



# RF TEST REPORT

**Report No.:** 20250117G00948X-W5

**Product Name:** SOLIS Hero

**Model No. :** SolHero24

**FCC ID:** 2A9UP-25HERO

**IC:** 31476-25HERO

**Applicant:** SIMO Holdings Inc.

**Address:** PO.Box 309, Ugland House, GrandCayman, KY1-1104, Cayman Islands

**Dates of Testing:** 01/14/2025 - 03/03/2025

**Issued by:** CCIC Southern Testing Co., Ltd.

**Lab Location:** Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China.

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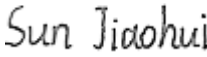


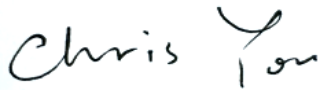
## Test Report

**Product**.....: SOLIS Hero  
**Trade Name** .....: SIMO  
**Applicant**.....: SIMO Holdings Inc.  
**Applicant Address**.....: PO.Box 309, Ugland House, GrandCayman, KY1-1104,  
Cayman Islands  
**Manufacturer**.....: SIMO Holdings Inc.  
**Manufacturer Address**.....: PO.Box 309, Ugland House, GrandCayman, KY1-1104,  
Cayman Islands  
**Test Standards**.....: 47 CFR Part 15 Subpart E 15.407  
RSS-Gen Issue 5, Feb 2021  
RSS-247 Issue 3, Aug 2023  
ANSI C63.10-2020

**Test Result**.....: Pass

**Tested by** .....:  2025.03.03  
Chuiwang Zhang, Test Engineer

**Reviewed by**.....:  2025.03.03  
Sun Jiaohui, Senior Engineer

**Approved by**.....:  2025.03.03  
Chris You, Manager



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| Change History |            |                   |
|----------------|------------|-------------------|
| Issue          | Date       | Reason for change |
| 1.0            | 2025.03.03 | First edition     |
|                |            |                   |

## 1. GENERAL INFORMATION

### 1.1. EUT Description

|                                 |                                                                                                                                                                                                                                                        |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name                    | SOLIS Hero                                                                                                                                                                                                                                             |
| Hardware Version                | Y6601-V1.2                                                                                                                                                                                                                                             |
| Software Version                | 2.104.5.91(0312)                                                                                                                                                                                                                                       |
| EUT supports Radios application | WLAN5.0GHz 802.11a/n/ac                                                                                                                                                                                                                                |
| Product Type                    | Client devices                                                                                                                                                                                                                                         |
| Modulation Type                 | 802.11a/n: OFDM (BPSK/QPSK/16QAM/64QAM)<br>802.11ac: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)                                                                                                                                                               |
| Transfer Rate                   | 802.11a: 54/48/36/24/18/12/9/6 Mbps<br>802.11n: up to 150 Mbps<br>802.11ac: up to 433.333 Mbps                                                                                                                                                         |
| Frequency Range                 | UNII-1: 5150 ~ 5250MHz<br>UNII-3: 5725 ~ 5850MHz                                                                                                                                                                                                       |
| Channel Bandwidth               | 802.11a: 20MHz<br>802.11n: 20MHz/40MHz<br>802.11ac: 20MHz/40MHz/80MHz                                                                                                                                                                                  |
| Channel Number                  | UNII-1:<br>4 for 802.11a, 802.11n(HT20), 802.11ac(VHT20)<br>2 for 802.11n(HT40), 802.11ac(VHT40)<br>1 for 802.11ac(VHT80)<br>UNII-3:<br>5 for 802.11a, 802.11n(HT20), 802.11ac(VHT20)<br>2 for 802.11n(HT40), 802.11ac(VHT40)<br>1 for 802.11ac(VHT80) |
| Antenna Type                    | Internal Antenna                                                                                                                                                                                                                                       |
| Antenna Gain                    | UNII-1: 1.84dBi<br>UNII-3: 3.00dBi                                                                                                                                                                                                                     |
| Output Power (Max.)             | UNII-1: 9.89dBm<br>UNII-3: 9.51dBm                                                                                                                                                                                                                     |
| Power supply                    | Rechargeable Li-ion Battery DC3.8V/5250mAh                                                                                                                                                                                                             |

Note 1: The information of antenna gain and cable loss is provided by the manufacturer and our lab is not responsible for the accuracy of the antenna gain and cable loss information.

## 1.2. Test Standards and Results

The purpose of the report is to conduct testing according to the following FCC certification standards:

| No. | Identity                                                          | Document Title                                                                                                               |
|-----|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 1   | 47 CFR Part 15<br>Subpart E §15.407                               | Radio Frequency Devices                                                                                                      |
| 2   | KDB789033 D02 General<br>UNII Test Procedures New<br>Rules v02r01 | Guidelines for Compliance Testing of Unlicensed National<br>Information Infrastructure (U-NII) Devices Part 15, Subpart<br>E |
| 3   | ANSI C63.10-2020                                                  | American National Standard for Testing Unlicensed Wireless<br>Devices                                                        |

Test detailed items/section required by FCC rules and results are as below:

| No. | FCC Rule                                         | Description                                       | Result |
|-----|--------------------------------------------------|---------------------------------------------------|--------|
| 1   | 15.203<br>15.407(a)                              | Antenna Requirement                               | PASS   |
| 2   | 15.407(a)(1)(iv)<br>15.407(a)(3)(i)              | Maximum Conducted Output Power                    | PASS   |
| 3   | 15.407(a)(12)                                    | 26dB Emission Bandwidth<br>99% Occupied Bandwidth | PASS   |
| 4   | 15.407(e)                                        | 6dB Emission Bandwidth                            | PASS   |
| 5   | 15.407(a)(1)(iv)<br>15.407(a)(3)(i)              | Power spectral density (PSD)                      | PASS   |
| 6   | 15.207                                           | AC Power Line Conducted Emission                  | PASS   |
| 7   | 15.205<br>15.209<br>15.407(b)(1)<br>15.407(b)(4) | Radiated Band Edges and Spurious Emission         | PASS   |
| 8   | 15.407(g)                                        | Frequency Stability                               | PASS   |

### 1.3. Channel List

#### Operated band in 5150 MHz ~ 5250MHz

4 channels are provided for 802.11a and 802.11n-HT20

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 36      | 5180           | 44      | 5220           |
| 40      | 5200           | 48      | 5240           |

2 channels are provided for 802.11n-HT40.

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 38      | 5190           | 46      | 5230           |

1 channels are provided for 802.11ac-VHT80.

| Channel | Frequency(MHz) | Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|---------|----------------|
| 42      | 5210           | /       | /              | /       | /              |

#### Operated band in 5725 MHz ~ 5850MHz

5 channels are provided for 802.11a and 802.11n-HT20.

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 149     | 5745           | 161     | 5805           |
| 153     | 5765           | 165     | 5825           |
| 157     | 5785           |         |                |

2 channels are provided for 802.11n-HT40.

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 151     | 5755           | 159     | 5795           |

1 channel are provided for 802.11ac-VHT80.

| Channel | Frequency(MHz) | Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|---------|----------------|
| 155     | 5775           | /       | /              | /       | /              |

#### 1.4. Test environment and mode

During the measurement, the environmental conditions were within the listed ranges:

| Operating Environment          |                                                         |
|--------------------------------|---------------------------------------------------------|
| Temperature                    | 15°C - 35°C                                             |
| Humidity                       | 30% -60%                                                |
| Atmospheric Pressure           | 86kPa-106kPa                                            |
| Test mode:                     |                                                         |
| Continuously transmitting mode | Keep the EUT in continuous transmitting with modulation |

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

| For Frequency band 5150 ~ 5250 MHz                                                                                             |                |      |      |           |
|--------------------------------------------------------------------------------------------------------------------------------|----------------|------|------|-----------|
| Test Mode                                                                                                                      | Frequency(MHz) |      |      | Data rate |
|                                                                                                                                | LCH            | MCH  | HCH  |           |
| 802.11a                                                                                                                        | 5180           | 5220 | 5240 | 6 Mbps    |
| 802.11n-HT20/ac-VHT20                                                                                                          |                |      |      | MCS 0     |
| 802.11n-HT40/ac-VHT40                                                                                                          | 5190           | /    | 5230 | MCS 0     |
| 802.11ac-VHT80                                                                                                                 | 5210           | /    | /    | MCS 0     |
| Note: After scanning all modulation types and data rates for all test patterns, the above list was found to be the worst case. |                |      |      |           |

| For Frequency band 5725 ~ 5850 MHz                                                                                             |                |      |      |           |
|--------------------------------------------------------------------------------------------------------------------------------|----------------|------|------|-----------|
| Test Mode                                                                                                                      | Frequency(MHz) |      |      | Data rate |
|                                                                                                                                | LCH            | MCH  | HCH  |           |
| 802.11a                                                                                                                        | 5745           | 5785 | 5825 | 6 Mbps    |
| 802.11n-HT20/ac-VHT20                                                                                                          |                |      |      | MCS 0     |
| 802.11n-HT40/ac-VHT40                                                                                                          | 5755           | /    | 5795 | MCS 0     |
| 802.11ac-VHT80                                                                                                                 | 5775           | /    | /    | MCS 0     |
| Note: After scanning all modulation types and data rates for all test patterns, the above list was found to be the worst case. |                |      |      |           |

#### 1.5. Table for Supporting Units

| No. | Equipment | Brand Name | Model Name | Manufacturer | Serial No. | Note    |
|-----|-----------|------------|------------|--------------|------------|---------|
| 1   | Laptop    | HP         | TPN-Q221   | HP           | 5CD14347QB | FCC DOC |



## 1.6. Laboratory Facilities and Accreditation Certificate

### ☒ CCIC-SET Lab 1

Address: Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China

#### **FCC-Registration No.: CN1283**

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until Jun. 30th, 2025.

#### **ISED Registration: 11185A, CAB number: CN0064**

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A on Aug. 04, 2016, valid time is until Jun. 30th, 2025.

#### **A2LA Code: 5721.01**

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025. The accreditation certificate number is 5721.01.

#### **CNAS L1659**

CCIC Southern Testing Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

### ☐ CCIC-SET Lab 4

Address: No.125, Hongmei Section, Wangsha Road, Hongmei Town, Dongguan City, Guangdong Province, China

#### **CNAS L1659**

CCIC Southern Testing Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

## 2. Test Requirements

### 2.1. Antenna requirement

#### 2.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall 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.

According to FCC 15.407(a)(1): For client devices in the 5.15-5.25 GHz band, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to FCC 15.407(a)(3): For the band 5.725-5.850 GHz, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to RSS GEN 6.8, The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

#### 2.1.2. Antenna Information

**Antenna Category:** Internal Antenna

A internal Antenna was soldered to the antenna port of EUT via an adaptor cable, can't be removed.

**Antenna General Information:**

| No. | EUT        | Operating frequency range | Ant. Type | Ant. Gain                          |
|-----|------------|---------------------------|-----------|------------------------------------|
| 1   | SOLIS Hero | UNII-1, UNII-3            | Internal  | UNII-1: 1.84dBi<br>UNII-3: 3.00dBi |

#### 2.1.3. Result: comply

The EUT has a permanently and irreplaceable attached antenna. Please refer to the EUT internal photos.

## 2.2. Maximum Conducted Output Power

### 2.2.1. Limit of Maximum Conducted Output Power

#### FCC Part 15.407(a):

The maximum conducted output power should not exceed:

| Band     | EUT Category                                                          | Limit                                                                                                                      |
|----------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| U-NII-1  | <input type="checkbox"/> Outdoor Access Point                         | 1 Watt (30 dBm)<br>(Max. e.i.r.p $\leq$ 125mW(21dBm) at any elevation angle above 30 degrees as measured from the horizon) |
|          | <input type="checkbox"/> Fixed point-to-point Access device           | 1 Watt (30 dBm)                                                                                                            |
|          | <input type="checkbox"/> Indoor Access Point                          | 1 Watt (30 dBm)                                                                                                            |
|          | <input checked="" type="checkbox"/> Mobile and portable client device | 250mW (24 dBm)                                                                                                             |
| U-NII-2A | <input type="checkbox"/>                                              | 250mW (24 dBm) or 11dBm+10logB*<br>Whichever is less.                                                                      |
| U-NII-2C | <input type="checkbox"/>                                              | 250mW (24 dBm) or 11dBm+10logB*<br>Whichever is less.                                                                      |
| U-NII-3  | <input checked="" type="checkbox"/>                                   | 1 Watt (30 dBm)                                                                                                            |

Note: B\* is the 26 dB emission bandwidth in MHz.

#### RSS-247, 6:

The maximum conducted output power should not exceed:

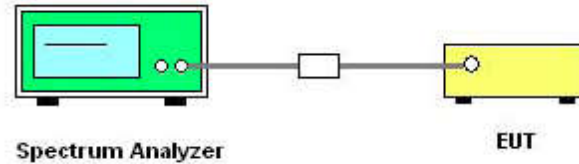
| Band                 | EUT Category                                                           | Limit                                                                                                                                                                   |
|----------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U-NII-1              | <input type="checkbox"/> For OEM devices installed in vehicles         | Max. e.i.r.p $\leq$ 30mW(14.77dBm) or<br>1.76+10log <sub>10</sub> B*<br>Whichever is less.                                                                              |
|                      | <input checked="" type="checkbox"/> Equipment other than OEM equipment | Max. e.i.r.p $\leq$ 200mW(23dBm) or<br>10+10log <sub>10</sub> B*<br>Whichever is less.                                                                                  |
| U-NII-2A<br>U-NII-2C | <input type="checkbox"/> For OEM devices installed in vehicles         | Max. e.i.r.p $\leq$ 30mW(14.77dBm) or<br>1.76+10log <sub>10</sub> B*<br>Whichever is less.(U-NII-2A only)                                                               |
|                      | <input type="checkbox"/> Equipment other than OEM equipment            | Max. Cop $\leq$ 250mW(24Bm) or<br>11+10log <sub>10</sub> B*<br>Whichever is less.<br>Max. e.i.r.p $\leq$ 1W(30Bm) or<br>17+10log <sub>10</sub> B*<br>Whichever is less. |
| U-NII-3              | <input checked="" type="checkbox"/>                                    | 1 Watt (30 dBm)                                                                                                                                                         |

Note: B\* is the 99% emission bandwidth in MHz.

