

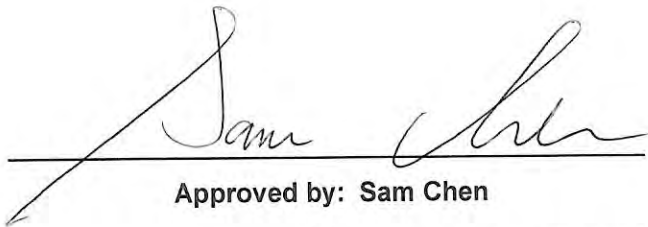


# RADIO TEST REPORT

**FCC ID** : QXO-AP5050  
**Equipment** : Access Point  
**Brand Name** : Extreme Networks  
**Model Name** : AP5050U  
**Applicant** : Extreme Networks, Inc.  
2121 RDU Center Drive Morrisville North Carolina  
United States 27560  
**Manufacturer** : Extreme Networks, Inc.  
2121 RDU Center Drive Morrisville North Carolina  
United States 27560  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Jun. 06, 2022, and testing was started from Jun. 06, 2022 and completed on Sep. 06, 2022. We, Sporton International Inc. Hsinchu 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 test results in this variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

**Sporton International Inc. Hsinchu Laboratory**

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## History of this test report

TEL : 886-3-656-9065  
FAX : 886-3-656-9085  
Report Template No.: CB-A12\_1 Ver1.4

Page Number : 3 of 37  
Issued Date : Dec. 12, 2022  
Report Version : 01



## Summary of Test Result

| Report Clause | Ref Std. Clause | Test Items             | Result (PASS/FAIL) | Remark |
|---------------|-----------------|------------------------|--------------------|--------|
| 1.1.2         | 15.203          | Antenna Requirement    | PASS               | -      |
| 3.1           | 15.407(a)       | Emission Bandwidth     | PASS               | -      |
| 3.2           | 15.407(a)       | Maximum Output Power   | PASS               | -      |
| 3.3           | 15.407(a)       | Power Spectral Density | PASS               | -      |
| 3.4           | 15.407(b)       | Unwanted Emissions     | PASS               | -      |

**Declaration of Conformity:**

1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Measurement Uncertainty".

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by:** Sam Chen

**Report Producer:** Viola Huang



# 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 (HEW20) | 5260-5320           | 52-64 [4]      |
| 5470-5725             |                                        | 5500-5720           | 100-144 [12]   |
| 5250-5350             | n (HT40), ac (VHT40),<br>ax (HEW40)    | 5270-5310           | 54-62 [2]      |
| 5470-5725             |                                        | 5510-5710           | 102-142 [6]    |
| 5250-5350             | ac (VHT80), ax (HEW80)                 | 5290                | 58 [1]         |
| 5470-5725             |                                        | 5530-5690           | 106-138 [3]    |
| 5150-5350             | ac (VHT160),<br>ax (HEW160)            | 5250                | 50 [1]         |
| 5470-5725             |                                        | 5570                | 114 [1]        |

#### For Radio 2

| Band          | Mode               | BWch (MHz) | Nant    |
|---------------|--------------------|------------|---------|
| 5.25-5.35GHz  | 802.11a            | 20         | 1, 2, 4 |
| 5.25-5.35GHz  | 802.11n HT20       | 20         | 1, 2, 4 |
| 5.25-5.35GHz  | 802.11n HT20-BF    | 20         | 2, 4    |
| 5.25-5.35GHz  | 802.11ac VHT20     | 20         | 1, 2, 4 |
| 5.25-5.35GHz  | 802.11ac VHT20-BF  | 20         | 2, 4    |
| 5.25-5.35GHz  | 802.11ax HEW20     | 20         | 1, 2, 4 |
| 5.25-5.35GHz  | 802.11ax HEW20-BF  | 20         | 2, 4    |
| 5.25-5.35GHz  | 802.11n HT40       | 40         | 1, 2, 4 |
| 5.25-5.35GHz  | 802.11n HT40-BF    | 40         | 2, 4    |
| 5.25-5.35GHz  | 802.11ac VHT40     | 40         | 1, 2, 4 |
| 5.25-5.35GHz  | 802.11ac VHT40-BF  | 40         | 2, 4    |
| 5.25-5.35GHz  | 802.11ax HEW40     | 40         | 1, 2, 4 |
| 5.25-5.35GHz  | 802.11ax HEW40-BF  | 40         | 2, 4    |
| 5.25-5.35GHz  | 802.11ac VHT80     | 80         | 1, 2, 4 |
| 5.25-5.35GHz  | 802.11ac VHT80-BF  | 80         | 2, 4    |
| 5.25-5.35GHz  | 802.11ax HEW80     | 80         | 1, 2, 4 |
| 5.25-5.35GHz  | 802.11ax HEW80-BF  | 80         | 2, 4    |
| 5.15-5.35GHz  | 802.11ac VHT160    | 160        | 1, 2, 4 |
| 5.15-5.35GHz  | 802.11ac VHT160-BF | 160        | 2, 4    |
| 5.15-5.35GHz  | 802.11ax HEW160    | 160        | 1, 2, 4 |
| 5.15-5.35GHz  | 802.11ax HEW160-BF | 160        | 2, 4    |
| 5.47-5.725GHz | 802.11a            | 20         | 1, 2, 4 |



| Band          | Mode               | BWch (MHz) | Nant    |
|---------------|--------------------|------------|---------|
| 5.47-5.725GHz | 802.11n HT20       | 20         | 1, 2, 4 |
| 5.47-5.725GHz | 802.11n HT20-BF    | 20         | 2, 4    |
| 5.47-5.725GHz | 802.11ac VHT20     | 20         | 1, 2, 4 |
| 5.47-5.725GHz | 802.11ac VHT20-BF  | 20         | 2, 4    |
| 5.47-5.725GHz | 802.11ax HEW20     | 20         | 1, 2, 4 |
| 5.47-5.725GHz | 802.11ax HEW20-BF  | 20         | 2, 4    |
| 5.47-5.725GHz | 802.11n HT40       | 40         | 1, 2, 4 |
| 5.47-5.725GHz | 802.11n HT40-BF    | 40         | 2, 4    |
| 5.47-5.725GHz | 802.11ac VHT40     | 40         | 1, 2, 4 |
| 5.47-5.725GHz | 802.11ac VHT40-BF  | 40         | 2, 4    |
| 5.47-5.725GHz | 802.11ax HEW40     | 40         | 1, 2, 4 |
| 5.47-5.725GHz | 802.11ax HEW40-BF  | 40         | 2, 4    |
| 5.47-5.725GHz | 802.11ac VHT80     | 80         | 1, 2, 4 |
| 5.47-5.725GHz | 802.11ac VHT80-BF  | 80         | 2, 4    |
| 5.47-5.725GHz | 802.11ax HEW80     | 80         | 1, 2, 4 |
| 5.47-5.725GHz | 802.11ax HEW80-BF  | 80         | 2, 4    |
| 5.47-5.725GHz | 802.11ac VHT160    | 160        | 1, 2, 4 |
| 5.47-5.725GHz | 802.11ac VHT160-BF | 160        | 2, 4    |
| 5.47-5.725GHz | 802.11ax HEW160    | 160        | 1, 2, 4 |
| 5.47-5.725GHz | 802.11ax HEW160-BF | 160        | 2, 4    |

**For Scanning radio 1**

| Band          | Mode           | BWch (MHz) | Nant |
|---------------|----------------|------------|------|
| 5.25-5.35GHz  | 802.11a        | 20         | 2    |
| 5.25-5.35GHz  | 802.11n HT20   | 20         | 2    |
| 5.25-5.35GHz  | 802.11ac VHT20 | 20         | 2    |
| 5.25-5.35GHz  | 802.11ax HEW20 | 20         | 2    |
| 5.25-5.35GHz  | 802.11n HT40   | 40         | 2    |
| 5.25-5.35GHz  | 802.11ac VHT40 | 40         | 2    |
| 5.25-5.35GHz  | 802.11ax HEW40 | 40         | 2    |
| 5.25-5.35GHz  | 802.11ac VHT80 | 80         | 2    |
| 5.25-5.35GHz  | 802.11ax HEW80 | 80         | 2    |
| 5.47-5.725GHz | 802.11a        | 20         | 2    |
| 5.47-5.725GHz | 802.11n HT20   | 20         | 2    |
| 5.47-5.725GHz | 802.11ac VHT20 | 20         | 2    |
| 5.47-5.725GHz | 802.11ax HEW20 | 20         | 2    |
| 5.47-5.725GHz | 802.11n HT40   | 40         | 2    |
| 5.47-5.725GHz | 802.11ac VHT40 | 40         | 2    |
| 5.47-5.725GHz | 802.11ax HEW40 | 40         | 2    |
| 5.47-5.725GHz | 802.11ac VHT80 | 80         | 2    |



| Band          | Mode           | BWch (MHz) | Nant |
|---------------|----------------|------------|------|
| 5.47-5.725GHz | 802.11ax HEW80 | 80         | 2    |

**Note:**

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80, VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ HEW20, HEW40, HEW80, HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ BWch is the nominal channel bandwidth.



### 1.1.2 Antenna Information

| Ant. | Port                                     |                     |                              |                             |               | Brand Name | Model Name   | Antenna Type | Connector | Gain (dBi) |
|------|------------------------------------------|---------------------|------------------------------|-----------------------------|---------------|------------|--------------|--------------|-----------|------------|
|      | WLAN 2.4GHz (Radio 1) (Scanning Radio 1) | WLAN 5GHz (Radio 2) | WLAN 5GHz (Scanning Radio 1) | BT / IEEE802.15.4 (Radio 3) | GPS (Radio 4) |            |              |              |           |            |
| 1    | 1                                        | -                   | -                            | -                           | -             | WNC        | 95XEAJ15.G45 | Metal PIFA   | I-PEX     | Note 1     |
| 2    | 2                                        | -                   | -                            | -                           | -             | WNC        | 95XEAJ15.G46 | Metal PIFA   | I-PEX     |            |
| 3    | 3                                        | -                   | 1                            | -                           | -             | WNC        | 95XEAJ15.G53 | Metal PIFA   | I-PEX     |            |
| 4    | 4                                        | -                   | 2                            | -                           | -             | WNC        | 95XEAJ15.G54 | Metal PIFA   | I-PEX     |            |
| 5    | -                                        | 1                   | -                            | -                           | -             | WNC        | 95XEAJ15.G47 | Metal PIFA   | I-PEX     |            |
| 6    | -                                        | 2                   | -                            | -                           | -             | WNC        | 95XEAJ15.G48 | Metal PIFA   | I-PEX     |            |
| 7    | -                                        | 3                   | -                            | -                           | -             | WNC        | 95XEAJ15.G91 | Metal PIFA   | I-PEX     |            |
| 8    | -                                        | 4                   | -                            | -                           | -             | WNC        | 95XEAJ15.G92 | Metal PIFA   | I-PEX     |            |
| 9    | -                                        | -                   | -                            | -                           | -             | WNC        | 95XEAJ15.G49 | Metal PIFA   | I-PEX     |            |
| 10   | -                                        | -                   | -                            | -                           | -             | WNC        | 95XEAJ15.G50 | Metal PIFA   | I-PEX     |            |
| 11   | -                                        | -                   | -                            | -                           | -             | WNC        | 95XEAJ15.G51 | Metal PIFA   | I-PEX     |            |
| 12   | -                                        | -                   | -                            | -                           | -             | WNC        | 95XEAJ15.G52 | Metal PIFA   | I-PEX     |            |
| 13   | -                                        | -                   | -                            | 1                           | -             | WNC        | 95XEAJ15.G55 | Metal PIFA   | I-PEX     |            |
| 14   | -                                        | -                   | -                            | -                           | 1             | WNC        | 95XEAJ15.G89 | Metal PIFA   | I-PEX     |            |

Note 1:

| Ant. | Antenna Gain (dBi)                       |       |         |                     |         |         |        |                              |         |         |        |                             |               |
|------|------------------------------------------|-------|---------|---------------------|---------|---------|--------|------------------------------|---------|---------|--------|-----------------------------|---------------|
|      | WLAN 2.4GHz (Radio 1) (Scanning Radio 1) |       |         | WLAN 5GHz (Radio 2) |         |         |        | WLAN 5GHz (Scanning Radio 1) |         |         |        | BT / IEEE802.15.4 (Radio 3) | GPS (Radio 4) |
|      | 2.4G                                     | 2.45G | 2.4835G | UNII 1              | UNII 2A | UNII 2C | UNII 3 | UNII 1                       | UNII 2A | UNII 2C | UNII 3 |                             |               |
| 1    | 2.3                                      | 2.62  | 2.51    | -                   | -       | -       | -      | -                            | -       | -       | -      | -                           | -             |
| 2    | 2.79                                     | 3.09  | 3.11    | -                   | -       | -       | -      | -                            | -       | -       | -      | -                           | -             |
| 3    | 3.18                                     | 2.35  | 2.56    | -                   | -       | -       | -      | 4.4                          | 4.4     | 4.4     | 4.4    | -                           | -             |
| 4    | 3.8                                      | 4.63  | 3.64    | -                   | -       | -       | -      | 4.4                          | 4.4     | 4.4     | 4.4    | -                           | -             |
| 5    | -                                        | -     | -       | 3.18                | 2.87    | 2.65    | 2.51   | -                            | -       | -       | -      | -                           | -             |
| 6    | -                                        | -     | -       | 3.24                | 3.59    | 3.6     | 3.35   | -                            | -       | -       | -      | -                           | -             |
| 7    | -                                        | -     | -       | 3.75                | 4.08    | 3.8     | 4.59   | -                            | -       | -       | -      | -                           | -             |
| 8    | -                                        | -     | -       | 3.3                 | 3.05    | 2.6     | 2.53   | -                            | -       | -       | -      | -                           | -             |
| 13   | -                                        | -     | -       | -                   | -       | -       | -      | -                            | -       | -       | -      | 4.9                         | -             |
| 14   | -                                        | -     | -       | -                   | -       | -       | -      | -                            | -       | -       | -      | -                           | 3.3           |



| Ant. | Directional Gain (dBi)                   |      |       |      |         |      |      |      |      |       |      |      |         |      |      |
|------|------------------------------------------|------|-------|------|---------|------|------|------|------|-------|------|------|---------|------|------|
|      | WLAN 2.4GHz (Radio 1) (Scanning Radio 1) |      |       |      |         |      |      |      |      |       |      |      |         |      |      |
|      | 2.4G                                     |      | 2.45G |      | 2.4835G |      | 2.4G |      |      | 2.45G |      |      | 2.4835G |      |      |
|      | 2T1S                                     | 2T2S | 2T1S  | 2T2S | 2T1S    | 2T2S | 4T1S | 4T2S | 4T4S | 4T1S  | 4T2S | 4T4S | 4T1S    | 4T2S | 4T4S |
| 1    | 4.13                                     | 2.79 | 4.72  | 3.09 | 4.15    | 3.11 | 7.27 | 4.27 | 3.8  | 7.68  | 4.68 | 4.63 | 7.05    | 4.05 | 3.64 |
| 2    |                                          |      |       |      |         |      |      |      |      |       |      |      |         |      |      |
| 3    | -                                        | -    | -     | -    | -       | -    |      |      |      |       |      |      |         |      |      |
| 4    |                                          |      |       |      |         |      |      |      |      |       |      |      |         |      |      |

| Ant. | Directional Gain (dBi) |      |         |      |         |      |        |      |
|------|------------------------|------|---------|------|---------|------|--------|------|
|      | WLAN 5GHz (Radio 2)    |      |         |      |         |      |        |      |
|      | UNII 1                 |      | UNII 2A |      | UNII 2C |      | UNII 3 |      |
|      | 2T1S                   | 2T2S | 2T1S    | 2T2S | 2T1S    | 2T2S | 2T1S   | 2T2S |
| 5    | 5.5                    | 3.24 | 5.81    | 3.59 | 4.34    | 3.6  | 4.53   | 3.35 |
| 6    |                        |      |         |      |         |      |        |      |

| Ant. | Directional Gain (dBi) |      |      |         |      |      |         |      |      |        |      |      |
|------|------------------------|------|------|---------|------|------|---------|------|------|--------|------|------|
|      | WLAN 5GHz (Radio 2)    |      |      |         |      |      |         |      |      |        |      |      |
|      | UNII 1                 |      |      | UNII 2A |      |      | UNII 2C |      |      | UNII 3 |      |      |
|      | 4T1S                   | 4T2S | 4T4S | 4T1S    | 4T2S | 4T4S | 4T1S    | 4T2S | 4T4S | 4T1S   | 4T2S | 4T4S |
| 5    | 8.43                   | 5.43 | 3.75 | 8.12    | 5.12 | 4.08 | 7.02    | 4.02 | 3.8  | 7.68   | 4.68 | 4.59 |
| 6    |                        |      |      |         |      |      |         |      |      |        |      |      |
| 7    |                        |      |      |         |      |      |         |      |      |        |      |      |
| 8    |                        |      |      |         |      |      |         |      |      |        |      |      |

Note 2: The EUT has fourteen antennas.

Note 3: The above information (except gain of Radio 1 2.4GHz, Scanning Radio 1 2.4GHz, Radio 2) was declared by manufacturer.

Note 4: Radio 1 2.4GHz, Scanning Radio 1 2.4GHz, Radio 2: Maximum Directional Gain following KDB662911 D03.

Note 5: Scanning Radio 1 5GHz: Maximum Directional Gain following KDB662911 D01.

Note 6: The EUT doesn't enable the 6GHz band. The antenna 9~12 is 6GHz's antenna. Thus, the antenna 9~12 function doesn't enable it at this time.

Note 7: Directional gain information.

For Scanning Radio 1 5GHz

5G G1 = 4.4 dBi; G2 = 4.4 dBi

5G 2T1S DG= 7.41 dBi; 2T2S DG= 4.4 dBi

**For Radio 1****For 2.4GHz:****For IEEE 802.11b/g/n/VHT/ax mode (1TX, 2TX, 4TX/4RX):****1TX**

Only Port 1 can be use as transmitting antenna.

**2TX**

Port 1, Port 2 can be use as transmitting antenna.

Port 1, Port 2 could transmitting simultaneously.

**4TX**

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit simultaneously.

**4RX**

Port 1, Port 2, Port 3, Port 4 can be used as receiving antennas.

Port 1, Port 2, Port 3, Port 4 could receive simultaneously.

**For Scanning Radio 1****For 2.4GHz:****For IEEE 802.11b/g/n/VHT/ax mode (4TX/4RX):**

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

**For 5GHz UNII 1~3:****For IEEE 802.11a/n/ac/ax mode (2TX/2RX):**

Port 1, Port 2 can be used as transmitting/receiving antenna.

Port 1, Port 2 could transmit/receive simultaneously.

**For Radio 2****For 5GHz UNII 1~3:****For IEEE 802.11a/n/ac/ax mode (1TX, 2TX, 4TX/4RX):****1TX**

Only Port 1 can be use as transmitting antenna.

**2TX**

Port 1, Port 2 can be use as transmitting antenna.

Port 1, Port 2 could transmitting simultaneously.

**4TX**

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit simultaneously.

**4RX**

Port 1, Port 2, Port 3, Port 4 can be used as receiving antennas.

Port 1, Port 2, Port 3, Port 4 could receive simultaneously.

**For Radio 3****Bluetooth / IEEE802.15.4 (1TX):**

Only Port 1 can be used as transmitting antenna.

**For Radio 4****GPS (1RX):**

Only Port 1 can be used as receiving antenna.

**1.1.3 Mode Test Duty Cycle****For Radio 2****1T1S**

| Mode            | DC    | DCF(dB) | T(s)                 | VBW(Hz) $\geq 1/T$   |
|-----------------|-------|---------|----------------------|----------------------|
| 802.11a         | 0.948 | 0.23    | 2.065m               | 1k                   |
| 802.11ax HEW20  | 0.98  | 0.09    | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11ax HEW40  | 0.963 | 0.16    | 781.25u              | 3k                   |
| 802.11ax HEW80  | 0.938 | 0.28    | 415u                 | 3k                   |
| 802.11ax HEW160 | 0.898 | 0.47    | 237.5u               | 10k                  |

**2T1S**

| Mode    | DC    | DCF(dB) | T(s)   | VBW(Hz) $\geq 1/T$ |
|---------|-------|---------|--------|--------------------|
| 802.11a | 0.956 | 0.2     | 2.065m | 1k                 |

**2T2S**

| Mode            | DC    | DCF(dB) | T(s)    | VBW(Hz) $\geq 1/T$ |
|-----------------|-------|---------|---------|--------------------|
| 802.11ax HEW20  | 0.966 | 0.15    | 781.25u | 3k                 |
| 802.11ax HEW40  | 0.934 | 0.3     | 427.5u  | 3k                 |
| 802.11ax HEW80  | 0.901 | 0.45    | 245u    | 10k                |
| 802.11ax HEW160 | 0.852 | 0.7     | 155u    | 10k                |

**4T1S**

| Mode            | DC    | DCF(dB) | T(s)                 | VBW(Hz) $\geq 1/T$   |
|-----------------|-------|---------|----------------------|----------------------|
| 802.11a         | 0.948 | 0.23    | 2.066m               | 1k                   |
| 802.11ax HEW20  | 0.98  | 0.09    | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11ax HEW40  | 0.963 | 0.16    | 782.5u               | 3k                   |
| 802.11ax HEW80  | 0.938 | 0.28    | 415u                 | 3k                   |
| 802.11ax HEW160 | 0.898 | 0.47    | 237.5u               | 10k                  |

**4T4S**

| Mode            | DC    | DCF(dB) | T(s)                 | VBW(Hz) $\geq 1/T$   |
|-----------------|-------|---------|----------------------|----------------------|
| 802.11ax HEW20  | 0.983 | 0.07    | n/a (DC $\geq$ 0.98) | n/a (DC $\geq$ 0.98) |
| 802.11ax HEW40  | 0.968 | 0.14    | 781.25u              | 3k                   |
| 802.11ax HEW80  | 0.938 | 0.28    | 415u                 | 3k                   |
| 802.11ax HEW160 | 0.818 | 0.87    | 123.5u               | 10k                  |

**For Scanning radio 1****2T1S**

| Mode    | DC    | DCF(dB) | T(s)   | VBW(Hz) $\geq 1/T$ |
|---------|-------|---------|--------|--------------------|
| 802.11a | 0.951 | 0.22    | 2.068m | 1k                 |

**2T2S**

| Mode           | DC    | DCF(dB) | T(s)   | VBW(Hz) $\geq 1/T$ |
|----------------|-------|---------|--------|--------------------|
| 802.11ax HEW20 | 0.968 | 0.14    | 782.5u | 3k                 |
| 802.11ax HEW40 | 0.944 | 0.25    | 430u   | 3k                 |
| 802.11ax HEW80 | 0.906 | 0.43    | 247.5u | 10k                |



Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

**1.1.4 EUT Operational Condition**

|                                    |                                                                                                         |                     |                                     |                      |
|------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------|----------------------|
| <b>EUT Power Type</b>              | From PoE                                                                                                |                     |                                     |                      |
| <b>Beamforming Function</b>        | <input checked="" type="checkbox"/>                                                                     | With beamforming    | <input type="checkbox"/>            | Without beamforming  |
|                                    | The product has beamforming function for 11n/VHT/11ax in radio 1 2.4GHz, 11n/11ac/11ax in radio 2 5GHz. |                     |                                     |                      |
| <b>Weather Band</b>                | <input checked="" type="checkbox"/>                                                                     | With 5600~5650MHz   | <input type="checkbox"/>            | Without 5600~5650MHz |
| <b>Function</b>                    | <input checked="" type="checkbox"/>                                                                     | Outdoor P2M         | <input checked="" type="checkbox"/> | Indoor P2M           |
|                                    | <input type="checkbox"/>                                                                                | Fixed P2P           | <input type="checkbox"/>            | Client               |
|                                    | <input checked="" type="checkbox"/>                                                                     | Point-to-multipoint | <input type="checkbox"/>            | Point-to-point       |
| <b>TPC Function</b>                | <input checked="" type="checkbox"/>                                                                     | With TPC            | <input type="checkbox"/>            | Without TPC          |
| <b>Channel Puncturing Function</b> | <input type="checkbox"/>                                                                                | Supported           | <input checked="" type="checkbox"/> | Unsupported          |
| <b>Support RU</b>                  | <input checked="" type="checkbox"/>                                                                     | Full RU             | <input type="checkbox"/>            | Partial RU           |
| <b>Test Software Version</b>       | Mtool (v3.2.1.5)                                                                                        |                     |                                     |                      |

Note: The above information was declared by manufacturer.

**1.1.5 Table for EUT support function**

| Function |
|----------|
| AP       |
| Bridge   |
| Mesh     |

Note1: For above table list, only AP mode was tested and recorded in this test.

Note2: The above information was declared by manufacturer.

**1.1.6 Table for Radio function**

| Radio (R) | WLAN 2.4GHz             | 5GHz                                                | Scanning radio (WLAN 2.4GHz 4TX / 5GHz 2TX)              | Bluetooth / IEEE802.15.4 | GPS |
|-----------|-------------------------|-----------------------------------------------------|----------------------------------------------------------|--------------------------|-----|
| R1        | V<br>(AP, Bridge, Mesh) | -                                                   | V<br>(AP, Bridge, Mesh for 2.4GHz, AP for 5GHz UNII 1~3) | -                        | -   |
| R2        | -                       | V<br>(AP for UNII 1~3 / Bridge, Mesh for UNII 1, 3) | -                                                        | -                        | -   |
| R3        | -                       | -                                                   | -                                                        | V                        | -   |
| R4        | -                       | -                                                   | -                                                        | -                        | V   |

Note: The above information was declared by manufacturer.



### 1.1.7 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR251735AF

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

| Modifications                                                                                             | Performance Checking                                                                                              |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 1. Add UNII 2A and UNII 2C (5250~5350MHz and 5470~5725MHz) for this device.<br>2. Add 160MHz for Radio 2. | 1. Emission Bandwidth<br>2. Maximum Output Power<br>3. Power Spectral Density<br>4. Unwanted Emissions above 1GHz |



## 1.2 Applicable 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
- ♦ FCC KDB 789033 D02 v02r01

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01

## 1.3 Testing Location Information

| Testing Location Information                              |                                                                                    |
|-----------------------------------------------------------|------------------------------------------------------------------------------------|
| Test Lab. : Sporton International Inc. Hsinchu Laboratory |                                                                                    |
| Hsinchu                                                   | ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) |
| (TAF: 3787)                                               | TEL: 886-3-656-9065 FAX: 886-3-656-9085                                            |
|                                                           | Test site Designation No. TW3787 with FCC.                                         |
|                                                           | Conformity Assessment Body Identifier (CABID) TW3787 with ISED.                    |

| Test Condition      | Test Site No. | Test Engineer | Test Environment (°C / %) | Test Date                   |
|---------------------|---------------|---------------|---------------------------|-----------------------------|
| RF Conducted        | TH03-CB       | Caster Chang  | 25.6~26.1 / 65~69         | Jun. 06, 2022~Sep. 06, 2022 |
| Radiated above 1GHz | 03CH01-CB     | RJ Huang      | 24.1~26.1 / 60~65         | Jun. 30, 2022~Aug. 26, 2022 |
|                     | 03CH03-CB     |               | 23.7~25.1 / 66~68         |                             |
|                     | 03CH04-CB     |               | 24.3~25.9 / 62~66         |                             |

## 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                   |
|-----------------------------------|-------------|--------------------------|
| Radiated Emission (1GHz ~ 18GHz)  | 5.2 dB      | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz) | 4.7 dB      | Confidence levels of 95% |
| Conducted Emission                | 3.2 dB      | Confidence levels of 95% |
| Output Power Measurement          | 0.8 dB      | Confidence levels of 95% |
| Power Density Measurement         | 3.2 dB      | Confidence levels of 95% |
| Bandwidth Measurement             | 2.0 %       | Confidence levels of 95% |



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

For Radio 2  
1T1S

| Mode                            | Power Setting |
|---------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_1TX        | -             |
| 5260MHz                         | 95            |
| 5300MHz                         | 95            |
| 5320MHz                         | 90            |
| 5500MHz                         | 88            |
| 5580MHz                         | 84            |
| 5700MHz                         | 71            |
| 5720MHz Straddle 5.47-5.725GHz  | 78            |
| 5720MHz Straddle 5.725-5.85GHz  | 78            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX  | -             |
| 5260MHz                         | 96            |
| 5300MHz                         | 94            |
| 5320MHz                         | 89            |
| 5500MHz                         | 90            |
| 5580MHz                         | 82            |
| 5700MHz                         | 65            |
| 5720MHz Straddle 5.47-5.725GHz  | 74            |
| 5720MHz Straddle 5.725-5.85GHz  | 74            |
| 802.11ax HEW40_Nss1,(MCS0)_1TX  | -             |
| 5270MHz                         | 89            |
| 5310MHz                         | 79            |
| 5510MHz                         | 72            |
| 5550MHz                         | 75            |
| 5670MHz                         | 73            |
| 5710MHz Straddle 5.47-5.725GHz  | 87            |
| 5710MHz Straddle 5.725-5.85GHz  | 87            |
| 802.11ax HEW80_Nss1,(MCS0)_1TX  | -             |
| 5290MHz                         | 75            |
| 5530MHz                         | 79            |
| 5610MHz                         | 83            |
| 5690MHz Straddle 5.47-5.725GHz  | 86            |
| 5690MHz Straddle 5.725-5.85GHz  | 86            |
| 802.11ax HEW160_Nss1,(MCS0)_1TX | -             |
| 5250MHz Straddle 5.15-5.25GHz   | 62            |



| Mode                          | Power Setting |
|-------------------------------|---------------|
| 5250MHz Straddle 5.25-5.35GHz | 62            |
| 5570MHz                       | 54            |

**2T1S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -             |
| 5260MHz                        | 82            |
| 5300MHz                        | 83            |
| 5320MHz                        | 83            |
| 5500MHz                        | 84            |
| 5580MHz                        | 83            |
| 5700MHz                        | 61            |
| 5720MHz Straddle 5.47-5.725GHz | 73            |
| 5720MHz Straddle 5.725-5.85GHz | 73            |

**2T2S**

| Mode                            | Power Setting |
|---------------------------------|---------------|
| 802.11ax HEW20_Nss2,(MCS0)_2TX  | -             |
| 5260MHz                         | 81            |
| 5300MHz                         | 82            |
| 5320MHz                         | 80            |
| 5500MHz                         | 82            |
| 5580MHz                         | 81            |
| 5700MHz                         | 61            |
| 5720MHz Straddle 5.47-5.725GHz  | 76            |
| 5720MHz Straddle 5.725-5.85GHz  | 76            |
| 802.11ax HEW40_Nss2,(MCS0)_2TX  | -             |
| 5270MHz                         | 82            |
| 5310MHz                         | 67            |
| 5510MHz                         | 70            |
| 5550MHz                         | 80            |
| 5670MHz                         | 68            |
| 5710MHz Straddle 5.47-5.725GHz  | 73            |
| 5710MHz Straddle 5.725-5.85GHz  | 73            |
| 802.11ax HEW80_Nss2,(MCS0)_2TX  | -             |
| 5290MHz                         | 58            |
| 5530MHz                         | 71            |
| 5610MHz                         | 75            |
| 5690MHz Straddle 5.47-5.725GHz  | 84            |
| 5690MHz Straddle 5.725-5.85GHz  | 84            |
| 802.11ax HEW160_Nss2,(MCS0)_2TX | -             |
| 5250MHz Straddle 5.15-5.25GHz   | 50            |



| Mode                          | Power Setting |
|-------------------------------|---------------|
| 5250MHz Straddle 5.25-5.35GHz | 50            |
| 5570MHz                       | 45            |

**4T1S****for non beamforming mode**

| Mode                            | Power Setting |
|---------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_4TX        | -             |
| 5260MHz                         | 62            |
| 5300MHz                         | 63            |
| 5320MHz                         | 64            |
| 5500MHz                         | 68            |
| 5580MHz                         | 65            |
| 5700MHz                         | 67            |
| 5720MHz Straddle 5.47-5.725GHz  | 69            |
| 5720MHz Straddle 5.725-5.85GHz  | 69            |
| 802.11ax HEW20_Nss1,(MCS0)_4TX  | -             |
| 5260MHz                         | 64            |
| 5300MHz                         | 64            |
| 5320MHz                         | 67            |
| 5500MHz                         | 68            |
| 5580MHz                         | 67            |
| 5700MHz                         | 56            |
| 5720MHz Straddle 5.47-5.725GHz  | 70            |
| 5720MHz Straddle 5.725-5.85GHz  | 70            |
| 802.11ax HEW40_Nss1,(MCS0)_4TX  | -             |
| 5270MHz                         | 68            |
| 5310MHz                         | 62            |
| 5510MHz                         | 67            |
| 5550MHz                         | 66            |
| 5670MHz                         | 65            |
| 5710MHz Straddle 5.47-5.725GHz  | 72            |
| 5710MHz Straddle 5.725-5.85GHz  | 72            |
| 802.11ax HEW80_Nss1,(MCS0)_4TX  | -             |
| 5290MHz                         | 62            |
| 5530MHz                         | 65            |
| 5610MHz                         | 70            |
| 5690MHz Straddle 5.47-5.725GHz  | 73            |
| 5690MHz Straddle 5.725-5.85GHz  | 73            |
| 802.11ax HEW160_Nss1,(MCS0)_4TX | -             |
| 5250MHz Straddle 5.15-5.25GHz   | 45            |
| 5250MHz Straddle 5.25-5.35GHz   | 45            |



| Mode    | Power Setting |
|---------|---------------|
| 5570MHz | 45            |

**for beamforming mode**

| Mode                               | Power Setting |
|------------------------------------|---------------|
| 802.11ax HEW20-BF_Nss1,(MCS0)_4TX  | -             |
| 5260MHz                            | 61            |
| 5300MHz                            | 61            |
| 5320MHz                            | 64            |
| 5500MHz                            | 65            |
| 5580MHz                            | 64            |
| 5700MHz                            | 56            |
| 5720MHz Straddle 5.47-5.725GHz     | 68            |
| 5720MHz Straddle 5.725-5.85GHz     | 68            |
| 802.11ax HEW40-BF_Nss1,(MCS0)_4TX  | -             |
| 5270MHz                            | 60            |
| 5310MHz                            | 62            |
| 5510MHz                            | 65            |
| 5550MHz                            | 63            |
| 5670MHz                            | 65            |
| 5710MHz Straddle 5.47-5.725GHz     | 69            |
| 5710MHz Straddle 5.725-5.85GHz     | 69            |
| 802.11ax HEW80-BF_Nss1,(MCS0)_4TX  | -             |
| 5290MHz                            | 62            |
| 5530MHz                            | 65            |
| 5610MHz                            | 66            |
| 5690MHz Straddle 5.47-5.725GHz     | 69            |
| 5690MHz Straddle 5.725-5.85GHz     | 69            |
| 802.11ax HEW160-BF_Nss1,(MCS0)_4TX | -             |
| 5250MHz Straddle 5.15-5.25GHz      | 45            |
| 5250MHz Straddle 5.25-5.35GHz      | 45            |
| 5570MHz                            | 45            |

**4T4S**

| Mode                            | Power Setting |
|---------------------------------|---------------|
| 802.11ax HEW20_Nss4,(MCS0)_4TX  | -             |
| 5260MHz                         | 69            |
| 5300MHz                         | 70            |
| 5320MHz                         | 71            |
| 5500MHz                         | 68            |
| 5580MHz                         | 66            |
| 5700MHz                         | 65            |
| 5720MHz Straddle 5.47-5.725GHz  | 71            |
| 5720MHz Straddle 5.725-5.85GHz  | 71            |
| 802.11ax HEW40_Nss4,(MCS0)_4TX  | -             |
| 5270MHz                         | 70            |
| 5310MHz                         | 66            |
| 5510MHz                         | 48            |
| 5550MHz                         | 68            |
| 5670MHz                         | 67            |
| 5710MHz Straddle 5.47-5.725GHz  | 70            |
| 5710MHz Straddle 5.725-5.85GHz  | 70            |
| 802.11ax HEW80_Nss4,(MCS0)_4TX  | -             |
| 5290MHz                         | 65            |
| 5530MHz                         | 71            |
| 5610MHz                         | 71            |
| 5690MHz Straddle 5.47-5.725GHz  | 76            |
| 5690MHz Straddle 5.725-5.85GHz  | 76            |
| 802.11ax HEW160_Nss4,(MCS0)_4TX | -             |
| 5250MHz Straddle 5.15-5.25GHz   | 45            |
| 5250MHz Straddle 5.25-5.35GHz   | 45            |
| 5570MHz                         | 50            |

**For Scanning radio 1  
2T1S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -             |
| 5260MHz                        | 79            |
| 5300MHz                        | 79            |
| 5320MHz                        | 80            |
| 5500MHz                        | 79            |
| 5580MHz                        | 76            |
| 5700MHz                        | 64            |
| 5720MHz Straddle 5.47-5.725GHz | 75            |
| 5720MHz Straddle 5.725-5.85GHz | 75            |

**2T2S**

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 802.11ax HEW20_Nss2,(MCS0)_2TX | -             |
| 5260MHz                        | 83            |
| 5300MHz                        | 83            |
| 5320MHz                        | 78            |
| 5500MHz                        | 84            |
| 5580MHz                        | 82            |
| 5700MHz                        | 60            |
| 5720MHz Straddle 5.47-5.725GHz | 80            |
| 5720MHz Straddle 5.725-5.85GHz | 80            |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | -             |
| 5270MHz                        | 82            |
| 5310MHz                        | 67            |
| 5510MHz                        | 65            |
| 5550MHz                        | 82            |
| 5670MHz                        | 69            |
| 5710MHz Straddle 5.47-5.725GHz | 80            |
| 5710MHz Straddle 5.725-5.85GHz | 80            |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | -             |
| 5290MHz                        | 62            |
| 5530MHz                        | 65            |
| 5610MHz                        | 80            |
| 5690MHz Straddle 5.47-5.725GHz | 81            |
| 5690MHz Straddle 5.725-5.85GHz | 81            |


**Note:**

- ♦ Evaluated HEW20/HEW40/HEW80/HEW160 mode only due to the similar modulation. The power setting of HT20/HT40/VHT20/VHT40/VHT80/VHT160 mode are the same or lower than HEW20/HEW40/HEW80/HEW160.
- ♦ The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all test items are evaluated in the report. The beamforming mode only evaluates the output power.

## 2.2 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests |                                                                      |
|-----------------------------------------------------|----------------------------------------------------------------------|
| <b>Tests Item</b>                                   | Emission Bandwidth<br>Maximum Output Power<br>Power Spectral Density |
| <b>Test Condition</b>                               | Conducted measurement at transmit chains                             |
| 1                                                   | Refer to note 1 for detail operating mode                            |

| 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 &gt; 1GHz</b>                     | CTX                                                                                                                                                                                                                                                 |
|                                                     | 1. The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found as below. So the measurement will follow this same test configuration.<br>2. Refer to note 1 for detail operating mode                                 |
| 1                                                   | EUT in X axis_R2_1T1S                                                                                                                                                                                                                               |
| 2                                                   | EUT in Y axis for harmonic and EUT in X axis for bandedge_R2_2T1S_2T2S                                                                                                                                                                              |
| 3                                                   | EUT in X axis_R2_4T1S                                                                                                                                                                                                                               |
| 4                                                   | EUT in X axis_R2_4T4S                                                                                                                                                                                                                               |
| 5                                                   | EUT in Y axis_Scanning R1_2T1S_2T2S                                                                                                                                                                                                                 |

Note 1: Test Mode

| Test Mode                      |         |      |      |      |      |                          |       |      |      |           |      |
|--------------------------------|---------|------|------|------|------|--------------------------|-------|------|------|-----------|------|
| Test Item                      | 802.11a |      |      |      |      | 802.11ax HEW20/40/80/160 |       |      |      |           |      |
|                                | 1T1S    | 2T1S | 2T2S | 4T1S | 4T4S | 1T1S                     | 2T1S  | 2T2S | 4T1S | TXBF 4T1S | 4T4S |
| Maximum Conducted Output Power | V       | V    | -    | V    | -    | V                        | Note2 | V    | V    | V         | V    |
| Emission Bandwidth             | V       | V    | -    | V    | -    | V                        | Note2 | V    | V    | -         | V    |
| Peak Power Spectral Density    | V       | V    | -    | V    | -    | V                        | Note2 | V    | V    | -         | V    |
| Radiated Emission              | V       | V    | -    | V    | -    | V                        | Note2 | V    | V    | -         | V    |
| Band Edge Emission             | V       | V    | -    | V    | -    | V                        | Note2 | V    | V    | -         | V    |



Note 2: 802.11ax HEW20/40/80/160 2T1S CDD mode was covered by 802.11ax HEW20/40/80/160 2T2S, due to  $2T1S = \min(2T2S, (2T2S - (10 \cdot \log(2/1) - 2T2S \text{ (worst case of PSD/BE/Harmonic) MARGIN})))$ .

Note 3: The PoE and adapter are for measurement only, would not be marketed.

Their information as below:

| Power | Brand     | Model           |
|-------|-----------|-----------------|
| PoE 1 | Microsemi | PD-9501-10GC/AC |
| PoE 2 | Microsemi | PD-9001GR/AT/AC |

## 2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 2.4 Accessories

| Accessories      |
|------------------|
| Bracket*1        |
| Sealing Collar*2 |

## 2.5 Support Equipment

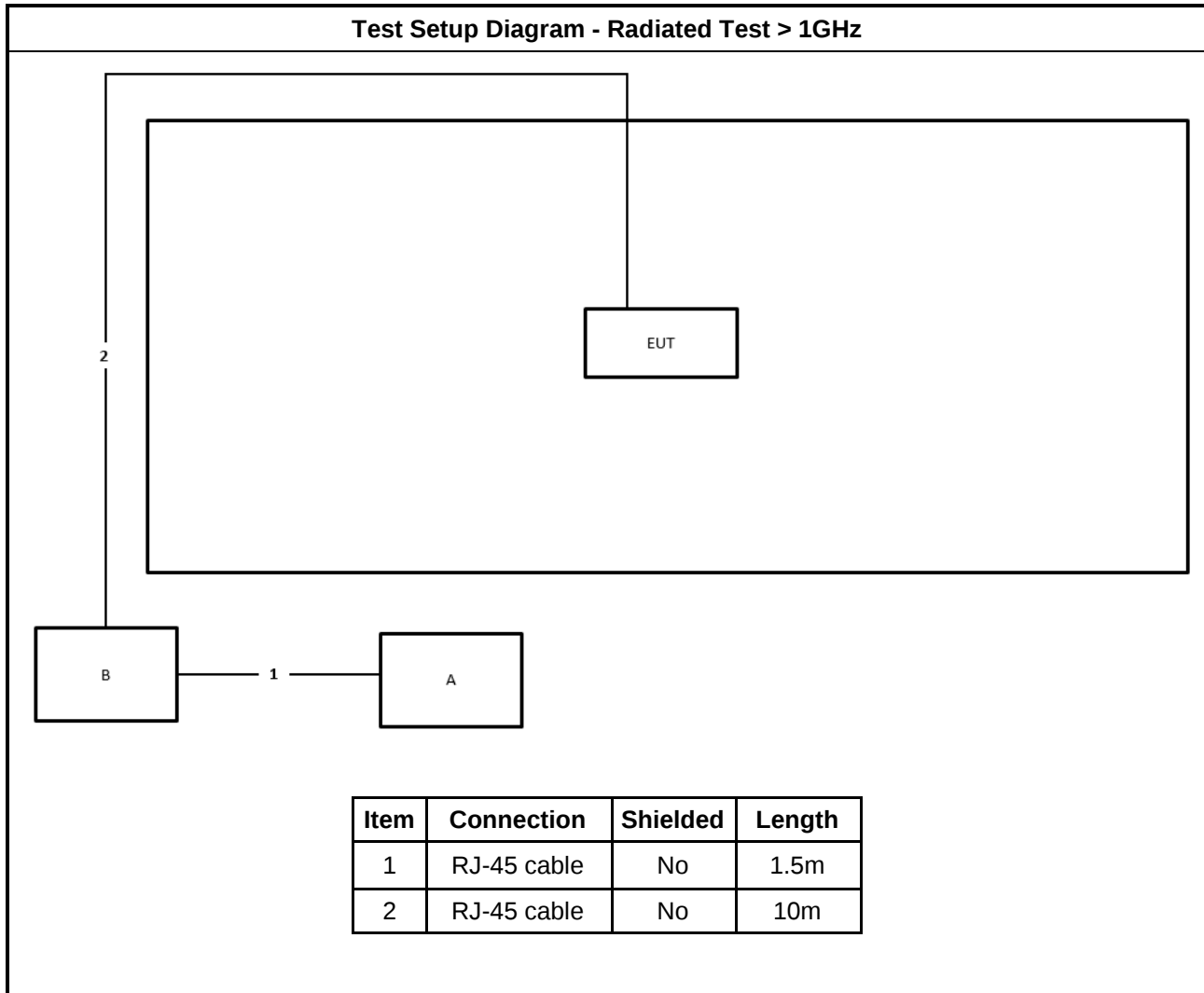
For Radiated (above 1GHz):

| Support Equipment |           |            |                 |        |
|-------------------|-----------|------------|-----------------|--------|
| No.               | Equipment | Brand Name | Model Name      | FCC ID |
| A                 | Notebook  | DELL       | E4300           | N/A    |
| B                 | PoE 1     | Microsemi  | PD-9501-10GC/AC | N/A    |

For RF Conducted:

| Support Equipment |           |            |                 |        |
|-------------------|-----------|------------|-----------------|--------|
| No.               | Equipment | Brand Name | Model Name      | FCC ID |
| A                 | Notebook  | DELL       | E4300           | N/A    |
| B                 | PoE 2     | Microsemi  | PD-9001GR/AT/AC | N/A    |

## 2.6 Test Setup Diagram





### 3 Transmitter Test Result

#### 3.1 Emission Bandwidth

##### 3.1.1 Emission Bandwidth Limit

| Emission Bandwidth Limit            |                                                                                                                                                                                       |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNII Devices</b>                 |                                                                                                                                                                                       |
| <input checked="" type="checkbox"/> | For the 5.15-5.25 GHz band, N/A                                                                                                                                                       |
| <input checked="" type="checkbox"/> | For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.            |
| <input checked="" type="checkbox"/> | For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.           |
| <input checked="" type="checkbox"/> | For the 5.725-5.85 GHz band, 26 dB emission bandwidth ,N/A.<br>6 dB emission bandwidth $\geq$ 500kHz.                                                                                 |
| <input type="checkbox"/>            | For the 5.85-5.895 GHz band, 26 dB emission bandwidth ,N/A.<br>6 dB emission bandwidth $\geq$ 500kHz.                                                                                 |
| <b>LE-LAN Devices</b>               |                                                                                                                                                                                       |
| <input type="checkbox"/>            | For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.                      |
| <input type="checkbox"/>            | For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz                        |
| <input type="checkbox"/>            | For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz |
| <input type="checkbox"/>            | For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.                                                                                                                   |

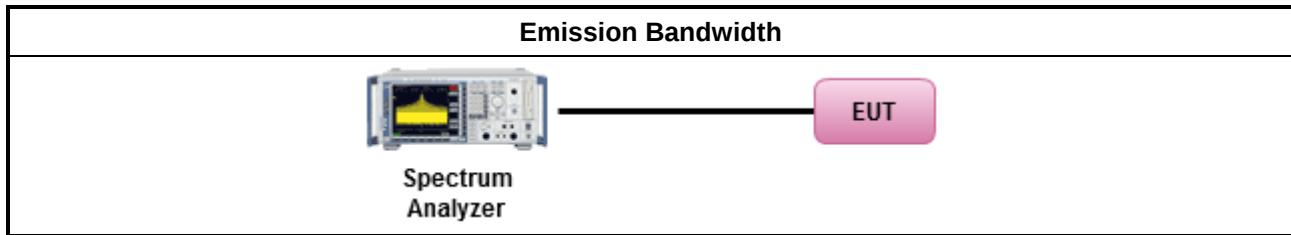
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

| Test Method                                                                    |                                                                                 |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| ▪ For the emission bandwidth shall be measured using one of the options below: |                                                                                 |
| <input checked="" type="checkbox"/>                                            | Refer as FCC KDB 789033 D02, clause C for EBW and clause D for OBW measurement. |
| <input type="checkbox"/>                                                       | Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.              |
| <input type="checkbox"/>                                                       | Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.                          |

### 3.1.4 Test Setup



### 3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A



## 3.2 Maximum Output Power

### 3.2.1 Limit

| Maximum Output Power Limit                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNII Devices</b>                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <input checked="" 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 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 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 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Maximum EIRP Limit</b>                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <input type="checkbox"/> For the 5.85-5.895 GHz band:                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"><li>Indoor AP &amp; subordinate device &lt; 36 dBm</li><li>Client device &lt; 30 dBm</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>LE-LAN Devices</b>                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <input type="checkbox"/> For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <input type="checkbox"/> For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <input type="checkbox"/> For the 5.725-5.85 GHz band:                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <input 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</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |



lesser of 1 W.

**P<sub>Out</sub>** = maximum conducted output power in dBm,

**G<sub>TX</sub>** = the maximum transmitting antenna directional gain in dBi.

### 3.2.2 Measuring Instruments

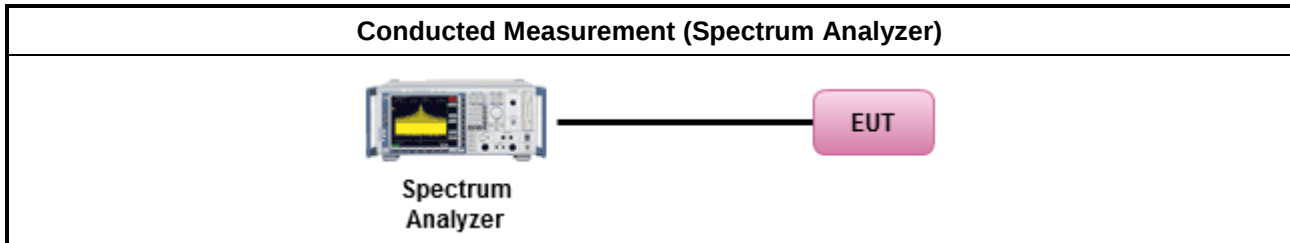
Refer a test equipment and calibration data table in this test report.

### 3.2.3 Test Procedures

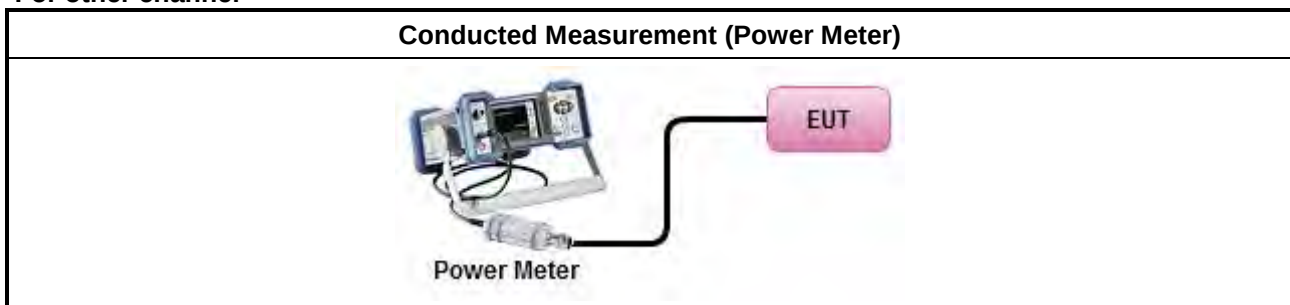
| Test Method                         |                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     | Average over on/off periods with duty factor                                                                                                                                                                                                                                                                                                                         |
| <input checked="" type="checkbox"/> | Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).                                                                                                                                                                                                                                                                                        |
| <input type="checkbox"/>            | Refer as FCC KDB 789033 D02, 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 FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).                                                                                                                                                                                                                                                                                 |
| <input checked="" type="checkbox"/> | For conducted measurement.                                                                                                                                                                                                                                                                                                                                           |
|                                     | <ul style="list-style-type: none"><li>If the EUT supports multiple transmit chains using options given below:<br/>Refer as FCC 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>                                                                 |
| <input type="checkbox"/>            | For radiated measurement.                                                                                                                                                                                                                                                                                                                                            |
|                                     | <ul style="list-style-type: none"><li>Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"</li><li>Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li><li>Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.</li></ul>                                                                        |

### 3.2.4 Test Setup

For Straddle channel



For other channel



### 3.2.5 Test Result of Maximum Output Power

Refer as Appendix B

### 3.3 Power Spectral Density

#### 3.3.1 Limit

| Peak Power Spectral Density Limit                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNII Devices</b>                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                   | <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:                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                   | <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| EIRP Power Spectral Density Limit                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <input type="checkbox"/> For the 5.85-5.895 GHz band:                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Indoor AP &amp; subordinate device <math>&lt; 20</math>dBm/MHz</li> <li>Client device <math>&lt; 14</math>dBm/MHz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>LE-LAN Devices</b>                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <input type="checkbox"/> For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) $\leq 10$ dBm/MHz.                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz.                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where <math>\theta</math> is the angle above the local horizontal plane (of the Earth) as shown below:<br/> <math>-13</math> dBW/MHz for <math>0^\circ \leq \theta &lt; 8^\circ</math> ; <math>-13 - 0.716 (\theta - 8)</math> dBW/MHz for <math>8^\circ \leq \theta &lt; 40^\circ</math><br/> <math>-35.9 - 1.22 (\theta - 40)</math> dBW/MHz for <math>40^\circ \leq \theta \leq 45^\circ</math> ; <math>-42</math> dBW/MHz for <math>\theta &gt; 45^\circ</math> </li> </ul>                                                                                                                                                                                            |
| <input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz.                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <input type="checkbox"/> For the 5.725-5.85 GHz band:                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                   | <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  
 $G_{TX}$  = the maximum transmitting antenna directional gain in dBi.

### 3.3.2 Measuring Instruments

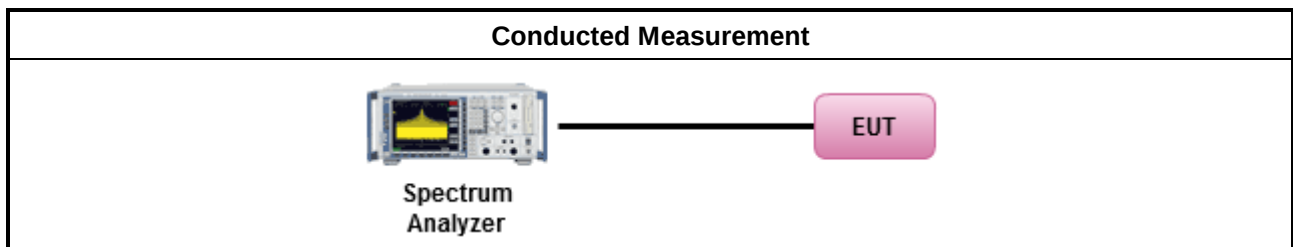
Refer a test equipment and calibration data table in this test report.

