

# FCC Test Report

**FCC ID** : QXO-AP310  
**Equipment** : Wireless Access Point  
**Brand Name** :  or Extreme Networks  
**Model Name** : AP310i, AP310e  
**Applicant** : Extreme Networks, Inc.  
6480 Via Del Oro, San Jose, CA 95119, United States  
**Manufacturer** : Extreme Networks, Inc.  
6480 Via Del Oro, San Jose, CA 95119, United States  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Nov. 29, 2019, and testing was started from Dec. 26, 2019 and completed on Jan. 30, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Allen Lin

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

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## History of this test report

TEL : 886-3-3273456  
FAX : 886-3-3270973  
Report Template No.: HE1-D1 Ver.2.4  
FCC ID: QXO-AP310

## Summary of Test Result

| Report Clause | Ref. Std. Clause | Test Items                        | Result (PASS/FAIL) | Remark |
|---------------|------------------|-----------------------------------|--------------------|--------|
| 1.1.2         | 15.203           | Antenna Requirement               | PASS               | -      |
| -             | 15.207           | AC Power-line Conducted Emissions | Not Performed      | -      |
| 3.1           | 15.407(a)        | Emission Bandwidth                | PASS               | -      |
| 3.2           | 15.407(a)        | Maximum Conducted Output Power    | PASS               | -      |
| 3.3           | 15.407(a)        | Peak Power Spectral Density       | PASS               | -      |
| 3.4           | 15.407(b)        | Unwanted Emissions                | PASS               | -      |

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and explanations:**

None

**Reviewed by: Sam Tsai**

**Report Producer: Debby Hung**

# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Frequency Range (MHz) | IEEE Std. 802.11                       | Ch. Frequency (MHz) | Channel Number |
|-----------------------|----------------------------------------|---------------------|----------------|
| 5250-5350             | a, n (HT20), ac (VHT20),<br>ax(HEW 20) | 5260-5320           | 52-64 [4]      |
| 5470-5725             |                                        | 5500-5700           | 100-140 [11]   |
| Straddle 5720         |                                        | 5720                | 144 [1]        |
| 5250-5350             | n (HT40), ac (VHT40),<br>ax(HEW 40)    | 5270-5310           | 54-62 [2]      |
| 5470-5725             |                                        | 5510-5670           | 102-134 [5]    |
| Straddle 5710         |                                        | 5710                | 142 [1]        |
| 5250-5350             | ac (VHT80),<br>ax(HEW 80)              | 5290                | 58 [1]         |
| 5470-5725             |                                        | 5530-5610           | 106-122 [2]    |
| Straddle 5690         |                                        | 5690                | 138 [1]        |

#### Non-Beamforming

| Band          | Mode           | BWch (MHz) | Nant |
|---------------|----------------|------------|------|
| 5.25-5.35GHz  | 802.11a        | 20         | 1TX  |
| 5.47-5.725GHz | 802.11a        | 20         | 1TX  |
| 5.725-5.85GHz | 802.11a        | 20         | 1TX  |
| 5.25-5.35GHz  | 802.11ac VHT20 | 20         | 1TX  |
| 5.47-5.725GHz | 802.11ac VHT20 | 20         | 1TX  |
| 5.725-5.85GHz | 802.11ac VHT20 | 20         | 1TX  |
| 5.25-5.35GHz  | 802.11ac VHT40 | 40         | 1TX  |
| 5.47-5.725GHz | 802.11ac VHT40 | 40         | 1TX  |
| 5.725-5.85GHz | 802.11ac VHT40 | 40         | 1TX  |
| 5.25-5.35GHz  | 802.11ac VHT80 | 80         | 1TX  |
| 5.47-5.725GHz | 802.11ac VHT80 | 80         | 1TX  |
| 5.725-5.85GHz | 802.11ac VHT80 | 80         | 1TX  |
| 5.25-5.35GHz  | 802.11ax HEW20 | 20         | 1TX  |
| 5.47-5.725GHz | 802.11ax HEW20 | 20         | 1TX  |
| 5.725-5.85GHz | 802.11ax HEW20 | 20         | 1TX  |
| 5.25-5.35GHz  | 802.11ax HEW40 | 40         | 1TX  |
| 5.47-5.725GHz | 802.11ax HEW40 | 40         | 1TX  |
| 5.725-5.85GHz | 802.11ax HEW40 | 40         | 1TX  |

| Band          | Mode           | BWch (MHz) | Nant |
|---------------|----------------|------------|------|
| 5.25-5.35GHz  | 802.11ax HEW80 | 80         | 1TX  |
| 5.47-5.725GHz | 802.11ax HEW80 | 80         | 1TX  |
| 5.725-5.85GHz | 802.11ax HEW80 | 80         | 1TX  |
| 5.25-5.35GHz  | 802.11a        | 20         | 2TX  |
| 5.47-5.725GHz | 802.11a        | 20         | 2TX  |
| 5.725-5.85GHz | 802.11a        | 20         | 2TX  |
| 5.25-5.35GHz  | 802.11ac VHT20 | 20         | 2TX  |
| 5.47-5.725GHz | 802.11ac VHT20 | 20         | 2TX  |
| 5.725-5.85GHz | 802.11ac VHT20 | 20         | 2TX  |
| 5.25-5.35GHz  | 802.11ac VHT40 | 40         | 2TX  |
| 5.47-5.725GHz | 802.11ac VHT40 | 40         | 2TX  |
| 5.725-5.85GHz | 802.11ac VHT40 | 40         | 2TX  |
| 5.25-5.35GHz  | 802.11ac VHT80 | 80         | 2TX  |
| 5.47-5.725GHz | 802.11ac VHT80 | 80         | 2TX  |
| 5.725-5.85GHz | 802.11ac VHT80 | 80         | 2TX  |
| 5.25-5.35GHz  | 802.11ax HEW20 | 20         | 2TX  |
| 5.47-5.725GHz | 802.11ax HEW20 | 20         | 2TX  |
| 5.725-5.85GHz | 802.11ax HEW20 | 20         | 2TX  |
| 5.25-5.35GHz  | 802.11ax HEW40 | 40         | 2TX  |
| 5.47-5.725GHz | 802.11ax HEW40 | 40         | 2TX  |
| 5.725-5.85GHz | 802.11ax HEW40 | 40         | 2TX  |
| 5.25-5.35GHz  | 802.11ax HEW80 | 80         | 2TX  |
| 5.47-5.725GHz | 802.11ax HEW80 | 80         | 2TX  |
| 5.725-5.85GHz | 802.11ax HEW80 | 80         | 2TX  |

**Beamforming**

| Band          | Mode              | BWch (MHz) | Nant |
|---------------|-------------------|------------|------|
| 5.25-5.35GHz  | 802.11ac VHT20-BF | 20         | 2TX  |
| 5.47-5.725GHz | 802.11ac VHT20-BF | 20         | 2TX  |
| 5.725-5.85GHz | 802.11ac VHT20-BF | 20         | 2TX  |
| 5.25-5.35GHz  | 802.11ac VHT40-BF | 40         | 2TX  |
| 5.47-5.725GHz | 802.11ac VHT40-BF | 40         | 2TX  |
| 5.725-5.85GHz | 802.11ac VHT40-BF | 40         | 2TX  |
| 5.25-5.35GHz  | 802.11ac VHT80-BF | 80         | 2TX  |
| 5.47-5.725GHz | 802.11ac VHT80-BF | 80         | 2TX  |
| 5.725-5.85GHz | 802.11ac VHT80-BF | 80         | 2TX  |
| 5.25-5.35GHz  | 802.11ax HEW20-BF | 20         | 2TX  |
| 5.47-5.725GHz | 802.11ax HEW20-BF | 20         | 2TX  |
| 5.725-5.85GHz | 802.11ax HEW20-BF | 20         | 2TX  |
| 5.25-5.35GHz  | 802.11ax HEW40-BF | 40         | 2TX  |
| 5.47-5.725GHz | 802.11ax HEW40-BF | 40         | 2TX  |
| 5.725-5.85GHz | 802.11ax HEW40-BF | 40         | 2TX  |
| 5.25-5.35GHz  | 802.11ax HEW80-BF | 80         | 2TX  |
| 5.47-5.725GHz | 802.11ax HEW80-BF | 80         | 2TX  |
| 5.725-5.85GHz | 802.11ax HEW80-BF | 80         | 2TX  |

**Note:**

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ HEW20, HEW40, HEW80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ The resource unit of HEW 20, HEW 40, HEW 80 only support full loading.

### 1.1.2 Antenna Information

#### (AP310i) Internal Antenna

| Ant. | Brand | Model Number (P/N) | Antenna Type | Connector | Antenna Gain (dBi) |      |            | Remark  |
|------|-------|--------------------|--------------|-----------|--------------------|------|------------|---------|
|      |       |                    |              |           | 2.4GHz             | 5GHz | BLE/Thread |         |
| 1    | SENAO | 5718A0485300       | PIFA         | IPEX      | 4.5                | 5.17 | -          | Radio 1 |
| 2    | SENAO | 5718A0487300       | PIFA         | IPEX      | 4.53               | 5.07 | -          | Radio 1 |
| 3    | SENAO | 5718A0486300       | PIFA         | IPEX      | -                  | 4.81 | -          | Radio 2 |
| 4    | SENAO | 5718A0488300       | PIFA         | IPEX      | -                  | 4.75 | -          | Radio 2 |
| 5    | SENAO | 5718A0489300       | PIFA         | IPEX      | -                  | -    | 4.74       | Radio 3 |

#### (AP310e) External Antenna

| Group | Brand   | Model Number (P/N)                           | Antenna Type | Connector   | Antenna Gain (dBi) |      |            |
|-------|---------|----------------------------------------------|--------------|-------------|--------------------|------|------------|
|       |         |                                              |              |             | 2.4GHz             | 5GHz | BLE/Thread |
| 1     | Extreme | ML-2452-APA2-01                              | Omni         | Reverse SMA | 3.17               | 4.85 | -          |
| 2     | Extreme | ML-2452-HPA5-036                             | Omni         | Reverse SMA | 3.9                | 5.7  | -          |
| 3     | Extreme | ML-2452-HPAG4A6-01                           | Omni         | N-type      | 4                  | 7.3  | -          |
| 4     | Extreme | ML-2452-PTA4M4-036                           | Omni         | Reverse SMA | 5                  | 6.6  | -          |
| 5     | Extreme | ML-2452-HPAG5A8-01                           | Omni         | N-type      | 5                  | 8    | -          |
| 6     | Extreme | 30724<br>WS-AO-DQ04360N                      | Omni         | N-type      | 5.5                | 6    | -          |
| 7     | Extreme | AI-DQ04360S                                  | Omni         | Reverse SMA | 5.5                | 6    | -          |
| 8     | Extreme | ML-2452-PNA5-01R                             | Panel        | N-type      | 4.5                | 5    | -          |
| 9     | Extreme | ML-2452-SEC6M4-036,<br>WS-AI-DQ05120 (30702) | Panel        | Reverse SMA | 6.92               | 7.23 | -          |
| 10    | Extreme | 30705<br>WS-AI-DE07025                       | Panel        | Reverse SMA | 7.5                | 6.5  | -          |
| 11    | Extreme | ML-2452-PNA7-01R                             | Panel        | N-type      | 7.8                | 10.7 | 7.8        |
| 12    | Extreme | 30707<br>WS-AI-DE10055                       | Panel        | Reverse SMA | 10.5               | 7.5  | -          |
| 13    | Extreme | ML-2452-APA2-02                              | Omni         | Reverse SMA | 3.17               | 4.85 | -          |
| 14    | Extreme | ML-2499-HPA8-01                              | Dipole       | N-type      | -                  | -    | 8          |

Note 1: Group 5, 11,12 were measured during the test for WLAN 2.4G Mode.

Note 2: Group 11,14 were measured during the test for Bluetooth/Thread Mode.

Note 3: Group 5,11 were measured during the test for WLAN 5G Mode.

**For 2.4GHz function:**

For IEEE 802.11 b/g/n/ax mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

For IEEE 802.11 b/g/n/ax mode (2TX/2RX)

Port 1 and port 2 could transmit/receive simultaneously.

**For BT function:**

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

**For Thread function:**

For IEEE 802.15.4 Thread mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

**For 5GHz function:**

For IEEE 802.11 a/n/ac/ax mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

For IEEE 802.11 a/n/ac/ax mode (2TX/2RX)

Port 1 and port 2 could transmit/receive simultaneously.

**1.1.3 EUT Information**

| Operational Condition               |                                                                               |                                                |  |
|-------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------|--|
| <b>EUT Power Type</b>               | From PoE                                                                      |                                                |  |
| <b>EUT Function</b>                 | <input type="checkbox"/> Outdoor AP                                           | <input checked="" type="checkbox"/> Indoor AP  |  |
|                                     | <input type="checkbox"/> Fixed P2P AP                                         | <input type="checkbox"/> Outdoor/Indoor Client |  |
| <b>Beamforming Function</b>         | <input checked="" type="checkbox"/> With beamforming                          | <input type="checkbox"/> Without beamforming   |  |
| Type of EUT                         |                                                                               |                                                |  |
| <input checked="" type="checkbox"/> | Stand-alone                                                                   |                                                |  |
| <input type="checkbox"/>            | Combined (EUT where the radio part is fully integrated within another device) |                                                |  |
|                                     | Combined Equipment - Brand Name / Model No.: ...                              |                                                |  |
| <input type="checkbox"/>            | Plug-in radio (EUT intended for a variety of host systems)                    |                                                |  |
|                                     | Host System - Brand Name / Model No.: ...                                     |                                                |  |
| <input type="checkbox"/>            | Other:                                                                        |                                                |  |

### 1.1.4 Table for Multiple Listing

| Sample Number | Model Name | Description                                                                                                                                                    |
|---------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1             | AP310i     | The "i" in AP310i indicates that it comes with internal antennas and the "e" in AP310e indicates that the access point comes with external antenna connectors. |
| 2             | AP310e     |                                                                                                                                                                |

### 1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR992608AN

Below is the table for the change of the product with respect to the original one.

| Modifications                    | Performance Checking |
|----------------------------------|----------------------|
| U-NII-2A and UNII-2C were added. | All                  |

### 1.1.6 Mode Test Duty Cycle

#### Non-Beamforming

#### Sample 1\_Radio 1\_1T1S

| Mode                           | DC    | DCF(dB) | T(s)                 | VBW(Hz) $\geq 1/T$   |
|--------------------------------|-------|---------|----------------------|----------------------|
| 802.11a_Nss1,(6Mbps)_1TX       | 0.951 | 0.22    | 2.066m               | 1k                   |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 0.986 | 0.06    | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 0.972 | 0.12    | 954.375u             | 3k                   |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 0.944 | 0.25    | 463.125u             | 3k                   |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 0.981 | 0.08    | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 0.964 | 0.16    | 774.375u             | 3k                   |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 0.93  | 0.32    | 403.125u             | 3k                   |

#### Sample 1\_Radio 1\_2T2S

| Mode                           | DC    | DCF(dB) | T(s)     | VBW(Hz) $\geq 1/T$ |
|--------------------------------|-------|---------|----------|--------------------|
| 802.11a_Nss1,(6Mbps)_2TX       | 0.954 | 0.2     | 2.064m   | 1k                 |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | 0.971 | 0.13    | 988.438u | 3k                 |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | 0.948 | 0.23    | 500.625u | 3k                 |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | 0.899 | 0.46    | 256.563u | 10k                |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 0.963 | 0.16    | 779.688u | 3k                 |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 0.929 | 0.32    | 421.875u | 3k                 |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 0.887 | 0.52    | 239.688u | 10k                |

**Sample 2\_Radio 1\_1T1S**

| Mode                           | DC    | DCF(dB) | T(s)                 | VBW(Hz) $\geq 1/T$   |
|--------------------------------|-------|---------|----------------------|----------------------|
| 802.11a_Nss1,(6Mbps)_1TX       | 0.951 | 0.22    | 2.066m               | 1k                   |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 0.986 | 0.06    | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 0.971 | 0.13    | 954.688u             | 3k                   |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 0.944 | 0.25    | 462.5u               | 3k                   |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 0.98  | 0.09    | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 0.963 | 0.16    | 775u                 | 3k                   |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 0.929 | 0.32    | 403.125u             | 3k                   |

**Sample 2\_Radio 1\_2T2S**

| Mode                           | DC    | DCF(dB) | T(s)     | VBW(Hz) $\geq 1/T$ |
|--------------------------------|-------|---------|----------|--------------------|
| 802.11a_Nss1,(6Mbps)_2TX       | 0.95  | 0.22    | 2.066m   | 1k                 |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | 0.973 | 0.12    | 990.625u | 3k                 |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | 0.947 | 0.24    | 501.563u | 3k                 |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | 0.903 | 0.44    | 257.813u | 10k                |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 0.964 | 0.16    | 781.25u  | 3k                 |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 0.932 | 0.31    | 423.438u | 3k                 |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 0.892 | 0.5     | 242.187u | 10k                |

**Beamforming**
**Sample 1\_Radio 1**

| Mode                              | DC    | DCF(dB) | T(s)   | VBW(Hz) $\geq 1/T$ |
|-----------------------------------|-------|---------|--------|--------------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | 0.902 | 0.45    | 1.95m  | 1k                 |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | 0.906 | 0.43    | 2.798m | 1k                 |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | 0.915 | 0.39    | 3.43m  | 300                |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | 0.879 | 0.56    | 1.503m | 1k                 |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | 0.882 | 0.55    | 2.223m | 1k                 |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | 0.917 | 0.38    | 3.844m | 300                |

**Sample 1\_Radio 2**

| Mode                              | DC    | DCF(dB) | T(s)   | VBW(Hz) $\geq$ 1/T |
|-----------------------------------|-------|---------|--------|--------------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | 0.902 | 0.45    | 1.95m  | 1k                 |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | 0.906 | 0.43    | 2.798m | 1k                 |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | 0.915 | 0.39    | 3.43m  | 300                |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | 0.873 | 0.59    | 1.503m | 1k                 |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | 0.88  | 0.56    | 2.223m | 1k                 |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | 0.93  | 0.32    | 3.844m | 300                |

**Sample 2\_Radio 1**

| Mode                              | DC    | DCF(dB) | T(s)   | VBW(Hz) $\geq$ 1/T |
|-----------------------------------|-------|---------|--------|--------------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | 0.893 | 0.49    | 1.95m  | 1k                 |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | 0.903 | 0.44    | 2.798m | 1k                 |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | 0.924 | 0.34    | 3.43m  | 300                |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | 0.871 | 0.6     | 1.503m | 1k                 |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | 0.885 | 0.53    | 2.223m | 1k                 |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | 0.919 | 0.37    | 3.844m | 300                |

**Sample 2\_Radio 2**

| Mode                              | DC    | DCF(dB) | T(s)   | VBW(Hz) $\geq$ 1/T |
|-----------------------------------|-------|---------|--------|--------------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | 0.901 | 0.45    | 1.95m  | 1k                 |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | 0.858 | 0.67    | 2.798m | 1k                 |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | 0.855 | 0.68    | 3.43m  | 300                |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | 0.794 | 1       | 1.503m | 1k                 |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | 0.873 | 0.59    | 2.223m | 1k                 |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | 0.92  | 0.36    | 3.844m | 300                |

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

## 1.2 Testing Applied Standards

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

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ KDB 789033 D02 v02r01
- ♦ KDB 662911 D01 v02r01
- ♦ KDB 414788 D01 v01r01

## 1.3 Testing Location Information

| Testing Location                           |        |                                                                              |                      |
|--------------------------------------------|--------|------------------------------------------------------------------------------|----------------------|
| <input checked="" type="checkbox"/>        | HWA YA | ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)    |                      |
|                                            |        | TEL : 886-3-327-3456                                                         | FAX : 886-3-327-0973 |
| Test site Designation No. TW1190 with FCC. |        |                                                                              |                      |
| <input type="checkbox"/>                   | JHUBEI | ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.) |                      |
|                                            |        | TEL : 886-3-656-9065                                                         | FAX : 886-3-656-9085 |
| Test site Designation No. TW0006 with FCC. |        |                                                                              |                      |

| Test Condition | Test Site No. | Test Engineer | Test Environment     | Test Date                   |
|----------------|---------------|---------------|----------------------|-----------------------------|
| RF Conducted   | TH01-HY       | Alan          | 22.1~25.5°C / 62~67% | 06/Jan/2020~<br>30/Jan/2020 |
| Radiated       | 03CH02-HY     | Dexter        | 21.5~24.8°C / 52~56% | 26/Dec/2019~<br>06/Jan/2020 |

## 1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

| Test Items                           | Uncertainty | Remark                   |
|--------------------------------------|-------------|--------------------------|
| Conducted Emission (150kHz ~ 30MHz)  | 3.54 dB     | Confidence levels of 95% |
| Radiated Emission (9kHz ~ 30MHz)     | 1.6 dB      | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 4.3 dB      | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz)     | 3.9 dB      | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz)    | 3.5 dB      | Confidence levels of 95% |
| Conducted Emission                   | 1.3 dB      | Confidence levels of 95% |
| Temperature                          | 0.7 °C      | Confidence levels of 95% |
| Humidity                             | 4 %         | Confidence levels of 95% |

## 2 Test Configuration of EUT

### 2.1 Test Condition

| Condition Item | Abbreviation/Remark | Remark |
|----------------|---------------------|--------|
| TnomVnom       | Tnom                | 20°C   |
| -              | Vnom                | 120V   |

### 2.2 Test Channel Mode

|                       |                         |
|-----------------------|-------------------------|
| Test Software Version | accessMTool_REL_3_1_0_1 |
|-----------------------|-------------------------|

#### Non-Beamforming

##### Sample 1\_Radio 1\_1T1S

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_1TX       | -             |
| 5260MHz                        | 20.75         |
| 5300MHz                        | 21            |
| 5320MHz                        | 20.25         |
| 5500MHz                        | 19.5          |
| 5580MHz                        | 20.75         |
| 5700MHz                        | 19            |
| 5720MHz Straddle 5.47-5.725GHz | 20.5          |
| 5720MHz Straddle 5.725-5.85GHz | 20.5          |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | -             |
| 5260MHz                        | 20.5          |
| 5300MHz                        | 20.5          |
| 5320MHz                        | 19.5          |
| 5500MHz                        | 18            |
| 5580MHz                        | 20.75         |
| 5700MHz                        | 17.5          |
| 5720MHz Straddle 5.47-5.725GHz | 20.25         |
| 5720MHz Straddle 5.725-5.85GHz | 20.25         |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | -             |
| 5270MHz                        | 20.25         |
| 5310MHz                        | 18            |
| 5510MHz                        | 16.5          |
| 5550MHz                        | 20.25         |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5670MHz                        | 20.25         |
| 5710MHz Straddle 5.47-5.725GHz | 20            |
| 5710MHz Straddle 5.725-5.85GHz | 20            |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | -             |
| 5290MHz                        | 17.75         |
| 5530MHz                        | 17.75         |
| 5610MHz                        | 20.5          |
| 5690MHz Straddle 5.47-5.725GHz | 20.75         |
| 5690MHz Straddle 5.725-5.85GHz | 20.75         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | -             |
| 5260MHz                        | 20.5          |
| 5300MHz                        | 20.5          |
| 5320MHz                        | 19.5          |
| 5500MHz                        | 18            |
| 5580MHz                        | 20.75         |
| 5700MHz                        | 17.5          |
| 5720MHz Straddle 5.47-5.725GHz | 20.25         |
| 5720MHz Straddle 5.725-5.85GHz | 20.25         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | -             |
| 5270MHz                        | 20.5          |
| 5310MHz                        | 18            |
| 5510MHz                        | 16.5          |
| 5550MHz                        | 20.75         |
| 5670MHz                        | 20.75         |
| 5710MHz Straddle 5.47-5.725GHz | 20.5          |
| 5710MHz Straddle 5.725-5.85GHz | 20.5          |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | -             |
| 5290MHz                        | 17.75         |
| 5530MHz                        | 17.75         |
| 5610MHz                        | 20.5          |
| 5690MHz Straddle 5.47-5.725GHz | 20.75         |
| 5690MHz Straddle 5.725-5.85GHz | 20.75         |

**Sample 1\_Radio 1\_2T2S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -             |
| 5260MHz                        | 18.25         |
| 5300MHz                        | 18.25         |
| 5320MHz                        | 18.25         |
| 5500MHz                        | 18            |
| 5580MHz                        | 18            |
| 5700MHz                        | 18            |
| 5720MHz Straddle 5.47-5.725GHz | 18            |
| 5720MHz Straddle 5.725-5.85GHz | 18            |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | -             |
| 5260MHz                        | 20            |
| 5300MHz                        | 20            |
| 5320MHz                        | 19.25         |
| 5500MHz                        | 19.25         |
| 5580MHz                        | 20.25         |
| 5700MHz                        | 17.25         |
| 5720MHz Straddle 5.47-5.725GHz | 20            |
| 5720MHz Straddle 5.725-5.85GHz | 20            |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | -             |
| 5270MHz                        | 20            |
| 5310MHz                        | 17.25         |
| 5510MHz                        | 15            |
| 5550MHz                        | 19.75         |
| 5670MHz                        | 19.5          |
| 5710MHz Straddle 5.47-5.725GHz | 20            |
| 5710MHz Straddle 5.725-5.85GHz | 20            |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | -             |
| 5290MHz                        | 16.75         |
| 5530MHz                        | 17            |
| 5610MHz                        | 20            |
| 5690MHz Straddle 5.47-5.725GHz | 20            |
| 5690MHz Straddle 5.725-5.85GHz | 20            |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | -             |
| 5260MHz                        | 20            |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 20            |
| 5320MHz                        | 19.25         |
| 5500MHz                        | 19.25         |
| 5580MHz                        | 20.25         |
| 5700MHz                        | 17.25         |
| 5720MHz Straddle 5.47-5.725GHz | 20            |
| 5720MHz Straddle 5.725-5.85GHz | 20            |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | -             |
| 5270MHz                        | 20            |
| 5310MHz                        | 17.25         |
| 5510MHz                        | 15            |
| 5550MHz                        | 19.75         |
| 5670MHz                        | 19.5          |
| 5710MHz Straddle 5.47-5.725GHz | 20            |
| 5710MHz Straddle 5.725-5.85GHz | 20            |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | -             |
| 5290MHz                        | 16.75         |
| 5530MHz                        | 17            |
| 5610MHz                        | 20            |
| 5690MHz Straddle 5.47-5.725GHz | 20            |
| 5690MHz Straddle 5.725-5.85GHz | 20            |

**Sample 1\_Radio 2\_1T1S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_1TX       | -             |
| 5260MHz                        | 20.75         |
| 5300MHz                        | 20.75         |
| 5320MHz                        | 20.75         |
| 5500MHz                        | 18            |
| 5580MHz                        | 21.5          |
| 5700MHz                        | 18.5          |
| 5720MHz Straddle 5.47-5.725GHz | 21            |
| 5720MHz Straddle 5.725-5.85GHz | 21            |
| 802.11ac VHT20_Nss1,(MCS0)_1TX |               |
| 5260MHz                        | 20.5          |
| 5300MHz                        | 20.5          |
| 5320MHz                        | 19.25         |
| 5500MHz                        | 18            |
| 5580MHz                        | 21.25         |
| 5700MHz                        | 15.25         |
| 5720MHz Straddle 5.47-5.725GHz | 20.5          |
| 5720MHz Straddle 5.725-5.85GHz | 20.5          |
| 802.11ac VHT40_Nss1,(MCS0)_1TX |               |
| 5270MHz                        | 20.25         |
| 5310MHz                        | 18.5          |
| 5510MHz                        | 17.25         |
| 5550MHz                        | 21            |
| 5670MHz                        | 21            |
| 5710MHz Straddle 5.47-5.725GHz | 20.75         |
| 5710MHz Straddle 5.725-5.85GHz | 20.75         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX |               |
| 5290MHz                        | 18.5          |
| 5530MHz                        | 17.25         |
| 5610MHz                        | 20.5          |
| 5690MHz Straddle 5.47-5.725GHz | 21            |
| 5690MHz Straddle 5.725-5.85GHz | 21            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX |               |
| 5260MHz                        | 20.5          |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 20.5          |
| 5320MHz                        | 19.25         |
| 5500MHz                        | 18            |
| 5580MHz                        | 21.25         |
| 5700MHz                        | 15.25         |
| 5720MHz Straddle 5.47-5.725GHz | 20.5          |
| 5720MHz Straddle 5.725-5.85GHz | 20.5          |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | -             |
| 5270MHz                        | 20.25         |
| 5310MHz                        | 18.5          |
| 5510MHz                        | 17.25         |
| 5550MHz                        | 21            |
| 5670MHz                        | 21            |
| 5710MHz Straddle 5.47-5.725GHz | 20.75         |
| 5710MHz Straddle 5.725-5.85GHz | 20.75         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX |               |
| 5290MHz                        | 18.5          |
| 5530MHz                        | 17.25         |
| 5610MHz                        | 20.5          |
| 5690MHz Straddle 5.47-5.725GHz | 21            |
| 5690MHz Straddle 5.725-5.85GHz | 21            |

**Sample 1\_Radio 2\_2T2S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -             |
| 5260MHz                        | 19            |
| 5300MHz                        | 19            |
| 5320MHz                        | 19            |
| 5500MHz                        | 18.75         |
| 5580MHz                        | 19            |
| 5700MHz                        | 18            |
| 5720MHz Straddle 5.47-5.725GHz | 19            |
| 5720MHz Straddle 5.725-5.85GHz | 19            |
| 802.11ac VHT20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 20.25         |
| 5300MHz                        | 20.25         |
| 5320MHz                        | 18.75         |
| 5500MHz                        | 19            |
| 5580MHz                        | 20.5          |
| 5700MHz                        | 17.5          |
| 5720MHz Straddle 5.47-5.725GHz | 20.75         |
| 5720MHz Straddle 5.725-5.85GHz | 20.75         |
| 802.11ac VHT40_Nss2,(MCS0)_2TX |               |
| 5270MHz                        | 20.25         |
| 5310MHz                        | 18.25         |
| 5510MHz                        | 16.25         |
| 5550MHz                        | 20.25         |
| 5670MHz                        | 19.75         |
| 5710MHz Straddle 5.47-5.725GHz | 21            |
| 5710MHz Straddle 5.725-5.85GHz | 21            |
| 802.11ac VHT80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 17.5          |
| 5530MHz                        | 17            |
| 5610MHz                        | 20.25         |
| 5690MHz Straddle 5.47-5.725GHz | 20.5          |
| 5690MHz Straddle 5.725-5.85GHz | 20.5          |
| 802.11ax HEW20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 20.25         |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 20.25         |
| 5320MHz                        | 18.75         |
| 5500MHz                        | 19            |
| 5580MHz                        | 20.5          |
| 5700MHz                        | 17.5          |
| 5720MHz Straddle 5.47-5.725GHz | 20.75         |
| 5720MHz Straddle 5.725-5.85GHz | 20.75         |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | -             |
| 5270MHz                        | 20.25         |
| 5310MHz                        | 18.25         |
| 5510MHz                        | 16.25         |
| 5550MHz                        | 20.25         |
| 5670MHz                        | 19.75         |
| 5710MHz Straddle 5.47-5.725GHz | 21            |
| 5710MHz Straddle 5.725-5.85GHz | 21            |
| 802.11ax HEW80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 17.5          |
| 5530MHz                        | 17            |
| 5610MHz                        | 20.25         |
| 5690MHz Straddle 5.47-5.725GHz | 20.5          |
| 5690MHz Straddle 5.725-5.85GHz | 20.5          |

**Sample 2 Radio 1 Omni\_1T1S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_1TX       | -             |
| 5260MHz                        | 21.5          |
| 5300MHz                        | 21.5          |
| 5320MHz                        | 17.5          |
| 5500MHz                        | 16            |
| 5580MHz                        | 22.25         |
| 5700MHz                        | 16.25         |
| 5720MHz Straddle 5.47-5.725GHz | 22.5          |
| 5720MHz Straddle 5.725-5.85GHz | 22.5          |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | -             |
| 5260MHz                        | 21.25         |
| 5300MHz                        | 21            |
| 5320MHz                        | 16.75         |
| 5500MHz                        | 16.25         |
| 5580MHz                        | 22            |
| 5700MHz                        | 13.5          |
| 5720MHz Straddle 5.47-5.725GHz | 22            |
| 5720MHz Straddle 5.725-5.85GHz | 22            |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | -             |
| 5270MHz                        | 20.25         |
| 5310MHz                        | 15.5          |
| 5510MHz                        | 15            |
| 5550MHz                        | 19.75         |
| 5670MHz                        | 17.75         |
| 5710MHz Straddle 5.47-5.725GHz | 22.25         |
| 5710MHz Straddle 5.725-5.85GHz | 22.25         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | -             |
| 5290MHz                        | 14.75         |
| 5530MHz                        | 15            |
| 5610MHz                        | 18.25         |
| 5690MHz Straddle 5.47-5.725GHz | 21.25         |
| 5690MHz Straddle 5.725-5.85GHz | 21.25         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | -             |
| 5260MHz                        | 21.25         |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 21            |
| 5320MHz                        | 16.75         |
| 5500MHz                        | 16.25         |
| 5580MHz                        | 22            |
| 5700MHz                        | 13.5          |
| 5720MHz Straddle 5.47-5.725GHz | 22            |
| 5720MHz Straddle 5.725-5.85GHz | 22            |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | -             |
| 5270MHz                        | 20.25         |
| 5310MHz                        | 15.5          |
| 5510MHz                        | 15            |
| 5550MHz                        | 19.75         |
| 5670MHz                        | 17.75         |
| 5710MHz Straddle 5.47-5.725GHz | 22.25         |
| 5710MHz Straddle 5.725-5.85GHz | 22.25         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | -             |
| 5290MHz                        | 14.75         |
| 5530MHz                        | 15            |
| 5610MHz                        | 18.25         |
| 5690MHz Straddle 5.47-5.725GHz | 21.25         |
| 5690MHz Straddle 5.725-5.85GHz | 21.25         |

**Sample 2 Radio 1 Omni\_2T2S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -             |
| 5260MHz                        | 15            |
| 5300MHz                        | 15.25         |
| 5320MHz                        | 15.25         |
| 5500MHz                        | 15.25         |
| 5580MHz                        | 15.75         |
| 5700MHz                        | 15.25         |
| 5720MHz Straddle 5.47-5.725GHz | 15.75         |
| 5720MHz Straddle 5.725-5.85GHz | 15.75         |
| 802.11ac VHT20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 17.75         |
| 5300MHz                        | 17.75         |
| 5320MHz                        | 16            |
| 5500MHz                        | 16            |
| 5580MHz                        | 18            |
| 5700MHz                        | 13.5          |
| 5720MHz Straddle 5.47-5.725GHz | 18.5          |
| 5720MHz Straddle 5.725-5.85GHz | 18.5          |
| 802.11ac VHT40_Nss2,(MCS0)_2TX |               |
| 5270MHz                        | 17.75         |
| 5310MHz                        | 13.5          |
| 5510MHz                        | 14.25         |
| 5550MHz                        | 18            |
| 5670MHz                        | 16            |
| 5710MHz Straddle 5.47-5.725GHz | 18.5          |
| 5710MHz Straddle 5.725-5.85GHz | 18.5          |
| 802.11ac VHT80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 12.5          |
| 5530MHz                        | 13.75         |
| 5610MHz                        | 17.5          |
| 5690MHz Straddle 5.47-5.725GHz | 18            |
| 5690MHz Straddle 5.725-5.85GHz | 18            |
| 802.11ax HEW20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 17.75         |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 17.75         |
| 5320MHz                        | 16            |
| 5500MHz                        | 16            |
| 5580MHz                        | 18            |
| 5700MHz                        | 13.5          |
| 5720MHz Straddle 5.47-5.725GHz | 18.5          |
| 5720MHz Straddle 5.725-5.85GHz | 18.5          |
| 802.11ax HEW40_Nss2,(MCS0)_2TX |               |
| 5270MHz                        | 17.75         |
| 5310MHz                        | 13.5          |
| 5510MHz                        | 14.25         |
| 5550MHz                        | 18            |
| 5670MHz                        | 16            |
| 5710MHz Straddle 5.47-5.725GHz | 18.5          |
| 5710MHz Straddle 5.725-5.85GHz | 18.5          |
| 802.11ax HEW80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 12.5          |
| 5530MHz                        | 13.75         |
| 5610MHz                        | 17.5          |
| 5690MHz Straddle 5.47-5.725GHz | 18            |
| 5690MHz Straddle 5.725-5.85GHz | 18            |

**Sample 2\_Radio 1\_Panel 1\_1T1S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_1TX       | -             |
| 5260MHz                        | 17.75         |
| 5300MHz                        | 17.75         |
| 5320MHz                        | 16.25         |
| 5500MHz                        | 15.5          |
| 5580MHz                        | 18            |
| 5700MHz                        | 16            |
| 5720MHz Straddle 5.47-5.725GHz | 18            |
| 5720MHz Straddle 5.725-5.85GHz | 18            |
| 802.11ac VHT20_Nss1,(MCS0)_1TX |               |
| 5260MHz                        | 17.25         |
| 5300MHz                        | 17.5          |
| 5320MHz                        | 16.25         |
| 5500MHz                        | 16            |
| 5580MHz                        | 17.5          |
| 5700MHz                        | 13.25         |
| 5720MHz Straddle 5.47-5.725GHz | 17.75         |
| 5720MHz Straddle 5.725-5.85GHz | 17.75         |
| 802.11ac VHT40_Nss1,(MCS0)_1TX |               |
| 5270MHz                        | 17.5          |
| 5310MHz                        | 14            |
| 5510MHz                        | 14.25         |
| 5550MHz                        | 17.5          |
| 5670MHz                        | 17.5          |
| 5710MHz Straddle 5.47-5.725GHz | 18            |
| 5710MHz Straddle 5.725-5.85GHz | 18            |
| 802.11ac VHT80_Nss1,(MCS0)_1TX |               |
| 5290MHz                        | 13.75         |
| 5530MHz                        | 15            |
| 5610MHz                        | 17.5          |
| 5690MHz Straddle 5.47-5.725GHz | 18            |
| 5690MHz Straddle 5.725-5.85GHz | 18            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX |               |
| 5260MHz                        | 17.25         |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 17.5          |
| 5320MHz                        | 16.25         |
| 5500MHz                        | 16            |
| 5580MHz                        | 17.5          |
| 5700MHz                        | 13.25         |
| 5720MHz Straddle 5.47-5.725GHz | 17.75         |
| 5720MHz Straddle 5.725-5.85GHz | 17.75         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX |               |
| 5270MHz                        | 17.5          |
| 5310MHz                        | 14            |
| 5510MHz                        | 14.25         |
| 5550MHz                        | 17.5          |
| 5670MHz                        | 17.5          |
| 5710MHz Straddle 5.47-5.725GHz | 18            |
| 5710MHz Straddle 5.725-5.85GHz | 18            |
| 802.11ax HEW80_Nss1,(MCS0)_1TX |               |
| 5290MHz                        | 13.75         |
| 5530MHz                        | 15            |
| 5610MHz                        | 17.5          |
| 5690MHz Straddle 5.47-5.725GHz | 18            |
| 5690MHz Straddle 5.725-5.85GHz | 18            |

**Sample 2 Radio 1 Panel 1 2T2S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -             |
| 5260MHz                        | 12            |
| 5300MHz                        | 12            |
| 5320MHz                        | 12.25         |
| 5500MHz                        | 11.75         |
| 5580MHz                        | 12            |
| 5700MHz                        | 12            |
| 5720MHz Straddle 5.47-5.725GHz | 12            |
| 5720MHz Straddle 5.725-5.85GHz | 12            |
| 802.11ac VHT20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 13.75         |
| 5300MHz                        | 13.75         |
| 5320MHz                        | 13.75         |
| 5500MHz                        | 13.5          |
| 5580MHz                        | 14            |
| 5700MHz                        | 14            |
| 5720MHz Straddle 5.47-5.725GHz | 14.75         |
| 5720MHz Straddle 5.725-5.85GHz | 14.75         |
| 802.11ac VHT40_Nss2,(MCS0)_2TX |               |
| 5270MHz                        | 14            |
| 5310MHz                        | 13.5          |
| 5510MHz                        | 14.25         |
| 5550MHz                        | 14.5          |
| 5670MHz                        | 14            |
| 5710MHz Straddle 5.47-5.725GHz | 15            |
| 5710MHz Straddle 5.725-5.85GHz | 15            |
| 802.11ac VHT80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 12.25         |
| 5530MHz                        | 13.5          |
| 5610MHz                        | 14.25         |
| 5690MHz Straddle 5.47-5.725GHz | 14.75         |
| 5690MHz Straddle 5.725-5.85GHz | 14.75         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 13.75         |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 13.75         |
| 5320MHz                        | 13.75         |
| 5500MHz                        | 13.5          |
| 5580MHz                        | 14            |
| 5700MHz                        | 14            |
| 5720MHz Straddle 5.47-5.725GHz | 14.75         |
| 5720MHz Straddle 5.725-5.85GHz | 14.75         |
| 802.11ax HEW40_Nss2,(MCS0)_2TX |               |
| 5270MHz                        | 14            |
| 5310MHz                        | 13.5          |
| 5510MHz                        | 14.25         |
| 5550MHz                        | 14.5          |
| 5670MHz                        | 14            |
| 5710MHz Straddle 5.47-5.725GHz | 15            |
| 5710MHz Straddle 5.725-5.85GHz | 15            |
| 802.11ax HEW80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 12.25         |
| 5530MHz                        | 13.5          |
| 5610MHz                        | 14.25         |
| 5690MHz Straddle 5.47-5.725GHz | 14.75         |
| 5690MHz Straddle 5.725-5.85GHz | 14.75         |

**Sample 2\_Radio 2\_Omni\_1T1S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_1TX       | -             |
| 5260MHz                        | 22.75         |
| 5300MHz                        | 22.5          |
| 5320MHz                        | 19.5          |
| 5500MHz                        | 16.75         |
| 5580MHz                        | 22.25         |
| 5700MHz                        | 18            |
| 5720MHz Straddle 5.47-5.725GHz | 23            |
| 5720MHz Straddle 5.725-5.85GHz | 23            |
| 802.11ac VHT20_Nss1,(MCS0)_1TX |               |
| 5260MHz                        | 22.25         |
| 5300MHz                        | 22            |
| 5320MHz                        | 18.25         |
| 5500MHz                        | 17.25         |
| 5580MHz                        | 22.25         |
| 5700MHz                        | 15            |
| 5720MHz Straddle 5.47-5.725GHz | 22.75         |
| 5720MHz Straddle 5.725-5.85GHz | 22.75         |
| 802.11ac VHT40_Nss1,(MCS0)_1TX |               |
| 5270MHz                        | 21.25         |
| 5310MHz                        | 15.75         |
| 5510MHz                        | 15.25         |
| 5550MHz                        | 20.25         |
| 5670MHz                        | 19            |
| 5710MHz Straddle 5.47-5.725GHz | 22.25         |
| 5710MHz Straddle 5.725-5.85GHz | 22.25         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX |               |
| 5290MHz                        | 15.75         |
| 5530MHz                        | 15.25         |
| 5610MHz                        | 19            |
| 5690MHz Straddle 5.47-5.725GHz | 22.25         |
| 5690MHz Straddle 5.725-5.85GHz | 22.25         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX |               |
| 5260MHz                        | 22.25         |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 22            |
| 5320MHz                        | 18.25         |
| 5500MHz                        | 17.25         |
| 5580MHz                        | 22.25         |
| 5700MHz                        | 15            |
| 5720MHz Straddle 5.47-5.725GHz | 22.75         |
| 5720MHz Straddle 5.725-5.85GHz | 22.75         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX |               |
| 5270MHz                        | 21.25         |
| 5310MHz                        | 15.75         |
| 5510MHz                        | 15.25         |
| 5550MHz                        | 20.25         |
| 5670MHz                        | 19            |
| 5710MHz Straddle 5.47-5.725GHz | 22.25         |
| 5710MHz Straddle 5.725-5.85GHz | 22.25         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX |               |
| 5290MHz                        | 15.75         |
| 5530MHz                        | 15.25         |
| 5610MHz                        | 19            |
| 5690MHz Straddle 5.47-5.725GHz | 22.25         |
| 5690MHz Straddle 5.725-5.85GHz | 22.25         |

**Sample 2\_Radio 2\_Omni\_2T2S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -             |
| 5260MHz                        | 16            |
| 5300MHz                        | 16            |
| 5320MHz                        | 16            |
| 5500MHz                        | 15.25         |
| 5580MHz                        | 16            |
| 5700MHz                        | 16.5          |
| 5720MHz Straddle 5.47-5.725GHz | 16.5          |
| 5720MHz Straddle 5.725-5.85GHz | 16.5          |
| 802.11ac VHT20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 19            |
| 5300MHz                        | 19            |
| 5320MHz                        | 16.75         |
| 5500MHz                        | 16.25         |
| 5580MHz                        | 18.75         |
| 5700MHz                        | 14.75         |
| 5720MHz Straddle 5.47-5.725GHz | 18.75         |
| 5720MHz Straddle 5.725-5.85GHz | 18.75         |
| 802.11ac VHT40_Nss2,(MCS0)_2TX |               |
| 5270MHz                        | 19            |
| 5310MHz                        | 13.25         |
| 5510MHz                        | 13.25         |
| 5550MHz                        | 17.25         |
| 5670MHz                        | 15.5          |
| 5710MHz Straddle 5.47-5.725GHz | 19            |
| 5710MHz Straddle 5.725-5.85GHz | 19            |
| 802.11ac VHT80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 12.25         |
| 5530MHz                        | 12.25         |
| 5610MHz                        | 16.75         |
| 5690MHz Straddle 5.47-5.725GHz | 19            |
| 5690MHz Straddle 5.725-5.85GHz | 19            |
| 802.11ax HEW20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 19            |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 19            |
| 5320MHz                        | 16.75         |
| 5500MHz                        | 16.25         |
| 5580MHz                        | 18.75         |
| 5700MHz                        | 14.75         |
| 5720MHz Straddle 5.47-5.725GHz | 18.75         |
| 5720MHz Straddle 5.725-5.85GHz | 18.75         |
| 802.11ax HEW40_Nss2,(MCS0)_2TX |               |
| 5270MHz                        | 19            |
| 5310MHz                        | 13.25         |
| 5510MHz                        | 13.25         |
| 5550MHz                        | 17.25         |
| 5670MHz                        | 15.5          |
| 5710MHz Straddle 5.47-5.725GHz | 19            |
| 5710MHz Straddle 5.725-5.85GHz | 19            |
| 802.11ax HEW80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 12.25         |
| 5530MHz                        | 12.25         |
| 5610MHz                        | 16.75         |
| 5690MHz Straddle 5.47-5.725GHz | 19            |
| 5690MHz Straddle 5.725-5.85GHz | 19            |

**Sample 2\_Radio 2\_Panel 1\_1T1S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_1TX       | -             |
| 5260MHz                        | 18            |
| 5300MHz                        | 18            |
| 5320MHz                        | 18            |
| 5500MHz                        | 16.5          |
| 5580MHz                        | 18.25         |
| 5700MHz                        | 18            |
| 5720MHz Straddle 5.47-5.725GHz | 18.25         |
| 5720MHz Straddle 5.725-5.85GHz | 18.25         |
| 802.11ac VHT20_Nss1,(MCS0)_1TX |               |
| 5260MHz                        | 17.75         |
| 5300MHz                        | 17.5          |
| 5320MHz                        | 17.5          |
| 5500MHz                        | 17.25         |
| 5580MHz                        | 18            |
| 5700MHz                        | 15.25         |
| 5720MHz Straddle 5.47-5.725GHz | 18.25         |
| 5720MHz Straddle 5.725-5.85GHz | 18.25         |
| 802.11ac VHT40_Nss1,(MCS0)_1TX |               |
| 5270MHz                        | 17.75         |
| 5310MHz                        | 16            |
| 5510MHz                        | 15.5          |
| 5550MHz                        | 17.5          |
| 5670MHz                        | 17.5          |
| 5710MHz Straddle 5.47-5.725GHz | 18            |
| 5710MHz Straddle 5.725-5.85GHz | 18            |
| 802.11ac VHT80_Nss1,(MCS0)_1TX |               |
| 5290MHz                        | 16.25         |
| 5530MHz                        | 15.5          |
| 5610MHz                        | 17.5          |
| 5690MHz Straddle 5.47-5.725GHz | 18            |
| 5690MHz Straddle 5.725-5.85GHz | 18            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX |               |
| 5260MHz                        | 17.75         |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 17.5          |
| 5320MHz                        | 17.5          |
| 5500MHz                        | 17.25         |
| 5580MHz                        | 18            |
| 5700MHz                        | 15.25         |
| 5720MHz Straddle 5.47-5.725GHz | 18.25         |
| 5720MHz Straddle 5.725-5.85GHz | 18.25         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX |               |
| 5270MHz                        | 17.75         |
| 5310MHz                        | 16            |
| 5510MHz                        | 15.5          |
| 5550MHz                        | 17.5          |
| 5670MHz                        | 17.5          |
| 5710MHz Straddle 5.47-5.725GHz | 18            |
| 5710MHz Straddle 5.725-5.85GHz | 18            |
| 802.11ax HEW80_Nss1,(MCS0)_1TX |               |
| 5290MHz                        | 16.25         |
| 5530MHz                        | 15.5          |
| 5610MHz                        | 17.5          |
| 5690MHz Straddle 5.47-5.725GHz | 18            |
| 5690MHz Straddle 5.725-5.85GHz | 18            |

**Sample 2\_Radio 2\_Panel 1\_2T2S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -             |
| 5260MHz                        | 12.5          |
| 5300MHz                        | 12.5          |
| 5320MHz                        | 12.5          |
| 5500MHz                        | 12.5          |
| 5580MHz                        | 12.5          |
| 5700MHz                        | 12.5          |
| 5720MHz Straddle 5.47-5.725GHz | 12.5          |
| 5720MHz Straddle 5.725-5.85GHz | 12.5          |
| 802.11ac VHT20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 14.5          |
| 5300MHz                        | 14.5          |
| 5320MHz                        | 14.5          |
| 5500MHz                        | 14.5          |
| 5580MHz                        | 14.5          |
| 5700MHz                        | 14.25         |
| 5720MHz Straddle 5.47-5.725GHz | 14.75         |
| 5720MHz Straddle 5.725-5.85GHz | 14.75         |
| 802.11ac VHT40_Nss2,(MCS0)_2TX |               |
| 5270MHz                        | 14.5          |
| 5310MHz                        | 13.75         |
| 5510MHz                        | 13.75         |
| 5550MHz                        | 14.75         |
| 5670MHz                        | 14.5          |
| 5710MHz Straddle 5.47-5.725GHz | 15            |
| 5710MHz Straddle 5.725-5.85GHz | 15            |
| 802.11ac VHT80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 14            |
| 5530MHz                        | 13.75         |
| 5610MHz                        | 14.5          |
| 5690MHz Straddle 5.47-5.725GHz | 14.75         |
| 5690MHz Straddle 5.725-5.85GHz | 14.75         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX |               |
| 5260MHz                        | 14.5          |



| Mode                           | Power Setting |
|--------------------------------|---------------|
| 5300MHz                        | 14.5          |
| 5320MHz                        | 14.5          |
| 5500MHz                        | 14.5          |
| 5580MHz                        | 14.5          |
| 5700MHz                        | 14.25         |
| 5720MHz Straddle 5.47-5.725GHz | 14.75         |
| 5720MHz Straddle 5.725-5.85GHz | 14.75         |
| 802.11ax HEW40_Nss2,(MCS0)_2TX |               |
| 5270MHz                        | 14.5          |
| 5310MHz                        | 13.75         |
| 5510MHz                        | 13.75         |
| 5550MHz                        | 14.75         |
| 5670MHz                        | 14.5          |
| 5710MHz Straddle 5.47-5.725GHz | 15            |
| 5710MHz Straddle 5.725-5.85GHz | 15            |
| 802.11ax HEW80_Nss2,(MCS0)_2TX |               |
| 5290MHz                        | 14            |
| 5530MHz                        | 13.75         |
| 5610MHz                        | 14.5          |
| 5690MHz Straddle 5.47-5.725GHz | 14.75         |
| 5690MHz Straddle 5.725-5.85GHz | 14.75         |

**Beamforming**

| Test Software Version | Dos |
|-----------------------|-----|
|-----------------------|-----|

**Sample 1\_Radio 1\_2T1S**

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | -             |
| 5260MHz                           | 17            |
| 5300MHz                           | 17            |
| 5320MHz                           | 17            |
| 5500MHz                           | 17.25         |
| 5580MHz                           | 17.5          |
| 5700MHz                           | 17.5          |
| 5720MHz Straddle 5.47-5.725GHz    | 17.5          |
| 5720MHz Straddle 5.725-5.85GHz    | 17.5          |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 17.5          |
| 5310MHz                           | 16.75         |
| 5510MHz                           | 15.5          |
| 5550MHz                           | 17.75         |
| 5670MHz                           | 17.75         |
| 5710MHz Straddle 5.47-5.725GHz    | 17.25         |
| 5710MHz Straddle 5.725-5.85GHz    | 17.25         |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX |               |
| 5290MHz                           | 17            |
| 5530MHz                           | 15.75         |
| 5610MHz                           | 17.75         |
| 5690MHz Straddle 5.47-5.725GHz    | 16.75         |
| 5690MHz Straddle 5.725-5.85GHz    | 16.75         |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX |               |
| 5260MHz                           | 17            |
| 5300MHz                           | 17            |
| 5320MHz                           | 17            |
| 5500MHz                           | 17.25         |
| 5580MHz                           | 17.5          |
| 5700MHz                           | 17.5          |
| 5720MHz Straddle 5.47-5.725GHz    | 17.5          |



| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 5720MHz Straddle 5.725-5.85GHz    | 17.5          |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 17.5          |
| 5310MHz                           | 16.75         |
| 5510MHz                           | 15.5          |
| 5550MHz                           | 17.75         |
| 5670MHz                           | 17.75         |
| 5710MHz Straddle 5.47-5.725GHz    | 17.25         |
| 5710MHz Straddle 5.725-5.85GHz    | 17.25         |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | -             |
| 5290MHz                           | 17            |
| 5530MHz                           | 15.75         |
| 5610MHz                           | 17.75         |
| 5690MHz Straddle 5.47-5.725GHz    | 16.75         |
| 5690MHz Straddle 5.725-5.85GHz    | 16.75         |

**Sample 1 Radio 2 2T1S**

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | -             |
| 5260MHz                           | 18            |
| 5300MHz                           | 17.75         |
| 5320MHz                           | 17.75         |
| 5500MHz                           | 18            |
| 5580MHz                           | 18.25         |
| 5700MHz                           | 17            |
| 5720MHz Straddle 5.47-5.725GHz    | 18            |
| 5720MHz Straddle 5.725-5.85GHz    | 18            |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 18            |
| 5310MHz                           | 16.75         |
| 5510MHz                           | 16            |
| 5550MHz                           | 18            |
| 5670MHz                           | 18            |
| 5710MHz Straddle 5.47-5.725GHz    | 18            |
| 5710MHz Straddle 5.725-5.85GHz    | 18            |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX |               |
| 5290MHz                           | 16.75         |
| 5530MHz                           | 15.75         |
| 5610MHz                           | 17.5          |
| 5690MHz Straddle 5.47-5.725GHz    | 17.25         |
| 5690MHz Straddle 5.725-5.85GHz    | 17.25         |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX |               |
| 5260MHz                           | 18            |
| 5300MHz                           | 17.75         |
| 5320MHz                           | 17.75         |
| 5500MHz                           | 18            |
| 5580MHz                           | 18.25         |
| 5700MHz                           | 17            |
| 5720MHz Straddle 5.47-5.725GHz    | 18            |
| 5720MHz Straddle 5.725-5.85GHz    | 18            |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 18            |

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 5310MHz                           | 16.75         |
| 5510MHz                           | 16            |
| 5550MHz                           | 18            |
| 5670MHz                           | 18            |
| 5710MHz Straddle 5.47-5.725GHz    | 18            |
| 5710MHz Straddle 5.725-5.85GHz    | 18            |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX |               |
| 5290MHz                           | 16.75         |
| 5530MHz                           | 15.75         |
| 5610MHz                           | 17.5          |
| 5690MHz Straddle 5.47-5.725GHz    | 17.25         |
| 5690MHz Straddle 5.725-5.85GHz    | 17.25         |

**Sample 2 Radio 1 Omni\_2T1S**

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | -             |
| 5260MHz                           | 14.5          |
| 5300MHz                           | 14.5          |
| 5320MHz                           | 14.75         |
| 5500MHz                           | 14.5          |
| 5580MHz                           | 14.5          |
| 5700MHz                           | 14.5          |
| 5720MHz Straddle 5.47-5.725GHz    | 14.5          |
| 5720MHz Straddle 5.725-5.85GHz    | 14.5          |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | -             |
| 5270MHz                           | 14.75         |
| 5310MHz                           | 14.75         |
| 5510MHz                           | 14.25         |
| 5550MHz                           | 14.75         |
| 5670MHz                           | 14.75         |
| 5710MHz Straddle 5.47-5.725GHz    | 15            |
| 5710MHz Straddle 5.725-5.85GHz    | 15            |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | -             |
| 5290MHz                           | 14.5          |
| 5530MHz                           | 14.5          |
| 5610MHz                           | 15            |
| 5690MHz Straddle 5.47-5.725GHz    | 15            |
| 5690MHz Straddle 5.725-5.85GHz    | 15            |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | -             |
| 5260MHz                           | 14.5          |
| 5300MHz                           | 14.5          |
| 5320MHz                           | 14.75         |
| 5500MHz                           | 14.5          |
| 5580MHz                           | 14.5          |
| 5700MHz                           | 14.5          |
| 5720MHz Straddle 5.47-5.725GHz    | 14.5          |
| 5720MHz Straddle 5.725-5.85GHz    | 14.5          |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | -             |
| 5270MHz                           | 14.75         |

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 5310MHz                           | 14.75         |
| 5510MHz                           | 14.25         |
| 5550MHz                           | 14.75         |
| 5670MHz                           | 14.75         |
| 5710MHz Straddle 5.47-5.725GHz    | 15            |
| 5710MHz Straddle 5.725-5.85GHz    | 15            |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | -             |
| 5290MHz                           | 14.5          |
| 5530MHz                           | 14.5          |
| 5610MHz                           | 15            |
| 5690MHz Straddle 5.47-5.725GHz    | 15            |
| 5690MHz Straddle 5.725-5.85GHz    | 15            |

**Sample 2 Radio 1 Panel 1 2T1S**

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | -             |
| 5260MHz                           | 11.25         |
| 5300MHz                           | 11.25         |
| 5320MHz                           | 11.25         |
| 5500MHz                           | 11.25         |
| 5580MHz                           | 11.25         |
| 5700MHz                           | 11.25         |
| 5720MHz Straddle 5.47-5.725GHz    | 11.5          |
| 5720MHz Straddle 5.725-5.85GHz    | 11.5          |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 11.5          |
| 5310MHz                           | 11.5          |
| 5510MHz                           | 11.5          |
| 5550MHz                           | 11.75         |
| 5670MHz                           | 11.5          |
| 5710MHz Straddle 5.47-5.725GHz    | 12.5          |
| 5710MHz Straddle 5.725-5.85GHz    | 12.5          |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX |               |
| 5290MHz                           | 11.25         |
| 5530MHz                           | 11.25         |
| 5610MHz                           | 11.75         |
| 5690MHz Straddle 5.47-5.725GHz    | 11.75         |
| 5690MHz Straddle 5.725-5.85GHz    | 11.75         |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX |               |
| 5260MHz                           | 11.25         |
| 5300MHz                           | 11.25         |
| 5320MHz                           | 11.25         |
| 5500MHz                           | 11.25         |
| 5580MHz                           | 11.25         |
| 5700MHz                           | 11.25         |
| 5720MHz Straddle 5.47-5.725GHz    | 11.5          |
| 5720MHz Straddle 5.725-5.85GHz    | 11.5          |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 11.5          |



| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 5310MHz                           | 11.5          |
| 5510MHz                           | 11.5          |
| 5550MHz                           | 11.75         |
| 5670MHz                           | 11.5          |
| 5710MHz Straddle 5.47-5.725GHz    | 12.5          |
| 5710MHz Straddle 5.725-5.85GHz    | 12.5          |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX |               |
| 5290MHz                           | 11.25         |
| 5530MHz                           | 11.25         |
| 5610MHz                           | 11.75         |
| 5690MHz Straddle 5.47-5.725GHz    | 11.75         |
| 5690MHz Straddle 5.725-5.85GHz    | 11.75         |

**Sample 2 Radio 2 Omni\_2T1S**

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | -             |
| 5260MHz                           | 15            |
| 5300MHz                           | 14.75         |
| 5320MHz                           | 14.75         |
| 5500MHz                           | 14.75         |
| 5580MHz                           | 15            |
| 5700MHz                           | 14.25         |
| 5720MHz Straddle 5.47-5.725GHz    | 14.5          |
| 5720MHz Straddle 5.725-5.85GHz    | 14.5          |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 14.75         |
| 5310MHz                           | 14            |
| 5510MHz                           | 13            |
| 5550MHz                           | 15            |
| 5670MHz                           | 15            |
| 5710MHz Straddle 5.47-5.725GHz    | 15            |
| 5710MHz Straddle 5.725-5.85GHz    | 15            |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX |               |
| 5290MHz                           | 13            |
| 5530MHz                           | 13            |
| 5610MHz                           | 14.75         |
| 5690MHz Straddle 5.47-5.725GHz    | 14.5          |
| 5690MHz Straddle 5.725-5.85GHz    | 14.5          |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX |               |
| 5260MHz                           | 15            |
| 5300MHz                           | 14.75         |
| 5320MHz                           | 14.75         |
| 5500MHz                           | 14.75         |
| 5580MHz                           | 15            |
| 5700MHz                           | 14.25         |
| 5720MHz Straddle 5.47-5.725GHz    | 14.5          |
| 5720MHz Straddle 5.725-5.85GHz    | 14.5          |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 14.75         |

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 5310MHz                           | 14            |
| 5510MHz                           | 13            |
| 5550MHz                           | 15            |
| 5670MHz                           | 15            |
| 5710MHz Straddle 5.47-5.725GHz    | 15            |
| 5710MHz Straddle 5.725-5.85GHz    | 15            |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX |               |
| 5290MHz                           | 13            |
| 5530MHz                           | 13            |
| 5610MHz                           | 14.75         |
| 5690MHz Straddle 5.47-5.725GHz    | 14.5          |
| 5690MHz Straddle 5.725-5.85GHz    | 14.5          |

**Sample 2 Radio 2 Panel 1 2T1S**

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | -             |
| 5260MHz                           | 12            |
| 5300MHz                           | 12            |
| 5320MHz                           | 11.75         |
| 5500MHz                           | 12            |
| 5580MHz                           | 12.25         |
| 5700MHz                           | 12            |
| 5720MHz Straddle 5.47-5.725GHz    | 12.25         |
| 5720MHz Straddle 5.725-5.85GHz    | 12.25         |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 12            |
| 5310MHz                           | 12            |
| 5510MHz                           | 12.25         |
| 5550MHz                           | 12.25         |
| 5670MHz                           | 12.25         |
| 5710MHz Straddle 5.47-5.725GHz    | 12.75         |
| 5710MHz Straddle 5.725-5.85GHz    | 12.75         |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX |               |
| 5290MHz                           | 11.75         |
| 5530MHz                           | 12            |
| 5610MHz                           | 12            |
| 5690MHz Straddle 5.47-5.725GHz    | 12.25         |
| 5690MHz Straddle 5.725-5.85GHz    | 12.25         |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX |               |
| 5260MHz                           | 12            |
| 5300MHz                           | 12            |
| 5320MHz                           | 11.75         |
| 5500MHz                           | 12            |
| 5580MHz                           | 12.25         |
| 5700MHz                           | 12            |
| 5720MHz Straddle 5.47-5.725GHz    | 12.25         |
| 5720MHz Straddle 5.725-5.85GHz    | 12.25         |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX |               |
| 5270MHz                           | 12            |



| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 5310MHz                           | 12            |
| 5510MHz                           | 12.25         |
| 5550MHz                           | 12.25         |
| 5670MHz                           | 12.25         |
| 5710MHz Straddle 5.47-5.725GHz    | 12.75         |
| 5710MHz Straddle 5.725-5.85GHz    | 12.75         |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX |               |
| 5290MHz                           | 11.75         |
| 5530MHz                           | 12            |
| 5610MHz                           | 12            |
| 5690MHz Straddle 5.47-5.725GHz    | 12.25         |
| 5690MHz Straddle 5.725-5.85GHz    | 12.25         |

## 2.3 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests |                                                                                     |
|-----------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                   | Emission Bandwidth<br>Maximum Conducted Output Power<br>Peak Power Spectral Density |
| <b>Test Condition</b>                               | Conducted measurement at transmit chains                                            |

| The Worst Case Mode for Following Conformance Tests |                                                                                                                                                                                                                                                     |                                                                                      |                                                                                       |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                   | Unwanted Emissions                                                                                                                                                                                                                                  |                                                                                      |                                                                                       |
| <b>Test Condition</b>                               | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |                                                                                      |                                                                                       |
| <b>Operating Mode &lt; 1GHz</b>                     | CTX                                                                                                                                                                                                                                                 |                                                                                      |                                                                                       |
| <b>1</b>                                            | PoE Mode (Non-Beamforming_Sample 1_Radio 1_1T1S)                                                                                                                                                                                                    |                                                                                      |                                                                                       |
| <b>2</b>                                            | PoE Mode (Non-Beamforming_Sample 1_Radio 1_2T2S)                                                                                                                                                                                                    |                                                                                      |                                                                                       |
| <b>3</b>                                            | PoE Mode (Non-Beamforming_Sample 1_Radio 2_1T1S)                                                                                                                                                                                                    |                                                                                      |                                                                                       |
| <b>4</b>                                            | PoE Mode (Non-Beamforming_Sample 1_Radio 2_2T2S)                                                                                                                                                                                                    |                                                                                      |                                                                                       |
| <b>5</b>                                            | PoE Mode (Non-Beamforming_Sample 2_Radio 1_Omni_1T1S)                                                                                                                                                                                               |                                                                                      |                                                                                       |
| <b>6</b>                                            | PoE Mode (Non-Beamforming_Sample 2_Radio 1_Omni_2T2S)                                                                                                                                                                                               |                                                                                      |                                                                                       |
| <b>7</b>                                            | PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 1_1T1S)                                                                                                                                                                                            |                                                                                      |                                                                                       |
| <b>8</b>                                            | PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 1_2T2S)                                                                                                                                                                                            |                                                                                      |                                                                                       |
| <b>9</b>                                            | PoE Mode (Non-Beamforming_Sample 2_Radio 2_Omni_1T1S)                                                                                                                                                                                               |                                                                                      |                                                                                       |
| <b>10</b>                                           | PoE Mode (Non-Beamforming_Sample 2_Radio 2_Omni_2T2S)                                                                                                                                                                                               |                                                                                      |                                                                                       |
| <b>11</b>                                           | PoE Mode (Non-Beamforming_Sample 2_Radio 2_Panel 1_1T1S)                                                                                                                                                                                            |                                                                                      |                                                                                       |
| <b>12</b>                                           | PoE Mode (Non-Beamforming_Sample 2_Radio 2_Panel 1_2T2S)                                                                                                                                                                                            |                                                                                      |                                                                                       |
| <b>13</b>                                           | PoE Mode (Beamforming_Sample 1_Radio 1_2T1S)                                                                                                                                                                                                        |                                                                                      |                                                                                       |
| <b>14</b>                                           | PoE Mode (Beamforming_Sample 1_Radio 2_2T1S)                                                                                                                                                                                                        |                                                                                      |                                                                                       |
| <b>15</b>                                           | PoE Mode (Beamforming_Sample 2_Radio 1_Omni_2T1S)                                                                                                                                                                                                   |                                                                                      |                                                                                       |
| <b>16</b>                                           | PoE Mode (Beamforming_Sample 2_Radio 1_Panel 1_2T1S)                                                                                                                                                                                                |                                                                                      |                                                                                       |
| <b>17</b>                                           | PoE Mode (Beamforming_Sample 2_Radio 2_Omni_2T1S)                                                                                                                                                                                                   |                                                                                      |                                                                                       |
| <b>18</b>                                           | PoE Mode (Beamforming_Sample 2_Radio 2_Panel 1_2T1S)                                                                                                                                                                                                |                                                                                      |                                                                                       |
| <b>Operating Mode &gt; 1GHz</b>                     | CTX                                                                                                                                                                                                                                                 |                                                                                      |                                                                                       |
| <b>Orthogonal Planes of EUT</b>                     | <b>X Plane</b>                                                                                                                                                                                                                                      | <b>Y Plane</b>                                                                       | <b>Z Plane</b>                                                                        |
|                                                     |                                                                                                                                                                  |  |  |



|                            |   |   |   |
|----------------------------|---|---|---|
| <b>Worst Planes of EUT</b> | V | V | V |
|----------------------------|---|---|---|

| <b>The Worst Case Mode for Following Conformance Tests</b>                            |                                               |
|---------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Tests Item</b>                                                                     | Simultaneous Transmission Analysis            |
| <b>Operating Mode</b>                                                                 | CTX                                           |
| 1                                                                                     | Radio 1 WLAN 2.4G+ Radio 2 WLAN 5G+ Bluetooth |
| 2                                                                                     | Radio 1 WLAN 2.4G+ Radio 2 WLAN 5G+ Thread    |
| 3                                                                                     | Radio 1 WLAN 5G+ Radio 2 WLAN 5G+ Bluetooth   |
| 4                                                                                     | Radio 1 WLAN 5G+ Radio 2 WLAN 5G+ Thread      |
| Refer to Sporton Test Report No.: FA992608-01 for Co-location RF Exposure Evaluation. |                                               |

## 2.4 Support Equipment

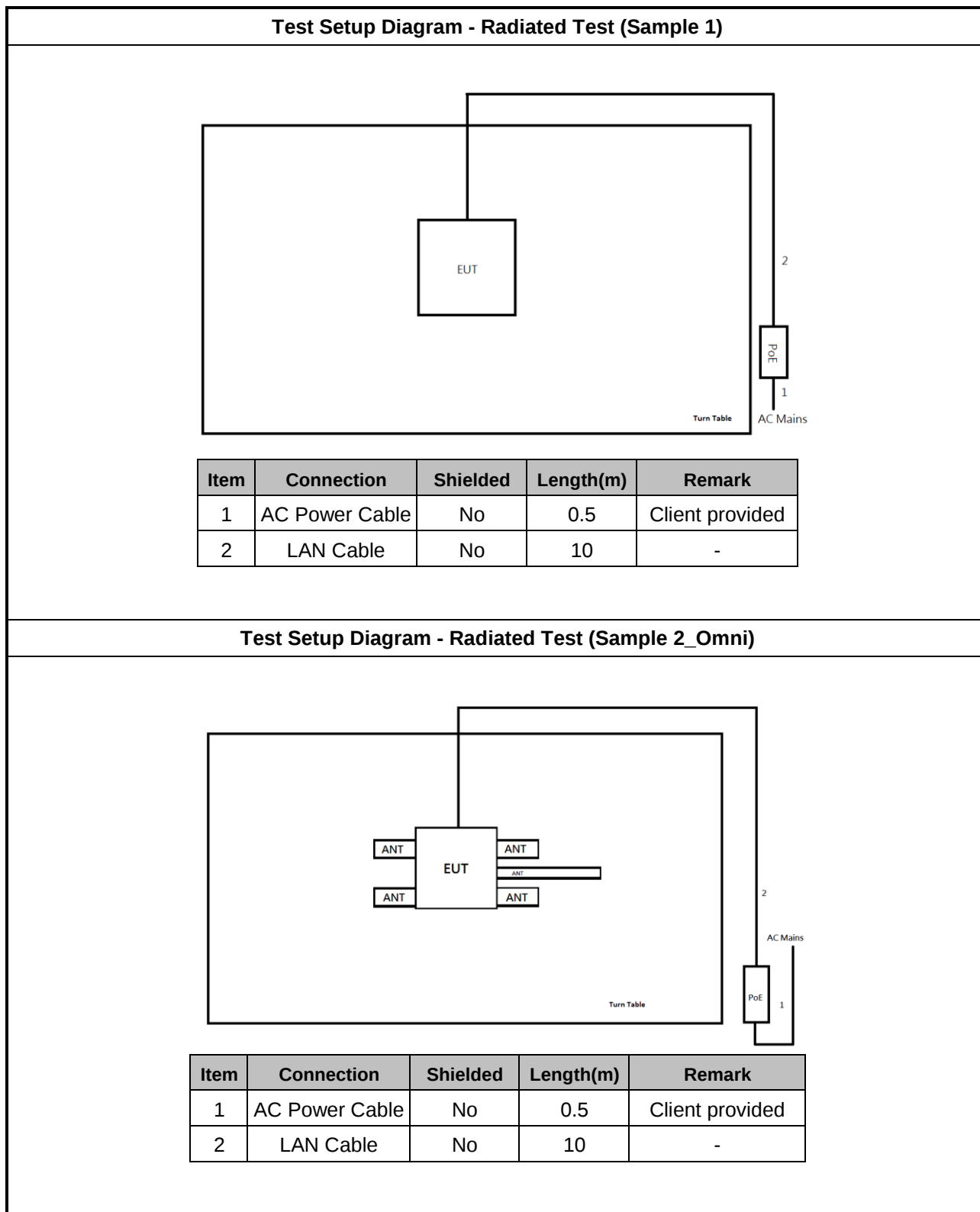
| Support Equipment – RF Conducted |                |            |            |              |
|----------------------------------|----------------|------------|------------|--------------|
| No.                              | Equipment      | Brand Name | Model Name | FCC ID       |
| 1                                | Notebook       | DELL       | PP13S      | R33002 / DOC |
| 2                                | Adapter for NB | DELL       | AA90PM111  | R35737 / DOC |
| 3                                | Notebook       | DELL       | PP13S      | R33002 / DOC |
| 4                                | Adapter for NB | DELL       | AA90PM111  | R35737 / DOC |
| 5                                | PoE            | EnGenius   | EPA5006GP  | -            |

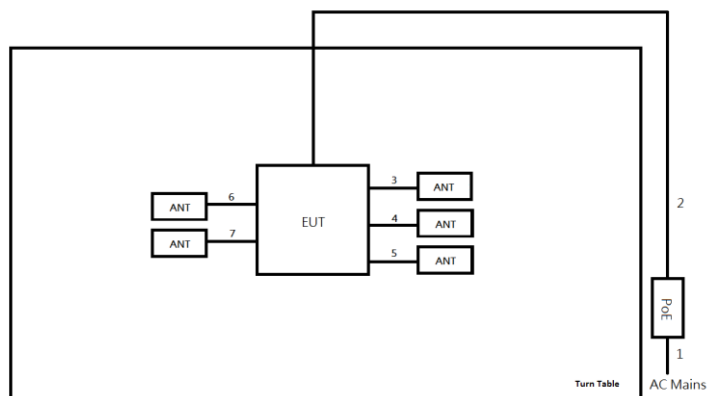
Note: Support equipment No.5 was provided by customer.

| Support Equipment – Radiated Emission |                |            |             |        |
|---------------------------------------|----------------|------------|-------------|--------|
| No.                                   | Equipment      | Brand Name | Model Name  | FCC ID |
| 1                                     | Load           | Sporton    |             | -      |
| 2                                     | USB 2.0 Flash  | Transcend  | D24425 2101 | -      |
| 3                                     | LAN Cable      | Power Sync | UTP5-01     | -      |
| 4                                     | LAN Cable      | Power Sync | CAT-6E-10   | -      |
| 5                                     | PoE            | EnGenius   | EPA5006GP   | Remote |
| 6                                     | PoE for BF     | EnGenius   | EPA5006GP   | Remote |
| 7                                     | AC Power Cable | -          | -           | Remote |
| 8                                     | Notebook       | DELL       | PP13S       | Remote |
| 9                                     | LAN Cable      | Power Sync | CAT-6E-01   | Remote |
| 10                                    | Adapter for NB | DELL       | AA90PM111   | Remote |

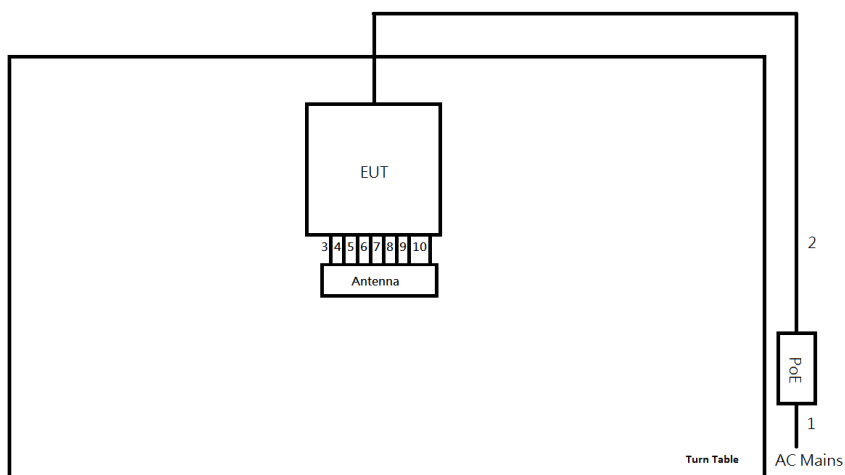
Note: Support equipment No.5,6,7 were provided by customer.

