

Project No.: TM-2112000081P  
Report No.: TMWK2201000245KR

FCC ID: 2AAWQ-CAPRICA5UXL-2  
IC: 11138A-CAPRICA5UXL

Page: 1 / 405  
Rev.: 06

# RADIO TEST REPORT

## FCC 47 CFR PART 15 SUBPART E

## INDUSTRY CANADA RSS-247

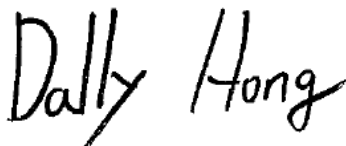
|                          |                                                                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Standard            | FCC Part 15.407<br>IC RSS-247 issue 2 and IC RSS-GEN issue 5                                                                                        |
| Product name             | Play-Fi Wireless Module                                                                                                                             |
| Brand Name               | XPERI                                                                                                                                               |
| Model No.                | Caprica5UXL-2                                                                                                                                       |
| Test Result              | Pass                                                                                                                                                |
| Statements of Conformity | Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty. |

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

Approved by:



Dally Hong  
Sr. Engineer

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## Revision History

| Rev. | Issue Date         | Revisions                        | Effect Page                                                      | Revised By |
|------|--------------------|----------------------------------|------------------------------------------------------------------|------------|
| 00   | September 14, 2023 | Initial Issue                    | ALL                                                              | Doris Chu  |
| 01   | October 6, 2023    | See the following Note Rev. (01) | P.4, P.11, P.14, P.6, P.5, P.12, P.395, P.397                    | Doris Chu  |
| 02   | October 20, 2023   | See the following Note Rev. (02) | P.5, P.401, P.12, P.86-90, P.4                                   | Doris Chu  |
| 03   | November 20 2023   | See the following Note Rev. (03) | P.6                                                              | Doris Chu  |
| 04   | November 28 2023   | See the following Note Rev. (04) | P.6                                                              | Doris Chu  |
| 05   | December 8, 2023   | See the following Note Rev. (05) | P.26-27, P.80, P.82, P.91, P.93-96, P.123, P.133-134, P.150, P.9 | Doris Chu  |
| 06   | December 11, 2023  | See the following Note Rev. (06) | P.27                                                             | Doris Chu  |

### Rev. (01)

1. Add serial number in section 1.1.
2. Add test methodology in section 1.8.
3. Modify remark 1 in section 3.2.
4. Modify Antenna connector to IPEX Connector and note 1 in section 1.3.
5. Modify remark 2 in section 1.2.
6. Add 15.205 in FCC Standard in section 2.
7. Modify test procedure and conducted method system block diagram in section 5.2.

### Rev. (02)

1. Modify report no.
2. Modify remark 2 in section 1.2.
3. Modify test channel and method in section 5.3.1.
4. Add IC Standard RSS-GEN Clause 8.10 in section 2.
5. Remove IC Conducted output power and modify IC power & IC EIRP power in section 4.3.4.
6. Modify serial number in section 1.1.

### Rev. (03)

1. Modify Antenna connector in section 1.3.

### Rev. (04)

1. Modify Antenna connector in section 1.3.

### Rev. (05)

1. Modify Frequency range in section 4.2.4.
2. Modify limit in section 4.3.1 and 4.4.1.
3. Remove note in section 4.4.4.
4. Add limit in section 4.5.1.
5. Remove Main Frequency limit and modify HT20 / 5500 MHz Horizontal test data in section 4.5.4.
6. Modify Conducted equipment list in section 1.6.

### Rev. (06)

1. Modify Frequency range in section 4.2.4.

## Table of contents

|            |                                                                       |            |
|------------|-----------------------------------------------------------------------|------------|
| <b>1.</b>  | <b>GENERAL INFORMATION.....</b>                                       | <b>4</b>   |
| <b>1.1</b> | <b>EUT INFORMATION.....</b>                                           | <b>4</b>   |
| <b>1.2</b> | <b>EUT CHANNEL INFORMATION.....</b>                                   | <b>5</b>   |
| <b>1.3</b> | <b>ANTENNA INFORMATION.....</b>                                       | <b>6</b>   |
| <b>1.4</b> | <b>MEASUREMENT UNCERTAINTY .....</b>                                  | <b>7</b>   |
| <b>1.5</b> | <b>FACILITIES AND TEST LOCATION.....</b>                              | <b>8</b>   |
| <b>1.6</b> | <b>INSTRUMENT CALIBRATION .....</b>                                   | <b>9</b>   |
| <b>1.7</b> | <b>SUPPORT AND EUT ACCESSORIES EQUIPMENT .....</b>                    | <b>11</b>  |
| <b>1.8</b> | <b>TEST METHODOLOGY AND APPLIED STANDARDS.....</b>                    | <b>11</b>  |
| <b>2.</b>  | <b>TEST SUMMARY.....</b>                                              | <b>12</b>  |
| <b>3.</b>  | <b>DESCRIPTION OF TEST MODES.....</b>                                 | <b>13</b>  |
| <b>3.1</b> | <b>THE EUT CHANNEL NUMBER OF OPERATING CONDITION .....</b>            | <b>13</b>  |
| <b>3.2</b> | <b>THE WORST MODE OF MEASUREMENT.....</b>                             | <b>14</b>  |
| <b>3.3</b> | <b>EUT DUTY CYCLE .....</b>                                           | <b>15</b>  |
| <b>4.</b>  | <b>TEST RESULT .....</b>                                              | <b>17</b>  |
| <b>4.1</b> | <b>AC POWER LINE CONDUCTED EMISSION.....</b>                          | <b>17</b>  |
| <b>4.2</b> | <b>26DB BANDWIDTH, 6DB BANDWIDTH AND OCCUPIED BANDWIDTH(99%).....</b> | <b>22</b>  |
| <b>4.3</b> | <b>OUTPUT POWER MEASUREMENT .....</b>                                 | <b>80</b>  |
| <b>4.4</b> | <b>POWER SPECTRAL DENSITY .....</b>                                   | <b>91</b>  |
| <b>4.5</b> | <b>RADIATION BANDEDGE AND SPURIOUS EMISSION.....</b>                  | <b>123</b> |
| <b>5.</b>  | <b>DYNAMIC FREQUENCY SELECTION .....</b>                              | <b>389</b> |
| <b>5.1</b> | <b>TEST LIMIT.....</b>                                                | <b>389</b> |
| <b>5.2</b> | <b>TEST PROCEDURE .....</b>                                           | <b>393</b> |
| <b>5.3</b> | <b>TEST SETUP .....</b>                                               | <b>397</b> |
|            | <b>APPENDIX-B TEST PHOTO .....</b>                                    | <b>A-1</b> |
|            | <b>APPENDIX 1 - PHOTOGRAPHS OF EUT</b>                                |            |

## 1. GENERAL INFORMATION

### 1.1 EUT INFORMATION

|                          |                                                                                    |
|--------------------------|------------------------------------------------------------------------------------|
| <b>Applicant</b>         | Phorus, Inc.<br>5220 Las Virgenes Road, Calabasas, California 91302, United States |
| <b>Manufacturer</b>      | Phorus, Inc.<br>5220 Las Virgenes Road, Calabasas, California 91302, United States |
| <b>Equipment</b>         | Play-Fi Wireless Module                                                            |
| <b>Model No.</b>         | Caprica5UXL-2                                                                      |
| <b>Model Discrepancy</b> | N/A                                                                                |
| <b>Trade Name</b>        | XPERI                                                                              |
| <b>Received Date</b>     | May 17, 2023                                                                       |
| <b>Date of Test</b>      | June 2 ~ July 13, 2023                                                             |
| <b>Power Supply</b>      | Power from host device. (DC 3.3V)                                                  |
| <b>HW Version</b>        | PVT-V03                                                                            |
| <b>SW Version</b>        | RTL8822CU_WiFi_linux_v5.14.0.3-2                                                   |
| <b>Serial number</b>     | C14-0000-0001                                                                      |

**Remark:**

1. For more details, please refer to the User's manual of the EUT.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

## 1.2 EUT CHANNEL INFORMATION

|                 |                                   |                 |
|-----------------|-----------------------------------|-----------------|
| Frequency Range | <b>UNII-1</b>                     |                 |
|                 | IEEE 802.11a                      | 5180 ~ 5240 MHz |
|                 | IEEE 802.11n HT20                 | 5180 ~ 5240 MHz |
|                 | IEEE 802.11ac VHT20               | 5180 ~ 5240 MHz |
|                 | IEEE 802.11n HT40                 | 5190 ~ 5230 MHz |
|                 | IEEE 802.11ac VHT40               | 5190 ~ 5230 MHz |
|                 | IEEE 802.11ac VHT80               | 5210 MHz        |
|                 | <b>UNII-2a</b>                    |                 |
|                 | IEEE 802.11a                      | 5260 ~ 5320 MHz |
|                 | IEEE 802.11n HT20                 | 5260 ~ 5320 MHz |
|                 | IEEE 802.11ac VHT20               | 5260 ~ 5320 MHz |
|                 | IEEE 802.11n HT40                 | 5270 ~ 5310 MHz |
|                 | IEEE 802.11ac VHT40               | 5270 ~ 5310 MHz |
|                 | IEEE 802.11ac VHT80               | 5290 MHz        |
|                 | <b>UNII-2c</b>                    |                 |
|                 | IEEE 802.11a                      | 5500 ~ 5700 MHz |
|                 | IEEE 802.11n HT20                 | 5500 ~ 5700 MHz |
|                 | IEEE 802.11ac VHT20               | 5500 ~ 5700 MHz |
|                 | IEEE 802.11n HT40                 | 5510 ~ 5670 MHz |
|                 | IEEE 802.11ac VHT40               | 5510 ~ 5670 MHz |
|                 | IEEE 802.11ac VHT80               | 5530 ~ 5610 MHz |
|                 | <b>UNII-3</b>                     |                 |
|                 | IEEE 802.11a                      | 5745 ~ 5825 MHz |
|                 | IEEE 802.11n HT20                 | 5745 ~ 5825 MHz |
|                 | IEEE 802.11ac VHT20               | 5745 ~ 5825 MHz |
|                 | IEEE 802.11n HT40                 | 5755 ~ 5795 MHz |
|                 | IEEE 802.11ac VHT40               | 5755 ~ 5795 MHz |
|                 | IEEE 802.11ac VHT80               | 5775 MHz        |
| Modulation Type | 1. IEEE 802.11a mode: OFDM        |                 |
|                 | 2. IEEE 802.11n HT20 mode: OFDM   |                 |
|                 | 3. IEEE 802.11n HT40 mode: OFDM   |                 |
|                 | 4. IEEE 802.11ac VHT20 mode: OFDM |                 |
|                 | 5. IEEE 802.11ac VHT40 mode: OFDM |                 |
|                 | 6. IEEE 802.11ac VHT80 mode: OFDM |                 |

**Remark:**

1. Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels
2. For Canada the EUT Frequency Range 5600~5650MHz will be disabled.

| Number of frequencies to be tested                   |                       |                                              |
|------------------------------------------------------|-----------------------|----------------------------------------------|
| Frequency range in which device operates             | Number of frequencies | Location in frequency range of operation     |
| <input type="checkbox"/> 1 MHz or less               | 1                     | Middle                                       |
| <input type="checkbox"/> 1 MHz to 10 MHz             | 2                     | 1 near top and 1 near bottom                 |
| <input checked="" type="checkbox"/> More than 10 MHz | 3                     | 1 near top, 1 near middle, and 1 near bottom |

### 1.3 ANTENNA INFORMATION

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Antenna Specification</b> | 5150~5250<br>Dipole Antenna / Gain: 4 dBi<br>Power Directional Gain: 7.01 dBi<br>PIFA Antenna / Gain: 6.06 dBi<br>Power Directional Gain: 9.07 dBi<br>5250~5350:<br>Dipole Antenna / Gain: 4 dBi<br>Power Directional Gain: 7.01 dBi<br>PIFA Antenna / Gain: 6.06 dBi<br>Power Directional Gain: 9.07 dBi<br>5470~5725:<br>Dipole Antenna / Gain: 4 dBi<br>Power Directional Gain: 7.01 dBi<br>PIFA Antenna / Gain: 6.06 dBi<br>Power Directional Gain: 9.07 dBi<br>5725~5850<br>Dipole Antenna / Gain: 4 dBi<br>Power Directional Gain: 7.01 dBi<br>PIFA Antenna / Gain: 6.06 dBi<br>Power Directional Gain: 9.07 dBi |
| <b>Antenna connector</b>     | Dipole Antenna:SMA Female<br>PIFA Antenna: IPEX Compatible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

