# MEASUREMENT REPORT

| | | |
|---|---|---|
| **FCC ID** | : | 2AXJ4A6V4 |
| **Applicant** | : | TP-Link Corporation Limited |
| **Application Type** | : | Certification |
| **Product** | : | AC1200 MU-MIMO Wi-Fi Router |
| **Model No.** | : | Archer A6, Archer C6 |
| **Brand Name** | : | tp-link |
| **FCC Classification** | : | Unlicensed National Information Infrastructure (NII) |
| **FCC Rule Part(s)** | : | Part15 Subpart E (Section 15.407) |
| **Received Date** | : | May 3, 2022 |
| **Test Date** | : | May 6, 2022 ~ May 26, 2022 |

**Tested By** : Owen Tsai
( Owen Tsai )

**Reviewed By** : Paddy Chen
( Paddy Chen )

**Approved By** : Chenz Ker
( Chenz Ker)

Testing Laboratory
3261

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 KDB 789033 D02v02r01. Test results reported herein relate only to the item(s) tested.

# Revision History

| Report No. | Version | Description | Issue Date | Note |
|---|---|---|---|---|
| 2205TW0102-U2 | 1.0 | Original Report | 2022-06-30 | Valid |

# CONTENTS

Description Page

## General Information

| | |
|---|---|
| **Applicant** | TP-Link Corporation Limited |
| **Applicant Address** | Room 901, 9/F., New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong |
| **Manufacturer** | TP-Link Corporation Limited |
| **Manufacturer Address** | Room 901, 9/F., New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong |
| **Test Site** | MRT Technology (Taiwan) Co., Ltd |
| **Test Site Address** | No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C) |
| **MRT FCC Registration No.** | 291082 |
| **FCC Rule Part(s)** | Part 15.407 |
| **Test Device Serial No.** | N/A ☐ Production ☒ Pre-Production ☐ 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.

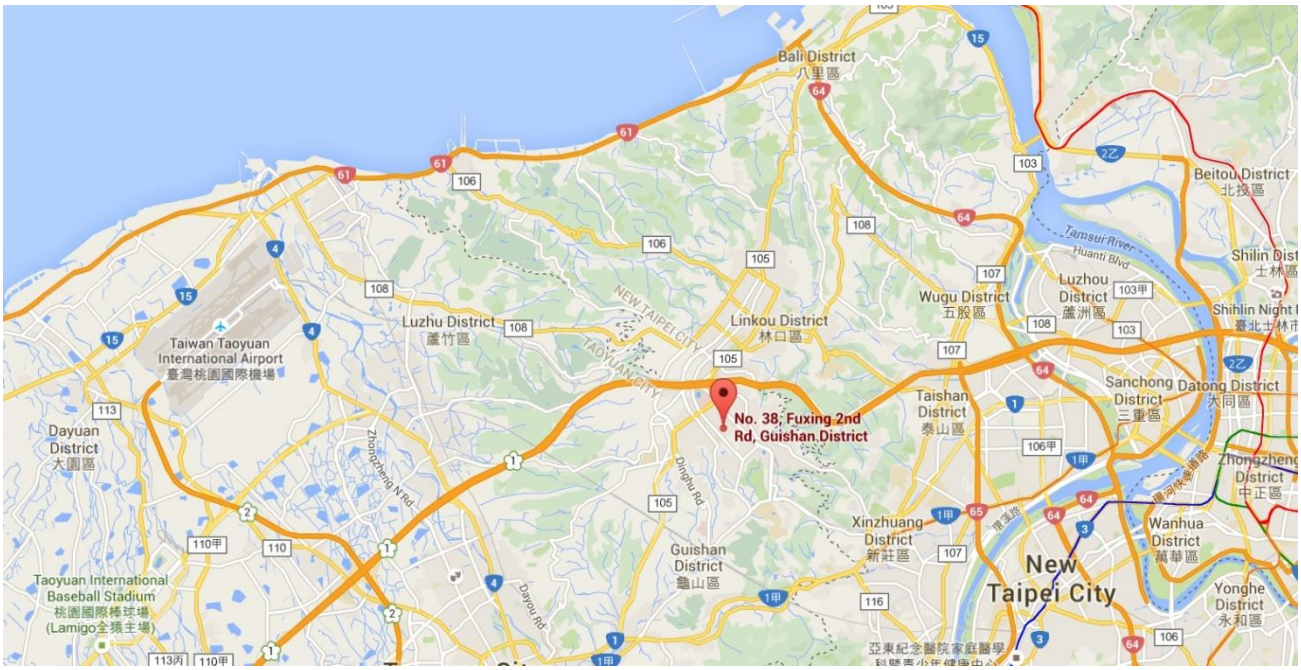
# 1. INTRODUCTION

## 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. Equipment Description

| | |
|---|---|
| Product Name: | AC1200 MU-MIMO Wi-Fi Router |
| Model No.: | Archer A6, Archer C6 |
| Brand Name: | tp-link |
| Wi-Fi Specification: | 802.11a/b/g/n/ac |
| EUT Identification No.: | Sample#01 (Conducted)<br>Sample#02 (Radiated) |
| Adapter | Brand: tp-link<br>Model No: T120100-2B1<br>Input: 100 - 240V ~ 50/60Hz 0.3A.<br>Output: DC 12.0V⎓1A |
| Remark: Hardware design and PCB layout are the same between the two models, only the model for our marketing strategy is different. Archer A6 is selected for testing. | |

## 2.2. Product Specification Subjective to this Report

| | |
|---|---|
| Frequency Range: | For 802.11a/n-HT20/ac-VHT20:<br>5180~5240MHz, 5745~5825MHz<br>For 802.11n-HT40/ac-VHT40:<br>5190~5230MHz, 5755~5795MHz<br>For 802.11ac-VHT80:<br>5210MHz, 5775MHz |
| Type of Modulation: | 802.11a/n/ac: OFDM |
| Data Rate: | 802.11a: 6/9/12/18/24/36/48/54Mbps<br>802.11n: up to 300Mbps<br>802.11ac: up to 866.7Mbps |

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

## 2.3. Working Frequencies for this report

802.11a/n-HT20/ac-VHT20

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---|---|---|---|---|---|
| 36 | 5180 MHz | 40 | 5200 MHz | 44 | 5220 MHz |
| 48 | 5240 MHz | 149 | 5745 MHz | 153 | 5765 MHz |
| 157 | 5785 MHz | 161 | 5805 MHz | 165 | 5825 MHz |

802.11n-HT40/ac-VHT40

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---|---|---|---|---|---|
| 38 | 5190 MHz | 46 | 5230 MHz | 151 | 5755 MHz |
| 159 | 5795 MHz | N/A | N/A | N/A | N/A |

802.11ac-VHT80

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---|---|---|---|---|---|
| 42 | 5210 MHz | 155 | 5775 MHz | N/A | N/A |

## 2.4. Description of Available Antennas

| Antenna Type | Frequency Band (MHz) | $T_X$ Paths | Max Antenna Gain (dBi) | Beamforming Directional Gain (dBi) | CDD Directional Gain (dBi) | |
|---|---|---|---|---|---|---|
| | | | | | For Power | For PSD |
| Dipole Antenna | 2412 ~ 2462 | 2 | 2.00 | 5.01 | 2.00 | 5.01 |
| | 5150 ~ 5250 | 2 | 3.00 | 6.01 | 3.00 | 6.01 |
| | 5725 ~ 5850 | 2 | 3.00 | 6.01 | 3.00 | 6.01 |

Note:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.

   If all antennas have the same gain, $G_{ANT}$, Directional gain = $G_{ANT}$ + Array Gain, where Array Gain is as follows.

   - For power spectral density (PSD) measurements on all devices,

   Array Gain = 10 log($N_{ANT}$/ $N_{SS}$) dB;

   - For power measurements on IEEE 802.11 devices,

   Array Gain = 0 dB for $N_{ANT} \leq 4$;

2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n/ac, not include 802.11a/b/g. BF Directional gain = $G_{ANT}$ + 10 log ($N_{ANT}$).
3. All messages of antenna were declared by manufacturer.

## 2.5. Test Mode

| | |
|---|---|
| Test Mode | Mode 1: Transmit by 802.11a (6Mbps) (CDD mode) |
| | Mode 2: Transmit by 802.11ac-VHT20 (MCS0) (CDD mode) |
| | Mode 3: Transmit by 802.11ac-VHT40 (MCS0) (CDD mode) |
| | Mode 4: Transmit by 802.11ac-VHT80 (MCS0) (CDD mode) |

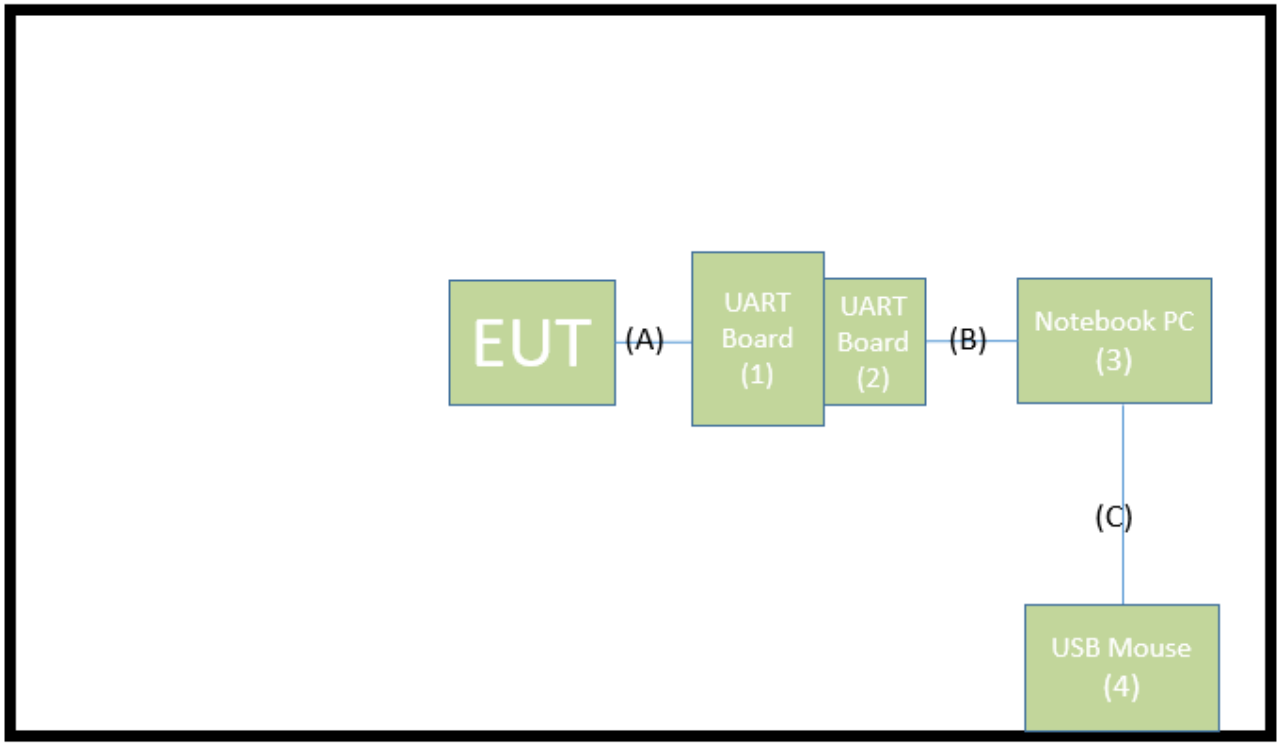
Note 1: Due to the same modulation between 802.11n, so 802.11n-HT20 and HT40 are covered by 802.11ac-VHT20 and VHT40 in this report, meanwhile, power setting for 802.11n-HT20 and HT40 will not be greater than 802.11ac-VHT20 and VHT40.

Note 2: Due to CDD mode was the worst mode, so all test items were evaluated in this report. The beamforming mode only evaluated the RF output power.

## 2.6. Configuration of Test System

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

Connection Diagram




| Cable Type | | Cable Description |
|---|---|---|
| A | Signal Cable | Non shielded, 0.6m |
| B | USB to Lan Cable | Non shielded, 3.0m |
| C | USB Mouse Cable | Shielded, 1.8m |

## 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. | Serial No. | Power Cord |
|---|---|---|---|---|---|
| 1 | UART Board | TP-Link | N/A | N/A | N/A |
| 2 | UART Board | Galileo | USB232FTD | N/A | N/A |
| 3 | Notebook PC | DELL | P65F | N/A | Non-Shielded, 0.8m |
| 4 | USB Mouse | Logitech | M90 | N/A | N/A |

## 2.8. Description of Test Software

The test utility software used during testing was “Putty”.

Note: Final power setting please refer to operational description.

## 2.9. Applied Standards

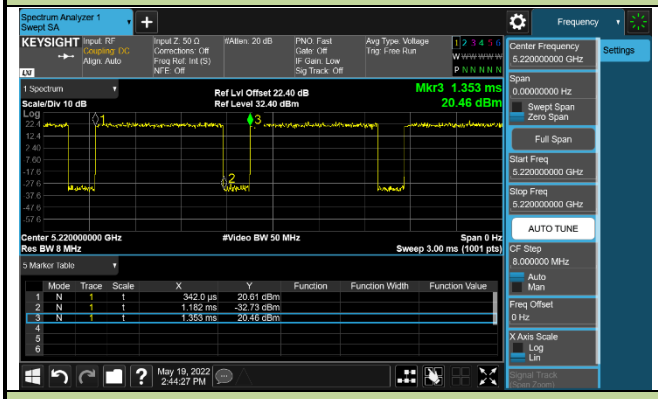
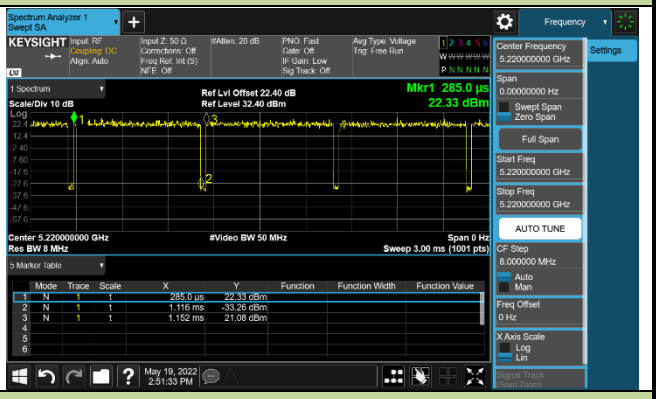
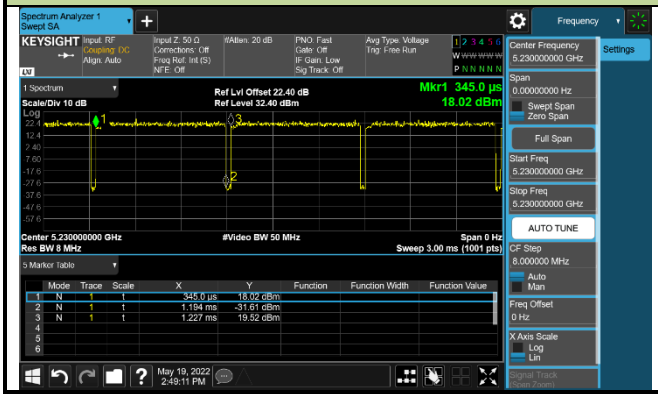
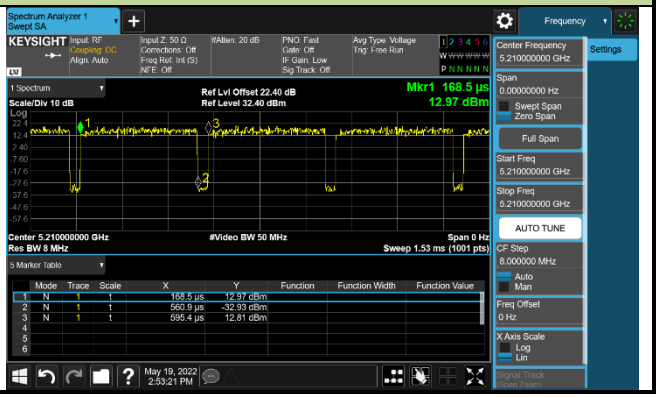
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.247
- KDB 789033 D02v02r01,
- KDB 662911 D01v02r01
- ANSI C63.10-2013

## 2.10. Duty Cycle

5GHz (NII) operation is possible in 20MHz, 40MHz and 80MHz 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:

| Test Mode | Duty Cycle |
|---|---|
| 802.11a | 83.09% |
| 802.11ac-VHT20 | 95.85% |
| 802.11ac-VHT40 | 96.26% |
| 802.11ac-VHT80 | 91.92% |

| Duty Cycle | |
|---|---|
| 802.11a | 802.11ac-VHT20 |
|  |  |
| 802.11ac-VHT40 | 802.11ac-VHT80 |
|  |  |

## 2.11. Test Configuration

The devicewas tested per the guidance of KDB 789033 D02v02r01.ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testingand 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 pamphletsupplied to the user and be readily visible to the purchaser at the time of purchase. However, when the deviceis 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 andlabel location.

# 3. DESCRIPTION OF TEST

## 3.1. Evaluation Procedure

The measurement procedures described in the American National Standard ofProcedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in KDB 789033 D02v02r01 were used in themeasurement.

## 3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an8'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, 50Ω/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, remotecontrolled, 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. An80cm 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 tomaximize 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 theresponsible party can be used with the device. The use of a permanently attached antenna or of an antennathat uses a unique coupling to the intentional radiator shall be considered sufficient to comply with theprovisions of this section.”

- The antenna of thedeviceis**permanently attached.**
- There are no provisions for connection to an external antenna.

