

# MEASUREMENT REPORT

## FCC PART 15 Subpart C WLAN 802.11b/g/n

**FCC ID:** 2ALGLX2000-MP  
**Applicant:** CASSIA NETWORKS INC  
**Application Type:** Certification  
**Product:** X2000/ATX2000 Main PCBA  
**Model No.:** X2000-MP  
**Brand Name:** CASSIA  
**FCC Classification:** Digital Transmission System (DTS)  
**FCC Rule Part(s):** Part15 Subpart C (Section 15.247)  
**Test Procedure(s):** ANSI C63.10-2013  
**Received Date:** 2020.12.23  
**Test Date:** 2021.01.20 ~ 2021.06.15

**Tested By** : Kevin Ker  
( Kevin Ker )  
**Reviewed By** : Paddy Chen  
( Paddy Chen )  
**Approved By** : Chenz Ker  
( Chenz Ker )



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. 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 (Taiwan) Co., Ltd.

## Revision History

| Report No.    | Version | Description    | Issue Date | Note  |
|---------------|---------|----------------|------------|-------|
| 2105TW0001-U2 | 1.0     | Initial Report | 2021-07-09 | Valid |
|               |         |                |            |       |

Note: This report reused the test data from another authorized device (FCC ID: 2ALGLX2000, Original Grant Date: April 08, 2021). And add some spot check verified data according to KDB 484596 D01v01 and the difference between the FCC IDs.

## CONTENTS

| Description                                                | Page      |
|------------------------------------------------------------|-----------|
| <b>1. INTRODUCTION .....</b>                               | <b>6</b>  |
| 1.1. Scope .....                                           | 6         |
| 1.2. MRT Test Location .....                               | 6         |
| <b>2. PRODUCT INFORMATION .....</b>                        | <b>7</b>  |
| 2.1. Feature of Equipment under Test .....                 | 7         |
| 2.2. Product Specification Subjective to this Report ..... | 8         |
| 2.3. Working Frequencies for this report.....              | 8         |
| 2.4. Description of Available Antennas.....                | 9         |
| 2.5. Test Mode .....                                       | 10        |
| 2.6. Configuration of Test System .....                    | 11        |
| 2.7. Test System Details .....                             | 11        |
| 2.8. Description of Test Software.....                     | 11        |
| 2.9. Applied Standards .....                               | 12        |
| 2.10. Duty Cycle.....                                      | 12        |
| 2.11. Test Configuration .....                             | 13        |
| 2.12. EMI Suppression Device(s)/Modifications.....         | 13        |
| 2.13. Labeling Requirements.....                           | 13        |
| <b>3. DESCRIPTION of TEST.....</b>                         | <b>14</b> |
| 3.1. Evaluation Procedure .....                            | 14        |
| 3.2. AC Line Conducted Emissions .....                     | 14        |
| 3.3. Radiated Emissions.....                               | 15        |
| <b>4. ANTENNA REQUIREMENTS.....</b>                        | <b>16</b> |
| <b>5. TEST EQUIPMENT CALIBRATION DATE.....</b>             | <b>17</b> |
| <b>6. MEASUREMENT UNCERTAINTY .....</b>                    | <b>19</b> |
| <b>7. TEST RESULT .....</b>                                | <b>20</b> |
| 7.1. Summary.....                                          | 20        |
| 7.2. 6dB Bandwidth Measurement.....                        | 21        |
| 7.2.1. Test Limit .....                                    | 21        |
| 7.2.2. Test Procedure used.....                            | 21        |
| 7.2.3. Test Setting.....                                   | 21        |
| 7.2.4. Test Setup .....                                    | 21        |
| 7.2.5. Test Result.....                                    | 22        |
| 7.3. Output Power Measurement.....                         | 26        |

|           |                                                     |            |
|-----------|-----------------------------------------------------|------------|
| 7.3.1.    | Test Limit .....                                    | 26         |
| 7.3.2.    | Test Procedure Used .....                           | 26         |
| 7.3.3.    | Test Setting.....                                   | 26         |
| 7.3.4.    | Test Setup .....                                    | 26         |
| 7.3.5.    | Test Result.....                                    | 27         |
| 7.4.      | Power Spectral Density Measurement.....             | 29         |
| 7.4.1.    | Test Limit .....                                    | 29         |
| 7.4.2.    | Test Procedure Used .....                           | 29         |
| 7.4.3.    | Test Setting.....                                   | 29         |
| 7.4.4.    | Test Setup .....                                    | 30         |
| 7.4.5.    | Test Result.....                                    | 31         |
| 7.5.      | Conducted Band Edge and Out-of-Band Emissions ..... | 35         |
| 7.5.1.    | Test Limit .....                                    | 35         |
| 7.5.2.    | Test Procedure Used .....                           | 35         |
| 7.5.3.    | Test Setting.....                                   | 35         |
| 7.5.4.    | Test Setup .....                                    | 36         |
| 7.5.5.    | Test Result.....                                    | 37         |
| 7.6.      | Radiated Spurious Emission Measurement .....        | 44         |
| 7.6.1.    | Test Limit .....                                    | 44         |
| 7.6.2.    | Test Procedure Used .....                           | 44         |
| 7.6.3.    | Test Setting.....                                   | 44         |
| 7.6.4.    | Test Setup .....                                    | 46         |
| 7.6.5.    | Test Result.....                                    | 47         |
| 7.7.      | Radiated Restricted Band Edge Measurement.....      | 76         |
| 7.7.1.    | Test Limit .....                                    | 76         |
| 7.7.2.    | Test Procedure Used .....                           | 77         |
| 7.7.3.    | Test Setting.....                                   | 77         |
| 7.7.4.    | Test Setup .....                                    | 78         |
| 7.7.5.    | Test Result.....                                    | 79         |
| 7.8.      | AC Conducted Emissions Measurement .....            | 139        |
| 7.8.1.    | Test Limit .....                                    | 139        |
| 7.8.2.    | Test Setup .....                                    | 139        |
| 7.8.3.    | Test Result.....                                    | 140        |
| <b>8.</b> | <b>CONCLUSION .....</b>                             | <b>142</b> |
|           | <b>Appendix A - Test Setup Photograph .....</b>     | <b>143</b> |
|           | <b>Appendix B - External Photograph.....</b>        | <b>144</b> |
|           | <b>Appendix C - Internal Photograph.....</b>        | <b>145</b> |

## General Information

|                                 |                                                                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant</b>                | CASSIA NETWORKS INC                                                                                                             |
| <b>Applicant Address</b>        | 1840 Majestic Way San Jose, CA 95132,USA                                                                                        |
| <b>Manufacturer</b>             | CASSIA NETWORKS INC                                                                                                             |
| <b>Manufacturer Address</b>     | 1840 Majestic Way San Jose, CA 95132,USA                                                                                        |
| <b>Test Site</b>                | MRT Technology (Taiwan) Co., Ltd                                                                                                |
| <b>Test Site Address</b>        | No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)                                                      |
| <b>MRT FCC Registration No.</b> | 291082                                                                                                                          |
| <b>FCC Rule Part(s)</b>         | Part 15.247                                                                                                                     |
| <b>Test Device Serial No.</b>   | N/A <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering |

## Test Facility / Accreditations

1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Taiwan, EU and TELEC Rules.

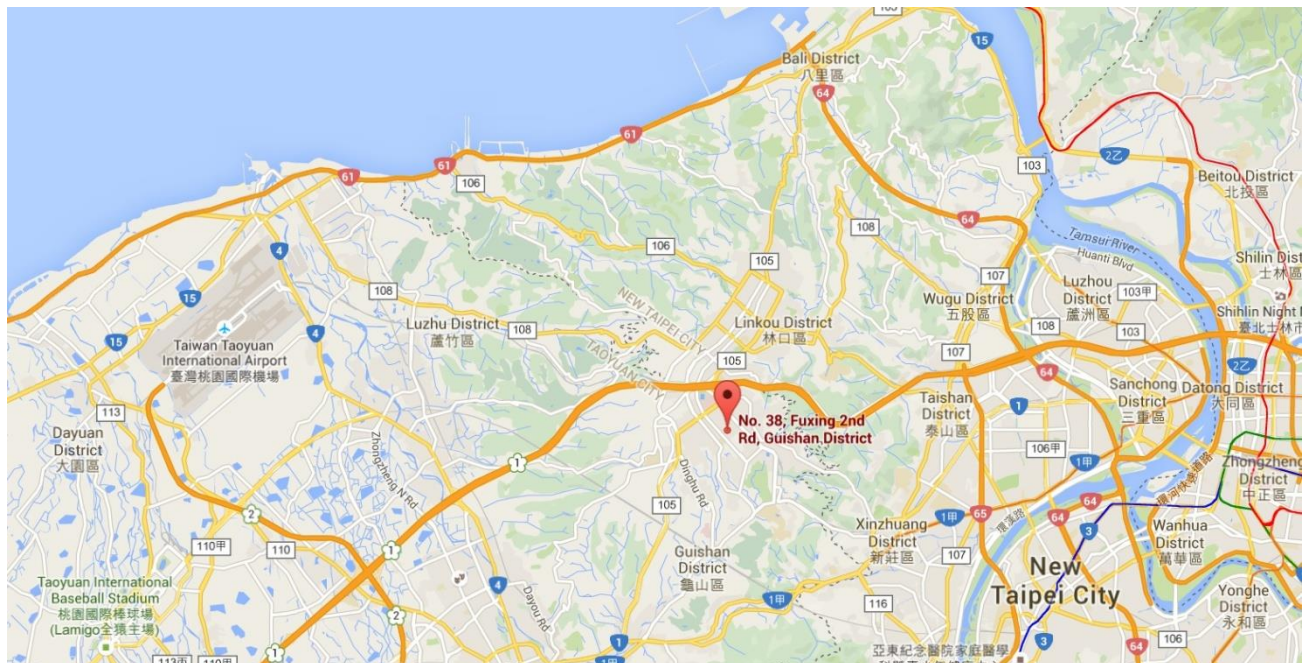
## 1. INTRODUCTION

### 1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada and Certification and Engineering Bureau.

### 1.2. MRT Test Location

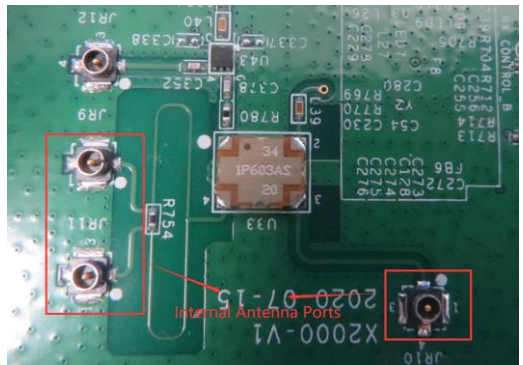
The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



## 2. PRODUCT INFORMATION

### 2.1. Feature of Equipment under Test

|                                                                                                                                                                                                                                                                                 |                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Product Name                                                                                                                                                                                                                                                                    | X2000/ATX2000 Main PCBA         |
| Model No.                                                                                                                                                                                                                                                                       | X2000-MP                        |
| Chip 0 Bluetooth Version                                                                                                                                                                                                                                                        | V5.0 (Single Mode)              |
| Chip 1 Bluetooth Version                                                                                                                                                                                                                                                        | V5.0 (Single Mode)              |
| Wi-Fi Specification                                                                                                                                                                                                                                                             | 802.11a/b/g/n/ac                |
| Working Voltage                                                                                                                                                                                                                                                                 | 12Vdc 2.0A or 57Vdc 350mA (PoE) |
| Remark:<br>1. PoE adapter was selected by MRT for all testing, due to DC adapter and PoE adapter not selling with product.<br>2. For new device (X2000-MP), it's a PCBA, same as the internal PCBA of original device (X2000). The difference is shown in the table 1 as below. |                                 |

| Table 1 |                                  |                                                 |                                                                                                                                                                                                                                 |
|---------|----------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Diff    | Original (X2000)                 | New (X2000-MP)                                  | Remark                                                                                                                                                                                                                          |
| 1       | With Enclosure                   | Without Enclosure, only PCBA                    | Remove enclosure and do not change PCBA design.                                                                                                                                                                                 |
| 2       | With three internal BLE antennas | Without Internal BLE antenna                    | Remove BLE internal antennas, but reserve the antenna connect, the function of these internal antenna ports will be closed by software.<br> |
| 3       | Without Omni Antenna             | Add Omni antennas for BLE and Wi-Fi 2.4G and 5G | Add some omni antennas for BLE and Wi-Fi, but the Power setting and power will not be greater than the original device under directional antennas.                                                                              |

## 2.2. Product Specification Subjective to this Report

|                    |                                                                                          |
|--------------------|------------------------------------------------------------------------------------------|
| Frequency Range    | 802.11b/g/n-HT20: 2412 ~ 2462MHz                                                         |
| Channel Number     | 802.11b/g/n-HT20: 11                                                                     |
| Type of Modulation | 802.11b: DSSS<br>802.11g/n: OFDM                                                         |
| Data Rate          | 802.11b: 1/2/5.5/11Mbps<br>802.11g: 6/9/12/18/24/36/48/54Mbps<br>802.11n: up to 72.2Mbps |

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

## 2.3. Working Frequencies for this report

802.11b/g/n-HT20

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|---------|-----------|
| 01      | 2412 MHz  | 02      | 2417 MHz  | 03      | 2422 MHz  |
| 04      | 2427 MHz  | 05      | 2432 MHz  | 06      | 2437 MHz  |
| 07      | 2442 MHz  | 08      | 2447 MHz  | 09      | 2452 MHz  |
| 10      | 2457 MHz  | 11      | 2462 MHz  | --      | --        |



## 2.4. Description of Available Antennas

| Antenna Type             | Model No.        | Manufacturer                   | Frequency Band (MHz) | T <sub>x</sub> Paths | Ant Gain (dBi) |
|--------------------------|------------------|--------------------------------|----------------------|----------------------|----------------|
| BLE (External Antenna)   |                  |                                |                      |                      |                |
| Directional              | DF24-30V14F      | DIPOLE COMMUNICATIONS LIMITED  | 2402 ~ 2480          | 1                    | 14.0           |
| Directional              | DB24-40V14A      |                                |                      |                      | 14.0           |
| Directional              | DB24-120VH14A    |                                |                      |                      | 14.0           |
| Directional              | DB24-65V12A      |                                |                      |                      | 12.0           |
| Directional              | DF24-60V12M      |                                |                      |                      | 12.0           |
| Directional              | DB24-90V11A      |                                |                      |                      | 11.0           |
| Directional              | DF24-90V11M      |                                |                      |                      | 11.0           |
| Directional              | DF24-110V10F     |                                |                      |                      | 10.0           |
| Directional              | DB24-120V10A     |                                |                      |                      | 10.0           |
| Directional              | DB24-120VH09A    |                                |                      |                      | 9.0            |
| Directional              | TDJ-2400BKC14    | Kenbotong Technology Co., Ltd. |                      |                      | 14.0           |
| Directional              | TDJ-2400BFE      |                                |                      |                      | 14.0           |
| Directional              | KBT120VP13-24RT0 |                                |                      |                      | 13.0           |
| Directional              | TDJ-2400BKCH70   |                                |                      |                      | 11.0           |
| Directional              | SPDG16T2         | SuperPass Company Inc.         |                      |                      | 12.2           |
| Directional              | OSCAR18          | Siretta Ltd                    |                      |                      | 10.0           |
| Directional              | iANT214-2400     | Extronics Ltd.                 |                      |                      | 8.5            |
| Directional              | iANT214-2400D    |                                |                      |                      | 8.0            |
| Directional              | iANT221          |                                |                      |                      | 7.5            |
| Wi-Fi (Internal Antenna) |                  |                                |                      |                      |                |
| PCB                      | N2420DTS         | Airgain                        | 2412 ~ 2462          | 1                    | 3.70           |
|                          |                  |                                | 5150 ~ 5725          | 1                    | 6.60           |
|                          |                  |                                | 5725 ~ 5850          | 1                    | 7.30           |

| Wi-Fi & BLE (External Antenna) |                                |                    |                    |          |            |
|--------------------------------|--------------------------------|--------------------|--------------------|----------|------------|
| Omni                           | iANT213-2400                   | Extronics Ltd.     | 2402 ~ 2480        | 1        | 6.0        |
|                                |                                |                    | 2412 ~ 2462        | 1        | 6.0        |
|                                |                                |                    | 5150 ~ 5850        | 1        | 6.0        |
| Omni                           | iANT216M                       | Extronics Ltd.     | <b>2402 ~ 2480</b> | <b>1</b> | <b>6.0</b> |
|                                |                                |                    | <b>2412 ~ 2462</b> | <b>1</b> | <b>6.0</b> |
|                                |                                |                    | 5150 ~ 5850        | 1        | 6.0        |
| Omni                           | iANT212                        | Extronics Ltd.     | 2402 ~ 2480        | 1        | 2.0        |
|                                |                                |                    | 2412 ~ 2462        | 1        | 2.0        |
|                                |                                |                    | 5150 ~ 5850        | 1        | 2.0        |
| Omni                           | <b>MHODB24490507NM<br/>-IP</b> | <b>PCTEL, Inc.</b> | 2402 ~ 2480        | 1        | 5.0        |
|                                |                                |                    | 2412 ~ 2462        | 1        | 5.0        |
|                                |                                |                    | <b>5150 ~ 5850</b> | <b>1</b> | <b>7.0</b> |

Note 1: Bluetooth and Wi-Fi 2.4G or Wi-Fi 5G can transmit simultaneously, but it can not transmit simultaneously between the Bluetooth chips.

Note 2: Only the directional antenna (DF24-30V14F) was selected for all test, the same power setting with the different BLE external antennas.

Note 3: The omni antenna (iANT216M) was selected for Wi-Fi 2.4G & BLE test, omni antenna (MHODB24490507NM-IP) was selected for Wi-Fi 5G test, the same power setting with the different external omni antennas.

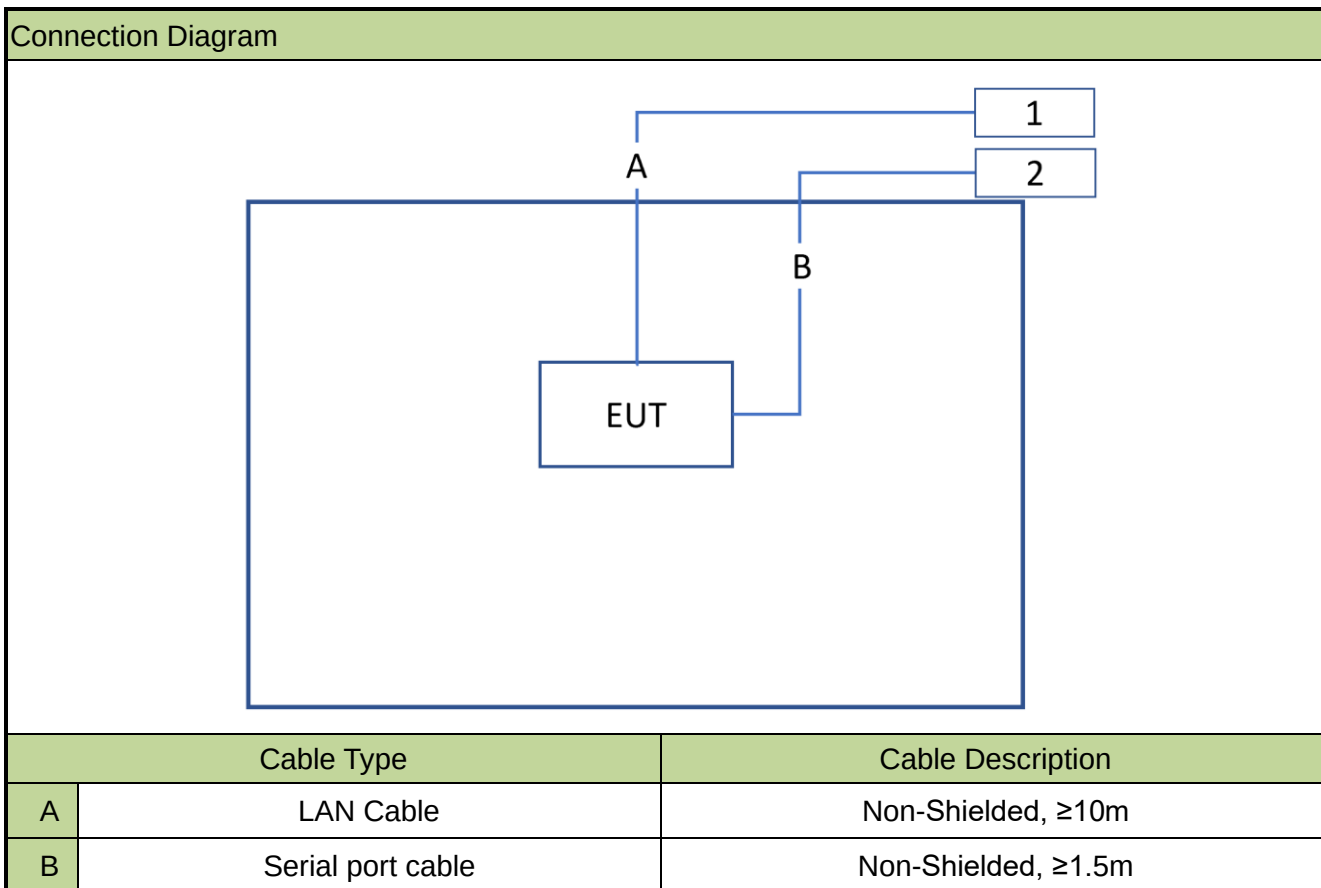
Note 3: All messages as above are declared by manufacturer.

## 2.5. Test Mode

|           |                                         |
|-----------|-----------------------------------------|
| Test Mode | Mode 1: Transmit by 802.11b (1Mbps)     |
|           | Mode 2: Transmit by 802.11g (6Mbps)     |
|           | Mode 3: Transmit by 802.11n-HT20 (MCS0) |

## 2.6. Configuration of Test System

The measurement procedures and appropriate EUT setup described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2013) was used in the measurement.



## 2.7. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

|   | Product     | Manufacturer | Model No.   |
|---|-------------|--------------|-------------|
| 1 | PoE Adapter | N/A          | N/A         |
| 2 | Notebook    | DELL         | Vostro 3300 |

## 2.8. Description of Test Software

The test utility software used during testing was "SecureCRT".

Note: Final power setting please refer to operational description.

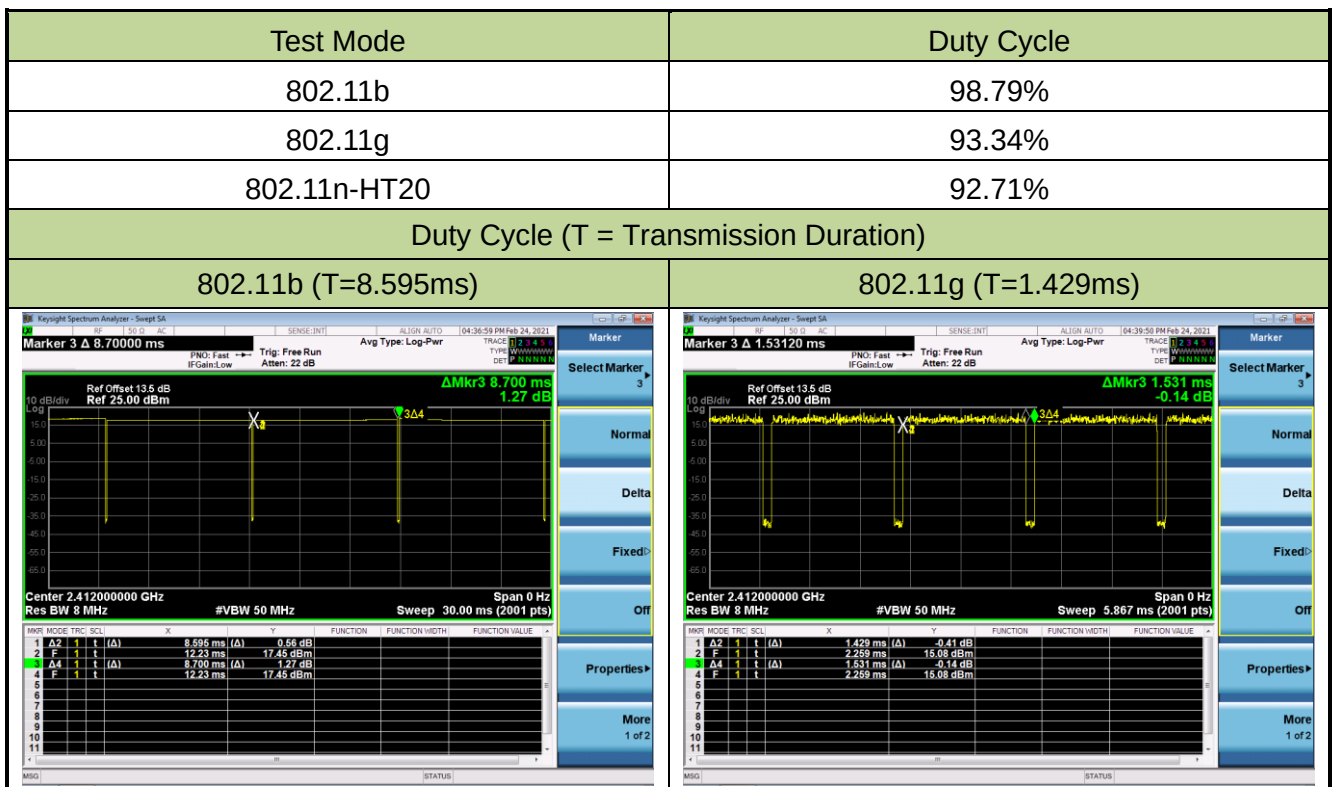
## 2.9. Applied Standards

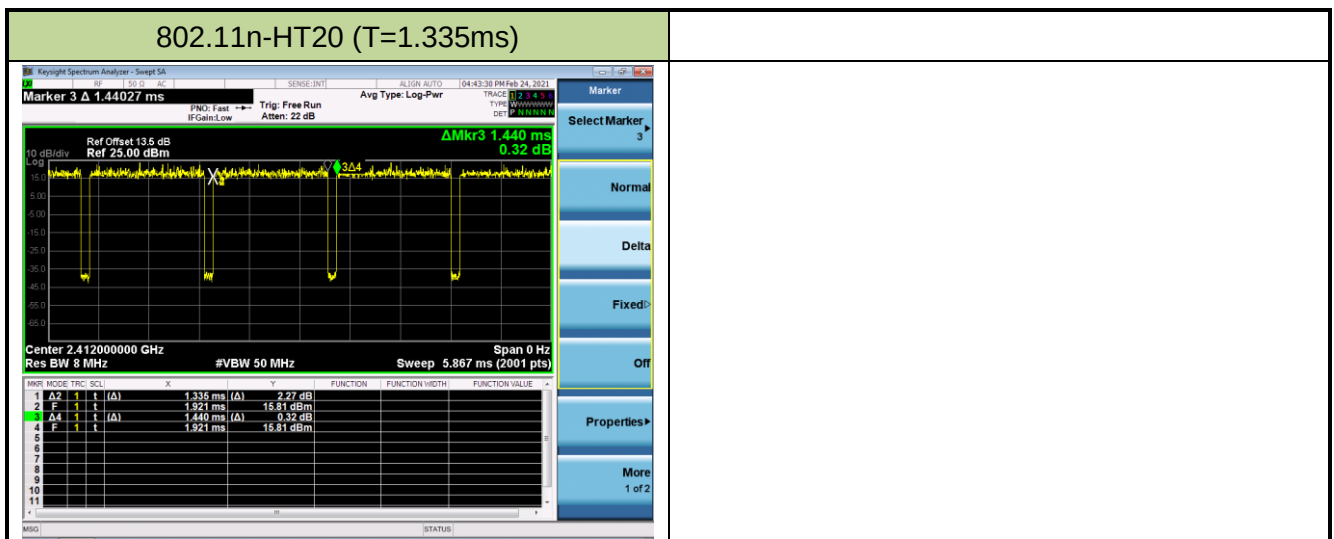
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

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

## 2.10. Duty Cycle

2.4GHz WLAN (DTS) operation is possible in 20MHz channel bandwidths. 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:





## 2.11. Test Configuration

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

## 2.12. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

## 2.13. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

### **3. DESCRIPTION of TEST**

#### **3.1. Evaluation Procedure**

The measurement procedures described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance was used in the measurement.

#### **3.2. AC Line Conducted Emissions**

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50 $\Omega$ /50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst-case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.

### 3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

## 4. 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 uses a unique connector (i-PEX connector).

### **Conclusion:**

The unit complies with the requirement of §15.203.