**Notes:**

- Antenna must use a unique type of connector to attach to the EUT. So the EUT complies with the requirements of §15.203 and RSS-GEN 6.8.
- Power Directional Gain =  $10 \cdot \log \left\{ \left[ 10^{\frac{\text{Ant1}}{20}} + 10^{\frac{\text{Ant2}}{20}} + \dots + 10^{\frac{\text{Ant N}}{20}} \right]^2 / N \text{ ANT} \right\}$  dBi

## 1.4 MEASUREMENT UNCERTAINTY

| PARAMETER                       | UNCERTAINTY    |
|---------------------------------|----------------|
| AC Powerline Conducted Emission | $\pm 2.213$ dB |
| Channel Bandwidth               | $\pm 2.7$ %    |
| RF output power (Spectrum)      | $\pm 2.440$ dB |
| Power Spectral density          | $\pm 2.739$ dB |
| Radiated Emission_9kHz-30MHz    | $\pm 3.761$ dB |
| Radiated Emission_30MHz-200MHz  | $\pm 3.473$ dB |
| Radiated Emission_200MHz-1GHz   | $\pm 3.946$ dB |
| Radiated Emission_1GHz-6GHz     | $\pm 4.797$ dB |
| Radiated Emission_6GHz-18GHz    | $\pm 4.803$ dB |
| Radiated Emission_18GHz-26GHz   | $\pm 3.459$ dB |
| Radiated Emission_26GHz-40GHz   | $\pm 3.297$ dB |

### Remark:

- 1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

## 1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan.

☐ No. 12, Ln. 116, Wugong 3rd Rd., Wugu Dist., New Taipei City, Taiwan 24803

CAB identifier: TW1309

| Test site          | Test Engineer     | Remark |
|--------------------|-------------------|--------|
| AC Conduction Room | Tony Chao         | -      |
| Radiation          | Tony Chao, Ray Li | -      |
| RF Conducted       | Marco Chan        | -      |

**Remark:** The lab has been recognized as the FCC accredited lab. under the KDB 974614 D01 and is listed in the FCC public Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309

## 1.6 INSTRUMENT CALIBRATION

| RF Conducted Test Site |                             |           |               |                  |                 |
|------------------------|-----------------------------|-----------|---------------|------------------|-----------------|
| Name of Equipment      | Manufacturer                | Model     | Serial Number | Calibration Date | Calibration Due |
| Power Sensor           | Anritsu                     | MA2411B   | 1911386       | 2022-08-08       | 2023-08-07      |
| Power Sensor           | Anritsu                     | MA2411B   | 1911387       | 2022-08-08       | 2023-08-07      |
| EXA Signal Analyzer    | Keysight                    | N9010B    | MY60242460    | 2023-02-20       | 2024-02-01      |
| Power Meter            | Anritsu                     | ML2496A   | 2136002       | 2022-11-24       | 2023-11-23      |
| Attenuator             | Mini-Circuits               | BW-S10W2+ | 2             | 2022-12-13       | 2023-12-12      |
| Software               | Radio Test Software Ver. 21 |           |               |                  |                 |

| 3M 966 Chamber Test Site      |                |             |                      |            |            |
|-------------------------------|----------------|-------------|----------------------|------------|------------|
| Name of Equipment             | Manufacturer   | Model       | Serial Number        | Cal Date   | Cal Due    |
| Horn Antenna                  | ETS LINDGREN   | 3116        | 00026370             | 2022-12-22 | 2023-12-21 |
| Loop Antenna                  | COM-POWER      | AL-130      | 121051               | 2023-05-23 | 2024-05-22 |
| Preamplifier                  | EMEC           | EM330       | 060609               | 2023-02-22 | 2024-02-21 |
| Thermo-Hygro Meter            | WISEWIND       | 1206        | D07                  | 2022-12-19 | 2023-12-18 |
| Spectrum Analyzer             | Agilent        | E4446A      | MY46180323           | 2022-11-24 | 2023-11-23 |
| Preamplifier                  | HP             | 8449B       | 3008A00965           | 2022-12-23 | 2023-12-22 |
| Bi-Log Antenna                | Sunol Sciences | JB3         | A030105              | 2022-08-03 | 2023-08-02 |
| Cable                         | Huber+Suhner   | 104PEA      | 20995+21000+182330   | 2023-02-22 | 2024-02-21 |
| Signal Generator              | Agilent        | E8257C      | US42340383           | 2022-06-29 | 2023-06-28 |
|                               |                |             |                      | 2023-06-17 | 2024-06-16 |
| UXM 5G Wireless Test Platform | Keysight       | E7515B      | MY21110554           | 2022-11-16 | 2023-11-15 |
| Bi-Log Antenna                | Sunol Sciences | JB1         | A052609              | 2023-02-09 | 2024-02-08 |
| Horn Antenna                  | ETC            | MCTD 1209   | DRH13M02003          | 2023-01-12 | 2024-01-11 |
| Horn Antenna                  | SCHWARZBECK    | BBHA9170    | 1047                 | 2022-12-30 | 2023-12-29 |
| Pre-Amplifier                 | EMCI           | EMC184045SE | 980860               | 2022-12-27 | 2023-12-26 |
| Cable                         | EMCI           | EMC101G     | 211010+211011+211012 | 2022-12-12 | 2023-12-11 |
| Turn Table                    | CCS            | CC-T-1F     | N/A                  | N.C.R      | N.C.R      |
| Controller                    | CCS            | CC-C-1F     | N/A                  | N.C.R      | N.C.R      |
| Software                      | e3 V9-210616c  |             |                      |            |            |

### Remark:

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.

| AC Conducted Emissions Test Site |                         |           |        |            |            |
|----------------------------------|-------------------------|-----------|--------|------------|------------|
| Equipment                        | Manufacturer            | Model     | S/N    | Cal Date   | Cal Due    |
| EMI Test Receiver                | R&S                     | ESCI      | 100064 | 2023-06-07 | 2024-06-06 |
| LISN                             | TESEQ                   | LN2-16N   | 22012  | 2023-03-08 | 2024-03-07 |
| Cable                            | EMCI                    | CFD300-NL | CERF   | 2023-06-26 | 2024-06-25 |
| Software                         | EZ-EMC(CCS-3A1-CE-WUGU) |           |        |            |            |

| Dynamic Frequency Selection |                                                               |                  |                           |                  |                 |
|-----------------------------|---------------------------------------------------------------|------------------|---------------------------|------------------|-----------------|
| Name of Equipment           | Manufacturer                                                  | Model            | Serial Number             | Calibration Date | Calibration Due |
| Power Divider               | Marvelous Microwave                                           | MVE8586          | 16011205                  | 2023-06-16       | 2024-06-15      |
| Power Divider               | Marvelous Microwave                                           | MVE8586          | 16011202                  | 2023-06-16       | 2024-06-15      |
| Power Divider               | Marvelous Microwave                                           | MVE8586          | 16011201                  | 2023-06-16       | 2024-06-15      |
| Power Divider               | Solvang Technology                                            | STI08-0015       | 008                       | 2022-07-26       | 2023-07-25      |
| Cable                       | Woken                                                         | SUMITOMO         | 13                        | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 12                        | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 11                        | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 10                        | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 9                         | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 7                         | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 6                         | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 5                         | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 4                         | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 2                         | 2023-03-02       | 2024-03-01      |
| Cable                       | Woken                                                         | SUMITOMO         | 1                         | 2023-03-02       | 2024-03-01      |
| EXA Signal Analyzer         | Keysight                                                      | N9010A           | MY54200716                | 2022-10-13       | 2023-10-12      |
| Attenuator                  | E-INSTRUMENT                                                  | EPA-600H         | EC1400050                 | 2023-06-13       | 2024-06-12      |
| Vector Signal Generator     | KEYSIGHT                                                      | N5182B/N5182BX07 | MY61252828/<br>MY59362552 | 2023-02-01       | 2024-01-31      |
| Software                    | GPIBSHOT,DFS Test Software,DFS Radar Profiles 2022 Update 1.0 |                  |                           |                  |                 |

**Remark:**

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.

## 1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

| EUT Accessories Equipment |           |       |       |            |        |    |
|---------------------------|-----------|-------|-------|------------|--------|----|
| No.                       | Equipment | Brand | Model | Series No. | FCC ID | IC |
|                           | N/A       |       |       |            |        |    |
|                           |           |       |       |            |        |    |

| Support Equipment |           |        |          |            |              |                |
|-------------------|-----------|--------|----------|------------|--------------|----------------|
| No.               | Equipment | Brand  | Model    | Series No. | FCC ID       | IC             |
| 1                 | NB(E)     | Lenovo | T460     | N/A        | N/A          | N/A            |
| 2                 | NB        | Lenovo | TP00075A | N/A        | N/A          | N/A            |
| 3                 | NB(E)     | Lenovo | V4400u   | N/A        | N/A          | N/A            |
| 4                 | AP        | ASUS   | RT-AX88U | N/A        | MSQ-RTAXHP00 | 3568A-RTAXHP00 |

## 1.8 TEST METHODOLOGY AND APPLIED STANDARDS

### Test Mode

The EUT is connected to the laptop, and the test software (MP Tool) is used to set according to the test requirements (Modulation, Frequency, Power Setting...), so that the RF signal is continuously transmitted to perform the test.

### Normal Mode

Connect the EUT to the laptop, use the test software (MP Tool) to set according to the test requirements, search for the AP SSID to connect and enter the command to push the packet to execute the test.

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 789033 D02, KDB 905462 D02, RSS-247 Issue 2 and RSS-GEN Issue 5.

## 2. TEST SUMMARY

| IC<br>Standard Sec.                        | FCC<br>Standard<br>Sec. | Chapter | Test Item                   | Result |
|--------------------------------------------|-------------------------|---------|-----------------------------|--------|
| RSS-Gen (6.8)                              | 15.203                  | 1.3     | Antenna Requirement         | Pass   |
| RSS-Gen (8.8)                              | 15.207                  | 4.1     | AC Conducted Emission       | Pass   |
| -                                          | 15.407(a)               | 4.2     | 26dB Bandwidth              | Pass   |
| RSS-247(6.2.4.1)                           | 15.407(e)               | 4.2     | 6dB Bandwidth               | Pass   |
| RSS-Gen (6.7)                              | 2.1049                  | 4.2     | Occupied Bandwidth (99%)    | Pass   |
| RSS-247(6.2.1.1)                           | 15.407(a)               | 4.3     | Output Power Measurement    | Pass   |
| RSS-247(6.2.2.1)                           | 15.407(a)               | 4.4     | Power Spectral Density      | Pass   |
| RSS-247(6.2.3.1)<br>RSS-GEN<br>Clause 8.10 | 15.407(b)<br>15.205     | 4.5     | Radiation Band Edge         | Pass   |
| RSS-247(6.2.4.1)<br>RSS-GEN<br>Clause 8.10 | 15.407(b)<br>15.205     | 4.5     | Radiation Spurious Emission | Pass   |
| RSS-247(6.3)                               | 15.407(h)               | 5       | Dynamic Frequency Selection | Pass   |

