



## RF MEASUREMENT REPORT

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**FCC ID:** HD5-EDA5S1

**Applicant:** Honeywell International Inc  
Honeywell Safety and Productivity Solutions

**Product:** Mobile Computer

**Model No.:** EDA5S-1

**Brand Name:** Honeywell

**FCC Classification:** Digital Transmission System (DTS)

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

**Test Date:** December 16 ~ 27, 2021

**Reviewed By:**

\_\_\_\_\_  
Jame Yuan

**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 (Suzhou) Co., Ltd.

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### Revision History

Report No.	Version	Description	Issue Date	Note
2111RSU064-U2	Rev. 01	Initial Report	01-06-2022	Valid

Note: EDA5S-1 is a variation on the existing EDA5S-0 (FCC ID: HD5-EDA5S0), added one LTE chipset, any others are the same. So EDA5S-1 reuse all conducted test data from test report 2111RSU063-U2, and the radiated spurious emission items were fully tested.

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## 1. General Information

### 1.1. Applicant

Honeywell International Inc  
 Honeywell Safety and Productivity Solutions  
 9680 Old Bailes Road, Fort Mill, SC 29707 United States

### 1.2. Manufacturer

Honeywell International Inc  
 Honeywell Safety and Productivity Solutions  
 9680 Old Bailes Road, Fort Mill, SC 29707 United States

### 1.3. Testing Facility

<input checked="" type="checkbox"/>	<p><b>Test Site – MRT Suzhou Laboratory</b></p> <hr/> <p><b>Laboratory Location (Suzhou - Wuzhong)</b>          D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China</p> <p><b>Laboratory Location (Suzhou - SIP)</b>          4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China</p> <hr/> <p><b>Laboratory Accreditations</b></p> <p>A2LA: 3628.01 <span style="float: right;">CNAS: L10551</span></p> <p>FCC: CN1166 <span style="float: right;">ISED: CN0001</span></p> <p>VCCI: <input type="checkbox"/>R-20025 <input type="checkbox"/>G-20034 <input type="checkbox"/>C-20020 <input type="checkbox"/>T-20020</p> <p style="margin-left: 100px;"><input type="checkbox"/>R-20141 <input type="checkbox"/>G-20134 <input type="checkbox"/>C-20103 <input type="checkbox"/>T-20104</p>
<input checked="" type="checkbox"/>	<p><b>Test Site – MRT Shenzhen Laboratory</b></p> <hr/> <p><b>Laboratory Location (Shenzhen)</b>          1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China</p> <hr/> <p><b>Laboratory Accreditations</b></p> <p>A2LA: 3628.02 <span style="float: right;">CNAS: L10551</span></p> <p>FCC: CN1284 <span style="float: right;">ISED: CN0105</span></p>
<input type="checkbox"/>	<p><b>Test Site – MRT Taiwan Laboratory</b></p> <hr/> <p><b>Laboratory Location (Taiwan)</b>          No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)</p> <hr/> <p><b>Laboratory Accreditations</b></p> <p>TAF: L3261-190725</p> <p>FCC: 291082, TW3261 <span style="float: right;">ISED: TW3261</span></p>

#### 1.4. Product Information

Product Name	Mobile Computer
Model No.	EDA5S-1
Serial No.	Conducted Sample: 21294B506A Radiated Sample: 21294B3F94
Wi-Fi Specification	802.11a/b/g/n/ac
Bluetooth Specification	v5.0 dual mode
NFC Specification	Active, 13.56MHz
GNSS Specification	GPS/Galileo/BDS/GLONASS
3GPP Specification	GSM 850/1900 WCDMA Band 2/4/5 LTE Band 2/4/5/7/12/13/17/25/26/30/38/40/41/66
Working Voltage	3.85Vdc
Accessories	
Adapter	Model No.: ADS-12B-06 05010E Input Power: 100 - 240V ~ 50/60Hz, Max. 0.3A Output Power: 5VDC 2.0A
Rechargeable Li-ion Battery	Model No.: BAT-EDA5S Capacitance: 3060mAh 11.78Wh Rated Voltage: 3.85V
Remark: 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

Bluetooth Frequency	2402 ~ 2480MHz
Channel Number	40
Type of modulation	GFSK
Data Rate	1Mbps & 2Mbps
Antenna Type	FPC Antenna
Antenna Gain	1.78dBi

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

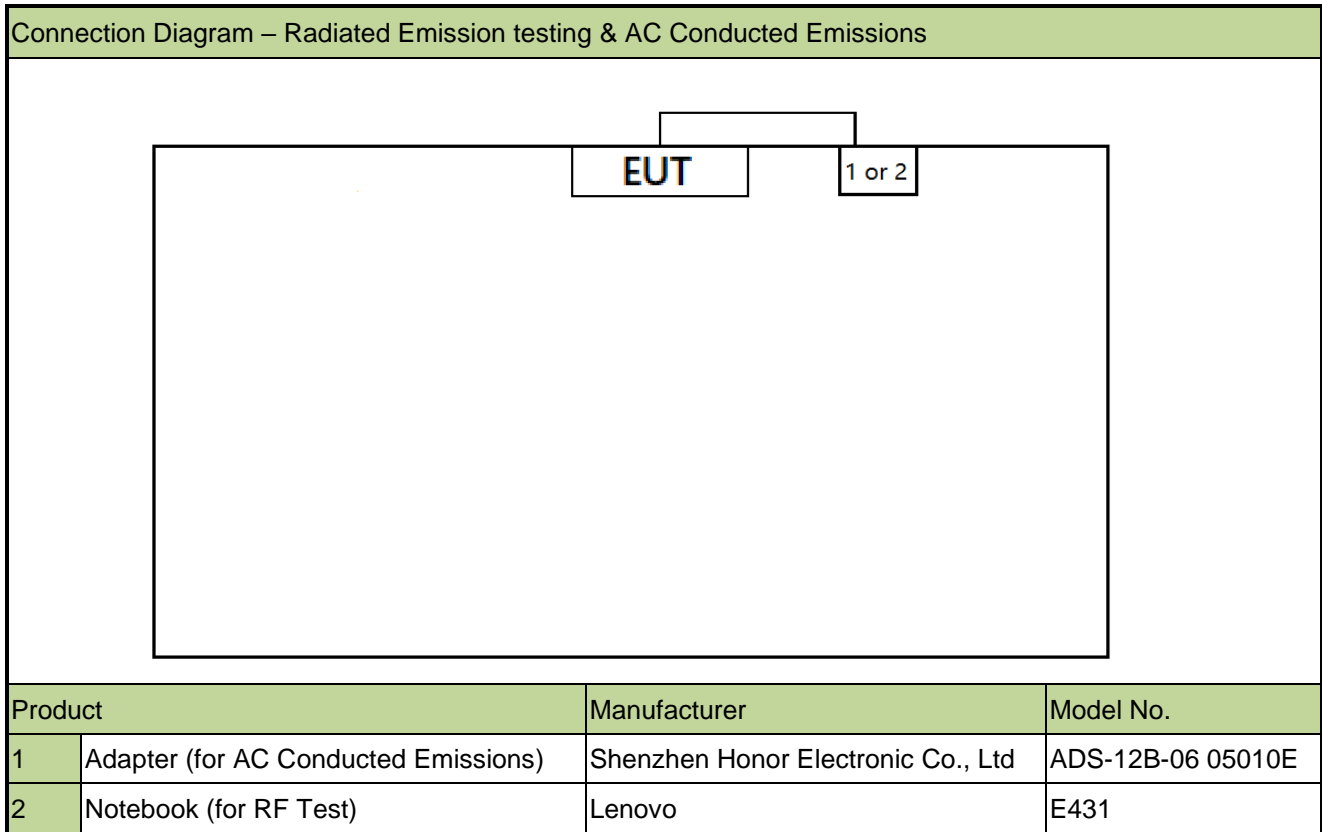
### 1.6. Working Frequencies

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	--	--	--	--

## 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 “QRCT”, and the version was 3.0.268.0.

### 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. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06292	1 year	2022/10/20	NS-AC1
Anechoic Chamber	BOOMWAVE	NS-AC1	MRTSUE06496	1 year	2022/7/24	NS-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06572	1 year	2022/3/14	NS-AC1
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06573	1 year	2022/6/29	NS-AC1
Loop Antenna	Schwarzbeck	FMZB 1519 B	MRTSUE06937	1 year	2022/3/9	SIP-AC1
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06574	1 year	2022/7/12	NS-AC1
EMI Test Receiver	R&S	ESR3	MRTSUE06575	1 year	2022/6/27	NS-AC1
Thermohygrometer	DELI	NO.8813	MRTSUE06588	1 year	2022/6/30	NS-AC1
Preamplifier	EMCI	EMC184045SE	MRTSUE06641	1 year	2022/1/14	NS-AC1
Signal Analyzer	Agilent	N9010A	MRTSUE06195	1 year	2022/3/17	NS-AC1/NS-TR2
Signal Analyzer	Keysight	N9020A	MRTSUE10065	1 year	2022/6/17	NS-AC1/NS-TR2
Shielding Room	BOOMWAVE	NS-SR2	MRTSUE06551	/	/	NS-SR2
EMI Test Receiver	R&S	ESL3	MRTSUE06576	1 year	2022/6/27	NS-SR2
Two-Line V-Network	R&S	ENV216	MRTSUE06577	1 year	2022/7/4	NS-SR2
Two-Line V-Network	R&S	ENV216	MRTSUE06578	1 year	2022/7/4	NS-SR2
ISN	R&S	ENY81	MRTSUE06579	1 year	2022/7/4	NS-SR2
ISN	R&S	ENY81-CA6	MRTSUE06580	1 year	2022/6/15	NS-SR2
Thermohygrometer	DELI	NO.8813	MRTSUE06587	1 year	2022/6/30	NS-SR2
USB Power Sensor	Keysight	U2021XA	MRTSUE06581	1 year	2022/8/15	NS-TR2
Thermohygrometer	DELI	NO.8813	MRTSUE06783	1 year	2022/5/9	NS-TR2
Temperature Chamber	OUKE	OK-TH-100C	MRTSUE06899	1 year	2022/11/1	NS-TR2

Software	Version	Function
EMI Software	V3	EMI Test Software

Note: Test site (NS-AC1 & NS-SR2 & NS-TR2) belong to MRT Shenzhen Laboratory, Test site (SIP-AC1) belong to MRT Suzhou Laboratory.

## 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  $k = 2$ .

<b>AC Conducted Emission Measurement</b>
Measurement Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 9kHz~150kHz: 3.74dB 150kHz~30MHz: 3.44dB
<b>Radiated Disturbance</b>
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
<b>Spurious Emissions, Conducted</b>
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 0.78dB
<b>Output Power</b>
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 1.13dB
<b>Power Spectrum Density</b>
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 1.15dB
<b>Occupied Bandwidth</b>
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.
- 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

### 6.2.1. Test Limit

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

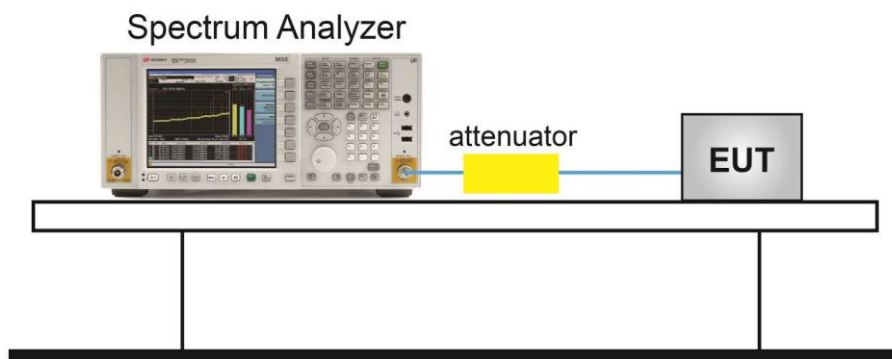
### 6.2.2. Test Procedure

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.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

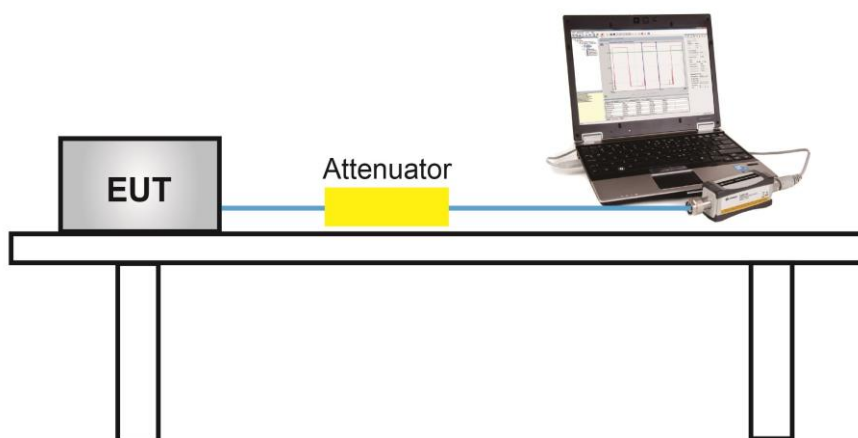
ANSI C63.10 - 2013 - Section 11.9.2.3.2

#### 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.

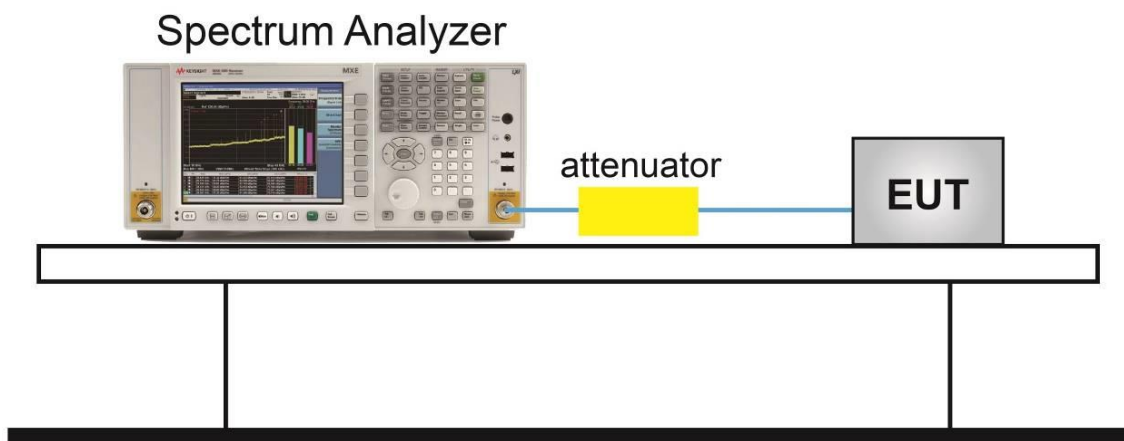
### 6.4.2. Test Procedure

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 OBW
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**

