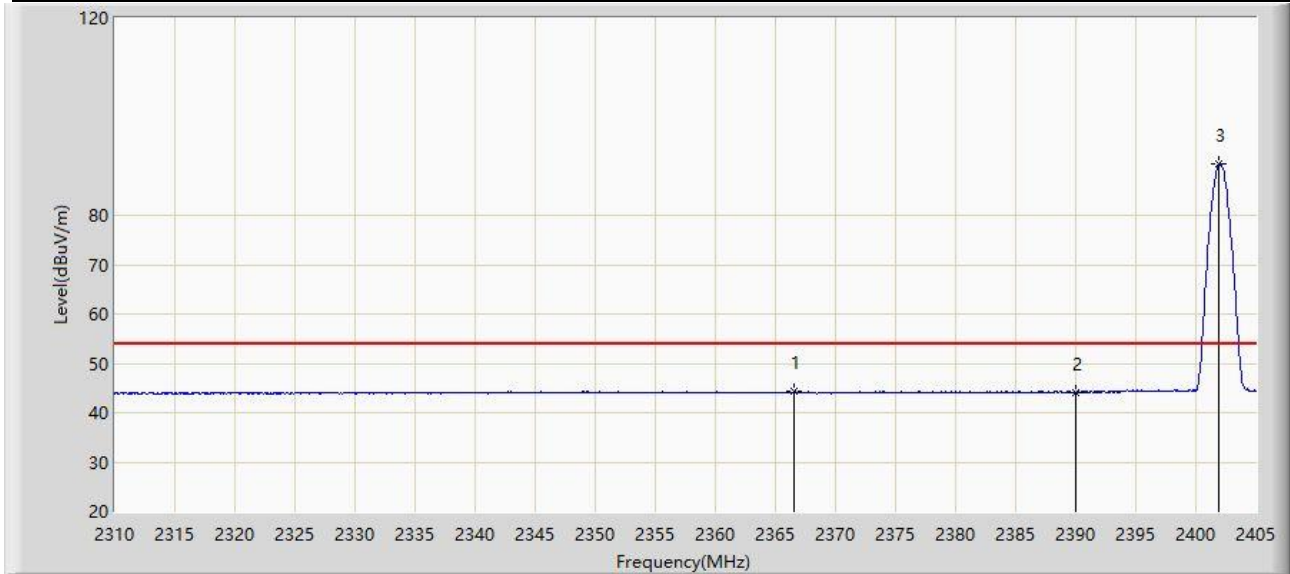


No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1			2355.647	56.624	25.584	-17.376	74.000	31.040	PK
2			2390.000	54.417	23.514	-19.583	74.000	30.903	PK
3		*	2402.150	91.442	60.506	N/A	N/A	30.936	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1M at channel 2402MHz	

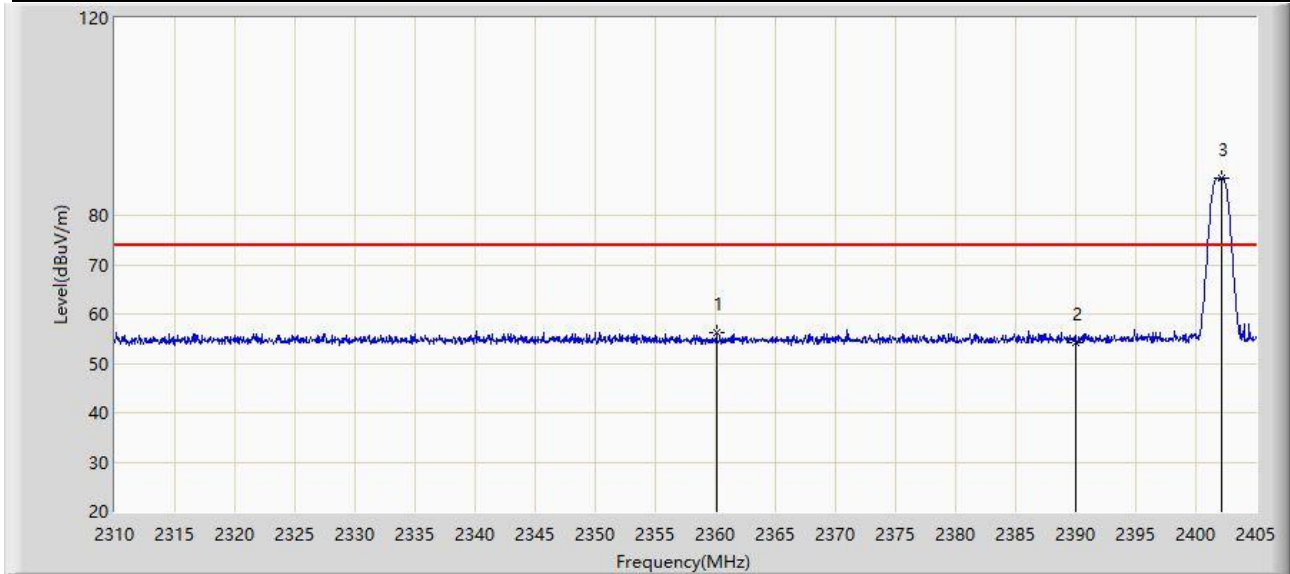


No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1			2366.525	44.409	13.449	-9.591	54.000	30.960	AV
2			2390.000	44.105	13.202	-9.895	54.000	30.903	AV
3		*	2401.913	90.356	59.421	N/A	N/A	30.935	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1M at channel 2402MHz	