### 3. DESCRIPTION OF TEST MODES

#### 3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION

| Operation mode      | 1. IEEE 802.11a mode: 6Mbps<br>2. IEEE 802.11n HT20 mode: MCS0<br>3. IEEE 802.11n HT40 mode: MCS0<br>4. IEEE 802.11ac VHT20 mode: MCS0<br>5. IEEE 802.11ac VHT40 mode: MCS0<br>6. IEEE 802.11ac VHT80 mode: MCS0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--|--|------|-----------------------|---------|--------------|------------------|-------------------|------------------|-------------------|------------|---------------------|------------------|---------------------|------------|---------------------|------|----------|--------------|------------------|-------------------|------------------|-------------------|------------|---------------------|------------------|---------------------|------------|---------------------|------|----------|--------------|------------------|-------------------|------------------|-------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------|---------|--------------|------------------|-------------------|------------------|-------------------|------------|---------------------|------------------|---------------------|------------|---------------------|------|
| Operating Frequency | <table><tr><th></th><th>Mode</th><th>Frequency Range (MHz)</th></tr><tr><td rowspan="6">U-NII-1</td><td>IEEE 802.11a</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11n HT20</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11n HT40</td><td>5190, 5230</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5190, 5230</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5210</td></tr><tr><td rowspan="6">U-NII-2a</td><td>IEEE 802.11a</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11n HT20</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11n HT40</td><td>5270, 5310</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5270, 5310</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5290</td></tr><tr><td rowspan="6">U-NII-2c</td><td>IEEE 802.11a</td><td>5500, 5580, 5700</td></tr><tr><td>IEEE 802.11n HT20</td><td>5500, 5580, 5700</td></tr><tr><td>IEEE 802.11n HT40</td><td>5510, 5550, 5670</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5500, 5580, 5700</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5510, 5550, 5670</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5530, 5610</td></tr><tr><td rowspan="6">U-NII-3</td><td>IEEE 802.11a</td><td>5745, 5785, 5825</td></tr><tr><td>IEEE 802.11n HT20</td><td>5745, 5785, 5825</td></tr><tr><td>IEEE 802.11n HT40</td><td>5755, 5795</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5745, 5785, 5825</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5755, 5795</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5775</td></tr></table> |                       |  |  | Mode | Frequency Range (MHz) | U-NII-1 | IEEE 802.11a | 5180, 5220, 5240 | IEEE 802.11n HT20 | 5180, 5220, 5240 | IEEE 802.11n HT40 | 5190, 5230 | IEEE 802.11ac VHT20 | 5180, 5220, 5240 | IEEE 802.11ac VHT40 | 5190, 5230 | IEEE 802.11ac VHT80 | 5210 | U-NII-2a | IEEE 802.11a | 5260, 5300, 5320 | IEEE 802.11n HT20 | 5260, 5300, 5320 | IEEE 802.11n HT40 | 5270, 5310 | IEEE 802.11ac VHT20 | 5260, 5300, 5320 | IEEE 802.11ac VHT40 | 5270, 5310 | IEEE 802.11ac VHT80 | 5290 | U-NII-2c | IEEE 802.11a | 5500, 5580, 5700 | IEEE 802.11n HT20 | 5500, 5580, 5700 | IEEE 802.11n HT40 | 5510, 5550, 5670 | IEEE 802.11ac VHT20 | 5500, 5580, 5700 | IEEE 802.11ac VHT40 | 5510, 5550, 5670 | IEEE 802.11ac VHT80 | 5530, 5610 | U-NII-3 | IEEE 802.11a | 5745, 5785, 5825 | IEEE 802.11n HT20 | 5745, 5785, 5825 | IEEE 802.11n HT40 | 5755, 5795 | IEEE 802.11ac VHT20 | 5745, 5785, 5825 | IEEE 802.11ac VHT40 | 5755, 5795 | IEEE 802.11ac VHT80 | 5775 |
|                     | Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Frequency Range (MHz) |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
| U-NII-1             | IEEE 802.11a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5180, 5220, 5240      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11n HT20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5180, 5220, 5240      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11n HT40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5190, 5230            |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5180, 5220, 5240      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5190, 5230            |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5210                  |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
| U-NII-2a            | IEEE 802.11a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5260, 5300, 5320      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11n HT20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5260, 5300, 5320      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11n HT40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5270, 5310            |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5260, 5300, 5320      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5270, 5310            |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5290                  |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
| U-NII-2c            | IEEE 802.11a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5500, 5580, 5700      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11n HT20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5500, 5580, 5700      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11n HT40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5510, 5550, 5670      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5500, 5580, 5700      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5510, 5550, 5670      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5530, 5610            |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
| U-NII-3             | IEEE 802.11a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5745, 5785, 5825      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11n HT20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5745, 5785, 5825      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11n HT40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5755, 5795            |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5745, 5785, 5825      |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5755, 5795            |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |
|                     | IEEE 802.11ac VHT80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5775                  |  |  |      |                       |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |          |              |                  |                   |                  |                   |                  |                     |                  |                     |                  |                     |            |         |              |                  |                   |                  |                   |            |                     |                  |                     |            |                     |      |

#### Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.
2. The mode IEEE 802.11ac VHT20 and VHT40 are only different in control messages with IEEE 802.11n 20 MHz and HT40, and have same power setting. Therefore, the highest power(IEEE 802.11n 20 MHz and HT40) were test conducted and radiated measurement and recorded in this report.

### 3.2 THE WORST MODE OF MEASUREMENT

| AC Power Line Conducted Emission |                                                                                                                                                       |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Condition                   | AC Power line conducted emission for line and neutral                                                                                                 |
| Power supply Mode                | Mode 1: EUT power by Adapter (Dipole)<br>Mode 2: EUT power by Adapter (PIFA)                                                                          |
| Worst Mode                       | <input checked="" type="checkbox"/> Mode 1 <input checked="" type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4 |

| Radiated Emission Measurement Above 1G |                                                                                                                                                                                                                                                                                               |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Condition                         | Radiated Emission Above 1G                                                                                                                                                                                                                                                                    |
| Power supply Mode                      | Mode 1: EUT power by Adapter (Dipole)<br>Mode 2: EUT power by Adapter (PIFA)                                                                                                                                                                                                                  |
| Worst Mode                             | <input checked="" type="checkbox"/> Mode 1 <input checked="" type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4                                                                                                                                         |
| Worst Position                         | <input type="checkbox"/> Placed in fixed position.<br><input type="checkbox"/> Placed in fixed position at X-Plane (E2-Plane)<br><input type="checkbox"/> Placed in fixed position at Y-Plane (E1-Plane)<br><input checked="" type="checkbox"/> Placed in fixed position at Z-Plane (H-Plane) |

| Radiated Emission Measurement Below 1G |                                                                                                                                                       |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Condition                         | Radiated Emission Below 1G                                                                                                                            |
| Power supply Mode                      | Mode 1: EUT power by Adapter (Dipole)<br>Mode 2: EUT power by Adapter (PIFA)                                                                          |
| Worst Mode                             | <input checked="" type="checkbox"/> Mode 1 <input checked="" type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4 |

*Remark:*

1. There are three types of EUT memory (ESMT, NANYA, MICRON), the worst of which is ESMT memory, and is recorded in the test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(Z-Plane) were recorded in this report
3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.

### 3.3 EUT DUTY CYCLE

**Temperature:** 21.1 ~ 27.1°C

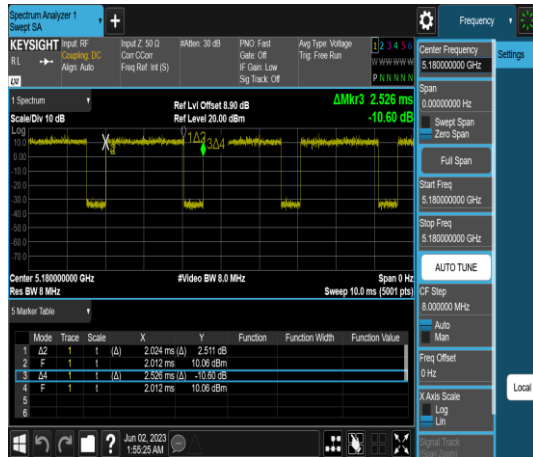
**Test date:** June 2 ~ July 13, 2023

**Humidity:** 56 ~ 61% RH

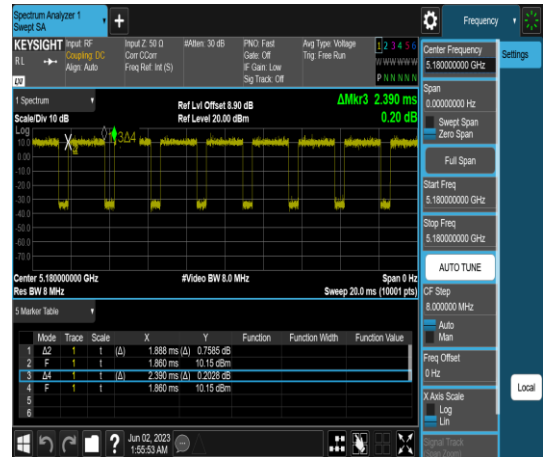
**Tested by:** Marco Chan

| Duty Cycle    |                |                                            |           |                   |
|---------------|----------------|--------------------------------------------|-----------|-------------------|
| Configuration | Duty Cycle (%) | Duty Factor (dB)<br>=10*log (1/Duty Cycle) | 1/T (kHz) | VBW setting (kHz) |
| 802.11a       | 80.13          | 0.96                                       | 0.49      | 1.00              |
| 802.11n_20    | 79.00          | 1.02                                       | 0.53      | 1.00              |
| 802.11ac_20   | 79.03          | 1.02                                       | 0.53      | 1.00              |
| 802.11n_40    | 64.90          | 1.88                                       | 1.08      | 2.00              |
| 802.11ac_40   | 64.99          | 1.87                                       | 1.07      | 2.00              |
| 802.11ac_80   | 47.38          | 3.24                                       | 2.21      | 3.00              |

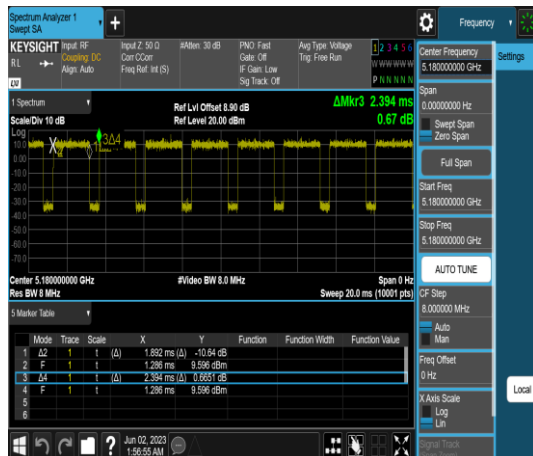
802.11a



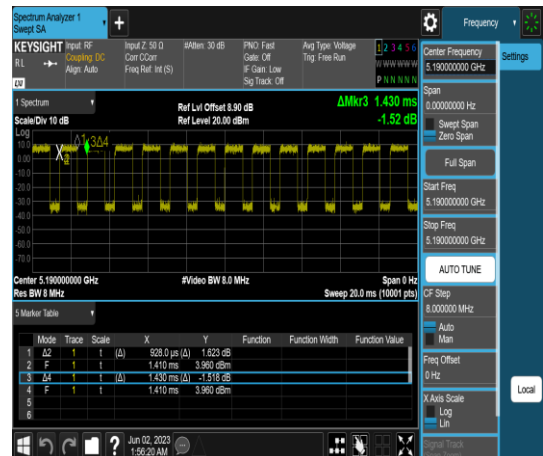
802.11n HT20



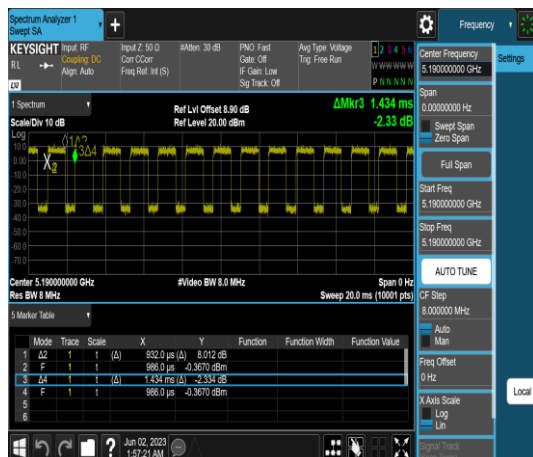
802.11ac 20



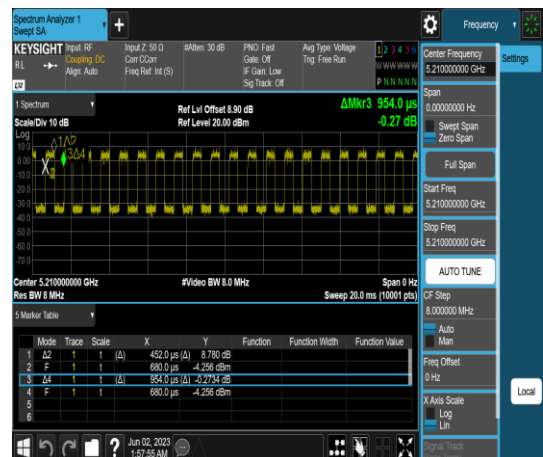
802.11n HT40



802.11ac 40



802.11ac 80



## 4. TEST RESULT

### 4.1 AC POWER LINE CONDUCTED EMISSION

#### 4.1.1 Test Limit

According to §15.207(a) and RSS-GEN section 8.8,

| Frequency Range<br>(MHz) | Limits(dBμV) |           |
|--------------------------|--------------|-----------|
|                          | Quasi-peak   | Average   |
| 0.15 to 0.50             | 66 to 56*    | 56 to 46* |
| 0.50 to 5                | 56           | 46        |
| 5 to 30                  | 60           | 50        |

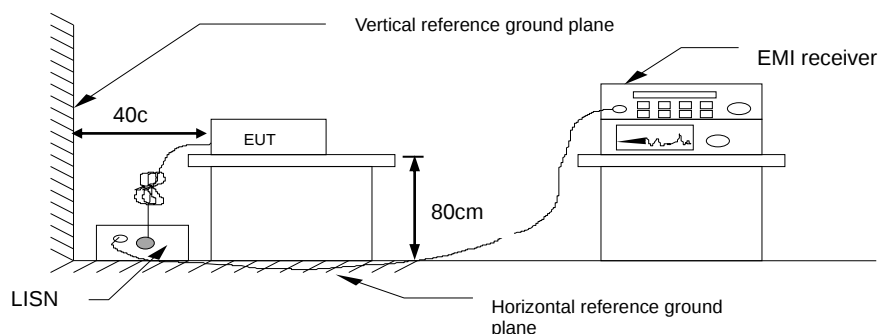
\* Decreases with the logarithm of the frequency.