## 5. TEST EQUIPMENT CALIBRATION DATE

### Conducted Emissions

| Instrument                 | Manufacturer | Type No.      | Asset No.   | Cali. Interval | Cali. Due Date |
|----------------------------|--------------|---------------|-------------|----------------|----------------|
| Two-Line V-Network         | R&S          | ENV216        | MRTTWA00019 | 1 year         | 2021/03/26     |
|                            |              |               |             | 1 year         | 2022/3/23      |
| Two-Line V-Network         | R&S          | ENV216        | MRTTWA00020 | 1 year         | 2021/04/24     |
|                            |              |               |             | 1 year         | 2022/4/28      |
| EMI Test Receiver          | R&S          | ESR3          | MRTTWA00045 | 1 year         | 2021/5/26      |
|                            |              |               |             | 1 year         | 2022/5/25      |
| Temperature/Humidity Meter | TFA          | 35.1078.10.IT | MRTTWA00033 | 1 year         | 2021/8/28      |

### Radiated Emissions

| Instrument                 | Manufacturer | Type No.      | Asset No.   | Cali. Interval | Cali. Due Date |
|----------------------------|--------------|---------------|-------------|----------------|----------------|
| Broadband TRILOG Antenna   | SCHWARZBECK  | VULB 9162     | MRTTWA00001 | 1 year         | 2021/10/5      |
| Active Loop Antenna        | SCHWARZBECK  | FMZB 1519B    | MRTTWA00002 | 1 year         | 2021/04/27     |
|                            |              |               |             | 1 year         | 2022/5/6       |
| Broadband Hornantenna      | SCHWARZBECK  | BBHA 9120D    | MRTTWA00003 | 1 year         | 2021/4/24      |
|                            |              |               |             | 1 year         | 2022/4/21      |
| Breitband Hornantenna      | SCHWARZBECK  | BBHA 9170     | MRTTWA00004 | 1 year         | 2021/4/24      |
|                            |              |               |             | 1 year         | 2022/4/28      |
| Broadband Preamplifier     | SCHWARZBECK  | BBV 9718      | MRTTWA00005 | 1 year         | 2021/4/24      |
|                            |              |               |             | 1 year         | 2022/4/21      |
| Broadband Amplifier        | SCHWARZBECK  | BBV 9721      | MRTTWA00006 | 1 year         | 2021/4/24      |
|                            |              |               |             | 1 year         | 2022/4/26      |
| Signal Analyzer            | R&S          | FSV40         | MRTTWA00007 | 1 year         | 2021/3/24      |
|                            |              |               |             | 1 year         | 2022/3/23      |
| EMI Test Receiver          | R&S          | ESR3          | MRTTWA00009 | 1 year         | 2021/3/25      |
|                            |              |               |             | 1 year         | 2022/3/24      |
| EXA Signal Analyzer        | KEYSIGHT     | N9010A        | MRTTWA00012 | 1 year         | 2021/10/14     |
| Antenna Cable              | HUBERSUHNER  | SF106         | MRTTWE00010 | 1 year         | 2021/6/16      |
|                            |              |               |             | 1 year         | 2022/6/15      |
| Temperature/Humidity Meter | TFA          | 35.1078.10.IT | MRTTWA00032 | 1 year         | 2021/8/28      |

## Conducted Test Equipment

| Instrument                                 | Manufacturer | Type No.      | Asset No.   | Cali. Interval | Cali. Due Date |
|--------------------------------------------|--------------|---------------|-------------|----------------|----------------|
| X-Series USB Peak and Average Power Sensor | KEYSIGHT     | U2021XA       | MRTTWA00014 | 1 year         | 2022/4/21      |
|                                            |              |               |             | 1 year         | 2022/4/21      |
| EXA Signal Analyzer                        | KEYSIGHT     | N9010A        | MRTTWA00012 | 1 year         | 2021/10/14     |
| EXA Signal Analyzer                        | KEYSIGHT     | N9010B        | MRTTWA00074 | 1 year         | 2021/7/14      |
| Attenuator                                 | WTI          | 218FS-20      | MRTTWE00026 | 1 year         | 2021/05/30     |
|                                            |              |               |             | 1 year         | 2022/05/30     |
| Attenuator                                 | WTI          | 218FS-10      | MRTTWE00027 | 1 year         | 2021/05/30     |
|                                            |              |               |             | 1 year         | 2022/05/30     |
| Attenuator                                 | WTI          | 218FS-06      | MRTTWE00028 | 1 year         | 2021/05/30     |
|                                            |              |               |             | 1 year         | 2022/05/30     |
| Temperature & Humidity Chamber             | TEN BILLION  | TTH-B3UP      | MRTTWA00036 | 1 year         | 2021/6/10      |
|                                            |              |               |             | 1 year         | 2022/6/9       |
| Temperature/Humidity Meter                 | TFA          | 35.1078.10.IT | MRTTWA00033 | 1 year         | 2021/8/28      |

| Software | Version | Function          |
|----------|---------|-------------------|
| e3       | V 9     | EMI Test Software |
| EMI      | V 3     | EMI Test Software |

## 6. 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>                                                                              |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):<br>150kHz~30MHz: 2.53dB                        |
| <b>Radiated Emission Measurement</b>                                                                                  |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):<br>9kHz ~ 1GHz: 4.25dB<br>1GHz ~ 40GHz: 4.45dB |
| <b>Conducted Power</b>                                                                                                |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): $\pm 0.84$ dB                                  |
| <b>Conducted Spurious Emission</b>                                                                                    |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): $\pm 2.65$ dB                                  |
| <b>Occupied Bandwidth</b>                                                                                             |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 3.3%                                           |
| <b>Temp. / Humidity</b>                                                                                               |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): $\pm 0.82^{\circ}\text{C}$ / $\pm 3\%$         |

## 7. TEST RESULT

### 7.1. Summary

| FCC Section(s)   | Test Description                                                              | Test Limit                                                                     | Test Condition | Test Result | Reference         |
|------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------|-------------|-------------------|
| 15.247(a)(2)     | 6dB Bandwidth                                                                 | $\geq 500\text{kHz}$                                                           | Conducted      | Pass        | Section 7.2       |
| 15.247(b)(3)     | Output Power                                                                  | $\leq 30\text{dBm}$                                                            |                | Pass        | Section 7.3       |
| 15.247(e)        | Power Spectral Density                                                        | $\leq 8\text{dBm}/3\text{kHz}$                                                 |                | Pass        | Section 7.4       |
| 15.247(d)        | Band Edge / Out-of-Band Emissions                                             | $\geq 30\text{dBc}$ (Average)                                                  |                | Pass        | Section 7.5       |
| 15.205<br>15.209 | General Field Strength Limits (Restricted Bands and Radiated Emission Limits) | Emissions in restricted bands must meet the radiated limits detailed in 15.209 | Radiated       | Pass        | Section 7.6 & 7.7 |
| 15.207           | AC Conducted Emissions<br>150kHz - 30MHz                                      | < FCC 15.207 limits                                                            | Line Conducted | N/A         | Section 7.8       |

#### Notes:

- 1) Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.
- 2) 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.
- 3) Output power test was verified over all data rates of each mode (data refers to operational description), and then choose the maximum power output (low data rate) for the final test of each channel.
- 4) For radiated emission tests, the test results shown in the following sections represent the worst-case emissions.

## 7.2. 6dB Bandwidth Measurement

### 7.2.1. Test Limit

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

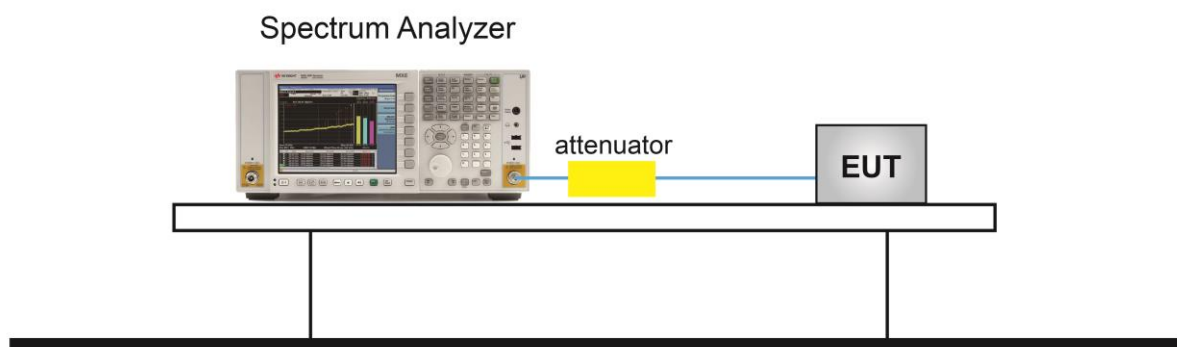
### 7.2.2. Test Procedure used

ANSI C63.10 - 2013 - Section 11.8

### 7.2.3. 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 was allowed to stabilize

### 7.2.4. Test Setup



### 7.2.5. Test Result

|               |                         |                   |            |
|---------------|-------------------------|-------------------|------------|
| Product       | X2000/ATX2000 Main PCBA | Temperature       | 23 ~ 25°C  |
| Test Engineer | Eric Lin                | Relative Humidity | 46 ~ 54%   |
| Test Site     | SR2                     | Test Date         | 2021/02/24 |

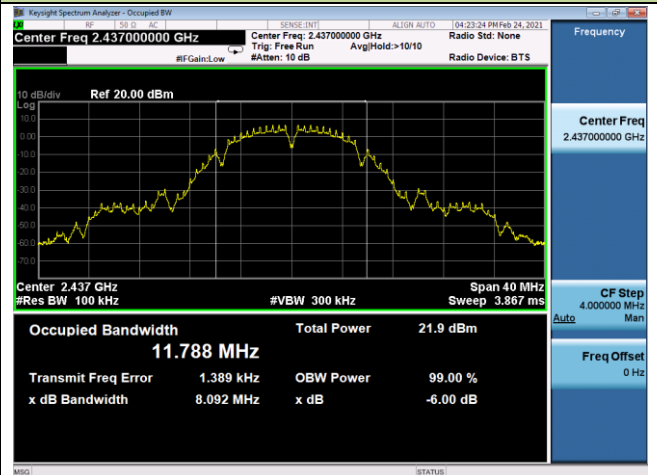
| Test Mode    | Data Rate / MCS | Channel No. | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit (MHz) | Result |
|--------------|-----------------|-------------|-----------------|---------------------|-------------|--------|
| 802.11b      | 1Mbps           | 01          | 2412            | 8.10                | ≥ 0.5       | Pass   |
| 802.11b      | 1Mbps           | 06          | 2437            | 8.10                | ≥ 0.5       | Pass   |
| 802.11b      | 1Mbps           | 11          | 2462            | 8.57                | ≥ 0.5       | Pass   |
| 802.11g      | 6Mbps           | 01          | 2412            | 16.32               | ≥ 0.5       | Pass   |
| 802.11g      | 6Mbps           | 06          | 2437            | 16.32               | ≥ 0.5       | Pass   |
| 802.11g      | 6Mbps           | 11          | 2462            | 16.06               | ≥ 0.5       | Pass   |
| 802.11n-HT20 | MCS0            | 01          | 2412            | 17.31               | ≥ 0.5       | Pass   |
| 802.11n-HT20 | MCS0            | 06          | 2437            | 17.05               | ≥ 0.5       | Pass   |
| 802.11n-HT20 | MCS0            | 11          | 2462            | 16.91               | ≥ 0.5       | Pass   |

## 802.11b 6dB Bandwidth

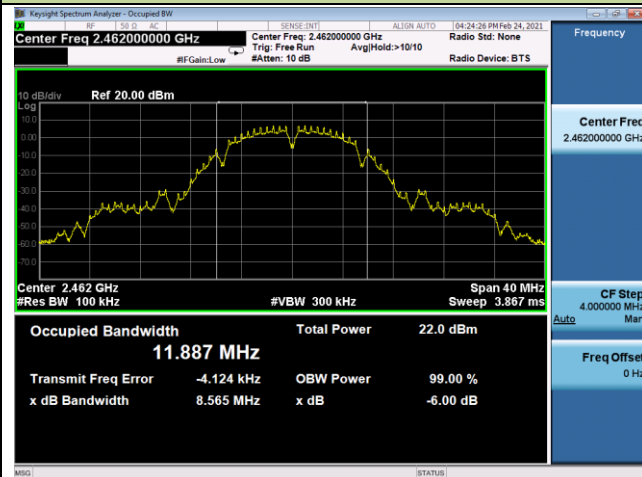
## Channel 01 (2412MHz)



## Channel 06 (2437MHz)

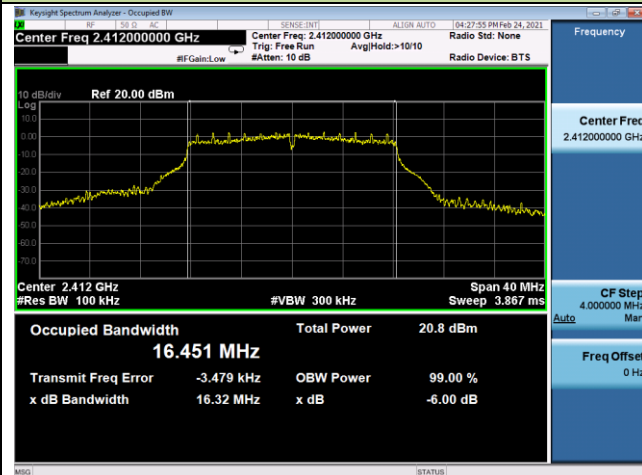


## Channel 11 (2462MHz)

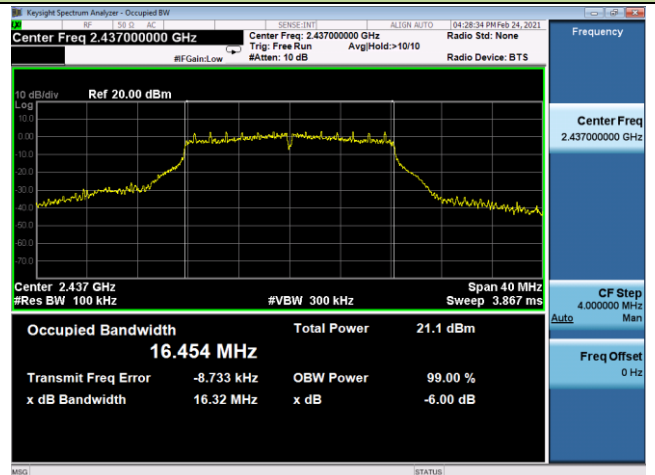


## 802.11g 6dB Bandwidth

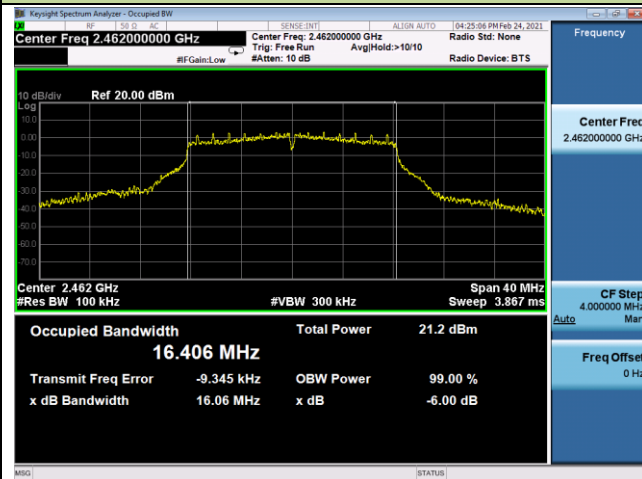
## Channel 01 (2412MHz)



## Channel 06 (2437MHz)



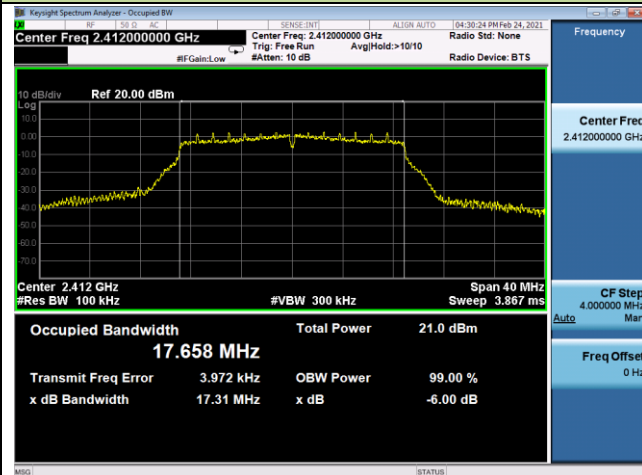
## Channel 11 (2462MHz)



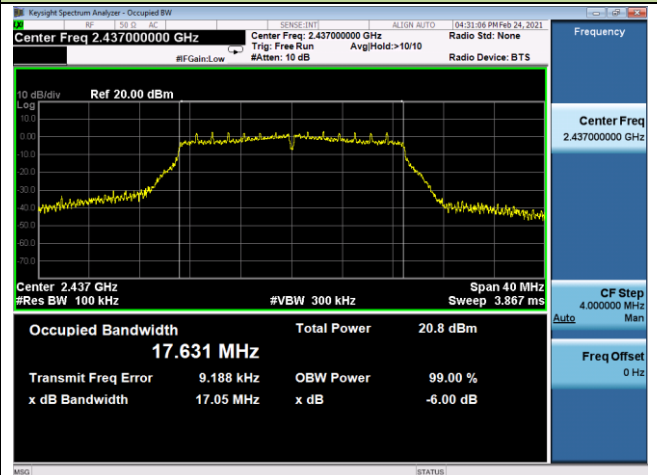


## 802.11n-HT20 6dB Bandwidth

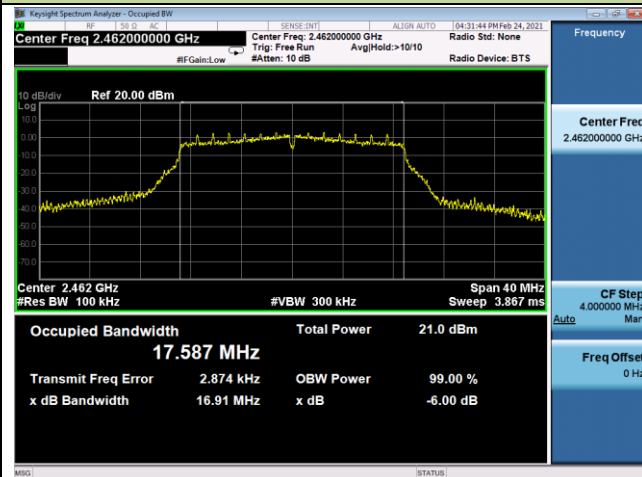
## Channel 01 (2412MHz)



## Channel 06 (2437MHz)



## Channel 11 (2462MHz)



### 7.3. Output Power Measurement

#### 7.3.1. 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.

#### 7.3.2. Test Procedure Used

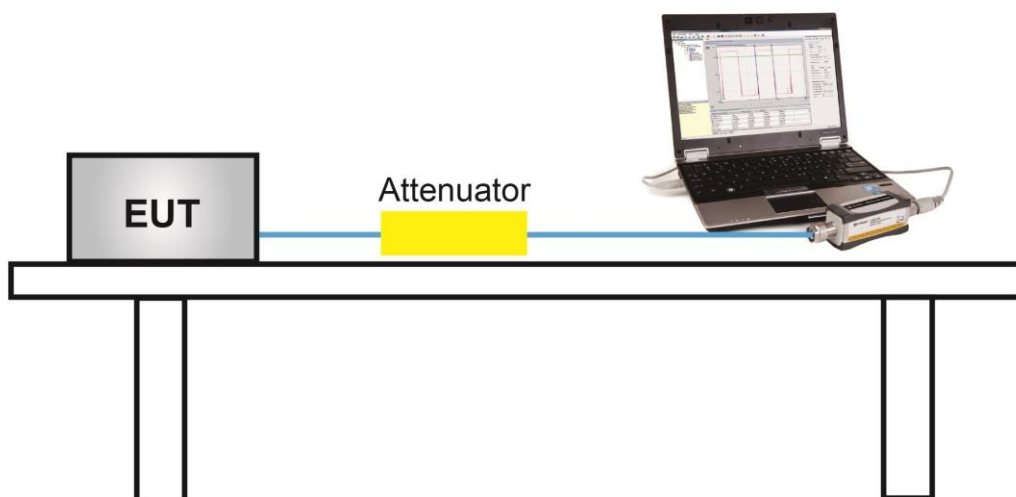
ANSI C63.10 - 2013 - Section 11.9.2.3.2

#### 7.3.3. 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.

#### 7.3.4. Test Setup



### 7.3.5.Test Result

|               |                         |                   |            |
|---------------|-------------------------|-------------------|------------|
| Product       | X2000/ATX2000 Main PCBA | Temperature       | 22 ~ 25°C  |
| Test Engineer | Kevin Ker               | Relative Humidity | 46 ~ 56%   |
| Test Site     | SR2                     | Test Date         | 2021/02/08 |

| Test Mode    | Data Rate/<br>MCS | Channel No. | Freq.<br>(MHz) | Average<br>Power (dBm) | Limit<br>(dBm) | Result |
|--------------|-------------------|-------------|----------------|------------------------|----------------|--------|
| PCB Antenna  |                   |             |                |                        |                |        |
| 802.11b      | 1Mbps             | 01          | 2412           | 24.05                  | ≤ 30.00        | Pass   |
| 802.11b      | 1Mbps             | 06          | 2437           | 24.23                  | ≤ 30.00        | Pass   |
| 802.11b      | 1Mbps             | 11          | 2462           | 24.27                  | ≤ 30.00        | Pass   |
| 802.11g      | 6Mbps             | 01          | 2412           | 23.05                  | ≤ 30.00        | Pass   |
| 802.11g      | 6Mbps             | 02          | 2417           | 24.24                  | ≤ 30.00        | Pass   |
| 802.11g      | 6Mbps             | 06          | 2437           | 24.22                  | ≤ 30.00        | Pass   |
| 802.11g      | 6Mbps             | 09          | 2452           | 23.09                  | ≤ 30.00        | Pass   |
| 802.11g      | 6Mbps             | 11          | 2462           | 24.26                  | ≤ 30.00        | Pass   |
| 802.11n-HT20 | MCS0              | 01          | 2412           | 24.26                  | ≤ 30.00        | Pass   |
| 802.11n-HT20 | MCS0              | 02          | 2417           | 24.05                  | ≤ 30.00        | Pass   |
| 802.11n-HT20 | MCS0              | 06          | 2437           | 24.23                  | ≤ 30.00        | Pass   |
| 802.11n-HT20 | MCS0              | 10          | 2457           | 24.27                  | ≤ 30.00        | Pass   |
| 802.11n-HT20 | MCS0              | 11          | 2462           | 23.05                  | ≤ 30.00        | Pass   |

|               |                         |                   |            |
|---------------|-------------------------|-------------------|------------|
| Product       | X2000/ATX2000 Main PCBA | Temperature       | 22 ~ 25°C  |
| Test Engineer | Kevin Ker               | Relative Humidity | 46 ~ 56%   |
| Test Site     | SR2                     | Test Date         | 2021/06/08 |

| Test Mode    | Data Rate/<br>MCS | Channel No. | Freq.<br>(MHz) | Average<br>Power (dBm) | Limit<br>(dBm) | Result |
|--------------|-------------------|-------------|----------------|------------------------|----------------|--------|
| Omni Antenna |                   |             |                |                        |                |        |
| 802.11b      | 1Mbps             | 01          | 2412           | 14.43                  | ≤ 30.00        | Pass   |
| 802.11b      | 1Mbps             | 06          | 2437           | 14.56                  | ≤ 30.00        | Pass   |
| 802.11b      | 1Mbps             | 11          | 2462           | 14.76                  | ≤ 30.00        | Pass   |
| 802.11g      | 6Mbps             | 01          | 2412           | 13.53                  | ≤ 30.00        | Pass   |
| 802.11g      | 6Mbps             | 06          | 2437           | 13.93                  | ≤ 30.00        | Pass   |
| 802.11g      | 6Mbps             | 11          | 2462           | 12.59                  | ≤ 30.00        | Pass   |
| 802.11n-HT20 | MCS0              | 01          | 2412           | 13.01                  | ≤ 30.00        | Pass   |
| 802.11n-HT20 | MCS0              | 06          | 2437           | 13.48                  | ≤ 30.00        | Pass   |
| 802.11n-HT20 | MCS0              | 11          | 2462           | 13.57                  | ≤ 30.00        | Pass   |

## **7.4. Power Spectral Density Measurement**

### **7.4.1. 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.

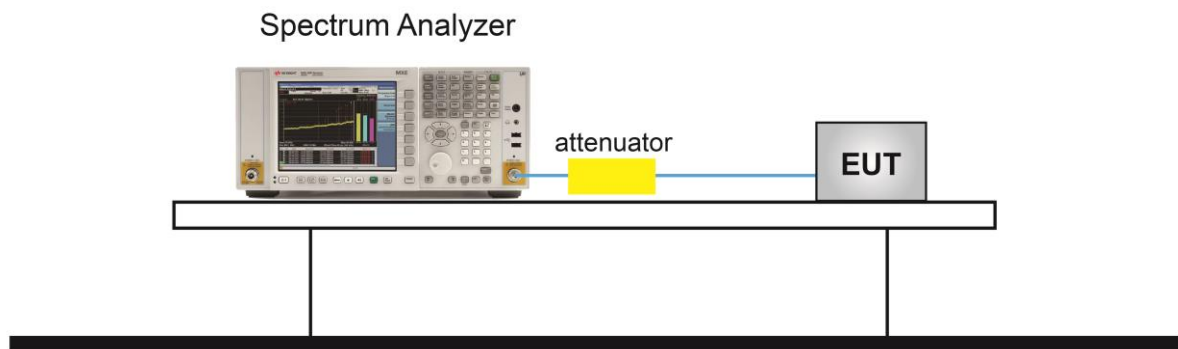
### **7.4.2. Test Procedure Used**

ANSI C63.10 - 2013 - Section 11.10.5

### **7.4.3. Test Setting**

1. Measure the duty cycle (x) of the transmitter output signal.
2. Set instrument center frequency to DTS channel center frequency.
3. Set span to at least 1.5 times the OBW.
4. RBW = 10 kHz.
5. VBW = 30 kHz.
6. Detector = RMS.
7. Ensure that the number of measurement points in the sweep  $\geq 2 \times \text{span}/\text{RBW}$ .
8. Sweep time = auto couple.
9. Don't use sweep triggering. Allow sweep to "free run".
10. Employ trace averaging (RMS) mode over a minimum of 100 traces.
11. Use the peak marker function to determine the maximum amplitude level.
12. Add  $10 \log (1/x)$ , where x is the duty cycle measured in step (a), to the measured PSD to compute the average PSD during the actual transmission time. If measured value exceeds requirement specified by regulatory agency, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

#### 7.4.4. Test Setup



#### 7.4.5. Test Result

|               |                         |                   |            |
|---------------|-------------------------|-------------------|------------|
| Product       | X2000/ATX2000 Main PCBA | Temperature       | 23 ~ 25°C  |
| Test Engineer | Kevin Ker               | Relative Humidity | 46 ~ 54%   |
| Test Site     | SR2                     | Test Date         | 2021/02/24 |

| Test Mode | Data Rate/ MCS | Channel No. | Frequency (MHz) | AVG PSD (dBm/ 10kHz) | Duty Cycle (%) | 10*log (1/x) | Total PSD (dBm/ 10kHz) | Limit (dBm / 3kHz) | Result |
|-----------|----------------|-------------|-----------------|----------------------|----------------|--------------|------------------------|--------------------|--------|
| 11b       | 1Mbps          | 01          | 2412            | -11.71               | 98.79          | 0.05         | -11.66                 | ≤ 8.0              | Pass   |
| 11b       | 1Mbps          | 06          | 2437            | -11.32               | 98.79          | 0.05         | -11.27                 | ≤ 8.0              | Pass   |
| 11b       | 1Mbps          | 11          | 2462            | -11.07               | 98.79          | 0.05         | -11.02                 | ≤ 8.0              | Pass   |
| 11g       | 6Mbps          | 01          | 2412            | -11.93               | 93.34          | 0.30         | -11.63                 | ≤ 8.0              | Pass   |
| 11g       | 6Mbps          | 06          | 2437            | -11.51               | 93.34          | 0.30         | -11.21                 | ≤ 8.0              | Pass   |
| 11g       | 6Mbps          | 11          | 2462            | -11.46               | 93.34          | 0.30         | -11.16                 | ≤ 8.0              | Pass   |
| 11n-HT20  | MCS0           | 01          | 2412            | -13.51               | 92.71          | 0.33         | -13.18                 | ≤ 8.0              | Pass   |
| 11n-HT20  | MCS0           | 06          | 2437            | -13.47               | 92.71          | 0.33         | -13.14                 | ≤ 8.0              | Pass   |
| 11n-HT20  | MCS0           | 11          | 2462            | -13.13               | 92.71          | 0.33         | -12.80                 | ≤ 8.0              | Pass   |

Note:

EUT duty cycle ≥ 98%, Total AVGPDS = AVG PSD

EUT duty cycle ≤ 98%, Total AVGPDS = AVG PSD+ 10\*log (1/Duty Cycle).