ANSI C63.10-2013 - Section 11.11

### **6.5.3. Test Setting**

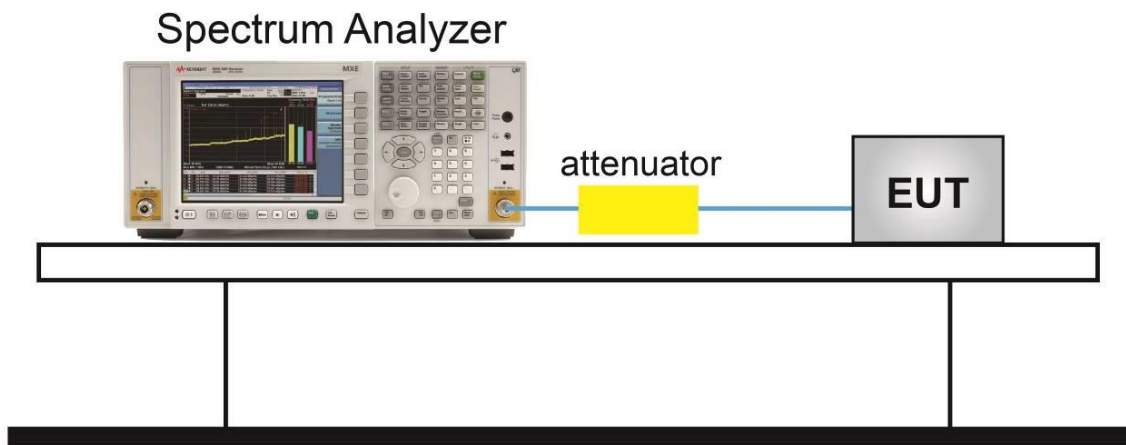
#### **Reference level measurement**

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to  $\geq 1.5$  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**

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**

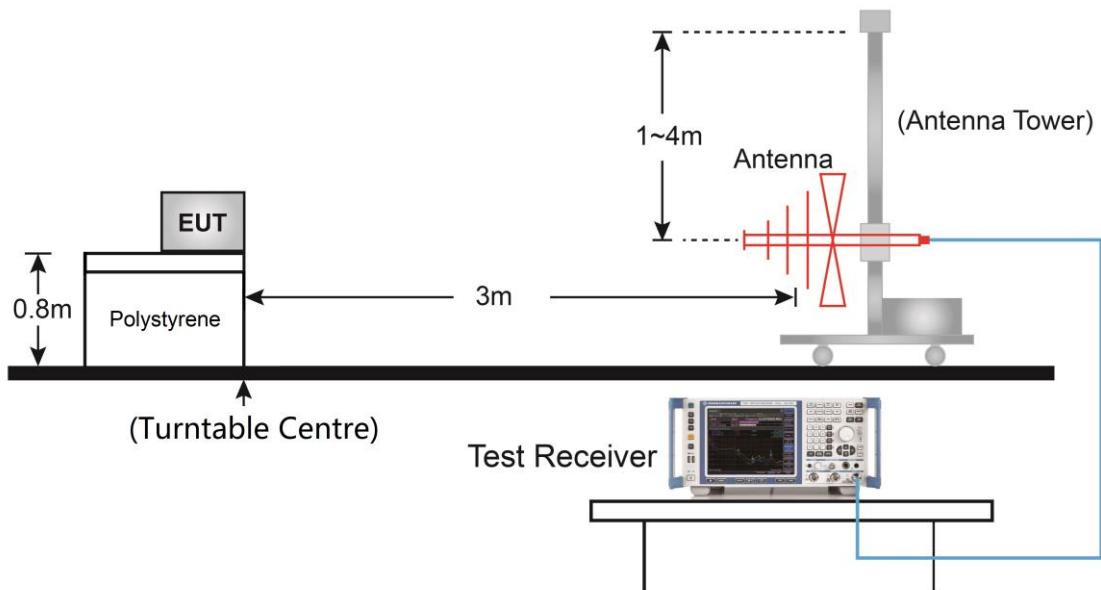
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

**Average Measurements above 1GHz (Method VB)**

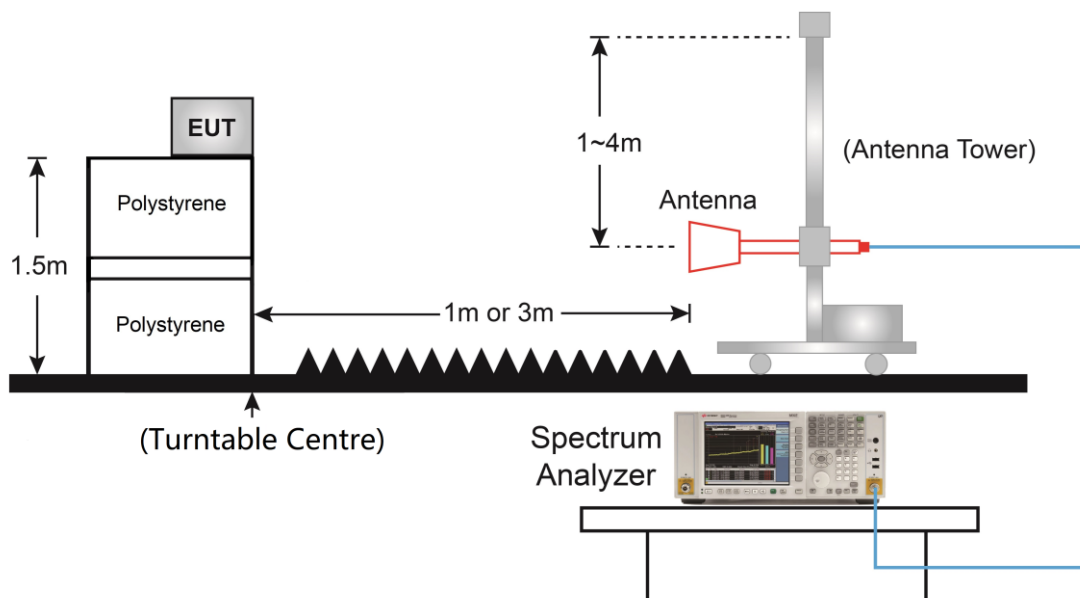
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set VBW = 10 Hz.  
If the EUT duty cycle is  $< 98\%$ , set VBW  $\geq 1/T$ . T is the minimum transmission duration.
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
<sup>1</sup> 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	( <sup>2</sup> )
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

ANSI C63.10-2013 Section 6.6

ANSI C63.10-2013 Section 11.13

### 6.7.3. Test Setting

#### Peak Field Strength Measurements

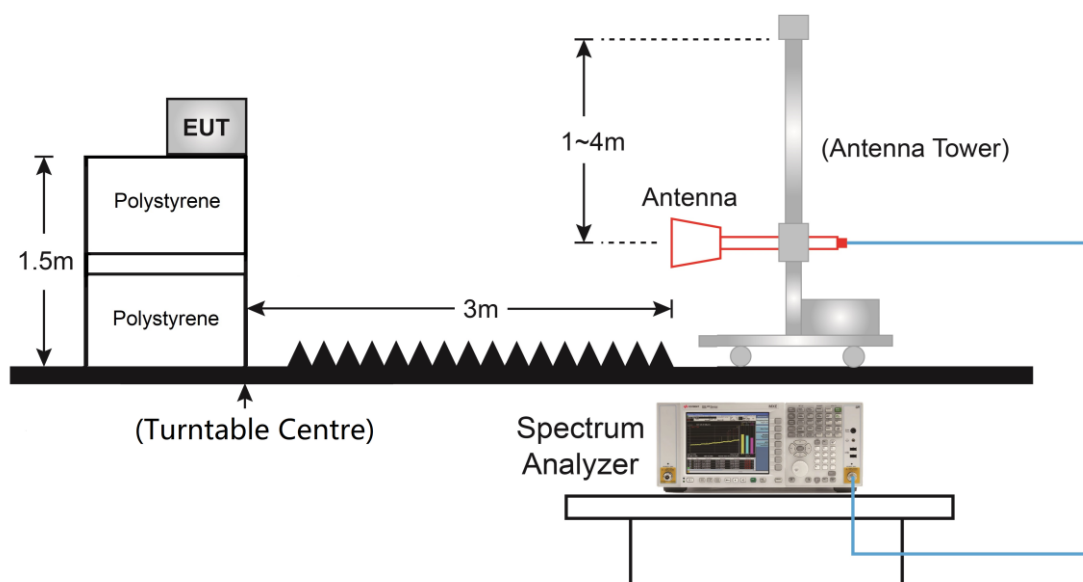
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize



### 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

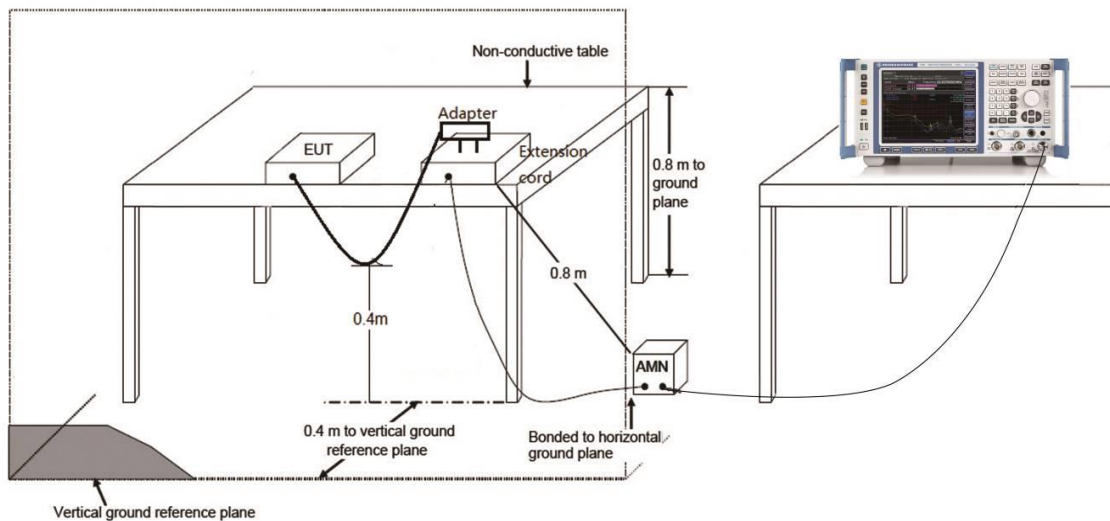
### 6.8.1. Test Limit

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

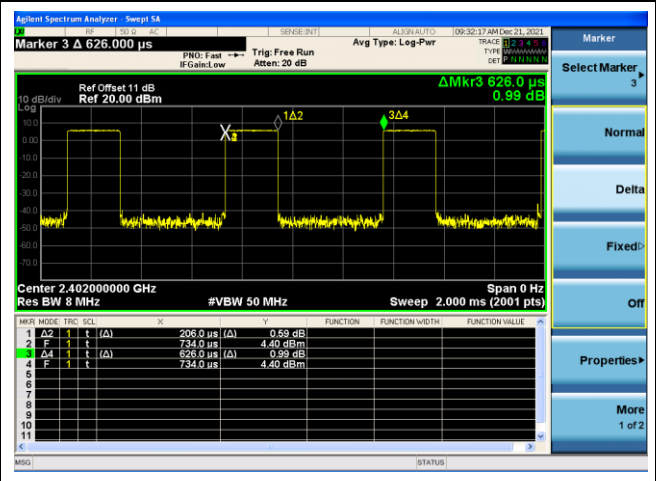
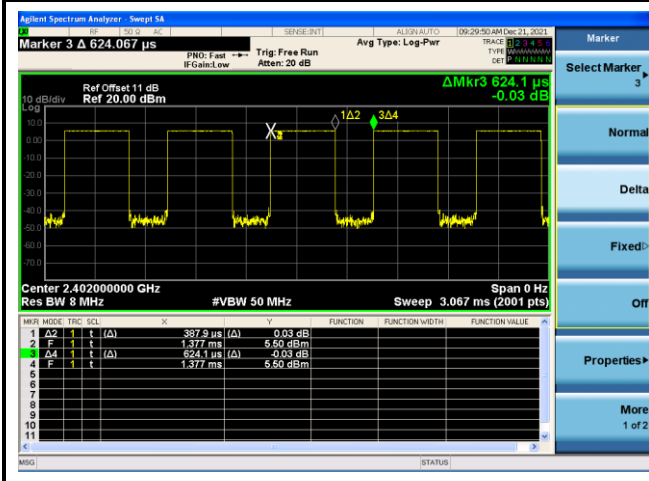
Refer to Appendix A.7.