**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 | 2023/3/7 |
| Two-Line V-Network | R&S | ENV216 | MRTTWA00020 | 1 year | 2023/4/20 |
| EMI Test Receiver | R&S | ESR3 | MRTTWA00045 | 1 year | 2023/5/9 |

Radiated Emissions

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cali. Due Date |
|---|---|---|---|---|---|
| Broadband TRILOG Antenna | SCHWARZBECK | VULB 9162 | MRTTWA00001 | 1 year | 2022/10/4 |
| EMI Test Receiver | R&S | ESR3 | MRTTWA00009 | 1 year | 2023/3/9 |
| Acitve Loop Antenna | Schwarzbeck | FMZB 1519B | MRTTWA00002 | 1 year | 2022/6/5 |
| Broadband Hornantenna | RFSPIN | DRH18-E | MRTTWA00087 | 1 year | 2022/8/31 |
| Breitband Hornantenna | Schwarzbeck | BBHA 9170 | MRTTWA00004 | 1 year | 2023/3/29 |
| Broadband Preamplifier | EMC Instruments corporation | EMC118A45SE | MRTTWA00088 | 1 year | 2022/8/31 |
| Broadband Preamplifier | SCHWARZBECK | BBV 9718 | MRTTWA00005 | 1 year | 2023/3/30 |
| Cable | HUBERSUHNER | SF106 | MRTTWE00034 | 1 year | 2022/6/28 |

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 | 2023/4/20 |
| EXA Signal Analyzer | KEYSIGHT | N9010A | MRTTWA00012 | 1 year | 2022/10/18 |
| EXA Signal Analyzer | KEYSIGHT | N9010B | MRTTWA00074 | 1 year | 2022/7/19 |
| Attenuator | WTI | 218FS-20 | MRTTWE00026 | 1 year | 2022/5/29 |
| Attenuator | WTI | 218FS-10 | MRTTWE00027 | 1 year | 2022/6/16 |
| Temperature & Humidity Chamber | TEN BILLION | TTH-B3UP | MRTTWA00036 | 1 year | 2022/6/14 |
| DIVA PLUS Funk-Wetterstation | TFA | 35.1083 | MRTTWA00050 | 1 year | 2022/6/3 |

| **Software** | **Version** | **Function** |
|---|---|---|
| e3 | 9.160520a | 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.

| |
|---|
| AC Conducted Emission Measurement |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):<br>150kHz~30MHz: ± 2.53dB |
| Radiated Emission Measurement |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):<br>9kHz ~ 1GHz: ± 4.25dB<br>1GHz ~ 40GHz: ± 4.45dB |
| Conducted Power (Carrier Power / Power Density) |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 0.84dB |
| Conducted Spurious Emission |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):± 2.65 dB |
| Occupied Bandwidth |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 3.3% |
| Temp. / Humidity |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±0.82°C/ ±3% |
| Frequency Error |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±78.4Hz |

# 7. TEST RESULT

## 7.1. Summary

| FCC Section(s) | Test Description | Test Limit | Test Condition | Test Result | Reference |
|---|---|---|---|---|---|
| 15.407(a) | 26dB Bandwidth | N/A | Conducted | Pass | Section7.2 |
| 15.407(e) | 6dB Bandwidth | ≥ 500kHz | | Pass | Section 7.3 |
| 15.407(a)(1)(ii), (3)(i) | Maximum Conducted Output Power | Refer to section 7.4 | | Pass | Section 7.4 |
| 15.407(h)(1) | Transmit Power Control | ≤ 24 dBm | | N/A | Section 7.5 |
| 15.407(a)(1)(ii), (3)(i), (12) | Peak Power Spectral Density | Refer to section 7.6 | | Pass | Section 7.6 |
| 15.407(g) | Frequency Stability | N/A | | N/A | Section 7.7 |
| 15.407(b)(1), (4)(i) | Undesirable Emissions | Refer to Section 7.7 | Radiated | Pass | Section 7.8 & 7.9 |
| 15.205, 15.209 15.407(b)(8), (9), (10) | General Field Strength Limits (Restricted Bands andRadiated Emission Limits) | Emissions in restrictedbands must meet theradiated limits detailed in15.209 | | Pass | |
| 15.207 | AC Conducted Emissions 150kHz - 30MHz | < FCC 15.207 limits | Line Conducted | Pass | Section 7.10 |

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 ofthe 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 final test of each channel.
4) For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.

## 7.2. 26dB Bandwidth Measurement

### 7.2.1.Test Limit

N/A

### 7.2.2.Test Procedure used

KDB 789033 D02v02r01- Section II)C)1) (26dB Bandwidth)

KDB 789033 D02v02r01- Section II)D) (99% Bandwidth)

### 7.2.3.Test Setting

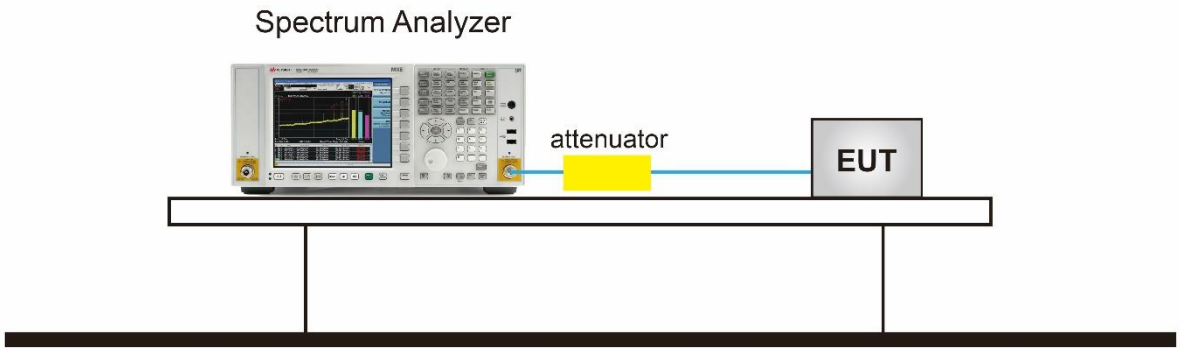
**26dB Bandwidth**

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth
2. RBW = approximately 1% of the emission bandwidth.
3. VBW > RBW
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

**99% Bandwidth**

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 1% to 5% of the OBW
3. VBW ≥ 3 × RBW
4. Span = 1.5 times to 5 times the OBW
5. Detector = peak
6. Trace mode = max hold
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument.

### 7.2.4.Test Setup



### 7.2.5.Test Result

| Product | AC1200 MU-MIMO Wi-Fi Router | Test Engineer | Jay |
|---|---|---|---|
| Test Site | SR5 | Test Date | 2022/5/25~2022/5/26 |

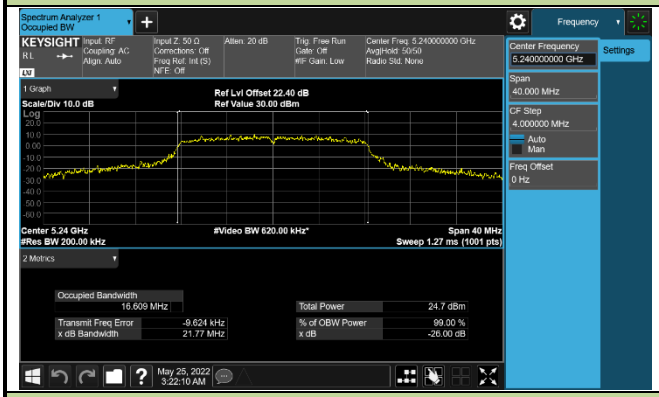
| Test Mode | Data Rate/ MCS | Channel No. | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Bandwidth (MHz) |
|---|---|---|---|---|---|
| Ant 0 | | | | | |
| 802.11a | 6Mbps | 36 | 5180 | 19.580 | 16.448 |
| 802.11a | 6Mbps | 44 | 5220 | 19.850 | 16.449 |
| 802.11a | 6Mbps | 48 | 5240 | 21.770 | 16.609 |
| 802.11a | 6Mbps | 149 | 5745 | 39.980 | 23.914 |
| 802.11a | 6Mbps | 157 | 5785 | 38.430 | 20.689 |
| 802.11a | 6Mbps | 165 | 5825 | 25.650 | 16.932 |
| 802.11ac-VHT20 | MCS0 | 36 | 5180 | 19.740 | 17.596 |
| 802.11ac-VHT20 | MCS0 | 44 | 5220 | 20.200 | 17.670 |
| 802.11ac-VHT20 | MCS0 | 48 | 5240 | 24.620 | 17.676 |
| 802.11ac-VHT20 | MCS0 | 149 | 5745 | 37.580 | 23.697 |
| 802.11ac-VHT20 | MCS0 | 157 | 5785 | 39.960 | 20.739 |
| 802.11ac-VHT20 | MCS0 | 165 | 5825 | 32.610 | 17.873 |
| 802.11ac-VHT40 | MCS0 | 38 | 5190 | 40.220 | 36.065 |
| 802.11ac-VHT40 | MCS0 | 46 | 5230 | 48.910 | 36.165 |
| 802.11ac-VHT40 | MCS0 | 151 | 5755 | 79.480 | 44.525 |
| 802.11ac-VHT40 | MCS0 | 159 | 5795 | 68.260 | 36.924 |
| 802.11ac-VHT80 | MCS0 | 42 | 5210 | 80.220 | 75.103 |
| 802.11ac-VHT80 | MCS0 | 155 | 5775 | 143.900 | 84.564 |

## 802.11a 26dB Bandwidth & 99% Bandwidth

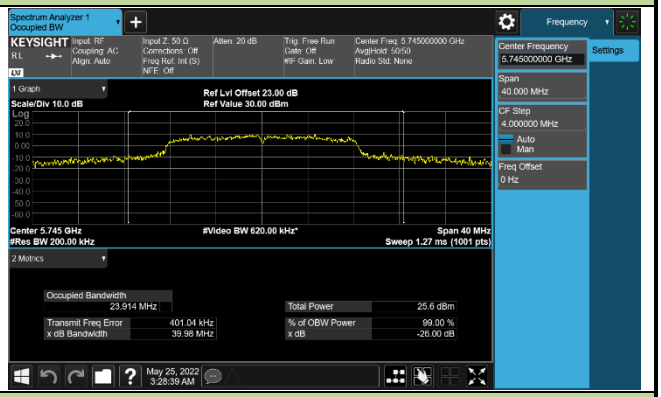
### Channel 36 (5180MHz)


### Channel 44 (5220MHz)

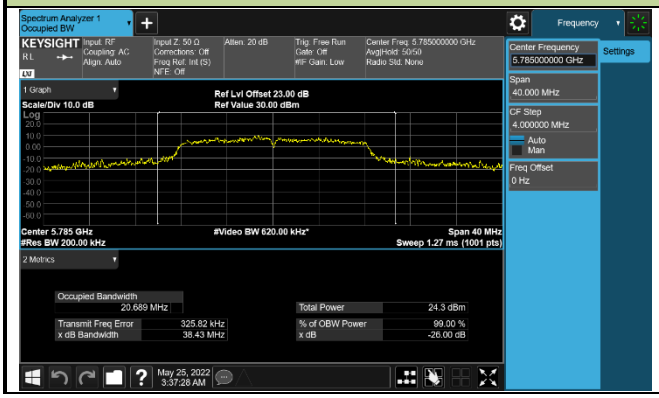

### Channel 48 (5240MHz)



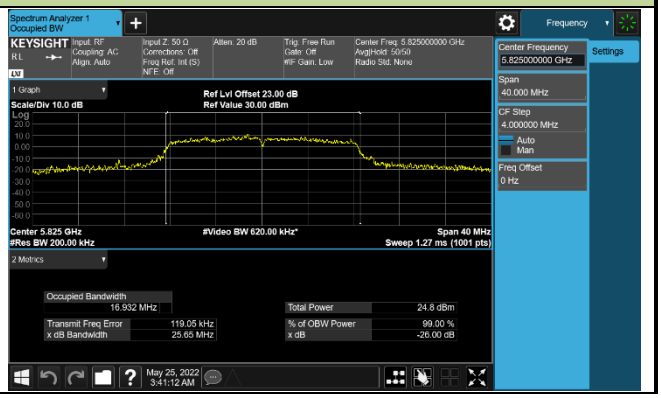

### Channel 149 (5745MHz)




### Channel 157 (5785MHz)

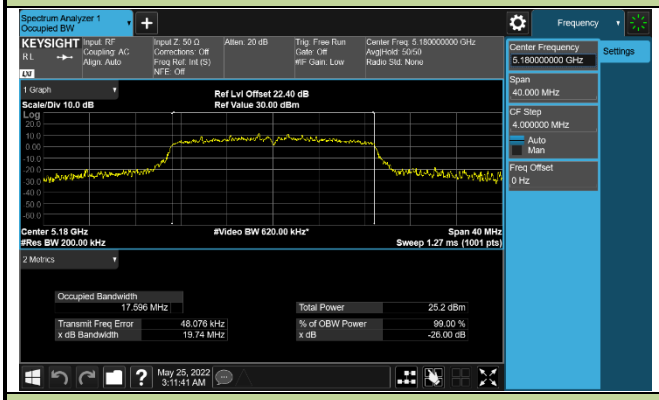



### Channel 165 (5825MHz)



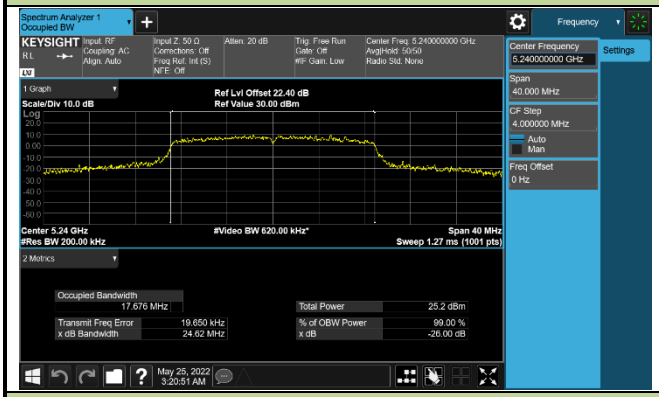
## 802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth

### Channel 36 (5180MHz)

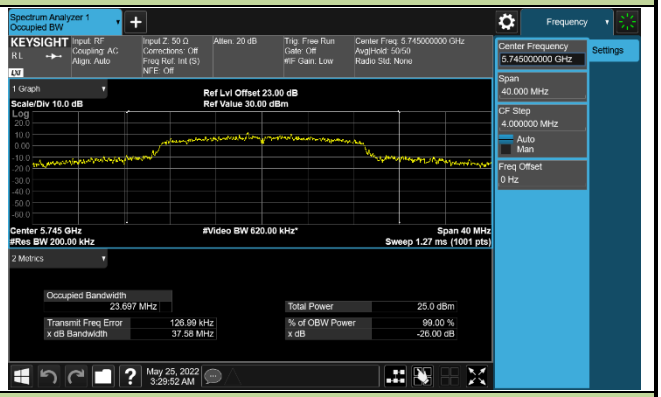



### Channel 44 (5220MHz)


### Channel 48 (5240MHz)

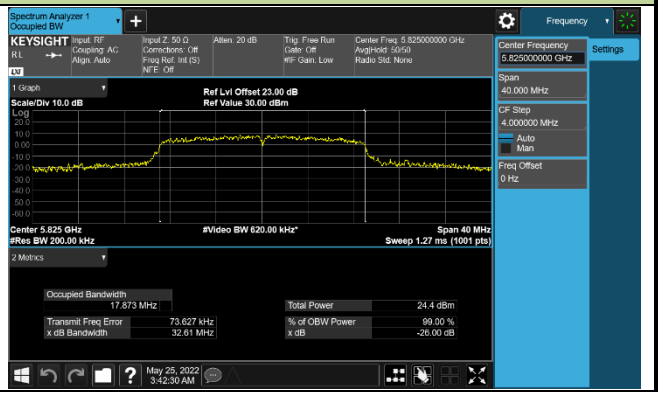


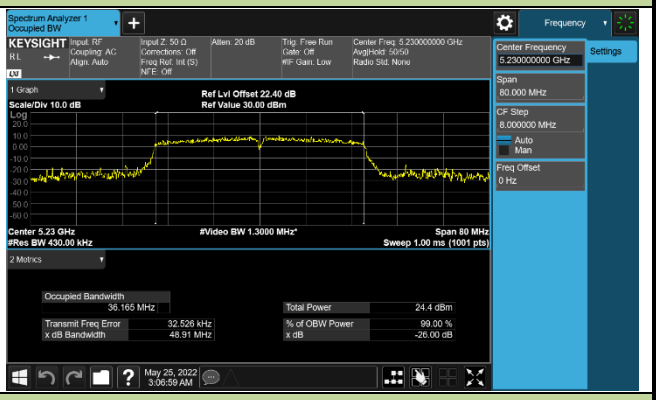
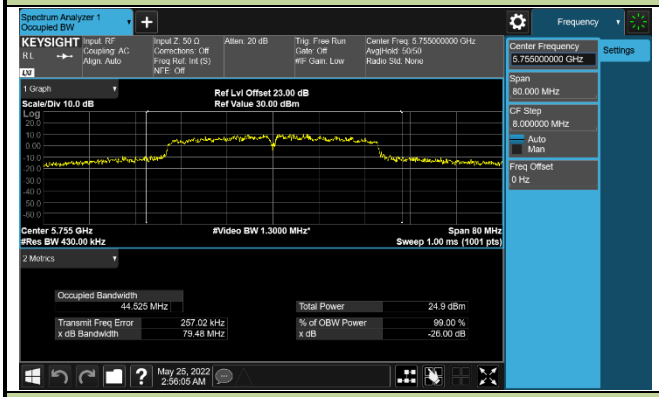
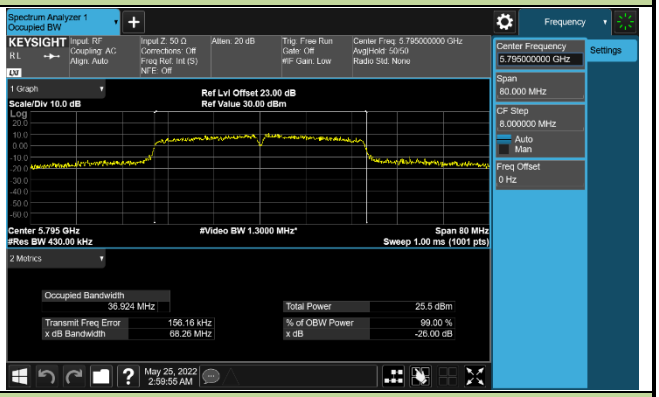
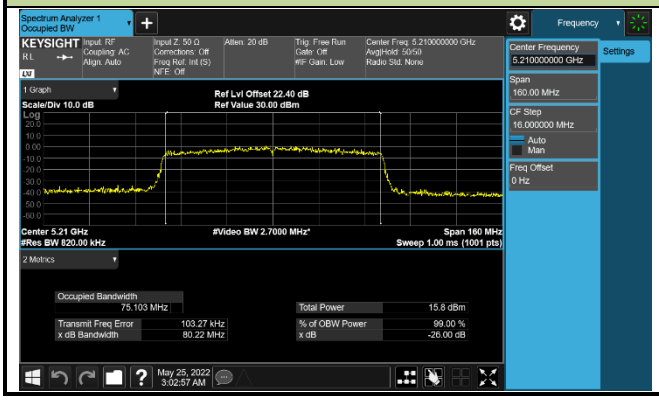
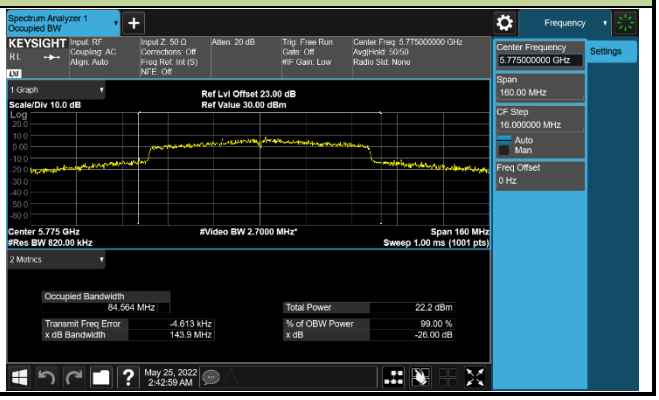

### Channel 149 (5745MHz)




### Channel 157 (5785MHz)


### Channel 165 (5825MHz)



| 802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth | |
|---|---|
| Channel 38 (5190MHz) | Channel 46 (5230MHz) |
|  |  |
| Channel 151 (5755MHz) | Channel 159 (5795MHz) |
|  |  |
| 802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth | |
| Channel 42 (5210MHz) | Channel 155 (5775MHz) |
|  |  |

## 7.3. 6dB Bandwidth Measurement

### 7.3.1.Test Limit

The minimum 6dBbandwidth shall be at least 500 kHz.

