



Project No: TM-2201000101P  
Report No.: TMWK2201000141KR

FCC ID: KA2R18A1

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Rev.: 02

# RADIO TEST REPORT

## FCC 47 CFR PART 15 SUBPART E

|                                 |  |
|---------------------------------|--|
| <b>Test Standard</b>            | <b>FCC Part 15.407</b>   |
| <b>Product name</b>             | <b>AX1800 Wi-Fi 6 AI Router, AX1800 SMART ROUTER</b>   |
| <b>Brand Name</b>               | <b>D-Link</b>  |
| <b>Model No.</b>                | <b>R18</b>   |
| <b>Test Result</b>              | <b>Pass</b>  |
| <b>Statements of Conformity</b> | <b>Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.</b> |

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:

David Huang  
Supervisor

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。

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### Revision History

| Rev. | Issue Date     | Revisions                        | Effect Page     | Revised By |
|------|----------------|----------------------------------|-----------------|------------|
| 00   | July 19, 2022  | Initial Issue                    | ALL             | Doris Chu  |
| 01   | July 27, 2022  | See the following Note Rev. (01) | P.125, 129, 133 | Doris Chu  |
| 02   | August 4, 2022 | See the following Note Rev. (02) | ALL             | Doris Chu  |

Rev. (01)

1. Revised output power in section 4.3.

Rev. (02)

1. Remove Meteorological frequency bands data.

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## 1. GENERAL INFORMATION

### 1.1 EUT INFORMATION

|                          |   |
|--------------------------|---|
| <b>Applicant</b>         | D-Link Corporation<br>14420 Myford Road Suite 100 Irvine California United States<br>92606                  |
| <b>Manufacturer</b>      | D-Link Corporation<br>14420 Myford Road Suite 100 Irvine California United States<br>92606                  |
| <b>Equipment</b>         | AX1800 Wi-Fi 6 AI Router, AX1800 SMART ROUTER   |
| <b>Model No.</b>         | R18   |
| <b>Model Discrepancy</b> | N/A   |
| <b>Trade Name</b>        | D-Link  |
| <b>Received Date</b>     | January 17, 2022  |
| <b>Date of Test</b>      | February 9 ~ June 22, 2022  |
| <b>Power Operation</b>   | Power from Power Adapter<br>AMIGO / AMS159A-1201000FU<br>I/P: 100-240Vac, 50-60Hz, 0.5A<br>O/P: 12Vdc, 1.0A |

**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 HT 20 MHz   | 5180 ~ 5240 MHz |
|                 | IEEE 802.11ac VHT 20 MHz | 5180 ~ 5240 MHz |
|                 | IEEE 802.11n HT 40 MHz   | 5190 ~ 5230 MHz |
|                 | IEEE 802.11ac VHT 40 MHz | 5190 ~ 5230 MHz |
|                 | IEEE 802.11ac VHT 80 MHz | 5210 MHz        |
|                 | IEEE 802.11ax HE 20 MHz  | 5180 ~ 5240 MHz |
|                 | IEEE 802.11ax HE 40 MHz  | 5190 ~ 5230 MHz |
|                 | IEEE 802.11ax HE 80 MHz  | 5210 MHz        |
|                 | <b>UNII-2a</b>           |                 |
|                 | IEEE 802.11a             | 5260 ~ 5320 MHz |
|                 | IEEE 802.11n HT 20 MHz   | 5260 ~ 5320 MHz |
|                 | IEEE 802.11ac VHT 20 MHz | 5260 ~ 5320 MHz |
|                 | IEEE 802.11n HT 40 MHz   | 5270 ~ 5310 MHz |
|                 | IEEE 802.11ac VHT 40 MHz | 5270 ~ 5310 MHz |
|                 | IEEE 802.11ac VHT 80 MHz | 5290 MHz        |
|                 | IEEE 802.11ax HE 20 MHz  | 5260 ~ 5320 MHz |
|                 | IEEE 802.11ax HE 40 MHz  | 5270 ~ 5310 MHz |
|                 | IEEE 802.11ax HE 80 MHz  | 5290 MHz        |
|                 | <b>UNII-2c</b>           |                 |
|                 | IEEE 802.11a             | 5500 ~ 5720 MHz |
|                 | IEEE 802.11n HT 20 MHz   | 5500 ~ 5720 MHz |
|                 | IEEE 802.11ac VHT 20 MHz | 5500 ~ 5720 MHz |
|                 | IEEE 802.11n HT 40 MHz   | 5510 ~ 5710 MHz |
|                 | IEEE 802.11ac VHT 40 MHz | 5510 ~ 5710 MHz |
|                 | IEEE 802.11ac VHT 80 MHz | 5530 ~ 5690 MHz |
|                 | IEEE 802.11ax HE 20 MHz  | 5500 ~ 5720 MHz |
|                 | IEEE 802.11ax HE 40 MHz  | 5510 ~ 5710 MHz |
|                 | IEEE 802.11ax HE 80 MHz  | 5530 ~ 5690 MHz |
|                 | <b>UNII-3</b>            |                 |
|                 | IEEE 802.11a             | 5745 ~ 5825 MHz |
|                 | IEEE 802.11n HT 20 MHz   | 5745 ~ 5825 MHz |
|                 | IEEE 802.11ac VHT 20 MHz | 5745 ~ 5825 MHz |
|                 | IEEE 802.11n HT 40 MHz   | 5755 ~ 5795 MHz |
|                 | IEEE 802.11ac VHT 40 MHz | 5755 ~ 5795 MHz |
|                 | IEEE 802.11ac VHT 80 MHz | 5775 MHz        |
|                 | IEEE 802.11ax HE 20 MHz  | 5745 ~ 5825 MHz |
|                 | IEEE 802.11ax HE 40 MHz  | 5755 ~ 5795 MHz |
|                 | IEEE 802.11ax HE 80 MHz  | 5775 MHz        |



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|                 |  |
|-----------------|--|
| Modulation Type | <ol style="list-style-type: none"><li>1. IEEE 802.11a mode: OFDM</li><li>2. IEEE 802.11n HT 20 MHz mode: OFDM</li><li>3. IEEE 802.11ac VHT 20 MHz mode: OFDM</li><li>4. IEEE 802.11n HT 40 MHz mode: OFDM</li><li>5. IEEE 802.11ac VHT 40 MHz mode: OFDM</li><li>6. IEEE 802.11ac VHT 80 MHz mode: OFDM</li><li>7. IEEE 802.11ax HE 20 MHz mode: OFDMA</li><li>8. IEEE 802.11ax HE 40 MHz mode: OFDMA</li><li>9. IEEE 802.11ax HE 80 MHz mode: OFDMA</li></ol> |
|-----------------|--|

**Remark:**  
Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

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| 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> | <input type="checkbox"/> PIFA <input type="checkbox"/> PCB <input checked="" type="checkbox"/> Dipole <input type="checkbox"/> Coils   |
| <b>Antenna Gain</b>          | Chain 0:<br>5150~5250: Gain: 5.30 dBi<br>5250~5350: Gain: 5.30 dBi<br>5470~5725: Gain: 5.30 dBi<br>5725~5850: Gain: 4.80 dBi<br>Chain 1:<br>5150~5250: Gain: 4.90 dBi<br>5250~5350: Gain: 4.90 dBi<br>5470~5725: Gain: 4.90 dBi<br>5725~5850: Gain: 4.30 dBi<br>Power Directional Gain:<br>5150~5250: Gain: 8.11 dBi<br>5250~5350: Gain: 8.11 dBi<br>5470~5725: Gain: 8.11 dBi<br>5725~5850: Gain: 7.56dBi |
| <b>Antenna Trade / Model</b> | Chain 0: LYNwave / AOX21X-091050-00<br>Chain 1: LYNwave / AOX21X-091051-00   |
| <b>Antenna connector</b>     | MHF compatible   |

**Notes:**

1. Power Directional Gain =  $10 \cdot \log \{ [ 10^{(Ant1/20)} + 10^{(Ant2/20)} + \dots + 10^{(Ant N /20)} ]^2 / N \text{ ANT} \}$  dBi
2. The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.

## 1.4 MEASUREMENT UNCERTAINTY

| PARAMETER                             | UNCERTAINTY |
|---------------------------------------|-------------|
| AC Powerline Conducted Emission       | +/- 2.1183  |
| 3M Semi Anechoic Chamber / 30M~200M   | +/- 4.12    |
| 3M Semi Anechoic Chamber / 200M~1000M | +/- 4.68    |
| 3M Semi Anechoic Chamber / 1G~8G      | +/- 5.18    |
| 3M Semi Anechoic Chamber / 8G~18G     | +/- 5.47    |
| 3M Semi Anechoic Chamber / 18G~26G    | +/- 3.81    |
| 3M Semi Anechoic Chamber / 26G~40G    | +/- 3.87    |
| Channel Bandwidth                     | +/- 1.8006  |
| RF output power                       | +/- 1.8009  |
| Power Spectral density                | +/- 1.7998  |

**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.



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## 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. (R.O.C.)

| Test site          | Test Engineer         | Remark |
|--------------------|-----------------------|--------|
| AC Conduction Room | Jack Chen             | -      |
| Radiation          | Tony Chao, Czerny Lin | -      |
| RF Conducted       | Jack Chen, Allen Shen | -      |

**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 |
| EXA Signal Analyzer    | KEYSIGHT                    | N9010B  | MY59071573    | 05/25/2021       | 05/24/2022      |
| EXA Signal Analyzer    | KEYSIGHT                    | N9010B  | MY55460167    | 09/07/2021       | 09/06/2022      |
| Power Meter            | Anritsu                     | ML2496A | 2136002       | 12/06/2021       | 12/05/2022      |
| Power Seneor           | Anritsu                     | MA2411B | 1911386       | 08/19/2021       | 08/18/2022      |
| Power Seneor           | Anritsu                     | MA2411B | 1911387       | 08/19/2021       | 08/18/2022      |
| Software               | Radio Test Software Ver. 21 |         |               |                  |                 |

| AC Power Line Conducted Emission Test Room |                         |           |               |                  |                 |
|--|-------------------------|-----------|---------------|------------------|-----------------|
| Name of Equipment                          | Manufacturer            | Model     | Serial Number | Calibration Date | Calibration Due |
| CABLE                                      | EMCI                    | CFD300-NL | CERF          | 06/28/2021       | 06/27/2022      |
| EMI Test Receiver                          | R&S                     | ESCI      | 100064        | 07/05/2021       | 07/04/2022      |
| LISN                                       | SCHWARZBECK             | NSLK 8127 | 8127-01068    | 01/17/2022       | 01/16/2023      |
| Software                                   | EZ-EMC(CCS-3A1-CE-wugu) |           |               |                  |                 |

**Remark:**

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

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| 3M 966 Chamber Test Site     |                   |                           |               |                  |                 |
|------------------------------|-------------------|---------------------------|---------------|------------------|-----------------|
| Name of Equipment            | Manufacturer      | Model                     | Serial Number | Calibration Date | Calibration Due |
| Bilog Antenna                | Sunol Sciences    | JB3                       | A030105       | 07/19/2021       | 07/18/2022      |
| Coaxial Cable                | HUBER SUHNER      | SUCOFLEX 104PEA           | 20995         | 02/23/2022       | 02/22/2023      |
| Coaxial Cable                | EMCI              | EMC105                    | 190914+1111   | 09/17/2021       | 09/16/2022      |
| Coaxial Cable                | Woken             | J-1099                    | 201709090004  | 12/23/2021       | 12/22/2022      |
| Digital Thermo-Hygro Meter   | WISEWIND          | 1206                      | D07           | 12/28/2021       | 12/27/2022      |
| High Pass Filters            | MICRO TRONICS     | HPM13195                  | 003           | 02/10/2022       | 02/09/2023      |
| Horn Antenna                 | ETS LINDGREN      | 3116                      | 00026370      | 11/30/2021       | 11/29/2022      |
| Horn Antenna                 | ETS LINDGREN      | 3117                      | 00055165      | 07/29/2021       | 07/28/2022      |
| K Type Cable                 | Huber+Suhner      | SUCOFLEX 102              | 29406/2       | 12/05/2021       | 12/04/2022      |
| Loop Ant                     | COM-POWER         | AL-130                    | 121051        | 04/07/2021       | 04/06/2022      |
| Pre-Amplifier                | EMEC              | EM330                     | 060609        | 02/23/2022       | 02/22/2023      |
| Pre-Amplifier                | HP                | 8449B                     | 3008A00965    | 12/24/2021       | 12/23/2022      |
| Pre-Amplifier                | MITEQ             | AMF-6F-1800<br>4000-37-8P | 985646        | 09/08/2021       | 09/07/2022      |
| PSA Series Spectrum Analyzer | Agilent           | E4446A                    | MY46180323    | 12/06/2021       | 12/05/2022      |
| Antenna Tower                | CCS               | CC-A-1F                   | N/A           | N.C.R            | N.C.R           |
| Controller                   | CCS               | CC-C-1F                   | N/A           | N.C.R            | N.C.R           |
| Turn Table                   | CCS               | CC-T-1F                   | N/A           | N.C.R            | N.C.R           |
| Software                     | e3 6.11-20180419c |                           |               |                  |                 |

**Remark:**

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

| Dynamic Frequency Selection |   |                  |                           |                  |                 |
|-----------------------------|---|------------------|---------------------------|------------------|-----------------|
| Name of Equipment           | Manufacturer                              | Model            | Serial Number             | Calibration Date | Calibration Due |
| Attenuator                  | E-INSTRUMENT                              | EPA-600H         | EC1400050                 | 07/08/2021       | 07/07/2022      |
| Coaxial Cable               | Woken                                     | WC12             | DC004                     | 06/28/2021       | 06/27/2022      |
| Directional Couplers        | Agilent                                   | 87301D           | MY44350252                | 07/26/2021       | 07/25/2022      |
| Power Divider               | Marvelous Microwave                       | MVE8586          | 16011206                  | 07/20/2021       | 07/19/2022      |
| Power Divider               | Solvang Technology                        | STI08-0015       | 008                       | 07/26/2021       | 07/25/2022      |
| Vector Signal Generator     | KEYSIGHT                                  | N5182B/N5182BX07 | MY61252828/<br>MY59362552 | 02/22/2022       | 02/22/2023      |
| Spectrum Analyzer           | R&S                                       | FSU 26           | 100258                    | 06/17/2021       | 06/16/2022      |
| Software                    | GPIBSHOT, DFS-Aggregate-Time FSU, LANLOOK |                  |                           |                  |                 |

**Remark:** Each piece of equipment is scheduled for calibration once a year.

## 1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

| EUT Accessories Equipment |           |        |         |            |        |
|---------------------------|-----------|--------|---------|------------|--------|
| No.                       | Equipment | Brand  | Model   | Series No. | FCC ID |
| 1                         | Lan Cable | Nienyi | NYS4709 | N/A        | N/A    |

| Support Equipment |               |         |               |            |               |
|-------------------|---------------|---------|---------------|------------|---------------|
| No.               | Equipment     | Brand   | Model         | Series No. | FCC ID        |
| 1                 | NB(J)         | TOSHIBA | PT345T-00L002 | N/A        | PD97260H      |
| 2                 | wireless card | Netgear | A6210         | N/A        | PY313400249   |
| 3                 | NB            | Lenovo  | 20175         | N/A        | TX2-RTL8723AS |
| 4                 | AP            | ASUS    | RT-AX88U      | N/A        | MSQ-RTAXHP00  |

## 1.8 TEST METHODOLOGY AND APPLIED STANDARDS

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.