## 2.5 Test Setup Diagram



**Test Setup Diagram - Radiated Test (Sample 2\_Panel 1)**


| Item | Connection     | Shielded | Length(m) | Remark          |
|------|----------------|----------|-----------|-----------------|
| 1    | AC Power Cable | No       | 0.5       | Client provided |
| 2    | LAN Cable      | No       | 10        | -               |
| 3    | Antenna Cable  | No       | 0.3       | -               |
| 4    | Antenna Cable  | No       | 0.3       | -               |
| 5    | Antenna Cable  | No       | 0.3       | -               |
| 6    | Antenna Cable  | No       | 0.3       | -               |
| 7    | Antenna Cable  | No       | 0.3       | -               |

**Test Setup Diagram - Radiated Test (Sample 2\_Panel 2)**


| Item | Connection     | Shielded | Length(m) | Remark          |
|------|----------------|----------|-----------|-----------------|
| 1    | AC Power Cable | No       | 0.5       | Client provided |
| 2    | LAN Cable      | No       | 10        | -               |
| 3    | Antenna Cable  | No       | 1.6       | -               |
| 4    | Antenna Cable  | No       | 1.6       | -               |
| 5    | Antenna Cable  | No       | 1.6       | -               |
| 6    | Antenna Cable  | No       | 1.6       | -               |
| 7    | Antenna Cable  | No       | 1.6       | -               |
| 8    | Antenna Cable  | No       | 1.6       | -               |
| 9    | Antenna Cable  | No       | 1.6       | -               |
| 10   | Antenna Cable  | No       | 1.6       | -               |

### 3 Transmitter Test Result

#### 3.1 Emission Bandwidth

##### 3.1.1 Emission Bandwidth Limit

| Emission Bandwidth Limit            |                                                                     |
|-------------------------------------|---------------------------------------------------------------------|
| <b>UNII Devices</b>                 |                                                                     |
| <input type="checkbox"/>            | For the 5.15-5.25 GHz band, N/A                                     |
| <input checked="" type="checkbox"/> | For the 5.25-5.35 GHz band, N/A                                     |
| <input checked="" type="checkbox"/> | For the 5.47-5.725 GHz band, N/A                                    |
| <input checked="" type="checkbox"/> | For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz. |

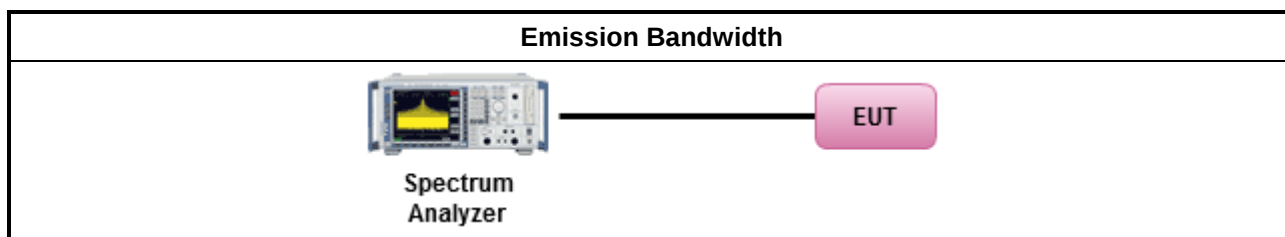
##### 3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

##### 3.1.3 Test Procedures

| Test Method                                                                                                                    |                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>For the emission bandwidth shall be measured using one of the options below:</li> </ul> |                                                                         |
| <input checked="" type="checkbox"/>                                                                                            | Refer as KDB 789033, clause C for EBW and clause D for OBW measurement. |
| <input type="checkbox"/>                                                                                                       | Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.      |
| <input type="checkbox"/>                                                                                                       | Refer as IC RSS-Gen, clause 6.7 for bandwidth testing.                  |

##### 3.1.4 Test Setup



##### 3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

## 3.2 Maximum Conducted Output Power

### 3.2.1 Maximum Conducted Output Power Limit

| Maximum Conducted Output Power Limit                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNII Devices</b>                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <input type="checkbox"/> For the 5.15-5.25 GHz band:                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <input type="checkbox"/>                                                                                                   | <ul style="list-style-type: none"> <li>Outdoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>. e.i.r.p. at any elevation angle above 30 degrees <math>\leq 125</math>mW [21dBm]</li> <li>Indoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math></li> <li>Point-to-point AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 23)</math>.</li> <li>Mobile or Portable Client: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 250 mW. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 24 - (G_{TX} - 6)</math>.</li> </ul> |
| <input checked="" type="checkbox"/>                                                                                        | For the 5.25-5.35 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <input checked="" type="checkbox"/>                                                                                        | For the 5.47-5.725 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <input checked="" type="checkbox"/>                                                                                        | <ul style="list-style-type: none"> <li>Point-to-multipoint systems (P2M): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>.</li> <li>Point-to-point systems (P2P): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| $P_{Out}$ = maximum conducted output power in dBm,<br>$G_{TX}$ = the maximum transmitting antenna directional gain in dBi. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

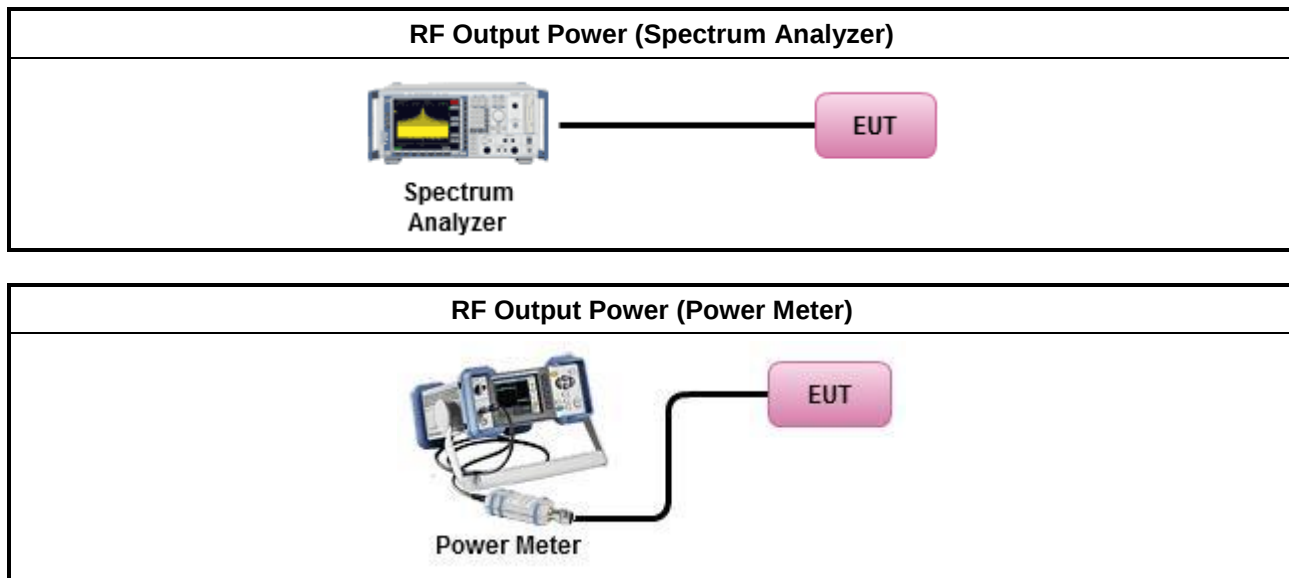
### 3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.2.3 Test Procedures

| Test Method                                                                      |                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Maximum Conducted Output Power</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                  | Duty cycle $\geq 98\%$                                                                                                                                                                                                                                                                                                                                             |
| <input checked="" type="checkbox"/>                                              | Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).                                                                                                                                                                                                                                                                                              |
|                                                                                  | Duty cycle $< 98\%$                                                                                                                                                                                                                                                                                                                                                |
| <input type="checkbox"/>                                                         | Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)                                                                                                                                                                                                                                                                               |
|                                                                                  | Wideband RF power meter and average over on/off periods with duty factor                                                                                                                                                                                                                                                                                           |
| <input checked="" type="checkbox"/>                                              | Refer as KDB 789033, clause E Method PM (using an RF average power meter).                                                                                                                                                                                                                                                                                         |
| <ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>     |                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                  | <ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below:<br/>Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.</li> </ul> |
|                                                                                  | <ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:<br/> <math>P_{total} = P_1 + P_2 + \dots + P_n</math><br/> (calculated in linear unit [mW] and transfer to log unit [dBm])<br/> <math>EIRP_{total} = P_{total} + DG</math> </li> </ul>                                                         |

### 3.2.4 Test Setup



### 3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

### 3.3 Peak Power Spectral Density

#### 3.3.1 Peak Power Spectral Density Limit

| Peak Power Spectral Density Limit                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNII Devices</b>                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <input type="checkbox"/> For the 5.15-5.25 GHz band:                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li> <li>Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li> <li>Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 23)</math>.</li> <li>Mobile or Portable Client: the peak power spectral density (PPSD) <math>\leq 11</math> dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 11 - (G_{TX} - 6)</math>.</li> </ul> |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                             | For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                             | For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 30 - (G_{TX} - 6)</math>.</li> <li>Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>PPSD</b> = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz<br><b>G<sub>TX</sub></b> = the maximum transmitting antenna directional gain in dBi. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

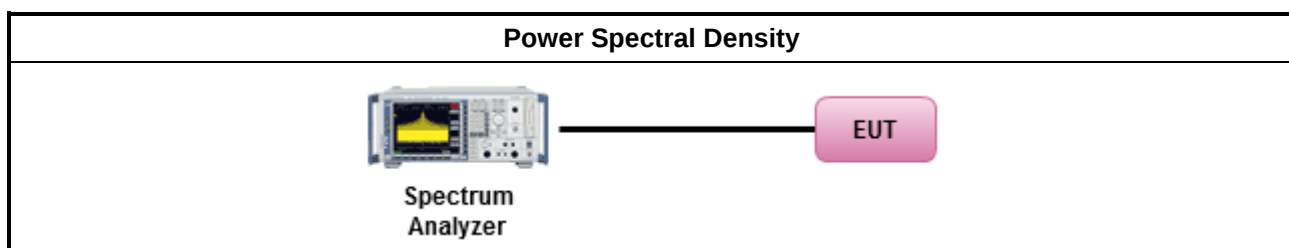
#### 3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.3.3 Test Procedures

| Test Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <ul style="list-style-type: none"> <li>Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:</li> </ul>                                                                                                                                                                                                                                                                                       |  |
| <input type="checkbox"/> Refer as KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| Duty cycle ≥ 98%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| <input type="checkbox"/> Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Duty cycle < 98%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| <input checked="" type="checkbox"/> Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below:</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| <input type="checkbox"/> Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. |  |
| <ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP PPSD calculation could be following as methods:<br/> <math display="block">PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n</math>           (calculated in linear unit [mW] and transfer to log unit [dBm])<br/> <math display="block">EIRP_{total} = PPSD_{total} + DG</math> </li> </ul>                                                                                                                                                                                                                                                                                                                   |  |

### 3.3.4 Test Setup



### 3.3.5 Test Result of Peak Power Spectral Density

Refer as Appendix C

### 3.4 Unwanted Emissions

#### 3.4.1 Transmitter Radiated Unwanted Emissions Limit

| Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit |                       |                         |                      |
|-------------------------------------------------------------------------------|-----------------------|-------------------------|----------------------|
| Frequency Range (MHz)                                                         | Field Strength (uV/m) | Field Strength (dBUV/m) | Measure Distance (m) |
| 0.009~0.490                                                                   | 2400/F(kHz)           | 48.5 - 13.8             | 300                  |
| 0.490~1.705                                                                   | 24000/F(kHz)          | 33.8 - 23               | 30                   |
| 1.705~30.0                                                                    | 30                    | 29                      | 30                   |
| 30~88                                                                         | 100                   | 40                      | 3                    |
| 88~216                                                                        | 150                   | 43.5                    | 3                    |
| 216~960                                                                       | 200                   | 46                      | 3                    |
| Above 960                                                                     | 500                   | 54                      | 3                    |

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

| Un-restricted band emissions above 1GHz Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.15 - 5.25 GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.25 - 5.35 GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.47 - 5.725 GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.725 - 5.85 GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m]<br>5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m]<br>5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m]<br>5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m]<br>5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m]<br>5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m]<br>Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m] |
| Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

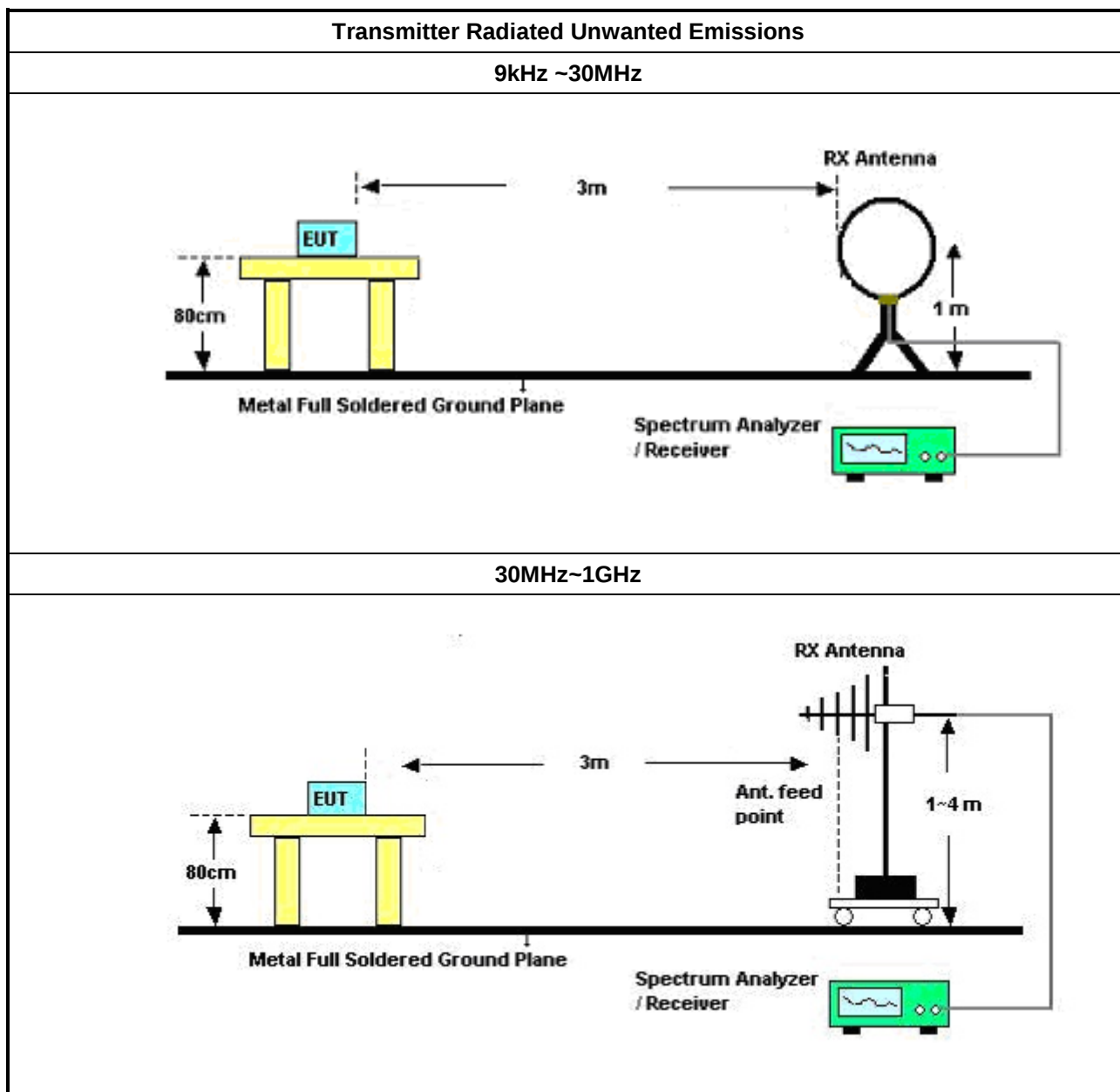
### 3.4.2 Measuring Instruments

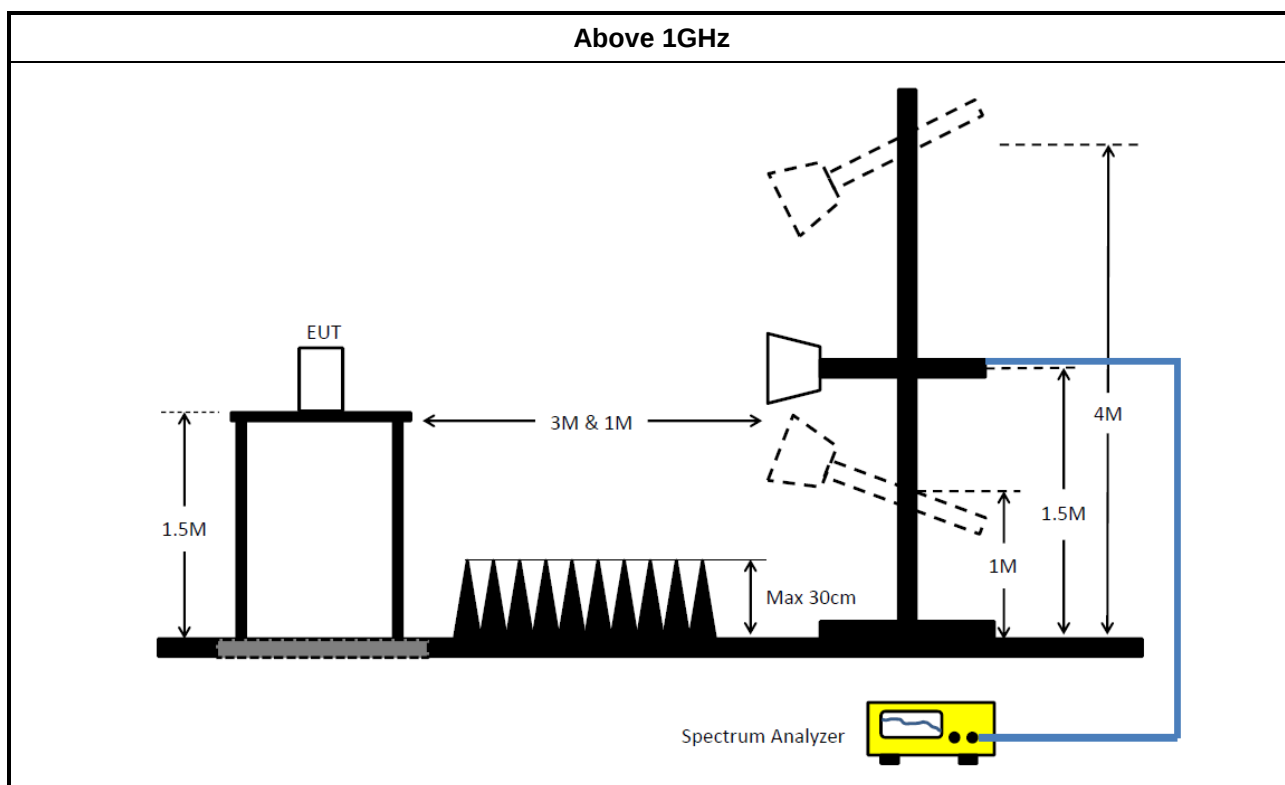
Refer a test equipment and calibration data table in this test report.

### 3.4.3 Test Procedures

| Test Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).</li> </ul> |                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 or duty factor].</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>For the transmitter unwanted emissions shall be measured using following options below:</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li> </ul>               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li> </ul>                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input checked="" type="checkbox"/> Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input checked="" type="checkbox"/> Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.            |
| <ul style="list-style-type: none"> <li>For radiated measurement.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> </ul>    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> </ul> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul>                              |
| <ul style="list-style-type: none"> <li>The any unwanted emissions level shall not exceed the fundamental emission level.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                    |

### 3.4.4 Test Setup





### 3.4.5 Transmitter Unwanted Emissions (Below 30MHz)

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

### 3.4.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D

## 4 Test Equipment and Calibration Data

### Instrument for Conducted Test

| Instrument               | Manufacturer | Model No. | Serial No. | Spec.          | Calibration Date | Calibration Due Date |
|--------------------------|--------------|-----------|------------|----------------|------------------|----------------------|
| Spectrum Analyzer        | R&S          | FSV 40    | 101013     | 10Hz~40GHz     | 13/Mar/2019      | 12/Mar/2020          |
| SMB100A Signal Generator | R&S          | SMB100A03 | 181147     | 100kHz~40GHz   | 12/Nov/2018      | 10/Nov/2020          |
| Power Sensor             | Anritsu      | MA2411B   | 0917017    | 300MHz ~ 40GHz | 19/Feb/2019      | 18/Feb/2020          |
| Power Meter              | Anritsu      | ML2495A   | 0949003    | 300MHz ~ 40GHz | 19/Feb/2019      | 18/Feb/2020          |

### Instrument for Radiated Test

| Instrument                       | Manufacturer    | Model No.              | Serial No.            | Spec.              | Calibration Date | Calibration Due Date |
|----------------------------------|-----------------|------------------------|-----------------------|--------------------|------------------|----------------------|
| 3m Semi Anechoic Chamber         | SIDT FRANKONIA  | SAC-3M                 | 03CH02-HY             | 30MHz ~ 1GHz<br>3m | 29/Aug/2019      | 28/Aug/2020          |
| 3m Semi Anechoic Chamber         | SIDT FRANKONIA  | SAC-3M                 | 03CH02-HY             | 1GHz ~ 18GHz<br>3m | 29/Aug/2019      | 28/Aug/2020          |
| Amplifier                        | Agilent         | 8447D                  | 2944A11149            | 100kHz ~ 1.3GHz    | 02/Jul/2019      | 01/Jul/2020          |
| Microwave Preamplifier           | Agilent         | 8449B                  | 3008A02373            | 1GHz ~ 26.5GHz     | 16/Oct/2019      | 15/Oct/2020          |
| Signal Analyzer                  | R&S             | FSV40                  | 101500                | 10Hz ~ 40GHz       | 15/Aug/2019      | 14/Aug/2020          |
| EMI Test Receiver                | R&S             | ESR3                   | 102052                | 9kHz ~ 3.6GHz      | 09/Apr/2019      | 08/Apr/2020          |
| RF Cable-R03m                    | Jye Bao         | RG142                  | CB017                 | 9kHz ~ 1GHz        | 26/Mar/2019      | 25/Mar/2020          |
| RF Cable-high 6m                 | SUHNER          | SUCOFLEX104            | 10567868 / SN805193/4 | 1GHz~40GHz         | 09/Apr/2019      | 08/Apr/2020          |
| RF Cable-high 7m                 | SUHNER          | SUCOFLEX104            | 10567868 / SN805192/4 | 1GHz~40GHz         | 09/Apr/2019      | 08/Apr/2020          |
| Bilog Antenna & 5dB Attenuator   | SCHAFFNER / MTJ | CBL 6112D / MTJ6102-05 | 2678 / 001            | 30MHz ~ 2GHz       | 06/Jul/2019      | 05/Jul/2020          |
| Broadband Horn Antenna           | SCHWARZBECK     | BBHA 9170              | BBHA 9170221          | 15GHz ~ 40GHz      | 22/Mar/2019      | 21/Mar/2020          |
| Preamplifier                     | MITEQ           | TTA1840-35-H G         | 1864481               | 18GHz ~ 40GHz      | 05/Aug/2019      | 04/Aug/2020          |
| Double Ridged Guide Horn Antenna | SCHWARZBECK     | BBHA 9120 D            | BBHA 9120 D 01543     | 1GHz ~ 18GHz       | 03/Jun/2019      | 02/Jun/2020          |

**Summary**

| Mode                           | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|--------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.25-5.35GHz                   | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX       | 37.77M           | 19.55M          | 19M5D1D  | 37.17M           | 17.391M         |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 37.32M           | 18.801M         | 18M8D1D  | 29.37M           | 18.111M         |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 77.28M           | 39.22M          | 39M2D1D  | 49.92M           | 36.582M         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 108M             | 75.922M         | 75M9D1D  | 108M             | 75.922M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 41.07M           | 19.79M          | 19M8D1D  | 26.7M            | 18.081M         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 82.32M           | 38.741M         | 38M7D1D  | 52.14M           | 37.721M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 84.72M           | 77.241M         | 77M2D1D  | 84.72M           | 77.241M         |
| 5.47-5.725GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX       | 37.38M           | 18.951M         | 19M0D1D  | 22.77M           | 14.71M          |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 36.66M           | 19.13M          | 19M1D1D  | 21.66M           | 14.43M          |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 85.74M           | 39.52M          | 39M5D1D  | 40.26M           | 33.883M         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 145.2M           | 77.361M         | 77M4D1D  | 85.68M           | 73.433M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 40.95M           | 19.73M          | 19M7D1D  | 22.35M           | 14.938M         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 74.4M            | 39.16M          | 39M2D1D  | 40.14M           | 34.783M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 145.44M          | 78.441M         | 78M4D1D  | 81.96M           | 74.363M         |
| 5.725-5.85GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX       | 3.21M            | 9.865M          | 9M87D1D  | 3.21M            | 9.865M          |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 3.825M           | 9.01M           | 9M01D1D  | 3.825M           | 9.01M           |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 3.225M           | 20.39M          | 20M4D1D  | 3.225M           | 20.39M          |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 3.18M            | 25.832M         | 25M8D1D  | 3.18M            | 25.832M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 4.5M             | 10.975M         | 11M0D1D  | 4.5M             | 10.975M         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 3.78M            | 21.889M         | 21M9D1D  | 3.78M            | 21.889M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 3.855M           | 27.181M         | 27M2D1D  | 3.855M           | 27.181M         |

**Max-N dB** = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Max-OBW** = Maximum 99% occupied bandwidth;

**Min-N dB** = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Min-OBW** = Minimum 99% occupied bandwidth;

**Result**

| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|
| 802.11a_Nss1,(6Mbps)_1TX       | -      | -             | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 37.77M              | 19.07M             |
| 5300MHz                        | Pass   | Inf           | 37.56M              | 19.55M             |
| 5320MHz                        | Pass   | Inf           | 37.17M              | 17.391M            |
| 5500MHz                        | Pass   | Inf           | 34.08M              | 17.181M            |
| 5580MHz                        | Pass   | Inf           | 37.38M              | 18.951M            |
| 5700MHz                        | Pass   | Inf           | 22.77M              | 16.882M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 23.345M             | 14.71M             |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.21M               | 9.865M             |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 36.54M              | 18.771M            |
| 5300MHz                        | Pass   | Inf           | 37.32M              | 18.801M            |
| 5320MHz                        | Pass   | Inf           | 29.37M              | 18.111M            |
| 5500MHz                        | Pass   | Inf           | 25.65M              | 17.961M            |
| 5580MHz                        | Pass   | Inf           | 36.66M              | 19.13M             |
| 5700MHz                        | Pass   | Inf           | 21.66M              | 17.901M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 23.555M             | 14.43M             |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.825M              | 9.01M              |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 77.28M              | 39.22M             |
| 5310MHz                        | Pass   | Inf           | 49.92M              | 36.582M            |
| 5510MHz                        | Pass   | Inf           | 40.26M              | 36.462M            |
| 5550MHz                        | Pass   | Inf           | 75.24M              | 37.421M            |
| 5670MHz                        | Pass   | Inf           | 85.74M              | 39.52M             |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 56.813M             | 33.883M            |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.225M              | 20.39M             |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 108M                | 75.922M            |
| 5530MHz                        | Pass   | Inf           | 85.68M              | 76.042M            |
| 5610MHz                        | Pass   | Inf           | 145.2M              | 77.361M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 109.353M            | 73.433M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.18M               | 25.832M            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 41.07M              | 19.79M             |
| 5300MHz                        | Pass   | Inf           | 41.04M              | 19.55M             |
| 5320MHz                        | Pass   | Inf           | 26.7M               | 18.081M            |
| 5500MHz                        | Pass   | Inf           | 25.26M              | 19.1M              |
| 5580MHz                        | Pass   | Inf           | 40.95M              | 19.73M             |
| 5700MHz                        | Pass   | Inf           | 22.35M              | 19.04M             |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 25.358M             | 14.938M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 4.5M                | 10.975M            |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 82.32M              | 38.741M            |
| 5310MHz                        | Pass   | Inf           | 52.14M              | 37.721M            |



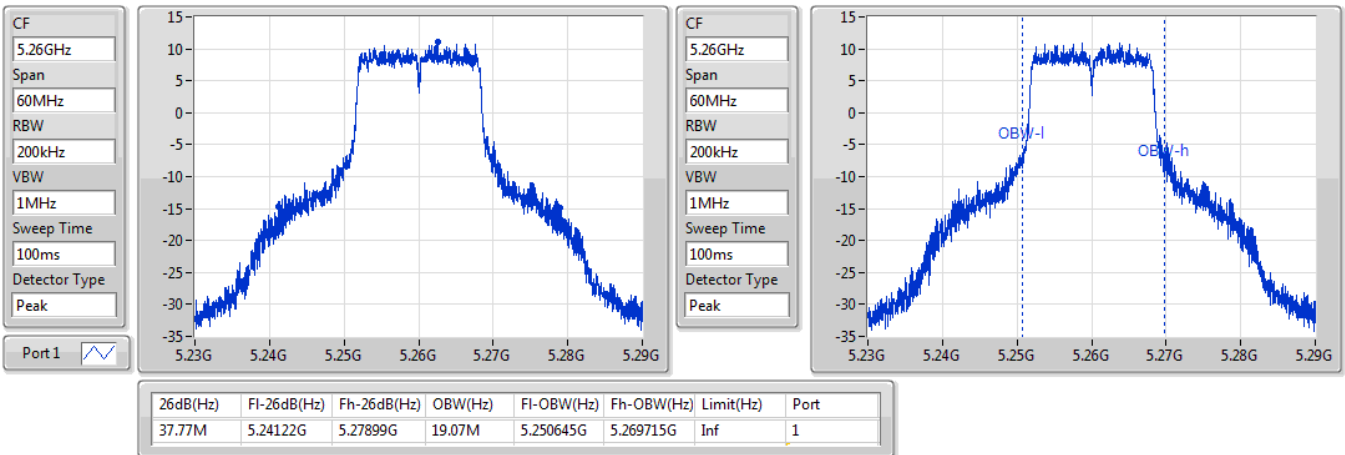
| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|
| 5510MHz                        | Pass   | Inf           | 40.14M              | 37.601M            |
| 5550MHz                        | Pass   | Inf           | 74.1M               | 39.16M             |
| 5670MHz                        | Pass   | Inf           | 74.4M               | 39.04M             |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 58.275M             | 34.783M            |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.78M               | 21.889M            |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 84.72M              | 77.241M            |
| 5530MHz                        | Pass   | Inf           | 81.96M              | 77.241M            |
| 5610MHz                        | Pass   | Inf           | 145.44M             | 78.441M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 118.653M            | 74.363M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.855M              | 27.181M            |

**Port X-N dB** = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

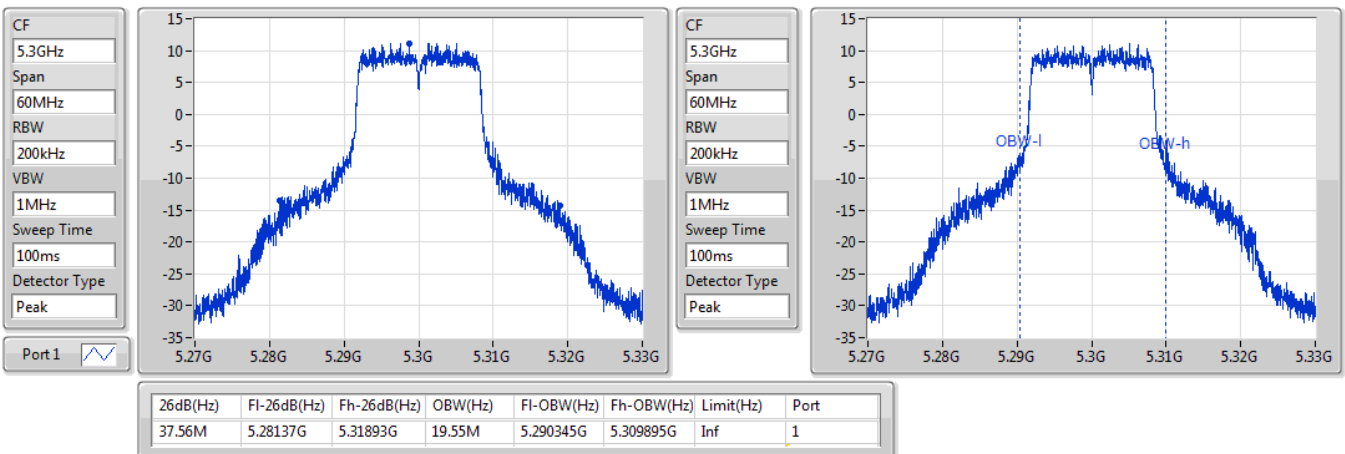
**Port X-OBW** = Port X 99% occupied bandwidth;