## 802.11b AVGPSP

## Channel 01 (2412MHz)



## Channel 06 (2437MHz)



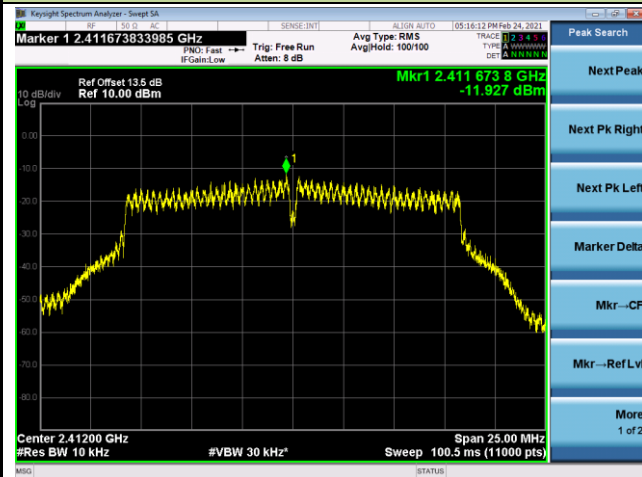
## Channel 11 (2462MHz)



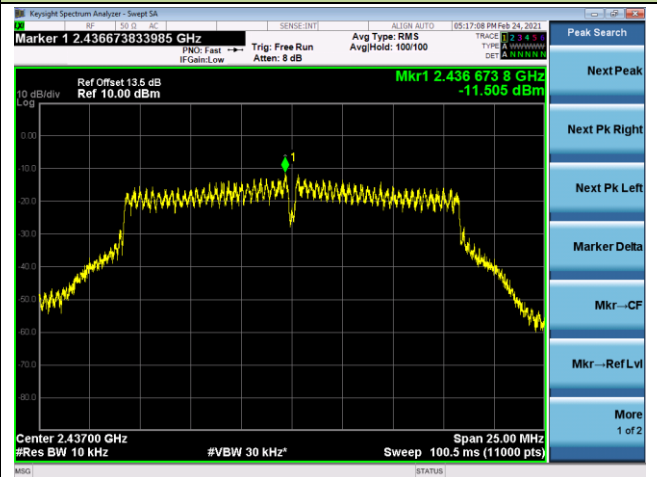


## 802.11g AVGPSP

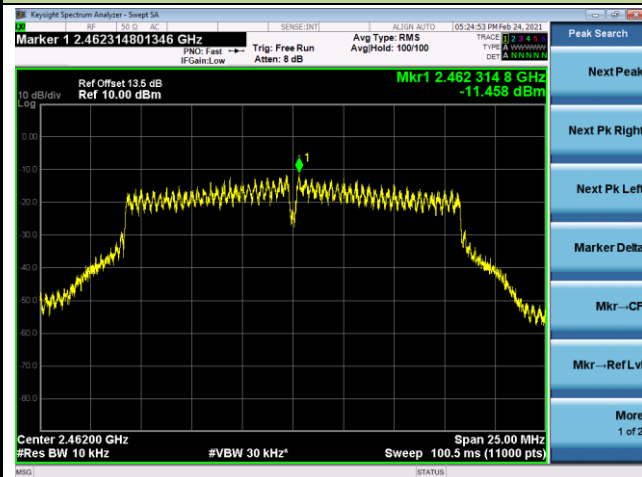
## Channel 01 (2412MHz)



## Channel 06 (2437MHz)

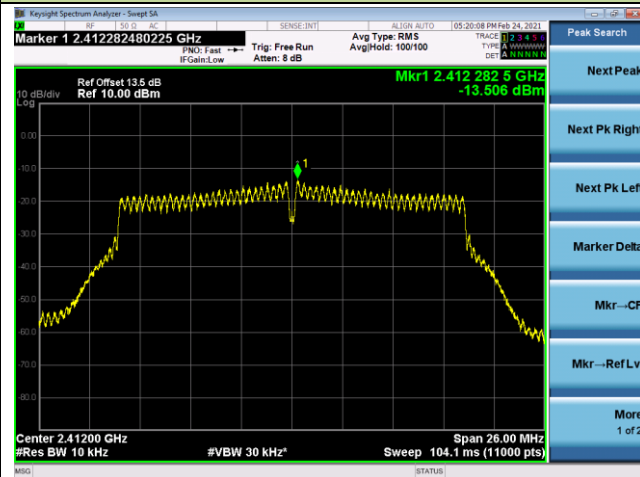


## Channel 11 (2462MHz)

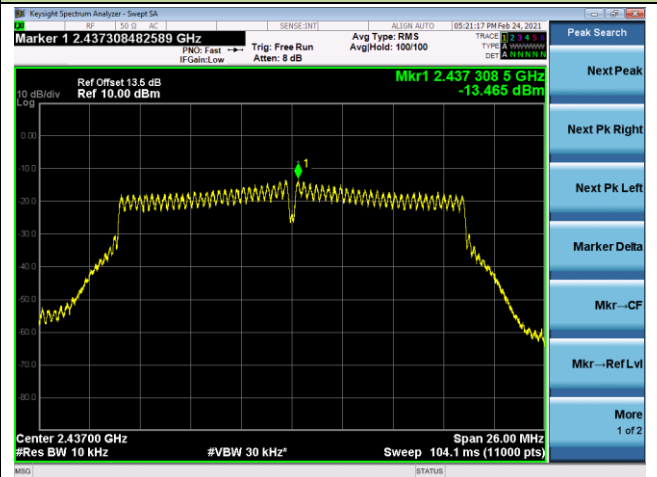


## 802.11n-HT20 AVGPSD

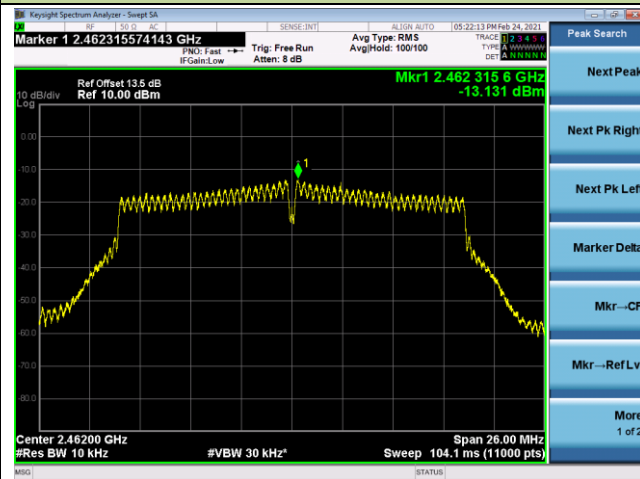
## Channel 01 (2412MHz)



## Channel 06 (2437MHz)



## Channel 11 (2462MHz)



## **7.5. Conducted Band Edge and Out-of-Band Emissions**

### **7.5.1. Test Limit**

The limit for out-of-band spurious emissions at the band edge is 30dB 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.

### **7.5.2. Test Procedure Used**

ANSI C63.10 - 2013 - Section 11.11

### **7.5.3. Test Setting**

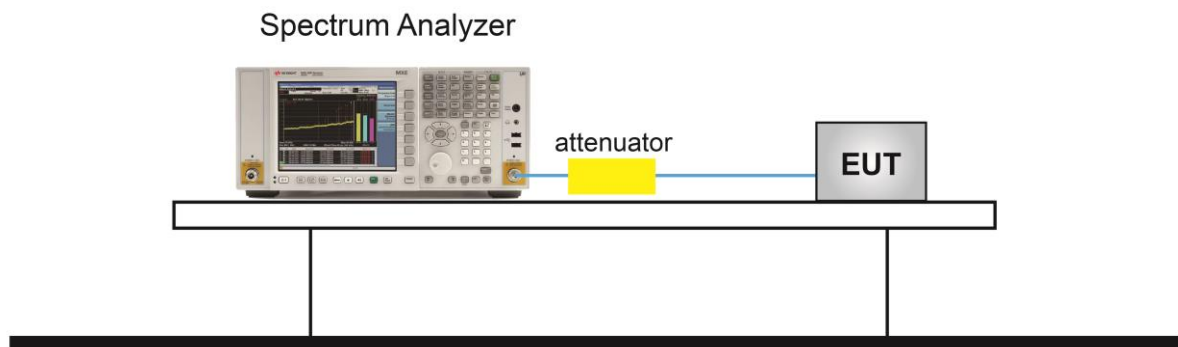
#### **Reference level measurement**

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

#### 7.5.4. Test Setup



### 7.5.5. Test Result

|               |                         |                   |            |
|---------------|-------------------------|-------------------|------------|
| Product       | X2000/ATX2000 Main PCBA | Temperature       | 23 ~ 25°C  |
| Test Engineer | Kevin Ker               | Relative Humidity | 46 ~ 54%   |
| Test Site     | SR2                     | Test Date         | 2021/02/24 |

| Test Mode    | Data Rate<br>/ MCS | Channel No. | Frequency<br>(MHz) | Limit<br>(dBc) | Result |
|--------------|--------------------|-------------|--------------------|----------------|--------|
| 802.11b      | 1Mbps              | 01          | 2412               | ≤ 30           | Pass   |
| 802.11b      | 1Mbps              | 06          | 2437               | ≤ 30           | Pass   |
| 802.11b      | 1Mbps              | 11          | 2462               | ≤ 30           | Pass   |
| 802.11g      | 6Mbps              | 01          | 2412               | ≤ 30           | Pass   |
| 802.11g      | 6Mbps              | 06          | 2437               | ≤ 30           | Pass   |
| 802.11g      | 6Mbps              | 11          | 2462               | ≤ 30           | Pass   |
| 802.11n-HT20 | MCS0               | 01          | 2412               | ≤ 30           | Pass   |
| 802.11n-HT20 | MCS0               | 06          | 2437               | ≤ 30           | Pass   |
| 802.11n-HT20 | MCS0               | 11          | 2462               | ≤ 30           | Pass   |

## 802.11b Out-of-Band Emissions

## Channel 01 (2412MHz)

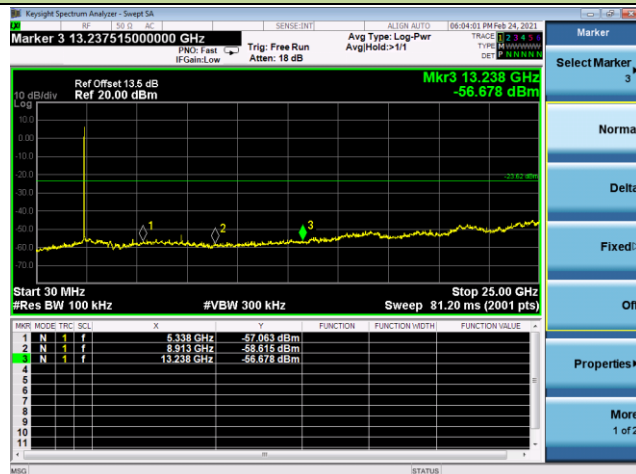
## 100kHz PSD reference Level



## Low Band Edge



## Spurious Emission



## Channel 06 (2437MHz)

## 100kHz PSD reference Level



## Spurious Emission



## 802.11b Out-of-Band Emissions

### Channel 11 (2462MHz)

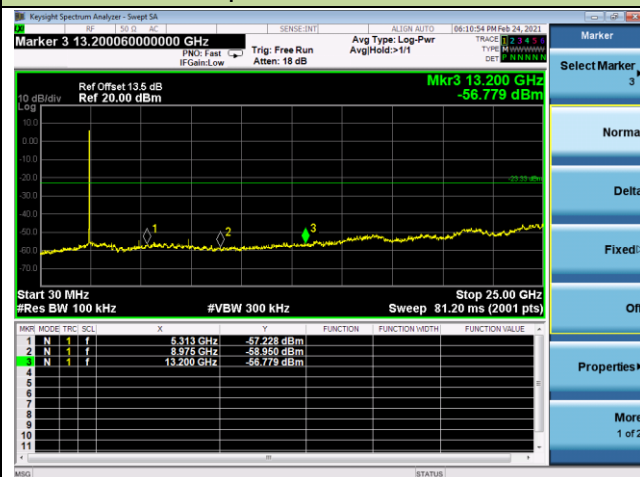
#### 100kHz PSD reference Level



#### High Band Edge



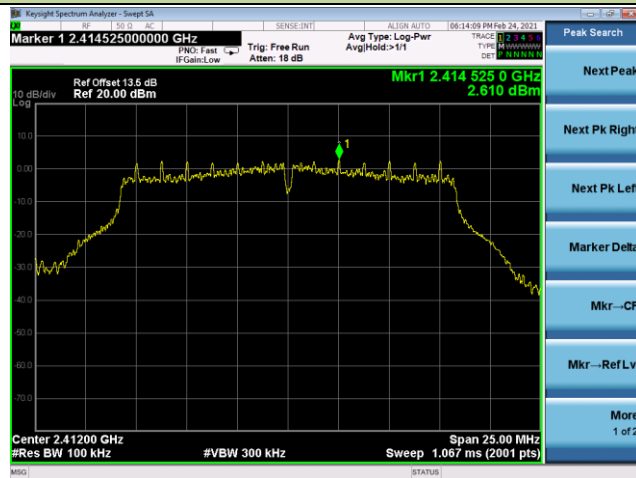
#### Spurious Emission



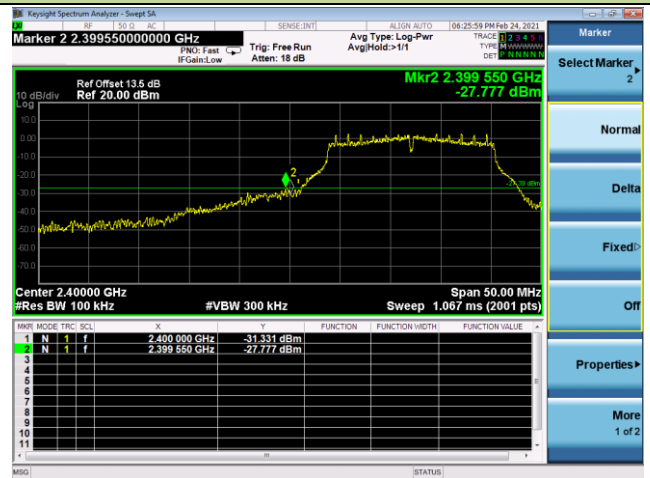
## 802.11g Out-of-Band Emissions

### Channel 01 (2412MHz)

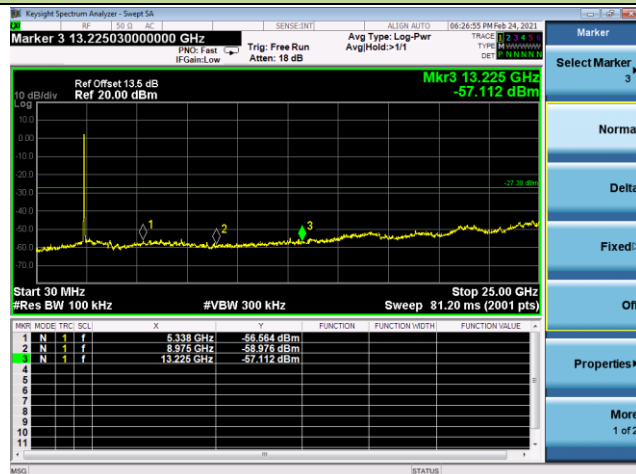
#### 100kHz PSD reference Level



#### Low Band Edge

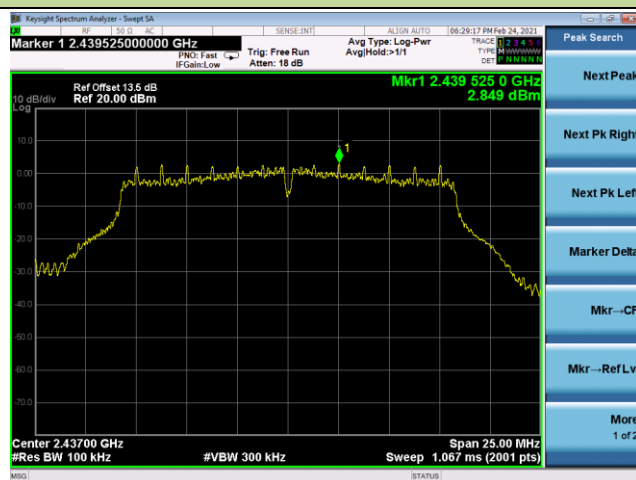


#### Spurious Emission

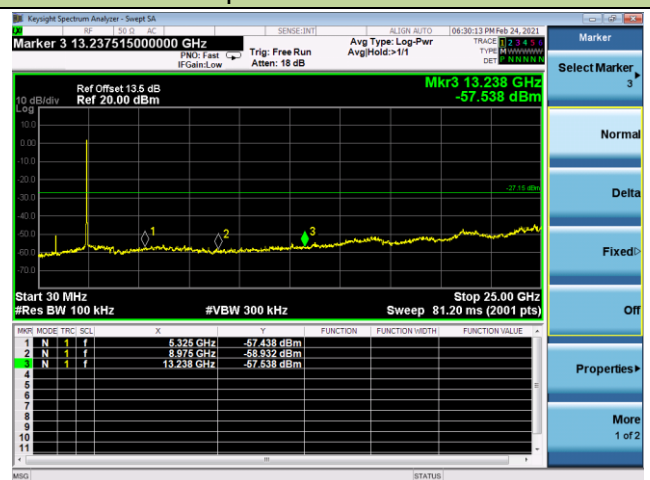


### Channel 06 (2437MHz)

#### 100kHz PSD reference Level



#### Spurious Emission

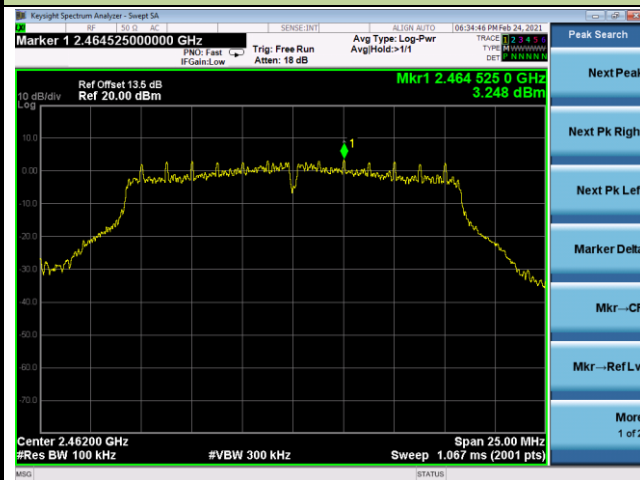




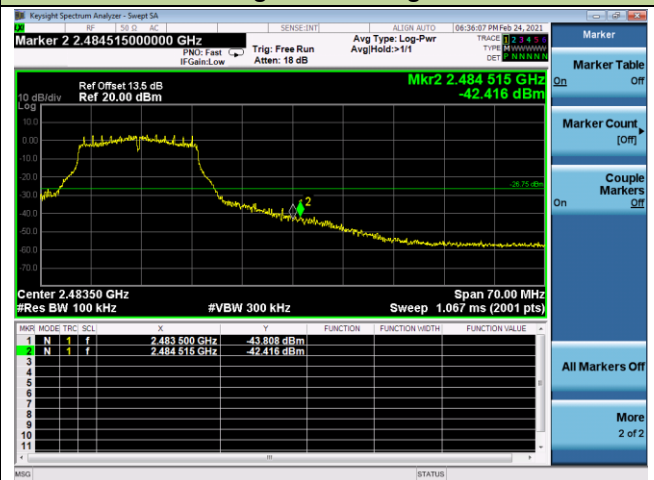
## 802.11g Out-of-Band Emissions

### Channel 11 (2462MHz)

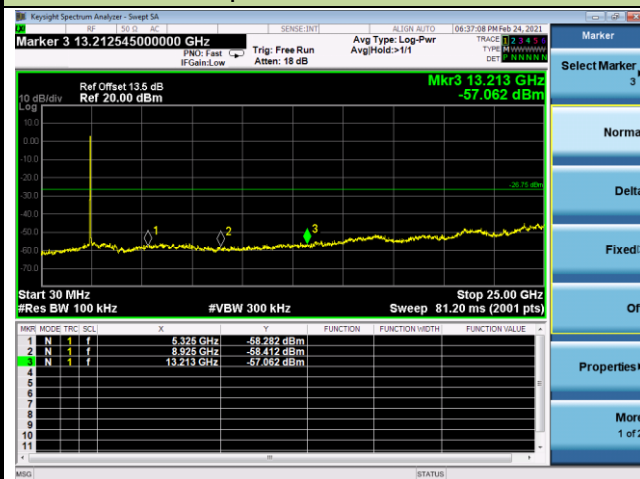
#### 100kHz PSD reference Level



#### High Band Edge



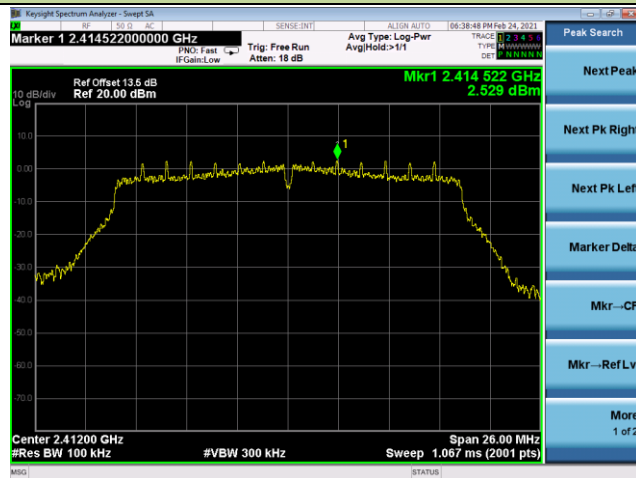
#### Spurious Emission



## 802.11n-HT20 Out-of-Band Emissions

### Channel 01 (2412MHz)

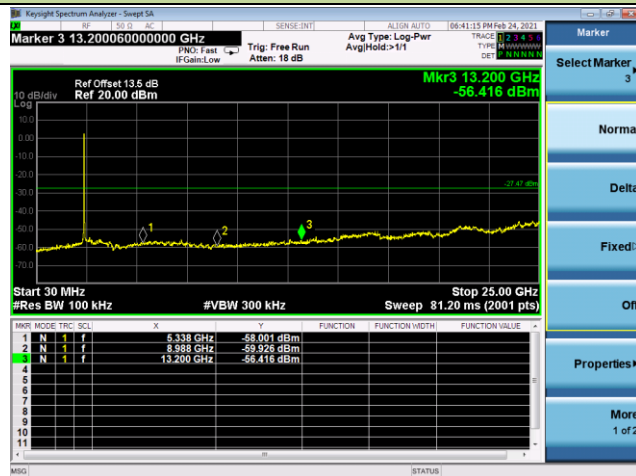
#### 100kHz PSD reference Level



#### Low Band Edge



#### Spurious Emission

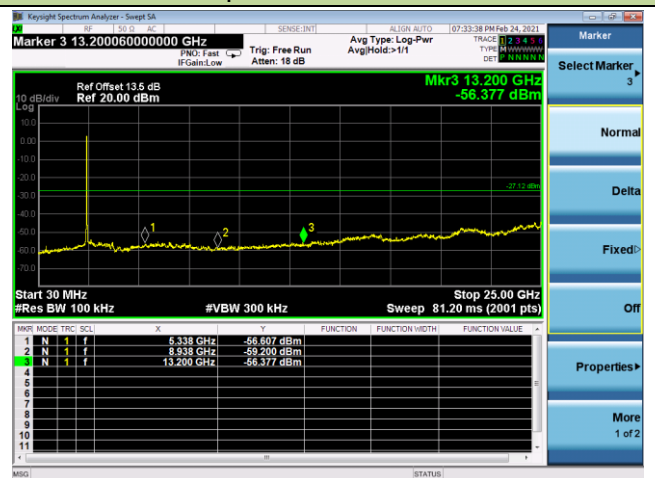


### Channel 06 (2437MHz)

#### 100kHz PSD reference Level



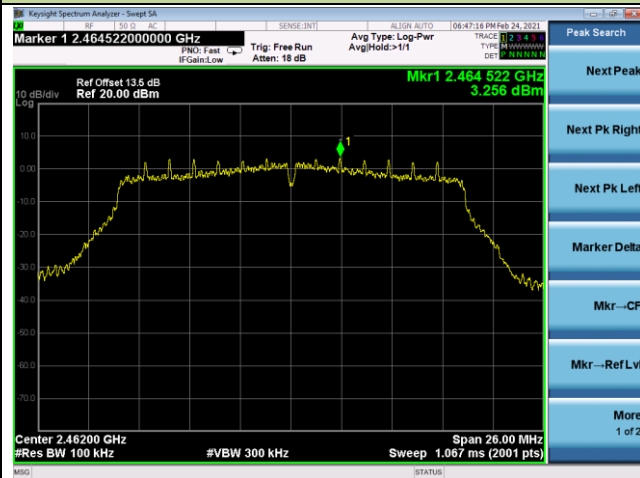
#### Spurious Emission



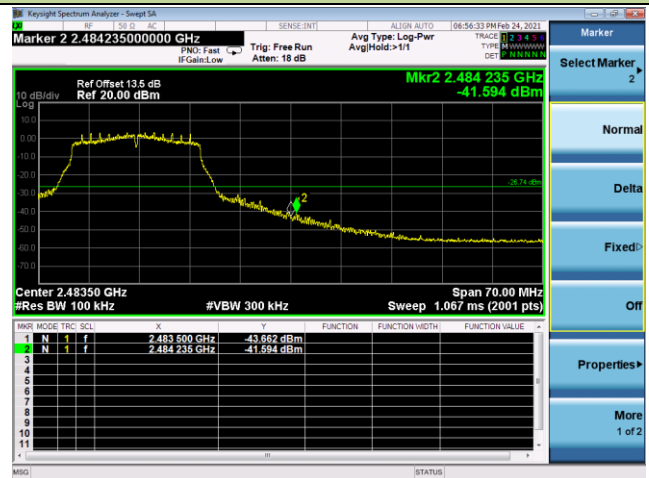
## 802.11 n-HT20 Out-of-Band Emissions

### Channel 11 (2462MHz)

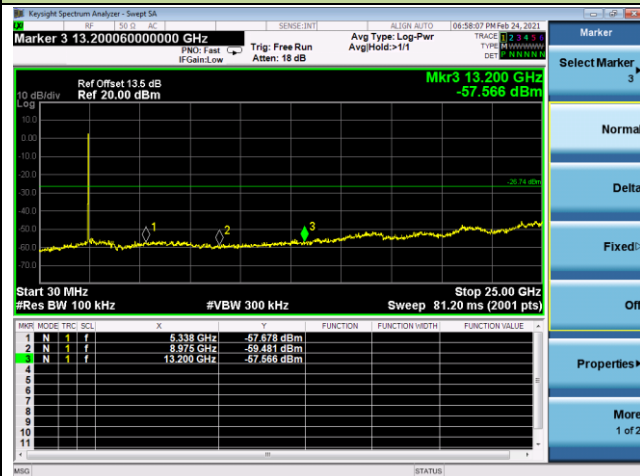
#### 100kHz PSD reference Level



#### High Band Edge



#### Spurious Emission



## 7.6. Radiated Spurious Emission Measurement

### 7.6.1. Test Limit

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<br>[MHz]                     | Field Strength<br>[Uv/m] | Measured Distance<br>[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                             |

### 7.6.2. 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)

### 7.6.3. 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**

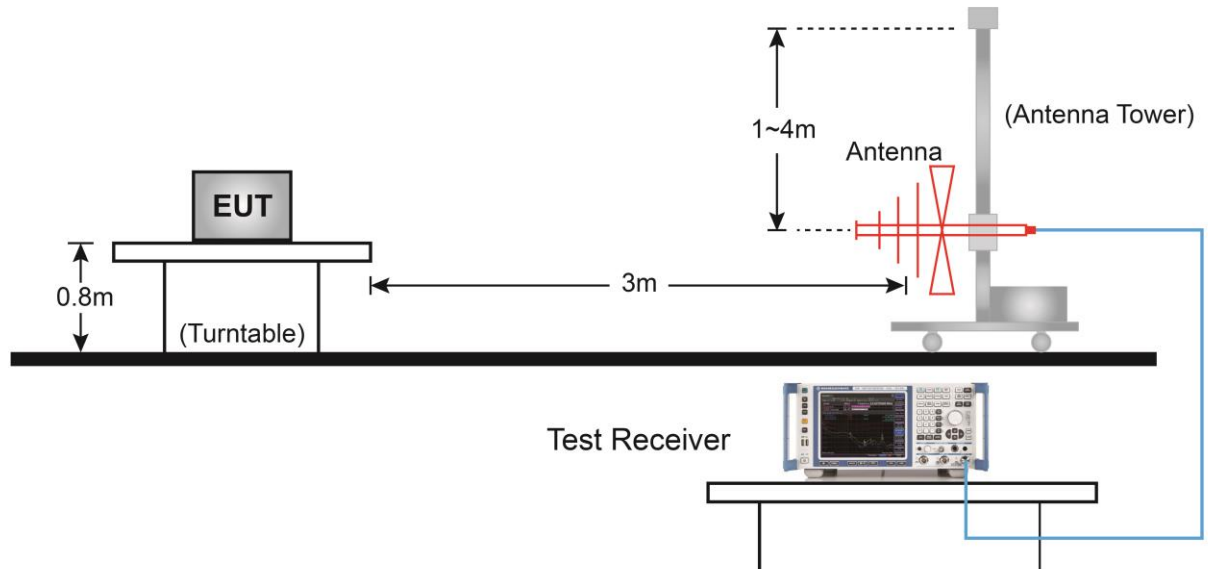
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

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

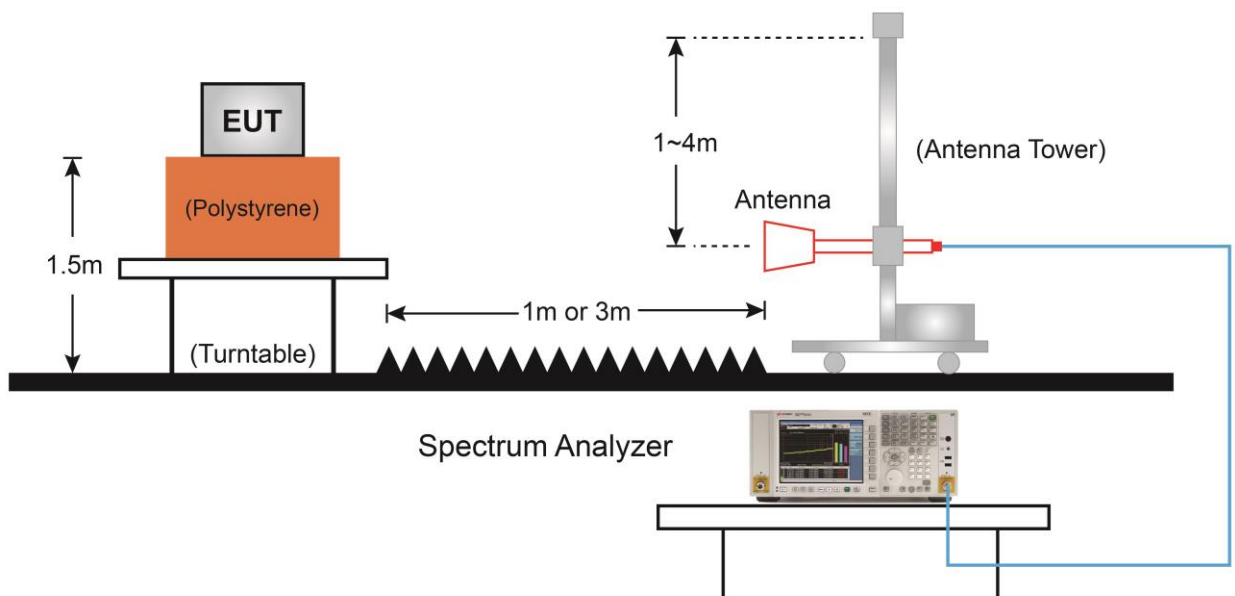
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set VBW = 10 Hz.  
If the EUT duty cycle is  $< 98\%$ , set VBW  $\geq 1/T$ . T is the minimum transmission duration.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

#### 7.6.4. Test Setup

##### Below 1GHz Test Setup:



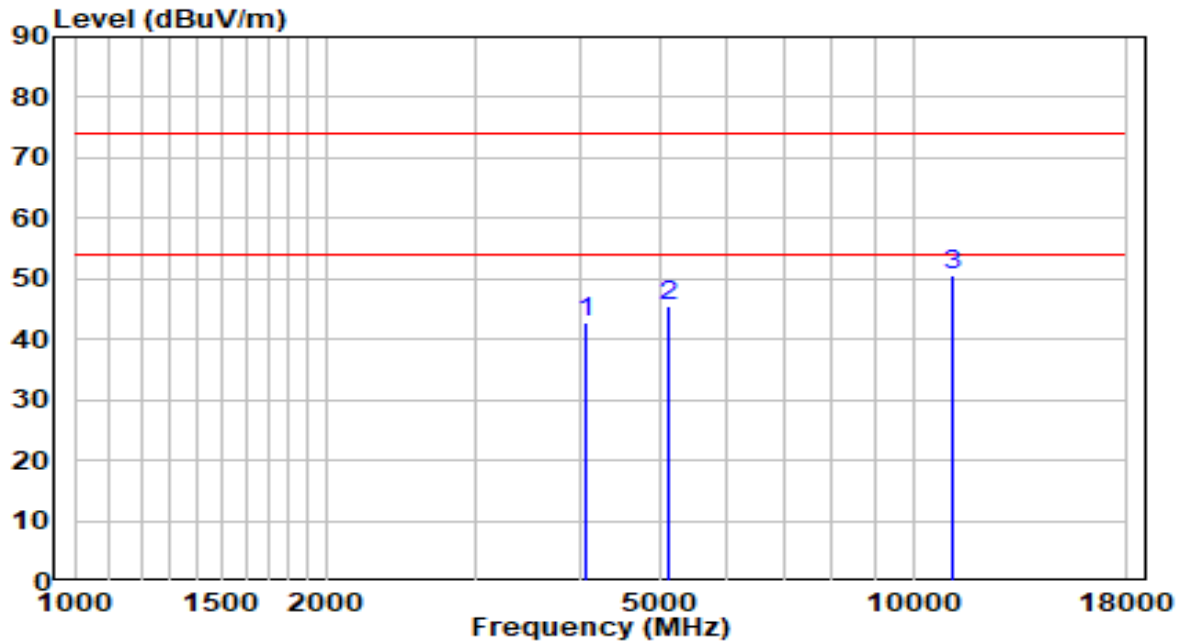
##### Above 1GHz Test Setup:



### 7.6.5. Test Result

#### Data for PCB Antenna

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

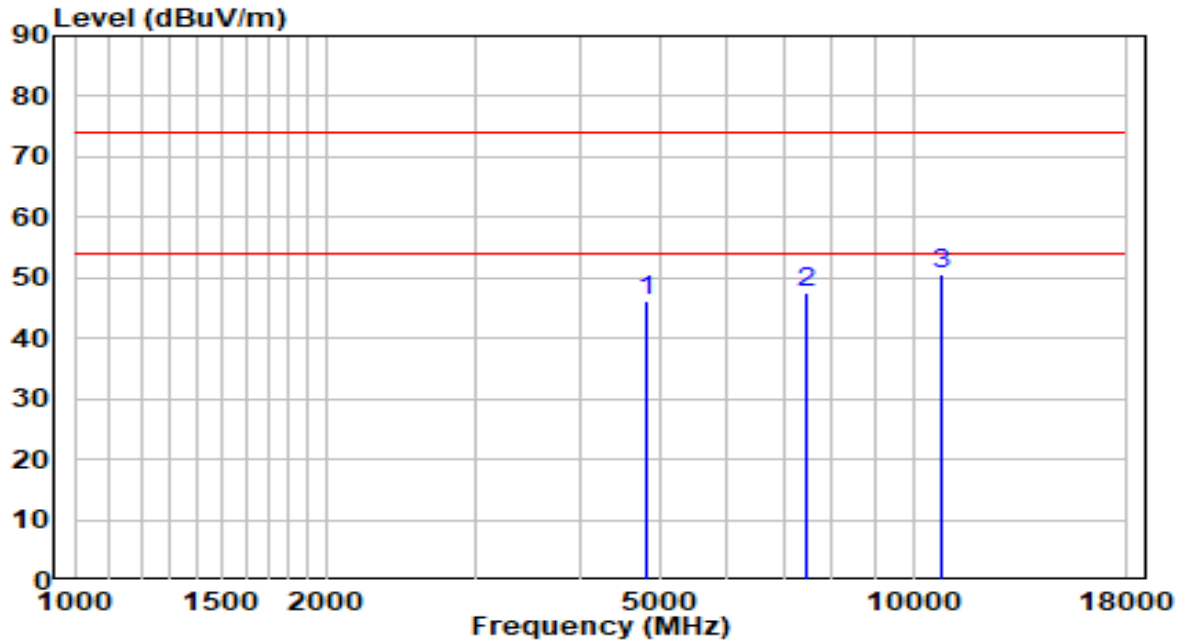


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4068.500        | 41.63          | 1.11     | 42.73                | -31.27      | 74.00          | Peak              |
| 2  | 5097.000        | 41.64          | 3.85     | 45.49                | -28.51      | 74.00          | Peak              |
| 3  | * 11132.000     | 32.79          | 17.96    | 50.75                | -23.25      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2412MHz | Test Voltage         | 120V/60Hz      |



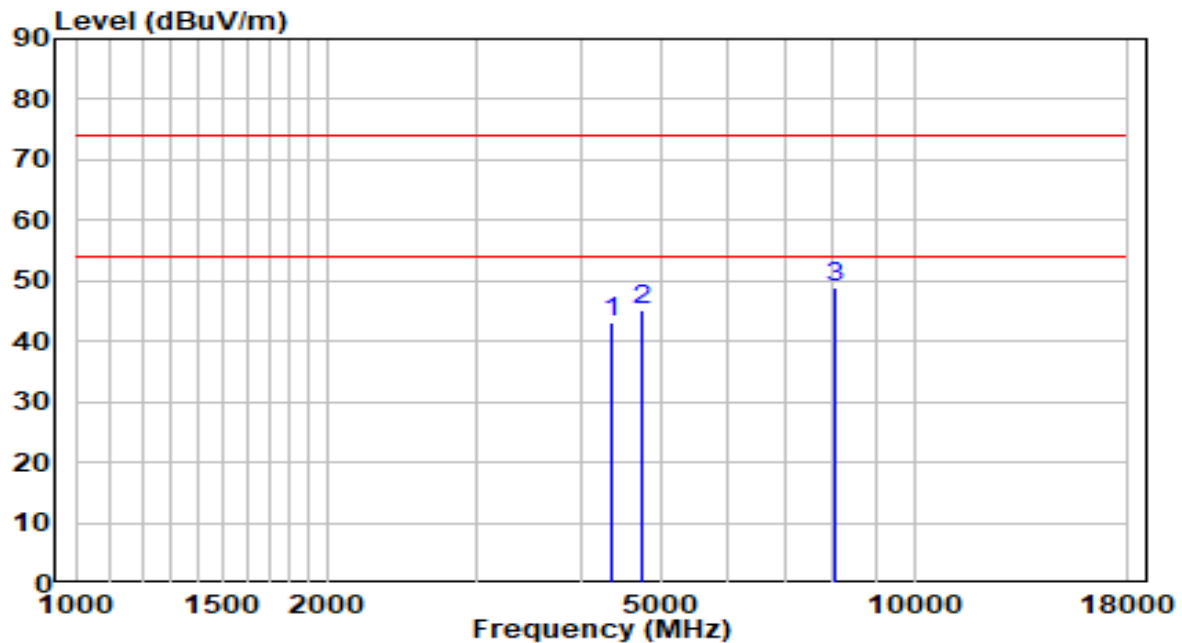
| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4825.000        | 42.76          | 3.33     | 46.09                | -27.91      | 74.00          | Peak              |
| 2  | 7460.000        | 36.05          | 11.60    | 47.65                | -26.35      | 74.00          | Peak              |
| 3  | * 10800.500     | 33.09          | 17.50    | 50.58                | -23.42      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.



|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

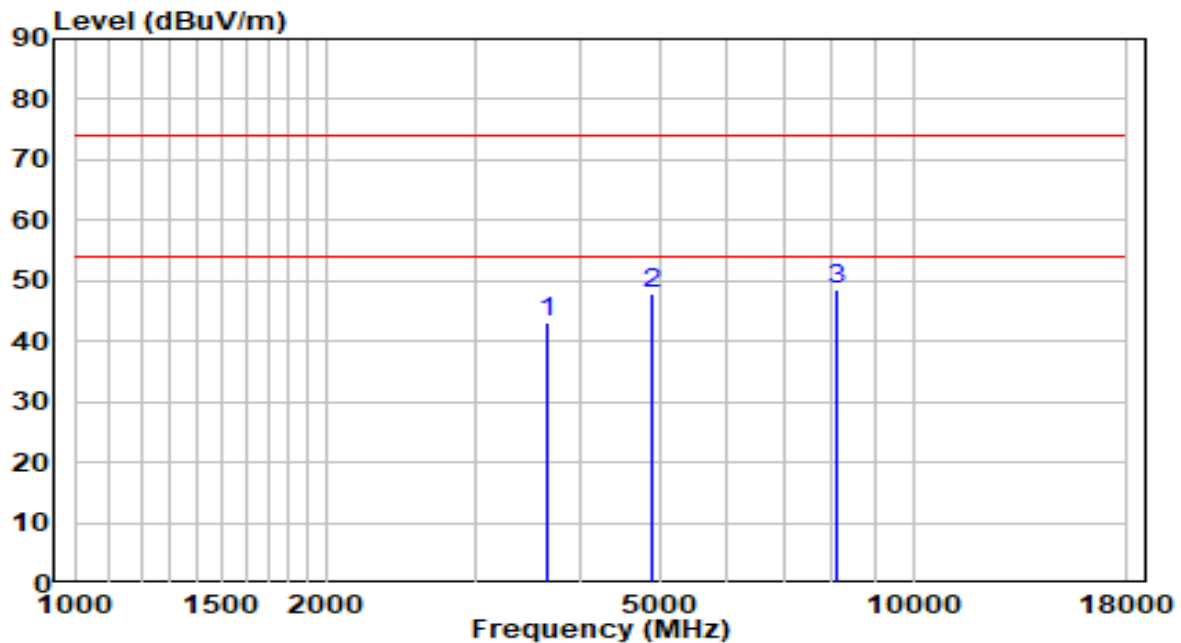


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4357.500        | 41.14          | 2.07     | 43.21                | -30.79      | 74.00          | Peak              |
| 2  | 4723.000        | 42.04          | 3.09     | 45.13                | -28.87      | 74.00          | Peak              |
| 3  | * 8046.500      | 36.46          | 12.52    | 48.98                | -25.02      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

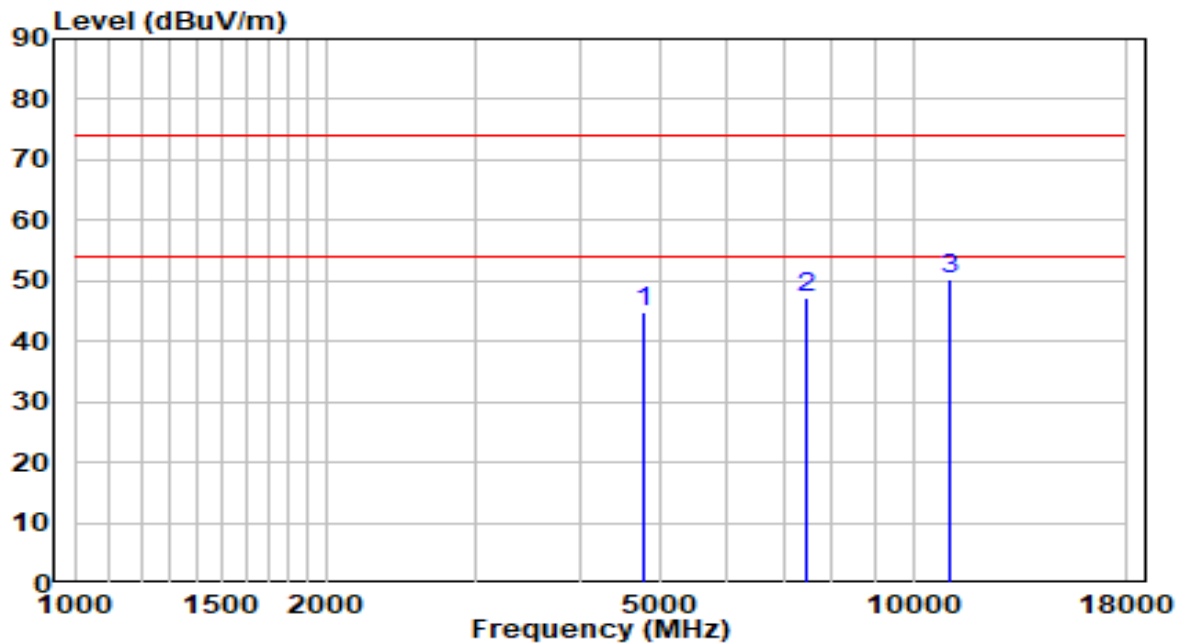


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 3652.000        | 43.54          | -0.32    | 43.22                | -30.78      | 74.00          | Peak              |
| 2  | 4876.000        | 44.56          | 3.45     | 48.01                | -25.99      | 74.00          | Peak              |
| 3  | * 8097.500      | 35.98          | 12.52    | 48.49                | -25.51      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

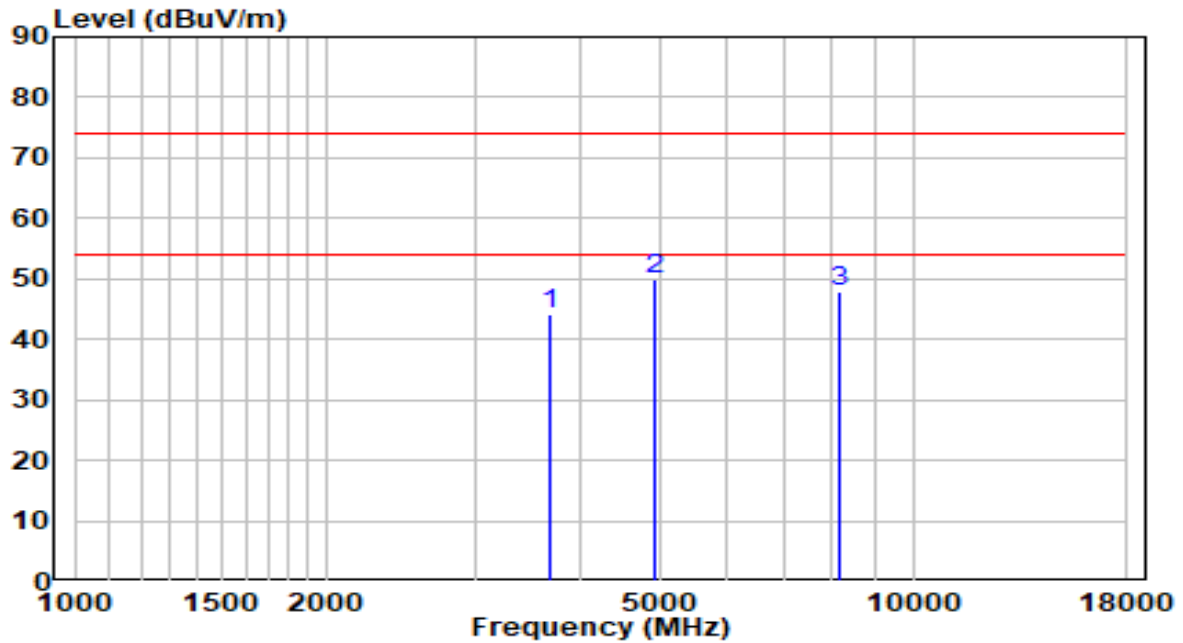


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4774.000        | 41.75          | 3.21     | 44.96                | -29.04      | 74.00          | Peak              |
| 2  | 7468.500        | 35.68          | 11.63    | 47.31                | -26.69      | 74.00          | Peak              |
| 3  | * 11081.000     | 32.21          | 17.89    | 50.10                | -23.90      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

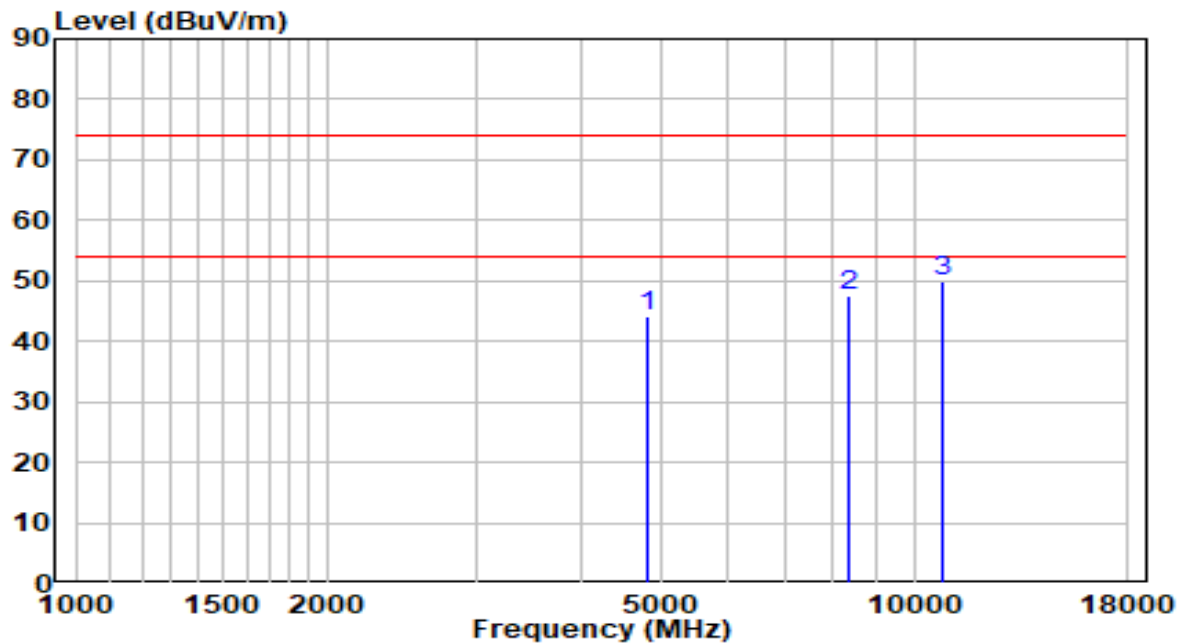


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 3694.500        | 44.28          | -0.17    | 44.11                | -29.89      | 74.00          | Peak              |
| 2  | * 4927.000      | 46.36          | 3.57     | 49.94                | -24.06      | 74.00          | Peak              |
| 3  | 8140.000        | 35.25          | 12.51    | 47.76                | -26.24      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

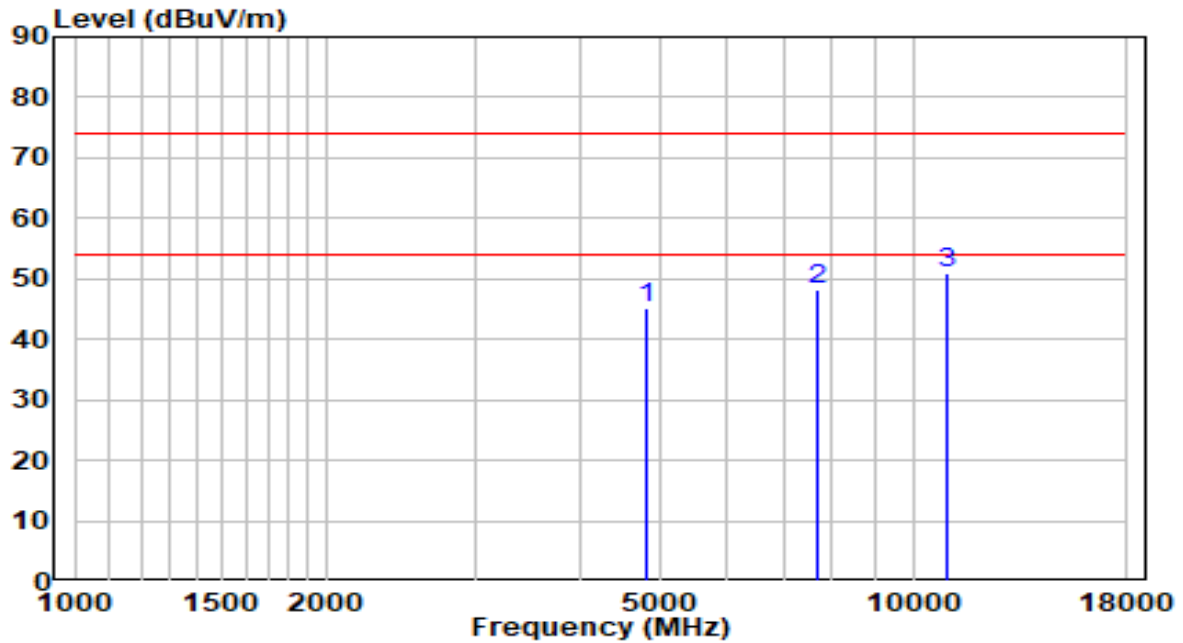


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4799.500        | 40.97          | 3.27     | 44.24                | -29.76      | 74.00          | Peak              |
| 2  | 8344.000        | 35.17          | 12.48    | 47.65                | -26.35      | 74.00          | Peak              |
| 3  | * 10843.000     | 32.26          | 17.56    | 49.81                | -24.19      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

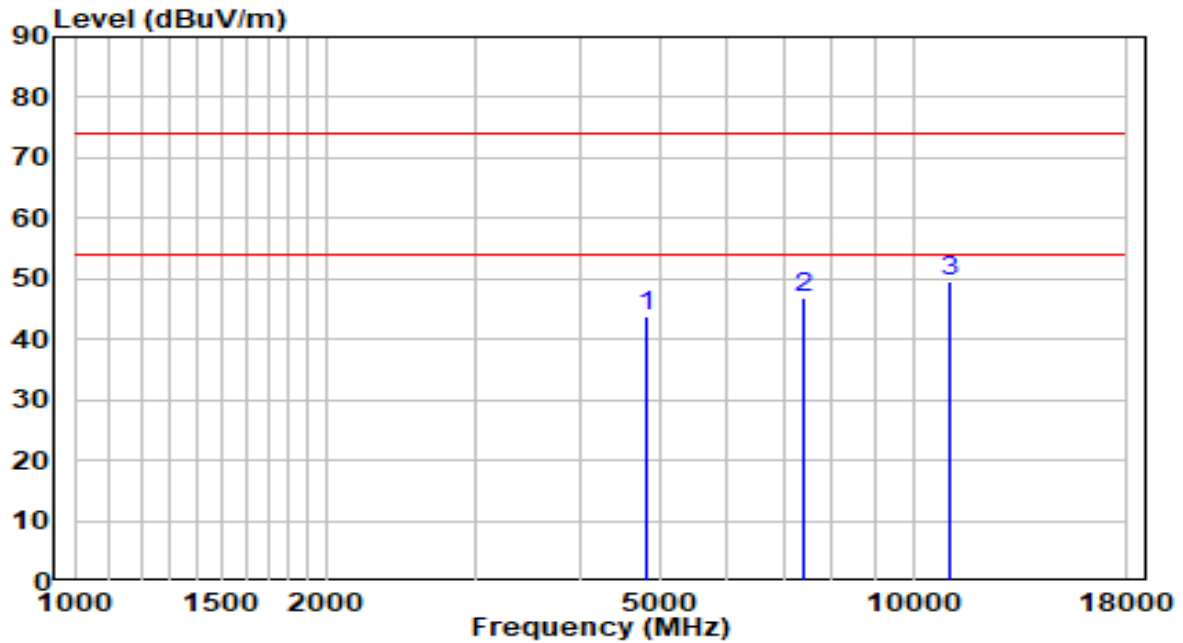


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4825.000        | 41.76          | 3.33     | 45.09                | -28.91      | 74.00          | Peak              |
| 2  | 7715.000        | 36.08          | 12.07    | 48.15                | -25.85      | 74.00          | Peak              |
| 3  | * 10962.000     | 33.07          | 17.73    | 50.80                | -23.20      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

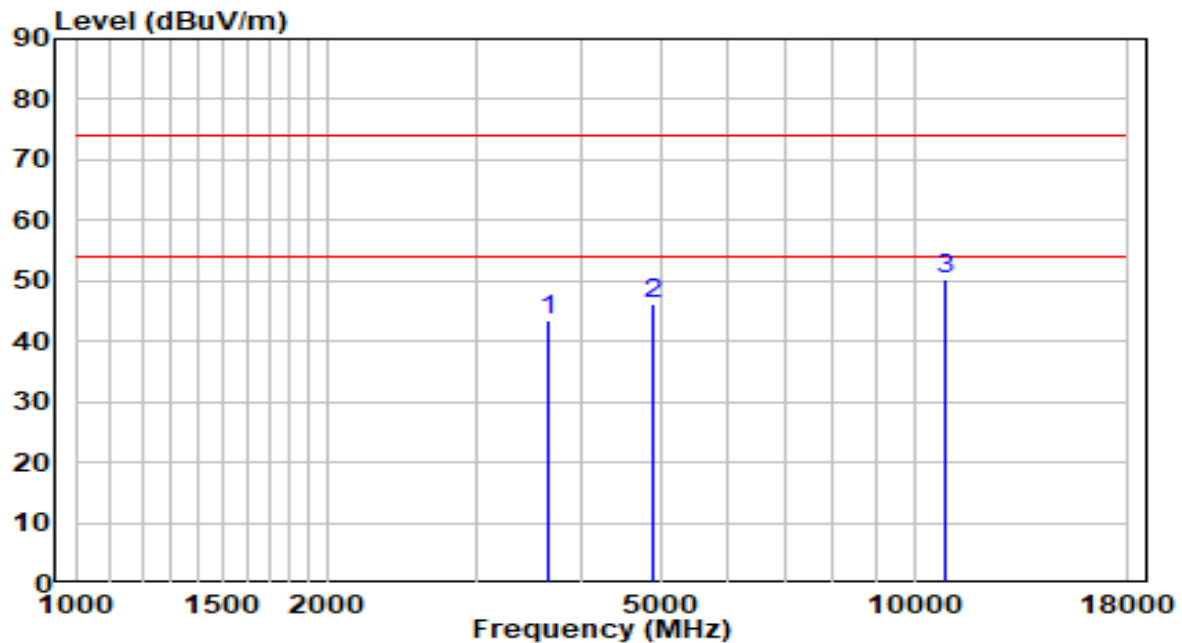


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4791.000        | 40.68          | 3.25     | 43.93                | -30.07      | 74.00          | Peak              |
| 2  | 7409.000        | 35.38          | 11.46    | 46.84                | -27.16      | 74.00          | Peak              |
| 3  | * 11098.000     | 31.51          | 17.91    | 49.42                | -24.58      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 20.9°C/36.3%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2437MHz | Test Voltage         | 120V/60Hz      |



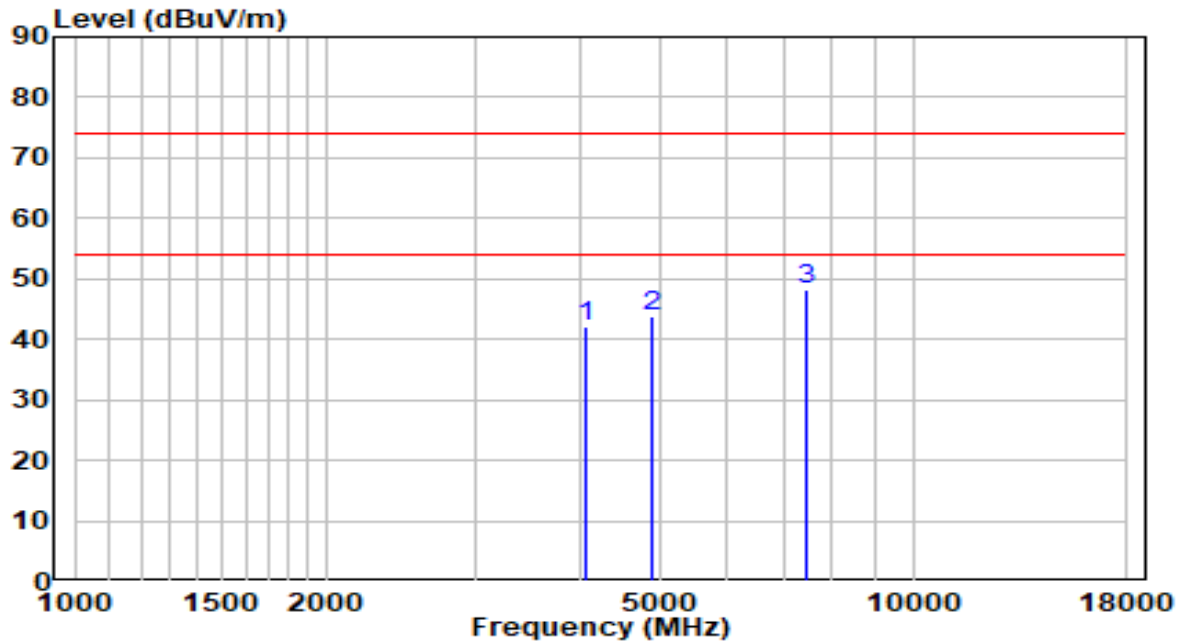
| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 3652.000        | 43.75          | -0.32    | 43.43                | -30.57      | 74.00          | Peak              |
| 2  | 4876.000        | 42.81          | 3.45     | 46.27                | -27.73      | 74.00          | Peak              |
| 3  | * 10877.000     | 32.49          | 17.61    | 50.09                | -23.91      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.



|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 22.2°C/35.9%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

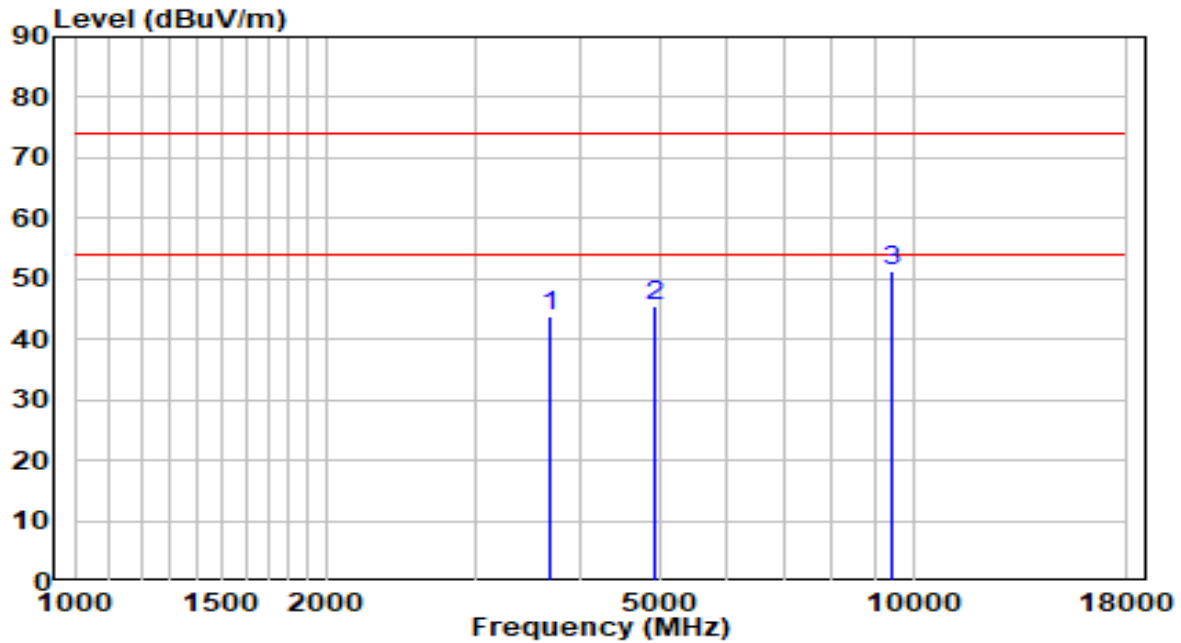


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4068.500        | 40.89          | 1.11     | 42.00                | -32.00      | 74.00          | Peak              |
| 2  | 4867.500        | 40.35          | 3.43     | 43.78                | -30.22      | 74.00          | Peak              |
| 3  | * 7460.000      | 36.70          | 11.60    | 48.31                | -25.69      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 22.2°C/35.9%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