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## 2. TEST SUMMARY

| FCC Standard Sec. | Chapter | Test Item                   | Result |
|-------------------|---------|-----------------------------|--------|
| 15.203            | 1.3     | Antenna Requirement         | Pass   |
| 15.207            | 4.1     | AC Conducted Emission       | Pass   |
| 15.407(a)         | 4.2     | 26dB Bandwidth              | Pass   |
| 15.407(e)         | 4.2     | 6dB Bandwidth               | Pass   |
| 2.1049            | 4.2     | Occupied Bandwidth (99%)    | Pass   |
| 15.407(a)         | 4.3     | Output Power Measurement    | Pass   |
| 15.407(a)         | 4.4     | Power Spectral Density      | Pass   |
| 15.407(b)         | 4.5     | Radiation Band Edge         | Pass   |
| 15.407(b)         | 4.5     | Radiation Spurious Emission | Pass   |
| 15.407(h)         | 5       | Dynamic Frequency Selection | Pass   |

### Summary of Dynamic Frequency of Selection Test For Master

| UNII                           | Description                       | Limit  | Result |
|--------------------------------|-----------------------------------|--|--------|
| U-NII Band 2-A<br>5250-5350MHz | Channel Availability Check Time   | > 60sec  | Pass   |
|                                | U-NII Detection Bandwidth         | > 100% of the U-NII 99% transmission power bandwidth           | Pass   |
|                                | Statistical Performance Check     | Type 1,2,3,4 >= 60%<br>Type 1~4 and 5 >= 80%<br>Type 6 >= 70%  | Pass   |
|                                | Channel Move Time                 | < 10 sec   | Pass   |
|                                | Channel Closing Transmission Time | < 200 ms +<br>aggregate of 60 ms over<br>remaining 10 s period | Pass   |
|                                | Non-Occupancy Period Test         | > 30 minutes   | Pass   |
| U-NII Band 2-C<br>5470-5725MHz | Channel Availability Check Time   | > 60sec  | Pass   |
|                                | U-NII Detection Bandwidth         | > 100% of the U-NII 99% transmission power bandwidth           | Pass   |
|                                | Statistical Performance Check     | Type 1,2,3,4 >= 60%<br>Type 1~4 and 5 >= 80%<br>Type 6 >= 70%  | Pass   |
|                                | Channel Move Time                 | < 10 sec   | Pass   |
|                                | Channel Closing Transmission Time | < 200 ms +<br>aggregate of 60 ms over<br>remaining 10 s period | Pass   |
|                                | Non-Occupancy Period Test         | > 30 minutes   | Pass   |

### 3. DESCRIPTION OF TEST MODES

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

| <p>Operation mode</p>      | <ol style="list-style-type: none"> <li>1. IEEE 802.11a mode: 6Mbps</li> <li>2. IEEE 802.11n HT 20 MHz mode: MCS0</li> <li>3. IEEE 802.11ac VHT 20 MHz mode: MCS0</li> <li>4. IEEE 802.11n HT 40 MHz mode: MCS0</li> <li>5. IEEE 802.11ac VHT 40 MHz mode: MCS0</li> <li>6. IEEE 802.11ac VHT 80 MHz mode: MCS0</li> <li>7. IEEE 802.11ax HE 20 mode: MCS0</li> <li>8. IEEE 802.11ax HE 40 mode: MCS0</li> <li>9. IEEE 802.11ax HE 80 mode: MCS0</li> </ol>  |                        |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|----------------------------|---|------------------------|------|-----------------------|---------|--------------|------------------|------------------------|------------------|--------------------------|------------------|------------------------|------------|--------------------------|------------|--------------------------|------|-------------------------|------------------|-------------------------|------------|----------|--------------|------------------|------------------------|------------------|--------------------------|------------------|------------------------|------------|--------------------------|------------|--------------------------|------|-------------------------|------------------|-------------------------|------------|----------|--------------|------------------------|------------------------|------------------------|--------------------------|------------------------|------------------------|------------------------|--------------------------|------------------------|--------------------------|------------|-------------------------|------------------------|-------------------------|------------------------|---------|--------------|------------------|------------------------|------------------|--------------------------|------------------|------------------------|------------|--------------------------|------------|--------------------------|------|-------------------------|------------------|-------------------------|------------|--|-------------------------|------|
| <p>Operating Frequency</p> | <table border="1"> <thead> <tr> <th></th> <th>Mode</th> <th>Frequency Range (MHz)</th> </tr> </thead> <tbody> <tr> <td rowspan="8">U-NII-1</td> <td>IEEE 802.11a</td> <td>5180, 5220, 5240</td> </tr> <tr> <td>IEEE 802.11n HT 20 MHz</td> <td>5180, 5220, 5240</td> </tr> <tr> <td>IEEE 802.11ac VHT 20 MHz</td> <td>5180, 5220, 5240</td> </tr> <tr> <td>IEEE 802.11n HT 40 MHz</td> <td>5190, 5230</td> </tr> <tr> <td>IEEE 802.11ac VHT 40 MHz</td> <td>5190, 5230</td> </tr> <tr> <td>IEEE 802.11ac VHT 80 MHz</td> <td>5210</td> </tr> <tr> <td>IEEE 802.11ax HE 20 MHz</td> <td>5180, 5220, 5240</td> </tr> <tr> <td>IEEE 802.11ax HE 40 MHz</td> <td>5190, 5230</td> </tr> <tr> <td rowspan="8">U-NII-2a</td> <td>IEEE 802.11a</td> <td>5260, 5300, 5320</td> </tr> <tr> <td>IEEE 802.11n HT 20 MHz</td> <td>5260, 5300, 5320</td> </tr> <tr> <td>IEEE 802.11ac VHT 20 MHz</td> <td>5260, 5300, 5320</td> </tr> <tr> <td>IEEE 802.11n HT 40 MHz</td> <td>5270, 5310</td> </tr> <tr> <td>IEEE 802.11ac VHT 40 MHz</td> <td>5270, 5310</td> </tr> <tr> <td>IEEE 802.11ac VHT 80 MHz</td> <td>5290</td> </tr> <tr> <td>IEEE 802.11ax HE 20 MHz</td> <td>5260, 5300, 5320</td> </tr> <tr> <td>IEEE 802.11ax HE 40 MHz</td> <td>5270, 5310</td> </tr> <tr> <td rowspan="8">U-NII-2c</td> <td>IEEE 802.11a</td> <td>5500, 5580, 5700, 5720</td> </tr> <tr> <td>IEEE 802.11n HT 20 MHz</td> <td>5500, 5580, 5700, 5720</td> </tr> <tr> <td>IEEE 802.11ac VHT 20 MHz</td> <td>5500, 5580, 5700, 5720</td> </tr> <tr> <td>IEEE 802.11n HT 40 MHz</td> <td>5510, 5550, 5670, 5710</td> </tr> <tr> <td>IEEE 802.11ac VHT 40 MHz</td> <td>5510, 5550, 5670, 5710</td> </tr> <tr> <td>IEEE 802.11ac VHT 80 MHz</td> <td>5530, 5690</td> </tr> <tr> <td>IEEE 802.11ax HE 20 MHz</td> <td>5500, 5580, 5700, 5720</td> </tr> <tr> <td>IEEE 802.11ax HE 40 MHz</td> <td>5510, 5550, 5670, 5710</td> </tr> <tr> <td rowspan="8">U-NII-3</td> <td>IEEE 802.11a</td> <td>5745, 5785, 5825</td> </tr> <tr> <td>IEEE 802.11n HT 20 MHz</td> <td>5745, 5785, 5825</td> </tr> <tr> <td>IEEE 802.11ac VHT 20 MHz</td> <td>5745, 5785, 5825</td> </tr> <tr> <td>IEEE 802.11n HT 40 MHz</td> <td>5755, 5795</td> </tr> <tr> <td>IEEE 802.11ac VHT 40 MHz</td> <td>5755, 5795</td> </tr> <tr> <td>IEEE 802.11ac VHT 80 MHz</td> <td>5775</td> </tr> <tr> <td>IEEE 802.11ax HE 20 MHz</td> <td>5745, 5785, 5825</td> </tr> <tr> <td>IEEE 802.11ax HE 40 MHz</td> <td>5755, 5795</td> </tr> <tr> <td></td> <td>IEEE 802.11ax HE 80 MHz</td> <td>5775</td> </tr> </tbody> </table> |                        | Mode | Frequency Range (MHz) | U-NII-1 | IEEE 802.11a | 5180, 5220, 5240 | IEEE 802.11n HT 20 MHz | 5180, 5220, 5240 | IEEE 802.11ac VHT 20 MHz | 5180, 5220, 5240 | IEEE 802.11n HT 40 MHz | 5190, 5230 | IEEE 802.11ac VHT 40 MHz | 5190, 5230 | IEEE 802.11ac VHT 80 MHz | 5210 | IEEE 802.11ax HE 20 MHz | 5180, 5220, 5240 | IEEE 802.11ax HE 40 MHz | 5190, 5230 | U-NII-2a | IEEE 802.11a | 5260, 5300, 5320 | IEEE 802.11n HT 20 MHz | 5260, 5300, 5320 | IEEE 802.11ac VHT 20 MHz | 5260, 5300, 5320 | IEEE 802.11n HT 40 MHz | 5270, 5310 | IEEE 802.11ac VHT 40 MHz | 5270, 5310 | IEEE 802.11ac VHT 80 MHz | 5290 | IEEE 802.11ax HE 20 MHz | 5260, 5300, 5320 | IEEE 802.11ax HE 40 MHz | 5270, 5310 | U-NII-2c | IEEE 802.11a | 5500, 5580, 5700, 5720 | IEEE 802.11n HT 20 MHz | 5500, 5580, 5700, 5720 | IEEE 802.11ac VHT 20 MHz | 5500, 5580, 5700, 5720 | IEEE 802.11n HT 40 MHz | 5510, 5550, 5670, 5710 | IEEE 802.11ac VHT 40 MHz | 5510, 5550, 5670, 5710 | IEEE 802.11ac VHT 80 MHz | 5530, 5690 | IEEE 802.11ax HE 20 MHz | 5500, 5580, 5700, 5720 | IEEE 802.11ax HE 40 MHz | 5510, 5550, 5670, 5710 | U-NII-3 | IEEE 802.11a | 5745, 5785, 5825 | IEEE 802.11n HT 20 MHz | 5745, 5785, 5825 | IEEE 802.11ac VHT 20 MHz | 5745, 5785, 5825 | IEEE 802.11n HT 40 MHz | 5755, 5795 | IEEE 802.11ac VHT 40 MHz | 5755, 5795 | IEEE 802.11ac VHT 80 MHz | 5775 | IEEE 802.11ax HE 20 MHz | 5745, 5785, 5825 | IEEE 802.11ax HE 40 MHz | 5755, 5795 |  | IEEE 802.11ax HE 80 MHz | 5775 |
|                            | Mode  | Frequency Range (MHz)  |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
| U-NII-1                    | IEEE 802.11a  | 5180, 5220, 5240       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11n HT 20 MHz  | 5180, 5220, 5240       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 20 MHz  | 5180, 5220, 5240       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11n HT 40 MHz  | 5190, 5230             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 40 MHz  | 5190, 5230             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 80 MHz  | 5210                   |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ax HE 20 MHz   | 5180, 5220, 5240       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ax HE 40 MHz   | 5190, 5230             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
| U-NII-2a                   | IEEE 802.11a  | 5260, 5300, 5320       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11n HT 20 MHz  | 5260, 5300, 5320       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 20 MHz  | 5260, 5300, 5320       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11n HT 40 MHz  | 5270, 5310             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 40 MHz  | 5270, 5310             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 80 MHz  | 5290                   |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ax HE 20 MHz   | 5260, 5300, 5320       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ax HE 40 MHz   | 5270, 5310             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
| U-NII-2c                   | IEEE 802.11a  | 5500, 5580, 5700, 5720 |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11n HT 20 MHz  | 5500, 5580, 5700, 5720 |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 20 MHz  | 5500, 5580, 5700, 5720 |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11n HT 40 MHz  | 5510, 5550, 5670, 5710 |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 40 MHz  | 5510, 5550, 5670, 5710 |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 80 MHz  | 5530, 5690             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ax HE 20 MHz   | 5500, 5580, 5700, 5720 |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ax HE 40 MHz   | 5510, 5550, 5670, 5710 |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
| U-NII-3                    | IEEE 802.11a  | 5745, 5785, 5825       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11n HT 20 MHz  | 5745, 5785, 5825       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 20 MHz  | 5745, 5785, 5825       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11n HT 40 MHz  | 5755, 5795             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 40 MHz  | 5755, 5795             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ac VHT 80 MHz  | 5775                   |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ax HE 20 MHz   | 5745, 5785, 5825       |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ax HE 40 MHz   | 5755, 5795             |      |                       |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |          |              |                        |                        |                        |                          |                        |                        |                        |                          |                        |                          |            |                         |                        |                         |                        |         |              |                  |                        |                  |                          |                  |                        |            |                          |            |                          |      |                         |                  |                         |            |  |                         |      |
|                            | IEEE 802.11ax HE 80 MHz   | 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 system support 802.11a/n ht20/n ht40/ac vht20/40/80/ax he 20/40/80, the ht20/ht40 were reduced since the identical parameters with 802.11ac vht20 and vht40.
3. The worst-case data rates are determined to be as follows for each mode based upon investigations by measuring the average power and PSD across all data rates, bandwidths, and modulations. The device supports SISO and MIMO at 802.11a/n/ac/ax mode, per pre-test, MIMO 2TX mode was the worst and reported.
4. The device supports indoor access points and client devices. Both modes have evaluation power and PSD. Since the power of indoor access points is greater than the client device, the client device will be exempt from bandwidth and radiation tests.
5. The EUT support Beamforming off and beamforming on mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.

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### 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   |
| Worst Mode                       | <input checked="" type="checkbox"/> Mode 1 <input 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  |
| Worst Mode                             | <input checked="" type="checkbox"/> Mode 1 <input 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 checked="" 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 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   |
| Worst Mode                             | <input checked="" type="checkbox"/> Mode 1 <input type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4 |

*Remark:*

1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(X-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.