#### 4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

#### 4.1.3 Test Setup

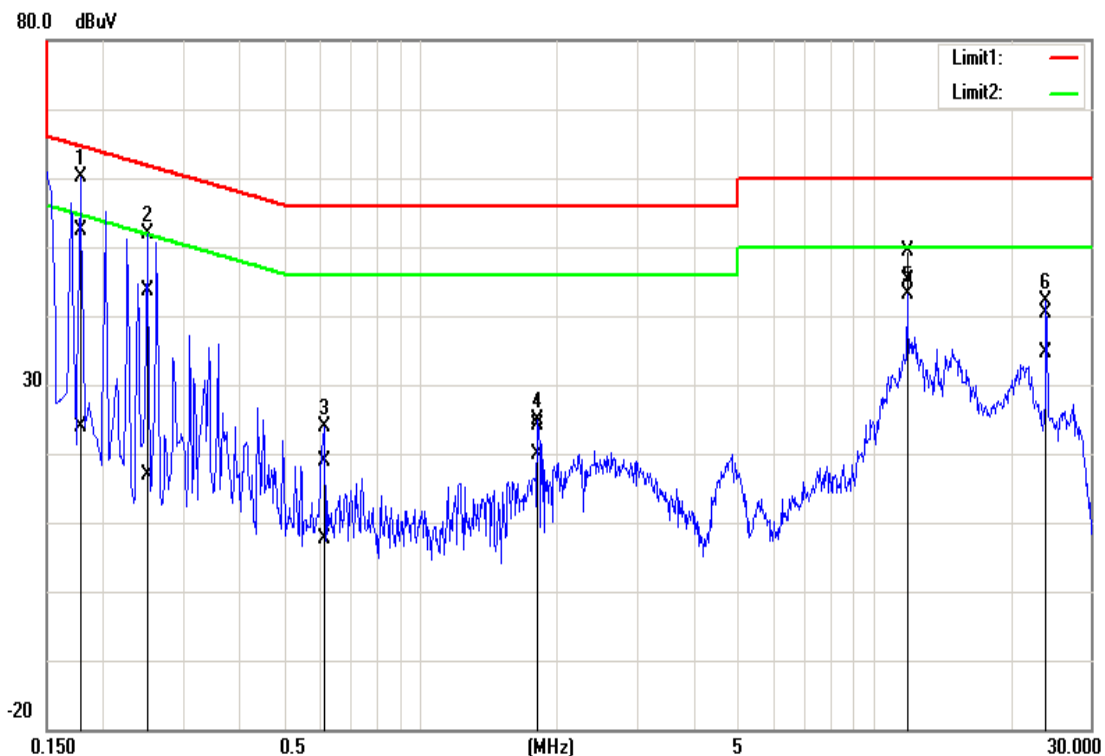


#### 4.1.4 Test Result

**Pass.**

## Test Data

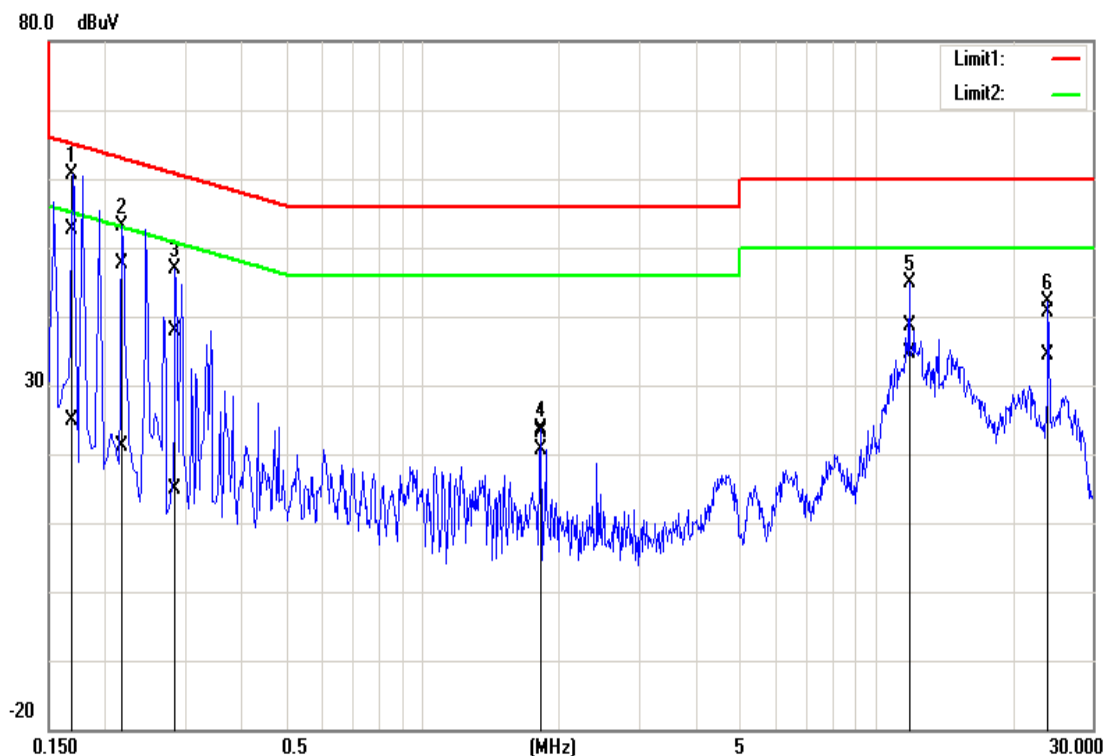
|               |              |               |                 |
|---------------|--------------|---------------|-----------------|
| Test Mode:    | Mode 1       | Temp/Hum      | 24.3(°C)/ 52%RH |
| Phase:        | Line         | Test Date     | July 5, 2023    |
| Test Voltage: | 120Vac, 60Hz | Test Engineer | Tony Chao       |



| Frequency (MHz) | Quasi Peak reading (dBuV) | Average reading (d uV) | Correction factor (dB) | Quasi Peak result (dBuV) | Average result (dBuV) | Quasi Peak limit (dBuV) | Average limit (dBuV) | Quasi Peak margin (dB) | Average margin (dB) | Remark |
|-----------------|---------------------------|------------------------|------------------------|--------------------------|-----------------------|-------------------------|----------------------|------------------------|---------------------|--------|
| 0.1780          | 52.27                     | 23.71                  | 0.15                   | 52.42                    | 23.86                 | 64.58                   | 54.58                | -12.16                 | -30.72              | Pass   |
| 0.2500          | 43.55                     | 16.76                  | 0.15                   | 43.70                    | 16.91                 | 61.76                   | 51.76                | -18.06                 | -34.85              | Pass   |
| 0.6140          | 18.84                     | 7.51                   | 0.15                   | 18.99                    | 7.66                  | 56.00                   | 46.00                | -37.01                 | -38.34              | Pass   |
| 1.8180          | 23.93                     | 19.67                  | 0.21                   | 24.14                    | 19.88                 | 56.00                   | 46.00                | -31.86                 | -26.12              | Pass   |
| 11.8140         | 49.07                     | 44.73                  | 0.38                   | 49.45                    | 45.11                 | 60.00                   | 50.00                | -10.55                 | -4.89               | Pass   |
| 24.0020         | 39.87                     | 34.01                  | 0.56                   | 40.43                    | 34.57                 | 60.00                   | 50.00                | -19.57                 | -15.43              | Pass   |

**Note:** 1. Correction factor = LISN loss + Cable loss.

|               |              |               |                 |
|---------------|--------------|---------------|-----------------|
| Test Mode:    | Mode 1       | Temp/Hum      | 24.3(°C)/ 52%RH |
| Phase:        | Neutral      | Test Date     | July 5, 2023    |
| Test Voltage: | 120Vac, 60Hz | Test Engineer | Tony Chao       |

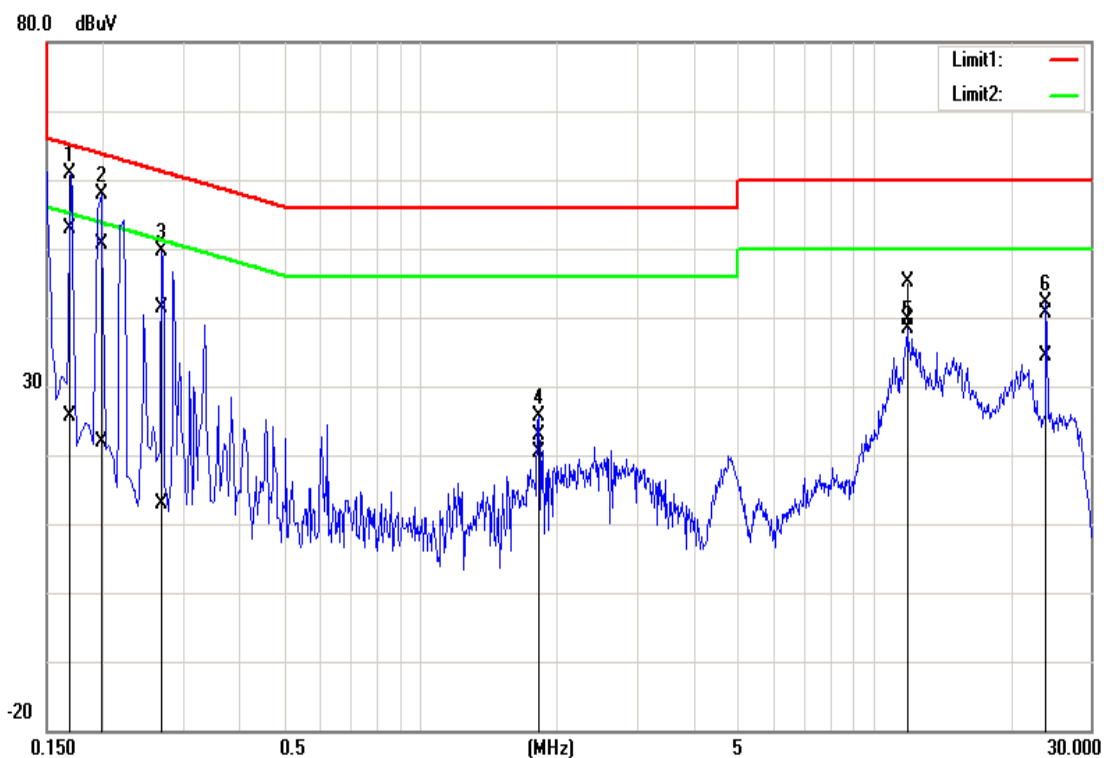


| Frequency (MHz) | Quasi Peak reading (dBuV) | Average reading (dBuV) | Correction factor (dB) | Quasi Peak result (dBuV) | Average result (dBuV) | Quasi Peak limit (dBuV) | Average limit (dBuV) | Quasi Peak margin (dB) | Average margin (dB) | Remark |
|-----------------|---------------------------|------------------------|------------------------|--------------------------|-----------------------|-------------------------|----------------------|------------------------|---------------------|--------|
| 0.1700          | 52.49                     | 24.59                  | 0.19                   | 52.68                    | 24.78                 | 64.96                   | 54.96                | -12.28                 | -30.18              | Pass   |
| 0.2180          | 47.42                     | 21.01                  | 0.19                   | 47.61                    | 21.20                 | 62.89                   | 52.89                | -15.28                 | -31.69              | Pass   |
| 0.2860          | 37.80                     | 14.66                  | 0.19                   | 37.99                    | 14.85                 | 60.64                   | 50.64                | -22.65                 | -35.79              | Pass   |
| 1.8220          | 22.77                     | 20.45                  | 0.25                   | 23.02                    | 20.70                 | 56.00                   | 46.00                | -32.98                 | -25.30              | Pass   |
| 11.8180         | 38.11                     | 34.26                  | 0.41                   | 38.52                    | 34.67                 | 60.00                   | 50.00                | -21.48                 | -15.33              | Pass   |
| 23.9980         | 40.05                     | 33.77                  | 0.55                   | 40.60                    | 34.32                 | 60.00                   | 50.00                | -19.40                 | -15.68              | Pass   |