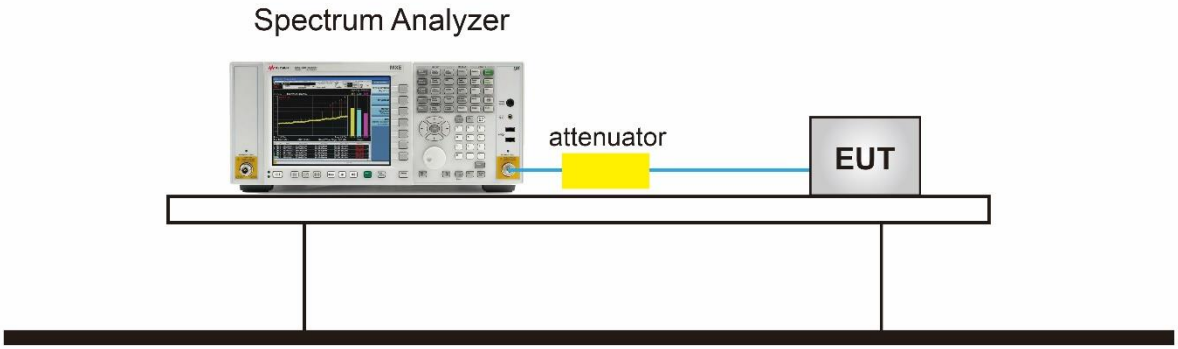
### 7.3.2.Test Procedure used

KDB 789033 D02v02r01- Section II)C)2)

### 7.3.3.Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 7.3.4.Test Setup



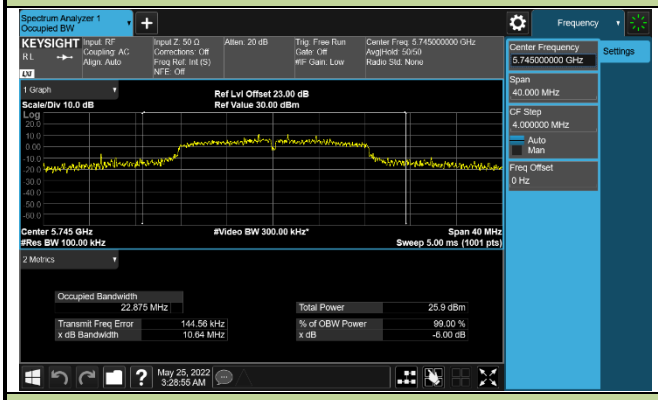
### 7.3.5.TestResult

| Product | AC1200 MU-MIMO Wi-Fi Router | Test Engineer | Jay |
|---|---|---|---|
| Test Site | SR5 | Test Date | 2022/5/25 |

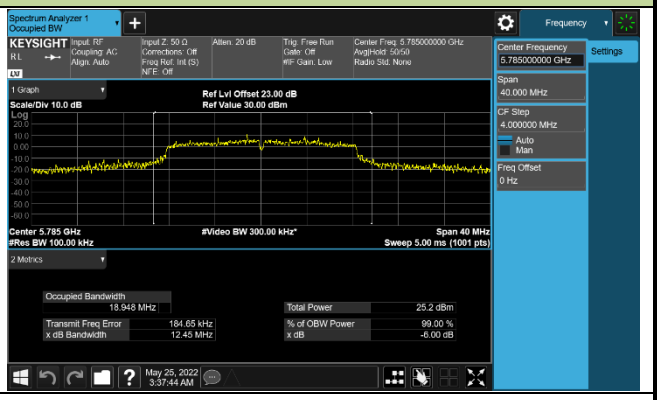
| Test Mode | Data Rate/ MCS | Channel No. | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit (MHz) | Result |
|---|---|---|---|---|---|---|
| Ant 0 | | | | | | |
| 802.11a | 6Mbps | 149 | 5745 | 10.640 | ≥ 0.5 | Pass |
| 802.11a | 6Mbps | 157 | 5785 | 12.450 | ≥ 0.5 | Pass |
| 802.11a | 6Mbps | 165 | 5825 | 14.750 | ≥ 0.5 | Pass |
| 802.11ac-VHT20 | NSS2MCS0 | 149 | 5745 | 15.730 | ≥ 0.5 | Pass |
| 802.11ac-VHT20 | NSS2MCS0 | 157 | 5785 | 15.010 | ≥ 0.5 | Pass |
| 802.11ac-VHT20 | NSS2MCS0 | 165 | 5825 | 15.070 | ≥ 0.5 | Pass |
| 802.11ac-VHT40 | NSS2MCS0 | 151 | 5755 | 34.120 | ≥ 0.5 | Pass |
| 802.11ac-VHT40 | NSS2MCS0 | 159 | 5795 | 35.030 | ≥ 0.5 | Pass |
| 802.11ac-VHT80 | NSS2MCS0 | 155 | 5775 | 46.550 | ≥ 0.5 | Pass |

## 802.11a 6dB Bandwidth

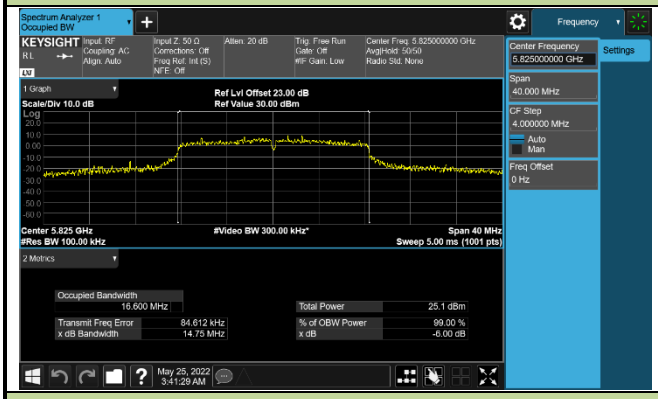
### Channel 149 (5745MHz)




### Channel 157 (5785MHz)



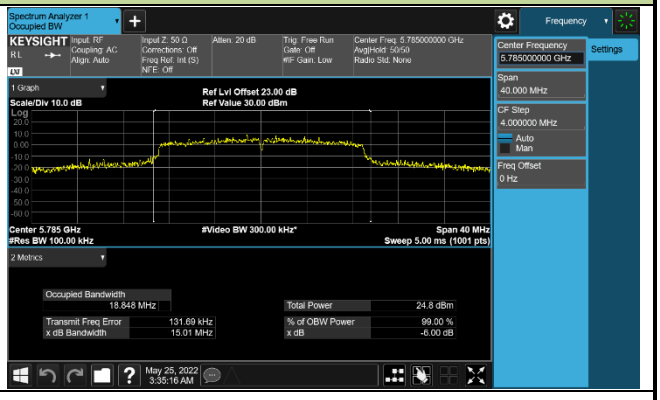

### Channel 165 (5825MHz)



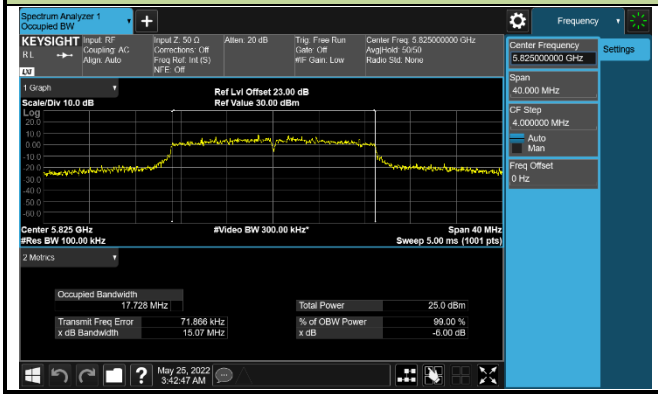

## 802.11ac-VHT20 6dB Bandwidth

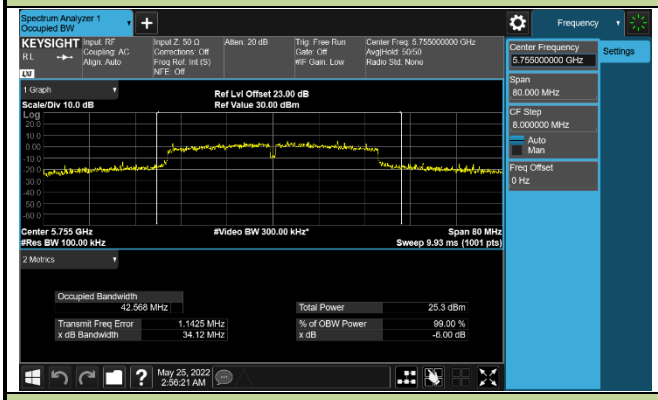
### Channel 149 (5745MHz)


### Channel 157 (5785MHz)




### Channel 165 (5825MHz)



| 802.11ac-VHT40 6dB Bandwidth | |
|---|---|
| Channel 151 (5755MHz) | Channel 159 (5795MHz) |
|  |  |
| **802.11ac-VHT80 6dB Bandwidth** | |
| Channel 155 (5775MHz) | |
|  | |

## 7.4. Output Power Measurement

### 7.4.1.Test Limit

For the band 5.15-5.25 GHz, the maximum conductedoutput power over the frequency band of operation shall not exceed 1 W provided the maximumantenna gain does not exceed 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

If transmitting antennas of directional gain greater than 6dBi are used, the maximumconducted output power shall be reduced by the amount in dB that the directional gain of theantenna exceeds 6dBi.

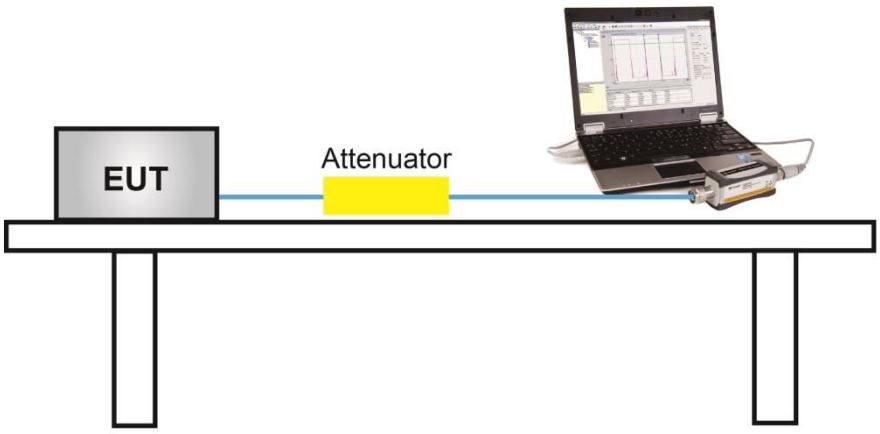
### 7.4.2.Test Procedure Used

KDB 789033D02v02r01- Section II)E)3)b) Method PM-G

### 7.4.3.Test Setting

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.

### 7.4.4.Test Setup



### 7.4.5.Test Result

| Product | AC1200 MU-MIMO Wi-Fi Router | Test Engineer | Jay |
|---|---|---|---|
| Test Site | SR5 | Test Date | 2022/5/25 |
| Test Mode | CDD Mode | | |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Total Average Power (dBm) | Power Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| 11a | 6Mbps | 36 | 5180 | 20.71 | 19.61 | 23.21 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 44 | 5220 | 20.55 | 19.73 | 23.17 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 48 | 5240 | 20.59 | 19.72 | 23.19 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 149 | 5745 | 21.35 | 19.39 | 23.49 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 157 | 5785 | 20.37 | 17.74 | 22.26 | ≤ 30.00 | Pass |
| 11a | 6Mbps | 165 | 5825 | 20.78 | 18.78 | 22.90 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 36 | 5180 | 20.87 | 19.86 | 23.40 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 40 | 5220 | 21.02 | 19.95 | 23.53 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 48 | 5240 | 21.00 | 19.92 | 23.50 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 149 | 5745 | 20.49 | 18.66 | 22.68 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 157 | 5785 | 20.41 | 17.80 | 22.31 | ≤ 30.00 | Pass |
| 11ac-VHT20 | MCS0 | 165 | 5825 | 20.17 | 18.20 | 22.31 | ≤ 30.00 | Pass |
| 11ac-VHT40 | MCS0 | 38 | 5190 | 17.02 | 16.12 | 19.60 | ≤ 30.00 | Pass |
| 11ac-VHT40 | MCS0 | 46 | 5230 | 20.91 | 19.98 | 23.48 | ≤ 30.00 | Pass |
| 11ac-VHT40 | MCS0 | 151 | 5755 | 21.37 | 19.32 | 23.48 | ≤ 30.00 | Pass |
| 11ac-VHT40 | MCS0 | 159 | 5795 | 21.40 | 19.47 | 23.55 | ≤ 30.00 | Pass |
| 11ac-VHT80 | MCS0 | 42 | 5210 | 12.15 | 11.06 | 14.65 | ≤ 30.00 | Pass |
| 11ac-VHT80 | MCS0 | 155 | 5775 | 18.52 | 16.72 | 20.72 | ≤ 30.00 | Pass |

Note: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} + 10^{(\text{Ant 1 Average Power }/10)}\}$.

| Product | AC1200 MU-MIMO Wi-Fi Router | Test Engineer | Jay |
|---|---|---|---|
| Test Site | SR5 | Test Date | 2022/5/25 |
| Test Mode | Beamforming Mode | | |

| Test Mode | Data Rate/ MCS | Channel No. | Freq. (MHz) | Ant 0 Average Power (dBm) | Ant 1 Average Power (dBm) | Total Average Power (dBm) | Power Limit (dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| 11ac-VHT20 | MCS0 | 36 | 5180 | 20.87 | 19.86 | 23.40 | ≤ 29.99 | Pass |
| 11ac-VHT20 | MCS0 | 40 | 5220 | 21.02 | 19.95 | 23.53 | ≤ 29.99 | Pass |
| 11ac-VHT20 | MCS0 | 48 | 5240 | 21.00 | 19.92 | 23.50 | ≤ 29.99 | Pass |
| 11ac-VHT20 | MCS0 | 149 | 5745 | 20.49 | 18.66 | 22.68 | ≤ 29.99 | Pass |
| 11ac-VHT20 | MCS0 | 157 | 5785 | 20.41 | 17.80 | 22.31 | ≤ 29.99 | Pass |
| 11ac-VHT20 | MCS0 | 165 | 5825 | 20.17 | 18.20 | 22.31 | ≤ 29.99 | Pass |
| 11ac-VHT40 | MCS0 | 38 | 5190 | 17.02 | 16.12 | 19.60 | ≤ 29.99 | Pass |
| 11ac-VHT40 | MCS0 | 46 | 5230 | 20.91 | 19.98 | 23.48 | ≤ 29.99 | Pass |
| 11ac-VHT40 | MCS0 | 151 | 5755 | 21.37 | 19.32 | 23.48 | ≤ 29.99 | Pass |
| 11ac-VHT40 | MCS0 | 159 | 5795 | 21.40 | 19.47 | 23.55 | ≤ 29.99 | Pass |
| 11ac-VHT80 | MCS0 | 42 | 5210 | 12.15 | 11.06 | 14.65 | ≤ 29.99 | Pass |
| 11ac-VHT80 | MCS0 | 155 | 5775 | 18.52 | 16.72 | 20.72 | ≤ 29.99 | Pass |

Note 1:

The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} + 10^{(\text{Ant 1 Average Power }/10)}\}$.