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### 3.3 EUT DUTY CYCLE

#### BFM OFF- Master

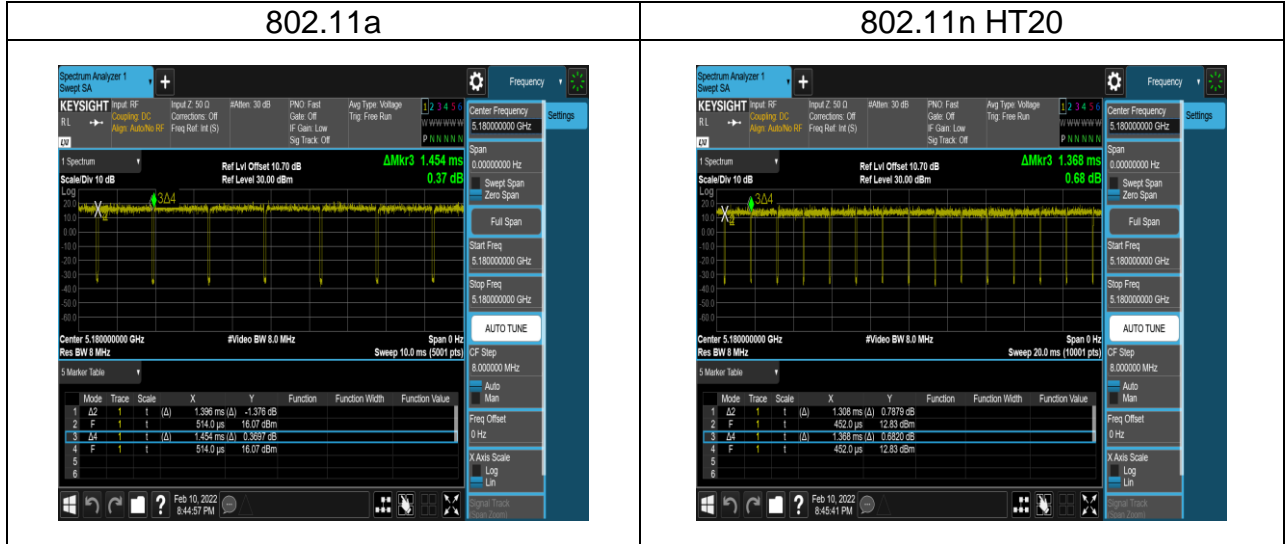
Temperature: 16.5 ~ 23.6°C

Test date: February 10 ~ March 7, 2022

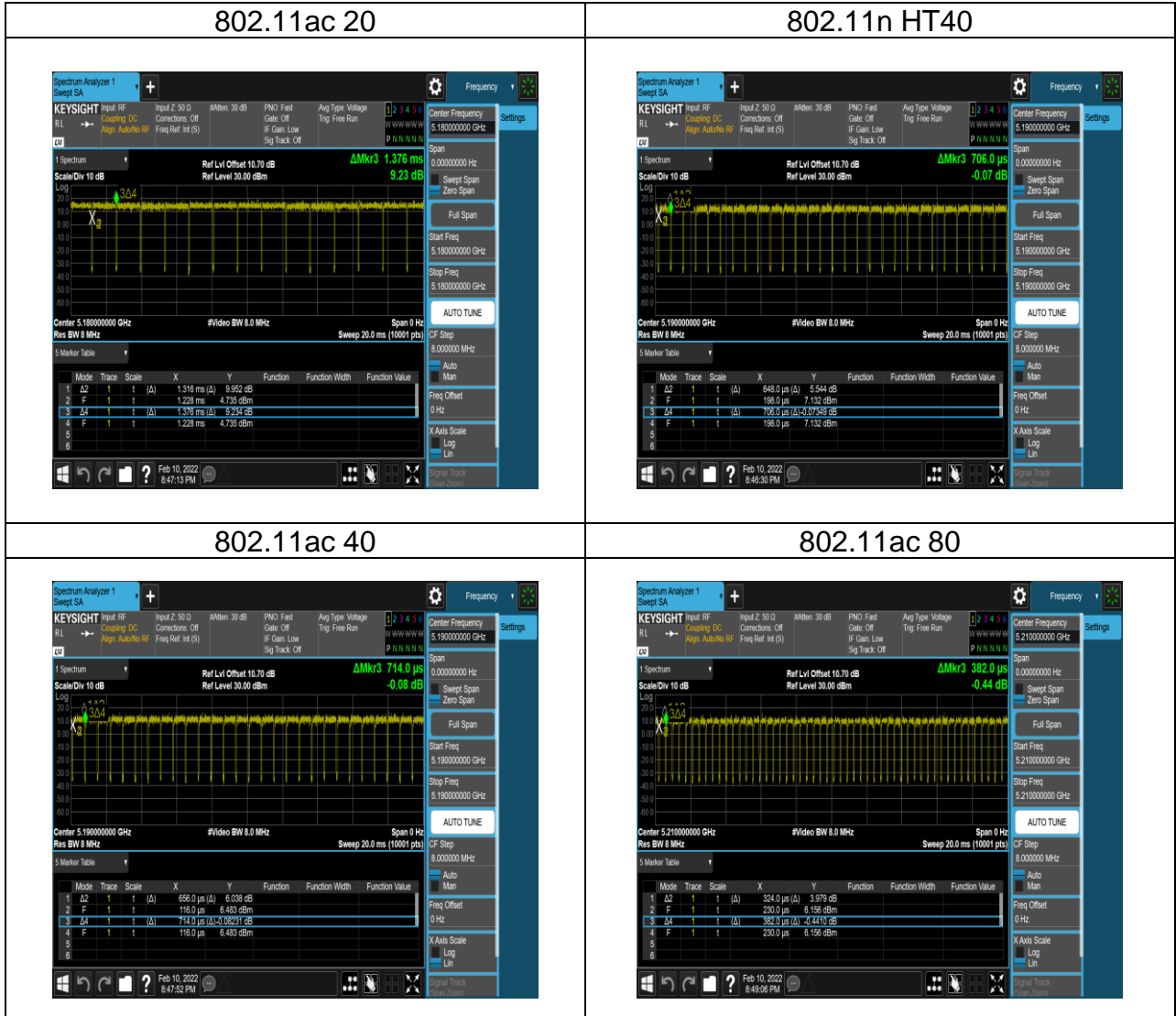
Humidity: 53 ~ 68% RH

Tested by: Jack Chen

| Duty Cycle    |                |  |           |                   |
|---------------|----------------|--|-----------|-------------------|
| Configuration | Duty Cycle (%) | Duty Factor (dB)<br>=10*log (1/Duty Cycle) | 1/T (kHz) | VBW setting (kHz) |
| 802.11a       | 96.01          | 0.18                                       | 0.72      | 1.00              |
| 802.11n_20    | 95.61          | 0.19                                       | 0.76      | 1.00              |
| 802.11ac_20   | 95.64          | 0.19                                       | 0.76      | 1.00              |
| 802.11n_40    | 91.78          | 0.37                                       | 1.54      | 2.00              |
| 802.11ac_40   | 91.88          | 0.37                                       | 1.52      | 2.00              |
| 802.11ac_80   | 84.82          | 0.72                                       | 3.09      | 4.00              |
| 802.11ax_20   | 94.66          | 0.24                                       | 0.97      | 1.00              |
| 802.11ax_40   | 90.40          | 0.44                                       | 1.83      | 2.00              |
| 802.11ax_80   | 84.18          | 0.75                                       | 3.36      | 4.00              |

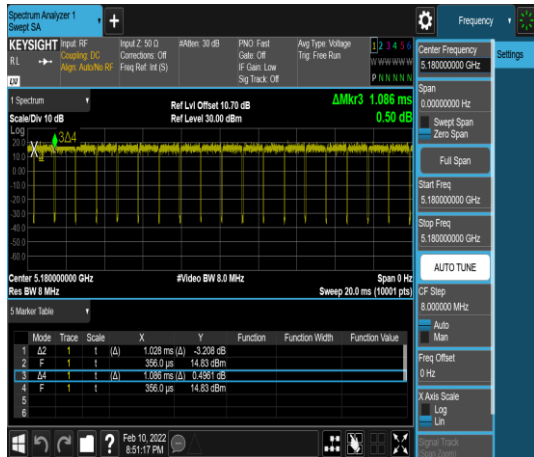


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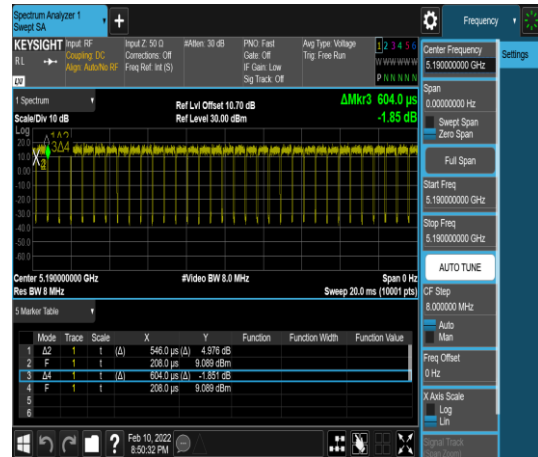


Report No.: TMWK2201000141KR

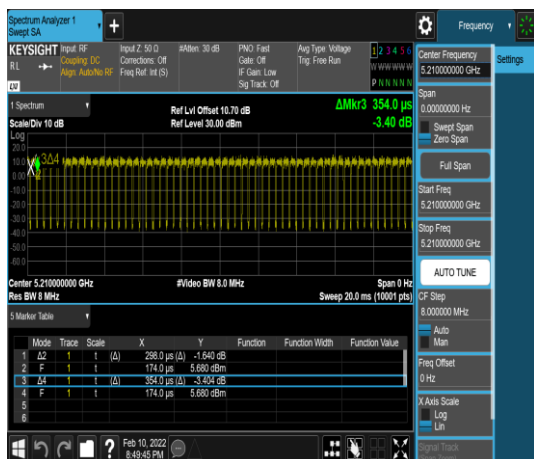
### 802.11ax 20



### 802.11ax 40



### 802.11ax 80



Report No.: TMWK2201000141KR

## 4. TEST RESULT

### 4.1 AC POWER LINE CONDUCTED EMISSION

#### 4.1.1 Test Limit

According to §15.207(a),

| Frequency Range (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        |

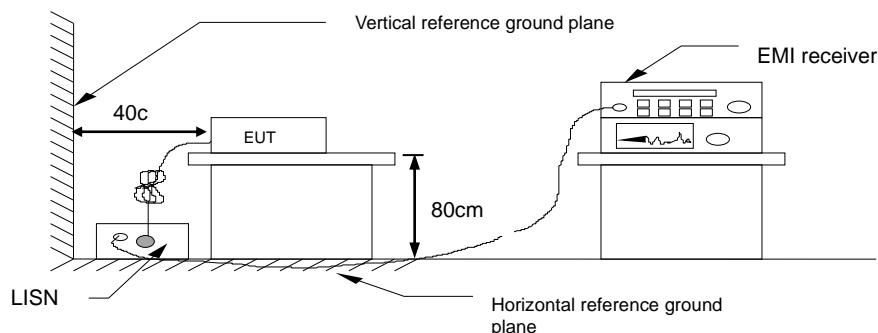
\* Decreases with the logarithm of the frequency.

#### 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

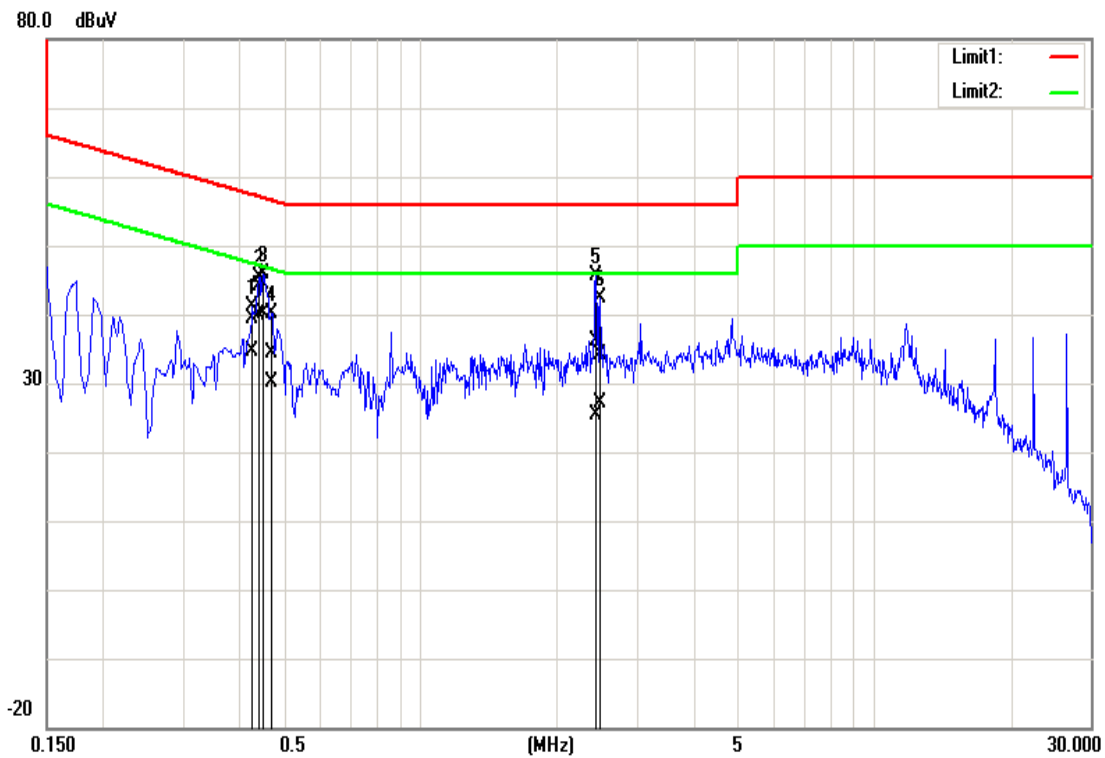


#### 4.1.4 Test Result

Pass.

## Test Data

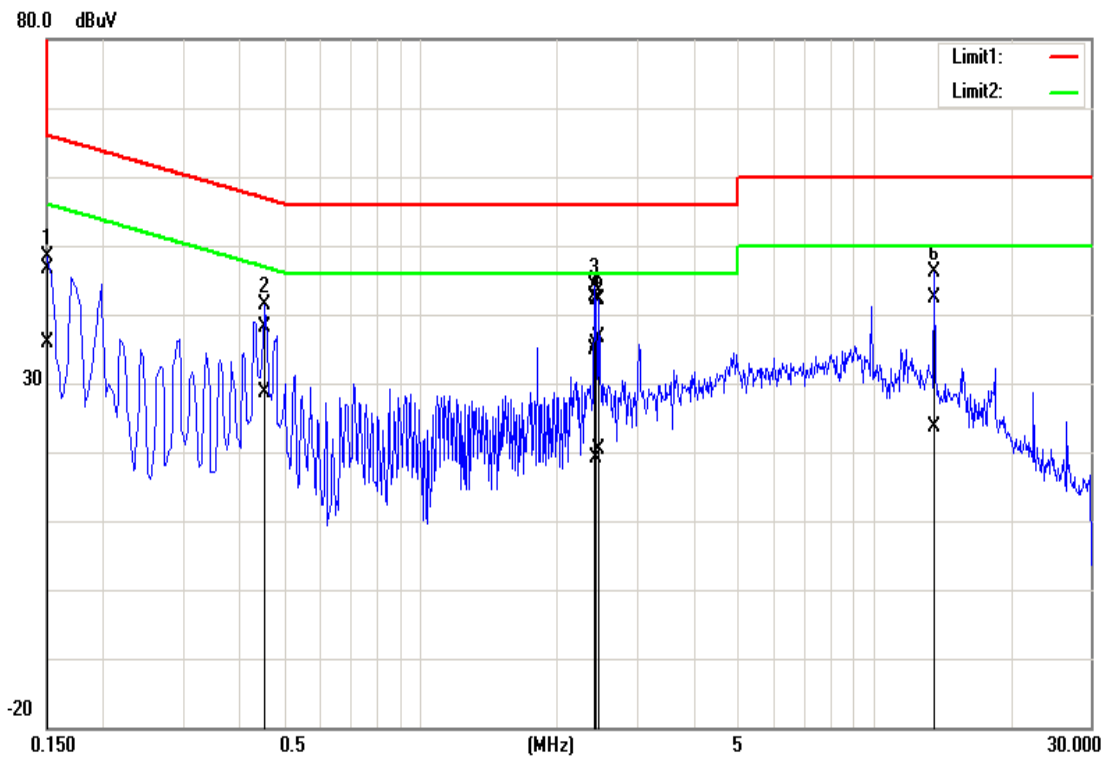
|               |              |               |                  |
|---------------|--------------|---------------|------------------|
| Test Mode:    | Mode 1       | Temp/Hum      | 19.9(°C)/ 58%RH  |
| Phase:        | Line         | Test Date     | February 9, 2022 |
| Test Voltage: | 120Vac, 60Hz | Test Engineer | Jack Chen        |



| 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 |
|-----------------|---------------------------|------------------------|------------------------|--------------------------|-----------------------|-------------------------|----------------------|------------------------|---------------------|--------|
| 0.4260          | 39.16                     | 34.59                  | 0.10                   | 39.26                    | 34.69                 | 57.33                   | 47.33                | -18.07                 | -12.64              | Pass   |
| 0.4420          | 44.13                     | 39.77                  | 0.10                   | 44.23                    | 39.87                 | 57.02                   | 47.02                | -12.79                 | -7.15               | Pass   |
| 0.4500          | 44.34                     | 39.94                  | 0.10                   | 44.44                    | 40.04                 | 56.88                   | 46.88                | -12.44                 | -6.84               | Pass   |
| 0.4700          | 34.28                     | 30.10                  | 0.10                   | 34.38                    | 30.20                 | 56.51                   | 46.51                | -22.13                 | -16.31              | Pass   |
| 2.4460          | 36.05                     | 25.22                  | 0.16                   | 36.21                    | 25.38                 | 56.00                   | 46.00                | -19.79                 | -20.62              | Pass   |
| 2.4900          | 33.88                     | 27.00                  | 0.16                   | 34.04                    | 27.16                 | 56.00                   | 46.00                | -21.96                 | -18.84              | Pass   |