## Appendix A - Test Result

### A.1 Duty Cycle Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2021/12/21		

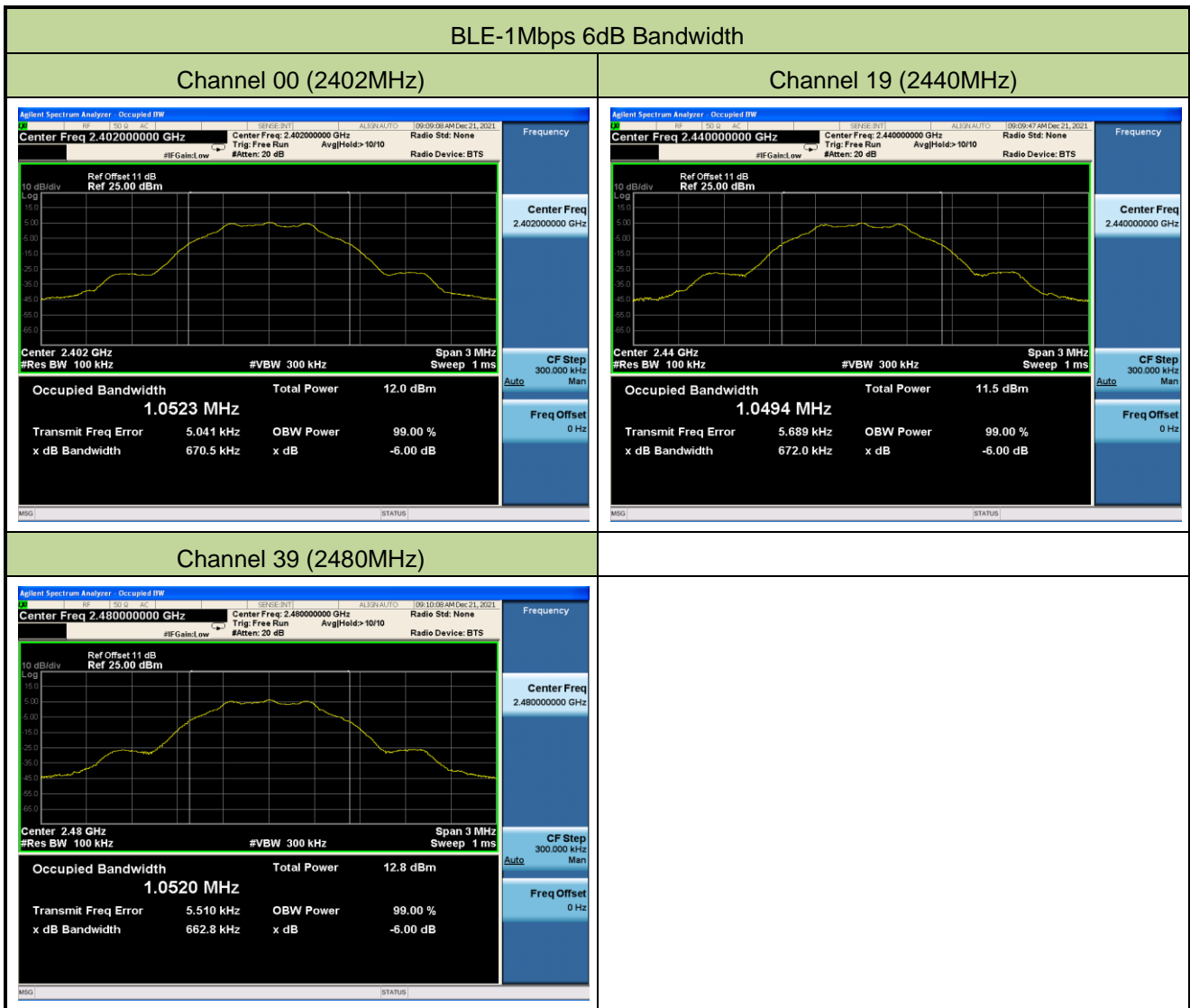
Test Mode	Duty Cycle
BLE-1Mbps	62.15%
BLE-2Mbps	32.91%
Duty Cycle (T = Transmission Duration)	
BLE-1Mbps (T = 387.9 $\mu$ s)	BLE-2Mbps (T = 206.0 $\mu$ s)

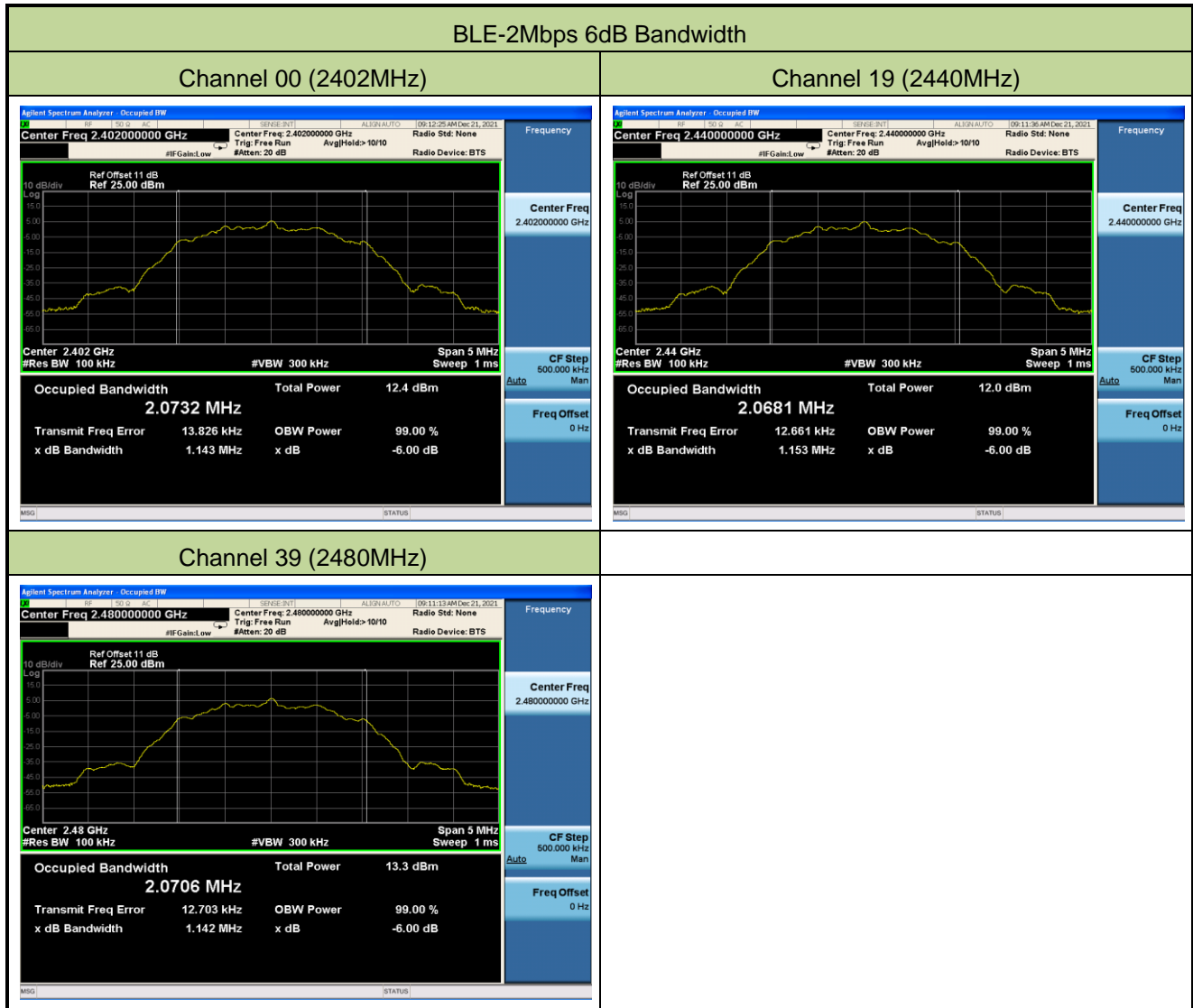


**A.2 6dB Bandwidth Test Result**

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2021/12/21		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
BLE	1Mbps	00	2402	0.671	≥ 0.5
BLE	1Mbps	19	2440	0.672	≥ 0.5
BLE	1Mbps	39	2480	0.663	≥ 0.5
BLE	2Mbps	00	2402	1.143	≥ 0.5
BLE	2Mbps	19	2440	1.153	≥ 0.5
BLE	2Mbps	39	2480	1.142	≥ 0.5





### A.3 Output Power Test Result

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2021/12/16		

#### Test Result of Peak Output Power

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Result
BLE	1Mbps	00	2402	5.77	≤ 30.00	Pass
BLE	1Mbps	19	2440	5.31	≤ 30.00	Pass
BLE	1Mbps	39	2480	6.57	≤ 30.00	Pass
BLE	2Mbps	00	2402	6.01	≤ 30.00	Pass
BLE	2Mbps	19	2440	5.63	≤ 30.00	Pass
BLE	2Mbps	39	2480	6.84	≤ 30.00	Pass

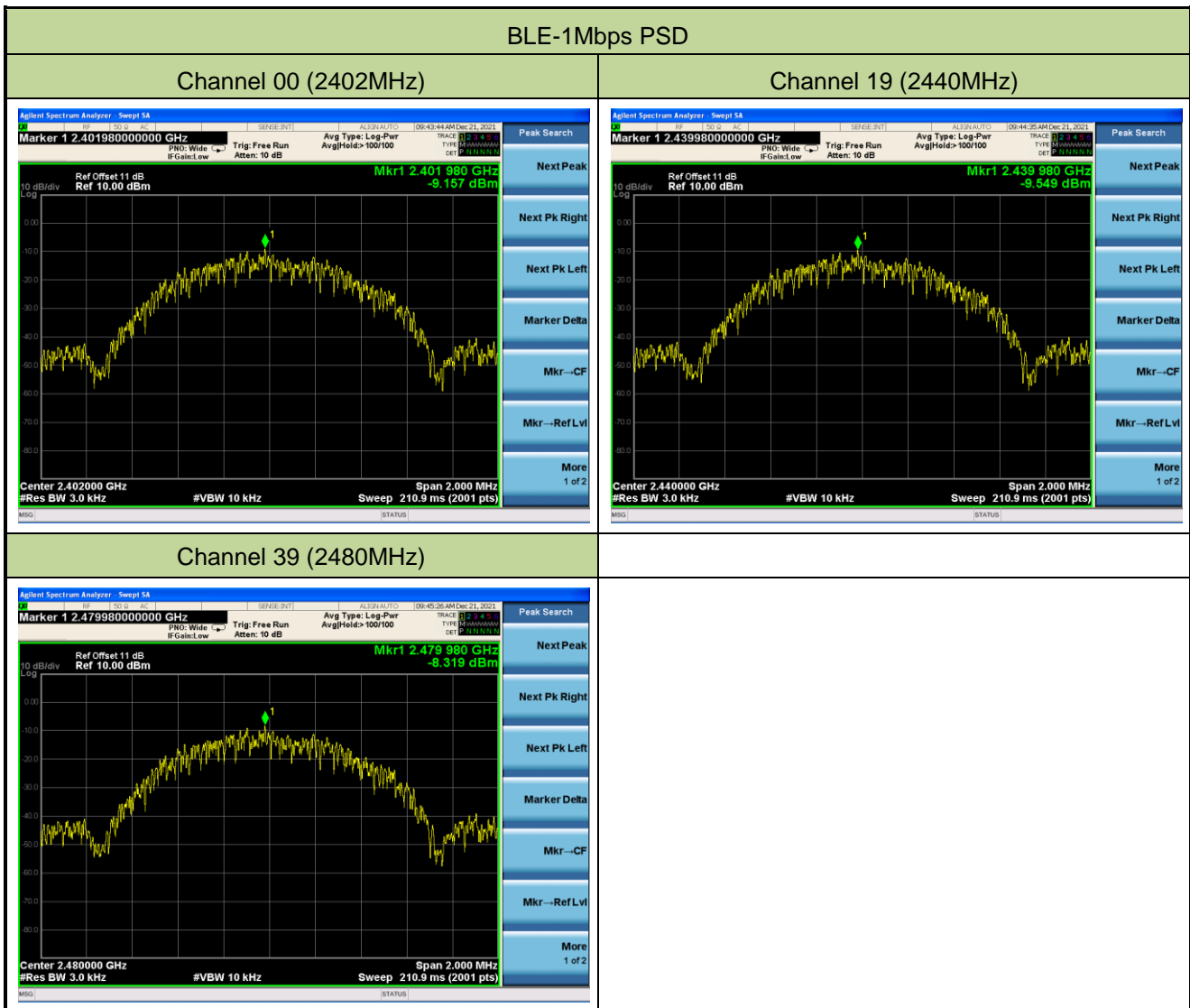
#### Test Result of Average Output Power (Reporting Only)

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
BLE	1Mbps	00	2402	5.53	≤ 30.00	Pass
BLE	1Mbps	19	2440	5.14	≤ 30.00	Pass
BLE	1Mbps	39	2480	6.38	≤ 30.00	Pass
BLE	2Mbps	00	2402	5.50	≤ 30.00	Pass
BLE	2Mbps	19	2440	5.13	≤ 30.00	Pass
BLE	2Mbps	39	2480	6.36	≤ 30.00	Pass

### A.4 Power Spectral Density Test Result

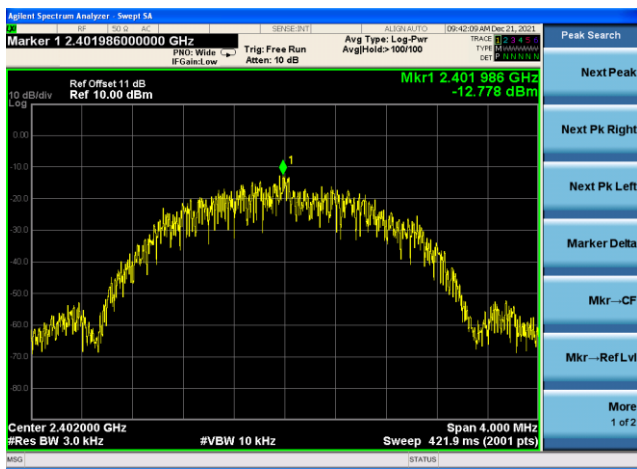
Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2021/12/21		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	PSD Result (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
BLE	1Mbps	00	2402	-9.16	≤ 8.00	Pass
BLE	1Mbps	19	2440	-9.55	≤ 8.00	Pass
BLE	1Mbps	39	2480	-8.32	≤ 8.00	Pass
BLE	2Mbps	00	2402	-12.78	≤ 8.00	Pass
BLE	2Mbps	19	2440	-13.13	≤ 8.00	Pass
BLE	2Mbps	39	2480	-11.92	≤ 8.00	Pass