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5260MHz**

06/01/2020

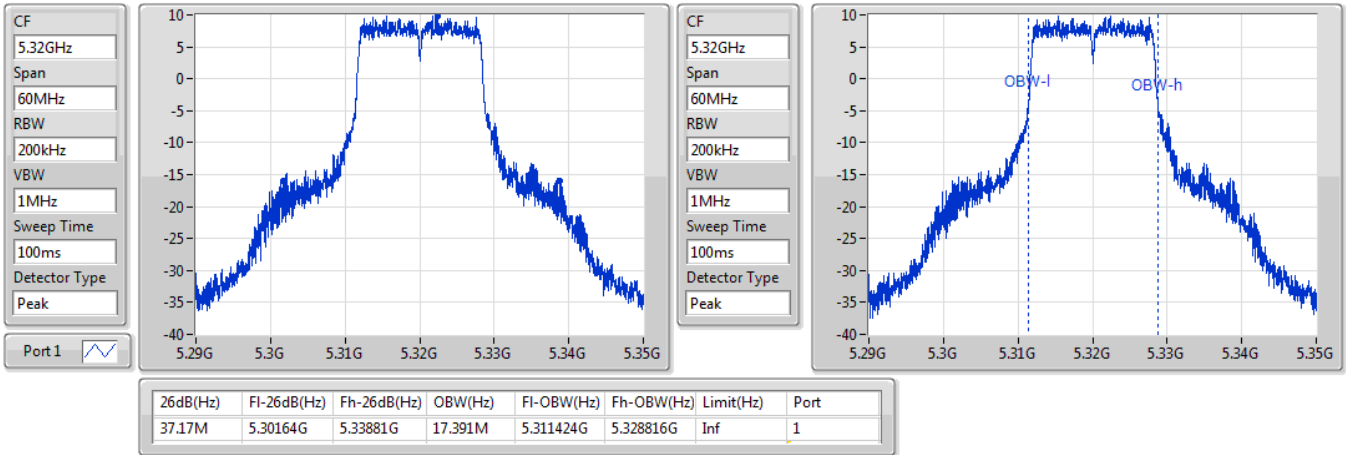

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5300MHz**

06/01/2020

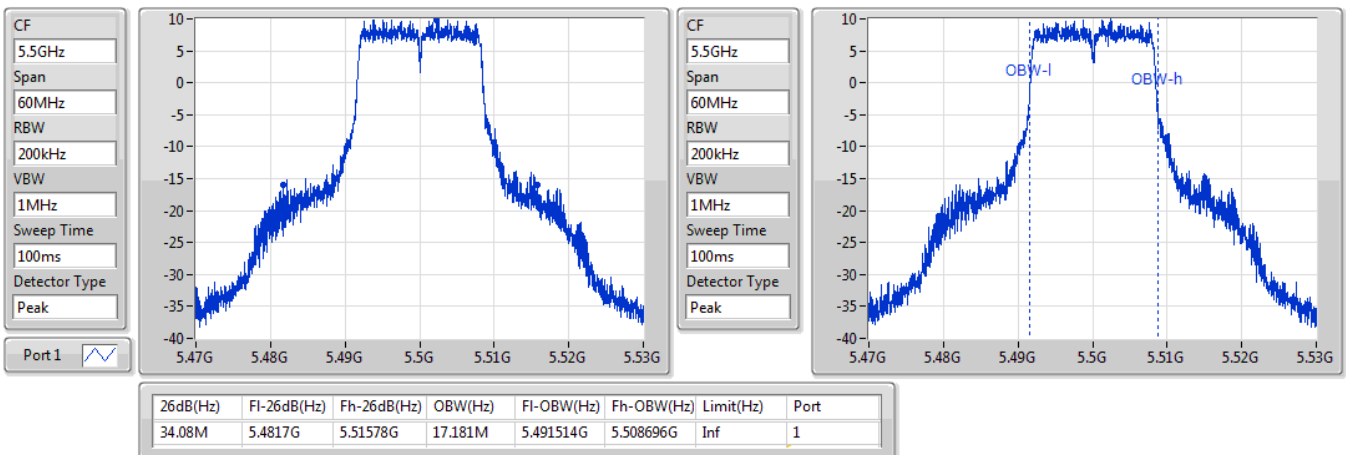


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5320MHz**

06/01/2020

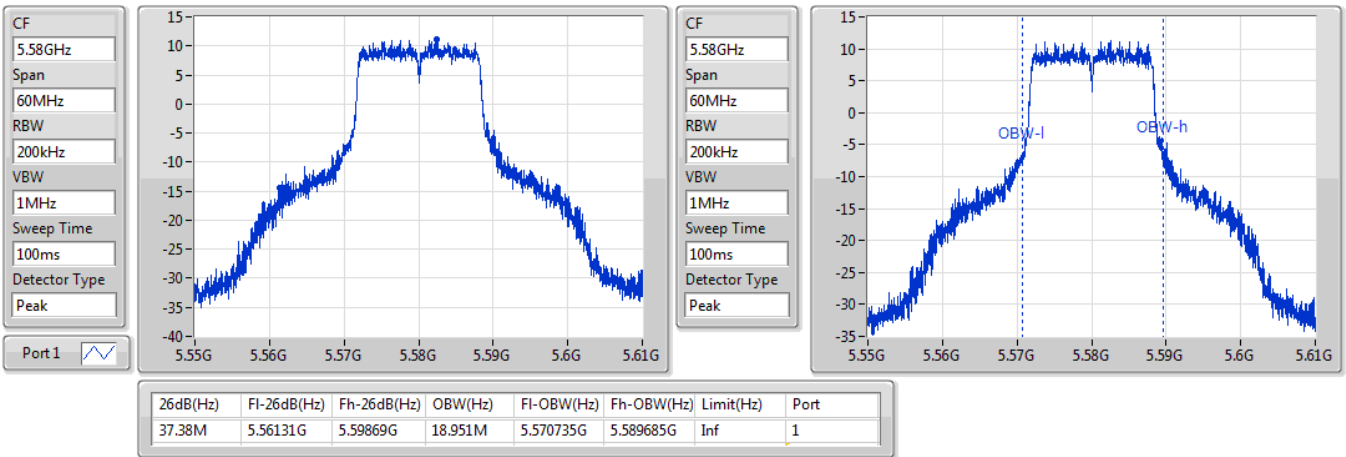

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5500MHz**

06/01/2020

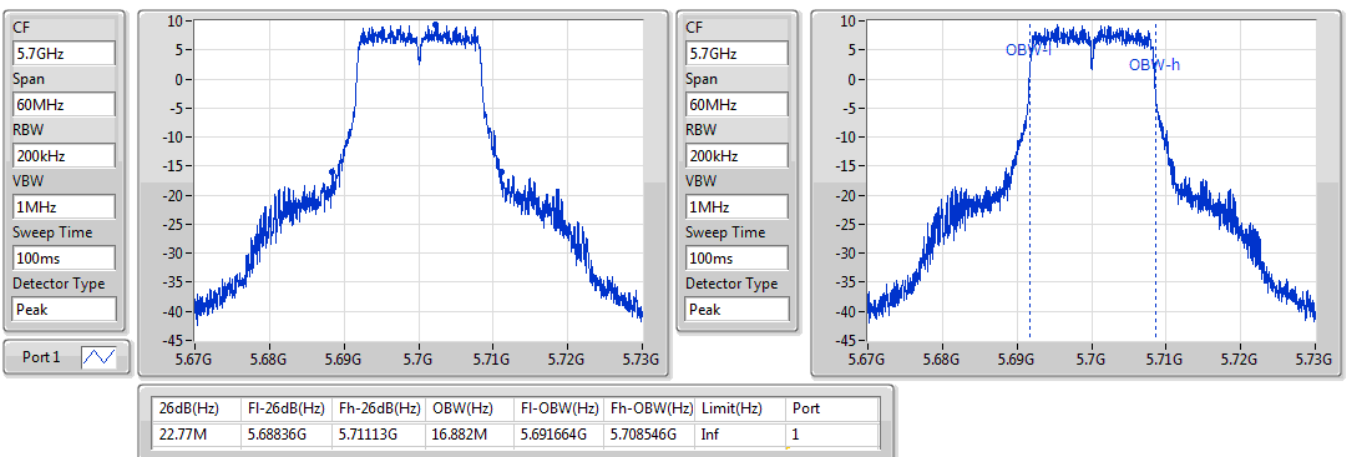


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5580MHz**

06/01/2020

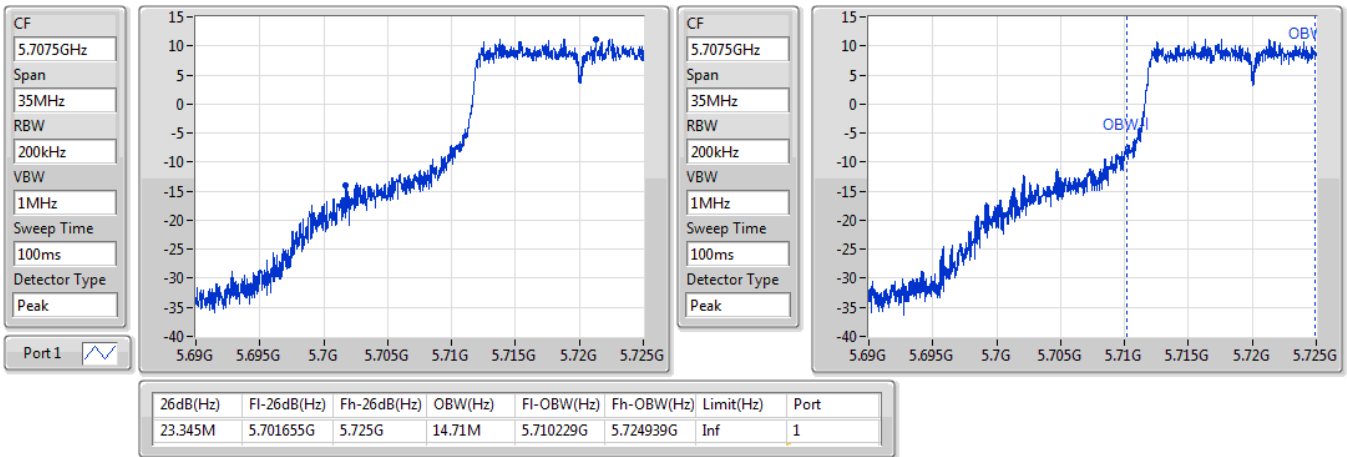

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5700MHz**

06/01/2020

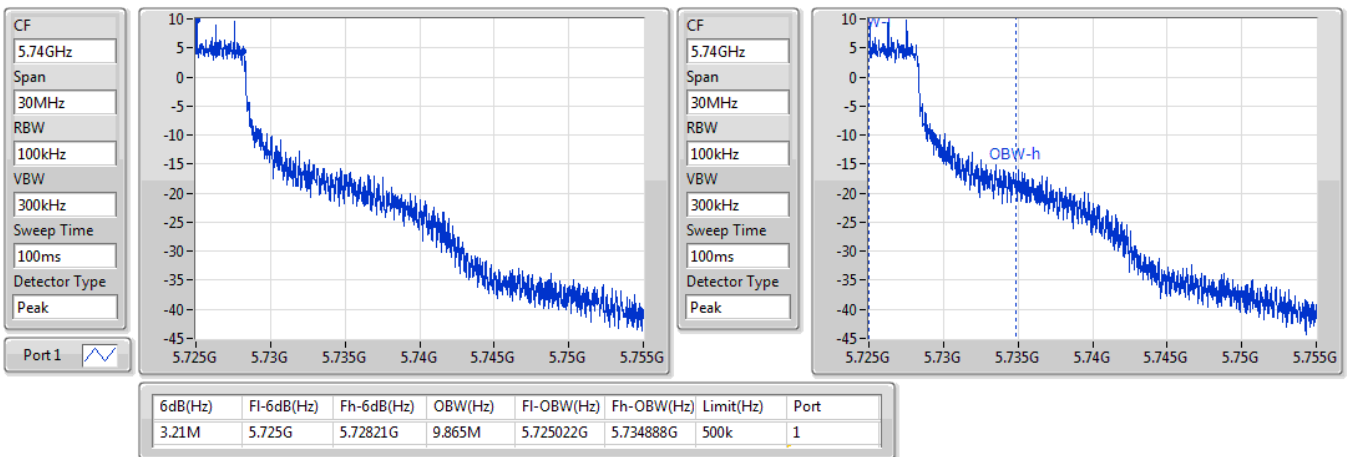


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

06/01/2020

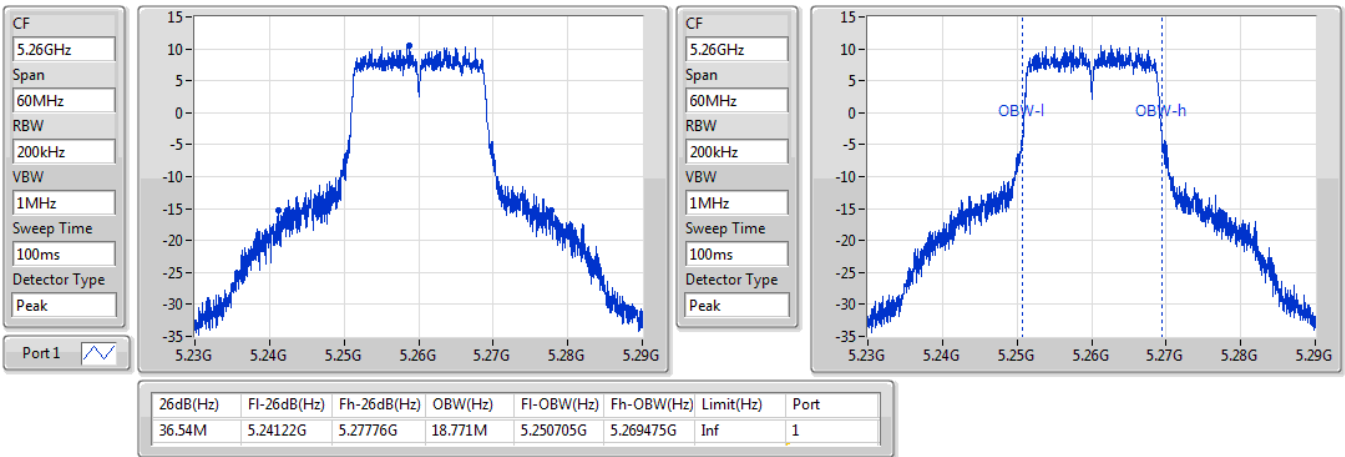

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

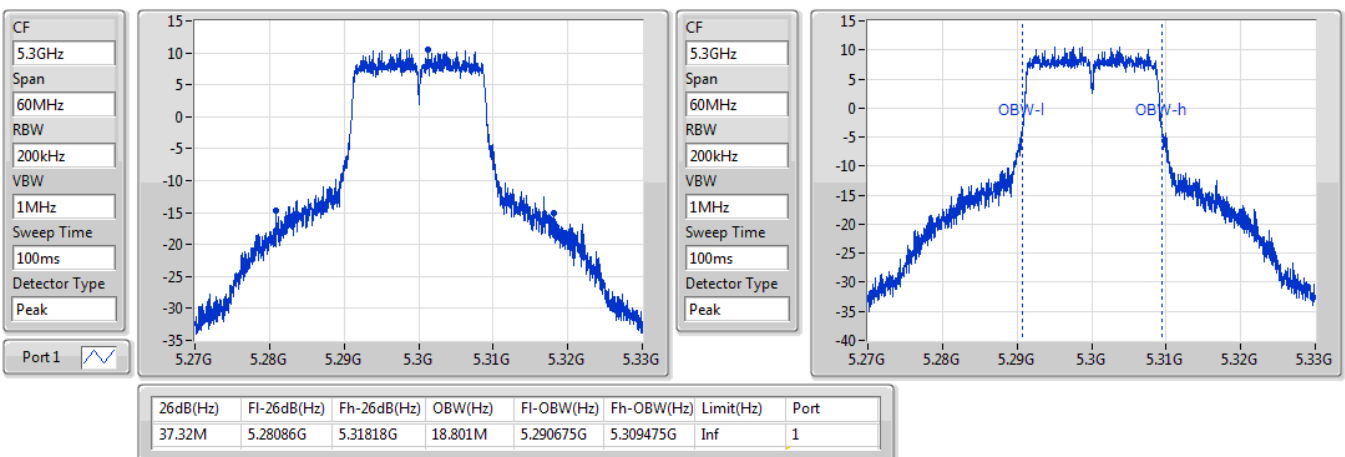


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5260MHz**

06/01/2020

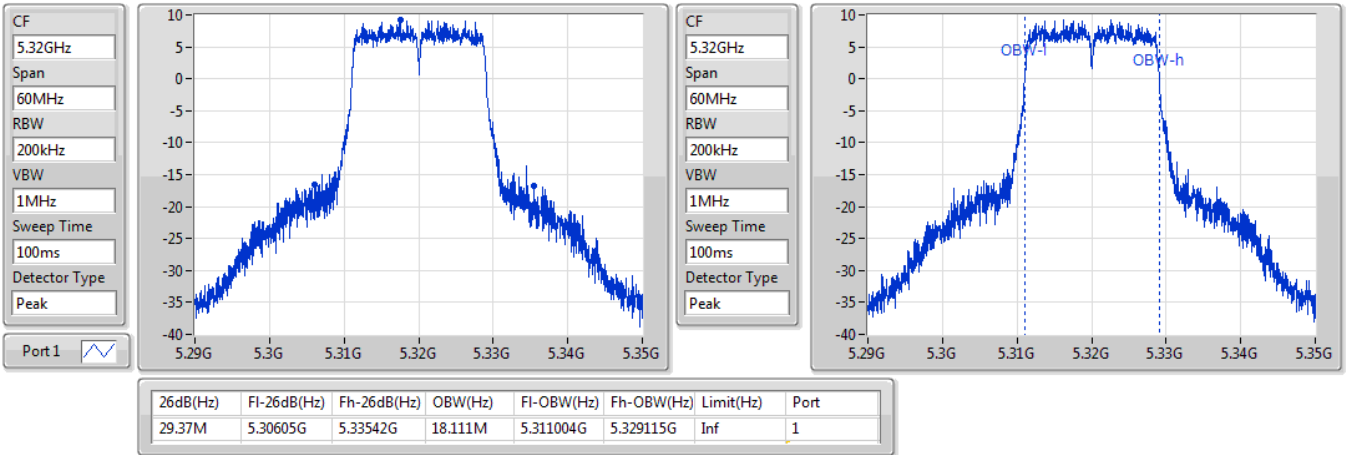

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5300MHz**

06/01/2020

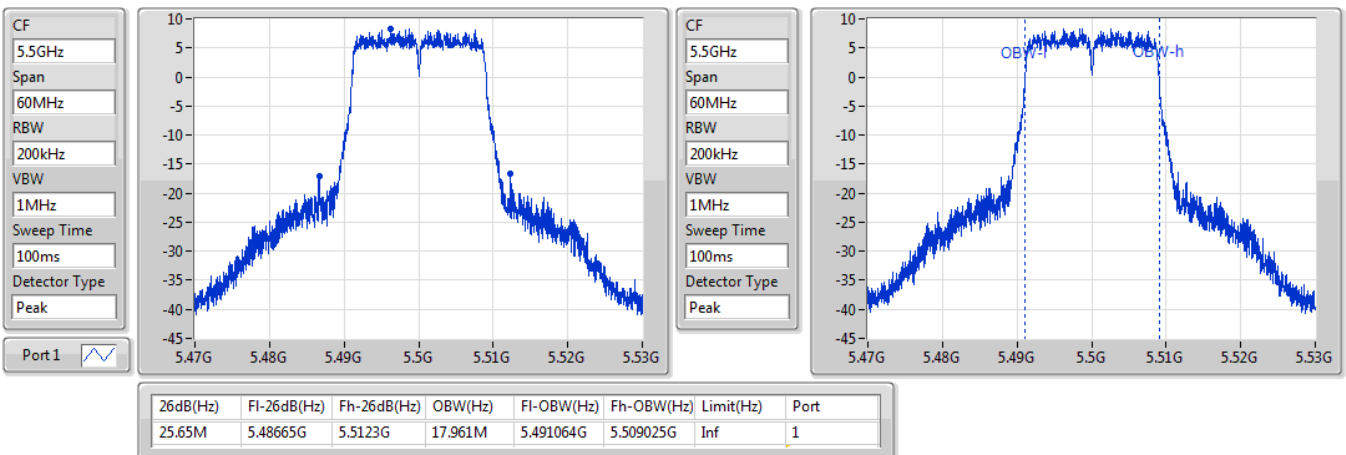


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5320MHz**

06/01/2020

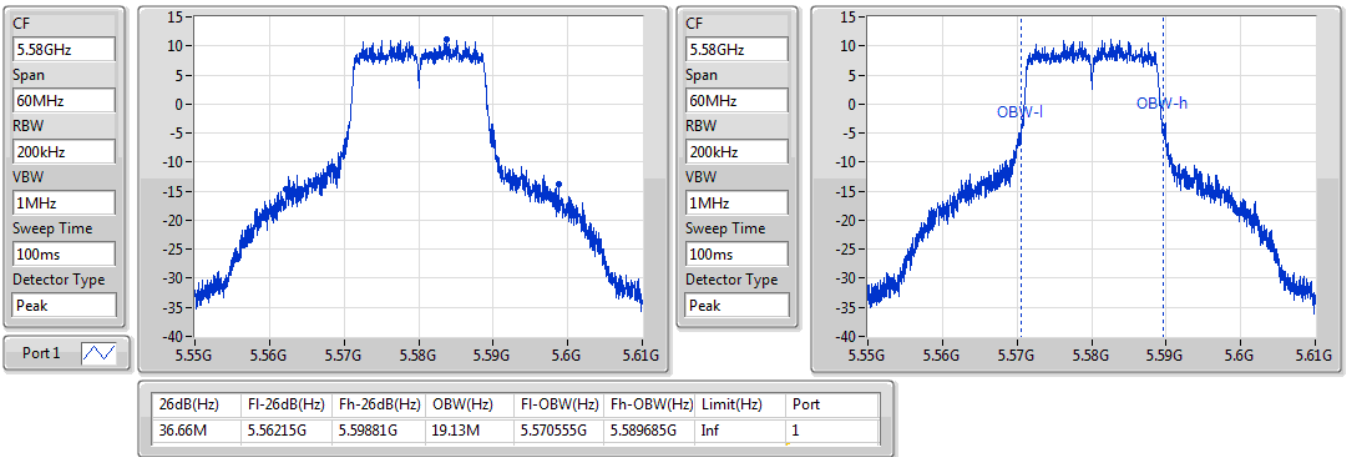

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5500MHz**

06/01/2020

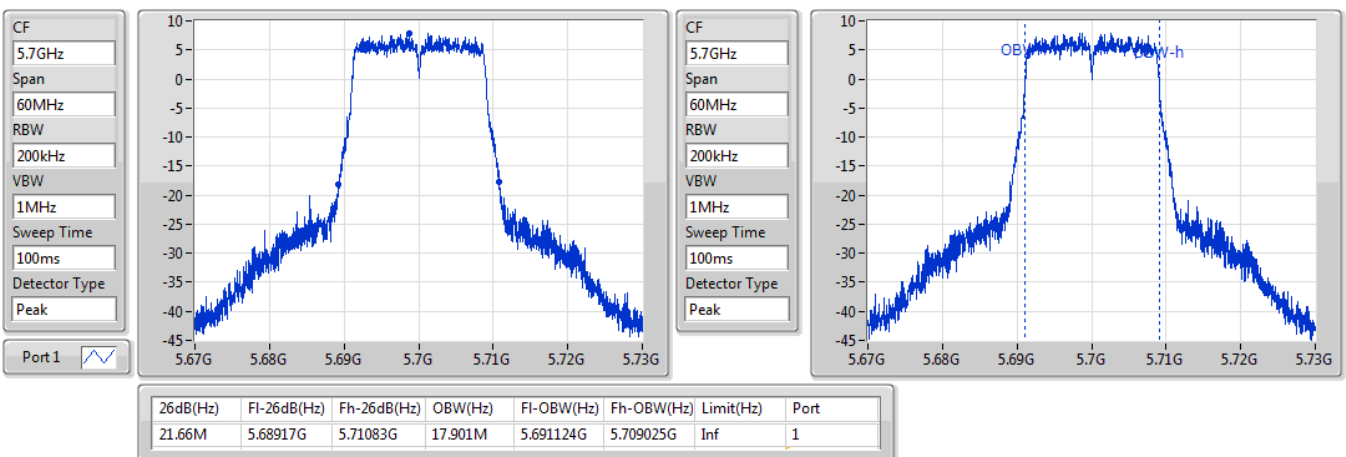


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5580MHz**

06/01/2020

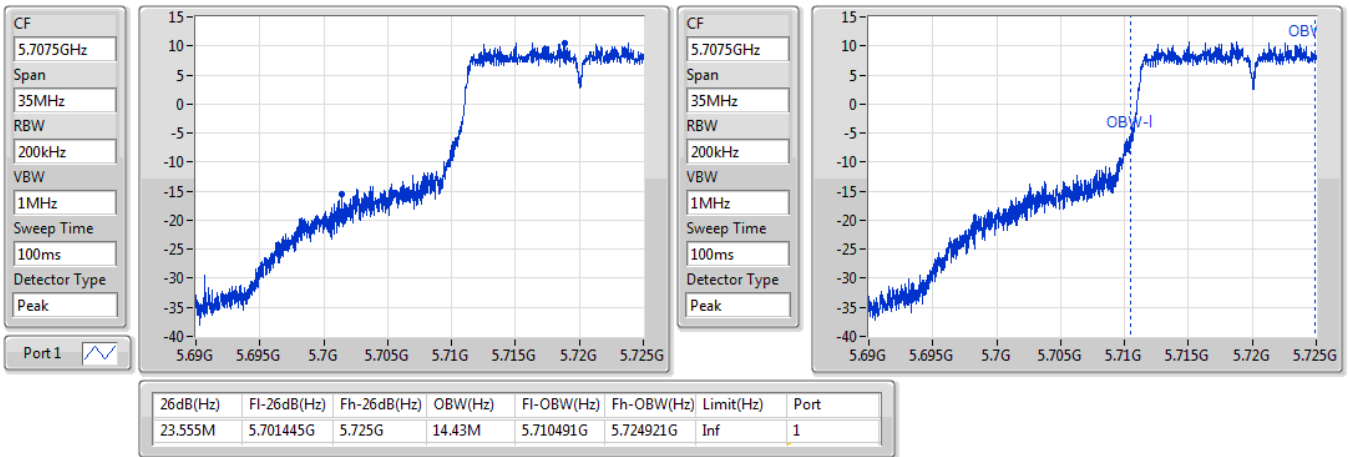

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5700MHz**

06/01/2020

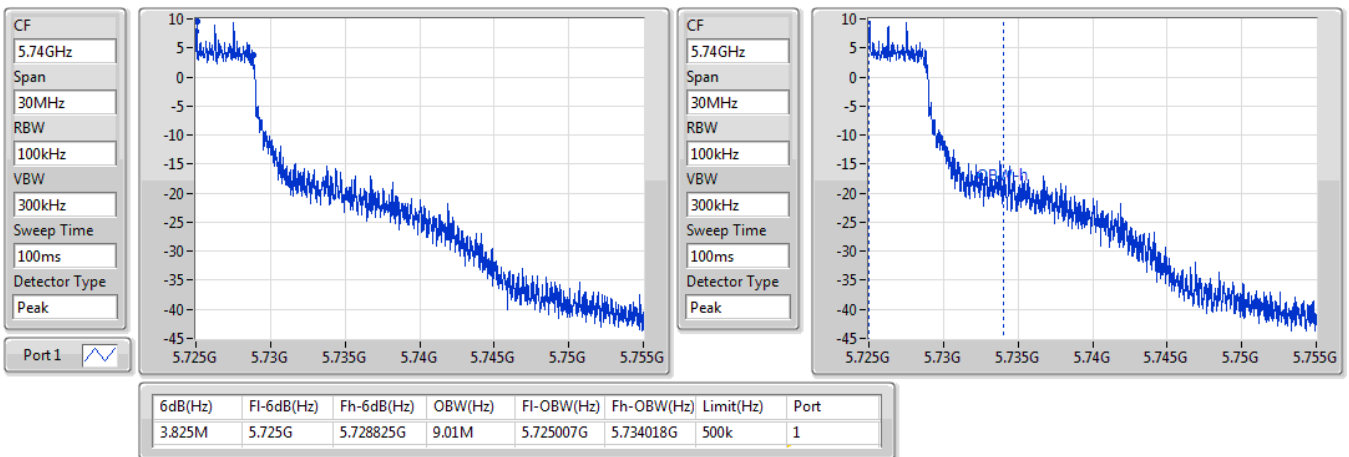


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

06/01/2020

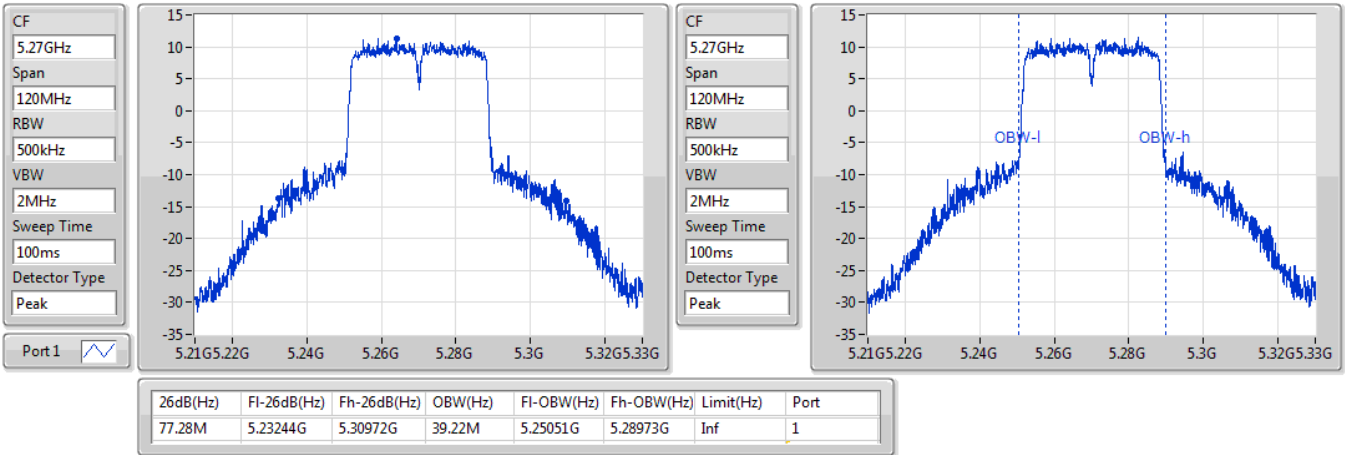

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

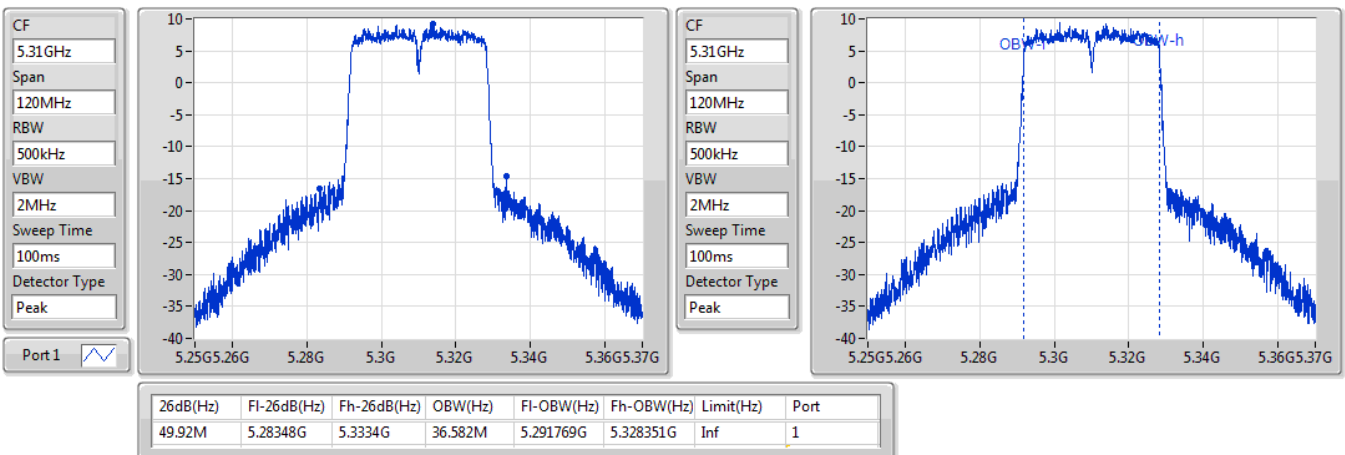


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5270MHz**

06/01/2020

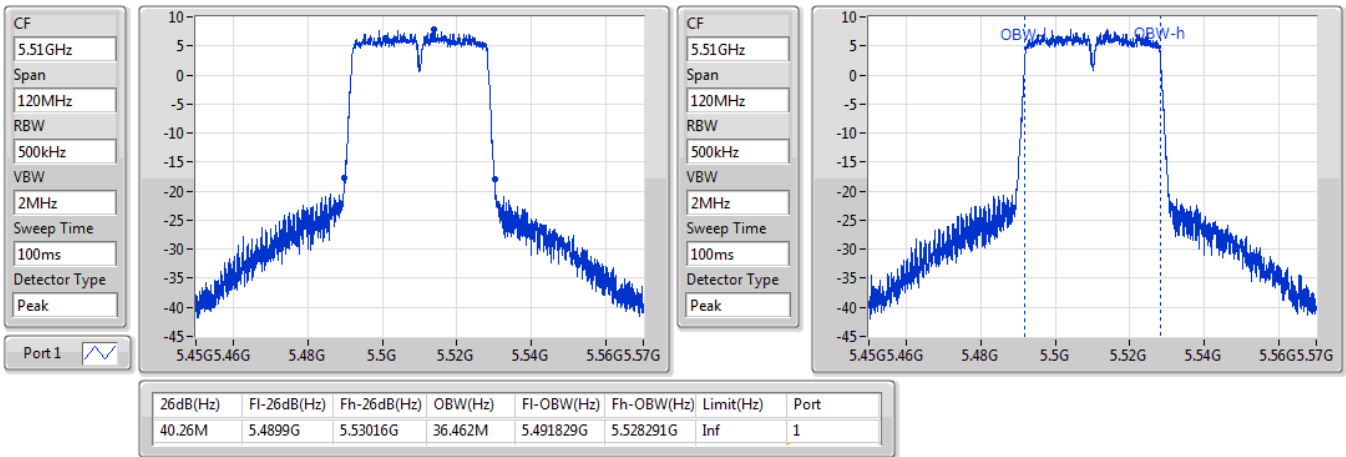

**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5310MHz**

06/01/2020

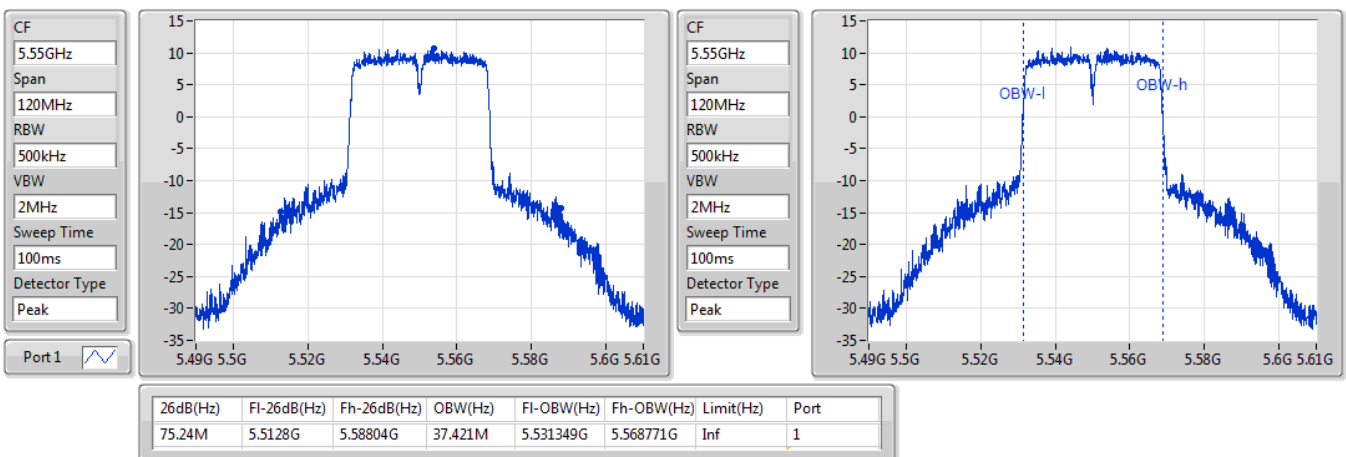


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5510MHz**

06/01/2020

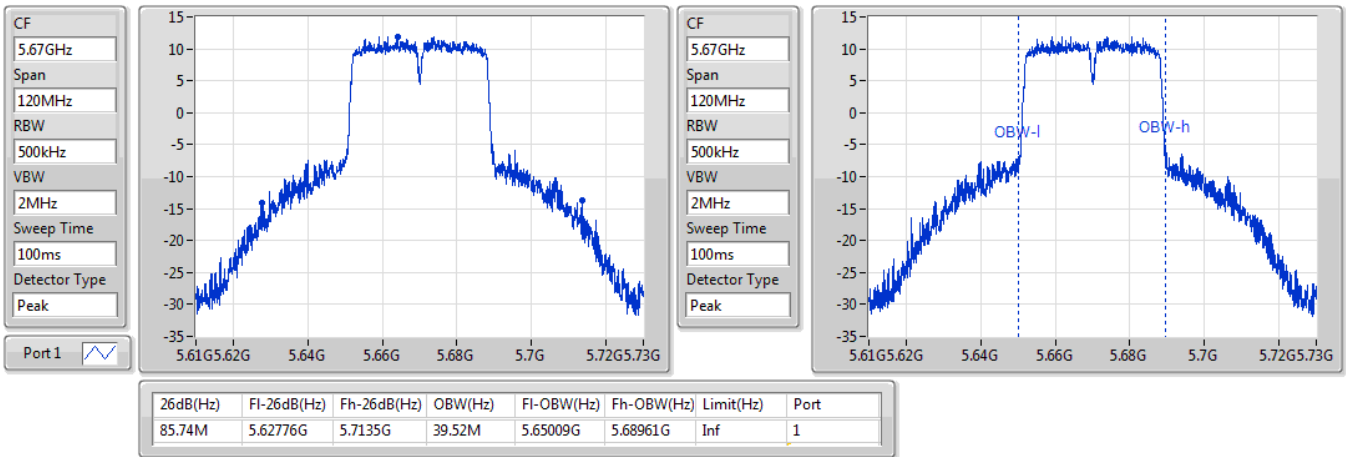

**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5550MHz**

06/01/2020

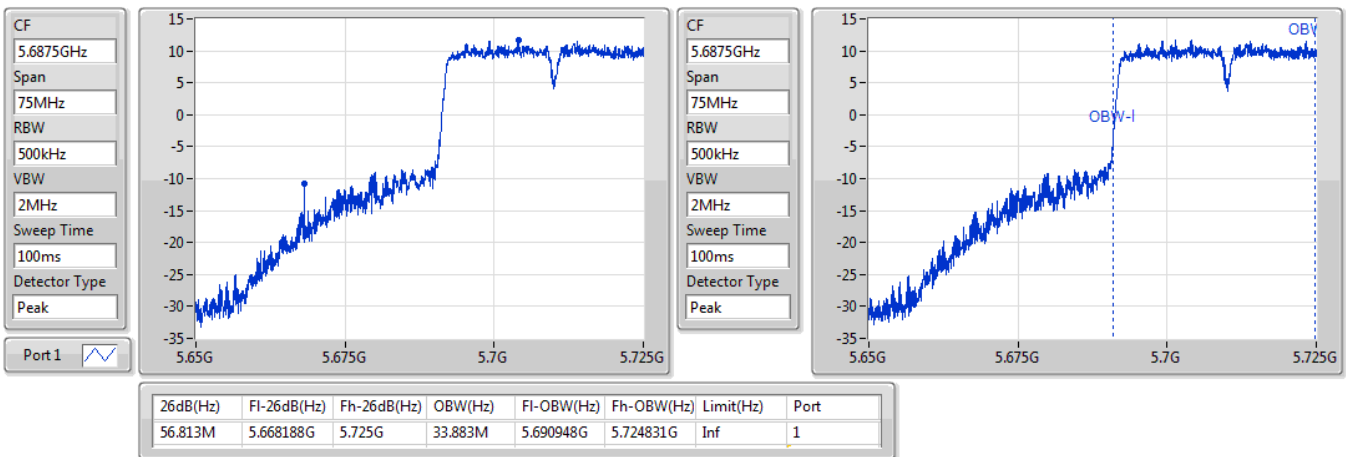


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5670MHz**

06/01/2020

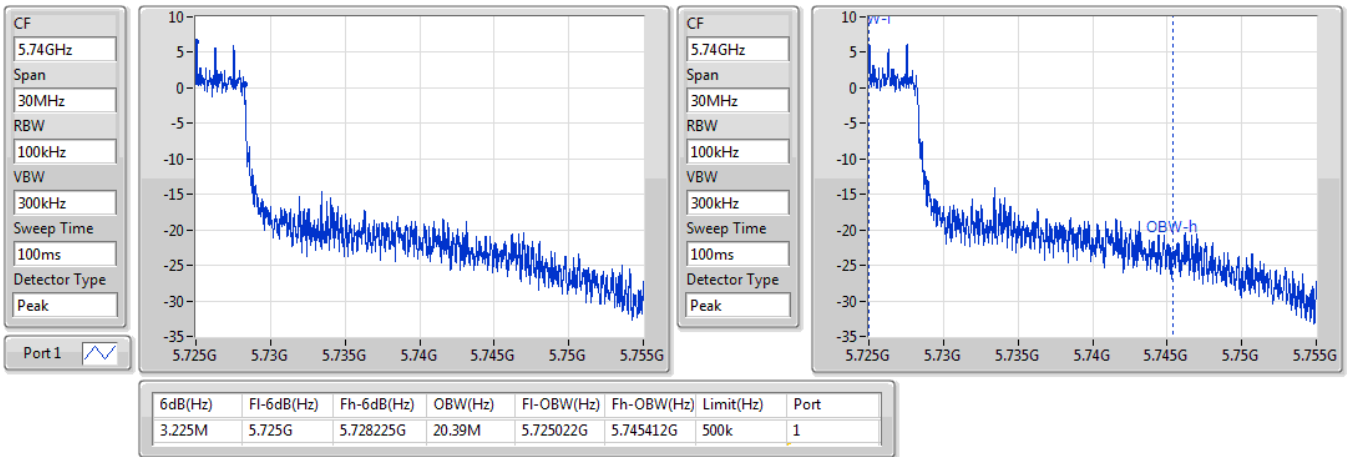

**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

06/01/2020

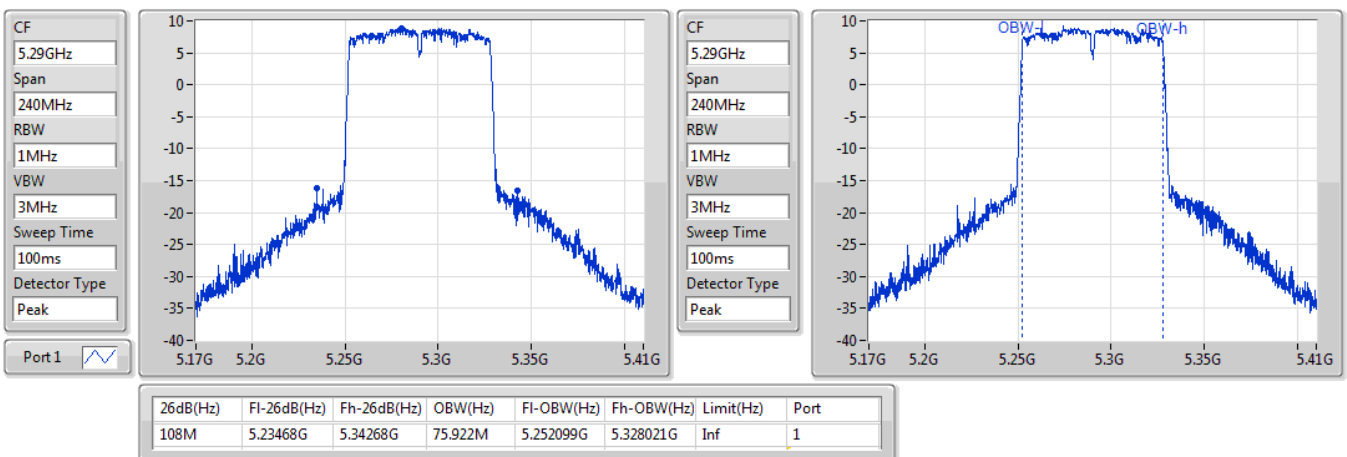


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

06/01/2020

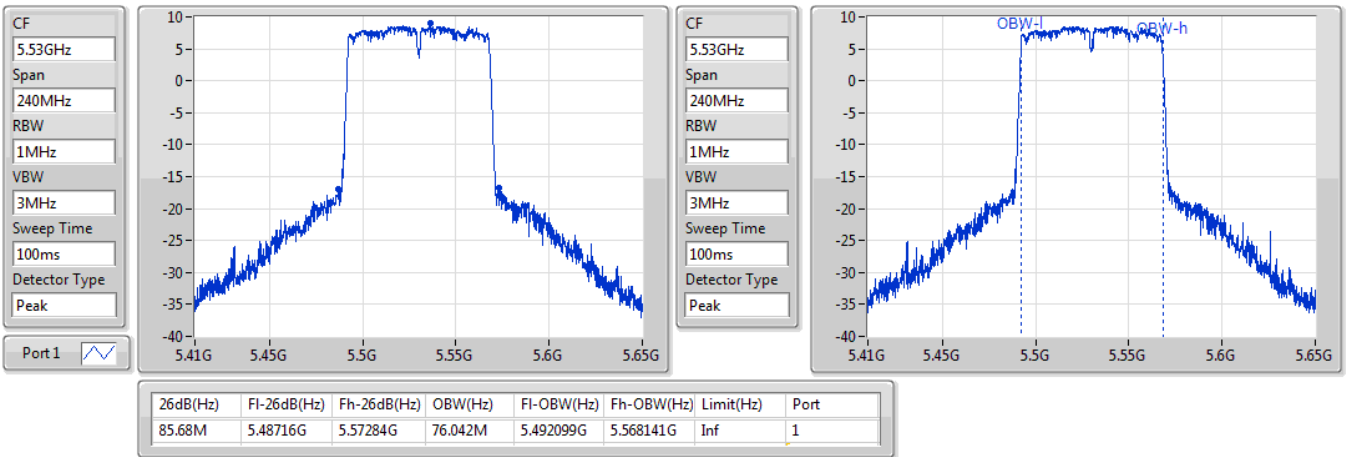

**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5290MHz**

06/01/2020

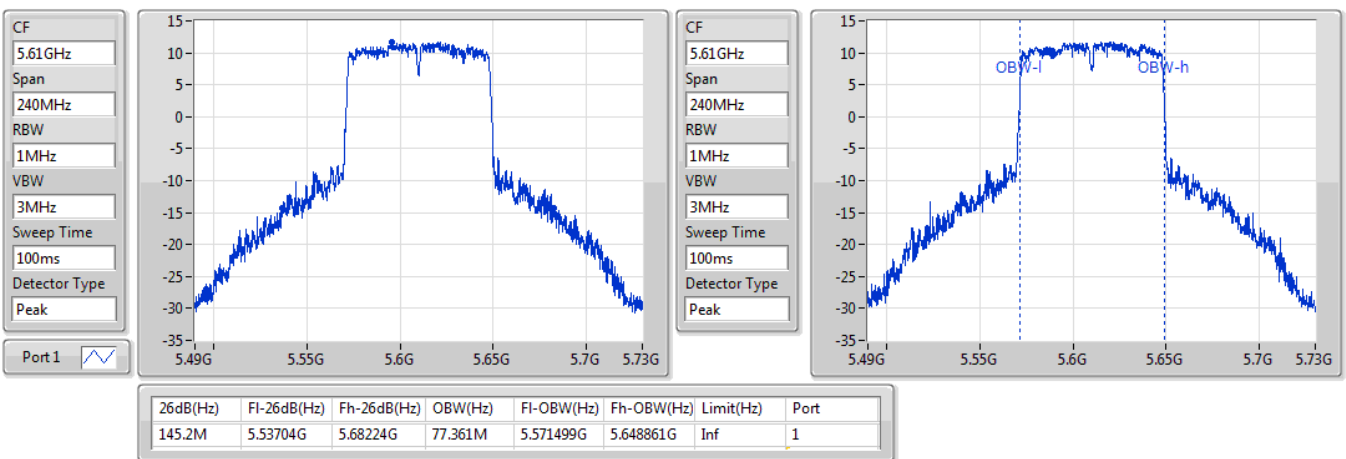


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5530MHz**

06/01/2020

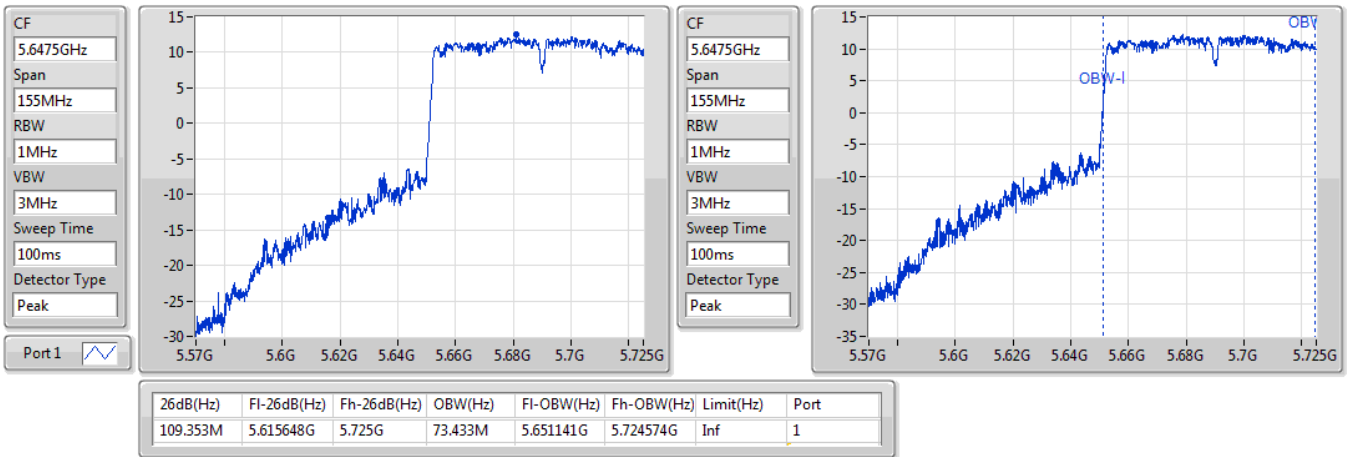

**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5610MHz**

06/01/2020

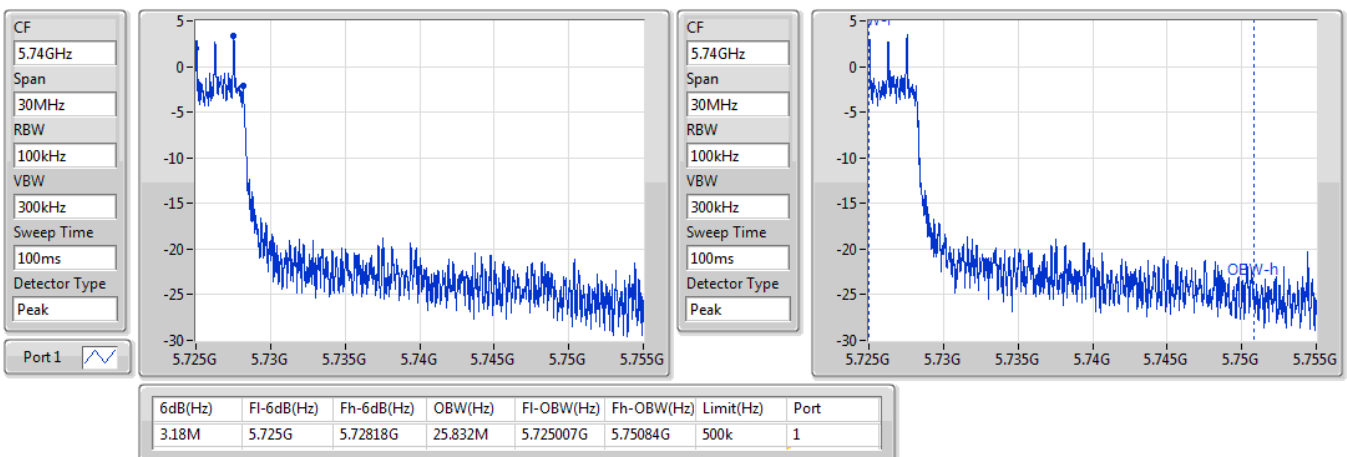


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

06/01/2020

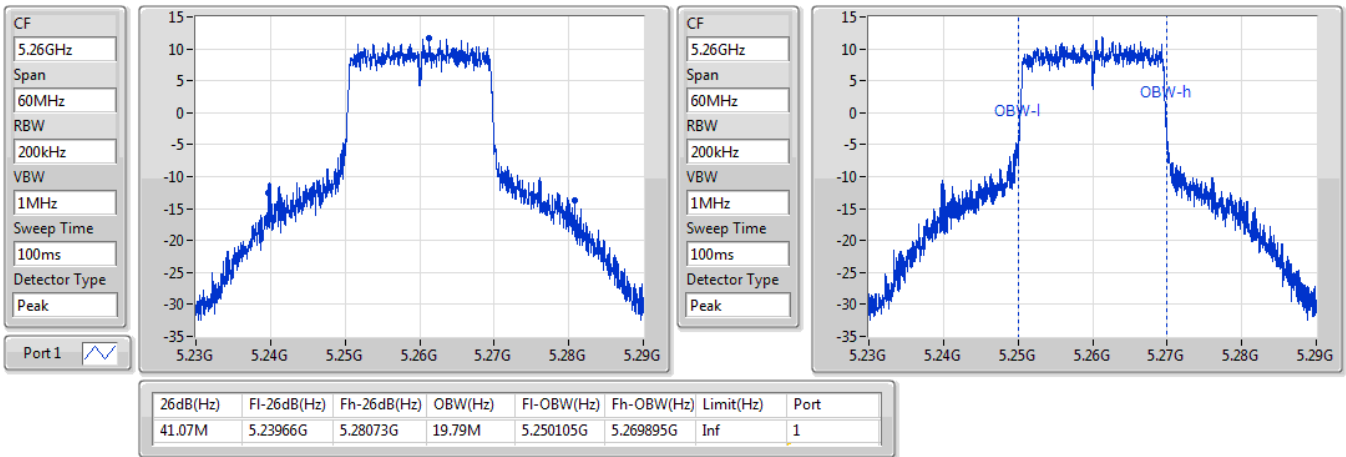

**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

06/01/2020

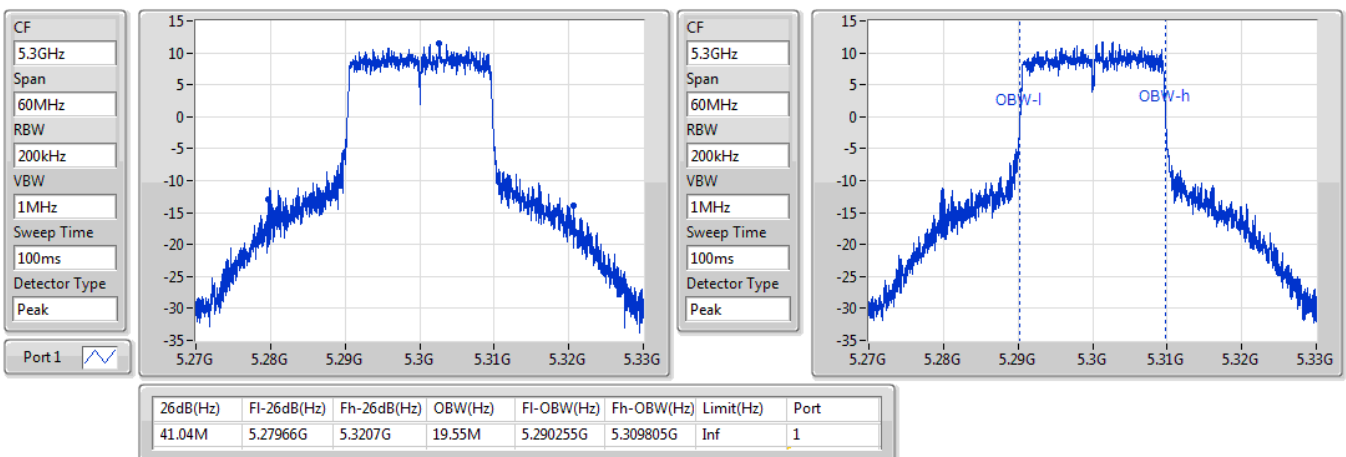


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5260MHz**

06/01/2020


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5300MHz**

06/01/2020

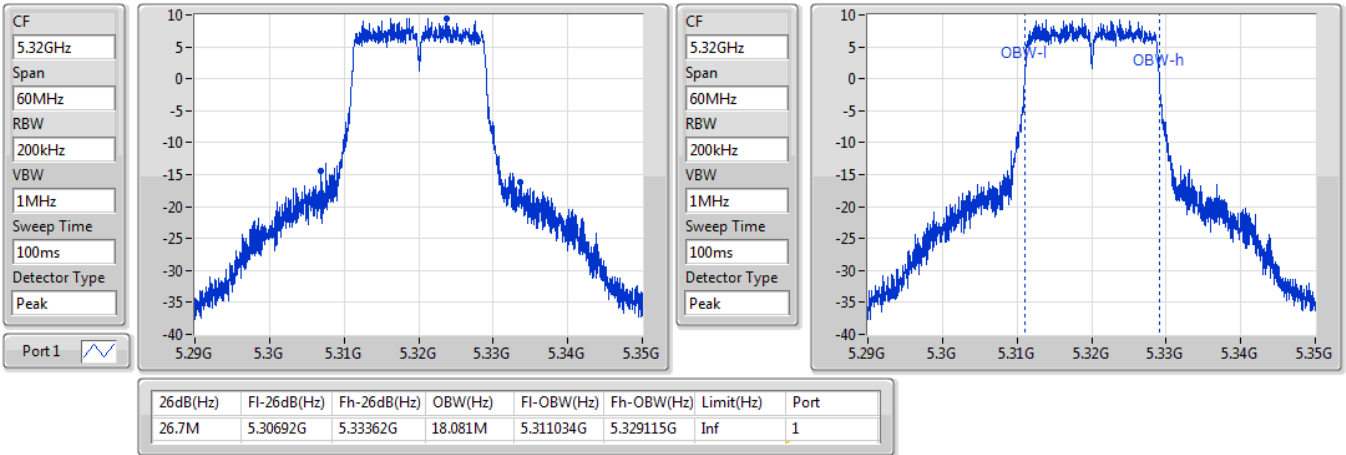


## 802.11ax HEW20\_Nss1,(MCS0)\_1TX

EBW

5320MHz

06/01/2020

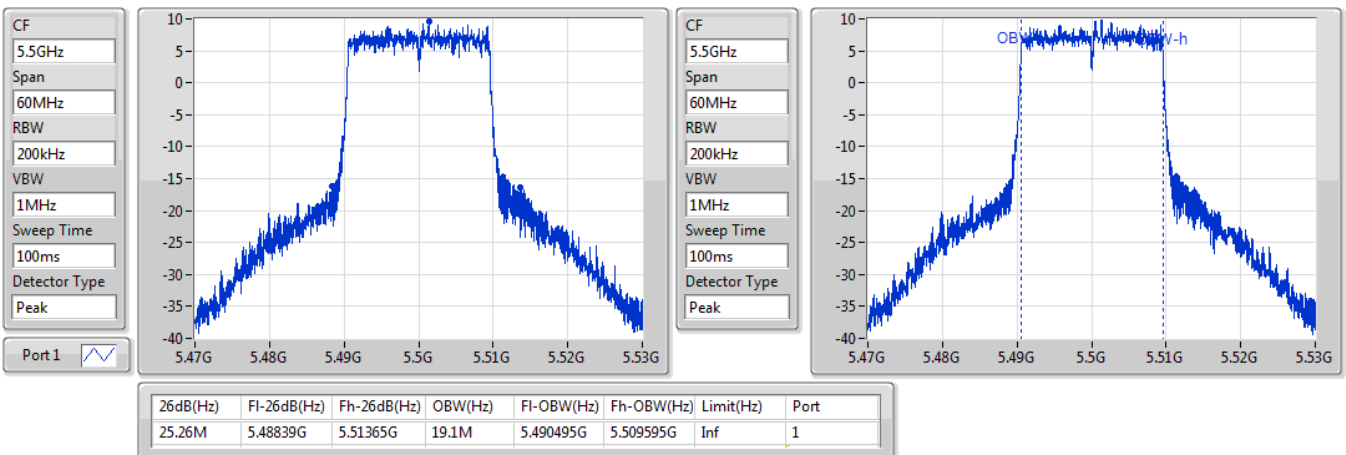


## 802.11ax HEW20\_Nss1,(MCS0)\_1TX

EBW

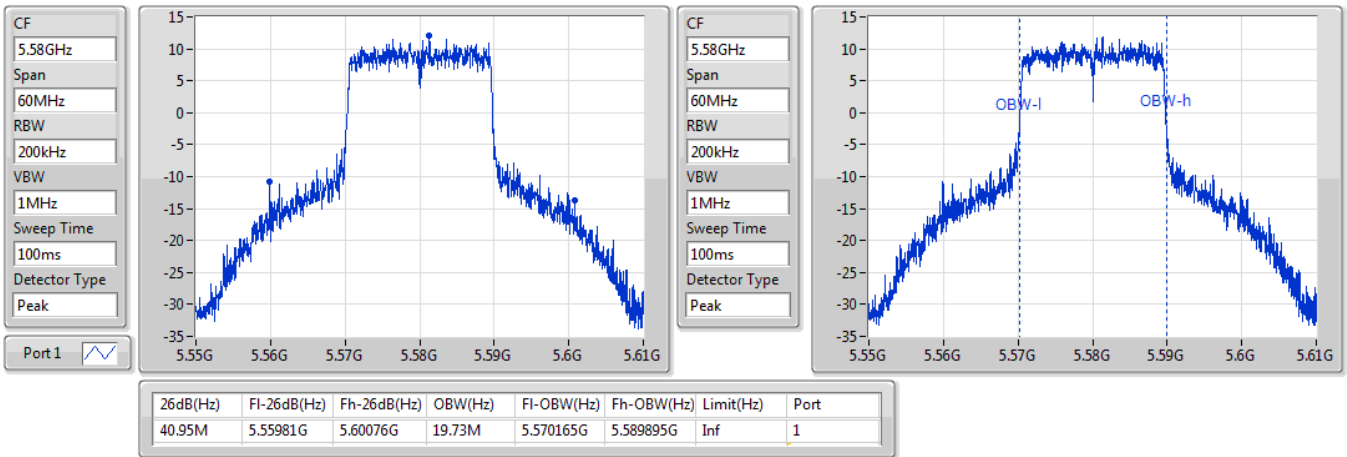
5500MHz

06/01/2020

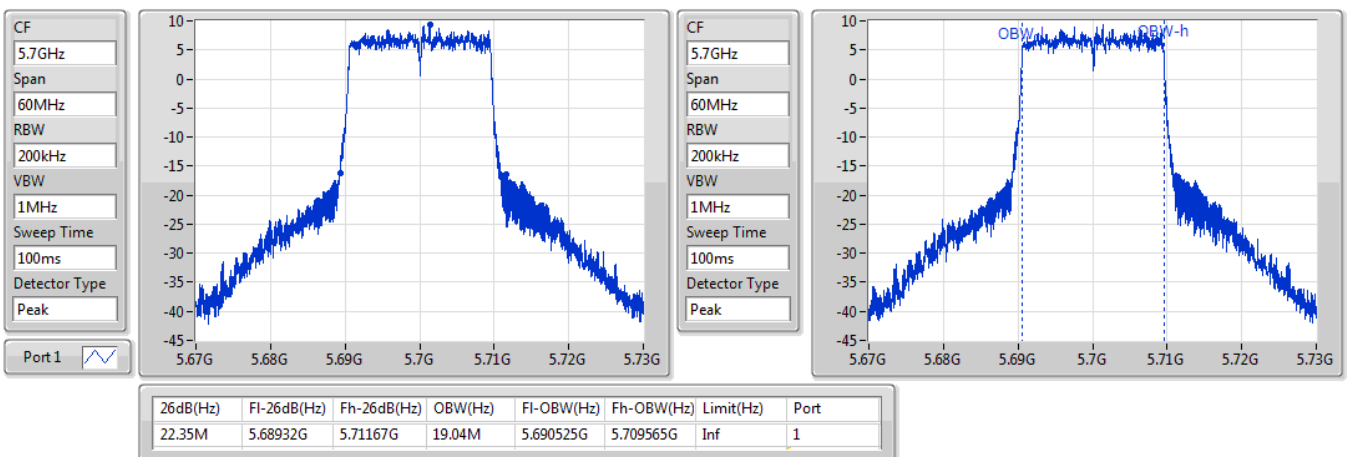


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5580MHz**

06/01/2020

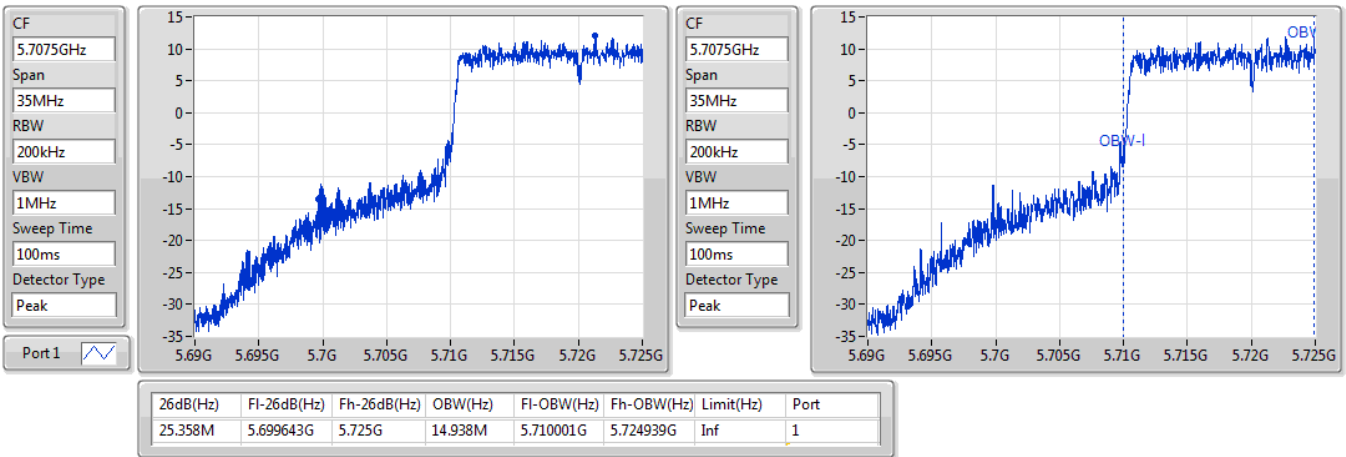

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5700MHz**

06/01/2020

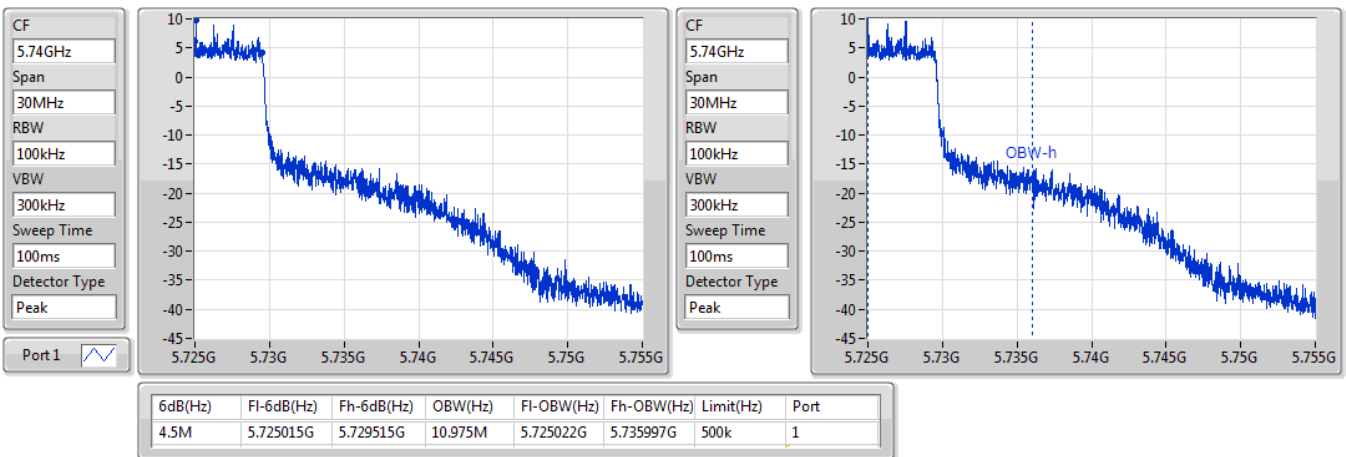


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

06/01/2020

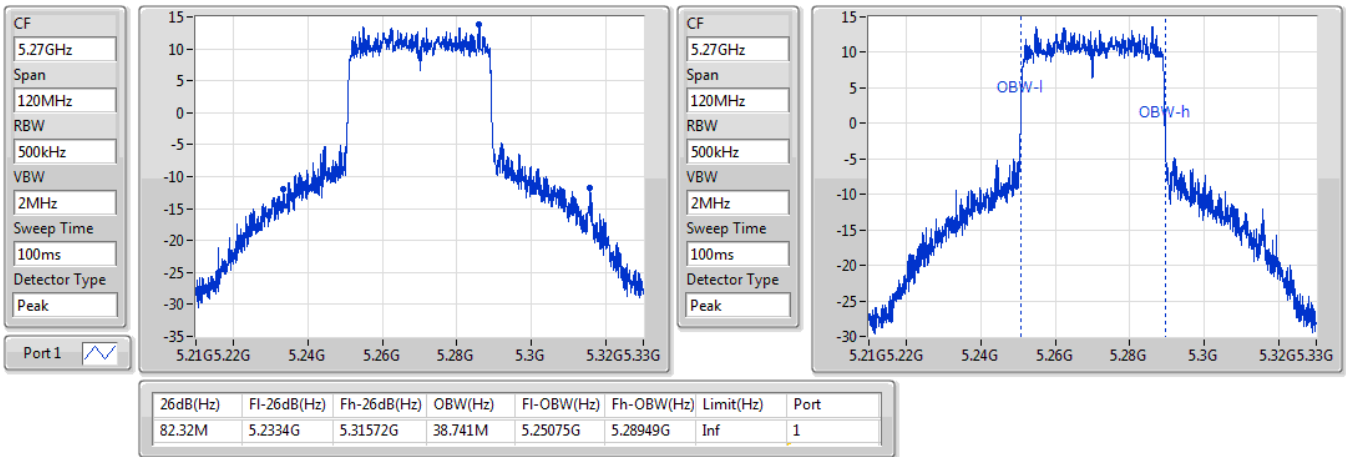

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

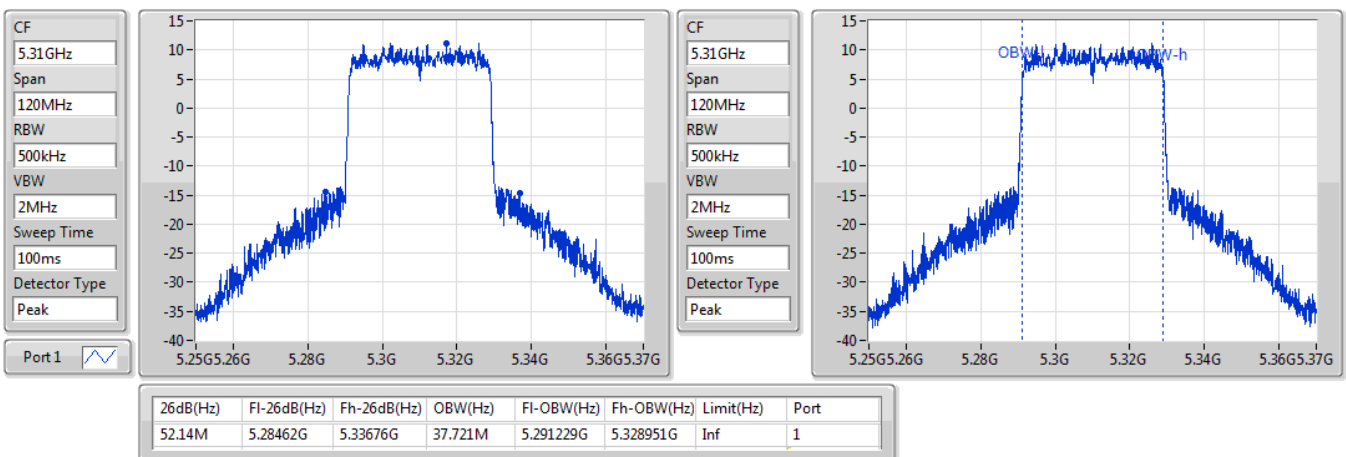


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5270MHz**

06/01/2020

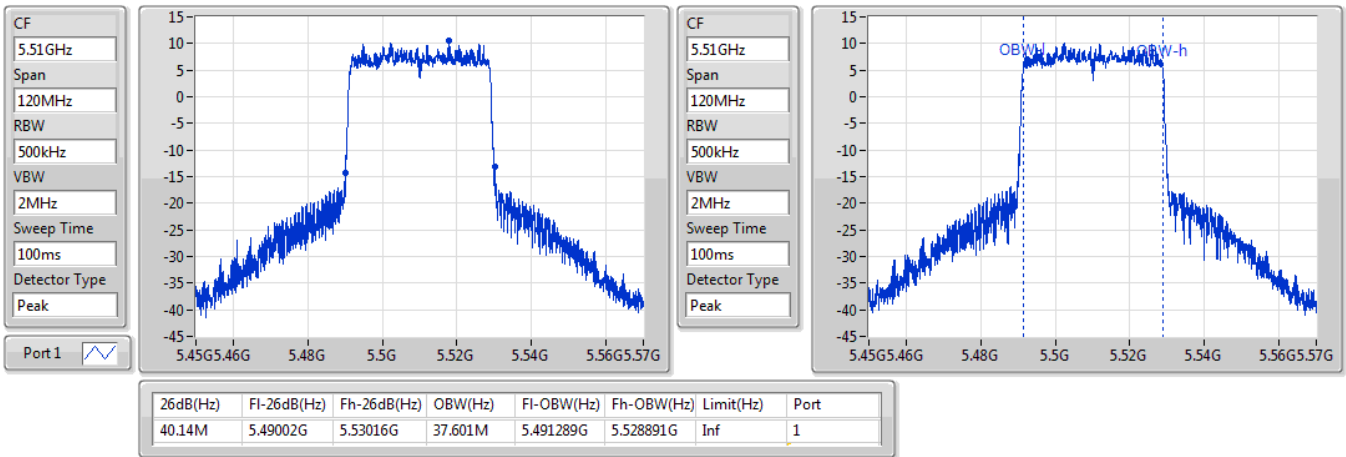

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5310MHz**

06/01/2020

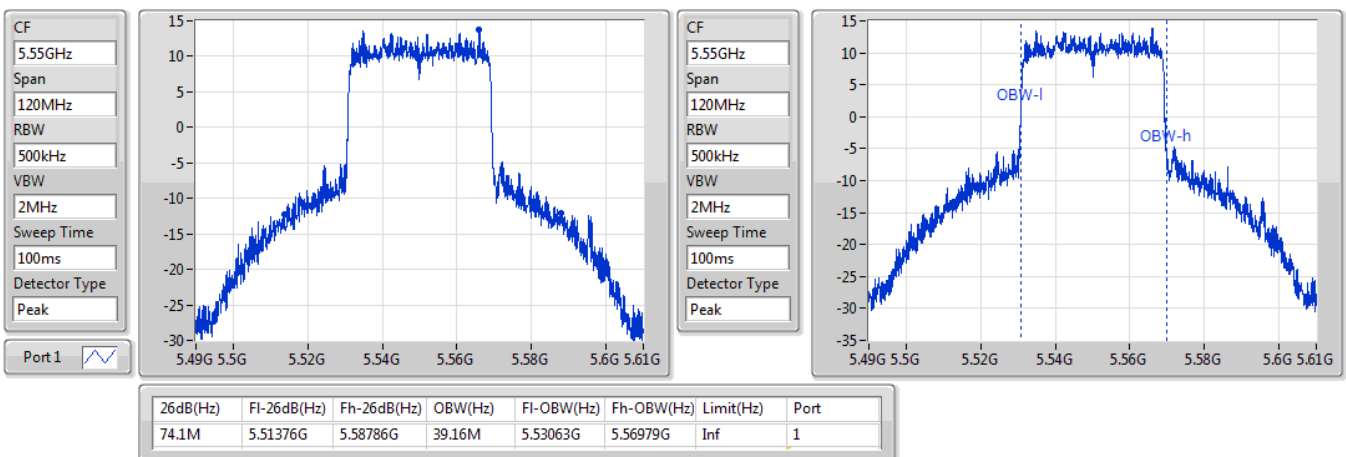


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5510MHz**

06/01/2020

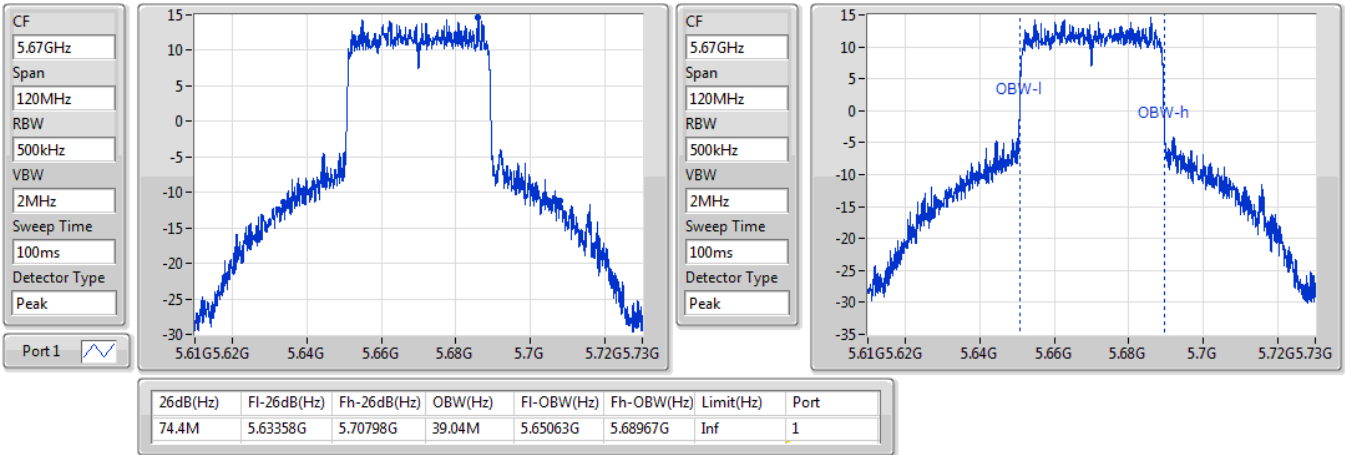

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5550MHz**

06/01/2020

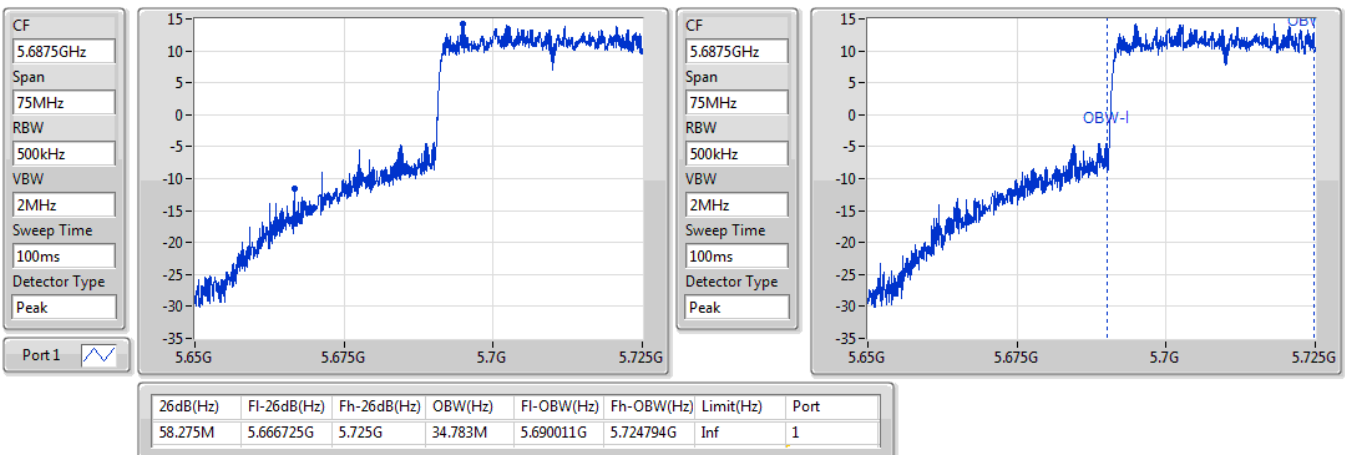


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5670MHz**

06/01/2020

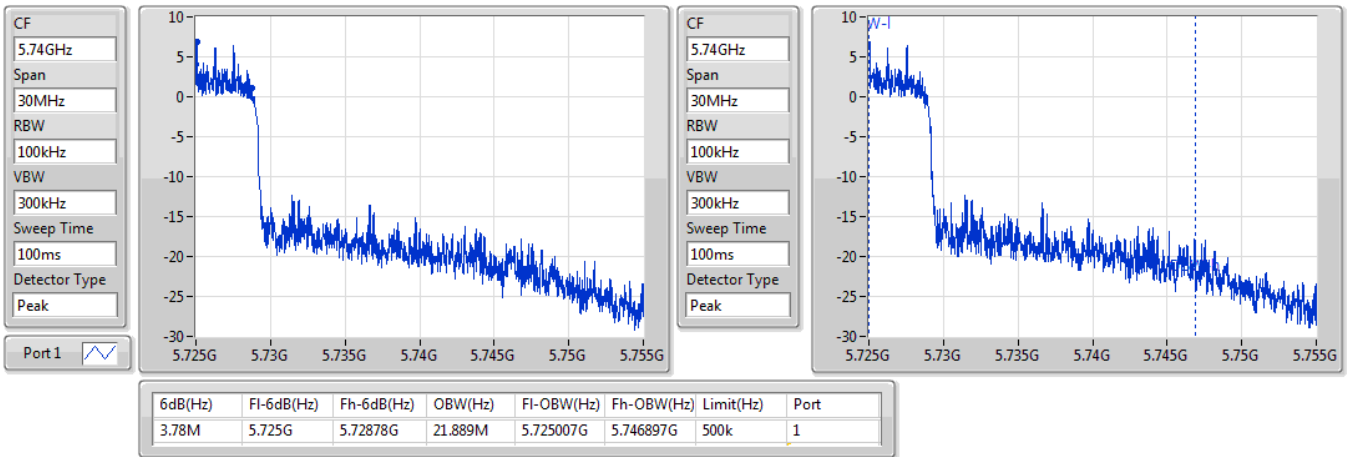

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

06/01/2020

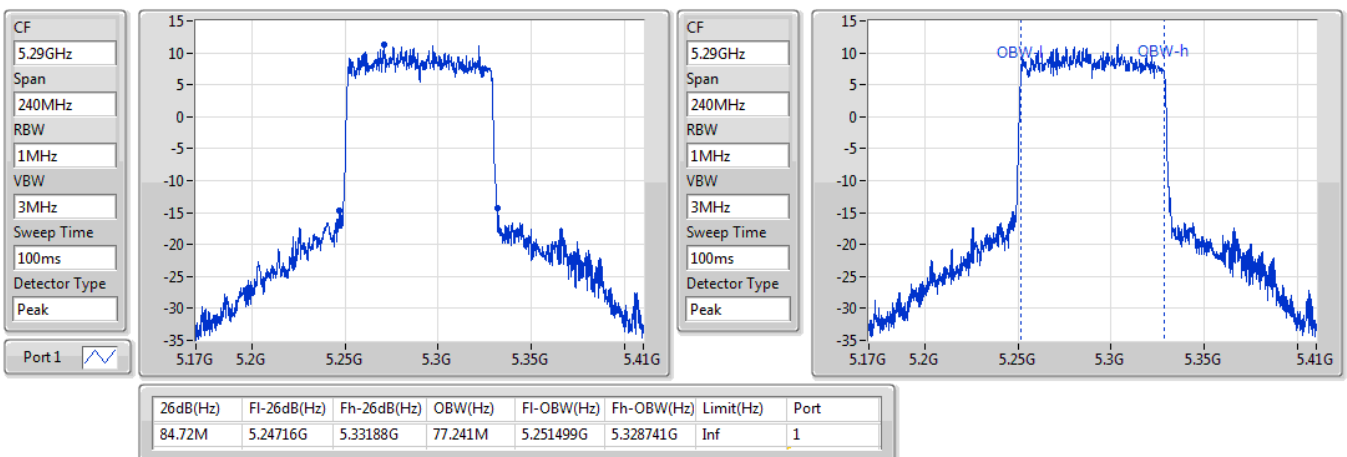


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

06/01/2020

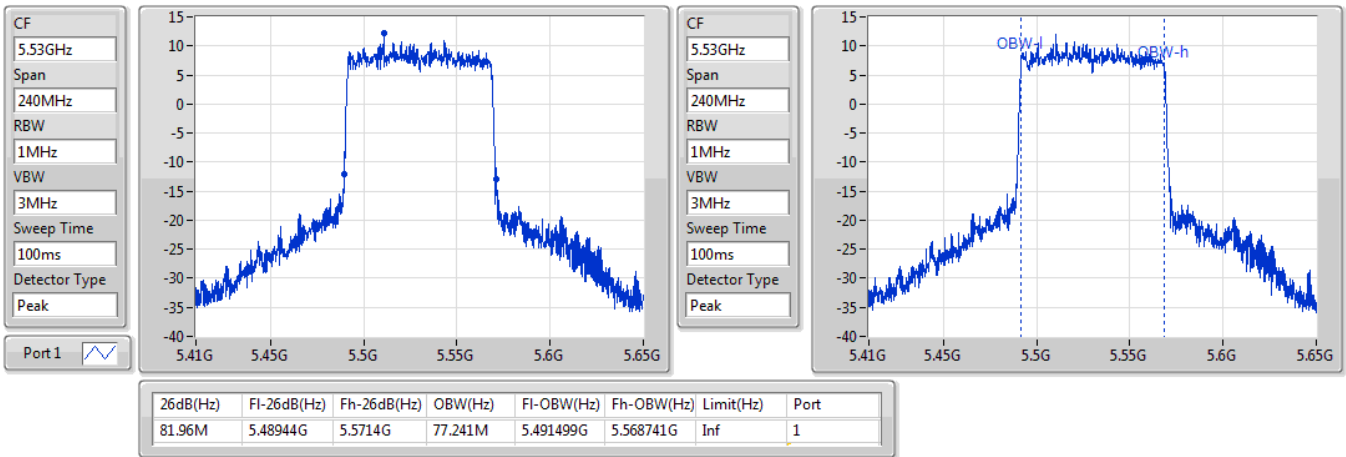

**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5290MHz**

06/01/2020

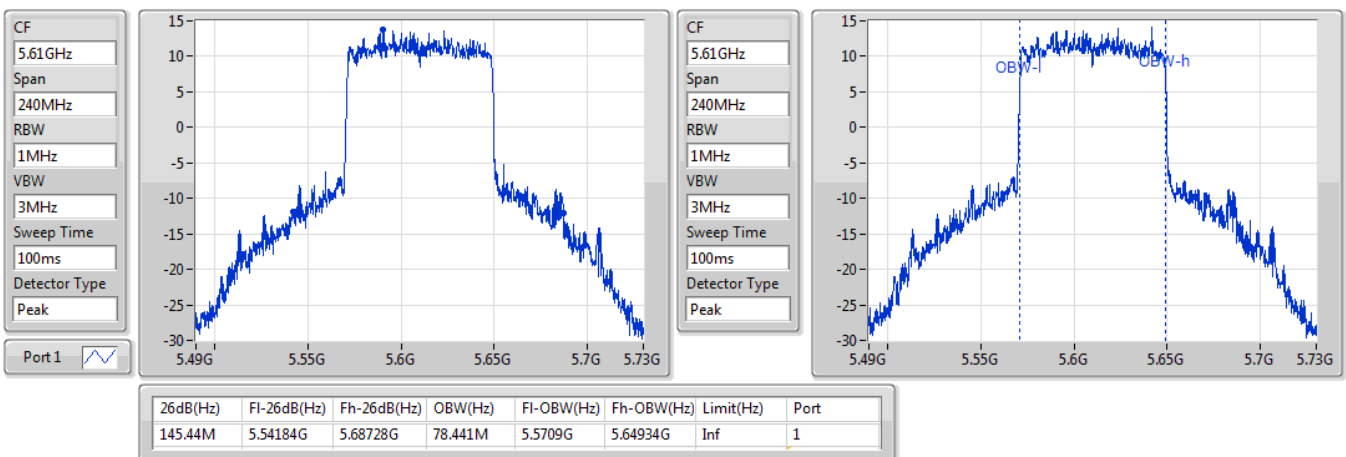


**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5530MHz**

06/01/2020

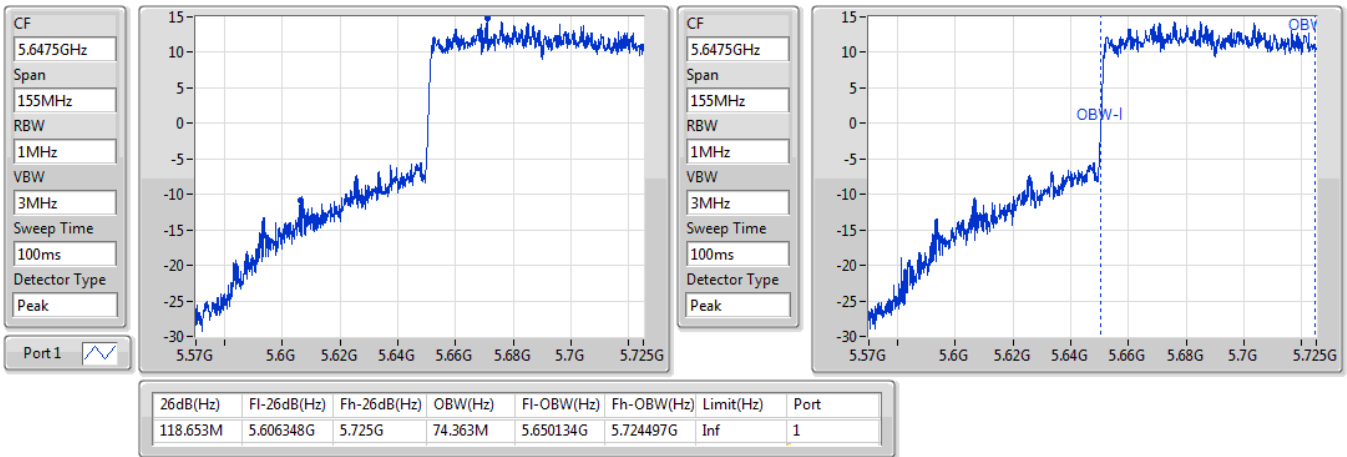

**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5610MHz**

06/01/2020

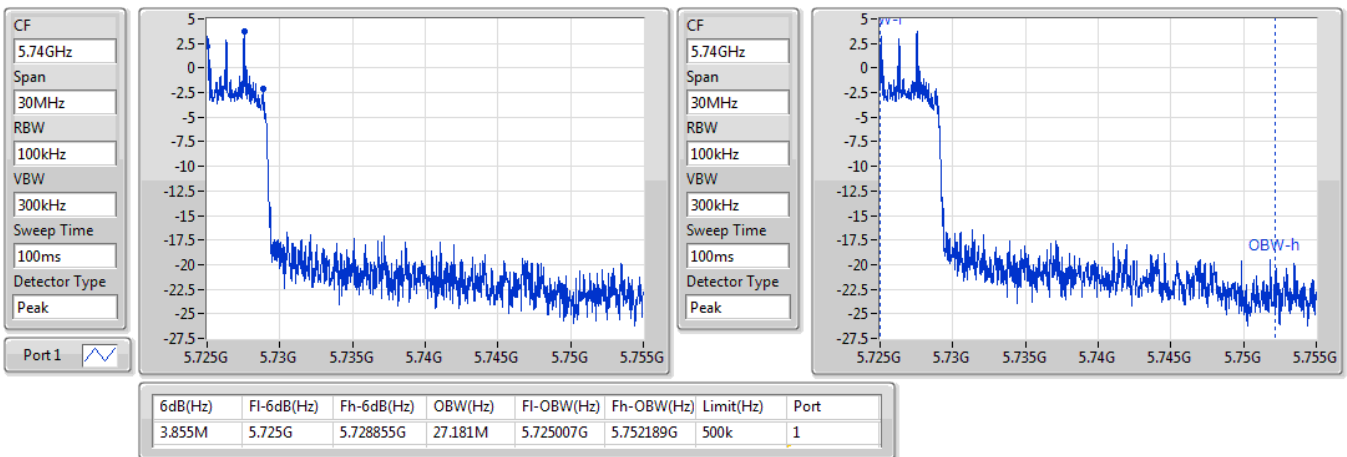


**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

06/01/2020


**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

06/01/2020



**Summary**

| Mode                           | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|--------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.25-5.35GHz                   | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX       | 26.97M           | 16.912M         | 16M9D1D  | 21.75M           | 16.852M         |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | 38.64M           | 19.4M           | 19M4D1D  | 27.57M           | 18.171M         |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | 78.18M           | 38.261M         | 38M3D1D  | 40.2M            | 36.342M         |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | 81.72M           | 75.922M         | 75M9D1D  | 81.48M           | 75.922M         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 41.82M           | 19.64M          | 19M6D1D  | 28.29M           | 19.16M          |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 74.52M           | 38.381M         | 38M4D1D  | 51M              | 37.721M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 81.48M           | 77.241M         | 77M2D1D  | 81.12M           | 77.241M         |
| 5.47-5.725GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX       | 24.48M           | 16.882M         | 16M9D1D  | 15.698M          | 13.363M         |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | 35.76M           | 18.651M         | 18M7D1D  | 20.563M          | 14.5M           |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | 71.46M           | 37.001M         | 37M0D1D  | 39.84M           | 33.283M         |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | 147.6M           | 77.121M         | 77M1D1D  | 81.6M            | 72.814M         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 40.71M           | 19.43M          | 19M4D1D  | 21.33M           | 14.745M         |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 71.52M           | 38.441M         | 38M4D1D  | 39.96M           | 33.846M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 152.04M          | 78.561M         | 78M6D1D  | 81.36M           | 73.356M         |
| 5.725-5.85GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX       | 3.21M            | 4.978M          | 4M98D1D  | 3.21M            | 4.753M          |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | 3.825M           | 9.7M            | 9M70D1D  | 3.825M           | 8.021M          |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | 3.21M            | 19.49M          | 19M5D1D  | 3.21M            | 18.801M         |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | 3.195M           | 25.172M         | 25M2D1D  | 3.195M           | 23.778M         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 4.515M           | 11.589M         | 11M6D1D  | 4.5M             | 9.61M           |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 3.855M           | 20.45M          | 20M4D1D  | 3.75M            | 20.435M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 3.42M            | 25.532M         | 25M5D1D  | 3.165M           | 23.883M         |

**Max-N dB** = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Max-OBW** = Maximum 99% occupied bandwidth;

**Min-N dB** = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Min-OBW** = Minimum 99% occupied bandwidth;

**Result**

| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) | Port 2-N dB<br>(Hz) | Port 2-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|---------------------|--------------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -      | -             | -                   | -                  | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 22.83M              | 16.912M            | 24.45M              | 16.912M            |
| 5300MHz                        | Pass   | Inf           | 21.75M              | 16.852M            | 26.97M              | 16.912M            |
| 5320MHz                        | Pass   | Inf           | 21.75M              | 16.882M            | 24.36M              | 16.912M            |
| 5500MHz                        | Pass   | Inf           | 22.68M              | 16.882M            | 24.48M              | 16.882M            |
| 5580MHz                        | Pass   | Inf           | 21.75M              | 16.852M            | 22.29M              | 16.852M            |
| 5700MHz                        | Pass   | Inf           | 21.78M              | 16.852M            | 22.29M              | 16.792M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 15.698M             | 13.363M            | 15.943M             | 13.398M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.21M               | 4.753M             | 3.21M               | 4.978M             |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 34.35M              | 18.681M            | 38.64M              | 19.4M              |
| 5300MHz                        | Pass   | Inf           | 32.85M              | 18.621M            | 38.55M              | 19.19M             |
| 5320MHz                        | Pass   | Inf           | 27.57M              | 18.171M            | 33.66M              | 18.231M            |
| 5500MHz                        | Pass   | Inf           | 31.08M              | 18.501M            | 34.56M              | 18.321M            |
| 5580MHz                        | Pass   | Inf           | 33.72M              | 18.591M            | 35.76M              | 18.651M            |
| 5700MHz                        | Pass   | Inf           | 21.72M              | 17.931M            | 21.78M              | 17.841M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 20.563M             | 14.5M              | 24.185M             | 14.605M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.825M              | 8.021M             | 3.825M              | 9.7M               |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 78.18M              | 38.261M            | 71.76M              | 37.241M            |
| 5310MHz                        | Pass   | Inf           | 40.38M              | 36.522M            | 40.2M               | 36.342M            |
| 5510MHz                        | Pass   | Inf           | 39.84M              | 36.402M            | 40.2M               | 36.342M            |
| 5550MHz                        | Pass   | Inf           | 64.56M              | 37.001M            | 71.46M              | 36.822M            |
| 5670MHz                        | Pass   | Inf           | 66.72M              | 37.001M            | 67.5M               | 36.642M            |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 53.288M             | 33.621M            | 44.963M             | 33.283M            |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.21M               | 19.49M             | 3.21M               | 18.801M            |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 81.48M              | 75.922M            | 81.72M              | 75.922M            |
| 5530MHz                        | Pass   | Inf           | 81.96M              | 76.042M            | 81.6M               | 76.042M            |
| 5610MHz                        | Pass   | Inf           | 134.52M             | 76.642M            | 147.6M              | 77.121M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 110.128M            | 72.814M            | 107.725M            | 72.891M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.195M              | 23.778M            | 3.195M              | 25.172M            |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 35.16M              | 19.31M             | 41.82M              | 19.64M             |
| 5300MHz                        | Pass   | Inf           | 36.81M              | 19.28M             | 41.67M              | 19.49M             |
| 5320MHz                        | Pass   | Inf           | 28.29M              | 19.16M             | 41.07M              | 19.34M             |
| 5500MHz                        | Pass   | Inf           | 33.24M              | 19.22M             | 36.39M              | 19.28M             |
| 5580MHz                        | Pass   | Inf           | 35.13M              | 19.31M             | 40.71M              | 19.43M             |
| 5700MHz                        | Pass   | Inf           | 21.63M              | 19.04M             | 21.33M              | 19.1M              |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 23.853M             | 14.745M            | 25.498M             | 14.885M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 4.515M              | 9.61M              | 4.5M                | 11.589M            |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 74.52M              | 38.381M            | 71.1M               | 38.381M            |
| 5310MHz                        | Pass   | Inf           | 51M                 | 37.781M            | 52.92M              | 37.721M            |

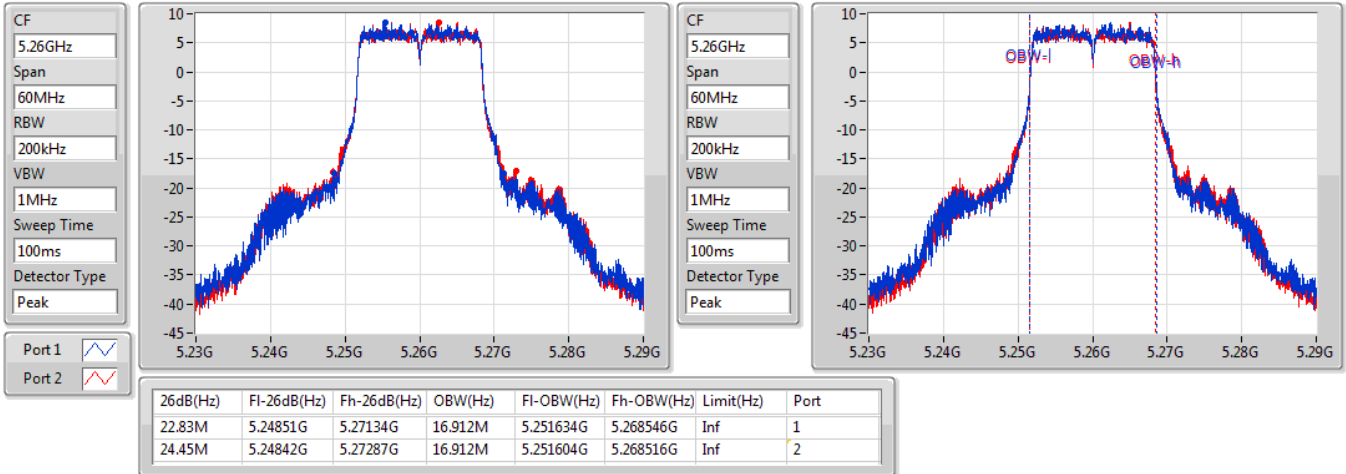
| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) | Port 2-N dB<br>(Hz) | Port 2-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|---------------------|--------------------|
| 5510MHz                        | Pass   | Inf           | 40.08M              | 37.721M            | 39.96M              | 37.541M            |
| 5550MHz                        | Pass   | Inf           | 71.22M              | 38.201M            | 71.52M              | 38.441M            |
| 5670MHz                        | Pass   | Inf           | 70.98M              | 38.021M            | 69.18M              | 37.961M            |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 52.613M             | 34.22M             | 50.775M             | 33.846M            |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.75M               | 20.435M            | 3.855M              | 20.45M             |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 81.12M              | 77.241M            | 81.48M              | 77.241M            |
| 5530MHz                        | Pass   | Inf           | 81.36M              | 77.241M            | 81.72M              | 77.241M            |
| 5610MHz                        | Pass   | Inf           | 123M                | 77.841M            | 152.04M             | 78.561M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 97.883M             | 73.356M            | 105.633M            | 73.511M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.42M               | 23.883M            | 3.165M              | 25.532M            |

**Port X-N dB** = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

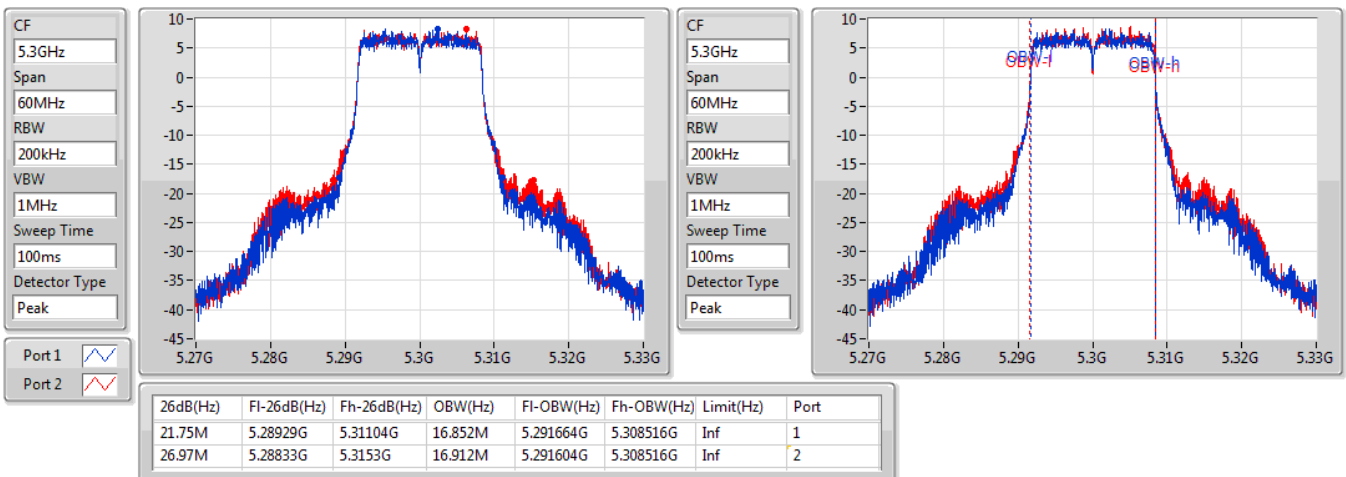
**Port X-OBW** = Port X 99% occupied bandwidth;