Note: Correction factor = LISN loss + Cable loss.

|               |              |               |                  |
|---------------|--------------|---------------|------------------|
| Test Mode:    | Mode 1       | Temp/Hum      | 19.9(°C)/ 58%RH  |
| Phase:        | Neutral      | Test Date     | February 9, 2022 |
| Test Voltage: | 120Vac, 60Hz | Test Engineer | Jack Chen        |



| 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 |
|-----------------|---------------------------|------------------------|------------------------|--------------------------|-----------------------|-------------------------|----------------------|------------------------|---------------------|--------|
| 0.1500          | 46.64                     | 35.81                  | 0.09                   | 46.73                    | 35.90                 | 66.00                   | 56.00                | -19.27                 | -20.10              | Pass   |
| 0.4540          | 37.96                     | 28.47                  | 0.10                   | 38.06                    | 28.57                 | 56.80                   | 46.80                | -18.74                 | -18.23              | Pass   |
| 2.4180          | 42.39                     | 34.65                  | 0.16                   | 42.55                    | 34.81                 | 56.00                   | 46.00                | -13.45                 | -11.19              | Pass   |
| 2.4380          | 35.58                     | 18.99                  | 0.16                   | 35.74                    | 19.15                 | 56.00                   | 46.00                | -20.26                 | -26.85              | Pass   |
| 2.4740          | 36.49                     | 20.15                  | 0.16                   | 36.65                    | 20.31                 | 56.00                   | 46.00                | -19.35                 | -25.69              | Pass   |
| 13.5660         | 42.04                     | 23.37                  | 0.38                   | 42.42                    | 23.75                 | 60.00                   | 50.00                | -17.58                 | -26.25              | Pass   |

Note: 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. Detoctor = 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%.

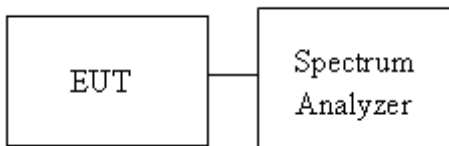
#### 6dB

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. Detoctor = 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  $\geq 3 \times$ RBW

### 4.2.3 Test Setup





Report No.: TMWK2201000141KR

#### 4.2.4 Test Result

##### BFM OFF- Master

Temperature: 16.5 ~ 23.6°C

Test date: February 10 ~ March 7, 2022

Humidity: 53 ~ 68% RH

Tested by: Jack Chen

#### 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            | 16.490                       | 16.475                       | 19.81                       | 19.81                       |
| 44      | 5220            | 16.473                       | 16.500                       | 19.52                       | 19.86                       |
| 48      | 5240            | 16.541                       | 16.457                       | 19.86                       | 20.26                       |

##### Test mode: IEEE 802.11ac VHT20 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            | 17.632                       | 17.594                       | 20.12                       | 20.02                       |
| 44      | 5220            | 17.608                       | 17.634                       | 20.66                       | 20.23                       |
| 48      | 5240            | 17.618                       | 17.638                       | 20.52                       | 19.79                       |

##### Test mode: IEEE 802.11ac VHT40 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            | 35.815                       | 35.791                       | 40.40                       | 39.54                       |
| 46      | 5230            | 36.239                       | 35.987                       | 50.00                       | 49.73                       |

##### 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            | 74.926                       | 75.061                       | 79.12                       | 78.72                       |



Report No.: TMWK2201000141KR

**Test mode: IEEE 802.11ax HE20 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 26dB BW (MHz) | Chain 1 26dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|-----------------------|-----------------------|
| 36      | 5180            | full      | 19.007                 | 18.967                 | 23.64                 | 27.22                 |
| 44      | 5220            | full      | 18.982                 | 18.998                 | 26.95                 | 22.53                 |
| 48      | 5240            | full      | 19.000                 | 18.966                 | 23.86                 | 23.10                 |

**Test mode: IEEE 802.11ax HE40 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 26dB BW (MHz) | Chain 1 26dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|-----------------------|-----------------------|
| 38      | 5190            | full      | 37.448                 | 37.405                 | 39.36                 | 39.13                 |
| 46      | 5230            | full      | 37.880                 | 37.707                 | 50.00                 | 50.00                 |

**Test mode: IEEE 802.11ax HE80 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 26dB BW (MHz) | Chain 1 26dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|-----------------------|-----------------------|
| 42      | 5210            | full      | 76.540                 | 76.676                 | 80.08                 | 79.77                 |

## 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            | 16.452                       | 16.431                       | 19.89                       | 19.64                       |
| 60      | 5300            | 16.440                       | 16.425                       | 19.88                       | 19.53                       |
| 64      | 5320            | 16.463                       | 16.443                       | 20.00                       | 19.79                       |

### Test mode: IEEE 802.11ac VHT20 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            | 17.625                       | 17.605                       | 20.02                       | 20.27                       |
| 60      | 5300            | 17.623                       | 17.579                       | 20.16                       | 20.16                       |
| 64      | 5320            | 17.570                       | 17.611                       | 20.01                       | 19.99                       |

### Test mode: IEEE 802.11ac VHT40 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            | 35.907                       | 35.738                       | 40.00                       | 39.15                       |
| 62      | 5310            | 35.767                       | 35.788                       | 40.02                       | 39.53                       |

### 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            | 75.054                       | 74.996                       | 79.22                       | 78.86                       |

**Test mode: IEEE 802.11ax HE20 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 26dB BW (MHz) | Chain 1 26dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|-----------------------|-----------------------|
| 52      | 5260            | full      | 19.009                 | 18.948                 | 20.91                 | 22.00                 |
| 60      | 5300            | full      | 18.968                 | 18.992                 | 21.91                 | 21.14                 |
| 64      | 5320            | full      | 18.955                 | 18.968                 | 23.95                 | 24.01                 |

**Test mode: IEEE 802.11ax HE40 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 26dB BW (MHz) | Chain 1 26dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|-----------------------|-----------------------|
| 54      | 5270            | full      | 37.553                 | 37.496                 | 39.50                 | 39.35                 |
| 62      | 5310            | full      | 37.544                 | 37.534                 | 39.34                 | 39.29                 |

**Test mode: IEEE 802.11ax HE80 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 26dB BW (MHz) | Chain 1 26dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|-----------------------|-----------------------|
| 58      | 5290            | full      | 76.625                 | 76.507                 | 79.69                 | 79.67                 |

### UNII-2c 5475-5725 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            | 16.450                       | 16.449                       | 19.93                       | 19.60                       |
| 116     | 5580            | 16.472                       | 16.454                       | 20.06                       | 19.81                       |
| 140     | 5700            | 16.491                       | 16.453                       | 19.57                       | 19.84                       |
| 144     | 5720(U-NII 2C)  | 13.216                       | 13.214                       | 14.89                       | 14.84                       |
| 144     | 5720(U-NII 3)   | 3.216                        | 3.214                        | 4.89                        | 4.84                        |

Test mode: IEEE 802.11ac VHT20 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            | 17.593                       | 17.604                       | 20.30                       | 19.82                       |
| 116     | 5580            | 17.587                       | 17.609                       | 20.22                       | 20.01                       |
| 140     | 5700            | 17.620                       | 17.589                       | 20.14                       | 20.16                       |
| 144     | 5720(U-NII 2C)  | 13.801                       | 13.815                       | 15.07                       | 15.05                       |
| 144     | 5720(U-NII 3)   | 3.801                        | 3.815                        | 5.07                        | 5.05                        |

Test mode: IEEE 802.11ac VHT40 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            | 35.826                       | 35.652                       | 39.80                       | 39.40                       |
| 110     | 5550            | 35.802                       | 35.748                       | 39.82                       | 39.21                       |
| 134     | 5670            | 35.836                       | 35.861                       | 40.17                       | 39.49                       |
| 142     | 5710(U-NII 2C)  | 32.889                       | 32.908                       | 34.98                       | 34.88                       |
| 142     | 5710(U-NII 3)   | 2.889                        | 2.908                        | 4.98                        | 4.88                        |

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            | 74.833                       | 75.040                       | 79.02                       | 78.83                       |
| 138     | 5690(U-NII 2C)  | 72.514                       | 72.411                       | 74.57                       | 74.23                       |
| 138     | 5690(U-NII 3)   | 2.514                        | 2.411                        | 4.57                        | 4.23                        |

**Test mode: IEEE 802.11ax HE20 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 26dB BW (MHz) | Chain 1 26dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|-----------------------|-----------------------|
| 100     | 5500            | full      | 18.964                 | 18.958                 | 21.31                 | 22.56                 |
| 116     | 5580            | full      | 18.940                 | 18.958                 | 21.63                 | 22.10                 |
| 140     | 5700            | full      | 18.981                 | 18.955                 | 24.81                 | 21.70                 |
| 144     | 5720(U-NII 2C)  | full      | 14.489                 | 14.476                 | 16.27                 | 15.80                 |
| 144     | 5720(U-NII 3)   | full      | 4.489                  | 4.476                  | 6.27                  | 5.80                  |

**Test mode: IEEE 802.11ax HE40 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 26dB BW (MHz) | Chain 1 26dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|-----------------------|-----------------------|
| 102     | 5510            | full      | 37.572                 | 37.438                 | 39.34                 | 39.23                 |
| 110     | 5550            | full      | 37.557                 | 37.420                 | 39.33                 | 39.05                 |
| 134     | 5670            | full      | 37.533                 | 37.395                 | 39.60                 | 38.96                 |
| 142     | 5710(U-NII 2C)  | full      | 33.711                 | 33.721                 | 34.71                 | 34.64                 |
| 142     | 5710(U-NII 3)   | full      | 3.711                  | 3.721                  | 4.71                  | 4.64                  |

**Test mode: IEEE 802.11ax HE80 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 26dB BW (MHz) | Chain 1 26dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|-----------------------|-----------------------|
| 106     | 5530            | full      | 76.448                 | 76.312                 | 79.77                 | 79.70                 |
| 138     | 5690(U-NII 2C)  | full      | 73.261                 | 73.275                 | 74.81                 | 74.95                 |
| 138     | 5690(U-NII 3)   | full      | 3.261                  | 3.275                  | 4.81                  | 4.95                  |

### UNII-3 5750-5825 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            | 17.936                       | 16.785                       | 15.17                      | 15.70                      |
| 157     | 5785            | 17.809                       | 16.767                       | 16.33                      | 16.29                      |
| 165     | 5825            | 17.330                       | 16.905                       | 15.52                      | 16.06                      |

#### Test mode: IEEE 802.11ac VHT20 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            | 18.851                       | 17.933                       | 17.55                      | 16.93                      |
| 157     | 5785            | 18.532                       | 17.939                       | 12.33                      | 16.33                      |
| 165     | 5825            | 18.410                       | 18.137                       | 16.93                      | 17.33                      |

#### Test mode: IEEE 802.11ac VHT40 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            | 38.427                       | 36.355                       | 25.17                      | 26.43                      |
| 159     | 5795            | 40.383                       | 36.496                       | 25.69                      | 32.55                      |

#### 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            | 74.886                       | 74.755                       | 67.69                      | 66.40                      |

**Test mode: IEEE 802.11ax HE20 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 6dB BW (MHz) | Chain 1 6dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|----------------------|----------------------|
| 149     | 5745            | full      | 20.214                 | 19.244                 | 18.97                | 17.81                |
| 157     | 5785            | full      | 19.936                 | 19.253                 | 18.29                | 17.87                |
| 165     | 5825            | full      | 19.938                 | 19.496                 | 16.95                | 17.96                |

**Test mode: IEEE 802.11ax HE40 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 6dB BW (MHz) | Chain 1 6dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|----------------------|----------------------|
| 151     | 5755            | full      | 37.617                 | 37.626                 | 32.60                | 32.61                |
| 159     | 5795            | full      | 40.329                 | 37.967                 | 35.05                | 32.61                |