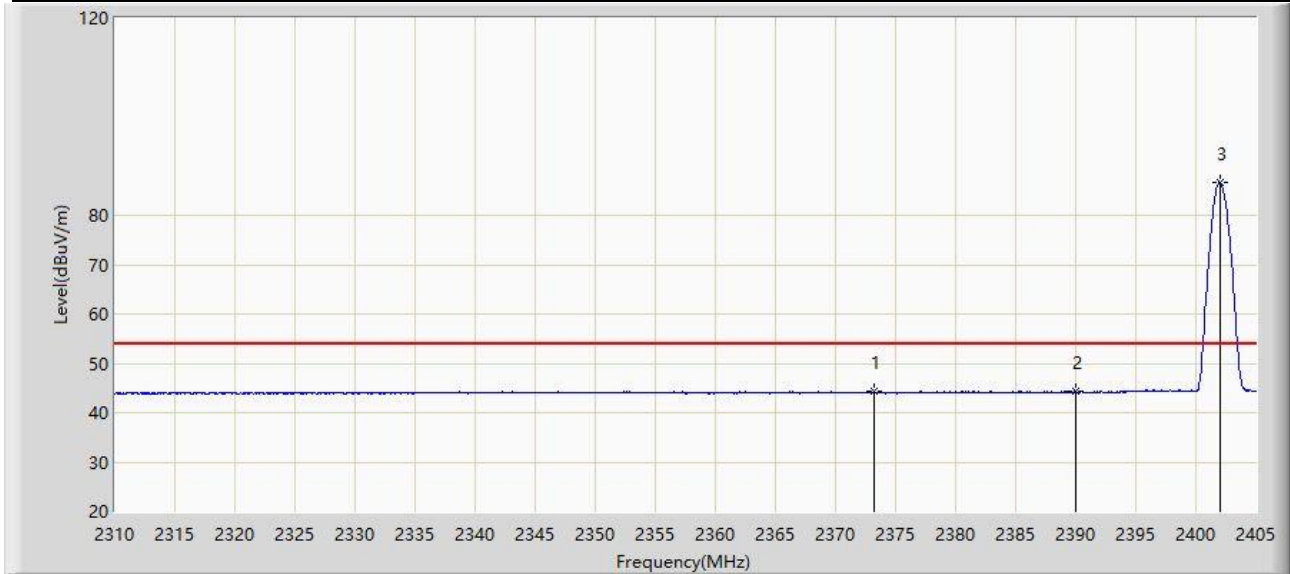


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2360.065	56.366	25.378	-17.634	74.000	30.988	PK
2			2390.000	54.285	23.382	-19.715	74.000	30.903	PK
3		*	2402.198	87.583	56.646	N/A	N/A	30.937	PK

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1M at channel 2402MHz	

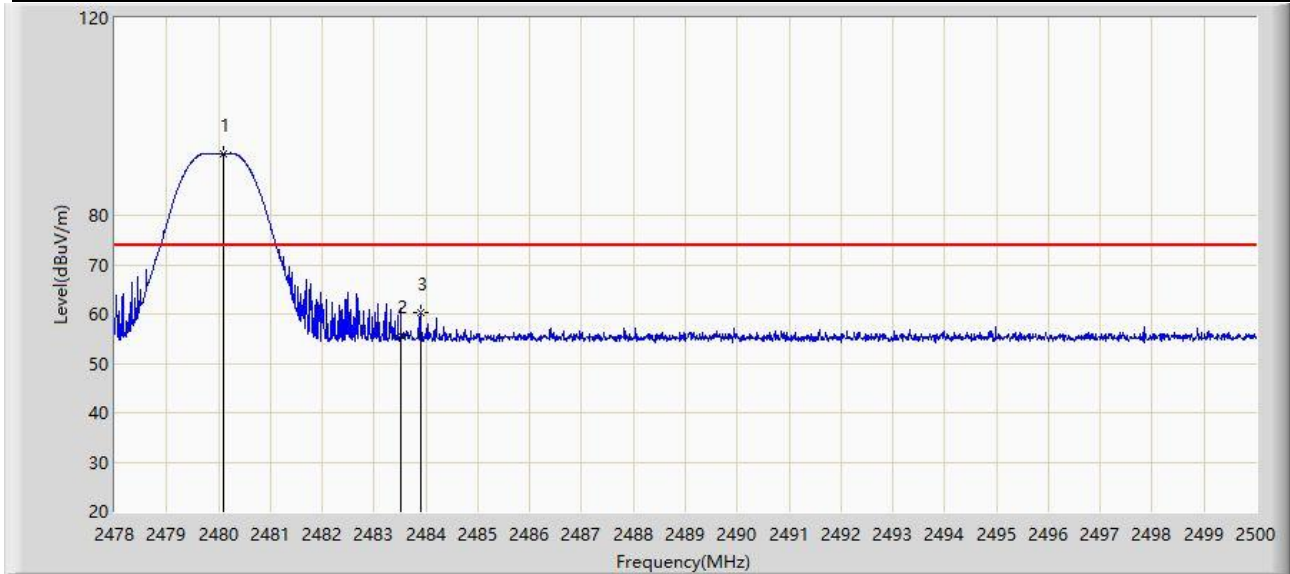


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2373.175	44.409	13.478	-9.591	54.000	30.931	AV
2			2390.000	44.294	13.391	-9.706	54.000	30.903	AV
3		*	2402.008	86.798	55.863	N/A	N/A	30.935	AV