### 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 FCC KDB 789033 D02, 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% or external video / power trigger]                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                           | Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                      | Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| duty cycle < 98% and average over on/off periods with duty factor                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                           | Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                      | Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <input checked="" type="checkbox"/> For conducted measurement.                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"><li>If the EUT supports multiple transmit chains using options given below:</li></ul>                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                           | Option 1: Measure and sum the spectra across the outputs. Refer as FCC 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. |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                      | Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,                                                                                                                                                                                                         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                      | Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"><li>If multiple transmit chains, EIRP PPSD calculation could be following as methods:<br/><math>PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n</math><br/>(calculated in linear unit [mW] and transfer to log unit [dBm])</li></ul>                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Test Method              |                                                                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | $EIRP_{total} = PPSD_{total} + DG$                                                                                                             |
| <input type="checkbox"/> | For radiated measurement.                                                                                                                      |
|                          | <ul style="list-style-type: none"> <li>Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"</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>Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.</li> </ul>                                 |

### 3.3.4 Test Setup



### 3.3.5 Test Result of Power Spectral Density

Refer as Appendix C



### 3.4 Unwanted Emissions

#### 3.4.1 Transmitter 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                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <input checked="" type="checkbox"/> 5.15 - 5.25 GHz  | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                               |
| <input checked="" type="checkbox"/> 5.25 - 5.35 GHz  | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                               |
| <input checked="" type="checkbox"/> 5.47 - 5.725 GHz | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                               |
| <input checked="" type="checkbox"/> 5.725 - 5.85 GHz | all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. |
| <input type="checkbox"/> 5.85 - 5.895 GHz            | (i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of - 7 dBm/MHz at or above 5.925 GHz.<br>(ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an                                                                                                                      |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz.</p> <p>(iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/ MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.</p> |
| <p>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).</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

### 3.4.2 Measuring Instruments

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

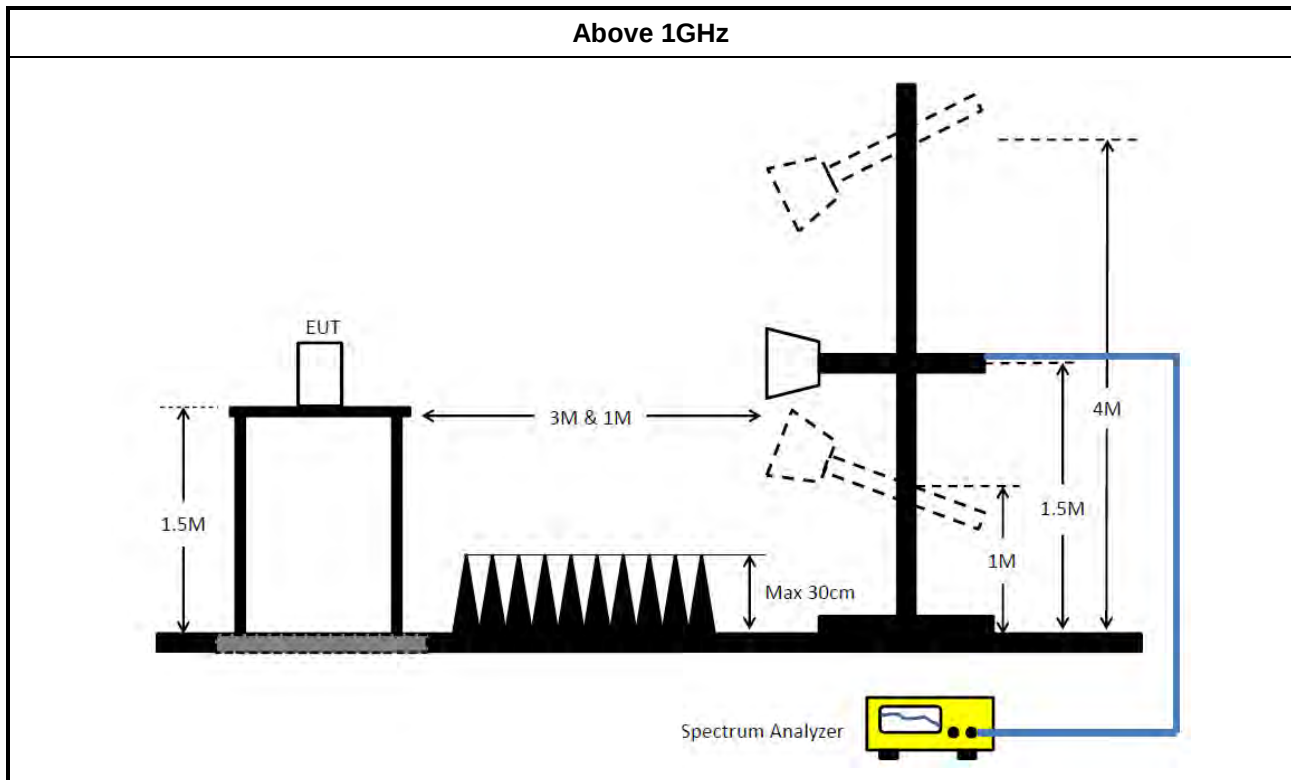
### 3.4.3 Test Procedures

| 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 FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.</li> </ul>       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.</li> </ul>           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input type="checkbox"/> Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input checked="" type="checkbox"/> Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input checked="" type="checkbox"/> Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.                                     |
| <input type="checkbox"/> Refer as 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                    |

#### Test Method

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

#### 3.4.4 Test Setup



#### 3.4.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

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

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

#### 3.4.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D



## 4 Test Equipment and Calibration Data

| Instrument                    | Brand            | Model No.         | Serial No.          | Characteristics   | Calibration Date | Calibration Due Date | Remark                   |
|-------------------------------|------------------|-------------------|---------------------|-------------------|------------------|----------------------|--------------------------|
| 3m Semi Anechoic Chamber VSWR | TDK              | SAC-3M            | 03CH01-CB           | 1GHz ~18GHz<br>3m | May 06, 2022     | May 05, 2023         | Radiation<br>(03CH01-CB) |
| Horn Antenna                  | ETS-LINDGR<br>EN | 3115              | 00075790            | 750MHz ~ 18GHz    | Nov. 06, 2021    | Nov. 05, 2022        | Radiation<br>(03CH01-CB) |
| Horn Antenna                  | Schwarzbeck      | BBHA 9170         | BBHA9170252         | 15GHz ~ 40GHz     | Aug. 05, 2021    | Aug. 04, 2022        | Radiation<br>(03CH01-CB) |
| Horn Antenna                  | SCHWARZB<br>ECK  | BBHA 9170         | BBHA9170507         | 15GHz ~ 40GHz     | Jul. 05, 2022    | Jul. 04, 2023        | Radiation<br>(03CH01-CB) |
| Pre-Amplifier                 | Agilent          | 8449B             | 3008A02121          | 1GHz ~ 26.5GHz    | May 19, 2022     | May 18, 2023         | Radiation<br>(03CH01-CB) |
| Pre-Amplifier                 | MITEQ            | TTA1840-35-H<br>G | 1864479             | 18GHz ~ 40GHz     | Jul. 13, 2021    | Jul. 12, 2022        | Radiation<br>(03CH01-CB) |
| Pre-Amplifier                 | -                | -                 | TF-130N-R1          | 18GHz ~ 40GHz     | Jun. 21, 2022    | Jun. 20, 2023        | Radiation<br>(03CH01-CB) |
| Spectrum Analyzer             | R&S              | FSP40             | 100056              | 9kHz ~ 40GHz      | May 06, 2022     | May 05, 2023         | Radiation<br>(03CH01-CB) |
| RF Cable-high                 | Woken            | RG402             | High Cable-16       | 1 GHz ~ 18 GHz    | Oct. 04, 2021    | Oct. 03, 2022        | Radiation<br>(03CH01-CB) |
| RF Cable-high                 | Woken            | RG402             | High<br>Cable-16+17 | 1 GHz ~ 18 GHz    | Oct. 04, 2021    | Oct. 03, 2022        | Radiation<br>(03CH01-CB) |
| High Cable                    | Woken            | WCA0929M          | 40G#5+7             | 1GHz ~ 40 GHz     | Dec. 14, 2021    | Dec. 13, 2022        | Radiation<br>(03CH01-CB) |
| High Cable                    | Woken            | WCA0929M          | 40G#5               | 1GHz ~ 40 GHz     | Dec. 08, 2021    | Dec. 07, 2022        | Radiation<br>(03CH01-CB) |
| High Cable                    | Woken            | WCA0929M          | 40G#7               | 1GHz ~ 40 GHz     | Dec. 14, 2021    | Dec. 13, 2022        | Radiation<br>(03CH01-CB) |
| Test Software                 | SPORTON          | SENSE             | V5.10               | -                 | N.C.R.           | N.C.R.               | Radiation<br>(03CH01-CB) |
| 3m Semi Anechoic Chamber VSWR | TDK              | SAC-3M            | 03CH03-CB           | 1GHz ~18GHz<br>3m | May 05, 2022     | May 04, 2023         | Radiation<br>(03CH03-CB) |
| Horn Antenna                  | ETS-Lindgren     | 3115              | 6821                | 750MHz~18GHz      | Jan. 21, 2022    | Jan. 20, 2023        | Radiation<br>(03CH03-CB) |
| Horn Antenna                  | Schwarzbeck      | BBHA 9170         | BBHA9170252         | 15GHz ~ 40GHz     | Aug. 05, 2021    | Aug. 04, 2022        | Radiation<br>(03CH03-CB) |
| Horn Antenna                  | SCHWARZB<br>ECK  | BBHA 9170         | BBHA9170507         | 15GHz ~ 40GHz     | Jul. 05, 2022    | Jul. 04, 2023        | Radiation<br>(03CH03-CB) |
| Pre-Amplifier                 | Agilent          | 8449B             | 3008A02097          | 1GHz ~ 26.5GHz    | Jul. 02, 2021    | Jul. 01, 2022        | Radiation<br>(03CH03-CB) |
| Pre-Amplifier                 | Agilent          | 8449B             | 3008A02097          | 1GHz ~ 26.5GHz    | Jul. 01, 2022    | Jun. 30, 2023        | Radiation<br>(03CH03-CB) |
| Pre-Amplifier                 | MITEQ            | TTA1840-35-H<br>G | 1864479             | 18GHz ~ 40GHz     | Jul. 13, 2021    | Jul. 12, 2022        | Radiation<br>(03CH03-CB) |



| Instrument                    | Brand          | Model No.     | Serial No.       | Characteristics  | Calibration Date | Calibration Due Date | Remark                |
|-------------------------------|----------------|---------------|------------------|------------------|------------------|----------------------|-----------------------|
| Pre-Amplifier                 | -              | -             | TF-130N-R1       | 18GHz ~ 40GHz    | Jun. 21, 2022    | Jun. 20, 2023        | Radiation (03CH03-CB) |
| Signal Analyzer               | R&S            | FSV40         | 101904           | 9kHz ~ 40GHz     | Apr. 26, 2022    | Apr. 25, 2023        | Radiation (03CH03-CB) |
| RF Cable-high                 | Woken          | RG402         | High Cable-20+29 | 1GHz ~ 18GHz     | Oct. 04, 2021    | Oct. 03, 2022        | Radiation (03CH03-CB) |
| RF Cable-high                 | Woken          | RG402         | High Cable-29    | 1GHz ~ 18GHz     | Oct. 04, 2021    | Oct. 03, 2022        | Radiation (03CH03-CB) |
| High Cable                    | Woken          | WCA0929M      | 40G#5+7          | 1GHz ~ 40 GHz    | Dec. 14, 2021    | Dec. 13, 2022        | Radiation (03CH03-CB) |
| High Cable                    | Woken          | WCA0929M      | 40G#5            | 1GHz ~ 40 GHz    | Dec. 08, 2021    | Dec. 07, 2022        | Radiation (03CH03-CB) |
| High Cable                    | Woken          | WCA0929M      | 40G#7            | 1GHz ~ 40 GHz    | Dec. 14, 2021    | Dec. 13, 2022        | Radiation (03CH03-CB) |
| Test Software                 | SPORTON        | SENSE         | V5.10            | -                | N.C.R.           | N.C.R.               | Radiation (03CH03-CB) |
| 3m Semi Anechoic Chamber VSWR | TDK            | SAC-3M        | 03CH04-CB        | 1GHz ~18GHz 3m   | Feb. 24, 2022    | Feb. 23, 2023        | Radiation (03CH04-CB) |
| Horn Antenna                  | ETS • Lindgren | 3115          | 00143147         | 750MHz~18GHz     | Oct. 25, 2021    | Oct. 24, 2022        | Radiation (03CH04-CB) |
| Horn Antenna                  | Schwarzbeck    | BBHA 9170     | BBHA9170252      | 15GHz ~ 40GHz    | Aug. 05, 2021    | Aug. 04, 2022        | Radiation (03CH04-CB) |
| Horn Antenna                  | SCHWARZBECK    | BBHA 9170     | BBHA9170507      | 15GHz ~ 40GHz    | Jul. 05, 2022    | Jul. 04, 2023        | Radiation (03CH04-CB) |
| Pre-Amplifier                 | Agilent        | 83017A        | MY53270063       | 0.5GHz ~ 26.5GHz | Jul. 12, 2021    | Jul. 11, 2022        | Radiation (03CH04-CB) |
| Pre-Amplifier                 | Agilent        | 83017A        | MY53270063       | 0.5GHz ~ 26.5GHz | Jul. 01, 2022    | Jun. 30, 2023        | Radiation (03CH04-CB) |
| Pre-Amplifier                 | MITEQ          | TTA1840-35-HG | 1864479          | 18GHz ~ 40GHz    | Jul. 13, 2021    | Jul. 12, 2022        | Radiation (03CH04-CB) |
| Pre-Amplifier                 | -              | -             | TF-130N-R1       | 18GHz ~ 40GHz    | Jun. 21, 2022    | Jun. 20, 2023        | Radiation (03CH04-CB) |
| Spectrum Analyzer             | R&S            | FSP40         | 100142           | 9kHz~40GHz       | Mar. 28, 2022    | Mar. 27, 2023        | Radiation (03CH04-CB) |
| RF Cable-high                 | Woken          | RG402         | High Cable-21    | 1GHz - 18GHz     | Oct. 04, 2021    | Oct. 03, 2022        | Radiation (03CH04-CB) |
| RF Cable-high                 | Woken          | RG402         | High Cable-21+67 | 1GHz - 18GHz     | Oct. 04, 2021    | Oct. 03, 2022        | Radiation (03CH04-CB) |
| High Cable                    | Woken          | WCA0929M      | 40G#5+7          | 1GHz ~ 40 GHz    | Dec. 14, 2021    | Dec. 13, 2022        | Radiation (03CH04-CB) |
| High Cable                    | Woken          | WCA0929M      | 40G#5            | 1GHz ~ 40 GHz    | Dec. 08, 2021    | Dec. 07, 2022        | Radiation (03CH04-CB) |
| High Cable                    | Woken          | WCA0929M      | 40G#7            | 1GHz ~ 40 GHz    | Dec. 14, 2021    | Dec. 13, 2022        | Radiation (03CH04-CB) |
| Test Software                 | SPORTON        | SENSE         | V5.10            | -                | N.C.R.           | N.C.R.               | Radiation (03CH04-CB) |
| Spectrum analyzer             | R&S            | FSV40         | 101028           | 9kHz~40GHz       | Jan. 07, 2022    | Jan. 06, 2023        | Conducted (TH03-CB)   |



| Instrument    | Brand   | Model No. | Serial No.    | Characteristics | Calibration Date | Calibration Due Date | Remark              |
|---------------|---------|-----------|---------------|-----------------|------------------|----------------------|---------------------|
| Power Sensor  | Anritsu | MA2411B   | 1726195       | 300MHz~40GHz    | Aug. 22, 2021    | Aug. 21, 2022        | Conducted (TH03-CB) |
| Power Sensor  | Anritsu | MA2411B   | 1531344       | 300MHz~40GHz    | Jul. 31, 2022    | Jul. 30, 2023        | Conducted (TH03-CB) |
| Power Meter   | Anritsu | ML2495A   | 1035008       | 300MHz~40GHz    | Aug. 22, 2021    | Aug. 21, 2022        | Conducted (TH03-CB) |
| Power Meter   | Anritsu | ML2495A   | 1728002       | 300MHz~40GHz    | Jul. 31, 2022    | Jul. 30, 2023        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | High Cable-11 | 1 GHz ~18 GHz   | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | High Cable-12 | 1 GHz ~18 GHz   | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | High Cable-13 | 1 GHz ~18 GHz   | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | High Cable-14 | 1 GHz ~18 GHz   | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | High Cable-15 | 1 GHz ~18 GHz   | Oct. 04, 2021    | Oct. 03, 2022        | Conducted (TH03-CB) |
| Switch        | SPTCB   | SP-SWI    | SWI-03        | 1 GHz ~26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P1     | 1 GHz ~26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P2     | 1 GHz ~26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P3     | 1 GHz ~26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P4     | 1 GHz ~26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| RF Cable-high | Woken   | RG402     | SWI-03-P5     | 1 GHz ~26.5 GHz | Dec. 13, 2021    | Dec. 12, 2022        | Conducted (TH03-CB) |
| Test Software | SPORTON | SENSE     | V5.10         | -               | N.C.R.           | N.C.R.               | Conducted (TH03-CB) |

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

**Summary**

| Mode                            | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|---------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.15-5.25GHz                    | -                | -               | -        | -                | -               |
| 802.11ax HEW160_Nss1,(MCS0)_1TX | 82.8M            | 78.361M         | 78M4D1D  | 82.8M            | 78.361M         |
| 5.25-5.35GHz                    | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX        | 38.76M           | 19.46M          | 19M5D1D  | 27.27M           | 17.631M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX  | 43.2M            | 19.79M          | 19M8D1D  | 24.51M           | 19.31M          |
| 802.11ax HEW40_Nss1,(MCS0)_1TX  | 55.8M            | 38.381M         | 38M4D1D  | 43.92M           | 38.141M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX  | 87M              | 78.081M         | 78M1D1D  | 87M              | 78.081M         |
| 802.11ax HEW160_Nss1,(MCS0)_1TX | 83.12M           | 78.441M         | 78M4D1D  | 83.12M           | 78.441M         |
| 5.47-5.725GHz                   | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX        | 27.93M           | 17.541M         | 17M5D1D  | 16.485M          | 13.793M         |
| 802.11ax HEW20_Nss1,(MCS0)_1TX  | 33.42M           | 19.28M          | 19M3D1D  | 16.08M           | 14.633M         |
| 802.11ax HEW40_Nss1,(MCS0)_1TX  | 58.065M          | 38.201M         | 38M2D1D  | 40.8M            | 34.423M         |
| 802.11ax HEW80_Nss1,(MCS0)_1TX  | 108.675M         | 78.201M         | 78M2D1D  | 95.4M            | 74.288M         |
| 802.11ax HEW160_Nss1,(MCS0)_1TX | 165.36M          | 156.402M        | 156MD1D  | 165.36M          | 156.402M        |
| 5.725-5.85GHz                   | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_1TX        | 3.18M            | 4.658M          | 4M66D1D  | 3.18M            | 4.658M          |
| 802.11ax HEW20_Nss1,(MCS0)_1TX  | 4.48M            | 4.778M          | 4M78D1D  | 4.48M            | 4.778M          |
| 802.11ax HEW40_Nss1,(MCS0)_1TX  | 3.9M             | 20.43M          | 20M4D1D  | 3.9M             | 20.43M          |
| 802.11ax HEW80_Nss1,(MCS0)_1TX  | 4M               | 32.724M         | 32M7D1D  | 4M               | 32.724M         |

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

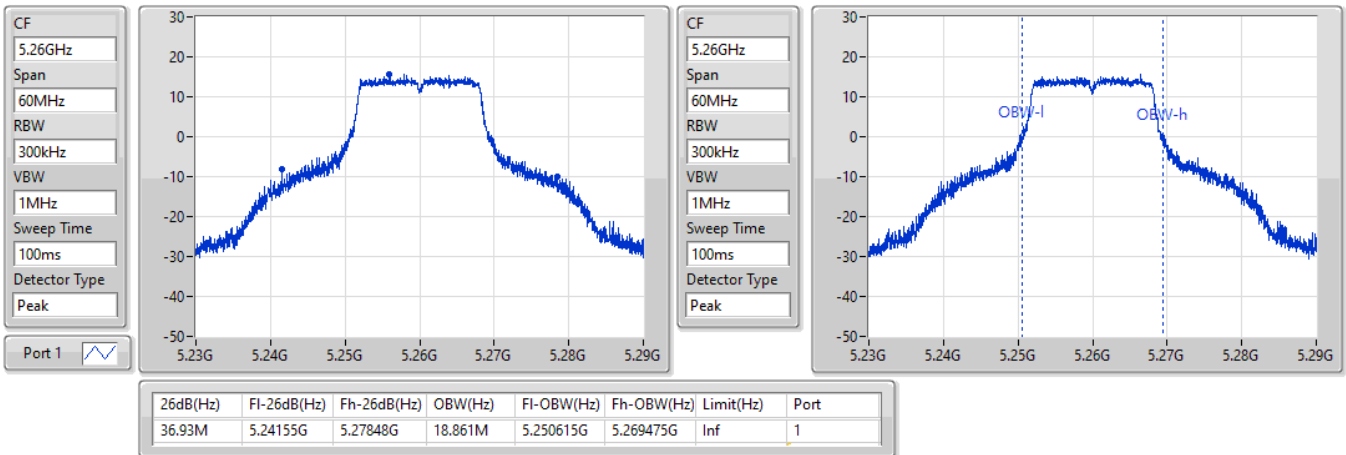
**Result**

| Mode                            | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|---------------------------------|--------|---------------|---------------------|--------------------|
| 802.11a_Nss1,(6Mbps)_1TX        | -      | -             | -                   | -                  |
| 5260MHz                         | Pass   | Inf           | 36.93M              | 18.861M            |
| 5300MHz                         | Pass   | Inf           | 38.76M              | 19.46M             |
| 5320MHz                         | Pass   | Inf           | 27.27M              | 17.631M            |
| 5500MHz                         | Pass   | Inf           | 27.81M              | 17.541M            |
| 5580MHz                         | Pass   | Inf           | 27.93M              | 17.421M            |
| 5700MHz                         | Pass   | Inf           | 22.77M              | 17.211M            |
| 5720MHz Straddle 5.47-5.725GHz  | Pass   | Inf           | 16.485M             | 13.793M            |
| 5720MHz Straddle 5.725-5.85GHz  | Pass   | 500k          | 3.18M               | 4.658M             |
| 802.11ax HEW20_Nss1,(MCS0)_1TX  | -      | -             | -                   | -                  |
| 5260MHz                         | Pass   | Inf           | 40.71M              | 19.79M             |
| 5300MHz                         | Pass   | Inf           | 43.2M               | 19.73M             |
| 5320MHz                         | Pass   | Inf           | 24.51M              | 19.31M             |
| 5500MHz                         | Pass   | Inf           | 33.42M              | 19.28M             |
| 5580MHz                         | Pass   | Inf           | 26.43M              | 19.22M             |
| 5700MHz                         | Pass   | Inf           | 21.93M              | 19.16M             |
| 5720MHz Straddle 5.47-5.725GHz  | Pass   | Inf           | 16.08M              | 14.633M            |
| 5720MHz Straddle 5.725-5.85GHz  | Pass   | 500k          | 4.48M               | 4.778M             |
| 802.11ax HEW40_Nss1,(MCS0)_1TX  | -      | -             | -                   | -                  |
| 5270MHz                         | Pass   | Inf           | 55.8M               | 38.381M            |
| 5310MHz                         | Pass   | Inf           | 43.92M              | 38.141M            |
| 5510MHz                         | Pass   | Inf           | 48.12M              | 38.201M            |
| 5550MHz                         | Pass   | Inf           | 40.8M               | 38.021M            |
| 5670MHz                         | Pass   | Inf           | 40.98M              | 38.021M            |
| 5710MHz Straddle 5.47-5.725GHz  | Pass   | Inf           | 58.065M             | 34.423M            |
| 5710MHz Straddle 5.725-5.85GHz  | Pass   | 500k          | 3.9M                | 20.43M             |
| 802.11ax HEW80_Nss1,(MCS0)_1TX  | -      | -             | -                   | -                  |
| 5290MHz                         | Pass   | Inf           | 87M                 | 78.081M            |
| 5530MHz                         | Pass   | Inf           | 95.4M               | 78.081M            |
| 5610MHz                         | Pass   | Inf           | 102M                | 78.201M            |
| 5690MHz Straddle 5.47-5.725GHz  | Pass   | Inf           | 108.675M            | 74.288M            |
| 5690MHz Straddle 5.725-5.85GHz  | Pass   | 500k          | 4M                  | 32.724M            |
| 802.11ax HEW160_Nss1,(MCS0)_1TX | -      | -             | -                   | -                  |
| 5250MHz Straddle 5.15-5.25GHz   | Pass   | Inf           | 82.8M               | 78.361M            |
| 5250MHz Straddle 5.25-5.35GHz   | Pass   | Inf           | 83.12M              | 78.441M            |
| 5570MHz                         | Pass   | Inf           | 165.36M             | 156.402M           |

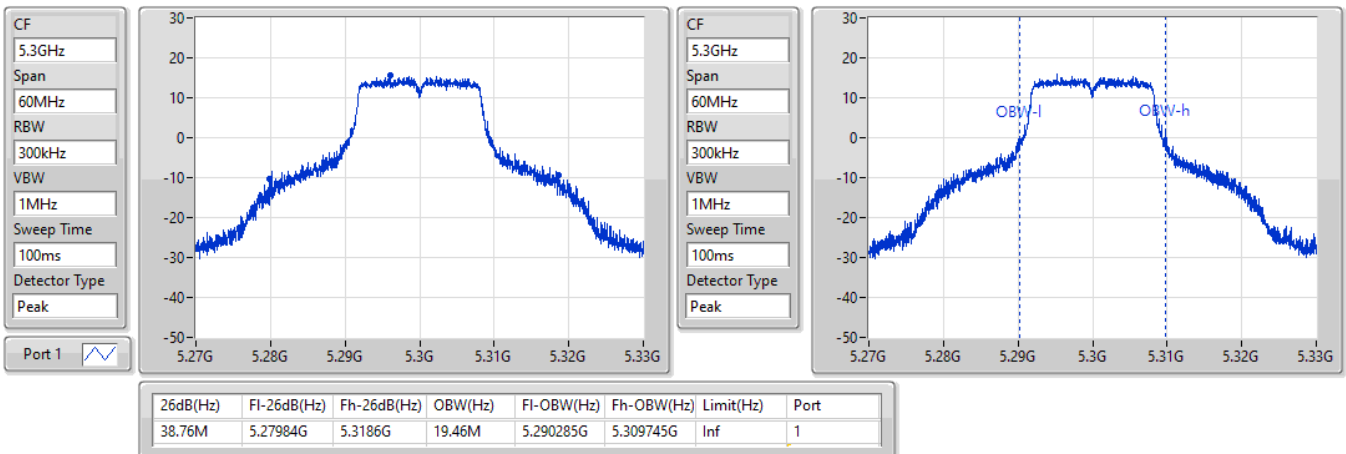
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band  
Port X-OBW = Port X 99% occupied bandwidth