### 2.2.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.2.3. Test Setup



### 2.2.4. Test Procedures

1. The testing follows the of KDB 789033 D02 v02r01 Section II.E.2.b and ANSI C63.10-2020 Section 12.4.2.2.
2. The RF output of EUT was connected to spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Power is calculated by integrating over the spectrum of the entire 99% OBW signal using the instrument's band power measurement feature.
4. Set span to encompass the entire 99% OBW of the signal.
5. Set RBW = 1MHz, VBW  $\geq$  3MHz, Sweep time = Auto, Detector = power averaging (RMS).
6. Number of points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ .
7. Trace average at least 100 traces in power averaging (rms) mode.
8. Replace the EUT center frequency and repeat steps 3~7.

### 2.2.5. Test Results of Maximum Conducted Output Power

Please refer to APPENDIX A for detail.

## 2.3. Power spectral density (PSD)

### 2.3.1. Limit of Power Spectral Density

#### FCC Part 15.407(a)

The maximum power spectral density should not exceed:

| Band     | EUT Category                                                          | Limit        |
|----------|-----------------------------------------------------------------------|--------------|
| U-NII-1  | <input type="checkbox"/> Outdoor Access Point                         | 17 dBm/MHz   |
|          | <input type="checkbox"/> Fixed point-to-point Access device           |              |
|          | <input type="checkbox"/> Indoor Access Point                          |              |
|          | <input checked="" type="checkbox"/> Mobile and portable client device | 11 dBm/MHz   |
| U-NII-2A | <input type="checkbox"/>                                              | 11 dBm/MHz   |
| U-NII-2C | <input type="checkbox"/>                                              | 11 dBm/MHz   |
| U-NII-3  | <input checked="" type="checkbox"/>                                   | 30dBm/500kHz |

#### RSS-247, 6:

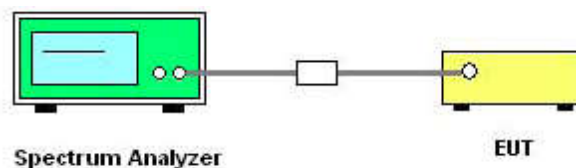
The maximum power spectral density should not exceed:

| Band     | EUT Category                                                           | Limit             |
|----------|------------------------------------------------------------------------|-------------------|
| U-NII-1  | <input checked="" type="checkbox"/> Equipment other than OEM equipment | 10 dBm/MHz (EIRP) |
| U-NII-2A | <input type="checkbox"/>                                               | 11 dBm/MHz        |
| U-NII-2C | <input type="checkbox"/>                                               | 11 dBm/MHz        |
| U-NII-3  | <input checked="" type="checkbox"/>                                    | 30dBm/500kHz      |

### 2.3.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.3.3. Test Setup



### 2.3.4. Test Procedures

1. The testing follows the of KDB 789033 D02 v02r01 Section II.F and ANSI C63.10-2020 Section 12.6.
2. The RF output of EUT was connected to spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set span to encompass the entire 99% OBW of the signal.
4. For U-NII-1, Band: Set RBW = 1MHz, VBW  $\geq$  3MHz, Sweep time = Auto, Detector = power

averaging (RMS).

5. For U-NII-3 Band: Set RBW = 500kHz, VBW  $\geq$  3MHz, Sweep time = Auto, Detector = power averaging (RMS).
6. Number of points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ .
7. Trace average at least 100 traces in power averaging (rms) mode.
8. Use the peak search function on the instrument to find the peak of the spectrum.
9. Replace the EUT center frequency and repeat steps 3~8.

### **2.3.5. Test Result of Power Spectral Density**

Please refer to APPENDIX A for detail.

## 2.4. 26dB Emission Bandwidth and 99% Occupied Bandwidth

### 2.4.1. Limit of 26dB Emission Bandwidth and 99% Occupied Bandwidth

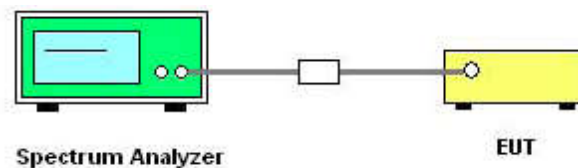
26dB Emission Bandwidth and 99% Occupied Bandwidth no Bandwidth limit.

The minimum 6dB bandwidth of U-NII-3 shall be at least 500 kHz.

### 2.4.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.4.3. Test Description



### 2.4.4. Test Procedures

1. The testing follows the of KDB 789033 D02 v02r01 Section II.C.D and ANSI C63.10-2020 Section 12.5.
2. The RF output of EUT was connected to spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Use the spectrum analyzer “Channel Bandwidth” function to easurement the 26dB EBW, 6dB EBW and 99% OBW.
4. Set center frequency to the nominal EUT channel center frequency.
5. For 99% OBW Measurement:  
Set Span = 1.5 times to 5.0 times the OBW/ RBW = Within 1% to 5% of OBW/VBW  $\geq 3 \times \text{RBW}$ .
6. For 26dB EBW Measurement:  
Set Span = 2.0 times to 5.0 times the EBW/ RBW = Within 1% to 5% of EBW/VBW  $\geq 3 \times \text{RBW}$ .
7. For 6dB EBW Measurement:  
Set RBW =100kHz, VBW  $\geq 3 \times \text{RBW}$ .
8. Set Detector = Peak, Trace mode = max hold and Sweep time = auto couple.
9. Allow the trace to stabilize.
10. Replace the EUT center frequency and repeat steps 3~9.



#### **2.4.5. Test Results of 26dB Emission Bandwidth and 99% Occupied Bandwidth**

Please refer to APPENDIX A for detail.

## 2.5. Frequency Stability

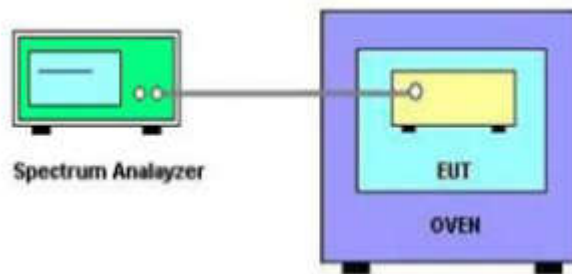
### 2.5.1. Limit of Frequency Stability

Manufacturers 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 users manual.

### 2.5.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.5.3. Test Setup



### 2.5.4. Test Procedures

1. The testing follows the of KDB 789033 D02 v02r01 Section II.A.3 and ANSI C63.10-2020 Section 6.8.
2. The EUT is installed in an environment test chamber with external power source, was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set the chamber to operate at 50°C and external power source to output at nominal voltage of EUT.
5. A sufficient stabilization period at each temperatures in used prior to each frequency measurement.
6. The test shall be performed under -30°C to 50°C and 85% to 115% of the nominal voltage. Change setting of chamber and external power source to complete all conditions.
7. Replace the EUT center frequency and repeat steps 3~6.



### **2.5.5. Test Result of Frequency Stability**

Please refer to APPENDIX A for detail.

## 2.6. Radiated Band Edge and Spurious Emission

### 2.6.1. Limit of Radiated Band Edges and Spurious Emission

Radiated emission which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

| Frequency (MHz) | Field Strength ( $\mu\text{V/m}$ ) | Measurement Distance (m) |
|-----------------|------------------------------------|--------------------------|
| 0.009 - 0.490   | 2400/F(kHz)                        | 300                      |
| 0.490 - 1.705   | 24000/F(kHz)                       | 30                       |
| 1.705 - 30.0    | 30                                 | 30                       |
| 30 - 88         | 100                                | 3                        |
| 88 - 216        | 150                                | 3                        |
| 216 - 960       | 200                                | 3                        |
| Above 960       | 500                                | 3                        |

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level ( $\mu\text{V/m}$ ).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

#### Limits of unwanted emission out of the restricted bands

| FCC Part 15.407(b)   |                              |                  |                                                     |
|----------------------|------------------------------|------------------|-----------------------------------------------------|
| Frequency Band (MHz) | Frequency (MHz)              | EIRP Limit (dBm) | Equivalent Field Strength @3m (dB $\mu\text{V/m}$ ) |
| 5150 - 5250          | Outside of the 5.15~5.35 GHz | -27              | 68.2                                                |
| 5725 - 5850          | < 5650                       | -27              | 68.2                                                |
|                      | 5650~5700                    | -27~10           | 68.2~105.2                                          |
|                      | 5700~5720                    | 10~15.6          | 105.2~110.8                                         |
|                      | 5720~5725                    | 15.6~27          | 110.8~122.2                                         |
|                      | 5850~5855                    | 27~15.6          | 122.2~110.8                                         |
|                      | 5855~5875                    | 15.6~10          | 110.8~105.2                                         |
|                      | 5875~5925                    | 10~-27           | 105.2~68.2                                          |
|                      | > 5925                       | -27              | 68.2                                                |

Note:

- 1)  $\text{EIRP}[\text{dBm}] = \text{E}[\text{dB}\mu\text{V/m}] + 20 \log (d[\text{m}]) - 104.77$ , d is the measurement distance in m.
- 2)  $\text{E}[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2 = 68.2 \text{ dB}\mu\text{V/m}$ , for  $\text{EIRP}[\text{dBm}] = -27\text{dBm}$ .  
 $\text{E}[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2 = 105.2 \text{ dB}\mu\text{V/m}$ , for  $\text{EIRP}[\text{dBm}] = 10\text{dBm}$ .  
 $\text{E}[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2 = 110.8 \text{ dB}\mu\text{V/m}$ , for  $\text{EIRP}[\text{dBm}] = 15.6\text{dBm}$ .  
 $\text{E}[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2 = 122.2 \text{ dB}\mu\text{V/m}$ , for  $\text{EIRP}[\text{dBm}] = 27\text{dBm}$ .

| Applicable To                                                   | Limit                |                 |
|-----------------------------------------------------------------|----------------------|-----------------|
| KDB 789033 D02 General UNII<br>Test Procedures New Rules v02r01 | Field Strength at 3m |                 |
|                                                                 | PK: 68.2(dBμV/m)     | AV: 54 (dBμV/m) |

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).

| MHz                      | MHz                 | MHz           | 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              | /                   | /             | /                |

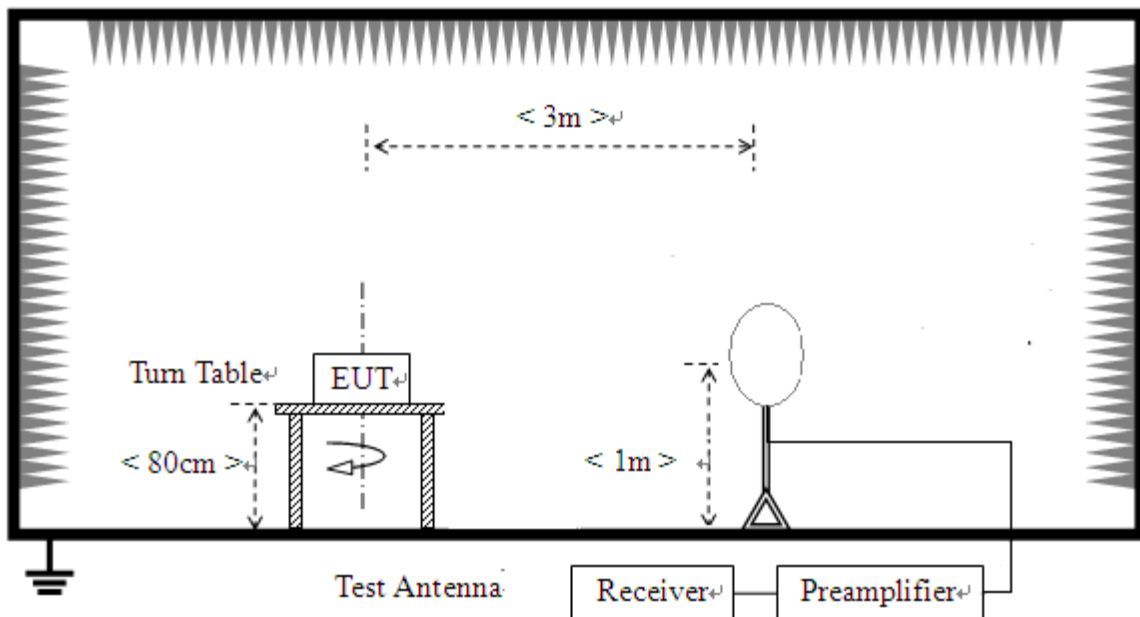
Note: <sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.  
<sup>2</sup>Above 38.6.

## 2.6.2. Measuring Instruments

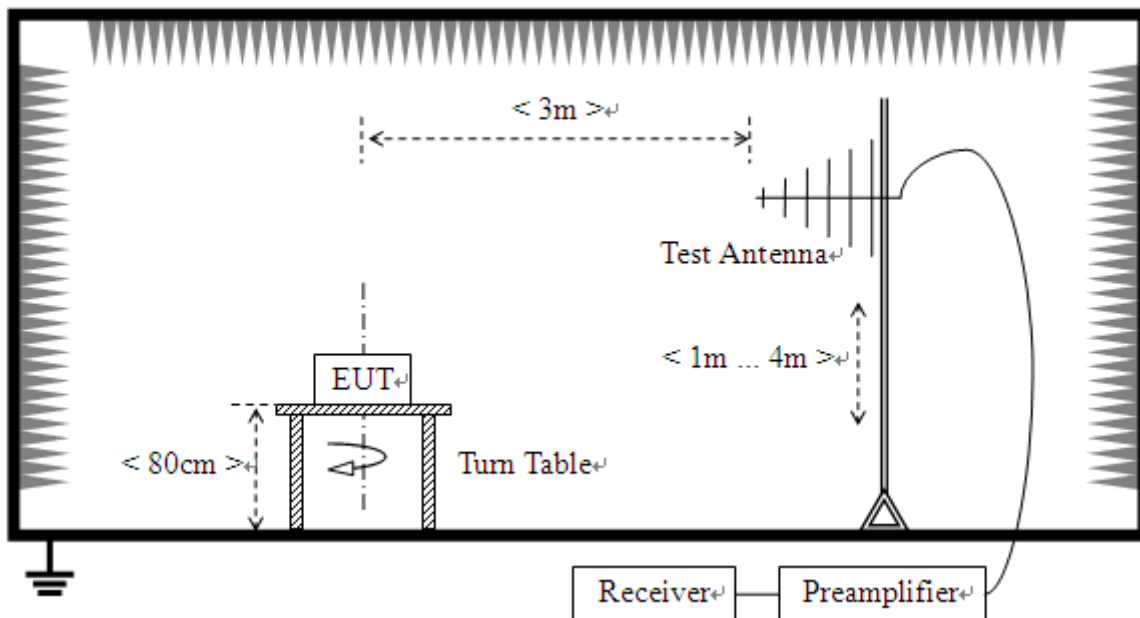
The measuring equipment is listed in the section 3 of this test report.