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1M at channel 2480MHz	

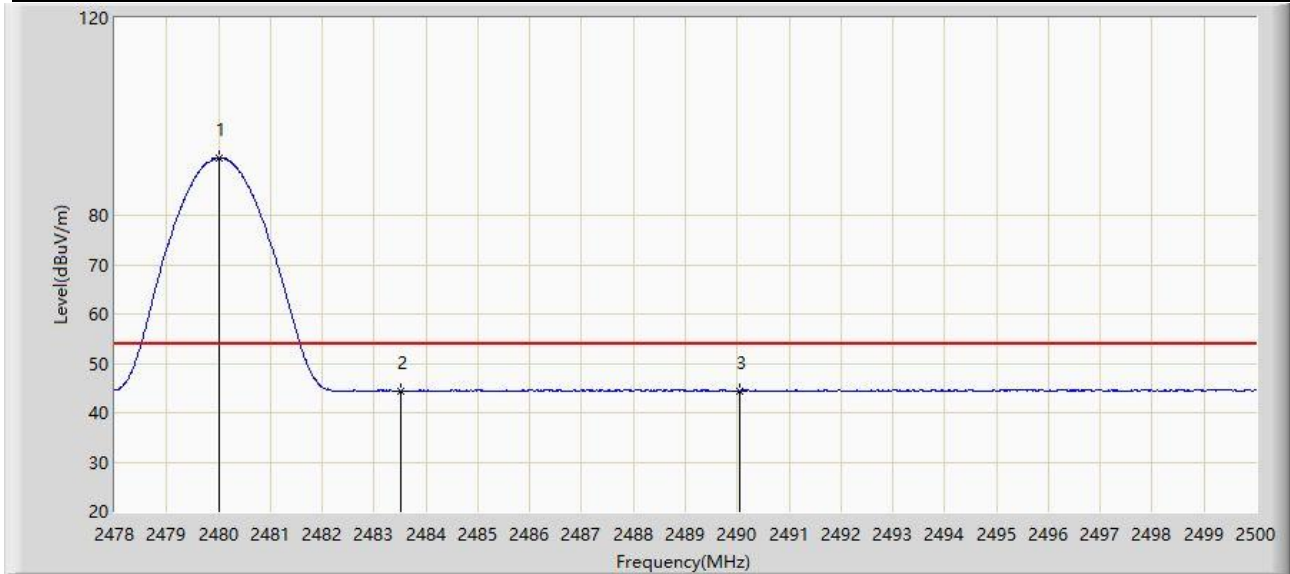


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.090	92.522	61.650	N/A	N/A	30.872	PK
2			2483.500	55.640	24.751	-18.360	74.000	30.889	PK
3			2483.896	60.161	29.270	-13.839	74.000	30.891	PK

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1M at channel 2480MHz	

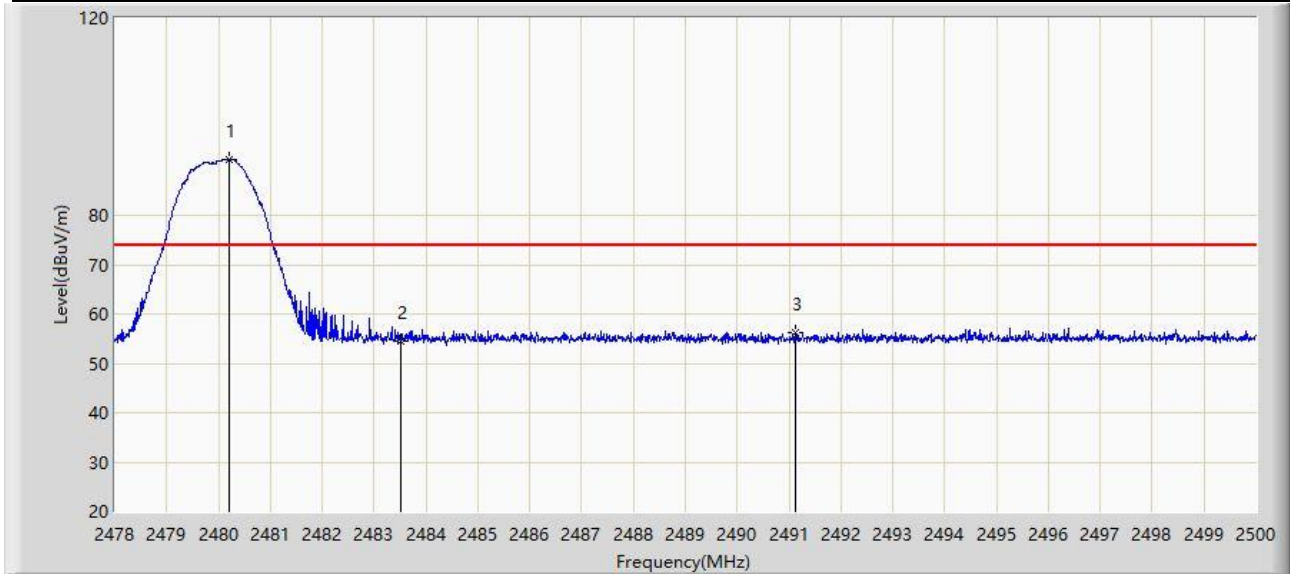


No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		*	2480.002	91.633	60.762	N/A	N/A	30.871	AV
2			2483.500	44.327	13.438	-9.673	54.000	30.889	AV
3			2490.034	44.410	13.489	-9.590	54.000	30.921	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1M at channel 2480MHz	

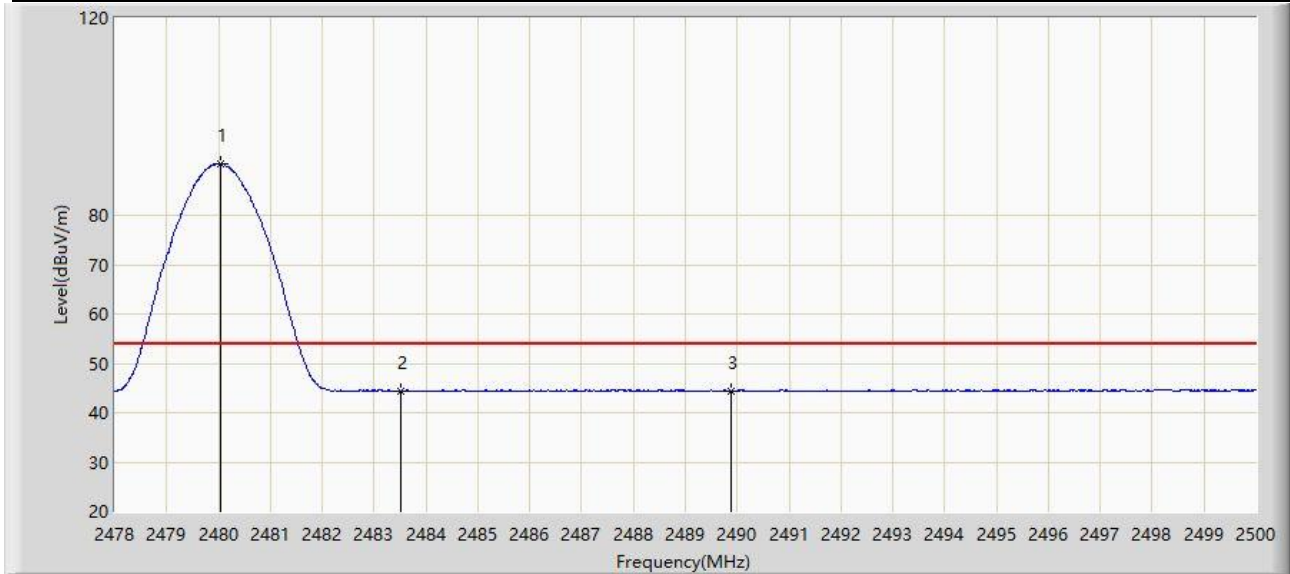


No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		*	2480.211	91.275	60.403	N/A	N/A	30.872	PK
2			2483.500	54.559	23.670	-19.441	74.000	30.889	PK
3			2491.112	56.210	25.283	-17.790	74.000	30.927	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1M at channel 2480MHz	

