



# FCC RADIO TEST REPORT

**FCC ID** : LDK-SMST9105AXW  
**Equipment** : Catalyst 9105AX 802.11ax Access Point  
**Brand Name** : Cisco  
**Model Name** : C9105AXW-B, C9105AXW-C, C9105AXW-D, C9105AXW-F, C9105AXW-N, C9105AXW-S, C9105AXW-K, C9105AXW-x  
(Refer to section 1.1.5 for more details)  
**Applicant** : Cisco Systems, Inc.  
125 West Tasman Drive, San Jose, California, United States, 95134-1706  
**Manufacturer** : Cisco Systems, Inc.  
125 West Tasman Drive, San Jose, California, United States, 95134-1706  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Feb. 27, 2020, and testing was started from Mar. 05, 2020 and completed on May 20, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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

  
Approved by: Cliff Chang

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications 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 Ver1.1

Page Number : 3 of 33  
Issued Date : May 29, 2020  
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           | 15.207          | AC Power-line Conducted Emissions | PASS               | -      |
| 3.2           | 15.407(a)       | Emission Bandwidth                | PASS               | -      |
| 3.3           | 15.407(a)       | Maximum Conducted Output Power    | PASS               | -      |
| 3.4           | 15.407(a)       | Peak Power Spectral Density       | PASS               | -      |
| 3.5           | 15.407(b)       | Unwanted Emissions                | PASS               | -      |

**Declaration of Conformity:**

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

**Comments and Explanations:**

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. 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: Sandy Chuang**

# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Frequency Range (MHz) | IEEE Std. 802.11                            | Ch. Frequency (MHz) | Channel Number |
|-----------------------|---------------------------------------------|---------------------|----------------|
| 5725-5850             | a20, n (HT20),<br>ac (VHT20),<br>ax (HEW20) | 5745-5825           | 149-165 [5]    |
| 5725-5850             | a40, n (HT40),<br>ac (VHT40),<br>ax (HEW40) | 5755-5795           | 151-159 [2]    |
| 5725-5850             | a80, n (HT80),<br>ac (VHT80),<br>ax (HEW80) | 5775                | 155 [1]        |

| Band          | Mode              | BWch (MHz) | Nant     |
|---------------|-------------------|------------|----------|
| 5.725-5.85GHz | 802.11a20         | 20         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11a20-BF      | 20         | 2TX      |
| 5.725-5.85GHz | 802.11n HT20      | 20         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11n HT20-BF   | 20         | 2TX      |
| 5.725-5.85GHz | 802.11ac VHT20    | 20         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11ac VHT20-BF | 20         | 2TX      |
| 5.725-5.85GHz | 802.11ax HEW20    | 20         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11ax HEW20-BF | 20         | 2TX      |
| 5.725-5.85GHz | 802.11a40         | 40         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11a40-BF      | 40         | 2TX      |
| 5.725-5.85GHz | 802.11n HT40      | 40         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11n HT40-BF   | 40         | 2TX      |
| 5.725-5.85GHz | 802.11ac VHT40    | 40         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11ac VHT40-BF | 40         | 2TX      |
| 5.725-5.85GHz | 802.11ax HEW40    | 40         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11ax HEW40-BF | 40         | 2TX      |
| 5.725-5.85GHz | 802.11a80         | 80         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11a80-BF      | 80         | 2TX      |
| 5.725-5.85GHz | 802.11n HT80      | 80         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11n HT80-BF   | 80         | 2TX      |
| 5.725-5.85GHz | 802.11ac VHT80    | 80         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11ac VHT80-BF | 80         | 2TX      |
| 5.725-5.85GHz | 802.11ax HEW80    | 80         | 1TX, 2TX |
| 5.725-5.85GHz | 802.11ax HEW80-BF | 80         | 2TX      |



Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ HEW20, HEW40, HEW80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ Nss-Min is the minimum number of spatial streams.
- ♦ Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

**1.1.2 Antenna Information**

| Ant. | Port | Brand    | Model Name | Antenna Type | Connector | Gain (dBi) |
|------|------|----------|------------|--------------|-----------|------------|
| 1    | 1    | PEGATRON | WIFI_1 ant | PIFA         | I-PEX     | Note 1     |
| 2    | 2    | PEGATRON | WIFI_2 ant | PIFA         | I-PEX     |            |
| 3    | 1    | PEGATRON | BLE ant    | PIFA         | I-PEX     |            |