### 2.6.3. Test Setup

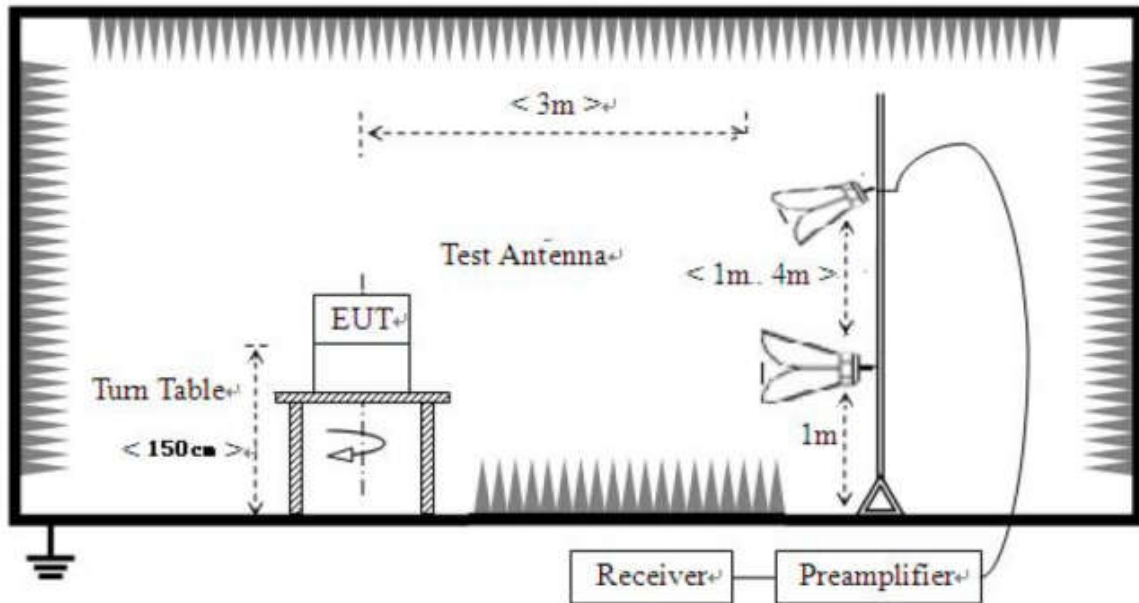
For radiated emissions from 9 kHz to 30 MHz



For radiated emissions from 30MHz to 1GHz



## For radiated emissions above 1GHz



### 2.6.4. Test Procedures

1. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
6. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for

Quasi-peak detection (QP) at frequency below 1 GHz.

2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ( $10 \log(1/\text{duty cycle})$ ).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1GHz.
5. Only worst-Case mode data provide here, 802.11a (20MHz) 5180MHz for Below 1GHz.

#### **2.6.5. Test Result of Radiated Band Edge and Spurious Emission**

For 9 kHz to 30MHz, The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

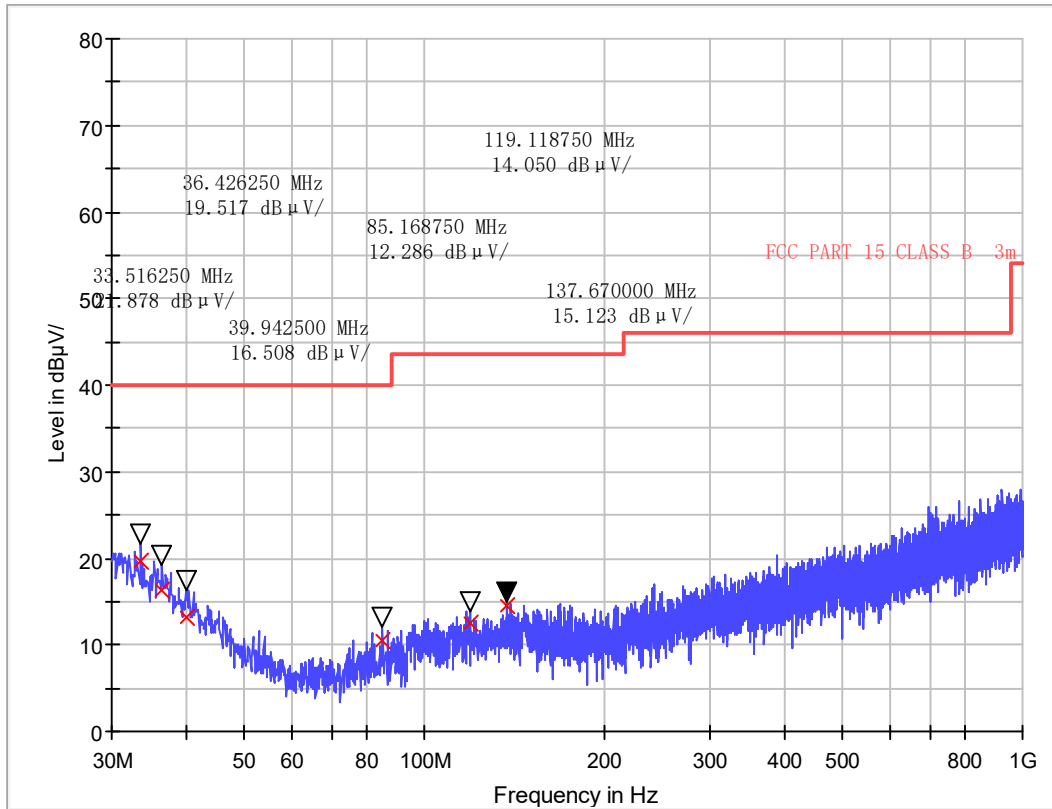
For 30MHz to 1GHz, All of the EUT Configure mode were tested and found 802.11a\_5180MHz channel is the worst mode, the worst case is recorded in this report.

For 1GHz to 18GHz, Only worst-case data is reported.

For above 18GHz, The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

### For 30MHz to 1000 MHz

|            |                     |              |                            |
|------------|---------------------|--------------|----------------------------|
| Test site: | 3M anechoic chamber | Environment: | Temp: 23℃; Humi:48%;101kPa |
| Operator:  | Huang Chaoming      | Test Date:   | 2025.01.22                 |
| Test Mode: | 5G WIFI - TX        | Test Result: | Pass                       |

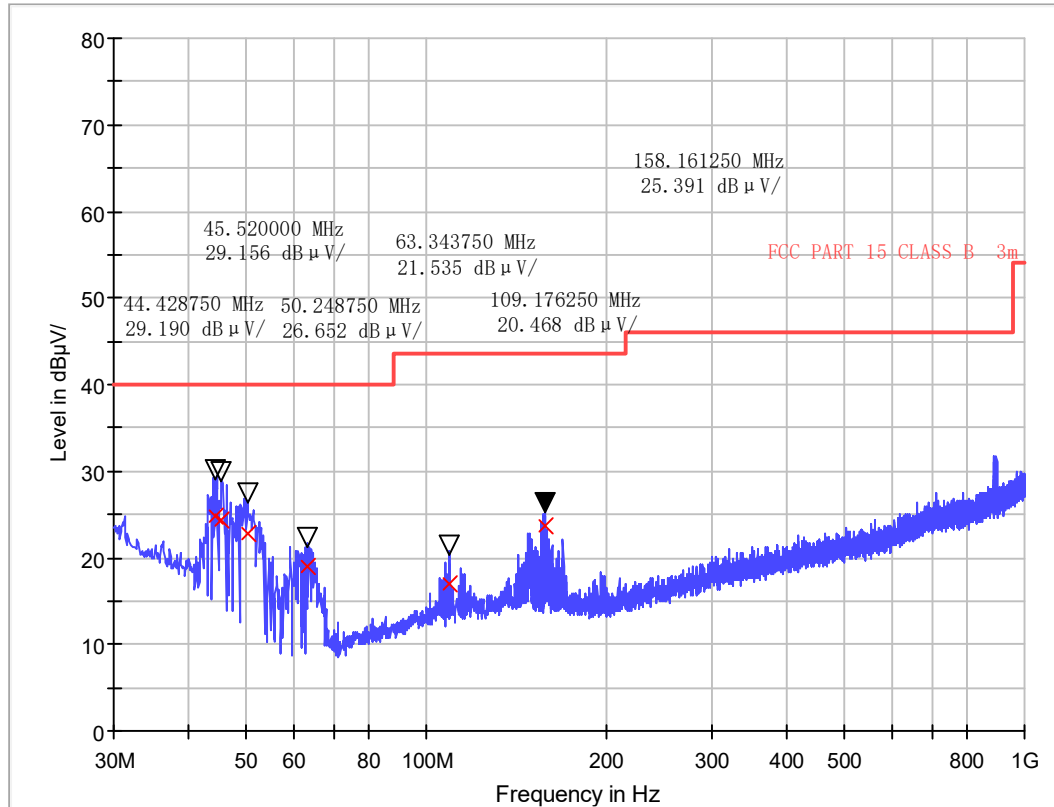


| Frequency (MHz) | QuasiPeak (dBμV/m) | Bandwidth (kHz) | Height (cm) | Polarity | Corr. (dB/m) | Margin - QPK (dB) | Limit - QPK (dBμV/m) |
|-----------------|--------------------|-----------------|-------------|----------|--------------|-------------------|----------------------|
| 33.520000       | 19.77              | 120.000         | 100.0       | H        | 17.4         | 20.23             | 40.0                 |
| 36.440000       | 16.37              | 120.000         | 100.0       | H        | 16.0         | 23.63             | 40.0                 |
| 39.960000       | 13.21              | 120.000         | 100.0       | H        | 14.3         | 26.79             | 40.0                 |
| 85.160000       | 10.39              | 120.000         | 100.0       | H        | 8.4          | 29.61             | 40.0                 |
| 119.120000      | 12.54              | 120.000         | 100.0       | H        | 11.0         | 30.96             | 43.5                 |
| 137.680000      | 14.44              | 120.000         | 100.0       | H        | 11.7         | 29.07             | 43.5                 |

#### Remark:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB).
- Margin value = Limit value - Emission Level.
- The emission levels of other frequencies are very lower than the limit and not show in test report.
- Only the antenna height (from 1m to 4m) at maximum reading are recorded.

|            |                     |              |                             |
|------------|---------------------|--------------|-----------------------------|
| Test site: | 3M anechoic chamber | Environment: | Temp: 23°C; Humi:48%;101kPa |
| Operator:  | Huang Chaoming      | Test Date:   | 2025.01.22                  |
| Test Mode: | 5G WIFI - TX        | Test Result: | Pass                        |



| Frequency (MHz) | QuasiPeak (dBμV/m) | Bandwidth (kHz) | Height (cm) | Polarity | Corr. (dB/m) | Margin - QPK | Limit - QPK |
|-----------------|--------------------|-----------------|-------------|----------|--------------|--------------|-------------|
| 44.440000       | 24.86              | 120.000         | 100.0       | V        | 11.8         | 15.14        | 40.0        |
| 45.520000       | 24.43              | 120.000         | 100.0       | V        | 11.2         | 15.57        | 40.0        |
| 50.240000       | 22.87              | 120.000         | 100.0       | V        | 8.8          | 17.13        | 40.0        |
| 63.360000       | 19.05              | 120.000         | 100.0       | V        | 5.8          | 20.95        | 40.0        |
| 109.160000      | 16.93              | 120.000         | 100.0       | V        | 10.6         | 26.57        | 43.5        |
| 158.160000      | 23.73              | 120.000         | 100.0       | V        | 12.0         | 19.77        | 43.5        |

#### Remark:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB).
- Margin value = Limit value - Emission Level.
- The emission levels of other frequencies are very lower than the limit and not show in test report.
- Only the antenna height (from 1m to 4m) at maximum reading are recorded.

## For 1GHz to 40 GHz

| U-NII-1_802.11a_5180MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                               |                   |                |                          |                            |                          |                                |            |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|--------------------------|--------------------------------|------------|----------|
| Frequency<br>(MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Emission<br>Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Antenna<br>Height<br>(m) | Table<br>Angle<br>(Degree) | Raw<br>Value<br>(dBuV/m) | Correction<br>Factor<br>(dB/m) | Polarity   | Detector |
| 5150.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 55.99                         | 68.20             | -12.21         | 1.50                     | 230                        | 55.55                    | 0.44                           | Horizontal | Peak     |
| 5150.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 41.56                         | 54.00             | -12.44         | 1.50                     | 230                        | 41.12                    | 0.44                           | Horizontal | Average  |
| 10360.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.93                         | 68.20             | -15.27         | 1.50                     | 230                        | 42.47                    | 10.46                          | Horizontal | Peak     |
| 10360.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 43.62                         | 54.00             | -10.38         | 1.50                     | 230                        | 33.16                    | 10.46                          | Horizontal | Average  |
| 5150.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 55.87                         | 68.20             | -12.33         | 1.50                     | 140                        | 55.43                    | 0.44                           | Vertical   | Peak     |
| 5150.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 41.46                         | 54.00             | -12.54         | 1.50                     | 140                        | 41.02                    | 0.44                           | Vertical   | Average  |
| 10360.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.66                         | 68.20             | -15.54         | 1.50                     | 140                        | 42.20                    | 10.46                          | Vertical   | Peak     |
| 10360.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 43.68                         | 54.00             | -10.32         | 1.50                     | 140                        | 33.22                    | 10.46                          | Vertical   | Average  |
| U-NII-1_802.11a_5240MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                               |                   |                |                          |                            |                          |                                |            |          |
| Frequency<br>(MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Emission<br>Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Antenna<br>Height<br>(m) | Table<br>Angle<br>(Degree) | Raw<br>Value<br>(dBuV/m) | Correction<br>Factor<br>(dB/m) | Polarity   | Detector |
| 5350.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 47.64                         | 68.20             | -20.56         | 1.50                     | 230                        | 47.39                    | 0.25                           | Horizontal | Peak     |
| 5350.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 37.81                         | 54.00             | -16.19         | 1.50                     | 230                        | 37.56                    | 0.25                           | Horizontal | Average  |
| 10480.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.71                         | 68.20             | -15.49         | 1.50                     | 230                        | 41.71                    | 11.00                          | Horizontal | Peak     |
| 10480.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 43.52                         | 54.00             | -10.48         | 1.50                     | 230                        | 32.52                    | 11.00                          | Horizontal | Average  |
| 5350.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 46.92                         | 68.20             | -21.28         | 1.50                     | 140                        | 46.67                    | 0.25                           | Vertical   | Peak     |
| 5350.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 38.28                         | 54.00             | -15.72         | 1.50                     | 140                        | 38.03                    | 0.25                           | Vertical   | Average  |
| 10480.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.45                         | 68.20             | -15.75         | 1.50                     | 140                        | 41.45                    | 11.00                          | Vertical   | Peak     |
| 10480.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 43.76                         | 54.00             | -10.24         | 1.50                     | 140                        | 32.76                    | 11.00                          | Vertical   | Average  |
| <p><b>Remark:</b></p> <ol style="list-style-type: none"> <li>1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)</li> <li>2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)</li> <li>3. Margin value = Emission Level – Limit value</li> <li>4. The emission levels of other frequencies are very lower than the limit and not show in test report.</li> <li>5. Only the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.</li> </ol> |                               |                   |                |                          |                            |                          |                                |            |          |