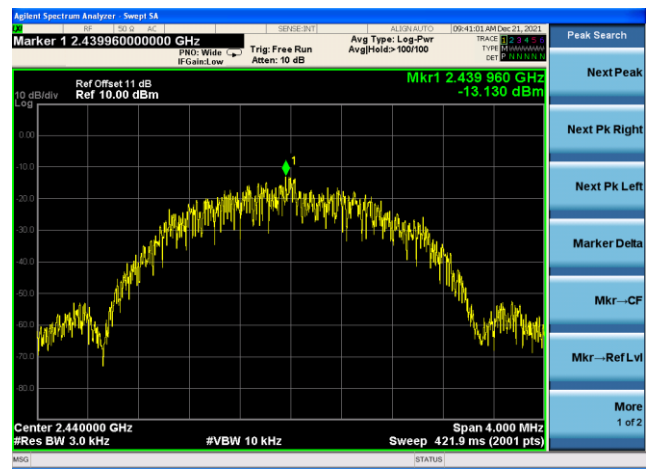


BLE-2Mbps PSD

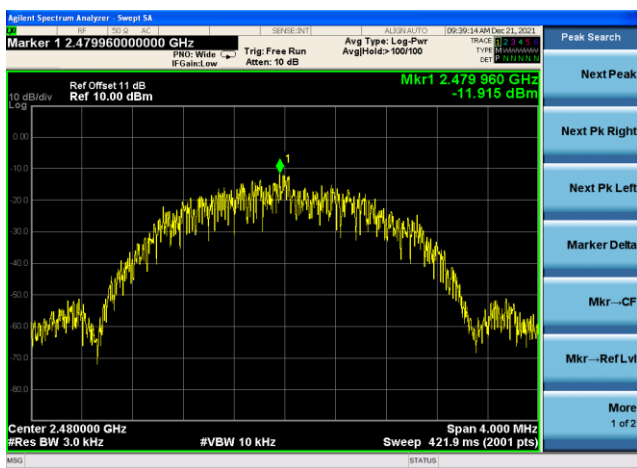
Channel 00 (2402MHz)



Channel 19 (2440MHz)



Channel 39 (2480MHz)



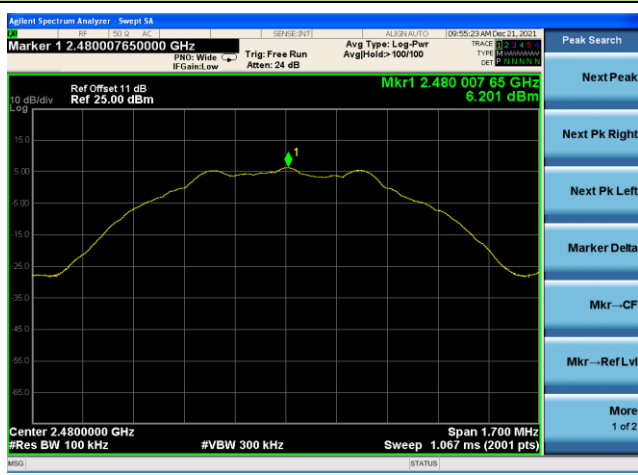


**A.5 Conducted Band Edge and Out-of-Band Emissions Test Result**

Test Site	NS-TR2	Test Engineer	Summer Tang
Test Date	2021/12/21		

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

**BLE- Out-of-Band Emissions**  
**100kHz PSD Reference Level**

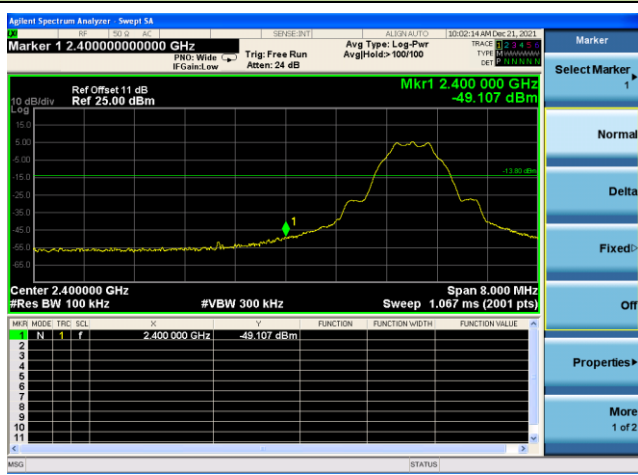


Navigation buttons for the spectrum analyzer screenshot:

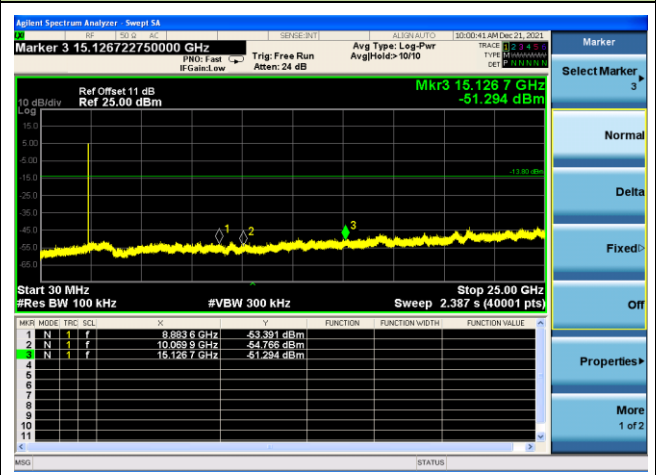
- Peak Search
- Next Peak
- Next Pk Right
- Next Pk Left
- Marker Delta
- Mkr--CF
- Mkr--RefLvl
- More 1 of 2

**BLE-1Mbps Out-of-Band Emissions**  
**Channel 00 (2402MHz)**

**Low Band Edge**



**Spurious Emission 30MHz ~ 25GHz**



Channel 19 (2440MHz)

Spurious Emission 30MHz ~ 25GHz

MKR	MODE	TRIG	SQL	F	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	8.7144 GHz	-56.371 dBm			
2	N	1	f	9.9969 GHz	-55.162 dBm			
3	N	1	f	15.0518 GHz	-49.264 dBm			

Channel 39 (2480MHz)

High Band Edge

MKR	MODE	TRIG	SQL	F	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.483500 GHz	-55.653 dBm			
2	N	1	f	2.483855 GHz	-54.474 dBm			

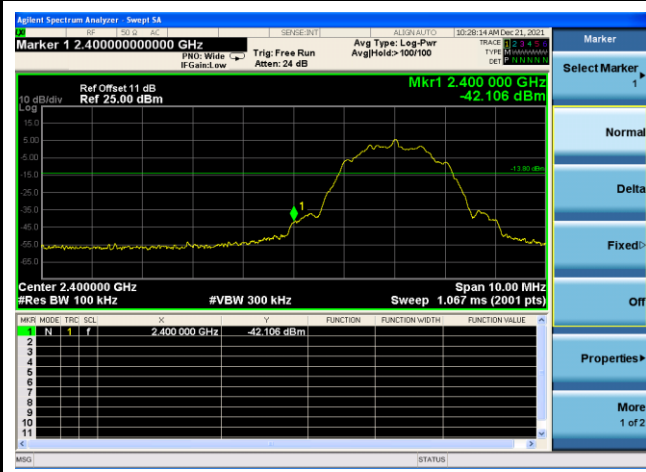
Spurious Emission 30MHz ~ 25GHz

MKR	MODE	TRIG	SQL	F	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	8.7888 GHz	-54.889 dBm			
2	N	1	f	10.0169 GHz	-54.963 dBm			
3	N	1	f	15.0194 GHz	-51.916 dBm			

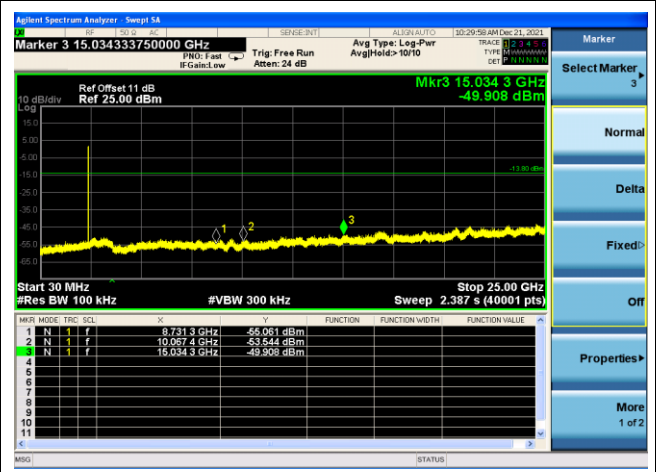
### BLE-2Mbps Out-of-Band Emissions

#### Channel 00 (2402MHz)

##### Low Band Edge

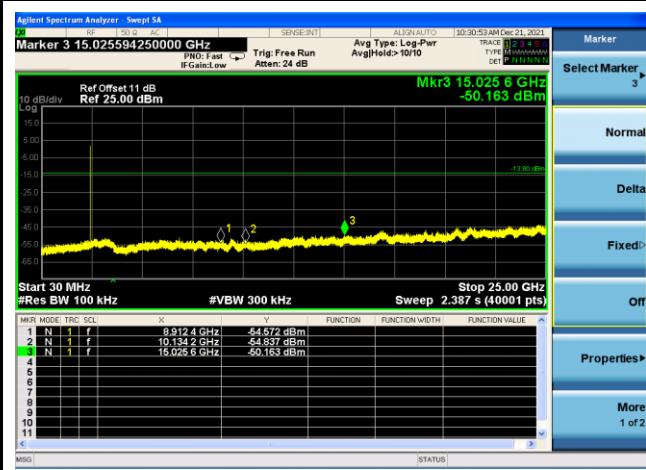


##### Spurious Emission 30MHz ~ 25GHz



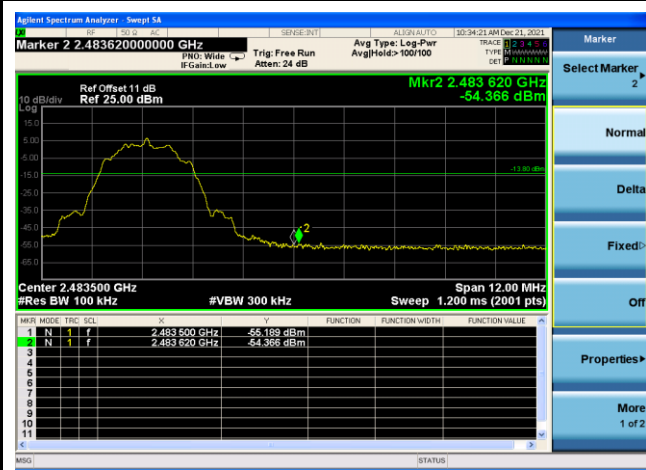
#### Channel 19 (2440MHz)

##### Spurious Emission 30MHz ~ 25GHz

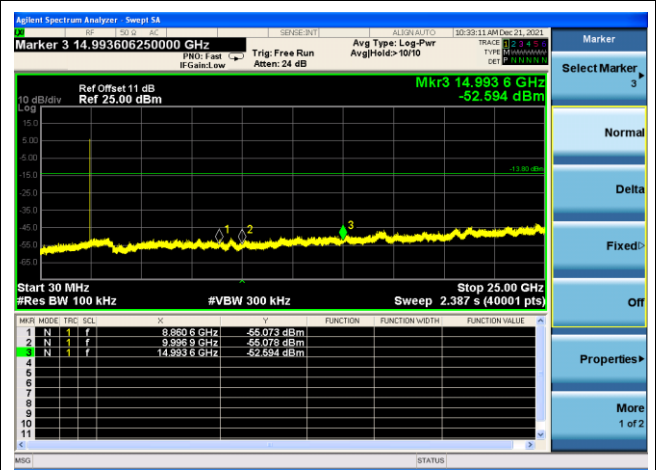


#### Channel 39 (2480MHz)

##### High Band Edge



##### Spurious Emission 30MHz ~ 25GHz



**A.6 Radiated Spurious Emission Test Result**

Test Site	NS-AC1	Test Engineer	Dillon Diao
Test Date	2021/12/21	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	7681.0	34.1	8.8	42.9	74.0	-31.1	Peak	Horizontal
	8165.5	35.0	9.2	44.2	74.0	-29.8	Peak	Horizontal
	11429.5	32.6	15.2	47.8	74.0	-26.2	Peak	Horizontal
	7689.5	34.0	8.6	42.6	74.0	-31.4	Peak	Vertical
	8378.0	34.8	10.0	44.8	74.0	-29.2	Peak	Vertical
	11072.5	31.7	15.2	46.9	74.0	-27.1	Peak	Vertical
19	7689.5	33.8	8.6	42.4	74.0	-31.6	Peak	Horizontal
	8446.0	32.9	10.4	43.3	74.0	-30.7	Peak	Horizontal
	10911.0	32.7	14.5	47.2	74.0	-26.8	Peak	Horizontal
	7477.0	32.6	9.0	41.6	74.0	-32.4	Peak	Vertical
	8395.0	34.7	10.1	44.8	74.0	-29.2	Peak	Vertical
	11531.5	32.0	15.6	47.6	74.0	-26.4	Peak	Vertical
39	7519.5	33.6	9.3	42.9	74.0	-31.1	Peak	Horizontal
	8395.0	32.8	10.1	42.9	74.0	-31.1	Peak	Horizontal
	11047.0	32.9	14.9	47.8	74.0	-26.2	Peak	Horizontal
	7426.0	32.7	9.3	42.0	74.0	-32.0	Peak	Vertical
	8335.5	33.7	9.9	43.6	74.0	-30.4	Peak	Vertical
	10741.0	32.8	14.6	47.4	74.0	-26.6	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)

Test Site	NS-AC1	Test Engineer	Dillon Diao
Test Date	2021/12/21	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.		