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5260MHz**

06/01/2020


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5300MHz**

06/01/2020

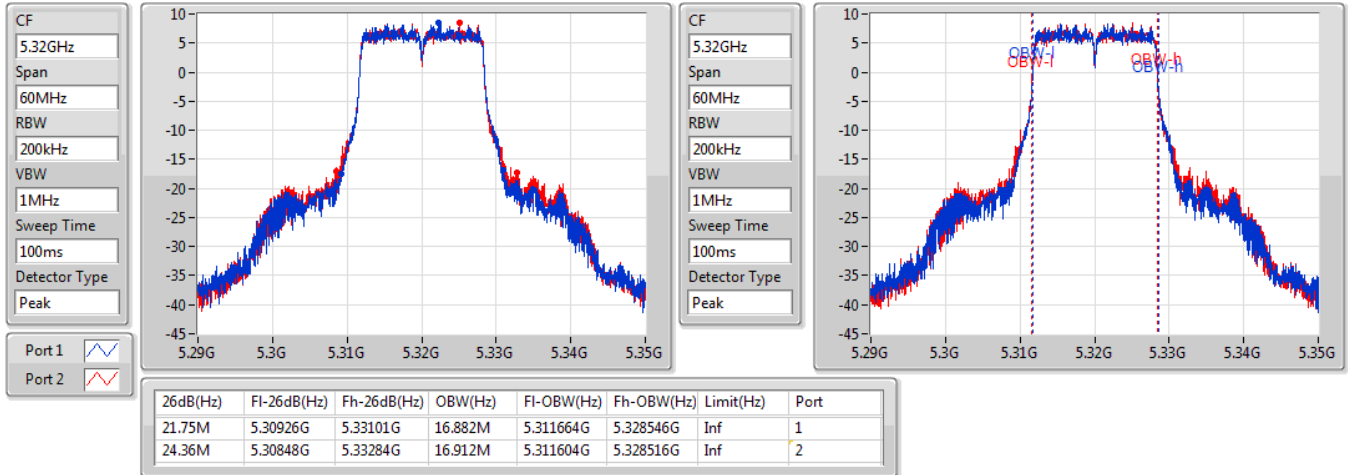


## 802.11a\_Nss1,(6Mbps)\_2TX

EBW

5320MHz

06/01/2020

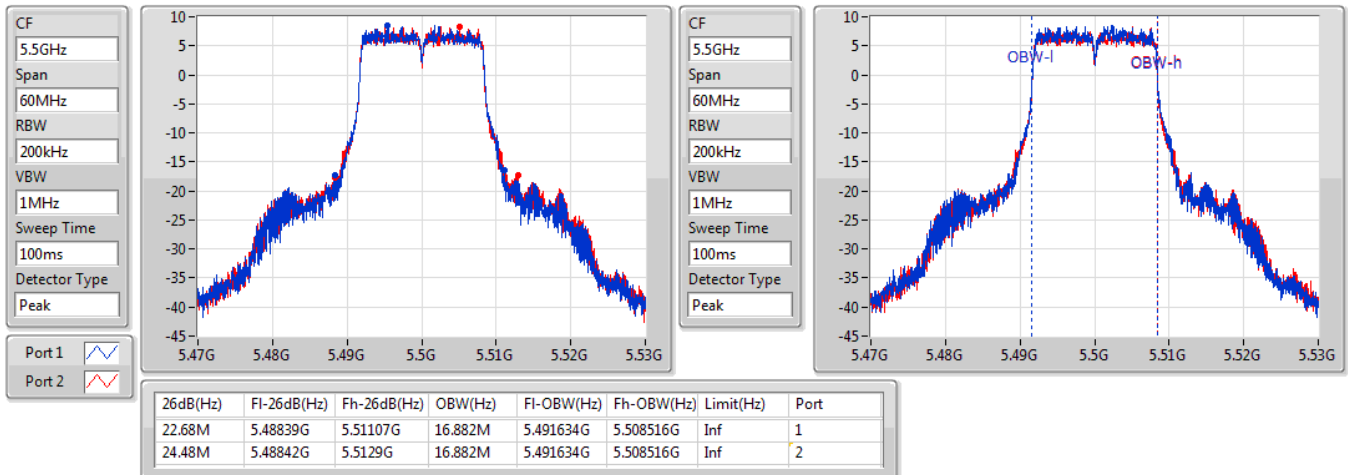


## 802.11a\_Nss1,(6Mbps)\_2TX

EBW

5500MHz

06/01/2020

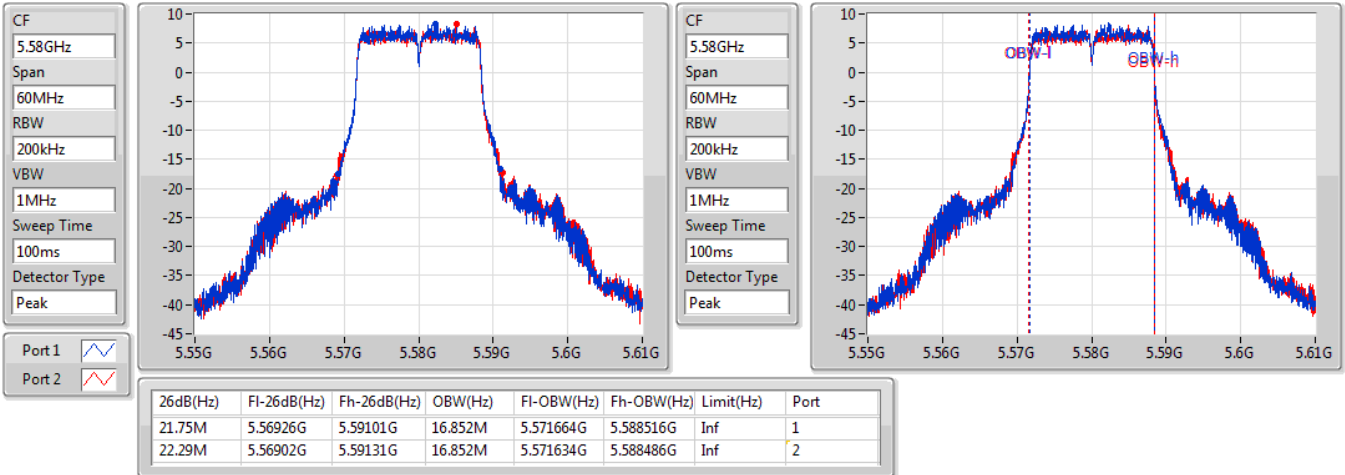


## 802.11a\_Nss1,(6Mbps)\_2TX

EBW

5580MHz

06/01/2020

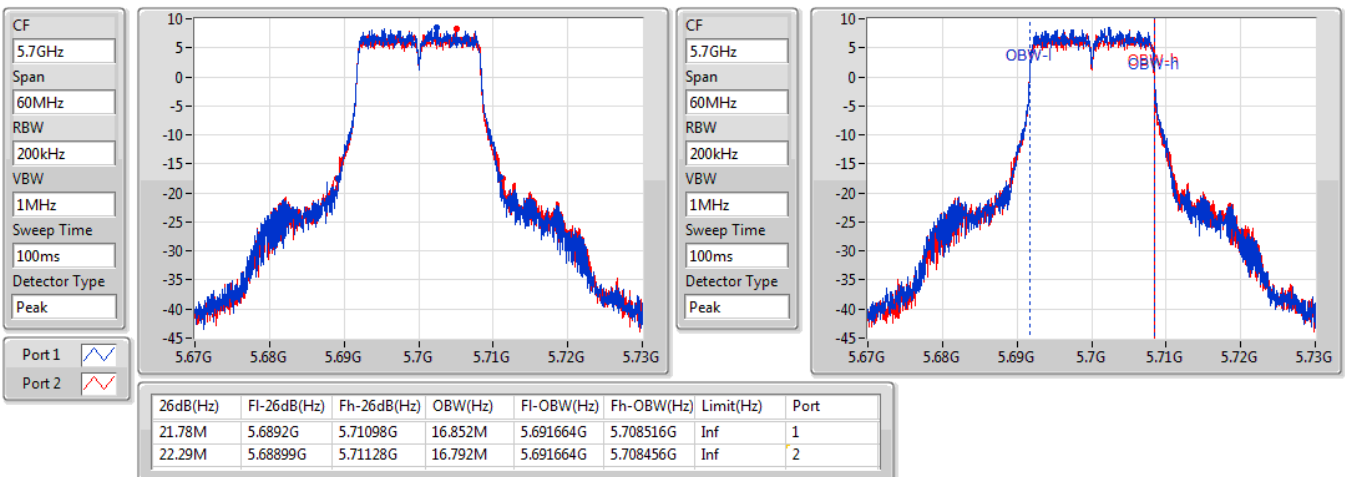


## 802.11a\_Nss1,(6Mbps)\_2TX

EBW

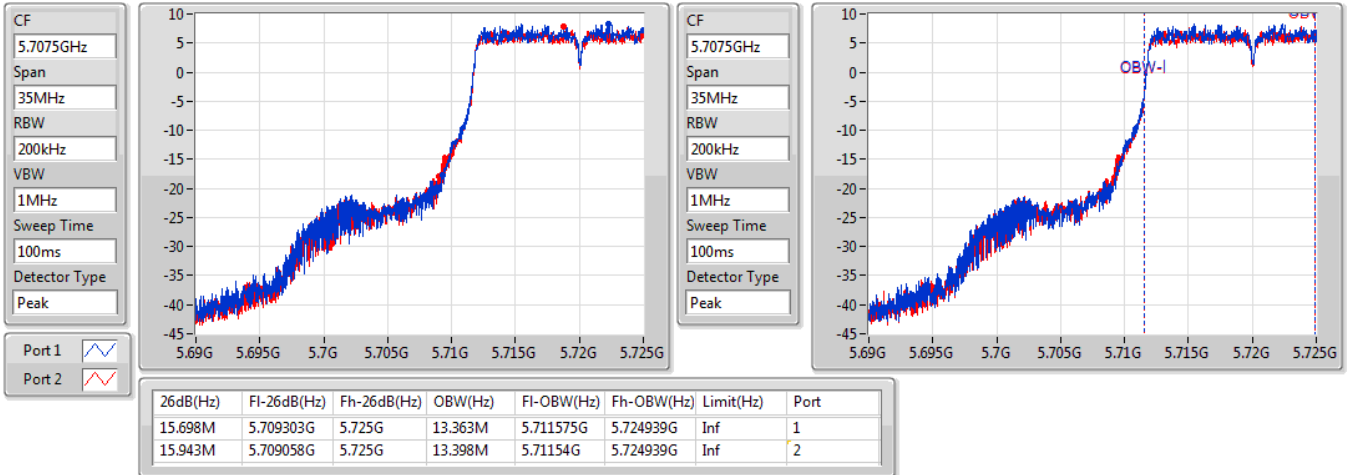
5700MHz

06/01/2020

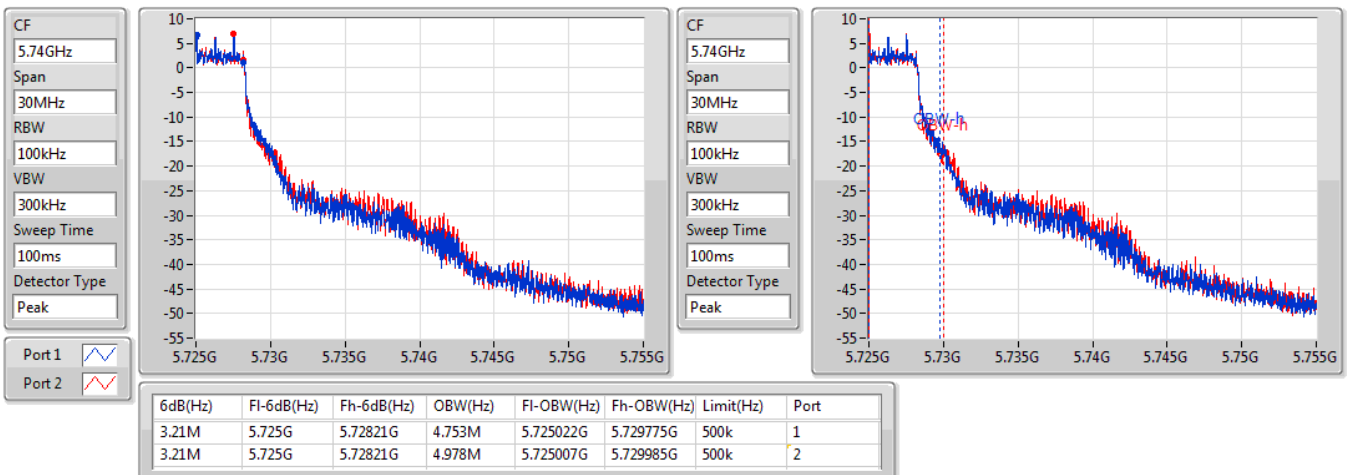


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

06/01/2020

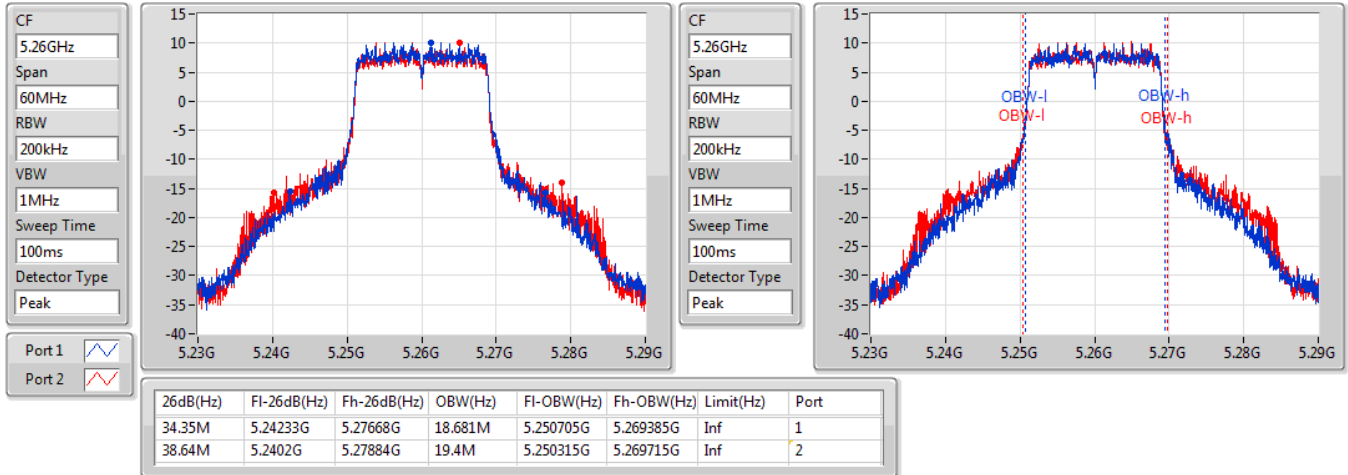

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

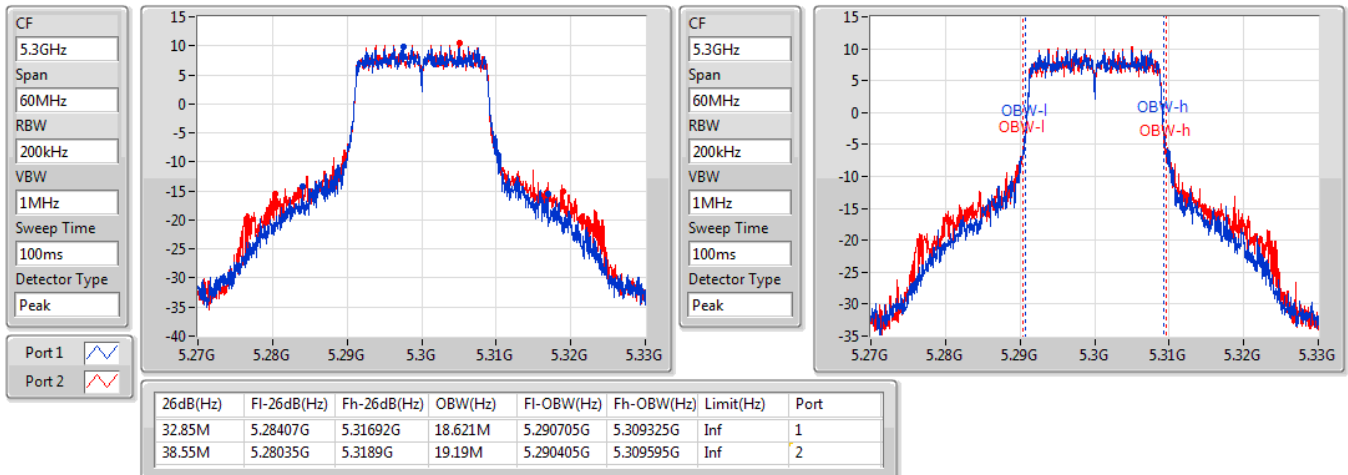


**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5260MHz**

06/01/2020

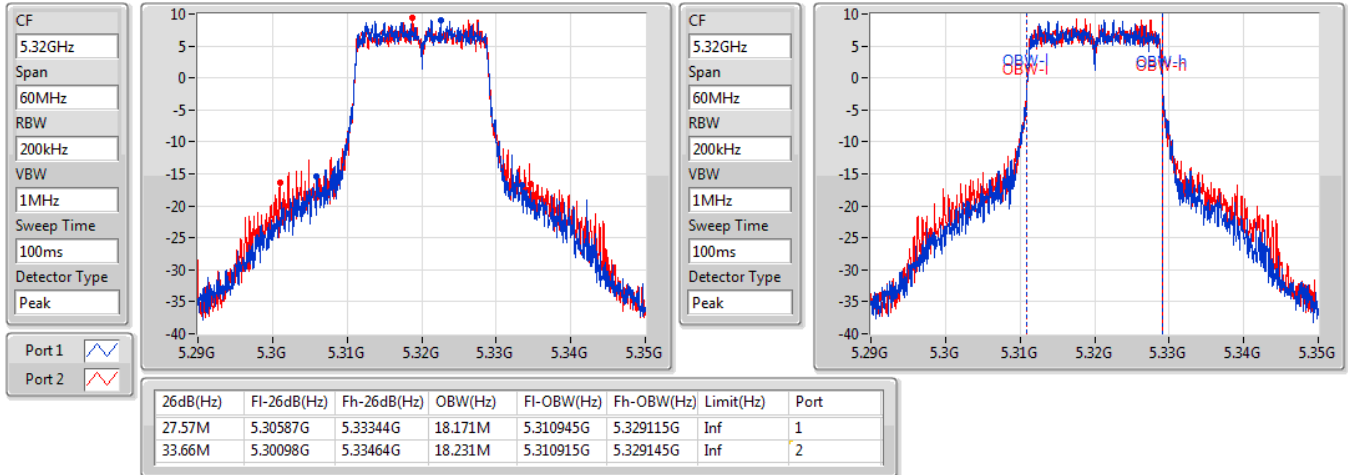

**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5300MHz**

06/01/2020

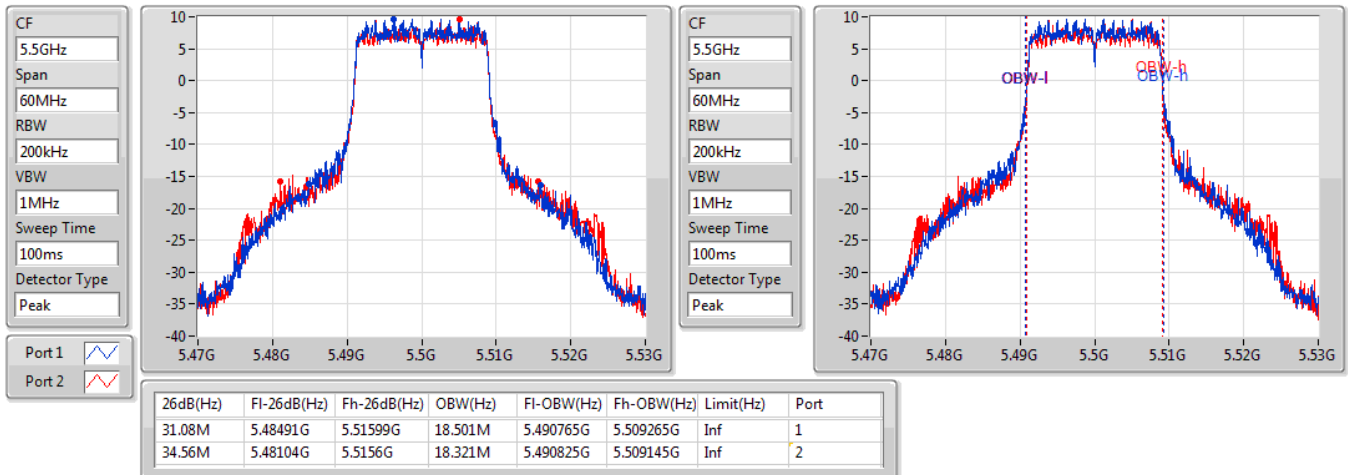


**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5320MHz**

06/01/2020

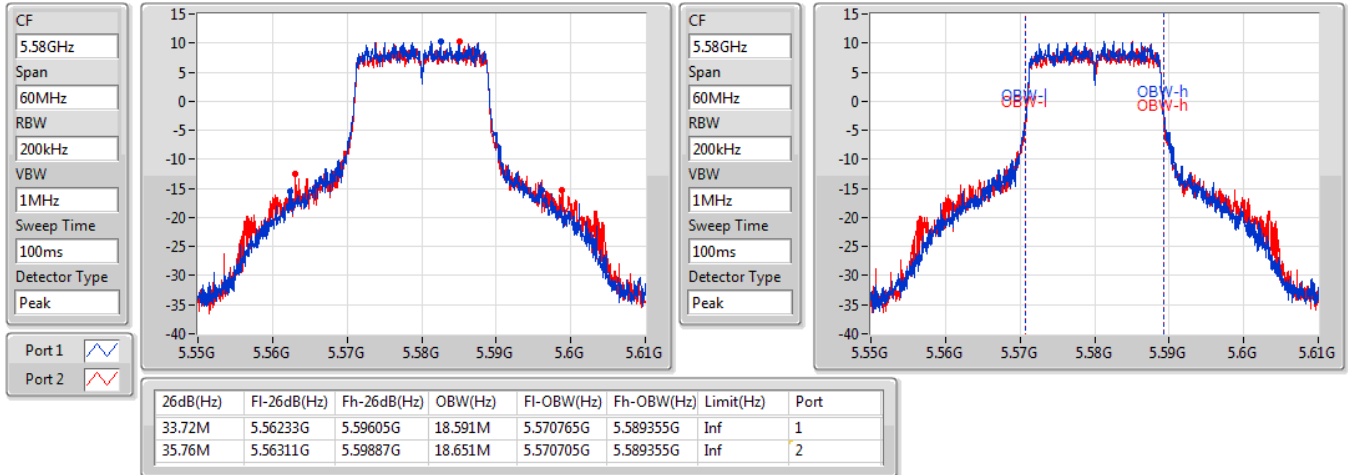

**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5500MHz**

06/01/2020

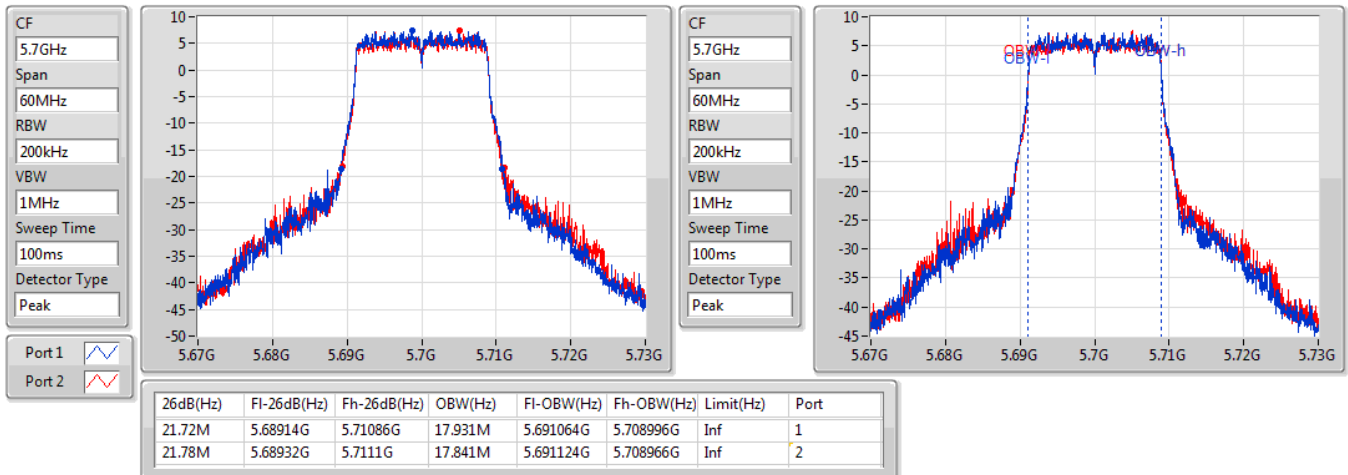


**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5580MHz**

06/01/2020

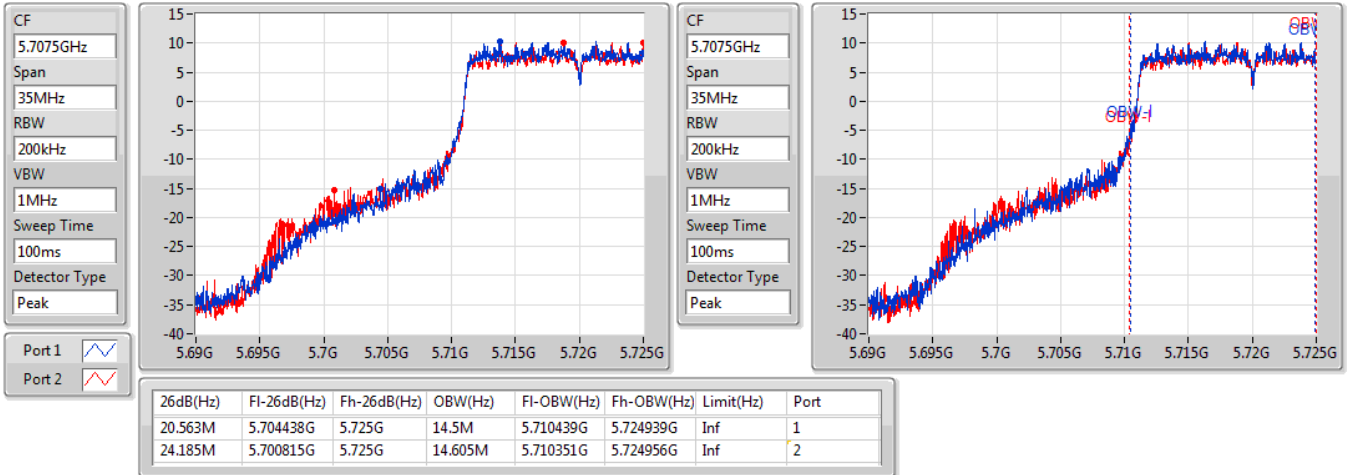

**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5700MHz**

06/01/2020

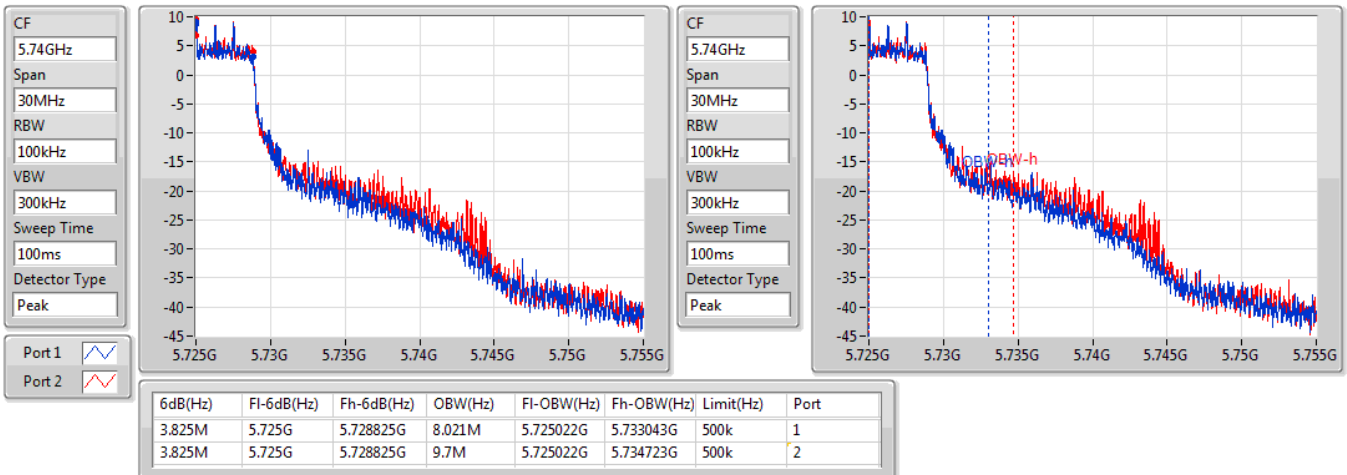


**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

06/01/2020

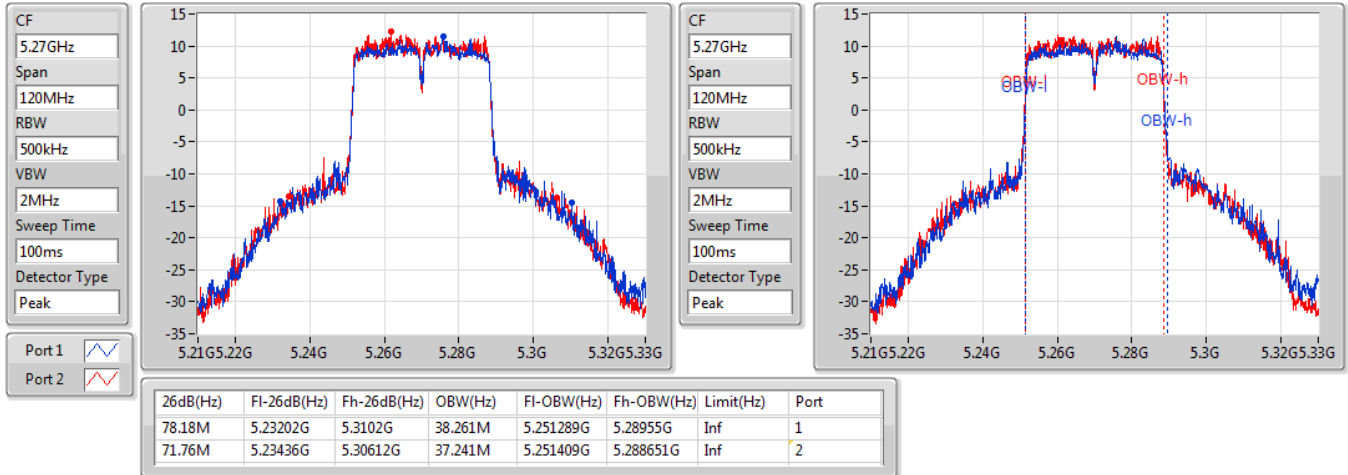

**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

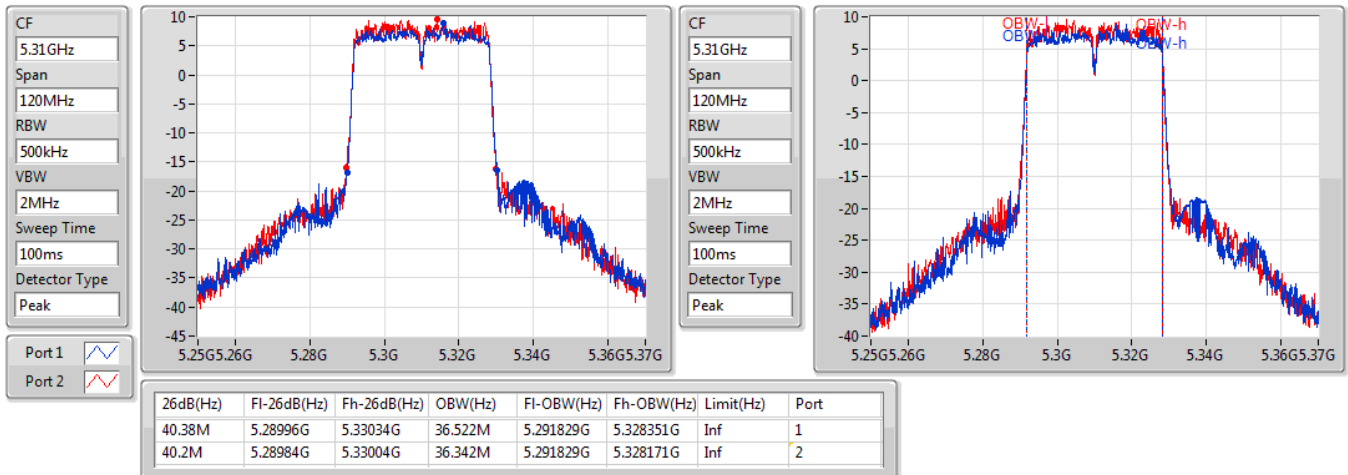


**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5270MHz**

06/01/2020

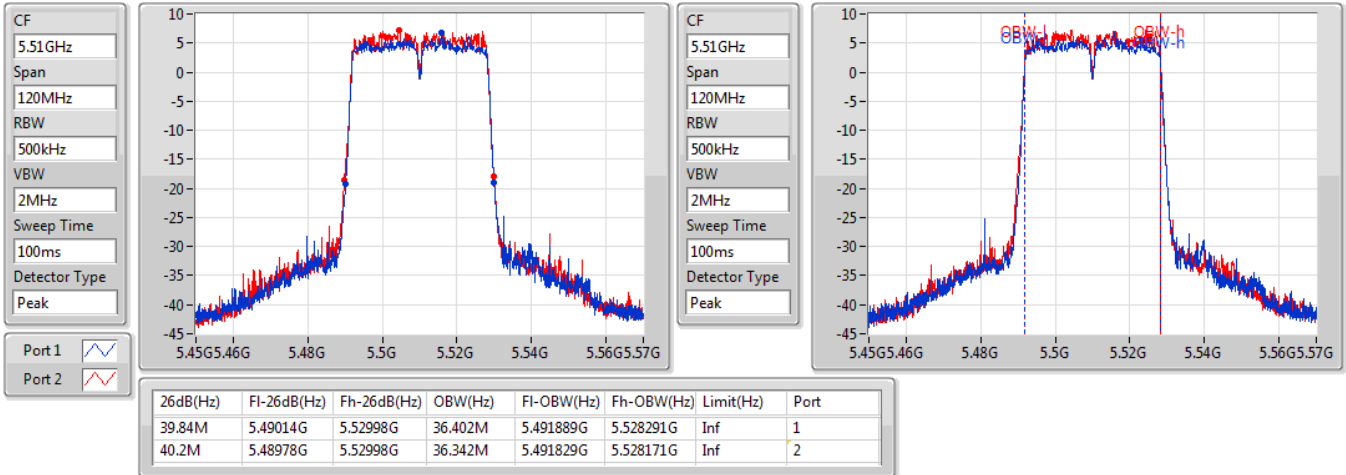

**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5310MHz**

06/01/2020

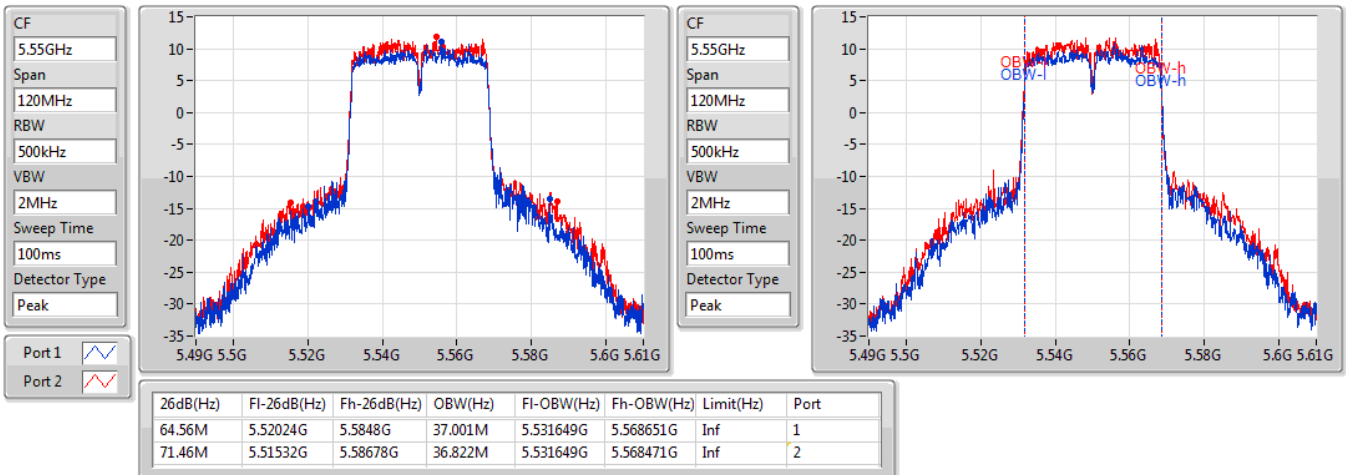


**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5510MHz**

06/01/2020

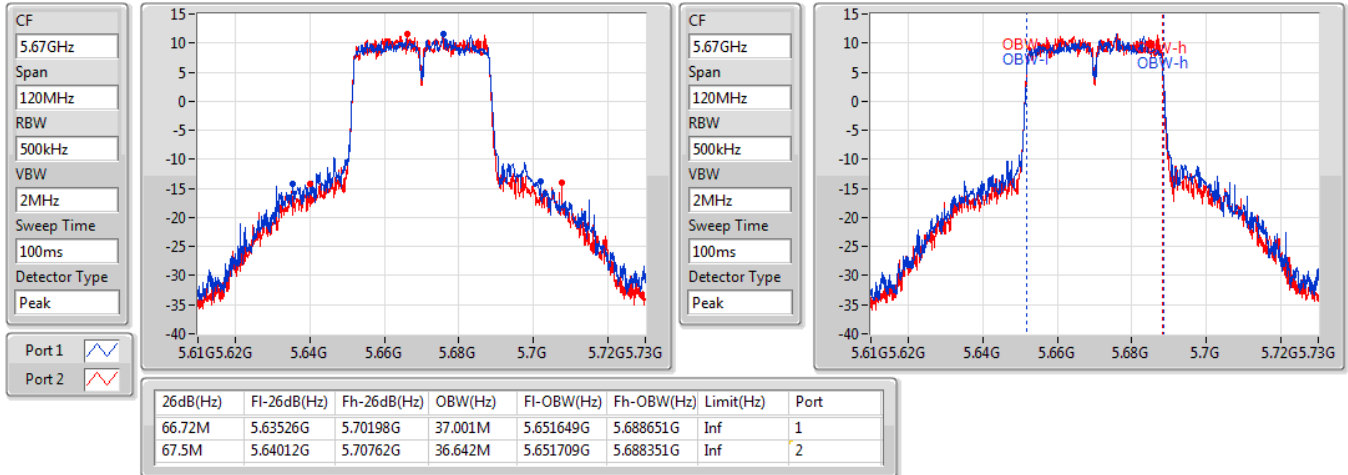

**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5550MHz**

06/01/2020

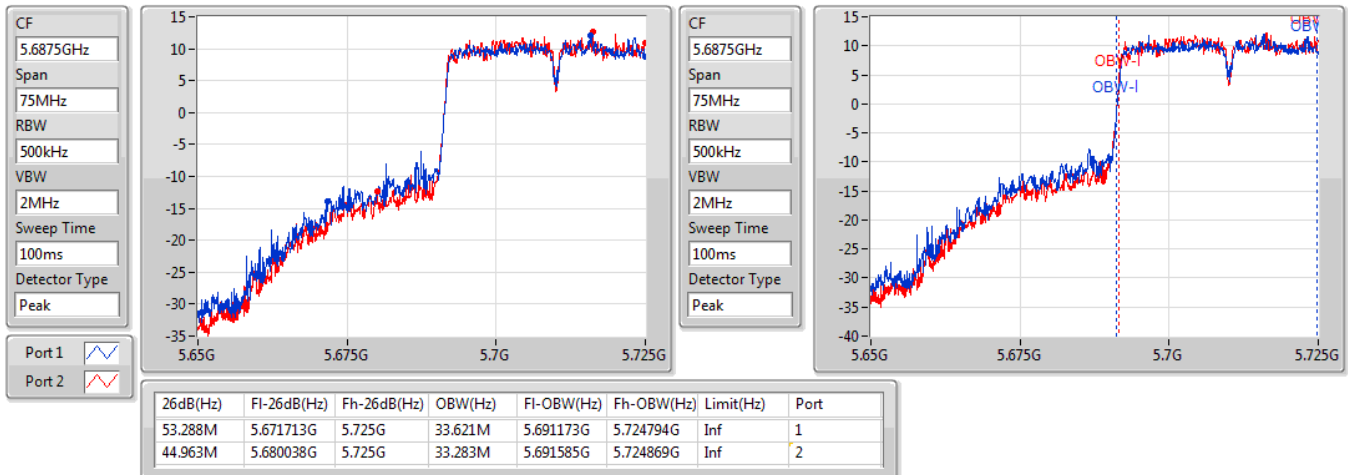


**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5670MHz**

06/01/2020

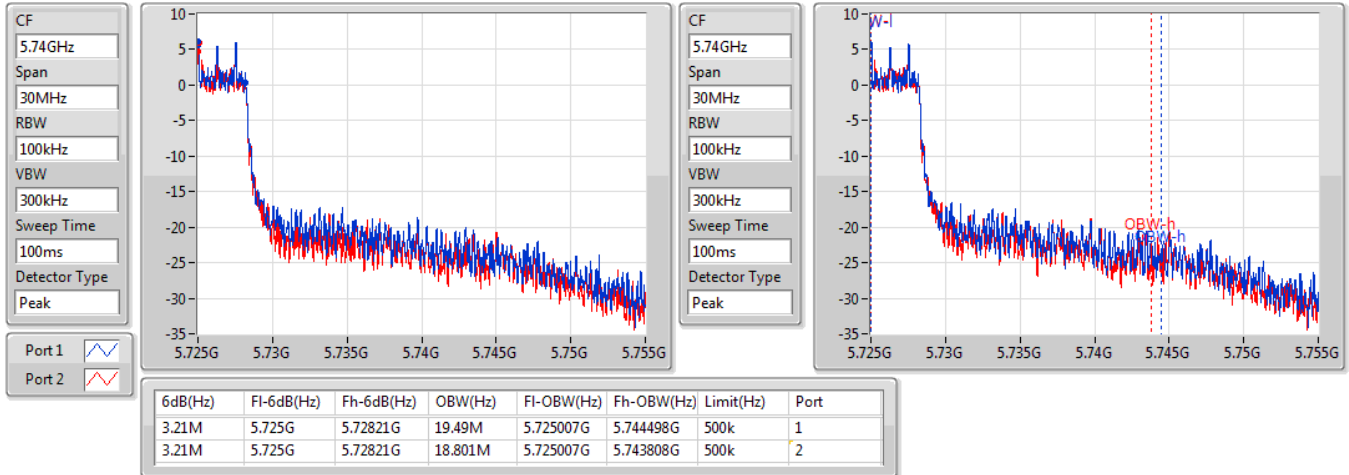

**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

06/01/2020

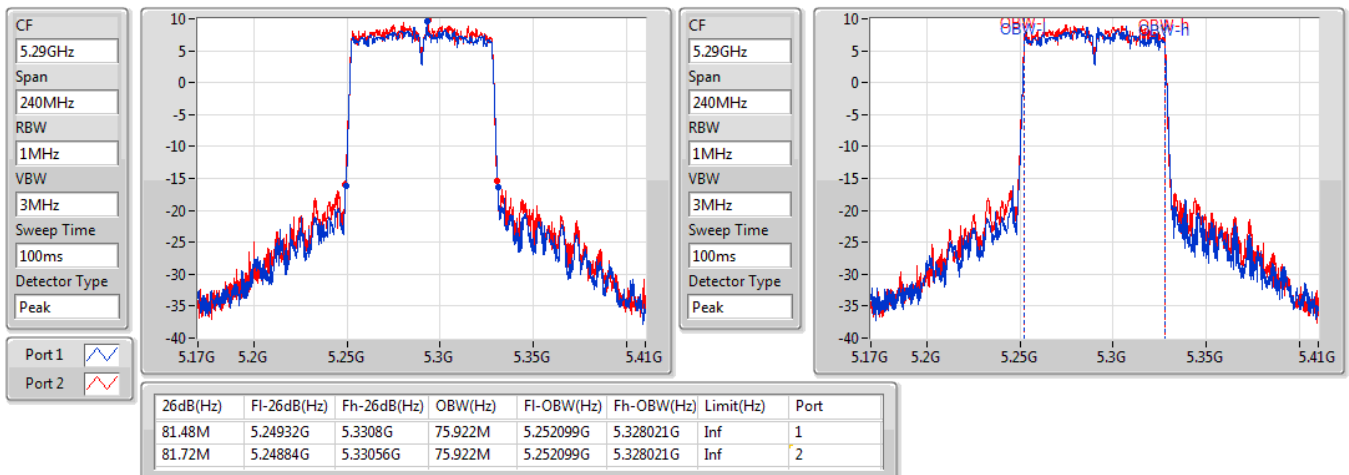


**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

06/01/2020

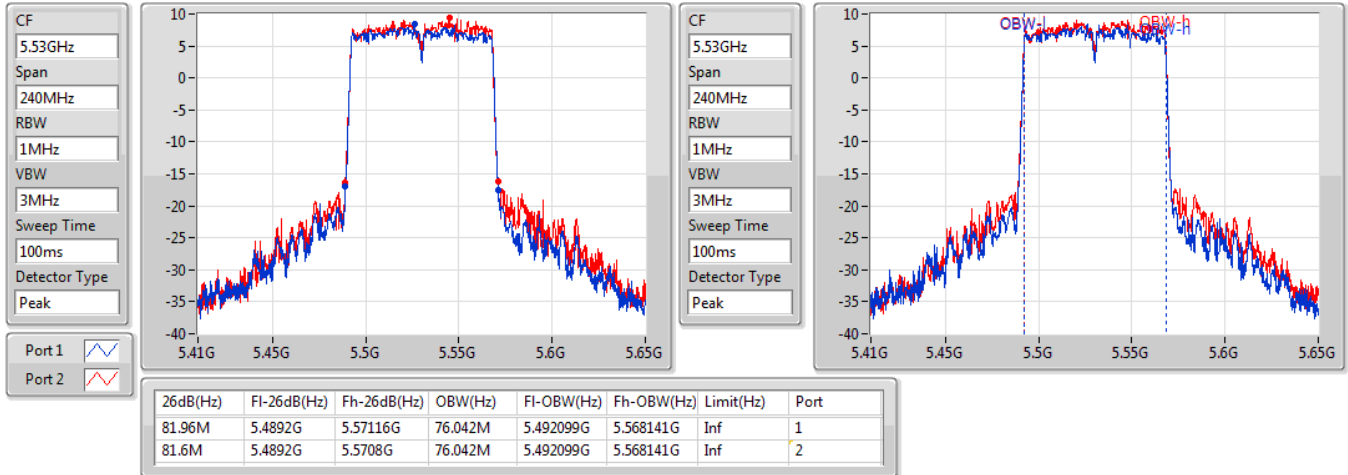

**802.11ac VHT80\_Nss2,(MCS0)\_2TX**
**EBW**
**5290MHz**

06/01/2020

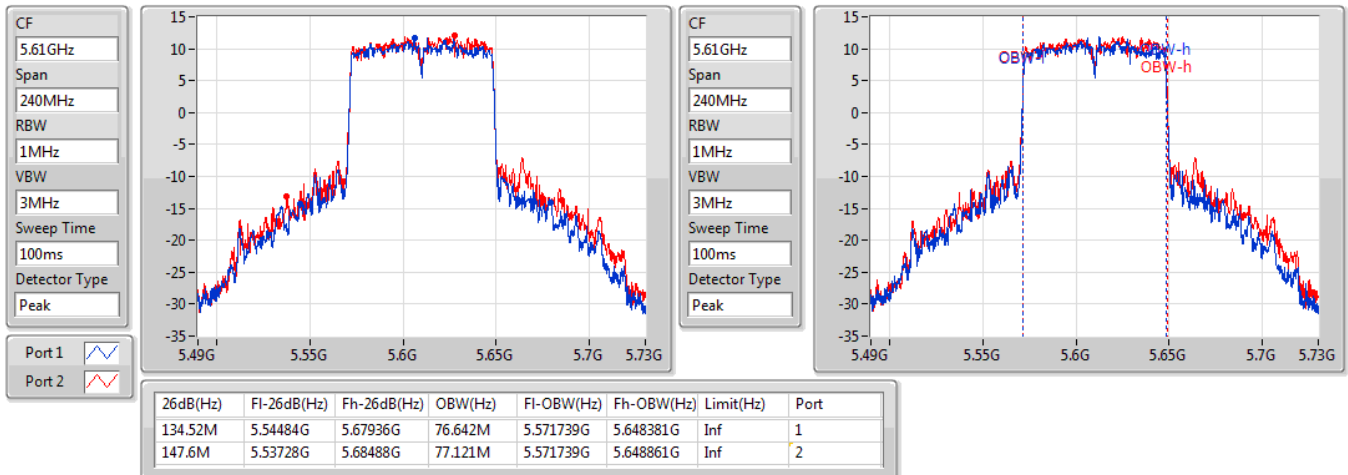


**802.11ac VHT80\_Nss2,(MCS0)\_2TX**
**EBW**
**5530MHz**

06/01/2020

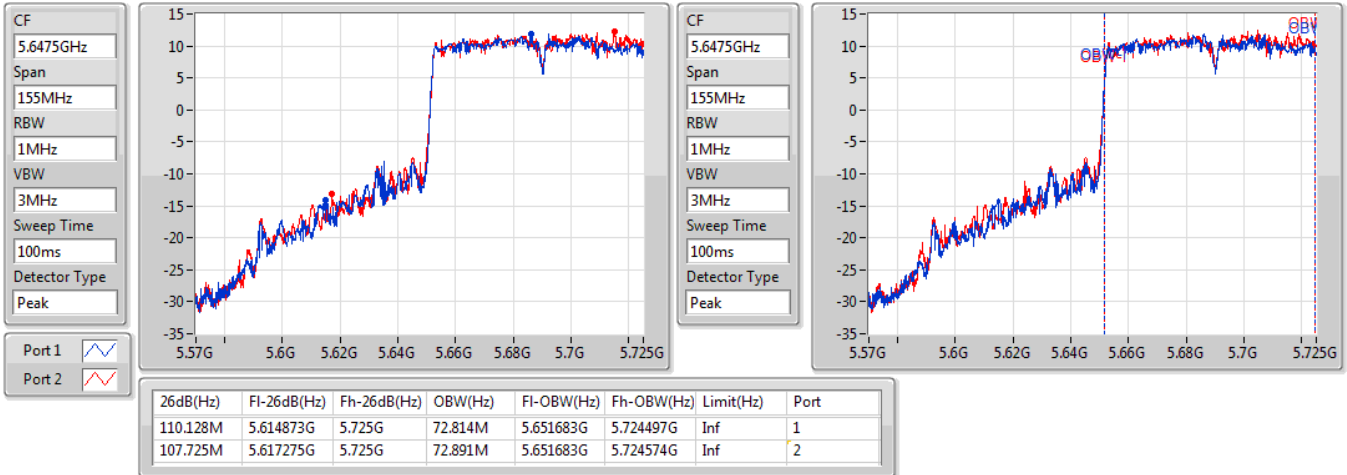

**802.11ac VHT80\_Nss2,(MCS0)\_2TX**
**EBW**
**5610MHz**

06/01/2020

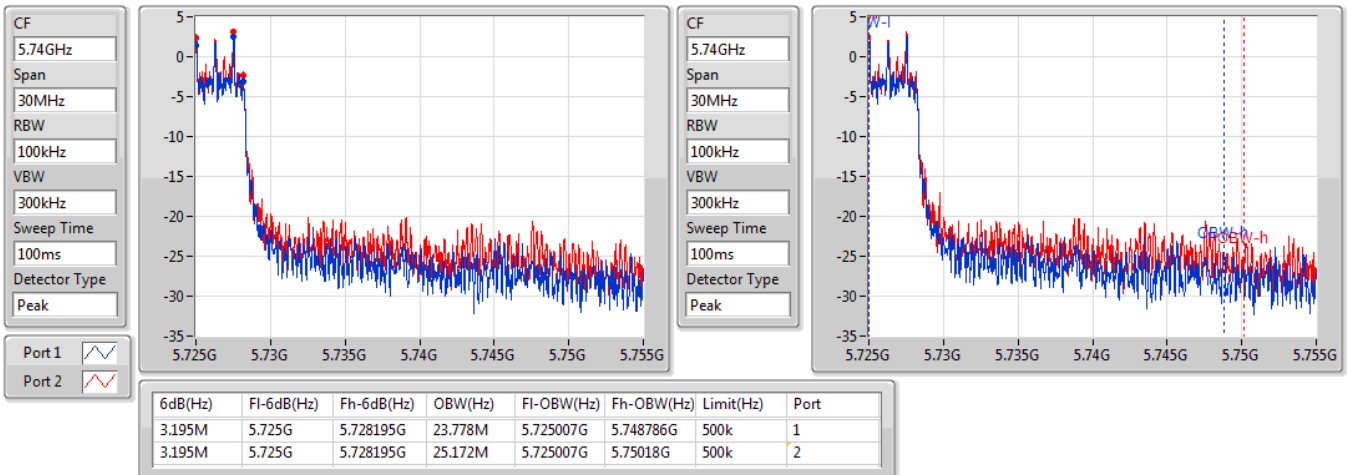


**802.11ac VHT80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

06/01/2020

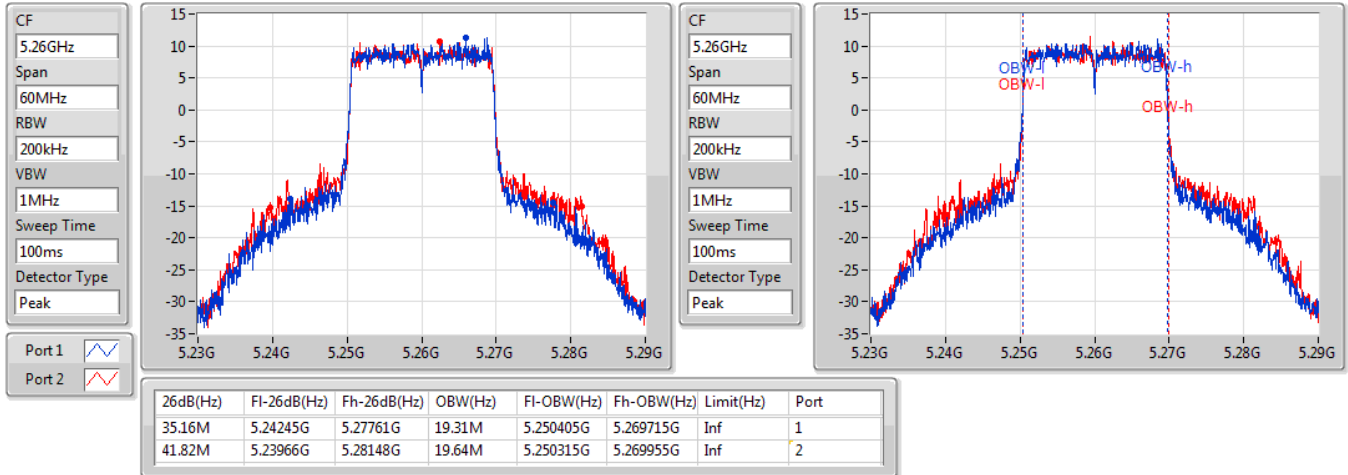

**802.11ac VHT80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

06/01/2020

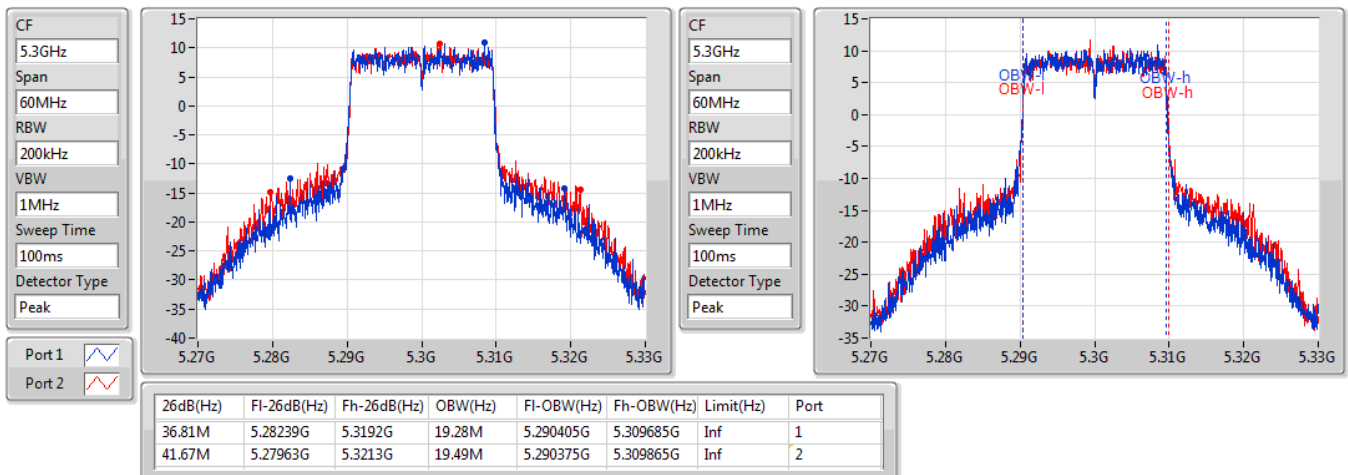


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5260MHz**

06/01/2020

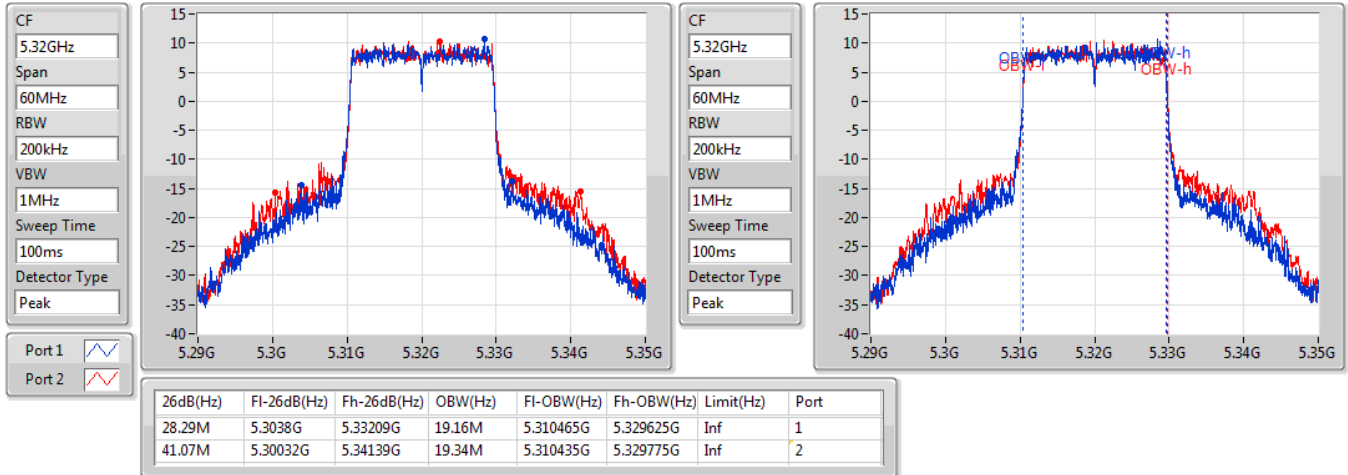

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5300MHz**

06/01/2020

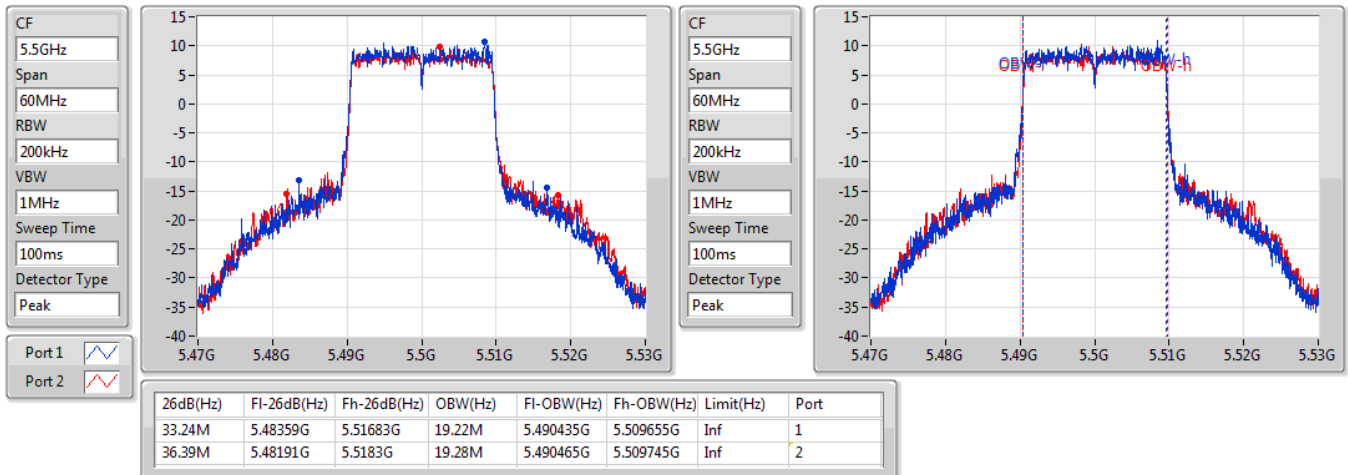


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5320MHz**

06/01/2020

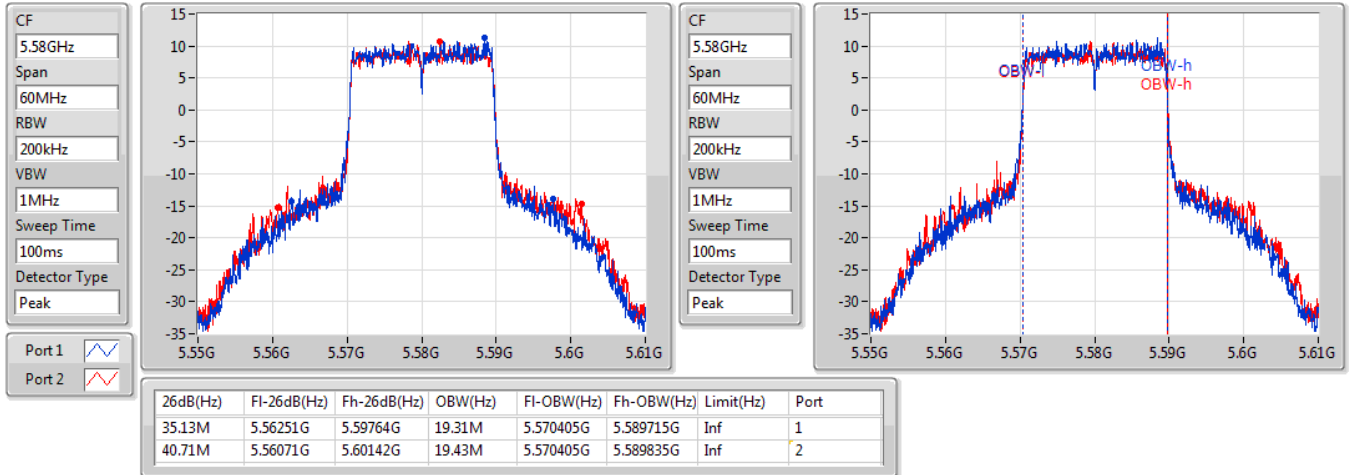

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5500MHz**

06/01/2020

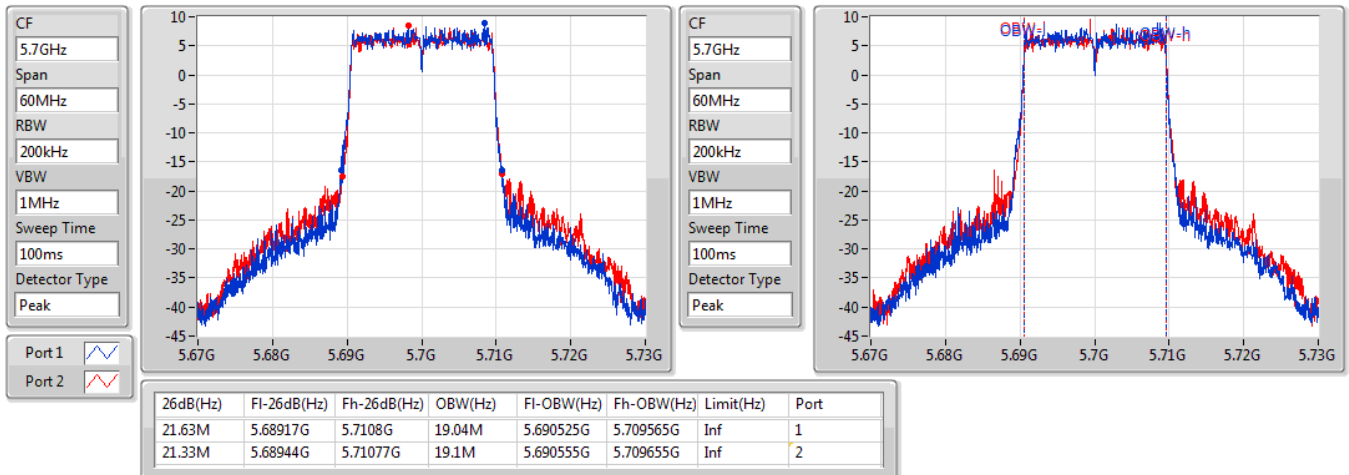


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5580MHz**

06/01/2020

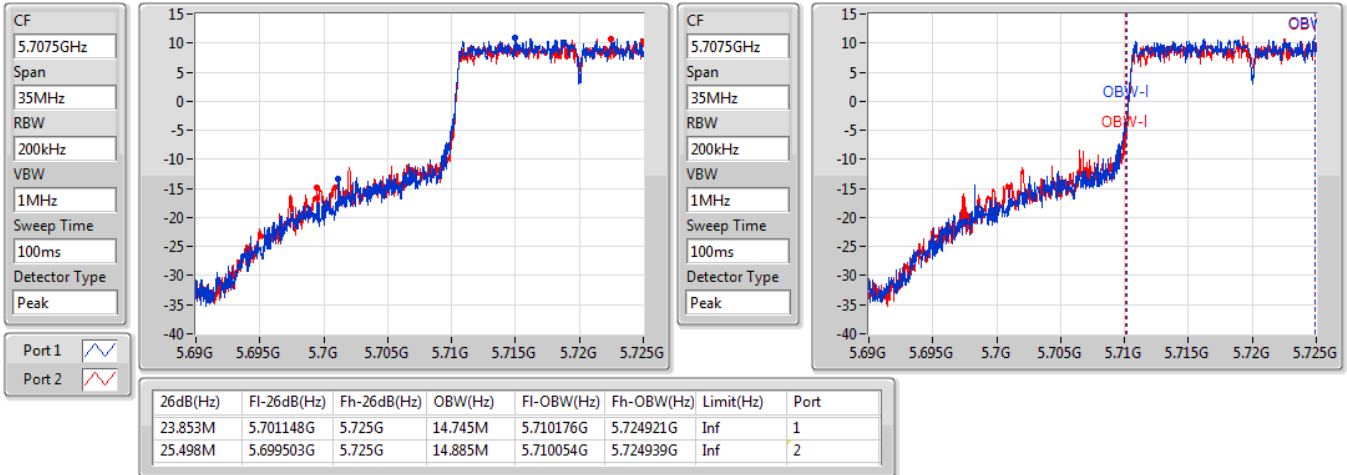

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5700MHz**

06/01/2020

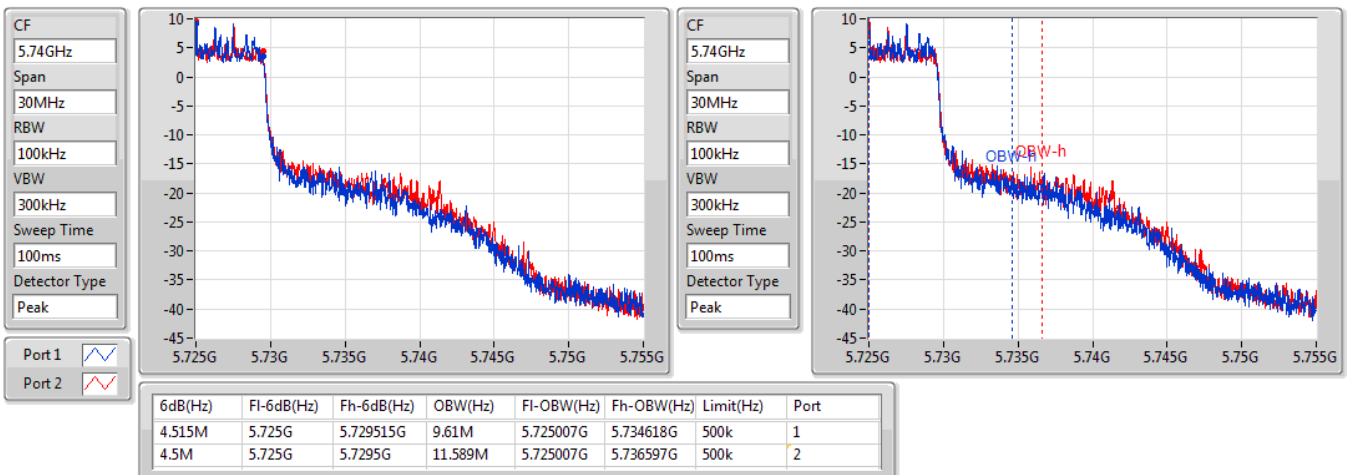


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

06/01/2020

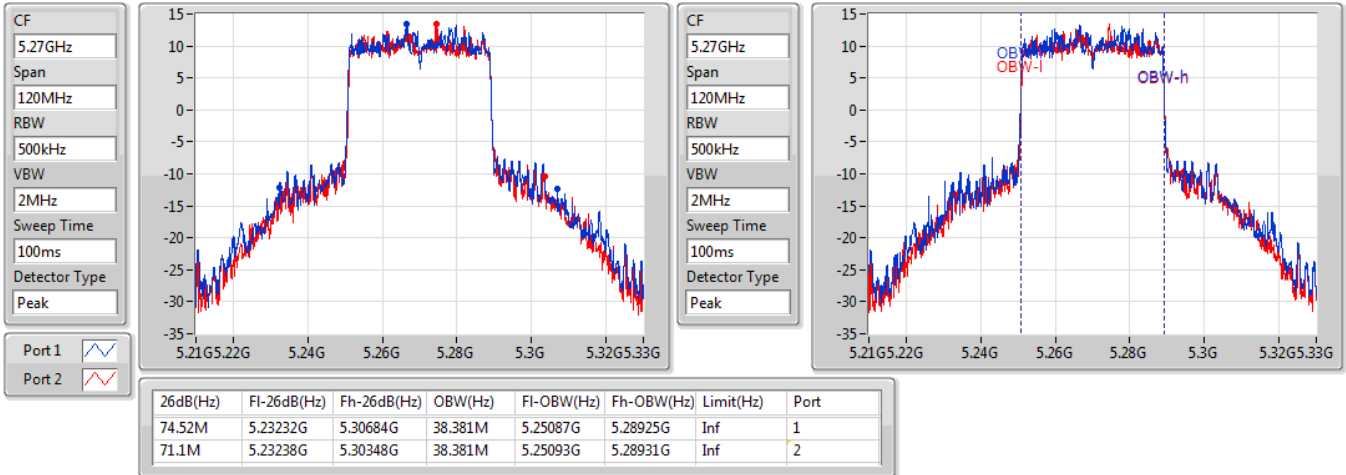

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

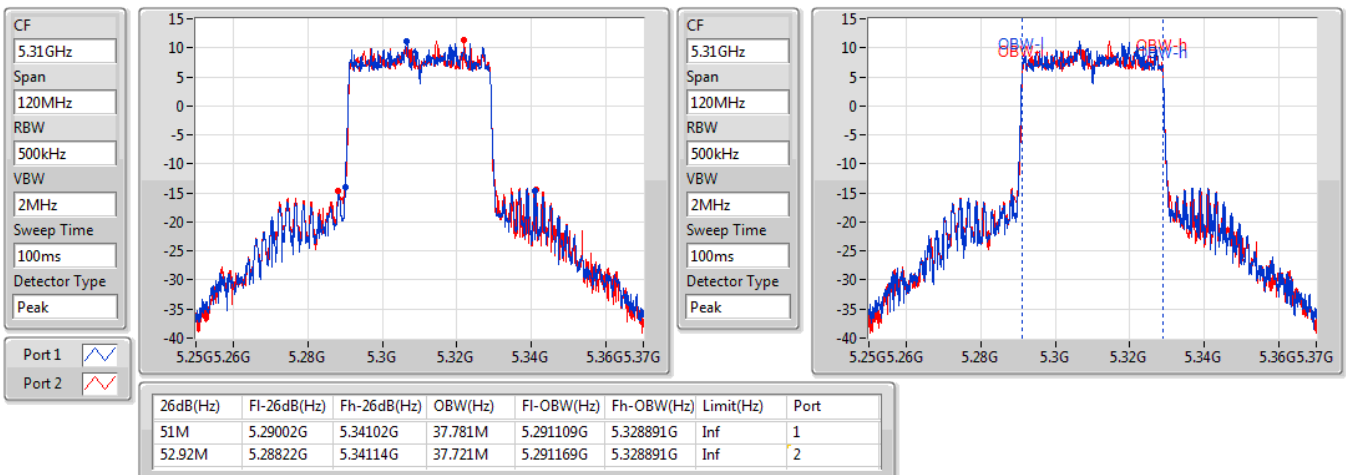


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5270MHz**

06/01/2020

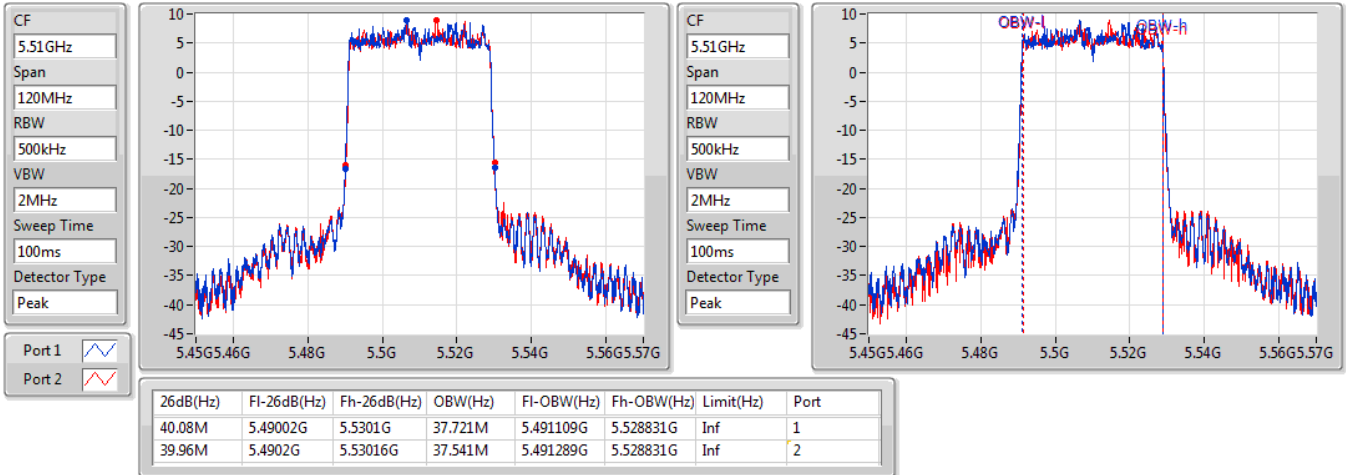

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5310MHz**

06/01/2020

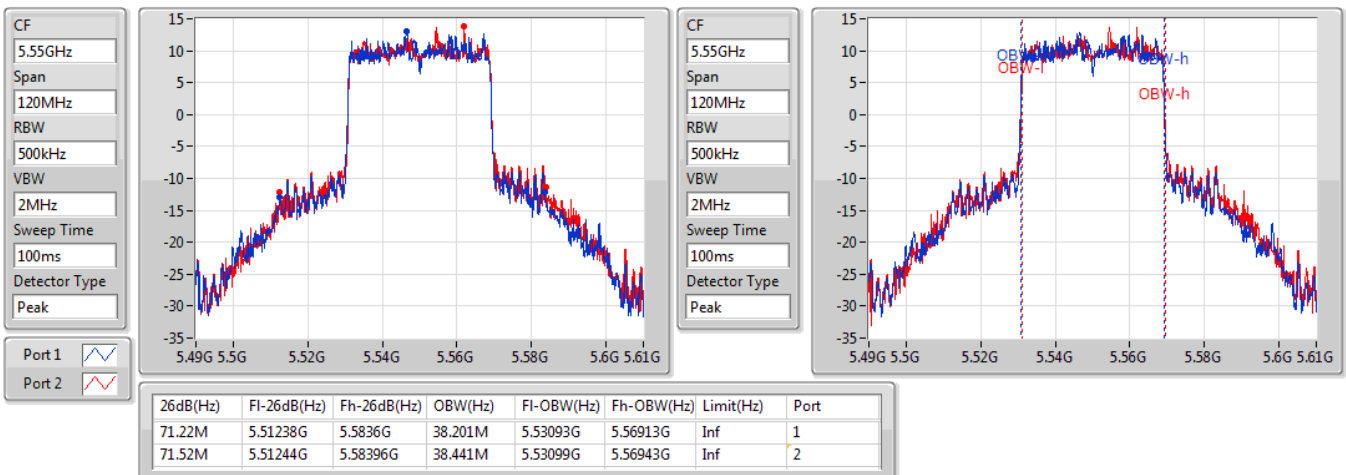


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5510MHz**

06/01/2020

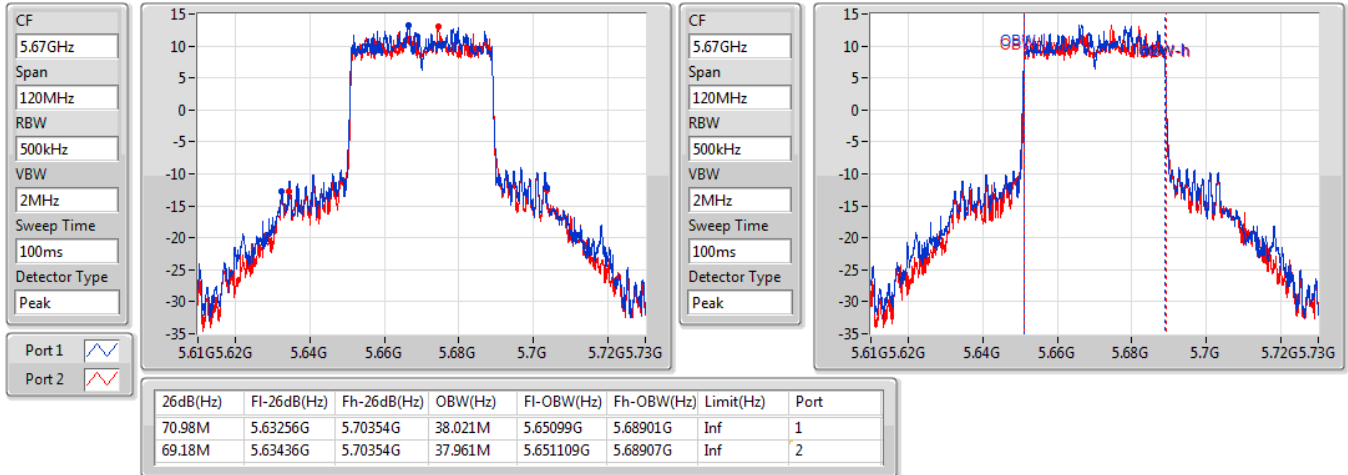

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5550MHz**

06/01/2020

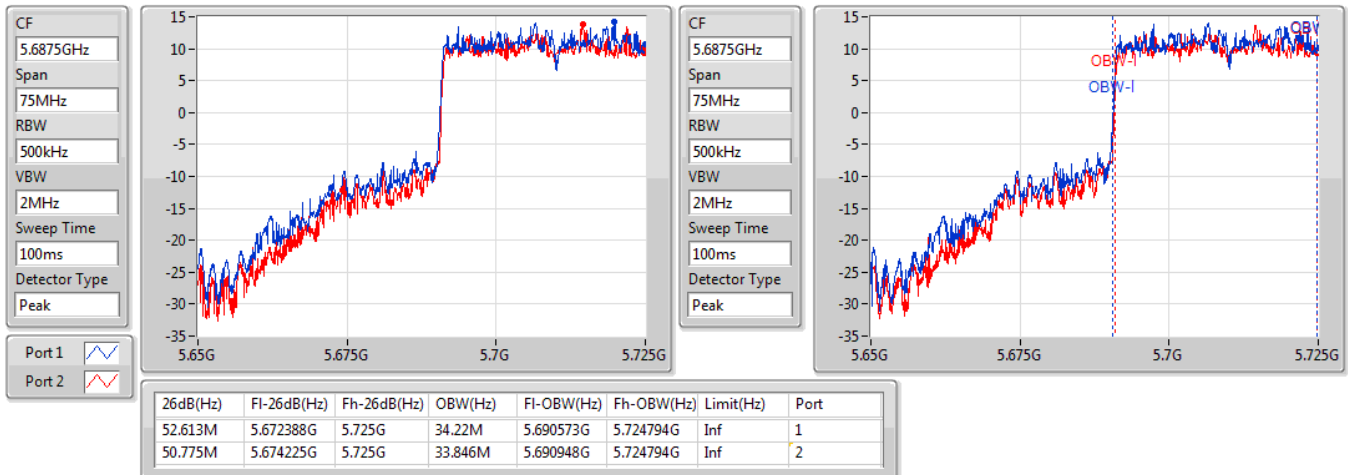


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5670MHz**

06/01/2020

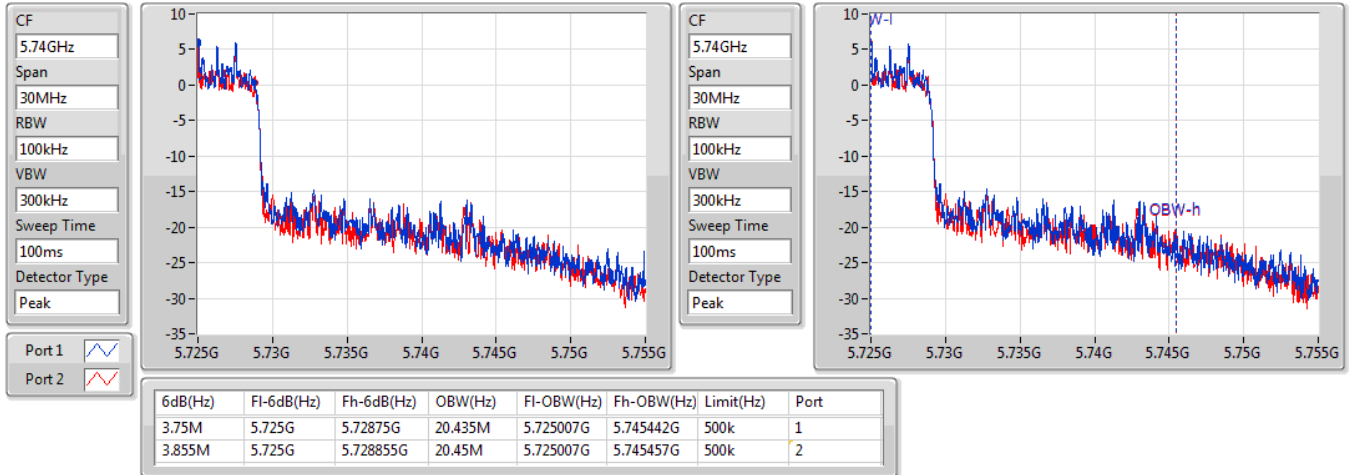

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

06/01/2020

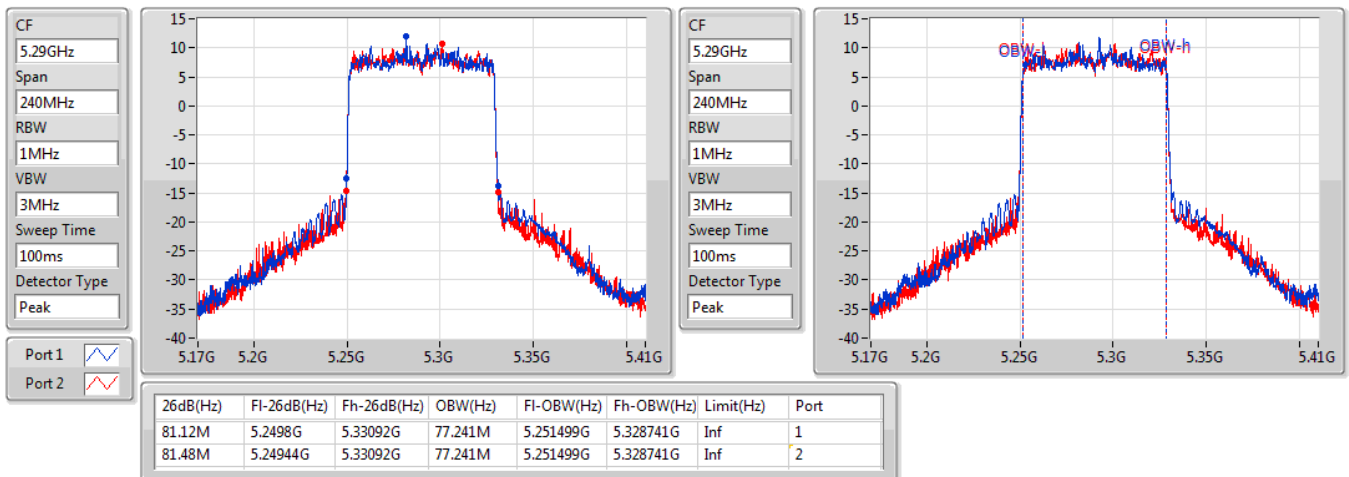


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

06/01/2020


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5290MHz**

06/01/2020

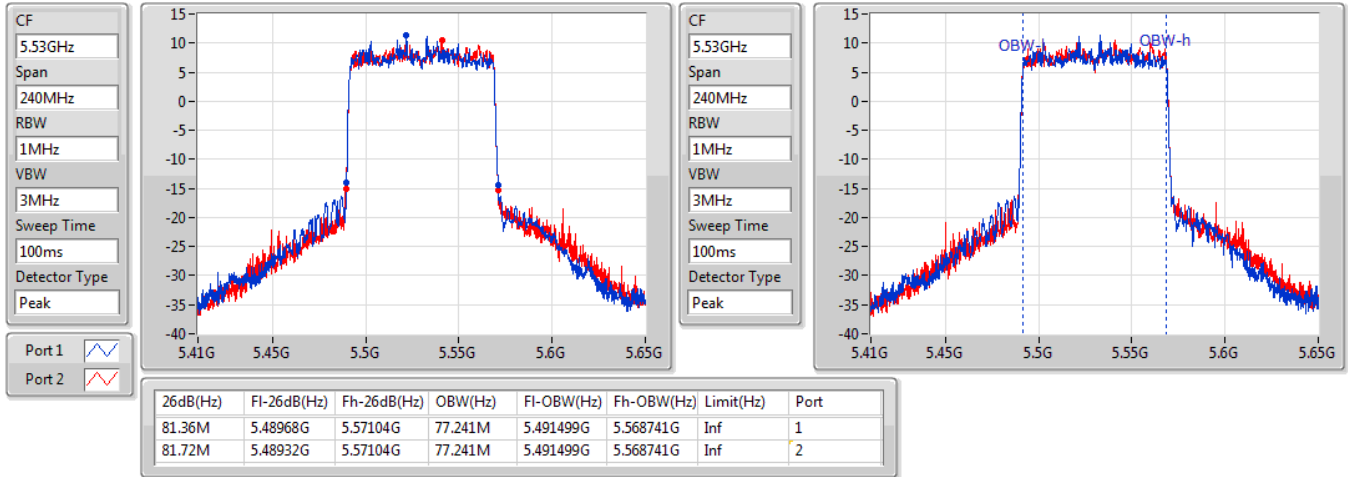


# 802.11ax HEW80\_Nss2,(MCS0)\_2TX

EBW

5530MHz

06/01/2020

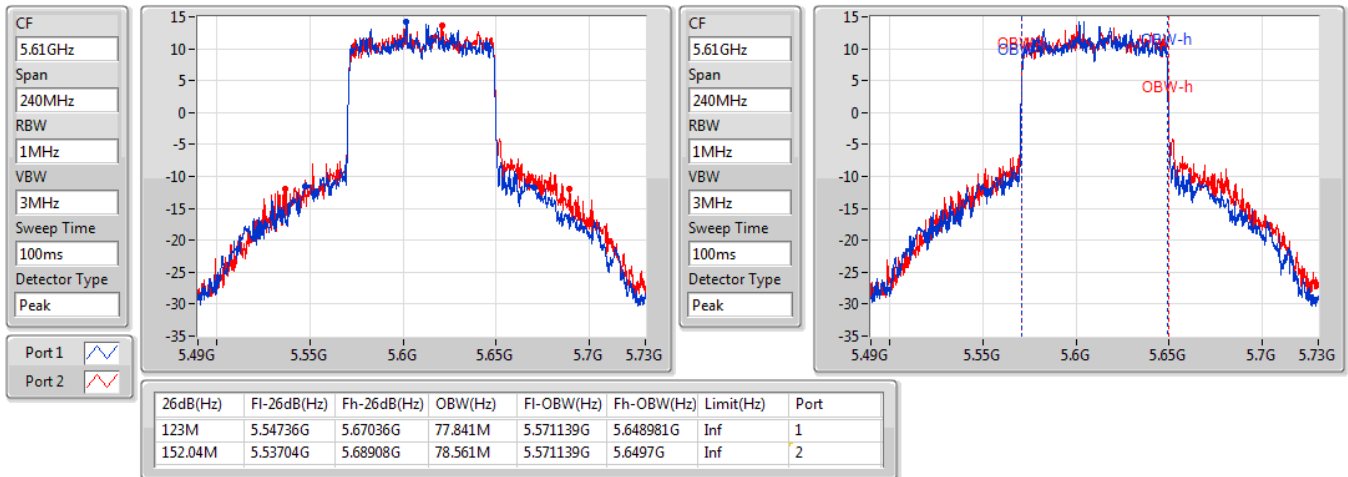


# 802.11ax HEW80\_Nss2,(MCS0)\_2TX

EBW

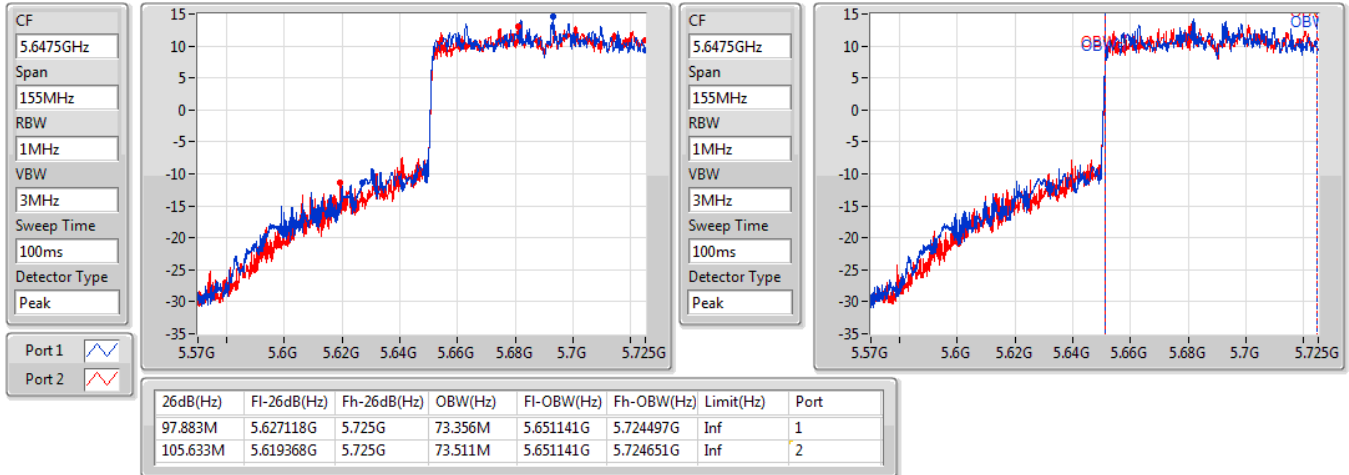
5610MHz

06/01/2020

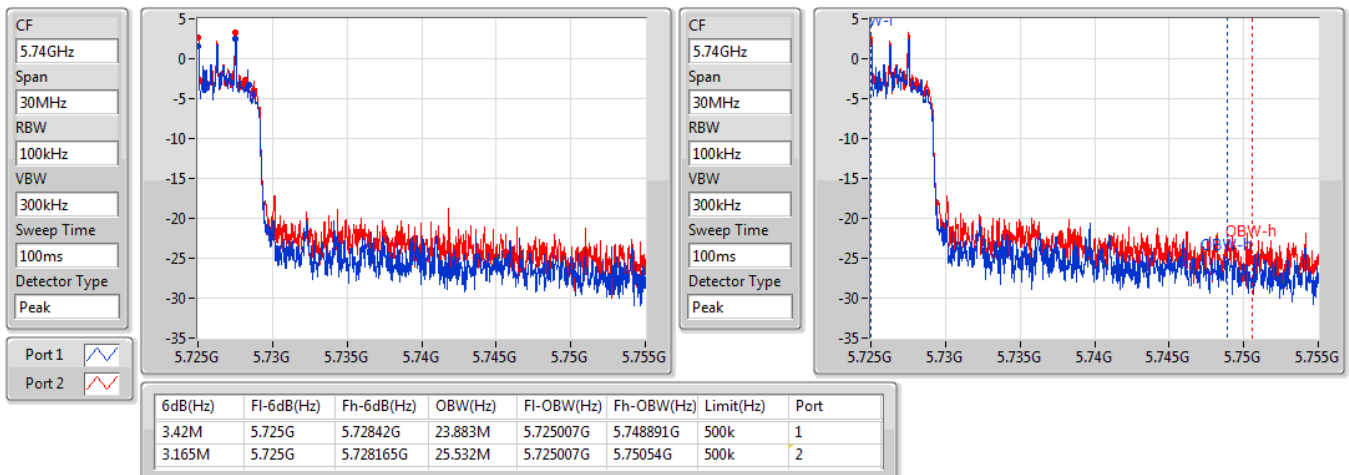


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

06/01/2020


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

06/01/2020



**Summary**

| Mode                           | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|--------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.25-5.35GHz                   | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX       | 37.71M           | 19.19M          | 19M2D1D  | 37.56M           | 18.321M         |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 38.73M           | 18.831M         | 18M8D1D  | 24.96M           | 18.021M         |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 79.98M           | 38.861M         | 38M9D1D  | 50.88M           | 36.642M         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 115.2M           | 76.162M         | 76M2D1D  | 115.2M           | 76.162M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 41.01M           | 19.67M          | 19M7D1D  | 26.73M           | 19.13M          |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 74.22M           | 38.321M         | 38M3D1D  | 48.9M            | 37.721M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 82.68M           | 77.361M         | 77M4D1D  | 82.68M           | 77.361M         |
| 5.47-5.725GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX       | 37.65M           | 19.13M          | 19M1D1D  | 21.15M           | 14.57M          |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 36.24M           | 18.711M         | 18M7D1D  | 21.403M          | 14.22M          |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 84.6M            | 39.76M          | 39M8D1D  | 40.44M           | 34.07M          |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 158.64M          | 77.001M         | 77M0D1D  | 82.08M           | 73.356M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 40.98M           | 19.82M          | 19M8D1D  | 21.45M           | 14.71M          |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 83.76M           | 39.04M          | 39M0D1D  | 39.96M           | 34.07M          |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 151.68M          | 78.561M         | 78M6D1D  | 82.32M           | 73.821M         |
| 5.725-5.85GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX       | 3.225M           | 9.685M          | 9M69D1D  | 3.225M           | 9.685M          |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 3.855M           | 8.141M          | 8M14D1D  | 3.855M           | 8.141M          |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 3.21M            | 20.315M         | 20M3D1D  | 3.21M            | 20.315M         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 3.195M           | 25.772M         | 25M8D1D  | 3.195M           | 25.772M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 4.545M           | 9.565M          | 9M57D1D  | 4.545M           | 9.565M          |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 3.825M           | 21.634M         | 21M6D1D  | 3.825M           | 21.634M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 3.36M            | 27.106M         | 27M1D1D  | 3.36M            | 27.106M         |

**Max-N dB** = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Max-OBW** = Maximum 99% occupied bandwidth;

**Min-N dB** = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Min-OBW** = Minimum 99% occupied bandwidth;

**Result**

| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|
| 802.11a_Nss1,(6Mbps)_1TX       | -      | -             | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 37.62M              | 18.321M            |
| 5300MHz                        | Pass   | Inf           | 37.56M              | 18.801M            |
| 5320MHz                        | Pass   | Inf           | 37.71M              | 19.19M             |
| 5500MHz                        | Pass   | Inf           | 21.15M              | 16.762M            |
| 5580MHz                        | Pass   | Inf           | 37.65M              | 19.13M             |
| 5700MHz                        | Pass   | Inf           | 21.69M              | 16.762M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 23.608M             | 14.57M             |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.225M              | 9.685M             |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 35.94M              | 18.681M            |
| 5300MHz                        | Pass   | Inf           | 38.73M              | 18.831M            |
| 5320MHz                        | Pass   | Inf           | 24.96M              | 18.021M            |
| 5500MHz                        | Pass   | Inf           | 21.42M              | 17.901M            |
| 5580MHz                        | Pass   | Inf           | 36.24M              | 18.711M            |
| 5700MHz                        | Pass   | Inf           | 21.45M              | 17.871M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 21.403M             | 14.22M             |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.855M              | 8.141M             |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 79.98M              | 38.861M            |
| 5310MHz                        | Pass   | Inf           | 50.88M              | 36.642M            |
| 5510MHz                        | Pass   | Inf           | 40.44M              | 36.522M            |
| 5550MHz                        | Pass   | Inf           | 81.78M              | 39.46M             |
| 5670MHz                        | Pass   | Inf           | 84.6M               | 39.76M             |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 52.5M               | 34.07M             |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.21M               | 20.315M            |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 115.2M              | 76.162M            |
| 5530MHz                        | Pass   | Inf           | 82.08M              | 75.802M            |
| 5610MHz                        | Pass   | Inf           | 158.64M             | 77.001M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 115.32M             | 73.356M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.195M              | 25.772M            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 41.01M              | 19.43M             |
| 5300MHz                        | Pass   | Inf           | 41.01M              | 19.67M             |
| 5320MHz                        | Pass   | Inf           | 26.73M              | 19.13M             |
| 5500MHz                        | Pass   | Inf           | 22.44M              | 19.04M             |
| 5580MHz                        | Pass   | Inf           | 40.98M              | 19.82M             |
| 5700MHz                        | Pass   | Inf           | 21.45M              | 19.01M             |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 25.288M             | 14.71M             |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 4.545M              | 9.565M             |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 74.22M              | 38.321M            |
| 5310MHz                        | Pass   | Inf           | 48.9M               | 37.721M            |



| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|
| 5510MHz                        | Pass   | Inf           | 39.96M              | 37.601M            |
| 5550MHz                        | Pass   | Inf           | 83.76M              | 39.04M             |
| 5670MHz                        | Pass   | Inf           | 73.32M              | 38.561M            |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 52.8M               | 34.07M             |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.825M              | 21.634M            |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 82.68M              | 77.361M            |
| 5530MHz                        | Pass   | Inf           | 82.32M              | 77.241M            |
| 5610MHz                        | Pass   | Inf           | 151.68M             | 78.561M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 118.653M            | 73.821M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.36M               | 27.106M            |

**Port X-N dB** = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

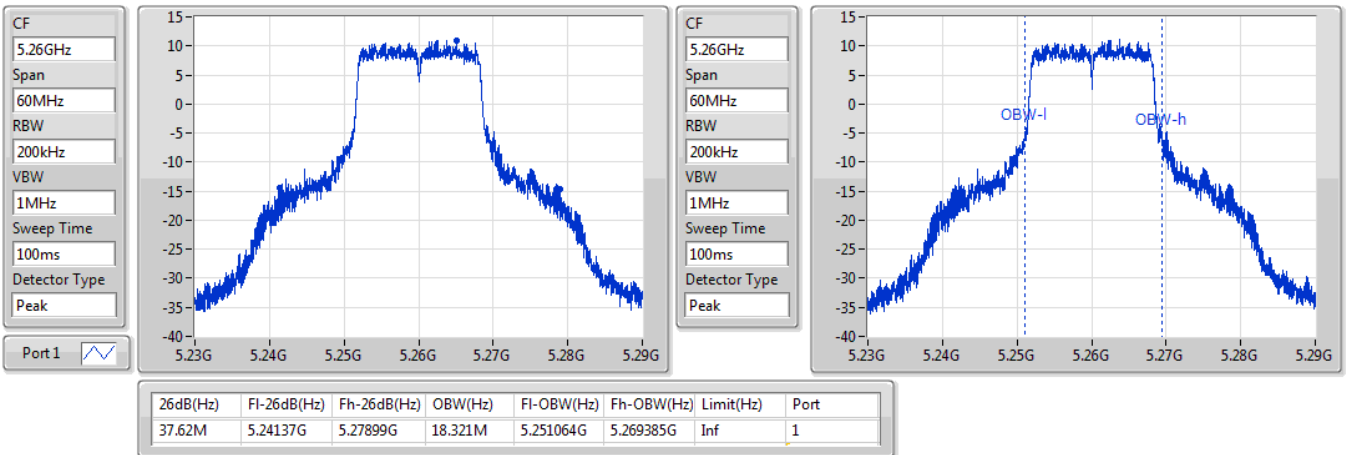
**Port X-OBW** = Port X 99% occupied bandwidth;