| U-NII-1_802.11n-HT40_5190MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                        |                |             |                    |                      |                    |                          |            |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------|-------------|--------------------|----------------------|--------------------|--------------------------|------------|----------|
| Frequency (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Emssion Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | Polarity   | Detector |
| 5150.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 56.04                  | 68.20          | -12.16      | 1.50               | 230                  | 55.60              | 0.44                     | Horizontal | Peak     |
| 5150.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 41.77                  | 54.00          | -12.23      | 1.50               | 230                  | 41.33              | 0.44                     | Horizontal | Average  |
| 10380.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 51.85                  | 68.20          | -16.35      | 1.50               | 230                  | 41.32              | 10.53                    | Horizontal | Peak     |
| 10380.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 44.19                  | 54.00          | -9.81       | 1.50               | 230                  | 33.66              | 10.53                    | Horizontal | Average  |
| 5150.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 55.45                  | 68.20          | -12.75      | 1.50               | 140                  | 55.01              | 0.44                     | Vertical   | Peak     |
| 5150.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 40.99                  | 54.00          | -13.01      | 1.50               | 140                  | 40.55              | 0.44                     | Vertical   | Average  |
| 10380.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 51.64                  | 68.20          | -16.56      | 1.50               | 140                  | 41.11              | 10.53                    | Vertical   | Peak     |
| 10380.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 43.71                  | 54.00          | -10.29      | 1.50               | 140                  | 33.18              | 10.53                    | Vertical   | Average  |
| U-NII-1_802.11n-HT40_5230MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                        |                |             |                    |                      |                    |                          |            |          |
| Frequency (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Emssion Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | Polarity   | Detector |
| 5350.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 47.85                  | 68.20          | -20.35      | 1.50               | 230                  | 47.60              | 0.25                     | Horizontal | Peak     |
| 5350.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 38.56                  | 54.00          | -15.44      | 1.50               | 230                  | 38.31              | 0.25                     | Horizontal | Average  |
| 10460.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.70                  | 68.20          | -15.50      | 1.50               | 230                  | 41.79              | 10.91                    | Horizontal | Peak     |
| 10460.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 44.07                  | 54.00          | -9.93       | 1.50               | 230                  | 33.16              | 10.91                    | Horizontal | Average  |
| 5350.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 46.76                  | 68.20          | -21.44      | 1.50               | 140                  | 46.51              | 0.25                     | Vertical   | Peak     |
| 5350.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 37.45                  | 54.00          | -16.55      | 1.50               | 140                  | 37.20              | 0.25                     | Vertical   | Average  |
| 10460.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.53                  | 68.20          | -15.67      | 1.50               | 140                  | 41.62              | 10.91                    | Vertical   | Peak     |
| 10460.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 43.79                  | 54.00          | -10.21      | 1.50               | 140                  | 32.88              | 10.91                    | Vertical   | Average  |
| <p><b>Remark:</b></p> <ol style="list-style-type: none"> <li>1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)</li> <li>2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)</li> <li>3. Margin value = Emission Level – Limit value</li> <li>4. The emission levels of other frequencies are very lower than the limit and not show in test report.</li> <li>5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.</li> </ol> |                        |                |             |                    |                      |                    |                          |            |          |

**U-NII-1\_802.11ac-VHT80\_5210MHz**

| Frequency (MHz) | Emssion Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | Polarity   | Detector |
|-----------------|------------------------|----------------|-------------|--------------------|----------------------|--------------------|--------------------------|------------|----------|
| 5150.00         | 55.81                  | 68.20          | -12.39      | 1.50               | 230                  | 55.37              | 0.44                     | Horizontal | Peak     |
| 5150.00         | 42.04                  | 54.00          | -11.96      | 1.50               | 230                  | 41.60              | 0.44                     | Horizontal | Average  |
| 5350.00         | 48.37                  | 68.20          | -19.83      | 1.50               | 230                  | 48.12              | 0.25                     | Horizontal | Peak     |
| 5350.00         | 38.53                  | 54.00          | -15.47      | 1.50               | 230                  | 38.28              | 0.25                     | Horizontal | Average  |
| 10420.00        | 52.15                  | 68.20          | -16.05      | 1.50               | 230                  | 41.44              | 10.71                    | Horizontal | Peak     |
| 10420.00        | 43.86                  | 54.00          | -10.14      | 1.50               | 230                  | 33.15              | 10.71                    | Horizontal | Average  |
| 5150.00         | 55.31                  | 68.20          | -12.89      | 1.50               | 140                  | 54.87              | 0.44                     | Vertical   | Peak     |
| 5150.00         | 40.79                  | 54.00          | -13.21      | 1.50               | 140                  | 40.35              | 0.44                     | Vertical   | Average  |
| 5350.00         | 47.46                  | 68.20          | -20.74      | 1.50               | 140                  | 47.21              | 0.25                     | Vertical   | Peak     |
| 5350.00         | 37.59                  | 54.00          | -16.41      | 1.50               | 140                  | 37.34              | 0.25                     | Vertical   | Average  |
| 10420.00        | 53.06                  | 68.20          | -15.14      | 1.50               | 140                  | 42.35              | 10.71                    | Vertical   | Peak     |
| 10420.00        | 43.15                  | 54.00          | -10.85      | 1.50               | 140                  | 32.44              | 10.71                    | Vertical   | Average  |

**Remark:**

1.  $Emission\ Level(dBuV/m) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB)$
3.  $Margin\ value = Emission\ Level - Limit\ value$
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

| U-NII-3_802.11a_5745MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |                |             |                    |                      |                    |                          |            |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------|-------------|--------------------|----------------------|--------------------|--------------------------|------------|----------|
| Frequency (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Emssion Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | Polarity   | Detector |
| 5650.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.31                  | 68.20          | -16.89      | 1.50               | 230                  | 50.51              | 0.80                     | Horizontal | Peak     |
| 5700.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 52.05                  | 105.20         | -53.15      | 1.50               | 230                  | 50.81              | 1.24                     | Horizontal | Peak     |
| 5720.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.65                  | 110.80         | -59.15      | 1.50               | 230                  | 50.37              | 1.28                     | Horizontal | Peak     |
| 5725.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.69                  | 122.20         | -70.51      | 1.50               | 230                  | 50.39              | 1.30                     | Horizontal | Peak     |
| 11490.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.25                  | 68.20          | -15.95      | 1.50               | 230                  | 40.70              | 11.55                    | Horizontal | Peak     |
| 11490.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 42.84                  | 54.00          | -11.16      | 1.50               | 230                  | 31.29              | 11.55                    | Horizontal | Average  |
| 5650.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.89                  | 68.20          | -17.31      | 1.50               | 140                  | 50.09              | 0.80                     | Vertical   | Peak     |
| 5700.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.48                  | 105.20         | -53.72      | 1.50               | 140                  | 50.24              | 1.24                     | Vertical   | Peak     |
| 5720.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 52.02                  | 110.80         | -58.78      | 1.50               | 140                  | 50.74              | 1.28                     | Vertical   | Peak     |
| 5725.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.64                  | 122.20         | -70.56      | 1.50               | 140                  | 50.34              | 1.30                     | Vertical   | Peak     |
| 11490.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.74                  | 68.20          | -15.46      | 1.50               | 140                  | 41.19              | 11.55                    | Vertical   | Peak     |
| 11490.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 42.58                  | 54.00          | -11.42      | 1.50               | 140                  | 31.03              | 11.55                    | Vertical   | Average  |
| U-NII-3_802.11a_5825MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |                |             |                    |                      |                    |                          |            |          |
| Frequency (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Emssion Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | Polarity   | Detector |
| 5850.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.43                  | 122.20         | -70.77      | 1.50               | 230                  | 49.61              | 1.82                     | Horizontal | Peak     |
| 5855.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.32                  | 110.80         | -59.48      | 1.50               | 230                  | 49.47              | 1.85                     | Horizontal | Peak     |
| 5875.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 52.28                  | 105.20         | -52.92      | 1.50               | 230                  | 50.30              | 1.98                     | Horizontal | Peak     |
| 5925.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.43                  | 68.20          | -16.77      | 1.50               | 230                  | 49.31              | 2.12                     | Horizontal | Peak     |
| 11650.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.35                  | 68.20          | -15.85      | 1.50               | 230                  | 40.71              | 11.64                    | Horizontal | Peak     |
| 11650.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 42.71                  | 54.00          | -11.29      | 1.50               | 230                  | 31.07              | 11.64                    | Horizontal | Average  |
| 5850.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.43                  | 122.20         | -70.77      | 1.50               | 140                  | 49.61              | 1.82                     | Vertical   | Peak     |
| 5855.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 52.63                  | 110.80         | -58.17      | 1.50               | 140                  | 50.78              | 1.85                     | Vertical   | Peak     |
| 5875.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 51.68                  | 105.20         | -53.52      | 1.50               | 140                  | 49.70              | 1.98                     | Vertical   | Peak     |
| 5925.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.80                  | 68.20          | -17.40      | 1.50               | 140                  | 48.68              | 2.12                     | Vertical   | Peak     |
| 11650.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.68                  | 68.20          | -15.52      | 1.50               | 140                  | 41.04              | 11.64                    | Vertical   | Peak     |
| 11650.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 42.49                  | 54.00          | -11.51      | 1.50               | 140                  | 30.85              | 11.64                    | Vertical   | Average  |
| <p><b>Remark:</b></p> <ol style="list-style-type: none"> <li>1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)</li> <li>2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)</li> <li>3. Margin value = Emission Level – Limit value</li> <li>4. The emission levels of other frequencies are very lower than the limit and not show in test report.</li> <li>5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded.</li> </ol> |                        |                |             |                    |                      |                    |                          |            |          |

| U-NII-3_802.11n-HT40_5755MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                        |                |             |                    |                      |                    |                          |            |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------|-------------|--------------------|----------------------|--------------------|--------------------------|------------|----------|
| Frequency (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Emssion Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | Polarity   | Detector |
| 5650.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.85                  | 68.20          | -16.35      | 1.50               | 230                  | 51.05              | 0.80                     | Horizontal | Peak     |
| 5700.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.82                  | 105.20         | -53.38      | 1.50               | 230                  | 50.58              | 1.24                     | Horizontal | Peak     |
| 5720.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.48                  | 110.80         | -59.32      | 1.50               | 230                  | 50.20              | 1.28                     | Horizontal | Peak     |
| 5725.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 50.98                  | 122.20         | -71.22      | 1.50               | 230                  | 49.68              | 1.30                     | Horizontal | Peak     |
| 11510.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 52.74                  | 68.20          | -15.46      | 1.50               | 230                  | 41.18              | 11.56                    | Horizontal | Peak     |
| 11510.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 43.59                  | 54.00          | -10.41      | 1.50               | 230                  | 32.03              | 11.56                    | Horizontal | Average  |
| 5650.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.26                  | 68.20          | -16.94      | 1.50               | 140                  | 50.46              | 0.80                     | Vertical   | Peak     |
| 5700.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.53                  | 105.20         | -53.67      | 1.50               | 140                  | 50.29              | 1.24                     | Vertical   | Peak     |
| 5720.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.94                  | 110.80         | -58.86      | 1.50               | 140                  | 50.66              | 1.28                     | Vertical   | Peak     |
| 5725.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.58                  | 122.20         | -70.62      | 1.50               | 140                  | 50.28              | 1.30                     | Vertical   | Peak     |
| 11510.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 53.08                  | 68.20          | -15.12      | 1.50               | 140                  | 41.52              | 11.56                    | Vertical   | Peak     |
| 11510.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 42.01                  | 54.00          | -11.99      | 1.50               | 140                  | 30.45              | 11.56                    | Vertical   | Average  |
| U-NII-3_802.11n-HT40_5795MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                        |                |             |                    |                      |                    |                          |            |          |
| Frequency (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Emssion Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | Polarity   | Detector |
| 5850.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.14                  | 122.20         | -71.06      | 1.50               | 230                  | 49.32              | 1.82                     | Horizontal | Peak     |
| 5855.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.67                  | 110.80         | -59.13      | 1.50               | 230                  | 49.82              | 1.85                     | Horizontal | Peak     |
| 5875.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 52.74                  | 105.20         | -52.46      | 1.50               | 230                  | 50.76              | 1.98                     | Horizontal | Peak     |
| 5925.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 50.42                  | 68.20          | -17.78      | 1.50               | 230                  | 48.30              | 2.12                     | Horizontal | Peak     |
| 11590.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 52.83                  | 68.20          | -15.37      | 1.50               | 230                  | 41.32              | 11.51                    | Horizontal | Peak     |
| 11590.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 43.31                  | 54.00          | -10.69      | 1.50               | 230                  | 31.80              | 11.51                    | Horizontal | Average  |
| 5850.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.80                  | 122.20         | -70.40      | 1.50               | 140                  | 49.98              | 1.82                     | Vertical   | Peak     |
| 5855.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 52.39                  | 110.80         | -58.41      | 1.50               | 140                  | 50.54              | 1.85                     | Vertical   | Peak     |
| 5875.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.58                  | 105.20         | -53.62      | 1.50               | 140                  | 49.60              | 1.98                     | Vertical   | Peak     |
| 5925.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 50.35                  | 68.20          | -17.85      | 1.50               | 140                  | 48.23              | 2.12                     | Vertical   | Peak     |
| 11590.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 52.49                  | 68.20          | -15.71      | 1.50               | 140                  | 40.98              | 11.51                    | Vertical   | Peak     |
| 11590.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 41.81                  | 54.00          | -12.19      | 1.50               | 140                  | 30.30              | 11.51                    | Vertical   | Average  |
| <b>Remark:</b><br>1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)<br>2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)<br>3. Margin value = Emission Level – Limit value<br>4. The emission levels of other frequencies are very lower than the limit and not show in test report.<br>5. Tnly the antenna height (from 1m to 4m) and turntable angle (from 0 degrees to 360 degrees) at maximum reading are recorded. |                        |                |             |                    |                      |                    |                          |            |          |