Note 1:

| Ant. | Port | WLAN 2.4GHz Gain (dBi) |          |          |          |          |          |          |          |
|------|------|------------------------|----------|----------|----------|----------|----------|----------|----------|
|      |      | 2400 MHz               | 2412 MHz | 2437 MHz | 2442 MHz | 2450 MHz | 2462 MHz | 2472 MHz | 2500 MHz |
| 1    | 1    | 2.02                   | 1.81     | 2.25     | 2.37     | 2.51     | 2.48     | 2.20     | 2.14     |
| 2    | 2    | 1.55                   | 1.63     | 2.10     | 2.23     | 2.20     | 2.07     | 1.75     | 1.99     |

| Ant. | Port | WLAN 5GHz Gain (dBi) |          |          |          |          |          |          |          |
|------|------|----------------------|----------|----------|----------|----------|----------|----------|----------|
|      |      | 5150 MHz             | 5250 MHz | 5350 MHz | 5470 MHz | 5500 MHz | 5600 MHz | 5725 MHz | 5850 MHz |
| 1    | 1    | 4.91                 | 4.97     | 4.88     | 4.93     | 4.82     | 4.73     | 4.78     | 4.93     |
| 2    | 2    | 4.58                 | 4.76     | 4.60     | 4.41     | 4.35     | 4.25     | 4.40     | 4.56     |

| Ant. | Port | BT/Zigbee Gain (dBi) |          |          |          |          |          |          |          |
|------|------|----------------------|----------|----------|----------|----------|----------|----------|----------|
|      |      | 2400 MHz             | 2412 MHz | 2437 MHz | 2442 MHz | 2450 MHz | 2462 MHz | 2472 MHz | 2500 MHz |
| 3    | 1    | 2.47                 | 2.45     | 2.55     | 2.70     | 2.69     | 2.64     | 2.58     | 2.62     |

Note 2: The above information was declared by manufacturer.



Note 3:

**For 2.4GHz function:**

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

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

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

**For 5GHz function:**

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

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

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

**For Bluetooth function:**

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

**For Zigbee function:**

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

### 1.1.3 Mode Test Duty Cycle

<2T1S>

#### Non-beamforming mode

| Mode                           | DC    | DCF(dB) | T(s)     | VBW(Hz) $\geq 1/T$ |
|--------------------------------|-------|---------|----------|--------------------|
| 11a20_Nss1,(6Mbps)_2TX         | 0.99  | 0.04    | 2.384m   | 10                 |
| 11a40_Nss1,(6Mbps)_2TX         | 0.99  | 0.04    | 2.384m   | 10                 |
| 11a80_Nss1,(6Mbps)_2TX         | 0.99  | 0.04    | 2.384m   | 10                 |
| 802.11ac VHT20_Nss1,(MCS0)_2TX | 0.987 | 0.06    | 2.224m   | 10                 |
| 802.11ac VHT40_Nss1,(MCS0)_2TX | 0.979 | 0.09    | 1.093m   | 1k                 |
| 802.11ac VHT80_Nss1,(MCS0)_2TX | 0.954 | 0.2     | 528.438u | 3k                 |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 0.984 | 0.07    | 1.711m   | 10                 |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 0.974 | 0.11    | 885u     | 3k                 |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | 0.945 | 0.25    | 453.75u  | 3k                 |

#### beamforming mode

| Mode                              | DC    | DCF(dB) | T(s)     | VBW(Hz) $\geq 1/T$ |
|-----------------------------------|-------|---------|----------|--------------------|
| 11a20-BF_Nss1,(6Mbps)_2TX         | 0.99  | 0.04    | 2.384m   | 10                 |
| 11a40-BF_Nss1,(6Mbps)_2TX         | 0.99  | 0.04    | 2.384m   | 10                 |
| 11a80-BF_Nss1,(6Mbps)_2TX         | 0.99  | 0.04    | 2.384m   | 10                 |
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | 0.987 | 0.06    | 2.224m   | 10                 |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | 0.977 | 0.1     | 1.093m   | 1k                 |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | 0.954 | 0.2     | 528.438u | 3k                 |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | 0.984 | 0.07    | 1.711m   | 10                 |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | 0.974 | 0.11    | 885u     | 3k                 |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | 0.945 | 0.25    | 453.75u  | 3k                 |

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 n/ax in 2.4GHz and a/n/ac/ax in 5GHz. |                  |                                     |                     |
| <b>Function</b>              | <input type="checkbox"/>                                                       | Outdoor P2M      | <input checked="" type="checkbox"/> | Indoor P2M          |
|                              | <input type="checkbox"/>                                                       | Fixed P2P        | <input type="checkbox"/>            | Client              |
| <b>Test Software Version</b> | 17.18.2 (r782430 WLTEST)                                                       |                  |                                     |                     |

Note: The above information was declared by manufacturer.

**1.1.5 Table for Multiple Listing**

The model names in the following table are all refer to the identical product.

| Model Name                                          | Description                                                                           |
|-----------------------------------------------------|---------------------------------------------------------------------------------------|
| C9105AXW-B                                          | All the models are identical, the difference model for difference marketing strategy. |
| C9105AXW-C                                          |                                                                                       |
| C9105AXW-D                                          |                                                                                       |
| C9105AXW-F                                          |                                                                                       |
| C9105AXW-N                                          |                                                                                       |
| C9105AXW-S                                          |                                                                                       |
| C9105AXW-K                                          |                                                                                       |
| C9105AXW-x<br>(x can be A-Z, regional country code) |                                                                                       |

From the above models, model: C9105AXW-B was selected as representative model for the test and its data was recorded in this report.