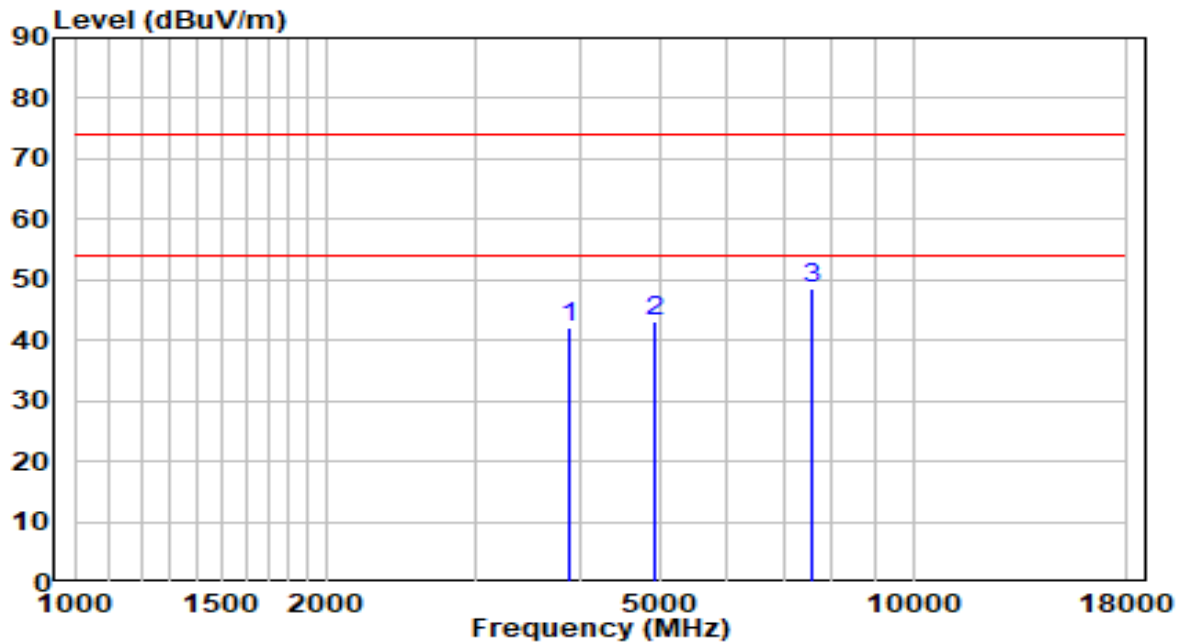


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 3694.500        | 43.90          | -0.17    | 43.72                | -30.28      | 74.00          | Peak              |
| 2  | 4927.000        | 41.92          | 3.57     | 45.50                | -28.50      | 74.00          | Peak              |
| 3  | * 9457.500      | 37.06          | 14.36    | 51.42                | -22.58      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 22.2°C/35.9%   |
| Polarity  | Horizontal                                  | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

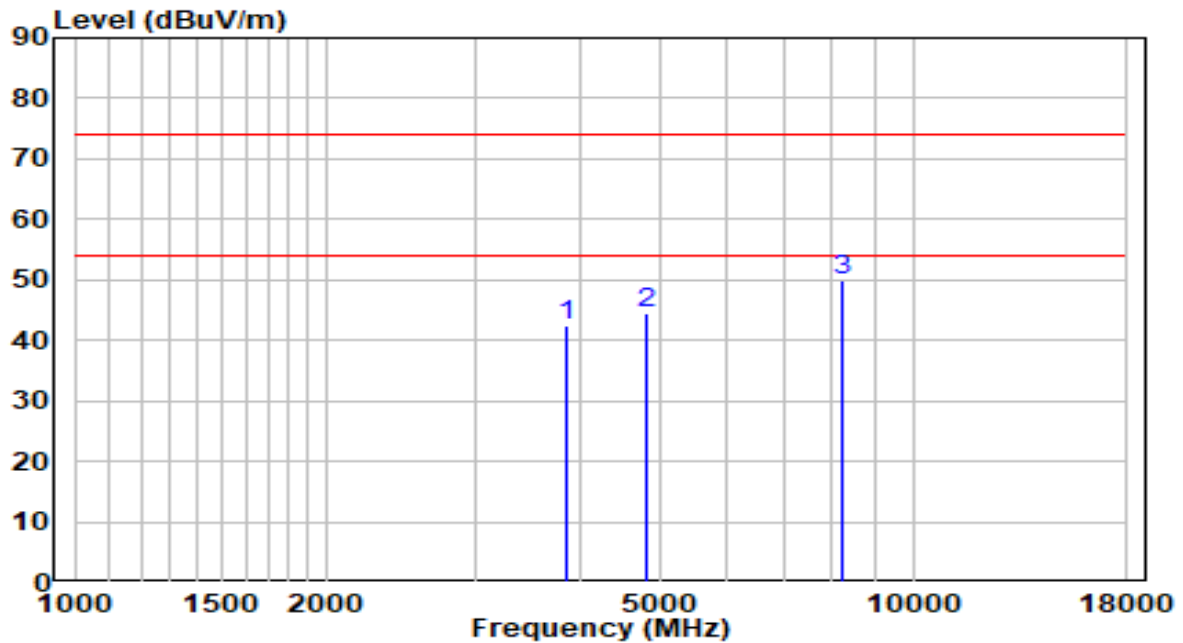


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 3890.000        | 41.68          | 0.50     | 42.18                | -31.82      | 74.00          | Peak              |
| 2  | 4935.500        | 39.48          | 3.60     | 43.08                | -30.92      | 74.00          | Peak              |
| 3  | * 7570.500      | 36.89          | 11.83    | 48.72                | -25.28      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 22.2°C/35.9%   |
| Polarity  | Vertical                                    | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

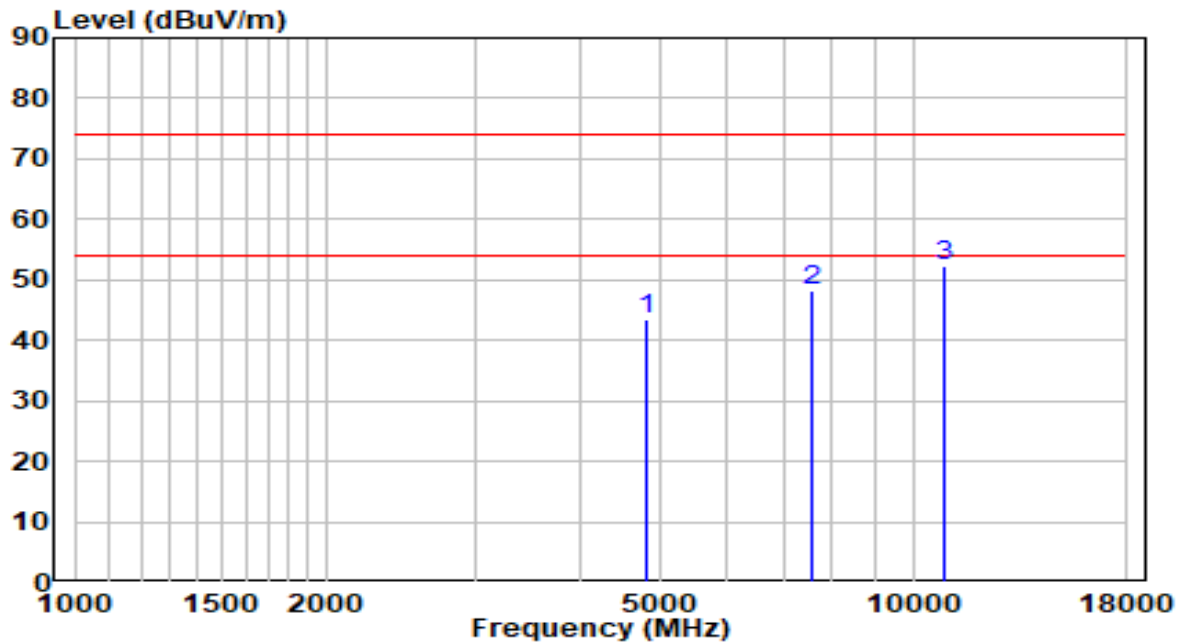


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 3873.000        | 42.07          | 0.44     | 42.51                | -31.49      | 74.00          | Peak              |
| 2  | 4825.000        | 41.09          | 3.33     | 44.42                | -29.58      | 74.00          | Peak              |
| 3  | * 8250.500      | 37.39          | 12.49    | 49.88                | -24.12      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 22.2°C/35.9%   |
| Polarity  | Horizontal                                  | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

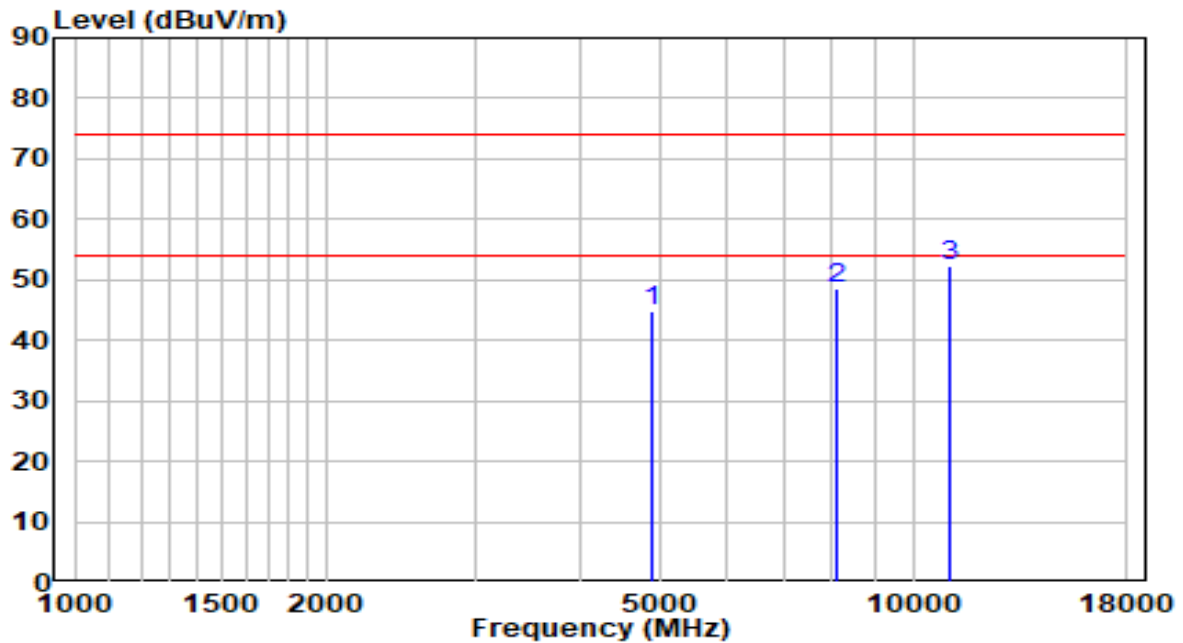


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4808.000        | 40.24          | 3.29     | 43.53                | -30.47      | 74.00          | Peak              |
| 2  | 7562.000        | 36.29          | 11.82    | 48.11                | -25.89      | 74.00          | Peak              |
| 3  | * 10868.500     | 34.86          | 17.59    | 52.45                | -21.55      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 22.2°C/35.9%   |
| Polarity  | Vertical                                    | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

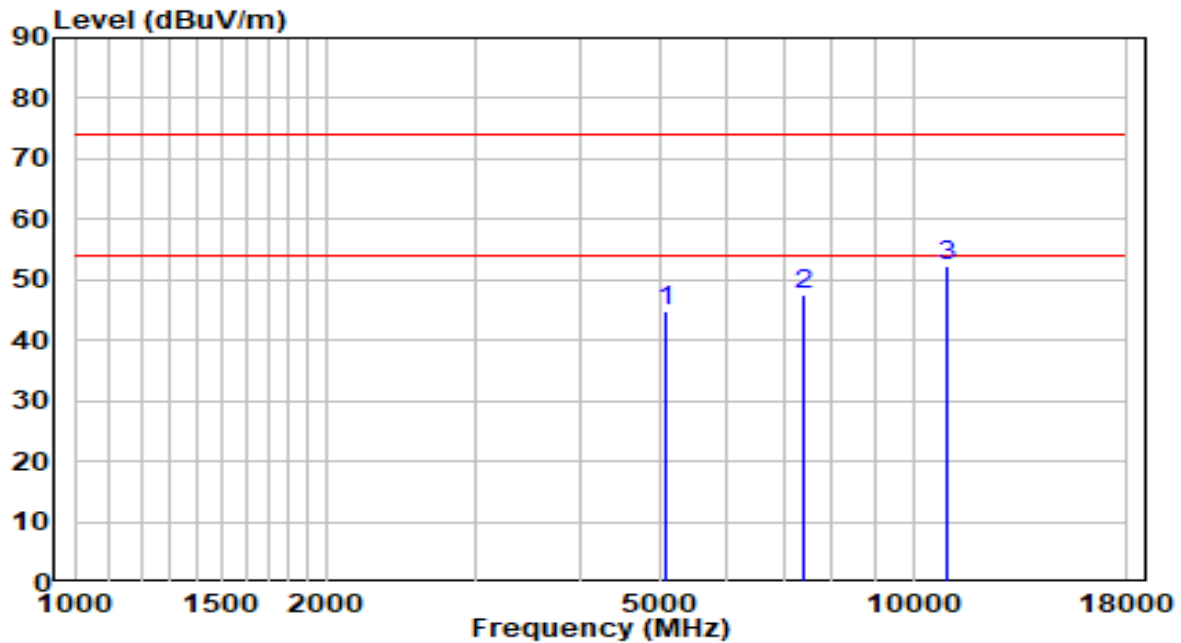


| No | Frequency (MHz) | Reading (dBUV) | C.F (dB) | Measurement (dBUV/m) | Margin (dB) | Limit (dBUV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4876.000        | 41.39          | 3.45     | 44.84                | -29.16      | 74.00          | Peak              |
| 2  | 8106.000        | 36.13          | 12.51    | 48.65                | -25.35      | 74.00          | Peak              |
| 3  | * 11047.000     | 34.61          | 17.84    | 52.45                | -21.55      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 22.2°C/35.9%   |
| Polarity  | Horizontal                                  | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

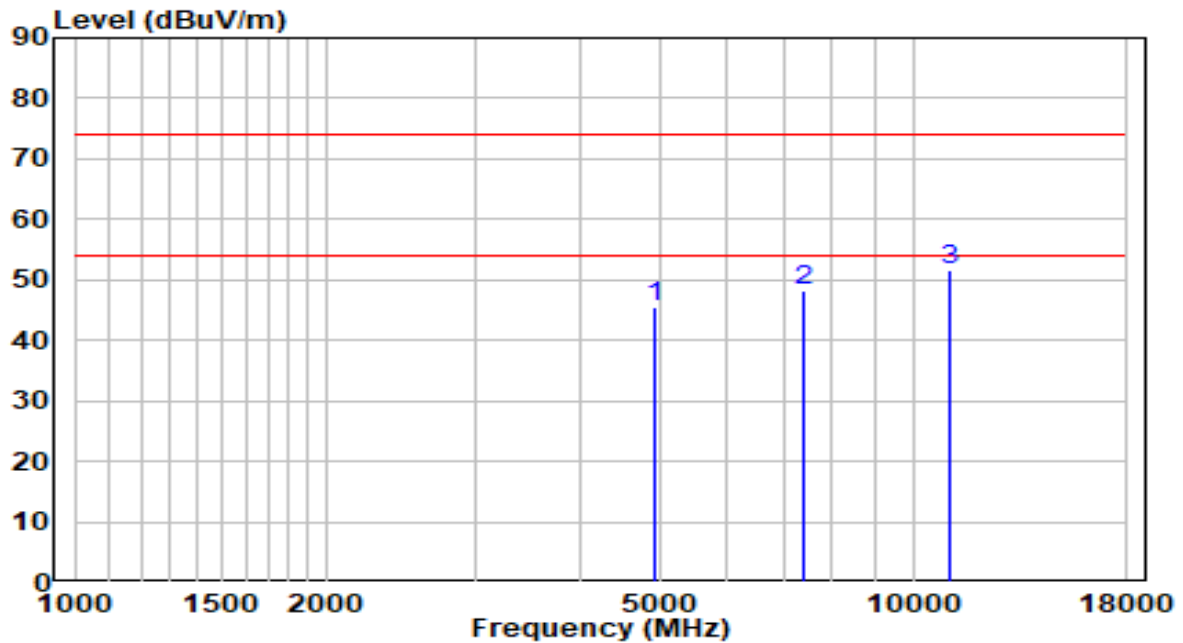


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 5054.500        | 41.19          | 3.81     | 45.00                | -29.00      | 74.00          | Peak              |
| 2  | 7383.500        | 36.26          | 11.39    | 47.65                | -26.35      | 74.00          | Peak              |
| 3  | * 10962.000     | 34.74          | 17.73    | 52.47                | -21.53      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 22.2°C/35.9%   |
| Polarity  | Vertical                                    | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2462MHz | Test Voltage         | 120V/60Hz      |



| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 4918.500        | 41.87          | 3.55     | 45.43                | -28.57      | 74.00          | Peak              |
| 2  | 7383.500        | 36.80          | 11.39    | 48.19                | -25.81      | 74.00          | Peak              |
| 3  | * 11081.000     | 33.89          | 17.89    | 51.78                | -22.22      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)– Preamplifier(dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.



### Data for Omni Antenna

|              |                                                                                                                                                                                   |               |          |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|
| Test Site    | AC1                                                                                                                                                                               | Test Engineer | Jay Chou |
| Test Date    | 2021/06/09                                                                                                                                                                        | Test Mode     | 802.11b  |
| Test Channel | 01                                                                                                                                                                                |               |          |
| Remark:      | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |               |          |

| Mark | Frequency (MHz) | Reading Level (dBμV) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|----------------------|-------------|------------------------|----------------|-------------|----------|--------------|
|      | 8199.5          | 32.7                 | 12.5        | 45.2                   | 74.0           | -28.8       | Peak     | Horizontal   |
|      | 11778.0         | 28.1                 | 18.1        | 46.2                   | 74.0           | -27.8       | Peak     | Horizontal   |
|      | 15773.0         | 29.2                 | 21.0        | 50.2                   | 74.0           | -23.8       | Peak     | Horizontal   |
|      | 8284.5          | 32.7                 | 12.5        | 45.2                   | 74.0           | -28.8       | Peak     | Vertical     |
|      | 11395.5         | 26.9                 | 18.3        | 45.2                   | 74.0           | -28.8       | Peak     | Vertical     |
|      | 15824.0         | 28.9                 | 20.9        | 49.8                   | 74.0           | -24.2       | Peak     | Vertical     |

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

|              |                                                                                                                                                                                   |               |          |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|
| Test Site    | AC1                                                                                                                                                                               | Test Engineer | Jay Chou |
| Test Date    | 2021/06/09                                                                                                                                                                        | Test Mode     | 802.11b  |
| Test Channel | 06                                                                                                                                                                                |               |          |
| Remark:      | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |               |          |

| Mark | Frequency (MHz) | Reading Level (dBμV) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|----------------------|-------------|------------------------|----------------|-------------|----------|--------------|
|      | 8403.5          | 31.5                 | 12.5        | 44.0                   | 74.0           | -30.0       | Peak     | Horizontal   |
|      | 11812.0         | 25.2                 | 18.1        | 43.3                   | 74.0           | -30.7       | Peak     | Horizontal   |
|      | 15917.5         | 26.7                 | 20.7        | 47.4                   | 74.0           | -26.6       | Peak     | Horizontal   |
|      | 8403.5          | 32.7                 | 12.5        | 45.2                   | 74.0           | -28.8       | Peak     | Vertical     |
|      | 11888.5         | 27.8                 | 18.0        | 45.8                   | 74.0           | -28.2       | Peak     | Vertical     |
|      | 15543.5         | 27.9                 | 21.4        | 49.3                   | 74.0           | -24.7       | Peak     | Vertical     |

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

|              |                                                                                                                                                                                   |               |          |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|
| Test Site    | AC1                                                                                                                                                                               | Test Engineer | Jay Chou |
| Test Date    | 2021/06/09                                                                                                                                                                        | Test Mode     | 802.11b  |
| Test Channel | 11                                                                                                                                                                                |               |          |
| Remark:      | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |               |          |

| Mark | Frequency (MHz) | Reading Level (dBμV) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|----------------------|-------------|------------------------|----------------|-------------|----------|--------------|
|      | 8284.5          | 32.5                 | 12.5        | 45.0                   | 74.0           | -29.0       | Peak     | Horizontal   |
|      | 11047.0         | 27.7                 | 17.8        | 45.5                   | 74.0           | -28.5       | Peak     | Horizontal   |
|      | 15467.0         | 28.0                 | 21.5        | 49.5                   | 74.0           | -24.5       | Peak     | Horizontal   |
|      | 8276.0          | 31.4                 | 12.5        | 43.9                   | 74.0           | -30.1       | Peak     | Vertical     |
|      | 11293.5         | 27.4                 | 18.2        | 45.6                   | 74.0           | -28.4       | Peak     | Vertical     |
|      | 15467.0         | 26.5                 | 21.5        | 48.0                   | 74.0           | -26.0       | Peak     | Vertical     |

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

|              |                                                                                                                                                                                   |               |          |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|
| Test Site    | AC1                                                                                                                                                                               | Test Engineer | Jay Chou |
| Test Date    | 2021/06/09                                                                                                                                                                        | Test Mode     | 802.11g  |
| Test Channel | 01                                                                                                                                                                                |               |          |
| Remark:      | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |               |          |

| Mark | Frequency (MHz) | Reading Level (dBμV) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|----------------------|-------------|------------------------|----------------|-------------|----------|--------------|
|      | 8293.0          | 32.7                 | 12.5        | 45.2                   | 74.0           | -28.8       | Peak     | Horizontal   |
|      | 12118.0         | 28.0                 | 17.8        | 45.8                   | 74.0           | -28.2       | Peak     | Horizontal   |
|      | 15747.5         | 28.1                 | 21.0        | 49.1                   | 74.0           | -24.9       | Peak     | Horizontal   |
|      | 8386.5          | 32.9                 | 12.5        | 45.4                   | 74.0           | -28.6       | Peak     | Vertical     |
|      | 12118.0         | 26.5                 | 17.8        | 44.3                   | 74.0           | -29.7       | Peak     | Vertical     |
|      | 15543.5         | 27.7                 | 21.4        | 49.1                   | 74.0           | -24.9       | Peak     | Vertical     |

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

|              |                                                                                                                                                                                   |               |          |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|
| Test Site    | AC1                                                                                                                                                                               | Test Engineer | Jay Chou |
| Test Date    | 2021/06/09                                                                                                                                                                        | Test Mode     | 802.11g  |
| Test Channel | 06                                                                                                                                                                                |               |          |
| Remark:      | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |               |          |

| Mark | Frequency (MHz) | Reading Level (dBμV) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|----------------------|-------------|------------------------|----------------|-------------|----------|--------------|
|      | 8344.0          | 32.5                 | 12.5        | 45.0                   | 74.0           | -29.0       | Peak     | Horizontal   |
|      | 11786.5         | 27.7                 | 18.1        | 45.8                   | 74.0           | -28.2       | Peak     | Horizontal   |
|      | 15739.0         | 28.9                 | 21.0        | 49.9                   | 74.0           | -24.1       | Peak     | Horizontal   |
|      | 8242.0          | 33.4                 | 12.5        | 45.9                   | 74.0           | -28.1       | Peak     | Vertical     |
|      | 11948.0         | 28.6                 | 17.9        | 46.5                   | 74.0           | -27.5       | Peak     | Vertical     |
|      | 15560.5         | 28.4                 | 21.3        | 49.7                   | 74.0           | -24.3       | Peak     | Vertical     |

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

|              |                                                                                                                                                                                   |               |          |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|
| Test Site    | AC1                                                                                                                                                                               | Test Engineer | Jay Chou |
| Test Date    | 2021/06/09                                                                                                                                                                        | Test Mode     | 802.11g  |
| Test Channel | 11                                                                                                                                                                                |               |          |
| Remark:      | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |               |          |

| Mark | Frequency (MHz) | Reading Level (dBμV) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|----------------------|-------------|------------------------|----------------|-------------|----------|--------------|
|      | 8284.5          | 32.6                 | 12.5        | 45.1                   | 74.0           | -28.9       | Peak     | Horizontal   |
|      | 11880.0         | 28.5                 | 18.0        | 46.5                   | 74.0           | -27.5       | Peak     | Horizontal   |
|      | 15543.5         | 27.6                 | 21.4        | 49.0                   | 74.0           | -25.0       | Peak     | Horizontal   |
|      | 8386.5          | 33.3                 | 12.5        | 45.8                   | 74.0           | -28.2       | Peak     | Vertical     |
|      | 11446.5         | 27.1                 | 18.4        | 45.5                   | 74.0           | -28.5       | Peak     | Vertical     |
|      | 15773.0         | 28.5                 | 21.0        | 49.5                   | 74.0           | -24.5       | Peak     | Vertical     |

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

|              |                                                                                                                                                                                   |               |              |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|
| Test Site    | AC1                                                                                                                                                                               | Test Engineer | Jay Chou     |
| Test Date    | 2021/06/09                                                                                                                                                                        | Test Mode     | 802.11n-HT20 |
| Test Channel | 01                                                                                                                                                                                |               |              |
| Remark:      | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |               |              |

| Mark | Frequency (MHz) | Reading Level (dBμV) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|----------------------|-------------|------------------------|----------------|-------------|----------|--------------|
|      | 8335.5          | 32.2                 | 12.5        | 44.7                   | 74.0           | -29.3       | Peak     | Horizontal   |
|      | 12458.0         | 28.5                 | 17.9        | 46.4                   | 74.0           | -27.6       | Peak     | Horizontal   |
|      | 15560.5         | 28.7                 | 21.3        | 50.0                   | 74.0           | -24.0       | Peak     | Horizontal   |
|      | 8284.5          | 32.4                 | 12.5        | 44.9                   | 74.0           | -29.1       | Peak     | Vertical     |
|      | 11659.0         | 27.5                 | 18.3        | 45.8                   | 74.0           | -28.2       | Peak     | Vertical     |
|      | 15739.0         | 28.1                 | 21.0        | 49.1                   | 74.0           | -24.9       | Peak     | Vertical     |

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

|              |                                                                                                                                                                                   |               |              |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|
| Test Site    | AC1                                                                                                                                                                               | Test Engineer | Jay Chou     |
| Test Date    | 2021/06/09                                                                                                                                                                        | Test Mode     | 802.11n-HT20 |
| Test Channel | 06                                                                                                                                                                                |               |              |
| Remark:      | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |               |              |

| Mark | Frequency (MHz) | Reading Level (dBμV) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|----------------------|-------------|------------------------|----------------|-------------|----------|--------------|
|      | 8301.5          | 34.0                 | 12.5        | 46.5                   | 74.0           | -27.5       | Peak     | Horizontal   |
|      | 11931.0         | 28.5                 | 17.9        | 46.4                   | 74.0           | -27.6       | Peak     | Horizontal   |
|      | 15560.5         | 28.2                 | 21.3        | 49.5                   | 74.0           | -24.5       | Peak     | Horizontal   |
|      | 8335.5          | 45.2                 | 12.5        | 57.7                   | 74.0           | -16.3       | Peak     | Vertical     |
|      | 11642.0         | 28.2                 | 18.3        | 46.5                   | 74.0           | -27.5       | Peak     | Vertical     |
|      | 15577.5         | 29.0                 | 21.3        | 50.3                   | 74.0           | -23.7       | Peak     | Vertical     |

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



|              |                                                                                                                                                                                   |               |              |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|
| Test Site    | AC1                                                                                                                                                                               | Test Engineer | Jay Chou     |
| Test Date    | 2021/06/09                                                                                                                                                                        | Test Mode     | 802.11n-HT20 |
| Test Channel | 11                                                                                                                                                                                |               |              |
| Remark:      | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |               |              |

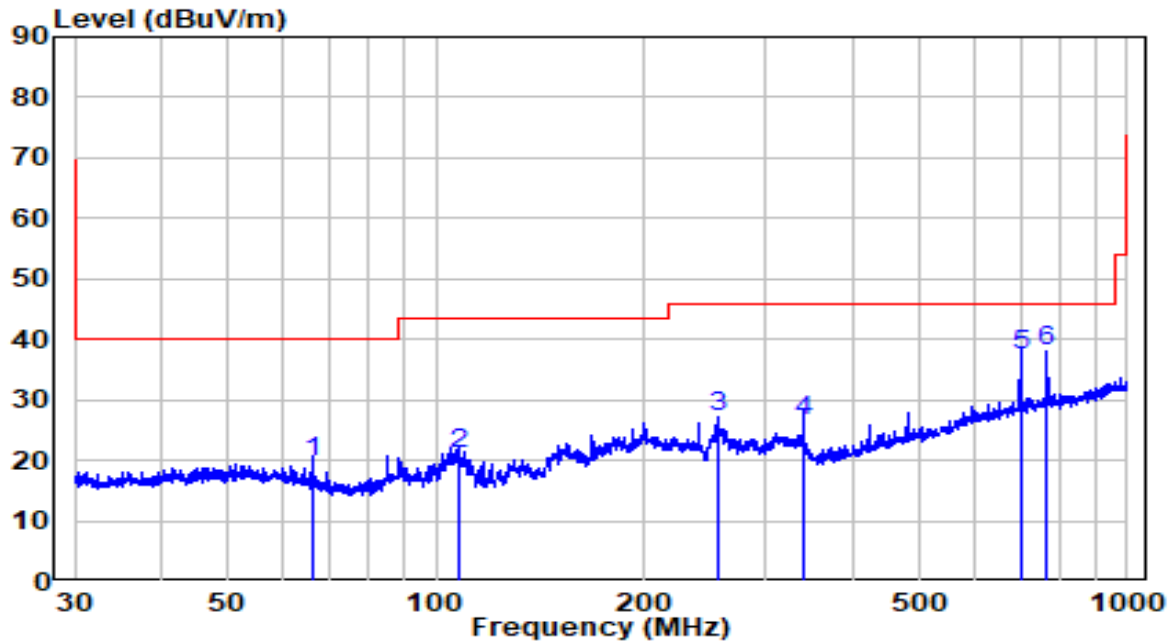
| Mark | Frequency (MHz) | Reading Level (dBμV) | Factor (dB) | Measure Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|----------------------|-------------|------------------------|----------------|-------------|----------|--------------|
|      | 8284.5          | 33.7                 | 12.5        | 46.2                   | 74.0           | -27.8       | Peak     | Horizontal   |
|      | 11659.0         | 27.7                 | 18.3        | 46.0                   | 74.0           | -28.0       | Peak     | Horizontal   |
|      | 15450.0         | 27.8                 | 21.5        | 49.3                   | 74.0           | -24.7       | Peak     | Horizontal   |
|      | 7392.0          | 36.9                 | 11.4        | 48.3                   | 74.0           | -25.7       | Peak     | Vertical     |
|      | 11888.5         | 27.8                 | 18.0        | 45.8                   | 74.0           | -28.2       | Peak     | Vertical     |
|      | 15764.5         | 28.7                 | 21.0        | 49.7                   | 74.0           | -24.3       | Peak     | Vertical     |