Note 2:

For 5150 - 5250MHz, 5725 - 5850MHz Band: Average Power Limit (dBm) = 30 - (6.01- 6) = 29.99dBm

## 7.5. Transmit Power Control

### 7.5.1.Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

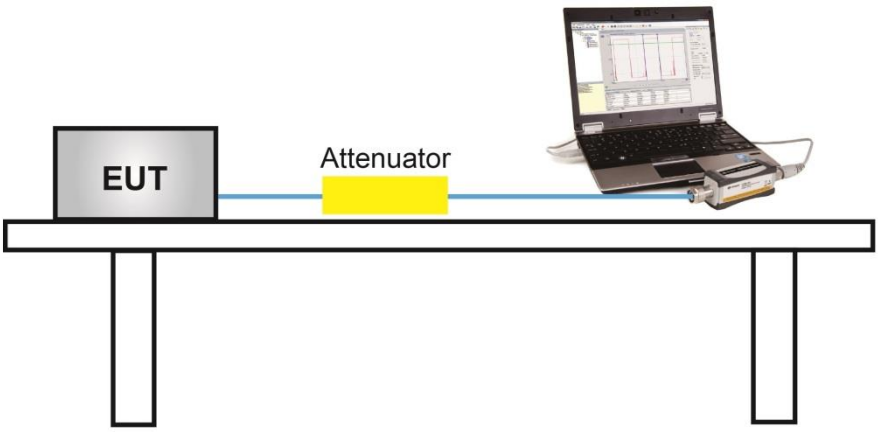
### 7.5.2.Test Procedure Used

KDB 789033 D02v01- Section II)E)3)b) Method PM-G

### 7.5.3.Test Setting

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. The trace was averaged over 100 traces to obtain the final measured average power.

### 7.5.4.Test Setup




### 7.5.5.Test Result

Device does not support NII-2a/-2c bands, so this item is not applicable.

## 7.6. Power Spectral Density Measurement

### 7.6.1.Test Limit

For the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of theantenna exceeds 6dBi.

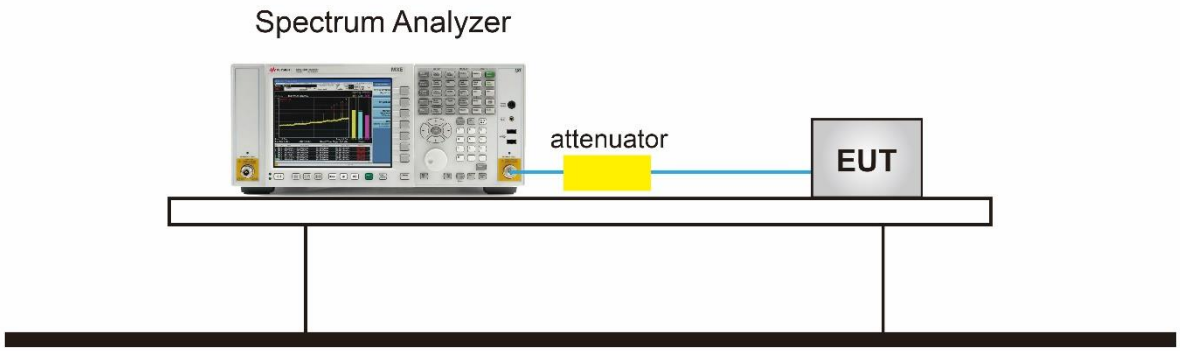
### 7.6.2.Test Procedure Used

KDB 789033 D02v02r01-Section II)F

### 7.6.3.Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz, RBW = 510 kHz
4. VBW = 3MHz
5. Number of sweep points ≥ 2 × (span / RBW)
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. Add 10*log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10*log(1/0.25) = 6 dB if the duty cycle is 25 percent.

### 7.6.4.Test Setup



### 7.6.5.Test Result

| Product | AC1200 MU-MIMO Wi-Fi Router | Test Engineer | Jay |
|---|---|---|---|
| Test Site | SR5 | Test Date | 2022/5/25 |
| Mode | Power Spectral Density (U-NII-1) CDD Mode | | |

| Test Mode | Data Rate /MCS | Ch. No. | Freq. (MHz) | Ant 0 PSD (dBm/MHz) | Ant 1 PSD (dBm/MHz) | Duty Cycle (%) | Total PSD (dBm/ MHz) | PSD Limit (dBm/MHz) | Result |
|---|---|---|---|---|---|---|---|---|---|
| 11a | 6Mbps | 36 | 5180 | 10.222 | 8.757 | 83.09 | 13.366 | ≤ 16.99 | Pass |
| 11a | 6Mbps | 44 | 5220 | 10.275 | 8.834 | 83.09 | 13.429 | ≤ 16.99 | Pass |
| 11a | 6Mbps | 48 | 5240 | 10.362 | 9.071 | 83.09 | 13.579 | ≤ 16.99 | Pass |
| 11ac-VHT20 | MCS0 | 36 | 5180 | 10.164 | 9.066 | 95.85 | 12.844 | ≤ 16.99 | Pass |
| 11ac-VHT20 | MCS0 | 40 | 5220 | 9.922 | 9.098 | 95.85 | 12.724 | ≤ 16.99 | Pass |
| 11ac-VHT20 | MCS0 | 48 | 5240 | 9.939 | 9.345 | 95.85 | 12.847 | ≤ 16.99 | Pass |
| 11ac-VHT40 | MCS0 | 38 | 5190 | 2.891 | 1.979 | 96.26 | 5.635 | ≤ 16.99 | Pass |
| 11ac-VHT40 | MCS0 | 46 | 5230 | 6.660 | 6.024 | 96.26 | 9.529 | ≤ 16.99 | Pass |
| 11ac-VHT80 | MCS0 | 42 | 5210 | -4.260 | -5.640 | 91.92 | -1.519 | ≤ 16.99 | Pass |

Note 1:

When EUT duty cycle ≥ 98%,

the total PSD (dBm/MHz) = 10*log {$10^{(\text{Ant 0 PSD}/10)}$ + $10^{(\text{Ant 1 PSD}/10)}$} (dBm/MHz).

When EUT duty cycle < 98%,

the total PSD (dBm/MHz) = 10*log {$10^{(\text{Ant 0 PSD}/10)}$ + $10^{(\text{Ant 1 PSD}/10)}$} + 10*log (1/Duty Cycle)(dBm/MHz).

Note 2:

For 5150 - 5250MHzBand: PSD Limit (dBm/MHz) = 17 - (6.01 - 6) = 16.99dBm/MHz.

| Product | AC1200 MU-MIMO Wi-Fi Router | Test Engineer | Jay |
|---|---|---|---|
| Test Site | SR5 | Test Date | 2022/5/25 |
| Test Item | Power Spectral Density (U-NII-3) CDD Mode | | |

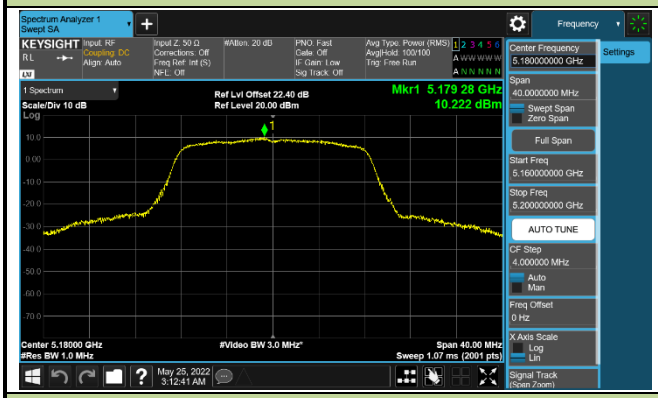
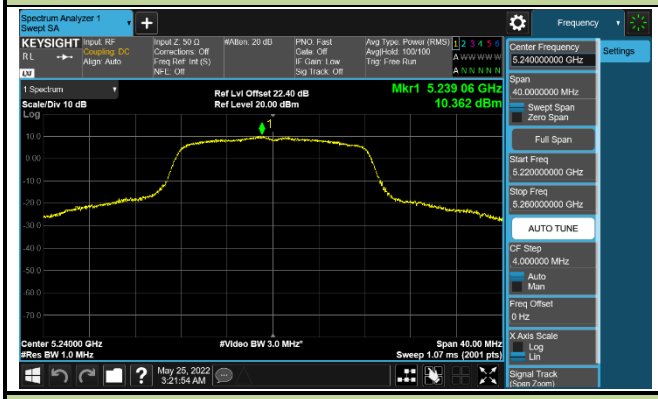
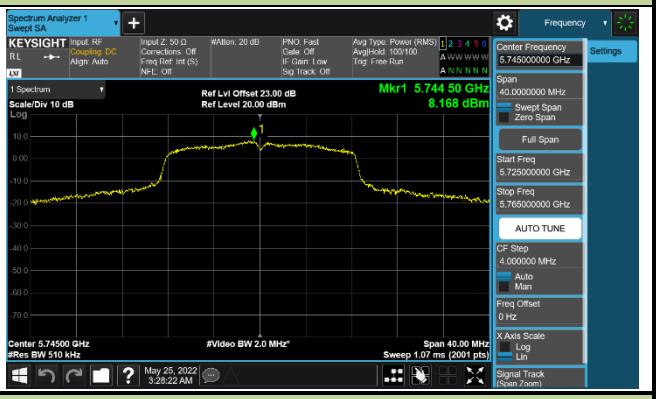
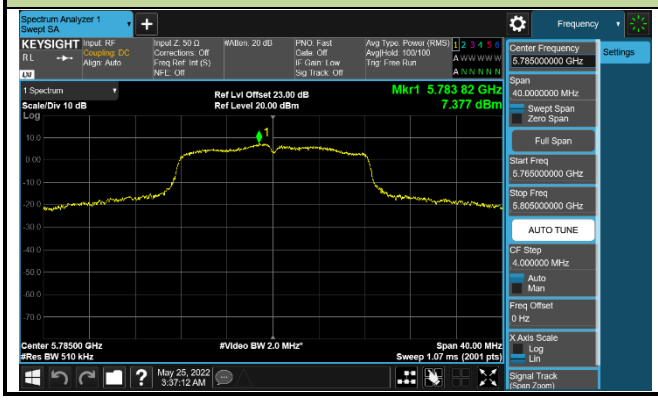
| Test Mode | Data Rate/ MCS | Ch. No. | Freq. (MHz) | Ant 0 PSD (dBm/510KHz) | Ant 1 PSD (dBm/510KHz) | Duty Cycle (%) | Total PSD (dBm/ 510kHz) | Limit (dBm/ 500kHz) | Result |
|---|---|---|---|---|---|---|---|---|---|
| 11a | 6Mbps | 149 | 5745 | 8.168 | 6.166 | 83.09 | 11.096 | ≤ 29.99 | Pass |
| 11a | 6Mbps | 157 | 5785 | 7.377 | 5.782 | 83.09 | 10.467 | ≤ 29.99 | Pass |
| 11a | 6Mbps | 165 | 5825 | 7.898 | 6.555 | 83.09 | 11.093 | ≤ 29.99 | Pass |
| 11ac-VHT20 | MCS0 | 149 | 5745 | 7.080 | 4.923 | 95.85 | 9.328 | ≤ 29.99 | Pass |
| 11ac-VHT20 | MCS0 | 157 | 5785 | 7.180 | 4.310 | 95.85 | 9.172 | ≤ 29.99 | Pass |
| 11ac-VHT20 | MCS0 | 165 | 5825 | 9.874 | 5.403 | 95.85 | 11.384 | ≤ 29.99 | Pass |
| 11ac-VHT40 | MCS0 | 151 | 5755 | 4.742 | 2.874 | 96.26 | 7.084 | ≤ 29.99 | Pass |
| 11ac-VHT40 | MCS0 | 159 | 5795 | 5.069 | 3.456 | 96.26 | 7.513 | ≤ 29.99 | Pass |
| 11ac-VHT80 | MCS0 | 155 | 5775 | -0.562 | -2.209 | 91.92 | 2.068 | ≤ 29.99 | Pass |

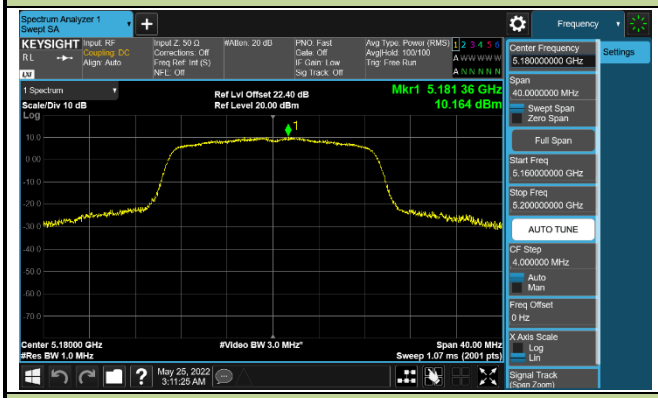
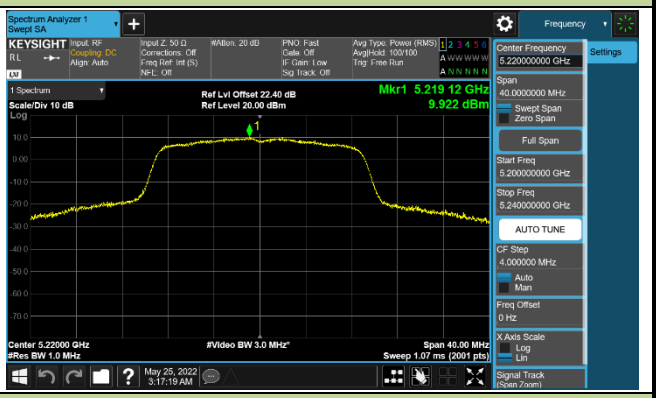
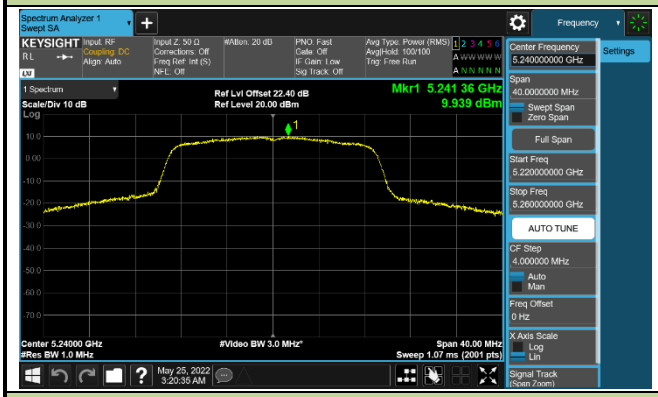
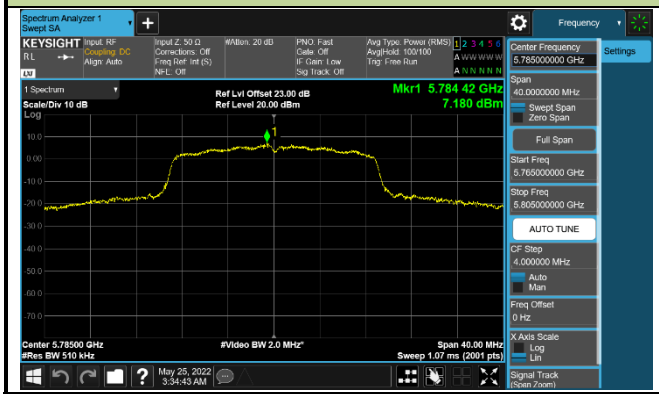
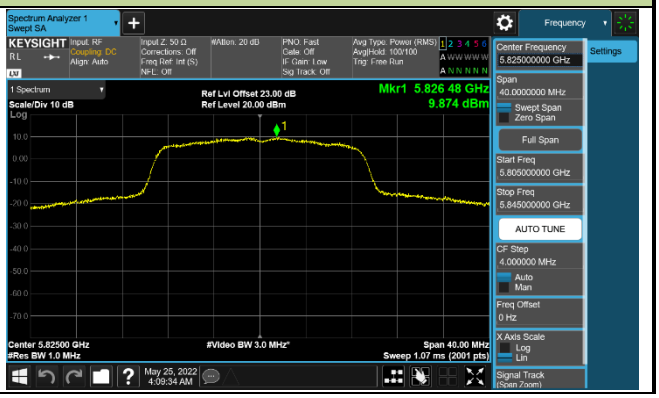
Note 1: When EUT duty cycle ≥ 98%,

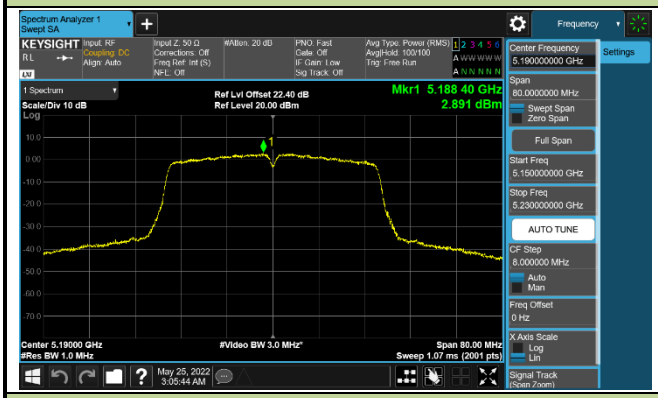
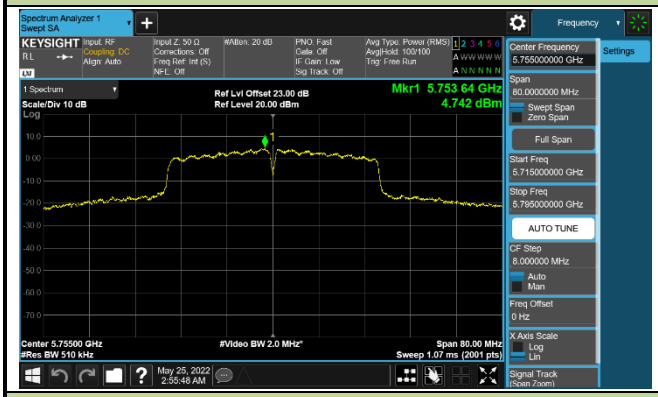
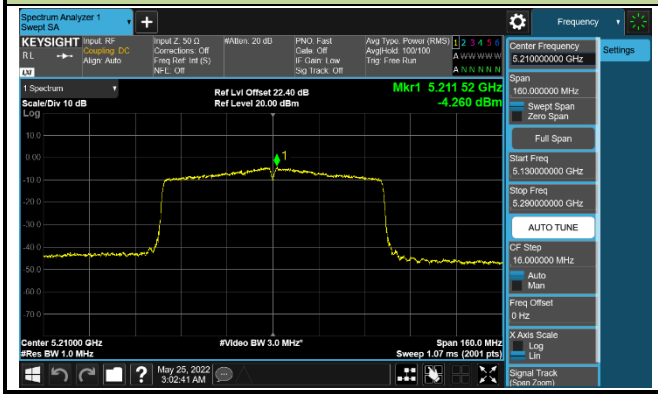
the total PSD (dBm/500kHz) = $10*\log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/100kHz).