## 802.11a\_Nss1,(6Mbps)\_1TX

EBW

5260MHz

06/01/2020

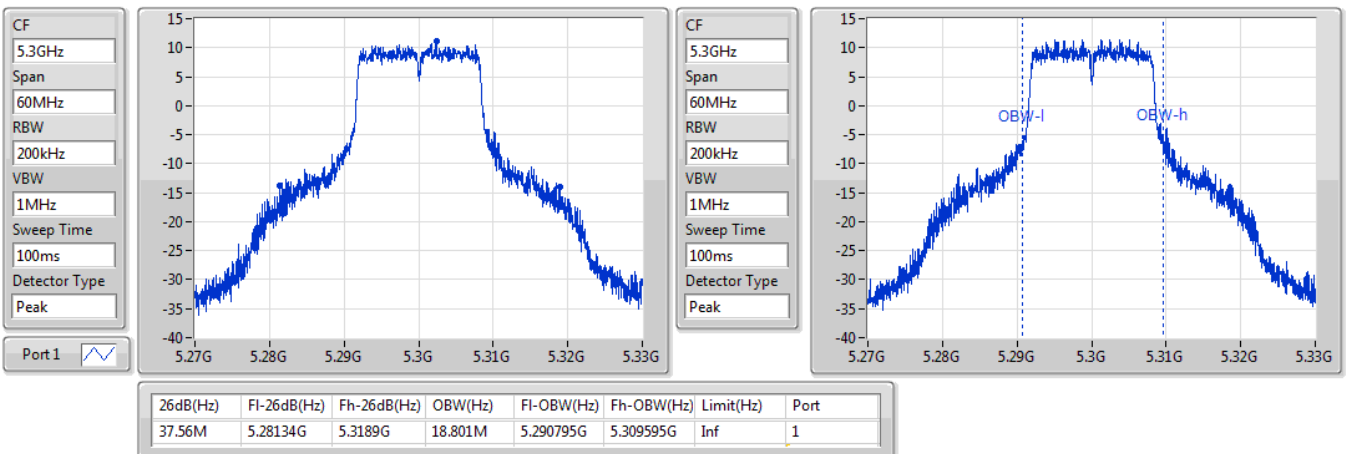


## 802.11a\_Nss1,(6Mbps)\_1TX

EBW

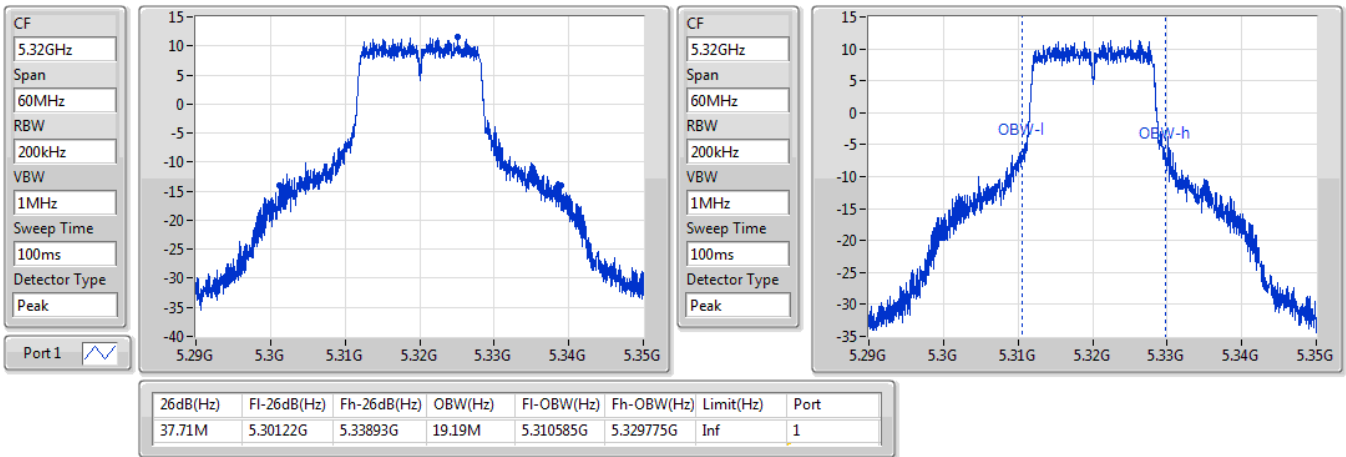
5300MHz

06/01/2020

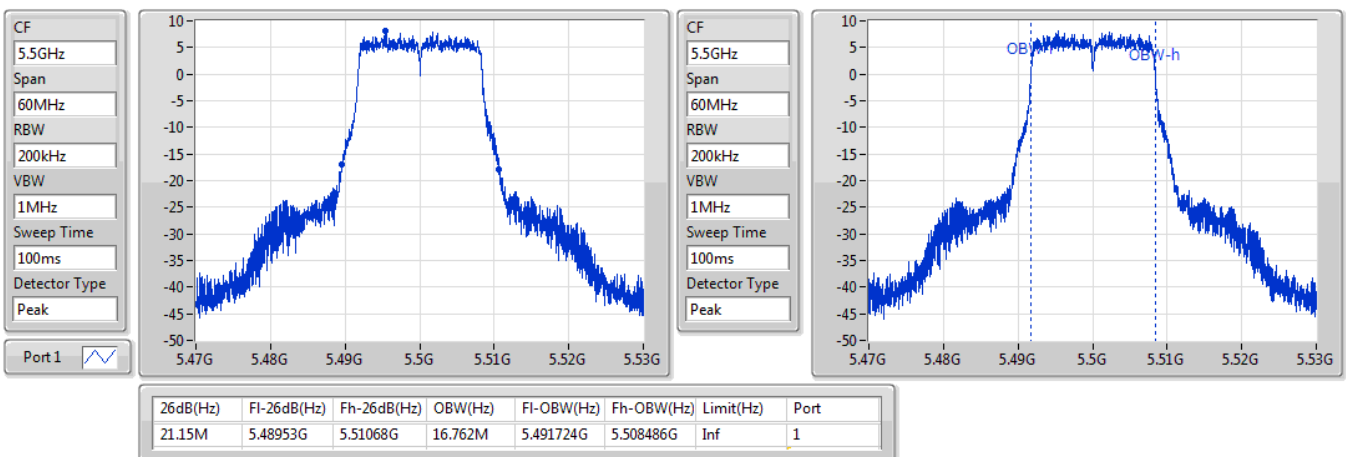


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5320MHz**

06/01/2020

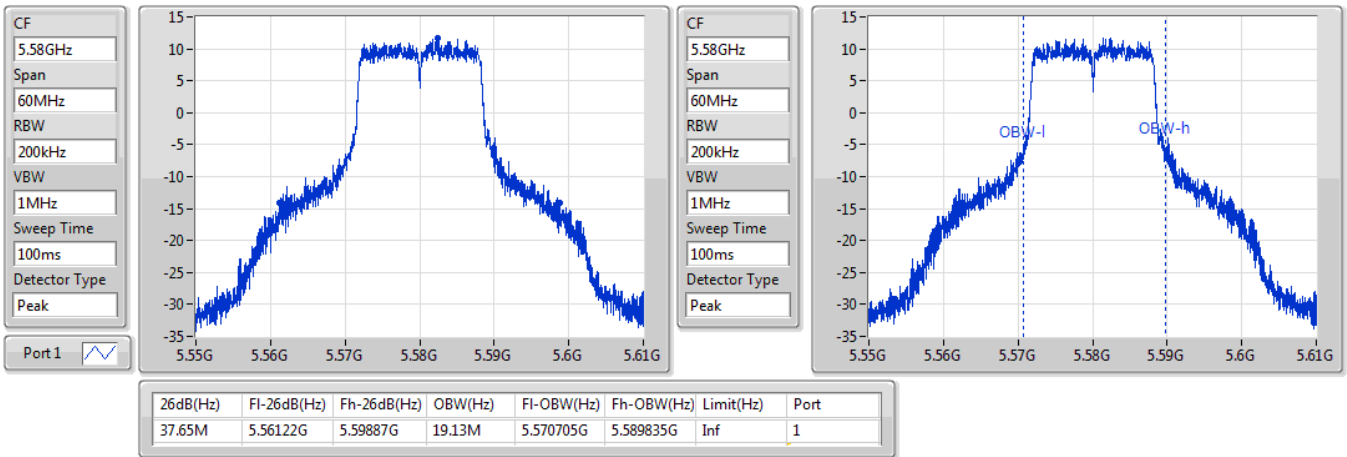

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5500MHz**

06/01/2020

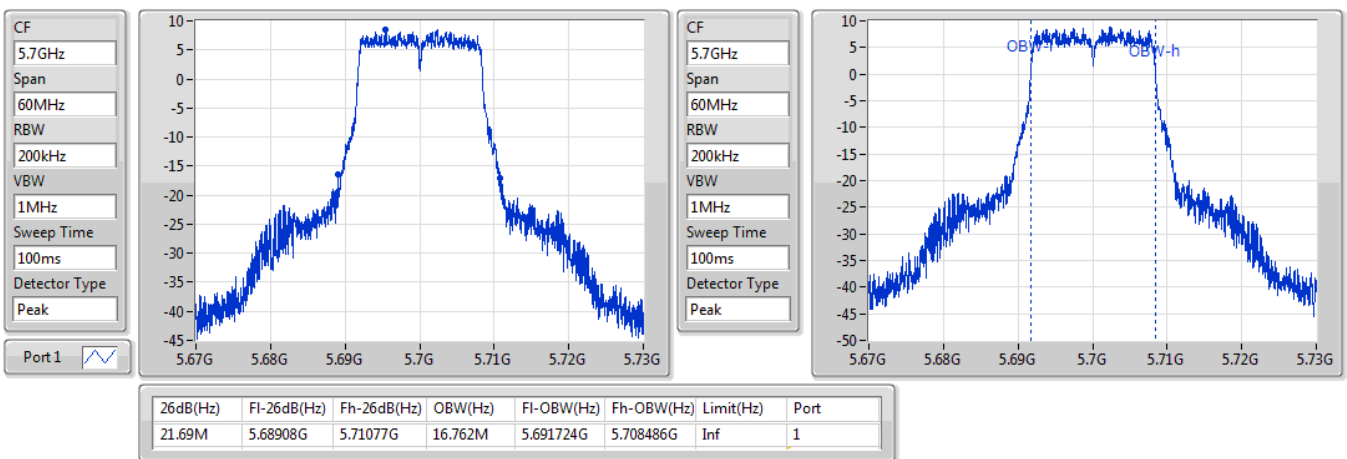


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5580MHz**

06/01/2020

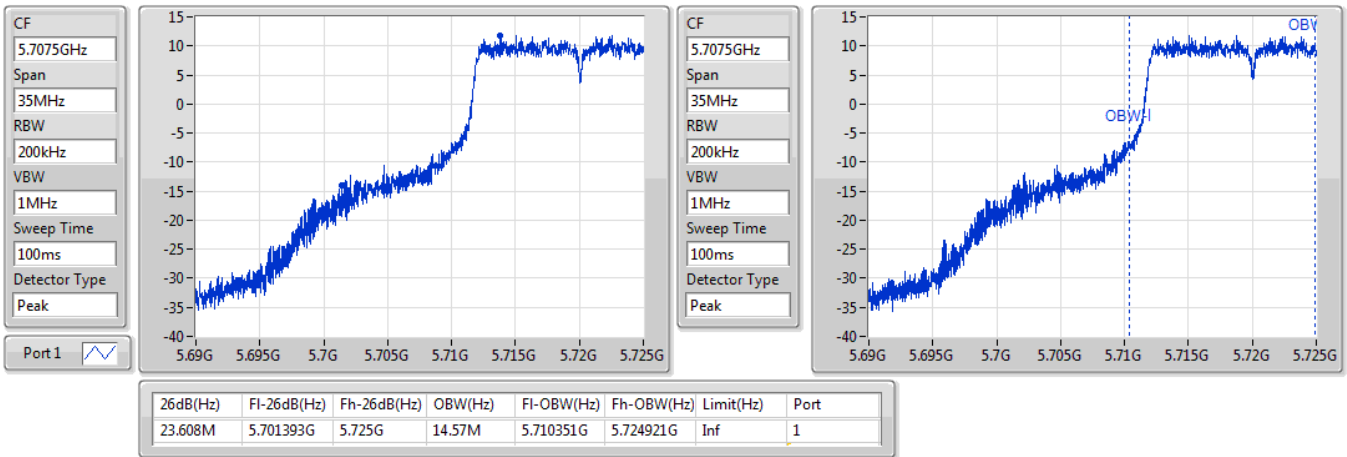

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5700MHz**

06/01/2020

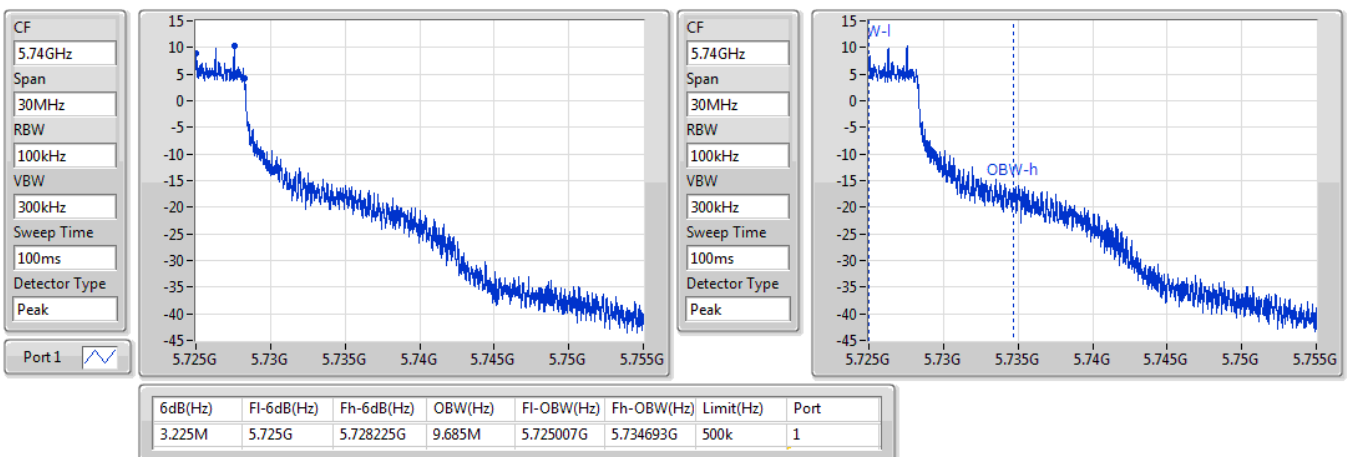


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

06/01/2020

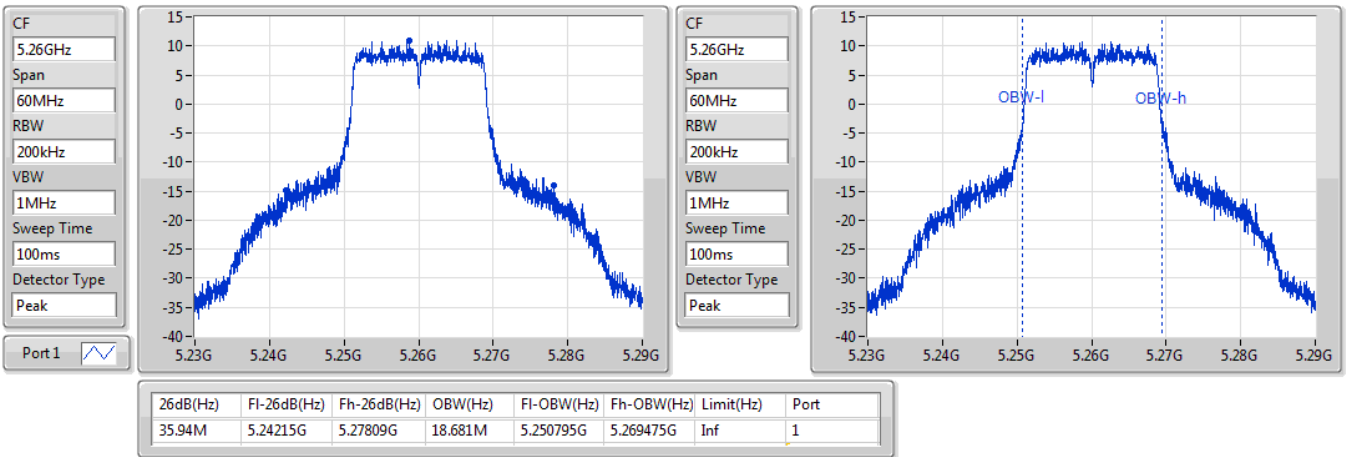

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

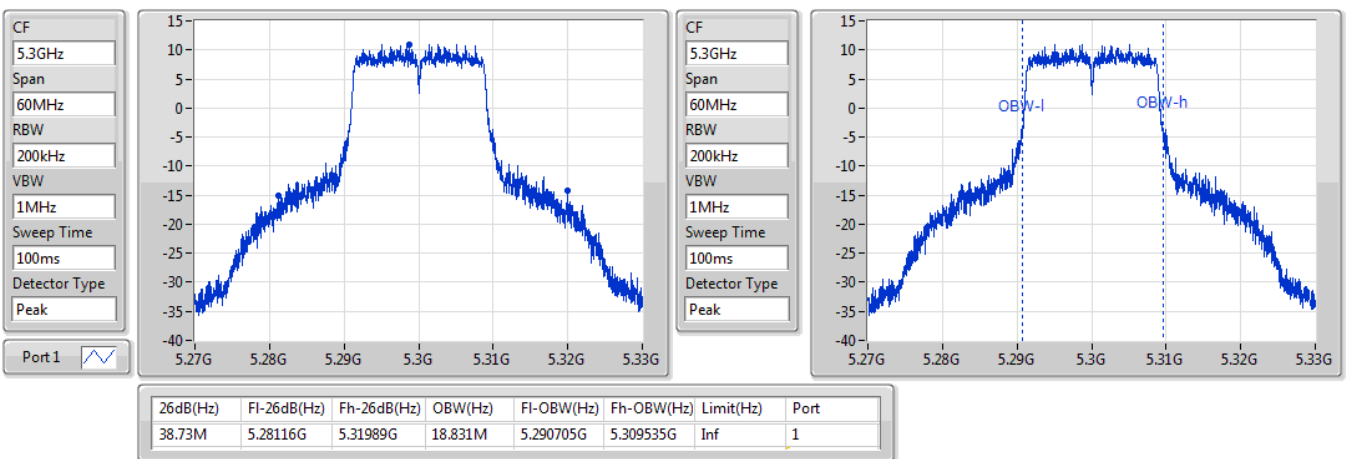


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5260MHz**

06/01/2020

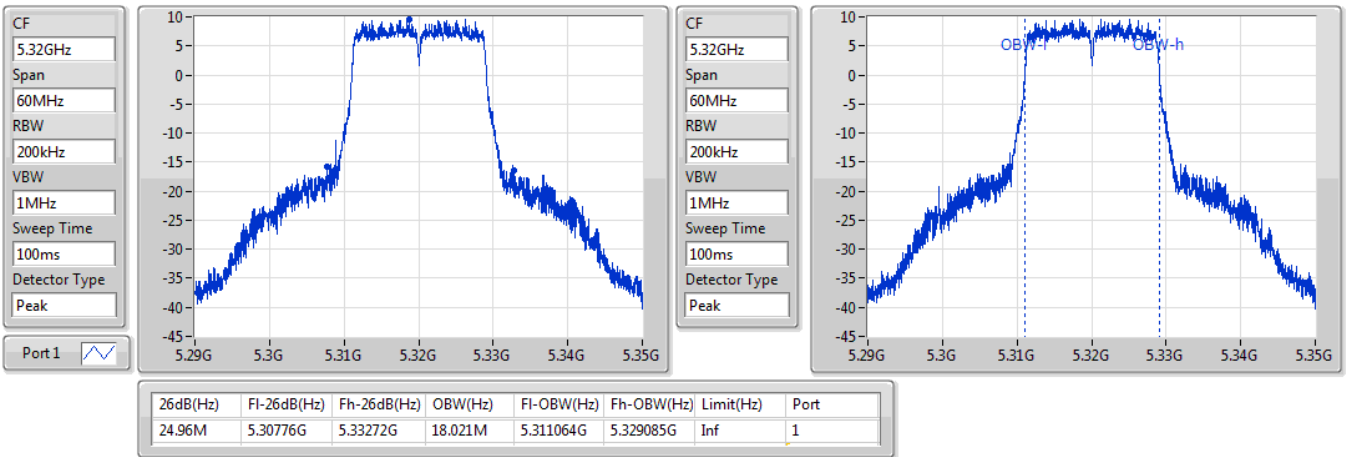

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5300MHz**

06/01/2020

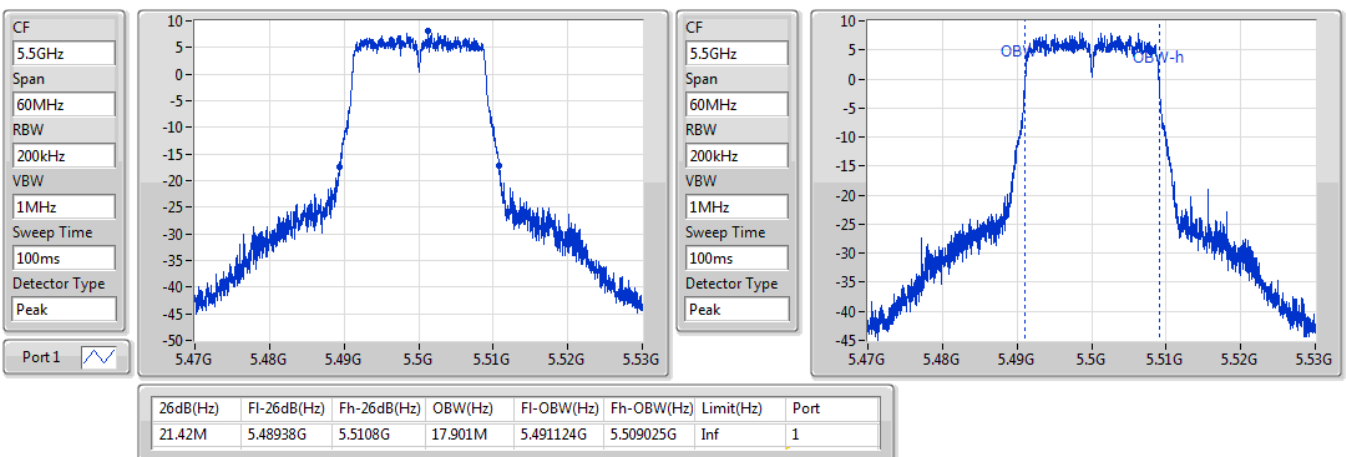


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5320MHz**

06/01/2020

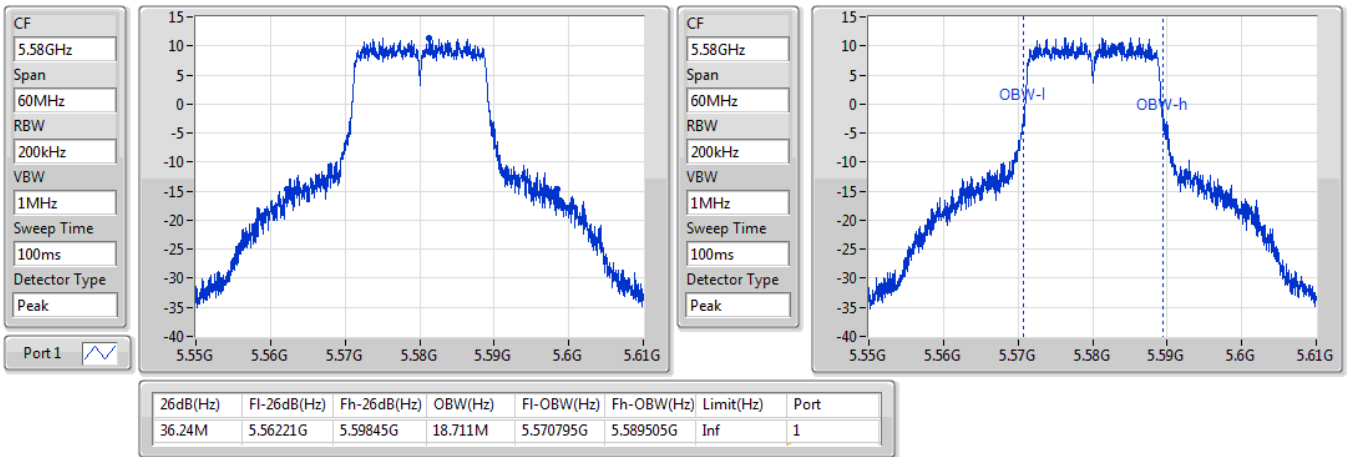

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5500MHz**

06/01/2020

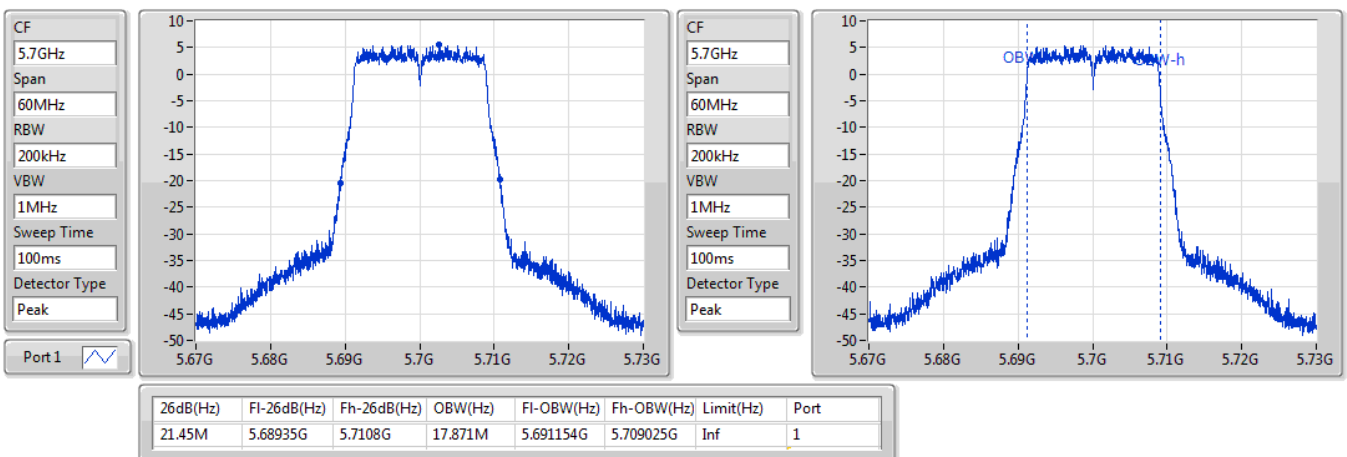


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5580MHz**

06/01/2020

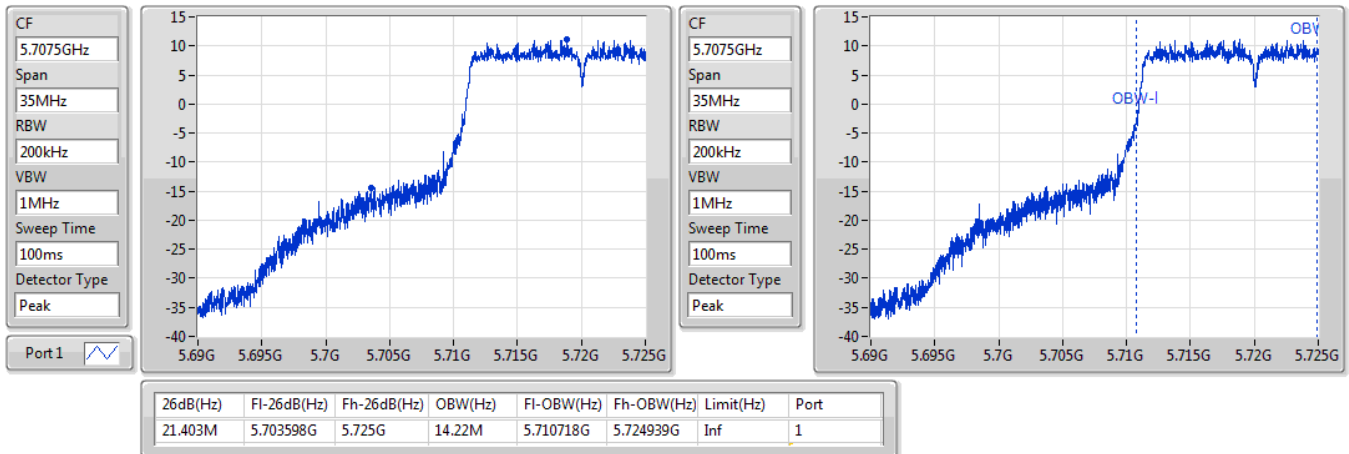

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5700MHz**

06/01/2020

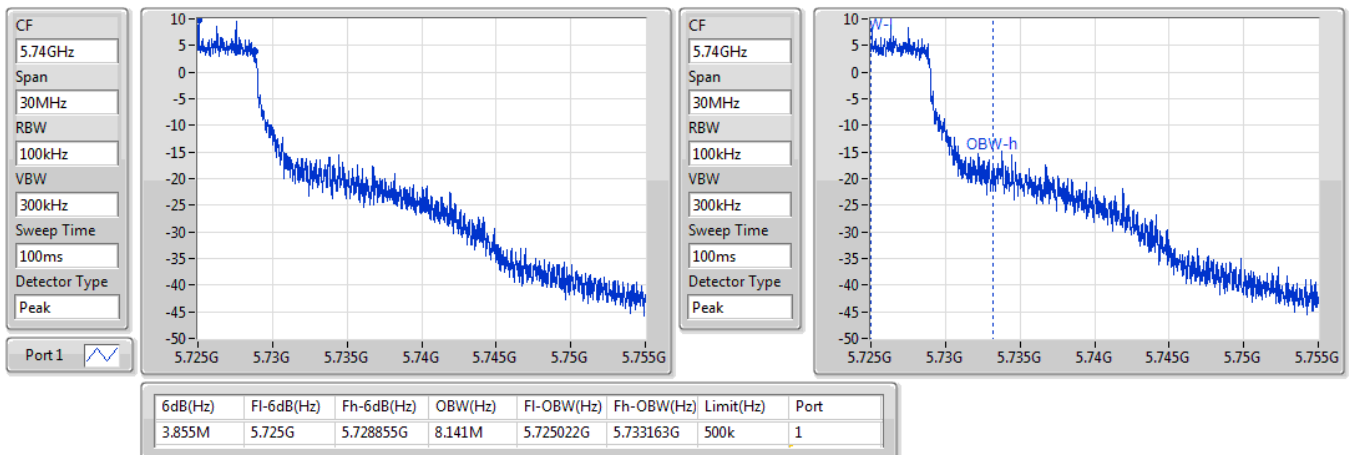


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

06/01/2020

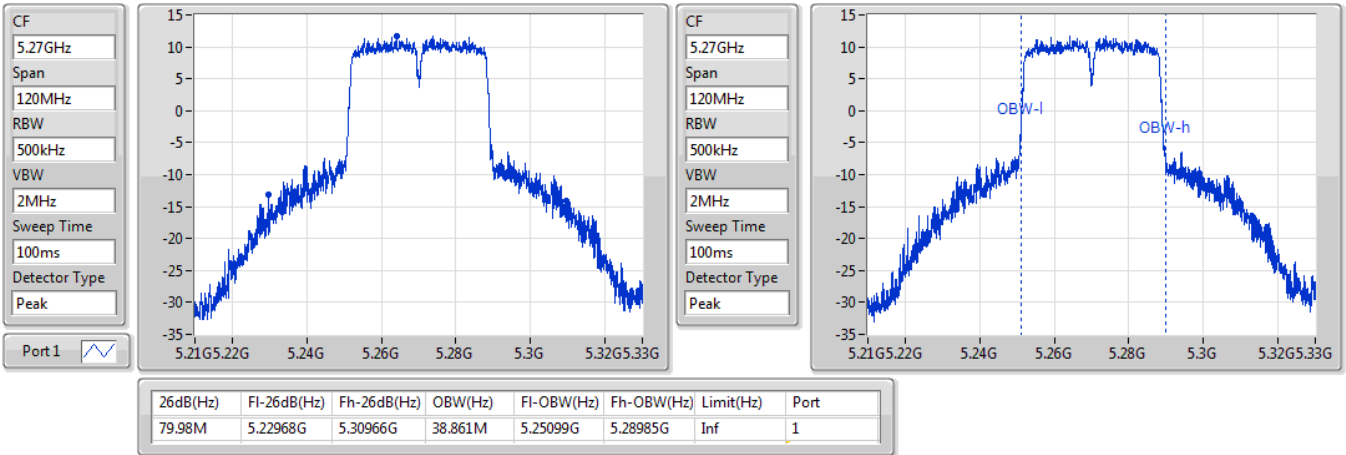

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

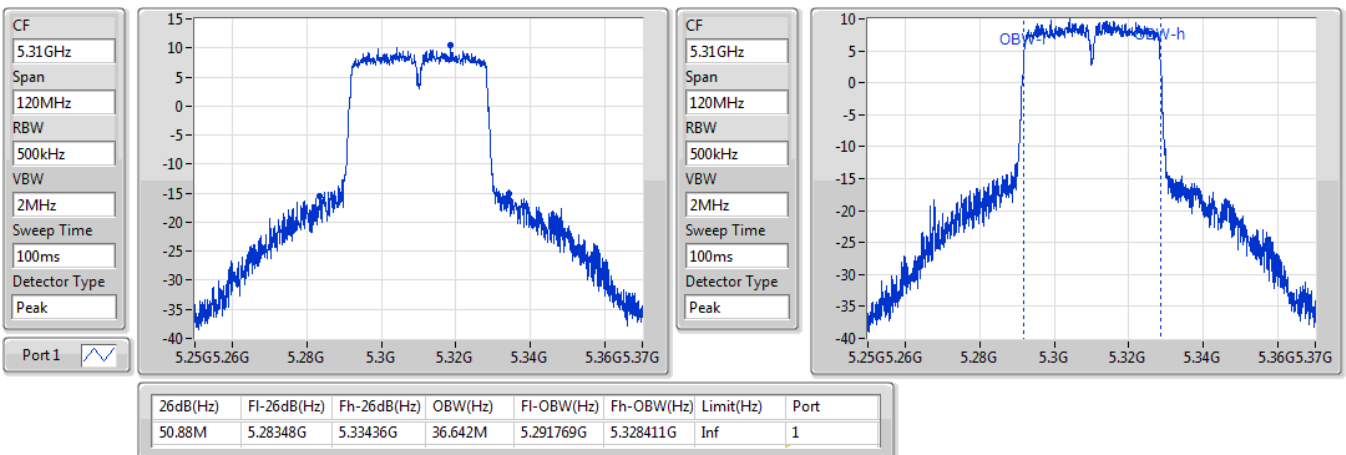


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5270MHz**

06/01/2020


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5310MHz**

06/01/2020

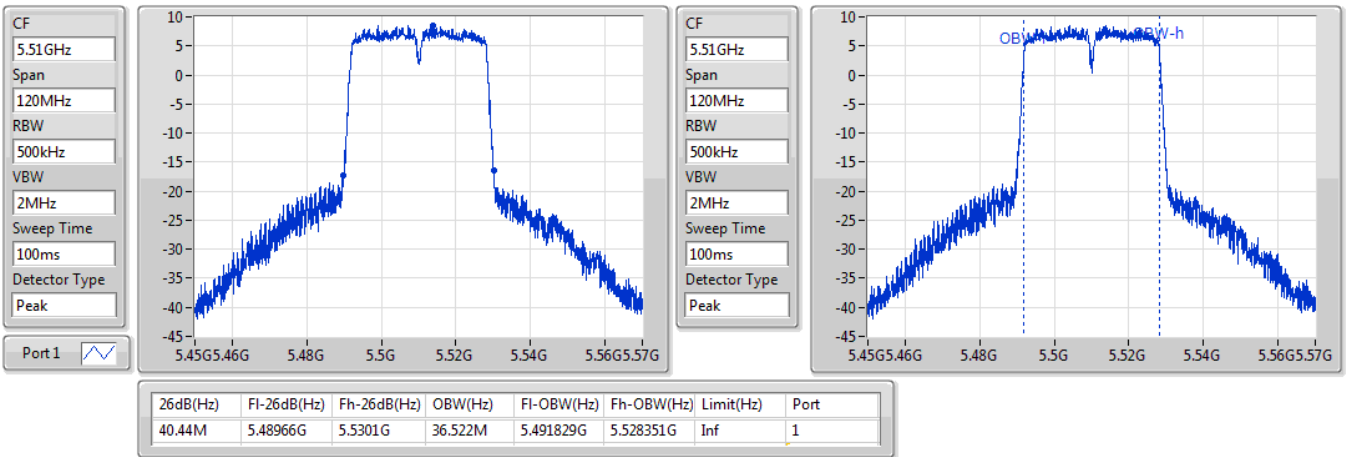


## 802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

5510MHz

06/01/2020

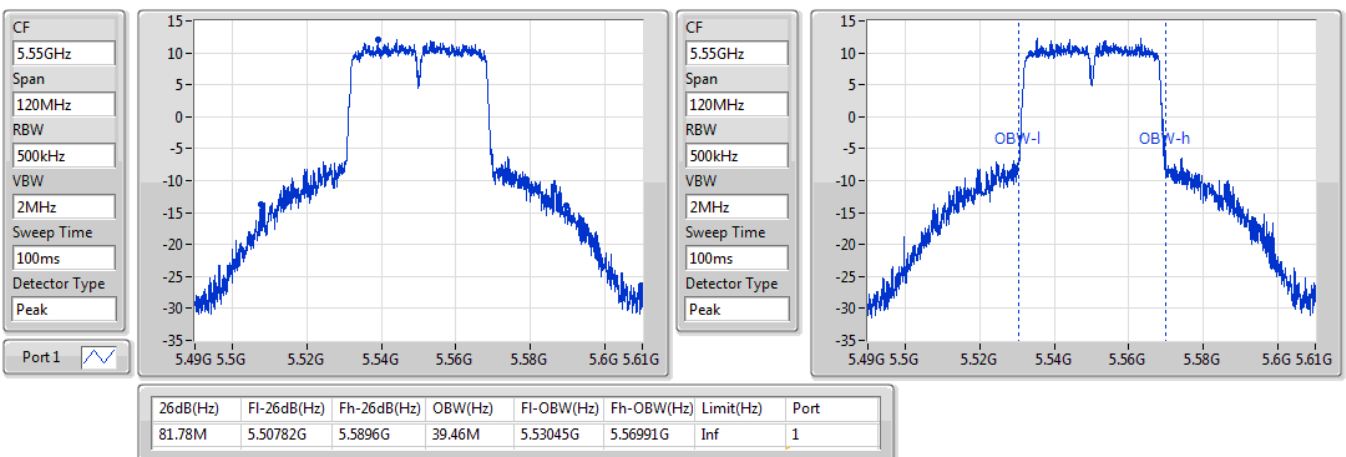


## 802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

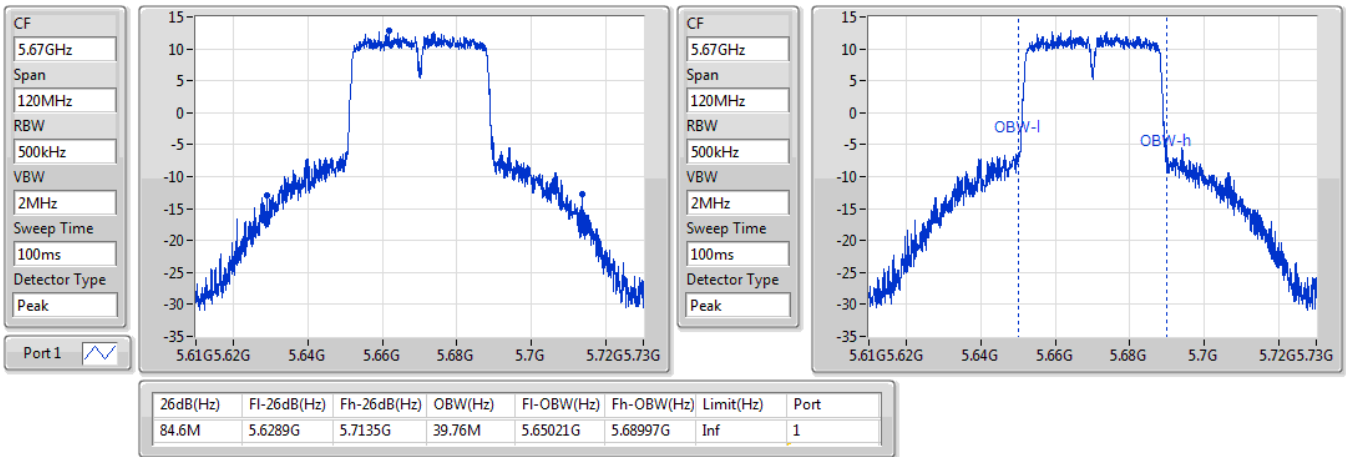
5550MHz

06/01/2020

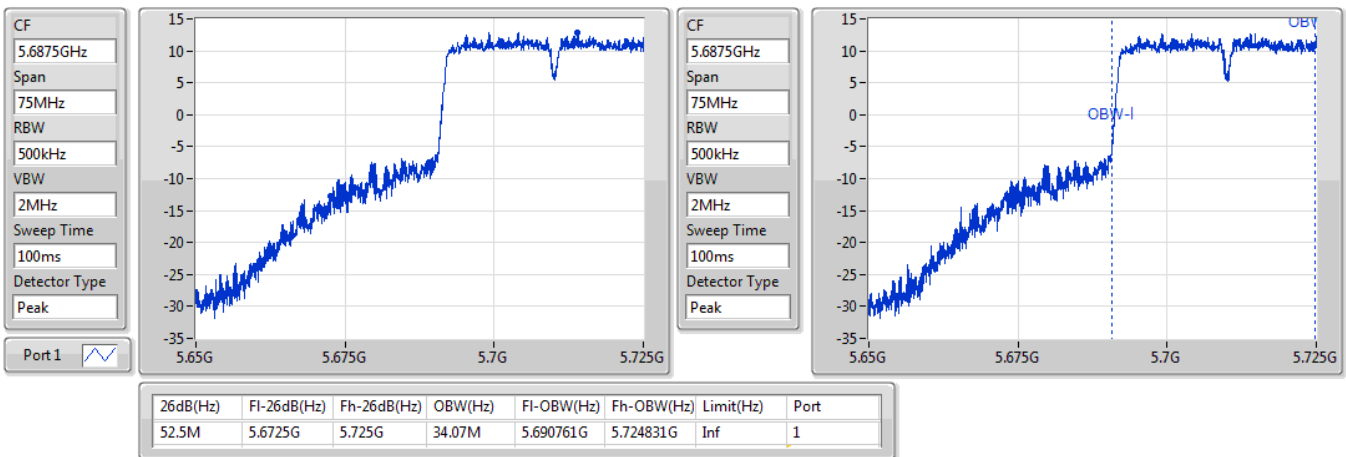


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5670MHz**

06/01/2020

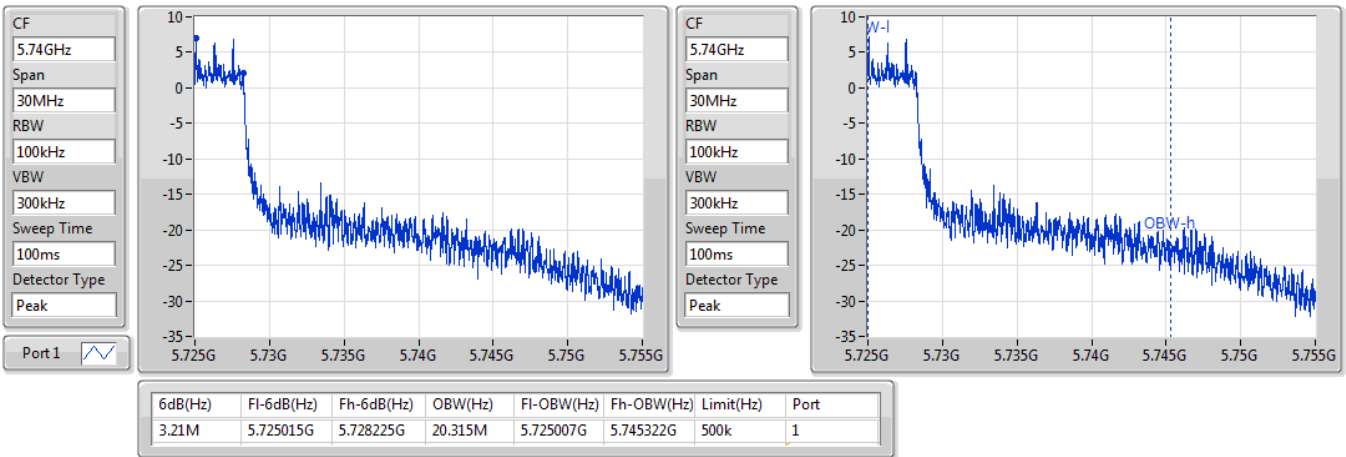

**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

06/01/2020

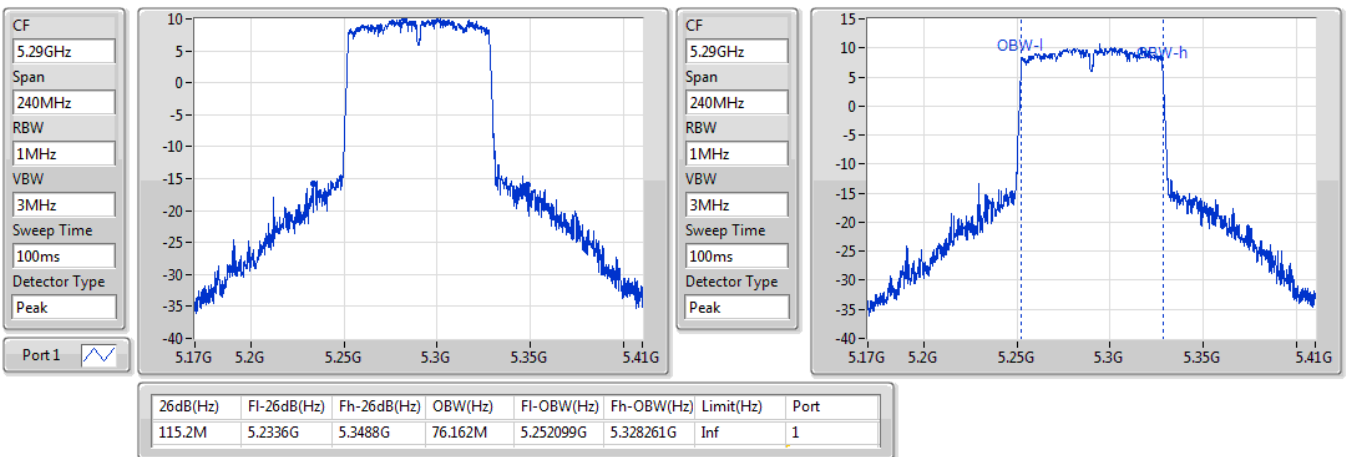


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

06/01/2020

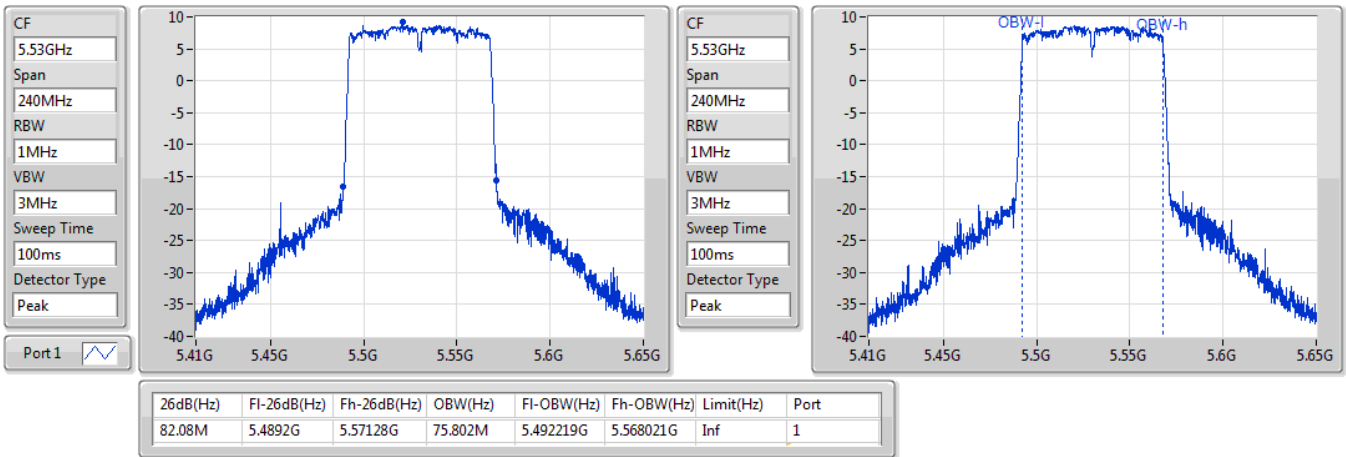

**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5290MHz**

06/01/2020

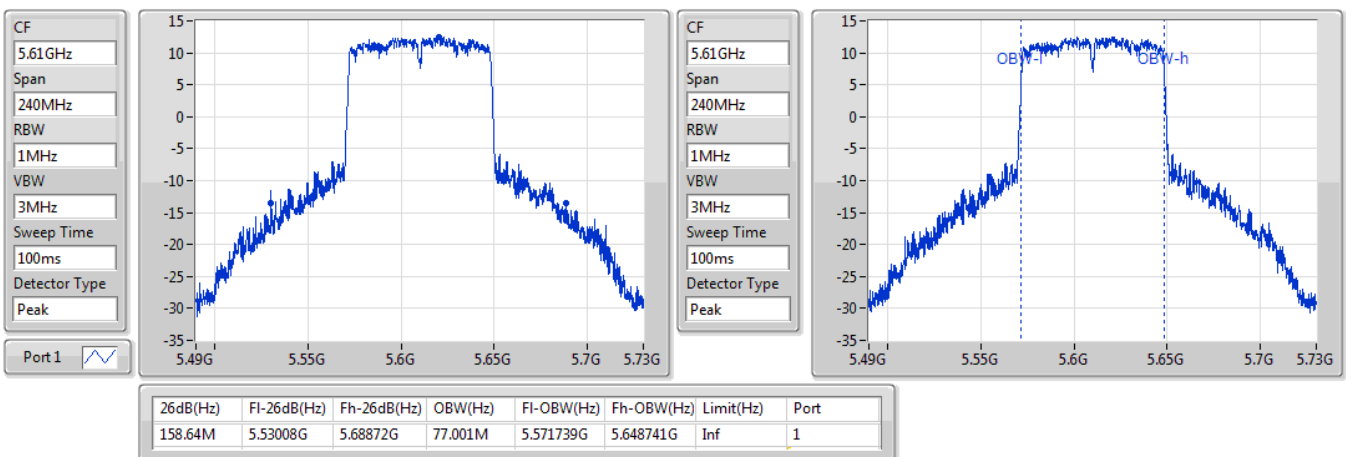


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5530MHz**

06/01/2020

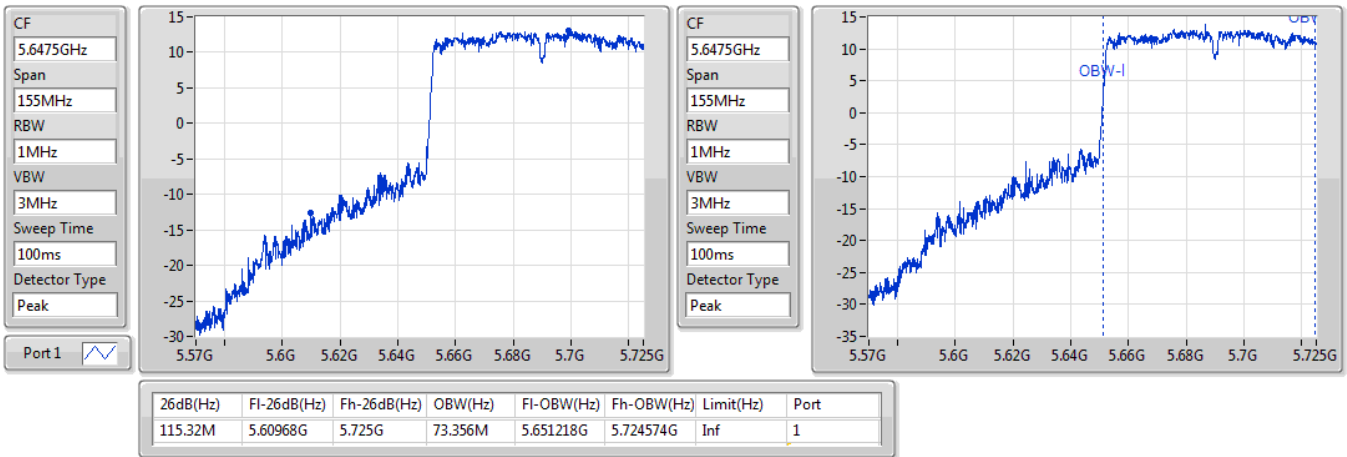

**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5610MHz**

06/01/2020

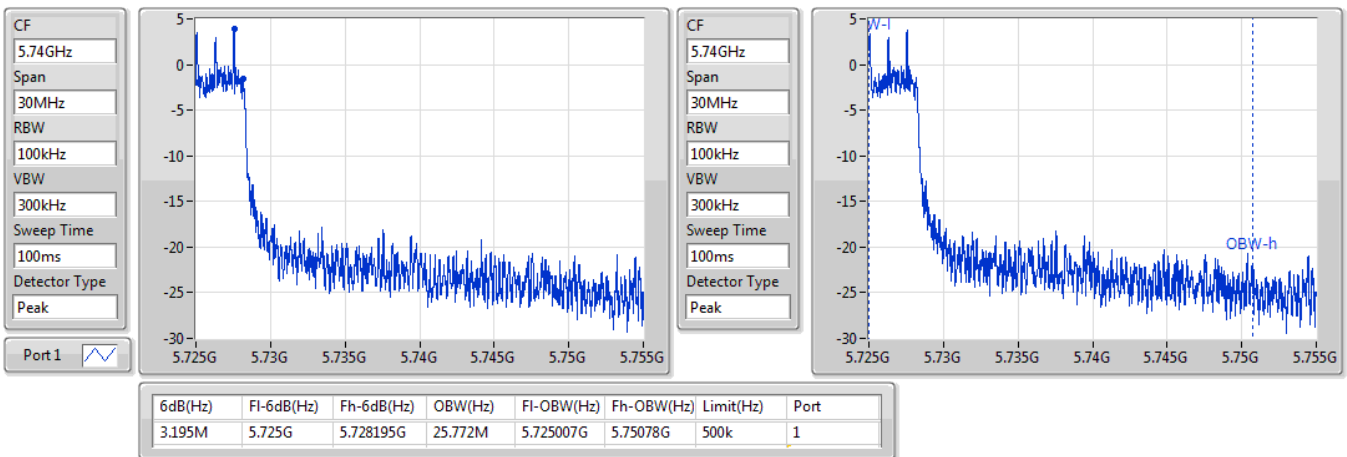


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

06/01/2020

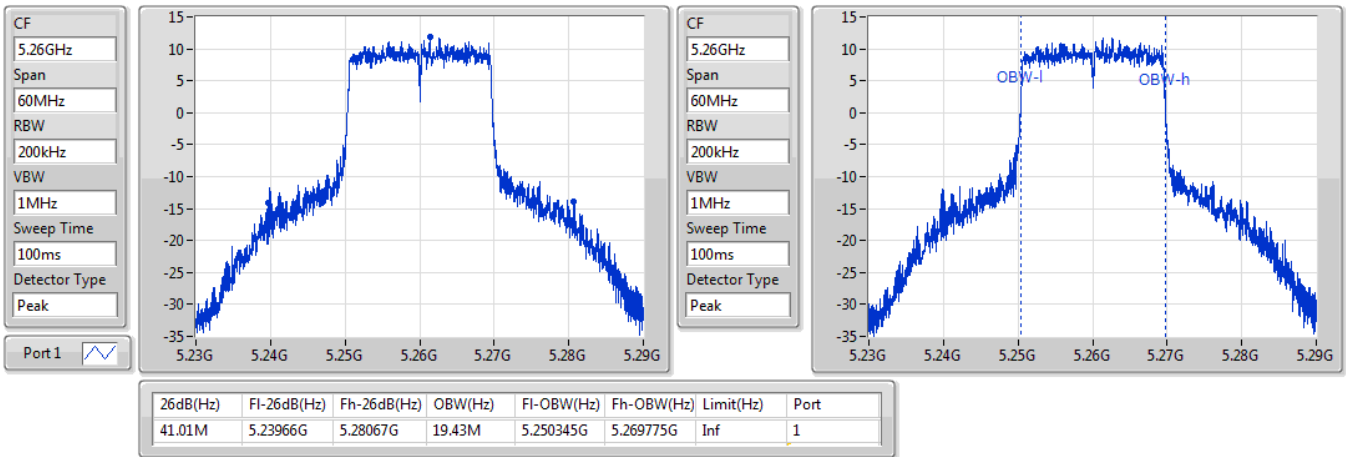

**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

06/01/2020

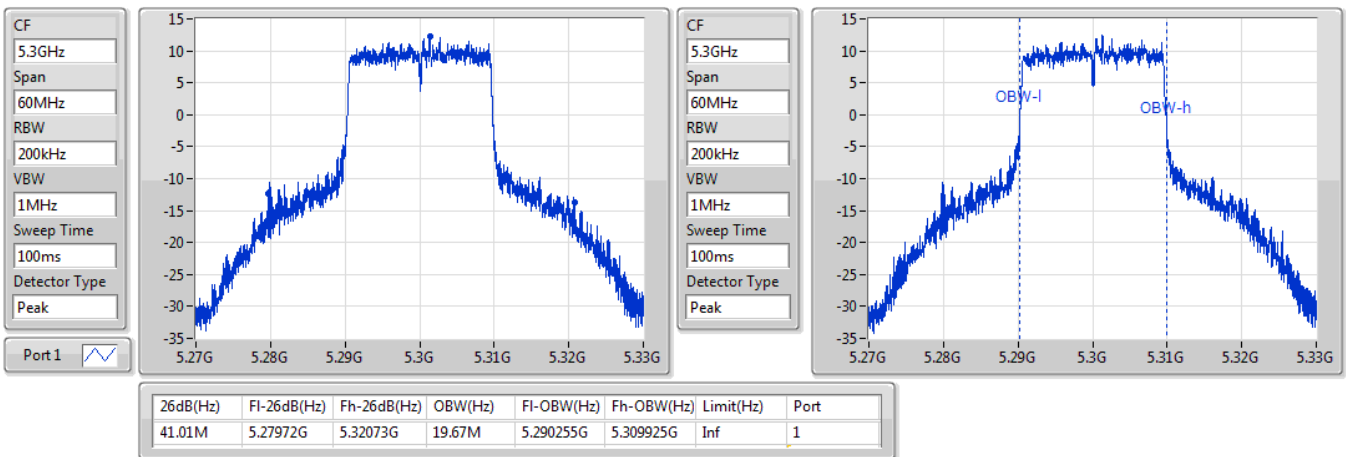


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5260MHz**

06/01/2020

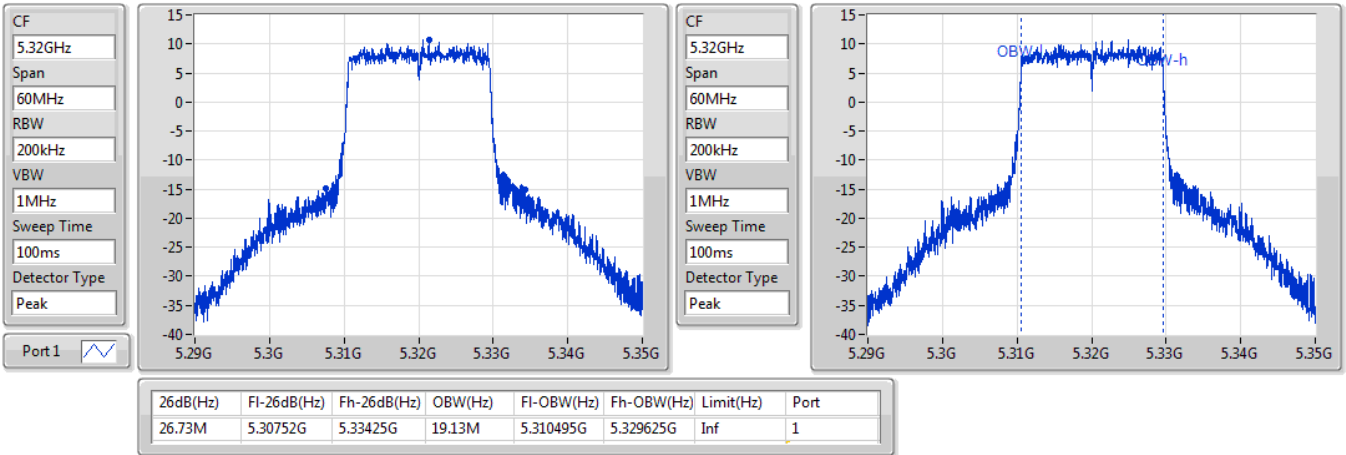

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5300MHz**

06/01/2020

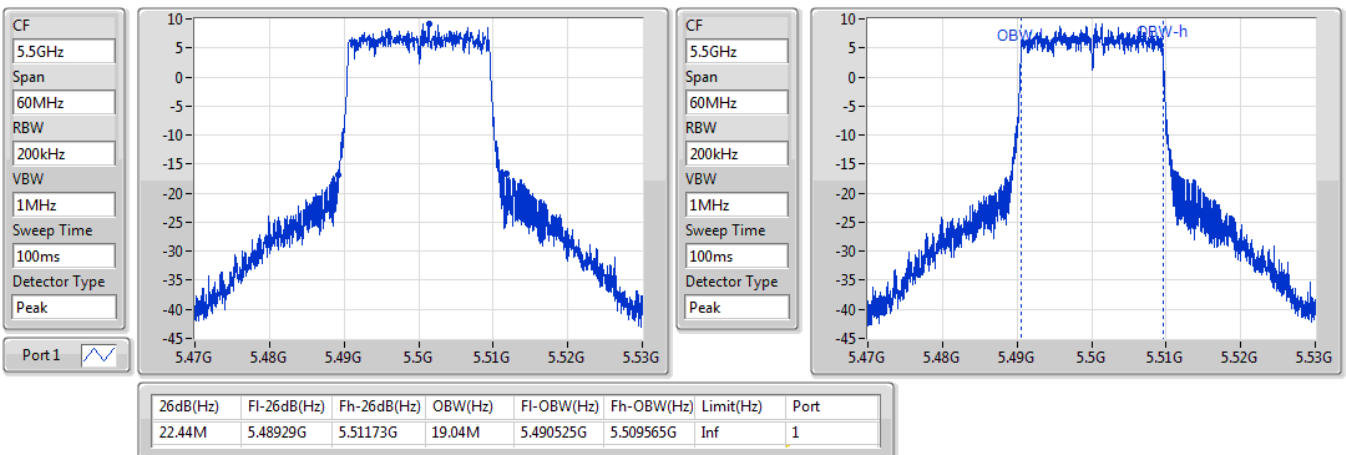


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5320MHz**

06/01/2020

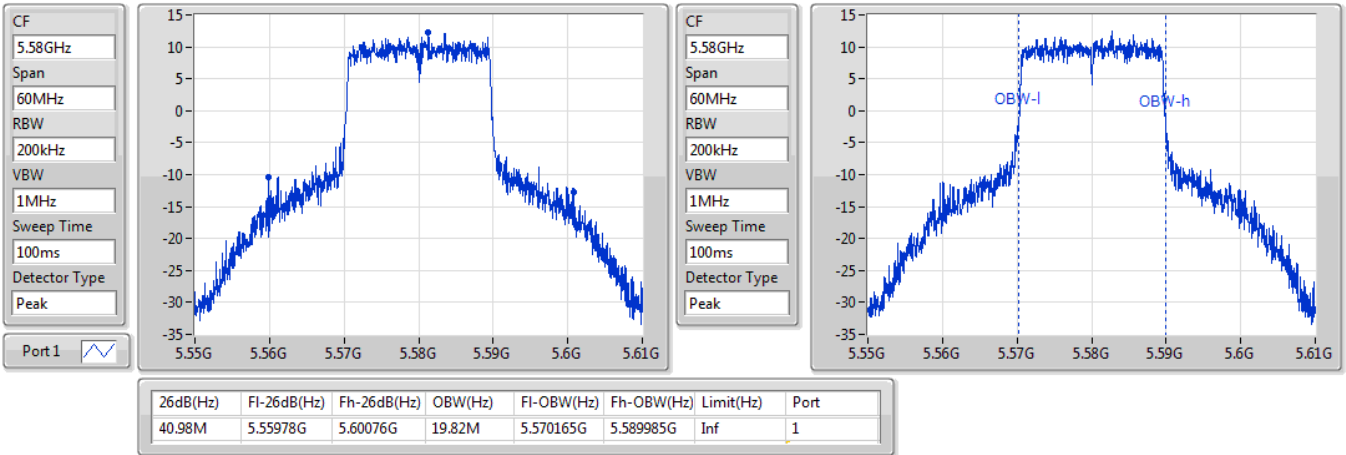

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5500MHz**

06/01/2020

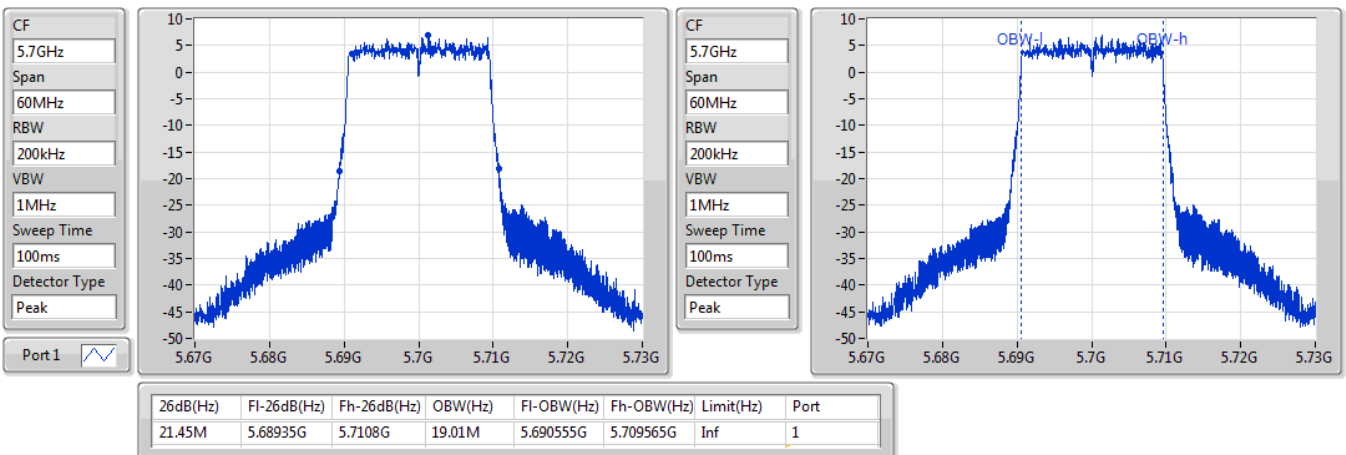


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5580MHz**

06/01/2020

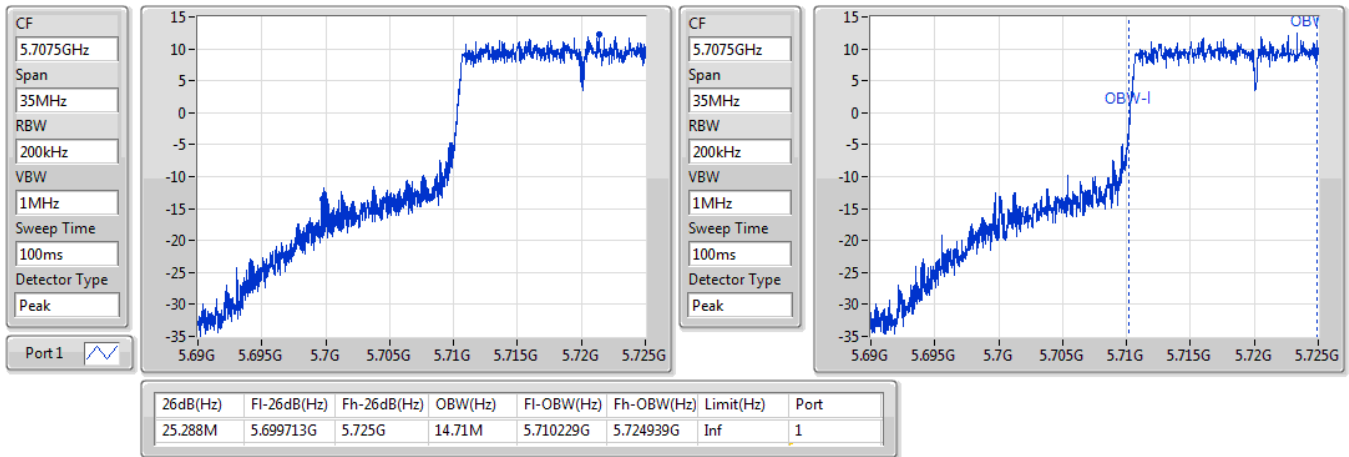

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5700MHz**

06/01/2020

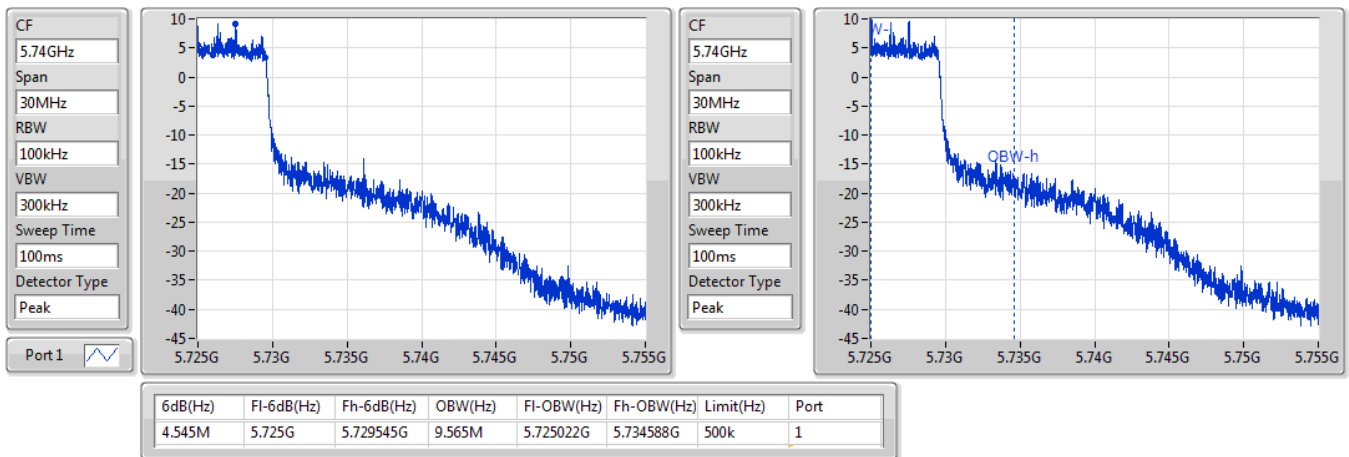


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

06/01/2020

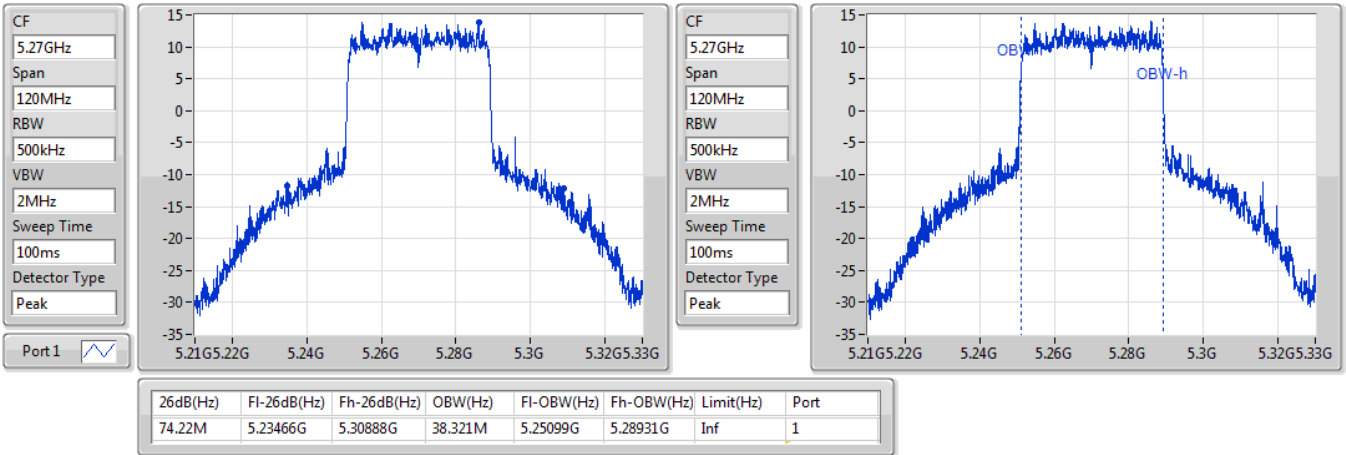

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

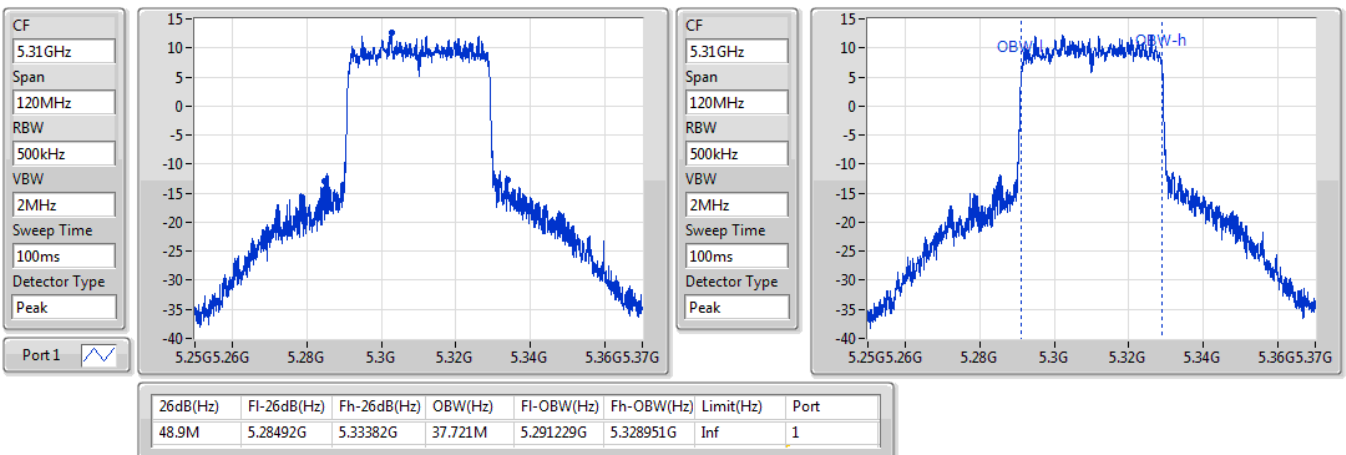


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5270MHz**

06/01/2020

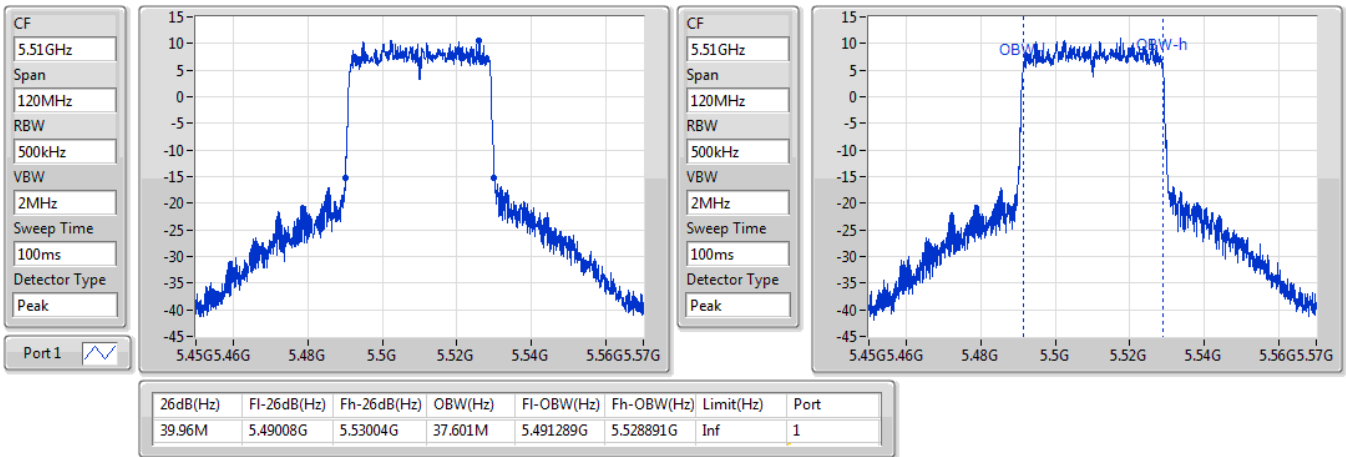

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5310MHz**

06/01/2020

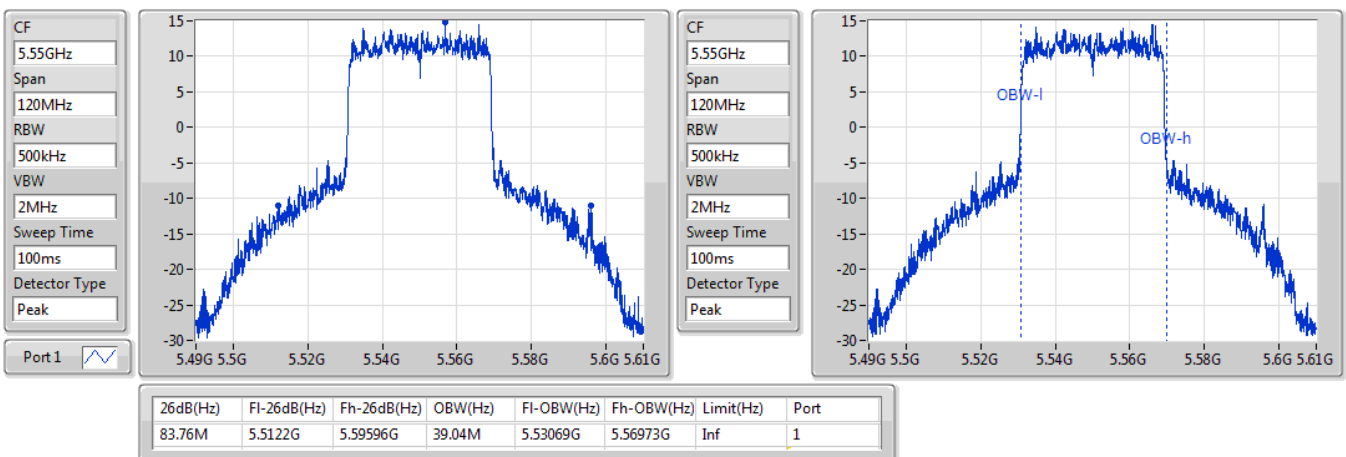


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5510MHz**

06/01/2020

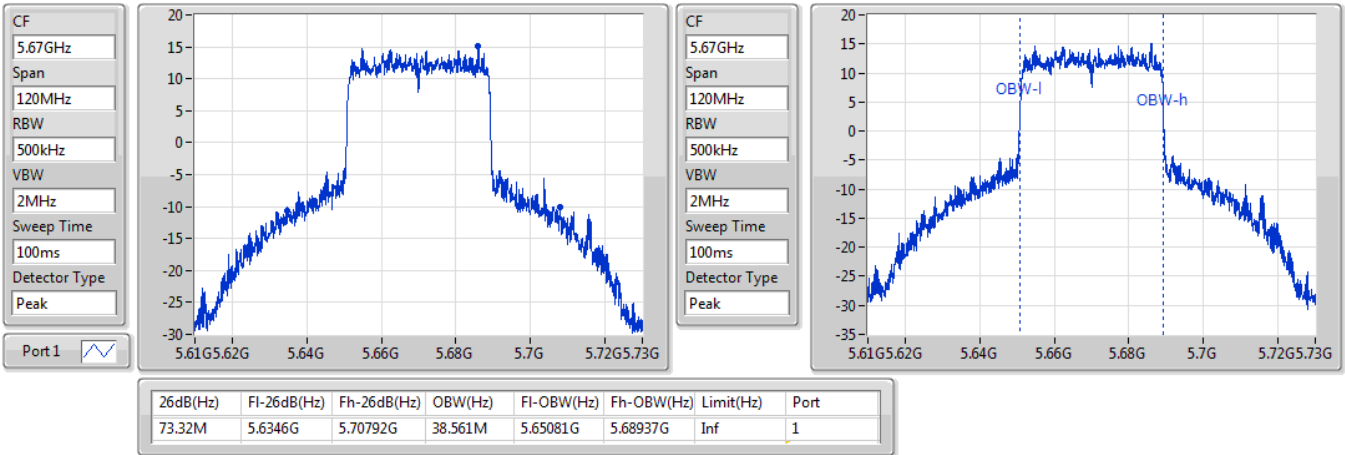

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5550MHz**

06/01/2020

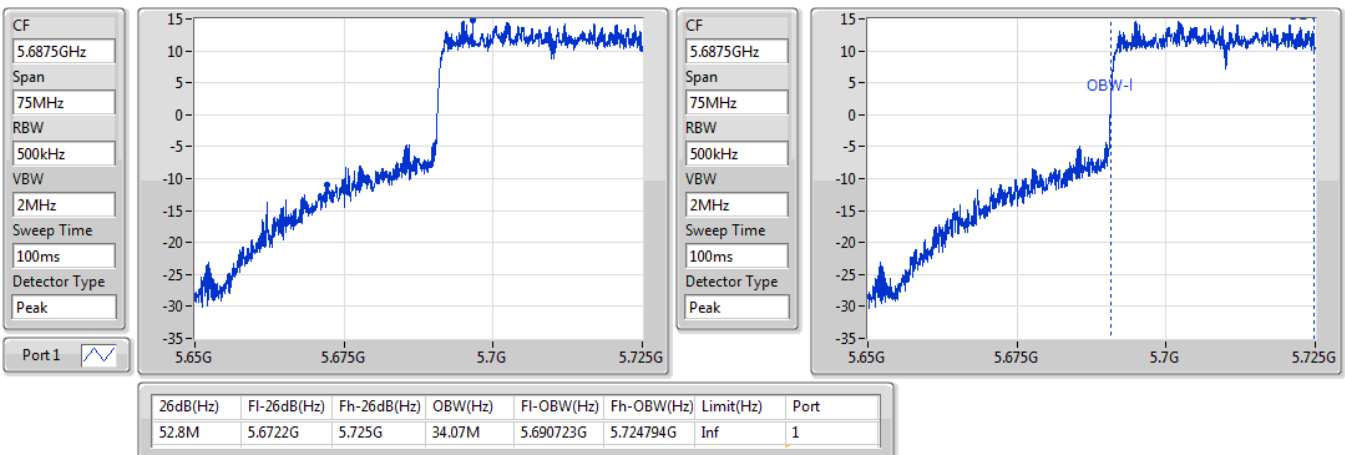


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5670MHz**

06/01/2020

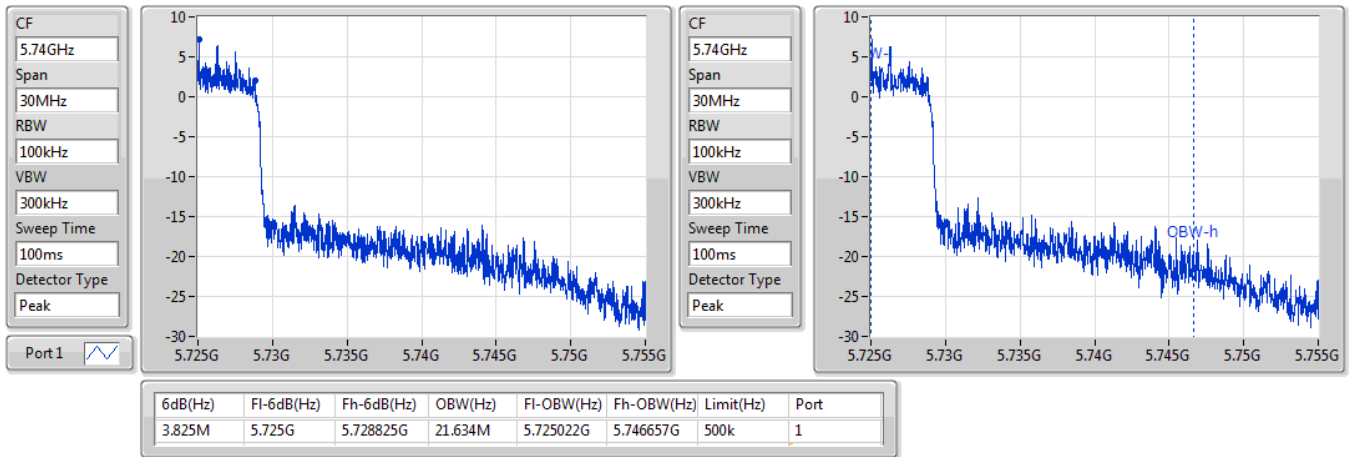

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

06/01/2020

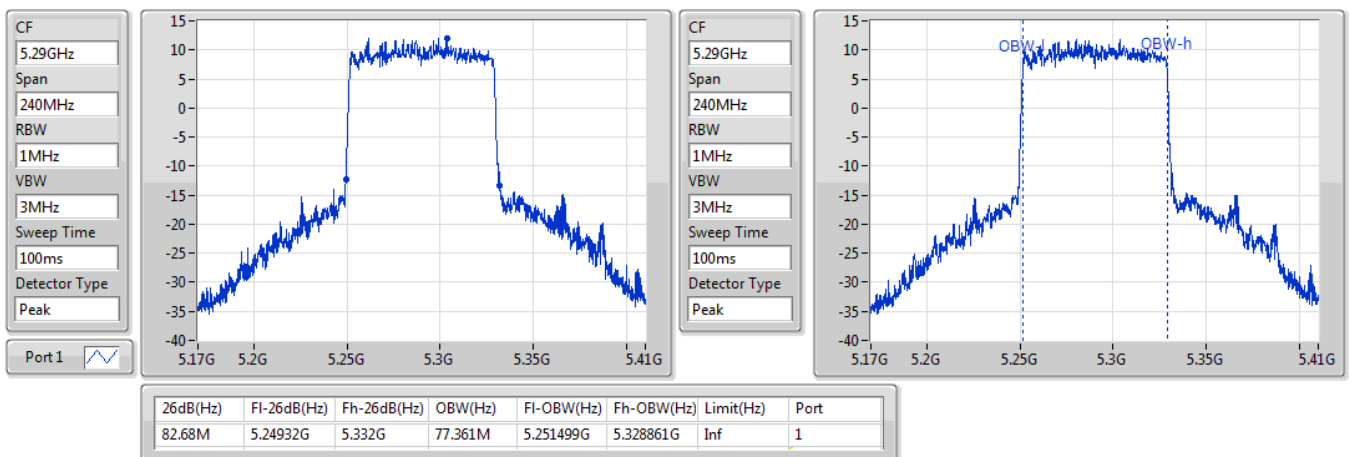


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

06/01/2020


**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5290MHz**

06/01/2020

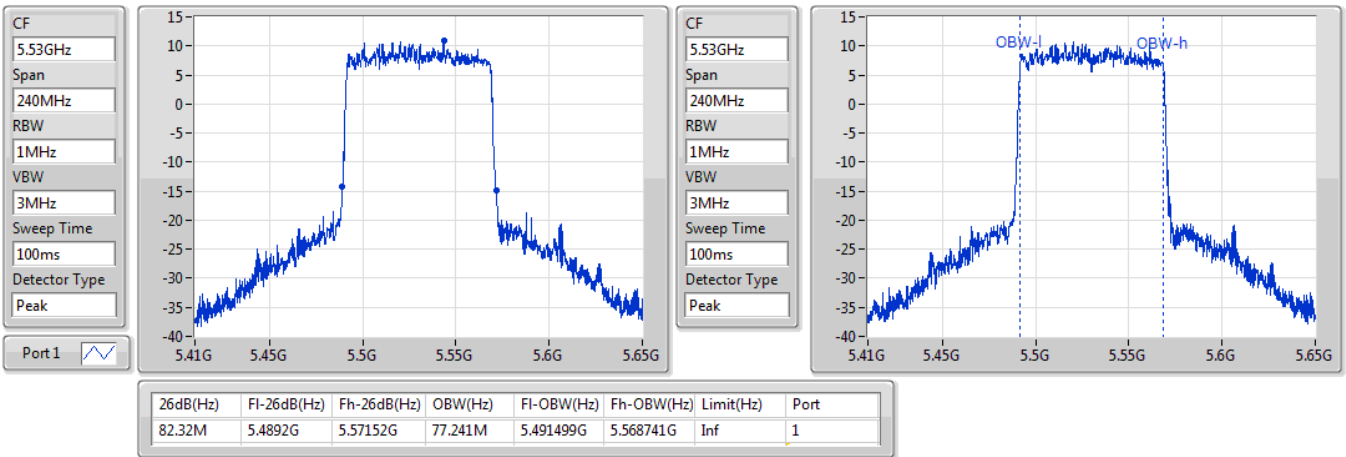


## 802.11ax HEW80\_Nss1,(MCS0)\_1TX

EBW

5530MHz

06/01/2020

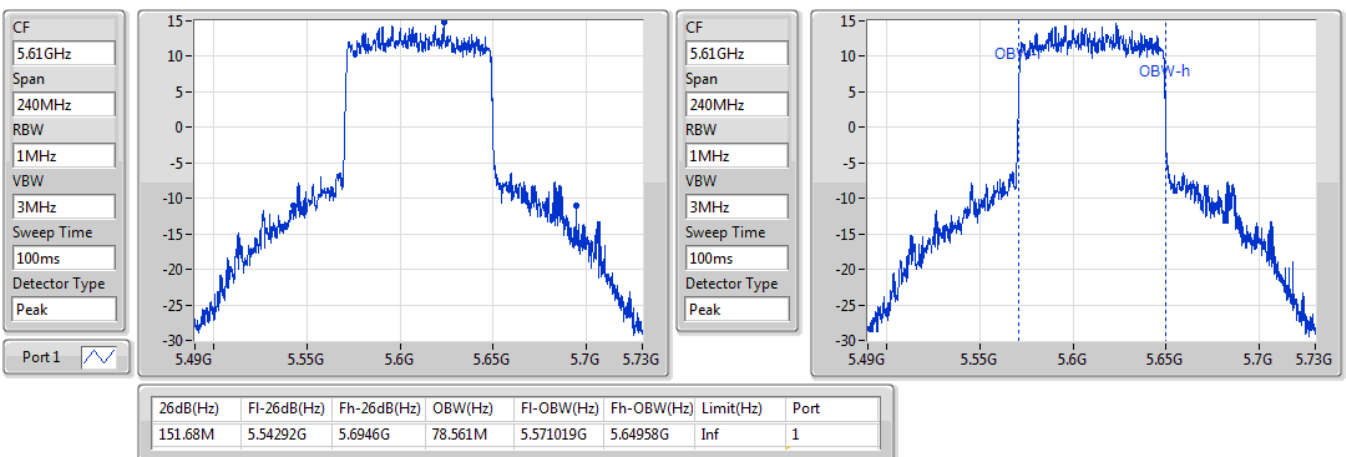


## 802.11ax HEW80\_Nss1,(MCS0)\_1TX

EBW

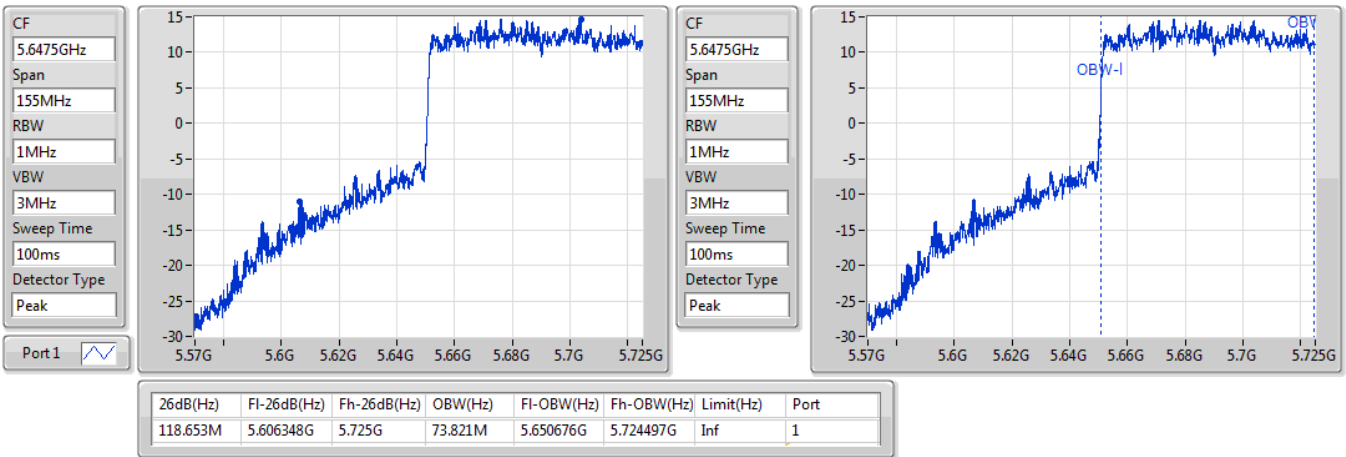
5610MHz

06/01/2020

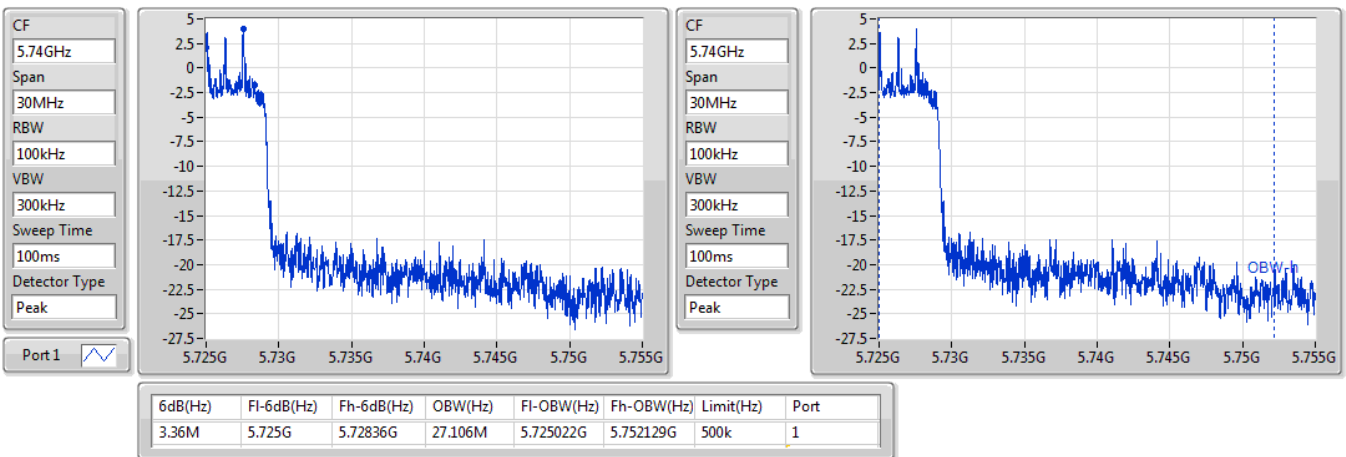


**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

06/01/2020


**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

06/01/2020



**Summary**

| Mode                           | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|--------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.25-5.35GHz                   | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX       | 26.97M           | 16.942M         | 16M9D1D  | 24.36M           | 16.852M         |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | 35.73M           | 18.681M         | 18M7D1D  | 23.13M           | 17.931M         |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | 76.68M           | 38.381M         | 38M4D1D  | 40.26M           | 36.402M         |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | 90M              | 75.922M         | 75M9D1D  | 84.12M           | 75.802M         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 40.59M           | 19.34M          | 19M3D1D  | 24.48M           | 19.1M           |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 77.58M           | 38.501M         | 38M5D1D  | 55.02M           | 37.781M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 84.72M           | 77.241M         | 77M2D1D  | 81.12M           | 77.121M         |
| 5.47-5.725GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX       | 24.54M           | 16.852M         | 16M9D1D  | 16.328M          | 13.363M         |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | 35.28M           | 18.381M         | 18M4D1D  | 21.57M           | 14.5M           |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | 70.5M            | 37.181M         | 37M2D1D  | 39.78M           | 33.583M         |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | 148.32M          | 76.882M         | 76M9D1D  | 81.6M            | 72.891M         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 40.56M           | 19.34M          | 19M3D1D  | 21.42M           | 14.675M         |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 77.4M            | 38.141M         | 38M1D1D  | 39.9M            | 33.696M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 145.32M          | 77.721M         | 77M7D1D  | 81.24M           | 73.511M         |
| 5.725-5.85GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX       | 3.21M            | 4.963M          | 4M96D1D  | 3.21M            | 4.948M          |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | 3.825M           | 9.655M          | 9M66D1D  | 3.825M           | 8.441M          |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | 3.195M           | 22.129M         | 22M1D1D  | 3.195M           | 21.634M         |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | 3.195M           | 24.423M         | 24M4D1D  | 3.195M           | 24.408M         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 4.5M             | 11.394M         | 11M4D1D  | 4.485M           | 9.85M           |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 3.84M            | 22.414M         | 22M4D1D  | 3.765M           | 22.324M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 3.36M            | 24.828M         | 24M8D1D  | 3.18M            | 24.798M         |