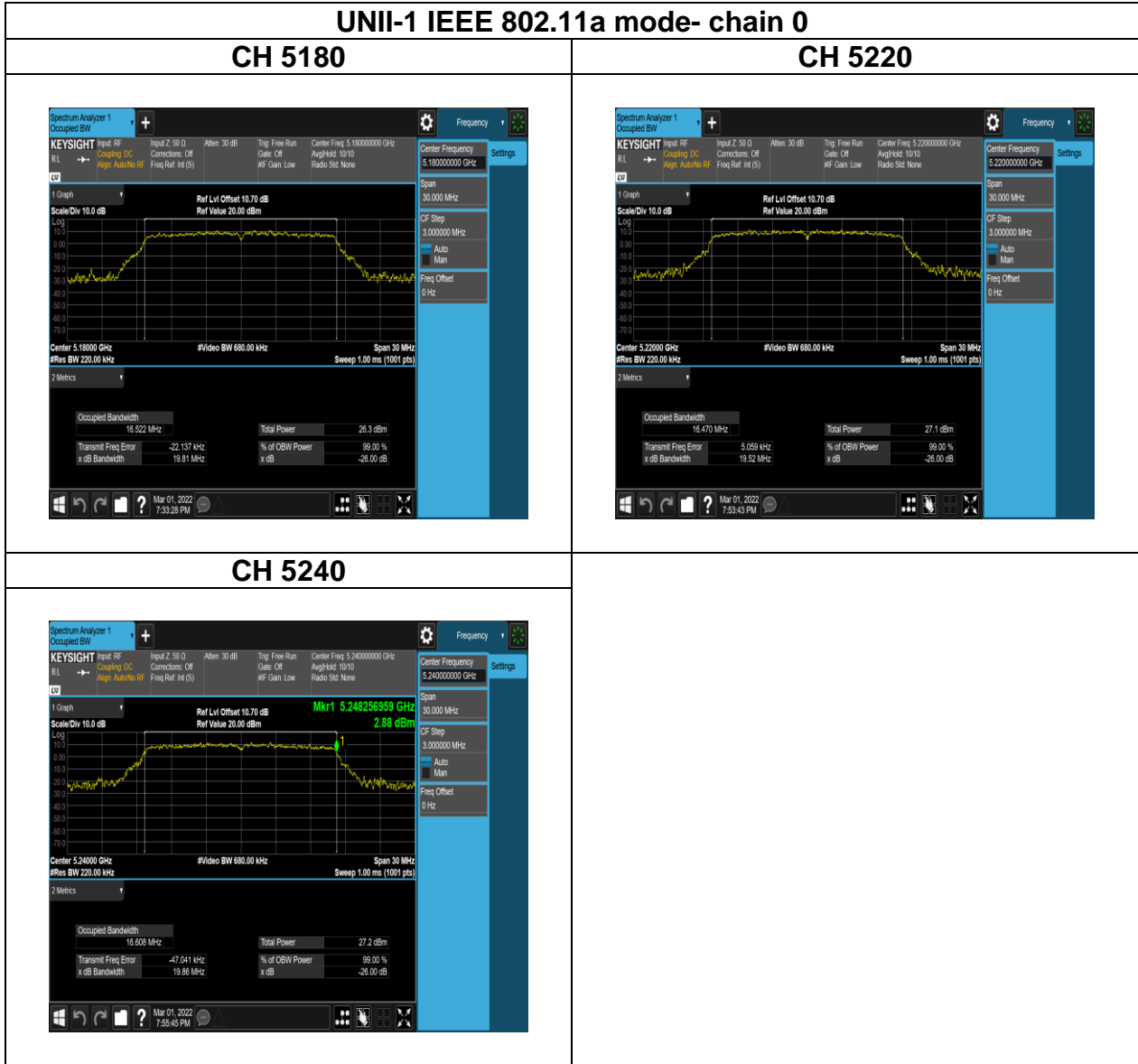
**Test mode: IEEE 802.11ax HE80 mode**

| Channel | Frequency (MHz) | RU config | Chain 0 OBW(99%) (MHz) | Chain 1 OBW(99%) (MHz) | Chain 0 6dB BW (MHz) | Chain 1 6dB BW (MHz) |
|---------|-----------------|-----------|------------------------|------------------------|----------------------|----------------------|
| 155     | 5775            | full      | 76.467                 | 76.424                 | 68.90                | 66.31                |

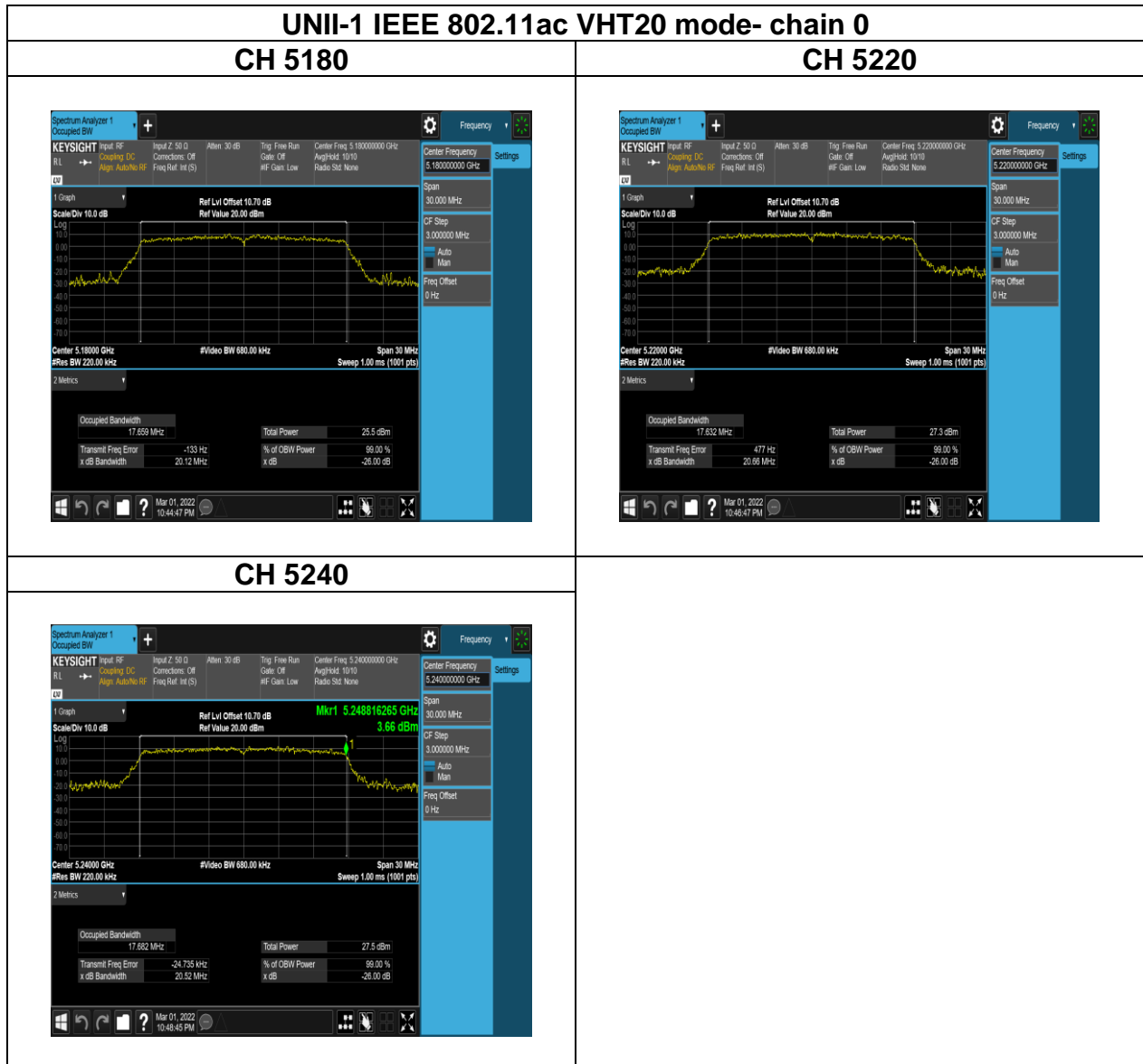


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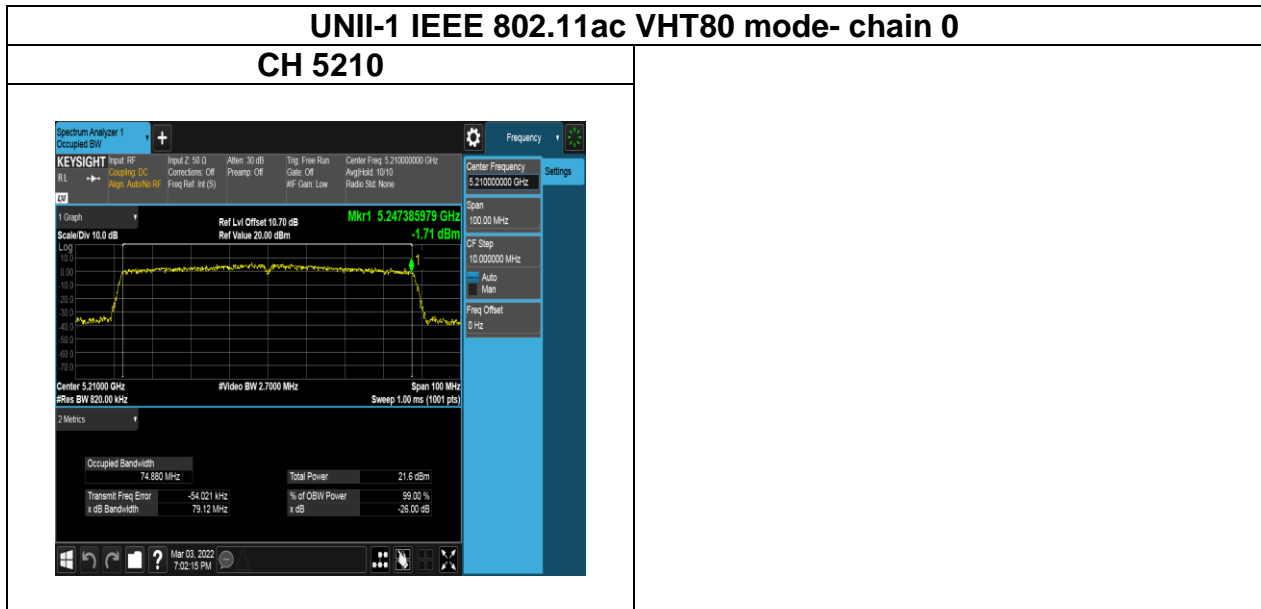
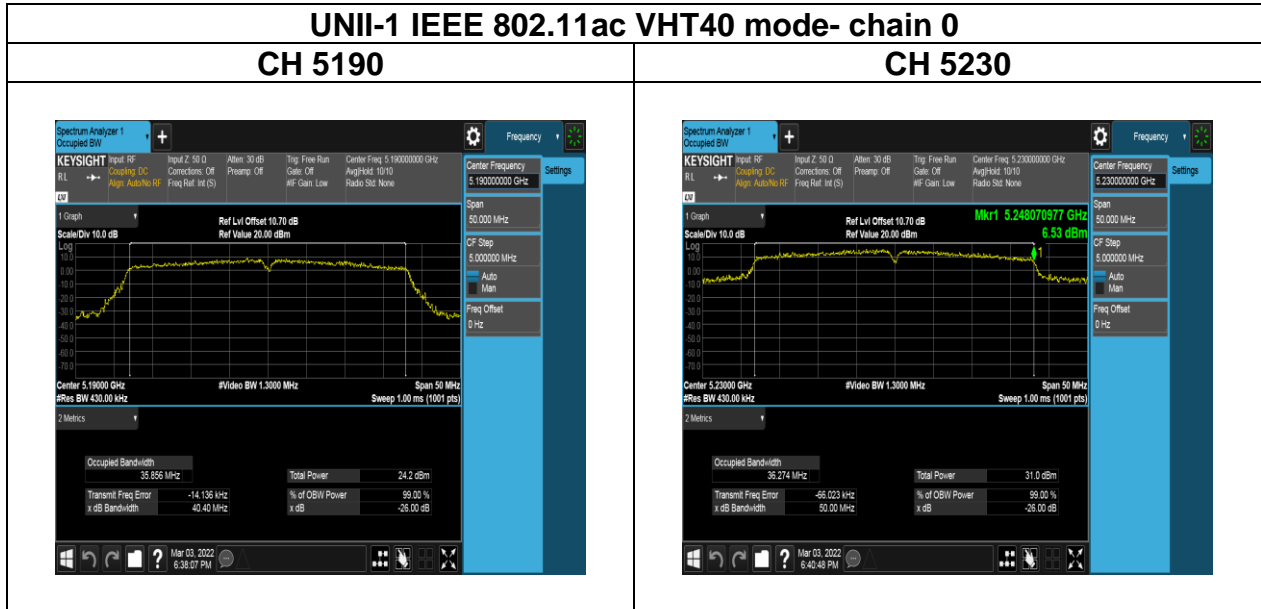
### Test Plots (26dB BANDWIDTH)