| U-NII-3_802.11ac-VHT80_5775MHz                                                                                                                                                                                                                                                                                                                         |                               |                   |                |                          |                            |                          |                                |            |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|--------------------------|--------------------------------|------------|----------|
| Frequency<br>(MHz)                                                                                                                                                                                                                                                                                                                                     | Emission<br>Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Antenna<br>Height<br>(m) | Table<br>Angle<br>(Degree) | Raw<br>Value<br>(dBuV/m) | Correction<br>Factor<br>(dB/m) | Polarity   | Detector |
| 5650.00                                                                                                                                                                                                                                                                                                                                                | 51.98                         | 68.20             | -16.22         | 1.50                     | 230                        | 51.18                    | 0.80                           | Horizontal | Peak     |
| 5700.00                                                                                                                                                                                                                                                                                                                                                | 51.17                         | 105.20            | -54.03         | 1.50                     | 230                        | 49.93                    | 1.24                           | Horizontal | Peak     |
| 5720.00                                                                                                                                                                                                                                                                                                                                                | 51.36                         | 110.80            | -59.44         | 1.50                     | 230                        | 50.08                    | 1.28                           | Horizontal | Peak     |
| 5725.00                                                                                                                                                                                                                                                                                                                                                | 50.71                         | 122.20            | -71.49         | 1.50                     | 230                        | 49.41                    | 1.30                           | Horizontal | Peak     |
| 5850.00                                                                                                                                                                                                                                                                                                                                                | 51.83                         | 122.20            | -70.37         | 1.50                     | 230                        | 50.01                    | 1.82                           | Horizontal | Peak     |
| 5855.00                                                                                                                                                                                                                                                                                                                                                | 51.84                         | 110.80            | -58.96         | 1.50                     | 230                        | 49.99                    | 1.85                           | Horizontal | Peak     |
| 5875.00                                                                                                                                                                                                                                                                                                                                                | 53.28                         | 105.20            | -51.92         | 1.50                     | 230                        | 51.30                    | 1.98                           | Horizontal | Peak     |
| 5925.00                                                                                                                                                                                                                                                                                                                                                | 50.41                         | 68.20             | -17.79         | 1.50                     | 230                        | 48.29                    | 2.12                           | Horizontal | Peak     |
| 11550.00                                                                                                                                                                                                                                                                                                                                               | 53.42                         | 68.20             | -14.78         | 1.50                     | 230                        | 41.88                    | 11.54                          | Horizontal | Peak     |
| 11550.00                                                                                                                                                                                                                                                                                                                                               | 43.73                         | 54.00             | -10.27         | 1.50                     | 230                        | 32.19                    | 11.54                          | Horizontal | Average  |
| 5650.00                                                                                                                                                                                                                                                                                                                                                | 51.40                         | 68.20             | -16.80         | 1.50                     | 140                        | 50.60                    | 0.80                           | Vertical   | Peak     |
| 5700.00                                                                                                                                                                                                                                                                                                                                                | 51.37                         | 105.20            | -53.83         | 1.50                     | 140                        | 50.13                    | 1.24                           | Vertical   | Peak     |
| 5720.00                                                                                                                                                                                                                                                                                                                                                | 51.78                         | 110.80            | -59.02         | 1.50                     | 140                        | 50.50                    | 1.28                           | Vertical   | Peak     |
| 5725.00                                                                                                                                                                                                                                                                                                                                                | 52.03                         | 122.20            | -70.17         | 1.50                     | 140                        | 50.73                    | 1.30                           | Vertical   | Peak     |
| 5850.00                                                                                                                                                                                                                                                                                                                                                | 51.87                         | 122.20            | -70.33         | 1.50                     | 140                        | 50.05                    | 1.82                           | Vertical   | Peak     |
| 5855.00                                                                                                                                                                                                                                                                                                                                                | 52.55                         | 110.80            | -58.25         | 1.50                     | 140                        | 50.70                    | 1.85                           | Vertical   | Peak     |
| 5875.00                                                                                                                                                                                                                                                                                                                                                | 51.49                         | 105.20            | -53.71         | 1.50                     | 140                        | 49.51                    | 1.98                           | Vertical   | Peak     |
| 5925.00                                                                                                                                                                                                                                                                                                                                                | 49.98                         | 68.20             | -18.22         | 1.50                     | 140                        | 47.86                    | 2.12                           | Vertical   | Peak     |
| 11550.00                                                                                                                                                                                                                                                                                                                                               | 52.41                         | 68.20             | -15.79         | 1.50                     | 140                        | 40.87                    | 11.54                          | Vertical   | Peak     |
| 11550.00                                                                                                                                                                                                                                                                                                                                               | 42.66                         | 54.00             | -11.34         | 1.50                     | 140                        | 31.12                    | 11.54                          | Vertical   | Average  |
| <b>Remark:</b><br>1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)<br>2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) - Pre-Amplifier Factor(dB)<br>3. Margin value = Emission Level – Limit value<br>4. The emission levels of other frequencies are very lower than the limit and not show in test report. |                               |                   |                |                          |                            |                          |                                |            |          |

## 2.7. AC Power Line Conducted Emission

### 2.7.1. Limit of AC Power Line Conducted Emission

FCC Part 15.207:

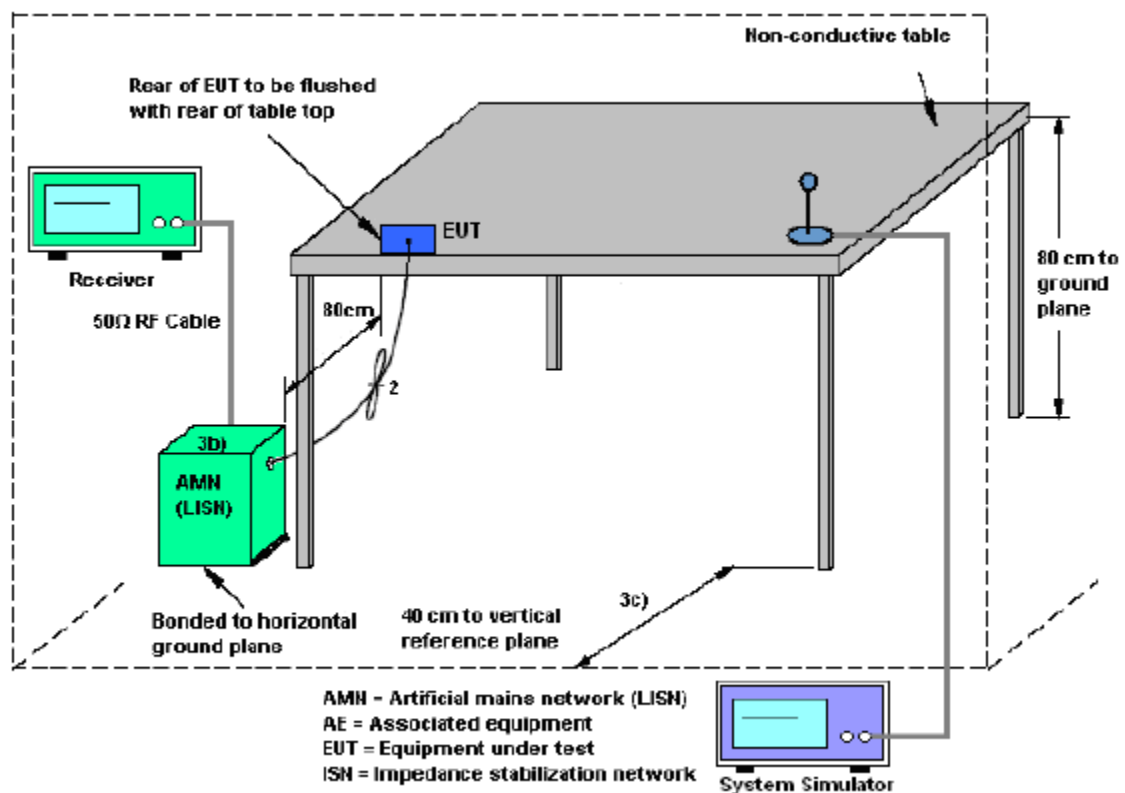
For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

| Frequency range (MHz) | Conducted Limit (dB $\mu$ V) |          |
|-----------------------|------------------------------|----------|
|                       | Quai-peak                    | Average  |
| 0.15 - 0.50           | 66 to 56                     | 56 to 46 |
| 0.50 - 5              | 56                           | 46       |
| 5 - 30                | 60                           | 50       |

### 2.7.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

### 2.7.3. Test Setup



#### **2.7.4. Test Procedures**

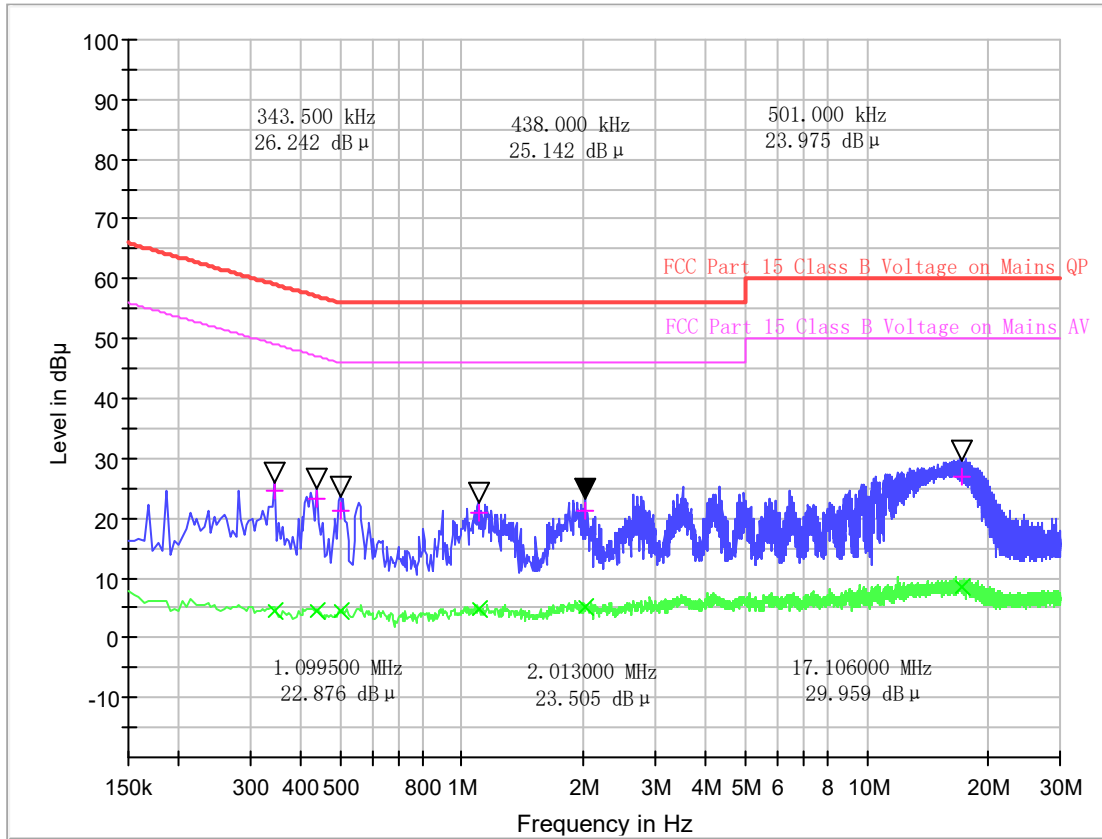
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

#### **2.7.5. Test Result of AC Power Line Conducted Emission**

The EUT configuration of the emission tests is 5G WLAN Link + Charging from Adapter.

All of the EUT Configure mode were tested and found 802.11a\_5180MHz channel is the worst mode, the worst case is recorded in this report.

|            |               |              |                             |
|------------|---------------|--------------|-----------------------------|
| Test site: | Shield ROOM 2 | Environment: | Temp: 23°C; Humi:53%;101kPa |
| Operator:  | HUANG CHUTING | Test Date:   | 2025.01.16                  |
| Test Mode: | 5G WIFI- TX   | Test Part:   | L Line                      |