**Max-N dB** = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Max-OBW** = Maximum 99% occupied bandwidth;

**Min-N dB** = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Min-OBW** = Minimum 99% occupied bandwidth;

**Result**

| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) | Port 2-N dB<br>(Hz) | Port 2-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|---------------------|--------------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -      | -             | -                   | -                  | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 26.4M               | 16.882M            | 24.36M              | 16.852M            |
| 5300MHz                        | Pass   | Inf           | 26.82M              | 16.942M            | 25.98M              | 16.852M            |
| 5320MHz                        | Pass   | Inf           | 26.97M              | 16.942M            | 24.54M              | 16.882M            |
| 5500MHz                        | Pass   | Inf           | 21.57M              | 16.822M            | 24.54M              | 16.852M            |
| 5580MHz                        | Pass   | Inf           | 21.69M              | 16.822M            | 24.33M              | 16.852M            |
| 5700MHz                        | Pass   | Inf           | 21.21M              | 16.762M            | 21.39M              | 16.672M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 16.573M             | 13.363M            | 16.328M             | 13.398M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.21M               | 4.963M             | 3.21M               | 4.948M             |
| 802.11ac VHT20_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 33.69M              | 18.561M            | 35.73M              | 18.291M            |
| 5300MHz                        | Pass   | Inf           | 35.52M              | 18.681M            | 32.79M              | 18.411M            |
| 5320MHz                        | Pass   | Inf           | 27.3M               | 18.081M            | 23.13M              | 17.931M            |
| 5500MHz                        | Pass   | Inf           | 24.18M              | 17.991M            | 26.49M              | 18.021M            |
| 5580MHz                        | Pass   | Inf           | 31.02M              | 18.291M            | 35.28M              | 18.381M            |
| 5700MHz                        | Pass   | Inf           | 21.57M              | 17.901M            | 21.81M              | 17.811M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 22.68M              | 14.5M              | 24.535M             | 14.57M             |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.825M              | 8.441M             | 3.825M              | 9.655M             |
| 802.11ac VHT40_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 76.68M              | 38.381M            | 71.76M              | 37.001M            |
| 5310MHz                        | Pass   | Inf           | 51.9M               | 36.582M            | 40.26M              | 36.402M            |
| 5510MHz                        | Pass   | Inf           | 39.78M              | 36.402M            | 40.02M              | 36.342M            |
| 5550MHz                        | Pass   | Inf           | 66.3M               | 37.181M            | 70.5M               | 36.762M            |
| 5670MHz                        | Pass   | Inf           | 59.34M              | 36.822M            | 57.24M              | 36.642M            |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 53.438M             | 34.22M             | 52.838M             | 33.583M            |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.195M              | 22.129M            | 3.195M              | 21.634M            |
| 802.11ac VHT80_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 90M                 | 75.802M            | 84.12M              | 75.922M            |
| 5530MHz                        | Pass   | Inf           | 81.6M               | 75.802M            | 81.84M              | 75.802M            |
| 5610MHz                        | Pass   | Inf           | 148.32M             | 76.882M            | 140.76M             | 76.762M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 110.205M            | 72.891M            | 104.625M            | 72.891M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.195M              | 24.408M            | 3.195M              | 24.423M            |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 36.27M              | 19.31M             | 40.59M              | 19.34M             |
| 5300MHz                        | Pass   | Inf           | 33.93M              | 19.31M             | 39.45M              | 19.25M             |
| 5320MHz                        | Pass   | Inf           | 24.48M              | 19.1M              | 27.33M              | 19.16M             |
| 5500MHz                        | Pass   | Inf           | 21.63M              | 19.1M              | 26.52M              | 19.16M             |
| 5580MHz                        | Pass   | Inf           | 35.46M              | 19.22M             | 40.56M              | 19.34M             |
| 5700MHz                        | Pass   | Inf           | 21.66M              | 19.01M             | 21.42M              | 19.04M             |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 23.94M              | 14.745M            | 24.255M             | 14.675M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 4.5M                | 9.85M              | 4.485M              | 11.394M            |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 77.58M              | 38.501M            | 77.46M              | 38.201M            |
| 5310MHz                        | Pass   | Inf           | 55.32M              | 37.781M            | 55.02M              | 37.781M            |

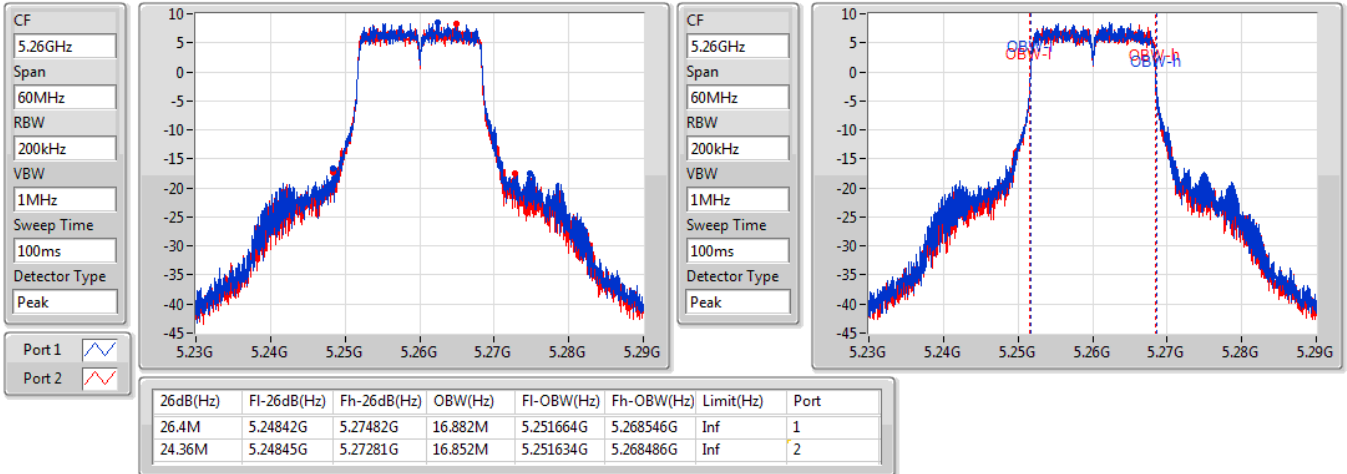
| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) | Port 2-N dB<br>(Hz) | Port 2-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|---------------------|--------------------|
| 5510MHz                        | Pass   | Inf           | 40.14M              | 37.661M            | 39.9M               | 37.601M            |
| 5550MHz                        | Pass   | Inf           | 77.4M               | 38.141M            | 77.4M               | 38.141M            |
| 5670MHz                        | Pass   | Inf           | 76.14M              | 38.081M            | 76.62M              | 37.841M            |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 52.538M             | 33.808M            | 53.213M             | 33.696M            |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.765M              | 22.414M            | 3.84M               | 22.324M            |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 81.12M              | 77.241M            | 84.72M              | 77.121M            |
| 5530MHz                        | Pass   | Inf           | 81.24M              | 77.241M            | 81.24M              | 77.121M            |
| 5610MHz                        | Pass   | Inf           | 130.44M             | 77.721M            | 145.32M             | 77.721M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 109.895M            | 73.511M            | 109.043M            | 73.588M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.36M               | 24.828M            | 3.18M               | 24.798M            |

**Port X-N dB** = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

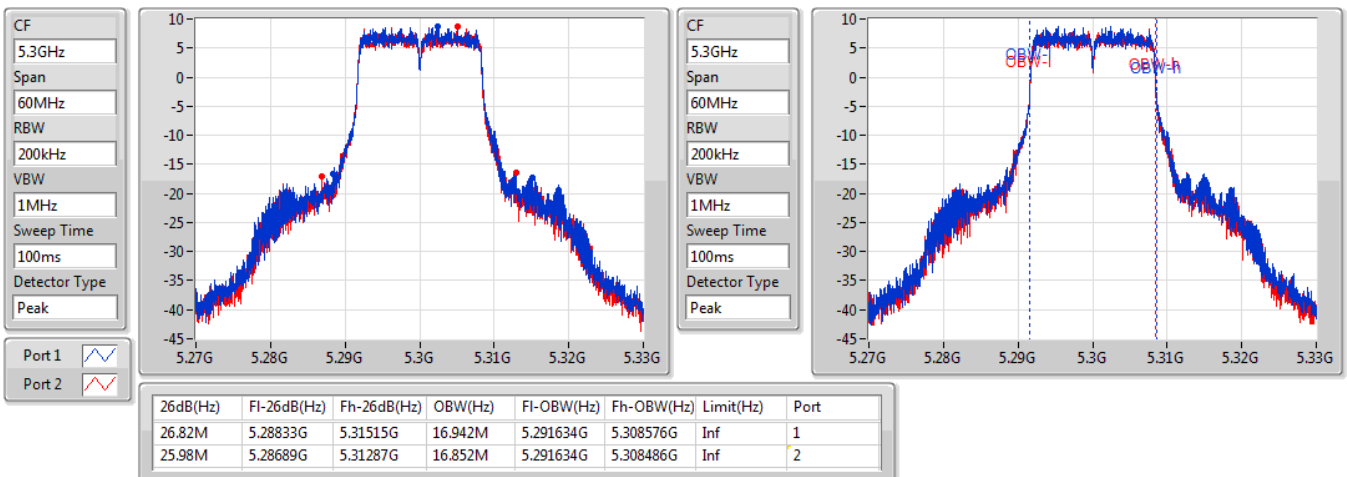
**Port X-OBW** = Port X 99% occupied bandwidth;