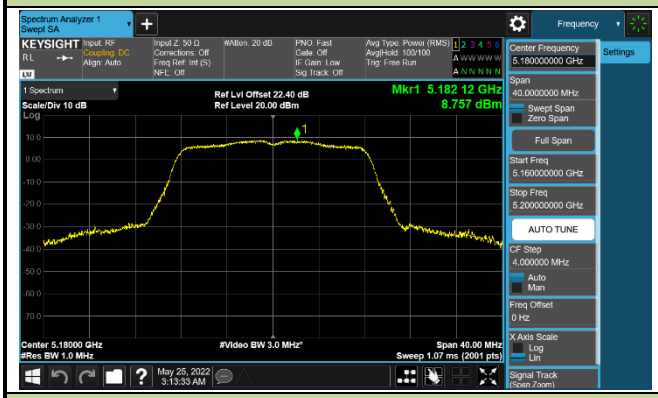
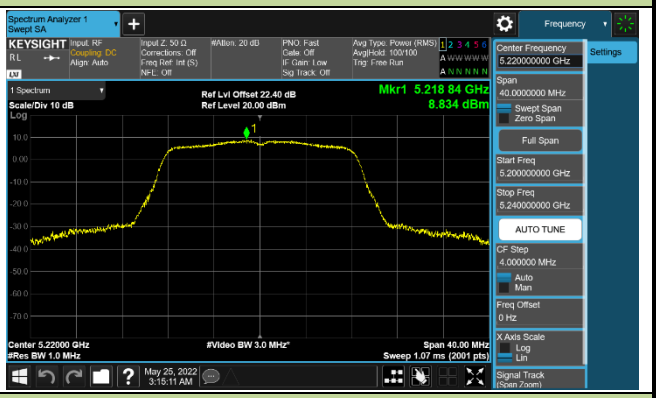
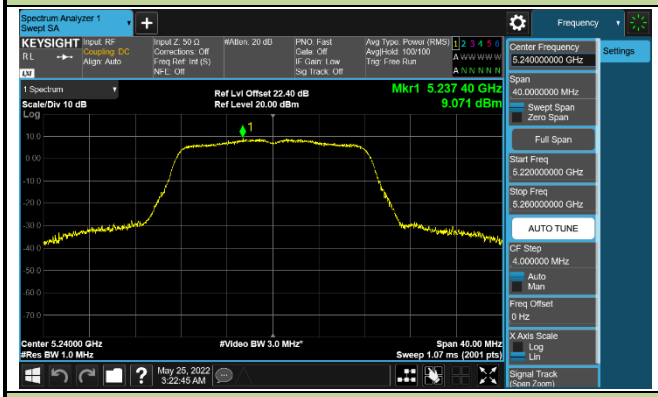
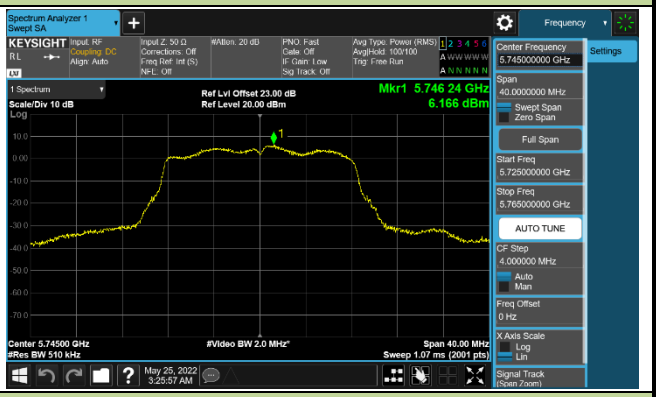
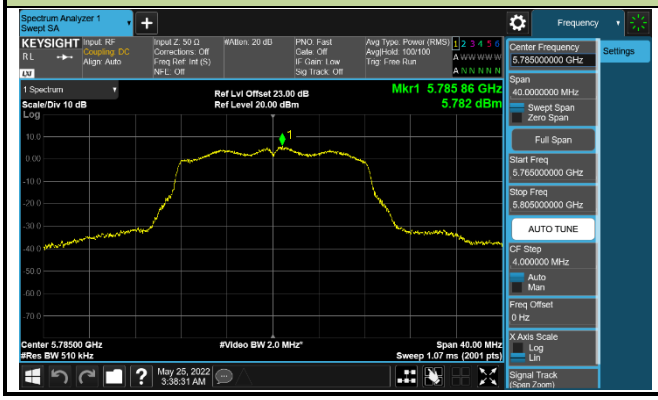
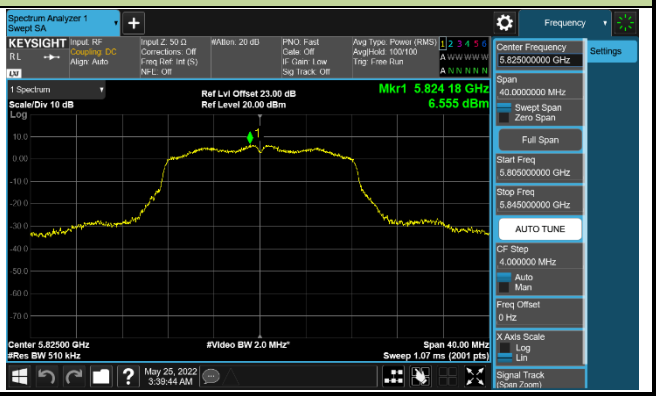
When EUT duty cycle < 98%, the total PSD (dBm/500kHz) = $10*\log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/100kHz) + 10*log (1/Duty Cycle).

Note 2: PSD Limit (dBm/500kHz) = 30 - (6.01 - 6) = 29.99dBm/500kHz.

| 802.11a Power Spectral Density - Ant 0 | |
|---|---|
| Channel 36 (5180MHz) | Channel 44 (5220MHz) |
|  |  |
| Channel 48 (5240MHz) | Channel 149 (5745MHz) |
|  |  |
| Channel 157 (5785MHz) | Channel 165 (5825MHz) |
|  |  |

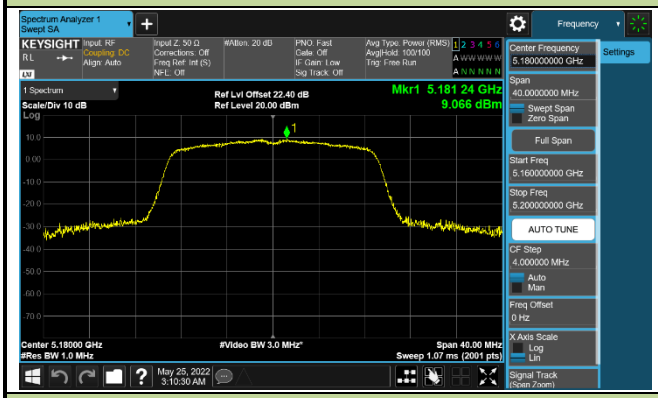
| 802.11ac-VHT20 Power Spectral Density - Ant 0 | |
|---|---|
| Channel 36 (5180MHz) | Channel 44 (5220MHz) |
|  |  |
| Channel 48 (5240MHz) | Channel 149 (5745MHz) |
|  |  |
| Channel 157 (5785MHz) | Channel 165 (5825MHz) |
|  |  |

| 802.11ac-VHT40 Power Spectral Density - Ant 0 | |
|---|---|
| Channel 38 (5190MHz) | Channel 46 (5230MHz) |
|  |  |
| Channel 151 (5755MHz) | Channel 159 (5795MHz) |
|  |  |
| 802.11ac-VHT80 Power Spectral Density - Ant 0 | |
| Channel 42 (5210MHz) | Channel 155 (5775MHz) |
|  |  |

| 802.11a Power Spectral Density - Ant 1 | |
|---|---|
| Channel 36 (5180MHz) | Channel 44 (5220MHz) |
|  |  |
| Channel 48 (5240MHz) | Channel 149 (5745MHz) |
|  |  |
| Channel 157 (5785MHz) | Channel 165 (5825MHz) |
|  |  |

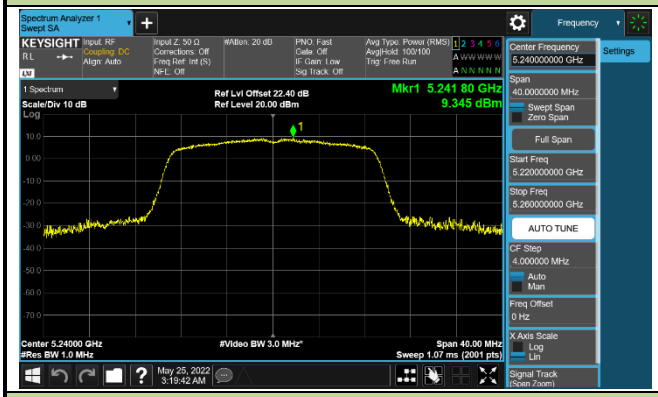
## 802.11ac-VHT20 Power Spectral Density - Ant 1

### Channel 36 (5180MHz)



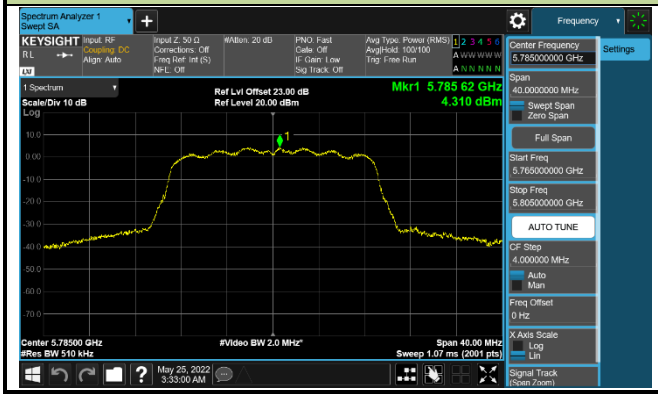

### Channel 44 (5220MHz)


### Channel 48 (5240MHz)

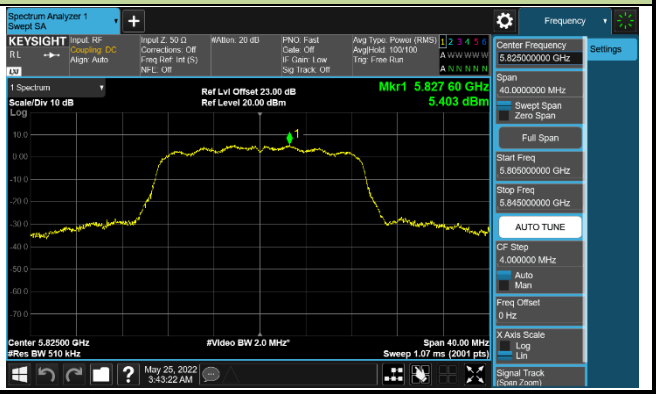



### Channel 149 (5745MHz)


### Channel 157 (5785MHz)

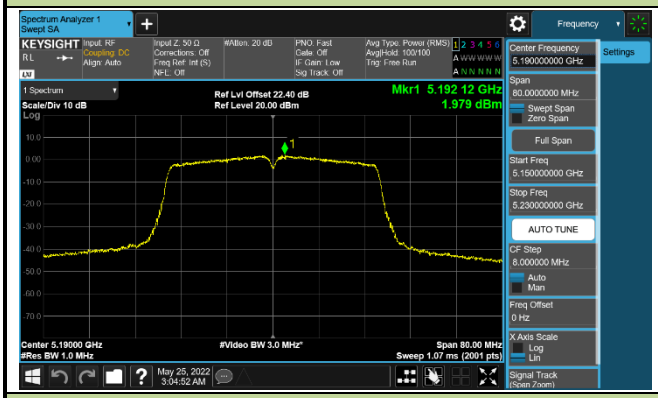



### Channel 165 (5825MHz)

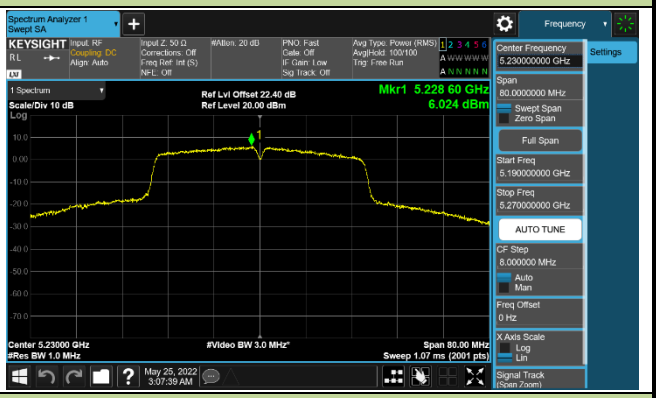


## 802.11ac-VHT40 Power Spectral Density - Ant 1

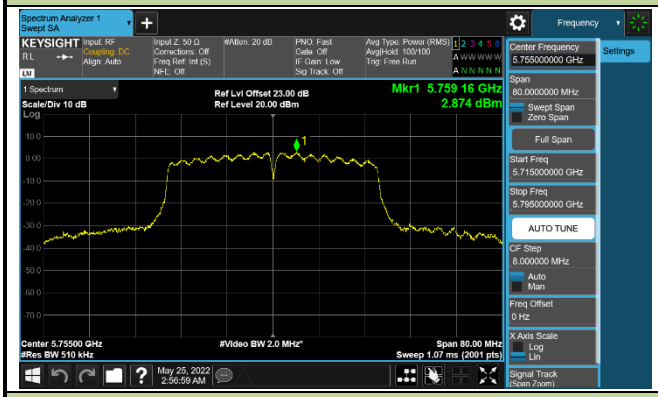
### Channel 38 (5190MHz)



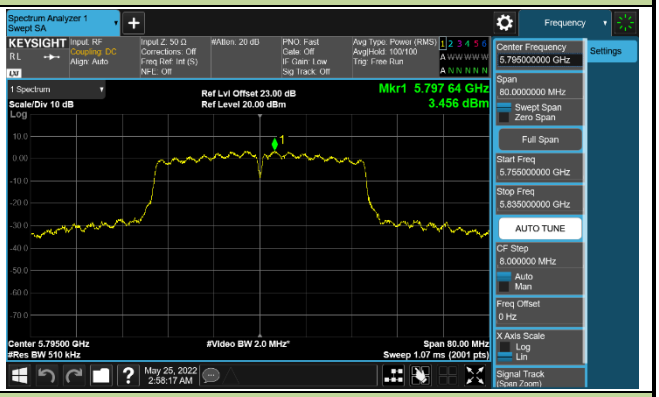

### Channel 46 (5230MHz)




### Channel 151 (5755MHz)

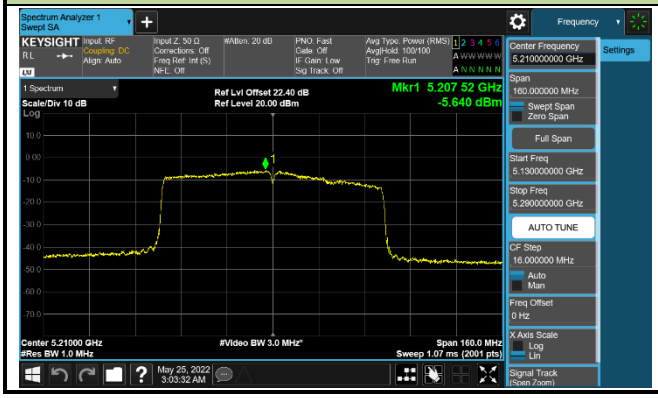



### Channel 159 (5795MHz)

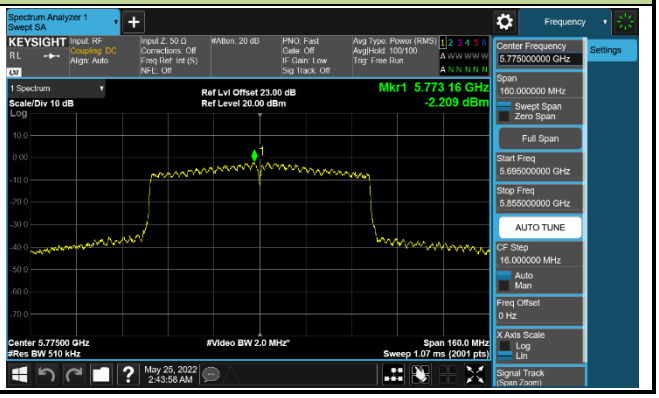



## 802.11ac-VHT80 Power Spectral Density - Ant 1

### Channel 42 (5210MHz)




### Channel 155 (5775MHz)



## 7.7. Frequency Stability Measurement

### 7.7.1.Test Limit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

### 7.7.2.Test Limit

**Frequency Stability Under Temperature Variations:**

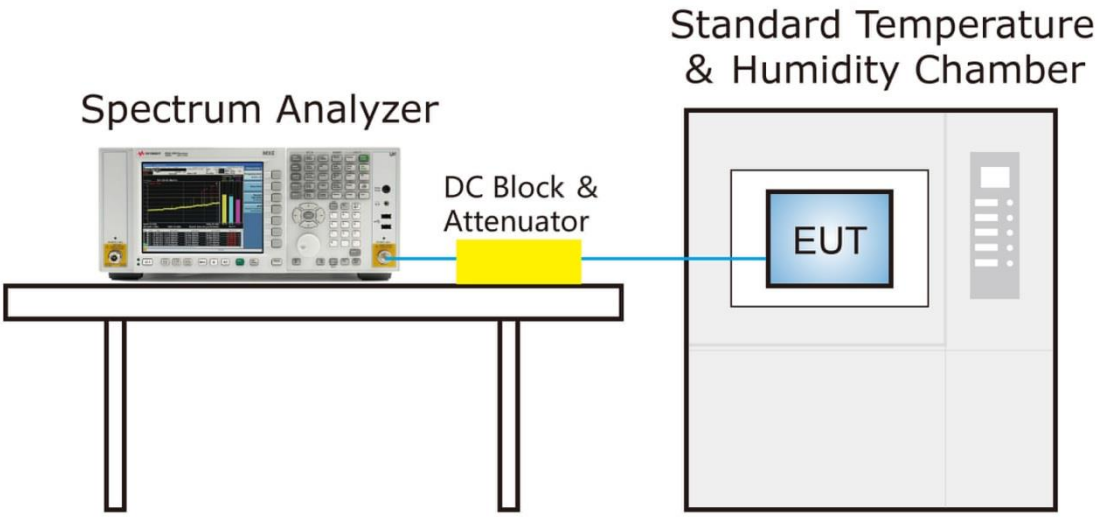
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

**Frequency Stability Under Voltage Variations:**

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, recordthe maximum frequency change.