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

27/07/2022

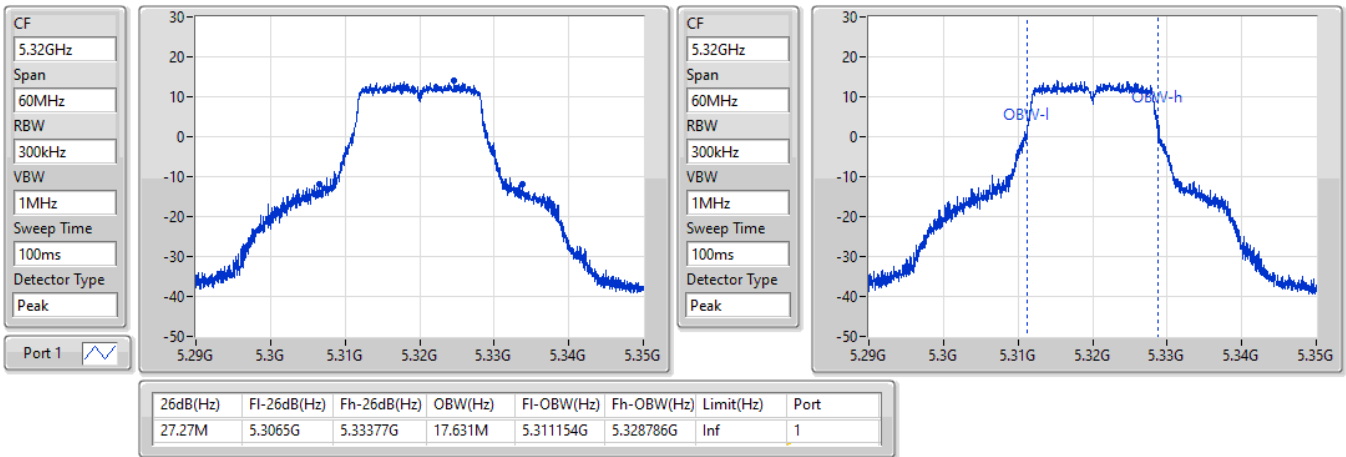

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5300MHz**

27/07/2022

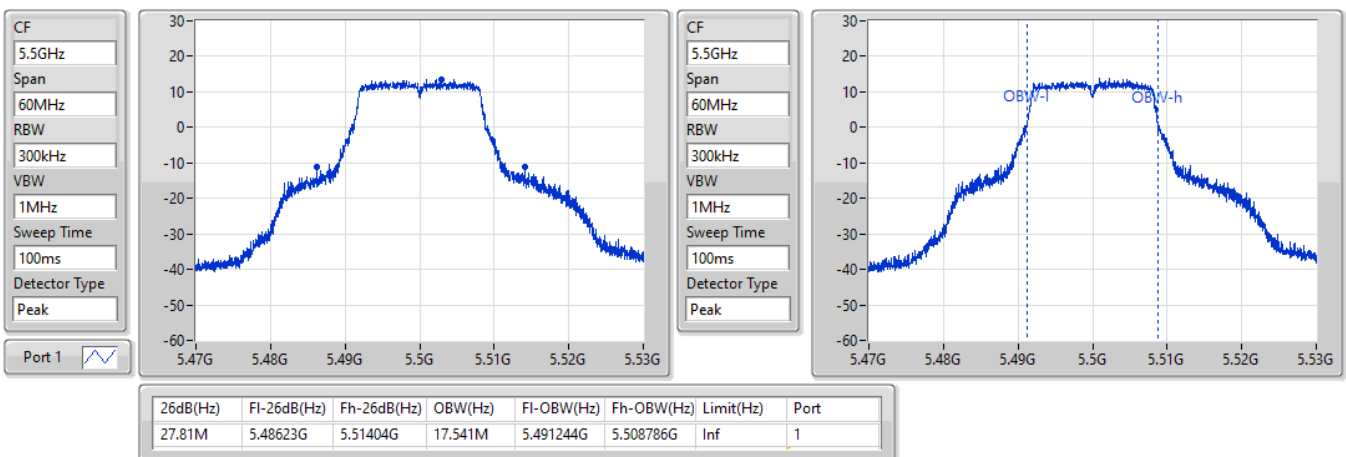


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5320MHz**

27/07/2022

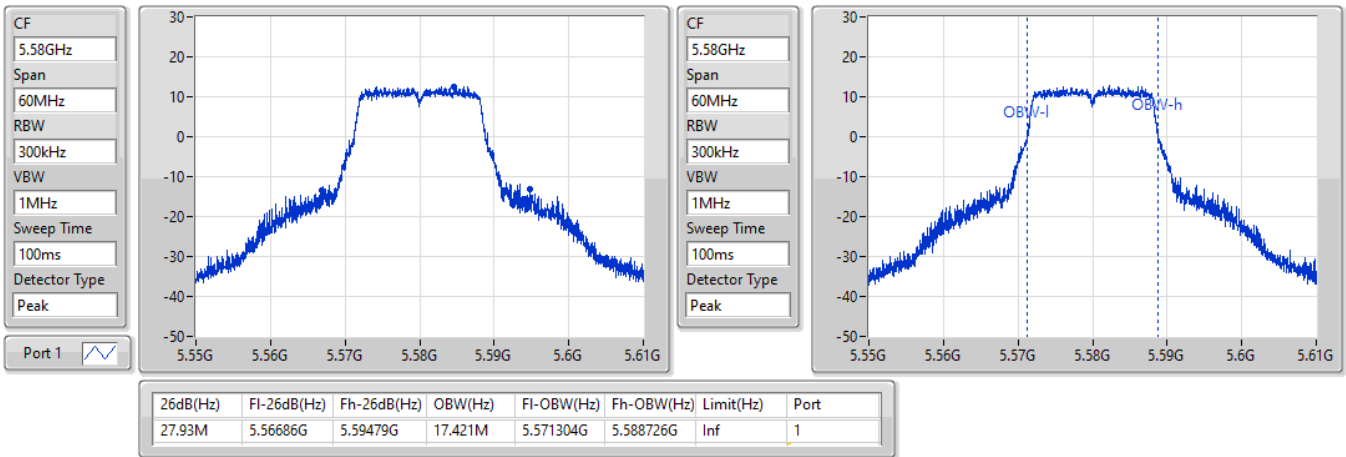

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5500MHz**

27/07/2022

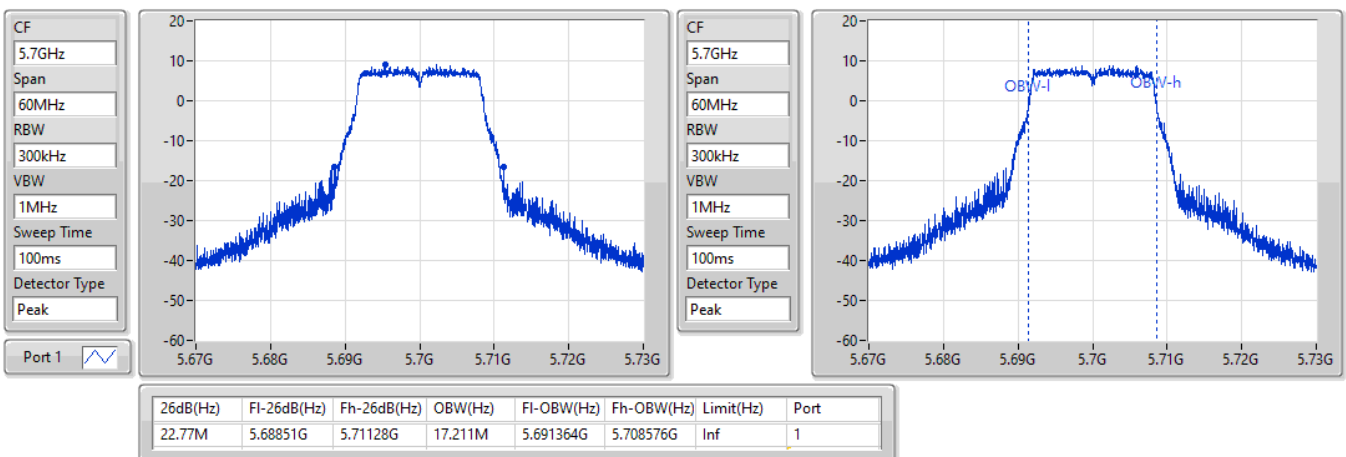


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5580MHz**

27/07/2022

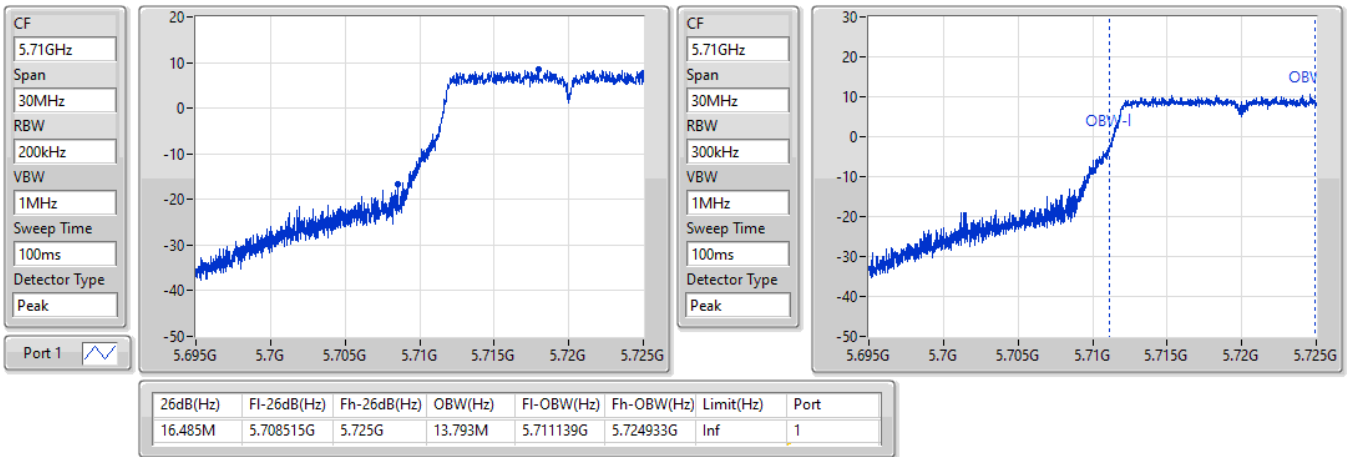

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5700MHz**

27/07/2022

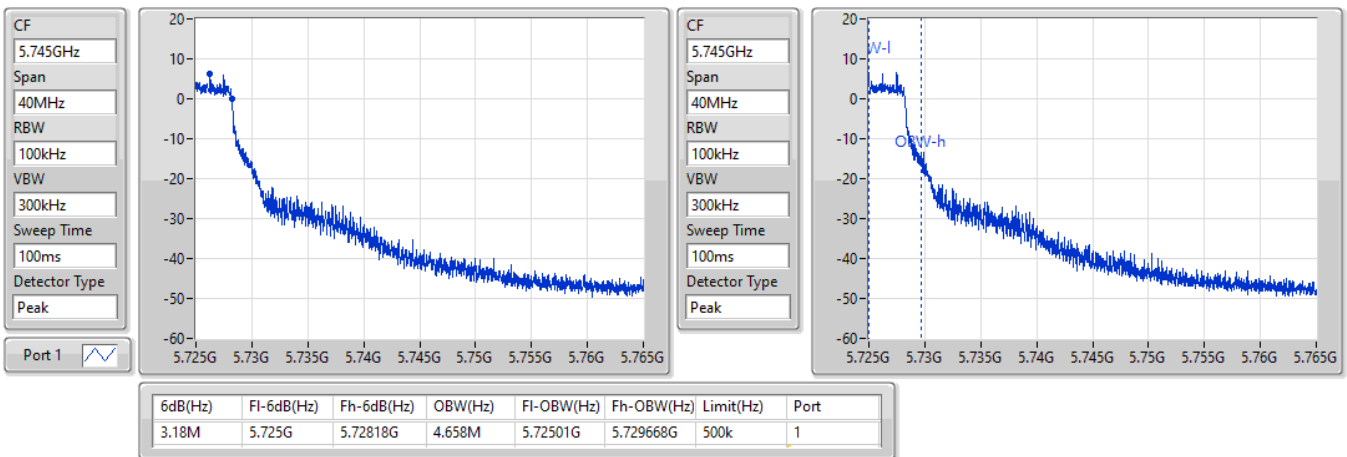


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

27/07/2022

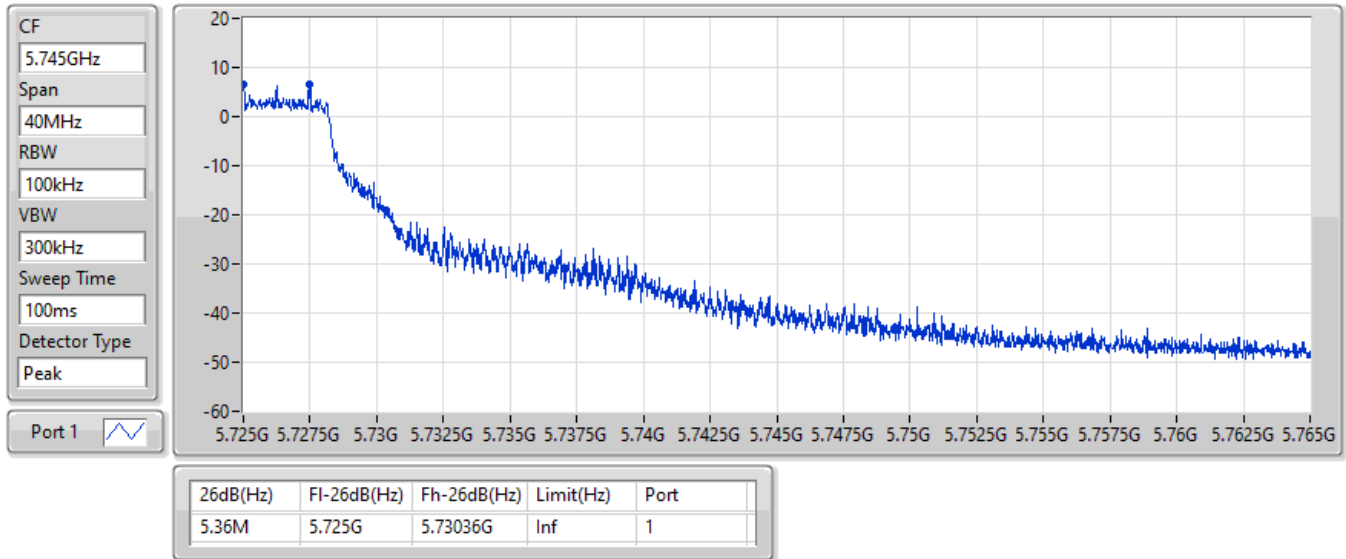

**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

27/07/2022

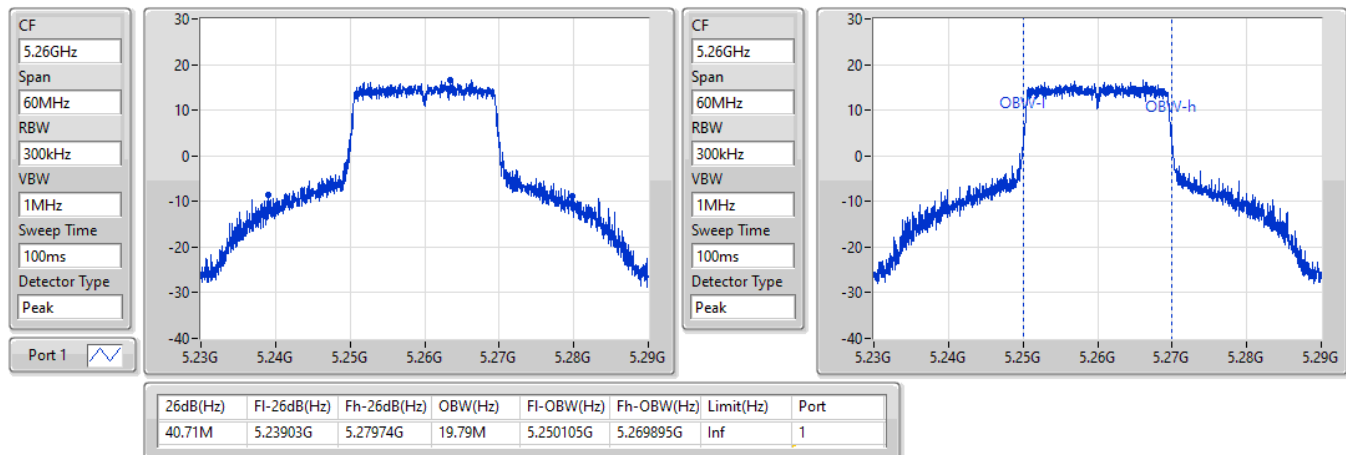


**802.11a\_Nss1,(6Mbps)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

27/07/2022

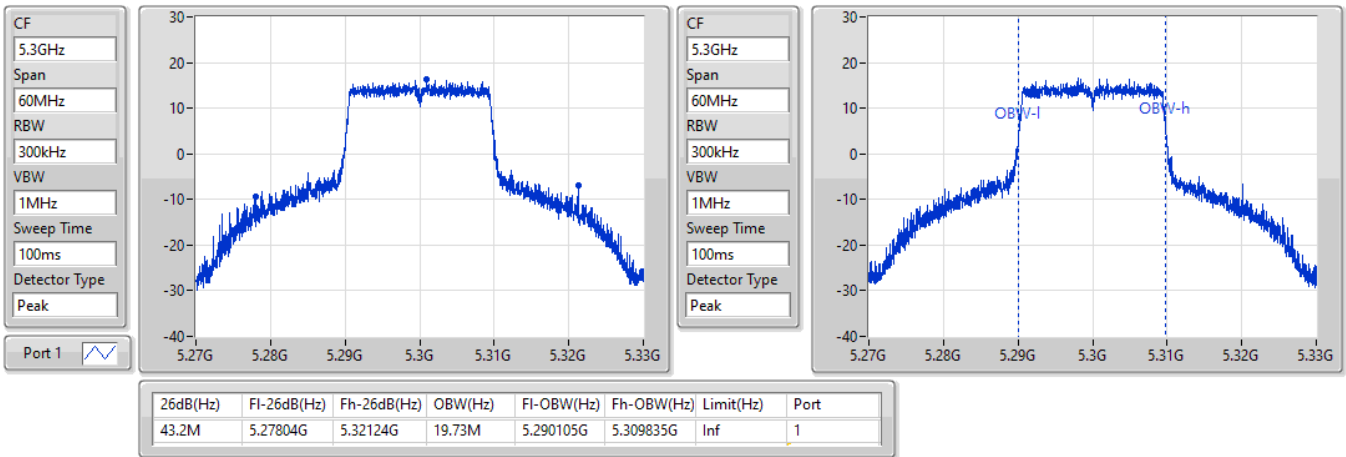

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5260MHz**

27/07/2022

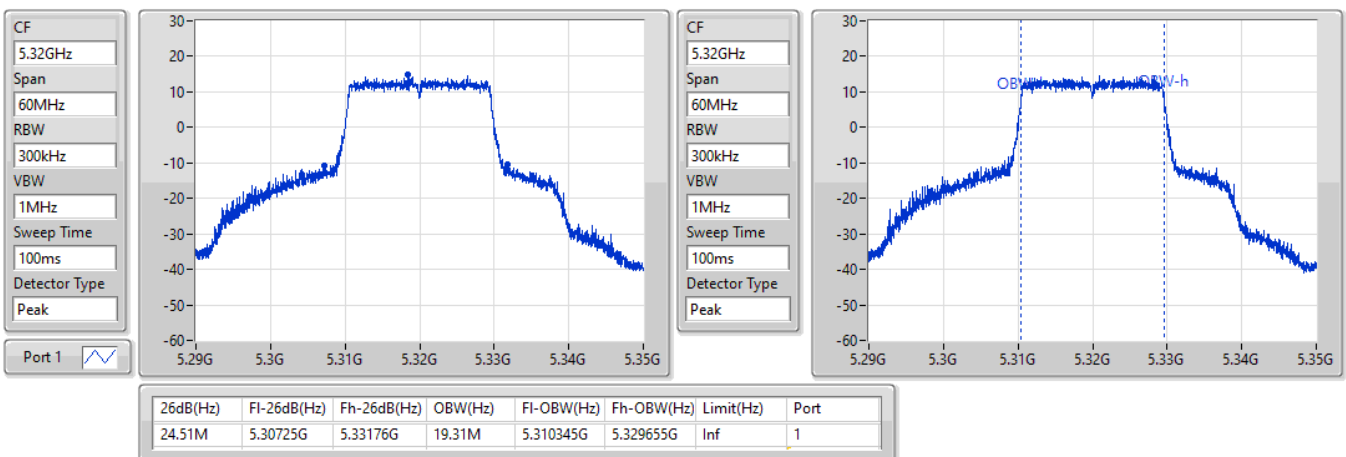


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5300MHz**

27/07/2022

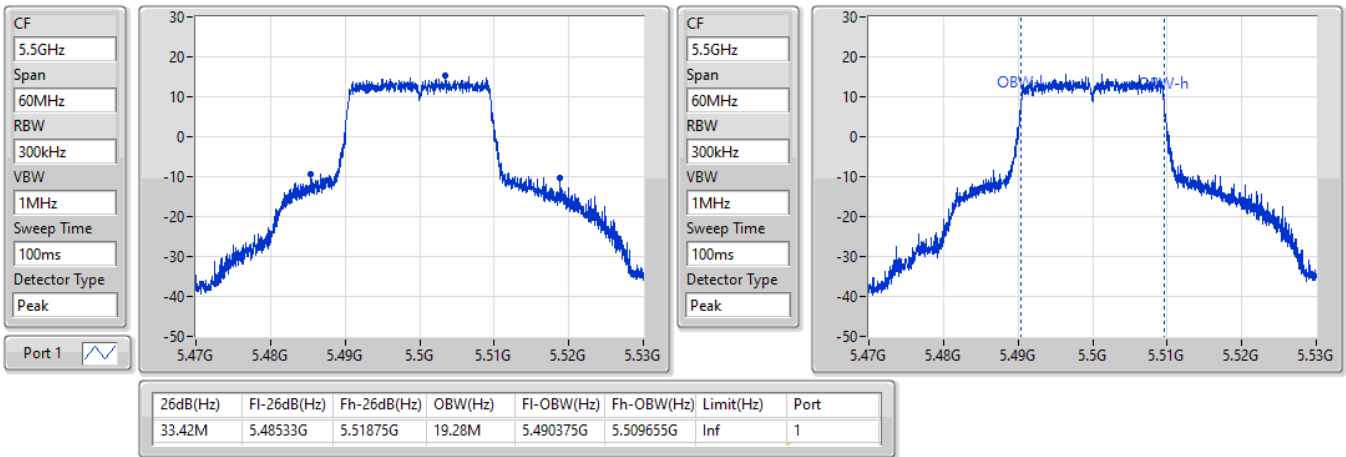

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5320MHz**

27/07/2022

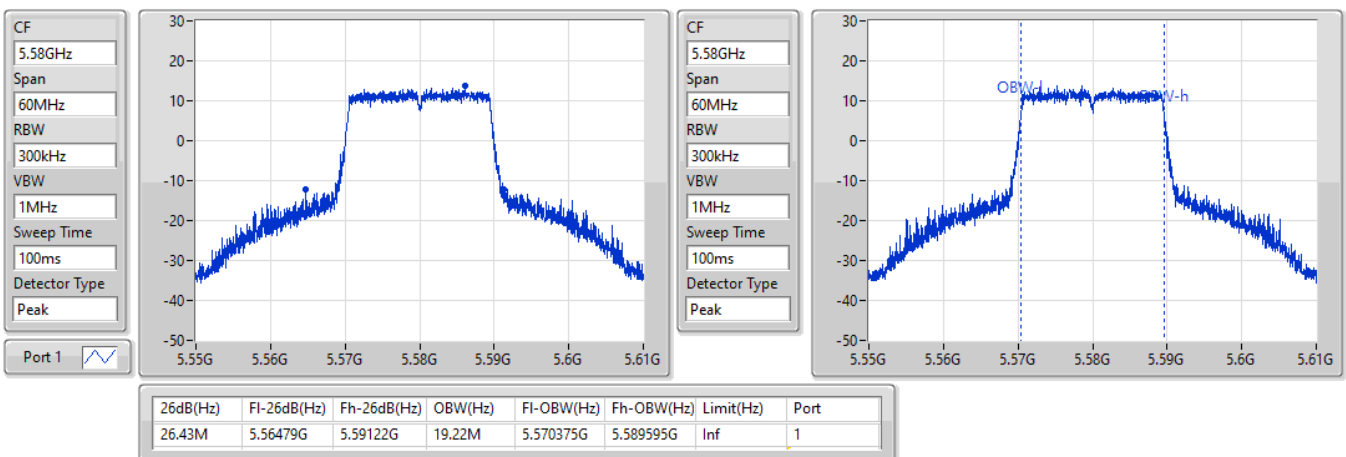


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5500MHz**

27/07/2022

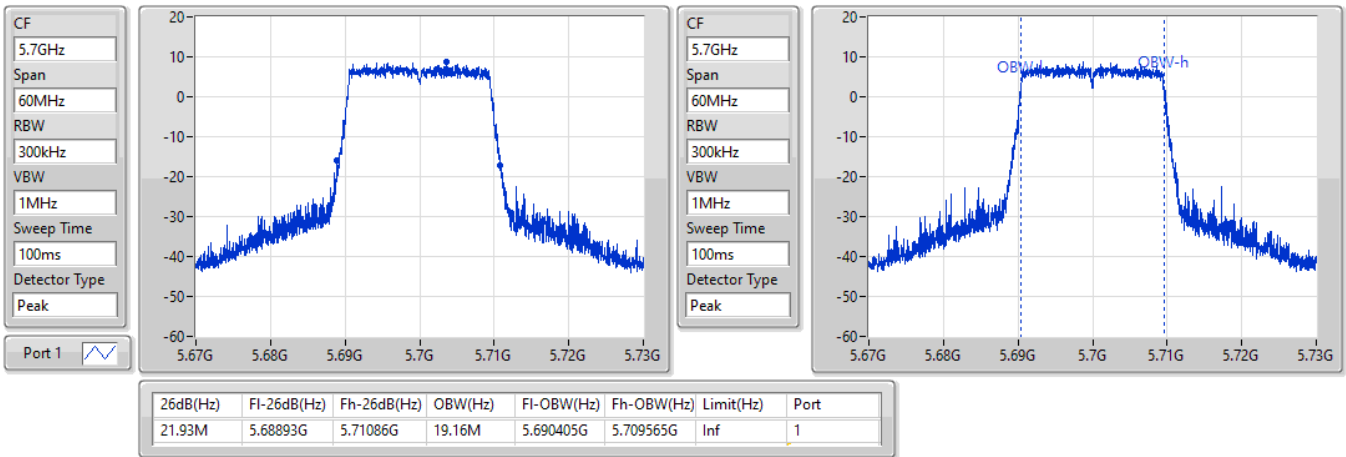

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5580MHz**

27/07/2022

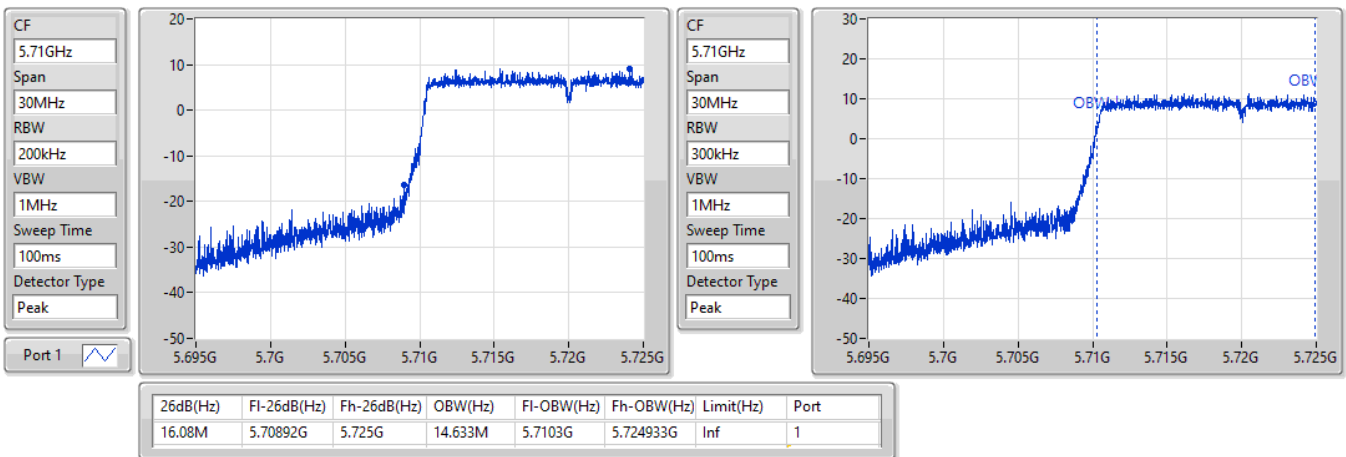


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5700MHz**

27/07/2022

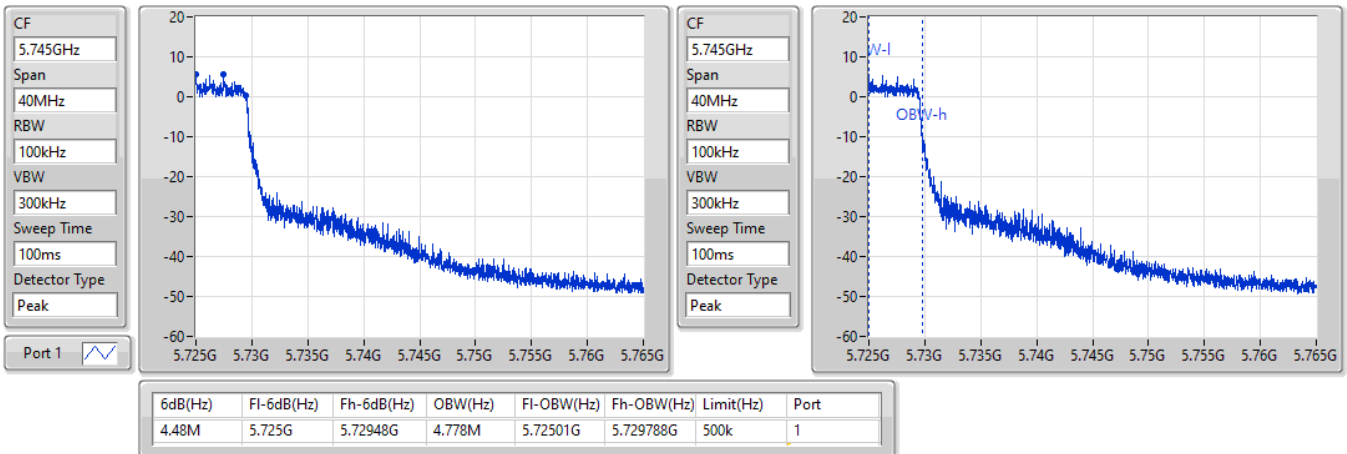

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

27/07/2022

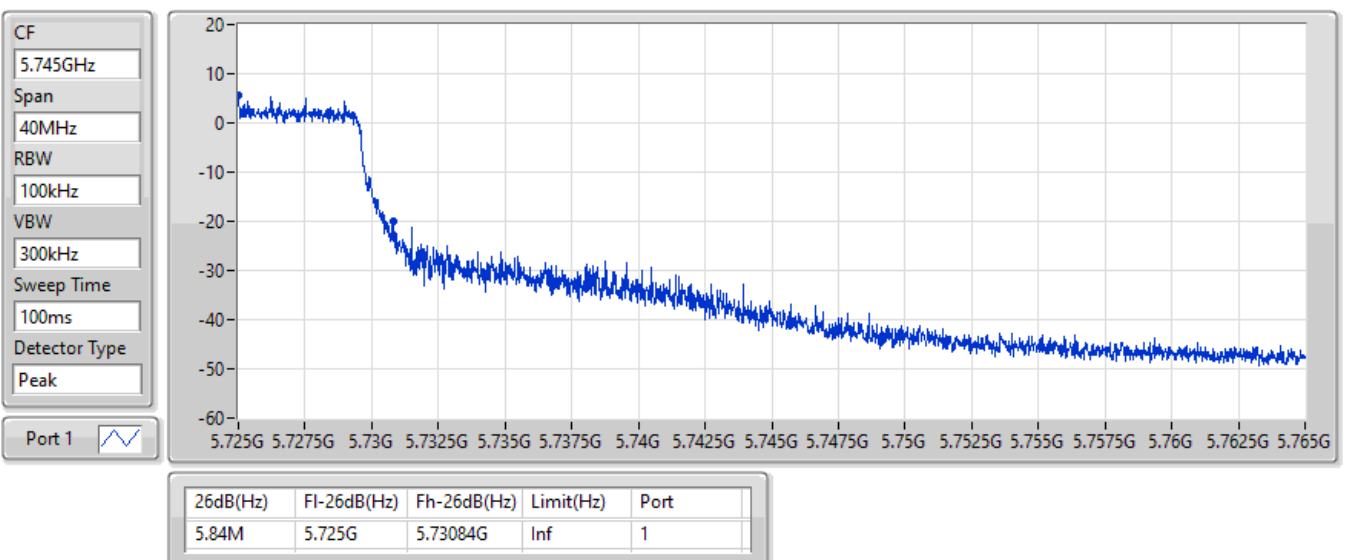


**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

27/07/2022

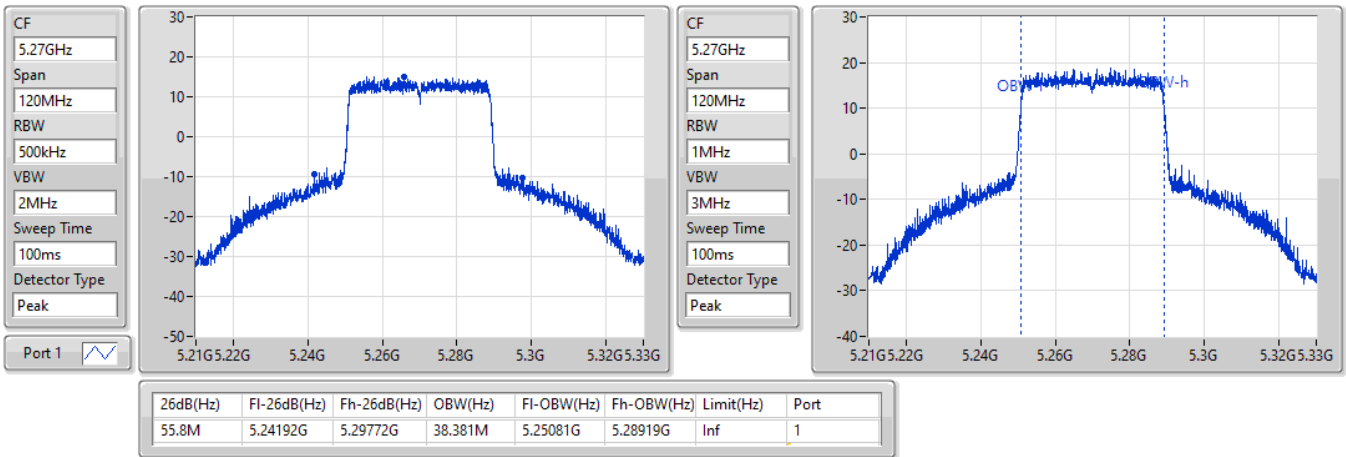

**802.11ax HEW20\_Nss1,(MCS0)\_1TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

27/07/2022

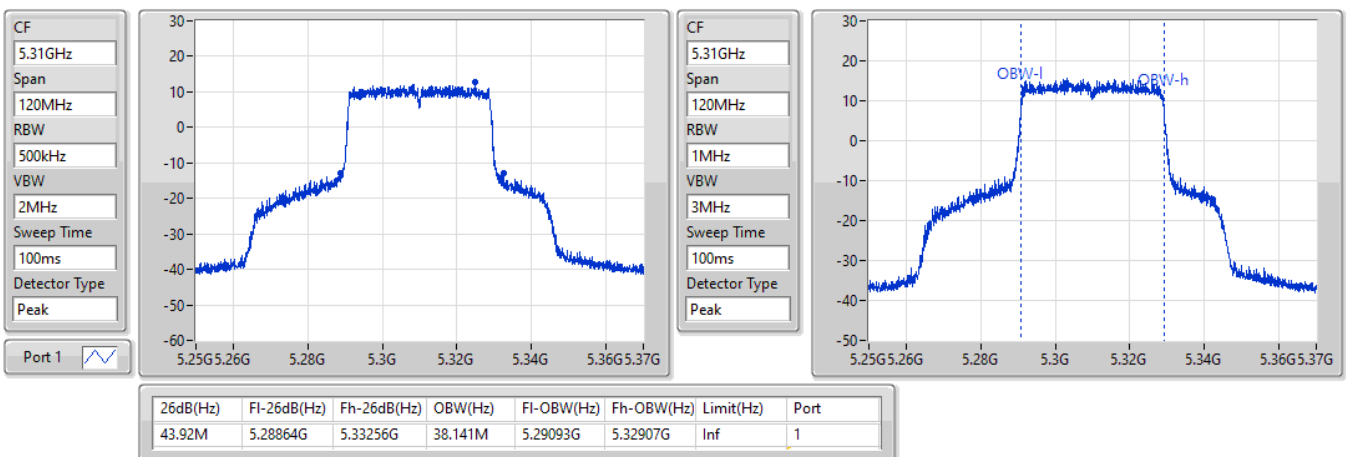


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5270MHz**

27/07/2022

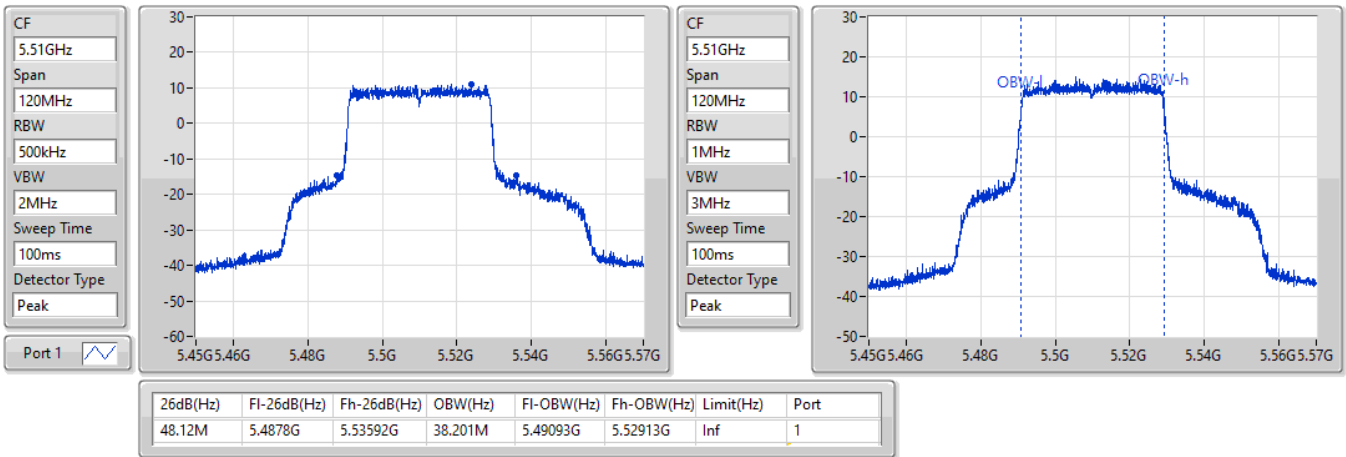

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5310MHz**

27/07/2022

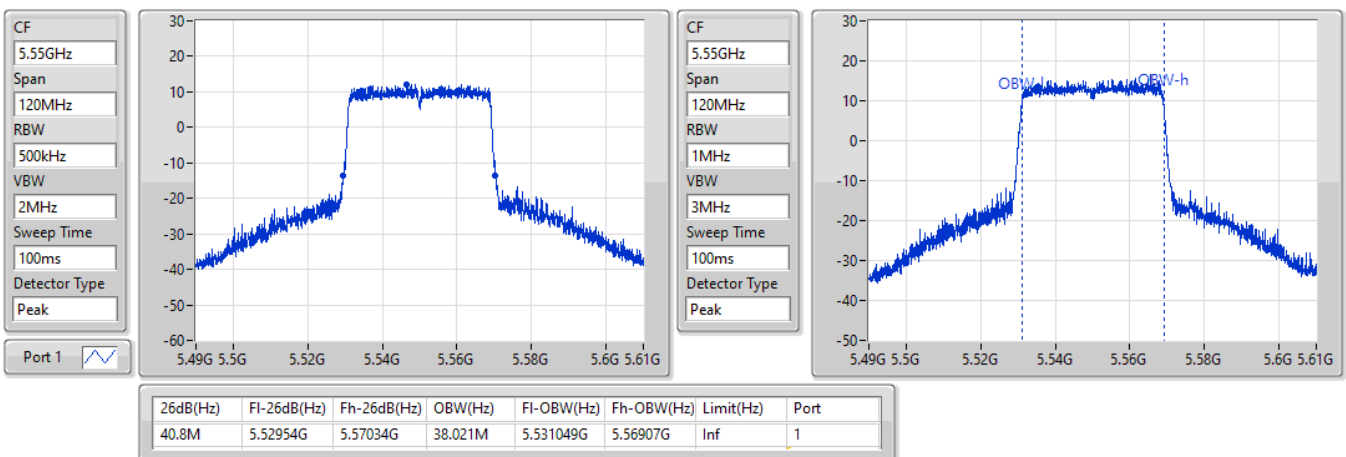


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5510MHz**

27/07/2022

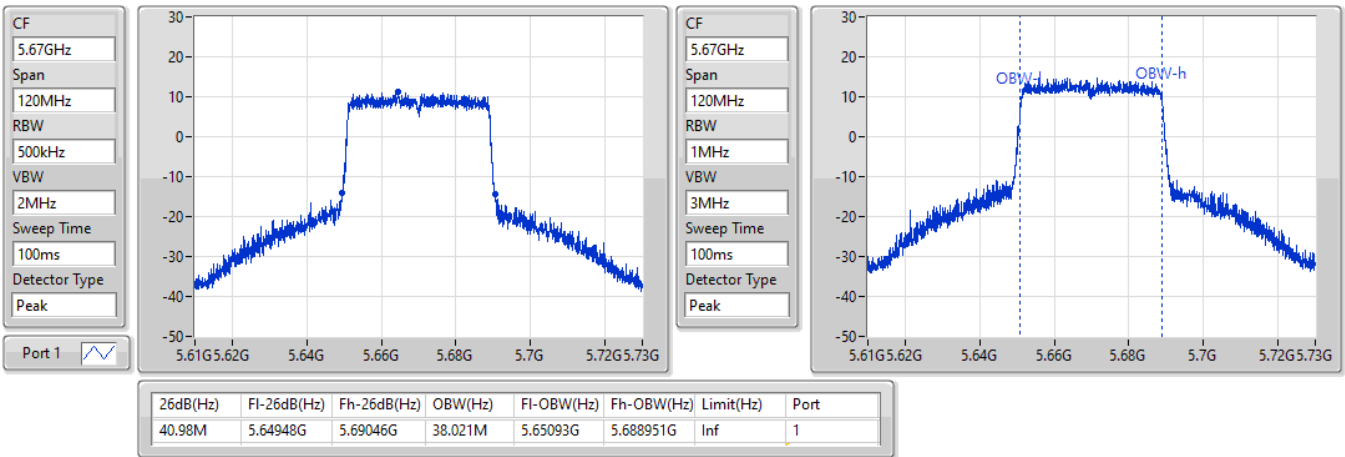

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5550MHz**

27/07/2022

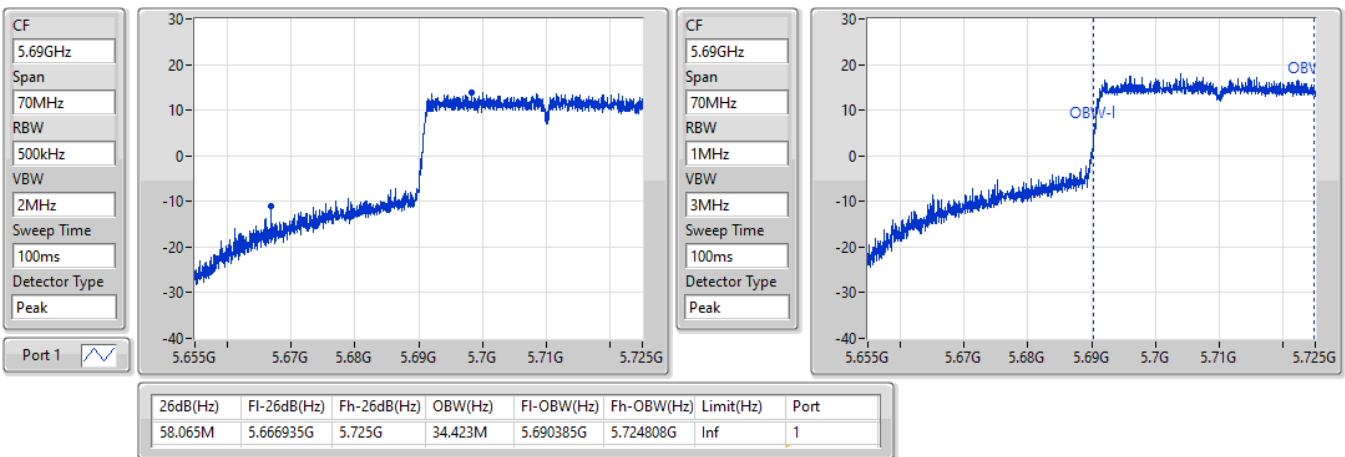


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5670MHz**

27/07/2022

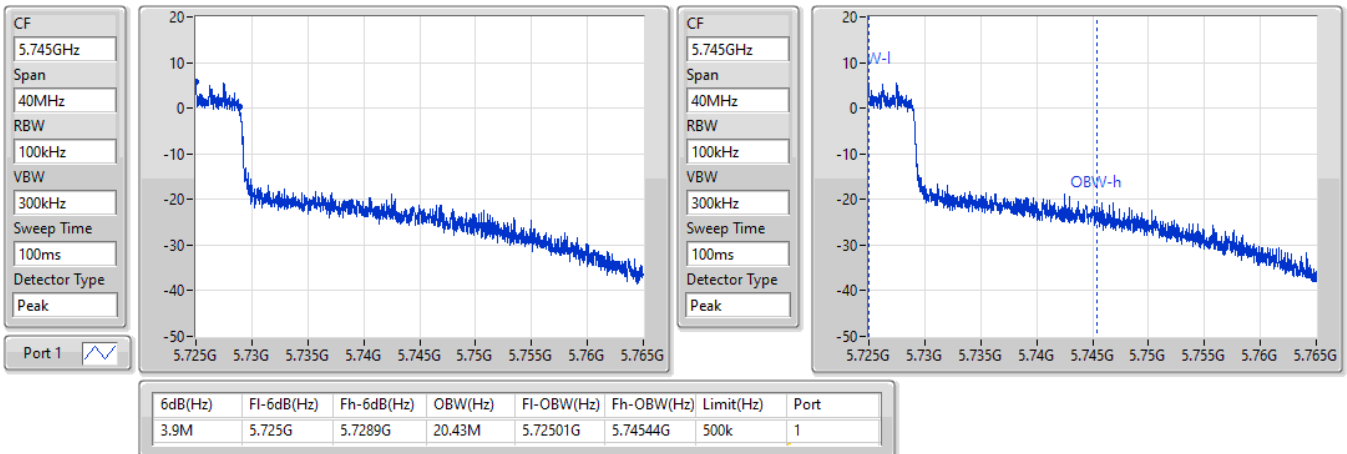

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

27/07/2022

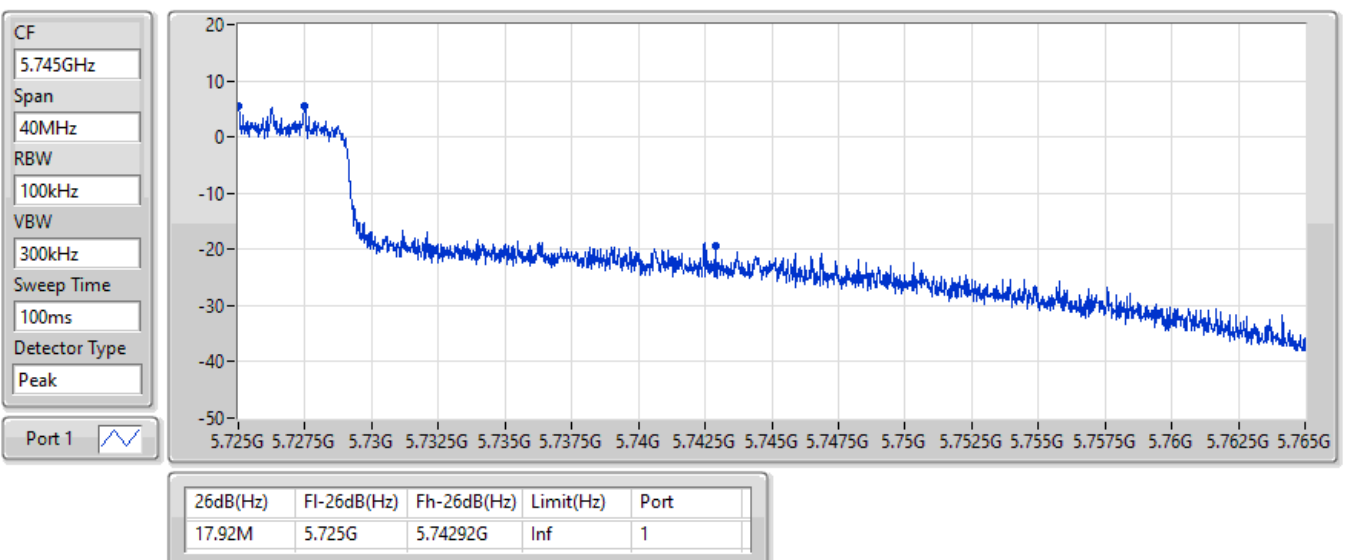


**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

27/07/2022

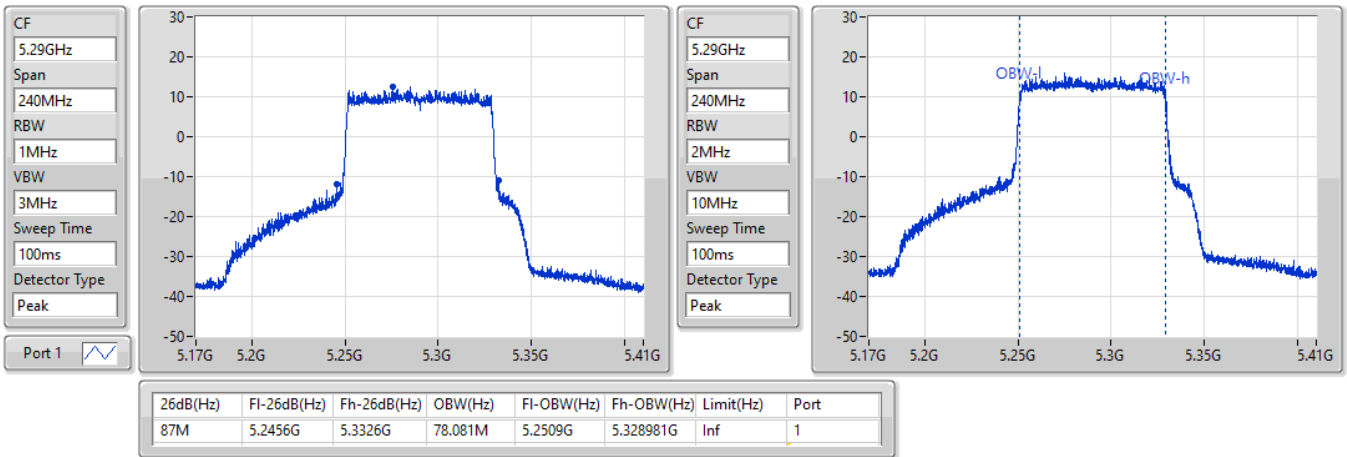

**802.11ax HEW40\_Nss1,(MCS0)\_1TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

27/07/2022

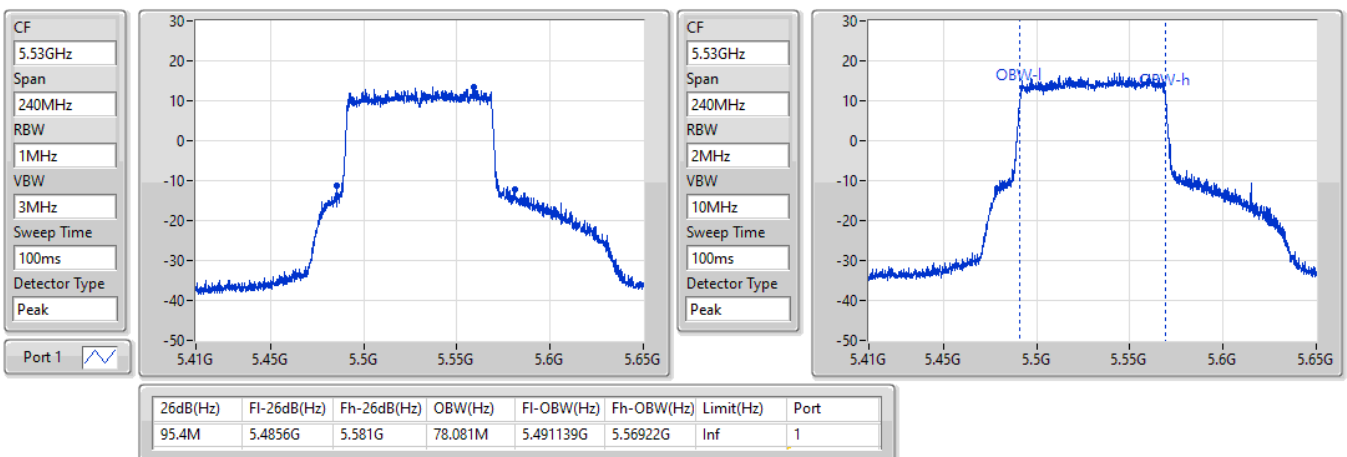


**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5290MHz**

27/07/2022

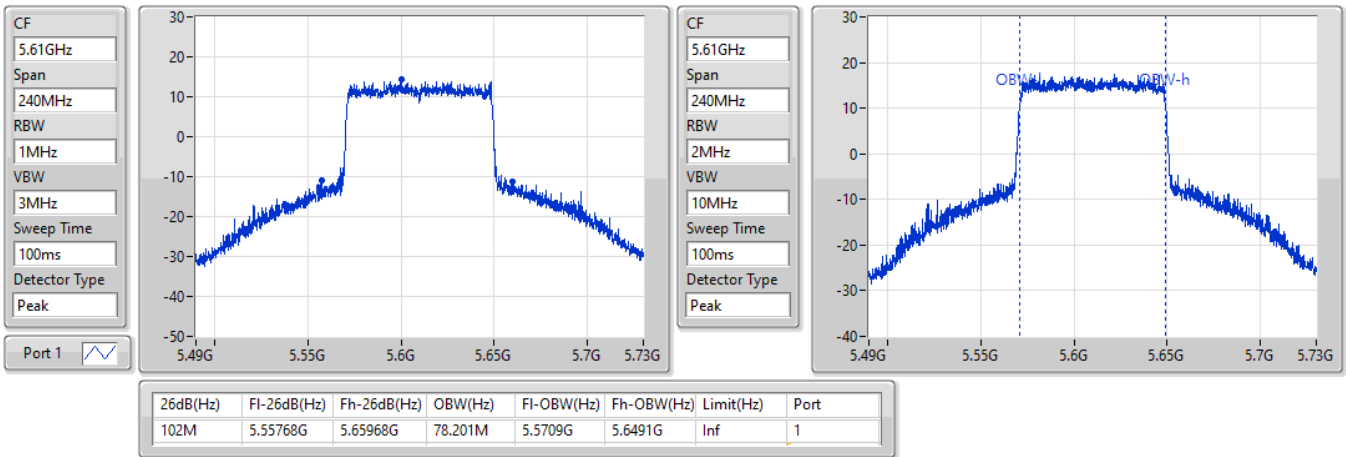

**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5530MHz**

27/07/2022

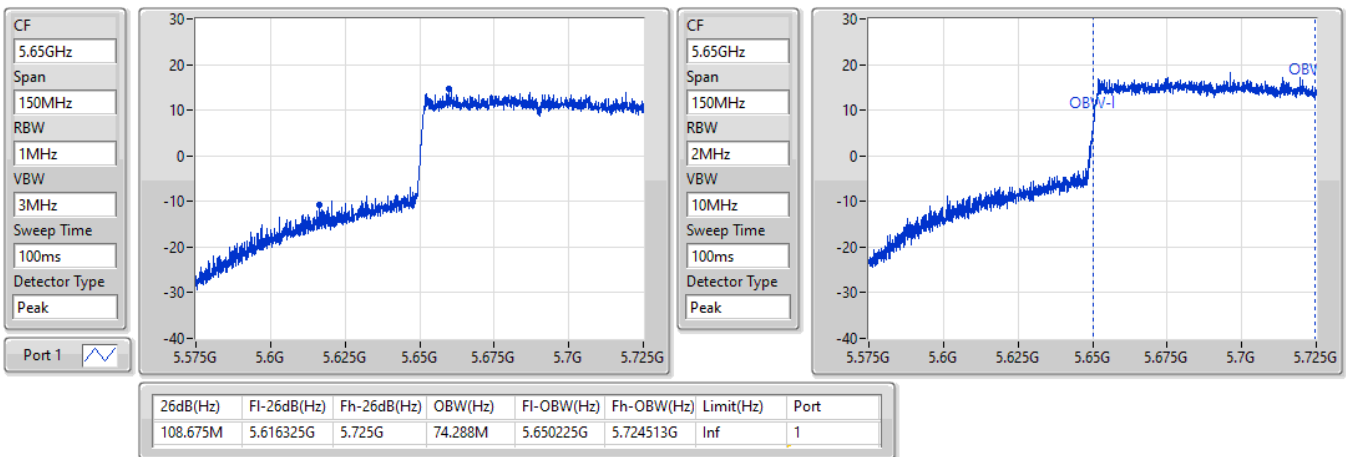


**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5610MHz**

27/07/2022

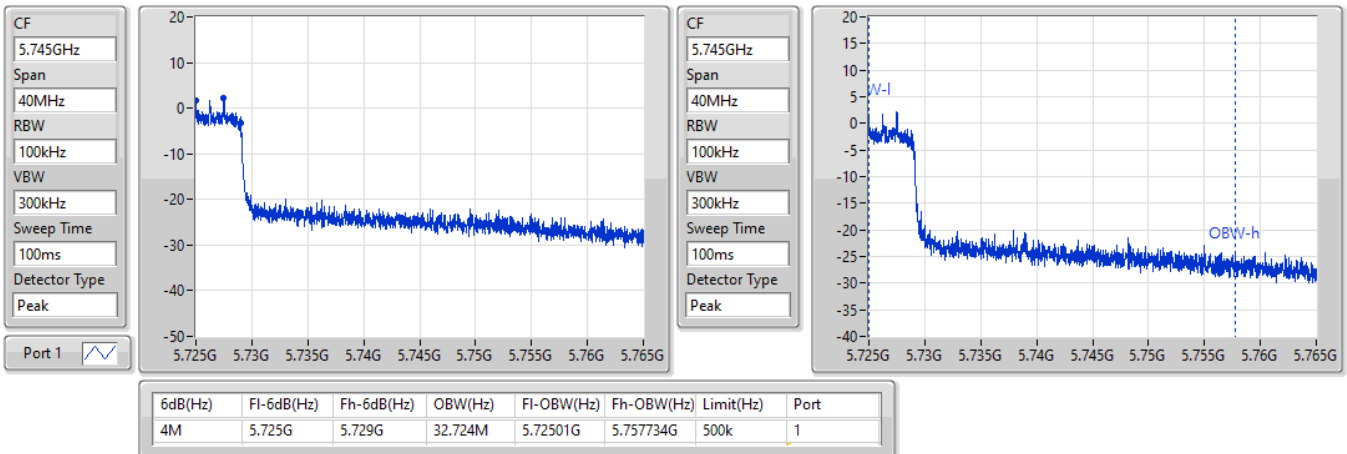

**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

27/07/2022

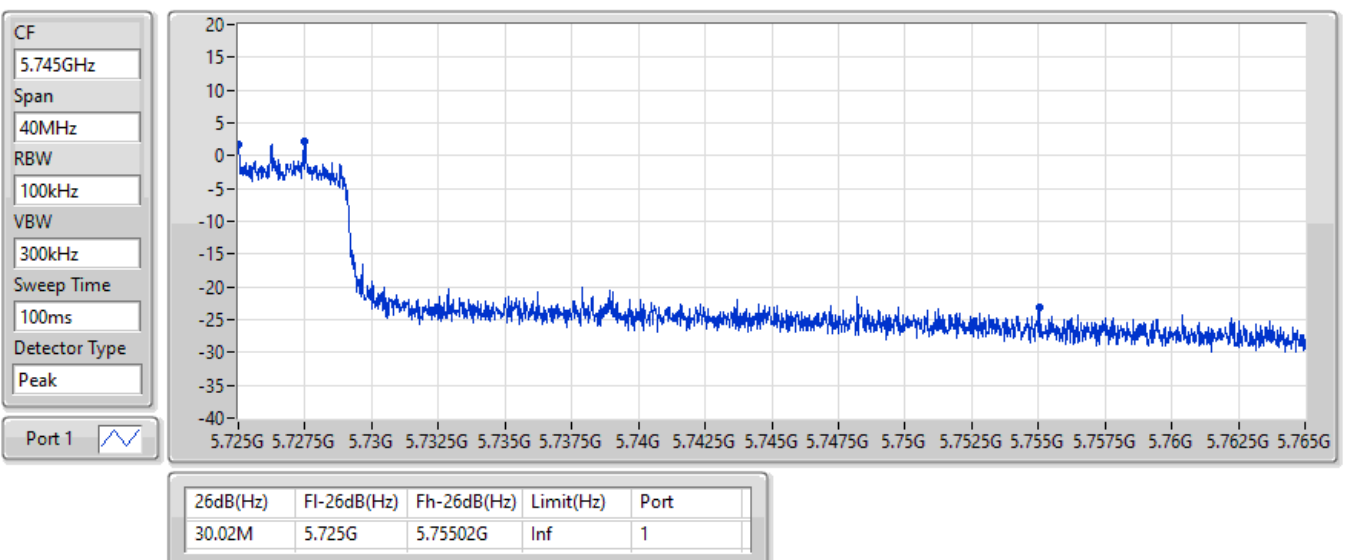


**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

27/07/2022

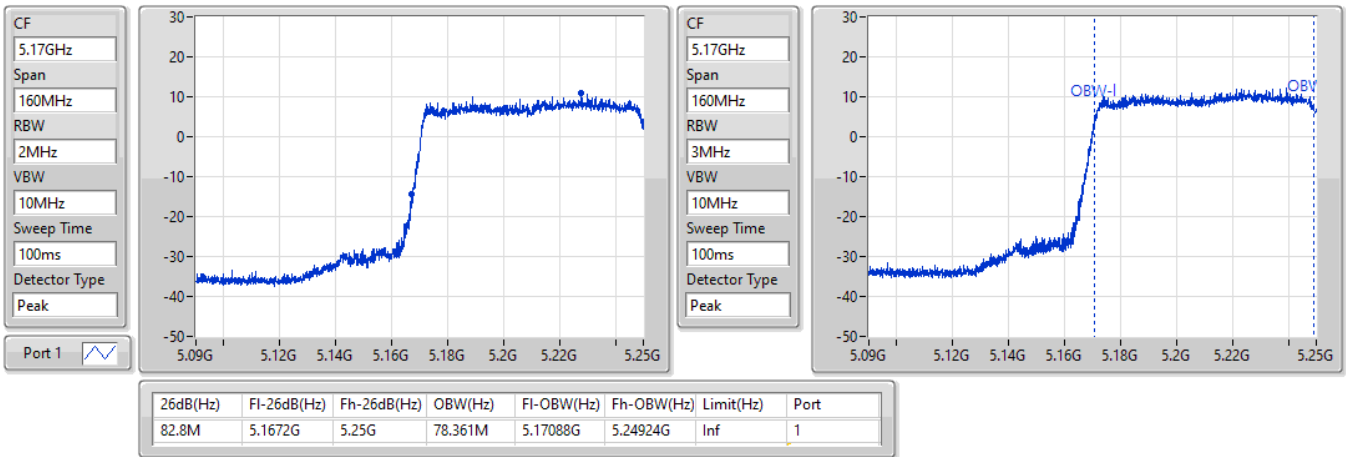

**802.11ax HEW80\_Nss1,(MCS0)\_1TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

27/07/2022

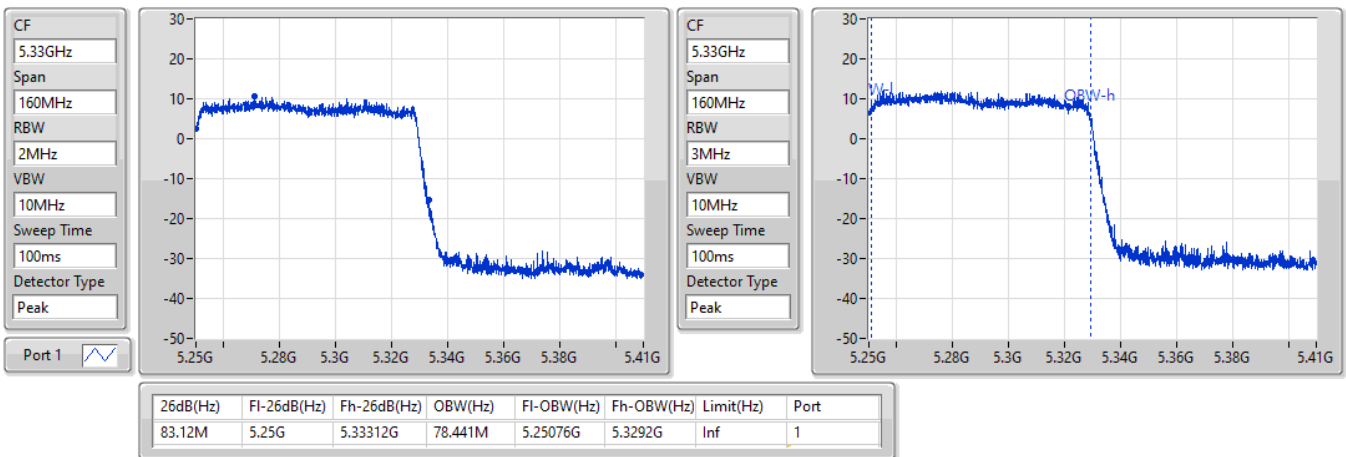


**802.11ax HEW160\_Nss1,(MCS0)\_1TX**
**EBW**
**5250MHz Straddle 5.15-5.25GHz**

27/07/2022


**802.11ax HEW160\_Nss1,(MCS0)\_1TX**
**EBW**
**5250MHz Straddle 5.25-5.35GHz**

27/07/2022

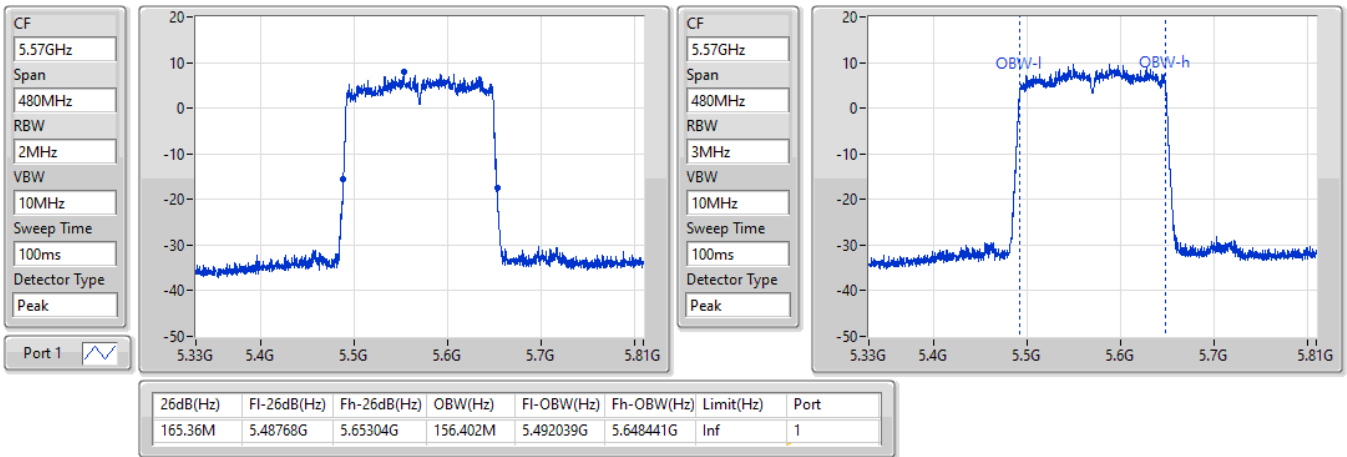


# 802.11ax HEW160\_Nss1,(MCS0)\_1TX

EBW

5570MHz

27/07/2022



**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 | 27.39M           | 17.451M         | 17M5D1D  | 23.1M            | 17.121M         |
| 5.47-5.725GHz            | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX | 30.93M           | 17.541M         | 17M5D1D  | 15.72M           | 13.598M         |
| 5.725-5.85GHz            | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX | 3.18M            | 4.278M          | 4M28D1D  | 3.18M            | 4.258M          |

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

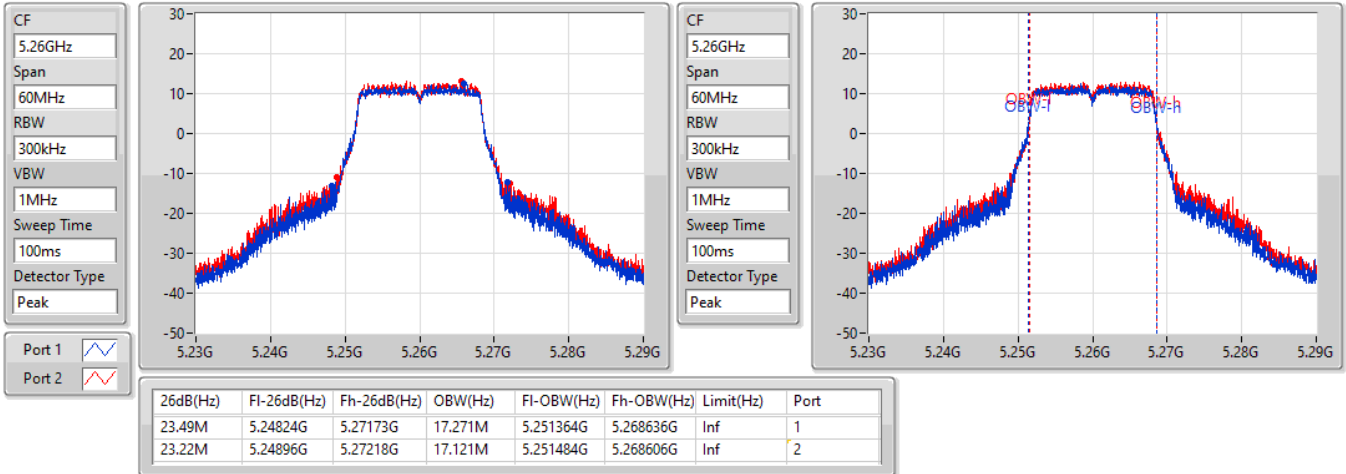
**Result**

| 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           | 23.49M              | 17.271M            | 23.22M              | 17.121M            |
| 5300MHz                        | Pass   | Inf           | 23.1M               | 17.271M            | 27.39M              | 17.211M            |
| 5320MHz                        | Pass   | Inf           | 25.83M              | 17.451M            | 24.03M              | 17.301M            |
| 5500MHz                        | Pass   | Inf           | 23.52M              | 17.541M            | 24.72M              | 17.331M            |
| 5580MHz                        | Pass   | Inf           | 26.16M              | 17.391M            | 30.93M              | 17.241M            |
| 5700MHz                        | Pass   | Inf           | 21.6M               | 17.151M            | 21.54M              | 16.912M            |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf           | 15.72M              | 13.673M            | 15.885M             | 13.598M            |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k          | 3.18M               | 4.278M             | 3.18M               | 4.258M             |

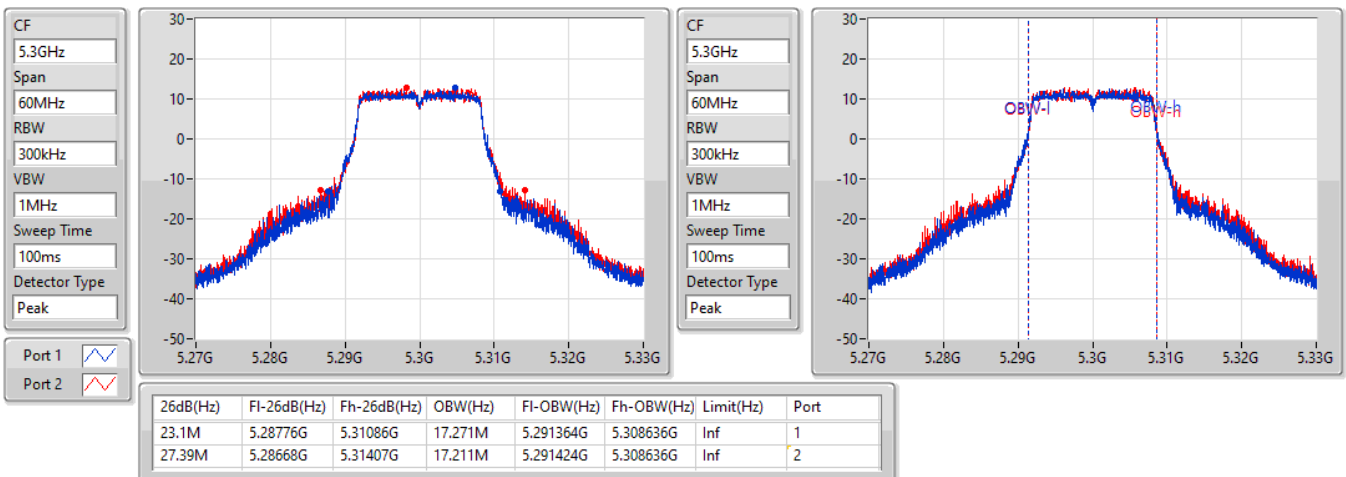
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band  
Port X-OBW = Port X 99% occupied bandwidth

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

27/07/2022

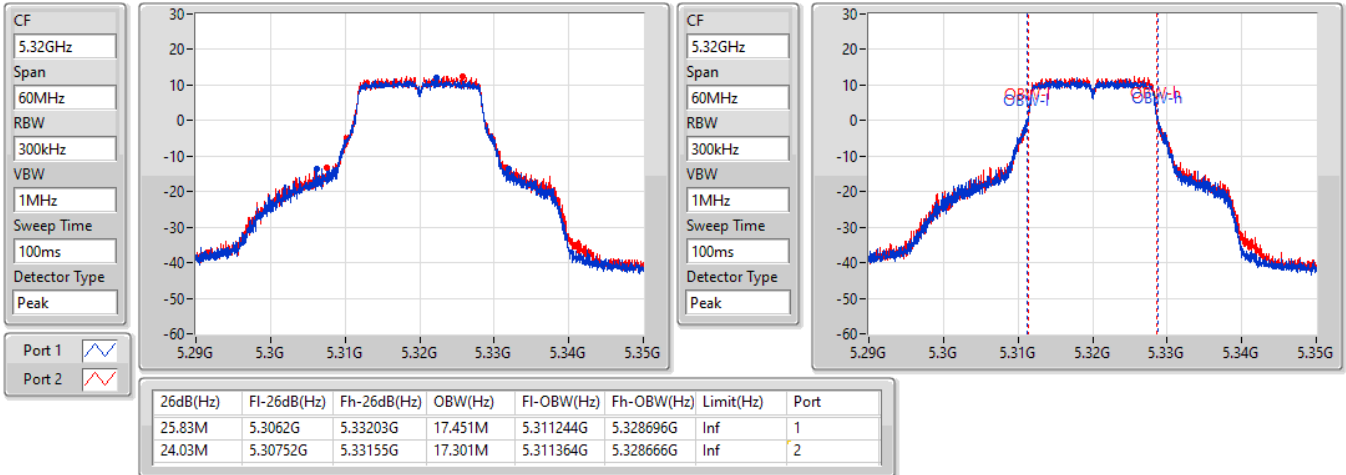

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5300MHz**

27/07/2022

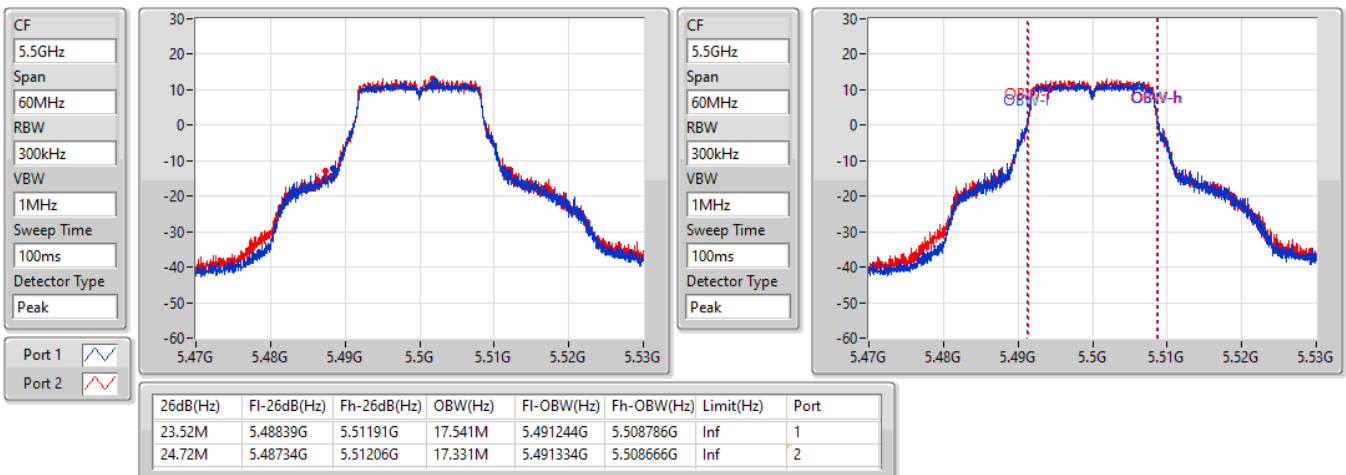


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5320MHz**

27/07/2022

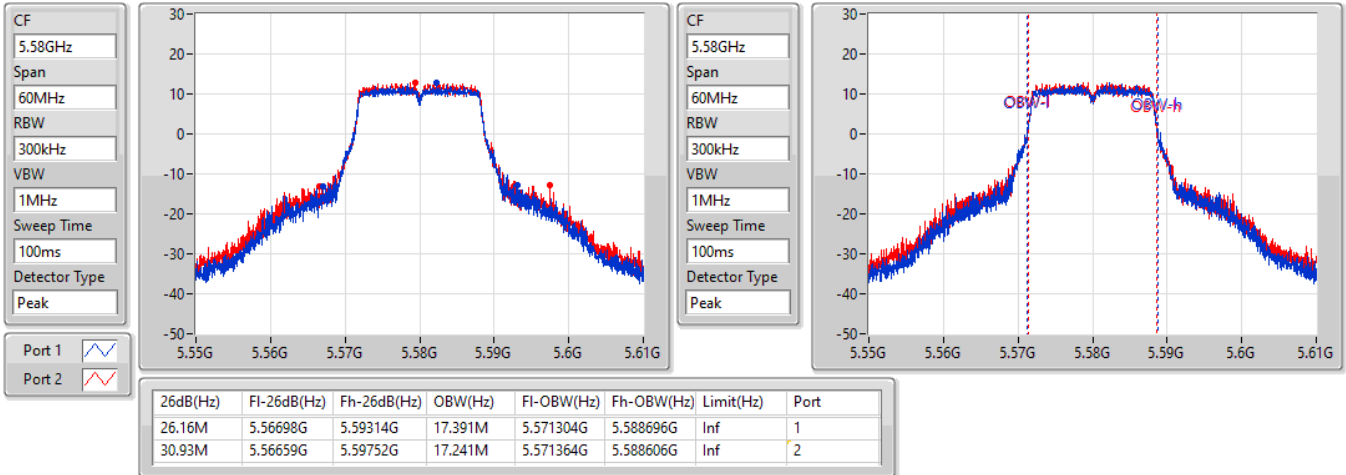

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5500MHz**

27/07/2022

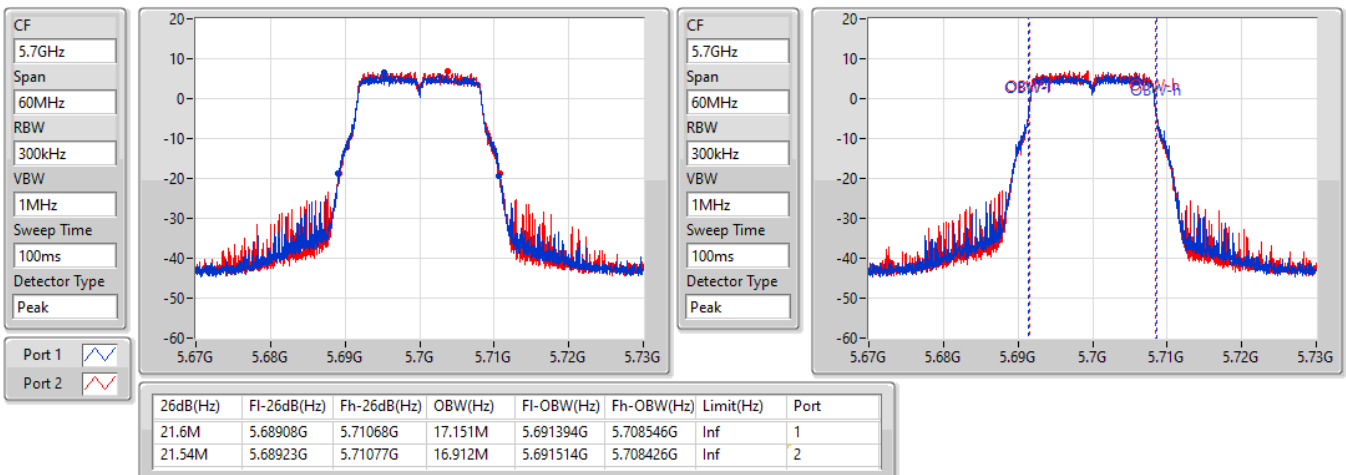


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5580MHz**

27/07/2022

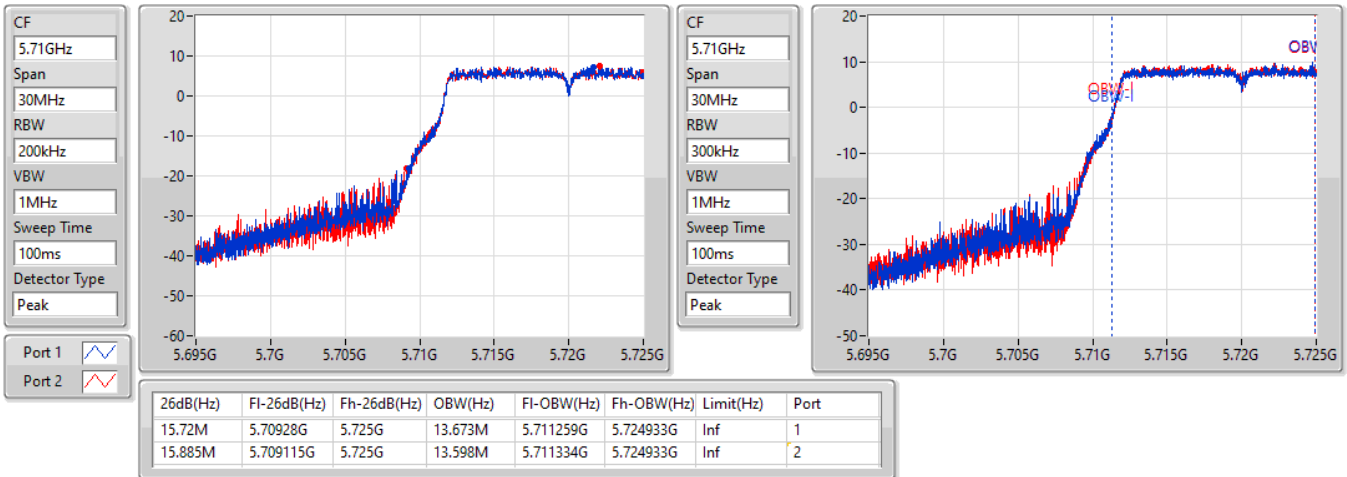

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5700MHz**

27/07/2022

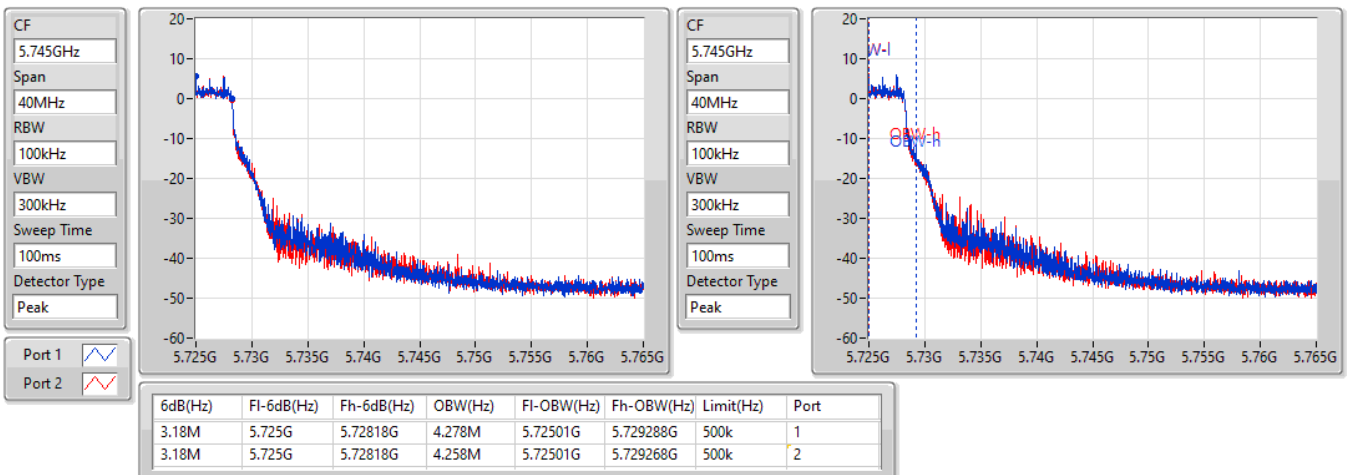


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

30/08/2022


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

30/08/2022

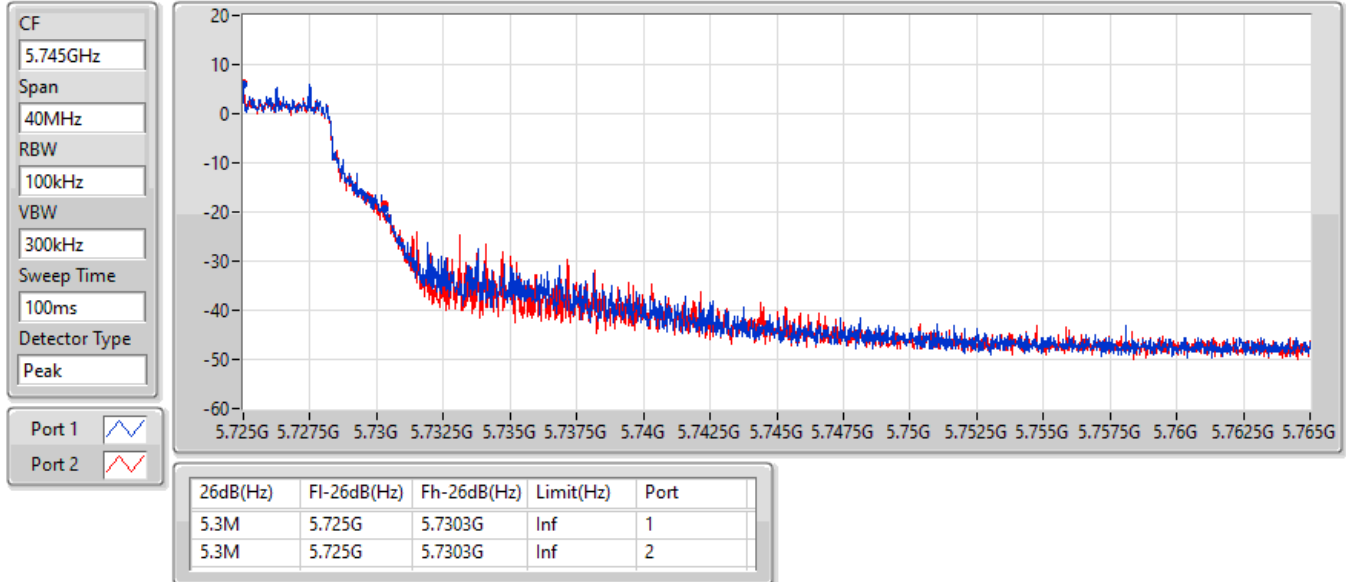


## 802.11a\_Nss1,(6Mbps)\_2TX

EBW

### 5720MHz Straddle 5.725-5.85GHz

30/08/2022



**Summary**

| Mode                            | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|---------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.15-5.25GHz                    | -                | -               | -        | -                | -               |
| 802.11ax HEW160_Nss2,(MCS0)_2TX | 82.56M           | 78.441M         | 78M4D1D  | 82.16M           | 78.361M         |
| 5.25-5.35GHz                    | -                | -               | -        | -                | -               |
| 802.11ax HEW20_Nss2,(MCS0)_2TX  | 30.93M           | 19.28M          | 19M3D1D  | 21.72M           | 19.16M          |
| 802.11ax HEW40_Nss2,(MCS0)_2TX  | 55.14M           | 38.321M         | 38M3D1D  | 41.22M           | 38.141M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX  | 88.68M           | 78.081M         | 78M1D1D  | 82.8M            | 77.841M         |
| 802.11ax HEW160_Nss2,(MCS0)_2TX | 83.2M            | 78.441M         | 78M4D1D  | 82.72M           | 78.361M         |
| 5.47-5.725GHz                   | -                | -               | -        | -                | -               |
| 802.11ax HEW20_Nss2,(MCS0)_2TX  | 32.04M           | 19.25M          | 19M3D1D  | 15.93M           | 14.603M         |
| 802.11ax HEW40_Nss2,(MCS0)_2TX  | 58.02M           | 38.261M         | 38M3D1D  | 35.315M          | 33.898M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX  | 96.975M          | 78.081M         | 78M1D1D  | 81.96M           | 74.138M         |
| 802.11ax HEW160_Nss2,(MCS0)_2TX | 164.88M          | 156.882M        | 157MD1D  | 163.92M          | 156.882M        |
| 5.725-5.85GHz                   | -                | -               | -        | -                | -               |
| 802.11ax HEW20_Nss2,(MCS0)_2TX  | 4.48M            | 4.798M          | 4M80D1D  | 4.46M            | 4.778M          |
| 802.11ax HEW40_Nss2,(MCS0)_2TX  | 3.96M            | 4.278M          | 4M28D1D  | 3.88M            | 4.218M          |
| 802.11ax HEW80_Nss2,(MCS0)_2TX  | 3.94M            | 30.245M         | 30M2D1D  | 3.84M            | 30.005M         |

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

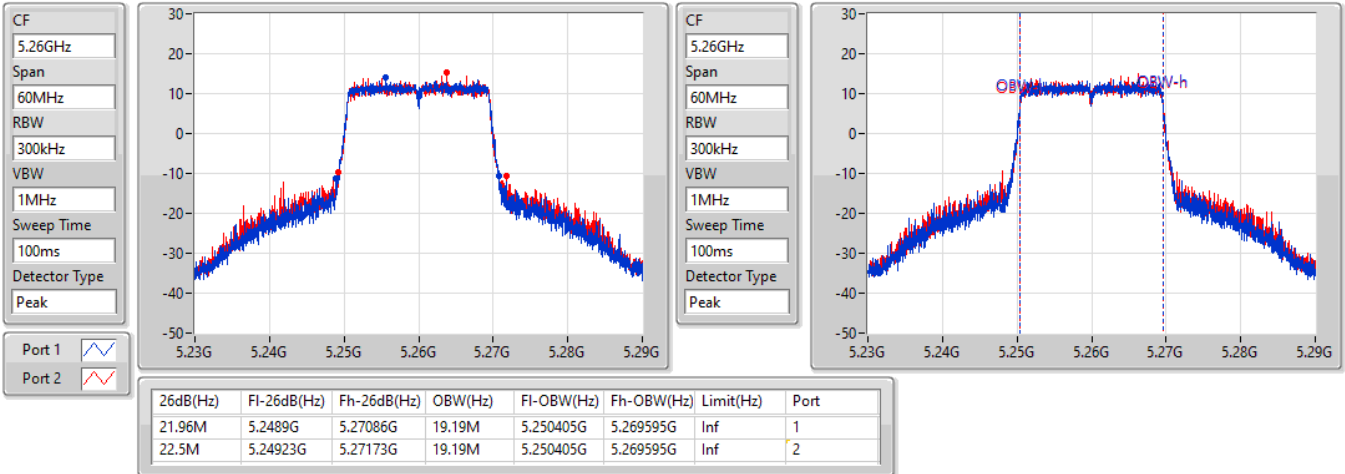
**Result**

| 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) |
|---------------------------------|--------|---------------|---------------------|--------------------|---------------------|--------------------|
| 802.11ax HEW20_Nss2,(MCS0)_2TX  | -      | -             | -                   | -                  | -                   | -                  |
| 5260MHz                         | Pass   | Inf           | 21.96M              | 19.19M             | 22.5M               | 19.19M             |
| 5300MHz                         | Pass   | Inf           | 21.72M              | 19.19M             | 30.93M              | 19.16M             |
| 5320MHz                         | Pass   | Inf           | 22.17M              | 19.28M             | 24.87M              | 19.25M             |
| 5500MHz                         | Pass   | Inf           | 23.07M              | 19.25M             | 26.37M              | 19.25M             |
| 5580MHz                         | Pass   | Inf           | 22.86M              | 19.16M             | 32.04M              | 19.19M             |
| 5700MHz                         | Pass   | Inf           | 21.72M              | 19.1M              | 21.54M              | 19.1M              |
| 5720MHz Straddle 5.47-5.725GHz  | Pass   | Inf           | 16.395M             | 14.603M            | 15.93M              | 14.618M            |
| 5720MHz Straddle 5.725-5.85GHz  | Pass   | 500k          | 4.48M               | 4.798M             | 4.46M               | 4.778M             |
| 802.11ax HEW40_Nss2,(MCS0)_2TX  | -      | -             | -                   | -                  | -                   | -                  |
| 5270MHz                         | Pass   | Inf           | 41.22M              | 38.141M            | 55.14M              | 38.321M            |
| 5310MHz                         | Pass   | Inf           | 45.78M              | 38.261M            | 44.58M              | 38.201M            |
| 5510MHz                         | Pass   | Inf           | 58.02M              | 38.261M            | 42.9M               | 38.201M            |
| 5550MHz                         | Pass   | Inf           | 40.62M              | 38.201M            | 41.1M               | 38.141M            |
| 5670MHz                         | Pass   | Inf           | 40.44M              | 37.961M            | 40.2M               | 38.081M            |
| 5710MHz Straddle 5.47-5.725GHz  | Pass   | Inf           | 35.315M             | 33.898M            | 37.66M              | 33.933M            |
| 5710MHz Straddle 5.725-5.85GHz  | Pass   | 500k          | 3.96M               | 4.218M             | 3.88M               | 4.278M             |
| 802.11ax HEW80_Nss2,(MCS0)_2TX  | -      | -             | -                   | -                  | -                   | -                  |
| 5290MHz                         | Pass   | Inf           | 88.68M              | 77.841M            | 82.8M               | 78.081M            |
| 5530MHz                         | Pass   | Inf           | 82.8M               | 78.081M            | 82.8M               | 77.961M            |
| 5610MHz                         | Pass   | Inf           | 81.96M              | 77.841M            | 82.2M               | 77.841M            |
| 5690MHz Straddle 5.47-5.725GHz  | Pass   | Inf           | 96.975M             | 74.138M            | 96.9M               | 74.363M            |
| 5690MHz Straddle 5.725-5.85GHz  | Pass   | 500k          | 3.94M               | 30.245M            | 3.84M               | 30.005M            |
| 802.11ax HEW160_Nss2,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5250MHz Straddle 5.15-5.25GHz   | Pass   | Inf           | 82.56M              | 78.441M            | 82.16M              | 78.361M            |
| 5250MHz Straddle 5.25-5.35GHz   | Pass   | Inf           | 82.72M              | 78.361M            | 83.2M               | 78.441M            |
| 5570MHz                         | Pass   | Inf           | 164.88M             | 156.882M           | 163.92M             | 156.882M           |

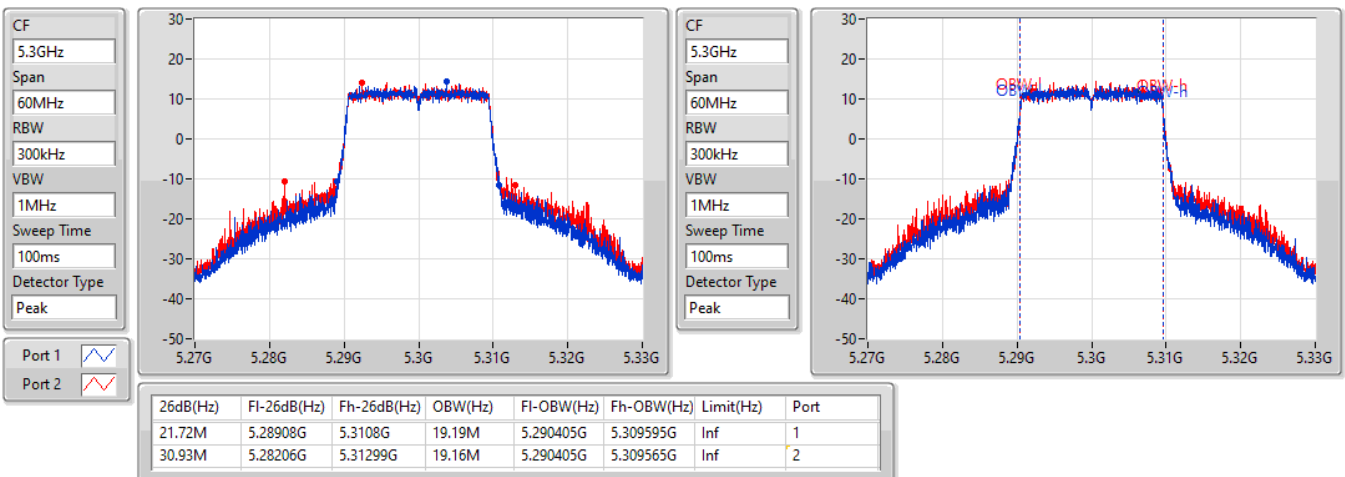
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band  
Port X-OBW = Port X 99% occupied bandwidth