**Note:** 1. Correction factor = LISN loss + Cable loss.

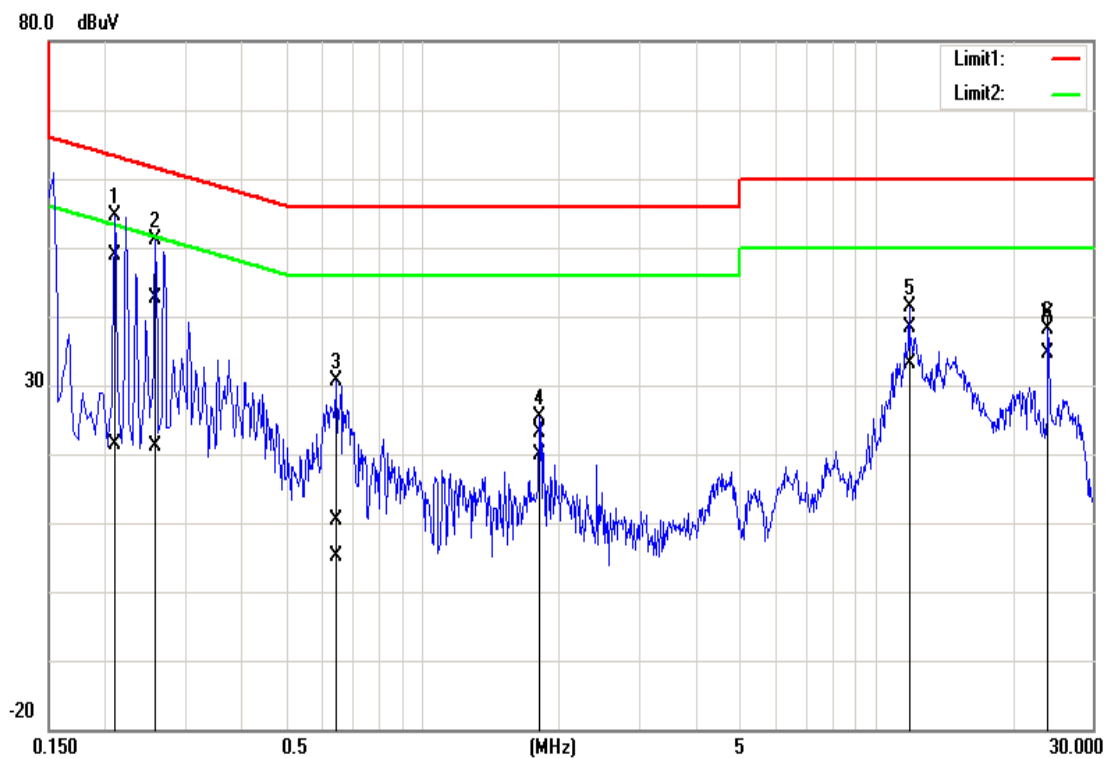
Report No.: TMWK2201000245KR

|               |              |               |                 |
|---------------|--------------|---------------|-----------------|
| Test Mode:    | Mode 2       | Temp/Hum      | 24.3(°C)/ 52%RH |
| Phase:        | Line         | Test Date     | July 5, 2023    |
| Test Voltage: | 120Vac, 60Hz | Test Engineer | Tony Chao       |



**Note:** 1. Correction factor = LISN loss + Cable loss.

|               |              |               |                 |
|---------------|--------------|---------------|-----------------|
| Test Mode:    | Mode 2       | Temp/Hum      | 24.3(°C)/ 52%RH |
| Phase:        | Neutral      | Test Date     | July 5, 2023    |
| Test Voltage: | 120Vac, 60Hz | Test Engineer | Tony Chao       |



| Frequency (MHz) | Quasi Peak reading (dBuV) | Average reading (dBuV) | Correction factor (dB) | Quasi Peak result (dBuV) | Average result (dBuV) | Quasi Peak limit (dBuV) | Average limit (dBuV) | Quasi Peak margin (dB) | Average margin (dB) | Remark |
|-----------------|---------------------------|------------------------|------------------------|--------------------------|-----------------------|-------------------------|----------------------|------------------------|---------------------|--------|
| 0.2100          | 48.75                     | 21.08                  | 0.19                   | 48.94                    | 21.27                 | 63.21                   | 53.21                | -14.27                 | -31.94              | Pass   |
| 0.2580          | 42.55                     | 21.04                  | 0.19                   | 42.74                    | 21.23                 | 61.50                   | 51.50                | -18.76                 | -30.27              | Pass   |
| 0.6460          | 10.21                     | 4.84                   | 0.19                   | 10.40                    | 5.03                  | 56.00                   | 46.00                | -45.60                 | -40.97              | Pass   |
| 1.8180          | 22.83                     | 19.68                  | 0.25                   | 23.08                    | 19.93                 | 56.00                   | 46.00                | -32.92                 | -26.07              | Pass   |
| 11.8220         | 37.93                     | 32.81                  | 0.41                   | 38.34                    | 33.22                 | 60.00                   | 50.00                | -21.66                 | -16.78              | Pass   |
| 24.0020         | 39.91                     | 34.01                  | 0.55                   | 40.46                    | 34.56                 | 60.00                   | 50.00                | -19.54                 | -15.44              | Pass   |

**Note:** 1. Correction factor = LISN loss + Cable loss.

## 4.2 26dB BANDWIDTH, 6dB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)

### 4.2.1 Test Limit

**26 dB Bandwidth** : For reporting purposes only.

**6 dB Bandwidth** : Least 500kHz.

**Occupied Bandwidth(99%)** : For reporting purposes only.

### 4.2.2 Test Procedure

#### 26dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW: approximately 1% of the emission bandwidth.
3. Set the VBW>RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26dB down from the peak of the emission. Compare this with the RBW setting of the analyser. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

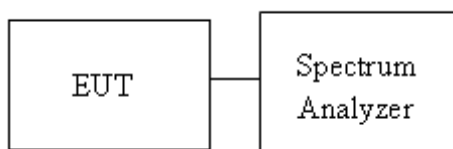
#### 6dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = 100 kHz.
3. Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

## 99%

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1 % to 5% of the OBW.
5. Set VBW  $\geq$  3 xRBW

### 4.2.3 Test Setup



## 4.2.4 Test Result

Temperature: 21.1 ~ 27.1°C  
Humidity: 56 ~ 61% RH

Test date: June 2 ~ July 13, 2023  
Tested by: Marco Chan

### UNII-1 5150-5250 MHz

#### Test mode: IEEE 802.11a mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 36      | 5180            | 16.364                       | 16.363                       | 18.25                       | 18.35                       |
| 44      | 5220            | 16.344                       | 16.345                       | 18.33                       | 18.26                       |
| 48      | 5240            | 16.371                       | 16.359                       | 18.45                       | 18.45                       |

#### Test mode: IEEE 802.11n HT20 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 36      | 5180            | 17.558                       | 17.543                       | 19.35                       | 19.43                       |
| 44      | 5220            | 17.549                       | 17.524                       | 19.34                       | 19.22                       |
| 48      | 5240            | 17.544                       | 17.558                       | 19.40                       | 19.27                       |

#### Test mode: IEEE 802.11n HT40 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 38      | 5190            | 36.068                       | 36.073                       | 40.75                       | 41.32                       |
| 46      | 5230            | 36.081                       | 35.968                       | 41.18                       | 40.95                       |

#### Test mode: IEEE 802.11ac VHT80 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 42      | 5210            | 74.633                       | 74.630                       | 80.83                       | 80.57                       |

## UNII-2a 5250-5350 MHz

### Test mode: IEEE 802.11a mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 52      | 5260            | 16.353                       | 16.357                       | 18.31                       | 18.32                       |
| 60      | 5300            | 16.362                       | 16.365                       | 18.25                       | 18.30                       |
| 64      | 5320            | 16.362                       | 16.367                       | 18.47                       | 18.22                       |

### Test mode: IEEE 802.11n HT20 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 52      | 5260            | 17.545                       | 17.558                       | 19.31                       | 19.33                       |
| 60      | 5300            | 17.545                       | 17.536                       | 19.24                       | 19.35                       |
| 64      | 5320            | 17.557                       | 17.539                       | 19.22                       | 19.21                       |

### Test mode: IEEE 802.11n HT40 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 54      | 5270            | 35.999                       | 36.064                       | 40.49                       | 40.81                       |
| 62      | 5310            | 36.003                       | 36.003                       | 40.64                       | 41.14                       |

### Test mode: IEEE 802.11ac VHT80 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 58      | 5290            | 74.471                       | 74.320                       | 80.72                       | 80.02                       |

## UNII-2c 5470-5725 MHz

### Test mode: IEEE 802.11a mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 100     | 5500            | 16.369                       | 16.349                       | 18.35                       | 18.28                       |
| 116     | 5580            | 16.366                       | 16.365                       | 18.38                       | 18.27                       |
| 140     | 5700            | 16.364                       | 16.363                       | 18.21                       | 18.23                       |

### Test mode: IEEE 802.11n HT20 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 100     | 5500            | 17.545                       | 17.542                       | 19.29                       | 19.25                       |
| 116     | 5580            | 17.541                       | 17.541                       | 19.16                       | 19.49                       |
| 140     | 5700            | 17.555                       | 17.543                       | 19.22                       | 19.31                       |

### Test mode: IEEE 802.11n HT40 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 102     | 5510            | 35.934                       | 36.098                       | 40.52                       | 41.07                       |
| 110     | 5550            | 36.057                       | 35.914                       | 41.84                       | 40.84                       |
| 134     | 5670            | 35.973                       | 36.011                       | 41.42                       | 40.90                       |

### Test mode: IEEE 802.11ac VHT80 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>26dB BW<br>(MHz) | Chain 1<br>26dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 106     | 5530            | 74.356                       | 74.319                       | 80.66                       | 80.30                       |
| 122     | 5610            | 74.621                       | 74.245                       | 80.29                       | 79.82                       |

## UNII-3 5725-5850 MHz

### Test mode: IEEE 802.11a mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>6dB BW<br>(MHz) | Chain 1<br>6dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|----------------------------|----------------------------|
| 149     | 5745            | 16.338                       | 16.373                       | 16.07                      | 16.36                      |
| 157     | 5785            | 16.382                       | 16.344                       | 16.35                      | 16.35                      |
| 165     | 5825            | 16.366                       | 16.357                       | 16.34                      | 16.43                      |

### Test mode: IEEE 802.11n HT20 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>6dB BW<br>(MHz) | Chain 1<br>6dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|----------------------------|----------------------------|
| 149     | 5745            | 17.546                       | 17.546                       | 17.61                      | 17.58                      |
| 157     | 5785            | 17.552                       | 17.529                       | 17.59                      | 17.24                      |
| 165     | 5825            | 17.547                       | 17.544                       | 17.31                      | 17.65                      |

### Test mode: IEEE 802.11n HT40 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>6dB BW<br>(MHz) | Chain 1<br>6dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|----------------------------|----------------------------|
| 151     | 5755            | 35.943                       | 36.030                       | 34.12                      | 32.82                      |
| 159     | 5795            | 36.090                       | 36.006                       | 35.57                      | 35.08                      |