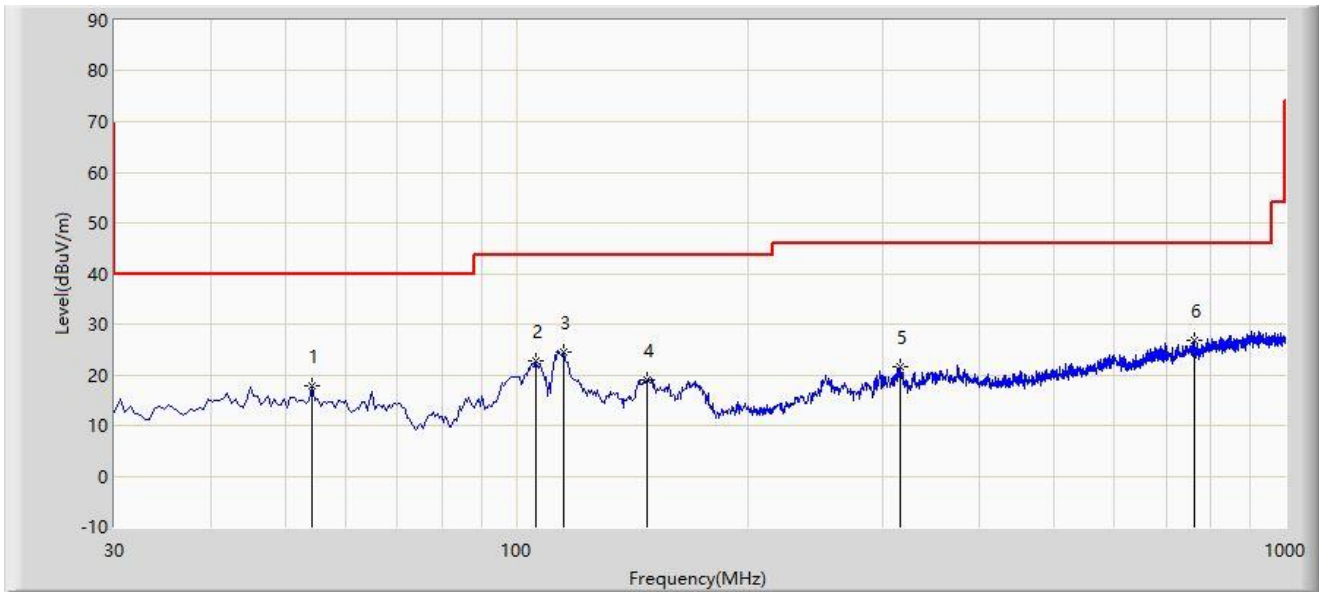
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
00	7545.0	33.7	8.9	42.6	74.0	-31.4	Peak	Horizontal
	8386.5	33.1	10.0	43.1	74.0	-30.9	Peak	Horizontal
	11047.0	32.9	14.9	47.8	74.0	-26.2	Peak	Horizontal
	7689.5	34.6	8.6	43.2	74.0	-30.8	Peak	Vertical
	8352.5	33.7	10.0	43.7	74.0	-30.3	Peak	Vertical
	11625.0	31.3	16.3	47.6	74.0	-26.4	Peak	Vertical
19	7647.0	33.9	8.9	42.8	74.0	-31.2	Peak	Horizontal
	8403.5	34.2	10.1	44.3	74.0	-29.7	Peak	Horizontal
	11429.5	33.9	15.2	49.1	74.0	-24.9	Peak	Horizontal
	7647.0	33.3	8.9	42.2	74.0	-31.8	Peak	Vertical
	8335.5	34.6	9.9	44.5	74.0	-29.5	Peak	Vertical
	10970.5	32.1	14.5	46.6	74.0	-27.4	Peak	Vertical
39	7647.0	34.4	8.9	43.3	74.0	-30.7	Peak	Horizontal
	8318.5	32.6	9.8	42.4	74.0	-31.6	Peak	Horizontal
	11072.5	32.8	15.2	48.0	74.0	-26.0	Peak	Horizontal
	7596.0	34.1	9.2	43.3	74.0	-30.7	Peak	Vertical
	8344.0	33.5	10.1	43.6	74.0	-30.4	Peak	Vertical
	11072.5	32.5	15.2	47.7	74.0	-26.3	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	Time: 2021/12/21 - 10:28
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_VULB9162	Polarity: Horizontal
EUT: Mobile Computer	Power: By Battery
<b>Test Mode:</b> Transmit by BLE-1M at channel 2440MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			54.250	17.785	0.544	-22.215	40.000	17.241	PK
2			106.145	22.703	7.536	-20.797	43.500	15.166	PK
3		*	115.360	24.400	10.431	-19.100	43.500	13.970	PK
4			147.855	19.079	7.383	-24.421	43.500	11.696	PK
5			315.180	21.606	4.437	-24.394	46.000	17.169	PK
6			763.320	26.857	1.255	-19.143	46.000	25.601	PK

Note 1: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m)

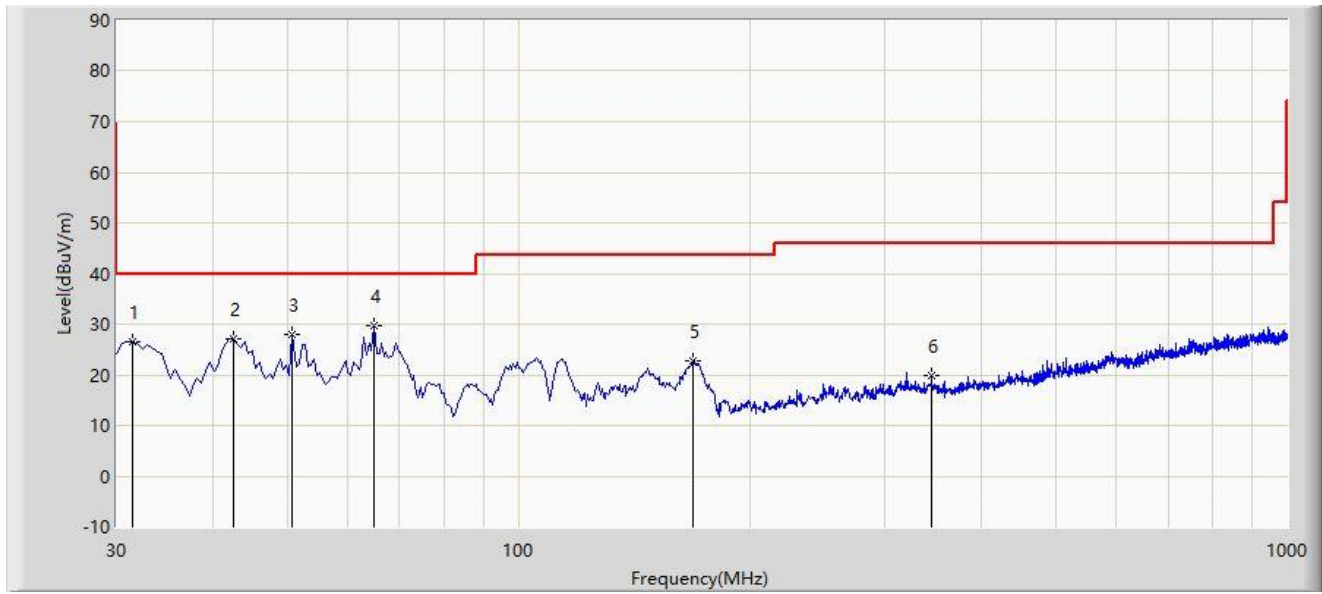
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

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: 2021/12/21 - 10:33
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_VULB9162	Polarity: Vertical
EUT: Mobile Computer	Power: By Battery
<b>Test Mode:</b> Transmit by BLE-1M at channel 2440MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			31.455	26.641	12.496	-13.359	40.000	14.145	PK
2			42.610	27.116	10.206	-12.884	40.000	16.910	PK
3			50.855	28.002	10.462	-11.998	40.000	17.540	PK
4		*	64.920	29.716	15.028	-10.284	40.000	14.688	PK
5			168.710	22.864	10.384	-20.636	43.500	12.480	PK
6			344.765	19.983	1.639	-26.017	46.000	18.345	PK

Note 1: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m)

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

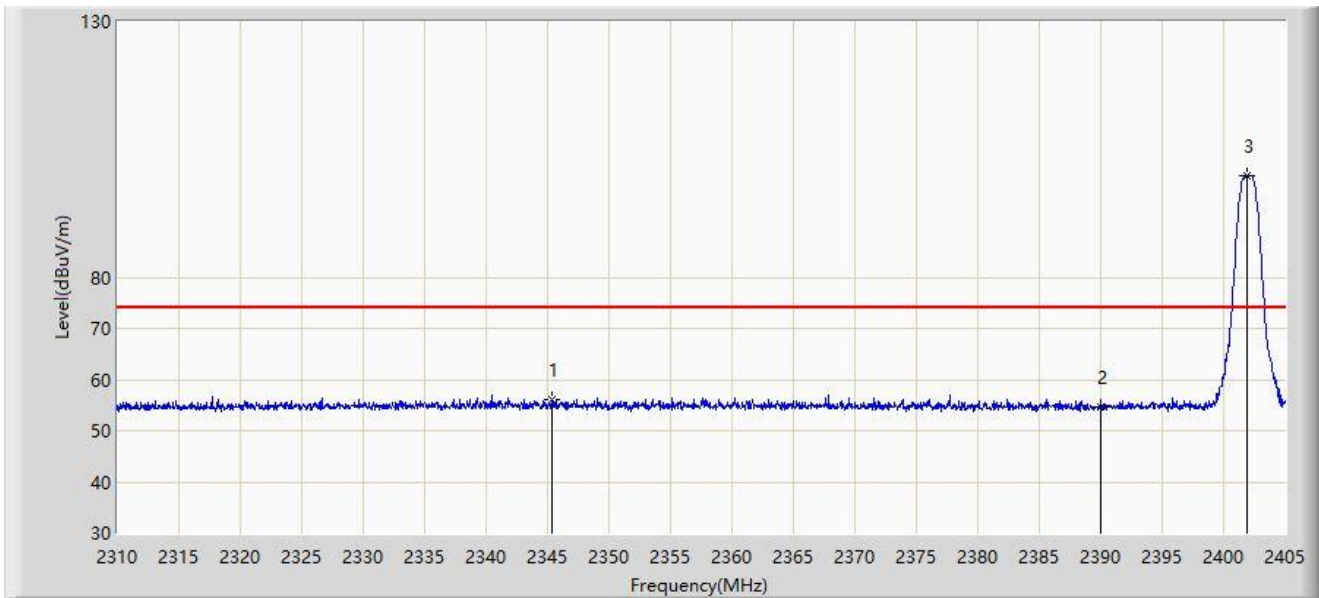
Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

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.7 Radiated Restricted Band Edge Test Result**

Site: NS-AC1	Time: 2021/12/18 - 13:49
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 1Mbps at channel 2402MHz	



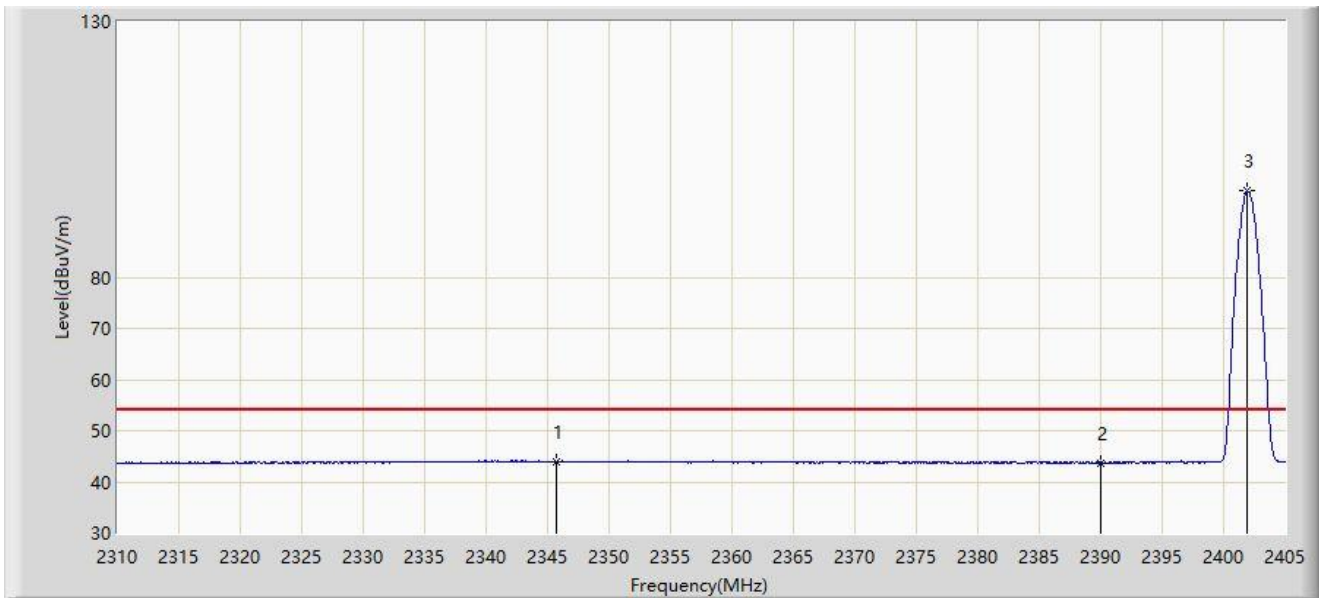
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2345.340	56.171	25.010	-17.829	74.000	31.161	PK
2			2390.000	54.633	23.730	-19.367	74.000	30.903	PK
3		*	2401.865	99.866	68.931	N/A	N/A	30.935	PK

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: 2021/12/18 - 13:57
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 1Mbps at channel 2402MHz	