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

26/07/2022

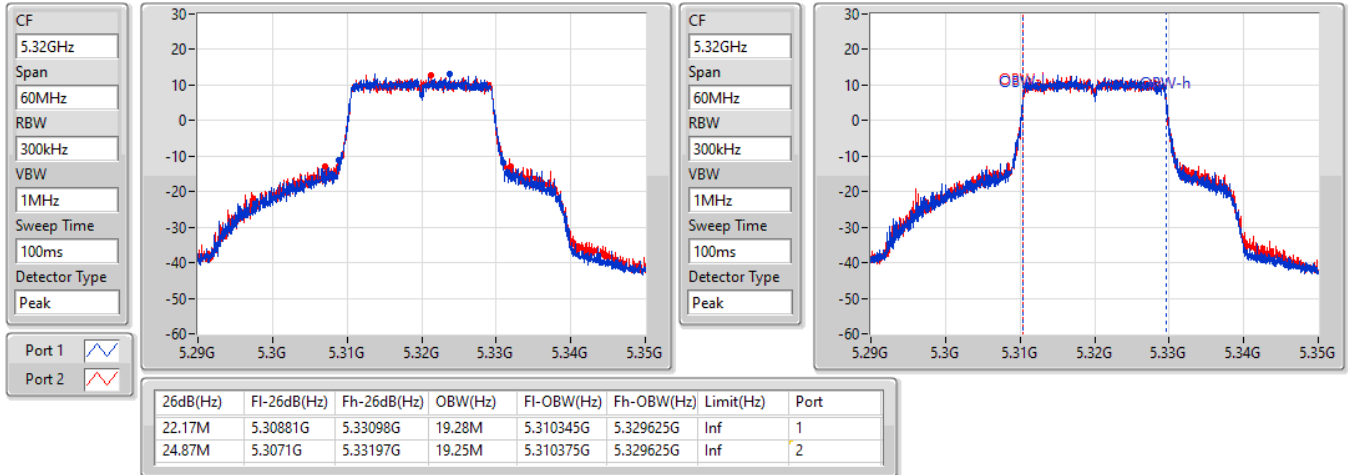

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5300MHz**

26/07/2022

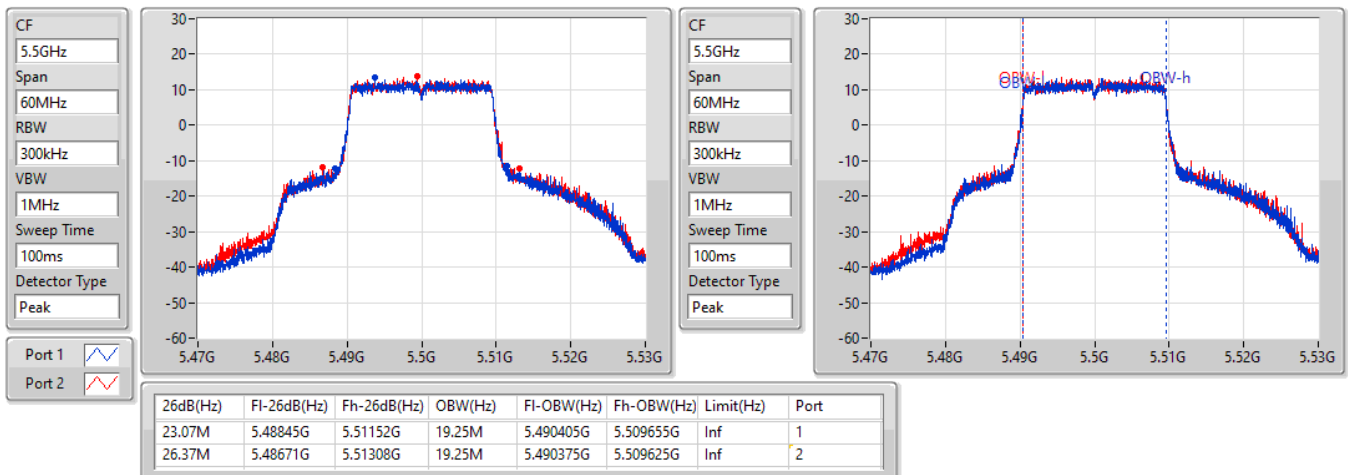


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5320MHz**

26/07/2022

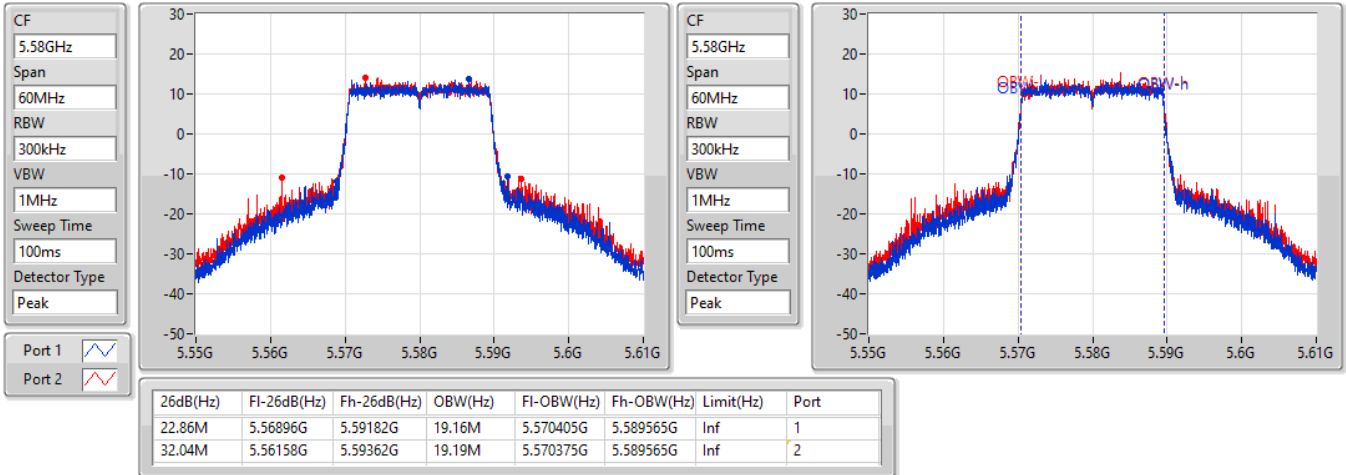

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5500MHz**

26/07/2022

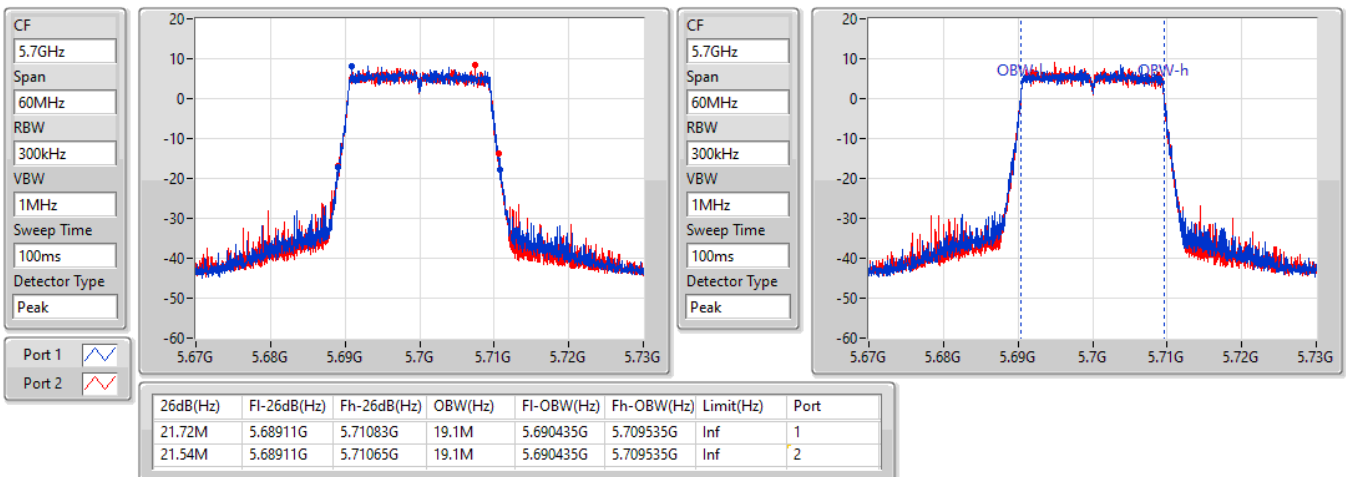


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5580MHz**

26/07/2022

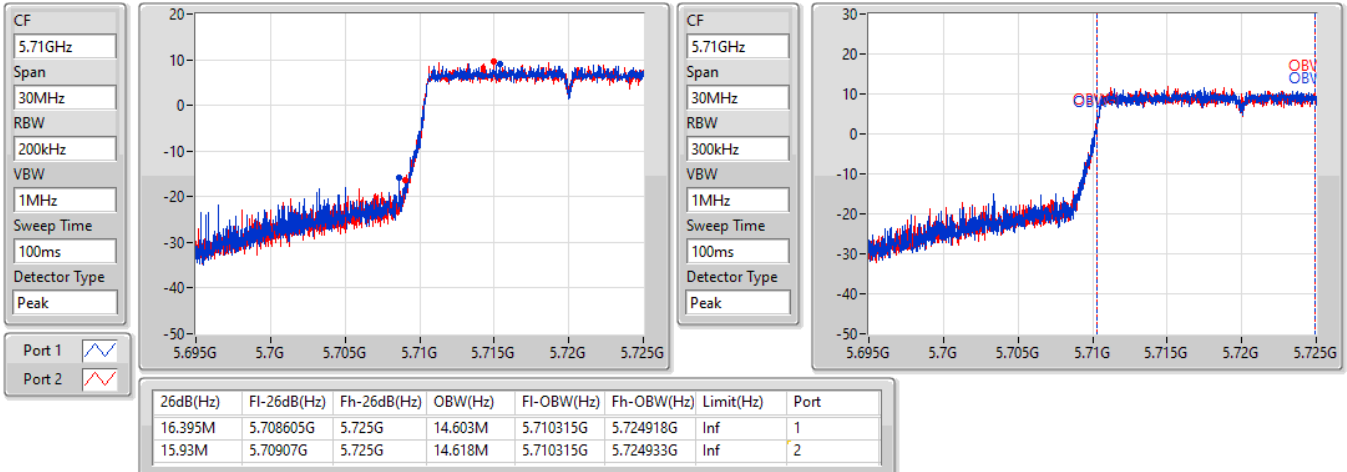

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5700MHz**

26/07/2022

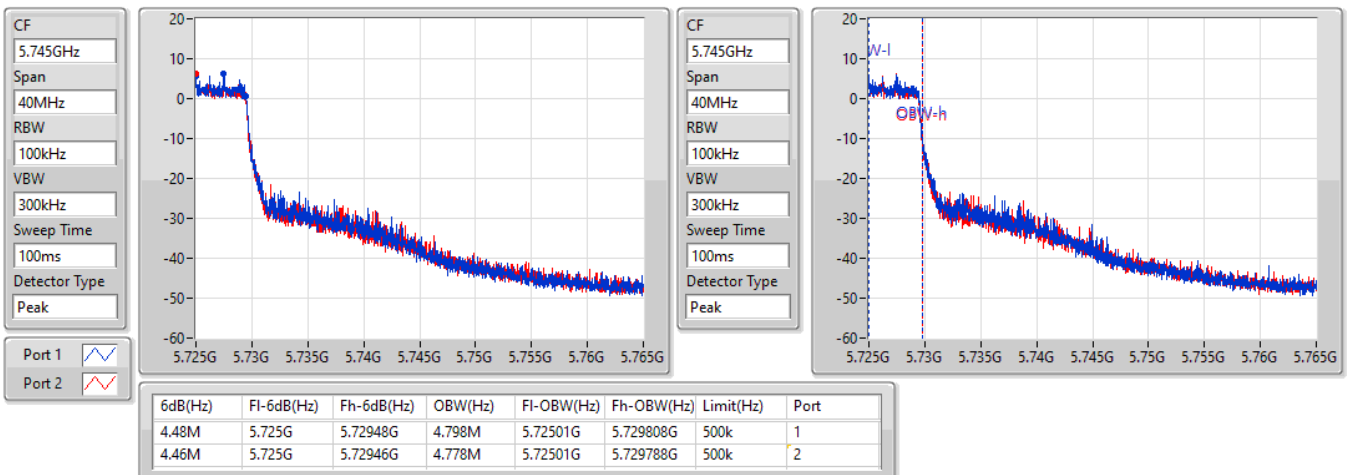


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

27/07/2022


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

27/07/2022

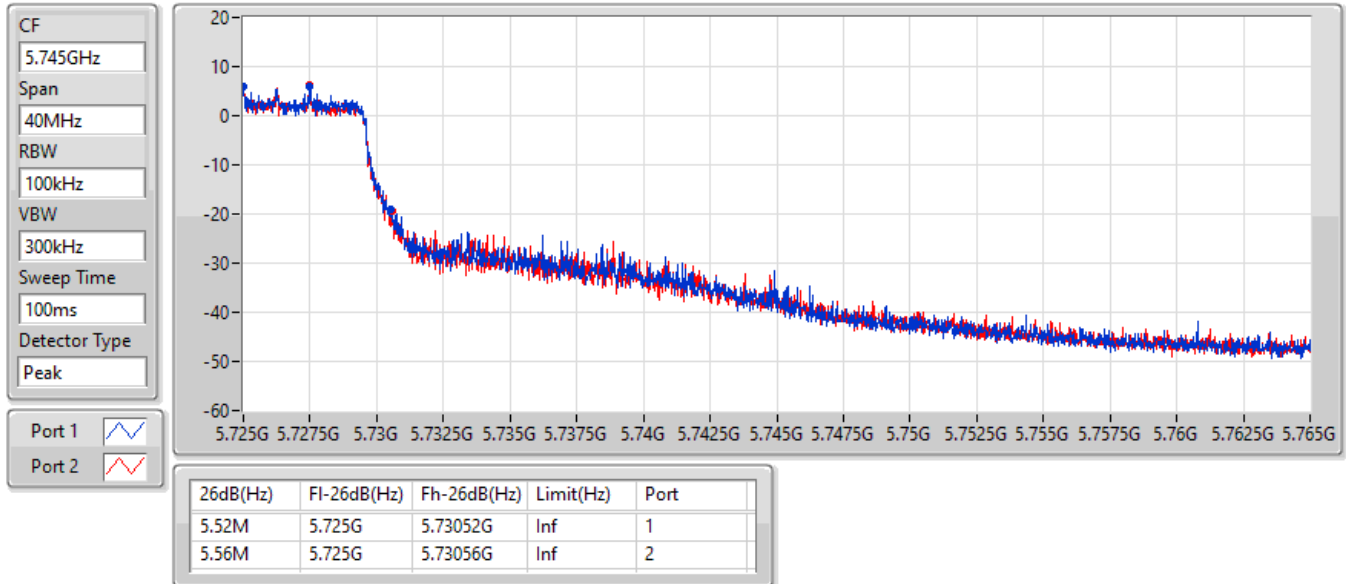


## 802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

### 5720MHz Straddle 5.725-5.85GHz

27/07/2022

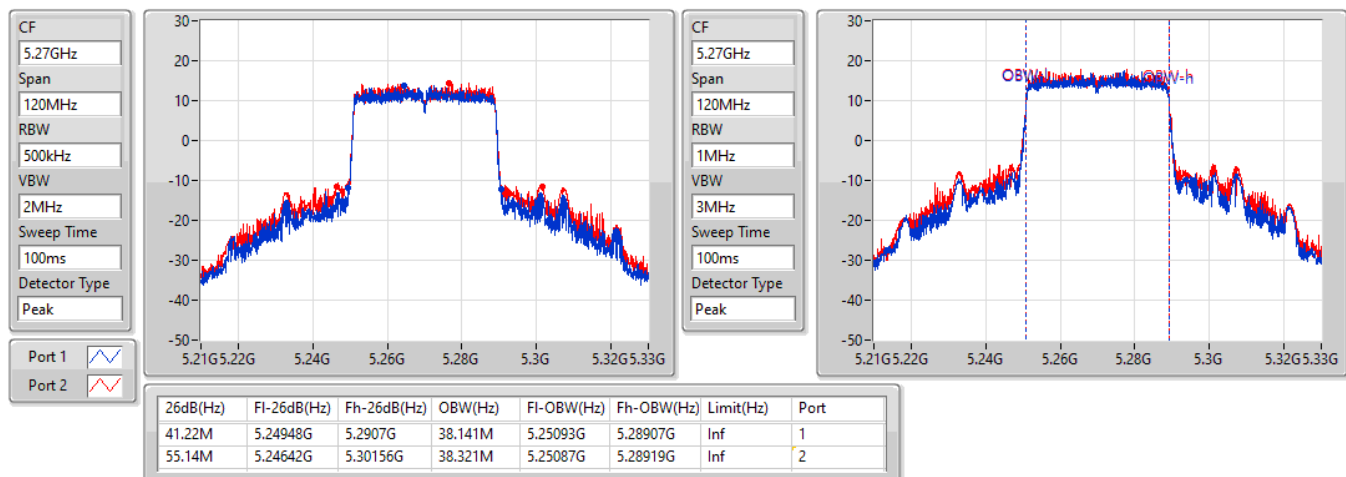


## 802.11ax HEW40\_Nss2,(MCS0)\_2TX

EBW

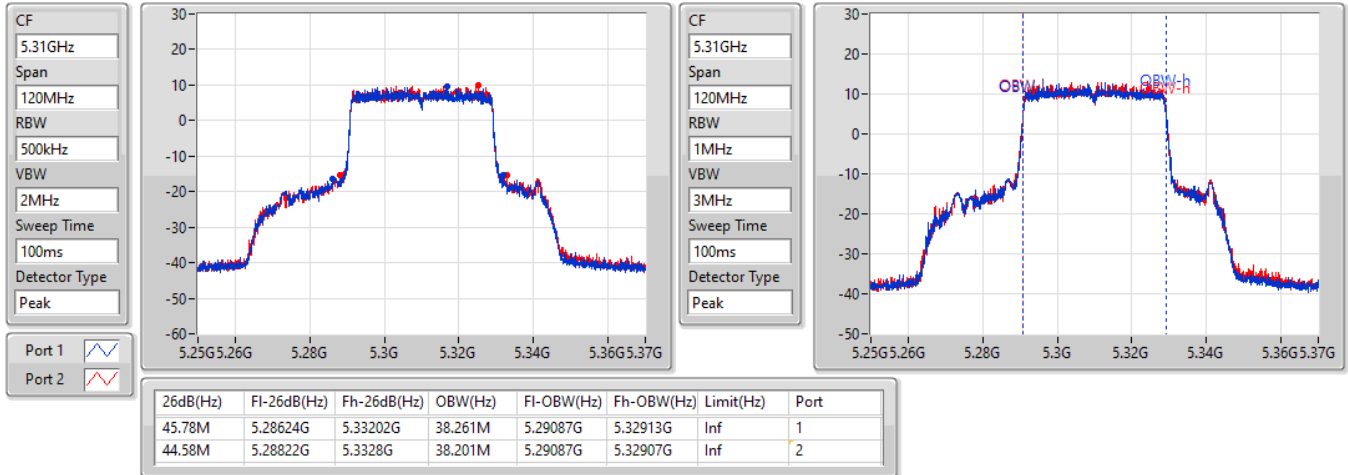
### 5270MHz

26/07/2022

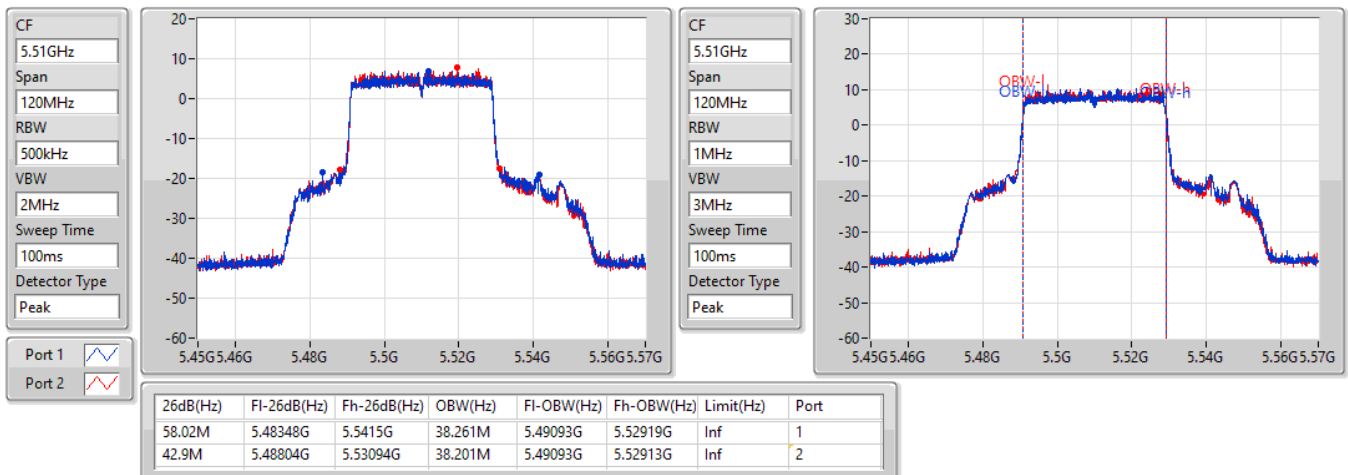


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5310MHz**

26/07/2022

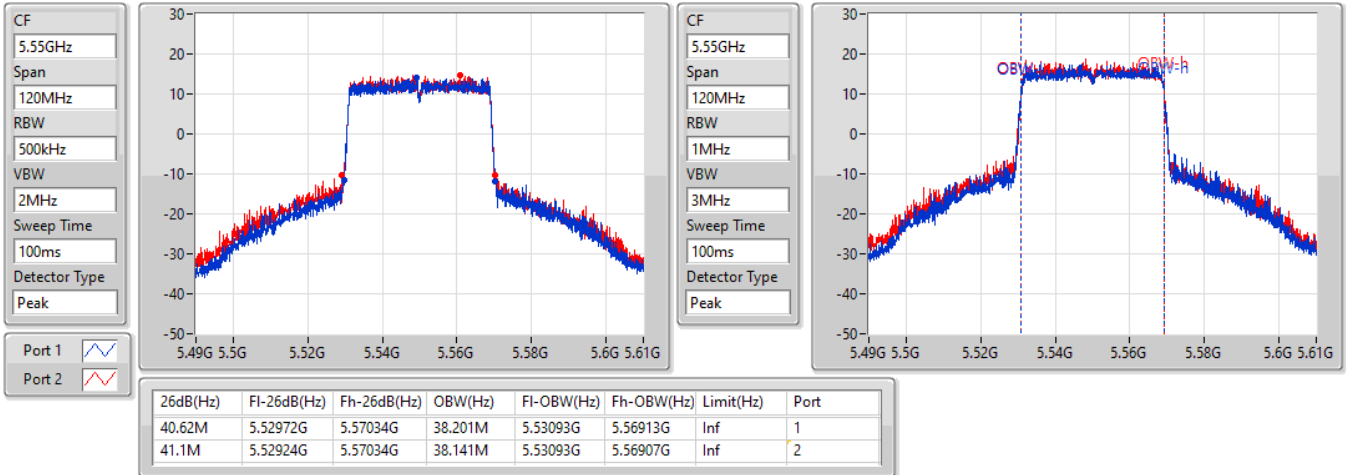

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5510MHz**

26/07/2022

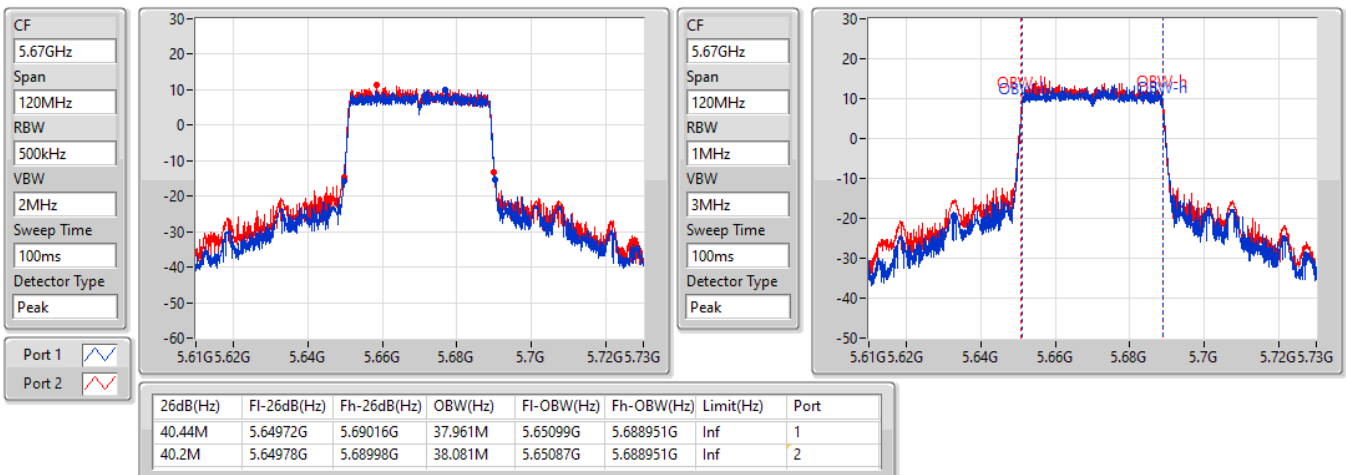


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5550MHz**

30/08/2022

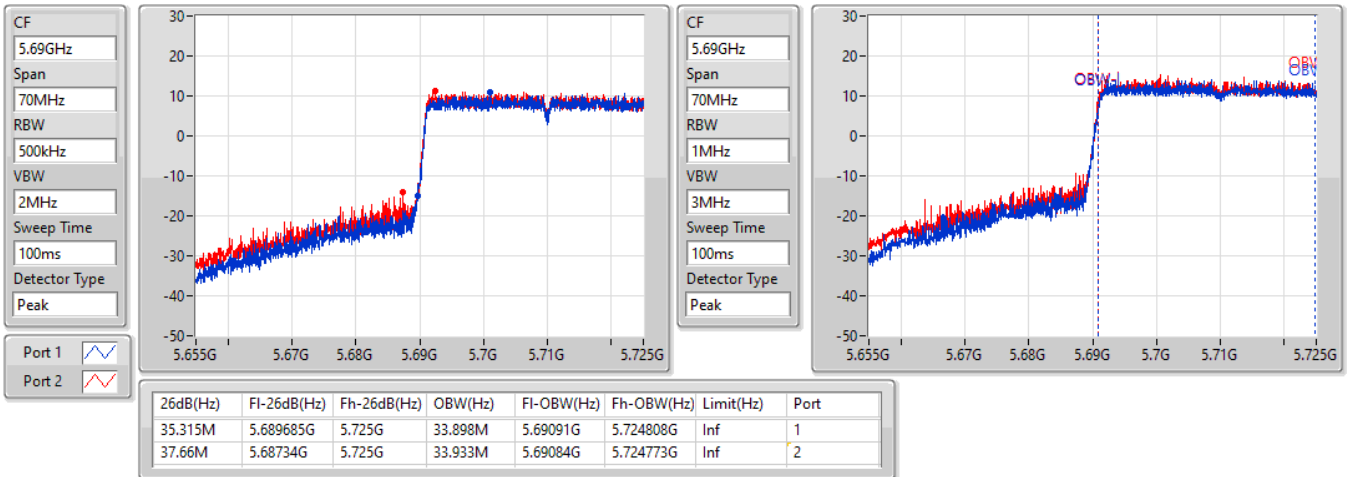

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5670MHz**

26/07/2022

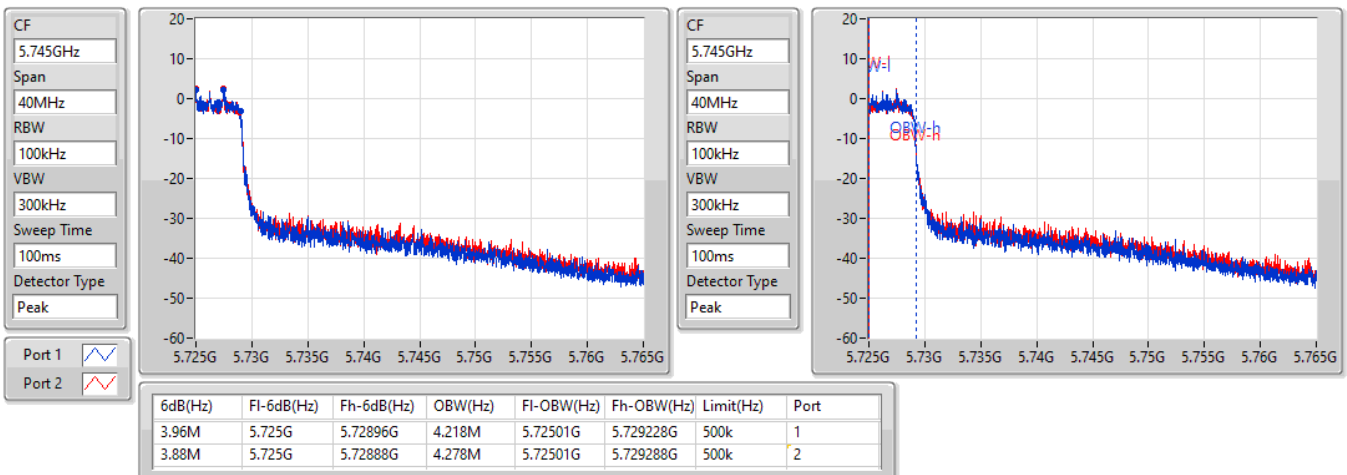


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

27/07/2022

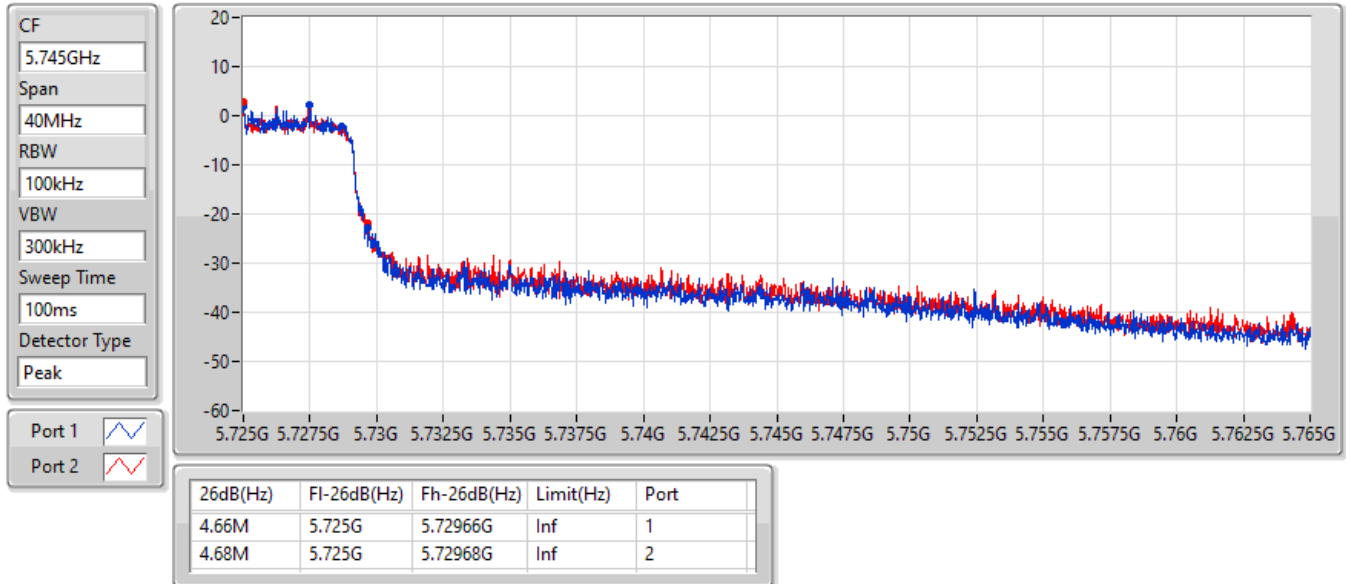

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

27/07/2022

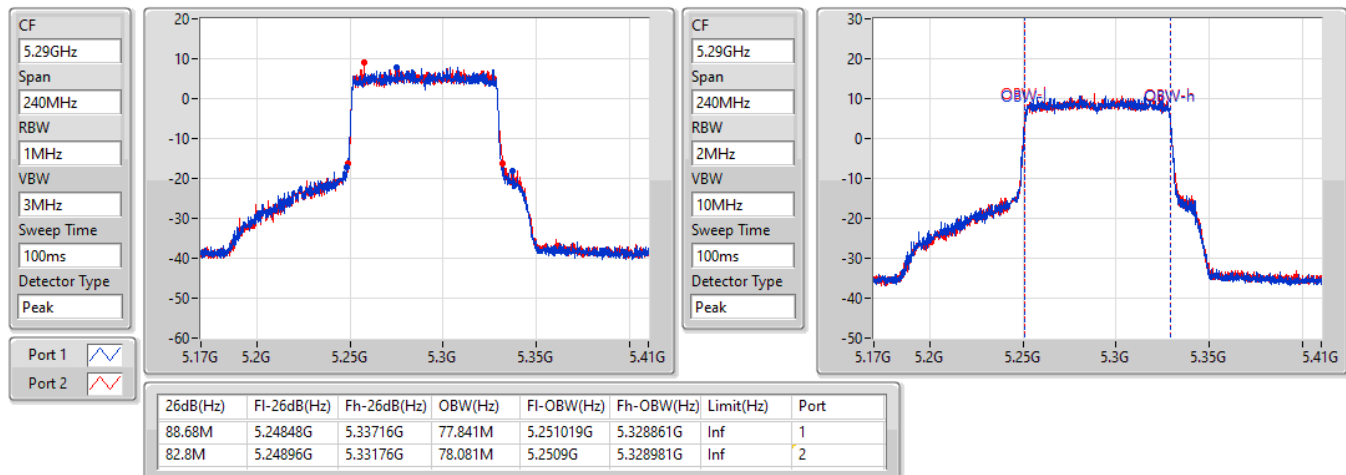


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

27/07/2022

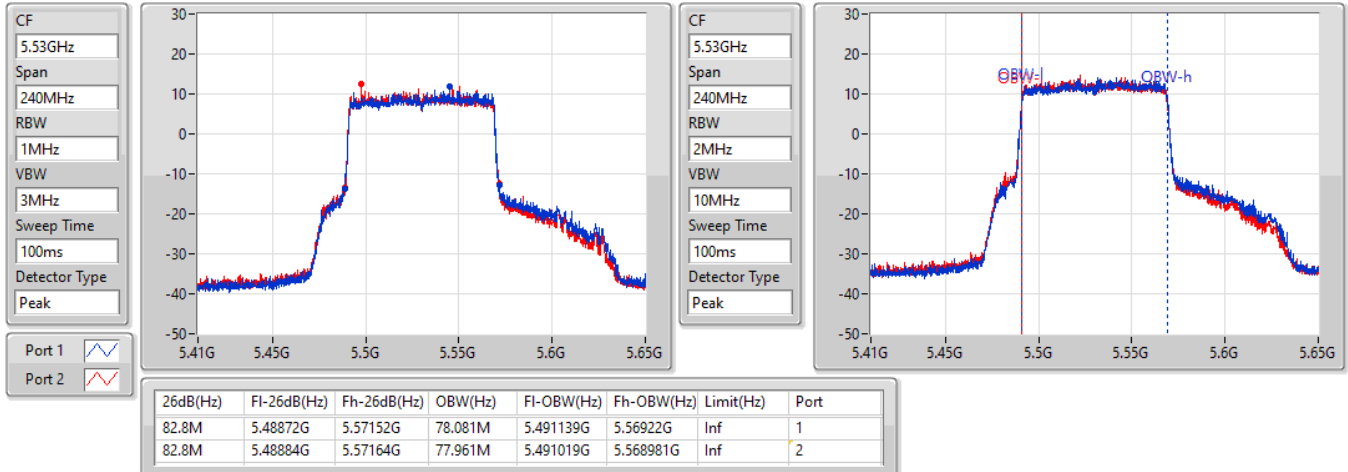

**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5290MHz**

26/07/2022

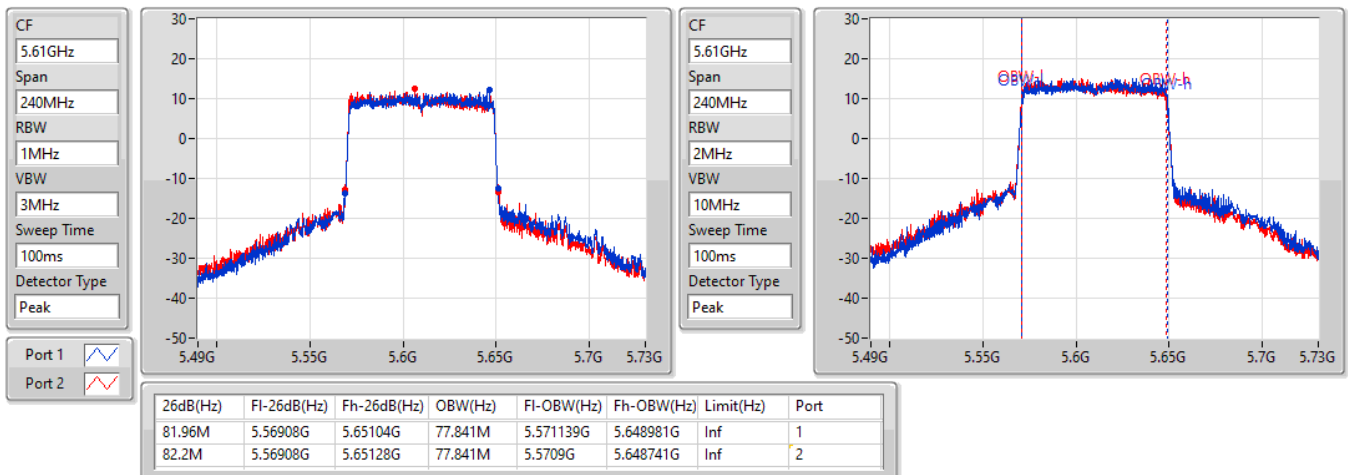


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5530MHz**

26/07/2022

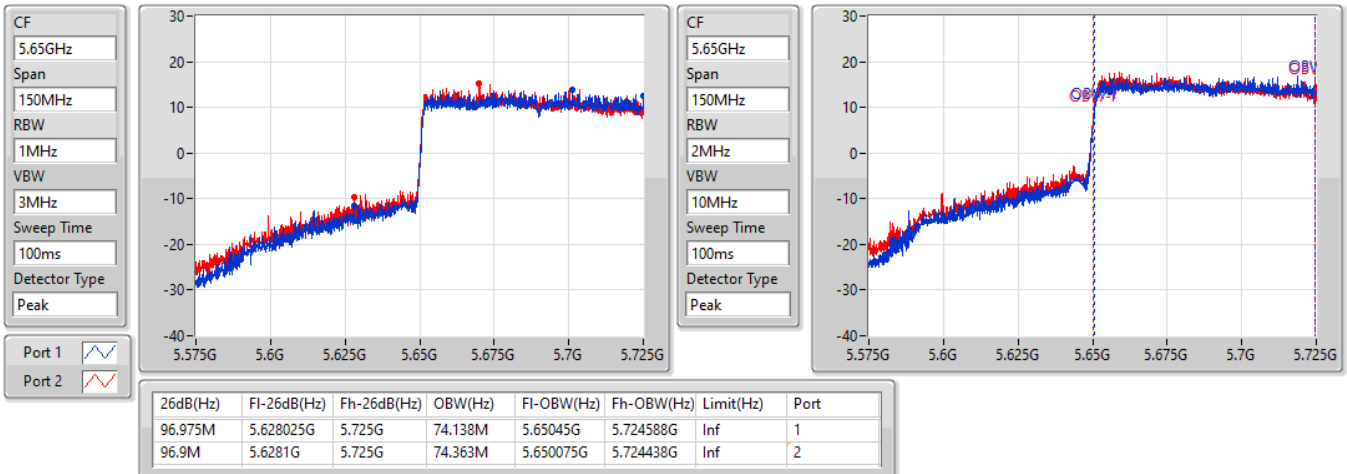

**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5610MHz**

26/07/2022

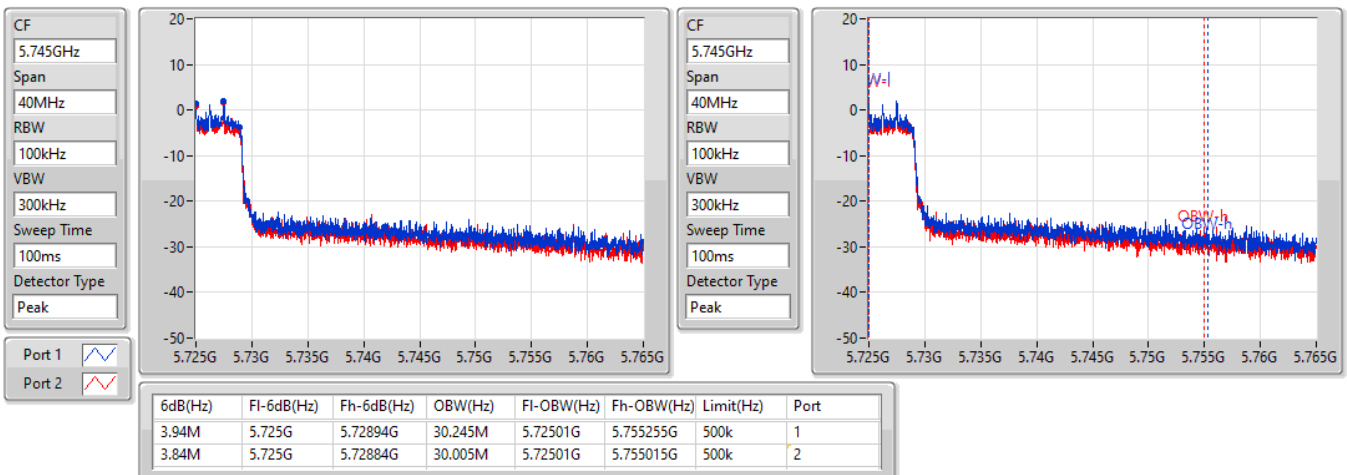


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

27/07/2022

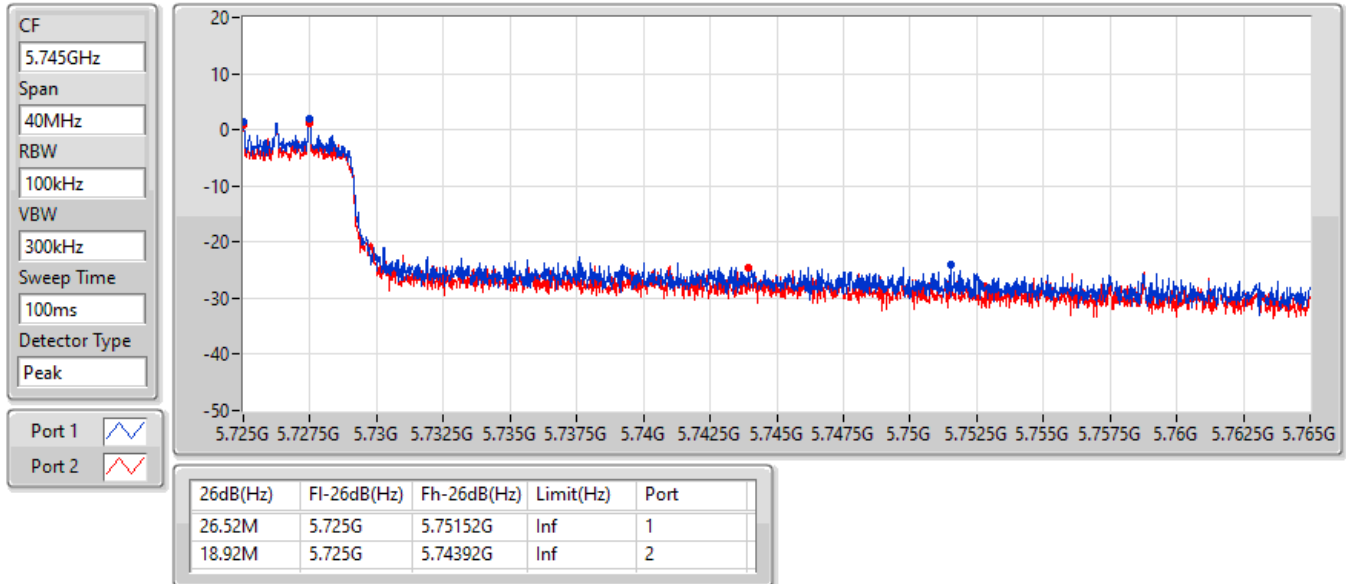

**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

27/07/2022

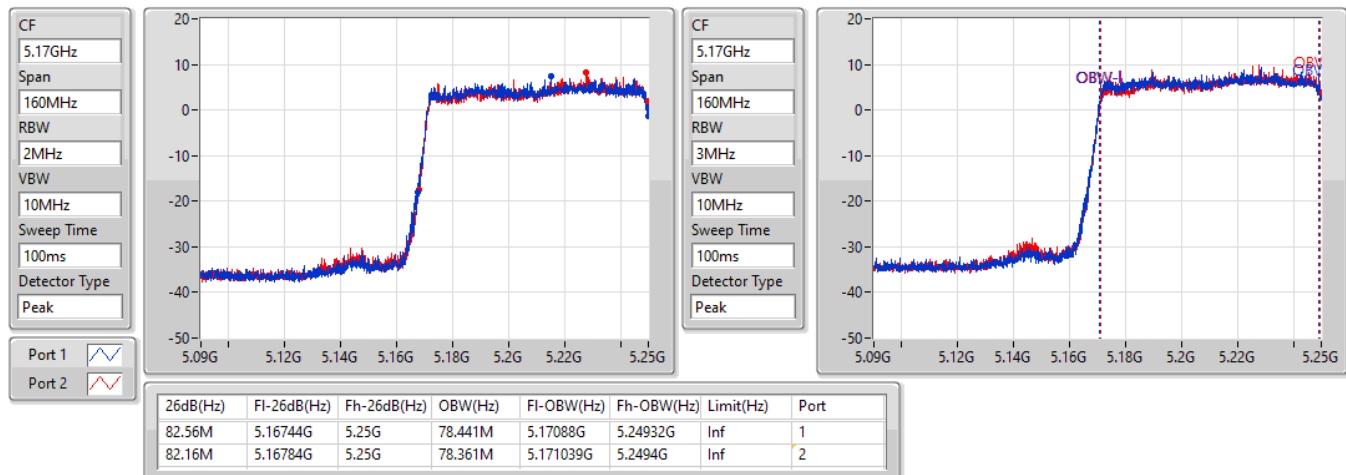


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

27/07/2022

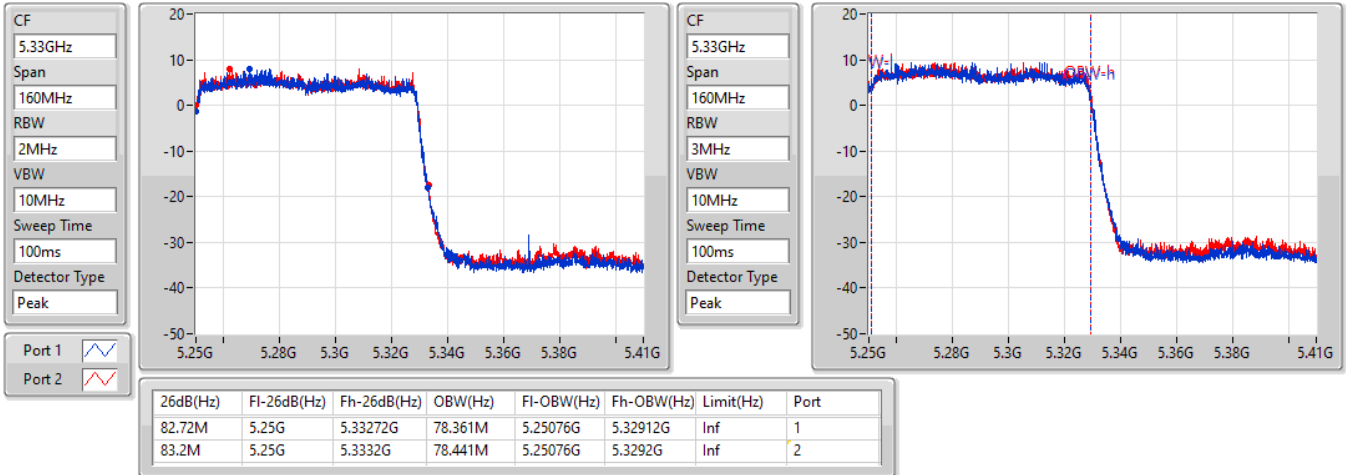

**802.11ax HEW160\_Nss2,(MCS0)\_2TX**
**EBW**
**5250MHz Straddle 5.15-5.25GHz**

26/07/2022

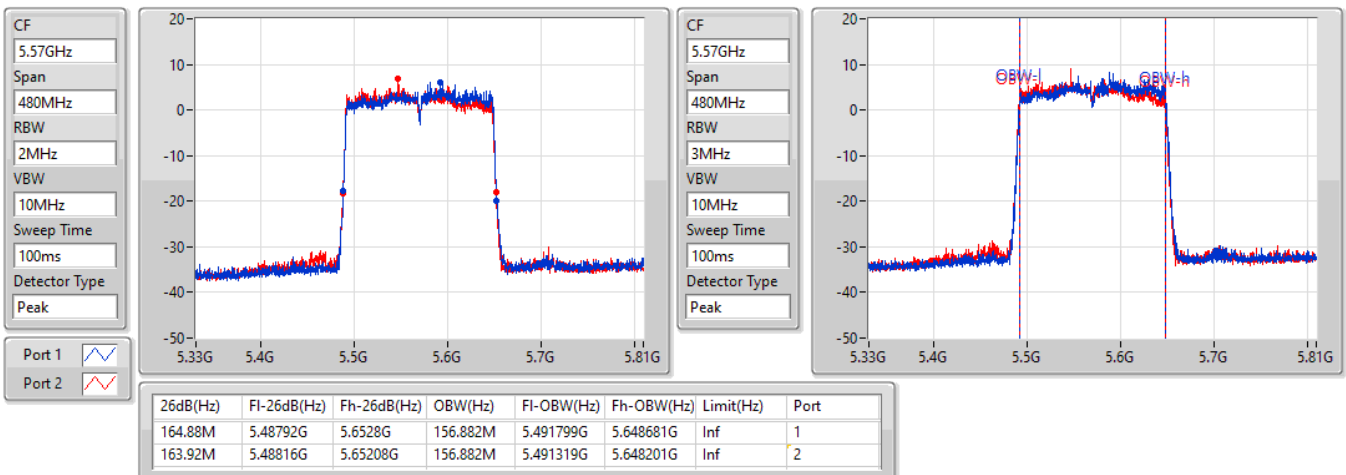


**802.11ax HEW160\_Nss2,(MCS0)\_2TX**
**EBW**
**5250MHz Straddle 5.25-5.35GHz**

26/07/2022


**802.11ax HEW160\_Nss2,(MCS0)\_2TX**
**EBW**
**5570MHz**

26/07/2022



**Summary**

| Mode                            | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|---------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.15-5.25GHz                    | -                | -               | -        | -                | -               |
| 802.11ax HEW160_Nss1,(MCS0)_4TX | 82.8M            | 78.441M         | 78M4D1D  | 82.32M           | 78.281M         |
| 5.25-5.35GHz                    | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_4TX        | 27.27M           | 17.421M         | 17M4D1D  | 21.48M           | 16.942M         |
| 802.11ax HEW20_Nss1,(MCS0)_4TX  | 26.79M           | 19.28M          | 19M3D1D  | 21.45M           | 19.1M           |
| 802.11ax HEW40_Nss1,(MCS0)_4TX  | 47.52M           | 38.261M         | 38M3D1D  | 40.38M           | 37.901M         |
| 802.11ax HEW80_Nss1,(MCS0)_4TX  | 88.68M           | 77.961M         | 78M0D1D  | 83.88M           | 77.841M         |
| 802.11ax HEW160_Nss1,(MCS0)_4TX | 83.04M           | 78.441M         | 78M4D1D  | 82.4M            | 78.281M         |
| 5.47-5.725GHz                   | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_4TX        | 26.94M           | 17.451M         | 17M5D1D  | 15.765M          | 13.553M         |
| 802.11ax HEW20_Nss1,(MCS0)_4TX  | 27.81M           | 19.25M          | 19M3D1D  | 15.795M          | 14.573M         |
| 802.11ax HEW40_Nss1,(MCS0)_4TX  | 46.92M           | 38.261M         | 38M3D1D  | 35.35M           | 33.898M         |
| 802.11ax HEW80_Nss1,(MCS0)_4TX  | 91.68M           | 78.081M         | 78M1D1D  | 76.125M          | 73.613M         |
| 802.11ax HEW160_Nss1,(MCS0)_4TX | 165.12M          | 156.642M        | 157MD1D  | 164.88M          | 156.402M        |
| 5.725-5.85GHz                   | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_4TX        | 3.18M            | 4.298M          | 4M30D1D  | 3.16M            | 4.258M          |
| 802.11ax HEW20_Nss1,(MCS0)_4TX  | 4.48M            | 4.738M          | 4M74D1D  | 4.44M            | 4.698M          |
| 802.11ax HEW40_Nss1,(MCS0)_4TX  | 3.96M            | 4.398M          | 4M40D1D  | 3.92M            | 4.238M          |
| 802.11ax HEW80_Nss1,(MCS0)_4TX  | 3.98M            | 7.736M          | 7M74D1D  | 3.8M             | 4.498M          |

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

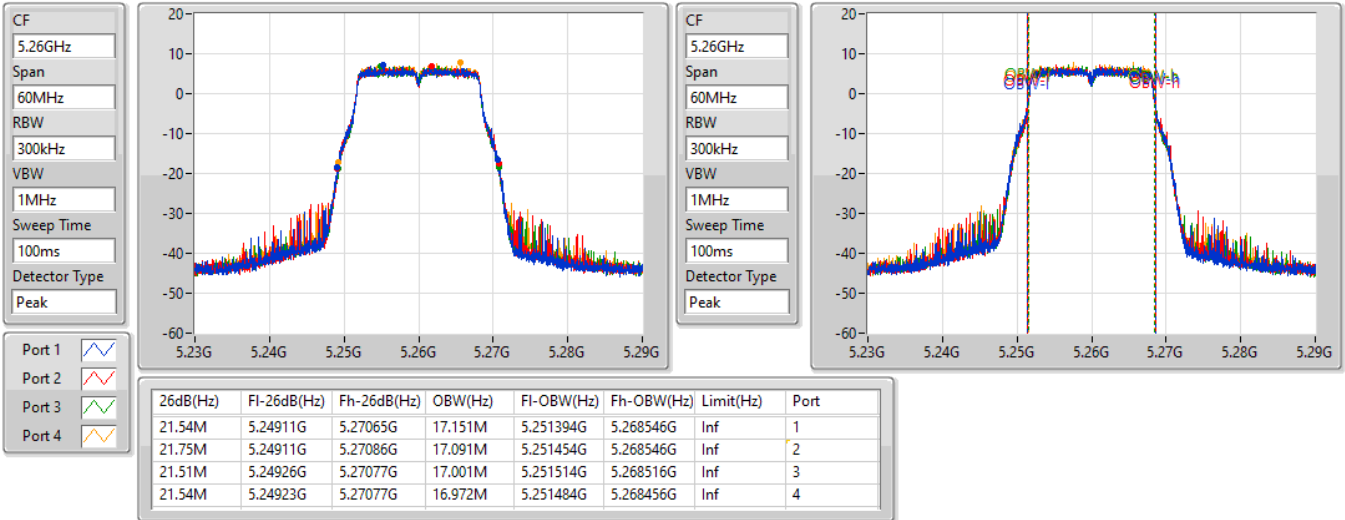
**Result**

| Mode                            | Result | Limit (Hz) | Port 1-N dB (Hz) | Port 1-OBW (Hz) | Port 2-N dB (Hz) | Port 2-OBW (Hz) | Port 3-N dB (Hz) | Port 3-OBW (Hz) | Port 4-N dB (Hz) | Port 4-OBW (Hz) |
|---------------------------------|--------|------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|
| 802.11a_Nss1,(6Mbps)_4TX        | -      | -          | -                | -               | -                | -               | -                | -               | -                | -               |
| 5260MHz                         | Pass   | Inf        | 21.54M           | 17.151M         | 21.75M           | 17.091M         | 21.51M           | 17.001M         | 21.54M           | 16.972M         |
| 5300MHz                         | Pass   | Inf        | 21.54M           | 17.091M         | 21.54M           | 17.091M         | 21.48M           | 17.001M         | 21.51M           | 16.942M         |
| 5320MHz                         | Pass   | Inf        | 25.53M           | 17.421M         | 24.75M           | 17.421M         | 24.63M           | 17.361M         | 27.27M           | 17.331M         |
| 5500MHz                         | Pass   | Inf        | 26.22M           | 17.451M         | 24.27M           | 17.331M         | 23.4M            | 17.301M         | 26.94M           | 17.421M         |
| 5580MHz                         | Pass   | Inf        | 21.51M           | 17.151M         | 21.63M           | 17.091M         | 21.48M           | 16.972M         | 21.87M           | 16.972M         |
| 5700MHz                         | Pass   | Inf        | 21.81M           | 17.121M         | 21.48M           | 17.121M         | 21.48M           | 16.972M         | 21.66M           | 17.001M         |
| 5720MHz Straddle 5.47-5.725GHz  | Pass   | Inf        | 15.825M          | 13.658M         | 15.9M            | 13.658M         | 15.765M          | 13.553M         | 15.9M            | 13.583M         |
| 5720MHz Straddle 5.725-5.85GHz  | Pass   | 500k       | 3.16M            | 4.258M          | 3.16M            | 4.258M          | 3.16M            | 4.298M          | 3.18M            | 4.298M          |
| 802.11ax HEW20_Nss1,(MCS0)_4TX  | -      | -          | -                | -               | -                | -               | -                | -               | -                | -               |
| 5260MHz                         | Pass   | Inf        | 21.84M           | 19.16M          | 21.66M           | 19.1M           | 21.9M            | 19.1M           | 21.63M           | 19.1M           |
| 5300MHz                         | Pass   | Inf        | 21.69M           | 19.1M           | 21.84M           | 19.1M           | 21.45M           | 19.16M          | 21.75M           | 19.1M           |
| 5320MHz                         | Pass   | Inf        | 24.66M           | 19.25M          | 26.79M           | 19.22M          | 24.33M           | 19.28M          | 23.19M           | 19.28M          |
| 5500MHz                         | Pass   | Inf        | 27.81M           | 19.25M          | 26.82M           | 19.22M          | 23.94M           | 19.25M          | 24.42M           | 19.25M          |
| 5580MHz                         | Pass   | Inf        | 21.78M           | 19.16M          | 21.72M           | 19.13M          | 21.81M           | 19.16M          | 21.6M            | 19.13M          |
| 5700MHz                         | Pass   | Inf        | 21.99M           | 19.16M          | 21.72M           | 19.13M          | 21.69M           | 19.16M          | 21.6M            | 19.13M          |
| 5720MHz Straddle 5.47-5.725GHz  | Pass   | Inf        | 15.9M            | 14.603M         | 15.81M           | 14.588M         | 15.96M           | 14.573M         | 15.795M          | 14.588M         |
| 5720MHz Straddle 5.725-5.85GHz  | Pass   | 500k       | 4.44M            | 4.718M          | 4.46M            | 4.698M          | 4.48M            | 4.738M          | 4.46M            | 4.718M          |
| 802.11ax HEW40_Nss1,(MCS0)_4TX  | -      | -          | -                | -               | -                | -               | -                | -               | -                | -               |
| 5270MHz                         | Pass   | Inf        | 41.1M            | 37.901M         | 40.62M           | 37.961M         | 40.56M           | 37.961M         | 40.38M           | 37.961M         |
| 5310MHz                         | Pass   | Inf        | 46.92M           | 38.201M         | 46.92M           | 38.261M         | 46.56M           | 38.141M         | 47.52M           | 38.141M         |
| 5510MHz                         | Pass   | Inf        | 46.8M            | 38.201M         | 46.92M           | 38.261M         | 46.92M           | 38.201M         | 45.9M            | 38.201M         |
| 5550MHz                         | Pass   | Inf        | 40.68M           | 38.021M         | 40.32M           | 37.961M         | 40.5M            | 37.961M         | 40.62M           | 37.961M         |
| 5670MHz                         | Pass   | Inf        | 40.8M            | 37.961M         | 40.38M           | 38.021M         | 40.8M            | 37.961M         | 40.5M            | 38.021M         |
| 5710MHz Straddle 5.47-5.725GHz  | Pass   | Inf        | 35.49M           | 33.933M         | 35.385M          | 33.933M         | 35.455M          | 33.898M         | 35.35M           | 33.933M         |
| 5710MHz Straddle 5.725-5.85GHz  | Pass   | 500k       | 3.94M            | 4.238M          | 3.92M            | 4.398M          | 3.96M            | 4.258M          | 3.94M            | 4.318M          |
| 802.11ax HEW80_Nss1,(MCS0)_4TX  | -      | -          | -                | -               | -                | -               | -                | -               | -                | -               |
| 5290MHz                         | Pass   | Inf        | 83.88M           | 77.841M         | 88.68M           | 77.841M         | 87.12M           | 77.961M         | 86.88M           | 77.841M         |
| 5530MHz                         | Pass   | Inf        | 91.68M           | 78.081M         | 88.08M           | 77.841M         | 91.44M           | 78.081M         | 85.32M           | 78.081M         |
| 5610MHz                         | Pass   | Inf        | 81.96M           | 77.841M         | 81.72M           | 77.721M         | 82.2M            | 77.841M         | 82.08M           | 77.721M         |
| 5690MHz Straddle 5.47-5.725GHz  | Pass   | Inf        | 76.2M            | 73.688M         | 76.875M          | 73.613M         | 76.125M          | 73.688M         | 76.125M          | 73.688M         |
| 5690MHz Straddle 5.725-5.85GHz  | Pass   | 500k       | 3.98M            | 5.857M          | 3.88M            | 4.498M          | 3.86M            | 7.736M          | 3.8M             | 7.136M          |
| 802.11ax HEW160_Nss1,(MCS0)_4TX | -      | -          | -                | -               | -                | -               | -                | -               | -                | -               |
| 5250MHz Straddle 5.15-5.25GHz   | Pass   | Inf        | 82.56M           | 78.441M         | 82.32M           | 78.281M         | 82.8M            | 78.361M         | 82.48M           | 78.361M         |
| 5250MHz Straddle 5.25-5.35GHz   | Pass   | Inf        | 82.8M            | 78.281M         | 83.04M           | 78.441M         | 82.72M           | 78.361M         | 82.4M            | 78.281M         |
| 5570MHz                         | Pass   | Inf        | 164.88M          | 156.402M        | 164.88M          | 156.402M        | 165.12M          | 156.642M        | 164.88M          | 156.642M        |