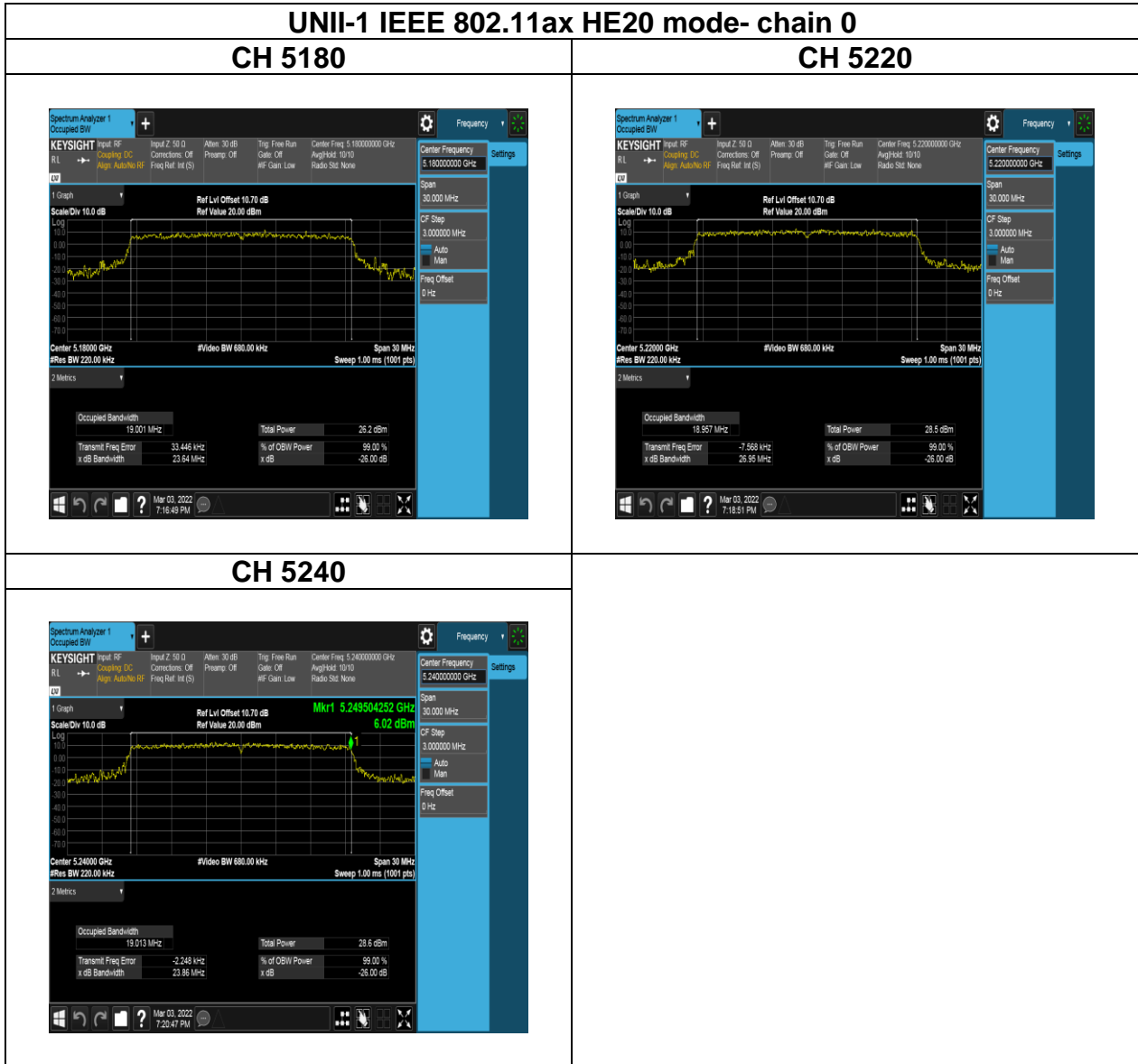
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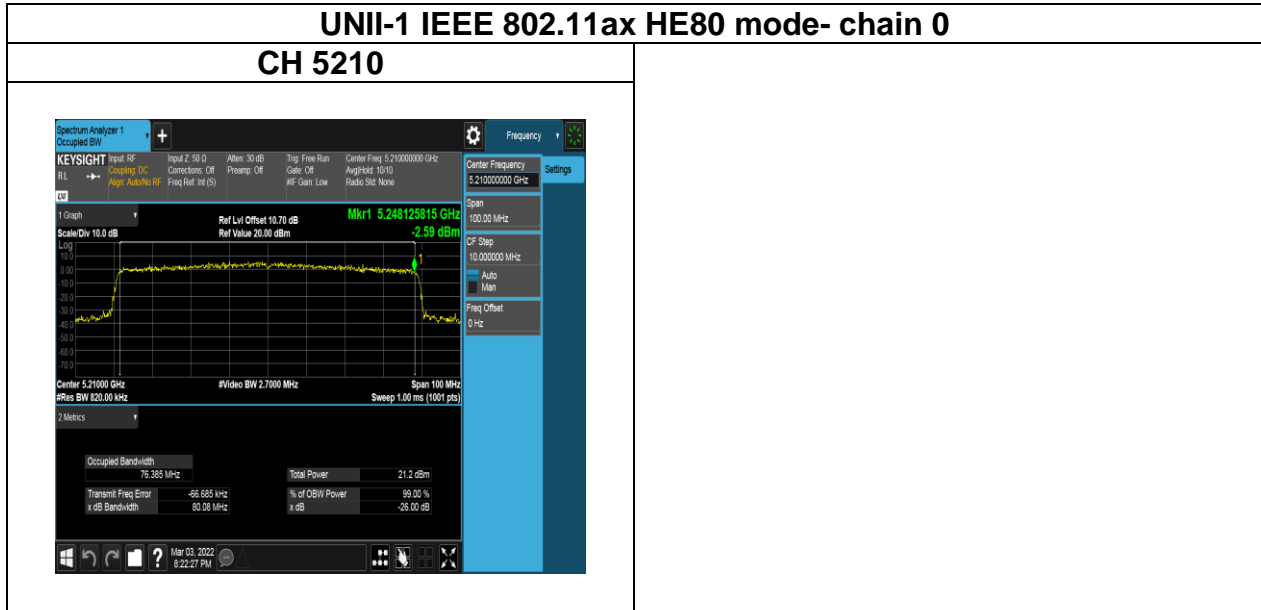
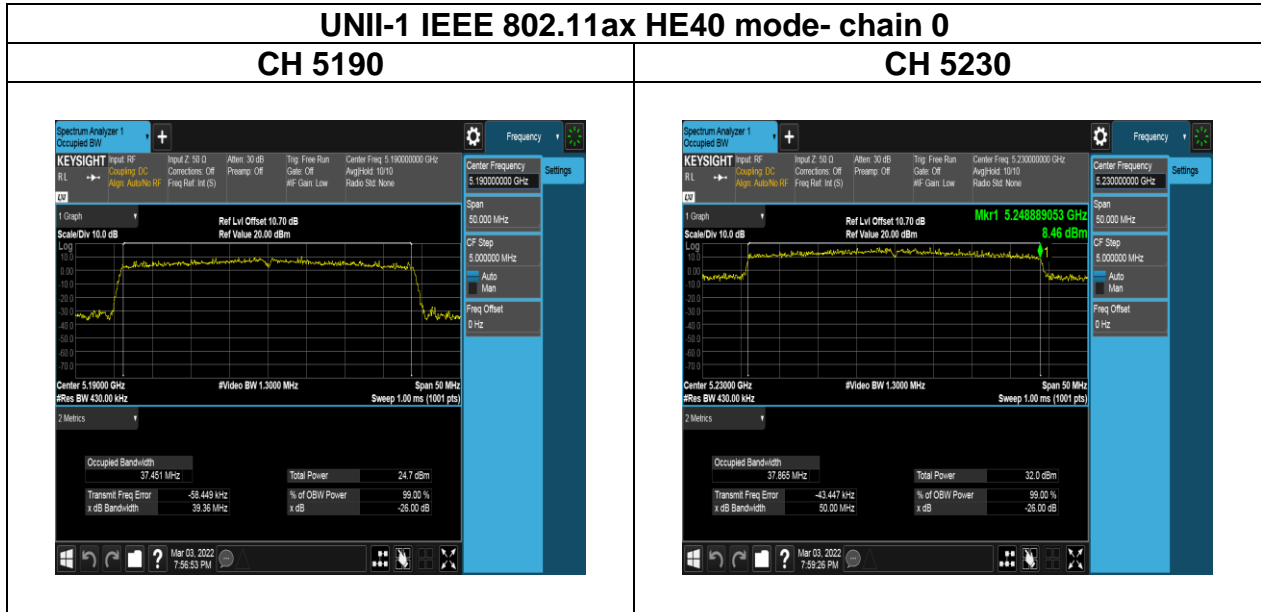
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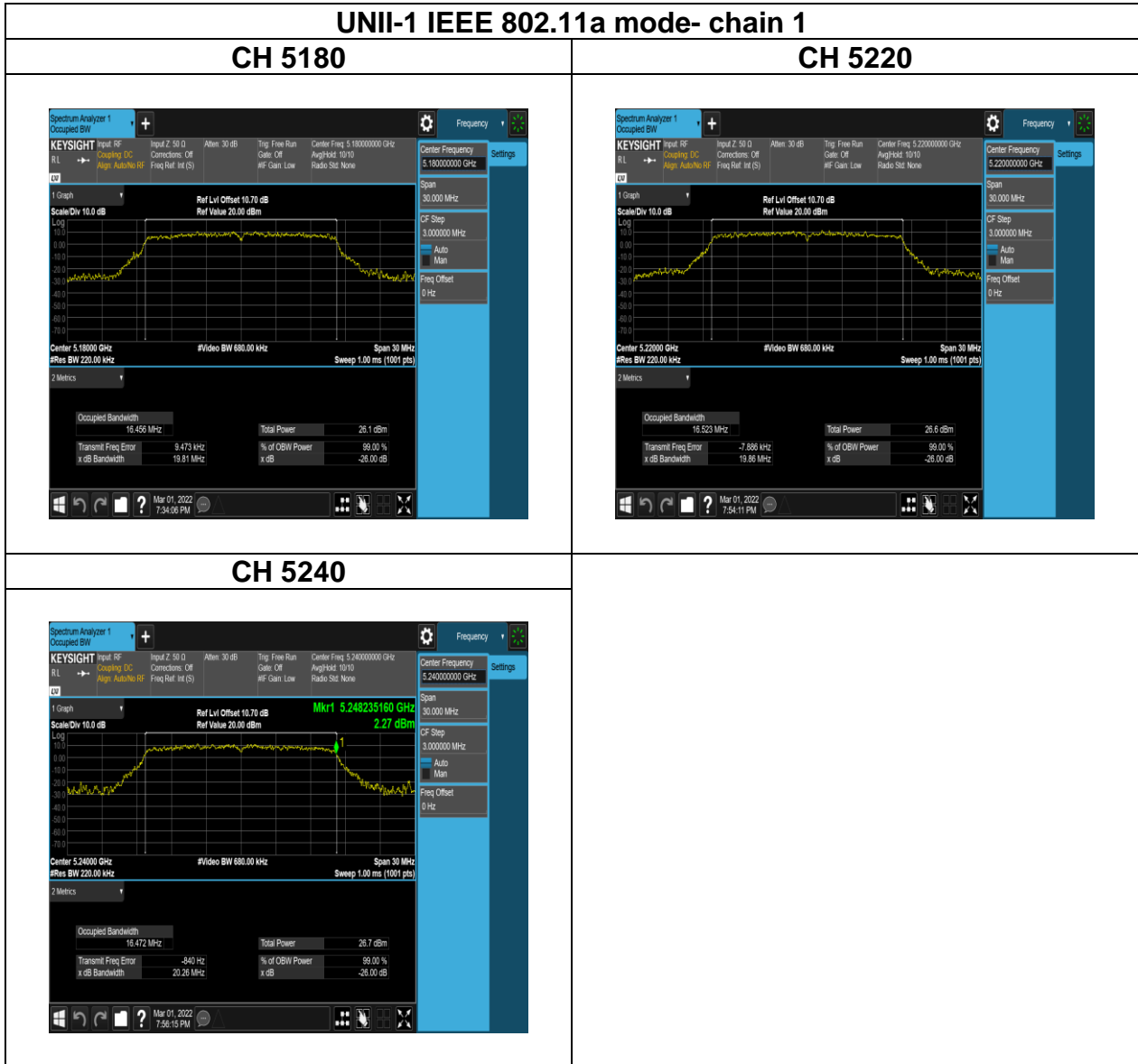
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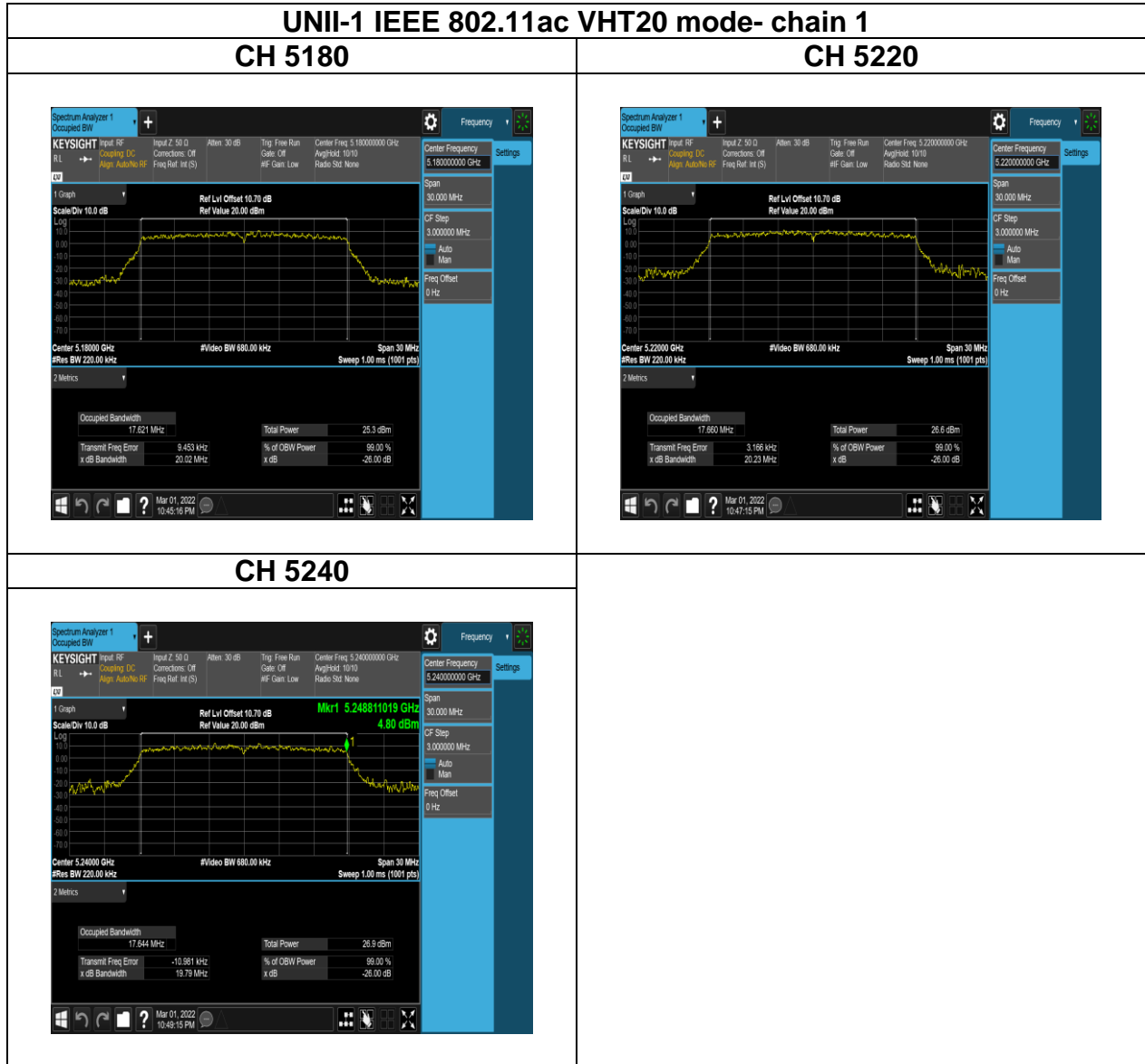
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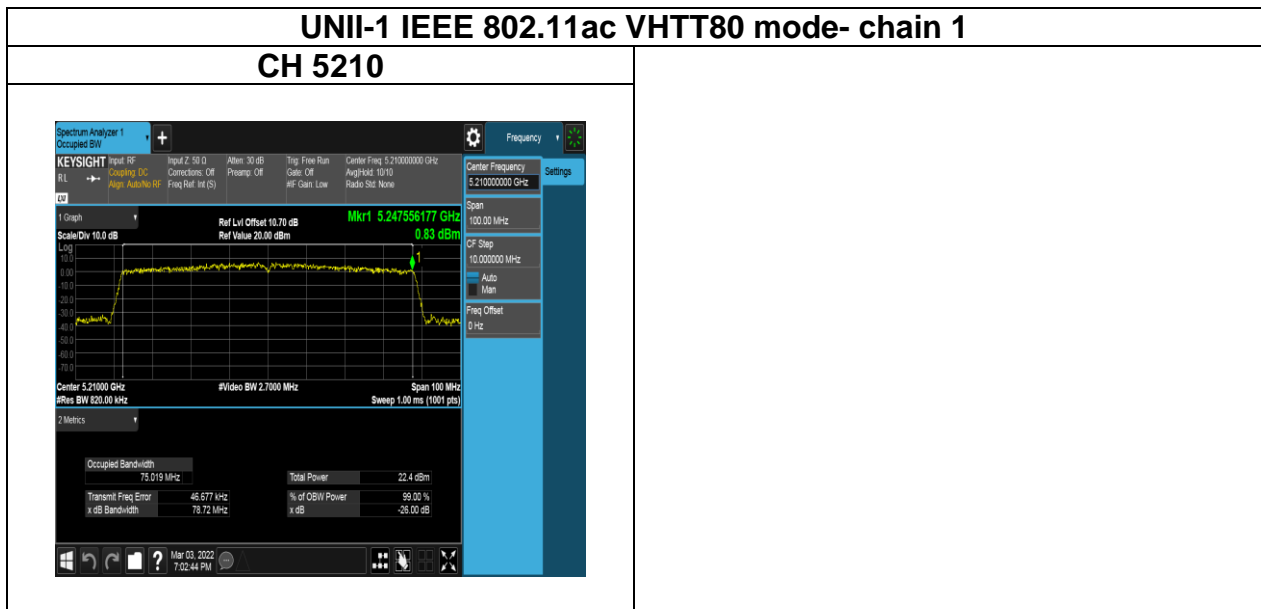
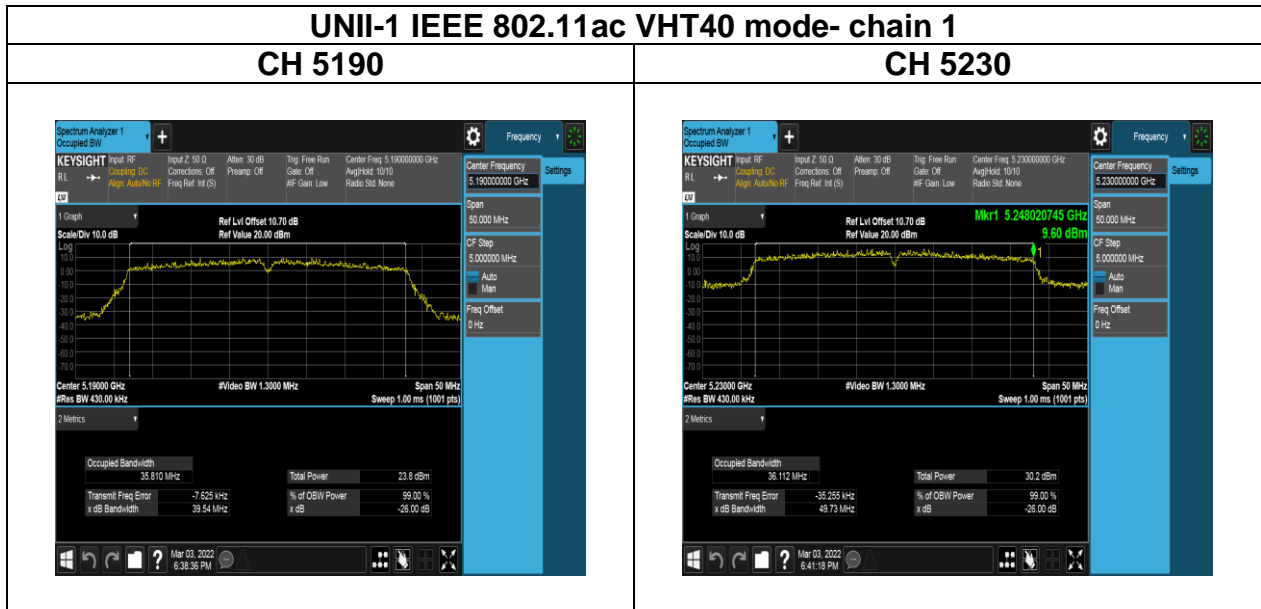
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Report No.: TMWK2201000141KR