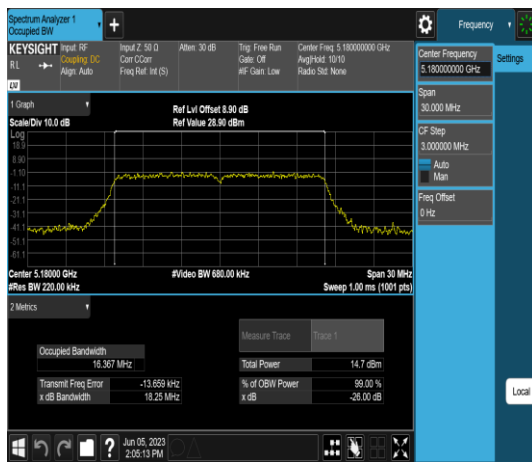
### Test mode: IEEE 802.11ac VHT80 mode

| Channel | Frequency (MHz) | Chain 0<br>OBW(99%)<br>(MHz) | Chain 1<br>OBW(99%)<br>(MHz) | Chain 0<br>6dB BW<br>(MHz) | Chain 1<br>6dB BW<br>(MHz) |
|---------|-----------------|------------------------------|------------------------------|----------------------------|----------------------------|
| 155     | 5775            | 74.285                       | 74.335                       | 72.64                      | 68.85                      |

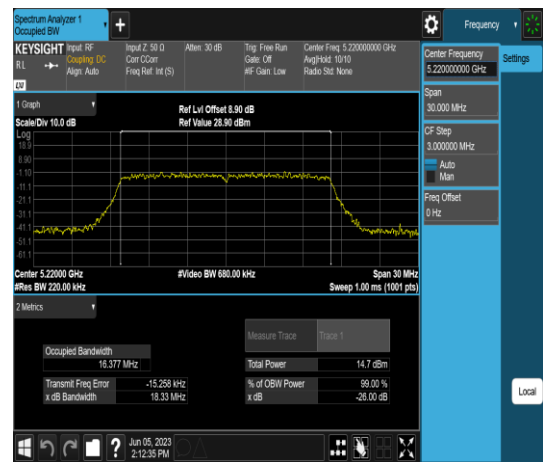
## Test Plots (26dB BANDWIDTH)

### UNII-1 IEEE 802.11a mode-chain 0

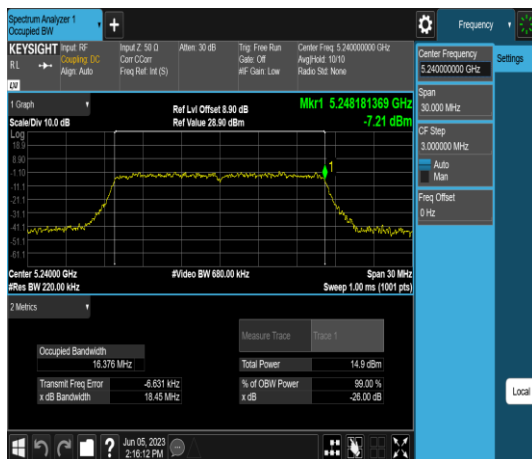
#### 5180 MHz



#### 5220 MHz

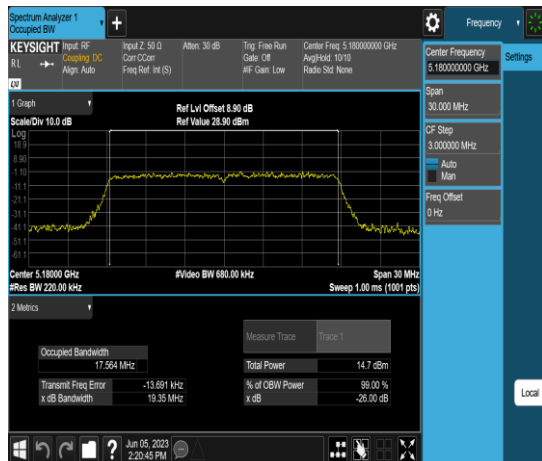


#### 5240 MHz



## UNII-1 IEEE 802.11n HT20 mode-chain 0

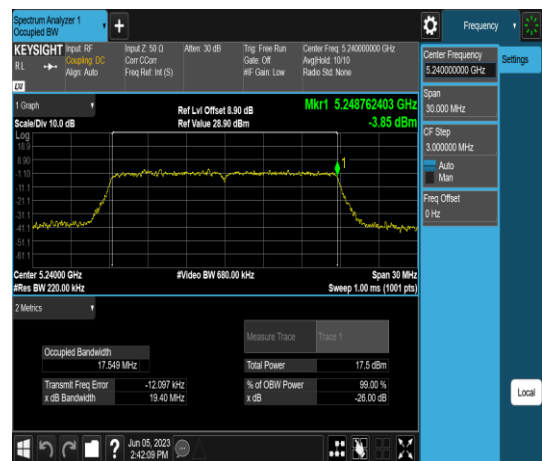
### 5180 MHz



### 5220 MHz

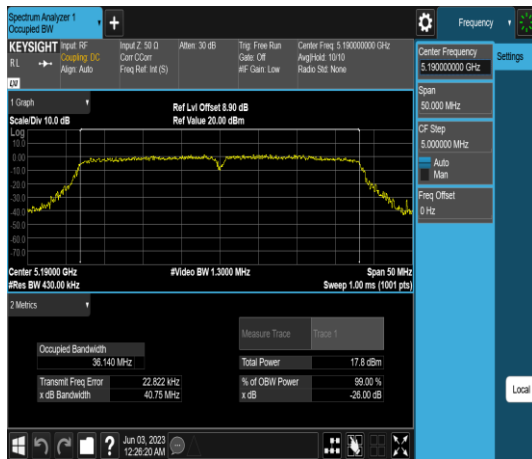


### 5240 MHz

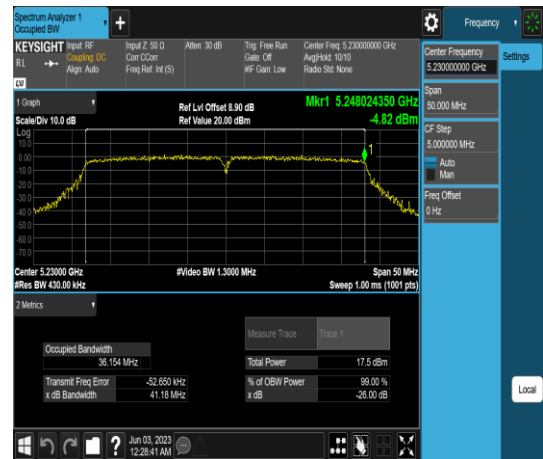


## UNII-1 IEEE 802.11n HT40 mode-chain 0

5190 MHz

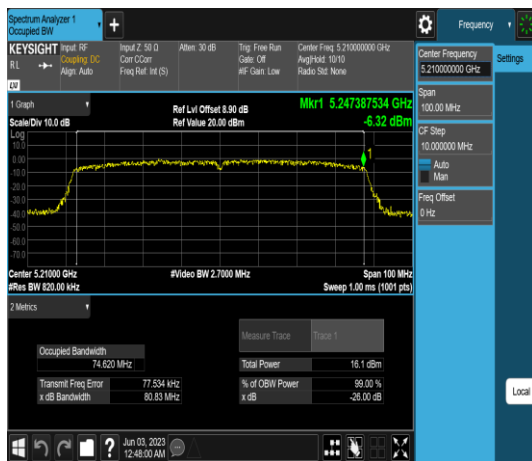


5230 MHz



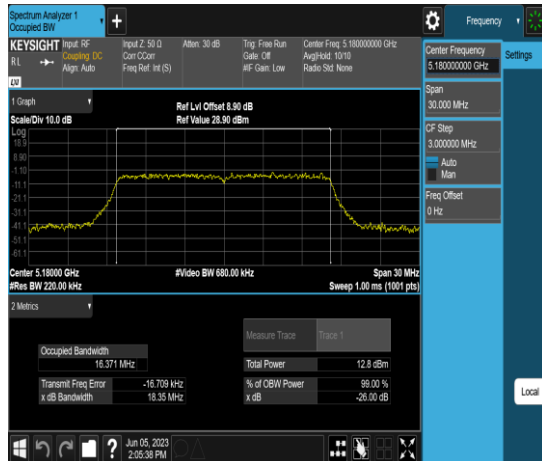
## UNII-1 IEEE 802.11ac VHT80 mode-chain 0