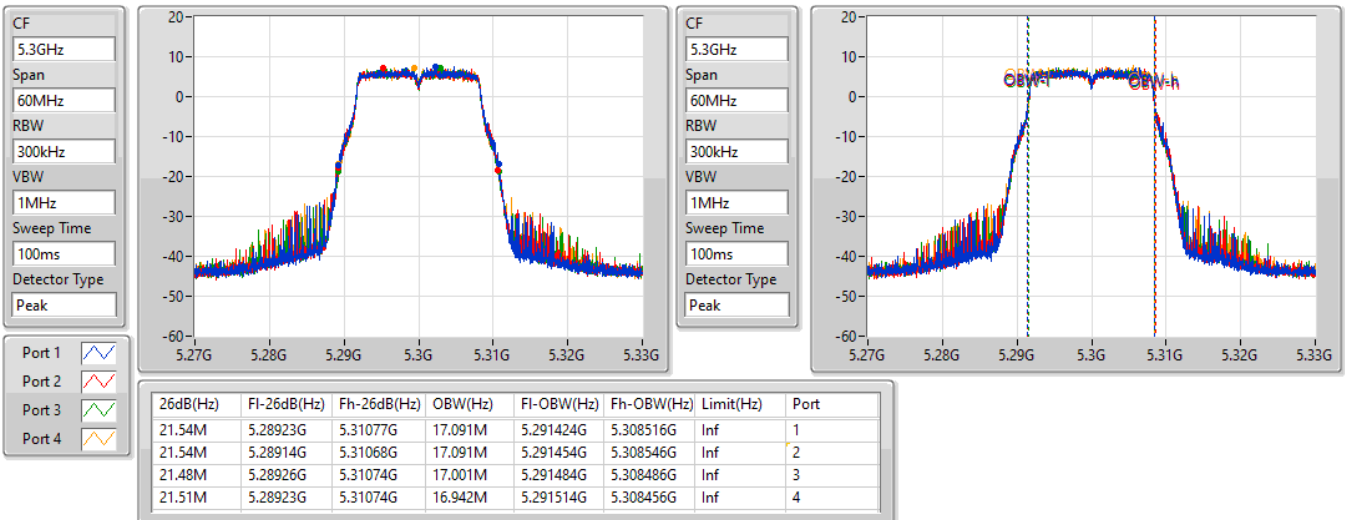
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band  
Port X-OBW = Port X 99% occupied bandwidth