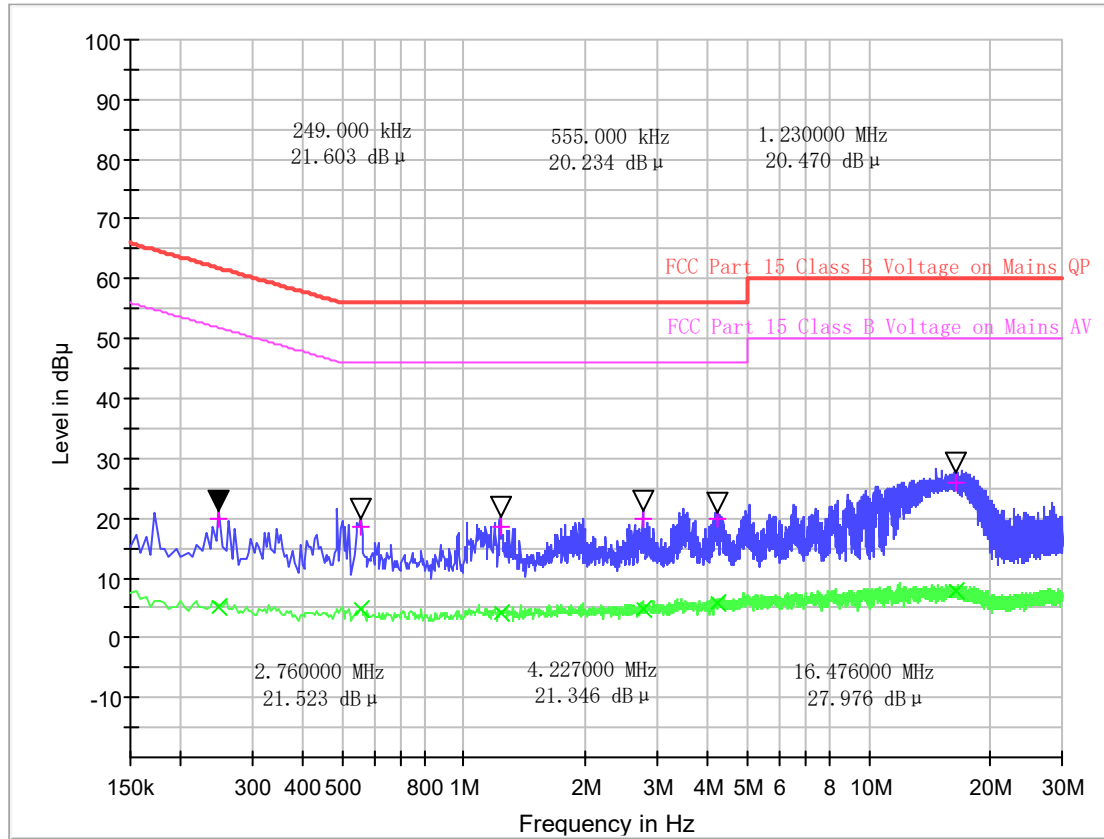


| Frequency (MHz) | QuasiPeak (dBμV) | Average (dBμV) | Corr.Factor (dB) | Margin - QPK | Limit - QPK (dBμV) | Margin - AV (dB) | Limit - AV (dBμV) |
|-----------------|------------------|----------------|------------------|--------------|--------------------|------------------|-------------------|
| 0.343500        | 24.69            | 4.54           | 10.2             | 34.43        | 59.12              | 44.58            | 49.12             |
| 0.438000        | 23.35            | 4.45           | 10.1             | 33.75        | 57.10              | 42.65            | 47.10             |
| 0.501000        | 21.23            | 4.54           | 10.1             | 34.77        | 56.00              | 41.46            | 46.00             |
| 1.099500        | 20.80            | 4.86           | 10.5             | 35.20        | 56.00              | 41.14            | 46.00             |
| 2.013000        | 21.29            | 4.98           | 10.6             | 34.71        | 56.00              | 41.02            | 46.00             |
| 17.106000       | 27.06            | 8.51           | 10.3             | 32.94        | 60.00              | 41.49            | 50.00             |

**Test Result : Pass**

Note: Final Level = Receiver Read level + Correction factor.

|            |               |              |                             |
|------------|---------------|--------------|-----------------------------|
| Test site: | Shield ROOM 2 | Environment: | Temp: 23°C; Humi:53%;101kPa |
| Operator:  | HUANG CHUTING | Test Date:   | 2025.01.16                  |
| Test Mode: | 5G WIFI- TX   | Test Part:   | N Line                      |



| Frequency (MHz) | QuasiPeak (dBμV) | Average (dBμV) | Corr.Factor (dB) | Margin - QPK | Limit - QPK (dBμV) | Margin - AV (dB) | Limit - AV (dBμV) |
|-----------------|------------------|----------------|------------------|--------------|--------------------|------------------|-------------------|
| 0.249000        | 19.86            | 5.20           | 11.0             | 41.93        | 61.79              | 46.59            | 51.79             |
| 0.555000        | 18.43            | 4.71           | 10.5             | 37.57        | 56.00              | 41.29            | 46.00             |
| 1.230000        | 18.46            | 4.10           | 10.4             | 37.54        | 56.00              | 41.90            | 46.00             |
| 2.760000        | 19.97            | 4.97           | 10.3             | 36.03        | 56.00              | 41.03            | 46.00             |
| 4.227000        | 19.82            | 5.67           | 9.9              | 36.18        | 56.00              | 40.33            | 46.00             |
| 16.476000       | 25.77            | 7.67           | 10.1             | 34.23        | 60.00              | 42.33            | 50.00             |

**Test Result : Pass**

Note: Final Level = Receiver Read level + Correction factor.

### 3. List of measuring equipment

| Item | Test Equipment                    | Manufacturer  | Model No.                 | Serial No. | Cal Date   | Due Date   |
|------|-----------------------------------|---------------|---------------------------|------------|------------|------------|
| 1    | 5M Anechoic Chamber               | Albatross     | SAC-5MAC<br>12.8x6.8x6.4m | A0304210   | 2023.08.01 | 2026.07.31 |
| 2    | EMI Test Receiver                 | ROHDE&SCHWARZ | ESW26                     | A180502935 | 2024.05.23 | 2025.05.22 |
| 3    | Loop Antenna                      | Schwarz beck  | HFH2-Z2                   | A0304220   | 2022.05.02 | 2025.05.01 |
| 4    | Broadband antenna<br>(30MHz~1GHz) | R&S           | HL562                     | A0304224   | 2023.06.08 | 2026.06.07 |
| 5    | EMI Horn Ant.<br>(1-18G)          | ETC           | MCTD-1209                 | A150402241 | 2023.05.16 | 2026.05.15 |
| 6    | Horn antenna<br>(18GHz~26.5GHz)   | AR            | AT4510                    | A0804450   | 2023.06.01 | 2026.05.31 |
| 7    | Amplifier 30M~1GHz                | TESEQ         | CBA1G-600B                | A190503534 | 2024.09.05 | 2025.09.04 |
| 8    | Amplifier 1G~18GHz                | MILMEGA       | AS0104R-800/400           | A160302517 | 2024.05.25 | 2025.05.24 |
| 9    | Spectrum Analyzer                 | KEYSIGHT      | N9030A                    | A160702554 | 2024.12.31 | 2025.12.30 |
| 10   | Test Receiver                     | R&S           | ESIB7                     | A0501375   | 2025.01.13 | 2026.01.12 |
| 11   | Broadband Ant.                    | ETC           | MCTD 2786                 | A150402240 | 2023.05.22 | 2026.05.21 |
| 12   | 3M Anechoic Chamber               | Albatross     | SAC-3MAC<br>9*6*6m        | A0412375   | 2024.02.27 | 2027.02.26 |
| 13   | Temperature<br>chamber            | ESPEC         | SU-642                    | A150802409 | 2025.01.03 | 2026.01.02 |
| 14   | Test Receiver                     | KEYSIGHT      | N9038A                    | A141202036 | 2024.06.05 | 2025.06.04 |
| 15   | LISN                              | ROHDE&SCHWARZ | ENV216                    | A140701847 | 2024.05.23 | 2025.05.22 |
| 16   | Cable(9kHz~30MHz)                 | /             | /                         | C230800587 | 2023.08.21 | 2026.08.20 |
| 17   | Cable(30MHz~18GHz)                | /             | XSMJA750-SMN<br>M(RA)-12M | C230800588 | 2023.08.21 | 2026.08.20 |
| 18   | Cable(18GHz~40GHz)                | /             | SUCOFLEX102               | C230800590 | 2023.08.21 | 2026.08.20 |

#### 4. Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2020. All the measurement uncertainty value were shown with a coverage  $K=2$  to indicate 95% level of confidence . The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

##### Uncertainty of AC Power Line Conducted Emission Measurement (150kHz~30MHz)

|                                                                          |       |
|--------------------------------------------------------------------------|-------|
| Measuring Uncertainty for a level of confidence<br>of 95%( $U=2U_c(y)$ ) | 2.8dB |
|--------------------------------------------------------------------------|-------|

##### Uncertainty of Radiated Emission Measurement (9kHz~30MHz)

|                                                                          |       |
|--------------------------------------------------------------------------|-------|
| Measuring Uncertainty for a level of confidence<br>of 95%( $U=2U_c(y)$ ) | 3.5dB |
|--------------------------------------------------------------------------|-------|

##### Uncertainty of Radiated Emission Measurement (30MHz~1GHz)

|                                                                          |        |
|--------------------------------------------------------------------------|--------|
| Measuring Uncertainty for a level of confidence<br>of 95%( $U=2U_c(y)$ ) | 3.91dB |
|--------------------------------------------------------------------------|--------|

##### Uncertainty of Radiated Emission Measurement (1GHz~18GHz)

|                                                                          |       |
|--------------------------------------------------------------------------|-------|
| Measuring Uncertainty for a level of confidence<br>of 95%( $U=2U_c(y)$ ) | 4.5dB |
|--------------------------------------------------------------------------|-------|

##### Uncertainty of Radiated Emission Measurement (18GHz~40GHz)

|                                                                          |       |
|--------------------------------------------------------------------------|-------|
| Measuring Uncertainty for a level of confidence<br>of 95%( $U=2U_c(y)$ ) | 4.9dB |
|--------------------------------------------------------------------------|-------|

##### Uncertainty of RF Conducted Measurement (9kHz~40GHz)

|                                                                          |       |
|--------------------------------------------------------------------------|-------|
| Measuring Uncertainty for a level of confidence<br>of 95%( $U=2U_c(y)$ ) | 1.2dB |
|--------------------------------------------------------------------------|-------|

##### Uncertainty of Occupied Bandwidth Measurement

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| Measuring Uncertainty for a level of confidence<br>of 95%( $U=2U_c(y)$ ) | 1.2% |
|--------------------------------------------------------------------------|------|

## Appendix A

### Duty Cycle Test Result and Data

#### UNII-1:

| Test Mode  | Antenna | Frequency[MHz] | ON Time[ms] | Period[ms] | Duty Cycle[%] | DC Factor |
|------------|---------|----------------|-------------|------------|---------------|-----------|
| 11A        | Ant1    | 5180           | 1.40        | 1.44       | 97.22         | 0.12      |
| 11N20SISO  | Ant1    | 5180           | 1.30        | 1.34       | 97.01         | 0.13      |
| 11N40SISO  | Ant1    | 5190           | 0.65        | 0.70       | 92.86         | 0.32      |
| 11AC20SISO | Ant1    | 5180           | 1.31        | 1.36       | 96.32         | 0.16      |
| 11AC40SISO | Ant1    | 5190           | 0.65        | 0.70       | 92.86         | 0.32      |
| 11AC80SISO | Ant1    | 5210           | 0.32        | 0.36       | 88.89         | 0.51      |

#### UNII-3:

| Test Mode  | Antenna | Frequency[MHz] | ON Time[ms] | Period[ms] | Duty Cycle[%] | DC Factor |
|------------|---------|----------------|-------------|------------|---------------|-----------|
| 11A        | Ant1    | 5745           | 1.39        | 1.44       | 96.53         | 0.15      |
| 11N20SISO  | Ant1    | 5745           | 1.30        | 1.35       | 96.30         | 0.16      |
| 11N40SISO  | Ant1    | 5755           | 0.65        | 0.69       | 94.20         | 0.26      |
| 11AC20SISO | Ant1    | 5745           | 1.31        | 1.35       | 97.04         | 0.13      |
| 11AC40SISO | Ant1    | 5755           | 0.66        | 0.70       | 94.29         | 0.26      |
| 11AC80SISO | Ant1    | 5775           | 0.32        | 0.37       | 86.49         | 0.63      |

## Maximum Conducted Output Power

### Test Result and Data

#### UNII-1:

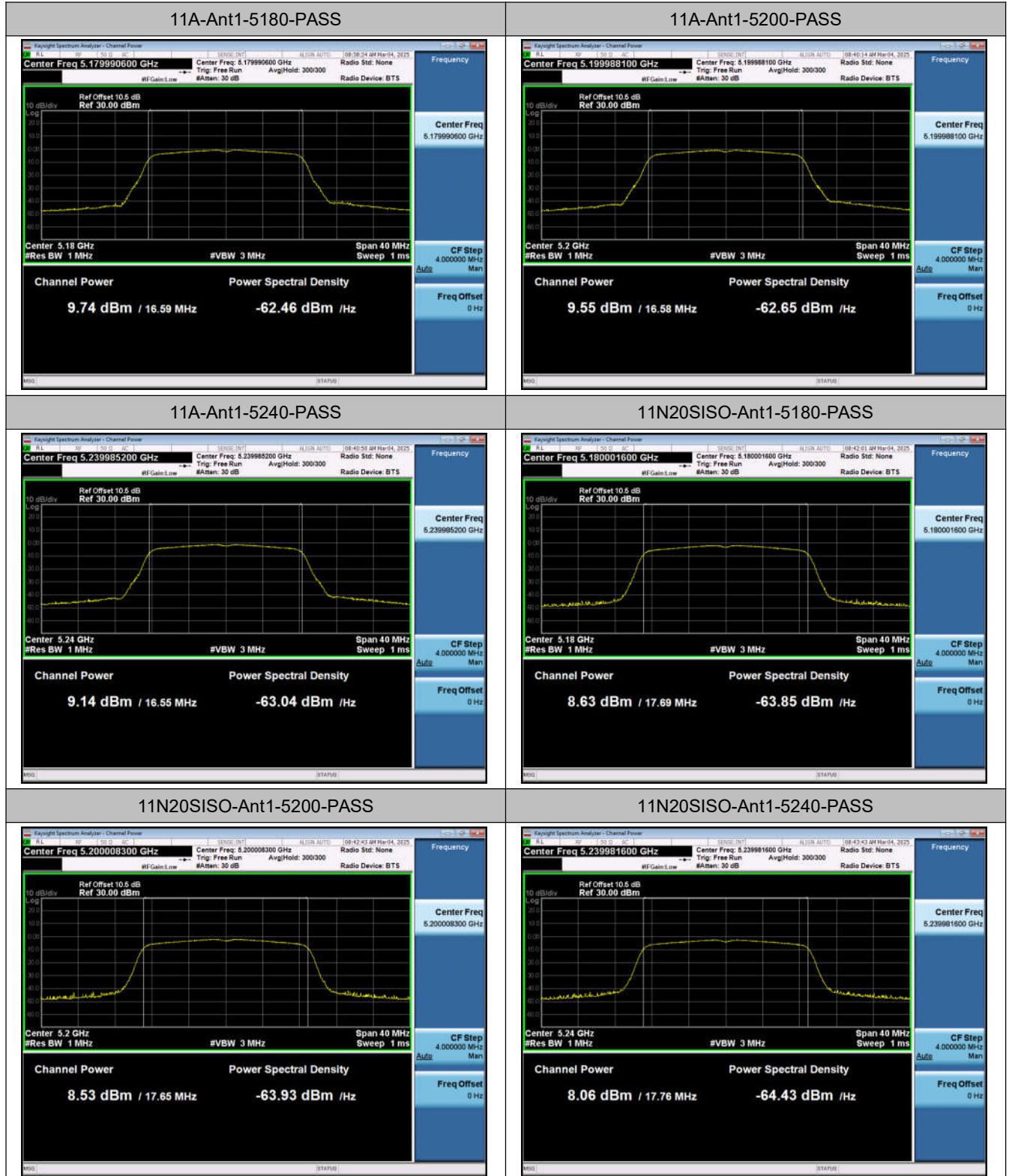
| TestMode   | Antenna | Frequency [MHz] | Power [dBm] | DC Factor [dBm] | Result [dBm] | Power Limit [dBm] | EIRP [dBm] | EIRP Limit [dBm] | Verdict |
|------------|---------|-----------------|-------------|-----------------|--------------|-------------------|------------|------------------|---------|
| 11A        | Ant1    | 5180            | 9.74        | 0.15            | 9.89         | ≤23.98            | 11.73      | ≤22.20           | PASS    |
| 11A        | Ant1    | 5200            | 9.55        | 0.15            | 9.70         | ≤23.98            | 11.54      | ≤22.20           | PASS    |
| 11A        | Ant1    | 5240            | 9.14        | 0.15            | 9.29         | ≤23.98            | 11.13      | ≤22.19           | PASS    |
| 11N20SISO  | Ant1    | 5180            | 8.63        | 0.16            | 8.79         | ≤23.98            | 10.63      | ≤22.48           | PASS    |
| 11N20SISO  | Ant1    | 5200            | 8.53        | 0.16            | 8.69         | ≤23.98            | 10.53      | ≤22.47           | PASS    |
| 11N20SISO  | Ant1    | 5240            | 8.06        | 0.16            | 8.22         | ≤23.98            | 10.06      | ≤22.49           | PASS    |
| 11N40SISO  | Ant1    | 5190            | 8.14        | 0.26            | 8.40         | ≤23.98            | 10.24      | ≤23.01           | PASS    |
| 11N40SISO  | Ant1    | 5230            | 8.30        | 0.26            | 8.56         | ≤23.98            | 10.40      | ≤23.01           | PASS    |
| 11AC20SISO | Ant1    | 5180            | 8.52        | 0.13            | 8.65         | ≤23.98            | 10.49      | ≤22.47           | PASS    |
| 11AC20SISO | Ant1    | 5200            | 8.41        | 0.13            | 8.54         | ≤23.98            | 10.38      | ≤22.46           | PASS    |
| 11AC20SISO | Ant1    | 5240            | 8.00        | 0.13            | 8.13         | ≤23.98            | 9.97       | ≤22.47           | PASS    |
| 11AC40SISO | Ant1    | 5190            | 8.22        | 0.26            | 8.48         | ≤23.98            | 10.32      | ≤23.01           | PASS    |
| 11AC40SISO | Ant1    | 5230            | 7.84        | 0.26            | 8.10         | ≤23.98            | 9.94       | ≤23.01           | PASS    |
| 11AC80SISO | Ant1    | 5210            | 7.81        | 0.63            | 8.44         | ≤23.98            | 10.28      | ≤23.01           | PASS    |