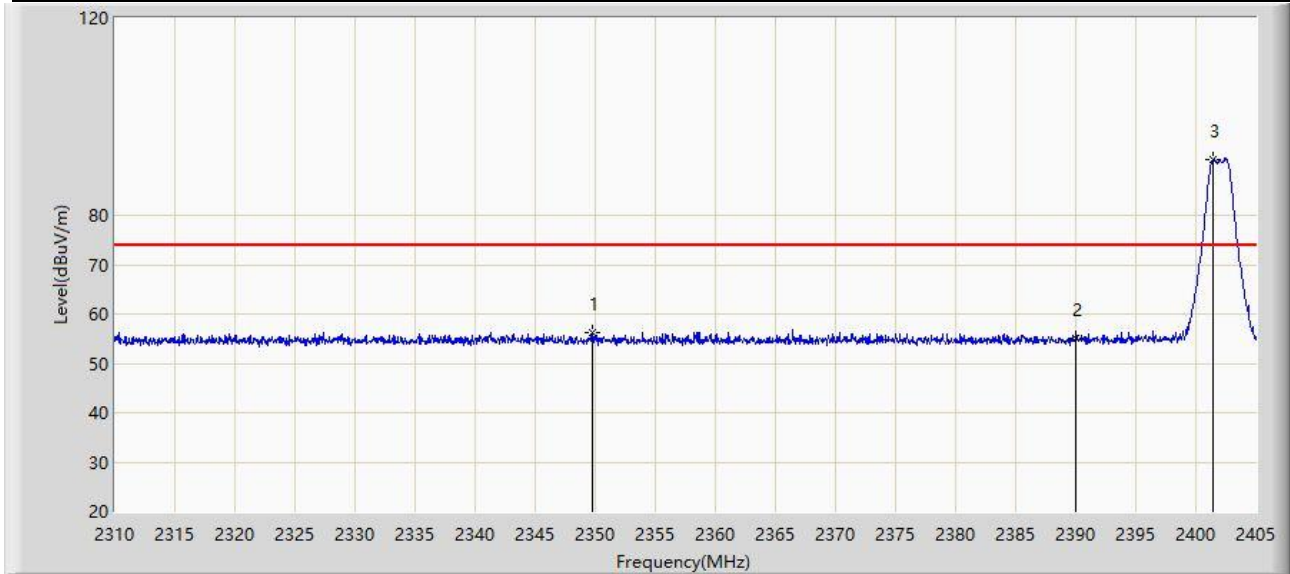


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.046	90.442	59.570	N/A	N/A	30.872	AV
2			2483.500	44.298	13.409	-9.702	54.000	30.889	AV
3			2489.891	44.384	13.463	-9.616	54.000	30.921	AV

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-2M at channel 2402MHz	

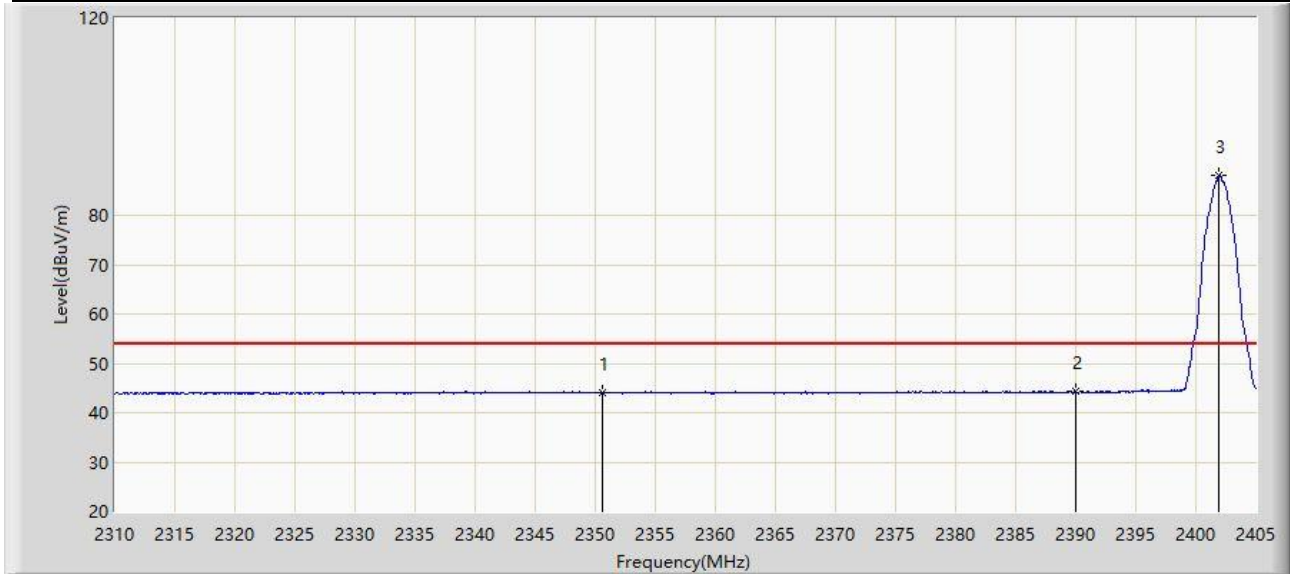


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2349.805	56.174	25.065	-17.826	74.000	31.109	PK
2			2390.000	55.127	24.224	-18.873	74.000	30.903	PK
3		*	2401.485	91.334	60.401	N/A	N/A	30.933	PK