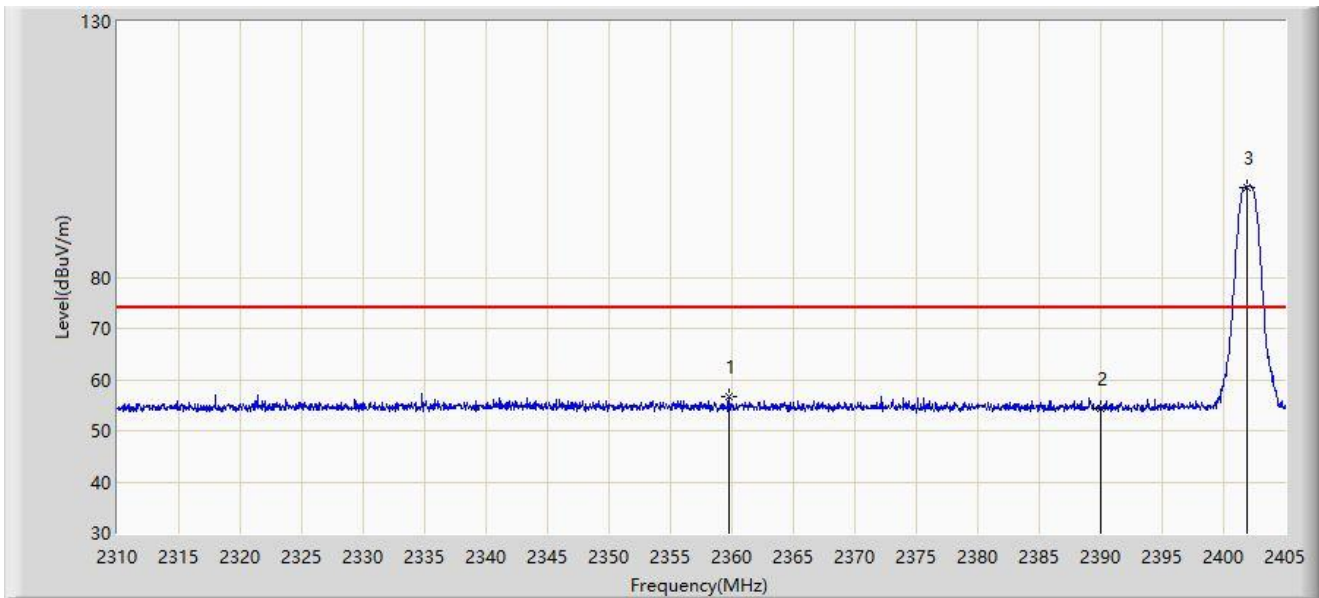


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2345.720	43.905	12.749	-10.095	54.000	31.157	AV
2			2390.000	43.762	12.859	-10.238	54.000	30.903	AV
3		*	2401.913	96.952	66.017	N/A	N/A	30.935	AV

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: 2021/12/18 - 13:58
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 1Mbps 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			2359.780	56.561	25.570	-17.439	74.000	30.991	PK
2			2390.000	54.463	23.560	-19.537	74.000	30.903	PK
3		*	2401.865	97.653	66.718	N/A	N/A	30.935	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: 2021/12/18 - 14:00
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 1Mbps at channel 2402MHz	

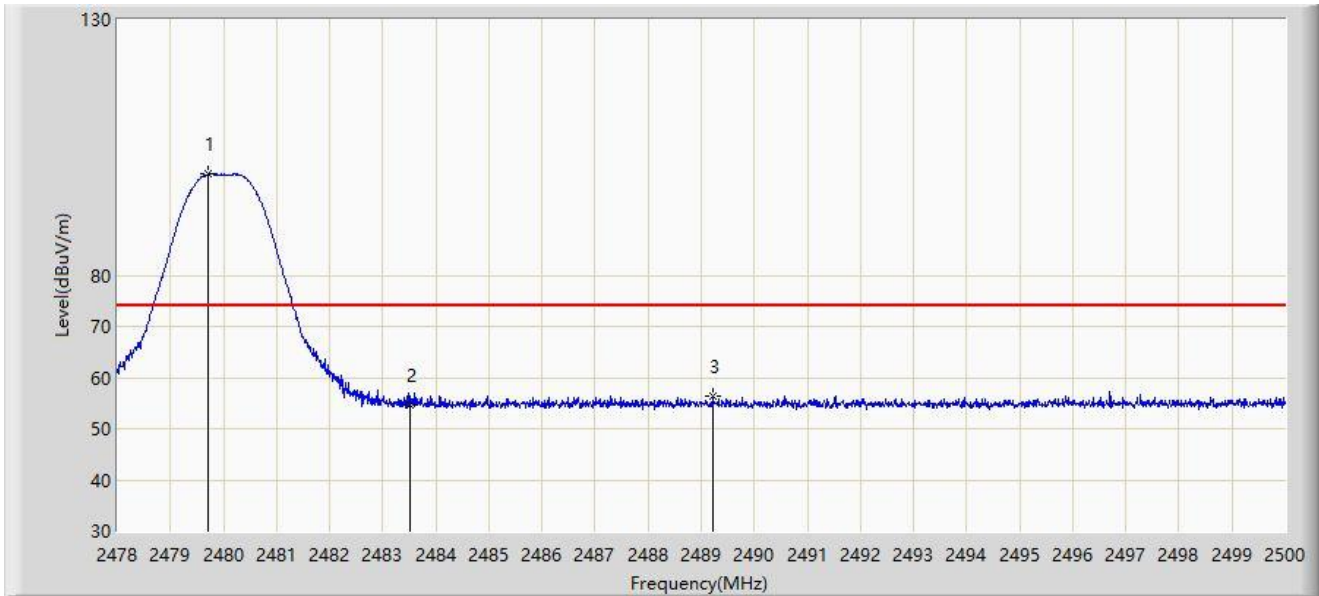


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2363.437	43.821	12.848	-10.179	54.000	30.973	AV
2			2390.000	43.787	12.884	-10.213	54.000	30.903	AV
3		*	2402.008	94.771	63.836	N/A	N/A	30.935	AV

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: 2021/12/18 - 14:01
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 1Mbps at channel 2480MHz	

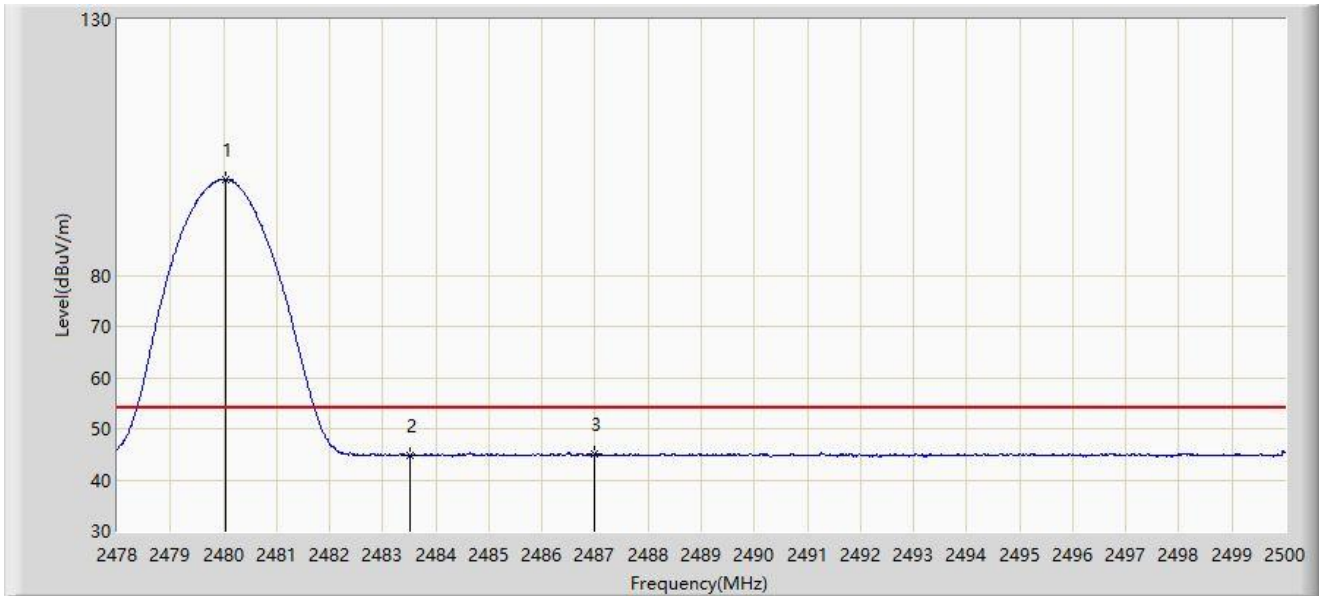


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2479.705	99.725	68.855	N/A	N/A	30.870	PK
2			2483.500	54.751	23.862	-19.249	74.000	30.889	PK
3			2489.209	56.361	25.444	-17.639	74.000	30.917	PK

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: 2021/12/18 - 14:09
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 1Mbps at channel 2480MHz	

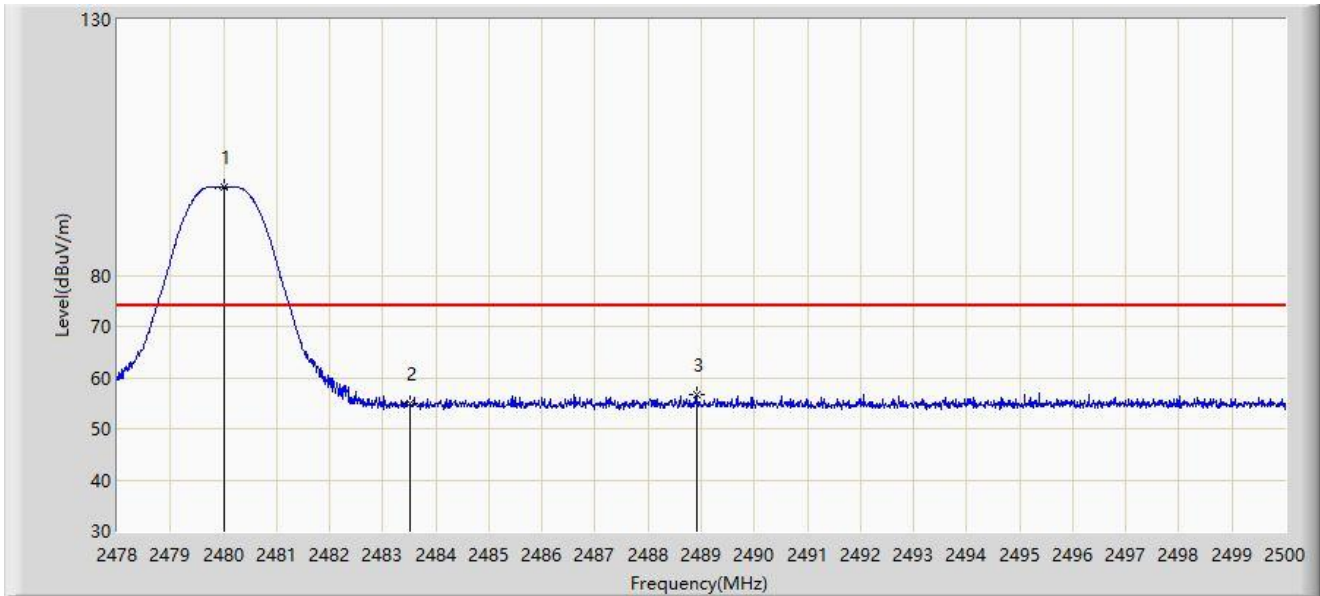


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		*	2480.046	98.792	67.920	N/A	N/A	30.872	AV
2			2483.500	44.654	13.765	-9.346	54.000	30.889	AV
3			2486.998	45.146	14.240	-8.854	54.000	30.906	AV

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: 2021/12/18 - 14:11
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 1Mbps 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		*	2480.013	97.270	66.399	N/A	N/A	30.871	PK
2			2483.500	54.894	24.005	-19.106	74.000	30.889	PK
3			2488.912	56.671	25.755	-17.329	74.000	30.916	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: 2021/12/18 - 14:12
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 1Mbps at channel 2480MHz	

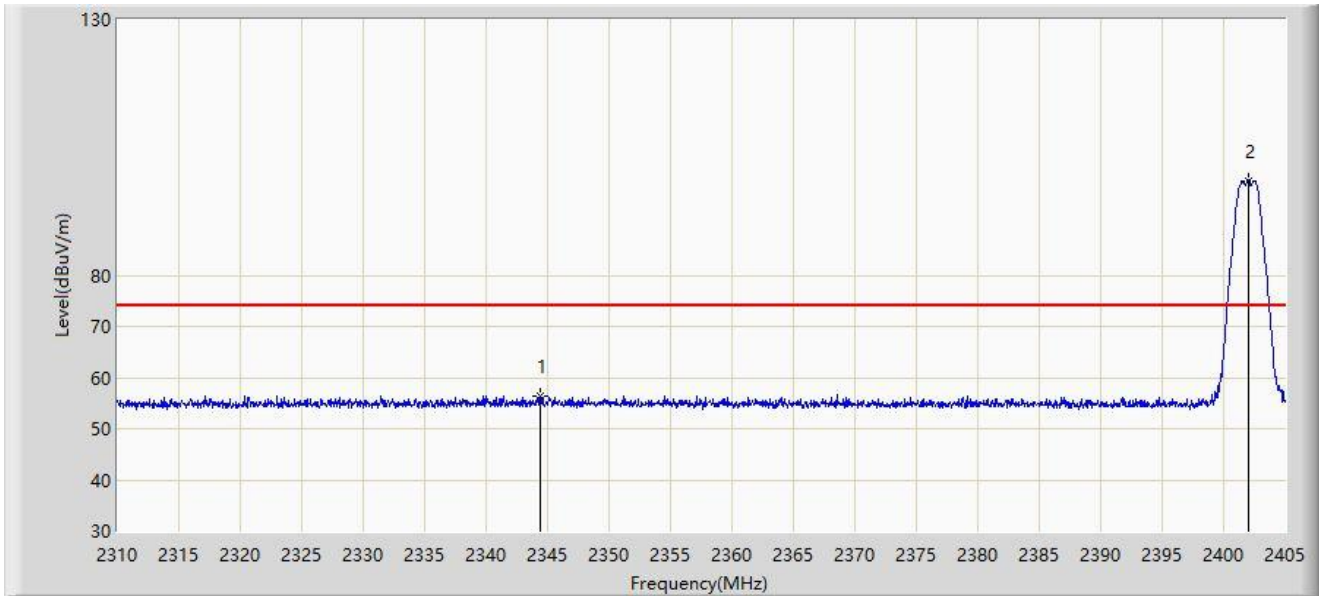


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2479.969	96.164	65.293	N/A	N/A	30.871	AV
2			2483.500	44.899	14.010	-9.101	54.000	30.889	AV
3			2487.878	45.153	14.242	-8.847	54.000	30.911	AV

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: 2021/12/18 - 14:14
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 2Mbps at channel 2402MHz	