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

### The Worst Case of Radiated Emission below 1GHz:

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-02     |
| Factor    | VULB 9162                              | Temp. / Humidity     | 21.3°C /55%    |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at channel 2412MHz | Test Voltage         | 120V/60Hz      |

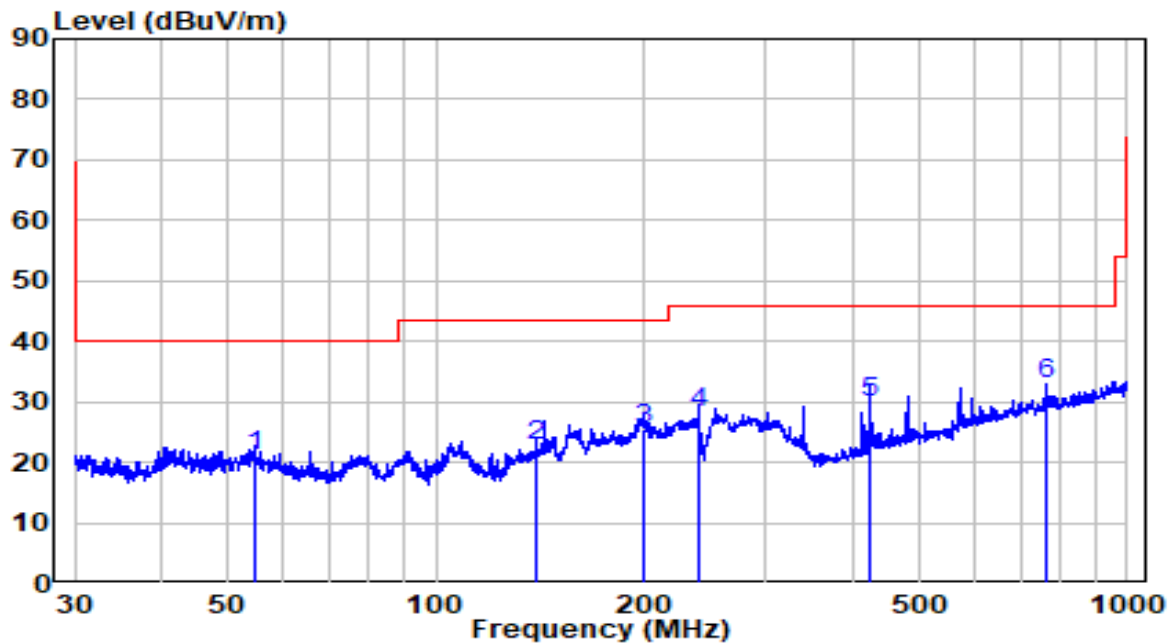


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 66.382          | 1.52           | 18.14    | 19.66                | -20.34      | 40.00          | QP                |
| 2  | 107.699         | 2.27           | 18.82    | 21.09                | -22.41      | 43.50          | QP                |
| 3  | 255.175         | 6.56           | 20.56    | 27.12                | -18.88      | 46.00          | QP                |
| 4  | 340.185         | 3.68           | 22.89    | 26.57                | -19.43      | 46.00          | QP                |
| 5  | 700.532         | 8.00           | 29.33    | 37.33                | -8.67       | 46.00          | QP                |
| 6  | * 766.057       | 7.94           | 30.24    | 38.18                | -7.82       | 46.00          | QP                |

#### Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5.The amplitude of Radiated emissions (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 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.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-02     |
| Factor    | VULB 9162                              | Temp. / Humidity     | 21.3°C /55%    |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at channel 2412MHz | Test Voltage         | 120V/60Hz      |



| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 54.643          | -0.21          | 21.20    | 20.99                | -19.01      | 40.00          | QP                |
| 2  | 139.606         | 6.58           | 16.04    | 22.62                | -20.88      | 43.50          | QP                |
| 3  | 200.337         | 6.31           | 19.23    | 25.54                | -17.96      | 43.50          | QP                |
| 4  | 239.987         | 7.88           | 20.20    | 28.08                | -17.92      | 46.00          | QP                |
| 5  | 425.028         | 5.50           | 24.48    | 29.98                | -16.02      | 46.00          | QP                |
| 6  | * 766.057       | 2.58           | 30.24    | 32.82                | -13.18      | 46.00          | QP                |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5.The amplitude of Radiated emissions (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 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.

## 7.7. Radiated Restricted Band Edge Measurement

### 7.7.1. 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<br>(MHz)         | Frequency<br>(MHz)    | Frequency<br>(MHz) | Frequency<br>(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 Limits |                          |                               |
|-----------------------------------------------|--------------------------|-------------------------------|
| Frequency<br>[MHz]                            | Field Strength<br>[uV/m] | Measured Distance<br>[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                             |

### 7.7.2.Test Procedure Used

ANSI C63.10 - 2013 - Section 11.12

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

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

### 7.7.3.Test Setting

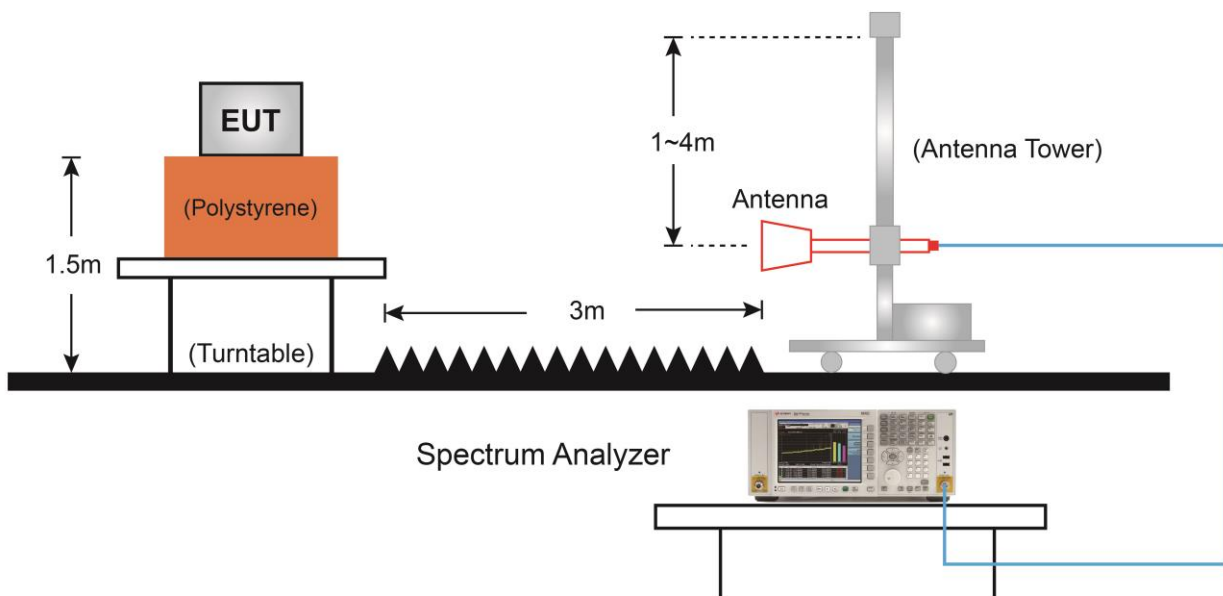
#### Peak Field Strength Measurements

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 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

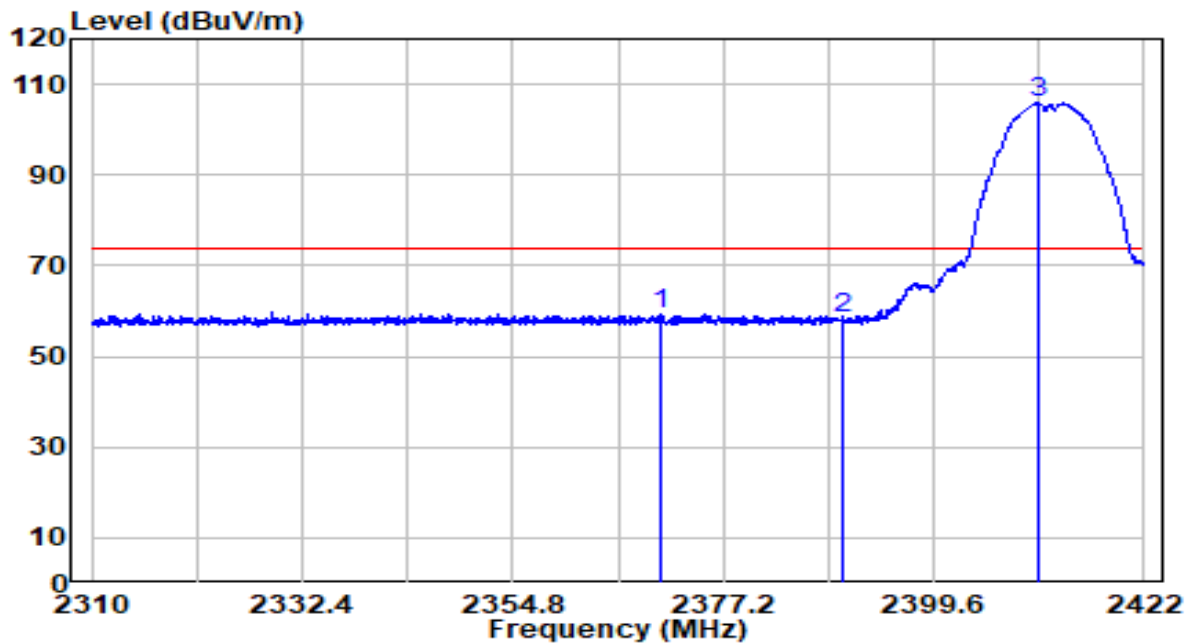
#### 7.7.4.Test Setup



### 7.7.5.Test Result

#### DATA for PCB Antenna

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

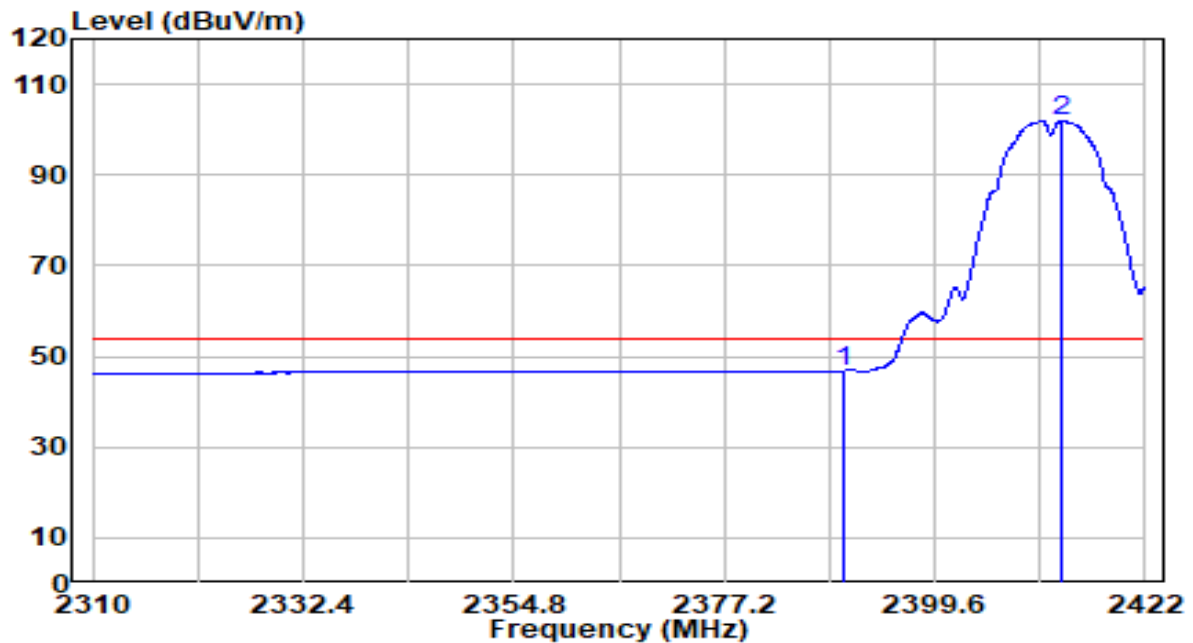


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2370.424        | 27.29          | 32.21    | 59.50                | -14.50      | 74.00          | Peak              |
| 2  | 2390.000        | 26.09          | 32.30    | 58.39                | -15.61      | 74.00          | Peak              |
| 3  | *               | 73.41          | 32.39    | 105.80               | N/A         | N/A            | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2412MHz | Test Voltage         | 120V/60Hz      |



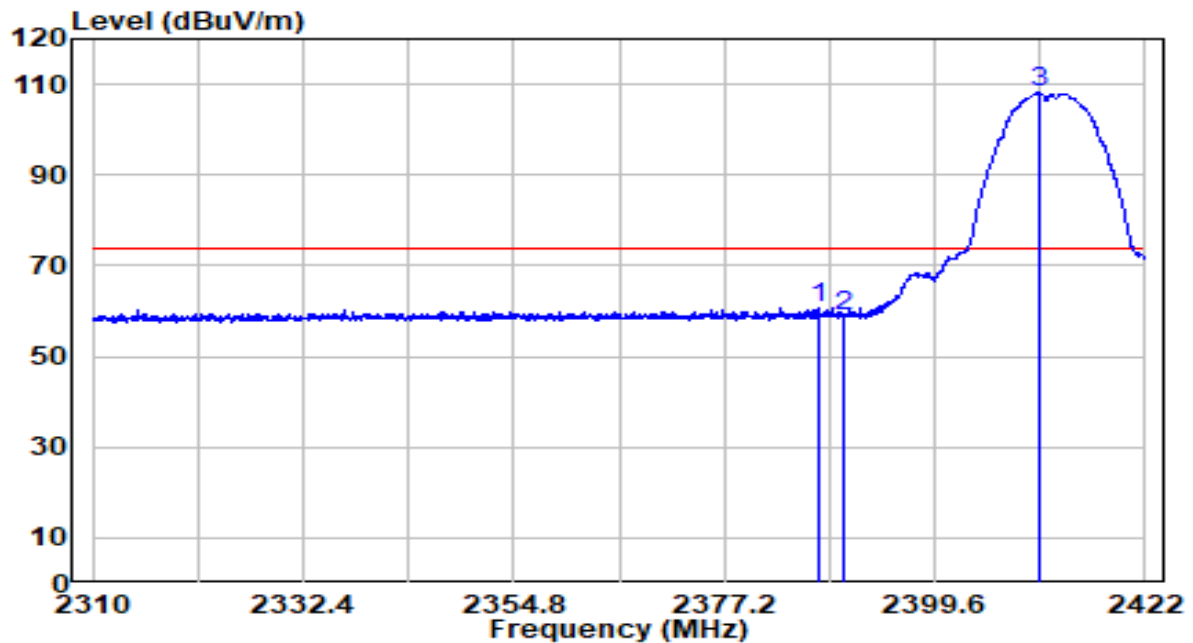
| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 14.56          | 32.30    | 46.86                | -7.14       | 54.00          | Average           |
| 2  | * 2413.208      | 69.46          | 32.40    | 101.86               | N/A         | N/A            | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.



|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

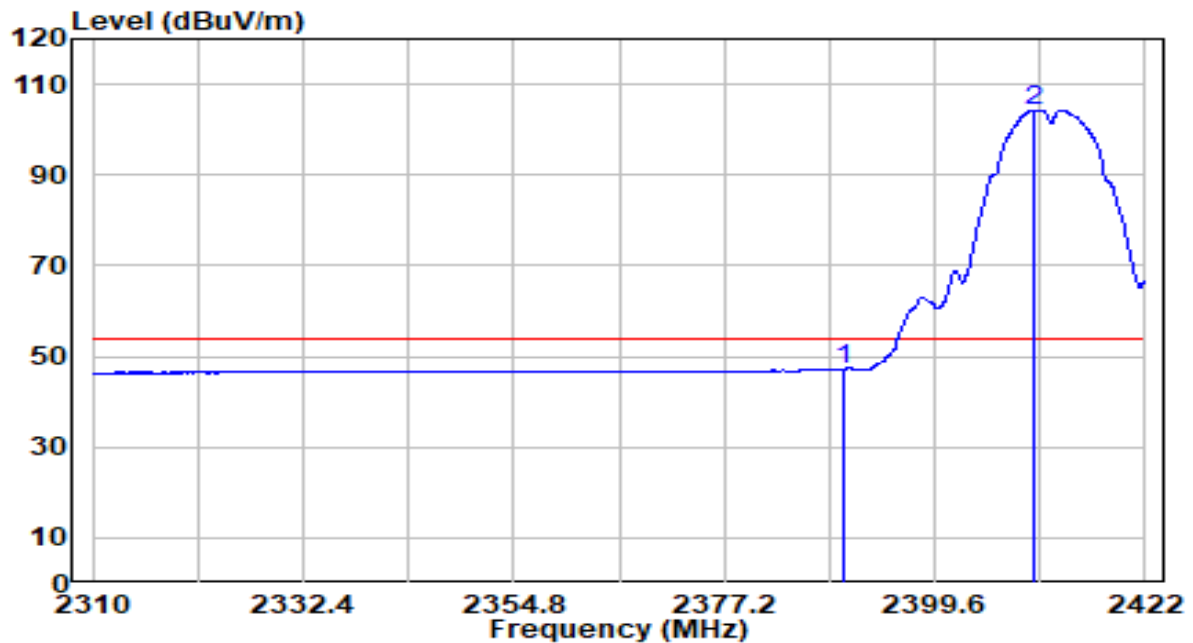


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2387.280        | 28.46          | 32.28    | 60.74                | -13.26      | 74.00          | Peak              |
| 2  | 2390.000        | 26.63          | 32.30    | 58.93                | -15.07      | 74.00          | Peak              |
| 3  | * 2410.632      | 75.64          | 32.39    | 108.03               | N/A         | N/A            | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

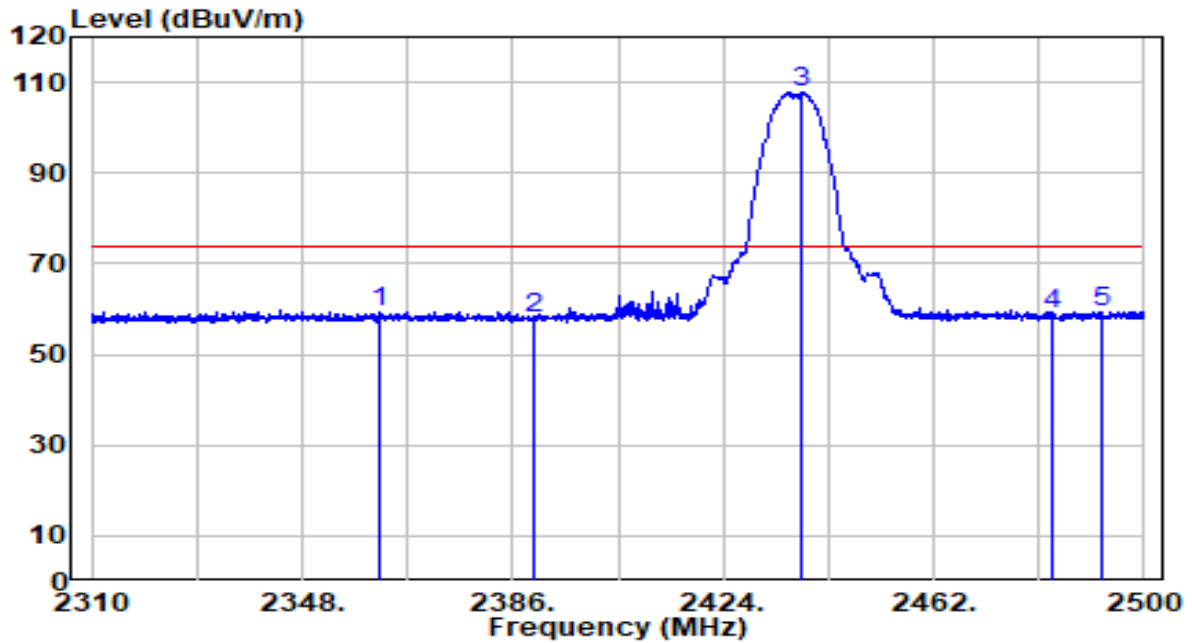


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 14.98          | 32.30    | 47.28                | -6.72       | 54.00          | Average           |
| 2  | * 2410.184      | 71.92          | 32.38    | 104.30               | N/A         | N/A            | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

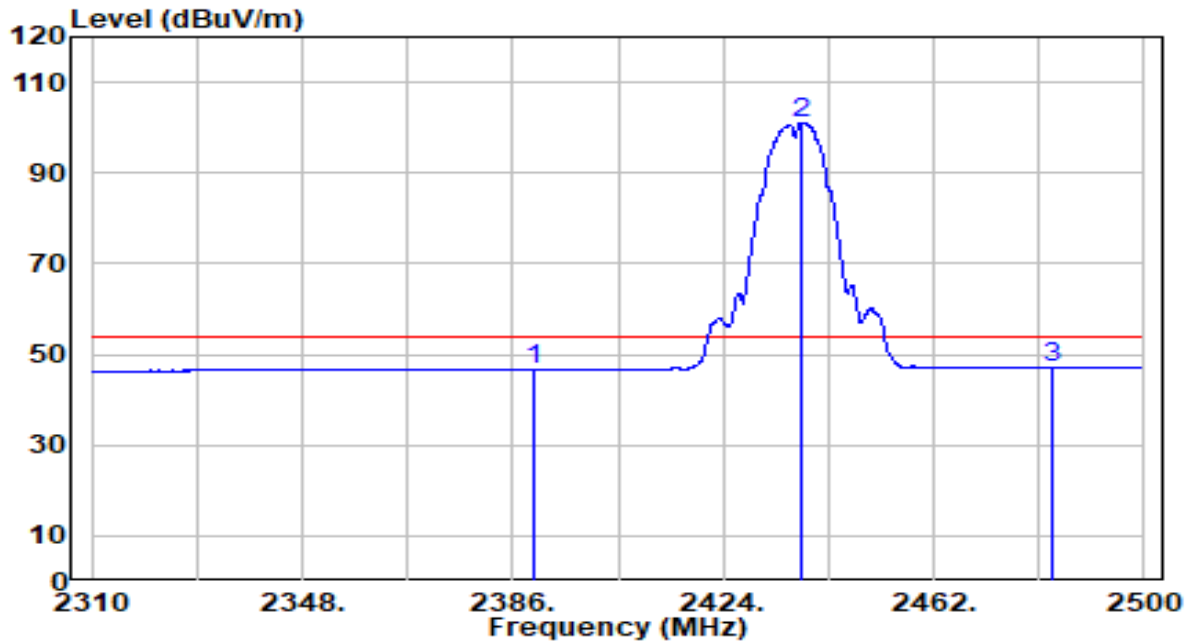


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2361.870        | 27.21          | 32.17    | 59.38                | -14.62      | 74.00          | Peak              |
| 2  | 2390.000        | 25.62          | 32.30    | 57.91                | -16.09      | 74.00          | Peak              |
| 3  | * 2438.345      | 75.30          | 32.51    | 107.81               | N/A         | N/A            | Peak              |
| 4  | 2483.500        | 26.04          | 32.71    | 58.75                | -15.25      | 74.00          | Peak              |
| 5  | 2492.400        | 26.65          | 32.75    | 59.39                | -14.61      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

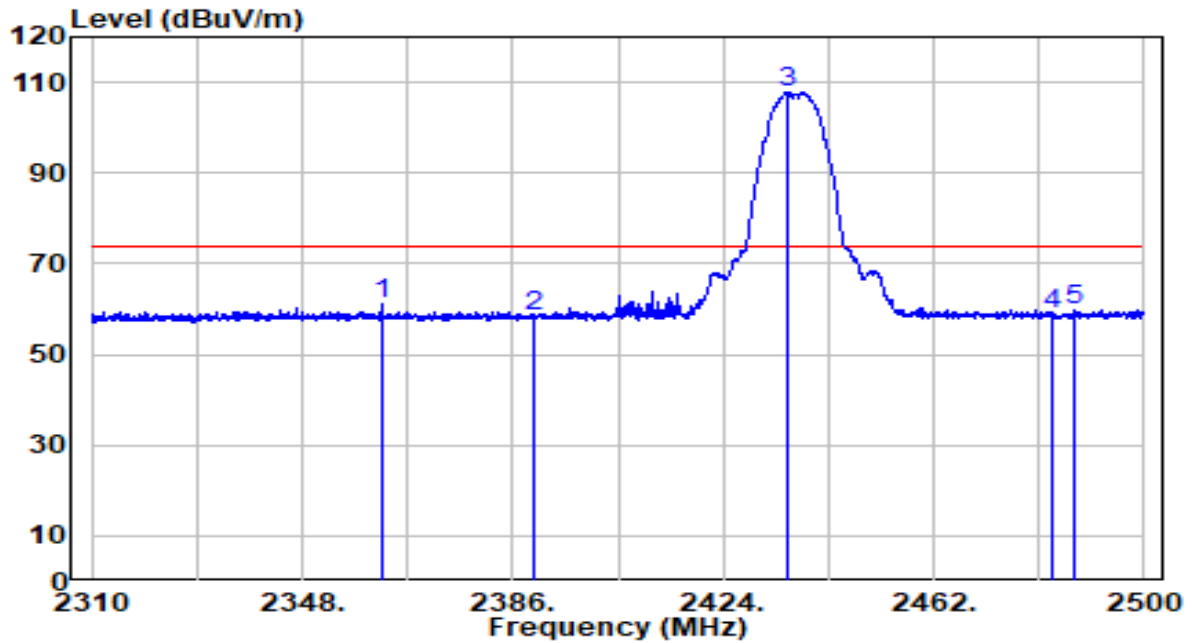


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 14.35          | 32.30    | 46.65                | -7.35       | 54.00          | Average           |
| 2  | * 2438.250      | 68.48          | 32.51    | 100.99               | N/A         | N/A            | Average           |
| 3  | 2483.500        | 14.26          | 32.71    | 46.97                | -7.03       | 54.00          | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

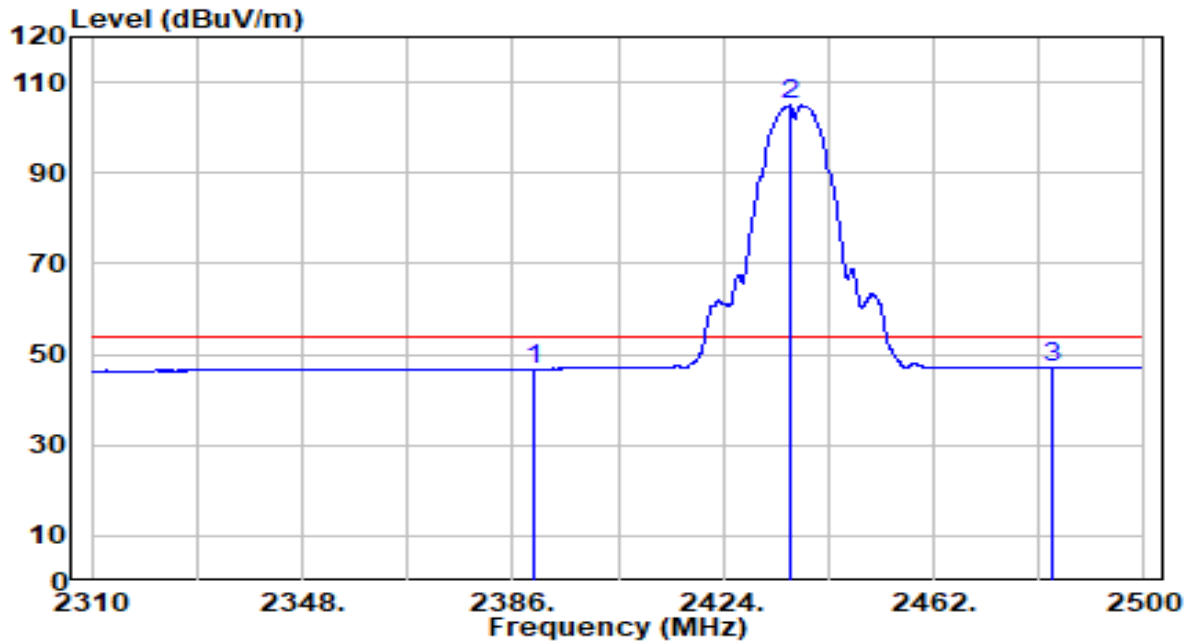


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2362.535        | 29.04          | 32.18    | 61.21                | -12.79      | 74.00          | Peak              |
| 2  | 2390.000        | 26.21          | 32.30    | 58.51                | -15.49      | 74.00          | Peak              |
| 3  | * 2435.685      | 75.34          | 32.50    | 107.84               | N/A         | N/A            | Peak              |
| 4  | 2483.500        | 26.04          | 32.71    | 58.75                | -15.25      | 74.00          | Peak              |
| 5  | 2487.365        | 26.92          | 32.72    | 59.64                | -14.36      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