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-2M at channel 2402MHz	

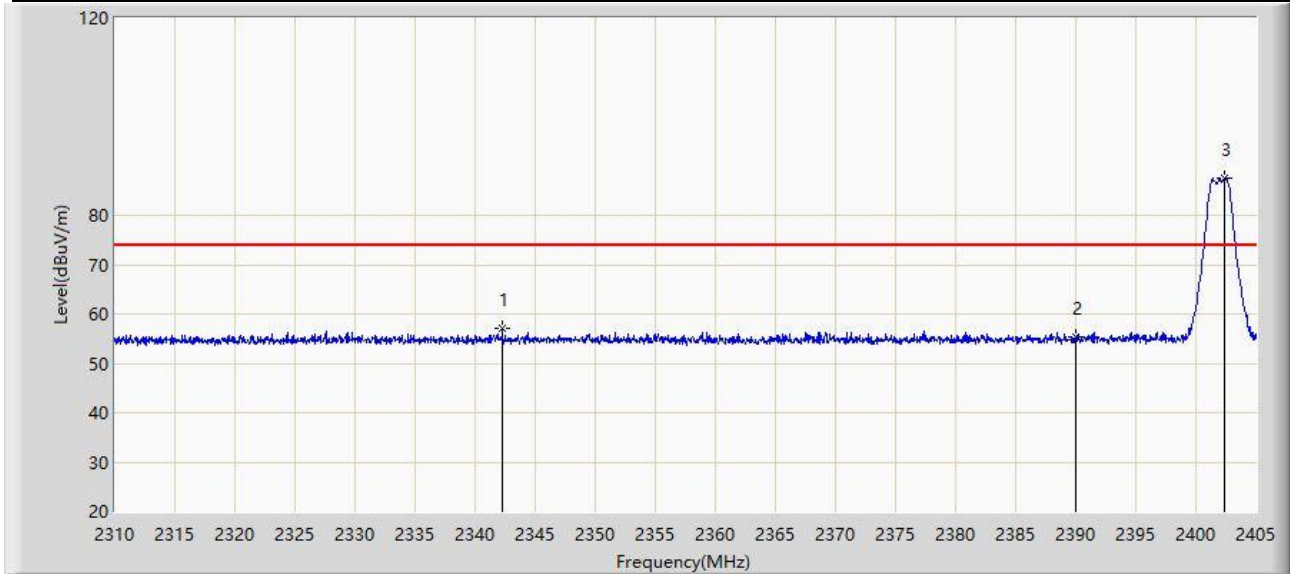


No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1			2350.565	44.086	12.987	-9.914	54.000	31.099	AV
2			2390.000	44.257	13.354	-9.743	54.000	30.903	AV
3		*	2401.960	88.249	57.314	N/A	N/A	30.935	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-2M at channel 2402MHz	

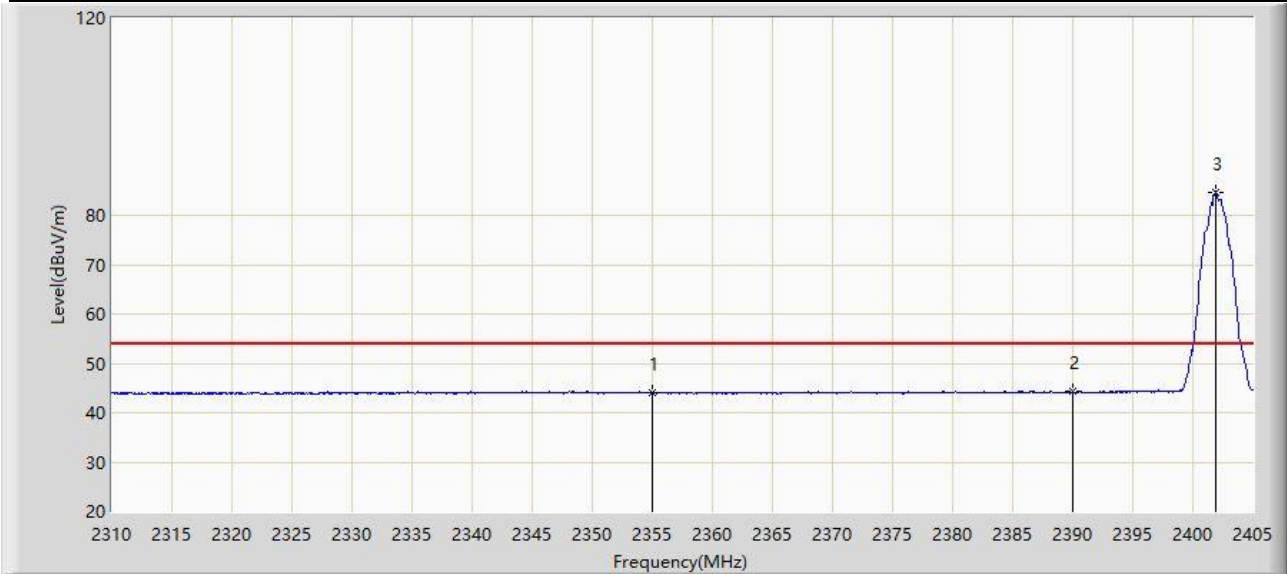


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2342.252	57.042	25.856	-16.958	74.000	31.186	PK
2			2390.000	55.230	24.327	-18.770	74.000	30.903	PK
3		*	2402.435	87.577	56.640	N/A	N/A	30.937	PK