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5260MHz**

17/01/2020

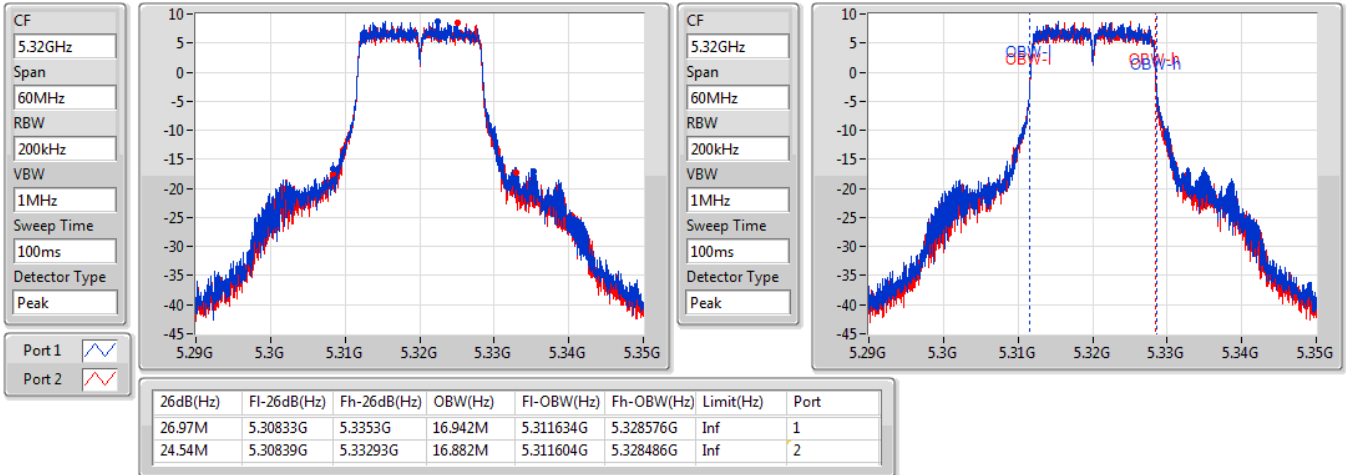

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5300MHz**

17/01/2020

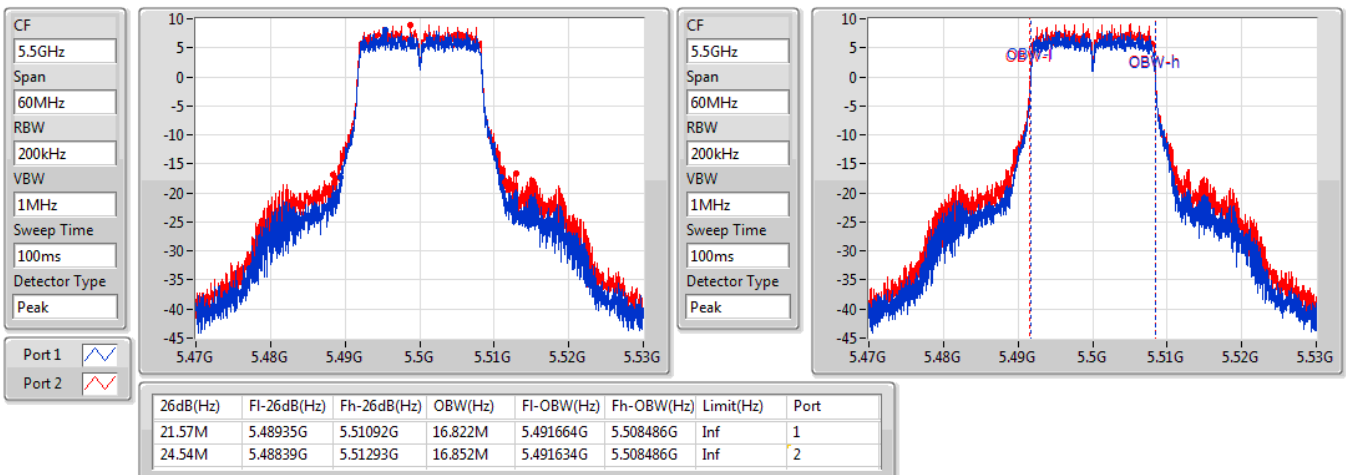


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5320MHz**

17/01/2020

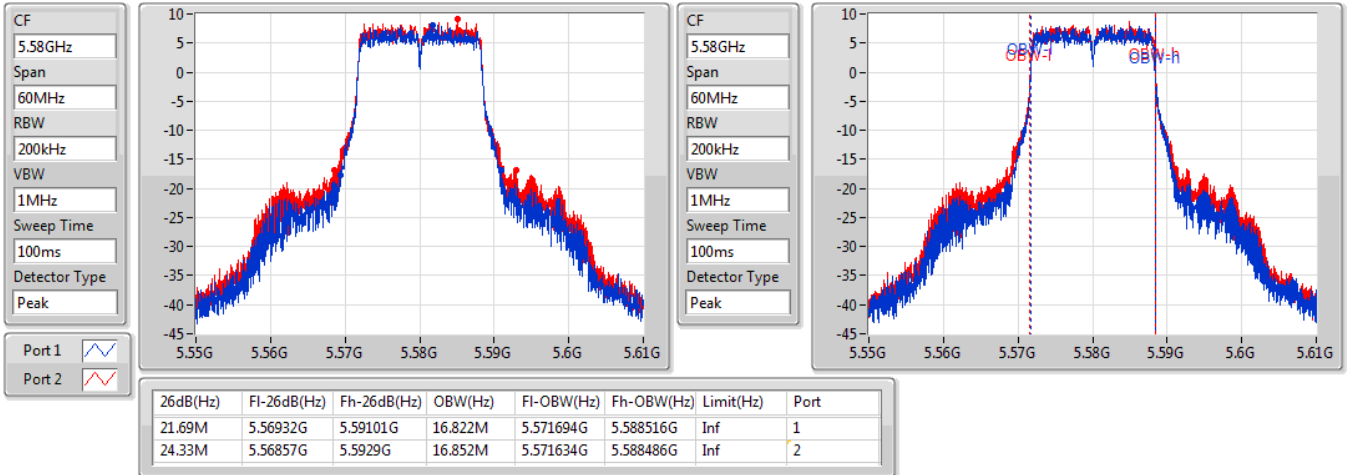

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5500MHz**

17/01/2020

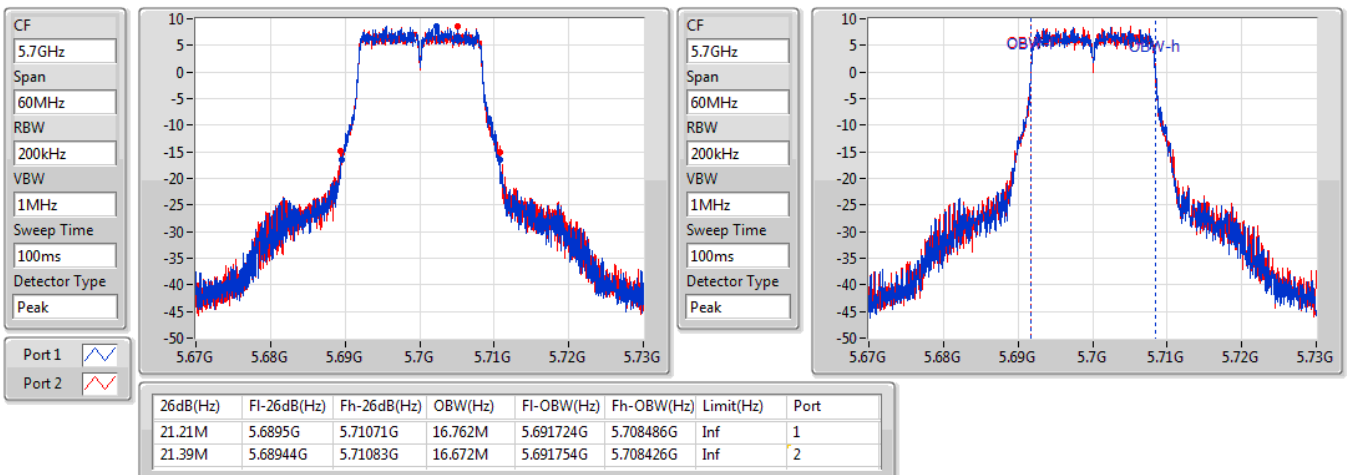


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5580MHz**

17/01/2020

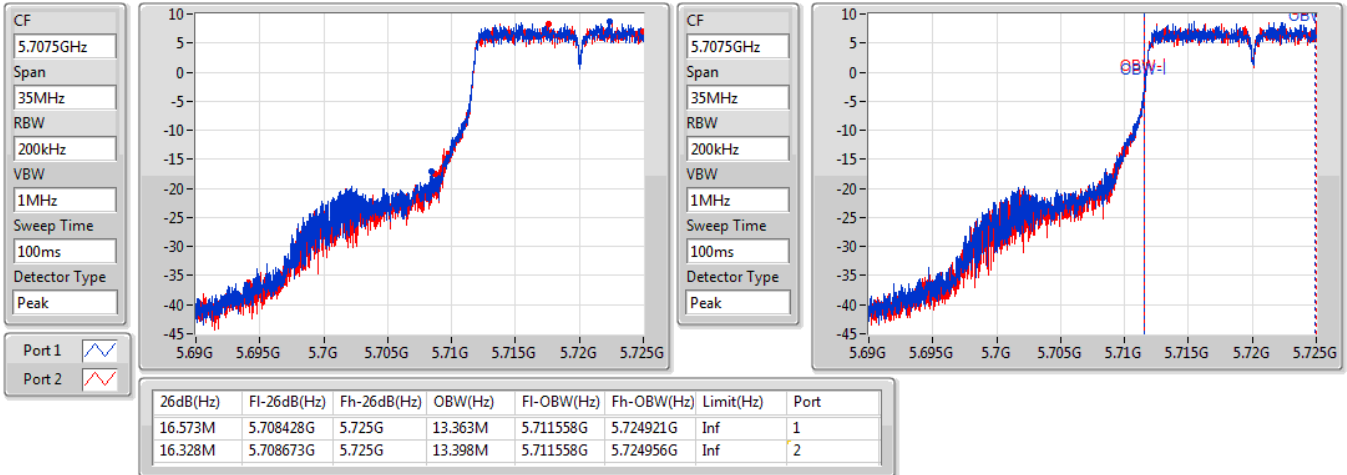

**802.11a\_Nss2,(6Mbps)\_2TX**
**EBW**
**5700MHz**

07/01/2020

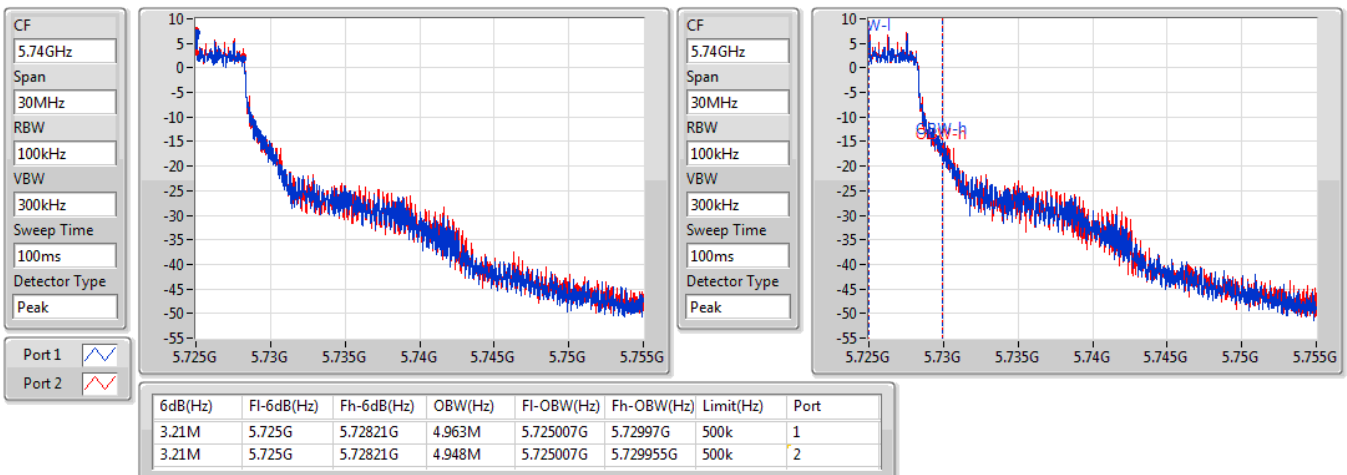


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

17/01/2020

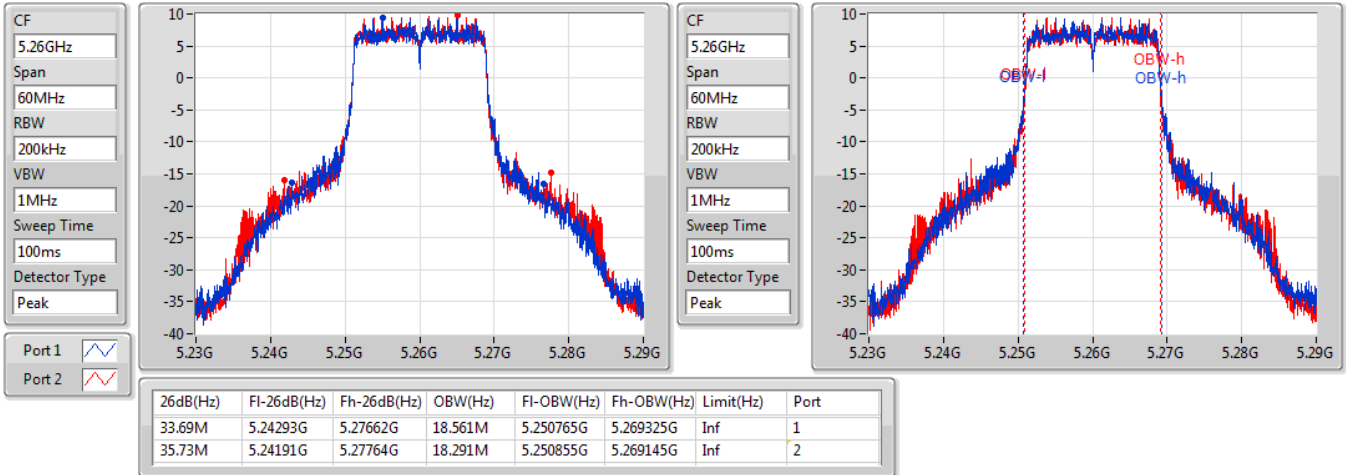

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

17/01/2020

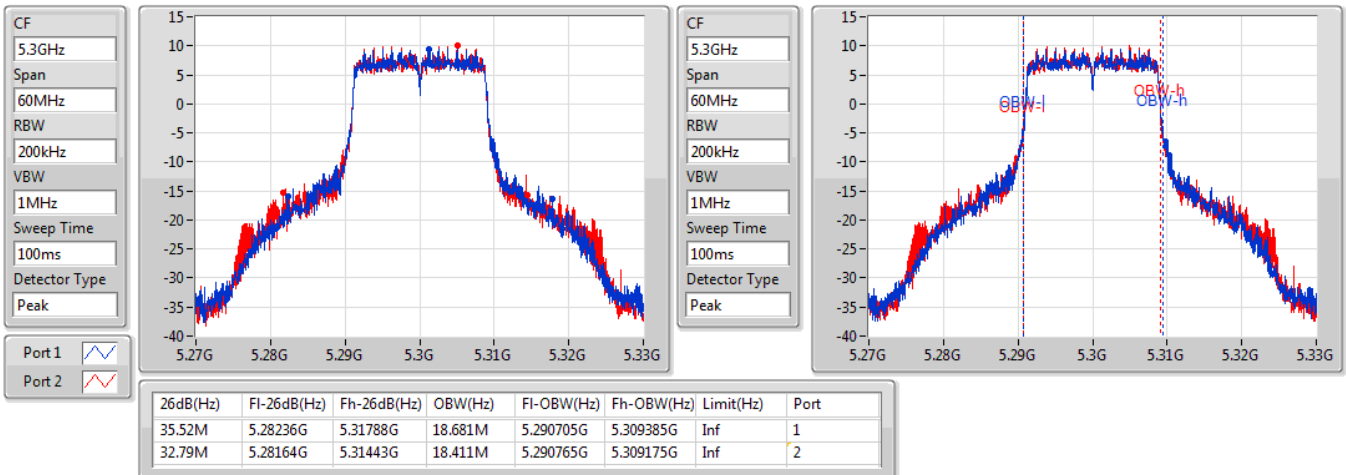


**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5260MHz**

09/01/2020

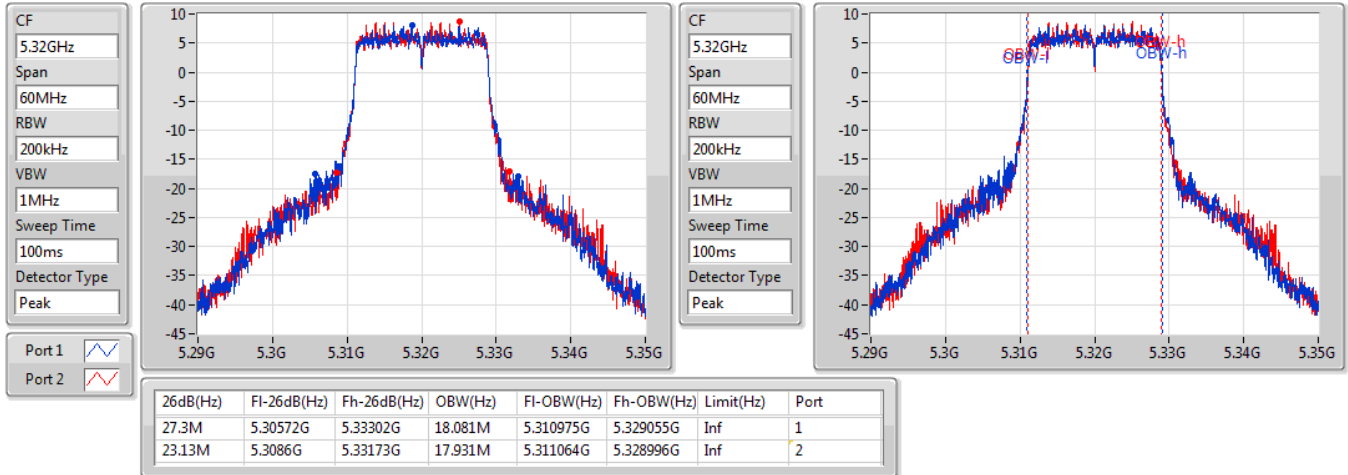

**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5300MHz**

09/01/2020

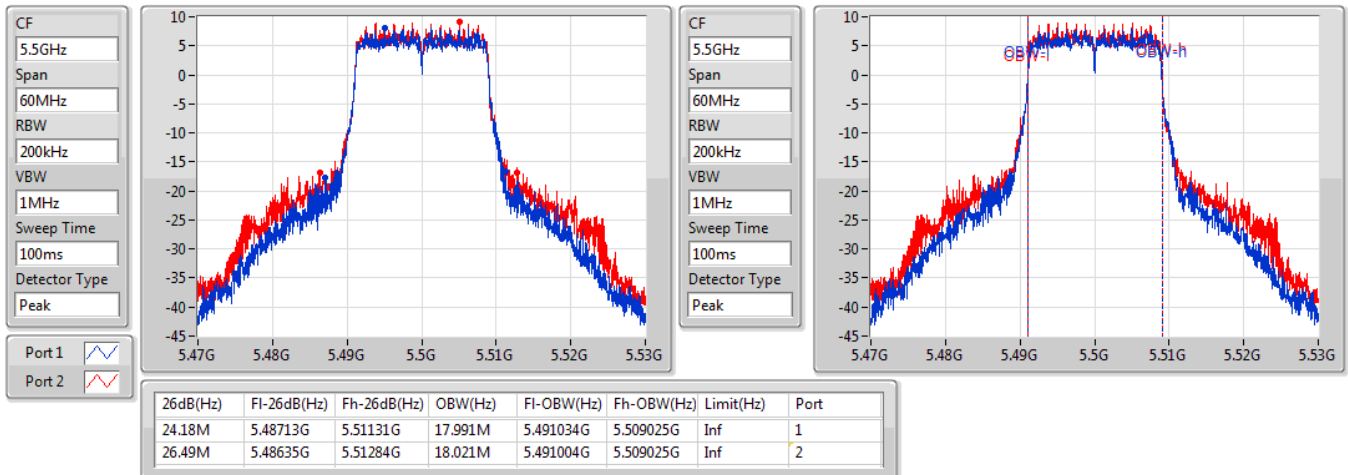


**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5320MHz**

09/01/2020

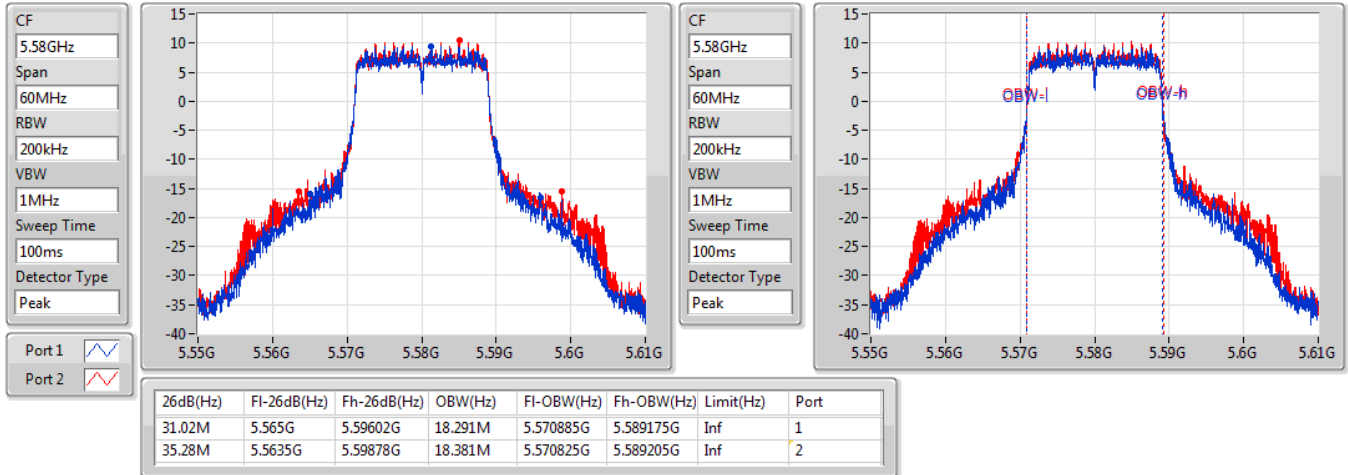

**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5500MHz**

09/01/2020

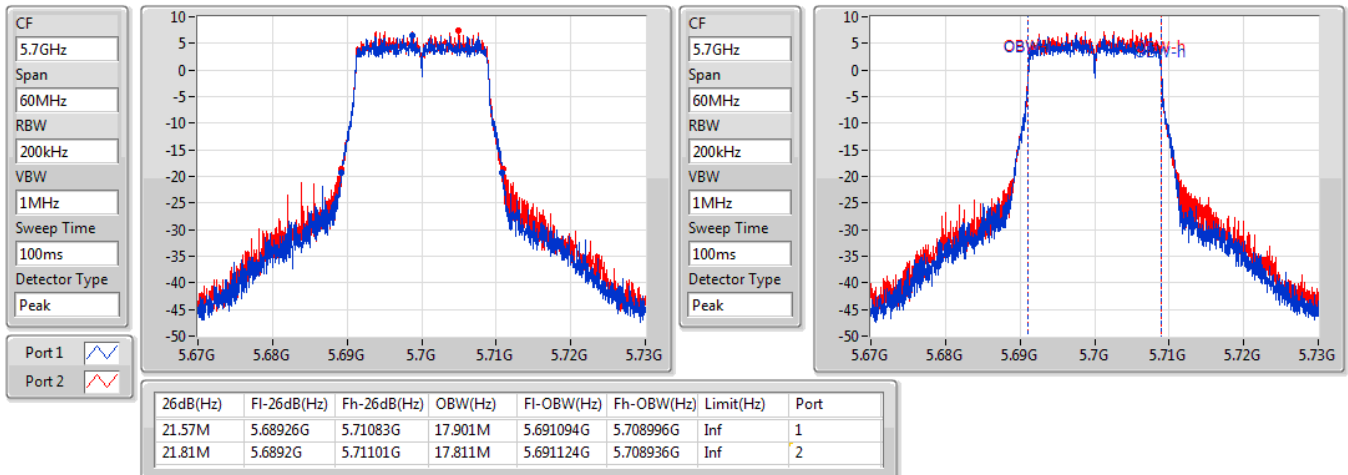


**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5580MHz**

09/01/2020

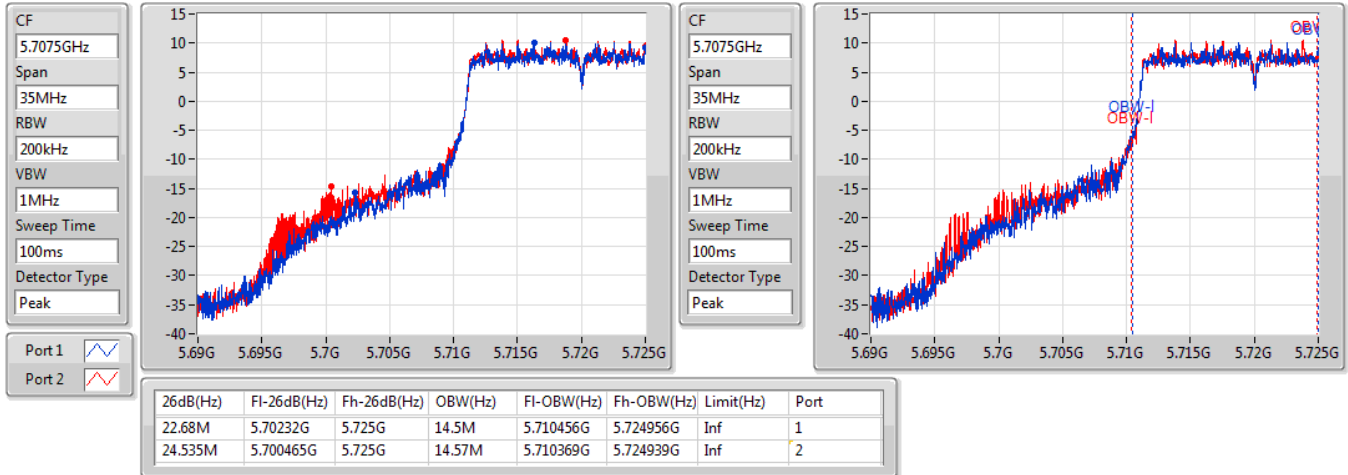

**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5700MHz**

09/01/2020

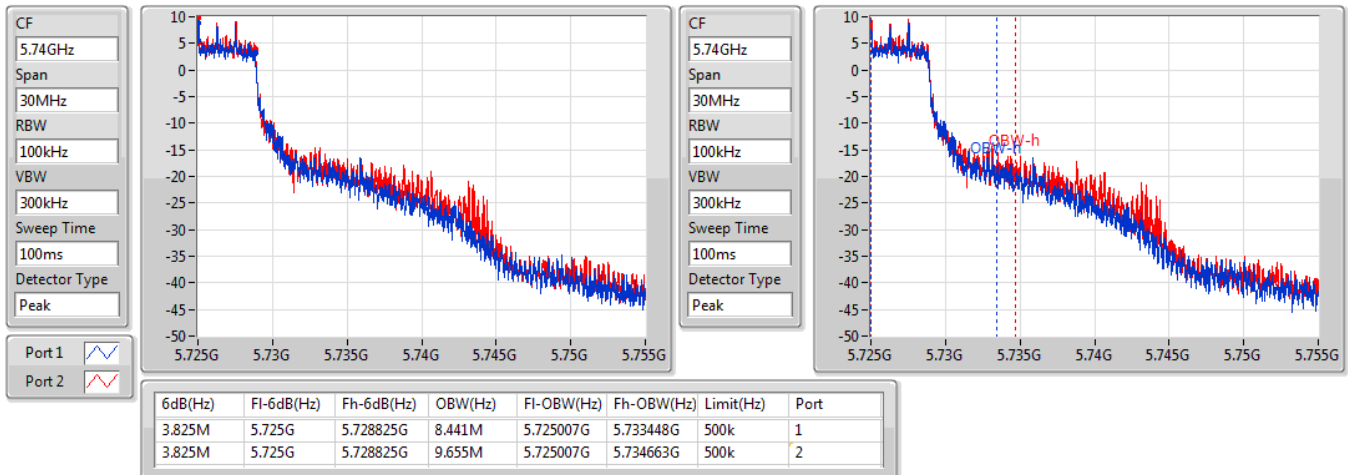


**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

09/01/2020

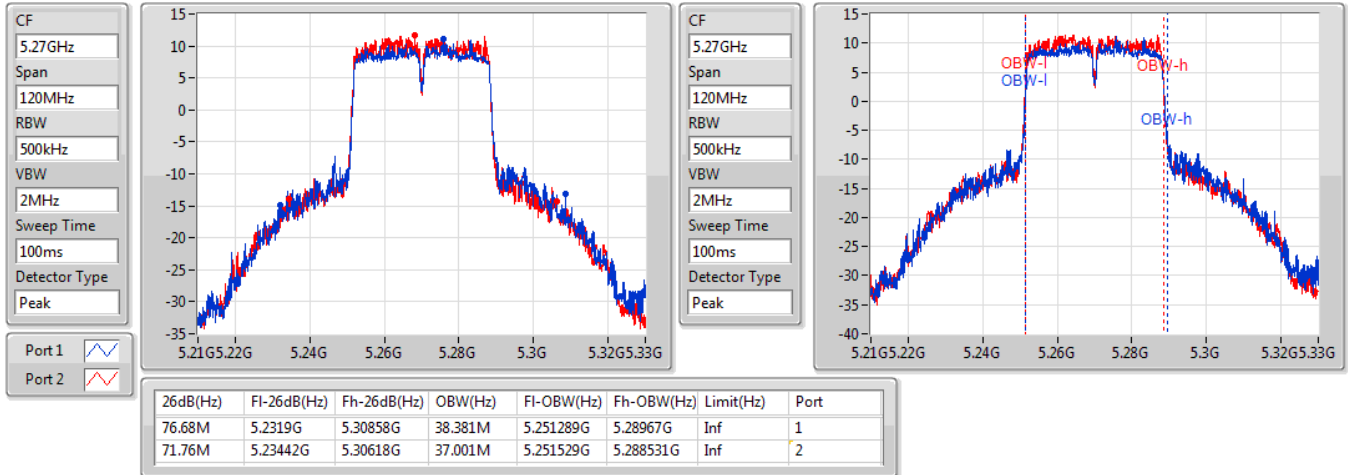

**802.11ac VHT20\_Nss2,(MCS0)\_2TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

09/01/2020

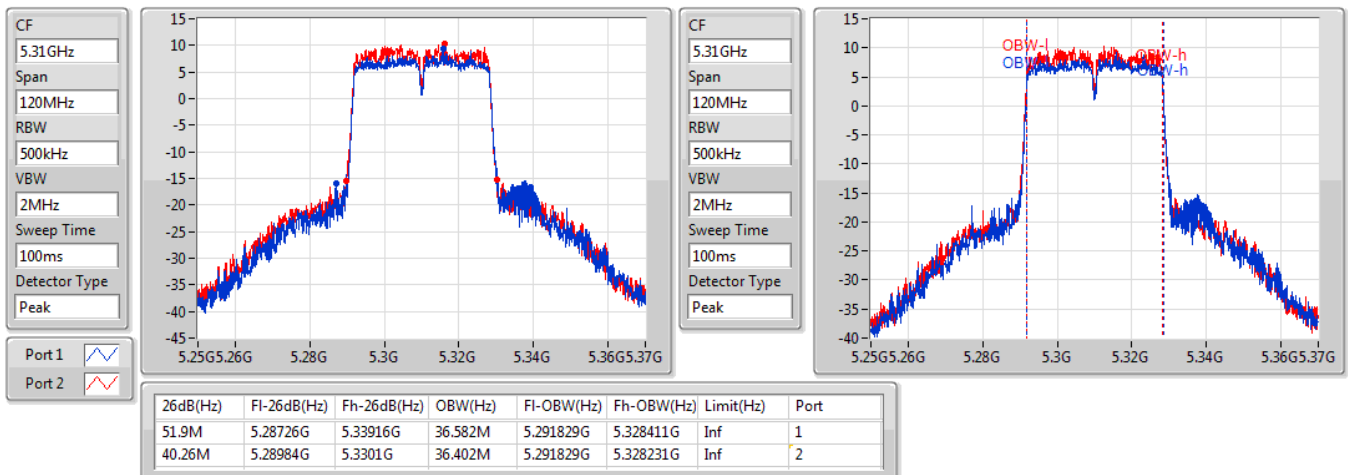


**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5270MHz**

09/01/2020


**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5310MHz**

09/01/2020

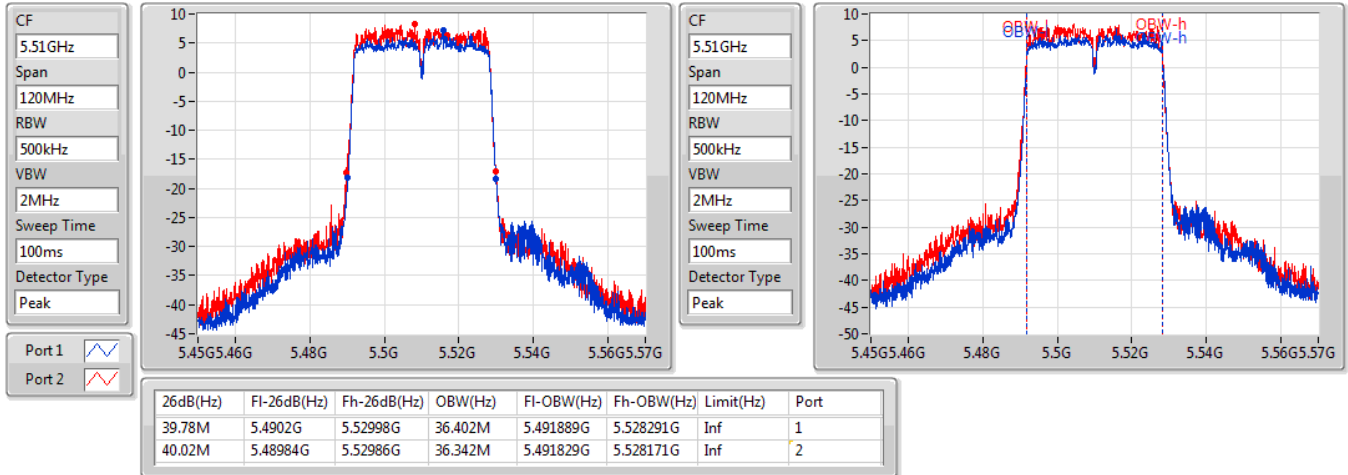


## 802.11ac VHT40\_Nss2,(MCS0)\_2TX

EBW

5510MHz

09/01/2020

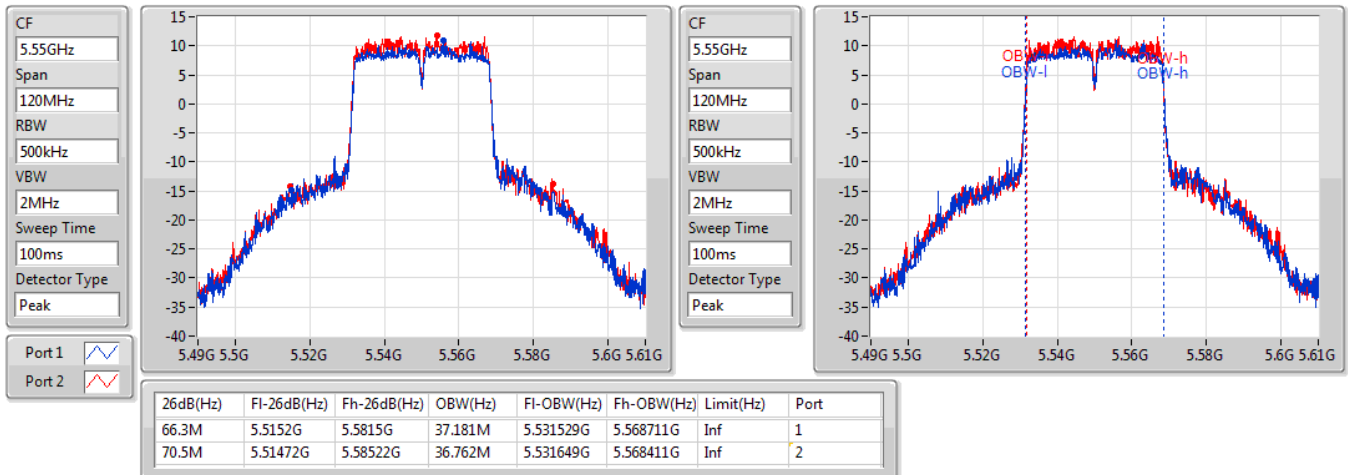


## 802.11ac VHT40\_Nss2,(MCS0)\_2TX

EBW

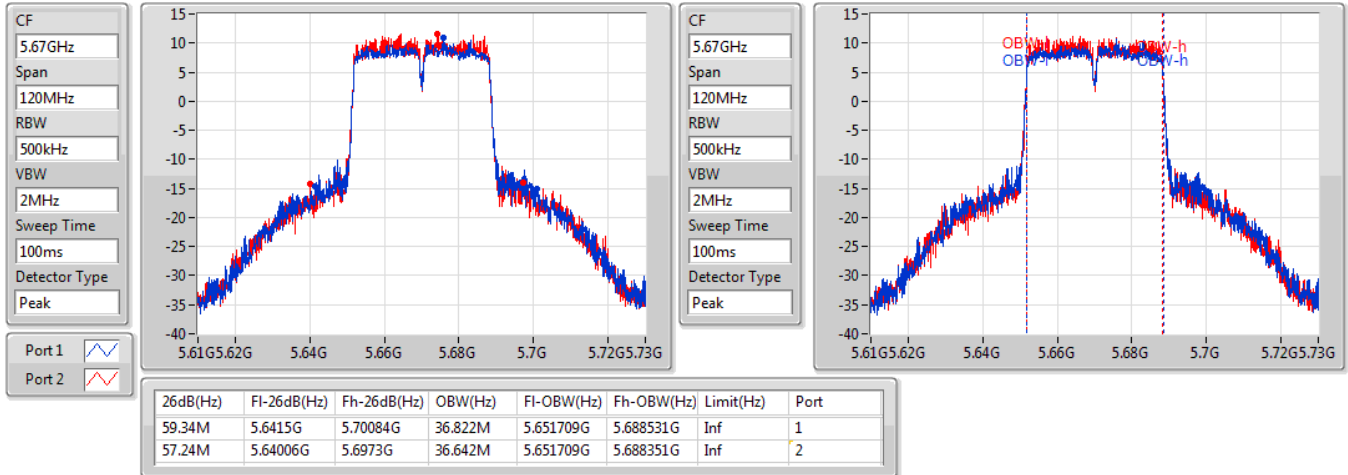
5550MHz

09/01/2020

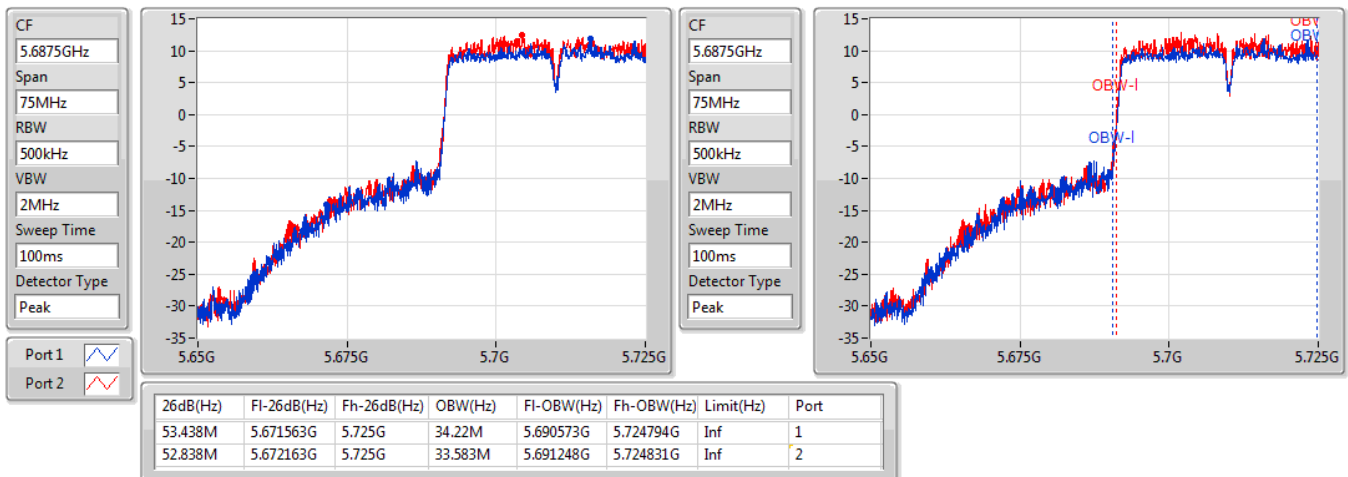


**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5670MHz**

09/01/2020


**802.11ac VHT40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

09/01/2020

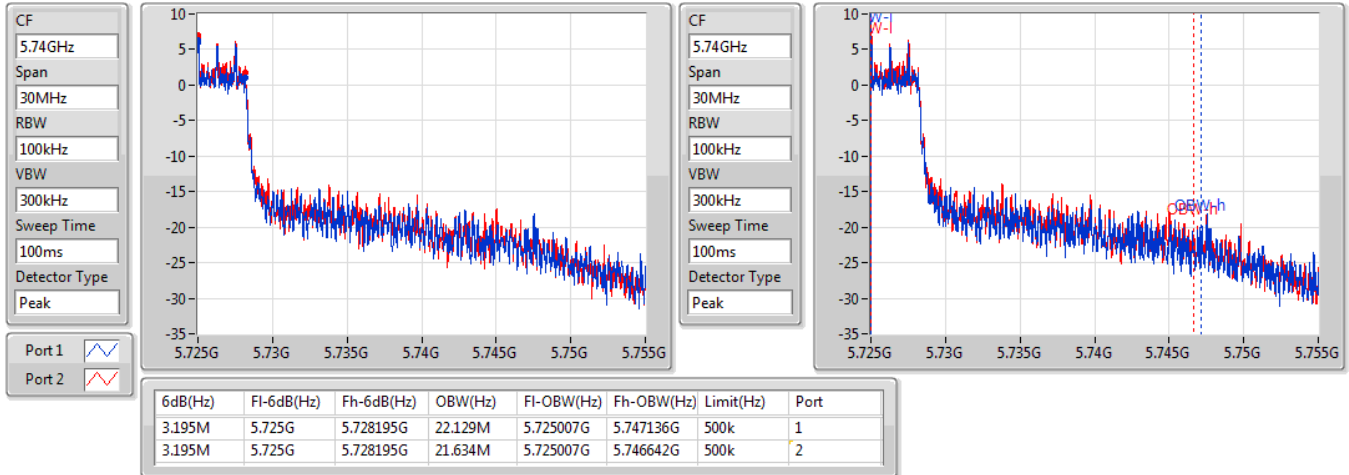


## 802.11ac VHT40\_Nss2,(MCS0)\_2TX

EBW

### 5710MHz Straddle 5.725-5.85GHz

09/01/2020

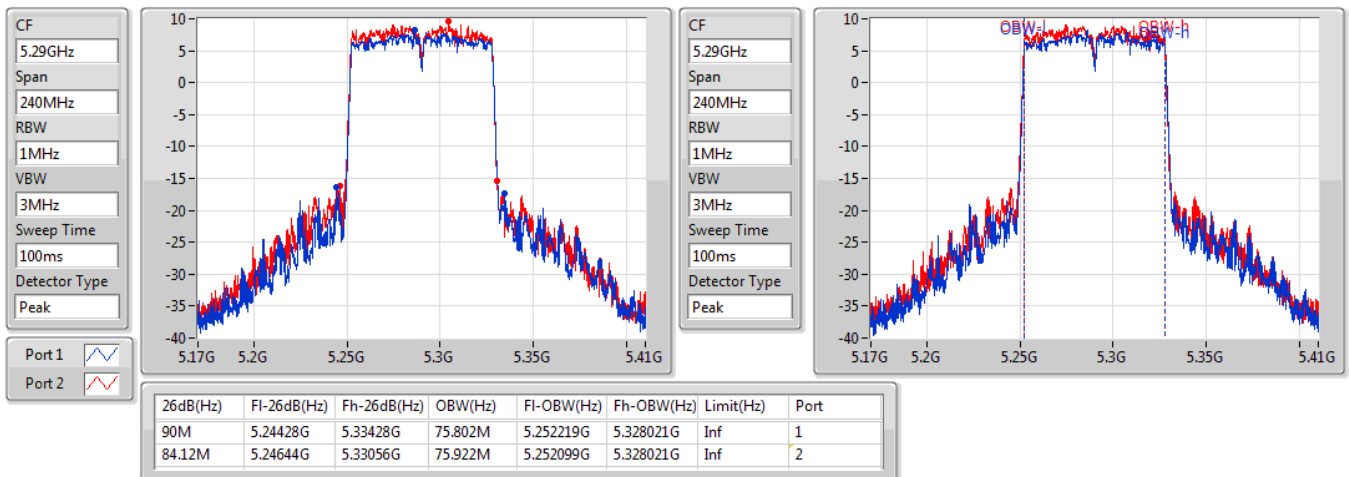


## 802.11ac VHT80\_Nss2,(MCS0)\_2TX

EBW

### 5290MHz

09/01/2020

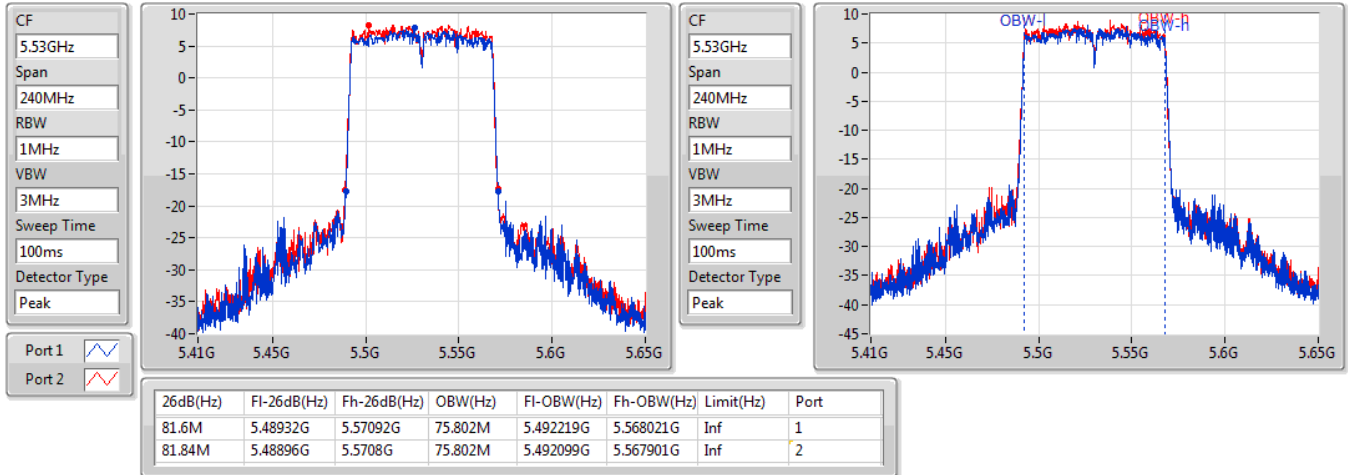


## 802.11ac VHT80\_Nss2,(MCS0)\_2TX

EBW

5530MHz

09/01/2020

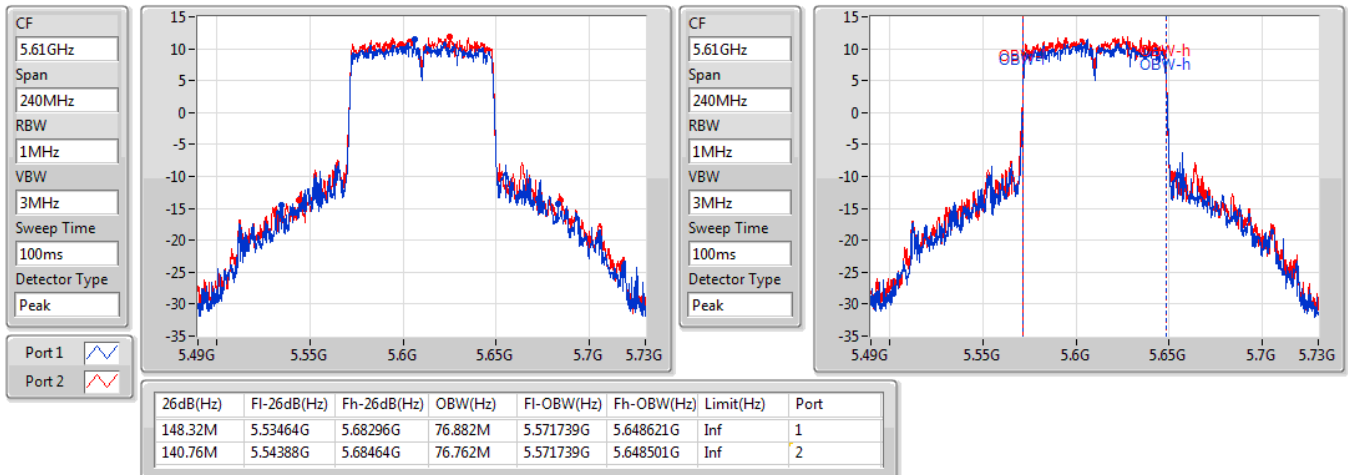


## 802.11ac VHT80\_Nss2,(MCS0)\_2TX

EBW

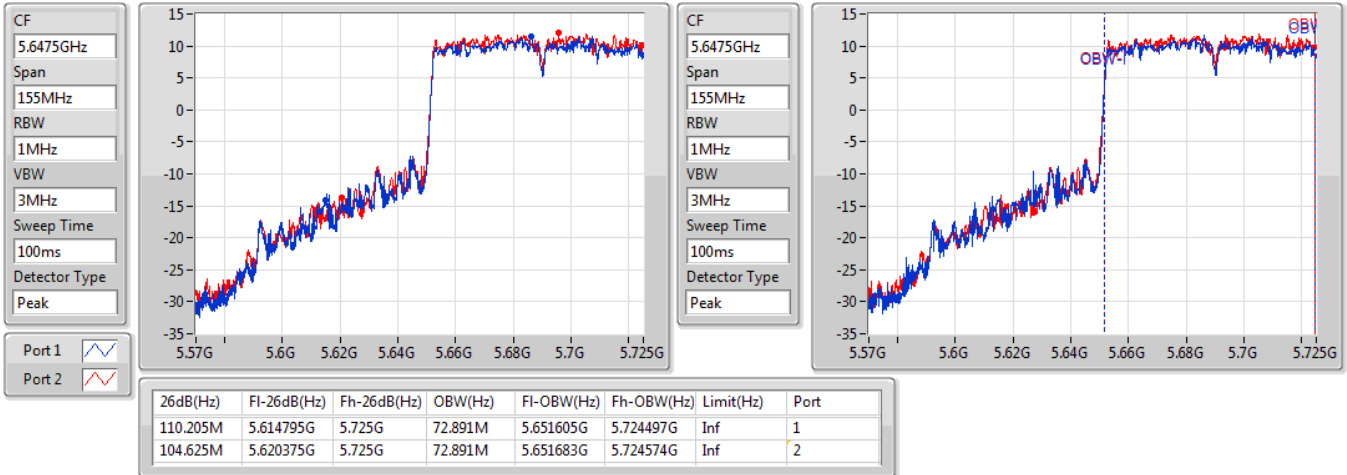
5610MHz

09/01/2020

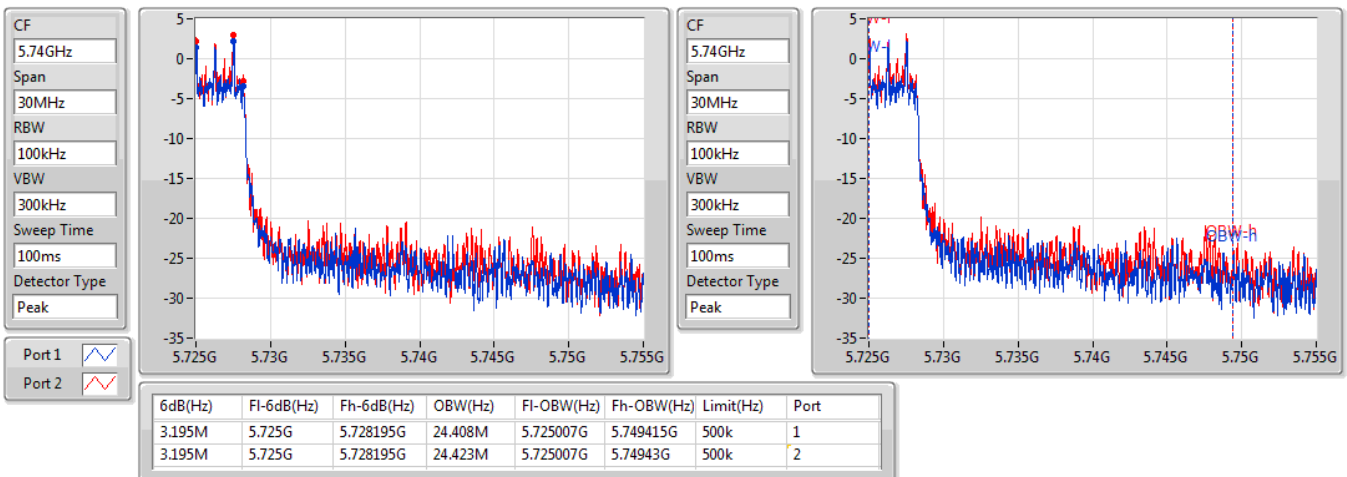


**802.11ac VHT80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

09/01/2020

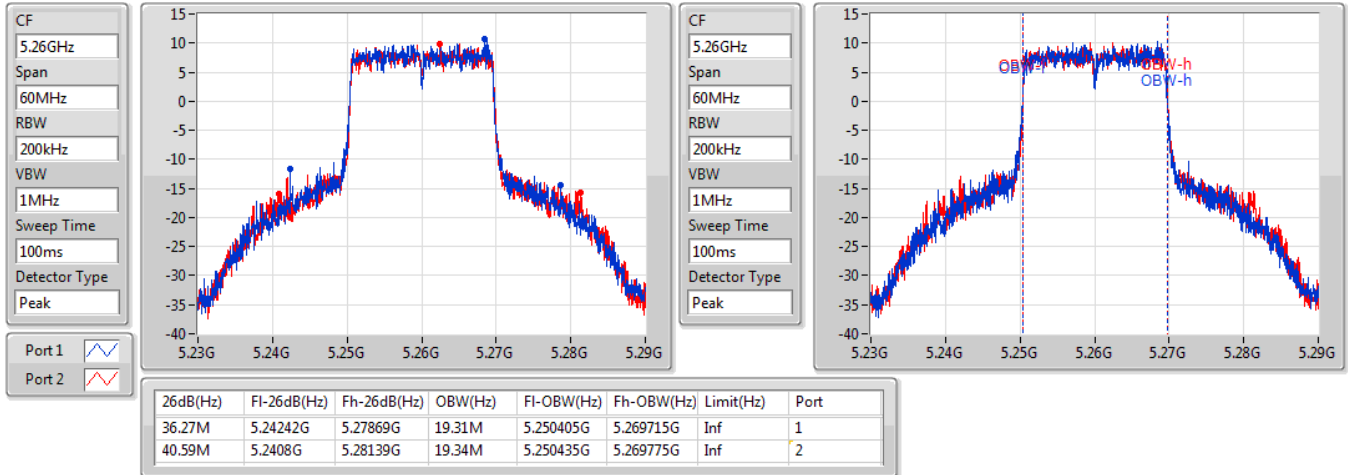

**802.11ac VHT80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

09/01/2020

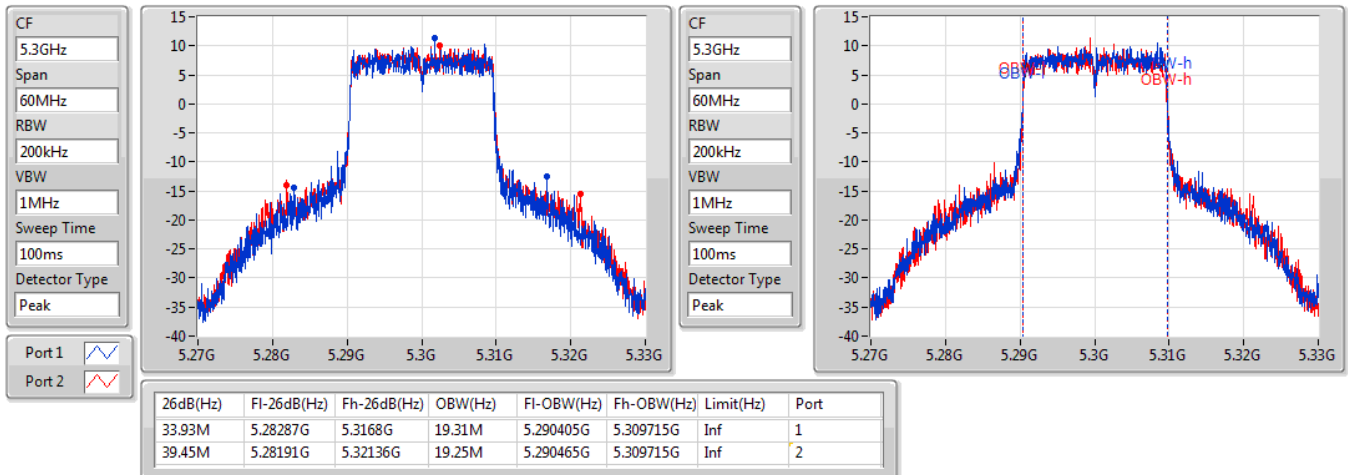


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5260MHz**

09/01/2020


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5300MHz**

09/01/2020

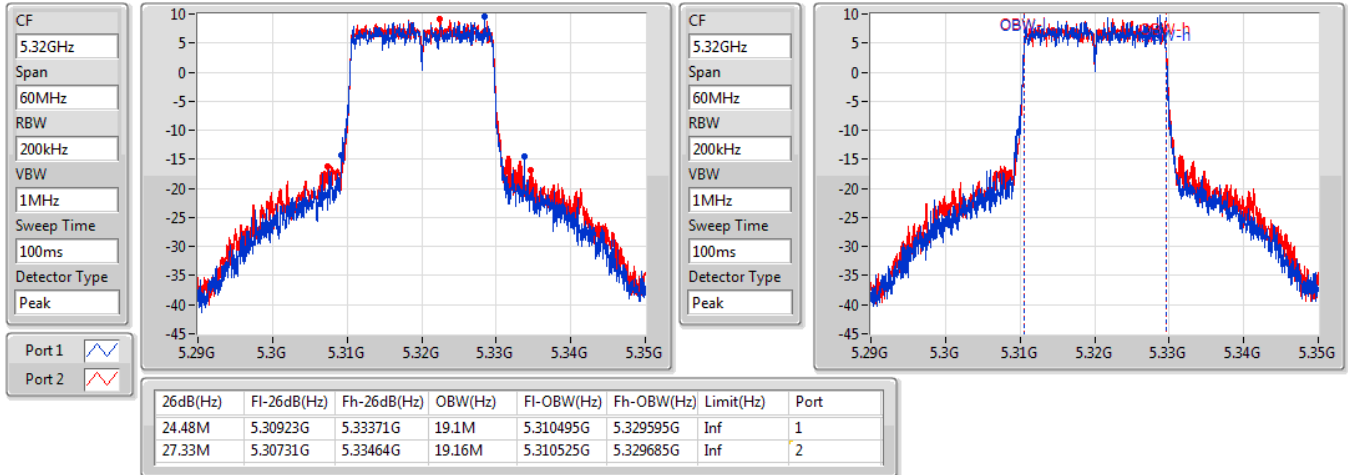


## 802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

5320MHz

09/01/2020

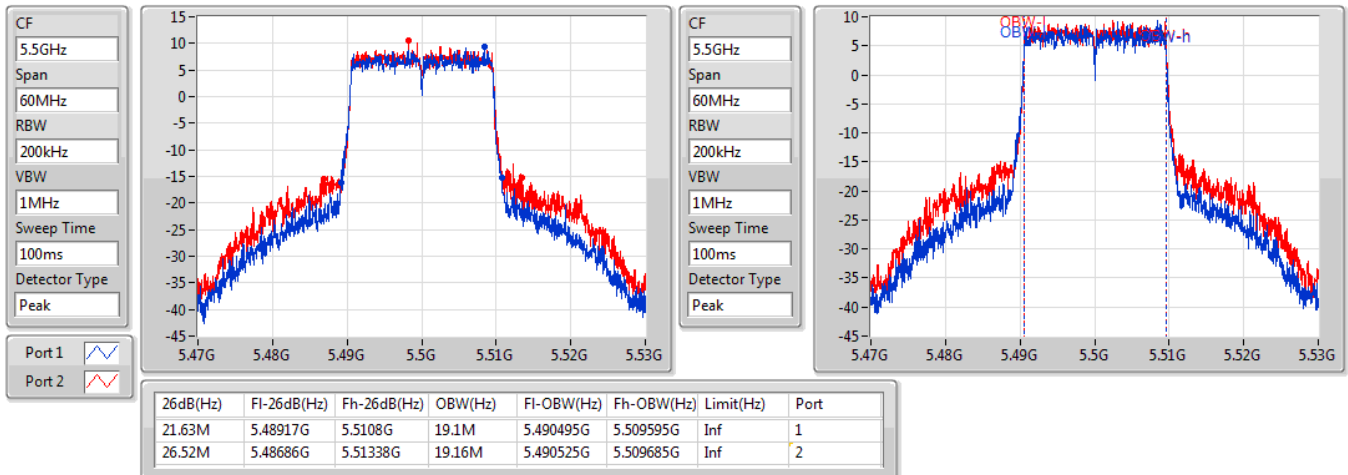


## 802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

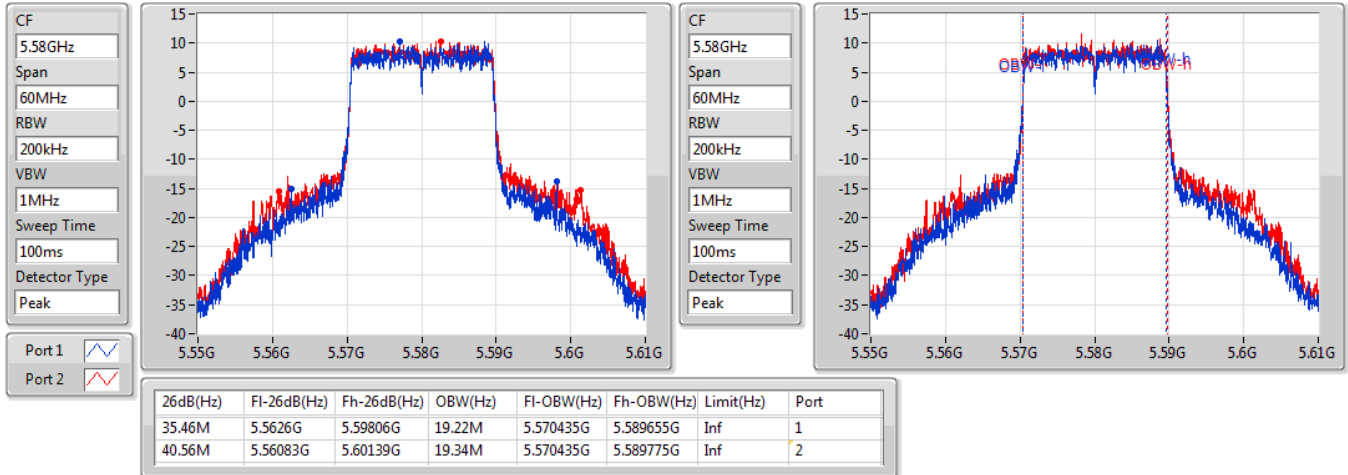
5500MHz

09/01/2020

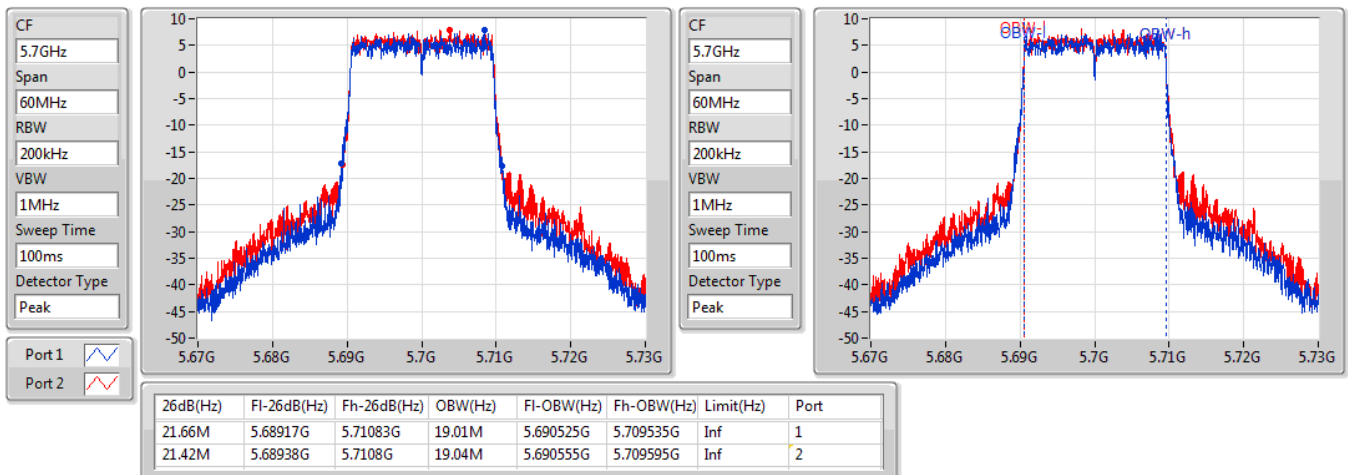


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5580MHz**

09/01/2020

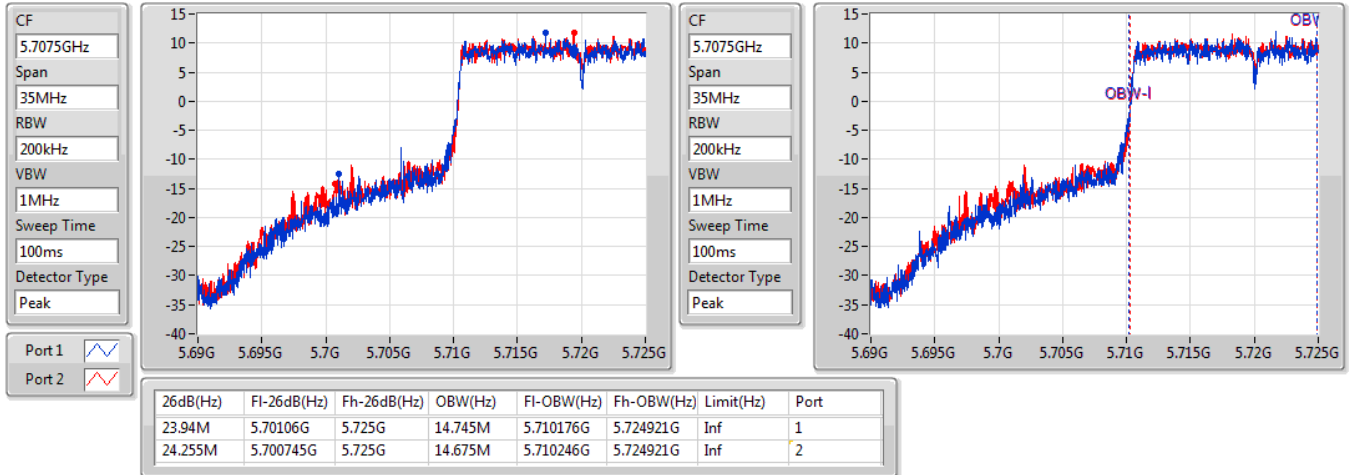

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5700MHz**

09/01/2020

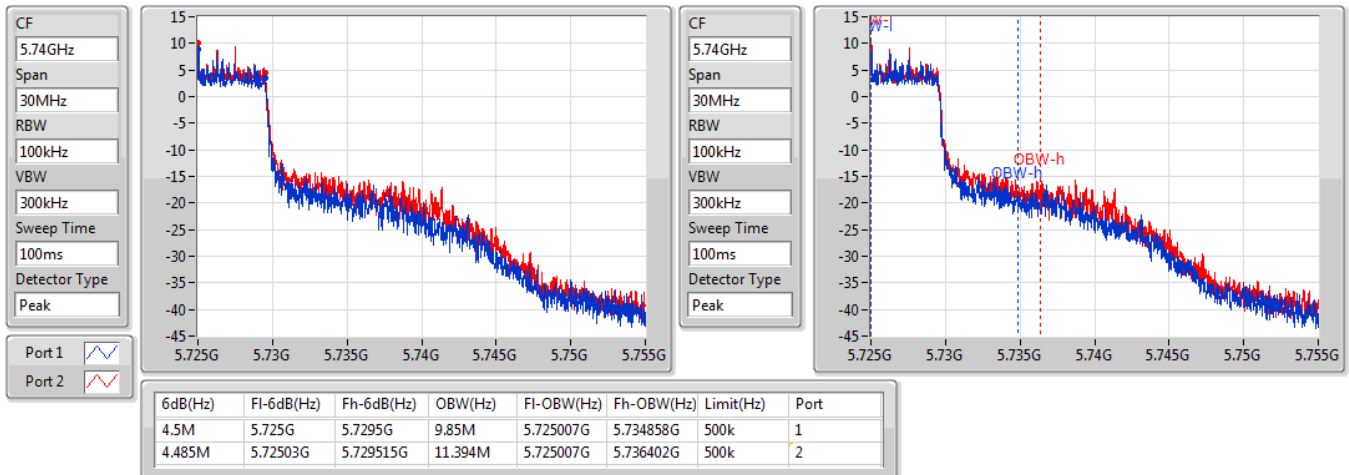


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

09/01/2020

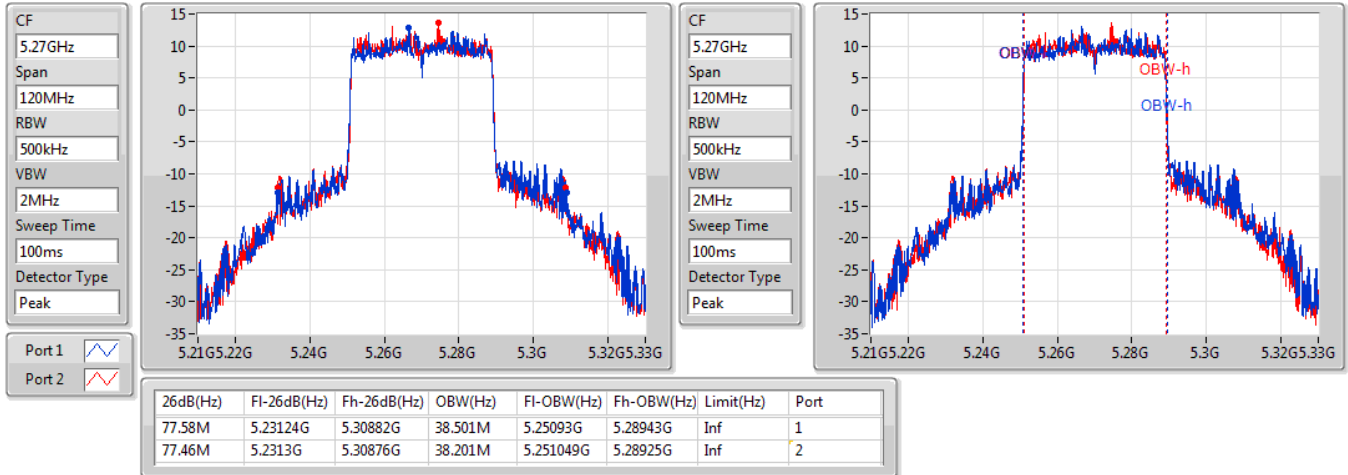

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

09/01/2020

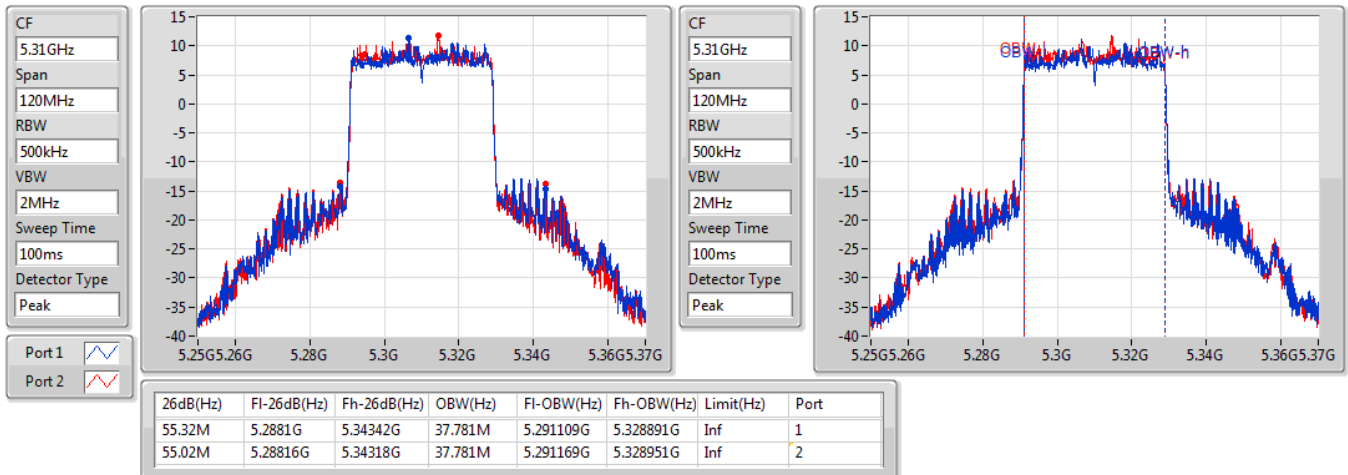


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5270MHz**

09/01/2020


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5310MHz**

09/01/2020

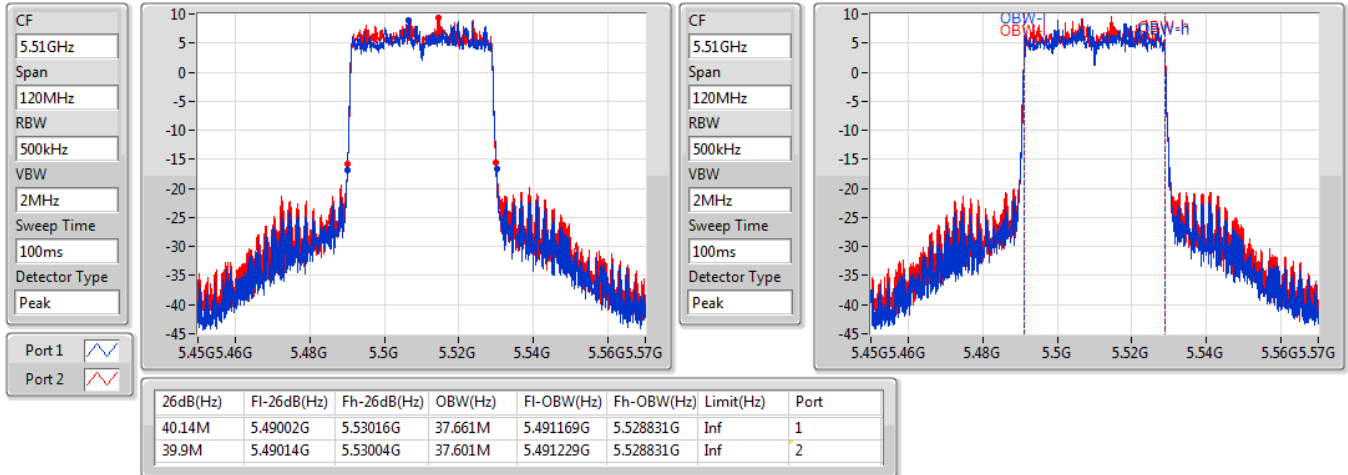


## 802.11ax HEW40\_Nss2,(MCS0)\_2TX

EBW

5510MHz

09/01/2020

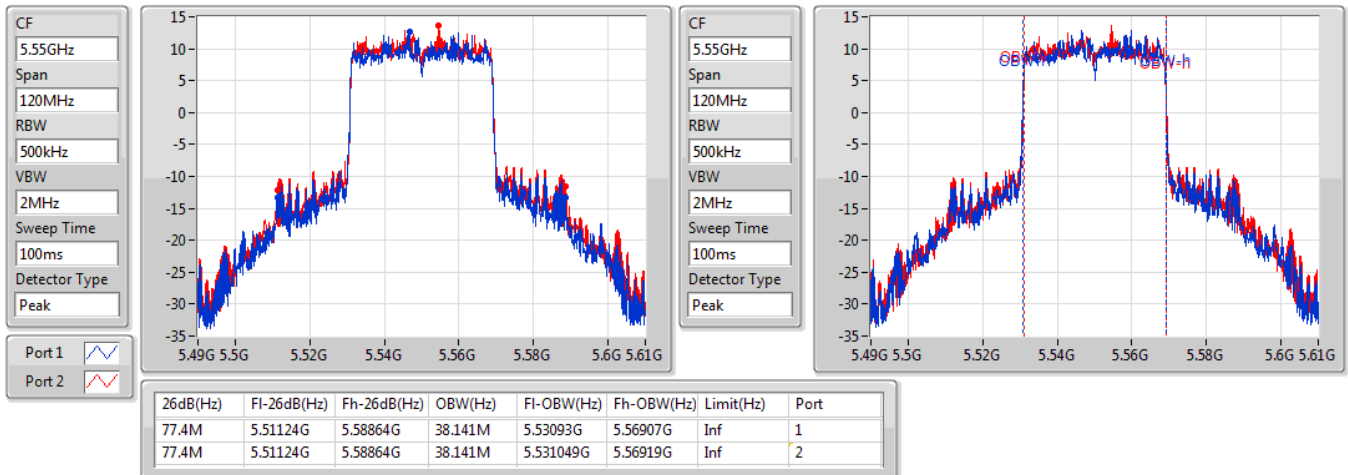


## 802.11ax HEW40\_Nss2,(MCS0)\_2TX

EBW

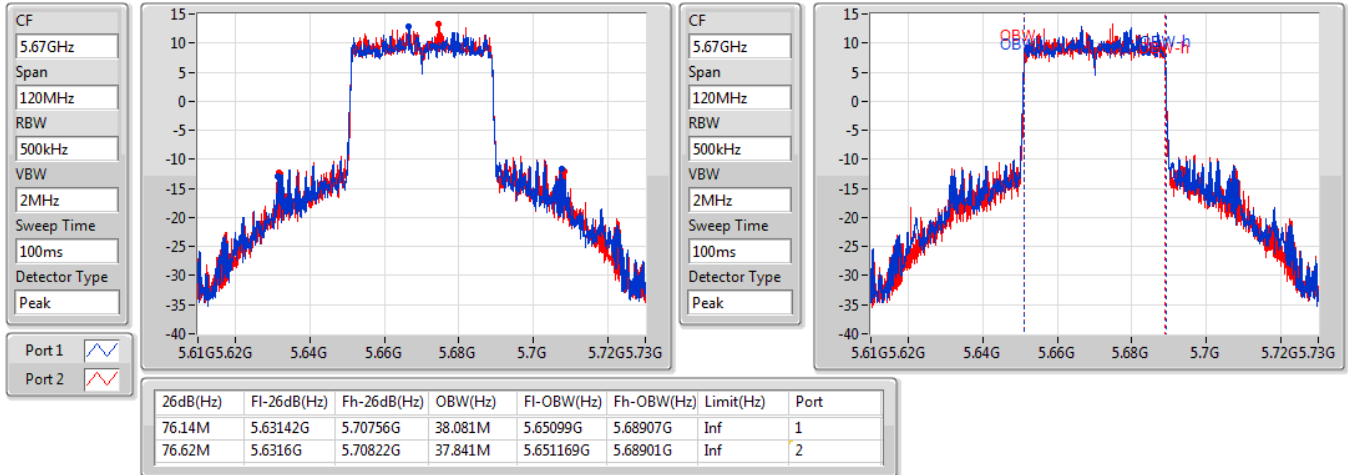
5550MHz

09/01/2020

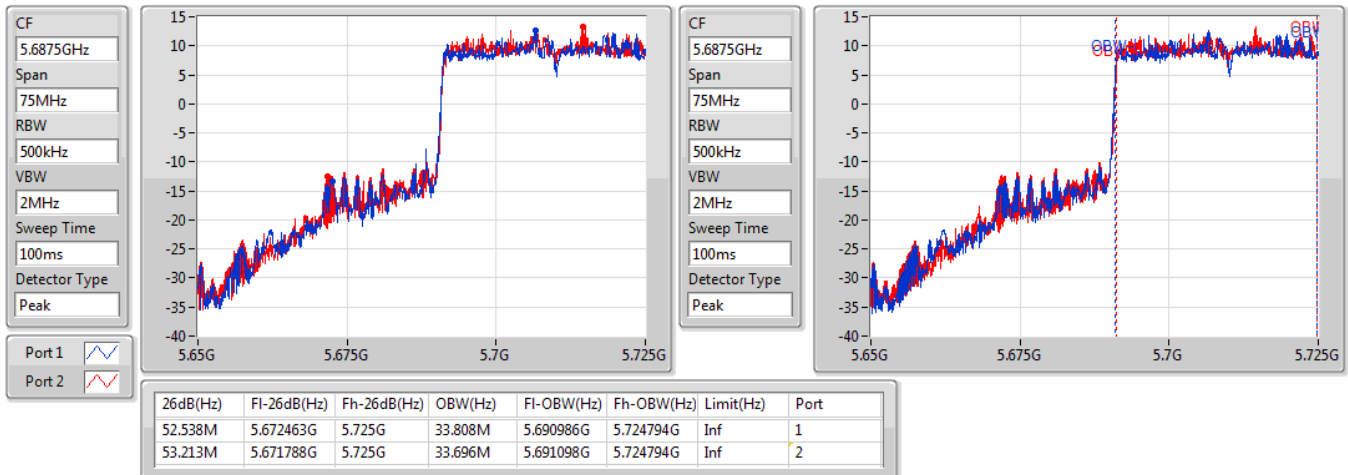


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5670MHz**

09/01/2020

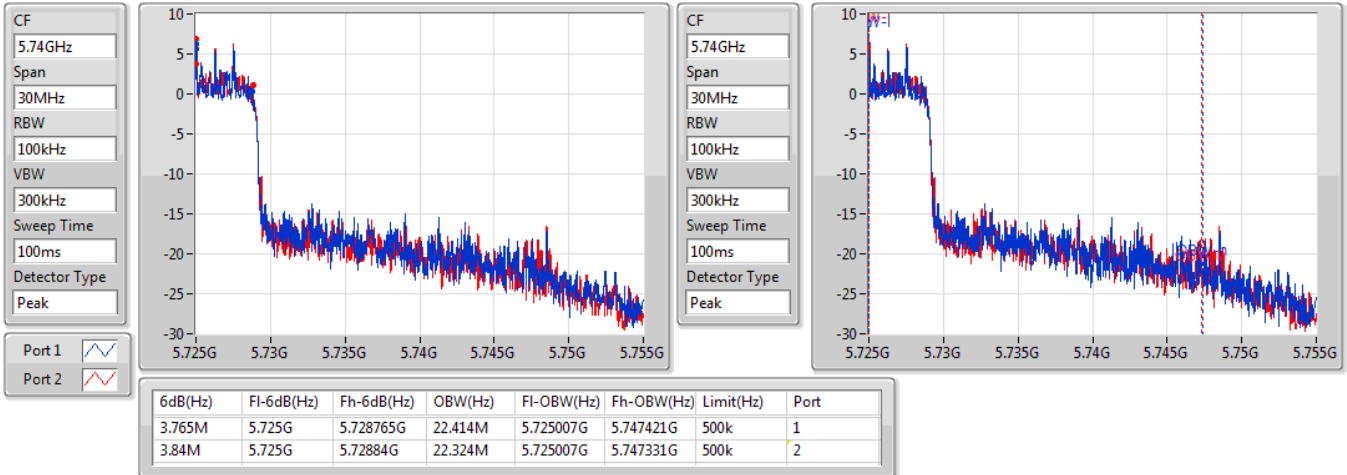

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

09/01/2020

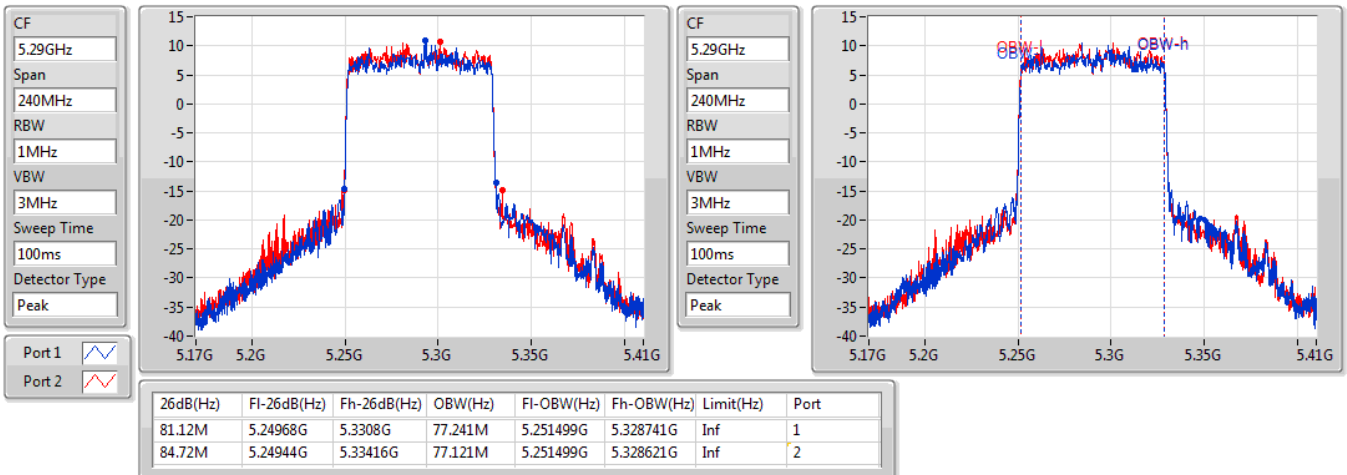


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

09/01/2020


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5290MHz**

09/01/2020

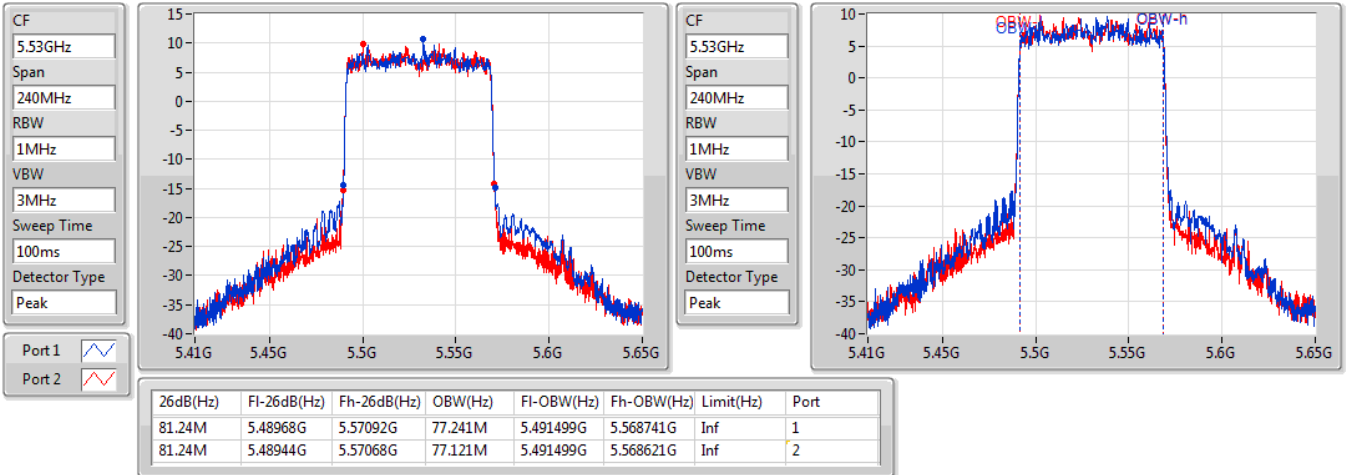


# 802.11ax HEW80\_Nss2,(MCS0)\_2TX

EBW

5530MHz

09/01/2020

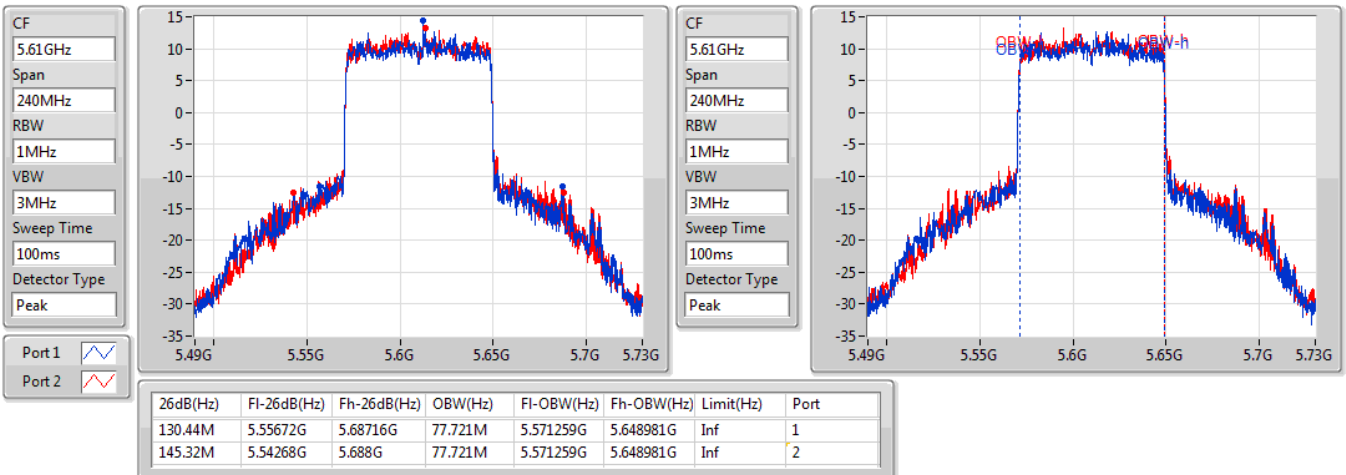


# 802.11ax HEW80\_Nss2,(MCS0)\_2TX

EBW

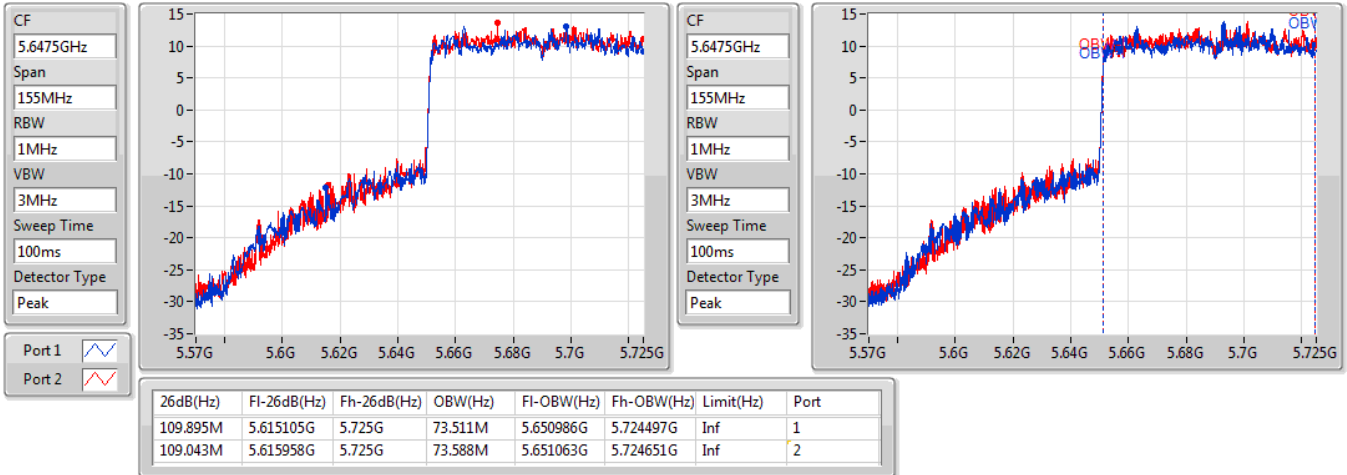
5610MHz

09/01/2020

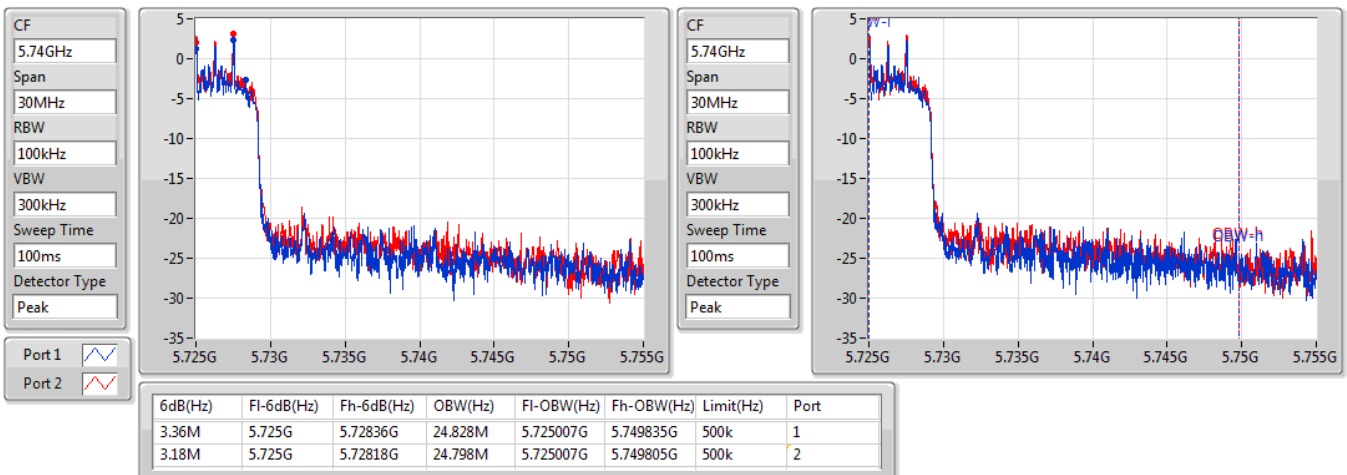


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

09/01/2020


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

09/01/2020



**Summary**

| Mode                           | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|--------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.25-5.35GHz                   | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX       | 38.37M           | 18.861M         | 18M9D1D  | 21.51M           | 16.762M         |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 39.6M            | 18.681M         | 18M7D1D  | 21.69M           | 17.871M         |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 75.12M           | 37.121M         | 37M1D1D  | 41.16M           | 36.402M         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 83.4M            | 75.802M         | 75M8D1D  | 83.4M            | 75.802M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 41.25M           | 19.7M           | 19M7D1D  | 21.87M           | 19.04M          |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 75.36M           | 37.961M         | 38M0D1D  | 41.1M            | 37.481M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 84.12M           | 77.121M         | 77M1D1D  | 84.12M           | 77.121M         |
| 5.47-5.725GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX       | 38.61M           | 18.771M         | 18M8D1D  | 21.51M           | 14.813M         |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 36.09M           | 18.651M         | 18M7D1D  | 21.72M           | 14.468M         |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 62.1M            | 36.702M         | 36M7D1D  | 41.22M           | 33.793M         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 105.225M         | 75.922M         | 75M9D1D  | 83.28M           | 72.864M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 40.59M           | 19.67M          | 19M7D1D  | 21.63M           | 14.903M         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 56.875M          | 37.721M         | 37M7D1D  | 40.8M            | 34.108M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 111.3M           | 77.121M         | 77M1D1D  | 83.88M           | 73.388M         |
| 5.725-5.85GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX       | 3.16M            | 9.315M          | 9M32D1D  | 3.16M            | 9.315M          |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | 3.78M            | 7.616M          | 7M62D1D  | 3.78M            | 7.616M          |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | 3.16M            | 21.169M         | 21M2D1D  | 3.16M            | 21.169M         |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | 3.16M            | 28.826M         | 28M8D1D  | 3.16M            | 28.826M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | 4.46M            | 10.035M         | 10M0D1D  | 4.46M            | 10.035M         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | 3.78M            | 24.148M         | 24M1D1D  | 3.78M            | 24.148M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | 3.54M            | 31.484M         | 31M5D1D  | 3.54M            | 31.484M         |