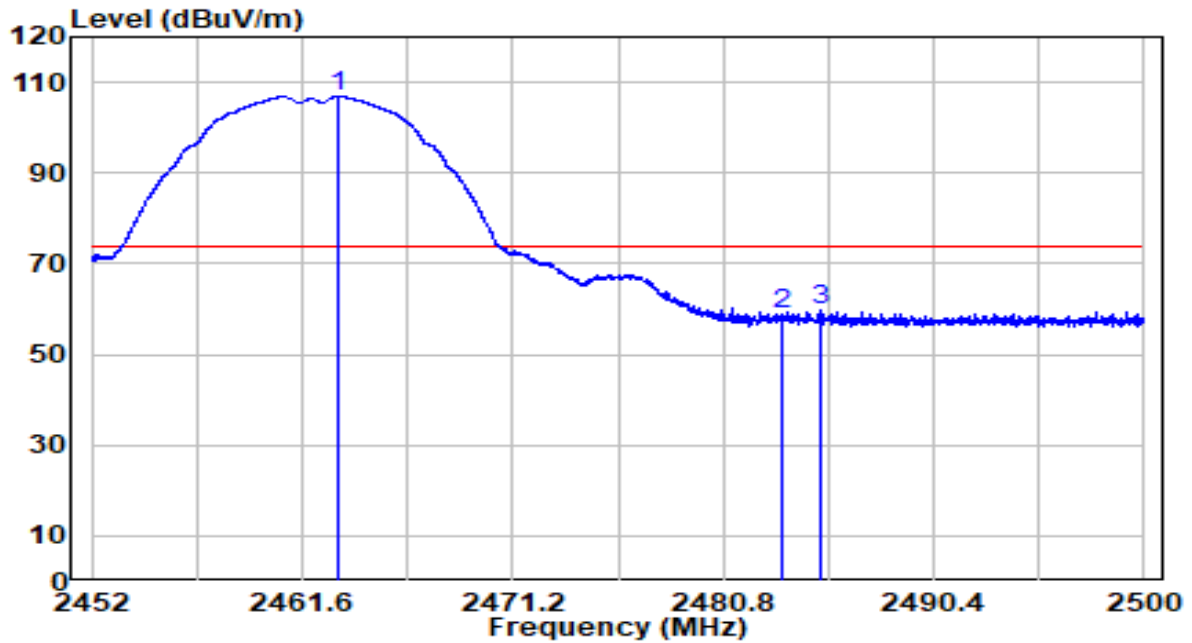


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 14.54          | 32.30    | 46.83                | -7.17       | 54.00          | Average           |
| 2  | * 2436.065      | 72.36          | 32.50    | 104.85               | N/A         | N/A            | Average           |
| 3  | 2483.500        | 14.39          | 32.71    | 47.10                | -6.90       | 54.00          | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

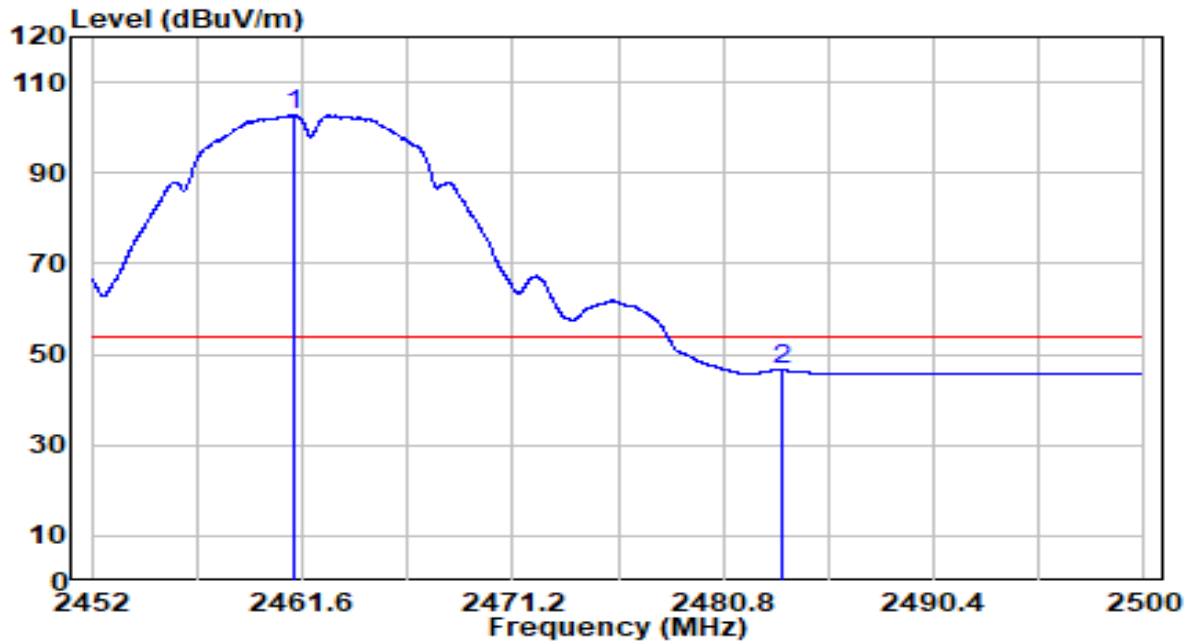


| No |   | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | * | 2463.184        | 74.16          | 32.62    | 106.77               | N/A         | N/A            | Peak              |
| 2  |   | 2483.500        | 26.04          | 32.71    | 58.74                | -15.26      | 74.00          | Peak              |
| 3  |   | 2485.216        | 26.91          | 32.71    | 59.62                | -14.38      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2462MHz | Test Voltage         | 120V/60Hz      |



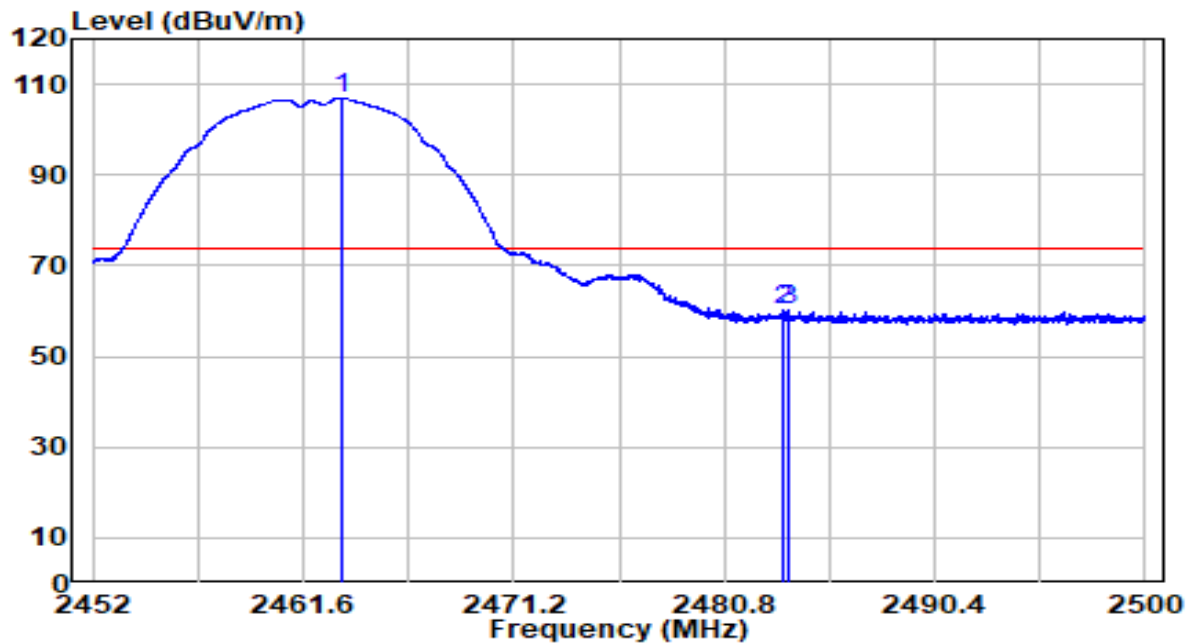
| No |   | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | * | 2461.216        | 70.25          | 32.61    | 102.85               | N/A         | N/A            | Average           |
| 2  |   | 2483.500        | 13.80          | 32.71    | 46.51                | -7.49       | 54.00          | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.



|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

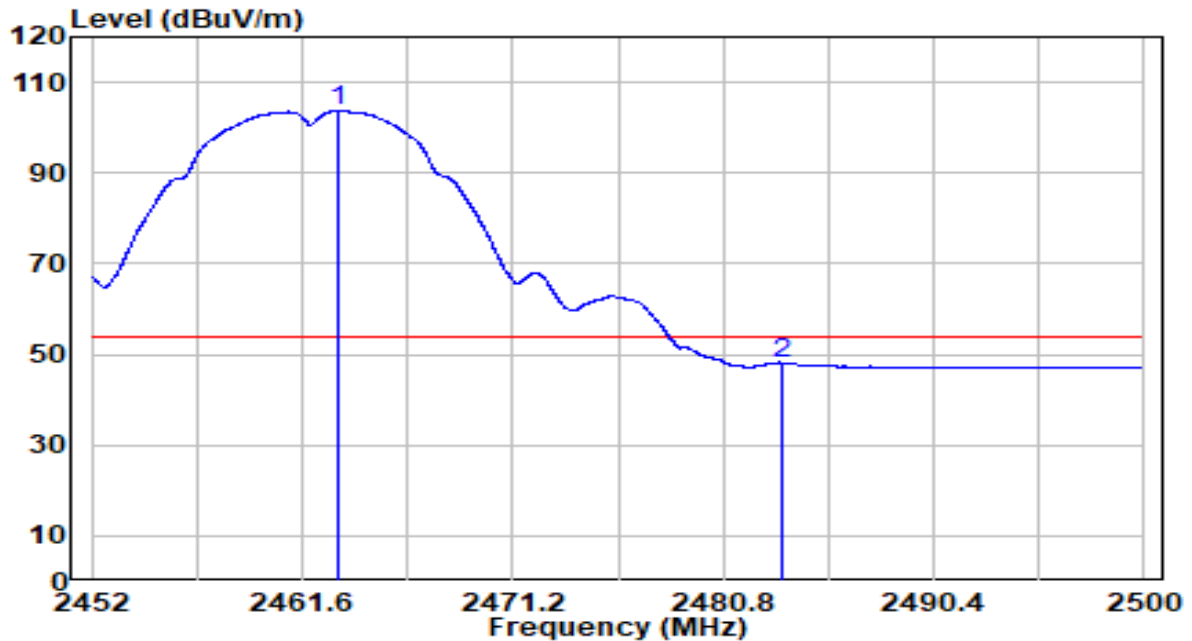


| No |   | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | * | 2463.352        | 74.17          | 32.62    | 106.79               | N/A         | N/A            | Peak              |
| 2  |   | 2483.500        | 27.34          | 32.71    | 60.05                | -13.95      | 74.00          | Peak              |
| 3  |   | 2483.704        | 27.74          | 32.71    | 60.45                | -13.55      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11b at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

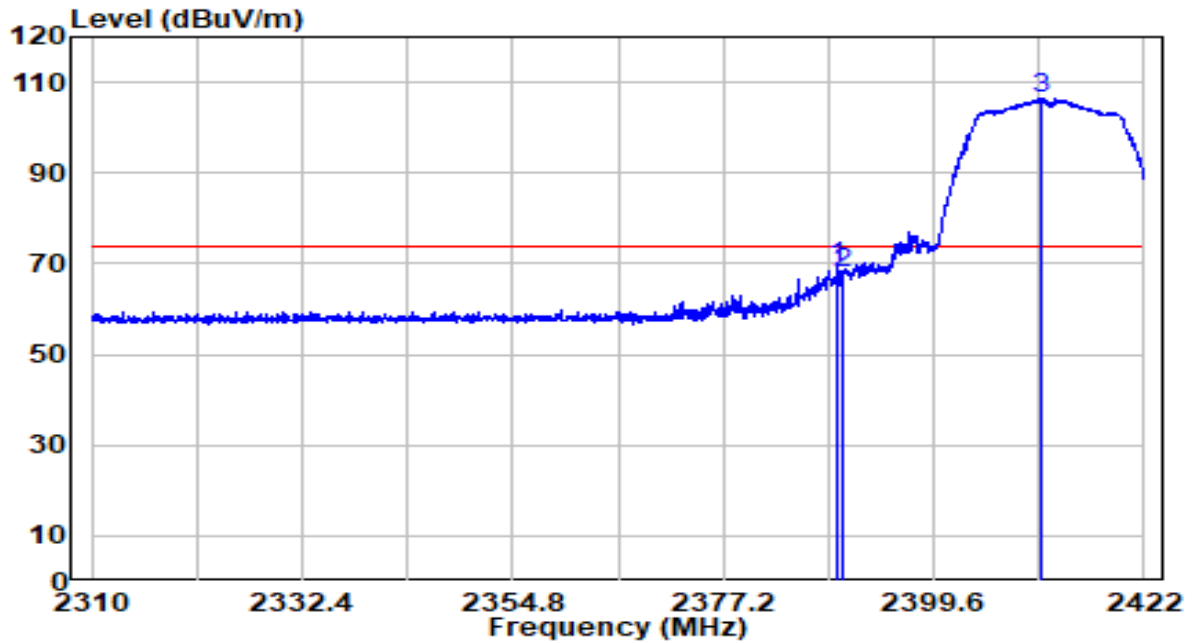


| No |   | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | * | 2463.232        | 70.98          | 32.62    | 103.60               | N/A         | N/A            | Average           |
| 2  |   | 2483.500        | 15.47          | 32.71    | 48.18                | -5.82       | 54.00          | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

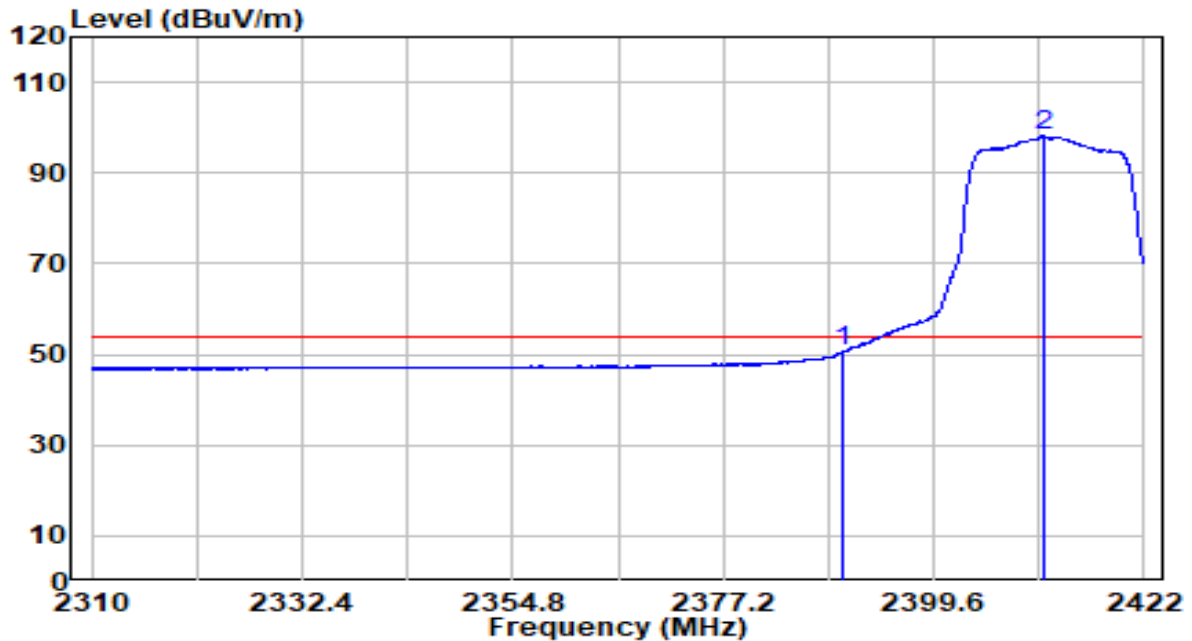


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2389.464        | 36.78          | 32.29    | 69.08                | -4.92       | 74.00          | Peak              |
| 2  | 2390.000        | 35.55          | 32.30    | 67.84                | -6.16       | 74.00          | Peak              |
| 3  | * 2411.136      | 74.10          | 32.39    | 106.49               | N/A         | N/A            | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

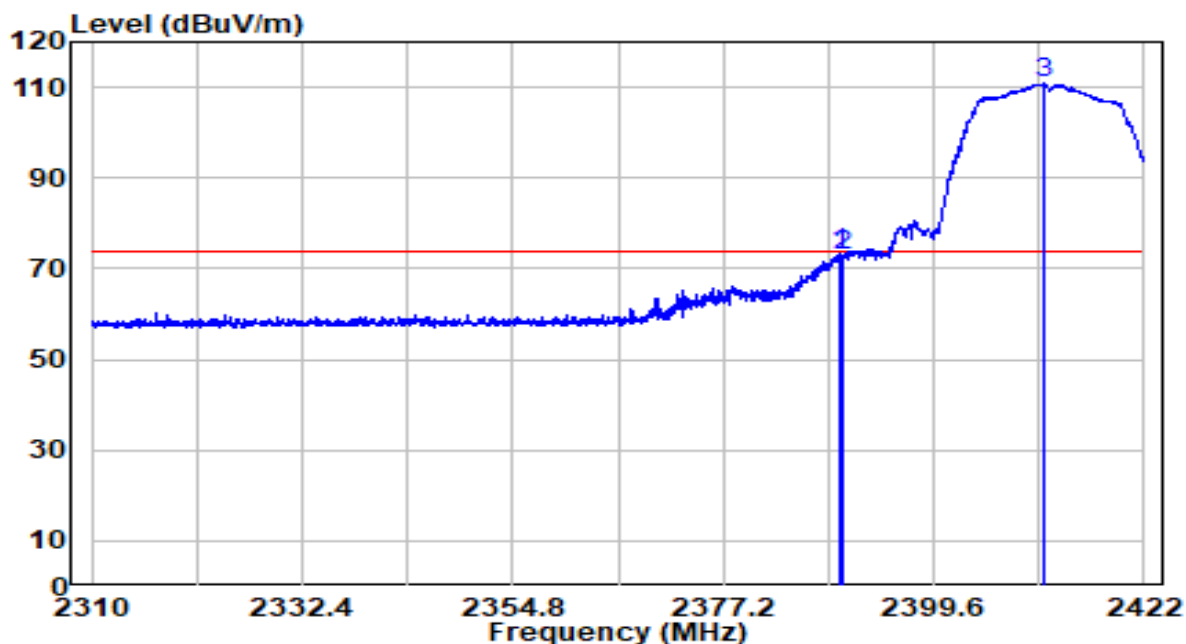


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 18.34          | 32.30    | 50.63                | -3.37       | 54.00          | Average           |
| 2  | * 2411.360      | 65.83          | 32.39    | 98.22                | N/A         | N/A            | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

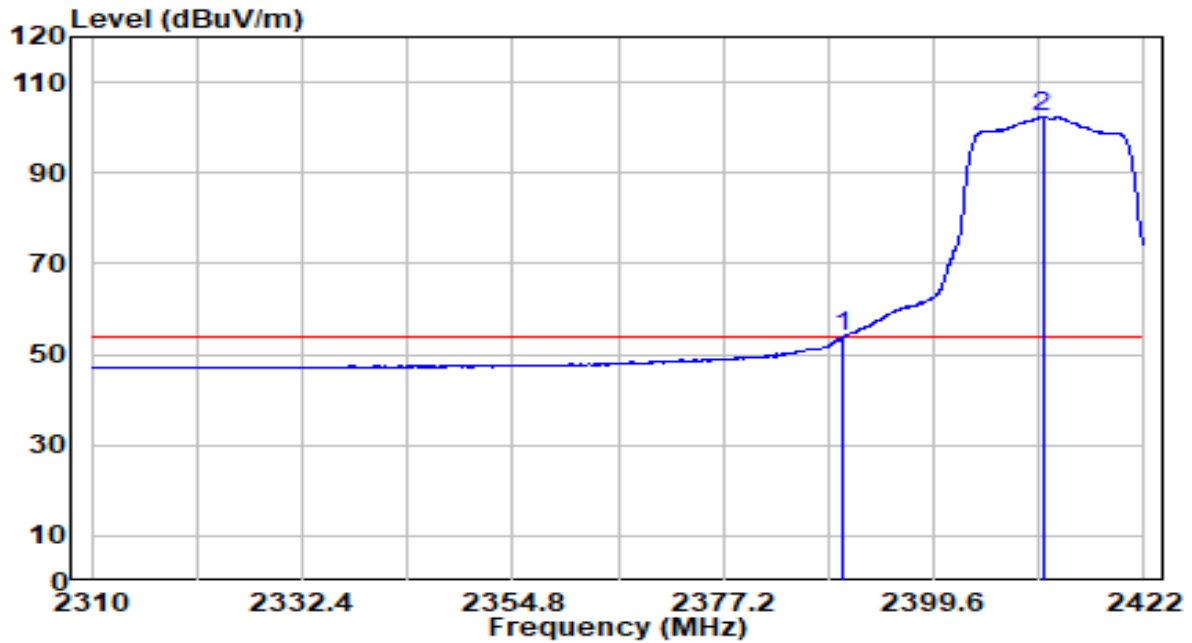


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2389.744        | 40.87          | 32.29    | 73.16                | -0.84       | 74.00          | Peak              |
| 2  | 2390.000        | 40.53          | 32.30    | 72.83                | -1.17       | 74.00          | Peak              |
| 3  | * 2411.248      | 78.44          | 32.39    | 110.83               | N/A         | N/A            | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

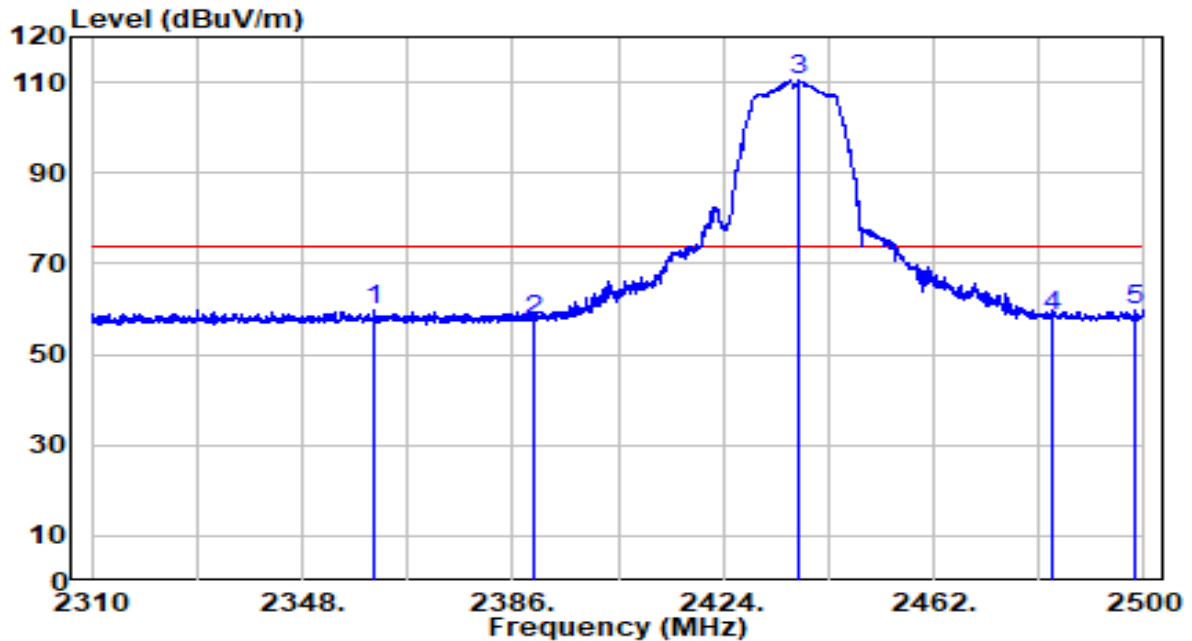


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 21.42          | 32.30    | 53.72                | -0.28       | 54.00          | Average           |
| 2  | * 2411.192      | 70.12          | 32.39    | 102.51               | N/A         | N/A            | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

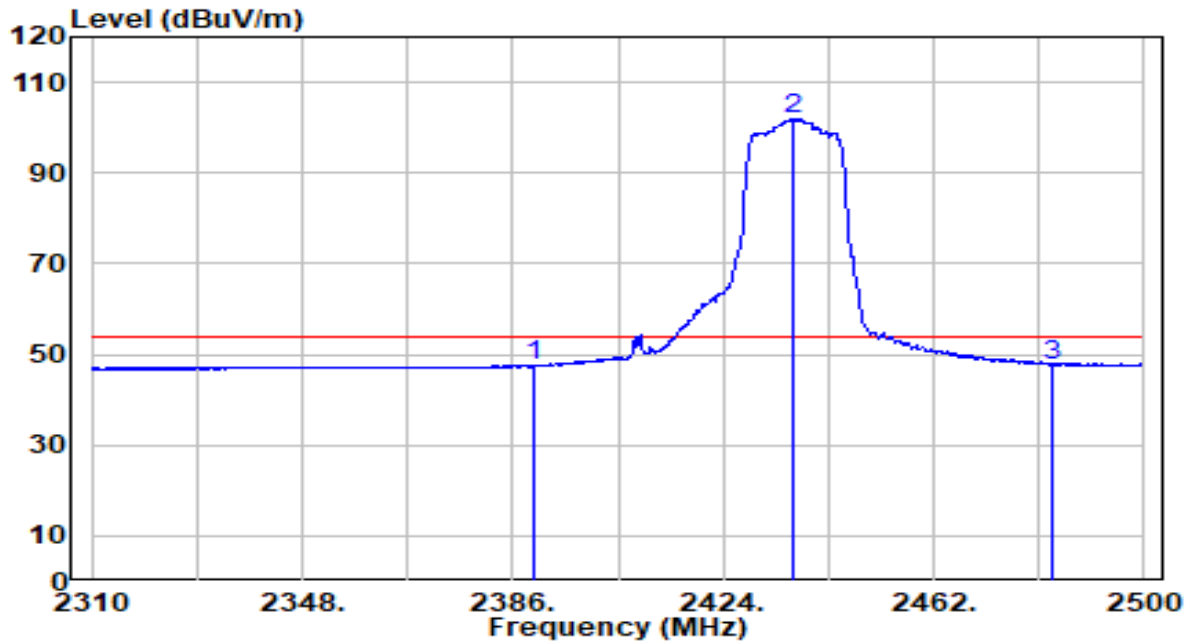


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2360.920        | 27.42          | 32.17    | 59.59                | -14.41      | 74.00          | Peak              |
| 2  | 2390.000        | 25.24          | 32.30    | 57.54                | -16.46      | 74.00          | Peak              |
| 3  | * 2437.585      | 77.98          | 32.51    | 110.48               | N/A         | N/A            | Peak              |
| 4  | 2483.500        | 25.81          | 32.71    | 58.52                | -15.48      | 74.00          | Peak              |
| 5  | 2498.290        | 27.14          | 32.77    | 59.92                | -14.08      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2437MHz | Test Voltage         | 120V/60Hz      |



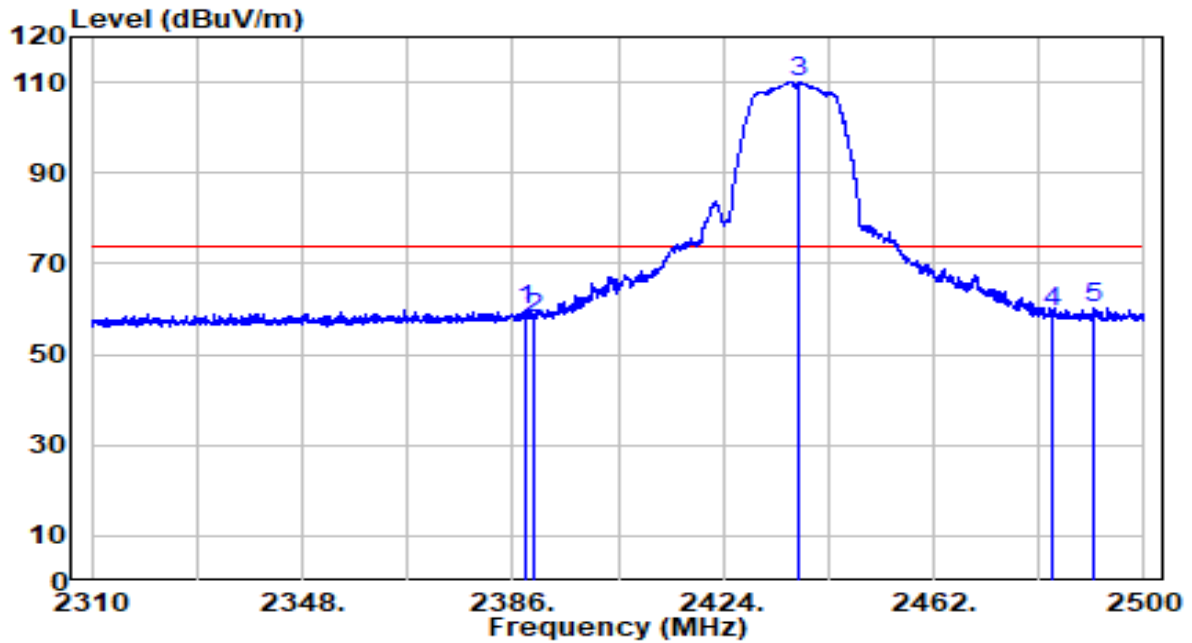
| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 15.10          | 32.30    | 47.40                | -6.60       | 54.00          | Average           |
| 2  | * 2436.730      | 69.30          | 32.50    | 101.80               | N/A         | N/A            | Average           |
| 3  | 2483.500        | 15.04          | 32.71    | 47.75                | -6.25       | 54.00          | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.