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-2M at channel 2402MHz	

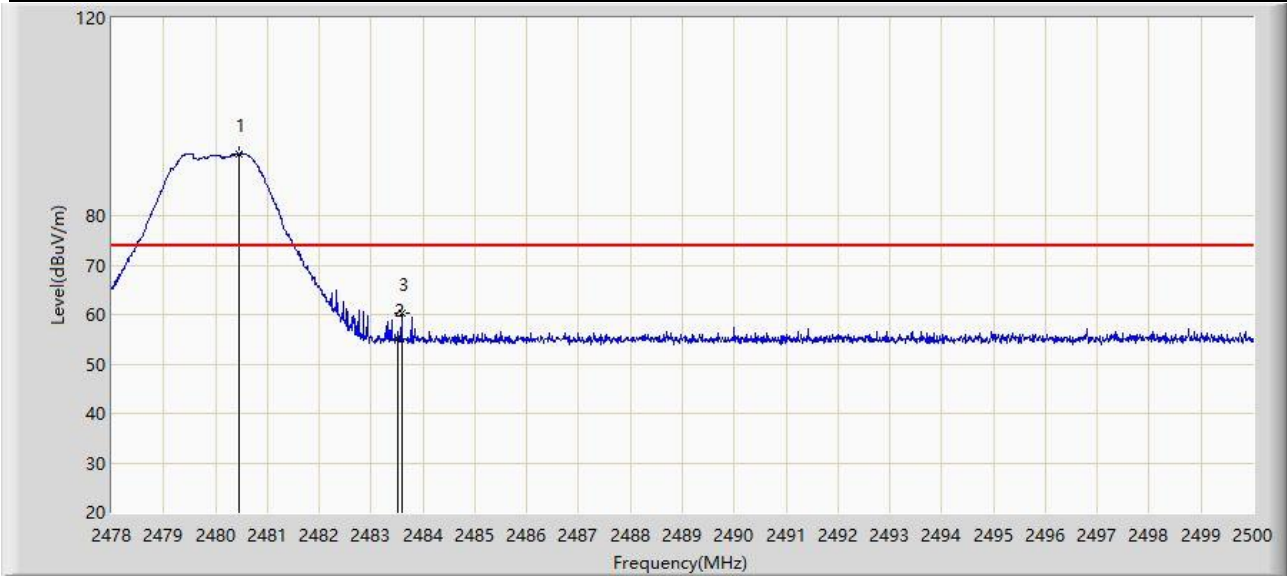


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2355.030	44.122	13.075	-9.878	54.000	31.047	AV
2			2390.000	44.269	13.366	-9.731	54.000	30.903	AV
3		*	2401.865	84.768	53.833	N/A	N/A	30.935	AV

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-2M at channel 2480MHz	

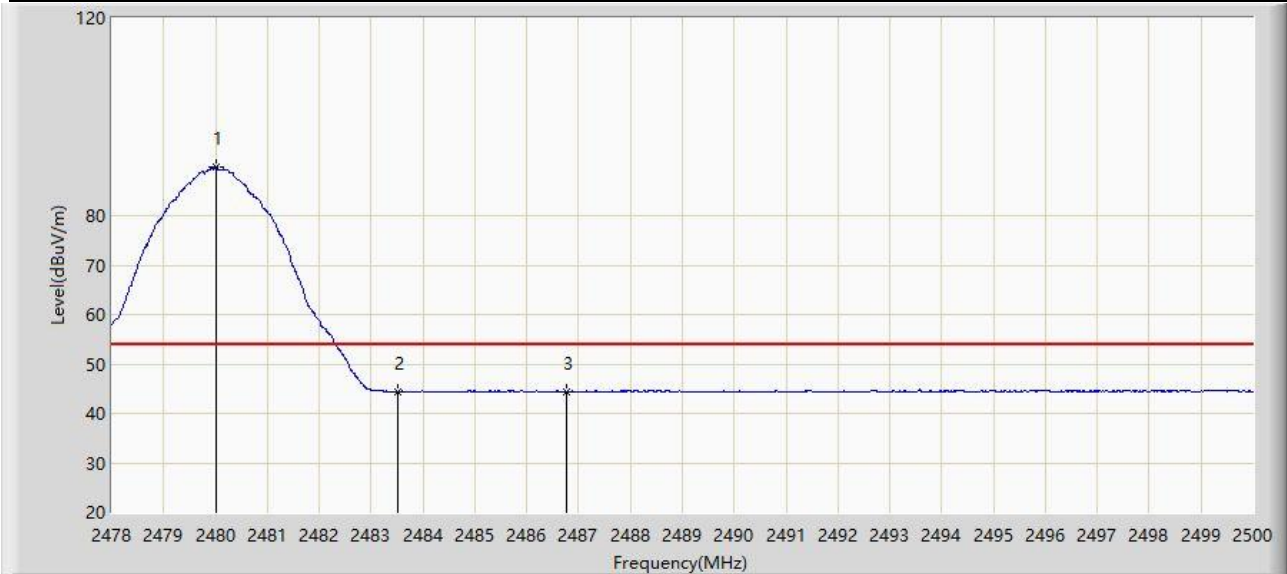


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		*	2480.442	92.519	61.645	N/A	N/A	30.874	PK
2			2483.500	54.984	24.095	-19.016	74.000	30.889	PK
3			2483.588	60.155	29.266	-13.845	74.000	30.889	PK