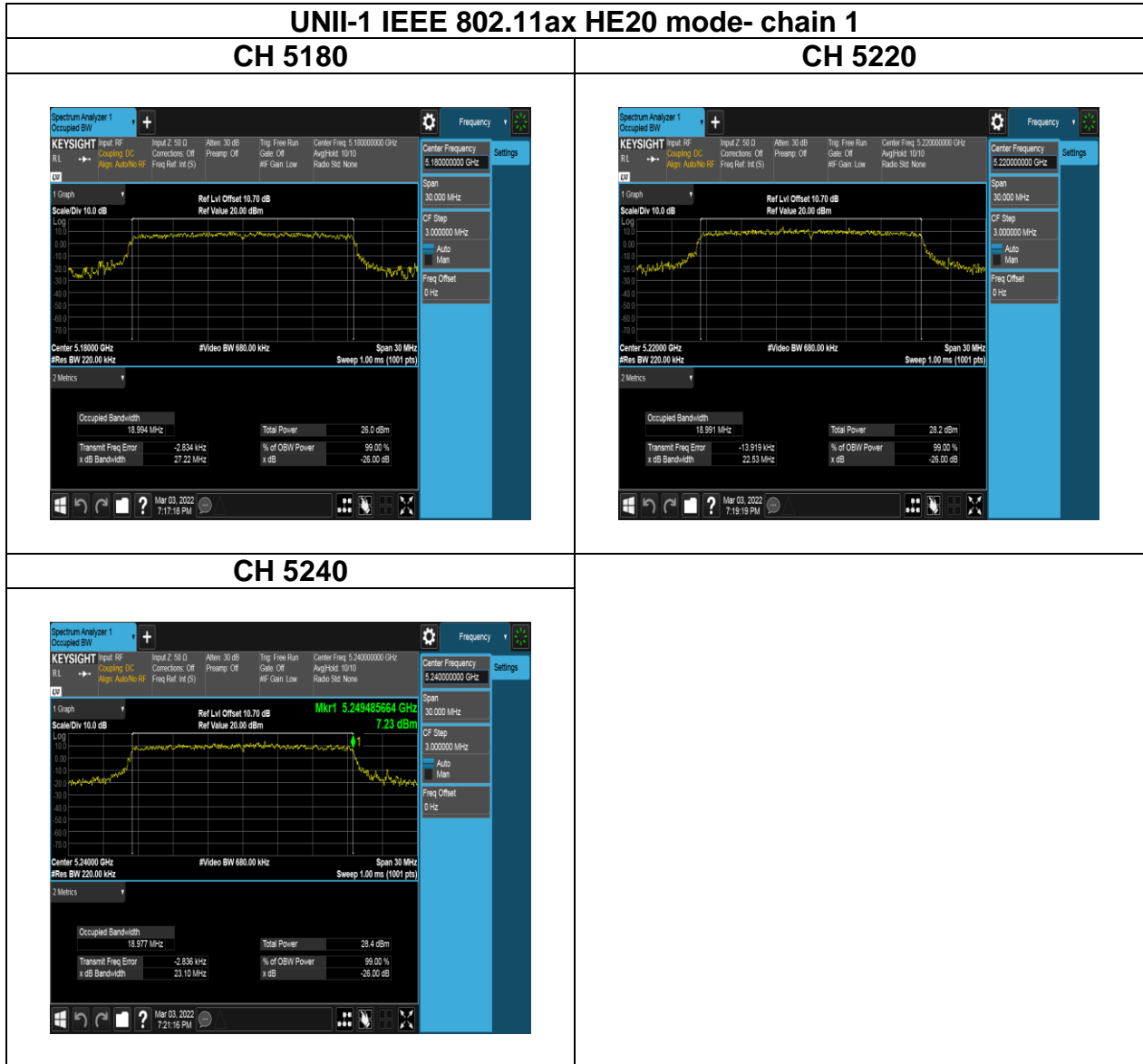


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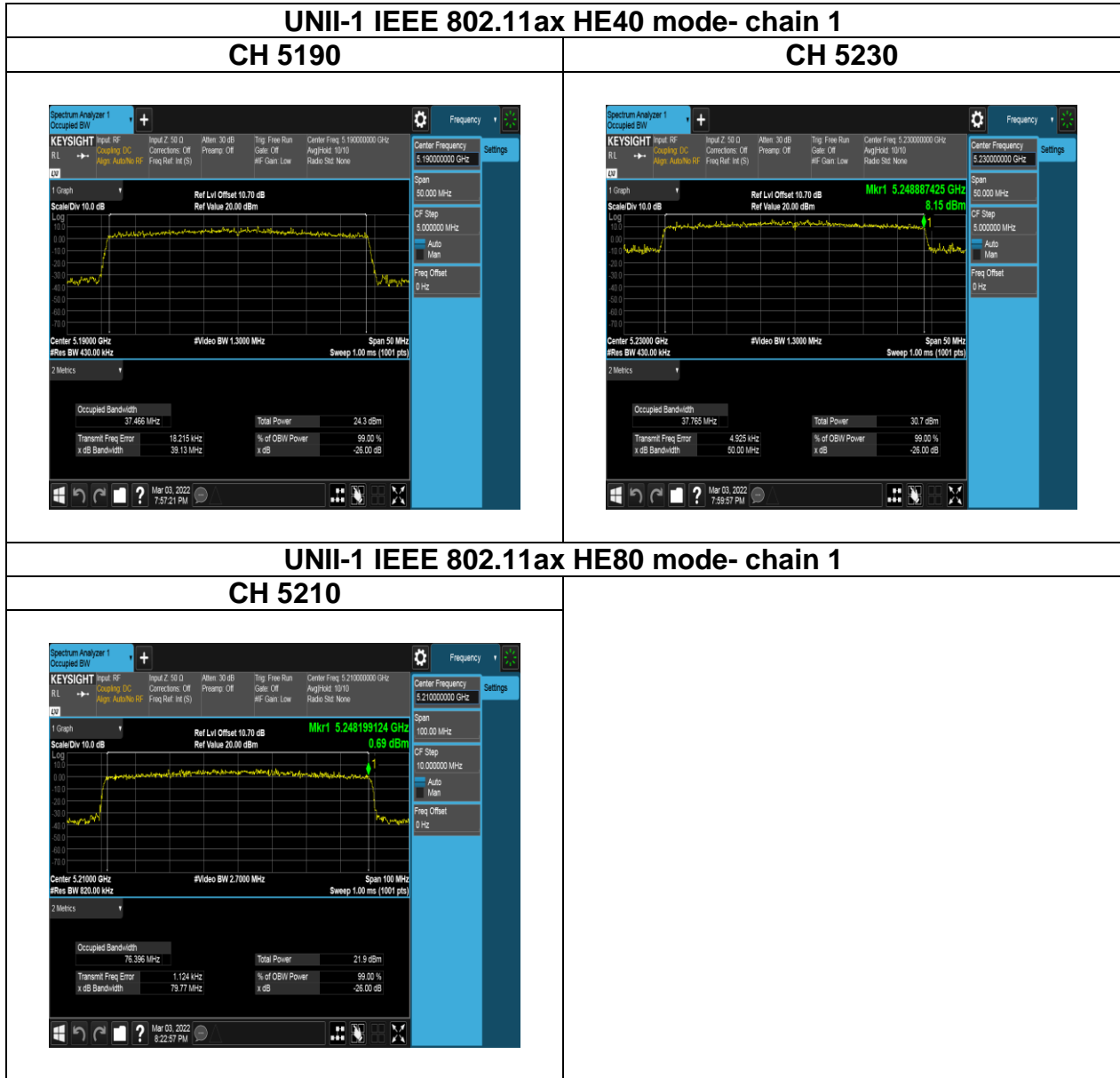




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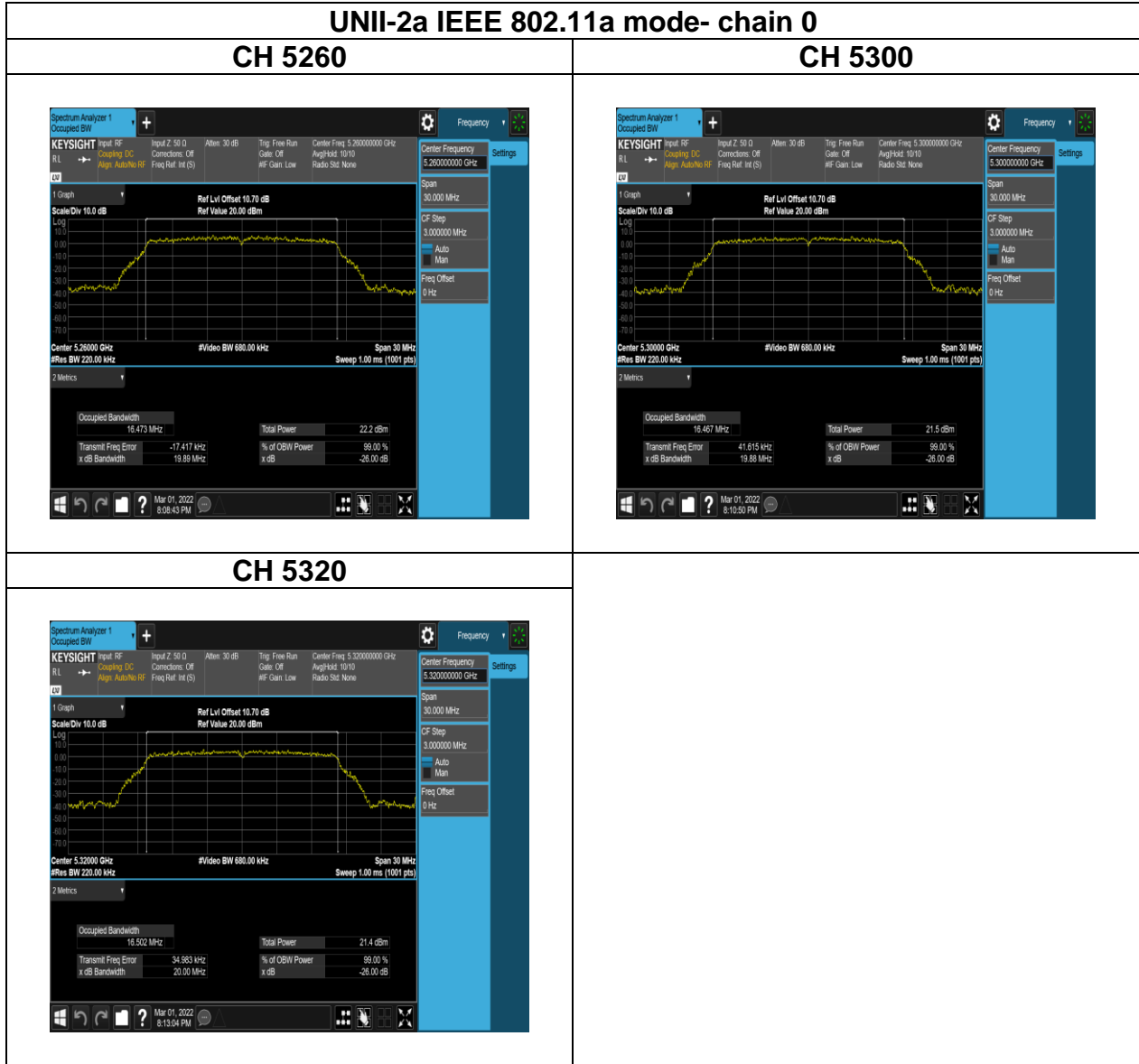


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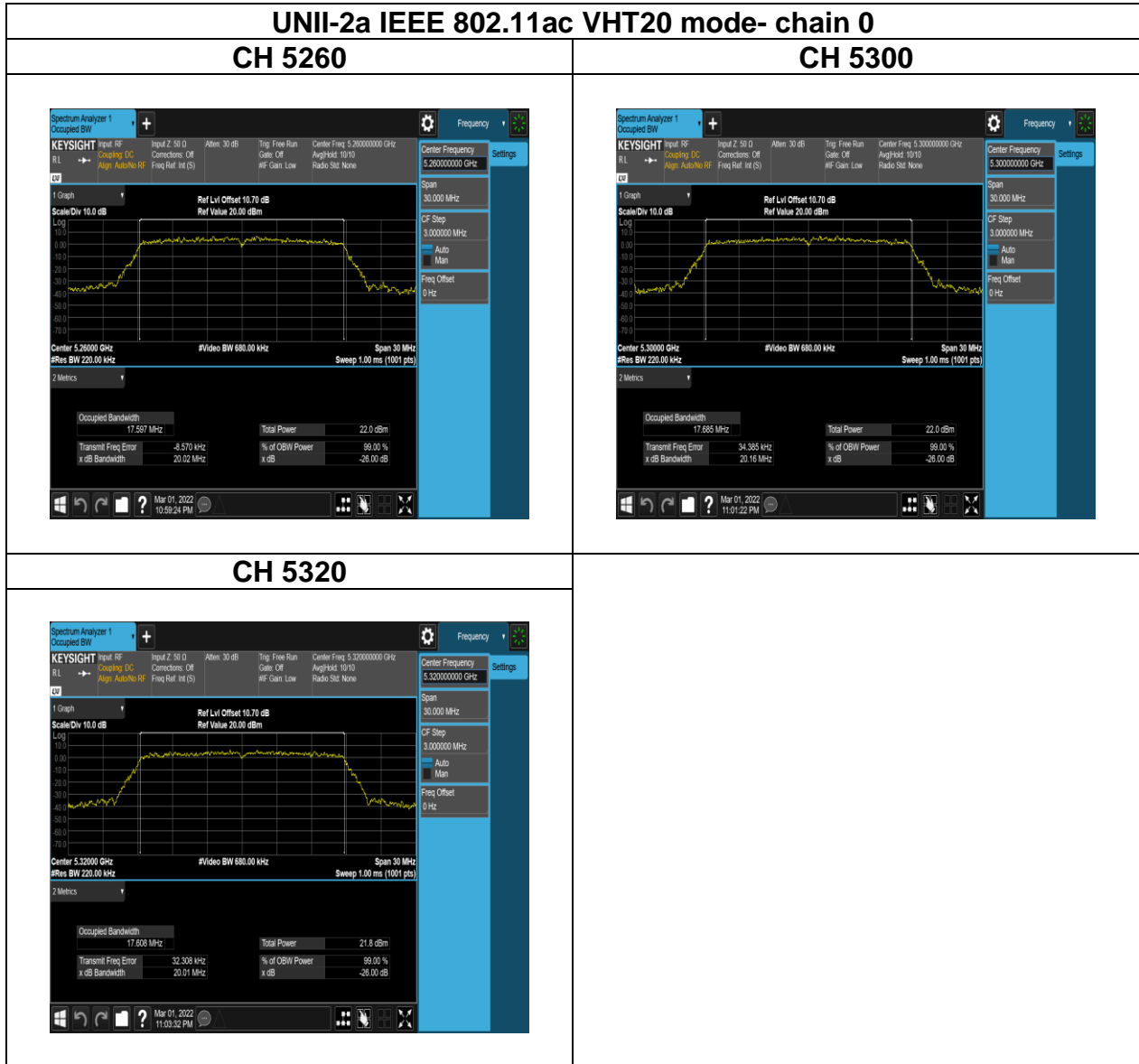