**802.11a\_Nss1,(6Mbps)\_4TX**
**EBW**
**5260MHz**

26/07/2022

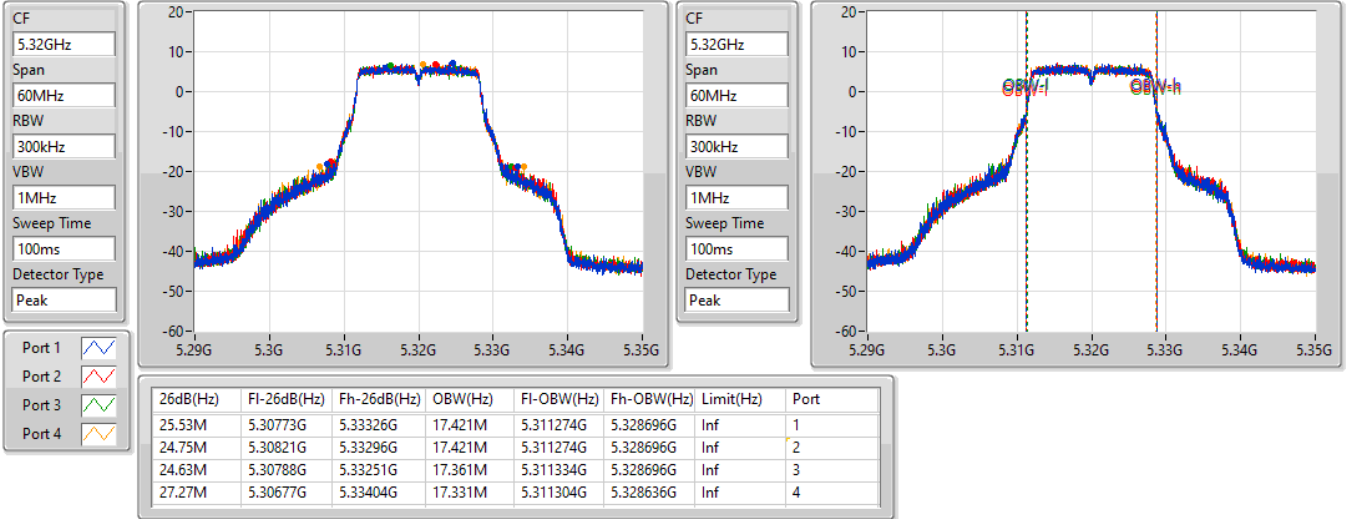

**802.11a\_Nss1,(6Mbps)\_4TX**
**EBW**
**5300MHz**

26/07/2022

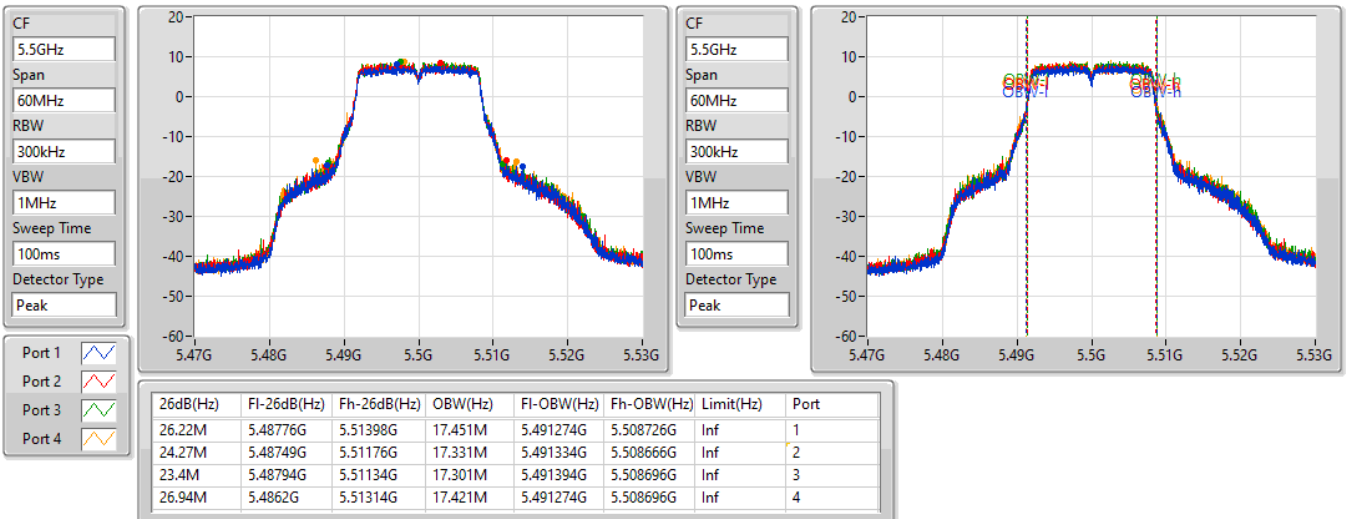


**802.11a\_Nss1,(6Mbps)\_4TX**
**EBW**
**5320MHz**

26/07/2022

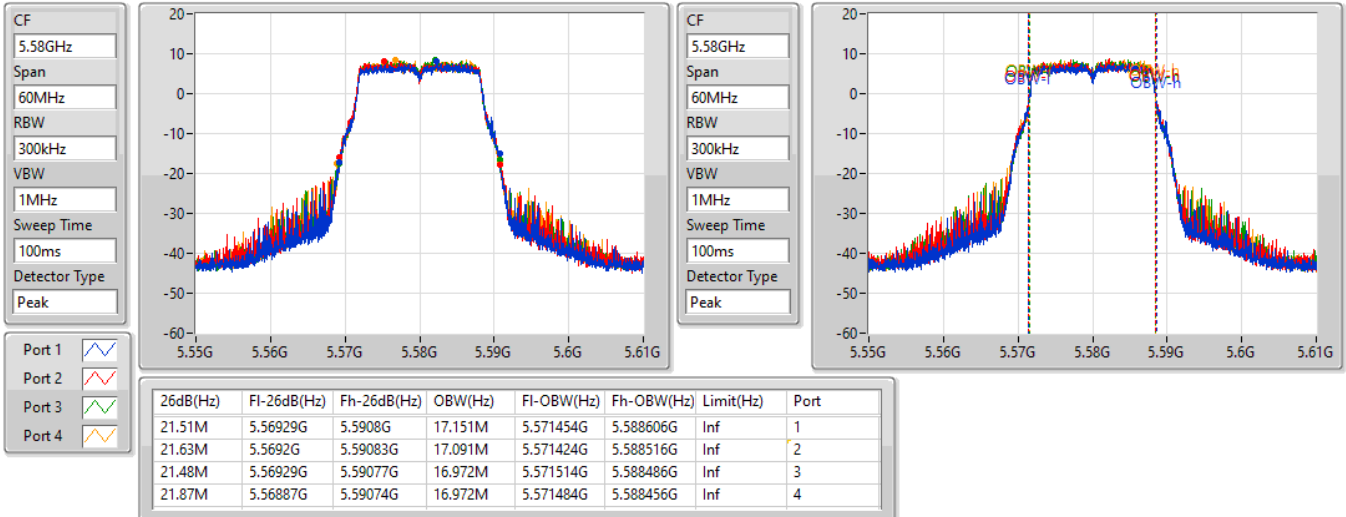

**802.11a\_Nss1,(6Mbps)\_4TX**
**EBW**
**5500MHz**

26/07/2022

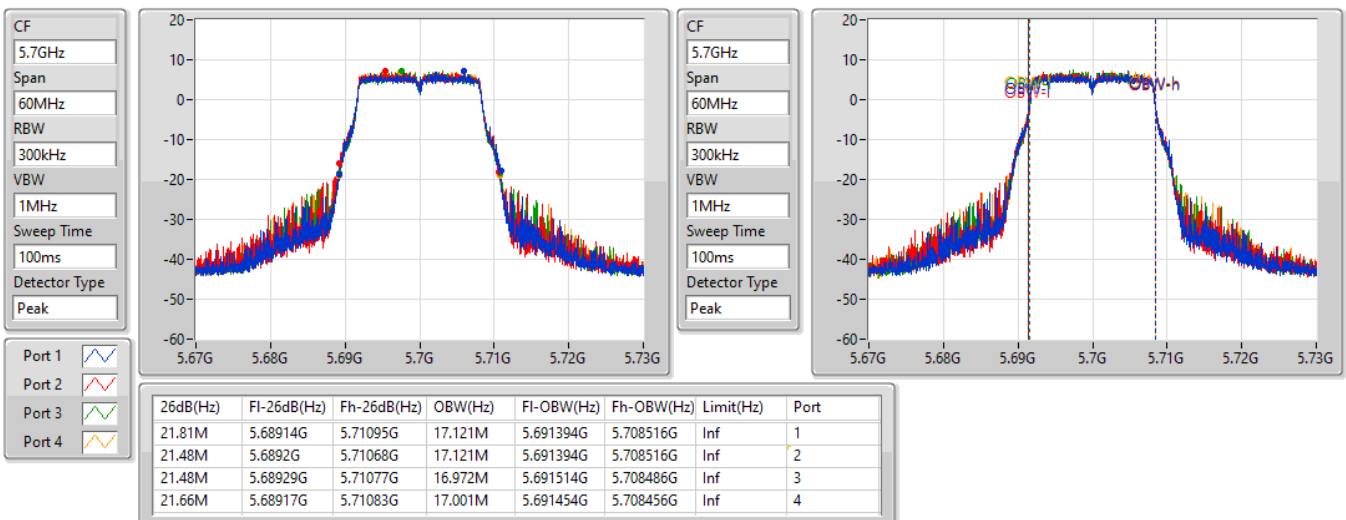


**802.11a\_Nss1,(6Mbps)\_4TX**
**EBW**
**5580MHz**

26/07/2022

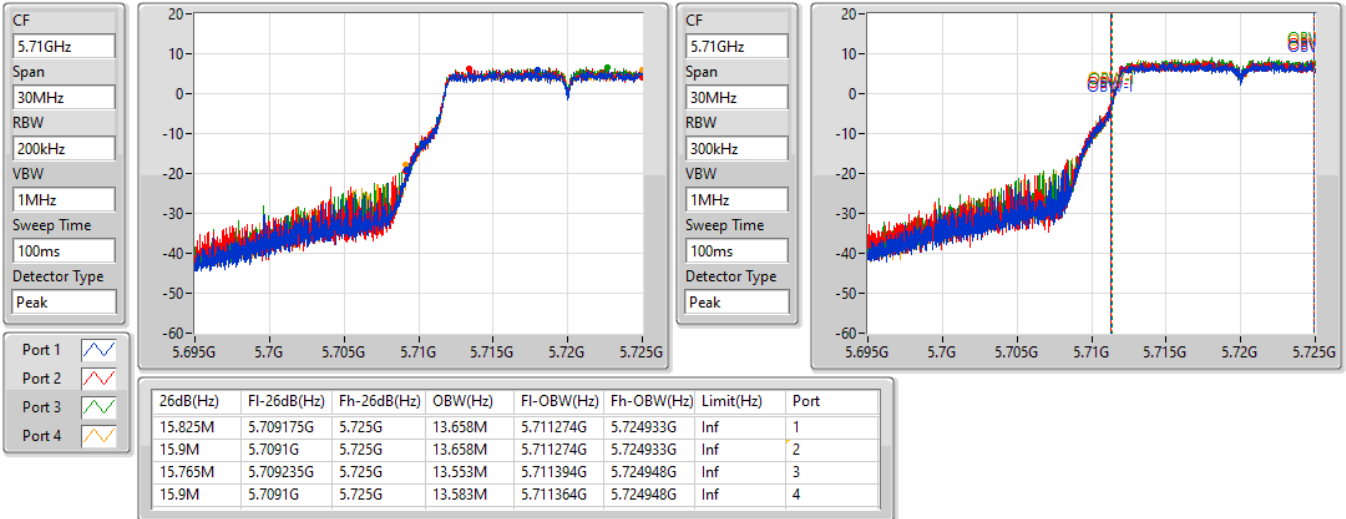

**802.11a\_Nss1,(6Mbps)\_4TX**
**EBW**
**5700MHz**

26/07/2022

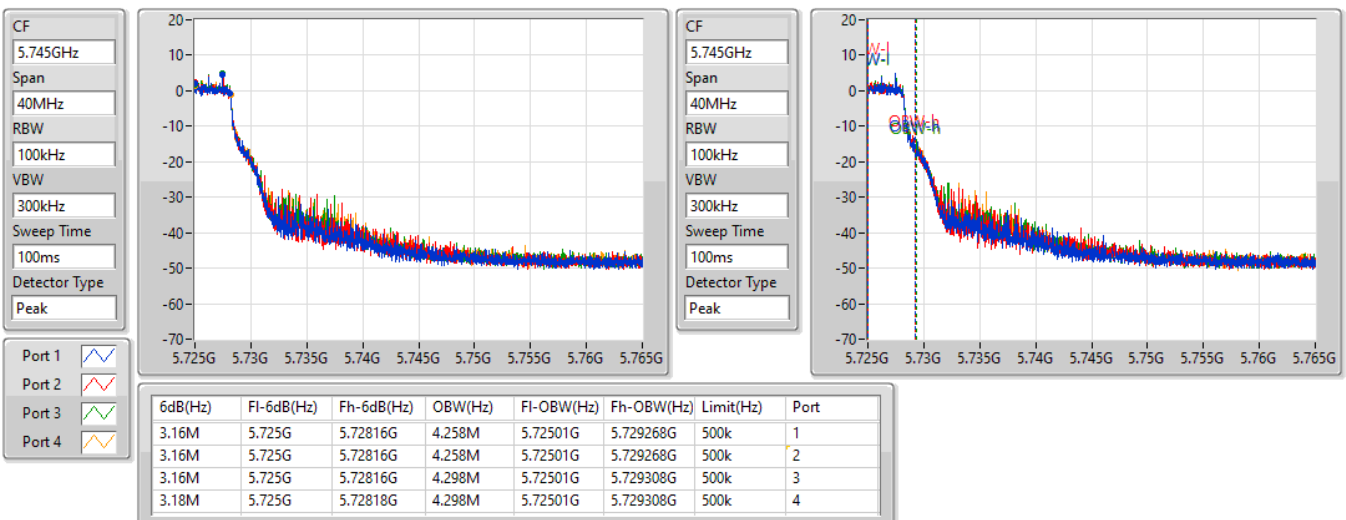


**802.11a\_Nss1,(6Mbps)\_4TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

27/07/2022


**802.11a\_Nss1,(6Mbps)\_4TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

27/07/2022

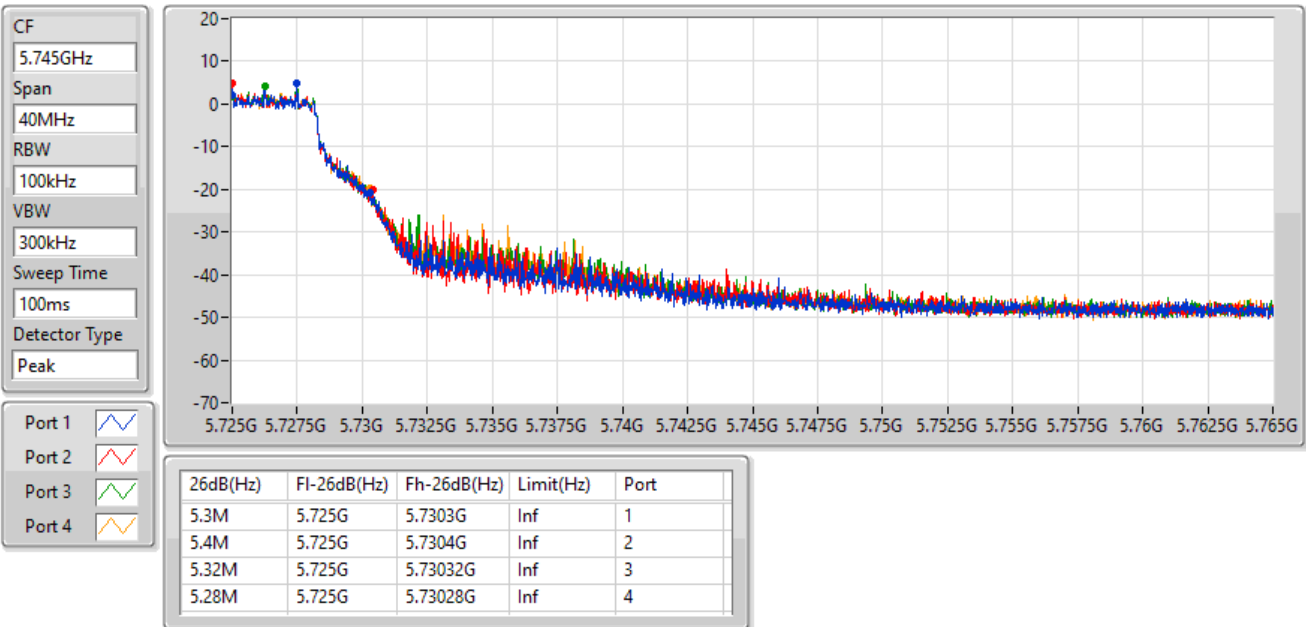


## 802.11a\_Nss1,(6Mbps)\_4TX

EBW

### 5720MHz Straddle 5.725-5.85GHz

27/07/2022

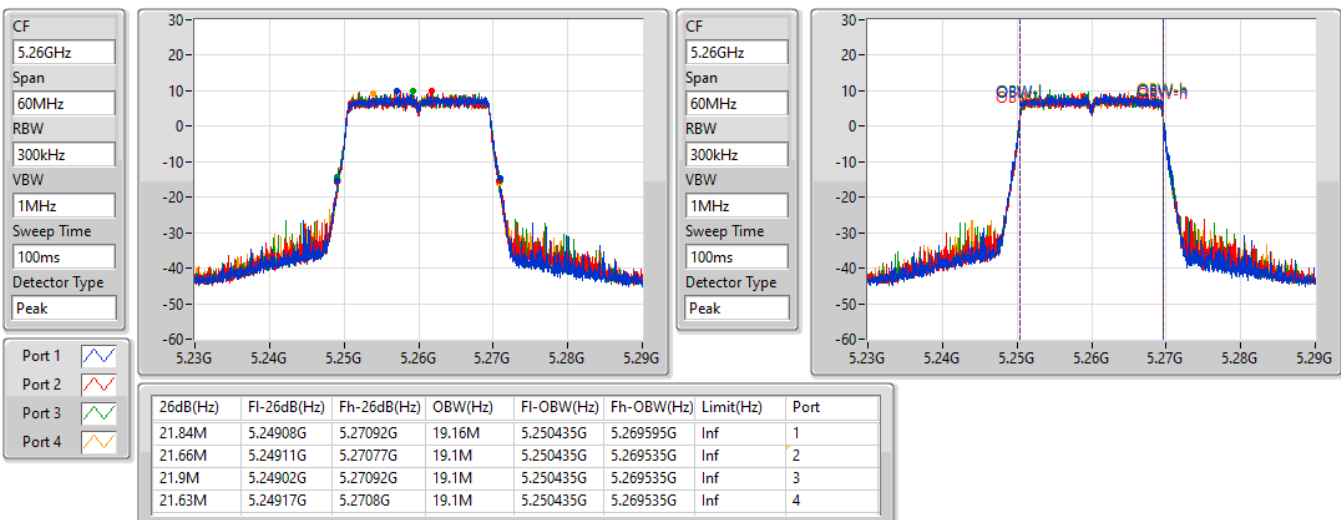


## 802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

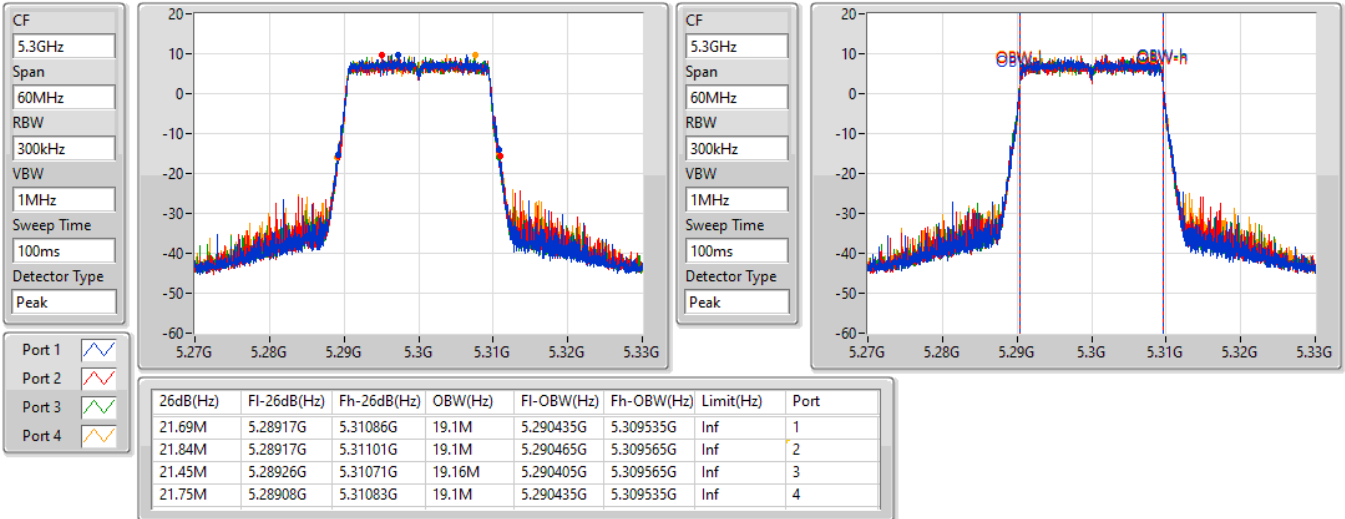
### 5260MHz

26/07/2022

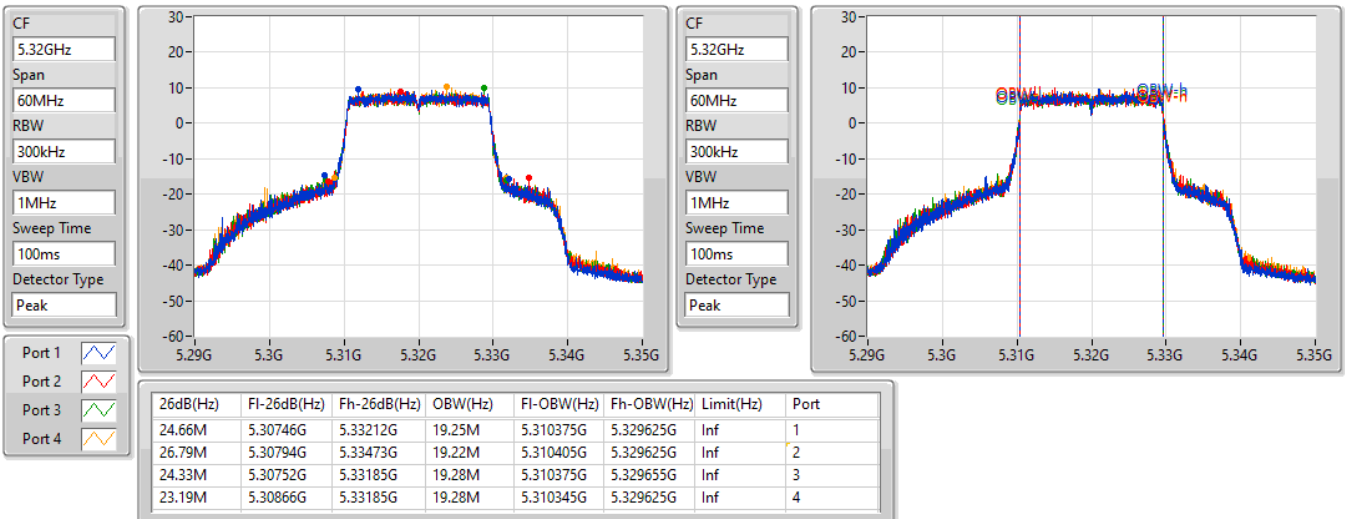


**802.11ax HEW20\_Nss1,(MCS0)\_4TX**
**EBW**
**5300MHz**

26/07/2022


**802.11ax HEW20\_Nss1,(MCS0)\_4TX**
**EBW**
**5320MHz**

26/07/2022

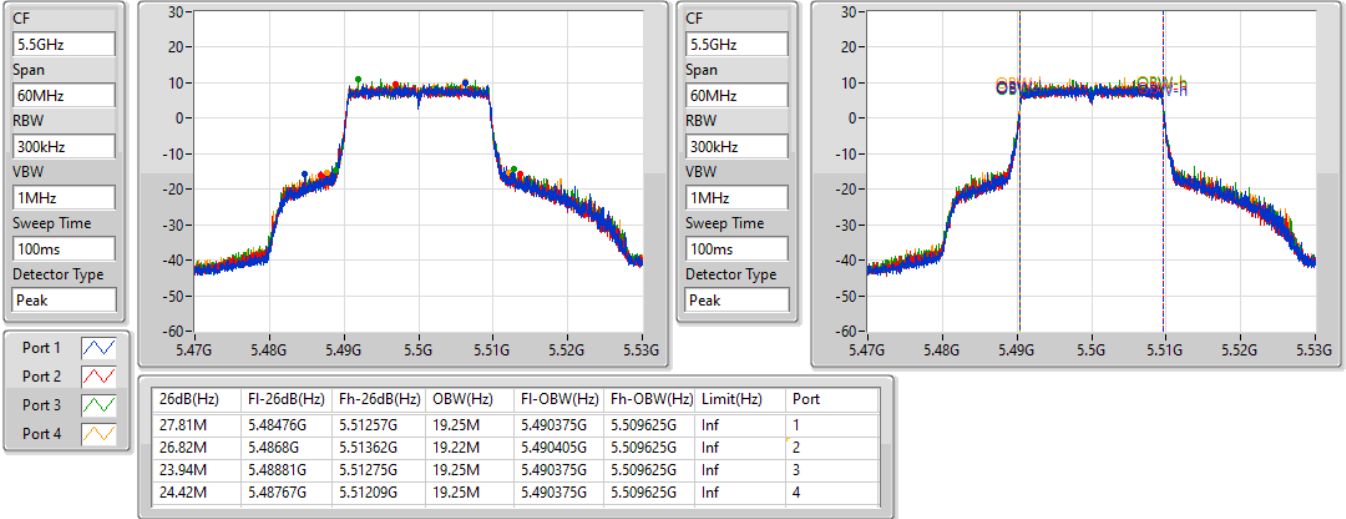


## 802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5500MHz

26/07/2022

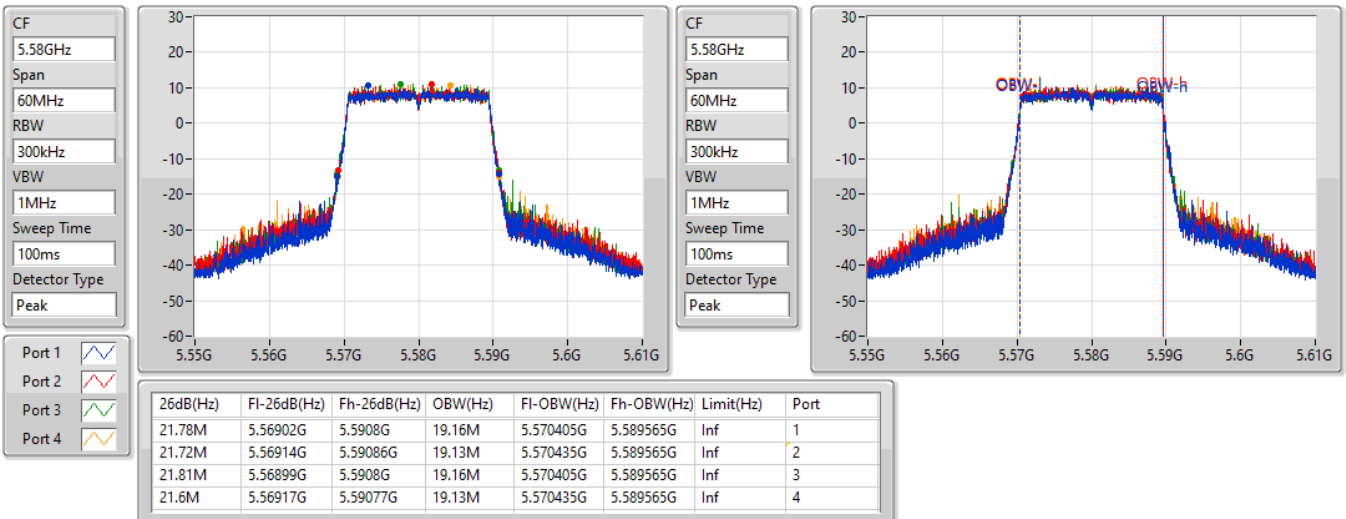


## 802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

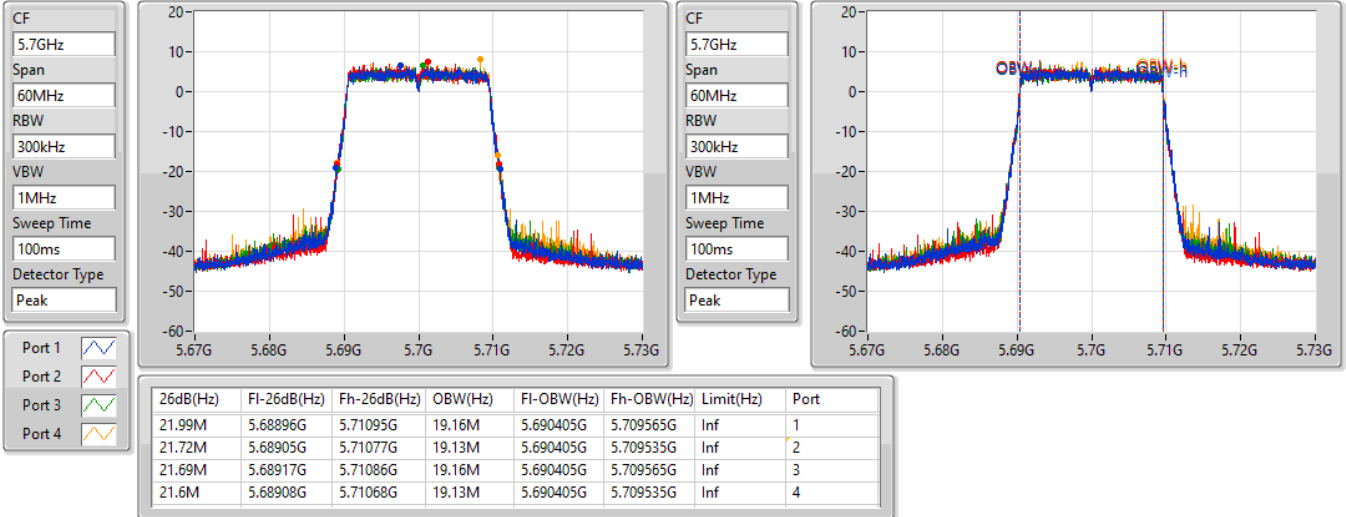
5580MHz

26/07/2022

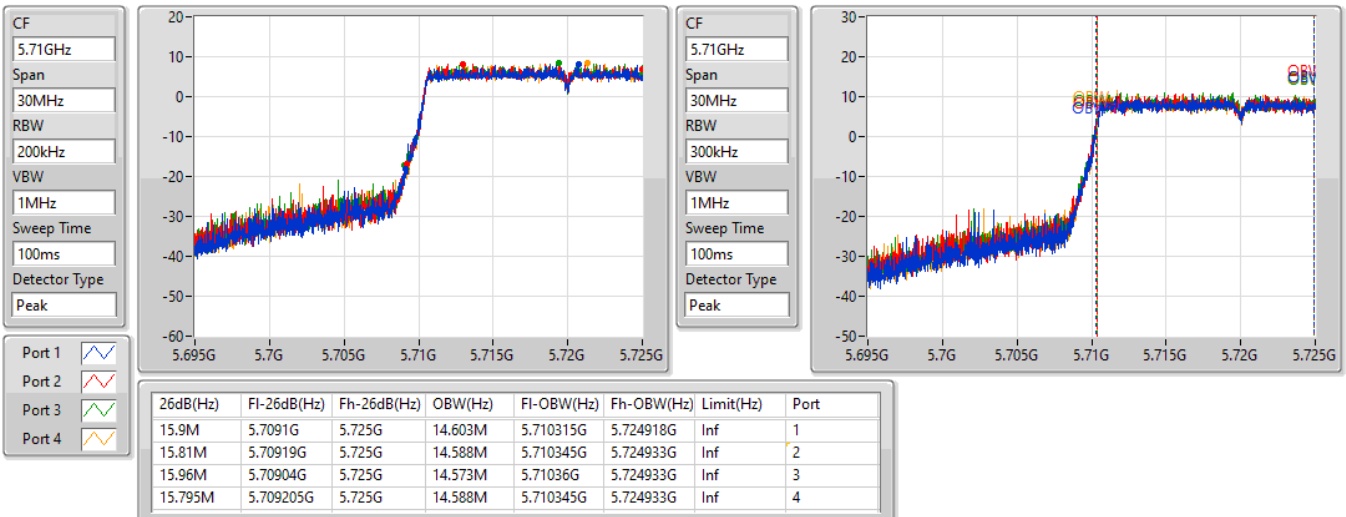


**802.11ax HEW20\_Nss1,(MCS0)\_4TX**
**EBW**
**5700MHz**

26/07/2022

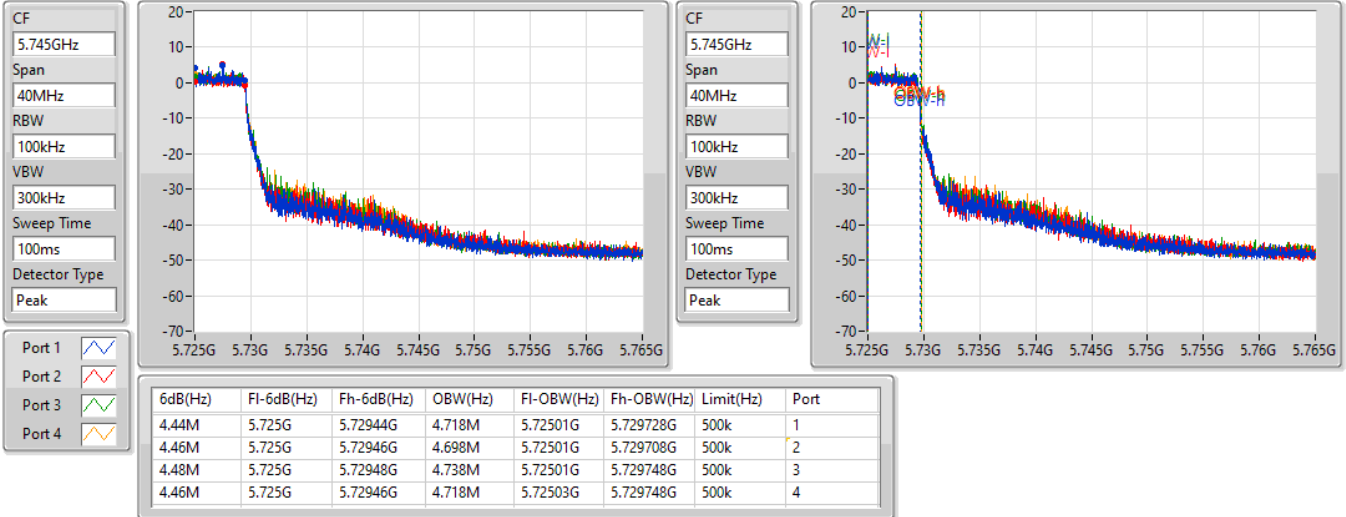

**802.11ax HEW20\_Nss1,(MCS0)\_4TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

27/07/2022

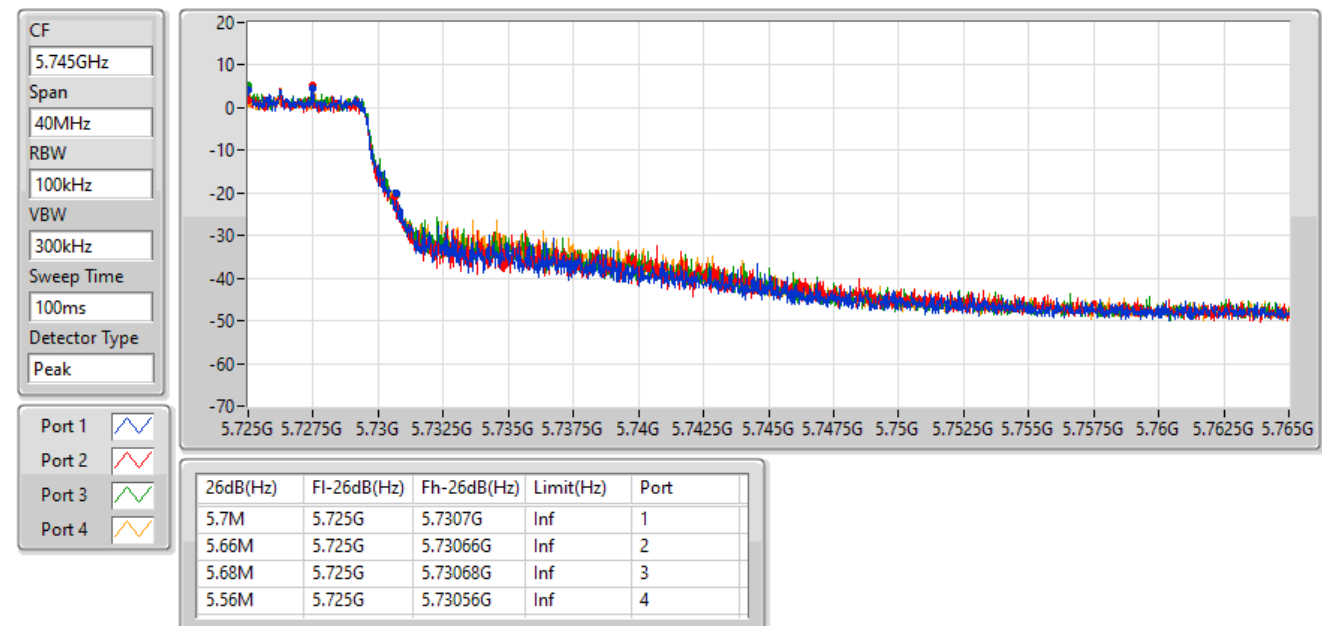


**802.11ax HEW20\_Nss1,(MCS0)\_4TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

27/07/2022

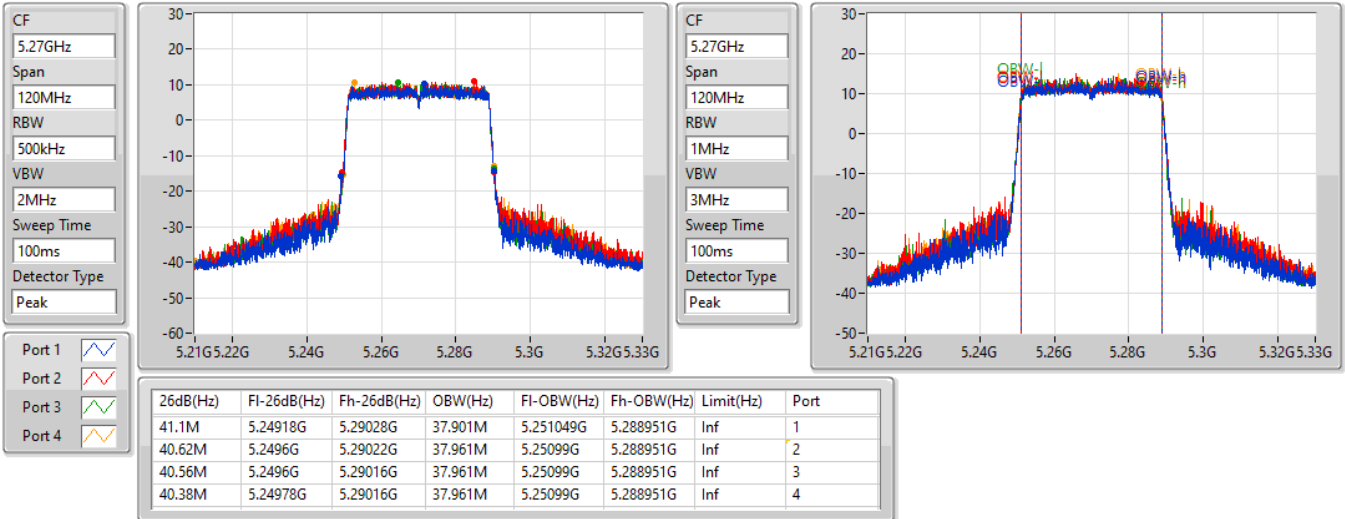

**802.11ax HEW20\_Nss1,(MCS0)\_4TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

27/07/2022

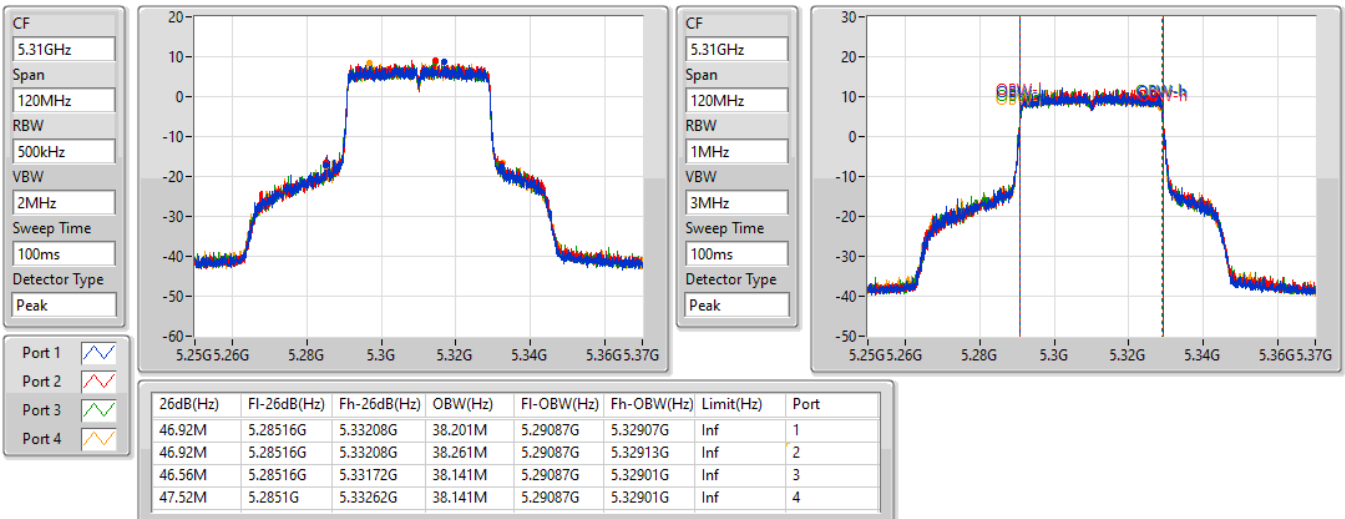


**802.11ax HEW40\_Nss1,(MCS0)\_4TX**
**EBW**
**5270MHz**

26/07/2022

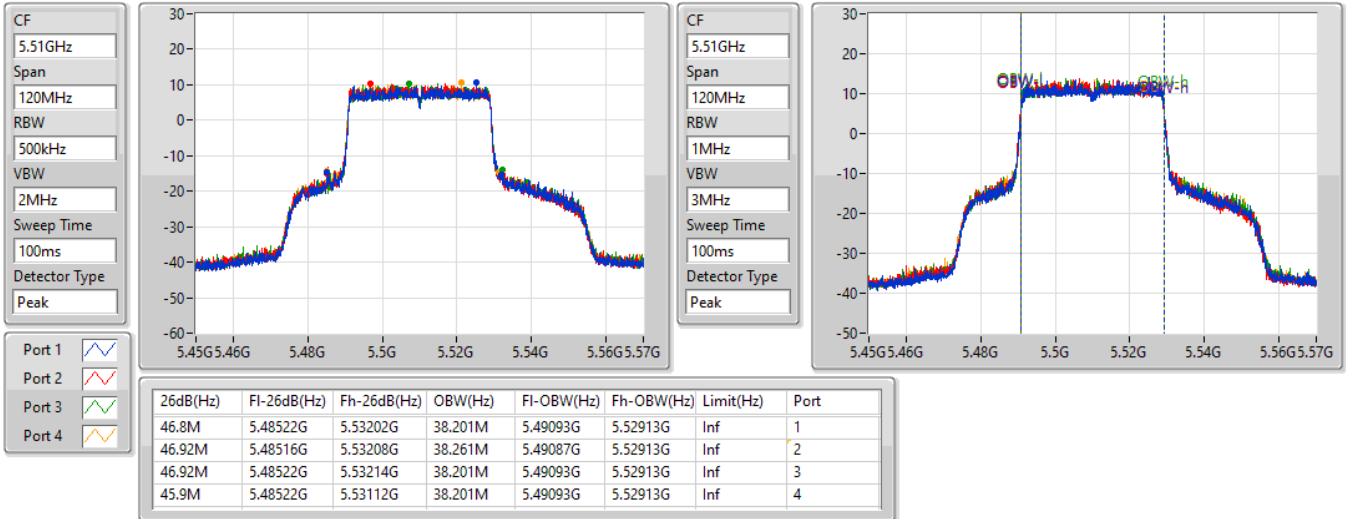

**802.11ax HEW40\_Nss1,(MCS0)\_4TX**
**EBW**
**5310MHz**

26/07/2022

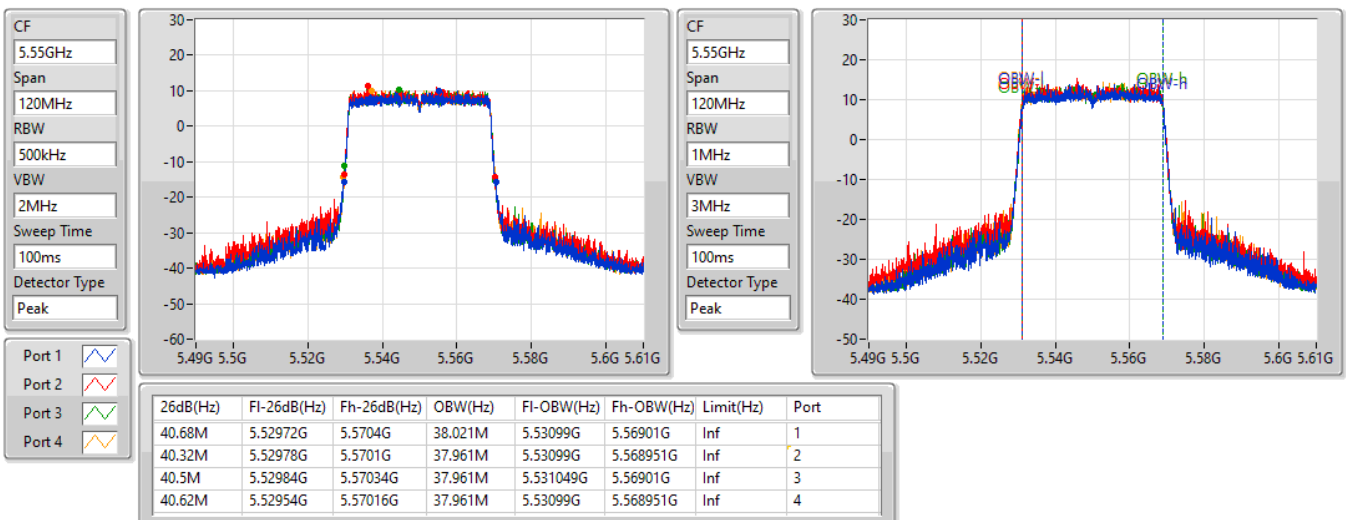


**802.11ax HEW40\_Nss1,(MCS0)\_4TX**
**EBW**
**5510MHz**

26/07/2022

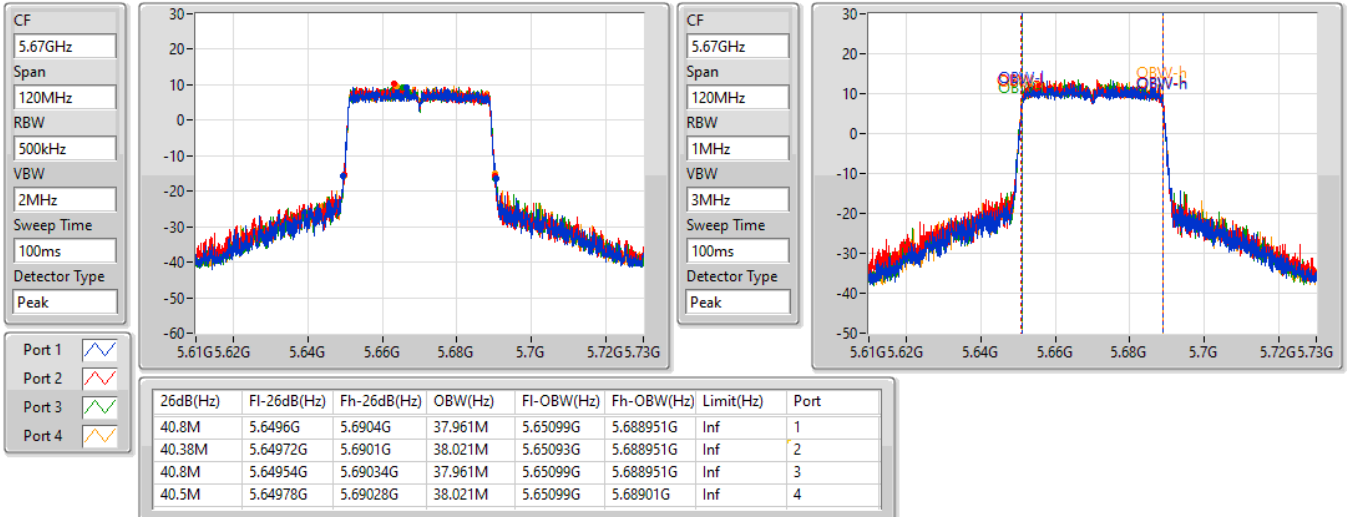

**802.11ax HEW40\_Nss1,(MCS0)\_4TX**
**EBW**
**5550MHz**

26/07/2022

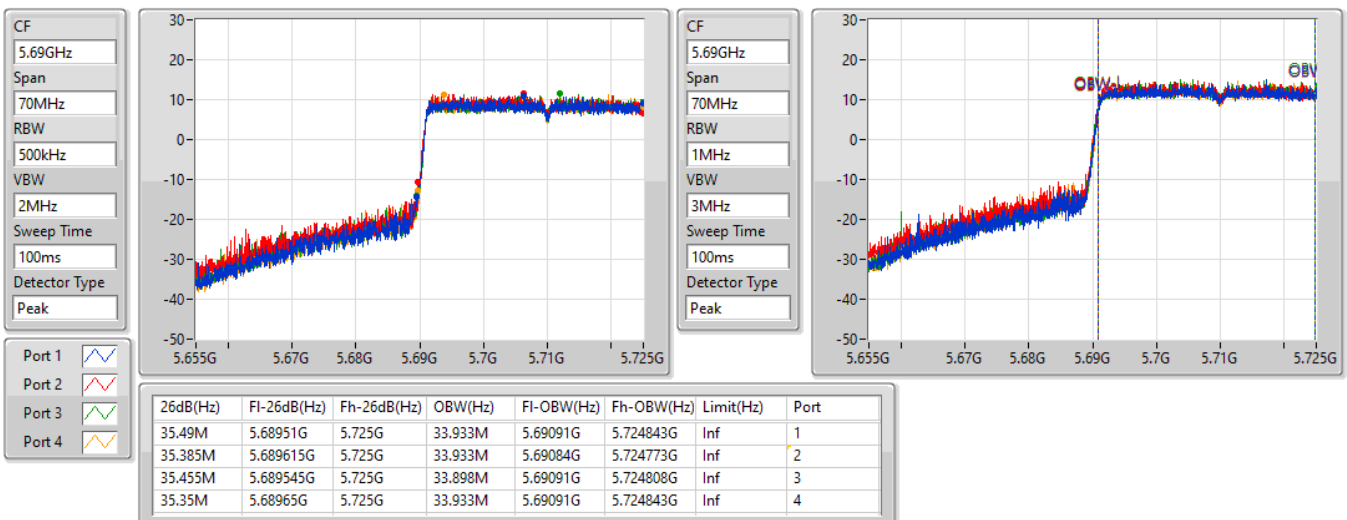


**802.11ax HEW40\_Nss1,(MCS0)\_4TX**
**EBW**
**5670MHz**

26/07/2022


**802.11ax HEW40\_Nss1,(MCS0)\_4TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

27/07/2022

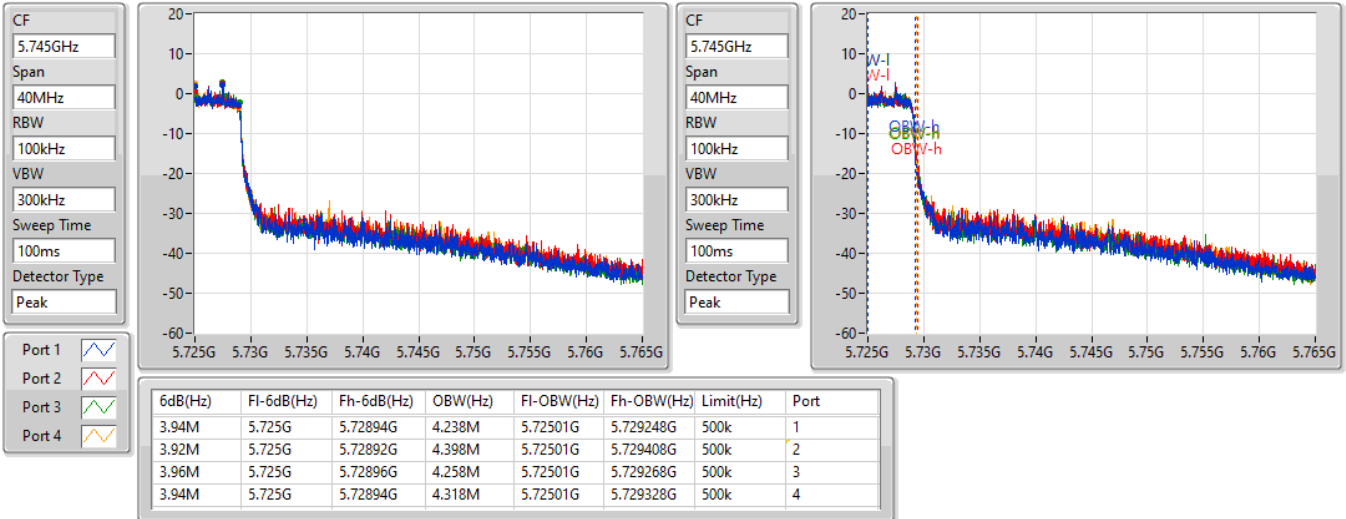


## 802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

### 5710MHz Straddle 5.725-5.85GHz

27/07/2022

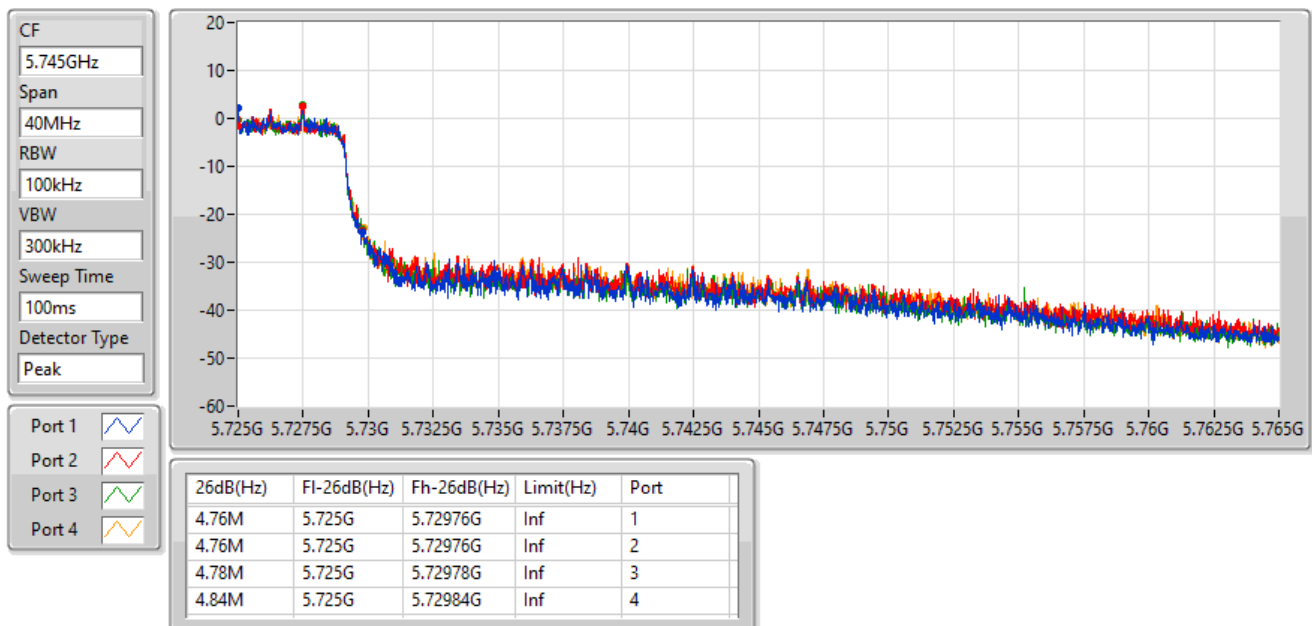


## 802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

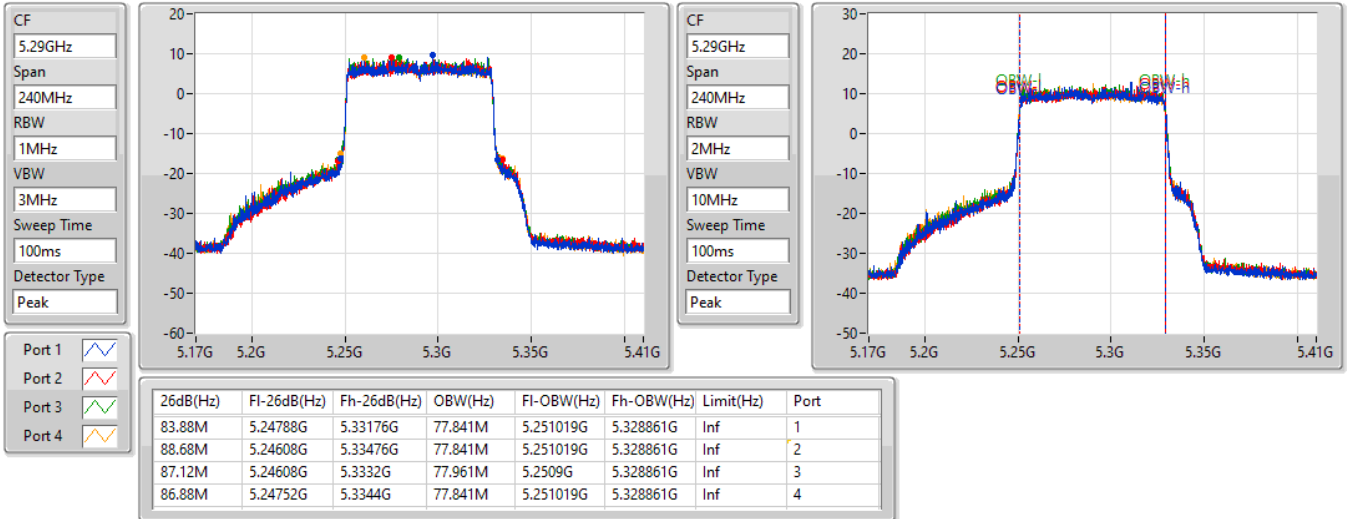
### 5710MHz Straddle 5.725-5.85GHz

27/07/2022

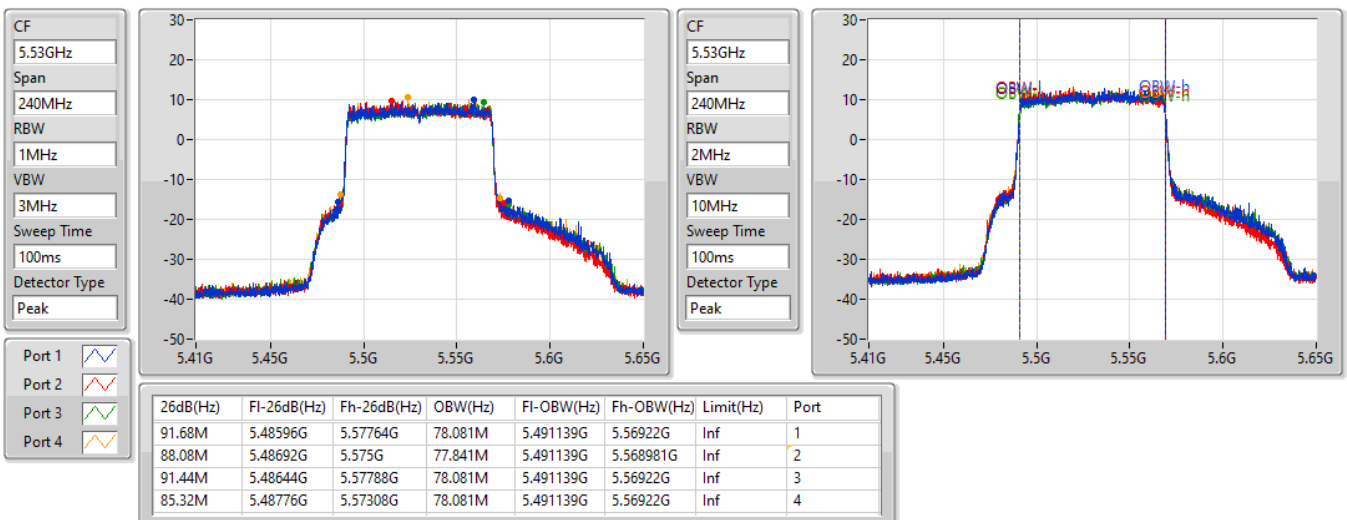


**802.11ax HEW80\_Nss1,(MCS0)\_4TX**
**EBW**
**5290MHz**

26/07/2022

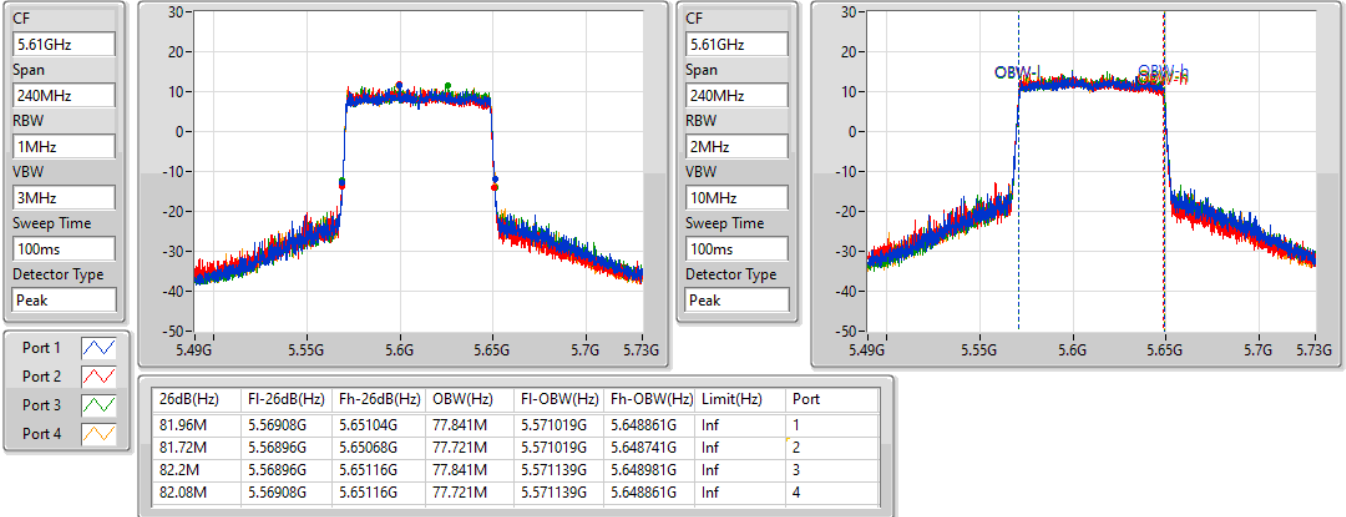

**802.11ax HEW80\_Nss1,(MCS0)\_4TX**
**EBW**
**5530MHz**

26/07/2022

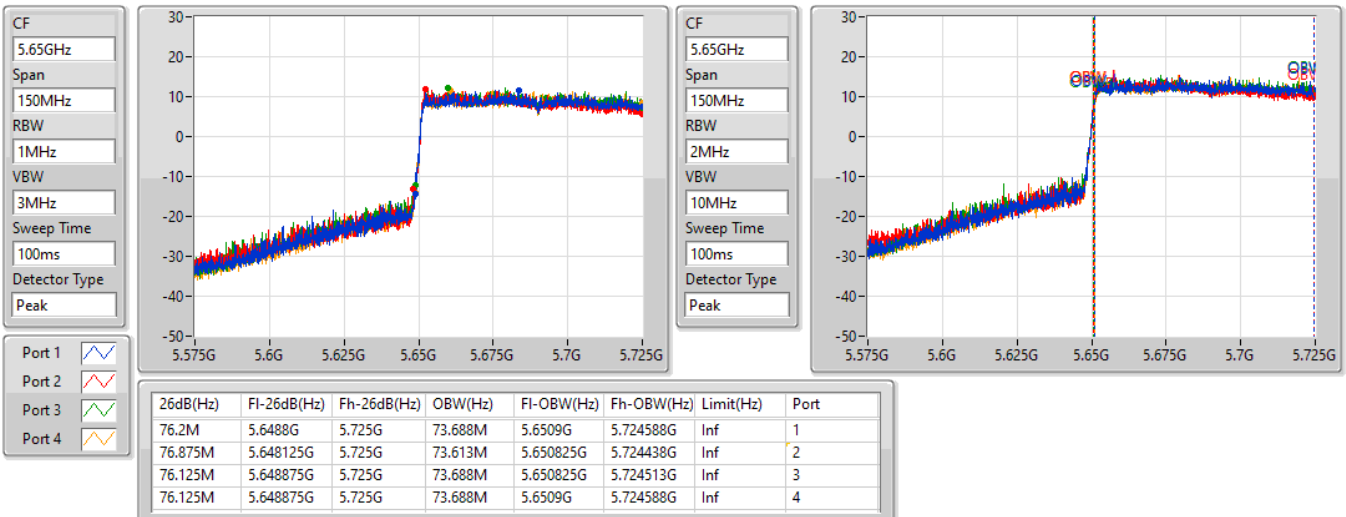


**802.11ax HEW80\_Nss1,(MCS0)\_4TX**
**EBW**
**5610MHz**

26/07/2022

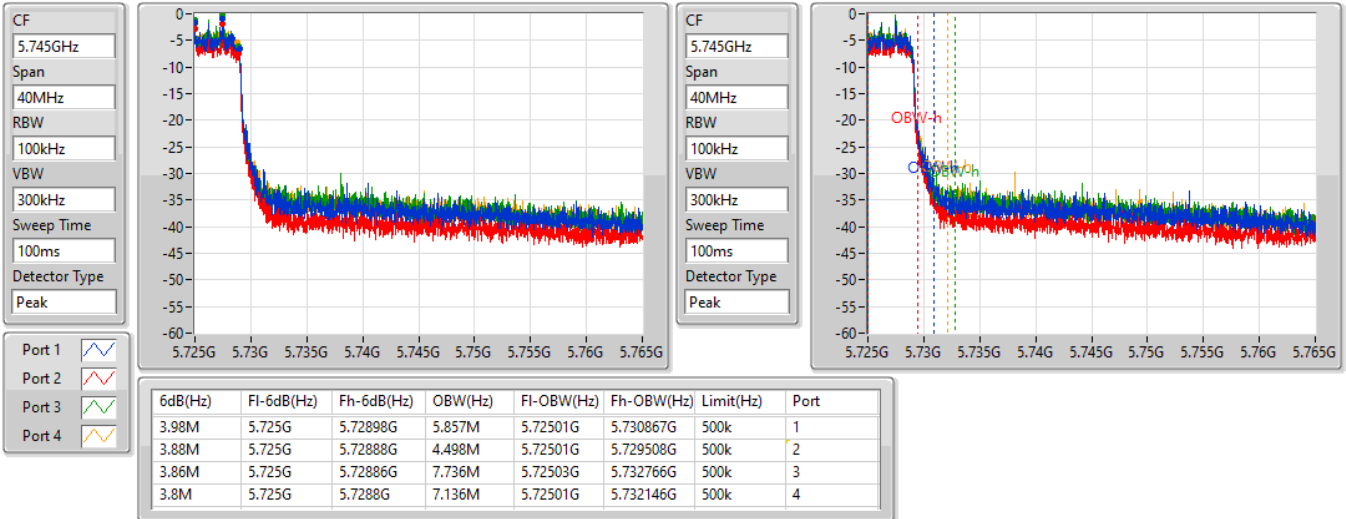

**802.11ax HEW80\_Nss1,(MCS0)\_4TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

27/07/2022

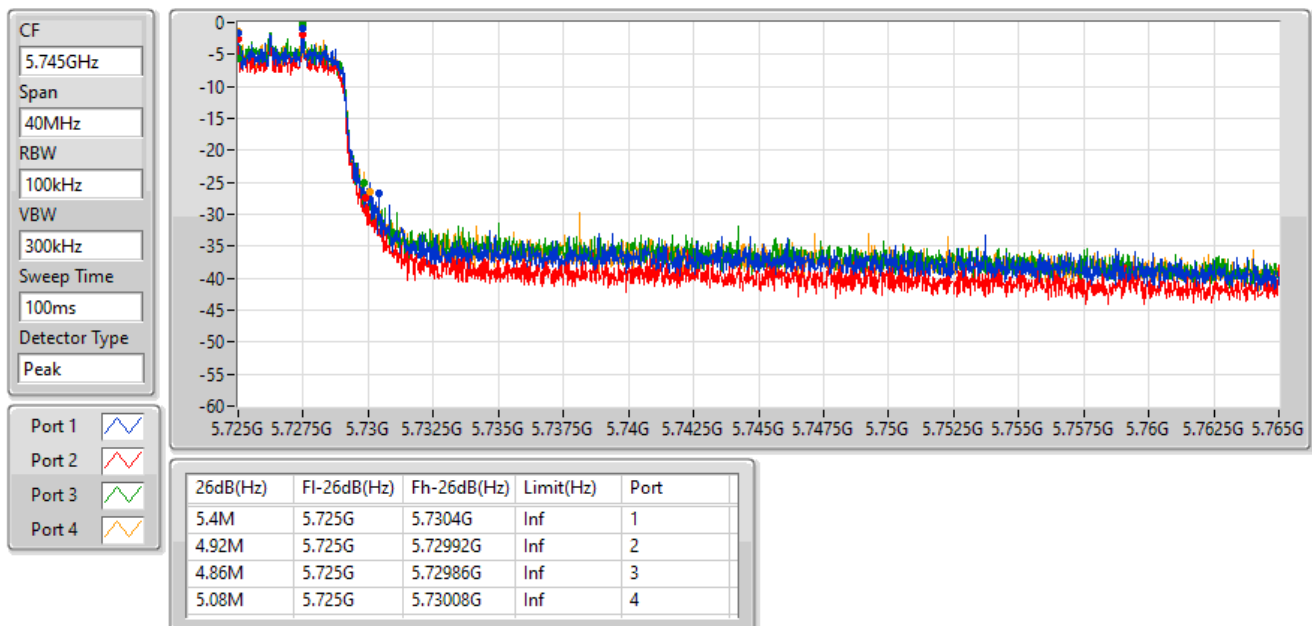


**802.11ax HEW80\_Nss1,(MCS0)\_4TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

27/07/2022

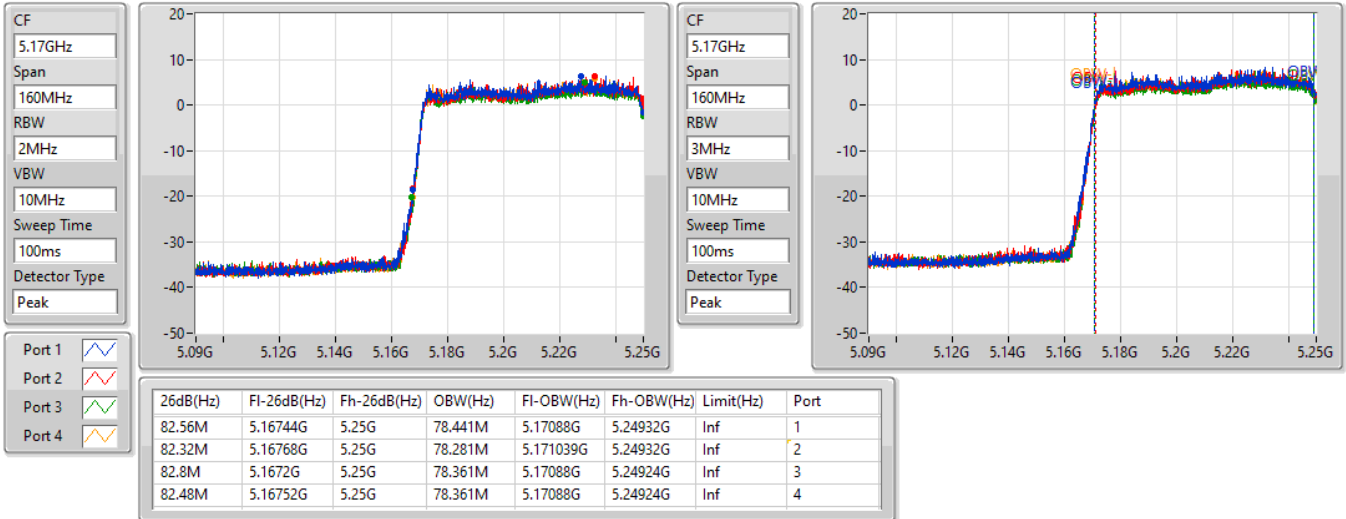

**802.11ax HEW80\_Nss1,(MCS0)\_4TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

27/07/2022

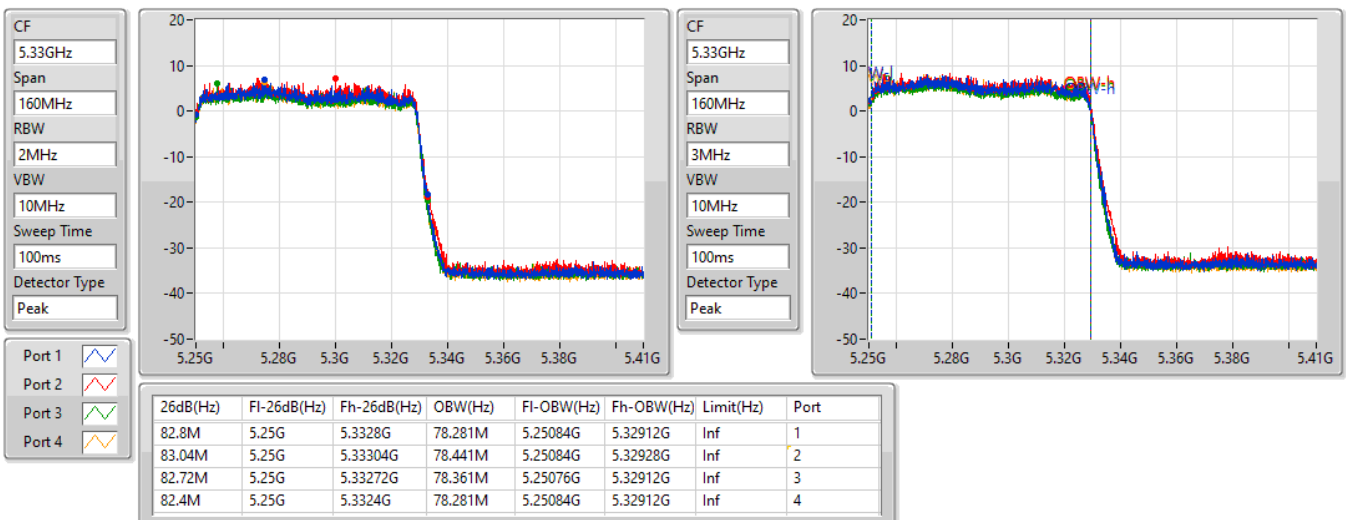


**802.11ax HEW160\_Nss1,(MCS0)\_4TX**
**EBW**
**5250MHz Straddle 5.15-5.25GHz**

26/07/2022


**802.11ax HEW160\_Nss1,(MCS0)\_4TX**
**EBW**
**5250MHz Straddle 5.25-5.35GHz**

26/07/2022

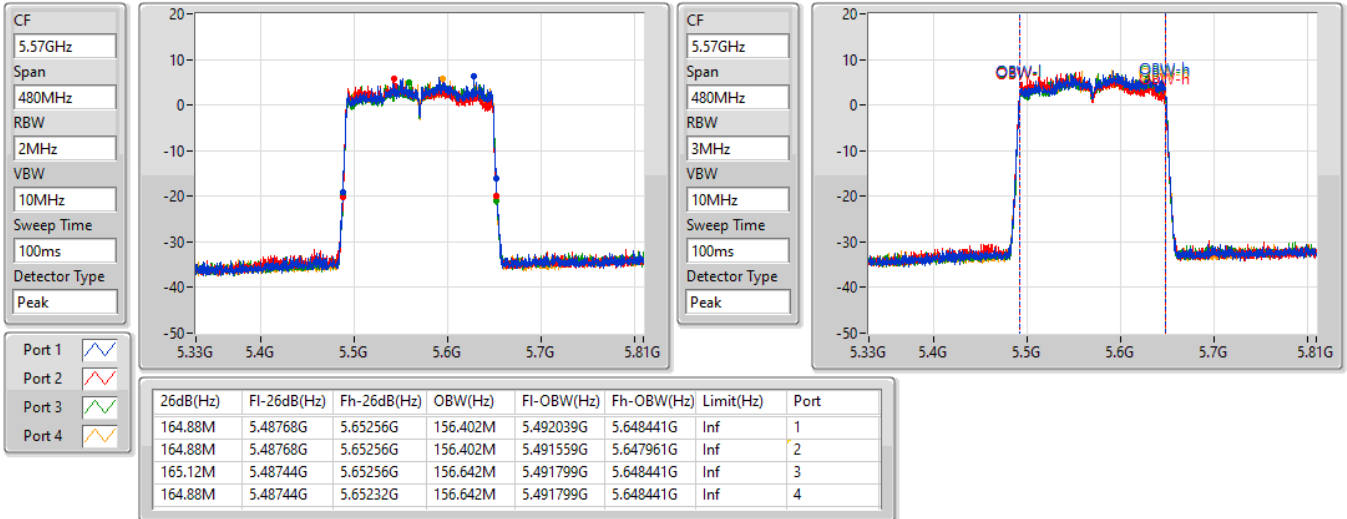


# 802.11ax HEW160\_Nss1,(MCS0)\_4TX

EBW

5570MHz

26/07/2022



**Summary**

| Mode                            | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|---------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.15-5.25GHz                    | -                | -               | -        | -                | -               |
| 802.11ax HEW160_Nss4,(MCS0)_4TX | 83.12M           | 78.361M         | 78M4D1D  | 82.32M           | 78.281M         |
| 5.25-5.35GHz                    | -                | -               | -        | -                | -               |
| 802.11ax HEW20_Nss4,(MCS0)_4TX  | 25.23M           | 19.28M          | 19M3D1D  | 21.39M           | 19.07M          |
| 802.11ax HEW40_Nss4,(MCS0)_4TX  | 46.86M           | 38.261M         | 38M3D1D  | 40.38M           | 37.901M         |
| 802.11ax HEW80_Nss4,(MCS0)_4TX  | 90M              | 78.201M         | 78M2D1D  | 85.32M           | 78.081M         |
| 802.11ax HEW160_Nss4,(MCS0)_4TX | 83.76M           | 78.921M         | 78M9D1D  | 82.48M           | 78.441M         |
| 5.47-5.725GHz                   | -                | -               | -        | -                | -               |
| 802.11ax HEW20_Nss4,(MCS0)_4TX  | 26.16M           | 19.31M          | 19M3D1D  | 15.72M           | 14.558M         |
| 802.11ax HEW40_Nss4,(MCS0)_4TX  | 50.58M           | 38.261M         | 38M3D1D  | 35.245M          | 33.898M         |
| 802.11ax HEW80_Nss4,(MCS0)_4TX  | 90.48M           | 78.321M         | 78M3D1D  | 76.05M           | 73.613M         |
| 802.11ax HEW160_Nss4,(MCS0)_4TX | 166.08M          | 156.642M        | 157MD1D  | 164.64M          | 156.402M        |
| 5.725-5.85GHz                   | -                | -               | -        | -                | -               |
| 802.11ax HEW20_Nss4,(MCS0)_4TX  | 4.48M            | 4.698M          | 4M70D1D  | 4.44M            | 4.658M          |
| 802.11ax HEW40_Nss4,(MCS0)_4TX  | 3.94M            | 4.178M          | 4M18D1D  | 3.8M             | 4.158M          |
| 802.11ax HEW80_Nss4,(MCS0)_4TX  | 4M               | 18.471M         | 18M5D1D  | 3.84M            | 17.531M         |

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

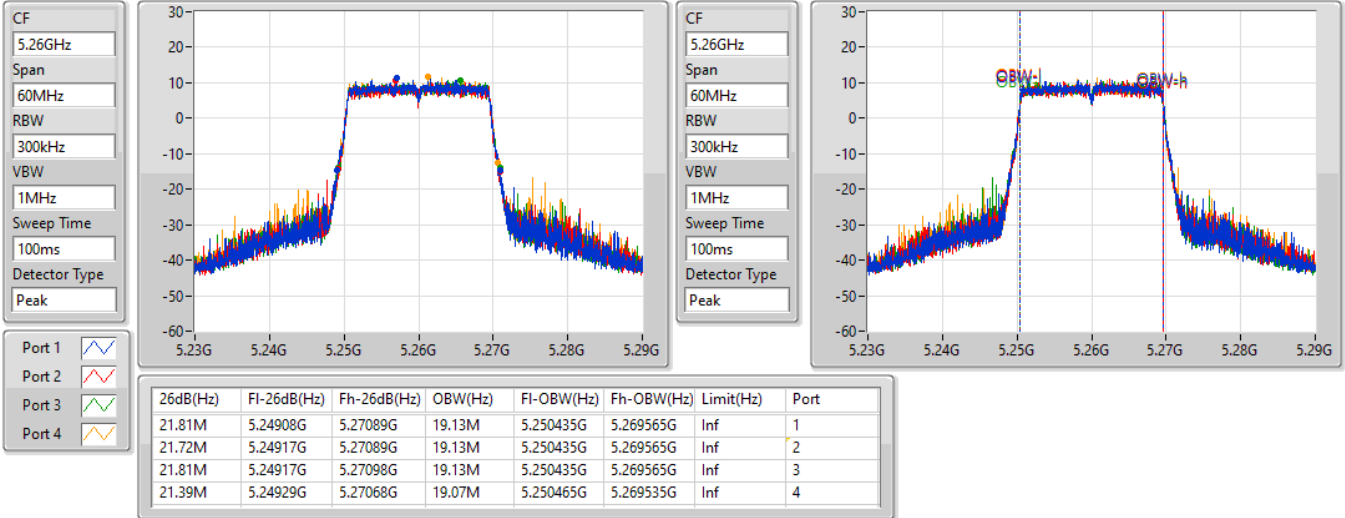
**Result**

| Mode                            | Result | Limit (Hz) | Port 1-N dB (Hz) | Port 1-OBW (Hz) | Port 2-N dB (Hz) | Port 2-OBW (Hz) | Port 3-N dB (Hz) | Port 3-OBW (Hz) | Port 4-N dB (Hz) | Port 4-OBW (Hz) |
|---------------------------------|--------|------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|
| 802.11ax HEW20_Nss4,(MCS0)_4TX  | -      | -          | -                | -               | -                | -               | -                | -               | -                | -               |
| 5260MHz                         | Pass   | Inf        | 21.81M           | 19.13M          | 21.72M           | 19.13M          | 21.81M           | 19.13M          | 21.39M           | 19.07M          |
| 5300MHz                         | Pass   | Inf        | 21.81M           | 19.16M          | 21.63M           | 19.13M          | 21.6M            | 19.1M           | 21.78M           | 19.07M          |
| 5320MHz                         | Pass   | Inf        | 25.23M           | 19.28M          | 25.08M           | 19.25M          | 24.03M           | 19.28M          | 24.42M           | 19.22M          |
| 5500MHz                         | Pass   | Inf        | 25.74M           | 19.25M          | 25.41M           | 19.22M          | 25.47M           | 19.31M          | 26.16M           | 19.22M          |
| 5580MHz                         | Pass   | Inf        | 21.78M           | 19.19M          | 21.51M           | 19.1M           | 21.6M            | 19.1M           | 21.84M           | 19.1M           |
| 5700MHz                         | Pass   | Inf        | 21.9M            | 19.1M           | 21.6M            | 19.13M          | 21.6M            | 19.13M          | 21.57M           | 19.16M          |
| 5720MHz Straddle 5.47-5.725GHz  | Pass   | Inf        | 15.72M           | 14.588M         | 15.765M          | 14.558M         | 15.78M           | 14.573M         | 15.825M          | 14.558M         |
| 5720MHz Straddle 5.725-5.85GHz  | Pass   | 500k       | 4.48M            | 4.698M          | 4.44M            | 4.658M          | 4.46M            | 4.698M          | 4.44M            | 4.698M          |
| 802.11ax HEW40_Nss4,(MCS0)_4TX  | -      | -          | -                | -               | -                | -               | -                | -               | -                | -               |
| 5270MHz                         | Pass   | Inf        | 46.56M           | 37.901M         | 40.5M            | 37.961M         | 40.38M           | 38.021M         | 44.58M           | 37.901M         |
| 5310MHz                         | Pass   | Inf        | 46.38M           | 38.201M         | 46.86M           | 38.141M         | 46.38M           | 38.201M         | 43.98M           | 38.261M         |
| 5510MHz                         | Pass   | Inf        | 50.28M           | 38.261M         | 50.58M           | 38.201M         | 50.52M           | 38.141M         | 44.1M            | 38.201M         |
| 5550MHz                         | Pass   | Inf        | 43.14M           | 37.961M         | 40.14M           | 37.961M         | 40.32M           | 37.901M         | 40.26M           | 38.021M         |
| 5670MHz                         | Pass   | Inf        | 40.38M           | 37.961M         | 40.44M           | 38.021M         | 42.72M           | 38.141M         | 40.44M           | 38.021M         |
| 5710MHz Straddle 5.47-5.725GHz  | Pass   | Inf        | 35.245M          | 33.898M         | 35.245M          | 33.898M         | 35.35M           | 33.933M         | 35.245M          | 33.898M         |
| 5710MHz Straddle 5.725-5.85GHz  | Pass   | 500k       | 3.9M             | 4.158M          | 3.8M             | 4.178M          | 3.94M            | 4.178M          | 3.8M             | 4.178M          |
| 802.11ax HEW80_Nss4,(MCS0)_4TX  | -      | -          | -                | -               | -                | -               | -                | -               | -                | -               |
| 5290MHz                         | Pass   | Inf        | 85.32M           | 78.201M         | 90M              | 78.081M         | 89.04M           | 78.081M         | 87.24M           | 78.081M         |
| 5530MHz                         | Pass   | Inf        | 89.76M           | 78.321M         | 87.6M            | 77.961M         | 85.56M           | 77.961M         | 90.48M           | 78.081M         |
| 5610MHz                         | Pass   | Inf        | 81.84M           | 77.721M         | 81.96M           | 77.721M         | 81.6M            | 77.601M         | 81.6M            | 77.601M         |
| 5690MHz Straddle 5.47-5.725GHz  | Pass   | Inf        | 76.05M           | 73.688M         | 76.2M            | 73.688M         | 76.425M          | 73.688M         | 88.875M          | 73.613M         |
| 5690MHz Straddle 5.725-5.85GHz  | Pass   | 500k       | 3.84M            | 17.751M         | 3.86M            | 17.531M         | 3.84M            | 18.471M         | 4M               | 18.131M         |
| 802.11ax HEW160_Nss4,(MCS0)_4TX | -      | -          | -                | -               | -                | -               | -                | -               | -                | -               |
| 5250MHz Straddle 5.15-5.25GHz   | Pass   | Inf        | 82.56M           | 78.361M         | 82.64M           | 78.361M         | 82.32M           | 78.281M         | 83.12M           | 78.281M         |
| 5250MHz Straddle 5.25-5.35GHz   | Pass   | Inf        | 82.72M           | 78.521M         | 83.76M           | 78.921M         | 83.2M            | 78.601M         | 82.48M           | 78.441M         |
| 5570MHz                         | Pass   | Inf        | 164.64M          | 156.642M        | 166.08M          | 156.642M        | 164.88M          | 156.402M        | 165.12M          | 156.642M        |

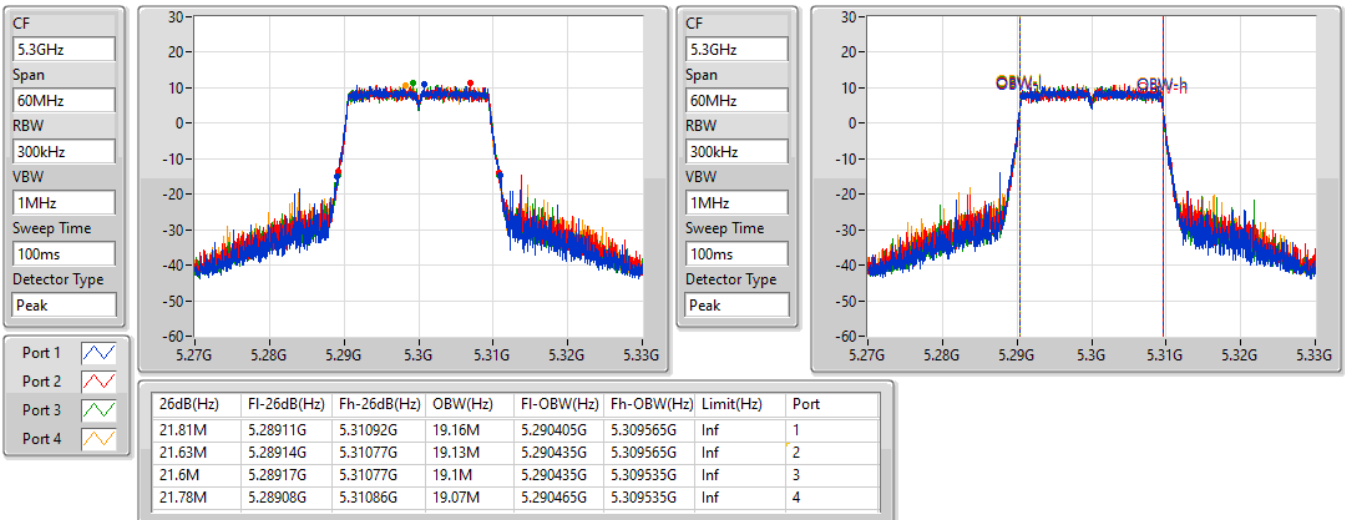
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band  
Port X-OBW = Port X 99% occupied bandwidth