### 7.7.3.Test Setup




### 7.7.4.Test Result

Grantee ensure that the product meets e-CFR Title 47 section 15.407(g) and KDB 789033 D02v02r01 frequency stability such that the emissions are maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

## 7.8. Radiated Spurious Emission Measurement

### 7.8.1.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 [MHz] | Field Strength [uV/m] | Measured Distance [Meters] |
| 0.009 - 0.490 | 2400/F (kHz) | 300 |
| 0.490 - 1.705 | 24000/F (kHz) | 30 |
| 1.705 - 30 | 30 | 30 |
| 30 - 88 | 100 | 3 |
| 88 - 216 | 150 | 3 |
| 216 - 960 | 200 | 3 |
| Above 960 | 500 | 3 |

### 7.8.2.Test Procedure Used

KDB 789033 D02v02r01- Section II)G

### 7.8.3.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 |
| >1000 MHz | 1 MHz |

**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 ≥ 98%, set VBW = 10 Hz.

If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.

4. Detector = Peak

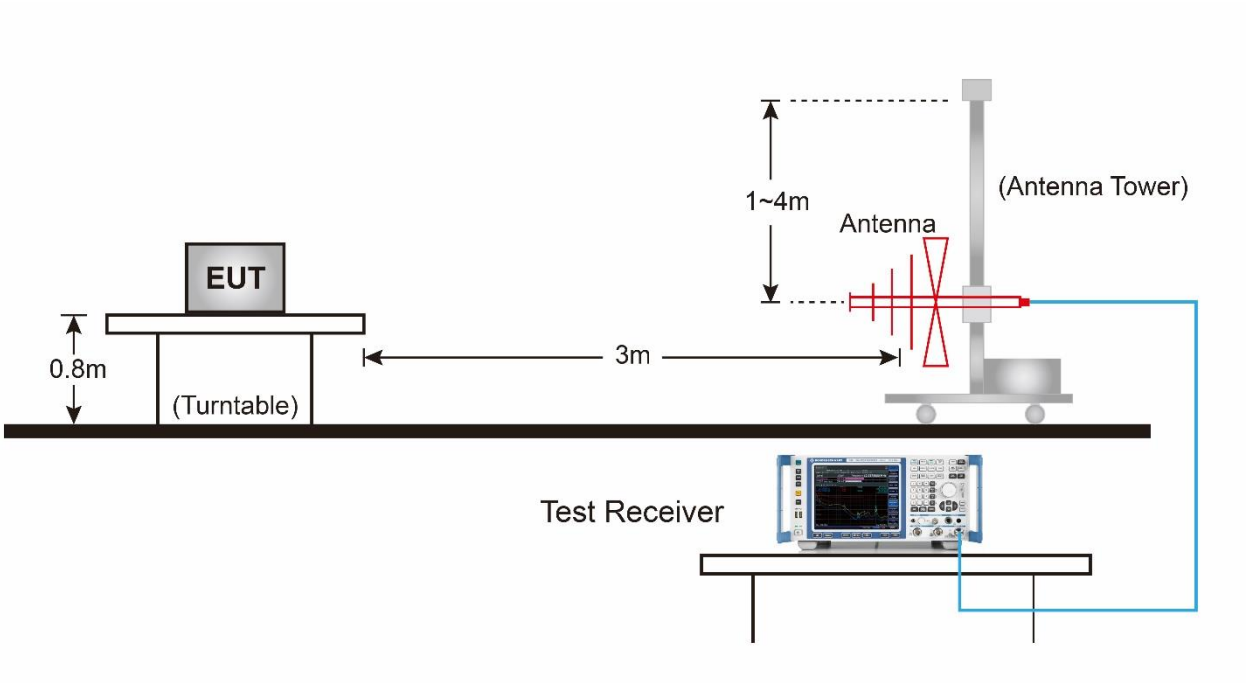
5. Sweep time = auto

6. Trace mode = max hold

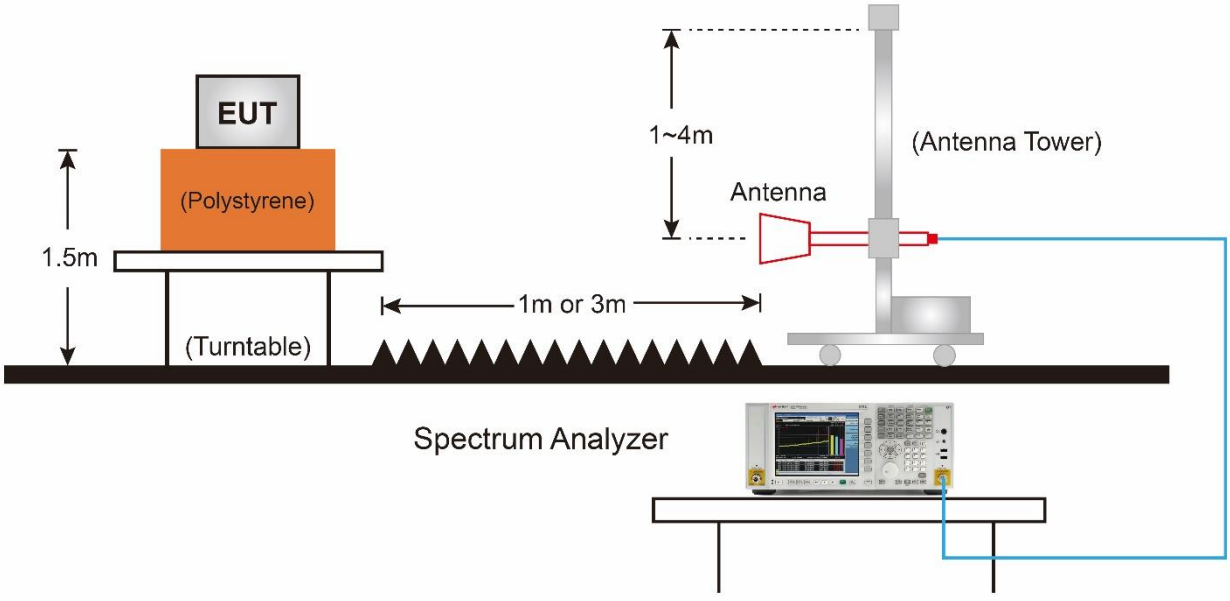
7. Trace was allowed to stabilize

### 7.8.4.Test Setup

Below 1GHz Test Setup:

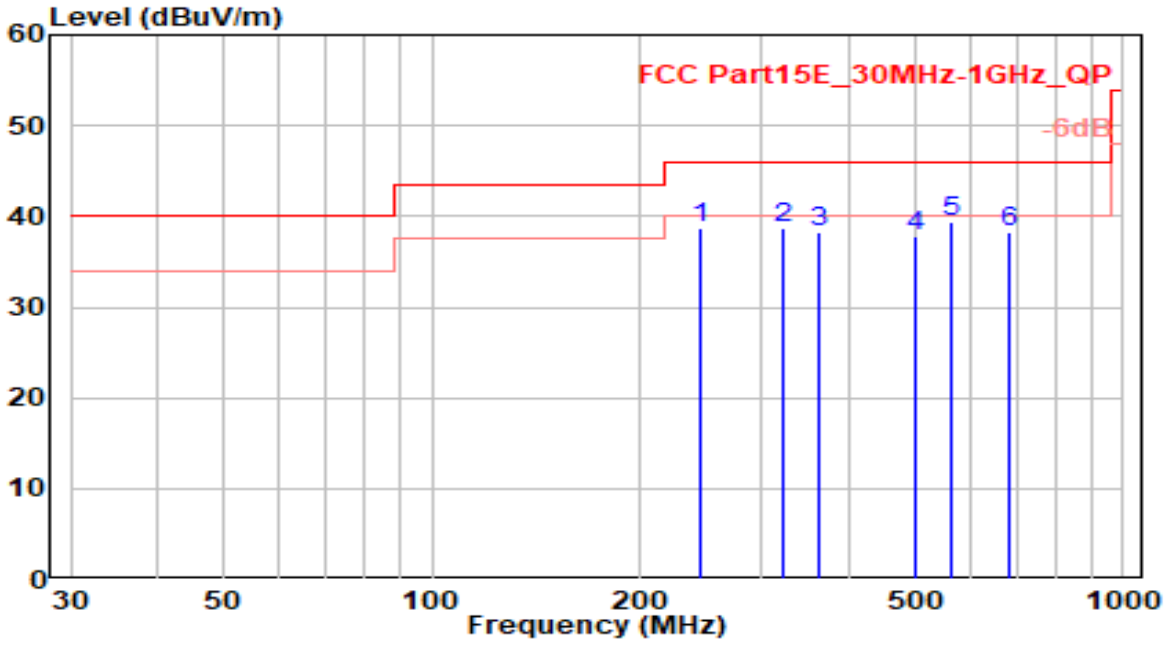



Above 1GHz Test Setup:



### 7.8.5.Test Result

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | VULB 9162 | Temp. / Humidity | 20°C /60% |
| Polarity | Horizontal | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11ac-20MHz_TX_Band1_CH 44_ANT 0+1 | Test Voltage | AC 120V/60Hz |

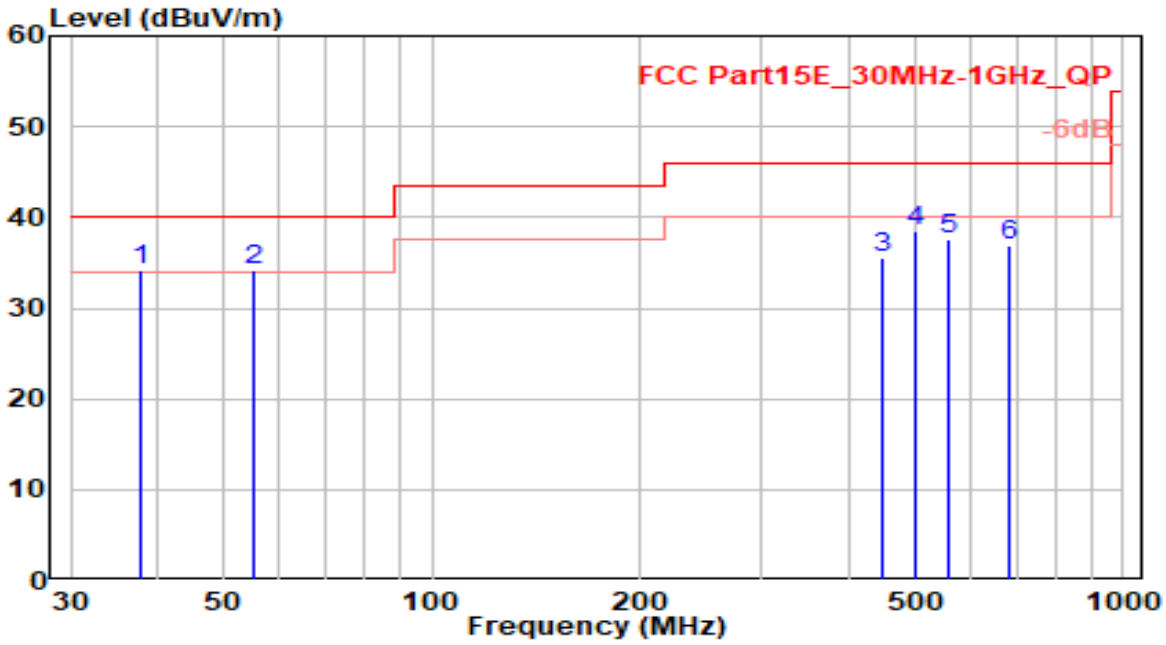



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 245.280 | 18.07 | 20.58 | 38.65 | -7.35 | 46.00 | 100 | 300 | QP |
| 2 | | 321.230 | 16.77 | 22.04 | 38.81 | -7.19 | 46.00 | 100 | 250 | QP |
| 3 | | 362.840 | 14.98 | 23.23 | 38.21 | -7.79 | 46.00 | 150 | 360 | QP |
| 4 | | 502.150 | 11.95 | 25.75 | 37.70 | -8.30 | 46.00 | 170 | 360 | QP |
| 5 | * | 561.570 | 12.70 | 26.71 | 39.41 | -6.59 | 46.00 | 200 | 0 | QP |
| 6 | | 684.660 | 9.67 | 28.69 | 38.35 | -7.65 | 46.00 | 100 | 300 | 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.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | VULB 9162 | Temp. / Humidity | 20°C /60% |
| Polarity | Vertical | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11ac-20MHz_TX_Band1_CH 44_ANT 0+1 | Test Voltage | AC 120V/60Hz |

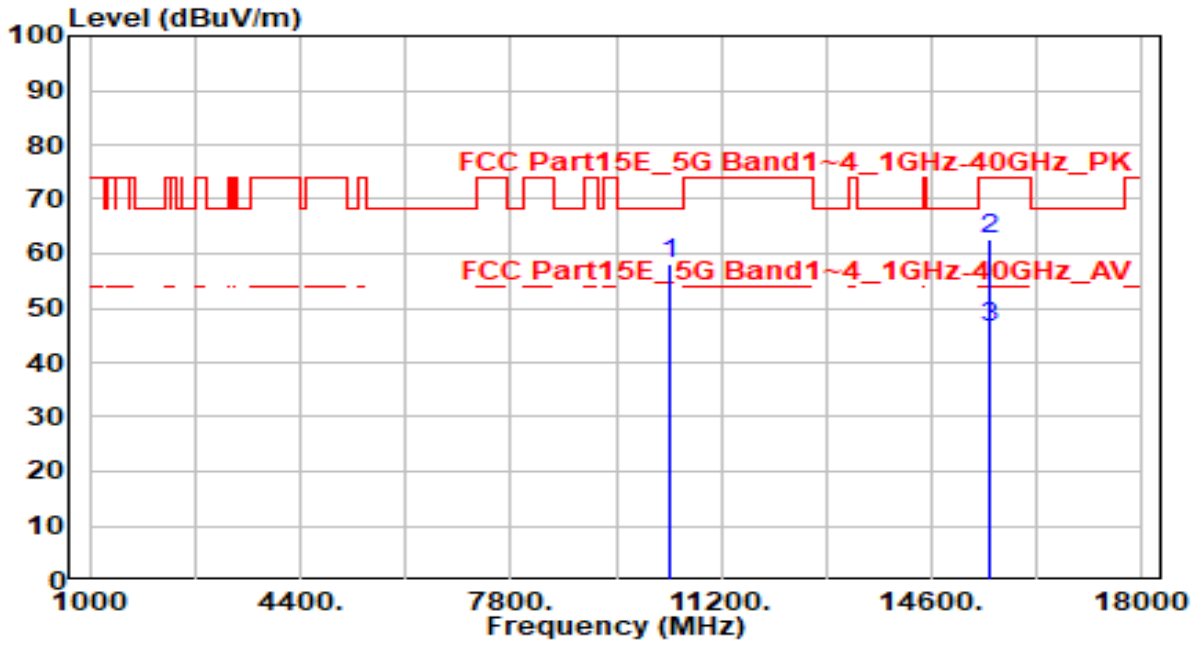



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * | 37.820 | 14.69 | 19.61 | 34.30 | -5.70 | 40.00 | 100 | 350 | QP |
| 2 | | 55.310 | 13.35 | 20.78 | 34.13 | -5.87 | 40.00 | 100 | 50 | QP |
| 3 | | 447.400 | 11.21 | 24.41 | 35.62 | -10.38 | 46.00 | 150 | 150 | QP |
| 4 | | 499.450 | 12.84 | 25.71 | 38.55 | -7.45 | 46.00 | 200 | 90 | QP |
| 5 | | 561.130 | 10.91 | 26.70 | 37.61 | -8.39 | 46.00 | 100 | 20 | QP |
| 6 | | 686.160 | 8.16 | 28.71 | 36.87 | -9.13 | 46.00 | 100 | 230 | 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.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Horizontal | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band1_CH 36_ANT 0+1 | Test Voltage | AC 120V/60Hz |