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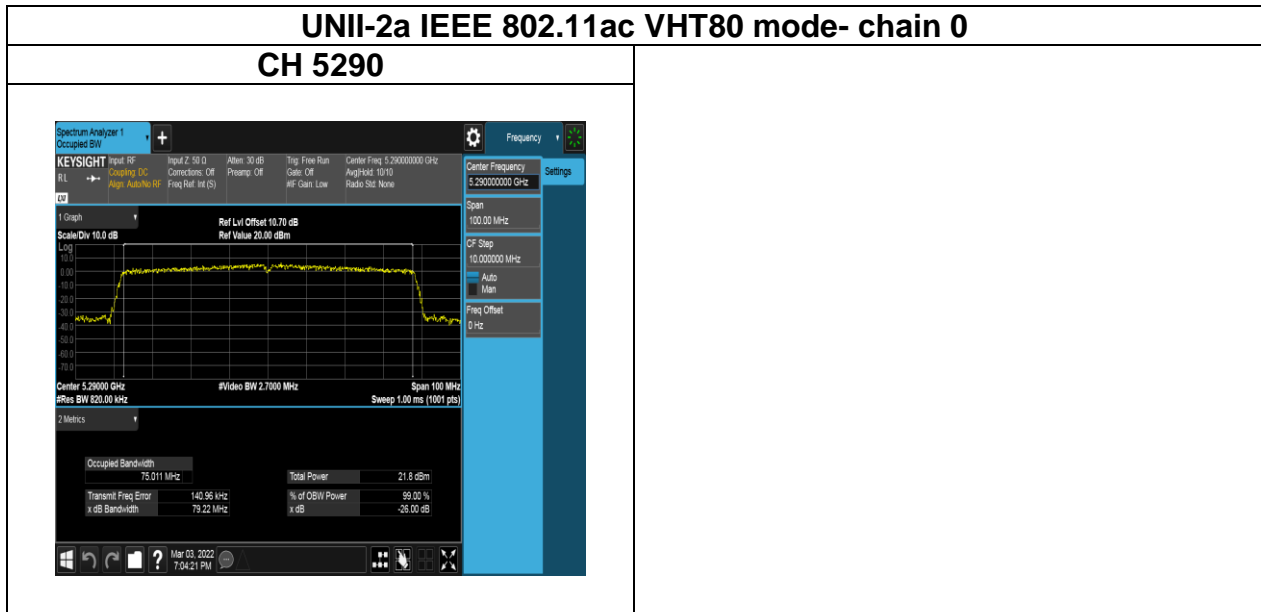
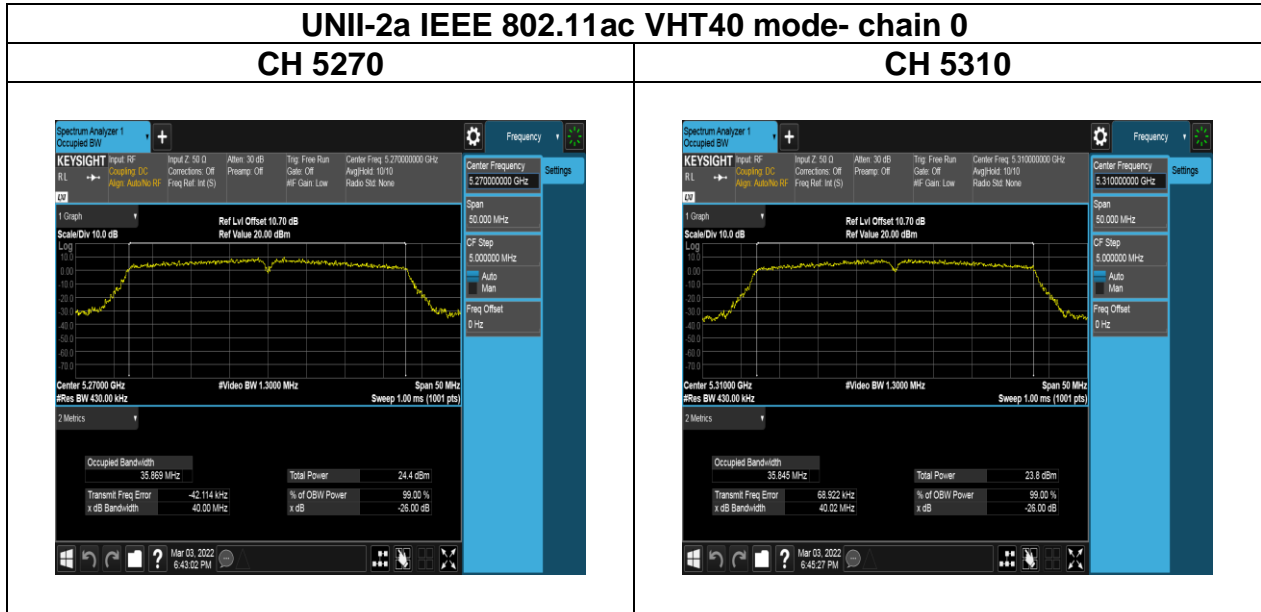
### Test Plots (26dB BANDWIDTH)



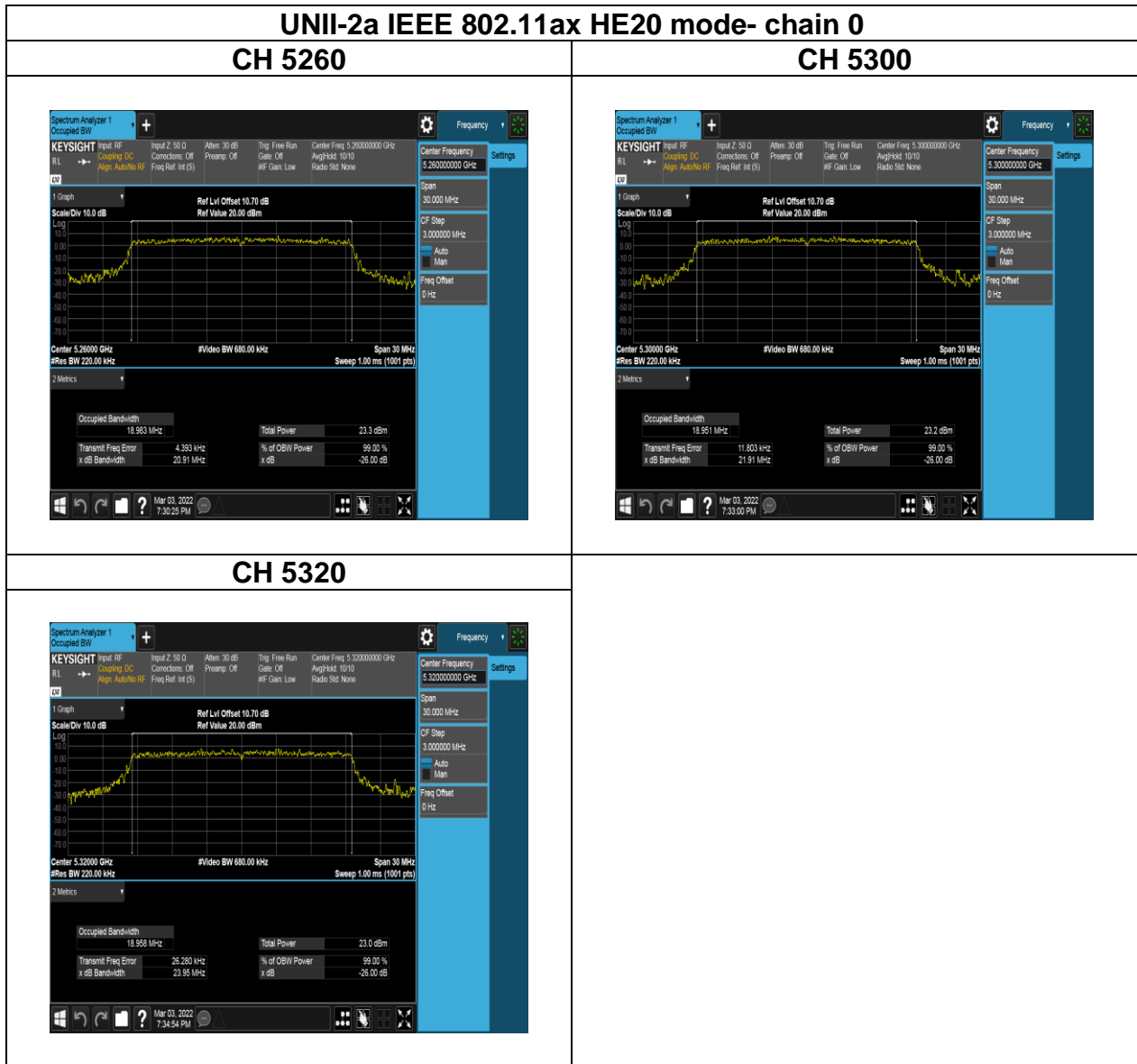
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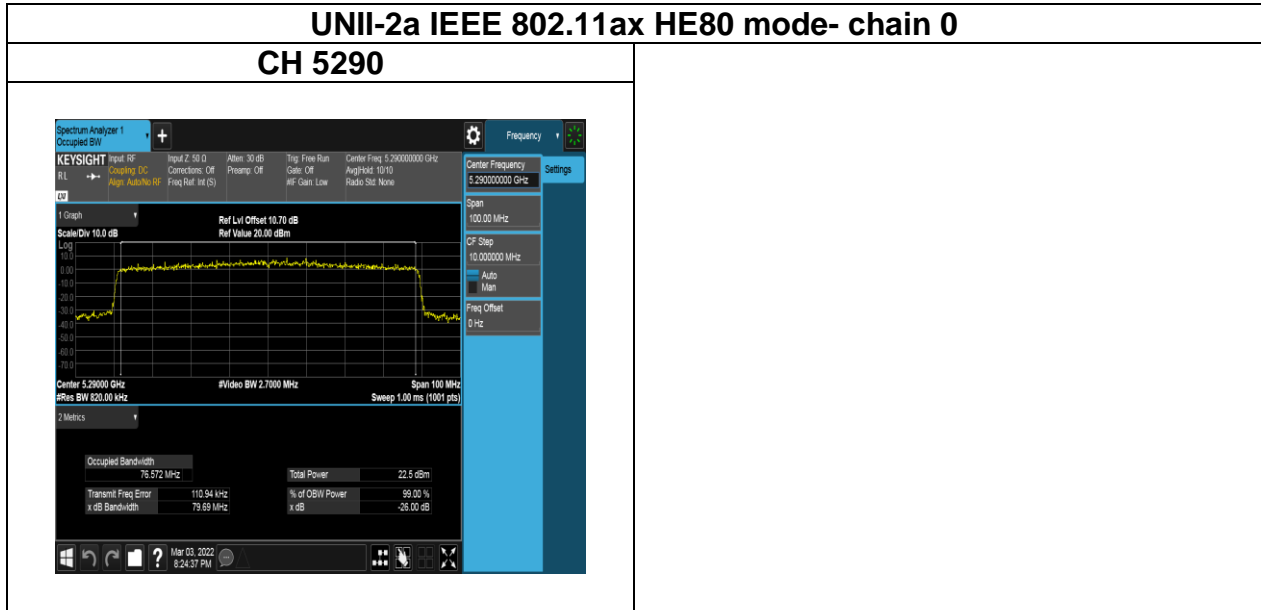
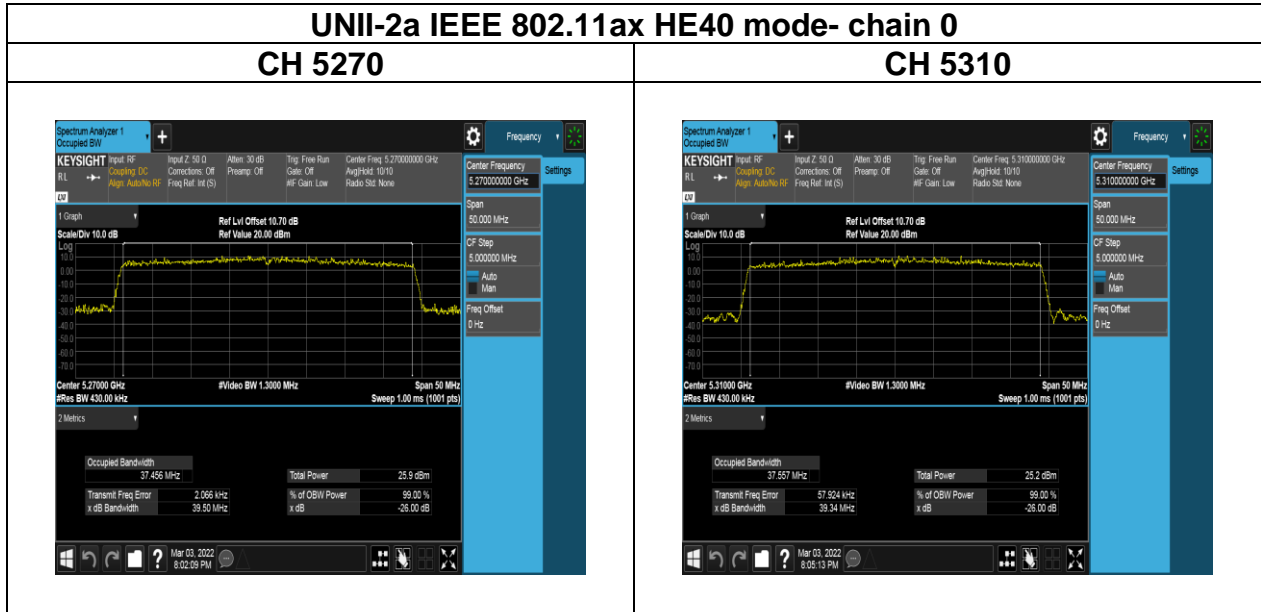
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