**802.11ax HEW20\_Nss4,(MCS0)\_4TX**
**EBW**
**5260MHz**

26/07/2022

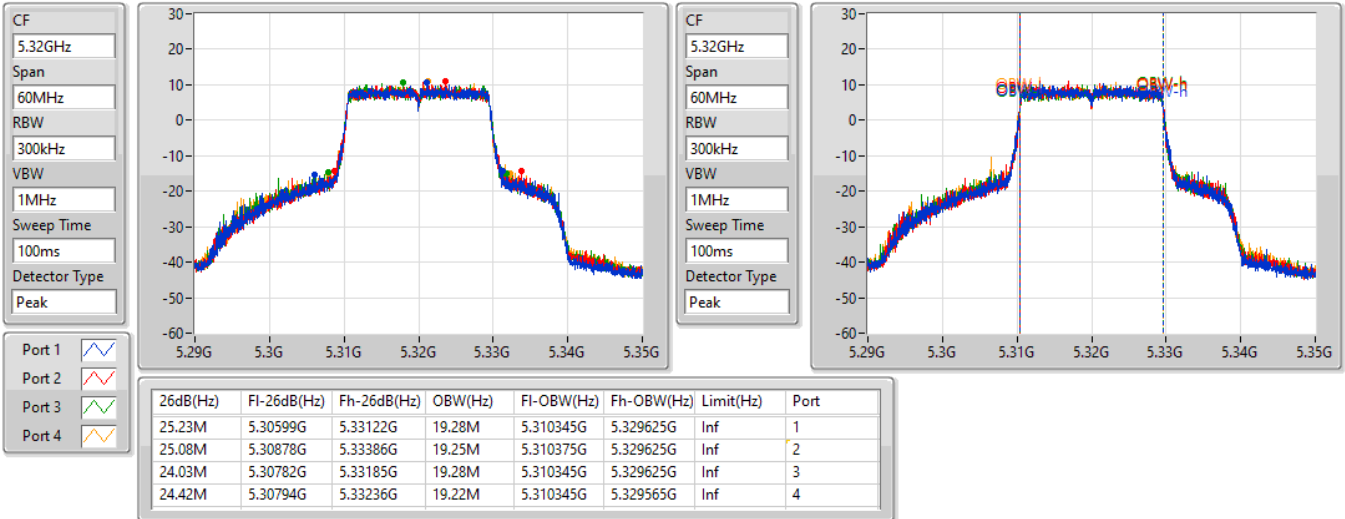

**802.11ax HEW20\_Nss4,(MCS0)\_4TX**
**EBW**
**5300MHz**

26/07/2022

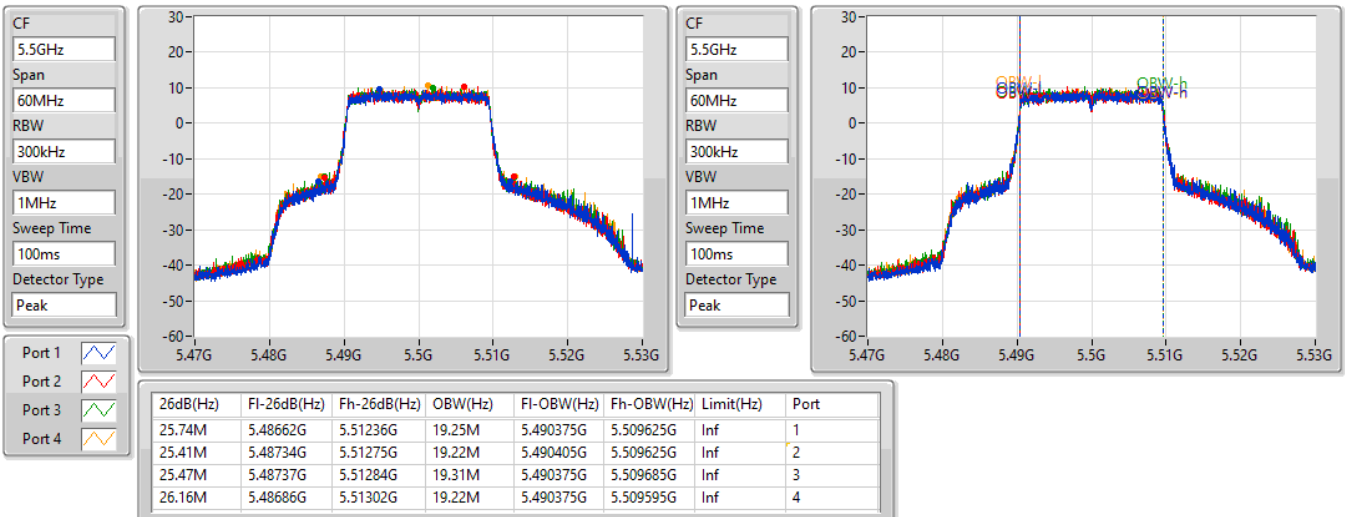


**802.11ax HEW20\_Nss4,(MCS0)\_4TX**
**EBW**
**5320MHz**

26/07/2022

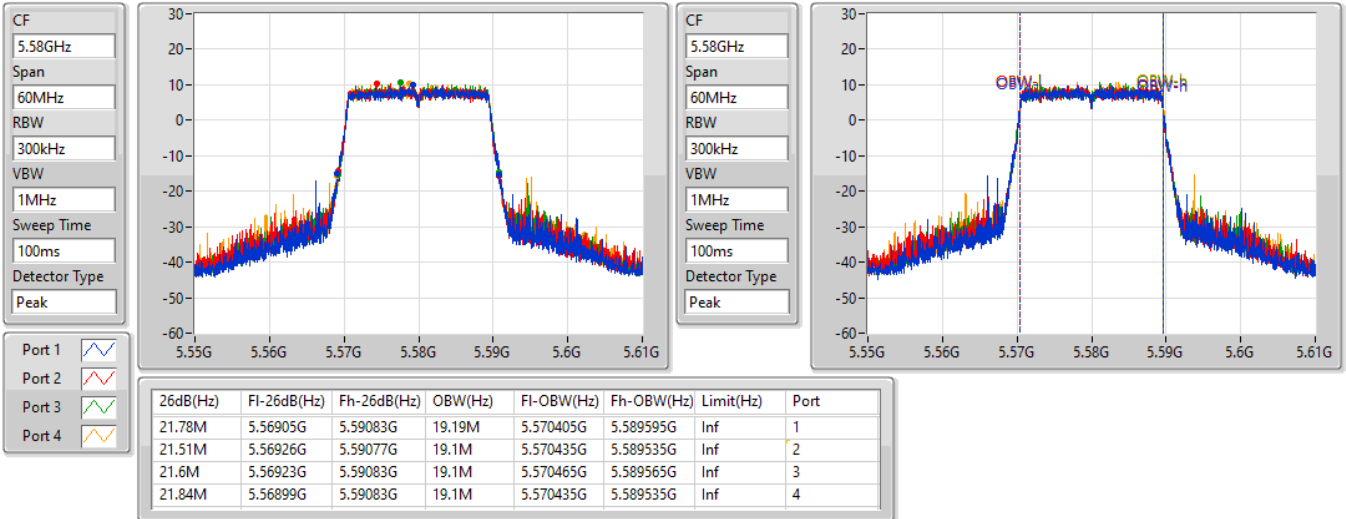

**802.11ax HEW20\_Nss4,(MCS0)\_4TX**
**EBW**
**5500MHz**

26/07/2022

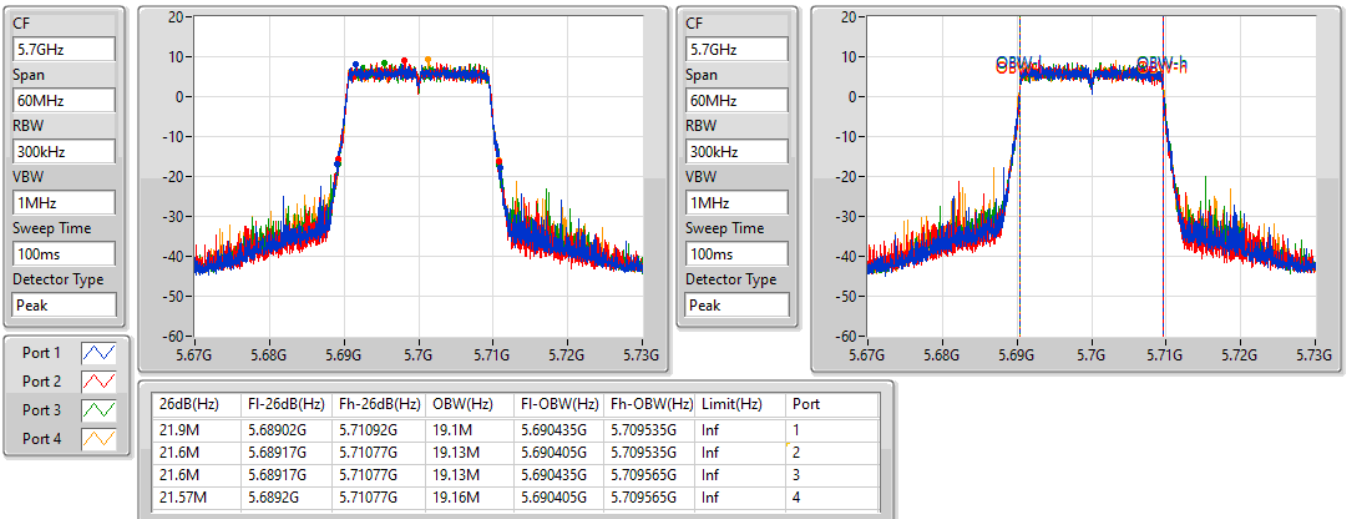


**802.11ax HEW20\_Nss4,(MCS0)\_4TX**
**EBW**
**5580MHz**

26/07/2022

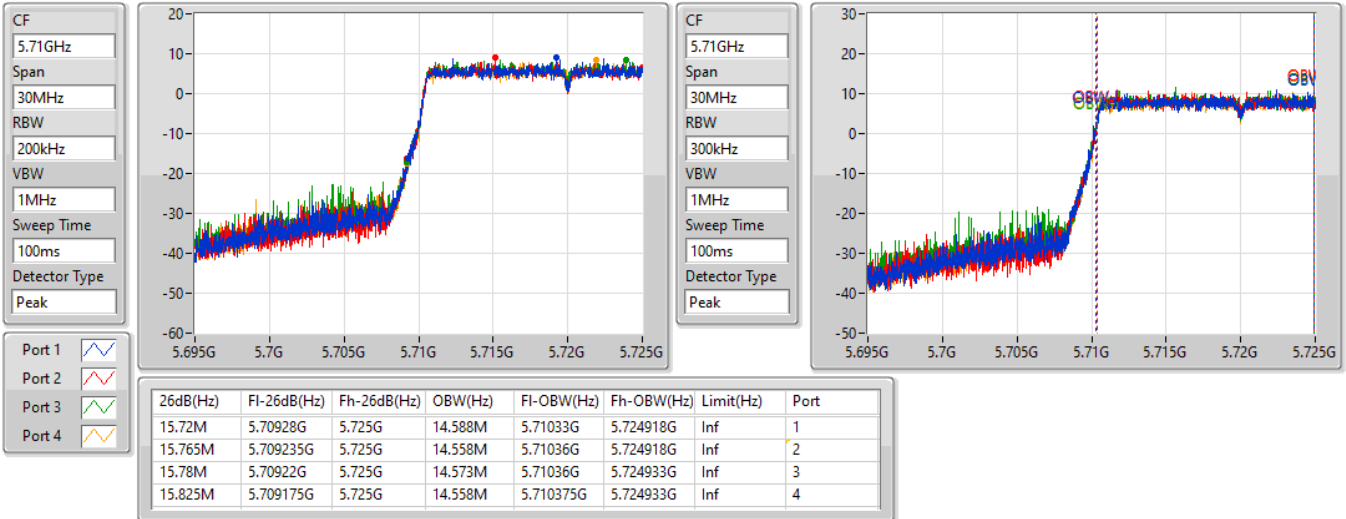

**802.11ax HEW20\_Nss4,(MCS0)\_4TX**
**EBW**
**5700MHz**

26/07/2022

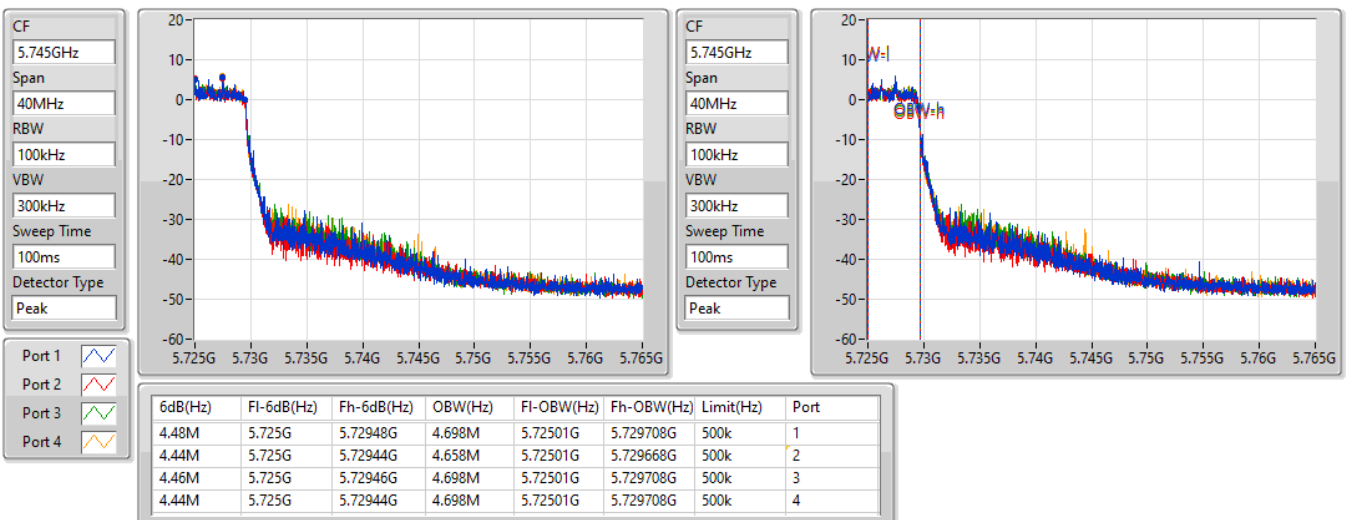


**802.11ax HEW20\_Nss4,(MCS0)\_4TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

30/08/2022

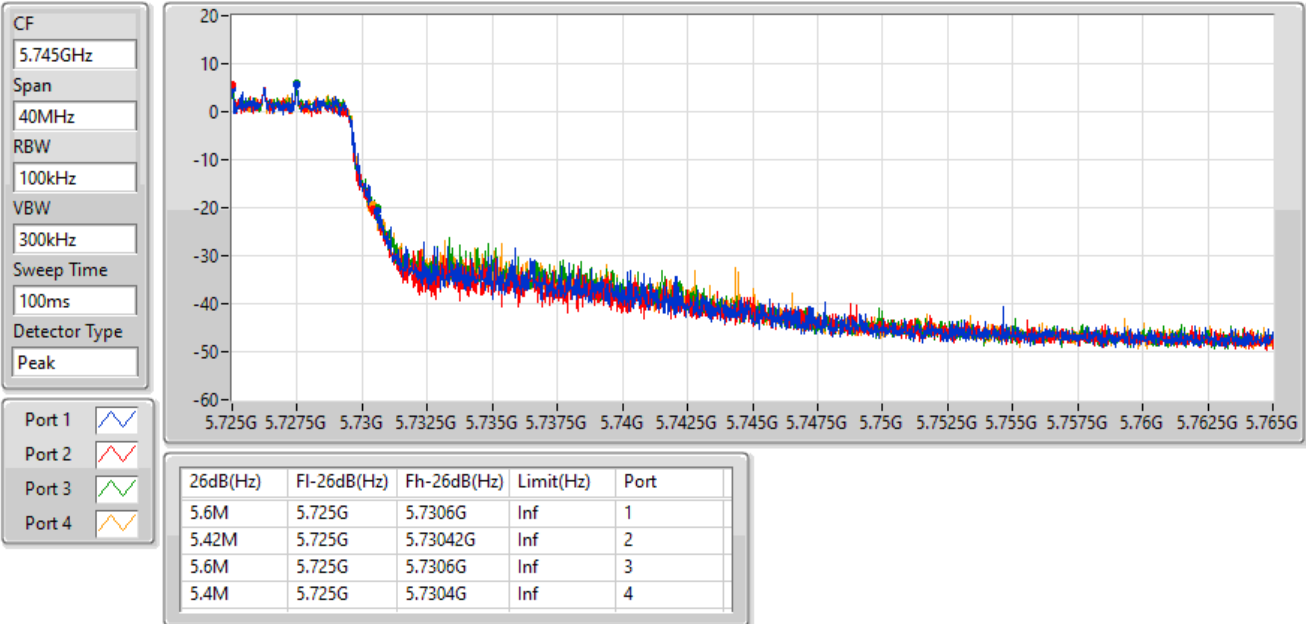

**802.11ax HEW20\_Nss4,(MCS0)\_4TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

30/08/2022

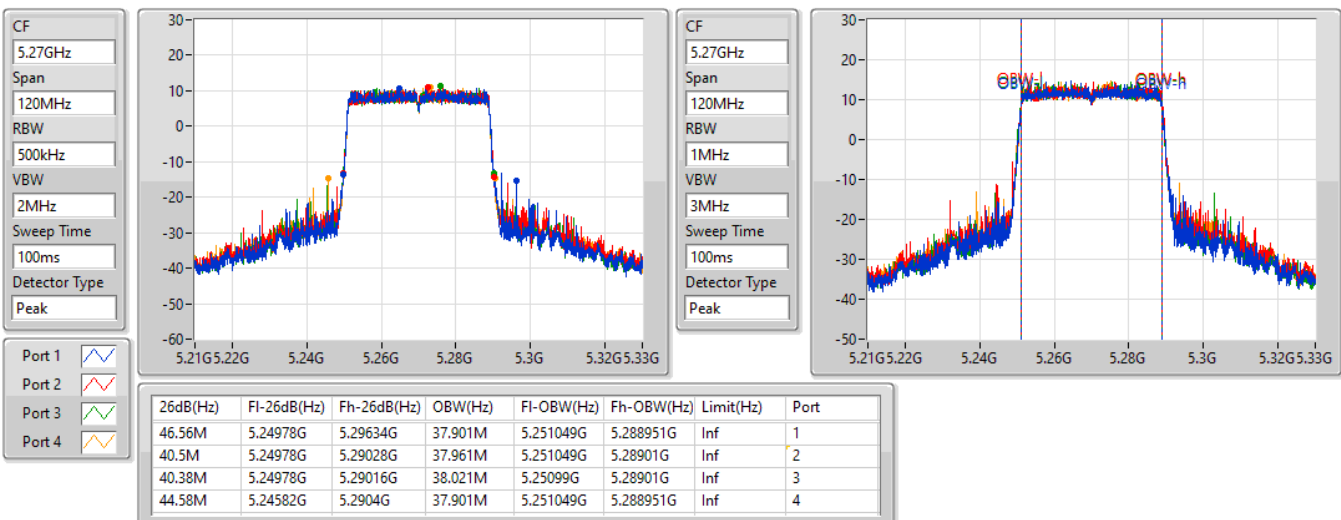


**802.11ax HEW20\_Nss4,(MCS0)\_4TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**

30/08/2022

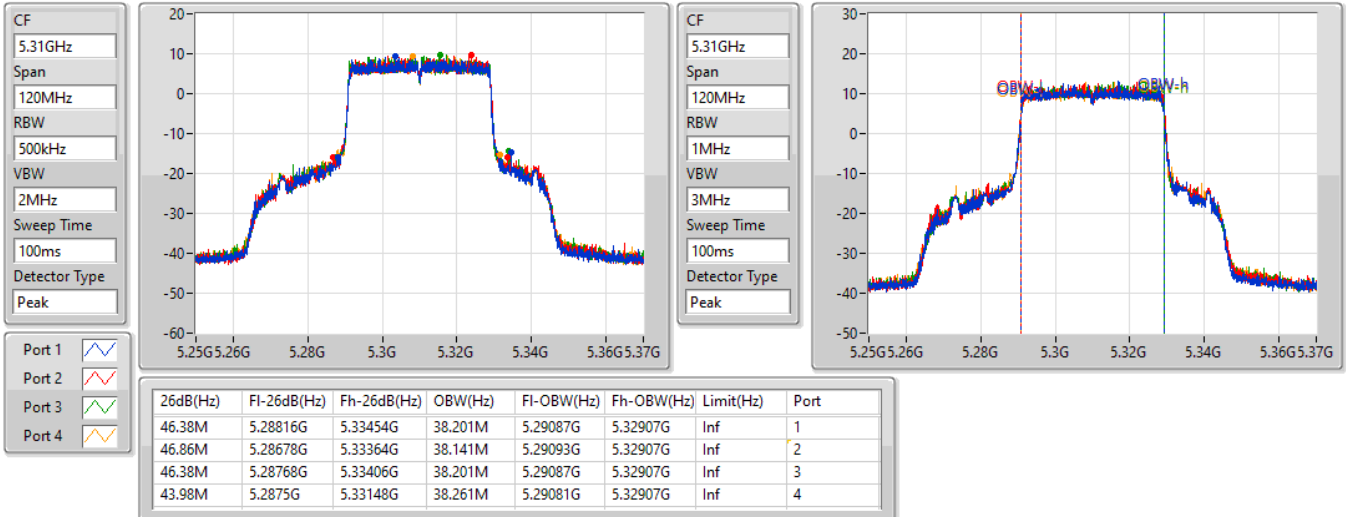

**802.11ax HEW40\_Nss4,(MCS0)\_4TX**
**EBW**
**5270MHz**

26/07/2022

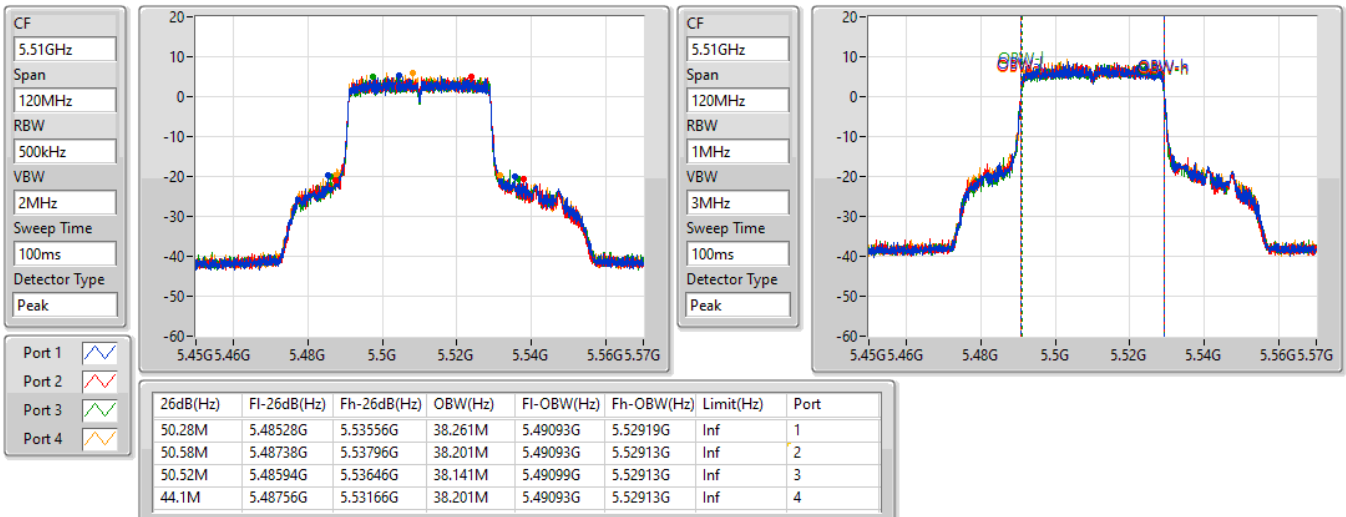


**802.11ax HEW40\_Nss4,(MCS0)\_4TX**
**EBW**
**5310MHz**

26/07/2022

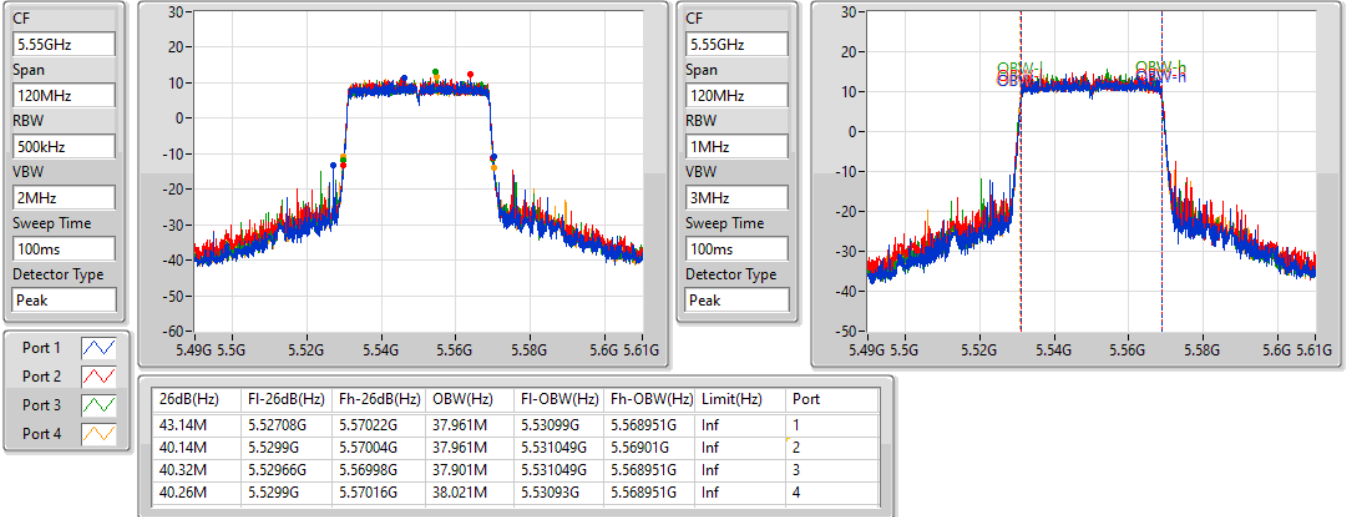

**802.11ax HEW40\_Nss4,(MCS0)\_4TX**
**EBW**
**5510MHz**

26/07/2022

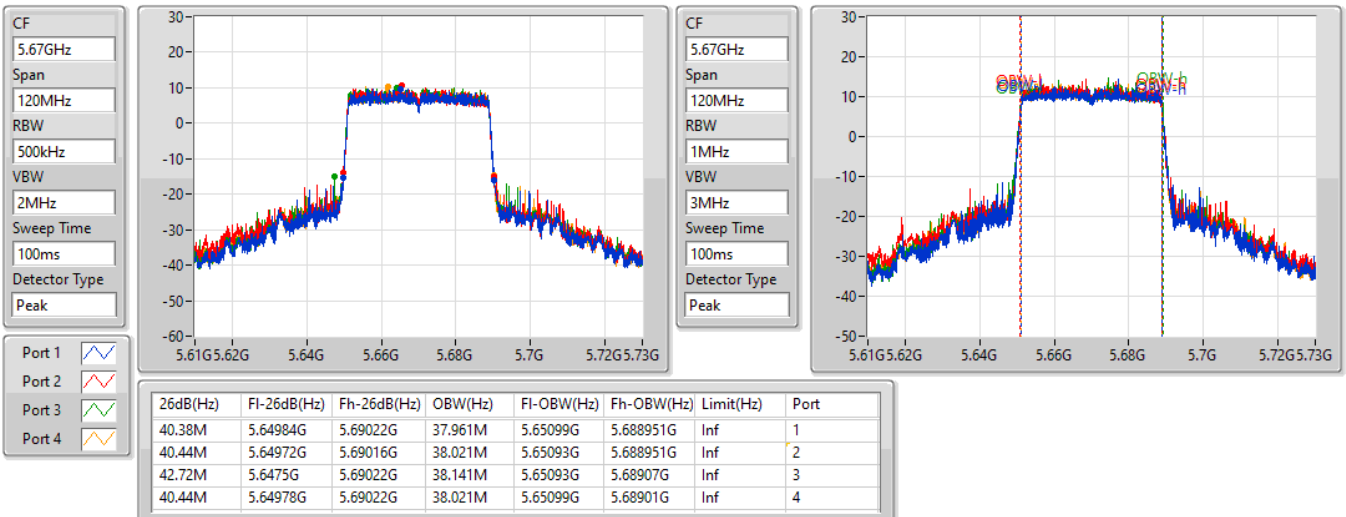


**802.11ax HEW40\_Nss4,(MCS0)\_4TX**
**EBW**
**5550MHz**

26/07/2022

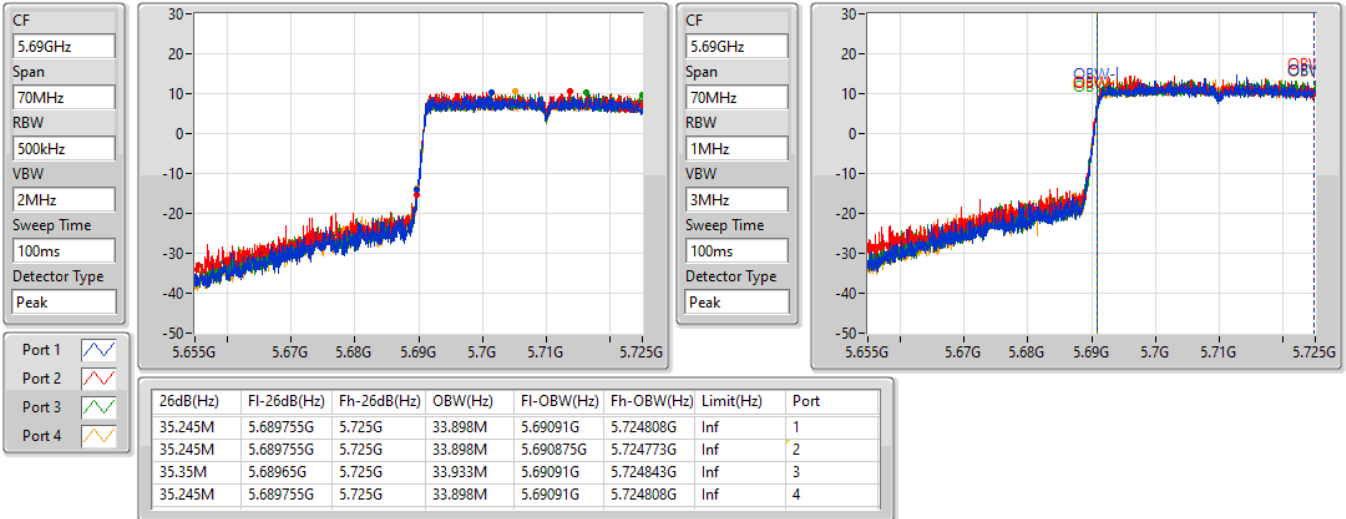

**802.11ax HEW40\_Nss4,(MCS0)\_4TX**
**EBW**
**5670MHz**

26/07/2022

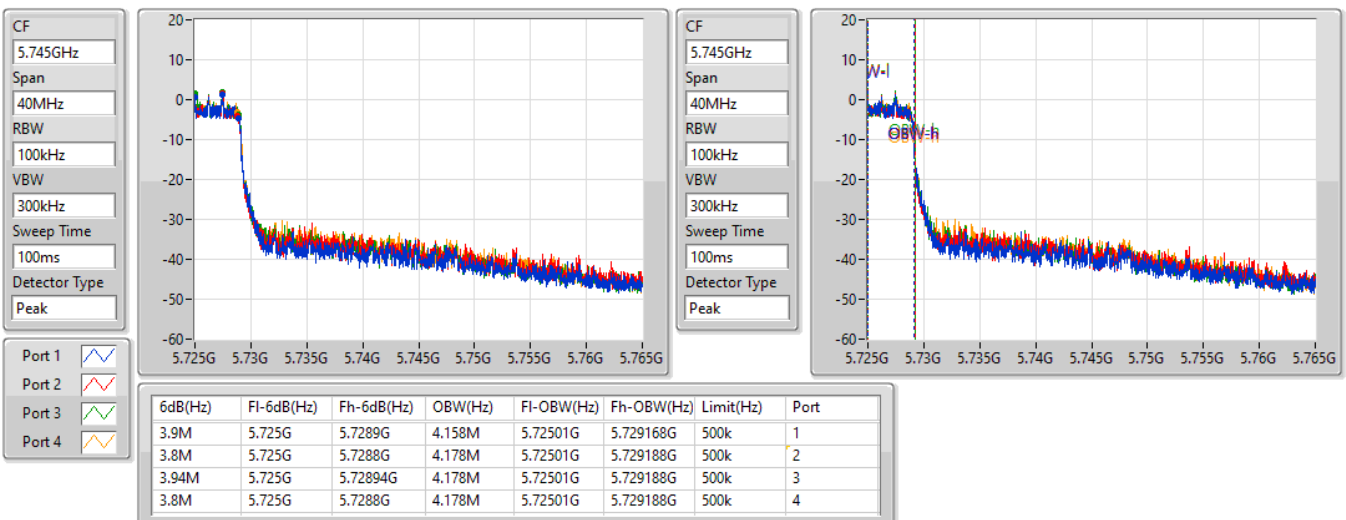


**802.11ax HEW40\_Nss4,(MCS0)\_4TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

27/07/2022


**802.11ax HEW40\_Nss4,(MCS0)\_4TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

27/07/2022

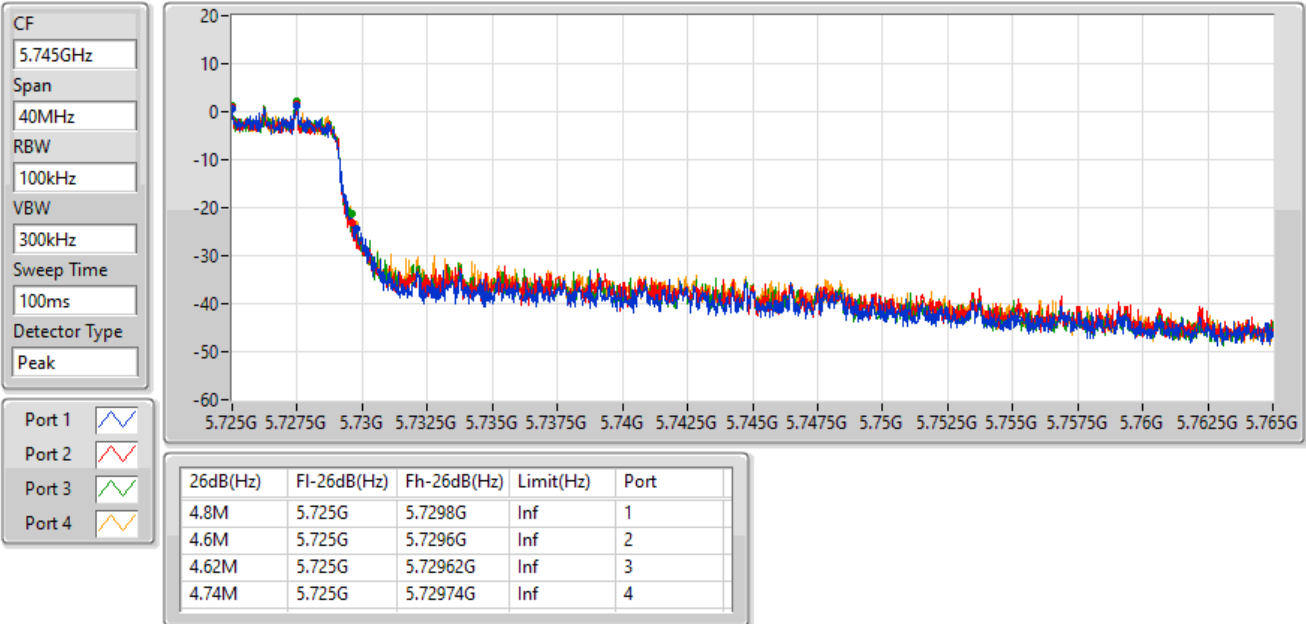


## 802.11ax HEW40\_Nss4,(MCS0)\_4TX

EBW

### 5710MHz Straddle 5.725-5.85GHz

27/07/2022

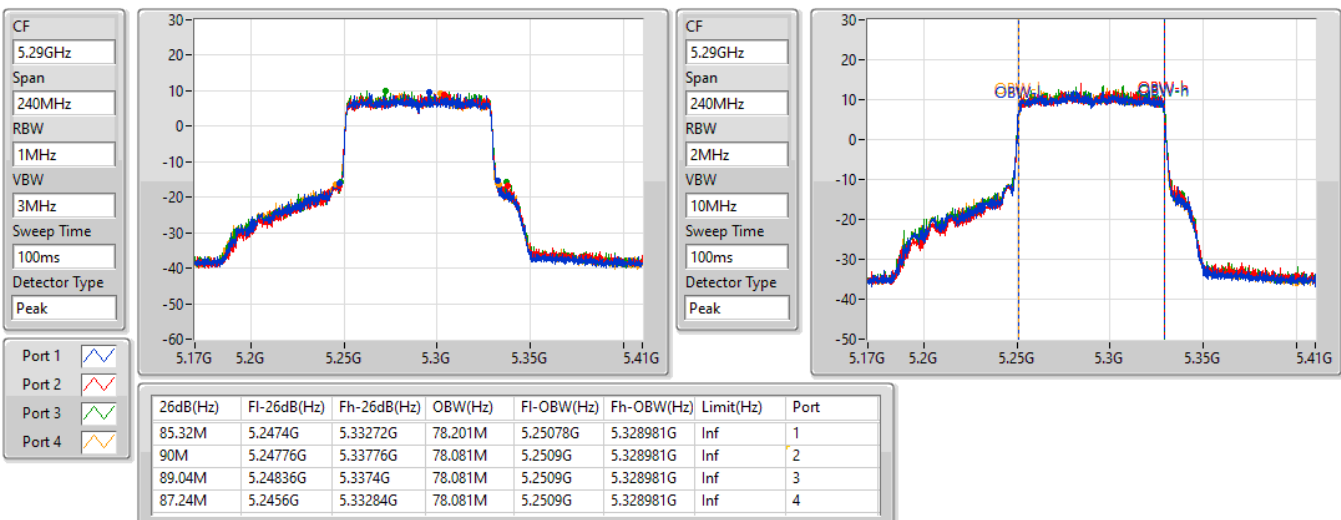


## 802.11ax HEW80\_Nss4,(MCS0)\_4TX

EBW

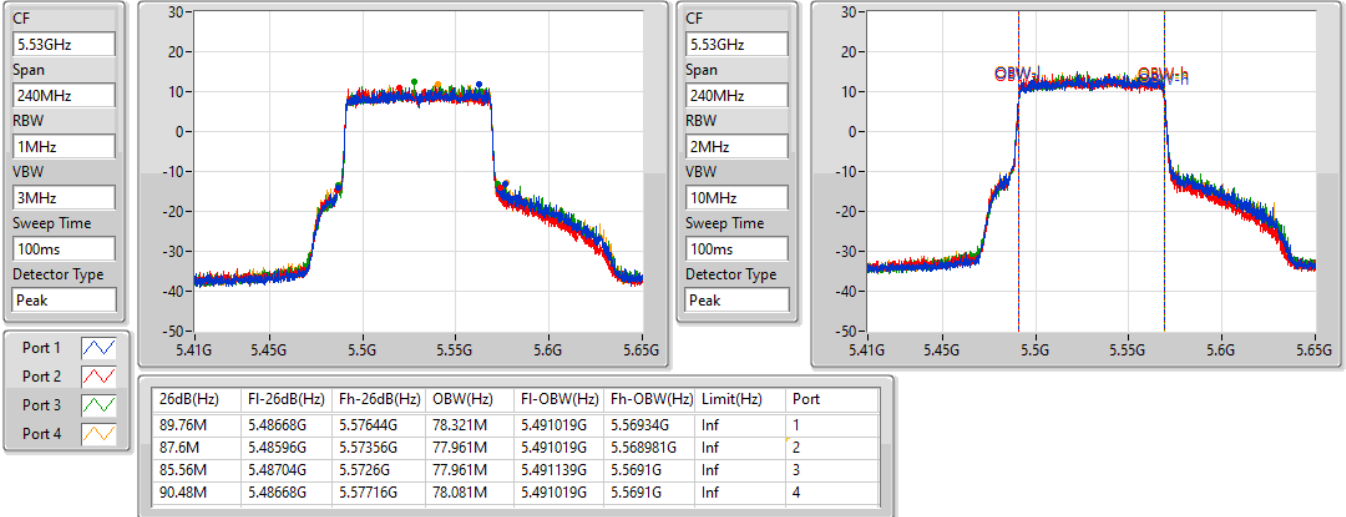
### 5290MHz

26/07/2022

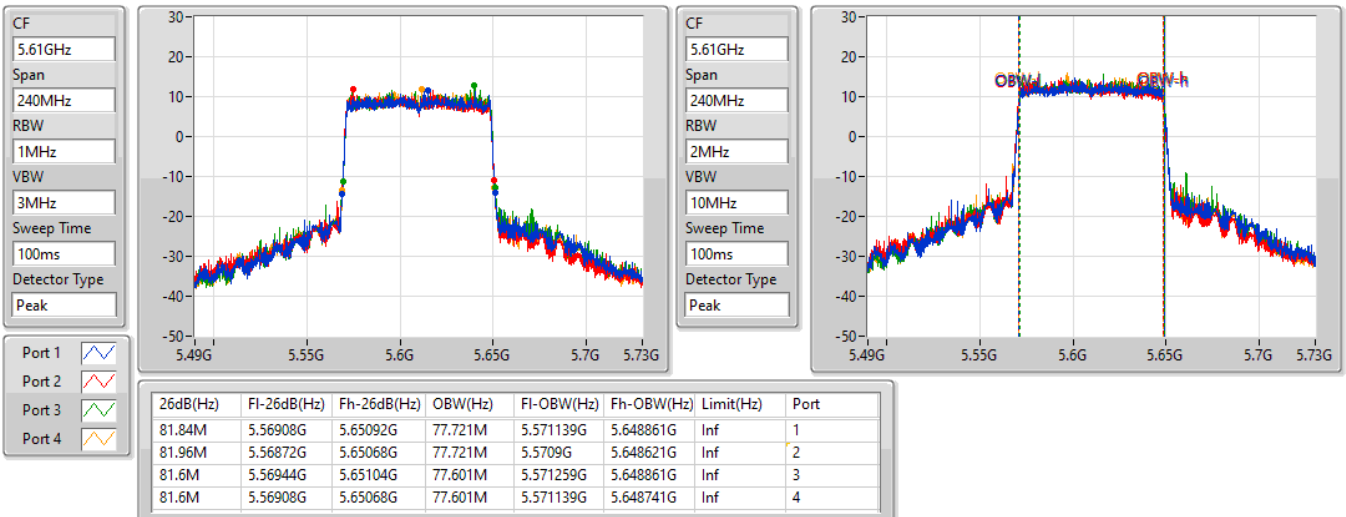


**802.11ax HEW80\_Nss4,(MCS0)\_4TX**
**EBW**
**5530MHz**

30/08/2022

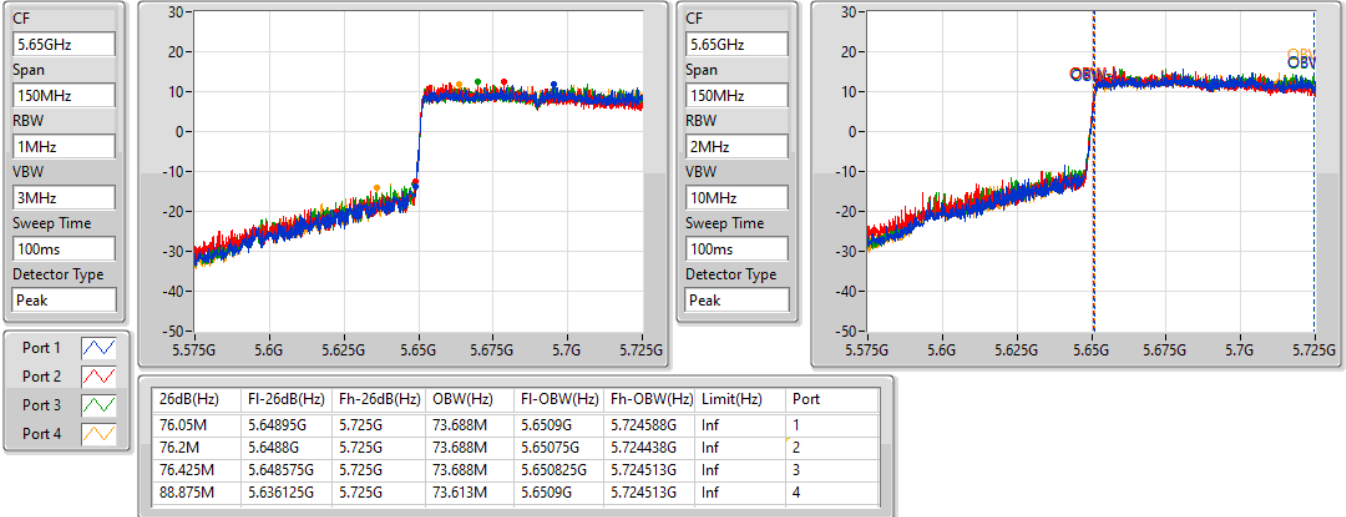

**802.11ax HEW80\_Nss4,(MCS0)\_4TX**
**EBW**
**5610MHz**

26/07/2022

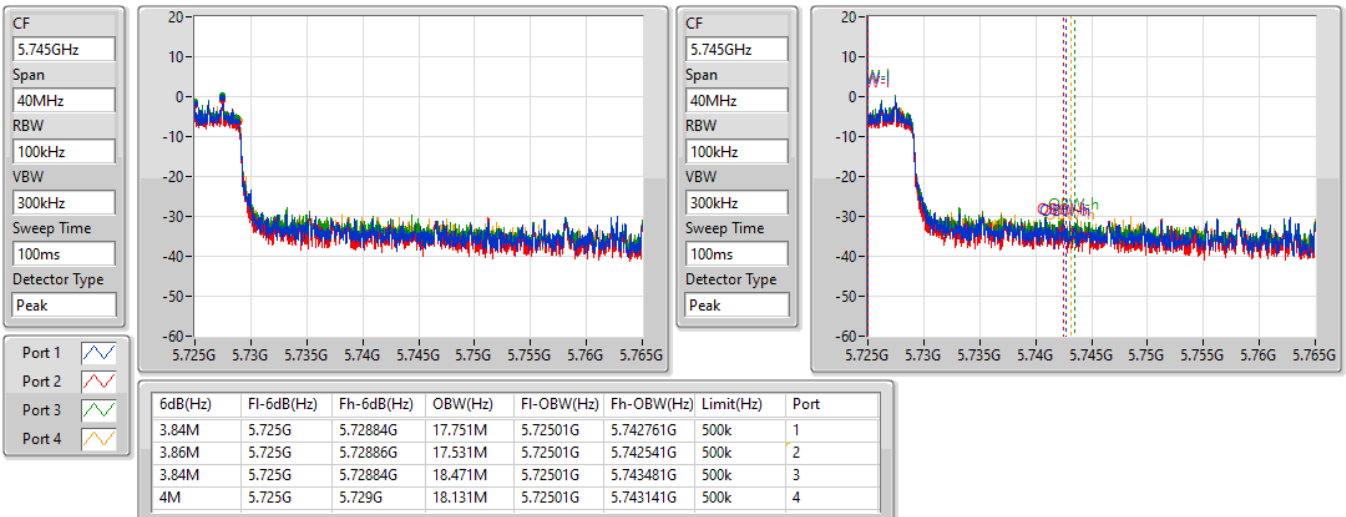


**802.11ax HEW80\_Nss4,(MCS0)\_4TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

27/07/2022

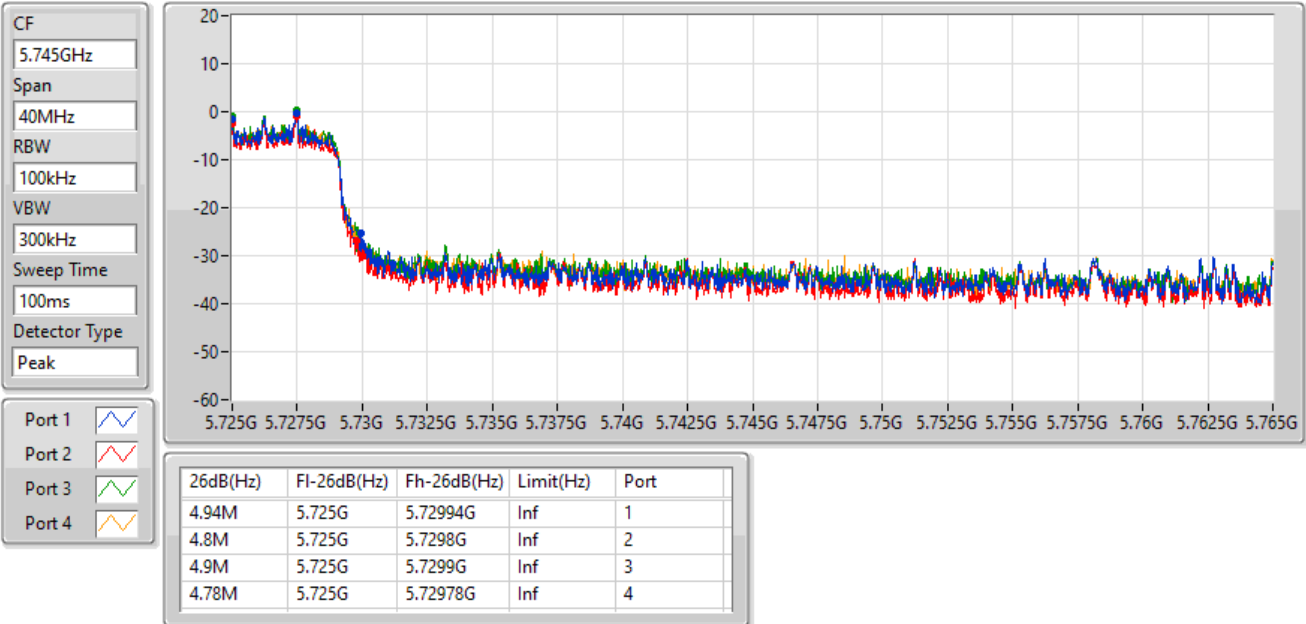

**802.11ax HEW80\_Nss4,(MCS0)\_4TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

27/07/2022

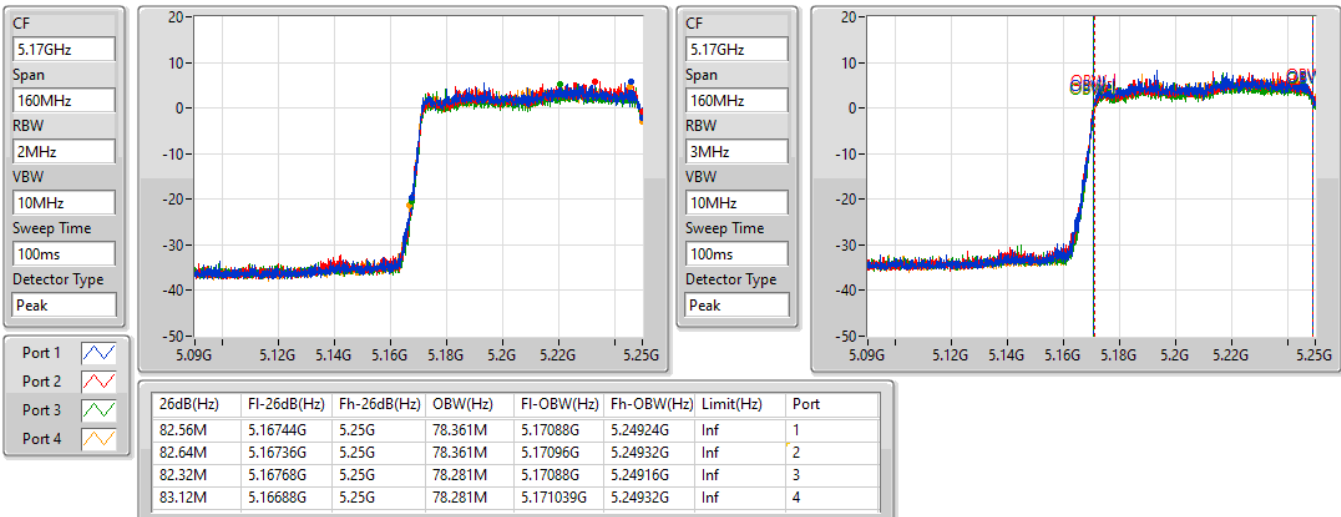


**802.11ax HEW80\_Nss4,(MCS0)\_4TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

27/07/2022

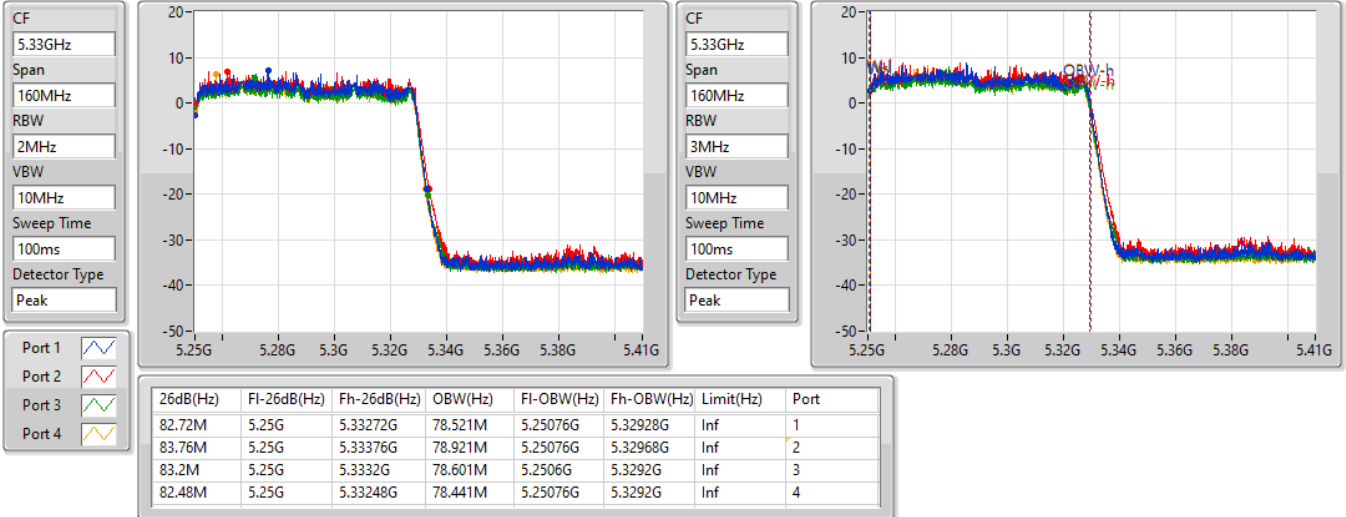

**802.11ax HEW160\_Nss4,(MCS0)\_4TX**
**EBW**
**5250MHz Straddle 5.15-5.25GHz**

27/07/2022

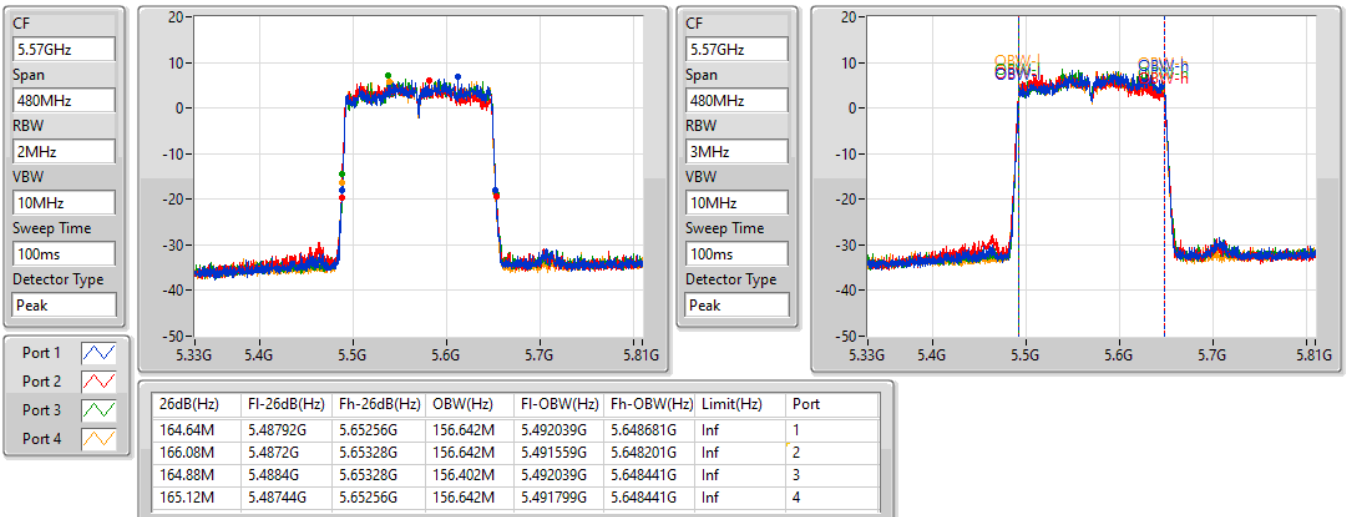


**802.11ax HEW160\_Nss4,(MCS0)\_4TX**
**EBW**
**5250MHz Straddle 5.25-5.35GHz**

26/07/2022


**802.11ax HEW160\_Nss4,(MCS0)\_4TX**
**EBW**
**5570MHz**

26/07/2022



**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       | 34.23M           | 17.691M         | 17M7D1D  | 26.73M           | 17.511M         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 44.16M           | 19.79M          | 19M8D1D  | 29.91M           | 19.28M          |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 77.64M           | 39.46M          | 39M5D1D  | 42.48M           | 38.141M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 86.76M           | 77.961M         | 78M0D1D  | 85.68M           | 77.841M         |
| 5.47-5.725GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX       | 27.15M           | 17.451M         | 17M5D1D  | 15.6M            | 13.493M         |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 37.95M           | 19.46M          | 19M5D1D  | 21.72M           | 14.813M         |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 66.6M            | 38.501M         | 38M5D1D  | 40.44M           | 34.318M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 104.04M          | 78.321M         | 78M3D1D  | 84.12M           | 74.288M         |
| 5.725-5.85GHz                  | -                | -               | -        | -                | -               |
| 802.11a_Nss1,(6Mbps)_2TX       | 3.16M            | 4.258M          | 4M26D1D  | 3.14M            | 4.238M          |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | 4.5M             | 9.335M          | 9M34D1D  | 4.44M            | 8.736M          |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | 4M               | 21.449M         | 21M4D1D  | 3.9M             | 21.349M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | 3.88M            | 33.063M         | 33M1D1D  | 3.8M             | 32.404M         |

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 (Hz) | Port 1-N dB (Hz) | Port 1-OBW (Hz) | Port 2-N dB (Hz) | Port 2-OBW (Hz) |
|--------------------------------|--------|------------|------------------|-----------------|------------------|-----------------|
| 802.11a_Nss1,(6Mbps)_2TX       | -      | -          | -                | -               | -                | -               |
| 5260MHz                        | Pass   | Inf        | 31.95M           | 17.691M         | 34.23M           | 17.631M         |
| 5300MHz                        | Pass   | Inf        | 30.48M           | 17.601M         | 33.45M           | 17.661M         |
| 5320MHz                        | Pass   | Inf        | 26.73M           | 17.631M         | 28.44M           | 17.511M         |
| 5500MHz                        | Pass   | Inf        | 23.97M           | 17.451M         | 24.45M           | 17.241M         |
| 5580MHz                        | Pass   | Inf        | 27.15M           | 17.391M         | 25.71M           | 17.121M         |
| 5700MHz                        | Pass   | Inf        | 21.63M           | 17.121M         | 21.69M           | 16.912M         |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf        | 15.735M          | 13.643M         | 15.6M            | 13.493M         |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k       | 3.14M            | 4.258M          | 3.16M            | 4.238M          |
| 802.11ax HEW20_Nss2,(MCS0)_2TX | -      | -          | -                | -               | -                | -               |
| 5260MHz                        | Pass   | Inf        | 44.16M           | 19.61M          | 38.73M           | 19.79M          |
| 5300MHz                        | Pass   | Inf        | 40.95M           | 19.52M          | 42.81M           | 19.76M          |
| 5320MHz                        | Pass   | Inf        | 29.91M           | 19.28M          | 30.36M           | 19.28M          |
| 5500MHz                        | Pass   | Inf        | 28.32M           | 19.28M          | 28.8M            | 19.28M          |
| 5580MHz                        | Pass   | Inf        | 37.95M           | 19.46M          | 36.03M           | 19.46M          |
| 5700MHz                        | Pass   | Inf        | 21.72M           | 19.13M          | 21.84M           | 19.13M          |
| 5720MHz Straddle 5.47-5.725GHz | Pass   | Inf        | 22.47M           | 14.873M         | 22.14M           | 14.813M         |
| 5720MHz Straddle 5.725-5.85GHz | Pass   | 500k       | 4.5M             | 9.335M          | 4.44M            | 8.736M          |
| 802.11ax HEW40_Nss2,(MCS0)_2TX | -      | -          | -                | -               | -                | -               |
| 5270MHz                        | Pass   | Inf        | 75.24M           | 39.46M          | 77.64M           | 39.1M           |
| 5310MHz                        | Pass   | Inf        | 42.48M           | 38.141M         | 44.16M           | 38.201M         |
| 5510MHz                        | Pass   | Inf        | 42.36M           | 38.201M         | 43.74M           | 38.081M         |
| 5550MHz                        | Pass   | Inf        | 66.6M            | 38.501M         | 55.08M           | 38.441M         |
| 5670MHz                        | Pass   | Inf        | 40.56M           | 38.081M         | 40.44M           | 38.081M         |
| 5710MHz Straddle 5.47-5.725GHz | Pass   | Inf        | 52.85M           | 34.598M         | 51.905M          | 34.318M         |
| 5710MHz Straddle 5.725-5.85GHz | Pass   | 500k       | 4M               | 21.449M         | 3.9M             | 21.349M         |
| 802.11ax HEW80_Nss2,(MCS0)_2TX | -      | -          | -                | -               | -                | -               |
| 5290MHz                        | Pass   | Inf        | 85.68M           | 77.961M         | 86.76M           | 77.841M         |
| 5530MHz                        | Pass   | Inf        | 86.28M           | 77.961M         | 84.12M           | 77.961M         |
| 5610MHz                        | Pass   | Inf        | 104.04M          | 78.321M         | 93.6M            | 78.201M         |
| 5690MHz Straddle 5.47-5.725GHz | Pass   | Inf        | 97.65M           | 74.438M         | 95.025M          | 74.288M         |
| 5690MHz Straddle 5.725-5.85GHz | Pass   | 500k       | 3.8M             | 32.404M         | 3.88M            | 33.063M         |

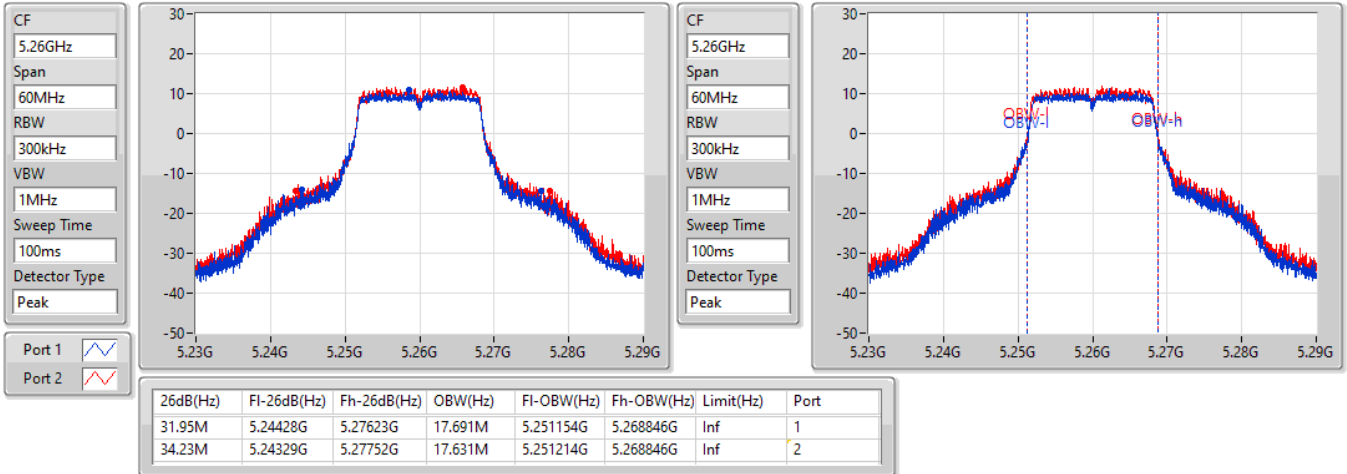
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band  
Port X-OBW = Port X 99% occupied bandwidth

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

EBW

5260MHz

29/07/2022

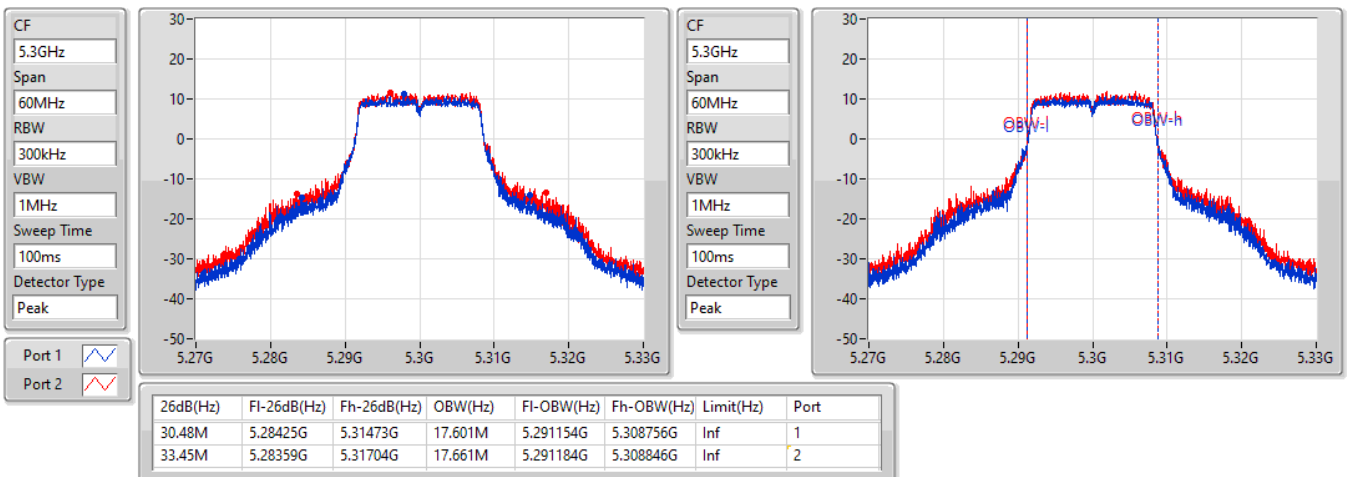


## 802.11a\_Nss1,(6Mbps)\_2TX

EBW

5300MHz

29/07/2022

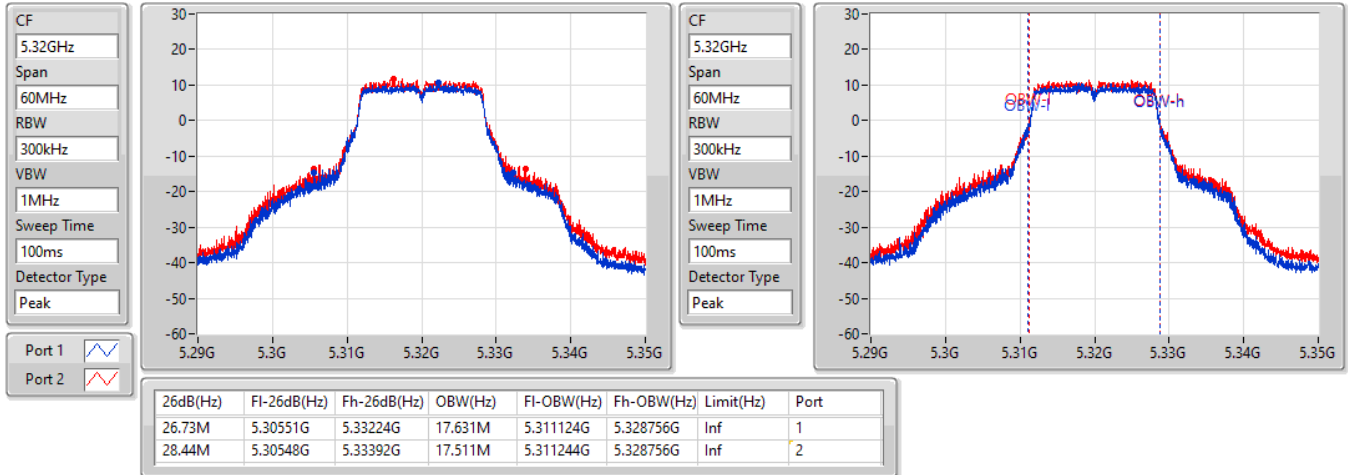


## 802.11a\_Nss1,(6Mbps)\_2TX

EBW

5320MHz

29/07/2022

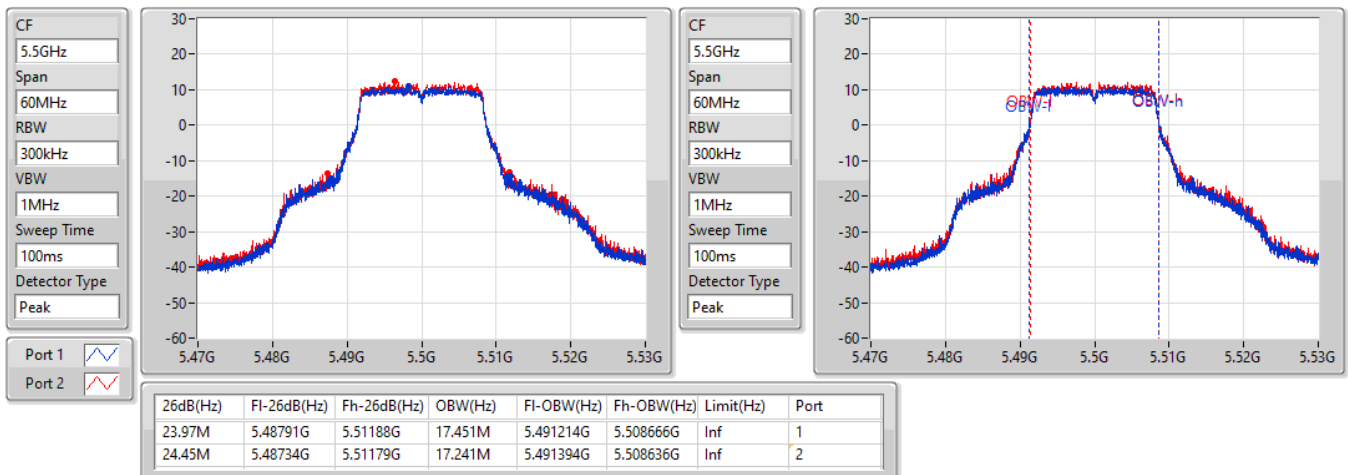


## 802.11a\_Nss1,(6Mbps)\_2TX

EBW

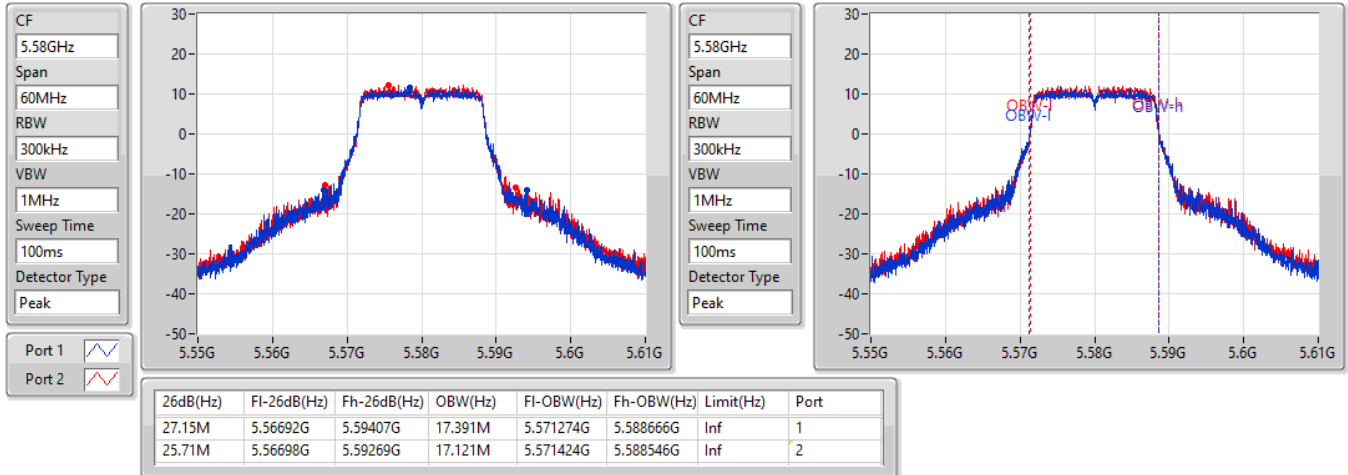
5500MHz

29/07/2022

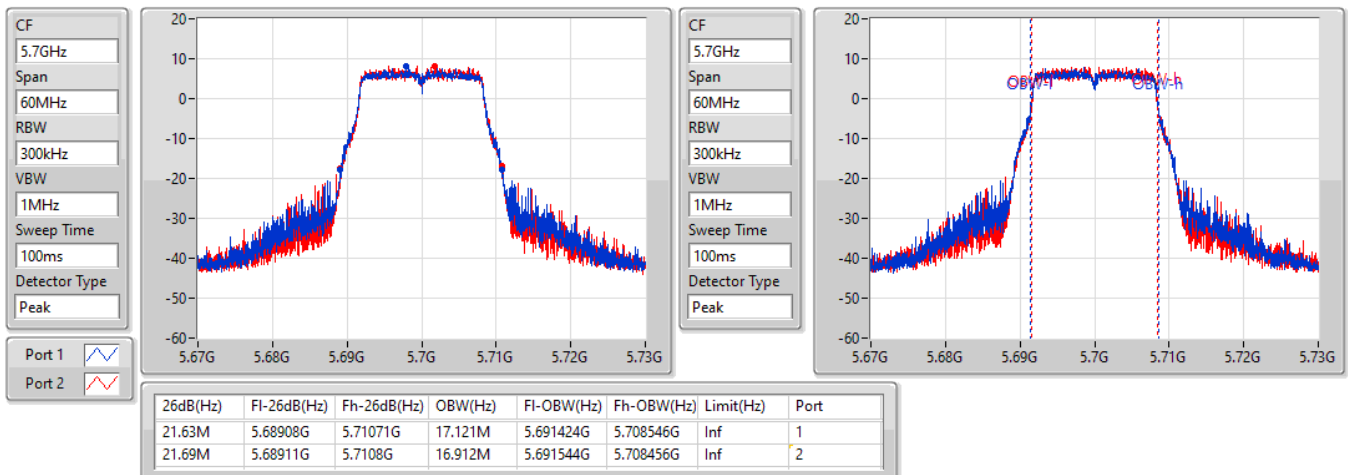


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5580MHz**

29/07/2022

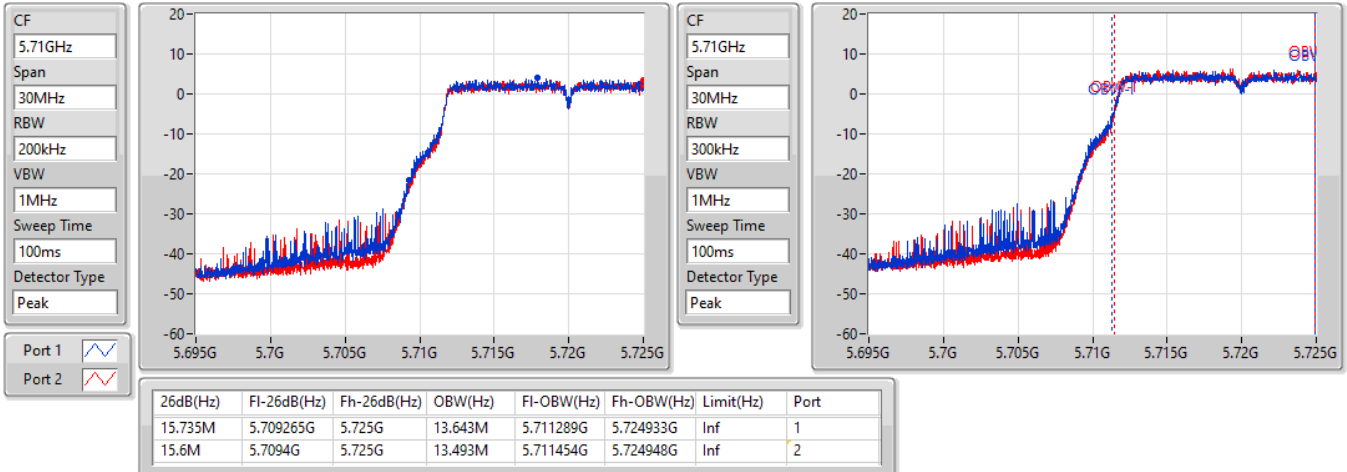

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5700MHz**

29/07/2022

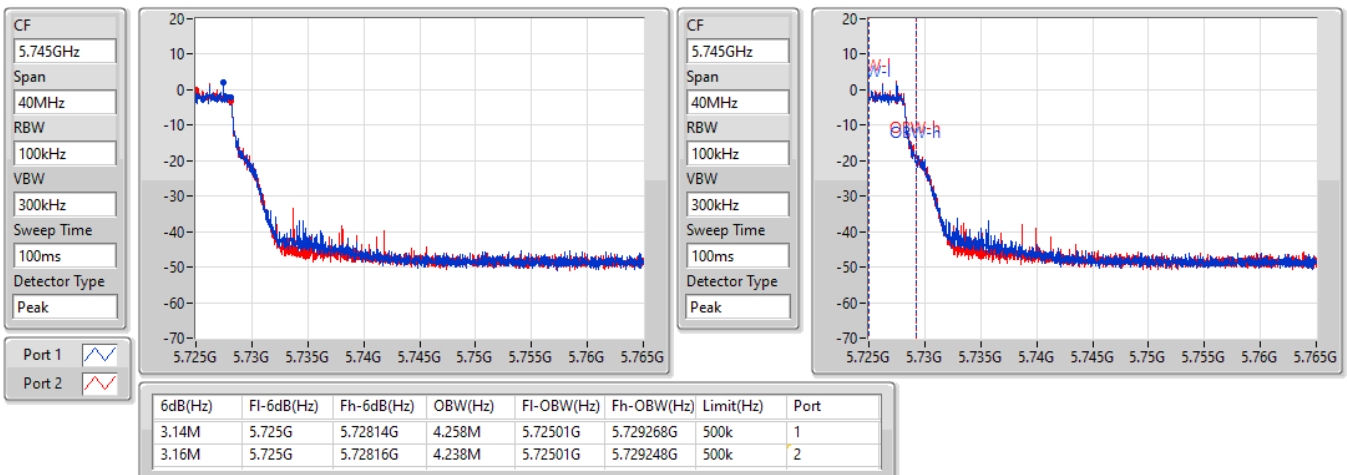


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5720MHz Straddle 5.47-5.725GHz**