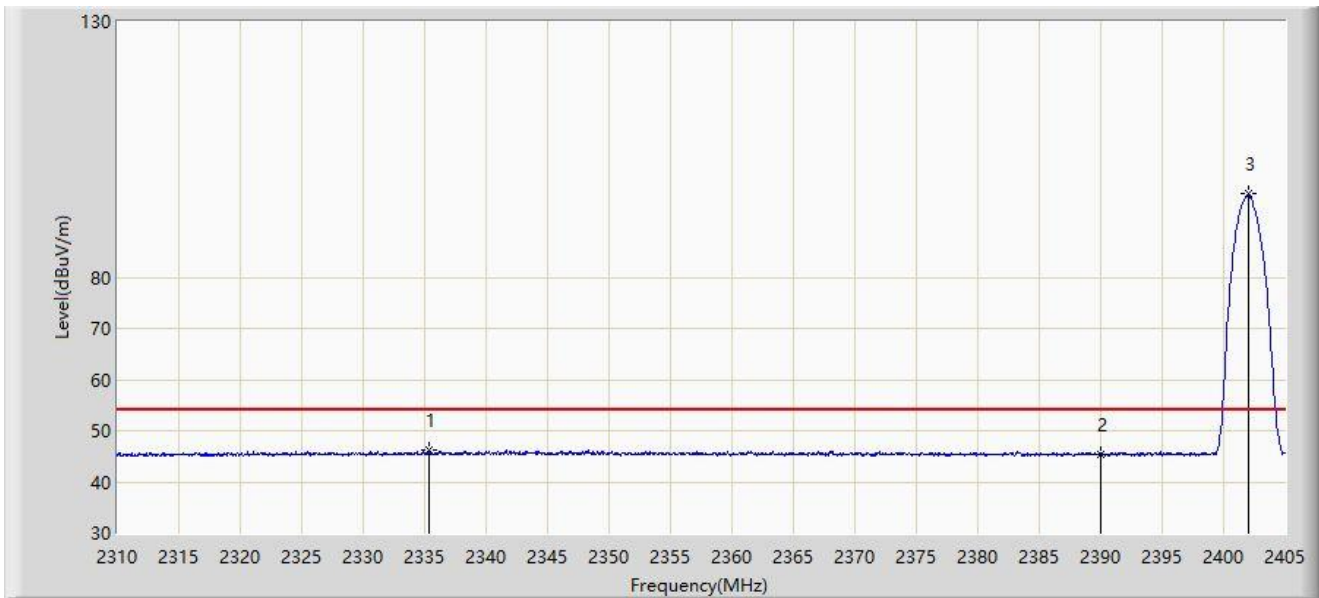
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1			2344.390	56.364	25.192	-17.636	74.000	31.172	PK
2		*	2402.008	98.533	67.598	N/A	N/A	30.935	PK

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: 2021/12/18 - 14:17
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 2Mbps at channel 2402MHz	

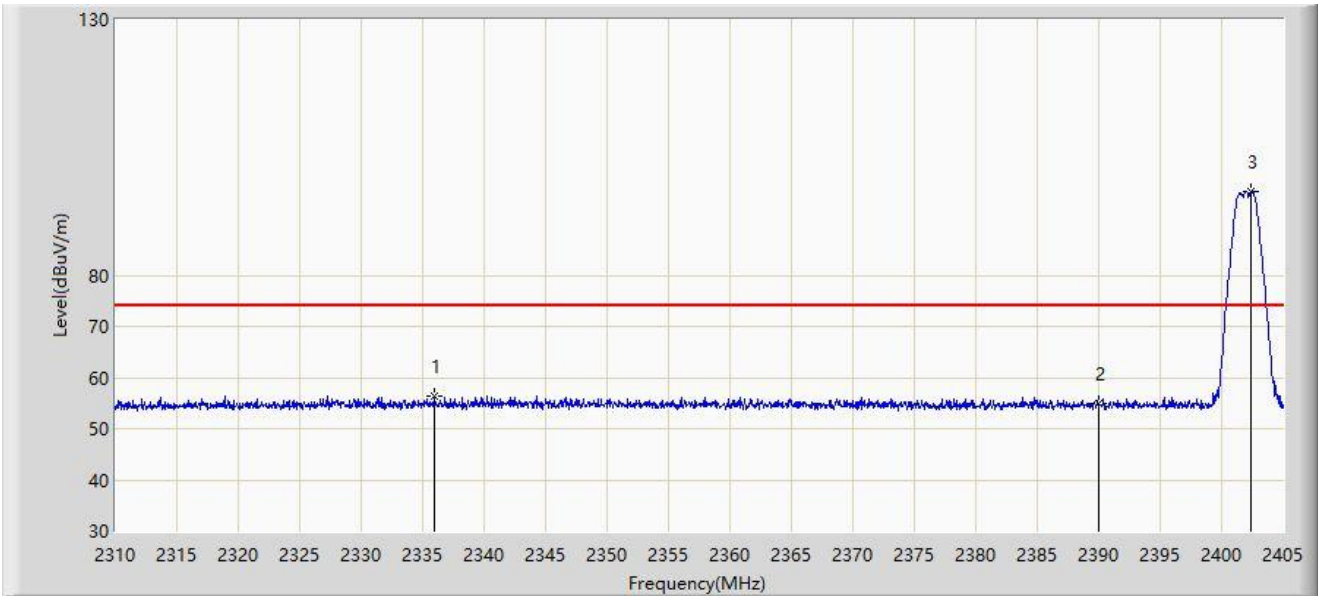


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2335.413	46.145	14.982	-7.855	54.000	31.163	AV
2			2390.000	45.410	14.507	-8.590	54.000	30.903	AV
3		*	2402.008	96.257	65.322	N/A	N/A	30.935	AV

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: 2021/12/18 - 14:19
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 2Mbps at channel 2402MHz	

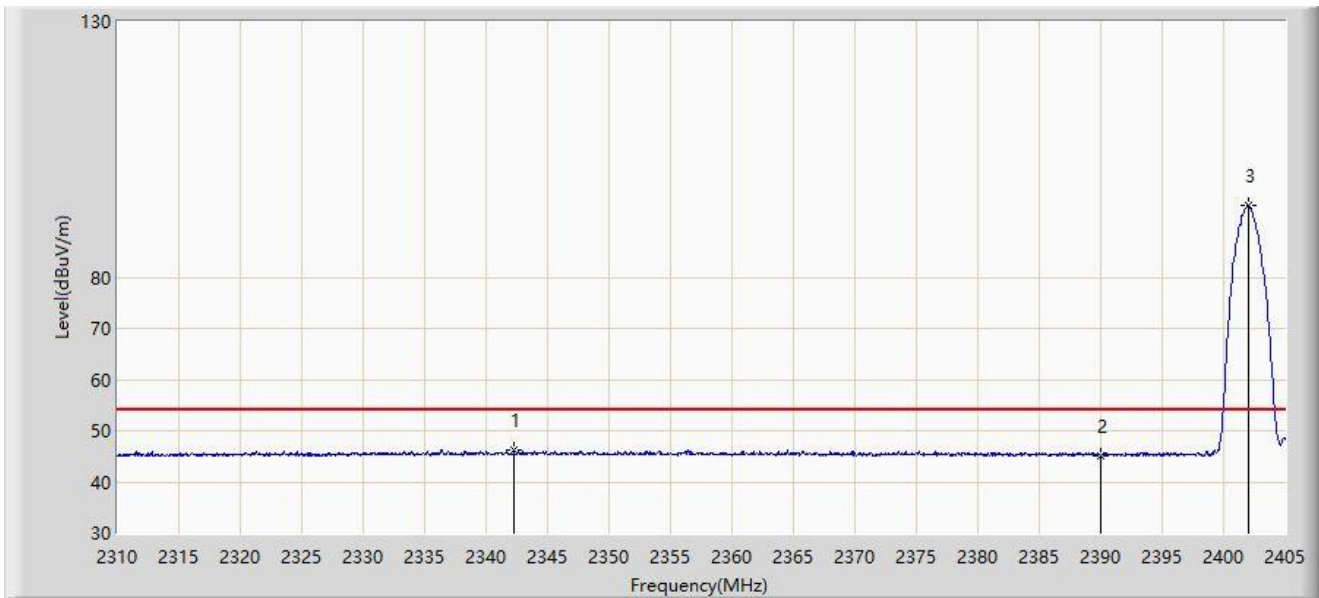


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			2335.935	56.477	25.312	-17.523	74.000	31.165	PK
2			2390.000	54.824	23.921	-19.176	74.000	30.903	PK
3		*	2402.435	96.322	65.385	N/A	N/A	30.937	PK

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: 2021/12/18 - 14:21
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 2Mbps at channel 2402MHz	

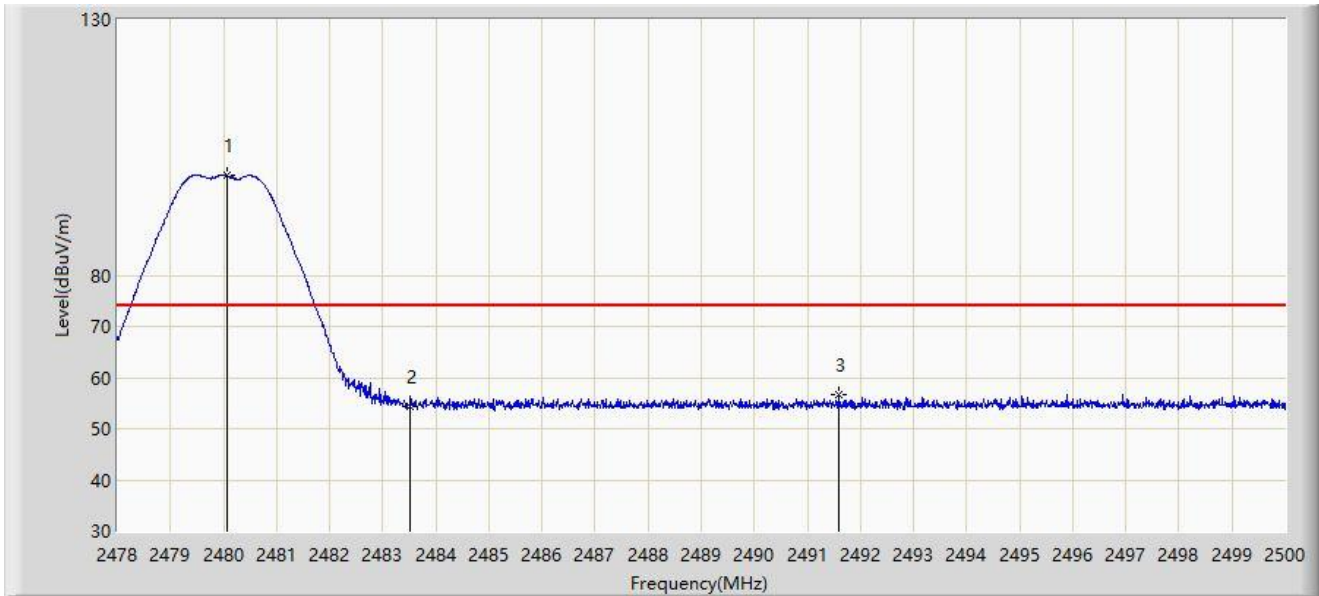


No	Flag	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1			2342.252	46.240	15.054	-7.760	54.000	31.186	AV
2			2390.000	45.204	14.301	-8.796	54.000	30.903	AV
3		*	2402.008	94.003	63.068	N/A	N/A	30.935	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m)

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

Site: NS-AC1	Time: 2021/12/18 - 14:24
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 2Mbps at channel 2480MHz	

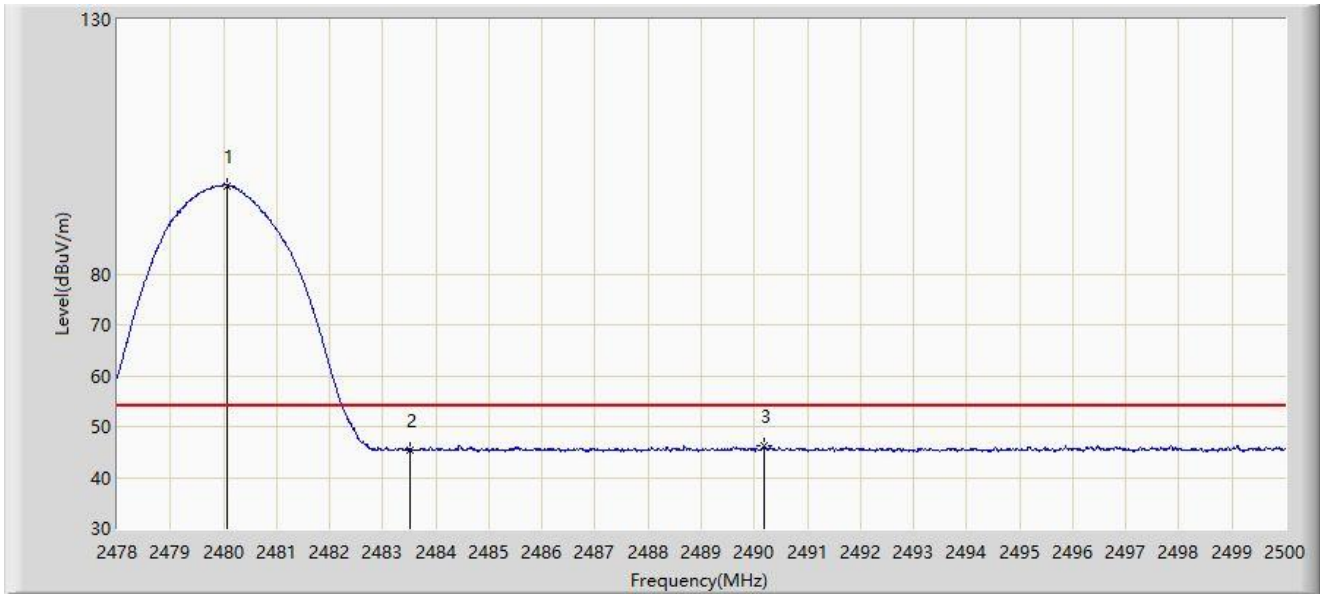


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		*	2480.079	99.510	68.638	N/A	N/A	30.872	PK
2			2483.500	54.230	23.341	-19.770	74.000	30.889	PK
3			2491.585	56.807	25.878	-17.193	74.000	30.929	PK

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: 2021/12/18 - 14:26
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Horizontal
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 2Mbps at channel 2480MHz	