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-2M at channel 2480MHz	

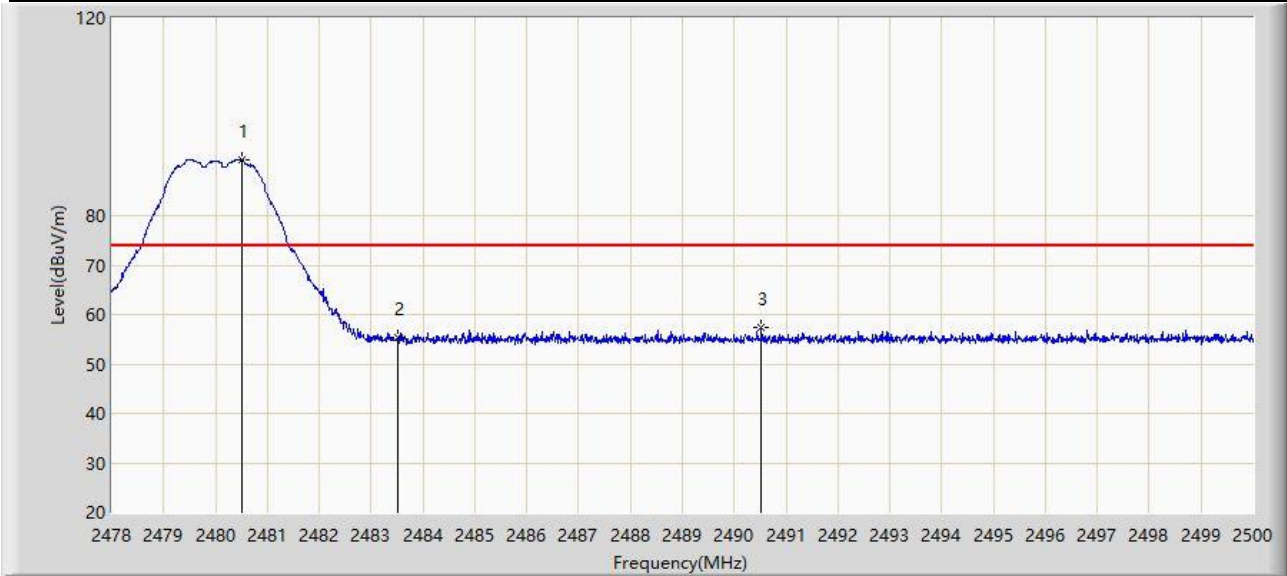


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.002	89.901	59.030	N/A	N/A	30.871	AV
2			2483.500	44.299	13.410	-9.701	54.000	30.889	AV
3			2486.778	44.438	13.533	-9.562	54.000	30.905	AV

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-2M at channel 2480MHz	

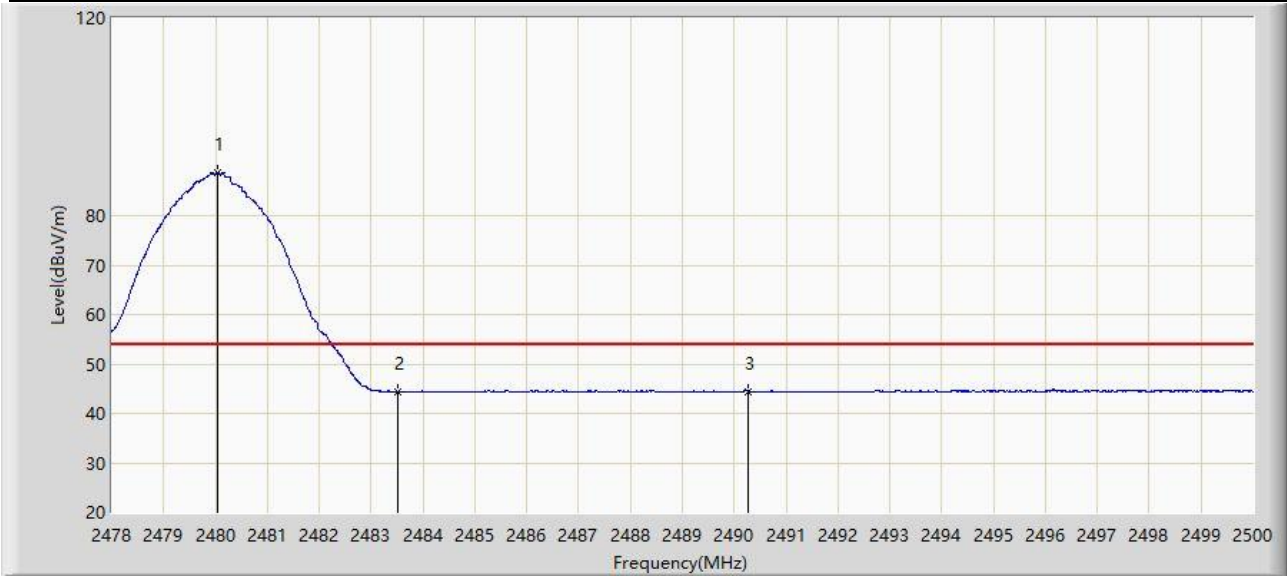


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		*	2480.519	91.390	60.516	N/A	N/A	30.874	PK
2			2483.500	55.436	24.547	-18.564	74.000	30.889	PK
3			2490.529	57.349	26.425	-16.651	74.000	30.924	PK

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

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

Site: NS-AC1	Time: 2021/10/18
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-2M at channel 2480MHz	



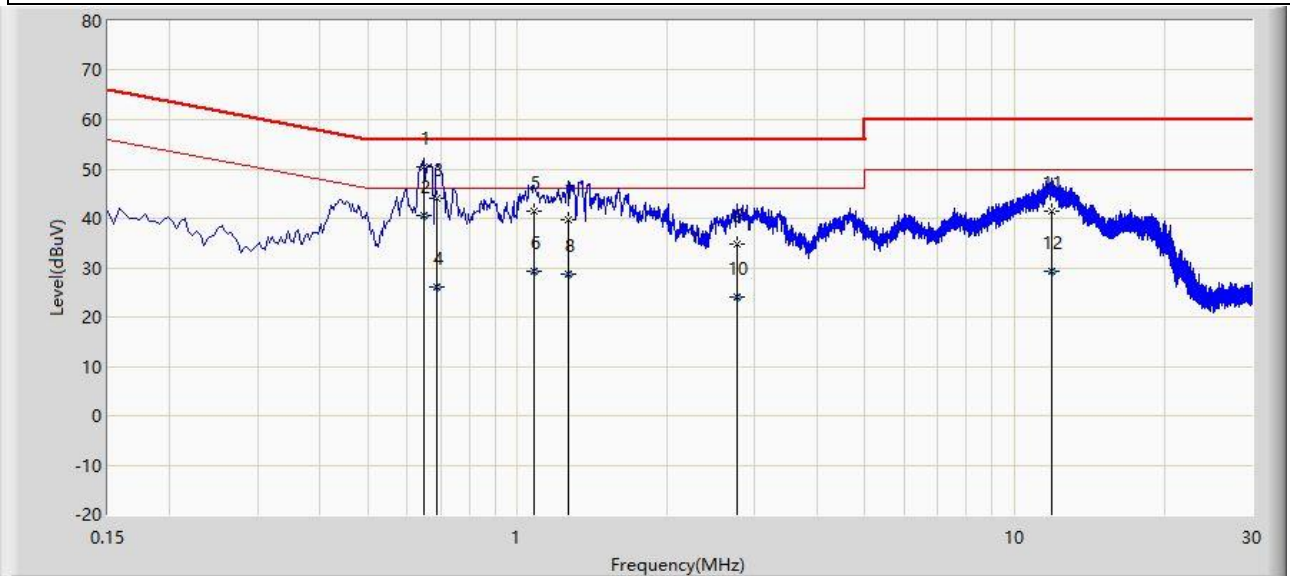
No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Factor (dB/m)	Type
1		*	2480.046	88.722	57.850	N/A	N/A	30.872	AV
2			2483.500	44.422	13.533	-9.578	54.000	30.889	AV
3			2490.276	44.477	13.554	-9.523	54.000	30.923	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB/m)