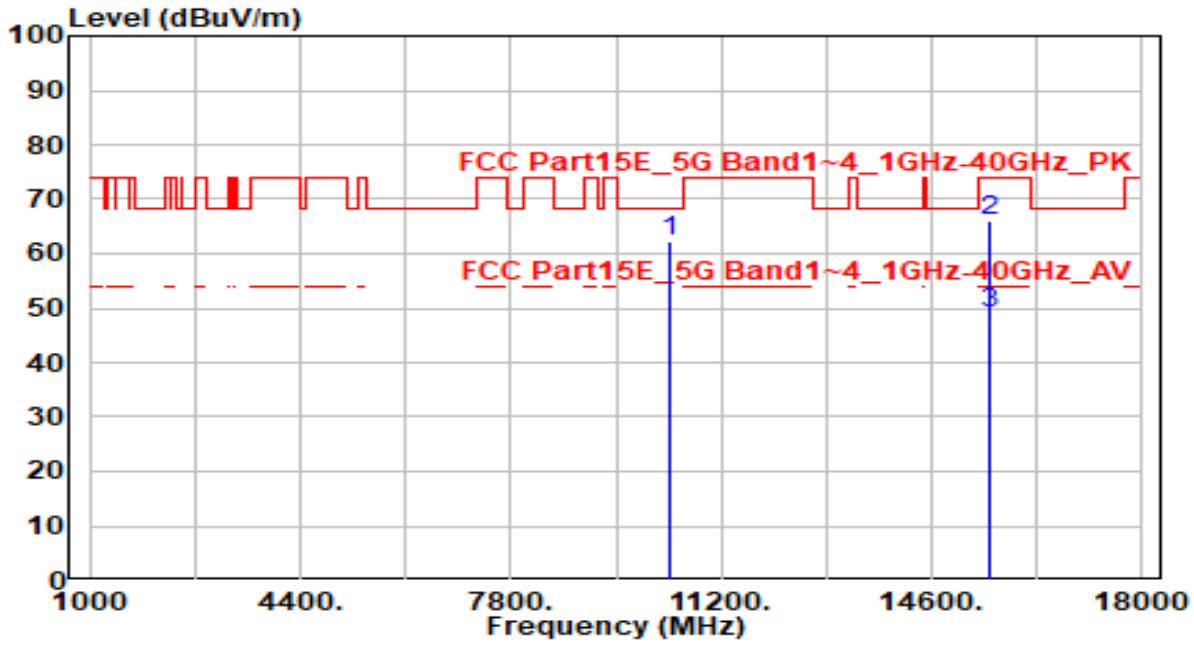



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 10360.000 | 53.65 | 4.62 | 58.27 | -9.93 | 68.20 | 200 | 255 | Peak |
| 2 | * | 15540.000 | 56.54 | 5.91 | 62.45 | -11.55 | 74.00 | 100 | 275 | Peak |
| 3 | * | 15540.000 | 40.39 | 5.91 | 46.30 | -7.70 | 54.00 | 100 | 275 | Average |

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. No1 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Vertical | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band1_CH 36_ANT 0+1 | Test Voltage | AC 120V/60Hz |

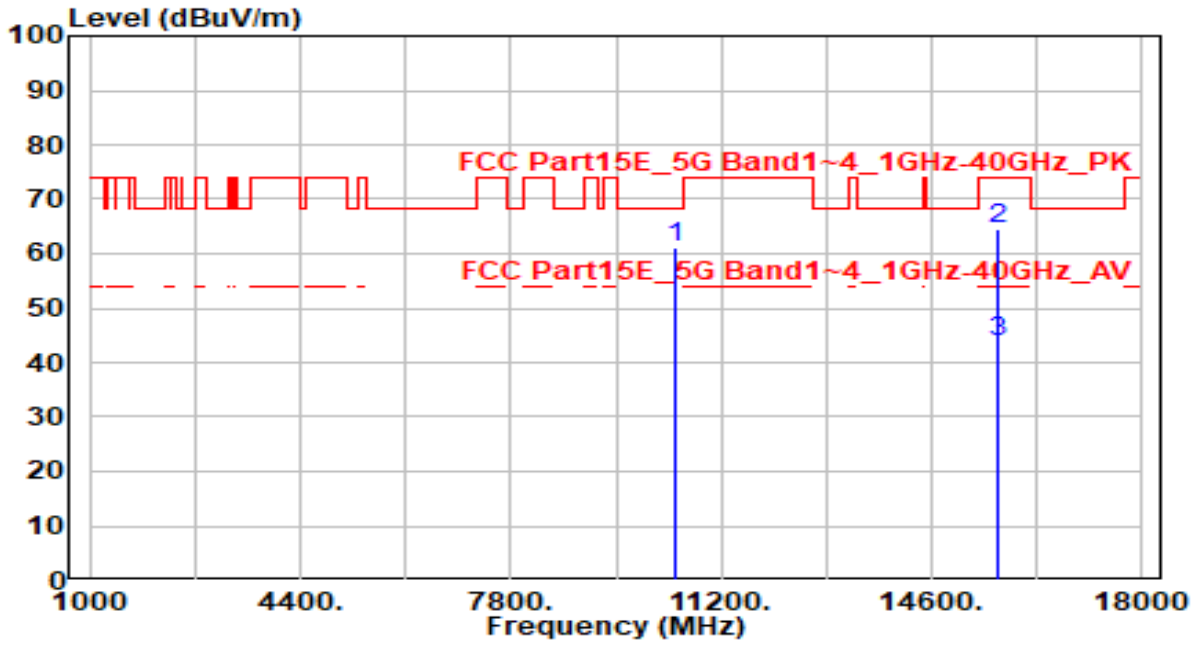



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 10360.000 | 57.58 | 4.62 | 62.20 | -6.00 | 68.20 | 200 | 140 | Peak |
| 2 | * | 15540.000 | 60.19 | 5.91 | 66.10 | -7.90 | 74.00 | 100 | 250 | Peak |
| 3 | * | 15540.000 | 43.32 | 5.91 | 49.23 | -4.77 | 54.00 | 100 | 250 | Average |

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. No1 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Horizontal | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band1_CH 44_ANT 0+1 | Test Voltage | AC 120V/60Hz |

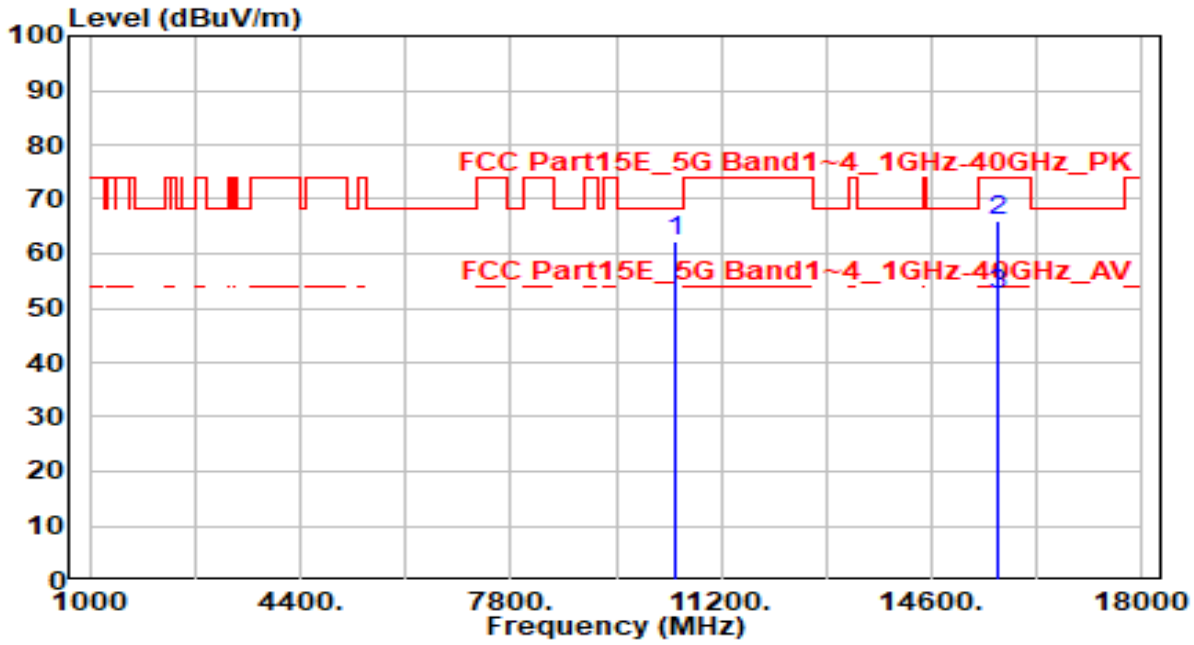



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * | 10440.000 | 56.49 | 4.62 | 61.11 | -7.09 | 68.20 | 100 | 280 | Peak |
| 2 | | 15660.000 | 58.40 | 5.98 | 64.38 | -9.62 | 74.00 | 100 | 260 | Peak |
| 3 | | 15660.000 | 37.88 | 5.98 | 43.86 | -10.14 | 54.00 | 100 | 260 | Average |

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. No1 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Vertical | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band1_CH 44_ANT 0+1 | Test Voltage | AC 120V/60Hz |

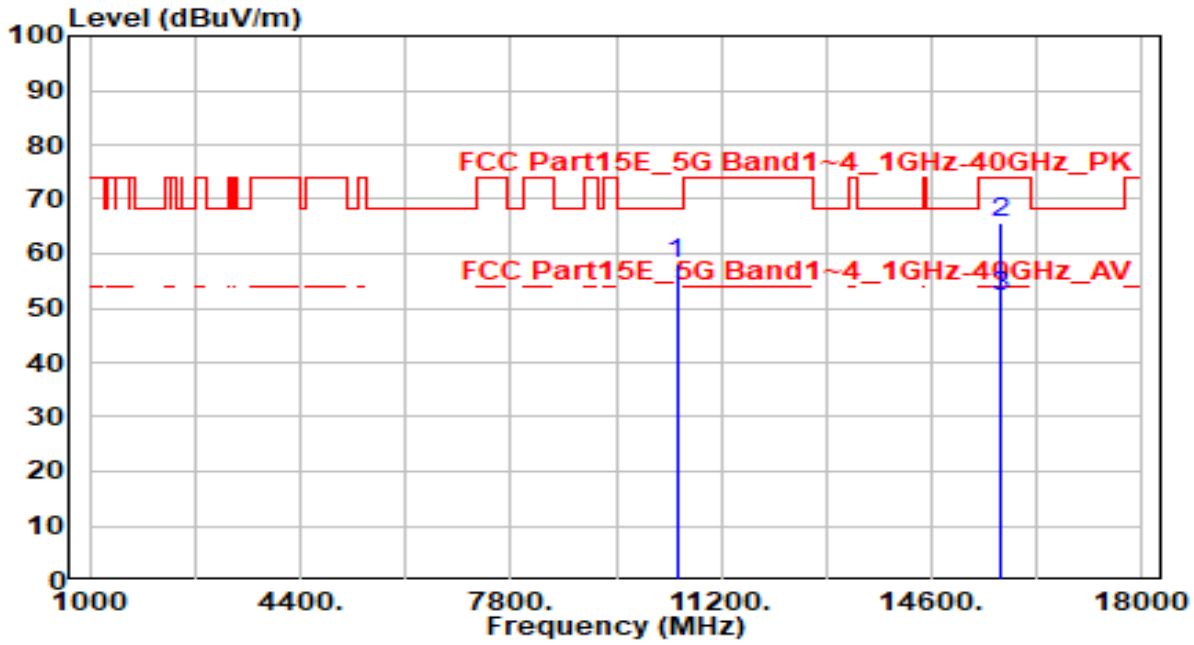



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 10440.000 | 57.74 | 4.62 | 62.36 | -5.84 | 68.20 | 200 | 140 | Peak |
| 2 | * | 15660.000 | 60.10 | 5.98 | 66.08 | -7.92 | 74.00 | 100 | 200 | Peak |
| 3 | * | 15660.000 | 46.58 | 5.98 | 52.56 | -1.44 | 54.00 | 100 | 200 | Average |

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. No1 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Horizontal | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band1_CH 48_ANT 0+1 | Test Voltage | AC 120V/60Hz |

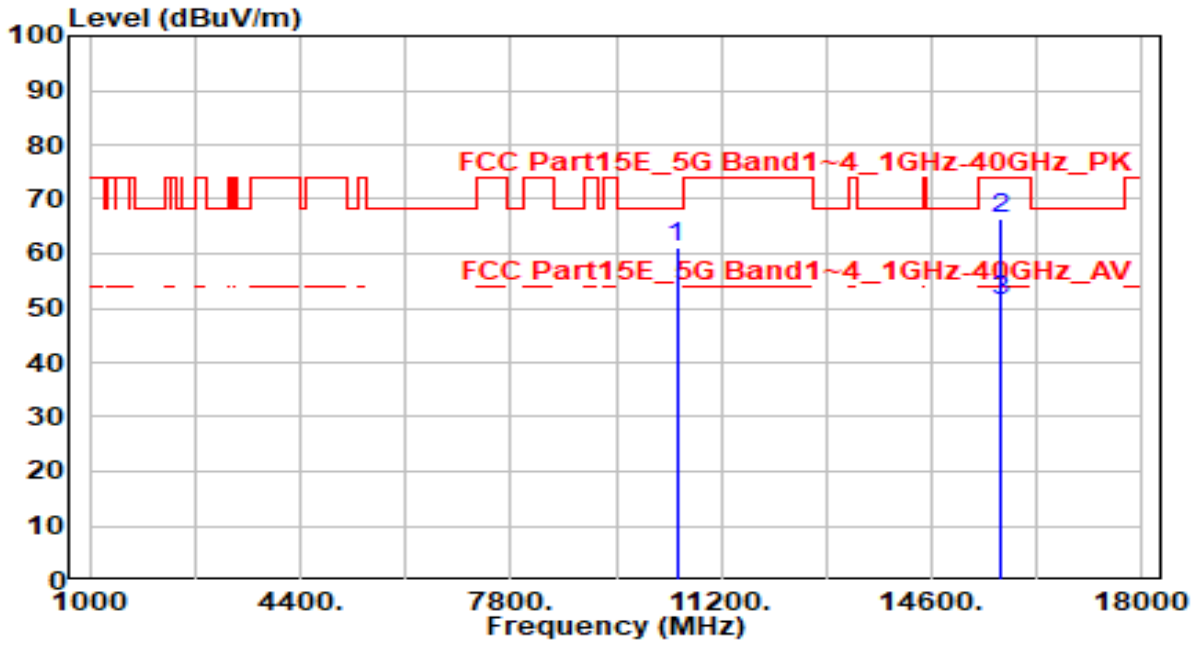



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 10480.000 | 53.61 | 4.63 | 58.24 | -9.96 | 68.20 | 100 | 280 | Peak |
| 2 | * | 15720.000 | 59.80 | 6.03 | 65.83 | -8.17 | 74.00 | 100 | 255 | Peak |
| 3 | * | 15720.000 | 45.88 | 6.03 | 51.91 | -2.09 | 54.00 | 100 | 255 | Average |

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. No1 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Vertical | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band1_CH 48_ANT 0+1 | Test Voltage | AC 120V/60Hz |

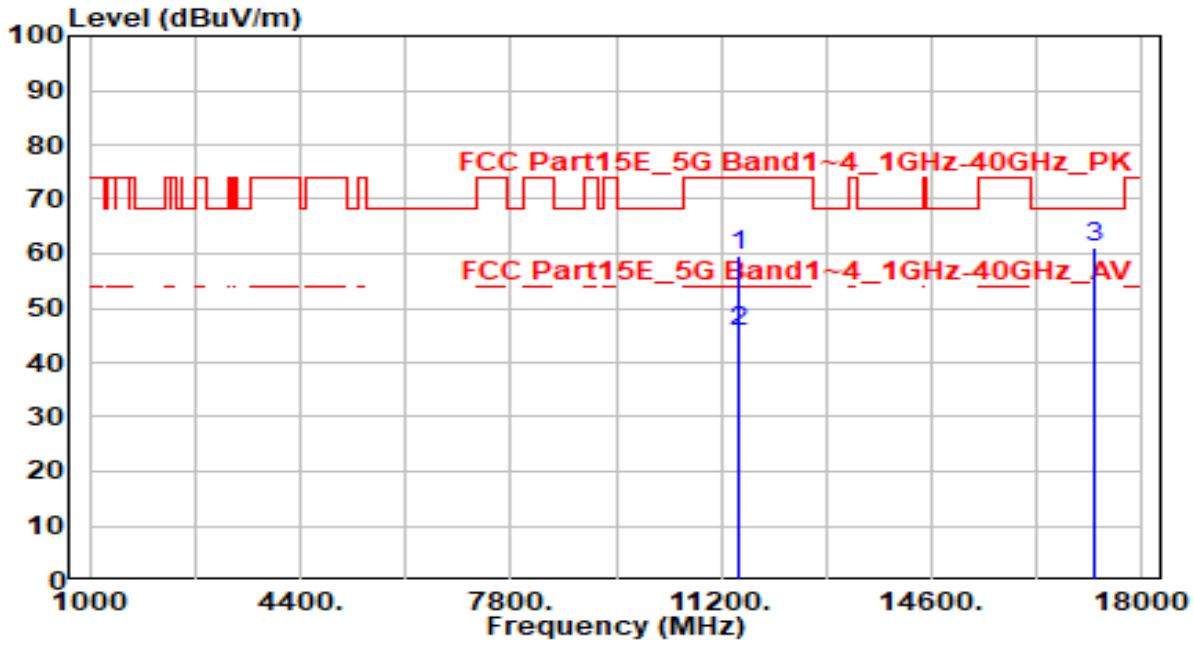



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 10480.000 | 56.55 | 4.63 | 61.18 | -7.02 | 68.20 | 100 | 245 | Peak |
| 2 | * | 15720.000 | 60.42 | 6.03 | 66.45 | -7.55 | 74.00 | 100 | 180 | Peak |
| 3 | * | 15720.000 | 45.43 | 6.03 | 51.46 | -2.54 | 54.00 | 100 | 180 | Average |

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. No1 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Horizontal | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band4_CH 149_ANT 0+1 | Test Voltage | AC 120V/60Hz |