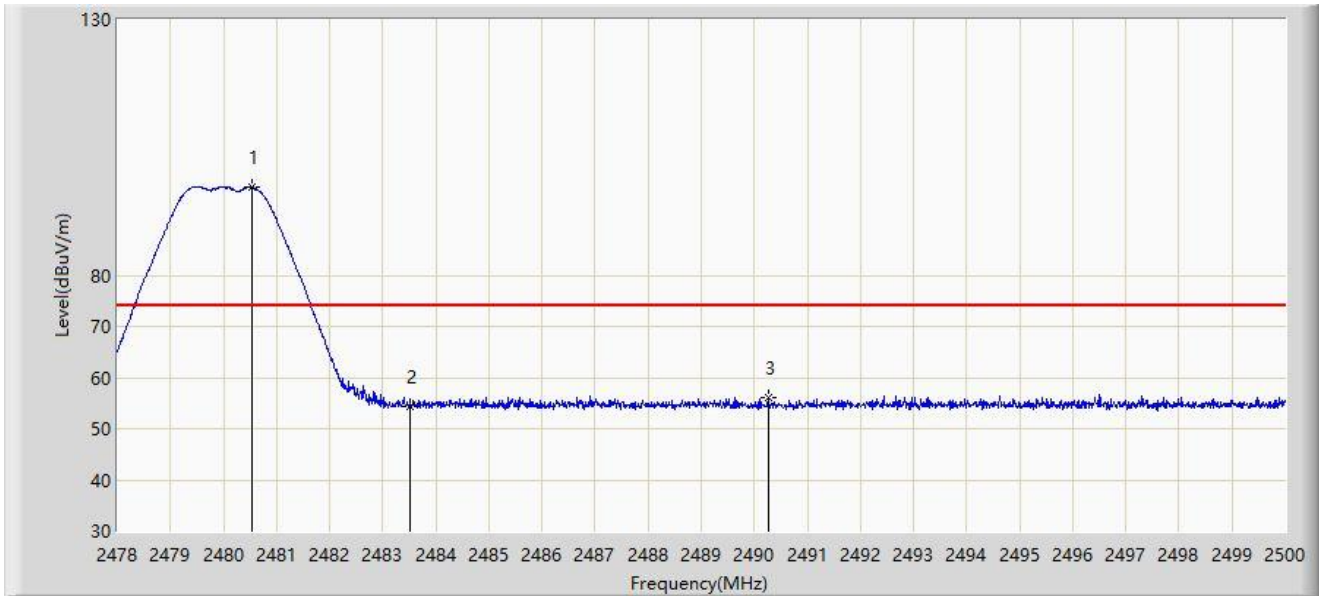


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		*	2480.079	97.334	66.462	N/A	N/A	30.872	AV
2			2483.500	45.494	14.605	-8.506	54.000	30.889	AV
3			2490.188	46.131	15.209	-7.869	54.000	30.922	AV

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: 2021/12/18 - 14:27
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 2Mbps at channel 2480MHz	

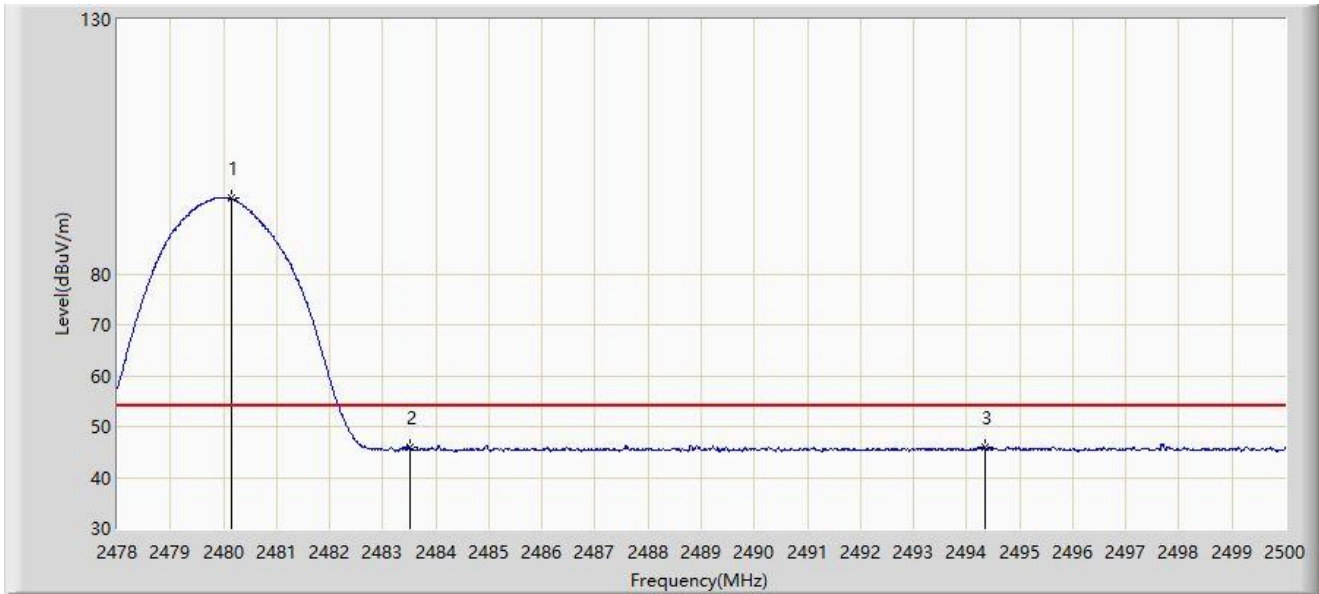


No	Flag	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		*	2480.530	97.252	66.378	N/A	N/A	30.874	PK
2			2483.500	54.468	23.579	-19.532	74.000	30.889	PK
3			2490.265	56.105	25.182	-17.895	74.000	30.923	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m)

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

Site: NS-AC1	Time: 2021/12/18 - 14:28
Limit: FCC_Part 15.209_RE(3m)	Engineer: Dillon Diao
Probe: NS-AC1_BBHA9120D	Polarity: Vertical
EUT: Mobile Computer	Power: By Battery
Test Mode: Transmit by BLE 2Mbps at channel 2480MHz	



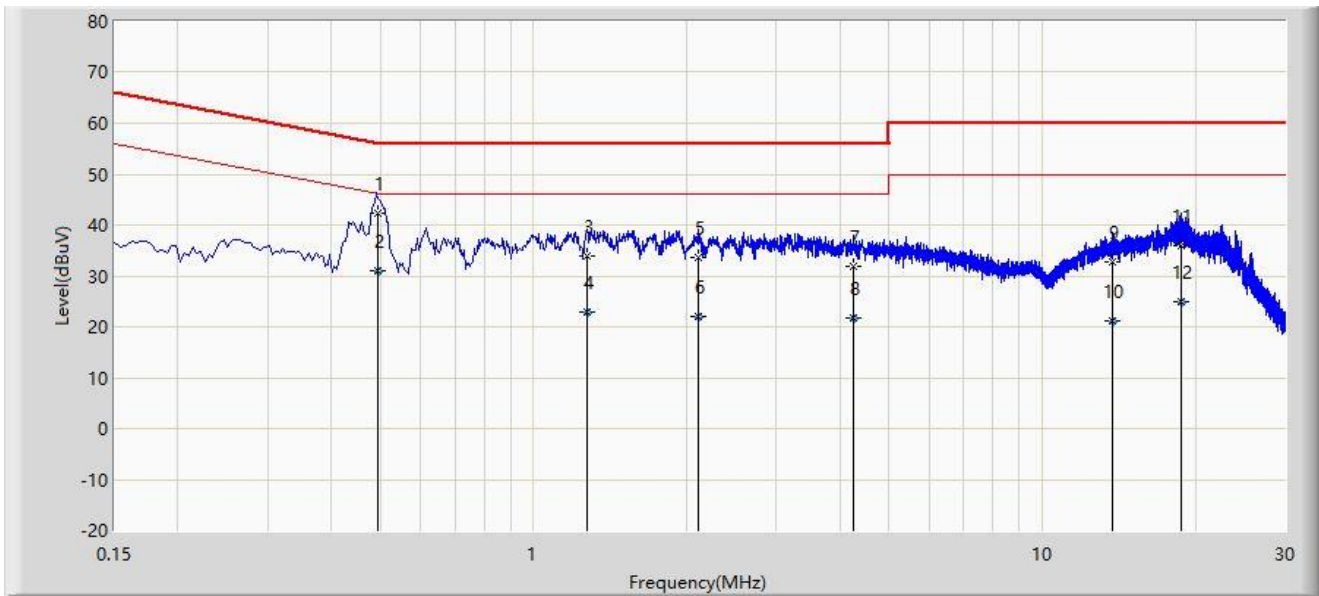
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1		*	2480.145	94.801	63.929	N/A	N/A	30.872	AV
2			2483.500	45.948	15.059	-8.052	54.000	30.889	AV
3			2494.335	46.029	15.086	-7.971	54.000	30.943	AV

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

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

**A.8 AC Conducted Emissions Test Result**

Site: NS-SR2	Time: 2021/12/27
Limit: FCC_Part15.207_CE_AC Power	Engineer: Summer Tang
Probe: ENV216_102493_150KHz~30MHz-C	Polarity: Line
EUT: Mobile Computer	Power: AC 120V/60Hz
<b>Test Mode:</b> Transmit by BLE-1M at channel 2440MHz	



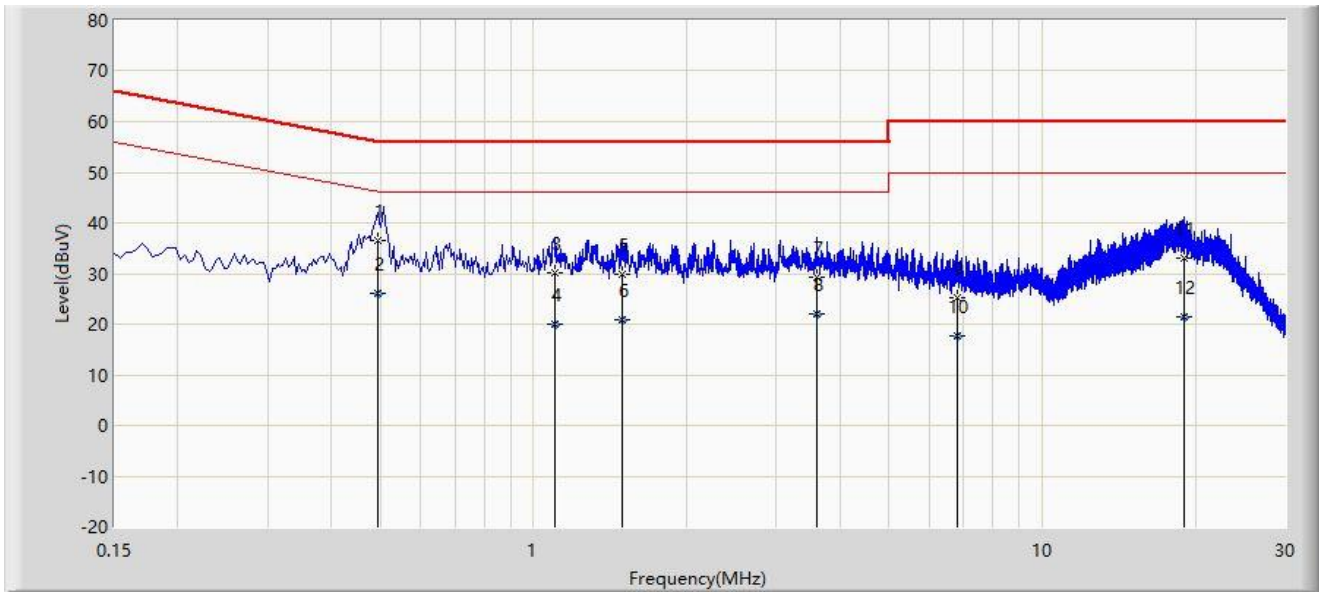
No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		*	0.494	42.392	32.685	-13.715	56.107	9.707	QP
2			0.494	31.015	21.308	-15.092	46.107	9.707	AV
3			1.274	33.855	24.113	-22.145	56.000	9.743	QP
4			1.274	22.813	13.070	-23.187	46.000	9.743	AV
5			2.102	33.577	23.794	-22.423	56.000	9.783	QP
6			2.102	22.030	12.247	-23.970	46.000	9.783	AV
7			4.262	31.766	21.914	-24.234	56.000	9.852	QP
8			4.262	21.871	12.019	-24.129	46.000	9.852	AV
9			13.754	32.654	22.546	-27.346	60.000	10.109	QP
10			13.754	21.186	11.077	-28.814	50.000	10.109	AV
11			18.734	36.003	25.568	-23.997	60.000	10.435	QP
12			18.734	24.897	14.462	-25.103	50.000	10.435	AV

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

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



Site: NS-SR2	Time: 2021/12/27
Limit: FCC_Part15.207_CE_AC Power	Engineer: Summer Tang
Probe: ENV216_102493_150KHz~30MHz-C	Polarity: Neutral
EUT: Mobile Computer	Power: AC 120V/60Hz
<b>Test Mode:</b> Transmit by BLE-1M at channel 2440MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V)	Factor (dB)	Type
1		*	0.494	36.647	26.980	-19.453	56.100	9.667	QP
2			0.494	26.230	16.562	-19.871	46.100	9.667	AV
3			1.098	30.053	20.341	-25.947	56.000	9.712	QP
4			1.098	20.113	10.402	-25.887	46.000	9.712	AV
5			1.494	29.991	20.264	-26.009	56.000	9.727	QP
6			1.494	20.780	11.053	-25.220	46.000	9.727	AV
7			3.602	29.158	19.351	-26.842	56.000	9.808	QP
8			3.602	21.978	12.170	-24.022	46.000	9.808	AV
9			6.822	25.286	15.365	-34.714	60.000	9.922	QP
10			6.822	17.642	7.721	-32.358	50.000	9.922	AV
11			18.998	33.059	22.519	-26.941	60.000	10.541	QP
12			18.998	21.582	11.042	-28.418	50.000	10.541	AV

Note: Measure Level (dB $\mu$ V) = Reading Level (dB $\mu$ V) + Factor (dB)

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

## **Appendix B - Test Setup Photograph**

Refer to "2111RSU064-UT" file.

## Appendix C - EUT Photograph

Refer to "2111RSU064-UE" file.

————— The End —————