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

A.7 AC Conducted Emissions

Site: NS-SR2	Time: 2021/10/29
Limit: FCC_Part15.207_CE_AC Power	Engineer: Flag Yang
Probe: ENV216_102493_150KHz~30MHz	Polarity: Line
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE 2M at channel 2402MHz	

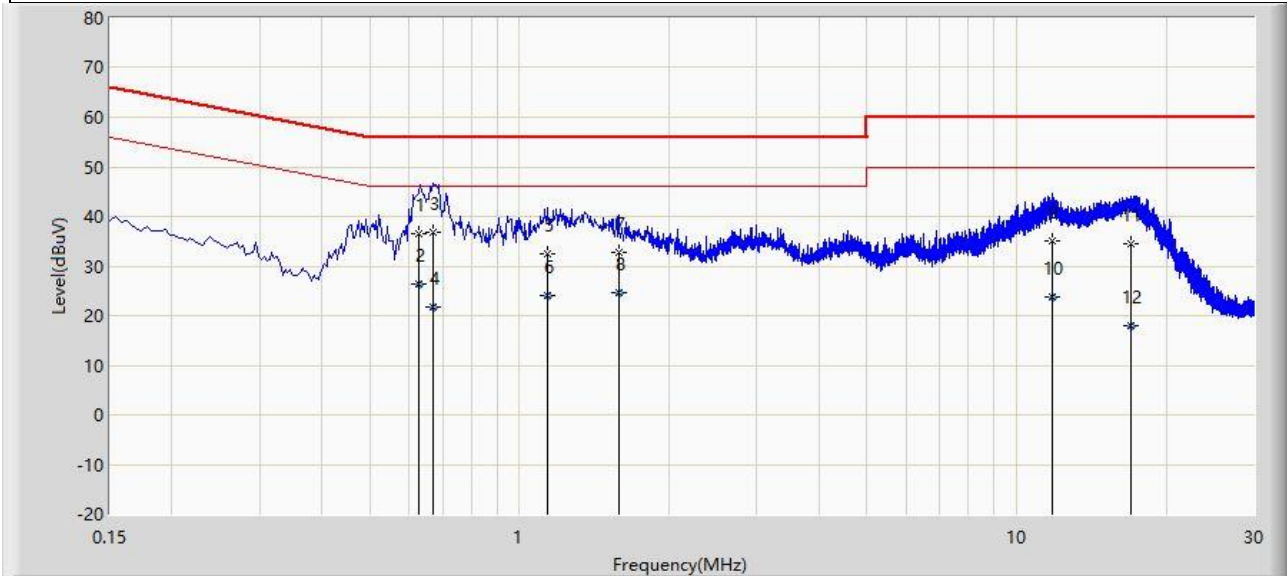


No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V)	Factor (dB)	Type
1		*	0.650	50.530	40.832	-5.470	56.000	9.698	QP
2			0.650	40.525	30.827	-5.475	46.000	9.698	AV
3			0.690	43.992	34.283	-12.008	56.000	9.709	QP
4			0.690	26.072	16.363	-19.928	46.000	9.709	AV
5			1.082	41.575	31.843	-14.425	56.000	9.732	QP
6			1.082	29.414	19.682	-16.586	46.000	9.732	AV
7			1.262	39.830	30.094	-16.170	56.000	9.736	QP
8			1.262	28.566	18.830	-17.434	46.000	9.736	AV
9			2.758	34.810	25.019	-21.190	56.000	9.791	QP
10			2.758	24.039	14.248	-21.961	46.000	9.791	AV
11			11.866	41.528	31.505	-18.472	60.000	10.023	QP
12			11.866	29.212	19.189	-20.788	50.000	10.023	AV

Note: Measure Level (dB μ V) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: NS-SR2	Time: 2021/10/29
Limit: FCC_Part15.207_CE_AC Power	Engineer: Flag Yang
Probe: ENV216_102493_150KHz~30MHz	Polarity: Neutral
EUT: Nautiz X9	Power: AC 120V/60Hz
Test Mode: Transmit by BLE 2M at channel 2402MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dB μ V)	Reading Level (dB μ V)	Margin (dB)	Limit (dB μ V)	Factor (dB)	Type
1			0.626	36.635	26.991	-19.365	56.000	9.644	QP
2			0.626	26.350	16.706	-19.650	46.000	9.644	AV
3		*	0.670	36.787	27.145	-19.213	56.000	9.642	QP
4			0.670	21.745	12.103	-24.255	46.000	9.642	AV
5			1.142	32.483	22.812	-23.517	56.000	9.671	QP
6			1.142	23.985	14.314	-22.015	46.000	9.671	AV
7			1.582	32.637	22.951	-23.363	56.000	9.686	QP
8			1.582	24.532	14.846	-21.468	46.000	9.686	AV
9			11.770	35.139	25.073	-24.861	60.000	10.066	QP
10			11.770	23.880	13.814	-26.120	50.000	10.066	AV
11			16.966	34.439	24.170	-25.561	60.000	10.269	QP
12			16.966	17.866	7.597	-32.134	50.000	10.269	AV

Note: Measure Level (dB μ V) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

————— The End —————