#### UNII-3:

| Test Mode  | Antenna | Frequency [MHz] | Power [dBm] | DC Factor [dBm] | Result [dBm] | Power Limit [dBm] | Verdict |
|------------|---------|-----------------|-------------|-----------------|--------------|-------------------|---------|
| 11A        | Ant1    | 5745            | 9.36        | 0.15            | 9.51         | ≤30.00            | PASS    |
| 11A        | Ant1    | 5785            | 9.14        | 0.15            | 9.29         | ≤30.00            | PASS    |
| 11A        | Ant1    | 5825            | 9.01        | 0.15            | 9.16         | ≤30.00            | PASS    |
| 11N20SISO  | Ant1    | 5745            | 8.69        | 0.16            | 8.85         | ≤30.00            | PASS    |
| 11N20SISO  | Ant1    | 5785            | 8.40        | 0.16            | 8.56         | ≤30.00            | PASS    |
| 11N20SISO  | Ant1    | 5825            | 7.74        | 0.16            | 7.90         | ≤30.00            | PASS    |
| 11N40SISO  | Ant1    | 5755            | 8.36        | 0.26            | 8.62         | ≤30.00            | PASS    |
| 11N40SISO  | Ant1    | 5795            | 7.87        | 0.26            | 8.13         | ≤30.00            | PASS    |
| 11AC20SISO | Ant1    | 5745            | 8.68        | 0.13            | 8.81         | ≤30.00            | PASS    |
| 11AC20SISO | Ant1    | 5785            | 8.36        | 0.13            | 8.49         | ≤30.00            | PASS    |
| 11AC20SISO | Ant1    | 5825            | 7.71        | 0.13            | 7.84         | ≤30.00            | PASS    |
| 11AC40SISO | Ant1    | 5755            | 8.34        | 0.26            | 8.60         | ≤30.00            | PASS    |
| 11AC40SISO | Ant1    | 5795            | 7.86        | 0.26            | 8.12         | ≤30.00            | PASS    |
| 11AC80SISO | Ant1    | 5775            | 7.44        | 0.63            | 8.07         | ≤30.00            | PASS    |

Note: The Duty Cycle Factor is compensated in the graph.

## Test plots



11N40SISO-Ant1-5190-PASS



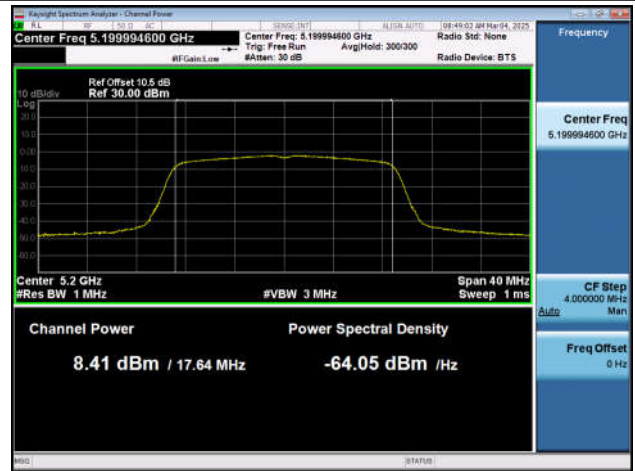
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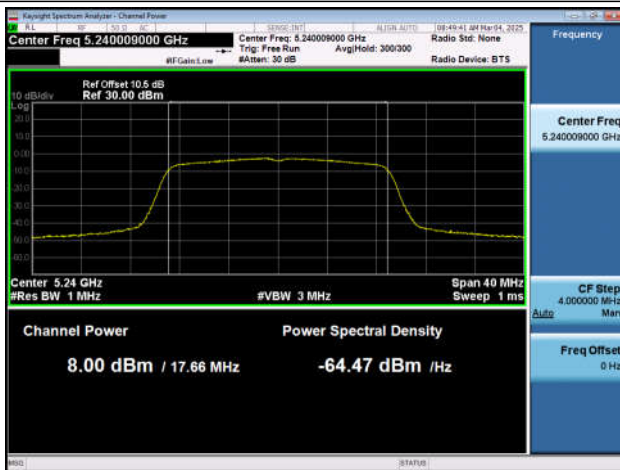
11AC20SISO-Ant1-5180-PASS



11AC20SISO-Ant1-5200-PASS

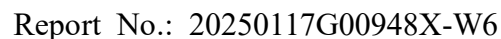


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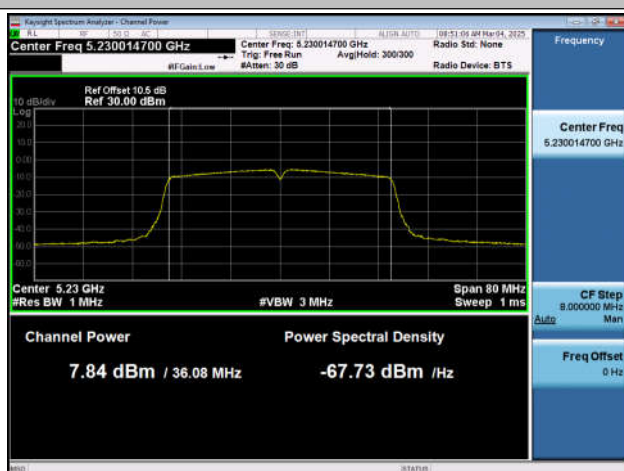


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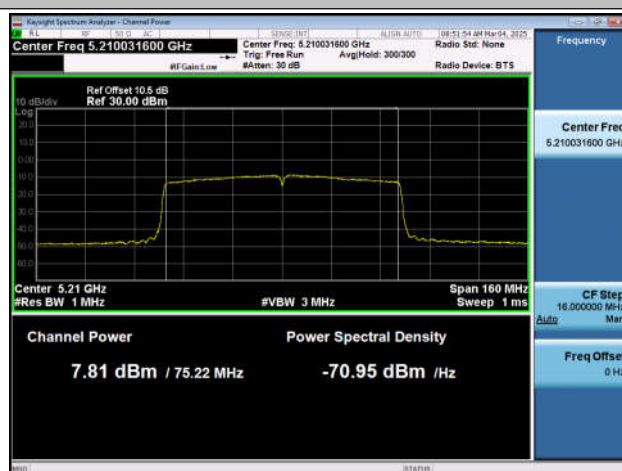




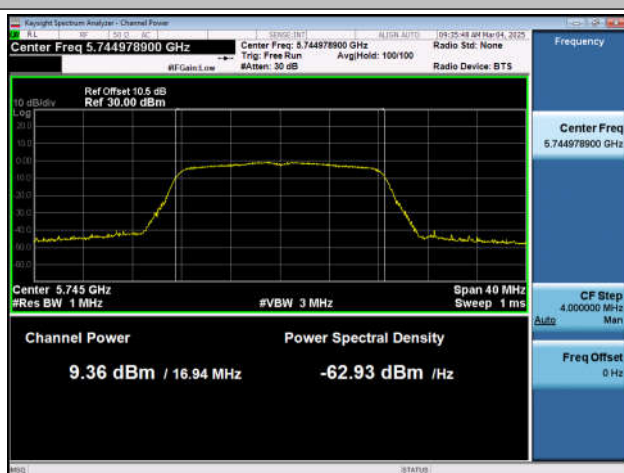
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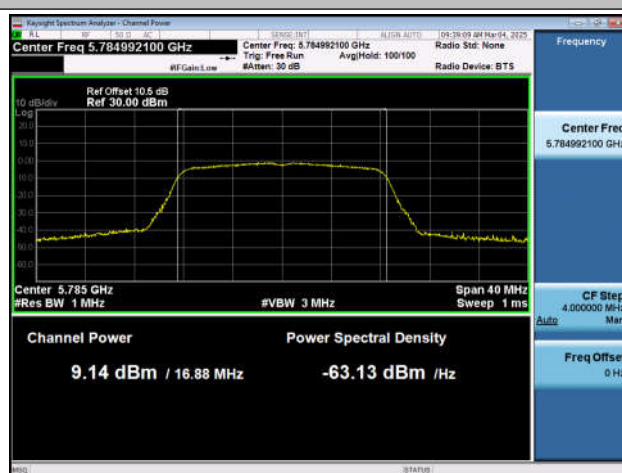
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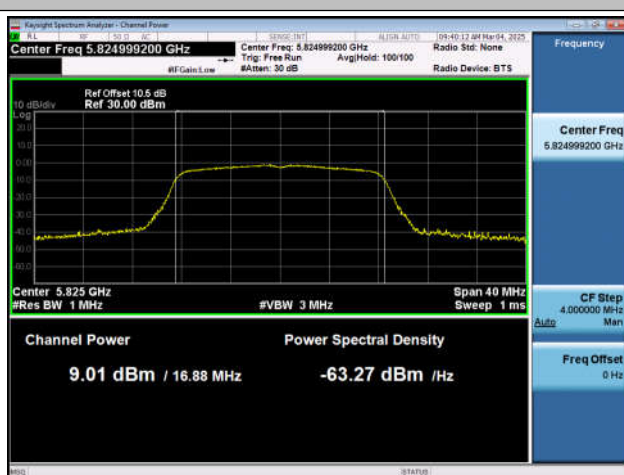
11A-Ant1-5745-PASS