5210 MHz

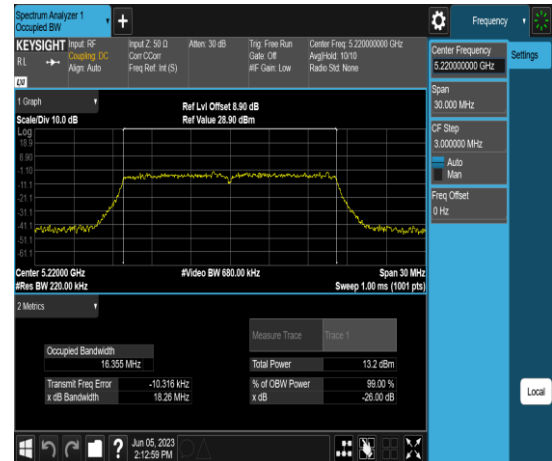


## UNII-1 IEEE 802.11a mode-chain 1

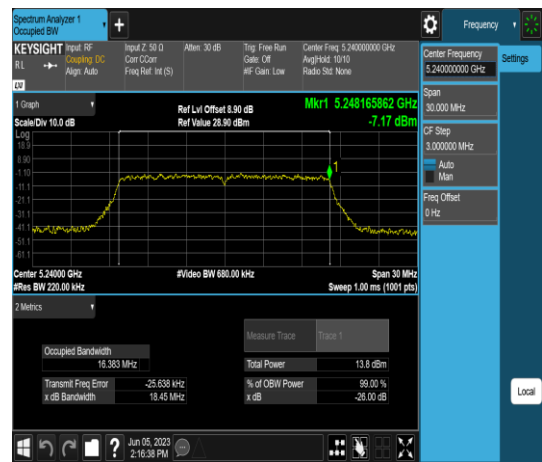
### 5180 MHz



### 5220 MHz



### 5240 MHz

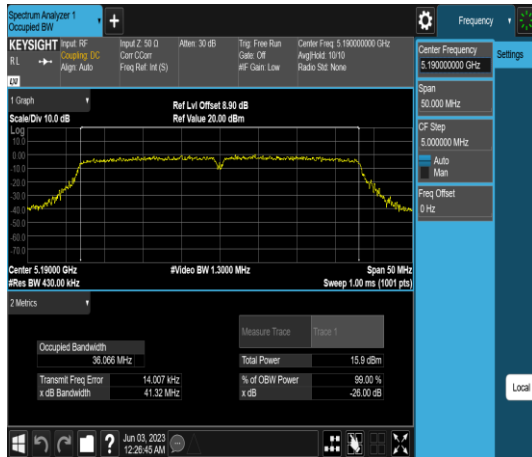


Report No.: TMWK2201000245KR

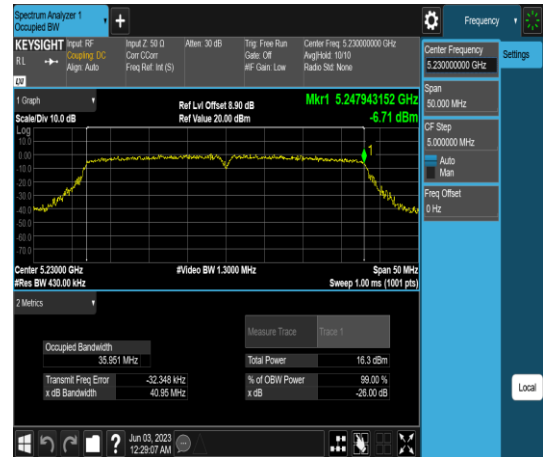


## UNII-1 IEEE 802.11n HT40 mode-chain 1

5190 MHz

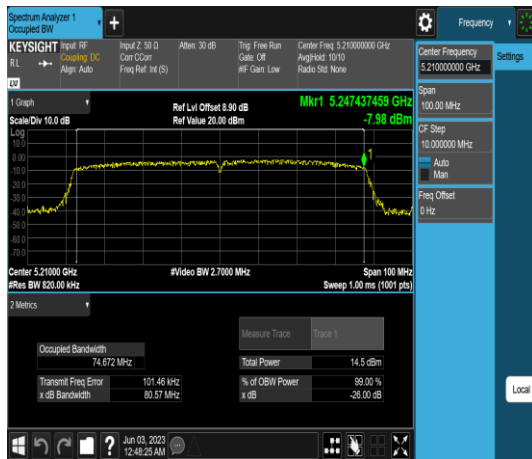


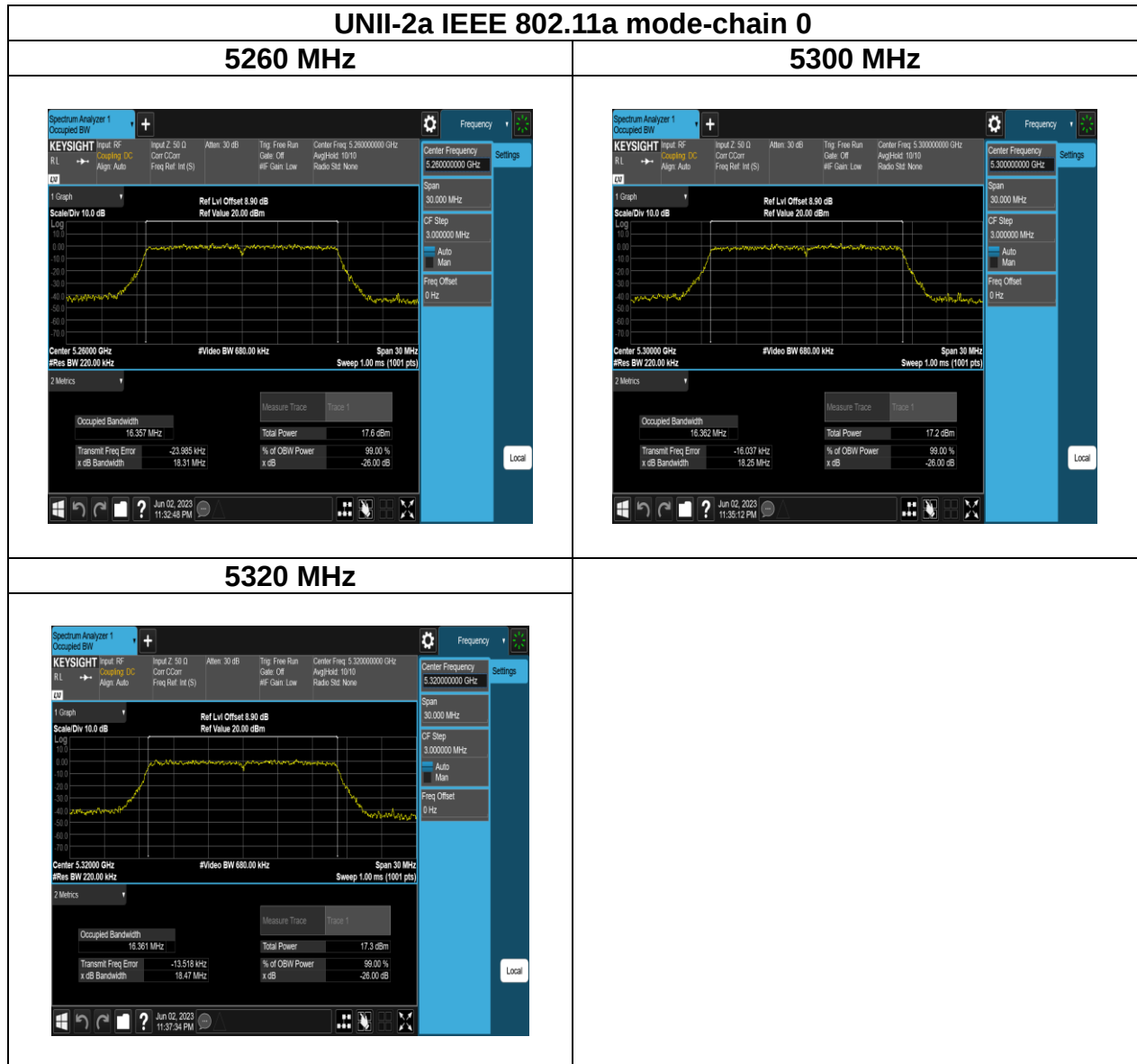
5230 MHz



## UNII-1 IEEE 802.11ac VHT80 mode-chain 1

5210 MHz

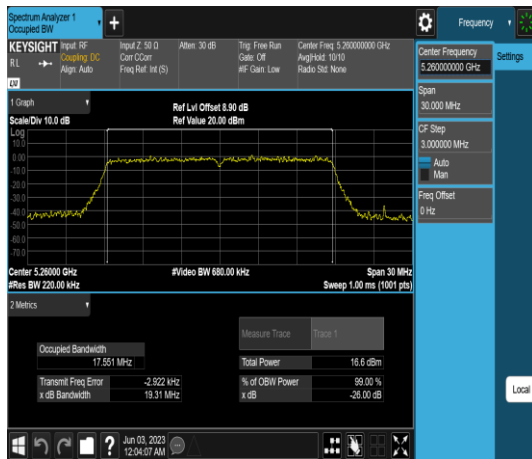




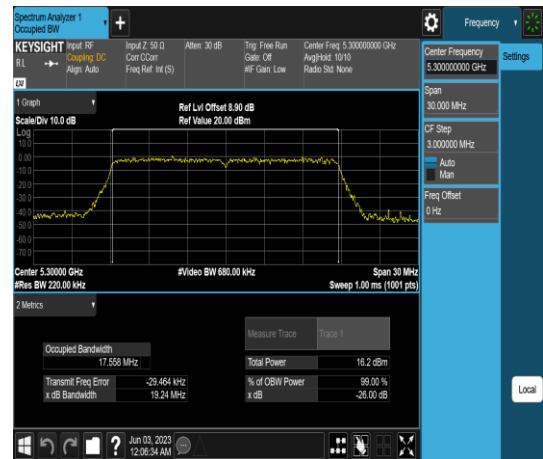
Report No.: TMWK2201000245KR

## UNII-2a IEEE 802.11n HT20 mode-chain 0

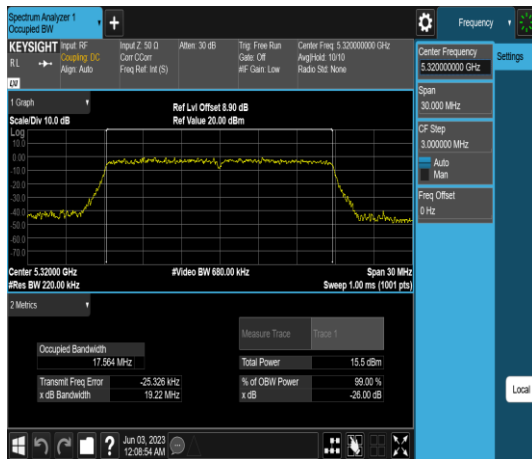
### 5260 MHz



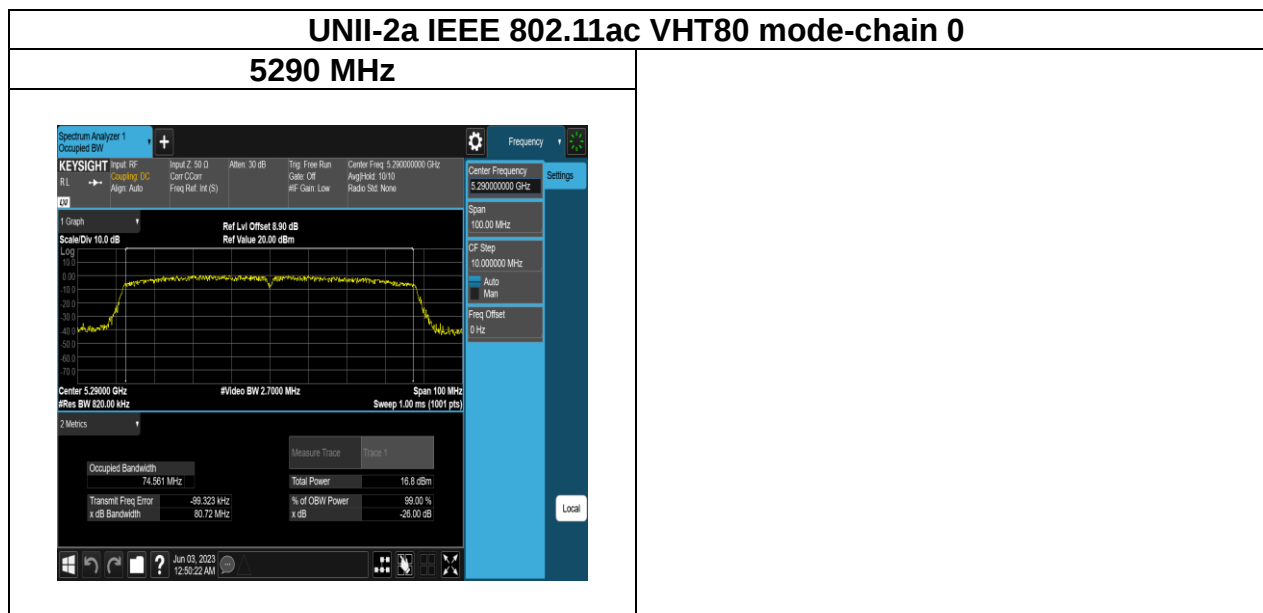
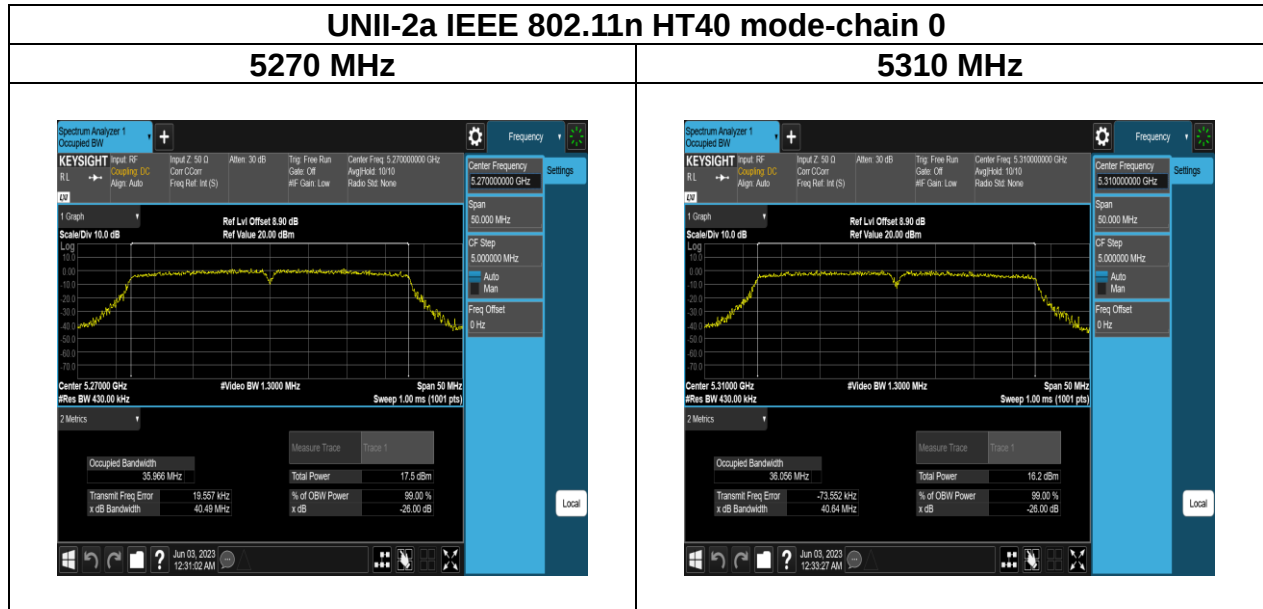
### 5300 MHz