29/07/2022


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

29/07/2022

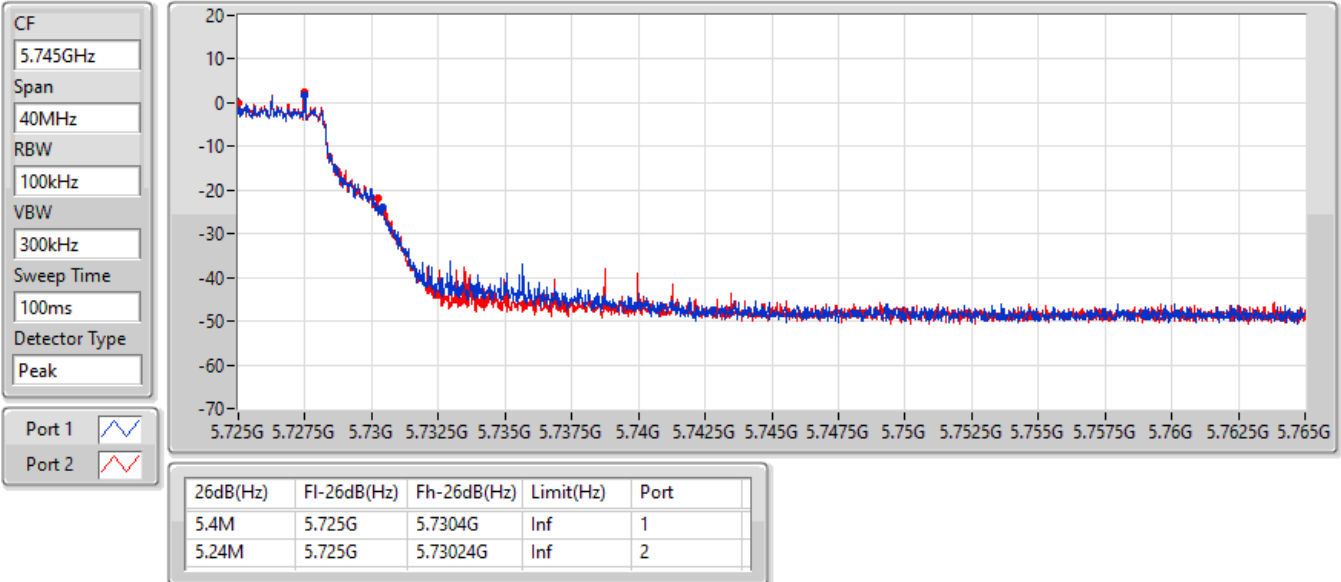


## 802.11a\_Nss1,(6Mbps)\_2TX

EBW

### 5720MHz Straddle 5.725-5.85GHz

29/07/2022

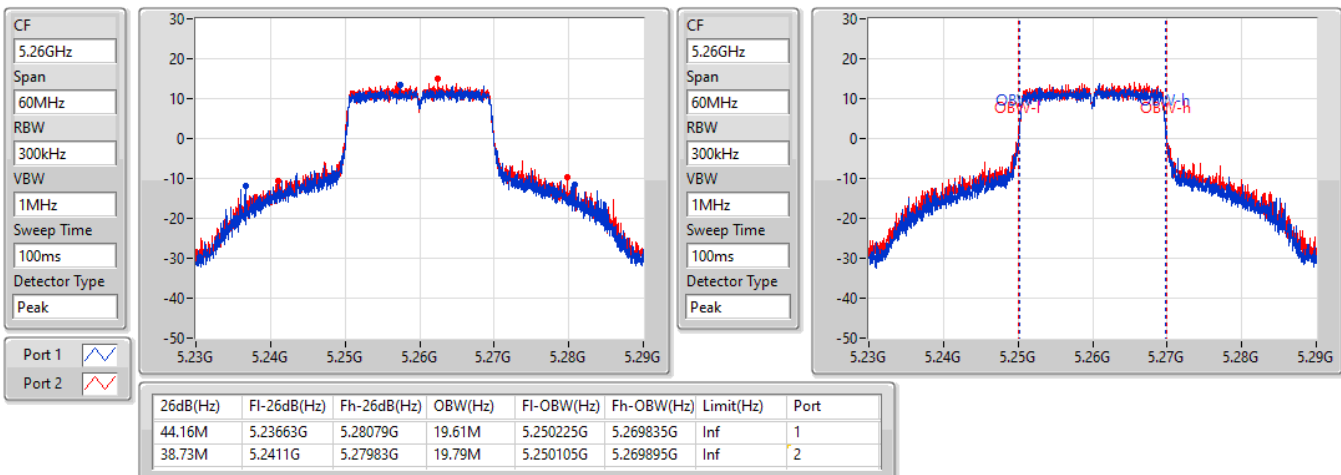


## 802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

### 5260MHz

29/07/2022

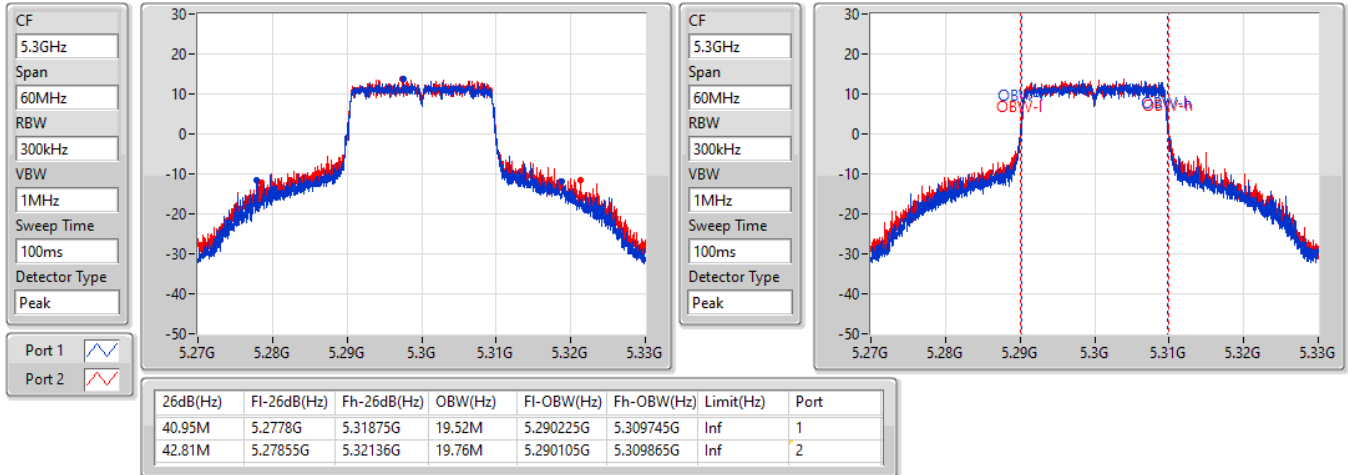


# 802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

5300MHz

29/07/2022

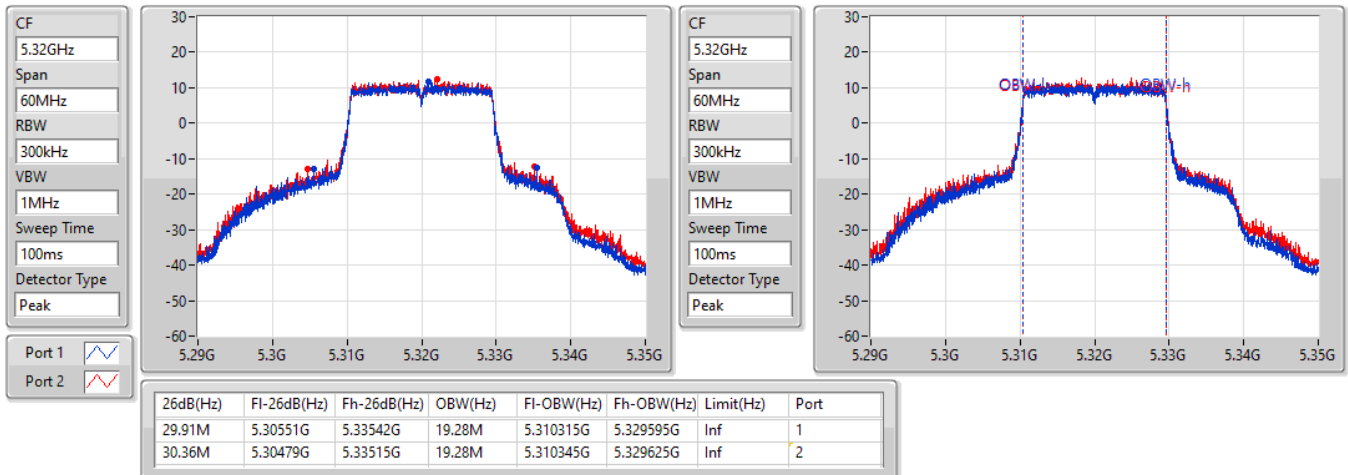


# 802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

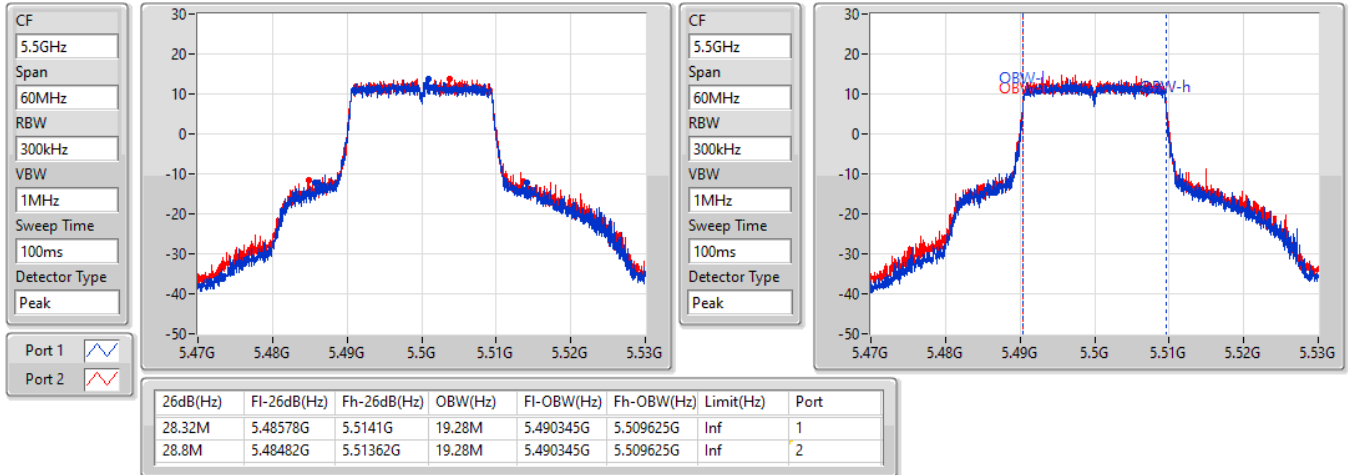
5320MHz

29/07/2022

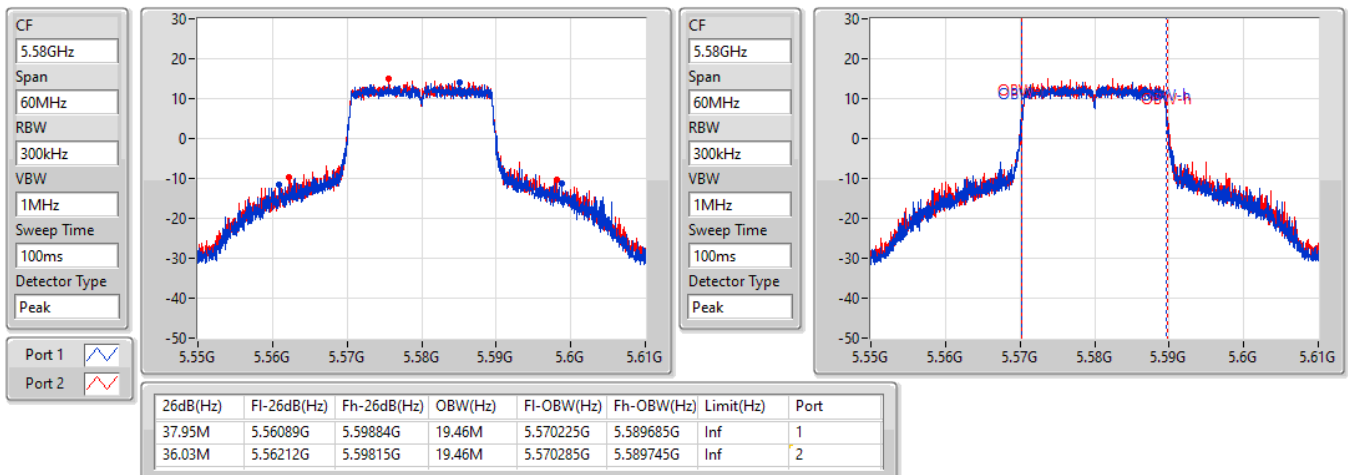


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5500MHz**

29/07/2022

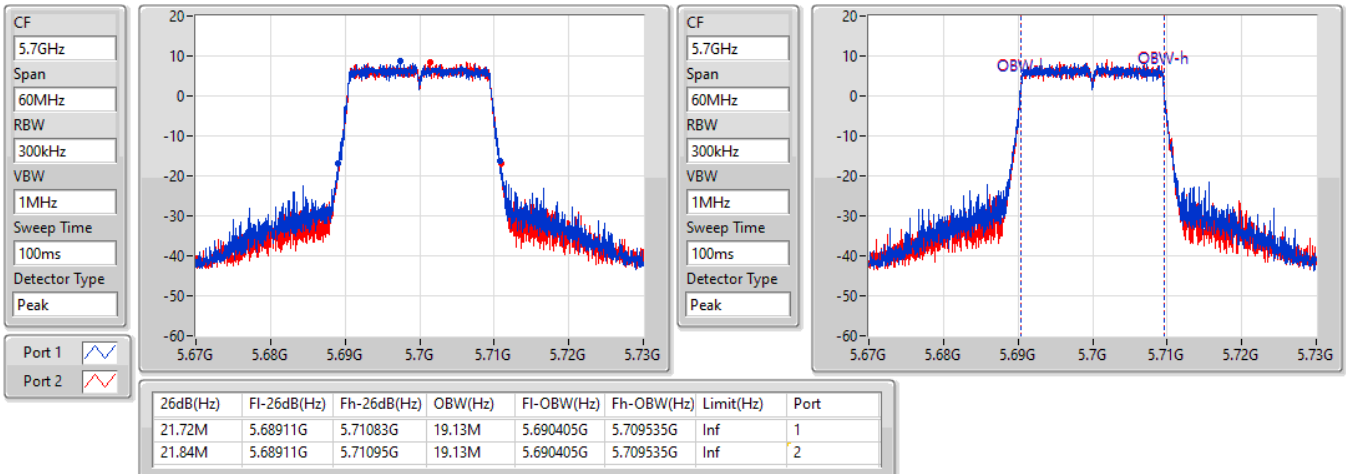

**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5580MHz**

29/07/2022

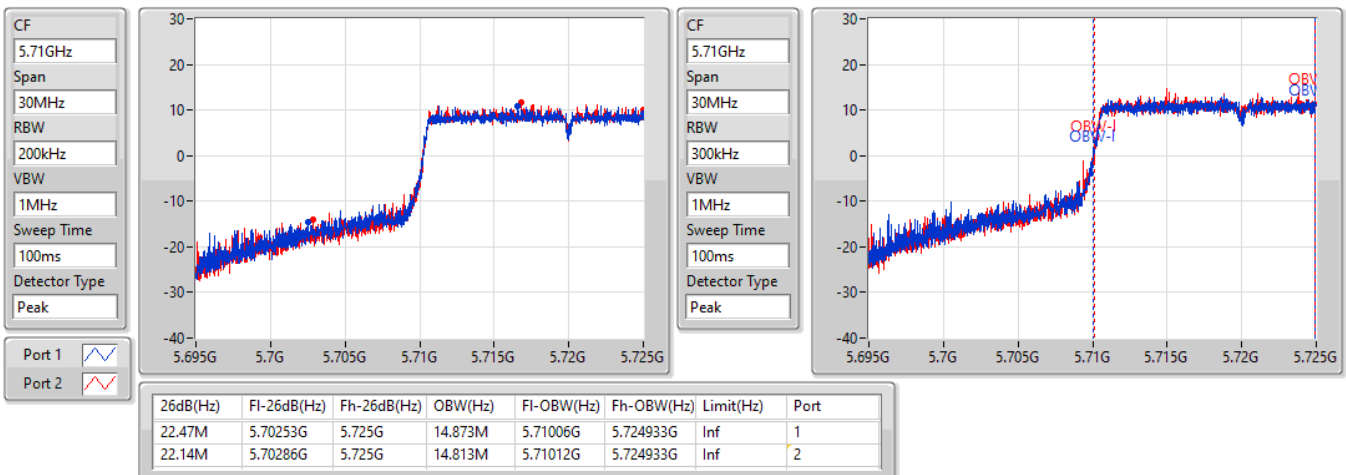


**802.11ax HEW20\_Nss2,(MCS0)\_2TX**
**EBW**
**5700MHz**

29/07/2022


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

30/08/2022

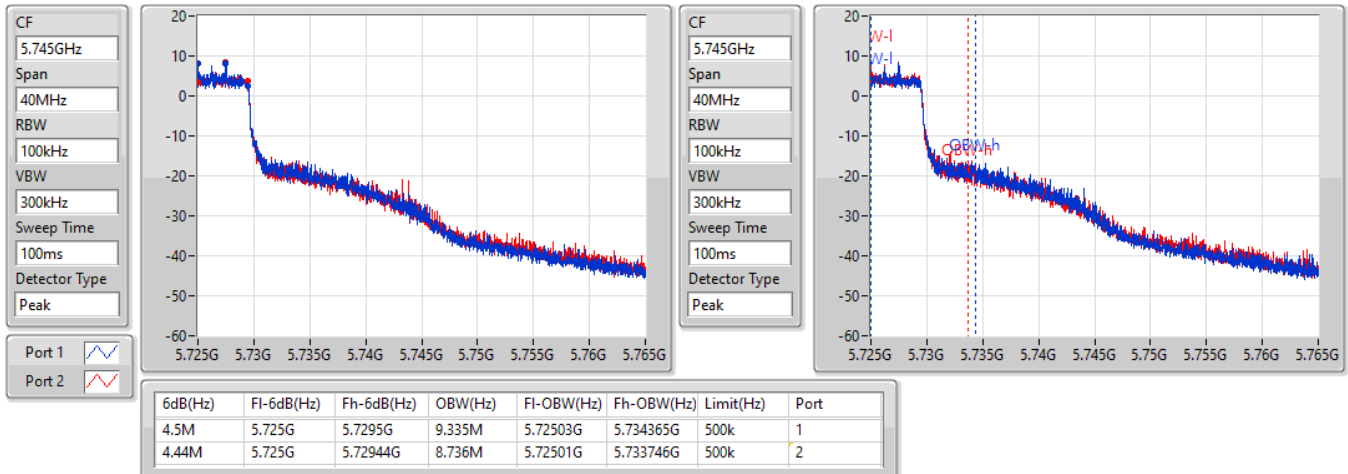


# 802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

## 5720MHz Straddle 5.725-5.85GHz

30/08/2022

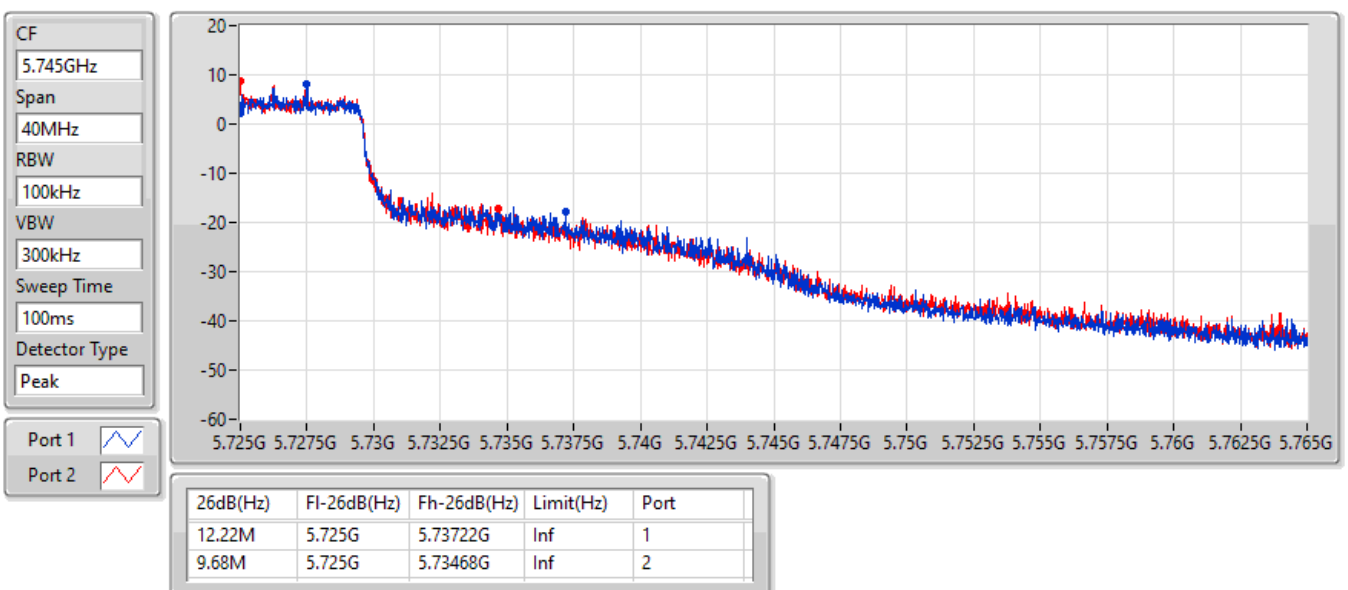


# 802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

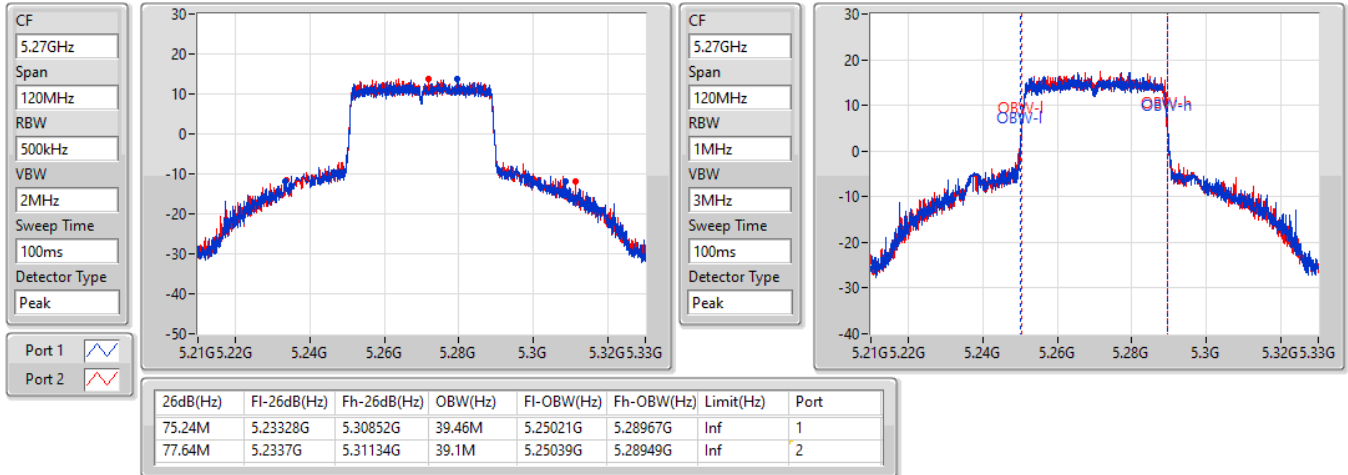
## 5720MHz Straddle 5.725-5.85GHz

30/08/2022

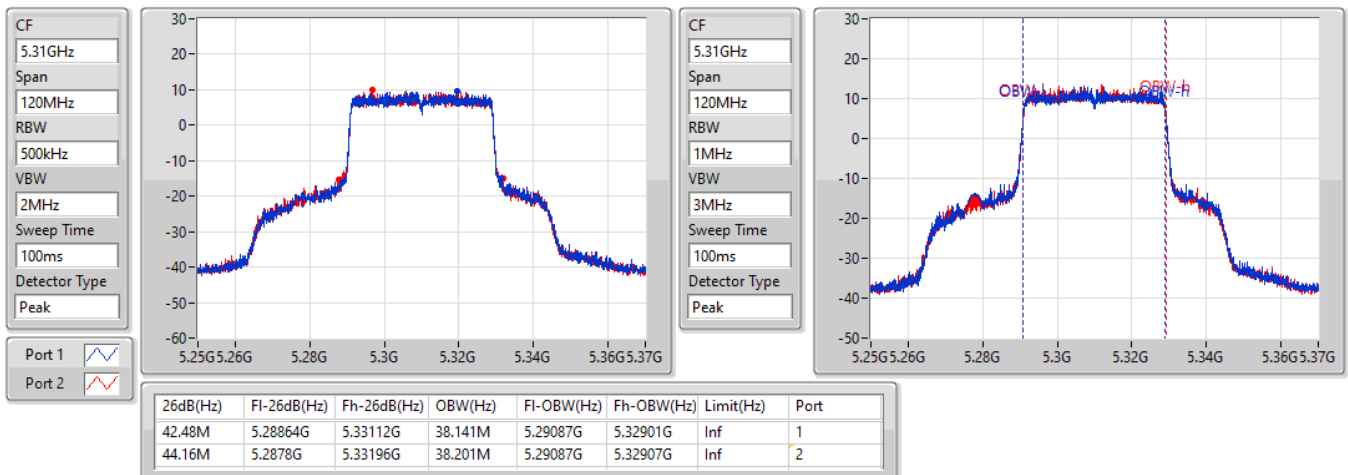


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5270MHz**

29/07/2022

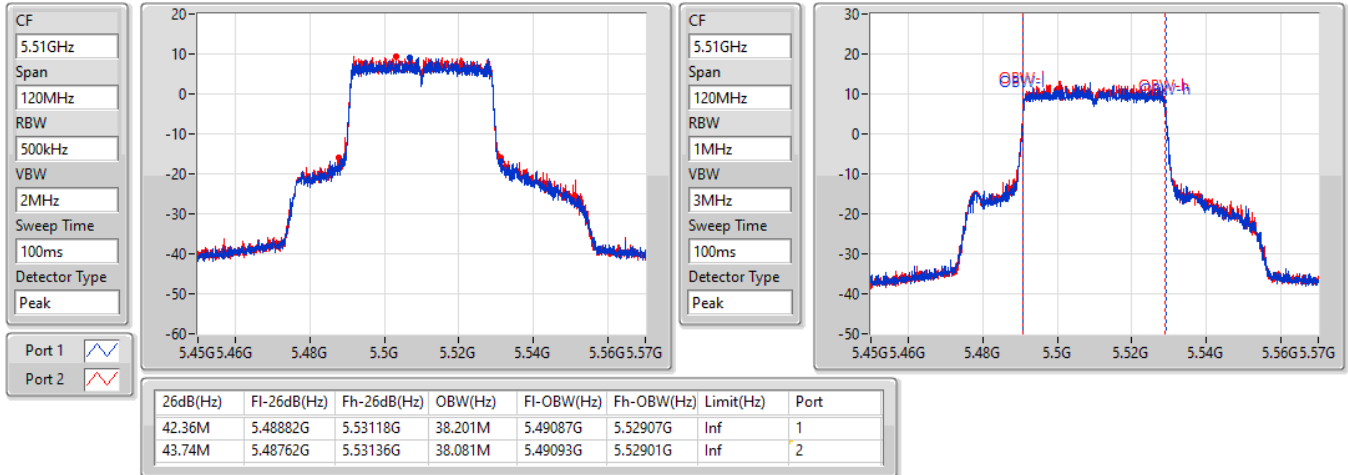

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5310MHz**

29/07/2022

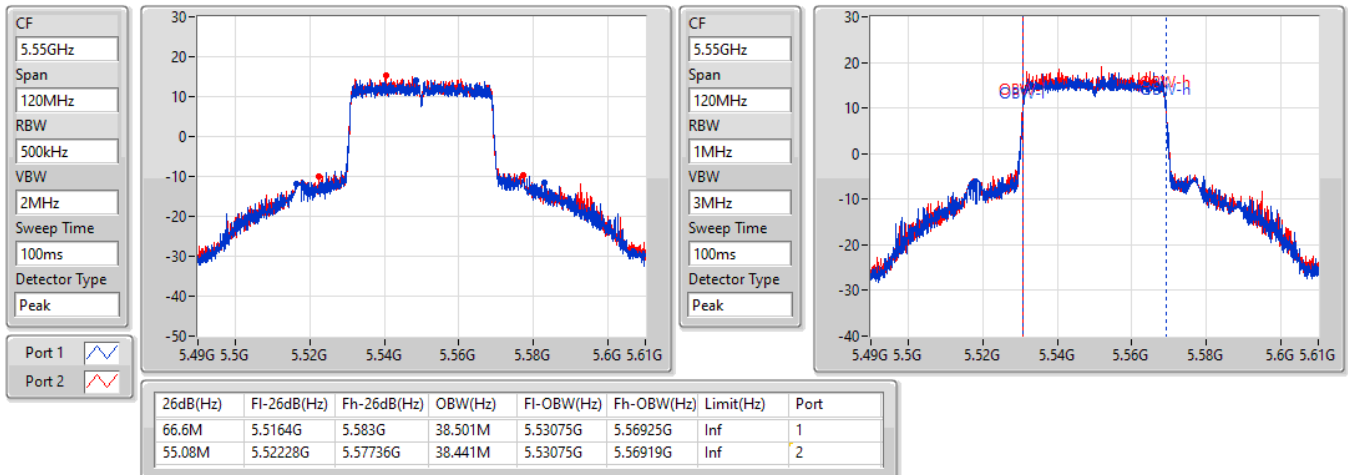


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5510MHz**

29/07/2022

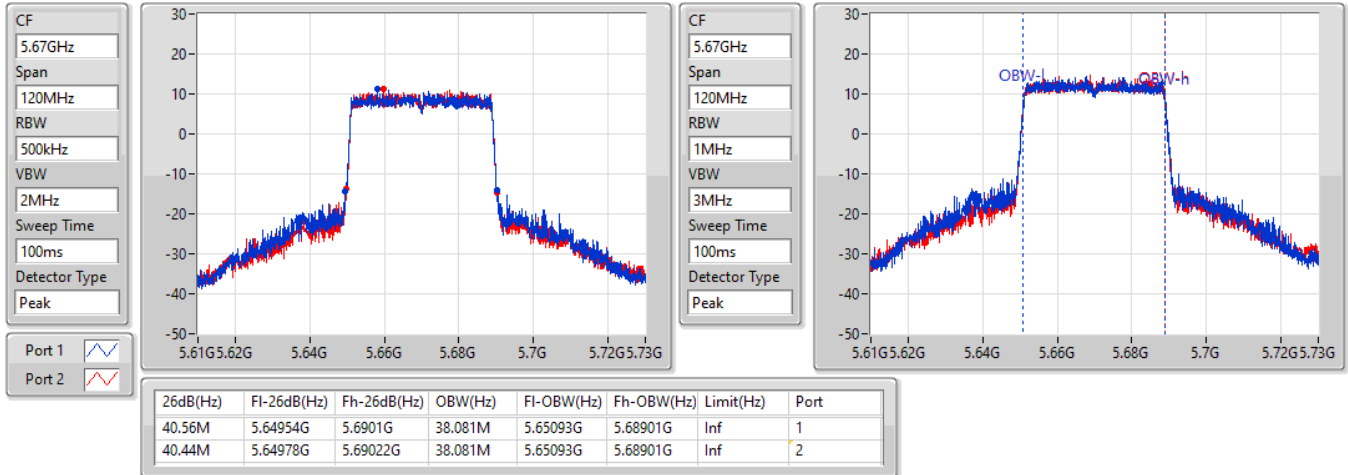

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5550MHz**

29/07/2022

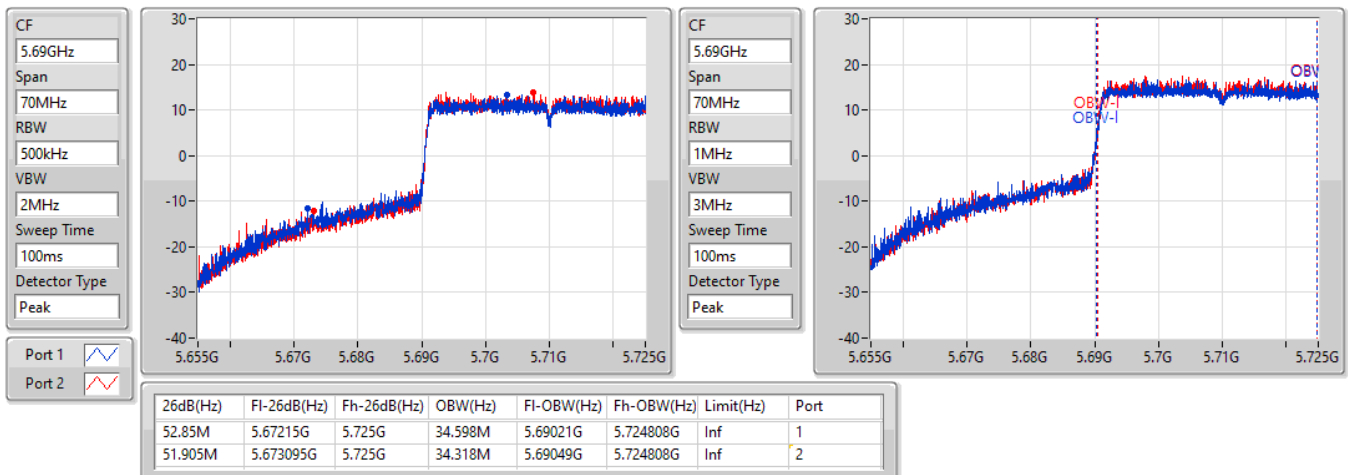


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5670MHz**

29/07/2022

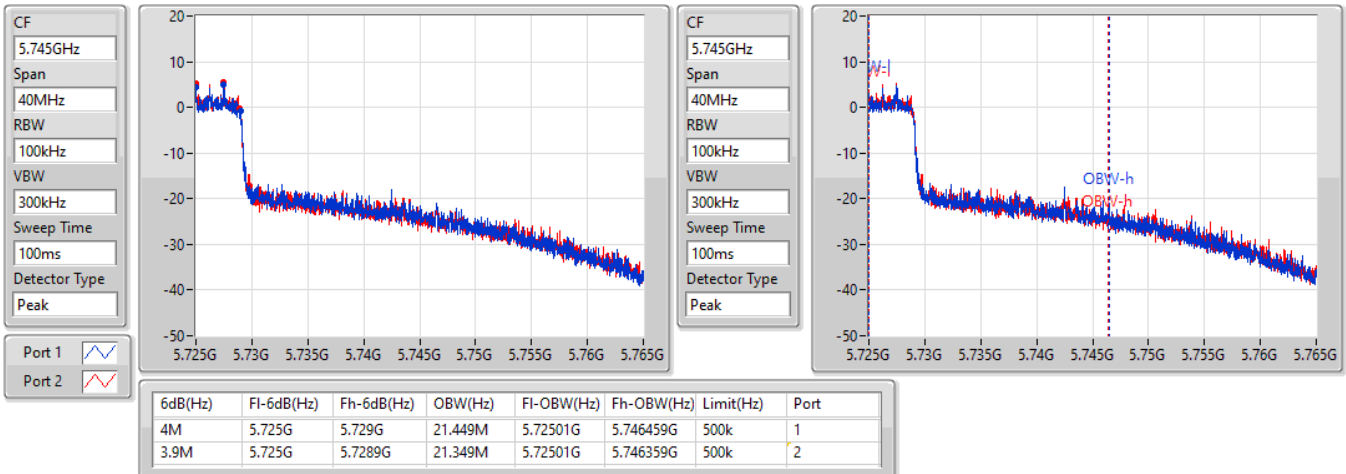

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**

30/08/2022

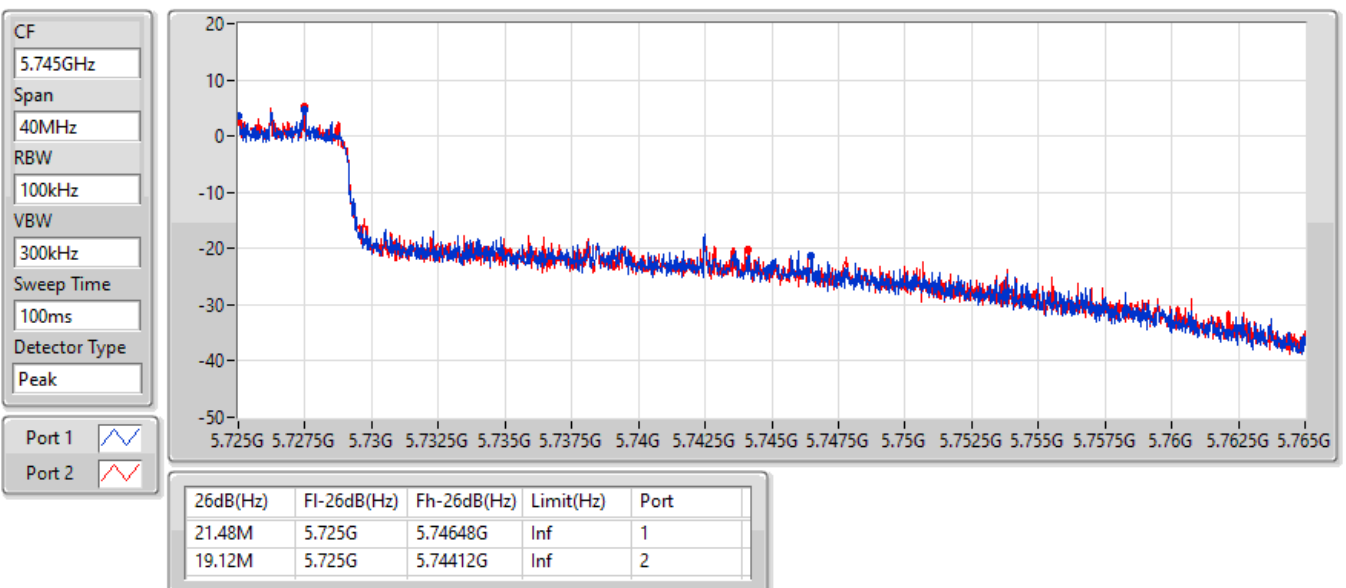


**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

30/08/2022

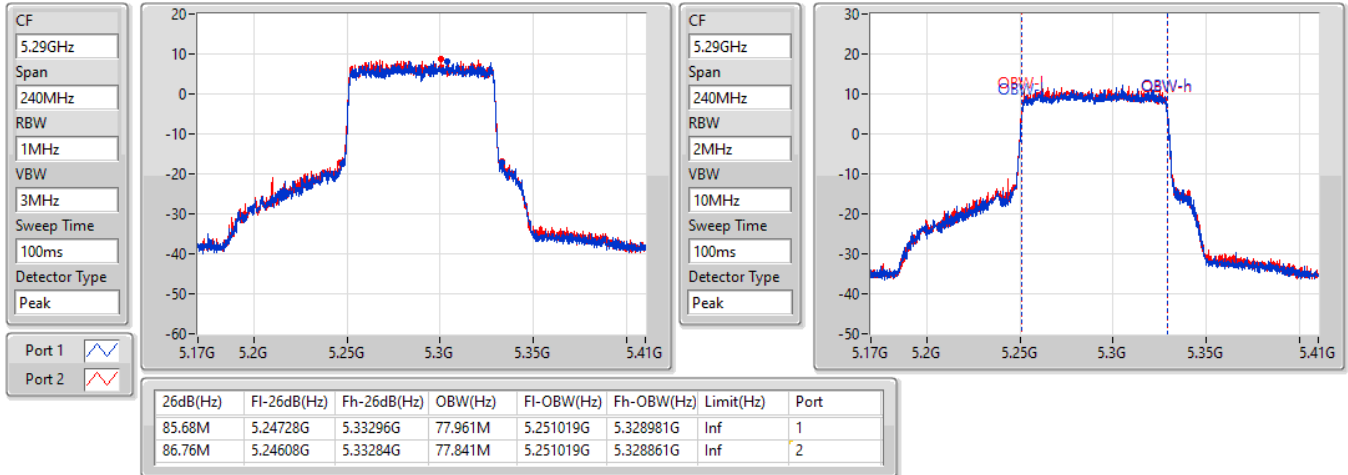

**802.11ax HEW40\_Nss2,(MCS0)\_2TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**

30/08/2022

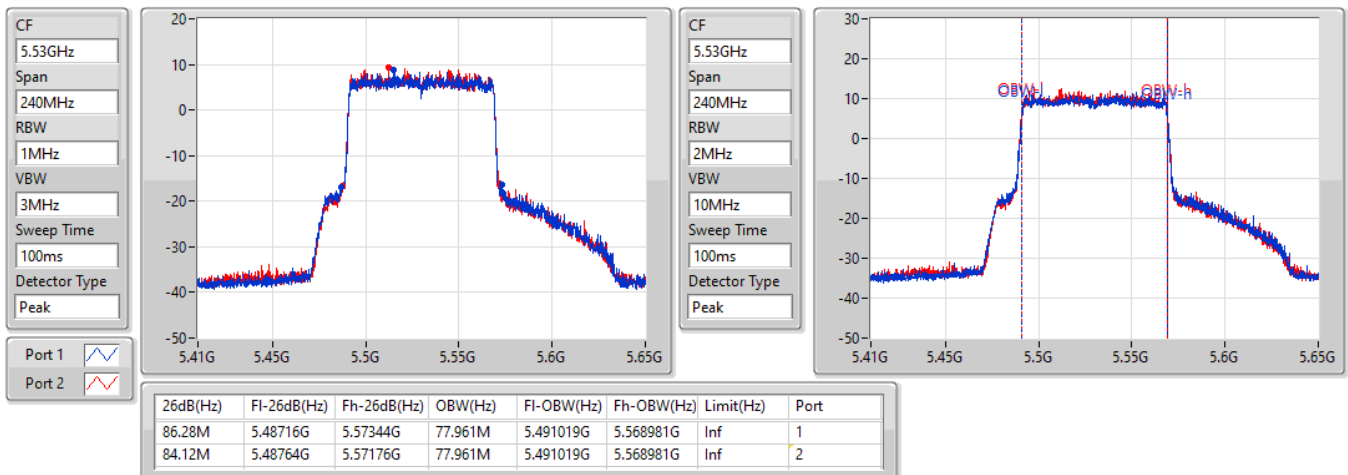


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5290MHz**

29/07/2022

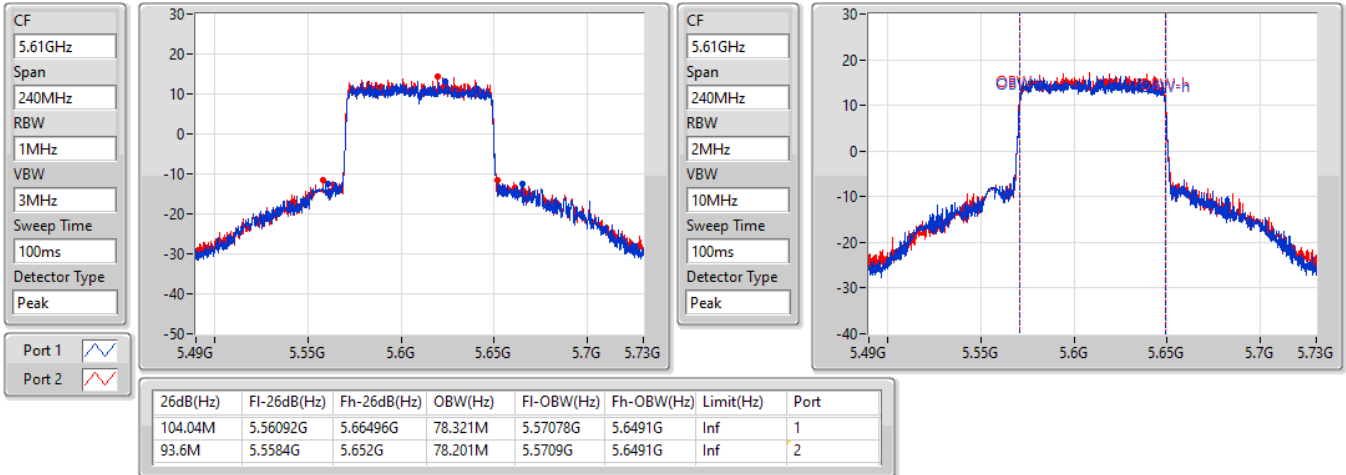

**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5530MHz**

29/07/2022

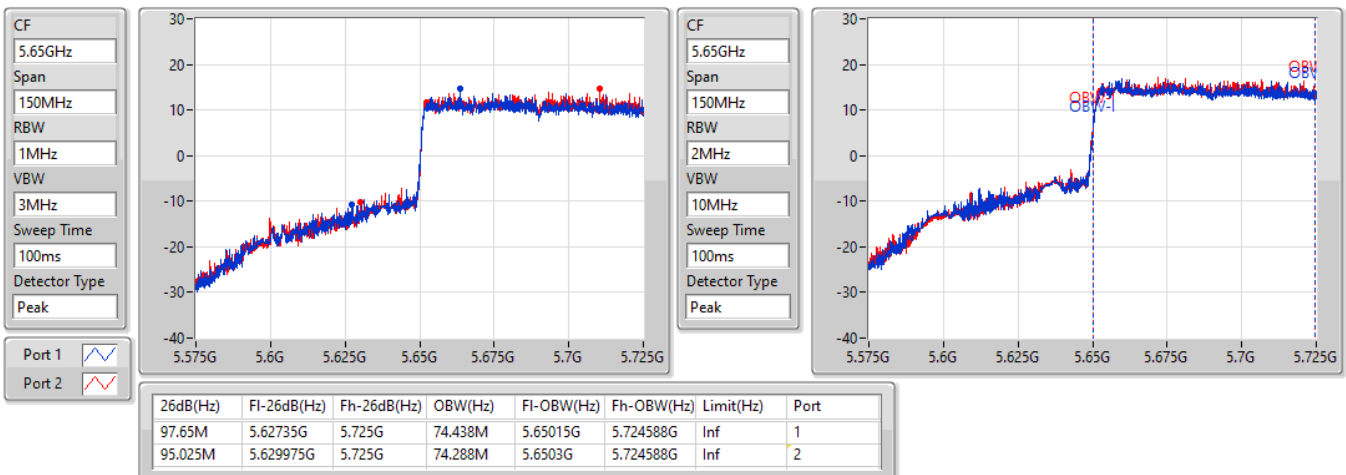


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5610MHz**

29/07/2022

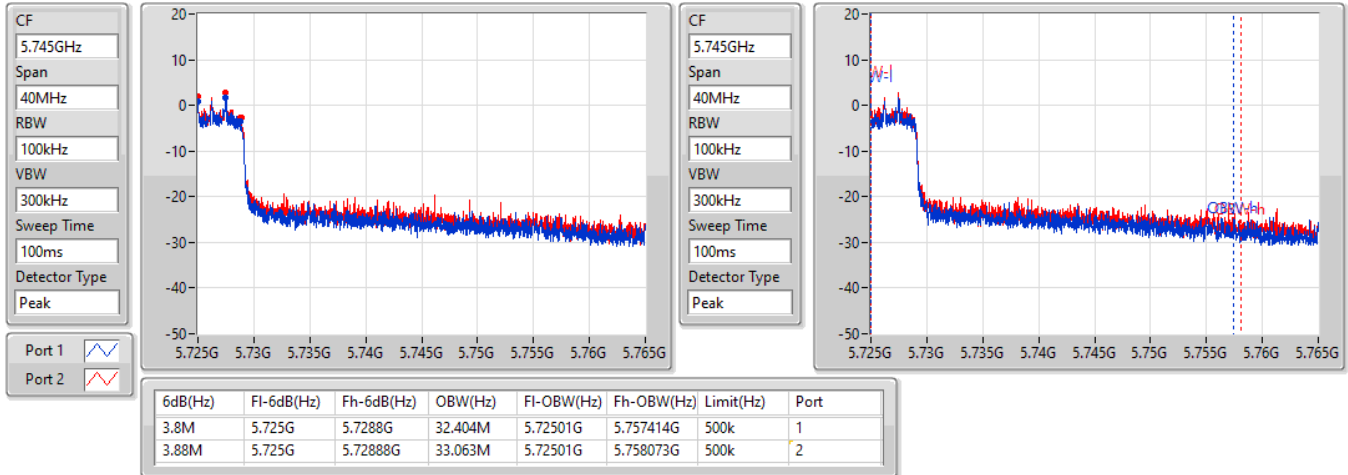

**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**

29/07/2022

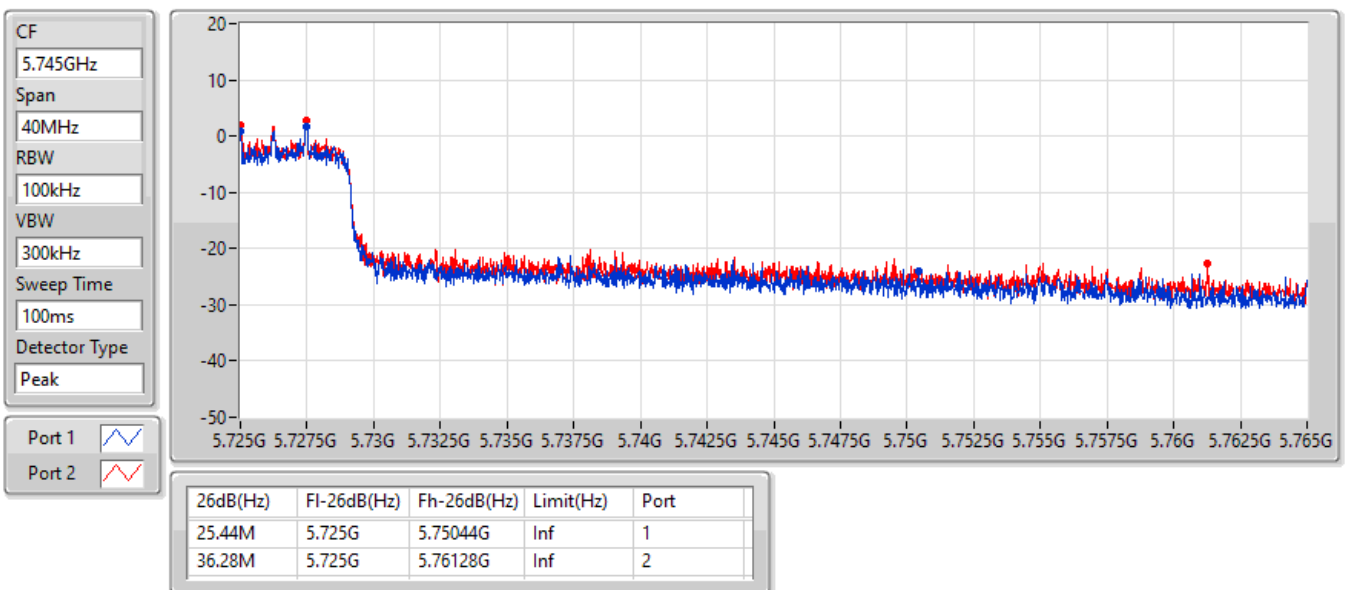


**802.11ax HEW80\_Nss2,(MCS0)\_2TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**

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**Summary**

| Mode                            | Total Power<br>(dBm) | Total Power<br>(W) |
|---------------------------------|----------------------|--------------------|
| 5.15-5.25GHz                    | -                    | -                  |
| 802.11ax HEW160_Nss1,(MCS0)_1TX | 12.95                | 0.01972            |
| 5.25-5.35GHz                    | -                    | -                  |
| 802.11a_Nss1,(6Mbps)_1TX        | 23.51                | 0.22439            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX  | 23.96                | 0.24889            |
| 802.11ax HEW40_Nss1,(MCS0)_1TX  | 22.16                | 0.16444            |
| 802.11ax HEW80_Nss1,(MCS0)_1TX  | 18.77                | 0.07534            |
| 802.11ax HEW160_Nss1,(MCS0)_1TX | 13.71                | 0.02350            |
| 5.47-5.725GHz                   | -                    | -                  |
| 802.11a_Nss1,(6Mbps)_1TX        | 21.66                | 0.14655            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX  | 22.15                | 0.16406            |
| 802.11ax HEW40_Nss1,(MCS0)_1TX  | 20.67                | 0.11668            |
| 802.11ax HEW80_Nss1,(MCS0)_1TX  | 20.70                | 0.11749            |
| 802.11ax HEW160_Nss1,(MCS0)_1TX | 13.86                | 0.02432            |
| 5.725-5.85GHz                   | -                    | -                  |
| 802.11a_Nss1,(6Mbps)_1TX        | 11.49                | 0.01409            |
| 802.11ax HEW20_Nss1,(MCS0)_1TX  | 11.77                | 0.01503            |
| 802.11ax HEW40_Nss1,(MCS0)_1TX  | 10.84                | 0.01213            |
| 802.11ax HEW80_Nss1,(MCS0)_1TX  | 6.98                 | 0.00499            |

## Result

| Mode                            | Result | DG<br>(dBi) | Port 1<br>(dBm) | Total Power<br>(dBm) | Power Limit<br>(dBm) |
|---------------------------------|--------|-------------|-----------------|----------------------|----------------------|
| 802.11a_Nss1,(6Mbps)_1TX        | -      | -           | -               | -                    | -                    |
| 5260MHz                         | Pass   | 2.87        | 23.51           | 23.51                | 23.98                |
| 5300MHz                         | Pass   | 2.87        | 23.28           | 23.28                | 23.98                |
| 5320MHz                         | Pass   | 2.87        | 21.78           | 21.78                | 23.98                |
| 5500MHz                         | Pass   | 2.65        | 21.66           | 21.66                | 23.98                |
| 5580MHz                         | Pass   | 2.65        | 20.88           | 20.88                | 23.98                |
| 5700MHz                         | Pass   | 2.65        | 17.30           | 17.30                | 23.98                |
| 5720MHz Straddle 5.47-5.725GHz  | Pass   | 2.65        | 17.90           | 17.90                | 23.17                |
| 5720MHz Straddle 5.725-5.85GHz  | Pass   | 2.51        | 11.49           | 11.49                | 30.00                |
| 802.11ax HEW20_Nss1,(MCS0)_1TX  | -      | -           | -               | -                    | -                    |
| 5260MHz                         | Pass   | 2.87        | 23.96           | 23.96                | 23.98                |
| 5300MHz                         | Pass   | 2.87        | 23.26           | 23.26                | 23.98                |
| 5320MHz                         | Pass   | 2.87        | 21.59           | 21.59                | 23.98                |
| 5500MHz                         | Pass   | 2.65        | 22.15           | 22.15                | 23.98                |
| 5580MHz                         | Pass   | 2.65        | 20.67           | 20.67                | 23.98                |
| 5700MHz                         | Pass   | 2.65        | 16.39           | 16.39                | 23.98                |
| 5720MHz Straddle 5.47-5.725GHz  | Pass   | 2.65        | 17.00           | 17.00                | 23.06                |
| 5720MHz Straddle 5.725-5.85GHz  | Pass   | 2.51        | 11.77           | 11.77                | 30.00                |
| 802.11ax HEW40_Nss1,(MCS0)_1TX  | -      | -           | -               | -                    | -                    |
| 5270MHz                         | Pass   | 2.87        | 22.16           | 22.16                | 23.98                |
| 5310MHz                         | Pass   | 2.87        | 19.54           | 19.54                | 23.98                |
| 5510MHz                         | Pass   | 2.65        | 18.32           | 18.32                | 23.98                |
| 5550MHz                         | Pass   | 2.65        | 19.21           | 19.21                | 23.98                |
| 5670MHz                         | Pass   | 2.65        | 18.48           | 18.48                | 23.98                |
| 5710MHz Straddle 5.47-5.725GHz  | Pass   | 2.65        | 20.67           | 20.67                | 23.98                |
| 5710MHz Straddle 5.725-5.85GHz  | Pass   | 2.51        | 10.84           | 10.84                | 30.00                |
| 802.11ax HEW80_Nss1,(MCS0)_1TX  | -      | -           | -               | -                    | -                    |
| 5290MHz                         | Pass   | 2.87        | 18.77           | 18.77                | 23.98                |
| 5530MHz                         | Pass   | 2.65        | 19.99           | 19.99                | 23.98                |
| 5610MHz                         | Pass   | 2.65        | 20.68           | 20.68                | 23.98                |
| 5690MHz Straddle 5.47-5.725GHz  | Pass   | 2.65        | 20.70           | 20.70                | 23.98                |
| 5690MHz Straddle 5.725-5.85GHz  | Pass   | 2.51        | 6.98            | 6.98                 | 30.00                |
| 802.11ax HEW160_Nss1,(MCS0)_1TX | -      | -           | -               | -                    | -                    |
| 5250MHz Straddle 5.15-5.25GHz   | Pass   | 3.18        | 12.95           | 12.95                | 30.00                |
| 5250MHz Straddle 5.25-5.35GHz   | Pass   | 2.87        | 13.71           | 13.71                | 23.98                |
| 5570MHz                         | Pass   | 2.65        | 13.86           | 13.86                | 23.98                |

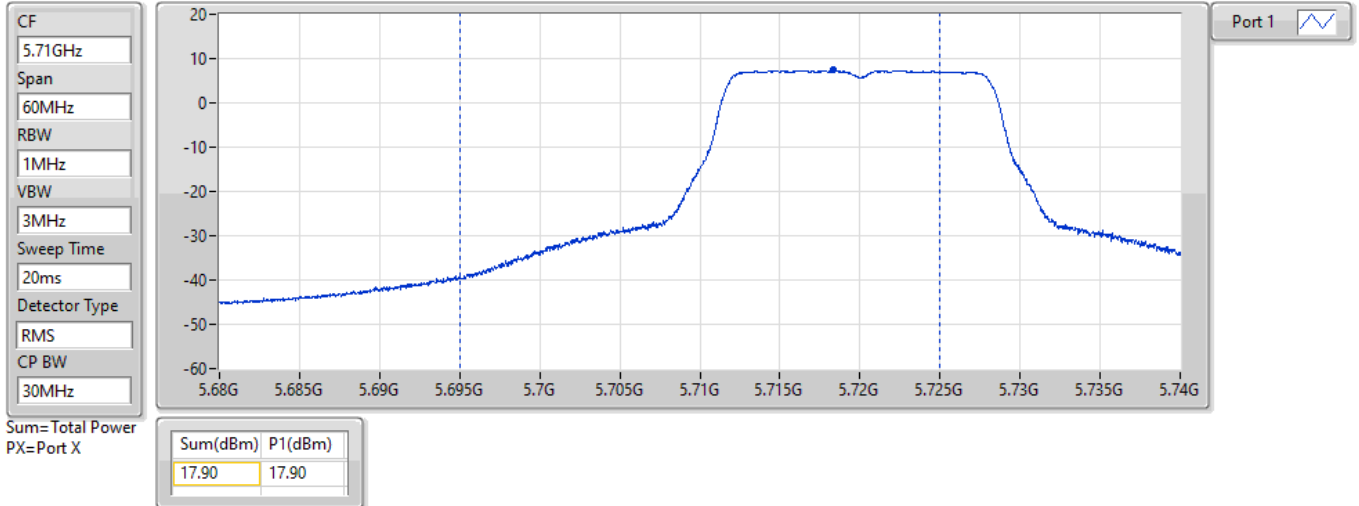
DG = Directional Gain; Port X = Port X output power

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

## AV Power

### 5720MHz Straddle 5.47-5.725GHz\_TX

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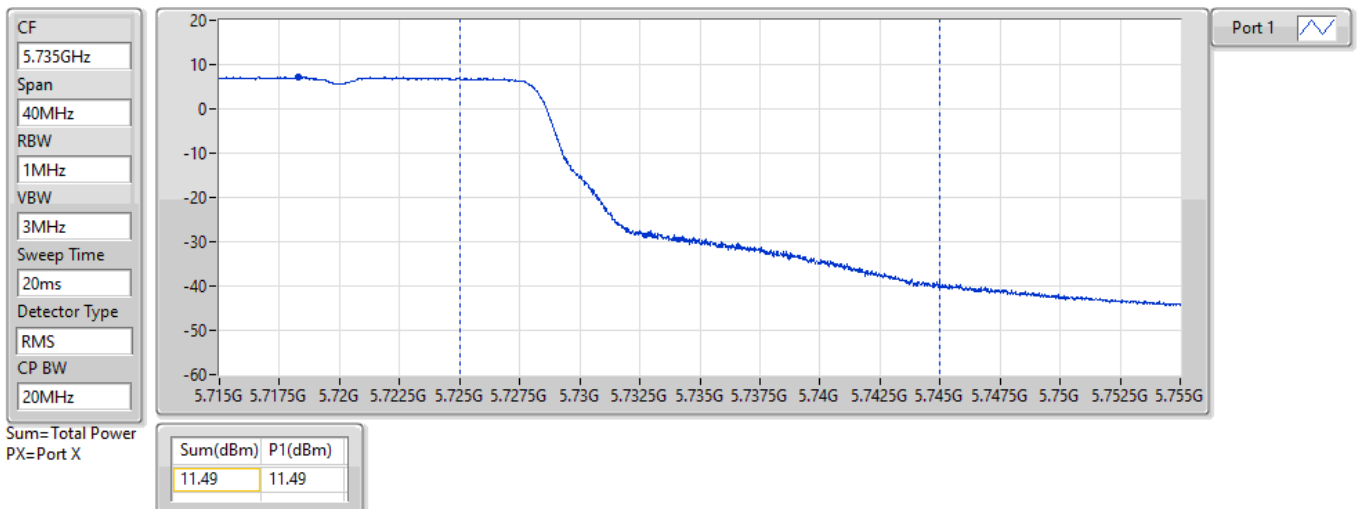


## 802.11a\_Nss1,(6Mbps)\_1TX

## AV Power

### 5720MHz Straddle 5.725-5.85GHz\_TX

27/07/2022

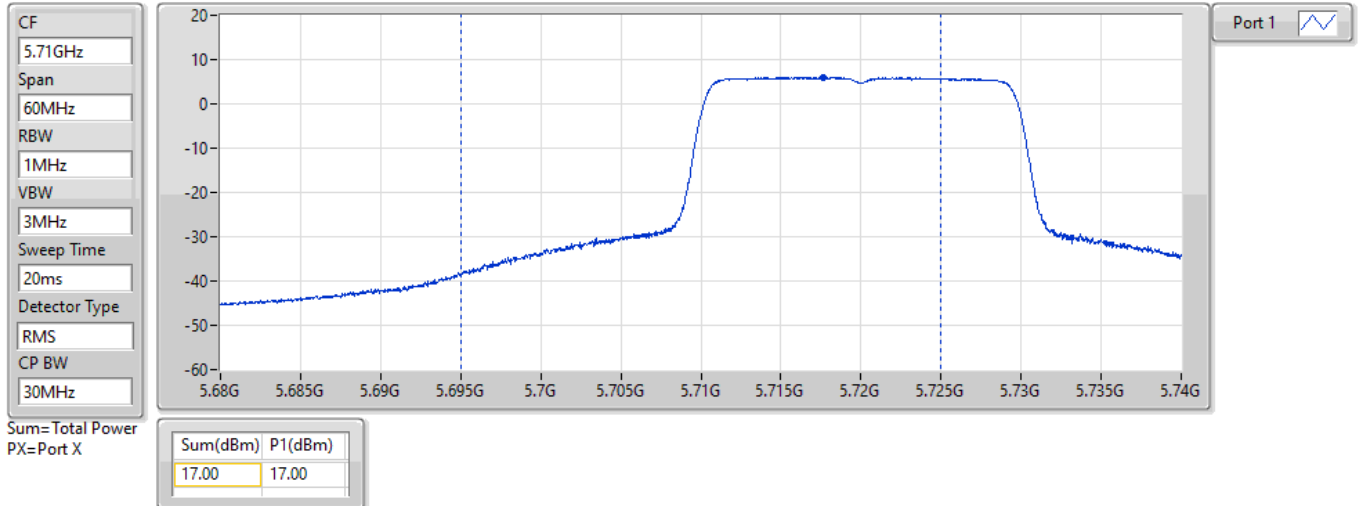


## 802.11ax HEW20\_Nss1,(MCS0)\_1TX

## AV Power

### 5720MHz Straddle 5.47-5.725GHz\_TX

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

## AV Power

### 5720MHz Straddle 5.725-5.85GHz\_TX

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