**Max-N dB** = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Max-OBW** = Maximum 99% occupied bandwidth;

**Min-N dB** = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

**Min-OBW** = Minimum 99% occupied bandwidth;

**Result**

| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|
| 802.11a_Nss1,(6Mbps)_1TX       | -      | -             | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 38.37M              | 18.741M            |
| 5300MHz                        | Pass   | Inf           | 38.37M              | 18.861M            |
| 5320MHz                        | Pass   | Inf           | 21.51M              | 16.762M            |
| 5500MHz                        | Pass   | Inf           | 21.51M              | 16.732M            |
| 5580MHz                        | Pass   | Inf           | 38.61M              | 18.771M            |
| 5700MHz                        | Pass   | Inf           | 21.51M              | 16.762M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 23.94M              | 14.813M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.16M               | 9.315M             |
| 802.11ac VHT20_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 39.6M               | 18.681M            |
| 5300MHz                        | Pass   | Inf           | 37.38M              | 18.591M            |
| 5320MHz                        | Pass   | Inf           | 21.69M              | 17.871M            |
| 5500MHz                        | Pass   | Inf           | 21.72M              | 17.841M            |
| 5580MHz                        | Pass   | Inf           | 36.09M              | 18.651M            |
| 5700MHz                        | Pass   | Inf           | 21.75M              | 17.841M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 23.01M              | 14.468M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.78M               | 7.616M             |
| 802.11ac VHT40_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 75.12M              | 37.121M            |
| 5310MHz                        | Pass   | Inf           | 41.16M              | 36.402M            |
| 5510MHz                        | Pass   | Inf           | 41.22M              | 36.402M            |
| 5550MHz                        | Pass   | Inf           | 62.1M               | 36.702M            |
| 5670MHz                        | Pass   | Inf           | 41.34M              | 36.402M            |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 58.555M             | 33.793M            |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.16M               | 21.169M            |
| 802.11ac VHT80_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 83.4M               | 75.802M            |
| 5530MHz                        | Pass   | Inf           | 83.28M              | 75.802M            |
| 5610MHz                        | Pass   | Inf           | 83.28M              | 75.922M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 105.225M            | 72.864M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.16M               | 28.826M            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5260MHz                        | Pass   | Inf           | 41.25M              | 19.7M              |
| 5300MHz                        | Pass   | Inf           | 39.18M              | 19.49M             |
| 5320MHz                        | Pass   | Inf           | 21.87M              | 19.04M             |
| 5500MHz                        | Pass   | Inf           | 21.63M              | 19.04M             |
| 5580MHz                        | Pass   | Inf           | 40.59M              | 19.67M             |
| 5700MHz                        | Pass   | Inf           | 21.75M              | 19.01M             |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 25.47M              | 14.903M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 4.46M               | 10.035M            |
| 802.11ax HEW40_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5270MHz                        | Pass   | Inf           | 75.36M              | 37.961M            |
| 5310MHz                        | Pass   | Inf           | 41.1M               | 37.481M            |



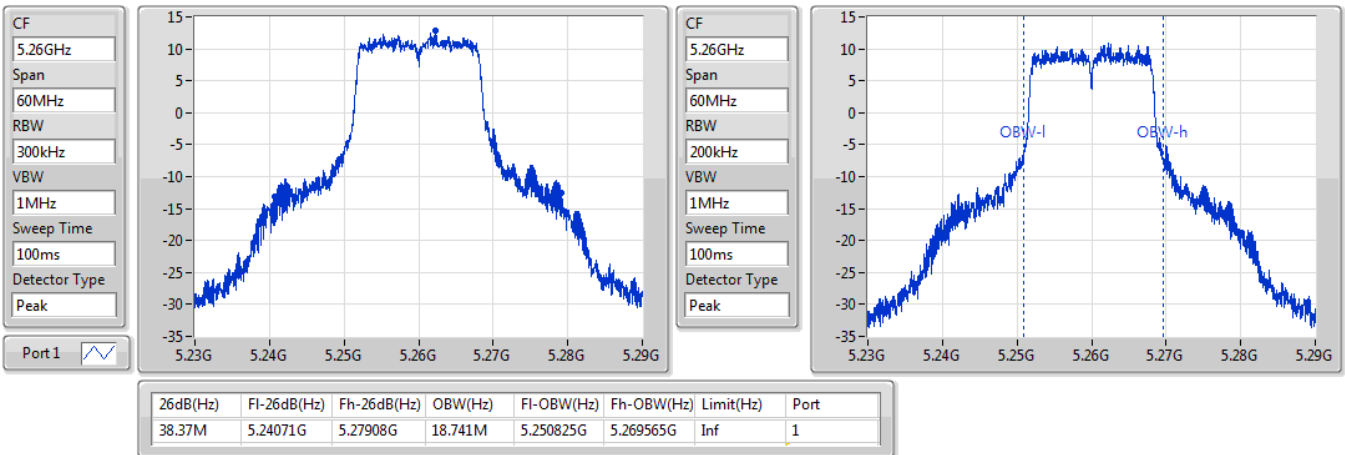
| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|
| 5510MHz                        | Pass   | Inf           | 40.98M              | 37.601M            |
| 5550MHz                        | Pass   | Inf           | 50.94M              | 37.721M            |
| 5670MHz                        | Pass   | Inf           | 40.8M               | 37.541M            |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 56.875M             | 34.108M            |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.78M               | 24.148M            |
| 802.11ax HEW80_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5290MHz                        | Pass   | Inf           | 84.12M              | 77.121M            |
| 5530MHz                        | Pass   | Inf           | 83.88M              | 77.121M            |
| 5610MHz                        | Pass   | Inf           | 84.12M              | 77.121M            |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 111.3M              | 73.388M            |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.54M               | 31.484M            |

**Port X-N dB** = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

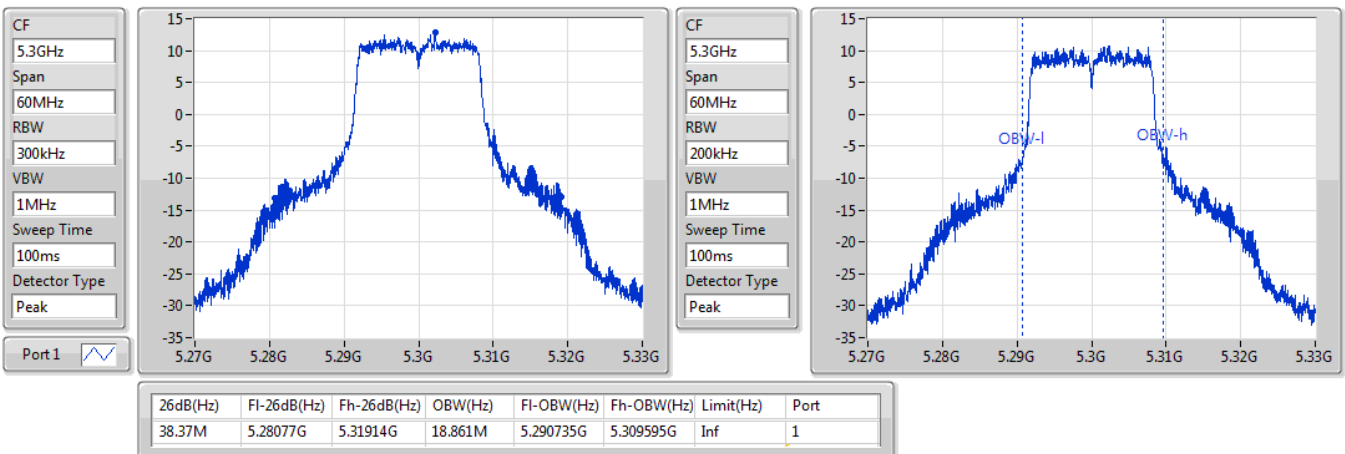
**Port X-OBW** = Port X 99% occupied bandwidth;

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5260MHz**

06/01/2020


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5300MHz**

06/01/2020

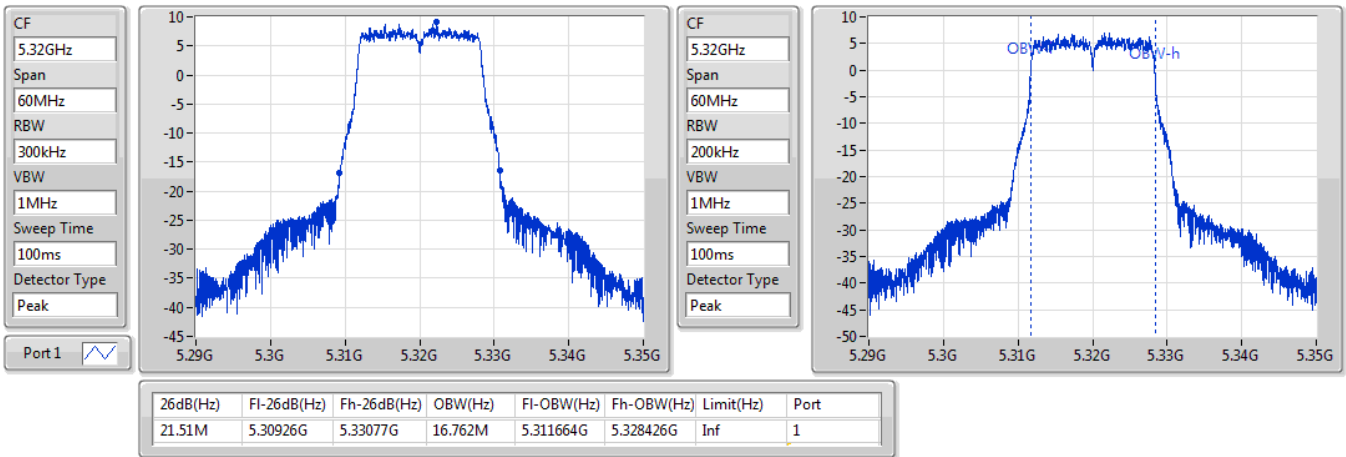


## 802.11a\_Nss1,(6Mbps)\_1TX

EBW

5320MHz

06/01/2020

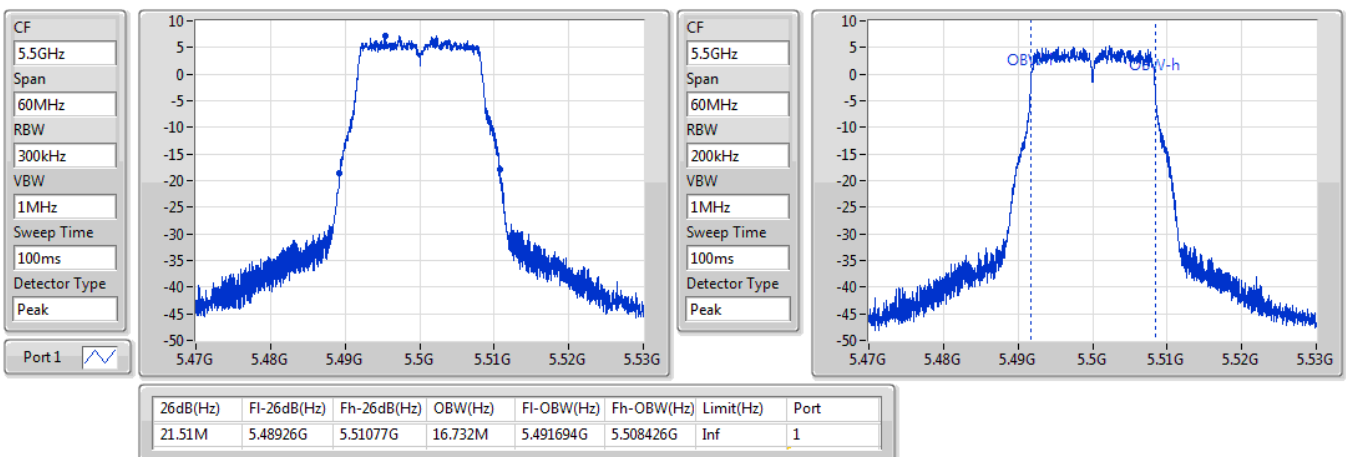


## 802.11a\_Nss1,(6Mbps)\_1TX

EBW

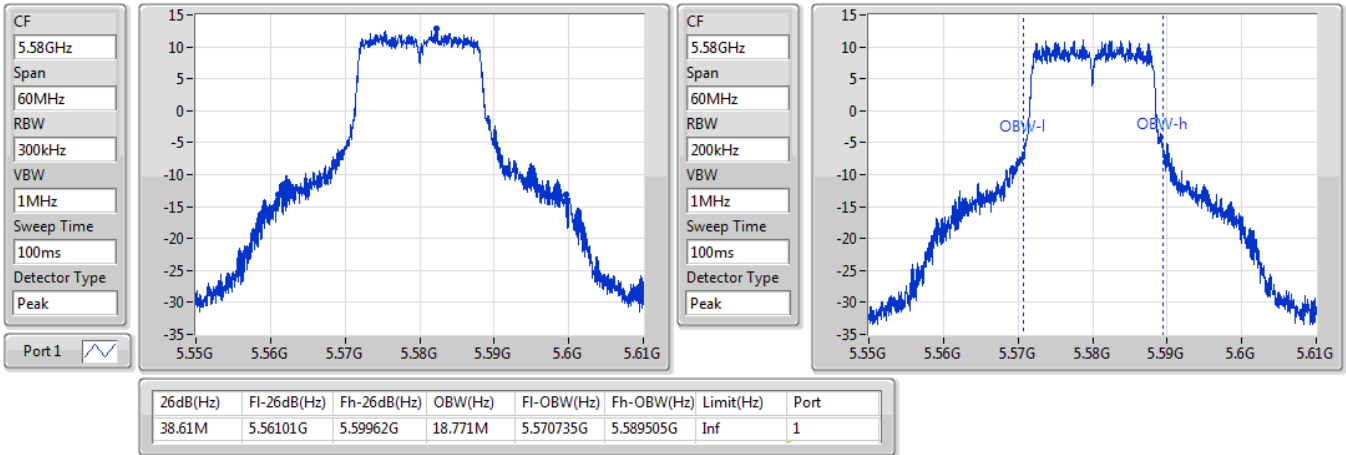
5500MHz

06/01/2020

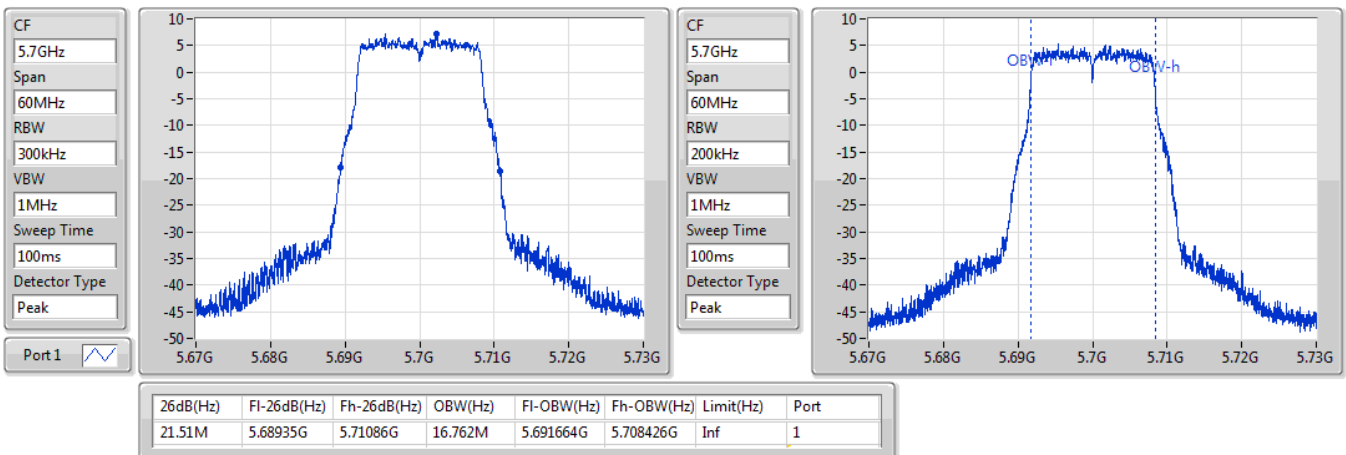


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5580MHz**

06/01/2020


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5700MHz**

06/01/2020

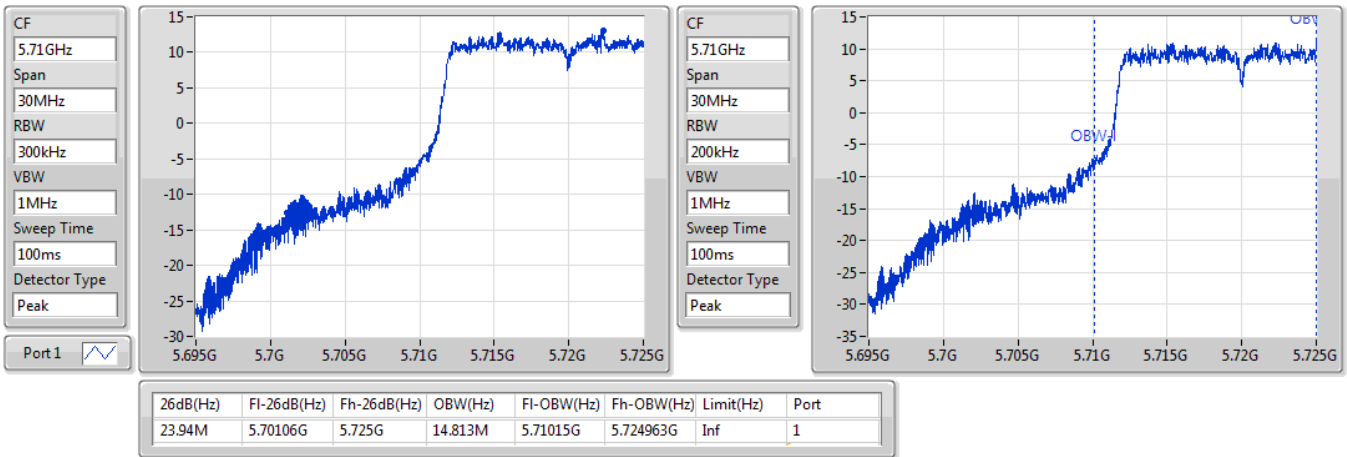


## 802.11a\_Nss1,(6Mbps)\_1TX

EBW

### 5720MHz Straddle 5.67-5.725GHz

06/01/2020

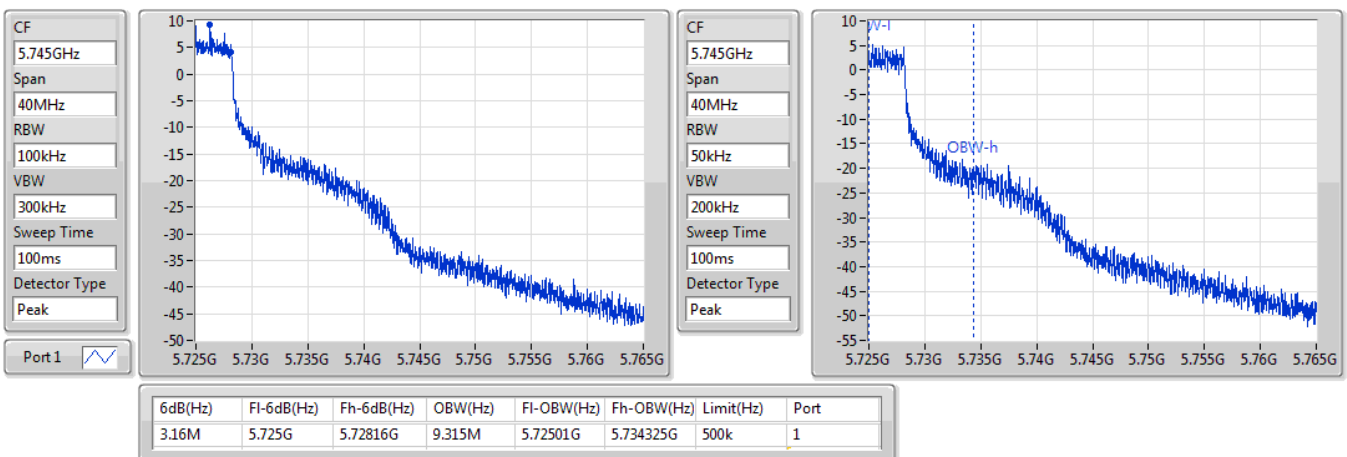


## 802.11a\_Nss1,(6Mbps)\_1TX

EBW

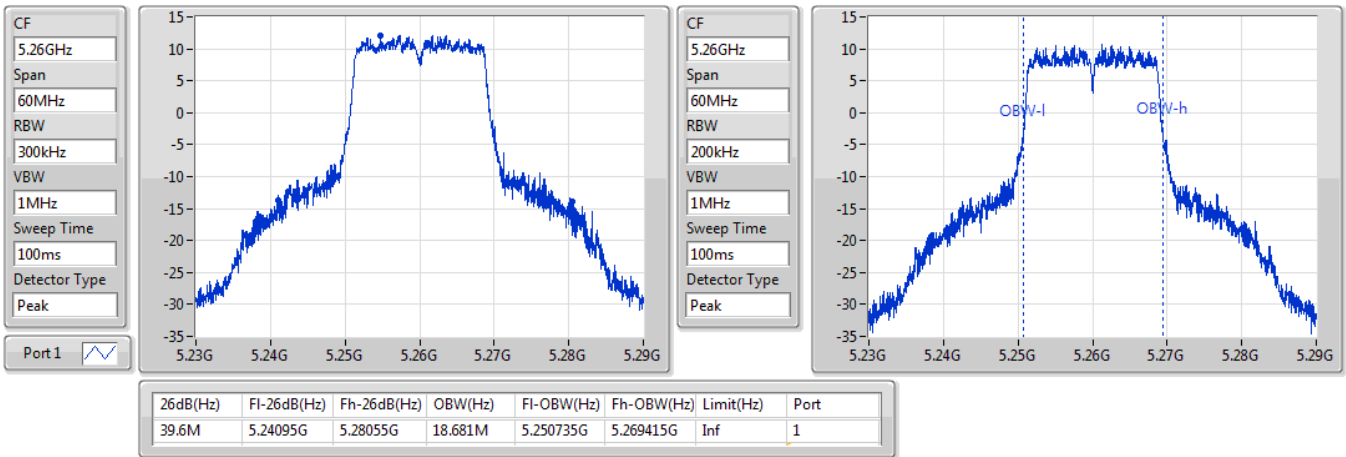
### 5720MHz Straddle 5.725-5.85GHz

06/01/2020

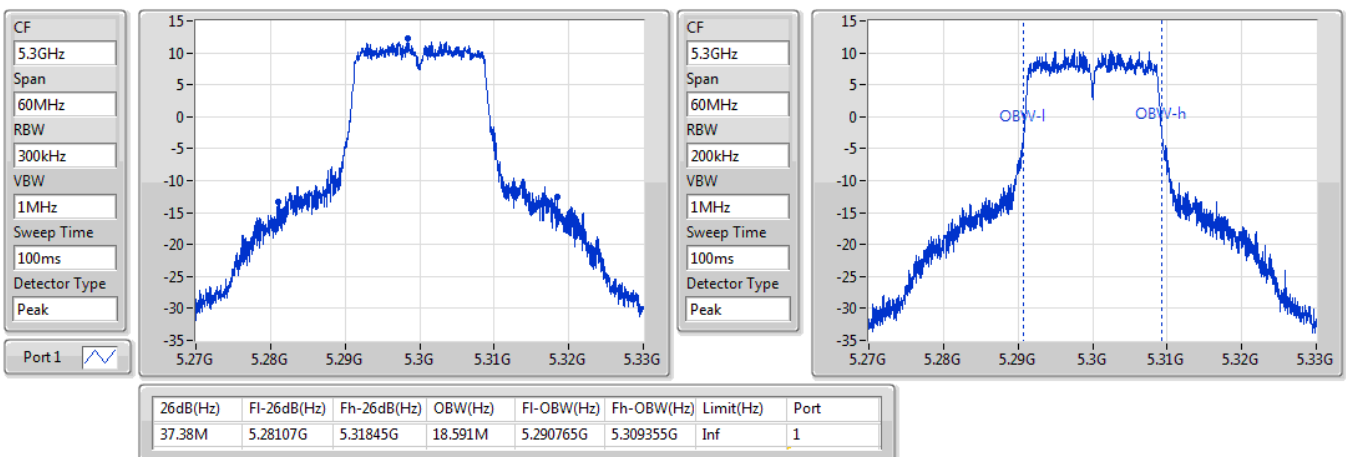


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5260MHz**

06/01/2020

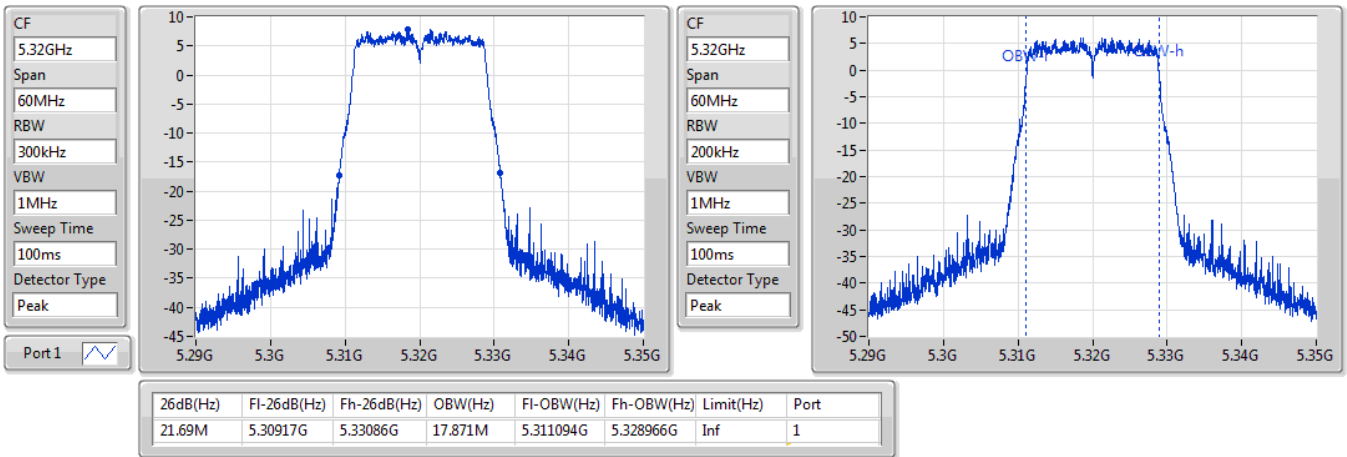

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5300MHz**

06/01/2020

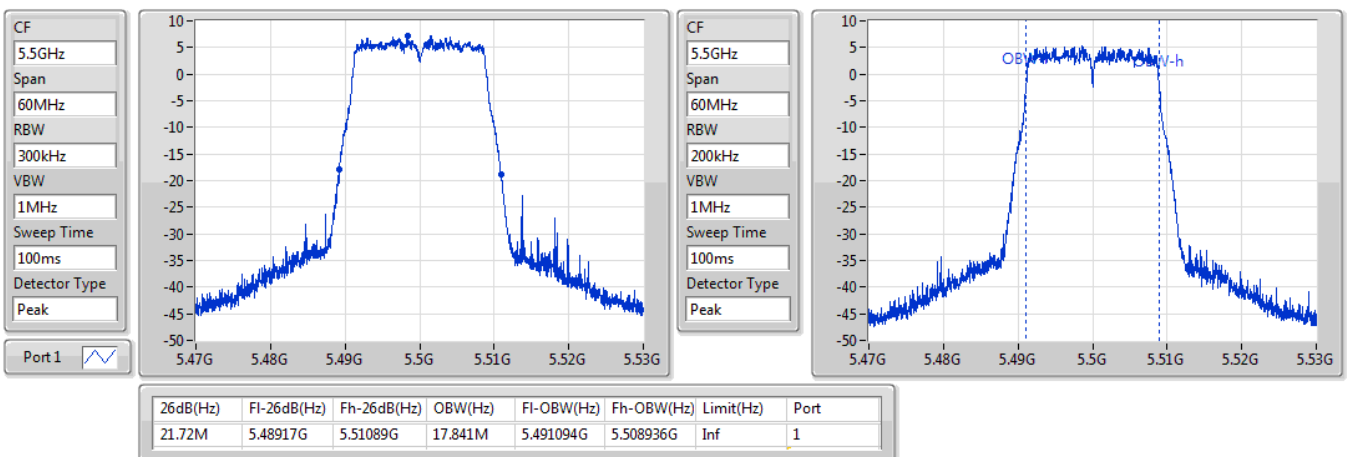


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5320MHz**

06/01/2020

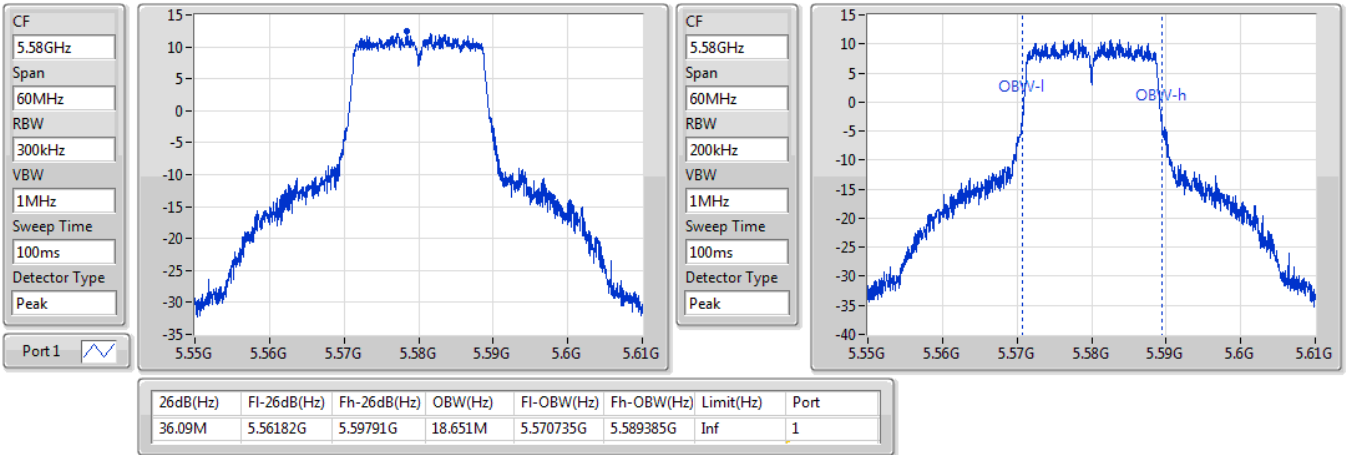

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5500MHz**

06/01/2020

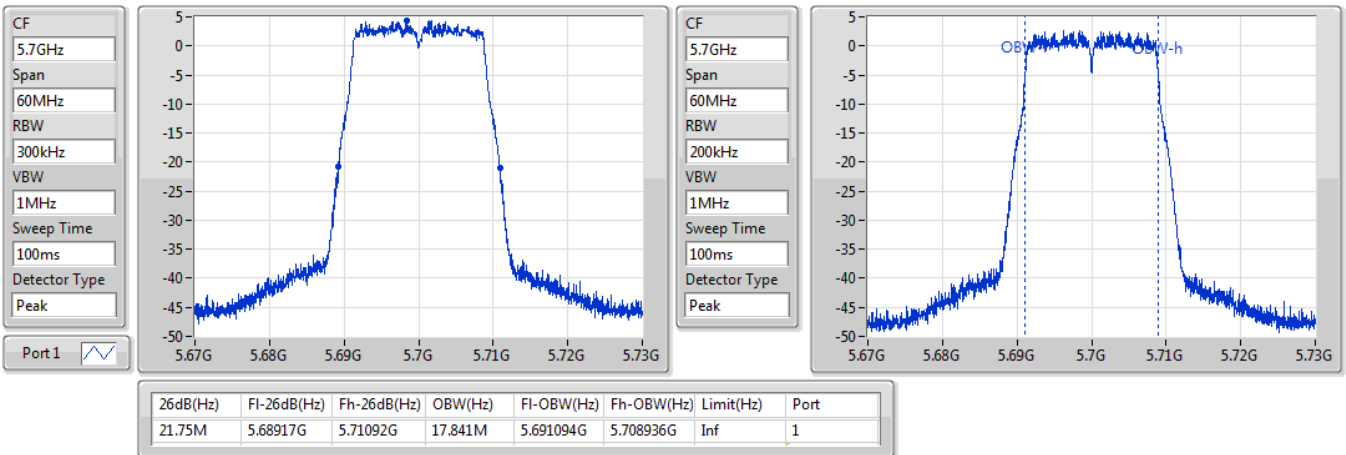


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5580MHz**

06/01/2020

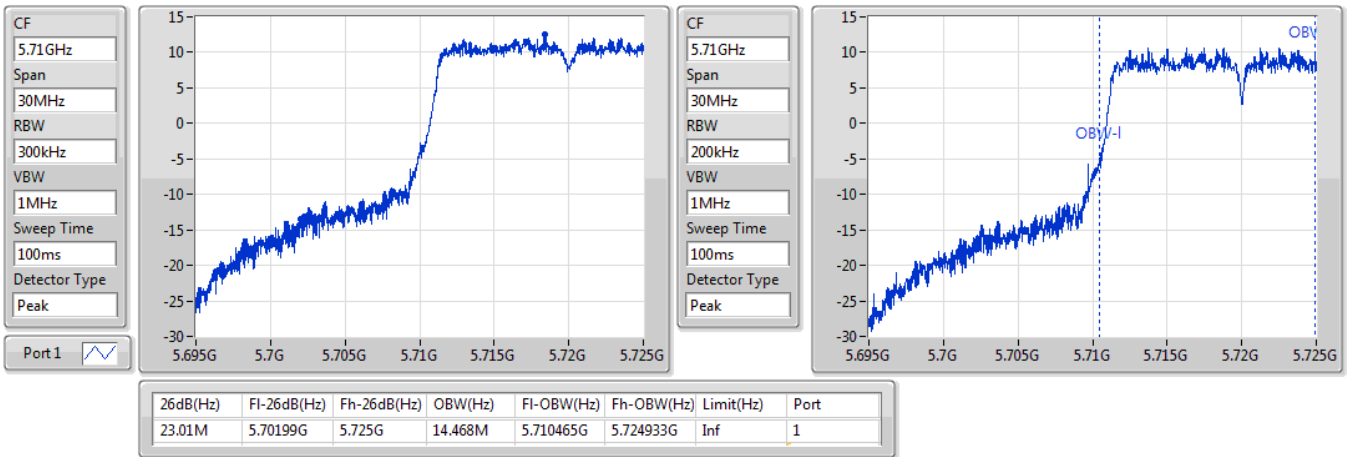

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5700MHz**

06/01/2020

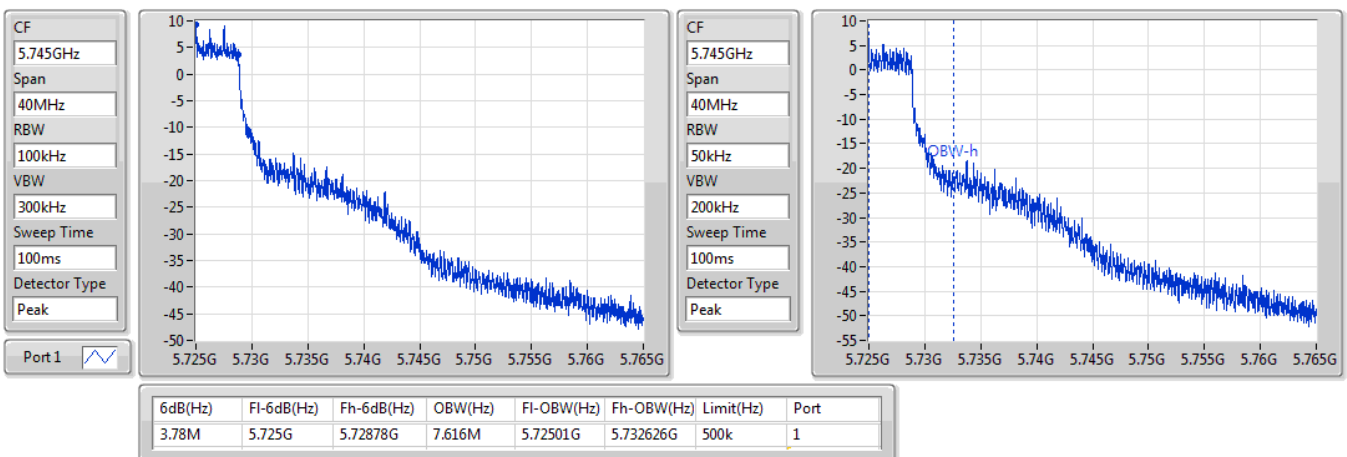


**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.67-5.725GHz**

06/01/2020

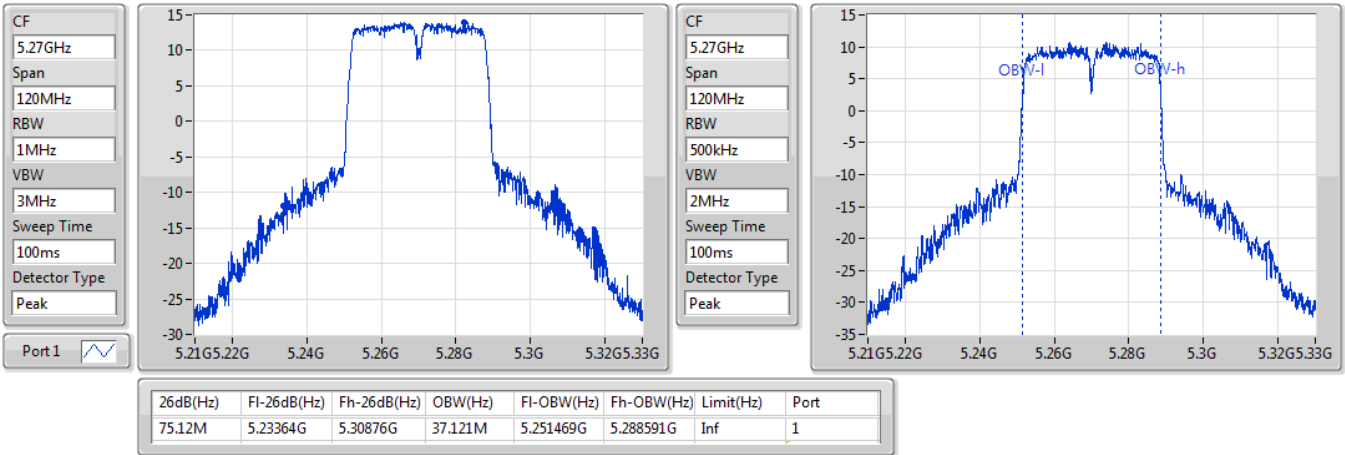

**802.11ac VHT20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

06/01/2020

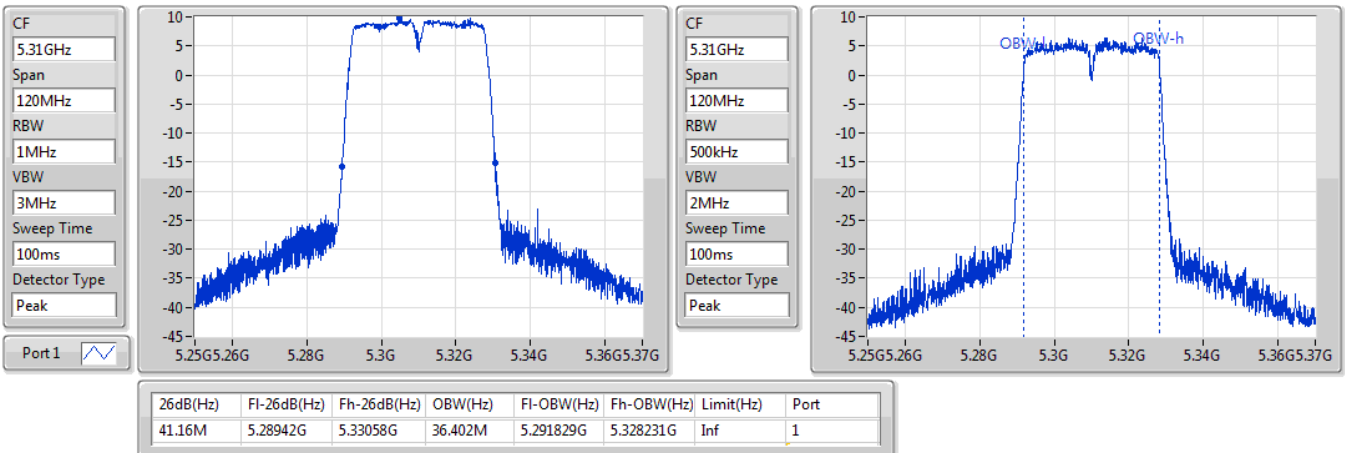


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5270MHz**

06/01/2020

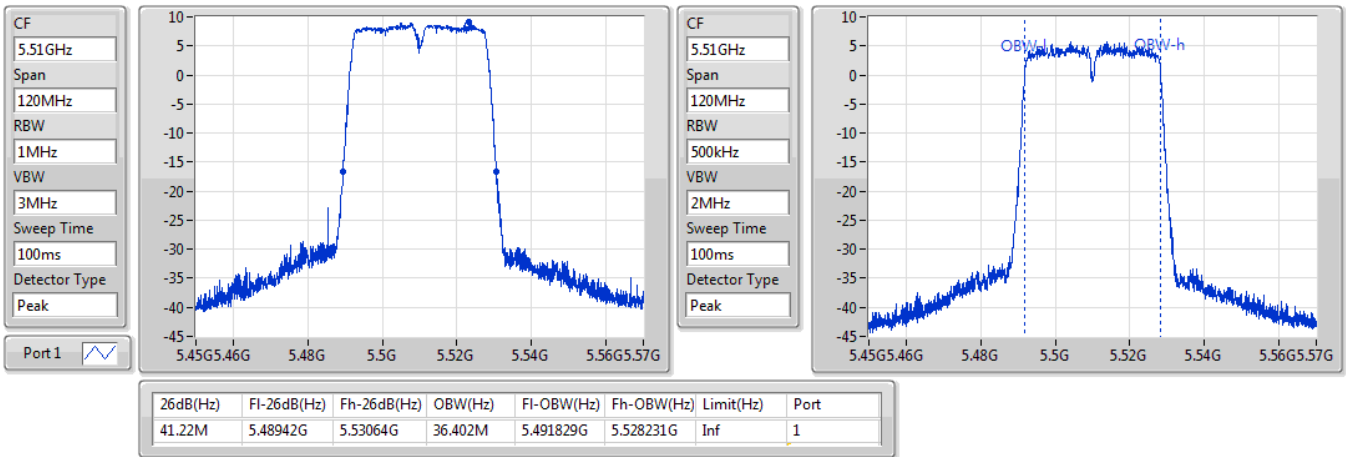

**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5310MHz**

06/01/2020

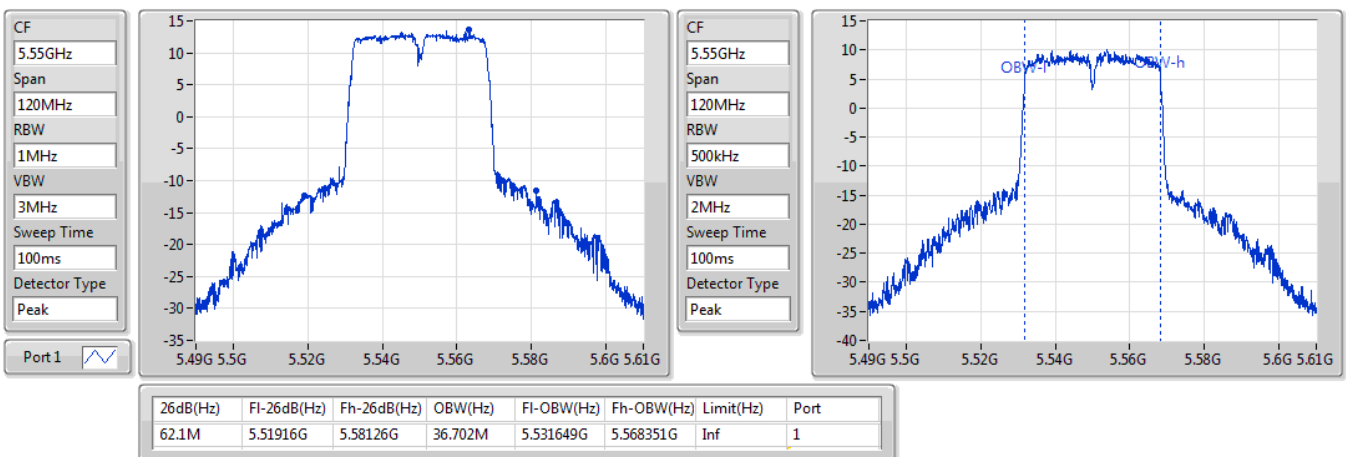


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5510MHz**

06/01/2020

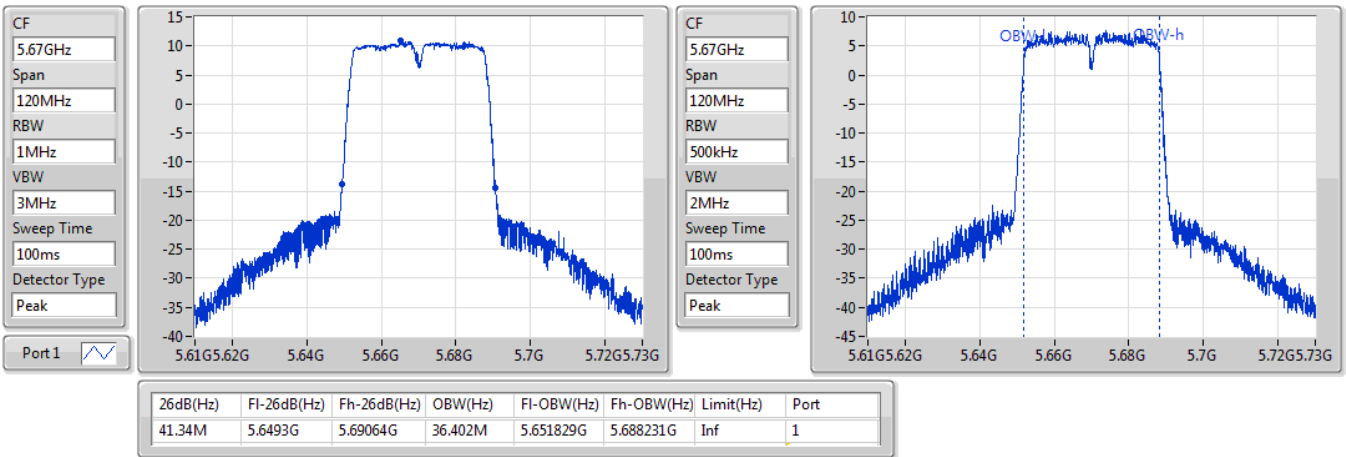

**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5550MHz**

06/01/2020

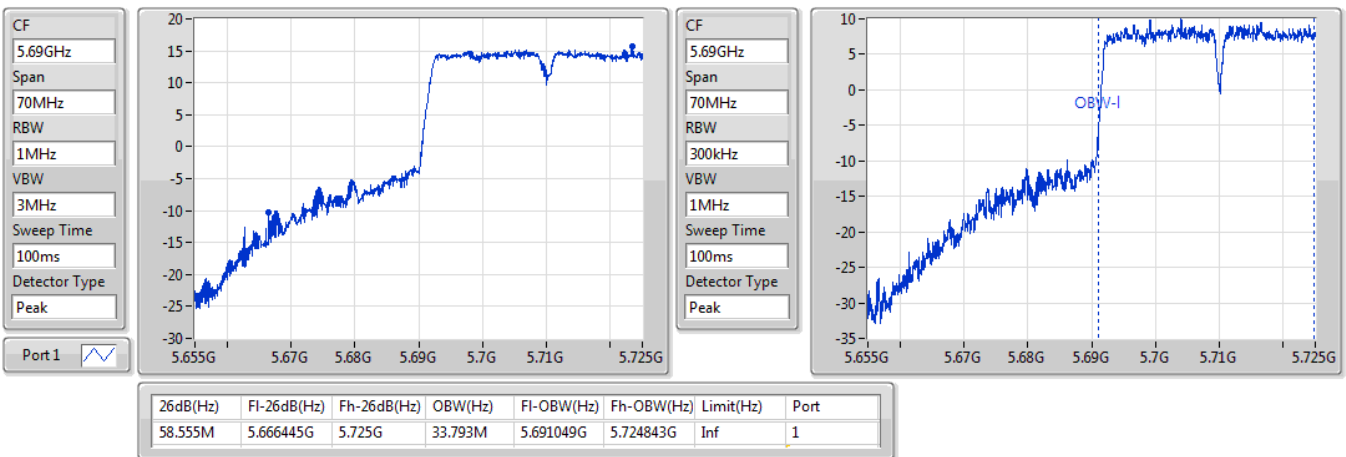


**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5670MHz**

06/01/2020

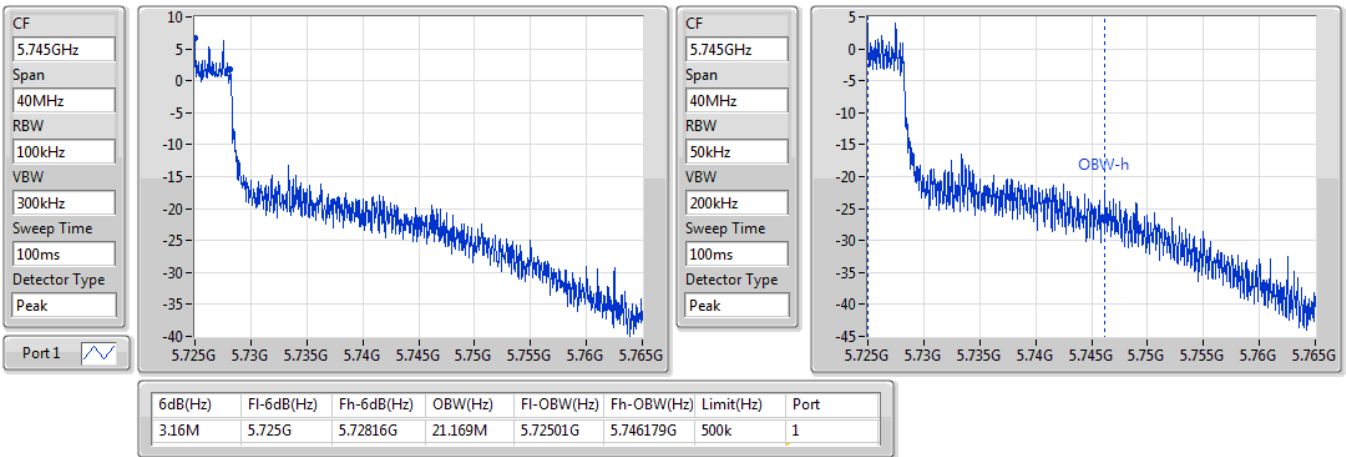

**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

06/01/2020



**802.11ac VHT40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

06/01/2020


**802.11ac VHT80\_Nss1,(MCS0)\_1TX**
**EBW**
**5290MHz**

06/01/2020