### 5320 MHz

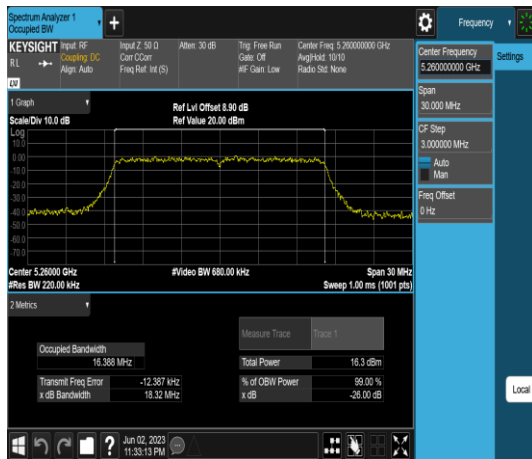


Report No.: TMWK2201000245KR

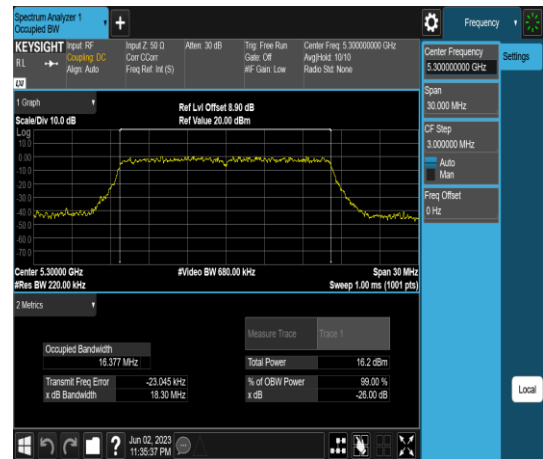


## UNII-2a IEEE 802.11a mode-chain 1

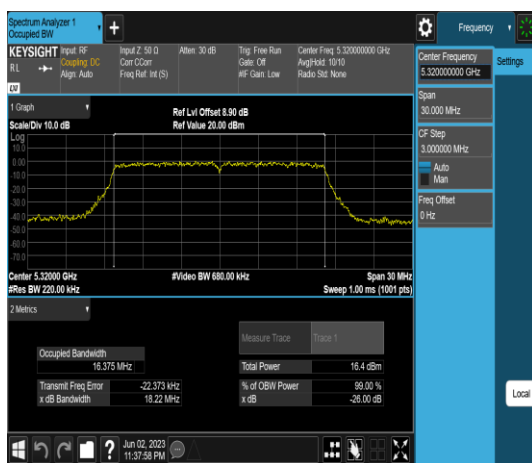
### 5260 MHz



### 5300 MHz



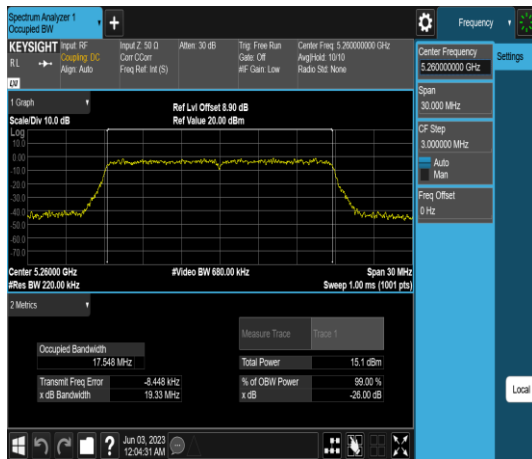
### 5320 MHz



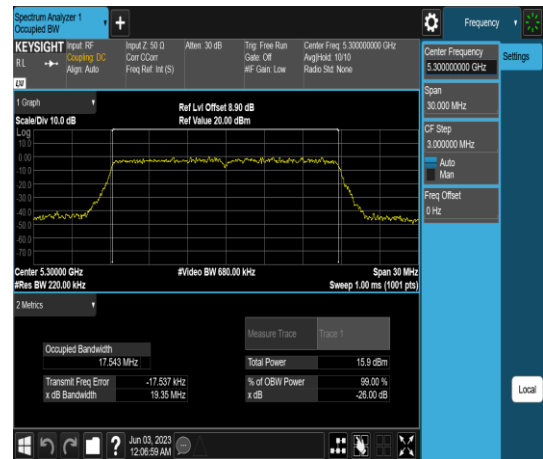
Report No.: TMWK2201000245KR

## UNII-2a IEEE 802.11n HT20 mode-chain 1

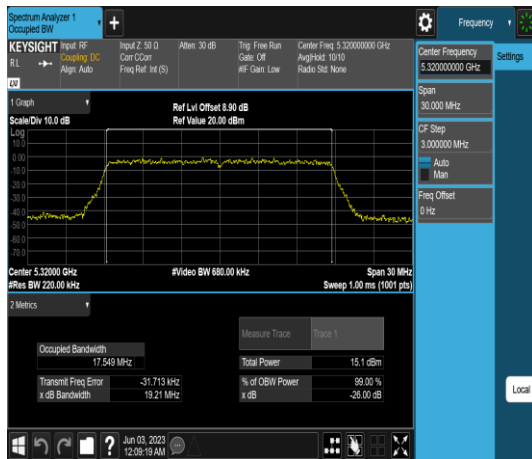
### 5260 MHz



### 5300 MHz



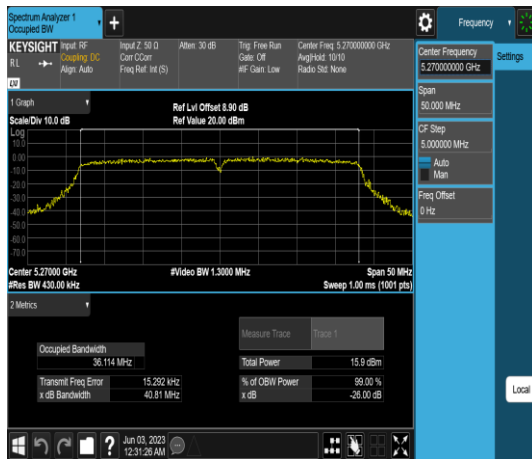
### 5320 MHz



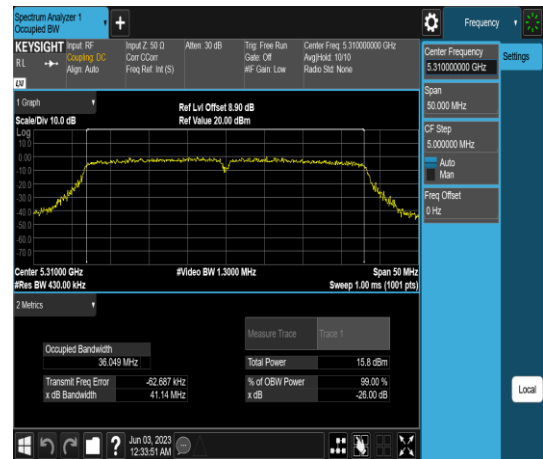
Report No.: TMWK2201000245KR

## UNII-2a IEEE 802.11n HT40 mode-chain 1

5270 MHz

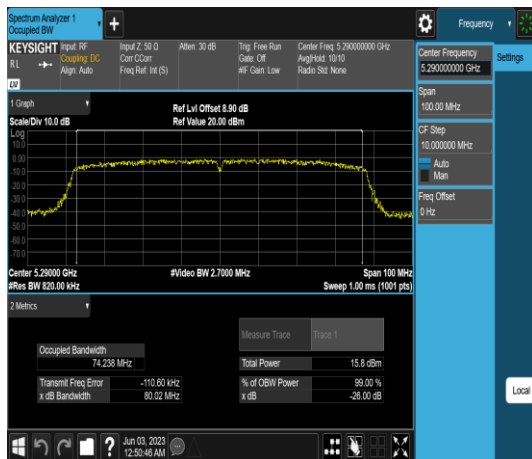


5310 MHz



## UNII-2a IEEE 802.11ac VHT80 mode-chain 1

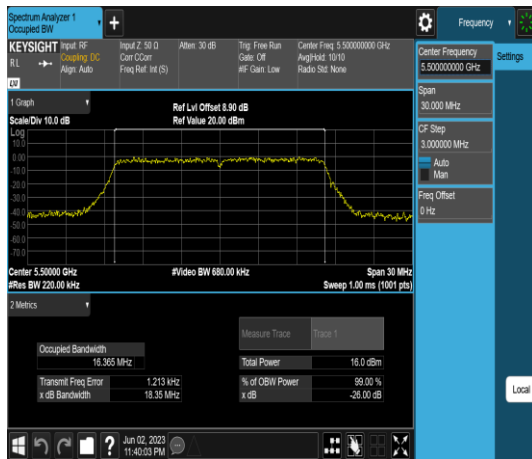
5290 MHz



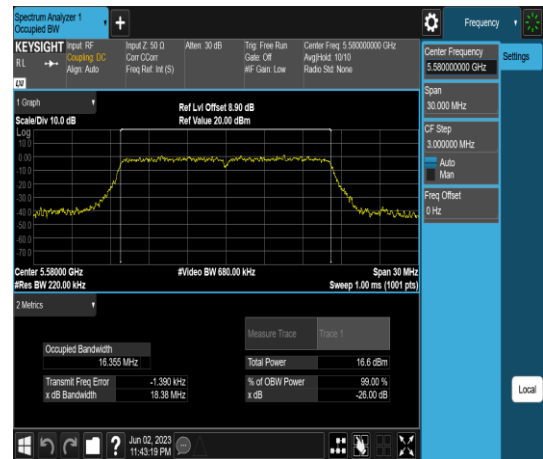
Report No.: TMWK2201000245KR

## UNII-2c IEEE 802.11a mode-chain 0

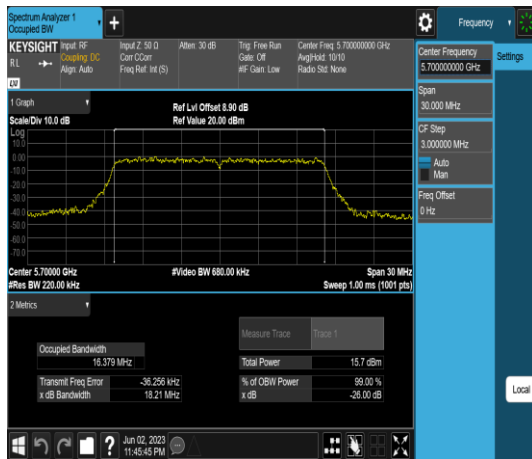
### 5500 MHz



### 5580 MHz



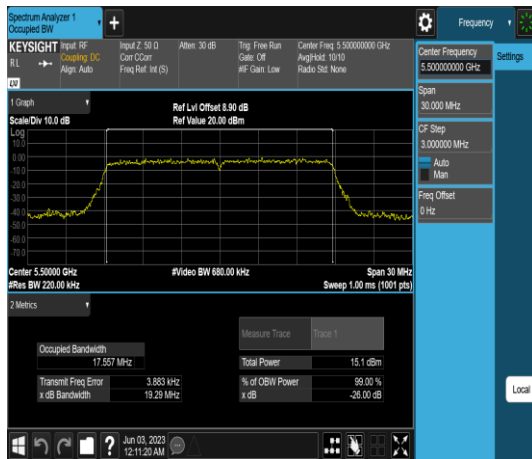
### 5700 MHz



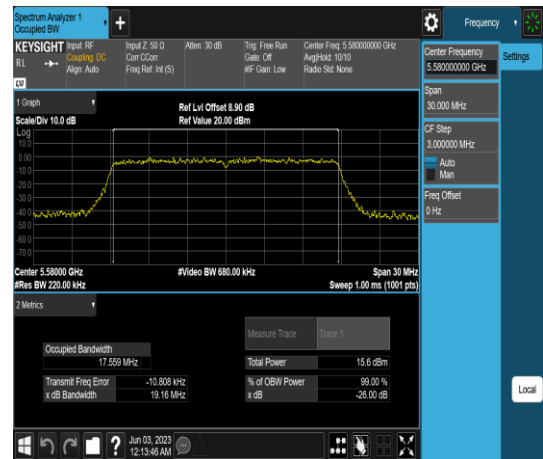
Report No.: TMWK2201000245KR

## UNII-2c IEEE 802.11n HT20 mode-chain 0

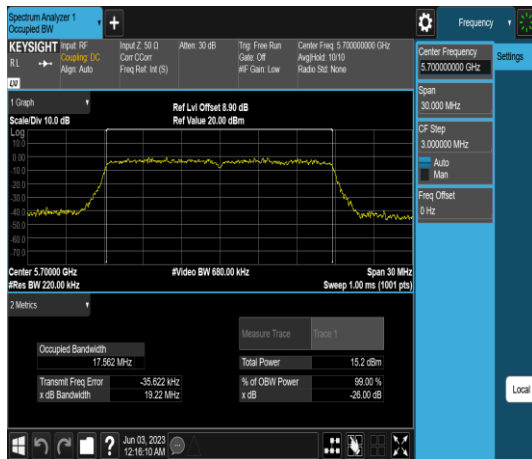
### 5500 MHz



### 5580 MHz



### 5700 MHz



Report No.: TMWK2201000245KR