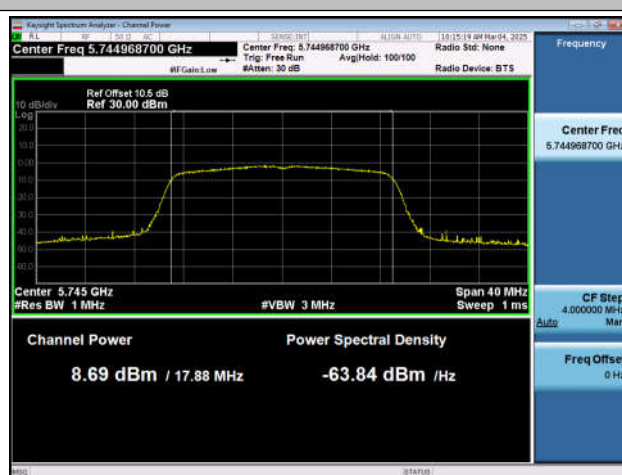
11A-Ant1-5785-PASS



11A-Ant1-5825-PASS



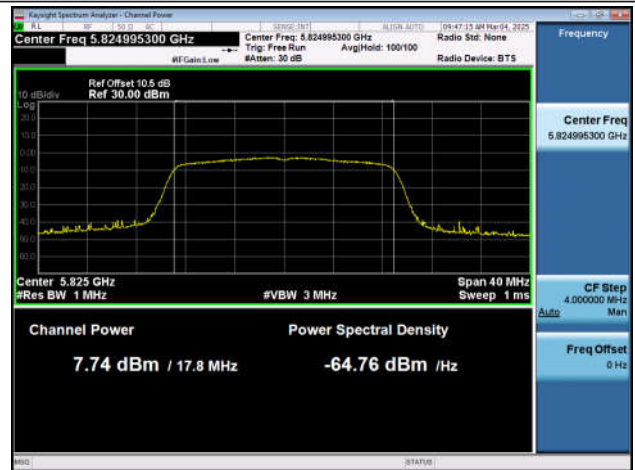
11N20SISO-Ant1-5745-PASS



11N20SISO-Ant1-5785-PASS



11N20SISO-Ant1-5825-PASS



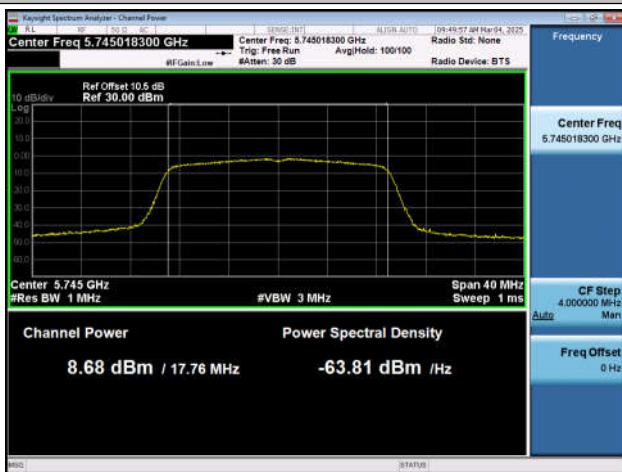
11N40SISO-Ant1-5755-PASS



11N40SISO-Ant1-5795-PASS



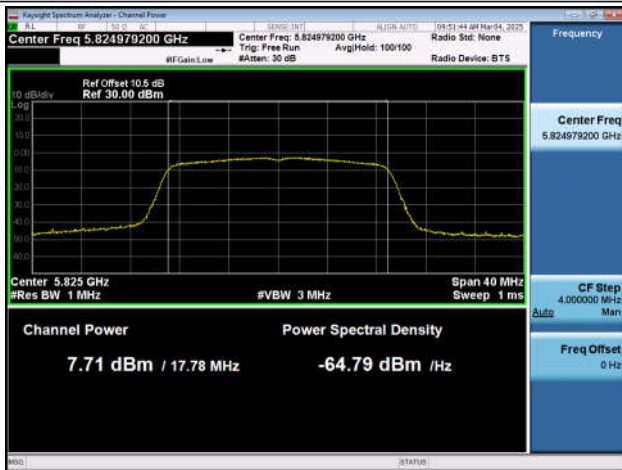
11AC20SISO-Ant1-5745-PASS



11AC20SISO-Ant1-5785-PASS



11AC20SISO-Ant1-5825-PASS



11AC40SISO-Ant1-5755-PASS



11AC40SISO-Ant1-5795-PASS



11AC80SISO-Ant1-5775-PASS



## AVGSA Power Spectral Density

### Test Result and Data

#### UNII-1:

| TestMode   | Antenna | Frequency[MHz] | Result [dBm/MHz] | FCC Limit [dBm/MHz] | EIRP [dBm/MHz] | ICLimit [dBm/MHz] | Verdict |
|------------|---------|----------------|------------------|---------------------|----------------|-------------------|---------|
| 11A        | Ant1    | 5180           | -0.07            | ≤11.00              | 1.77           | ≤10.00            | PASS    |
| 11A        | Ant1    | 5200           | -0.59            | ≤11.00              | 1.25           | ≤10.00            | PASS    |
| 11A        | Ant1    | 5240           | -0.67            | ≤11.00              | 1.17           | ≤10.00            | PASS    |
| 11N20SISO  | Ant1    | 5180           | -1.60            | ≤11.00              | 0.24           | ≤10.00            | PASS    |
| 11N20SISO  | Ant1    | 5200           | -1.69            | ≤11.00              | 0.15           | ≤10.00            | PASS    |
| 11N20SISO  | Ant1    | 5240           | -2.15            | ≤11.00              | -0.31          | ≤10.00            | PASS    |
| 11N40SISO  | Ant1    | 5190           | -4.82            | ≤11.00              | -2.98          | ≤10.00            | PASS    |
| 11N40SISO  | Ant1    | 5230           | -4.54            | ≤11.00              | -2.70          | ≤10.00            | PASS    |
| 11AC20SISO | Ant1    | 5180           | -1.58            | ≤11.00              | 0.26           | ≤10.00            | PASS    |
| 11AC20SISO | Ant1    | 5200           | -1.41            | ≤11.00              | 0.43           | ≤10.00            | PASS    |
| 11AC20SISO | Ant1    | 5240           | -2.30            | ≤11.00              | -0.46          | ≤10.00            | PASS    |
| 11AC40SISO | Ant1    | 5190           | -4.58            | ≤11.00              | -2.74          | ≤10.00            | PASS    |
| 11AC40SISO | Ant1    | 5230           | -4.82            | ≤11.00              | -2.98          | ≤10.00            | PASS    |
| 11AC80SISO | Ant1    | 5210           | -7.82            | ≤11.00              | -5.98          | ≤10.00            | PASS    |

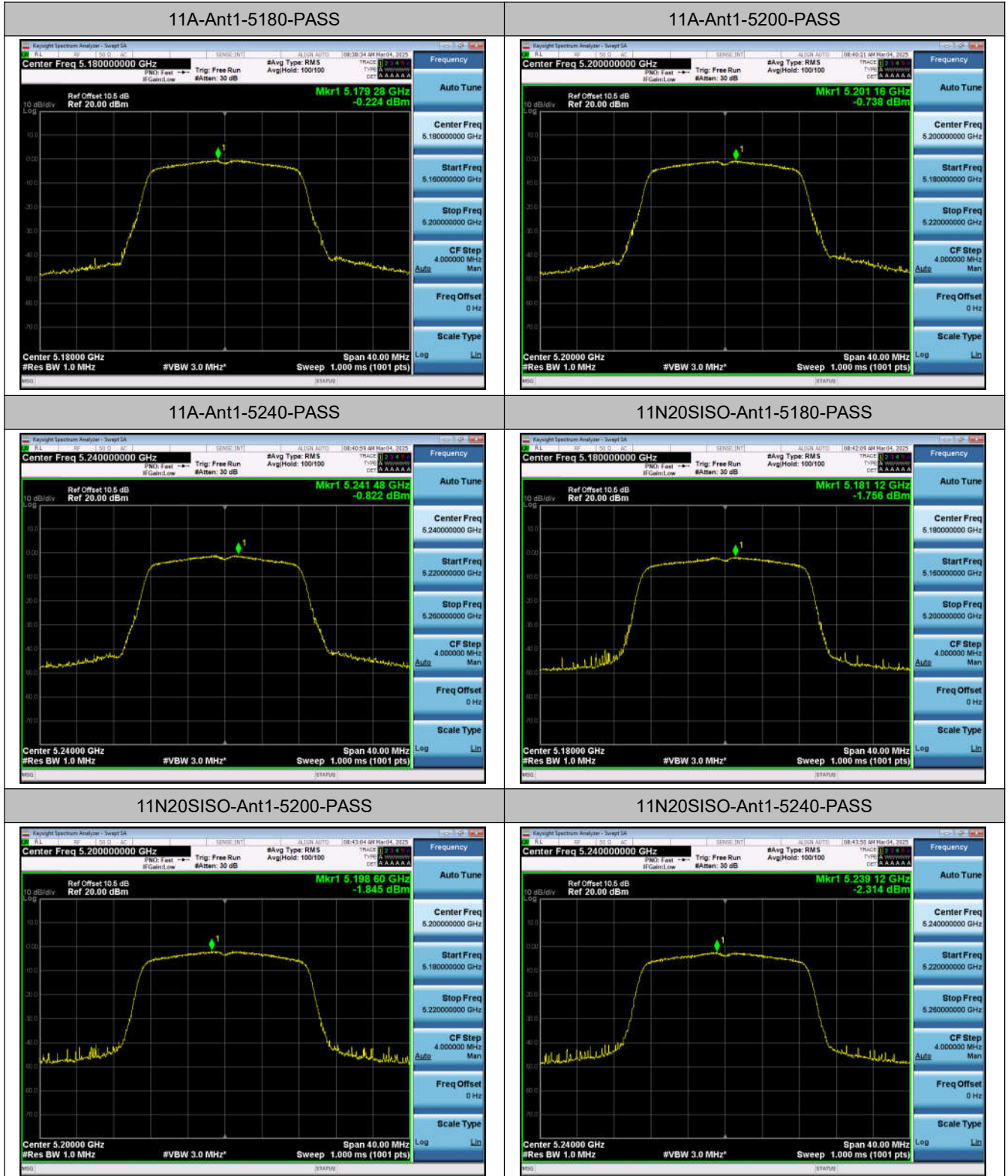
#### UNII-3:

| Test Mode  | Antenna | Frequency[MHz] | Result[dBm/500kHz] | Limit[dBm/500kHz] | Verdict |
|------------|---------|----------------|--------------------|-------------------|---------|
| 11A        | Ant1    | 5745           | -3.32              | ≤30.00            | PASS    |
| 11A        | Ant1    | 5785           | -3.71              | ≤30.00            | PASS    |
| 11A        | Ant1    | 5825           | -3.77              | ≤30.00            | PASS    |
| 11N20SISO  | Ant1    | 5745           | -4.59              | ≤30.00            | PASS    |
| 11N20SISO  | Ant1    | 5785           | -4.53              | ≤30.00            | PASS    |
| 11N20SISO  | Ant1    | 5825           | -4.99              | ≤30.00            | PASS    |
| 11N40SISO  | Ant1    | 5755           | -7.54              | ≤30.00            | PASS    |
| 11N40SISO  | Ant1    | 5795           | -7.93              | ≤30.00            | PASS    |
| 11AC20SISO | Ant1    | 5745           | -4.16              | ≤30.00            | PASS    |
| 11AC20SISO | Ant1    | 5785           | -4.65              | ≤30.00            | PASS    |
| 11AC20SISO | Ant1    | 5825           | -5.44              | ≤30.00            | PASS    |
| 11AC40SISO | Ant1    | 5755           | -6.89              | ≤30.00            | PASS    |
| 11AC40SISO | Ant1    | 5795           | -7.82              | ≤30.00            | PASS    |
| 11AC80SISO | Ant1    | 5775           | -10.70             | ≤30.00            | PASS    |

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

# Test Plots



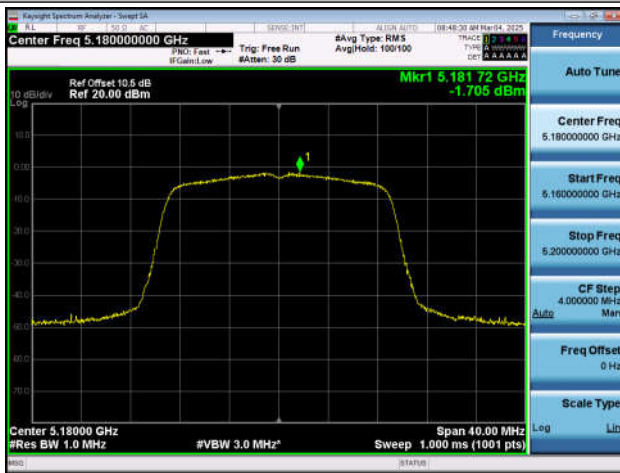
11N40SISO-Ant1-5190-PASS



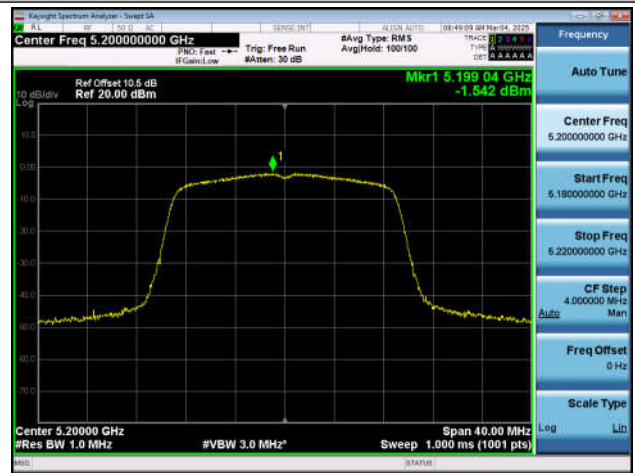
11N40SISO-Ant1-5230-PASS



11AC20SISO-Ant1-5180-PASS



11AC20SISO-Ant1-5200-PASS



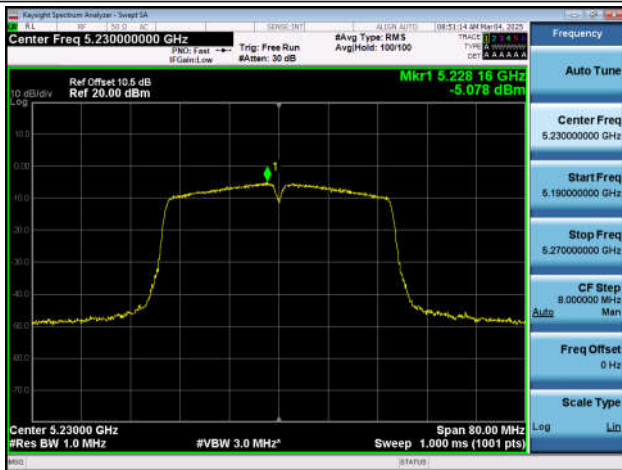
11AC20SISO-Ant1-5240-PASS



11AC40SISO-Ant1-5190-PASS



11AC40SISO-Ant1-5230-PASS



11AC80SISO-Ant1-5210-PASS



11A-Ant1-5745-PASS



11A-Ant1-5785-PASS



11A-Ant1-5825-PASS



11N20SISO-Ant1-5745-PASS



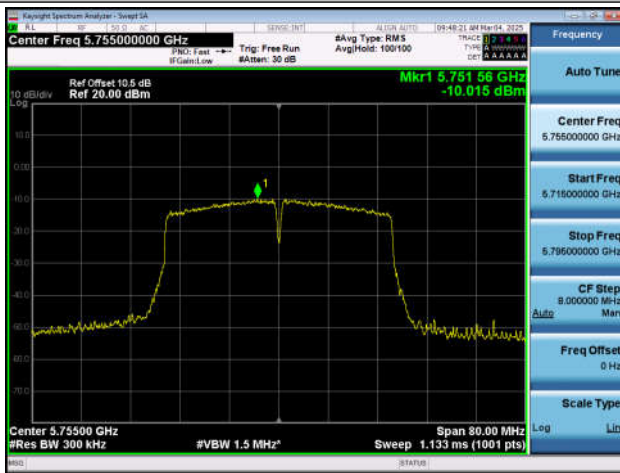
11N20SISO-Ant1-5785-PASS



11N20SISO-Ant1-5825-PASS



11N40SISO-Ant1-5755-PASS



11N40SISO-Ant1-5795-PASS



11AC20SISO-Ant1-5745-PASS



11AC20SISO-Ant1-5785-PASS



11AC20SISO-Ant1-5825-PASS



11AC40SISO-Ant1-5755-PASS



11AC40SISO-Ant1-5795-PASS



11AC80SISO-Ant1-5775-PASS