|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

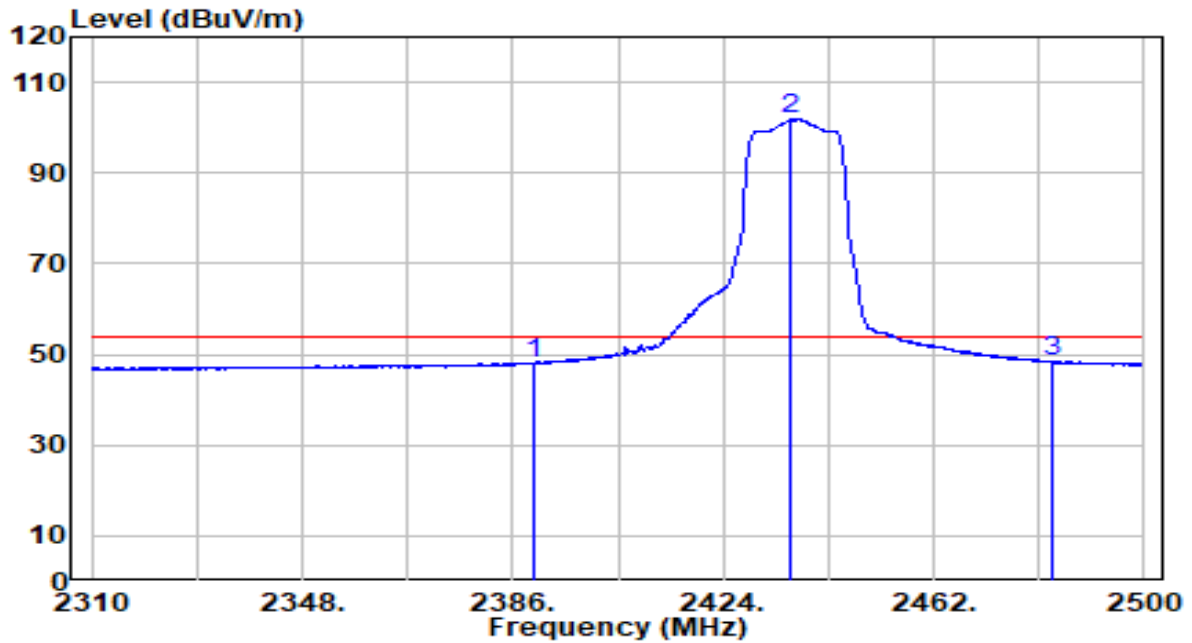


| No | Frequency (MHz) | Reading (dBUV) | C.F (dB) | Measurement (dBUV/m) | Margin (dB) | Limit (dBUV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2388.280        | 27.40          | 32.29    | 59.69                | -14.31      | 74.00          | Peak              |
| 2  | 2390.000        | 25.84          | 32.30    | 58.14                | -15.86      | 74.00          | Peak              |
| 3  | * 2437.680      | 77.73          | 32.51    | 110.24               | N/A         | N/A            | Peak              |
| 4  | 2483.500        | 26.60          | 32.71    | 59.31                | -14.69      | 74.00          | Peak              |
| 5  | 2491.070        | 27.59          | 32.74    | 60.33                | -13.67      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

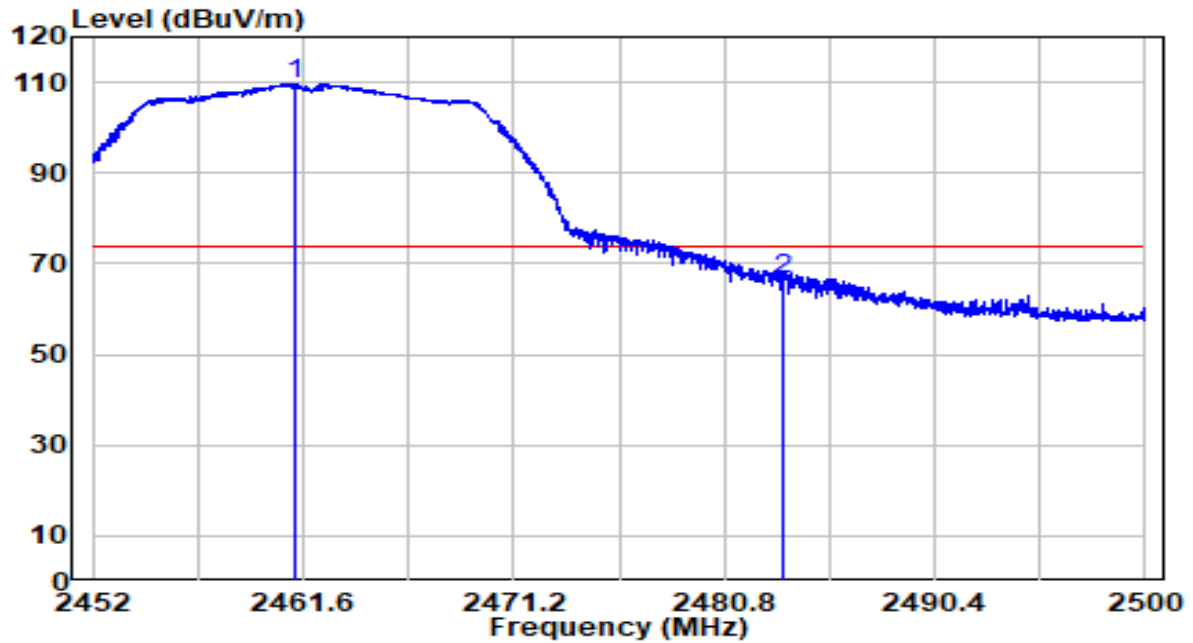


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 15.91          | 32.30    | 48.20                | -5.80       | 54.00          | Average           |
| 2  | * 2436.350      | 69.44          | 32.50    | 101.94               | N/A         | N/A            | Average           |
| 3  | 2483.500        | 15.59          | 32.71    | 48.30                | -5.70       | 54.00          | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

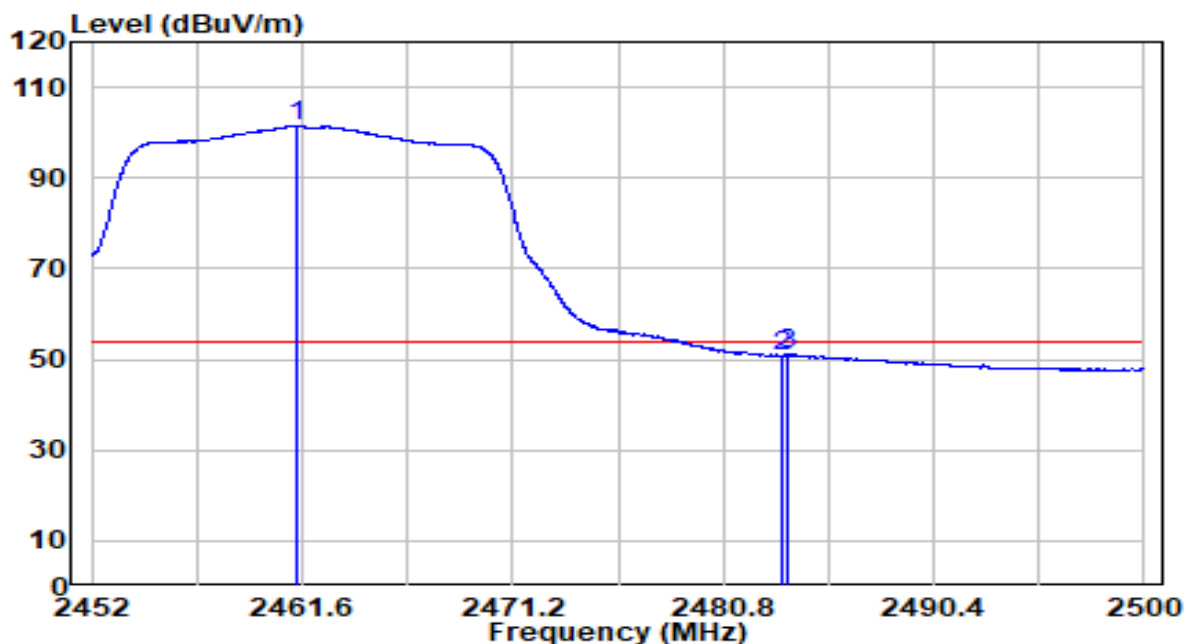


| No |   | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | * | 2461.168        | 77.07          | 32.61    | 109.68               | N/A         | N/A            | Peak              |
| 2  |   | 2483.500        | 33.97          | 32.71    | 66.68                | -7.32       | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                             | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

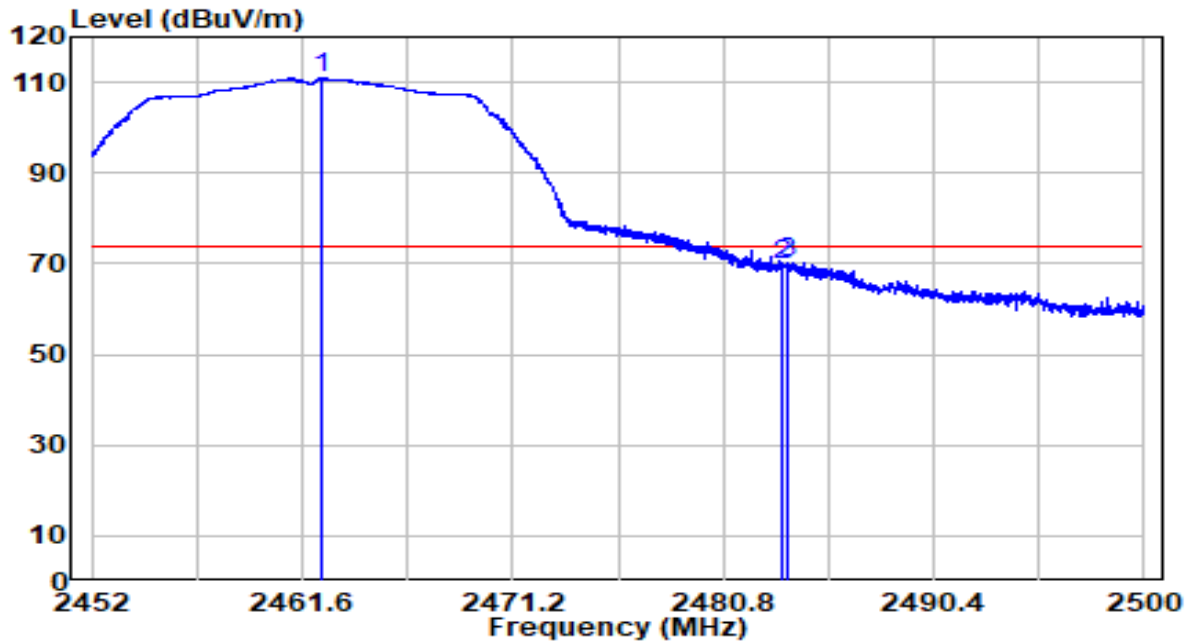


| No |   | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | * | 2461.384        | 68.88          | 32.61    | 101.49               | N/A         | N/A            | Average           |
| 2  |   | 2483.500        | 18.17          | 32.71    | 50.87                | -3.13       | 54.00          | Average           |
| 3  |   | 2483.752        | 18.32          | 32.71    | 51.03                | -2.97       | 54.00          | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

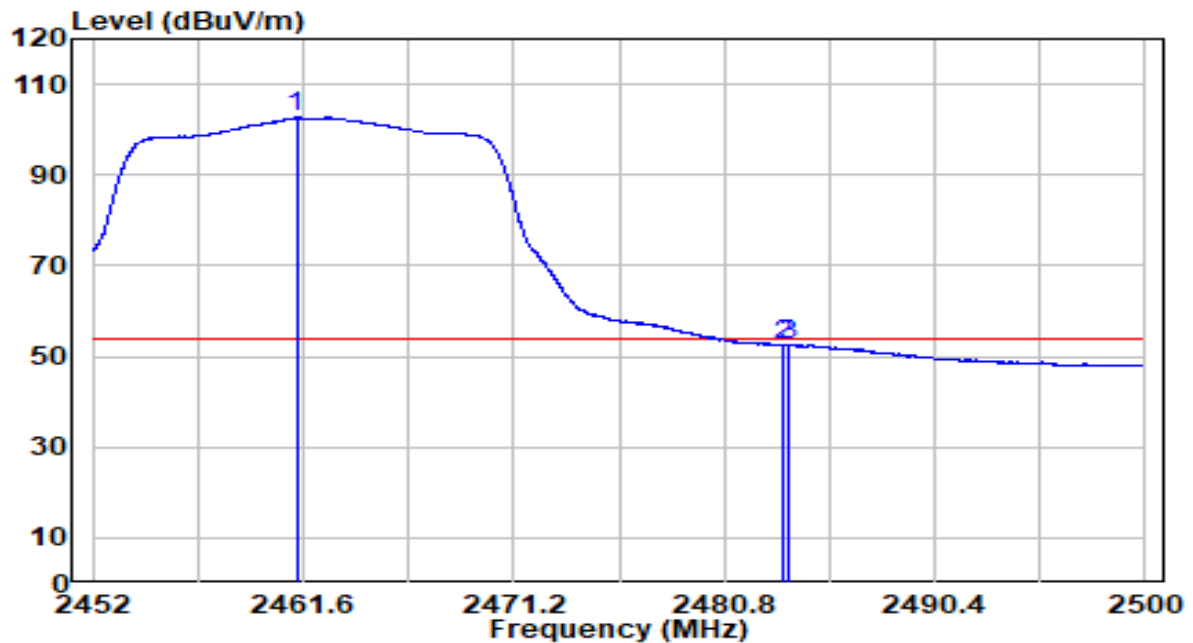


| No |   | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | * | 2462.536        | 78.40          | 32.62    | 111.01               | N/A         | N/A            | Peak              |
| 2  |   | 2483.500        | 37.13          | 32.71    | 69.84                | -4.16       | 74.00          | Peak              |
| 3  |   | 2483.752        | 37.64          | 32.71    | 70.35                | -3.65       | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                        |                      |                |
|-----------|----------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                             | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                               | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11g at Channel 2462MHz | Test Voltage         | 120V/60Hz      |

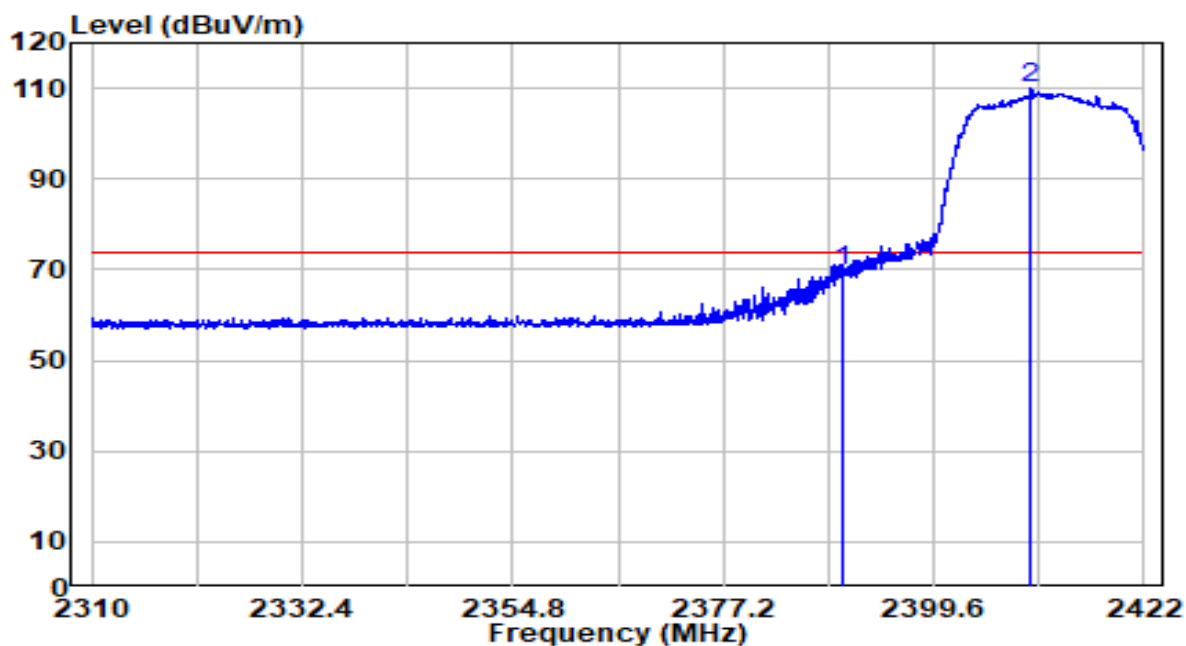


| No |   | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|---|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | * | 2461.288        | 70.00          | 32.61    | 102.61               | N/A         | N/A            | Average           |
| 2  |   | 2483.500        | 19.91          | 32.71    | 52.61                | -1.39       | 54.00          | Average           |
| 3  |   | 2483.752        | 19.88          | 32.71    | 52.58                | -1.42       | 54.00          | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                                  | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

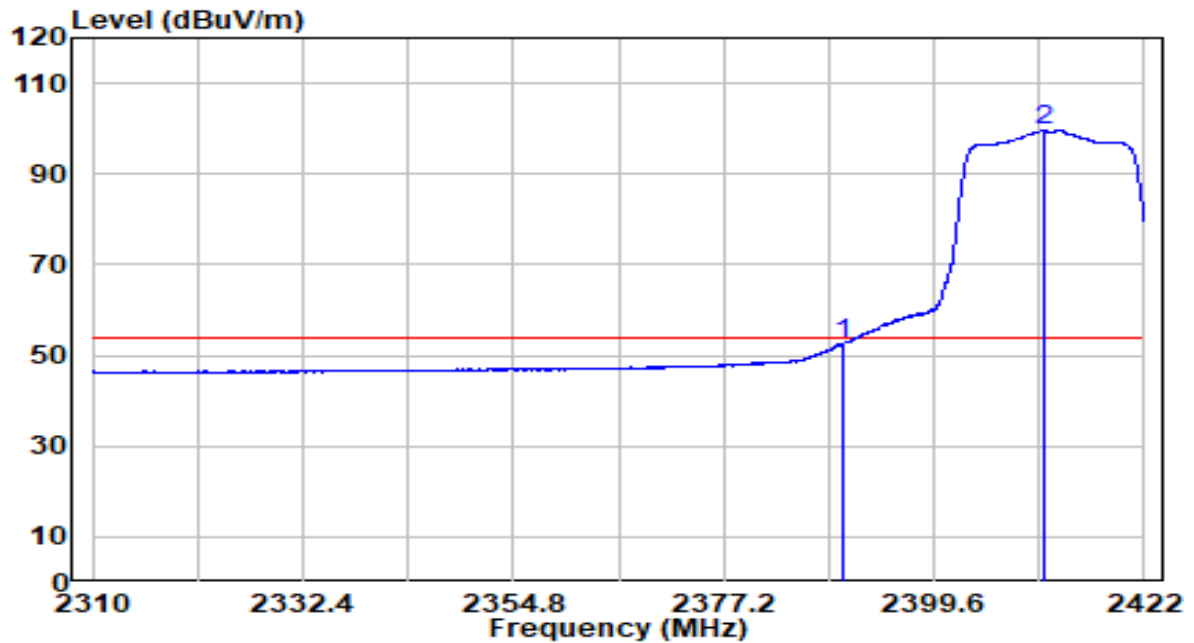


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 37.61          | 32.30    | 69.91                | -4.09       | 74.00          | Peak              |
| 2  | * 2409.848      | 77.84          | 32.38    | 110.22               | N/A         | N/A            | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                                  | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2412MHz | Test Voltage         | 120V/60Hz      |



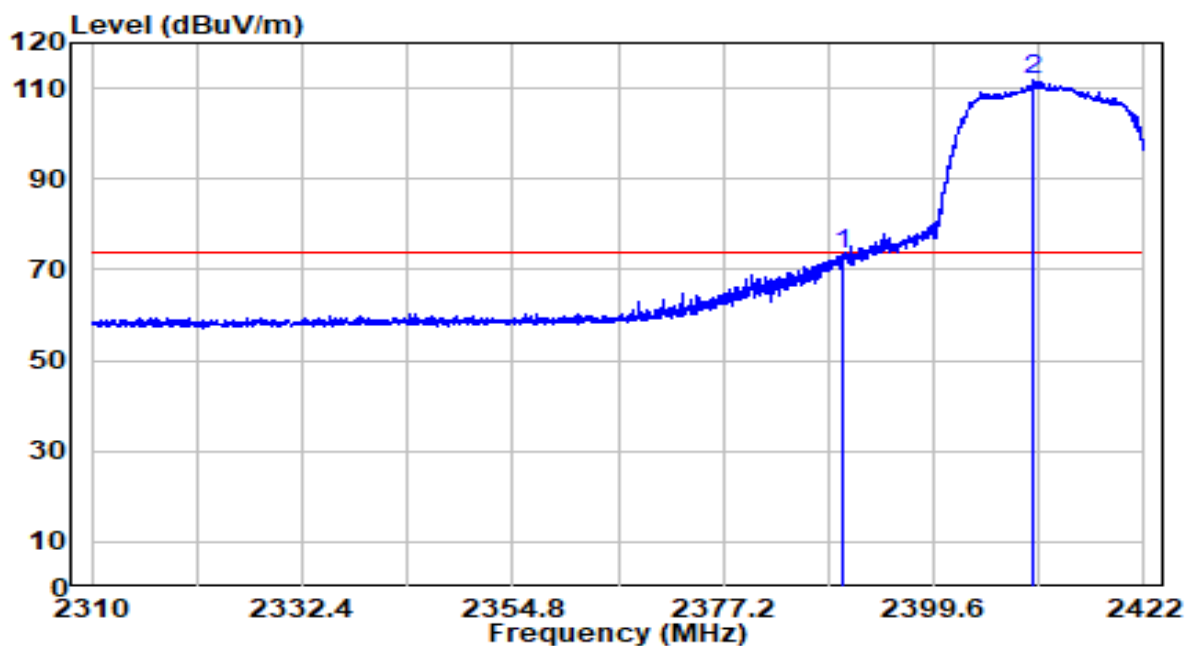
| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 20.26          | 32.47    | 52.73                | -1.27       | 54.00          | Average           |
| 2  | * 2411.248      | 67.04          | 32.59    | 99.63                | N/A         | N/A            | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.



|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                                    | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

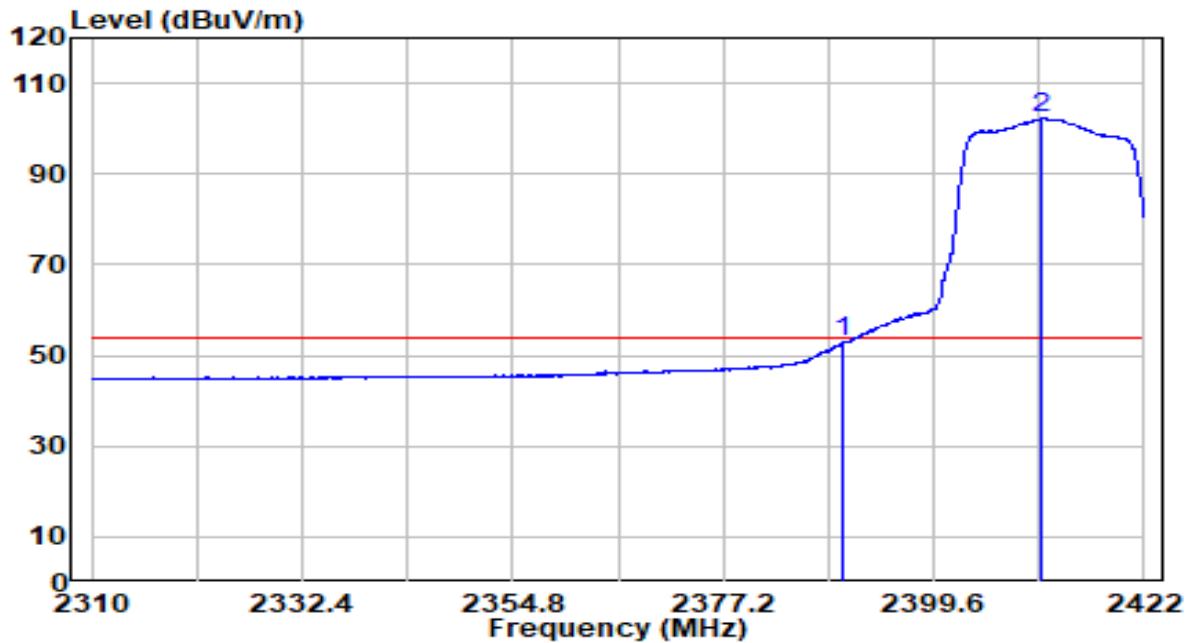


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 41.27          | 32.30    | 73.57                | -0.43       | 74.00          | Peak              |
| 2  | * 2410.296      | 79.56          | 32.39    | 111.94               | N/A         | N/A            | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Vertical                                    | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2412MHz | Test Voltage         | 120V/60Hz      |

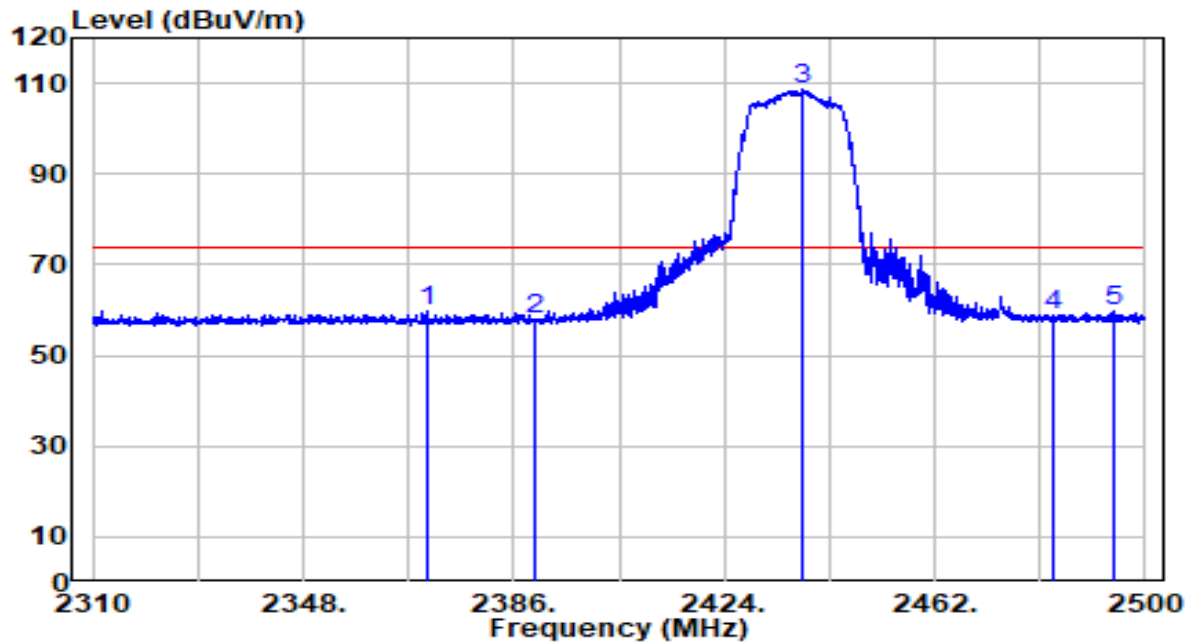


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 20.46          | 32.30    | 52.76                | -1.24       | 54.00          | Average           |
| 2  | * 2411.136      | 69.87          | 32.39    | 102.26               | N/A         | N/A            | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                                  | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2437MHz | Test Voltage         | 120V/60Hz      |

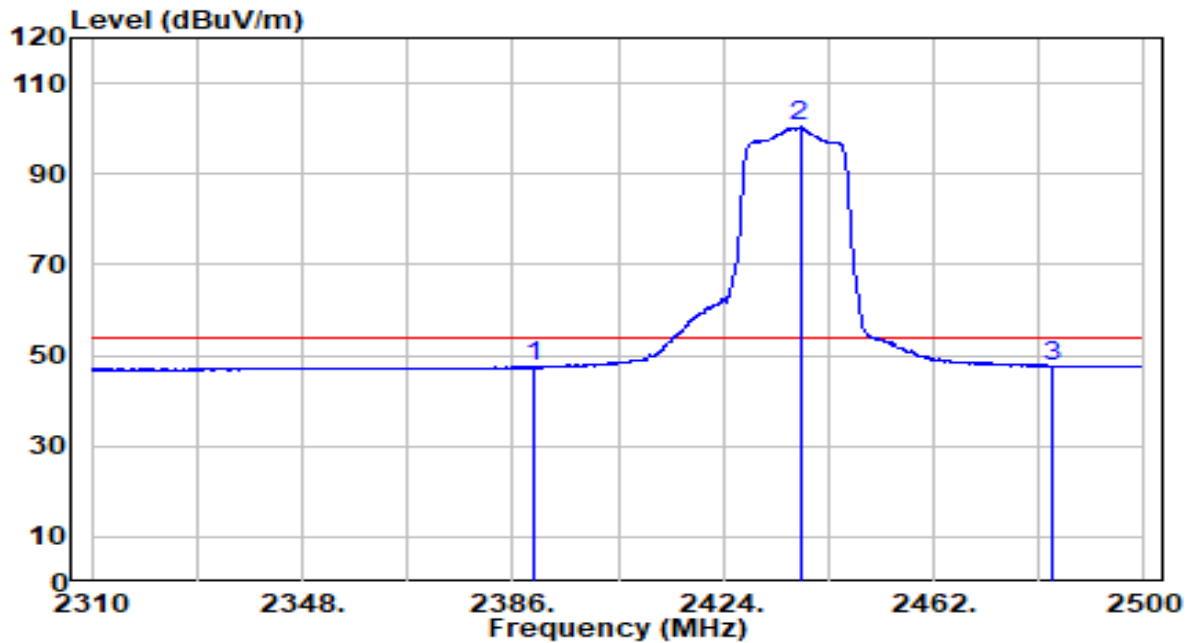


| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2370.230        | 27.46          | 32.21    | 59.67                | -14.33      | 74.00          | Peak              |
| 2  | 2390.000        | 25.70          | 32.30    | 58.00                | -16.00      | 74.00          | Peak              |
| 3  | * 2438.345      | 75.95          | 32.51    | 108.46               | N/A         | N/A            | Peak              |
| 4  | 2483.500        | 26.06          | 32.71    | 58.77                | -15.23      | 74.00          | Peak              |
| 5  | 2494.205        | 26.80          | 32.75    | 59.56                | -14.44      | 74.00          | Peak              |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.

|           |                                             |                      |                |
|-----------|---------------------------------------------|----------------------|----------------|
| EUT       | X2000/ATX2000 Main PCBA                     | Date of Test         | 2021-03-01     |
| Factor    | BBHA 9120D                                  | Temp. / Humidity     | 21.8°C/38.2%   |
| Polarity  | Horizontal                                  | Site / Test Engineer | AC1 / Jay Chou |
| Test Mode | Transmit by 802.11n-HT20 at Channel 2437MHz | Test Voltage         | 120V/60Hz      |



| No | Frequency (MHz) | Reading (dBuV) | C.F (dB) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Remark (QP/PK/AV) |
|----|-----------------|----------------|----------|----------------------|-------------|----------------|-------------------|
| 1  | 2390.000        | 15.18          | 32.30    | 47.48                | -6.52       | 54.00          | Average           |
| 2  | * 2437.870      | 67.84          | 32.51    | 100.35               | N/A         | N/A            | Average           |
| 3  | 2483.500        | 14.83          | 32.71    | 47.54                | -6.46       | 54.00          | Average           |

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB).
3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4.The emission levels of other frequencies are very lower than the limit and not show in test report.