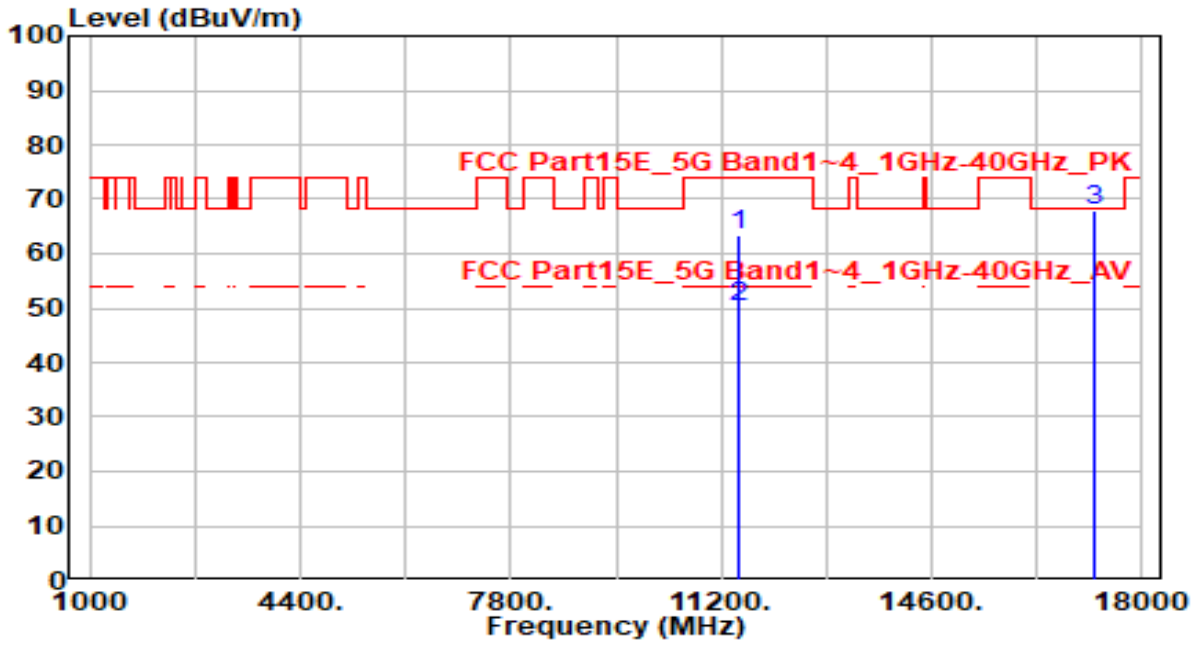



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 11490.000 | 54.44 | 5.15 | 59.59 | -14.41 | 74.00 | 100 | 280 | Peak |
| 2 | | 11490.000 | 40.42 | 5.15 | 45.57 | -8.43 | 54.00 | 100 | 280 | Average |
| 3 | * | 17235.000 | 55.79 | 5.17 | 60.96 | -7.24 | 68.20 | 200 | 160 | 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. No3 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Vertical | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band4_CH 149_ANT 0+1 | Test Voltage | AC 120V/60Hz |

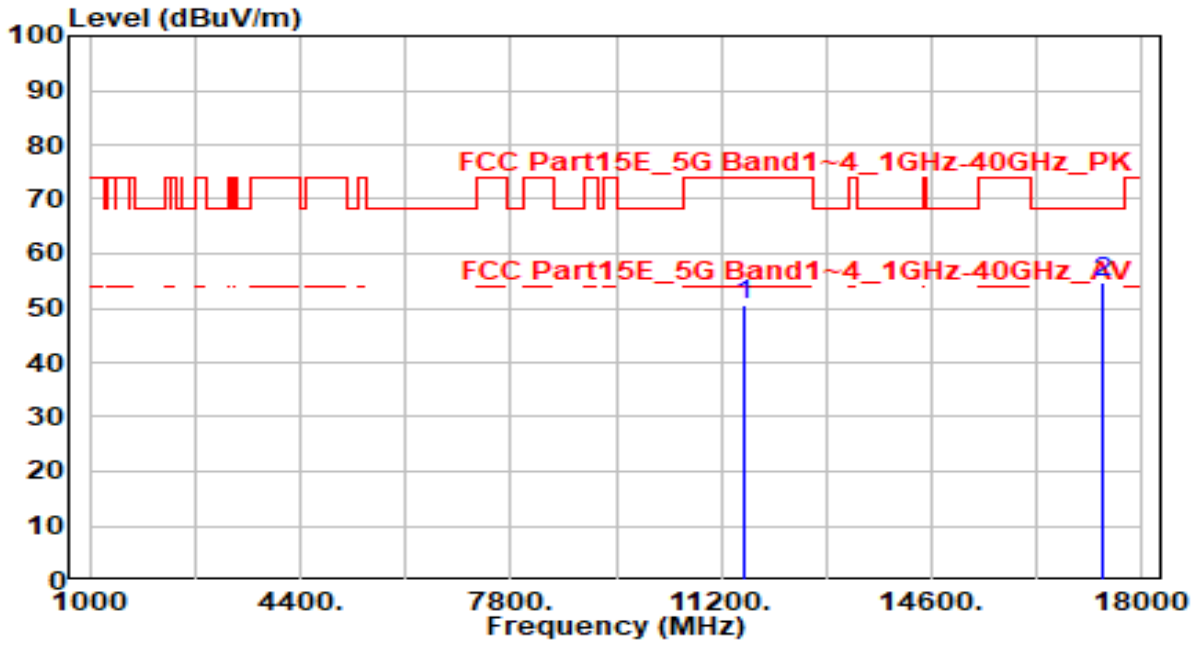



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 11490.000 | 58.06 | 5.15 | 63.21 | -10.79 | 74.00 | 100 | 185 | Peak |
| 2 | | 11490.000 | 44.95 | 5.15 | 50.10 | -3.90 | 54.00 | 100 | 185 | Average |
| 3 | * | 17235.000 | 62.76 | 5.17 | 67.93 | -0.27 | 68.20 | 100 | 185 | 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. No3 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Horizontal | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band4_CH 157_ANT 0+1 | Test Voltage | AC 120V/60Hz |

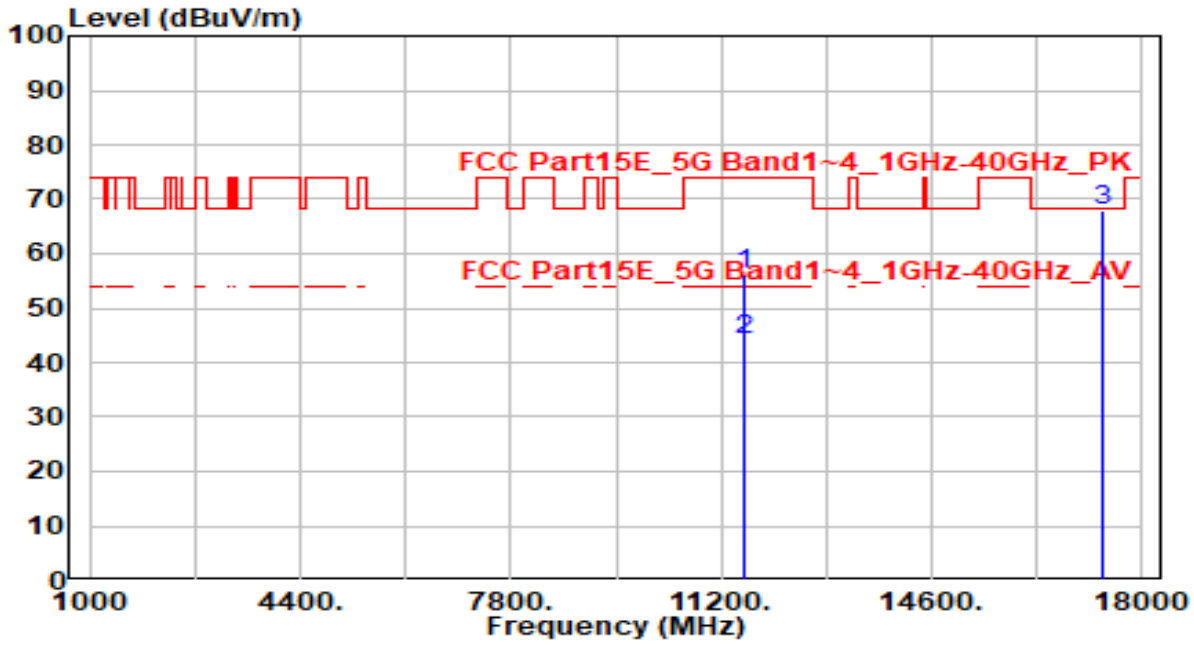



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 11570.000 | 45.60 | 5.14 | 50.73 | -23.27 | 74.00 | 100 | 280 | Peak |
| 2 | * | 17355.000 | 49.64 | 5.09 | 54.73 | -13.47 | 68.20 | 100 | 190 | 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 | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Vertical | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band4_CH 157_ANT 0+1 | Test Voltage | AC 120V/60Hz |

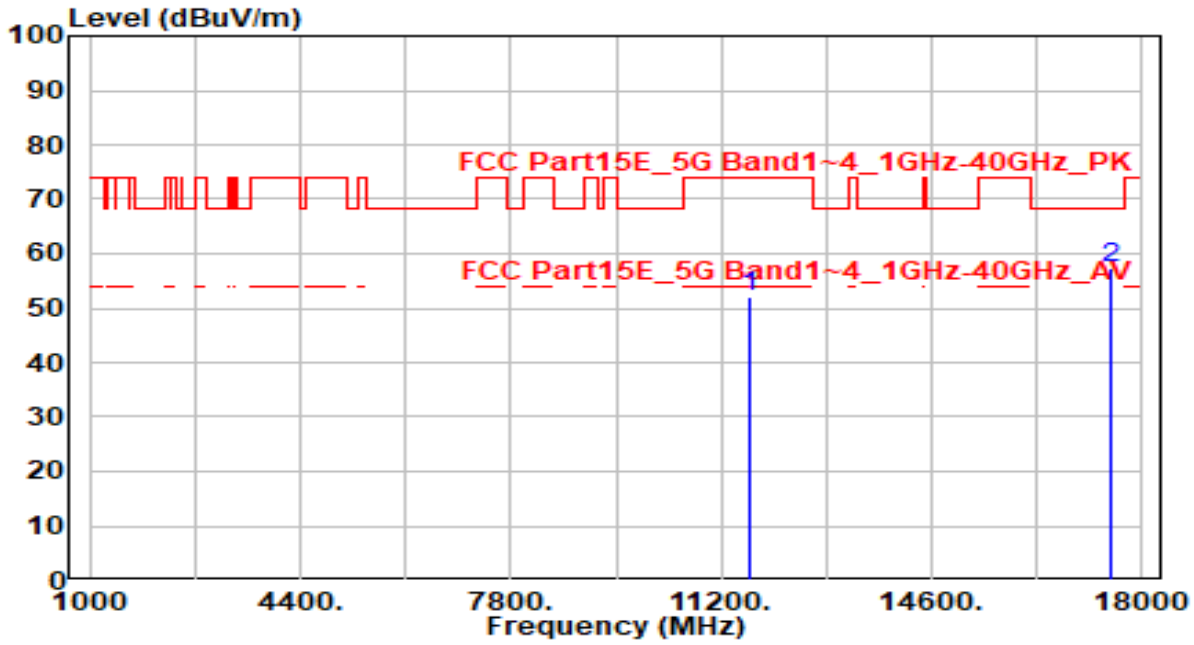



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 11570.000 | 51.16 | 5.14 | 56.29 | -17.71 | 74.00 | 110 | 185 | Peak |
| 2 | | 11570.000 | 38.90 | 5.14 | 44.04 | -9.96 | 54.00 | 110 | 185 | Average |
| 3 | * | 17355.000 | 62.85 | 5.09 | 67.94 | -0.26 | 68.20 | 110 | 185 | 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. No3 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Horizontal | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band4_CH 165_ANT 0+1 | Test Voltage | AC 120V/60Hz |

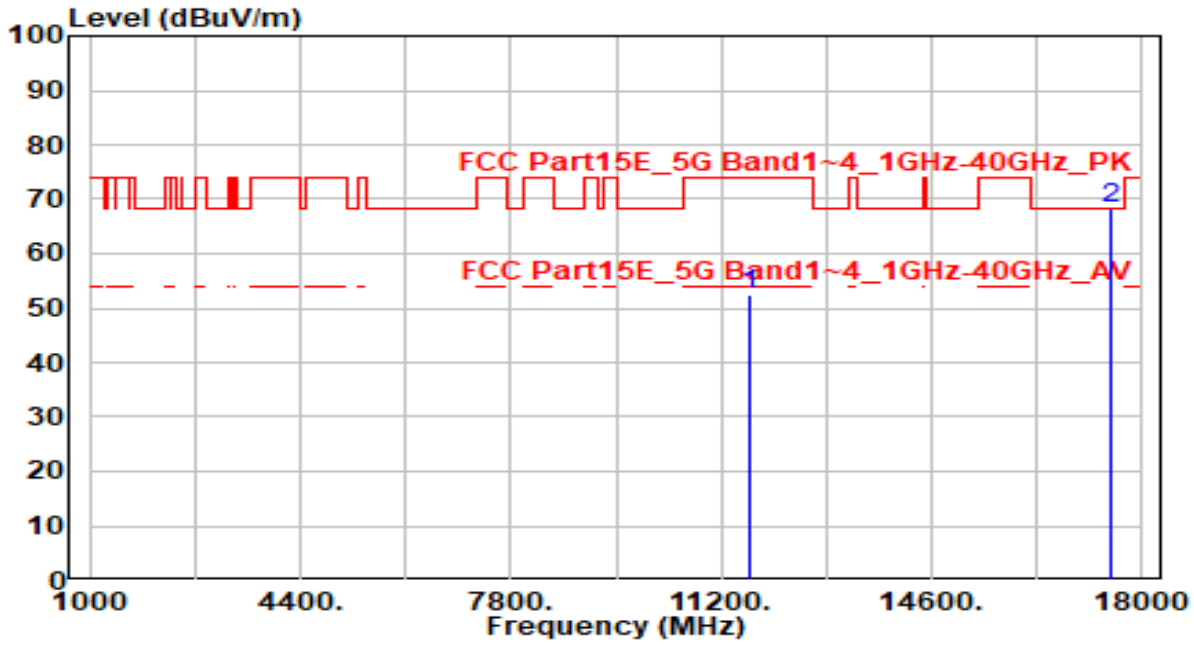



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 11650.000 | 47.10 | 5.12 | 52.22 | -21.78 | 74.00 | 100 | 275 | Peak |
| 2 | * | 17475.000 | 52.13 | 5.10 | 57.22 | -10.98 | 68.20 | 100 | 120 | 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. No2 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Vertical | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11a_TX_Band4_CH 165_ANT 0+1 | Test Voltage | AC 120V/60Hz |

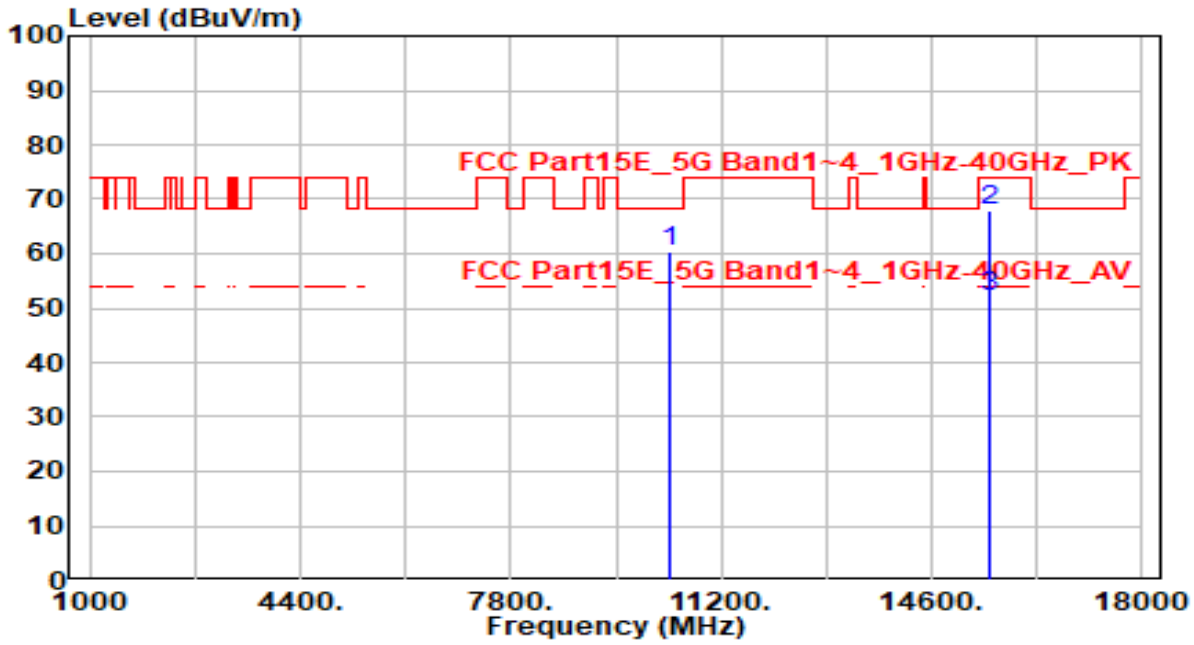



| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 11650.000 | 47.24 | 5.12 | 52.36 | -21.64 | 74.00 | 100 | 190 | Peak |
| 2 | * | 17475.000 | 63.09 | 5.10 | 68.19 | -0.01 | 68.20 | 100 | 185 | 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. No2 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

| EUT | AC1200 MU-MIMO Wi-Fi Router | Date of Test | 2022-05-24 |
|---|---|---|---|
| Factor | DRH18-E | Temp. / Humidity | 20°C /60% |
| Polarity | Horizontal | Site / Test Engineer | AC2 / Ares |
| Test Mode | 802.11ac-20MHz_TX_Band1_CH 36_ANT 0+1 | Test Voltage | AC 120V/60Hz |




| No | | Frequency (MHz) | Reading (dBuV) | C.F (dB/m) | Measurement (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Height (cm) | Angle (deg) | Remark (QP/PK/AV) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 10360.000 | 55.62 | 4.62 | 60.24 | -7.96 | 68.20 | 100 | 280 | Peak |
| 2 | * | 15540.000 | 62.11 | 5.91 | 68.02 | -5.98 | 74.00 | 100 | 275 | Peak |
| 3 | * | 15540.000 | 46.30 | 5.91 | 52.21 | -1.79 | 54.00 | 100 | 275 | Average |

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. No1 is not in restricted band, the limit is 68.2dBuV/m.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.