## 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
- ♦ FCC KDB 414788 D01 v01r01

## 1.3 Testing Location Information

| Testing Location                    |        |                                                                                  |                      |                      |
|-------------------------------------|--------|----------------------------------------------------------------------------------|----------------------|----------------------|
| <input type="checkbox"/>            | HWA YA | ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)        | TEL : 886-3-327-3456 | FAX : 886-3-327-0973 |
| <input checked="" type="checkbox"/> | JHUBEI | ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. | TEL : 886-3-656-9065 | FAX : 886-3-656-9085 |

| Test Condition                                 | Test Site No. | Test Engineer | Test Environment     | Test Date                       |
|------------------------------------------------|---------------|---------------|----------------------|---------------------------------|
| RF Conducted                                   | TH01-CB       | Owen Hsu      | 20.5-22°C / 49-53%   | Mar. 05, 2020~<br>Mar. 27, 2020 |
| Radiated<br>(Cabinet)                          | 03CH05-CB     | Stim Sun      | 21.3-23.2°C / 55-58% | Mar. 10, 2020~<br>May 05, 2020  |
| Radiated<br>(Radiated Emission<br>Co-location) | 03CH05-CB     | Stim Sun      | 21.3-23.2°C / 55-58% | May 20, 2020                    |
| AC Conduction                                  | CO01-CB       | GN Hou        | 23~24°C / 63~65%     | May 11, 2020                    |

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.

## 1.4 Measurement Uncertainty

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

| Test Items                           | Uncertainty | Remark                   |
|--------------------------------------|-------------|--------------------------|
| Conducted Emission (150kHz ~ 30MHz)  | 2.0 dB      | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 4.3 dB      | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz)     | 4.3 dB      | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz)    | 5.1 dB      | Confidence levels of 95% |
| Conducted Emission                   | 2.4 dB      | Confidence levels of 95% |
| Output Power Measurement             | 1.5 dB      | Confidence levels of 95% |
| Power Density Measurement            | 2.4 dB      | Confidence levels of 95% |
| Bandwidth Measurement                | 2%          | Confidence levels of 95% |



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

<2T1S>

Non-beamforming mode

| Mode                           | Power Setting |
|--------------------------------|---------------|
| 11a20_Nss1,(6Mbps)_2TX         | -             |
| 5745MHz                        | 17            |
| 5785MHz                        | 17            |
| 5825MHz                        | 17            |
| 11a40_Nss1,(6Mbps)_2TX         | -             |
| 5755MHz                        | 17            |
| 5795MHz                        | 17            |
| 11a80_Nss1,(6Mbps)_2TX         | -             |
| 5775MHz                        | 17            |
| 802.11ac VHT20_Nss1,(MCS0)_2TX | -             |
| 5745MHz                        | 17            |
| 5785MHz                        | 17            |
| 5825MHz                        | 17            |
| 802.11ac VHT40_Nss1,(MCS0)_2TX | -             |
| 5755MHz                        | 17            |
| 5795MHz                        | 17            |
| 802.11ac VHT80_Nss1,(MCS0)_2TX | -             |
| 5775MHz                        | 17            |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | -             |
| 5745MHz                        | 17            |
| 5785MHz                        | 17            |
| 5825MHz                        | 17            |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | -             |
| 5755MHz                        | 17            |
| 5795MHz                        | 17            |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | -             |
| 5775MHz                        | 17            |

**beamforming mode**

| Mode                              | Power Setting |
|-----------------------------------|---------------|
| 11a20,BF_Nss1,(6Mbps)_2TX         | -             |
| 5745MHz                           | 17            |
| 5785MHz                           | 17            |
| 5825MHz                           | 17            |
| 11a40,BF_Nss1,(6Mbps)_2TX         | -             |
| 5755MHz                           | 17            |
| 5795MHz                           | 17            |
| 11a80,BF_Nss1,(6Mbps)_2TX         | -             |
| 5775MHz                           | 17            |
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | -             |
| 5745MHz                           | 17            |
| 5785MHz                           | 17            |
| 5825MHz                           | 17            |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | -             |
| 5755MHz                           | 17            |
| 5795MHz                           | 17            |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | -             |
| 5775MHz                           | 17            |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | -             |
| 5745MHz                           | 17            |
| 5785MHz                           | 17            |
| 5825MHz                           | 17            |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | -             |
| 5755MHz                           | 17            |
| 5795MHz                           | 17            |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | -             |
| 5775MHz                           | 17            |

**Note:**

- ♦ VHT20/VHT40/VHT80 covers HT20/HT40/HT80, due to same modulation. The power setting for 802.11n HT20, HT40 and HT 80 are the same or lower than 802.11ac VHT20, VHT40 and VHT80.
- ♦ There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 11n/11ax in 2.4GHz and 11a/11n/11ac/11ax in 5GHz. Both modes have been tested and recorded in this test report.
- ♦ The STBC mode covered by 2T2S mode.
- ♦ The beamforming mode only evaluate power and power density.
- ♦ This function has 1TX/2TX, and only 2TX was test and record in the test report was declared by the manufacturer.

## 2.2 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests                           |                                                          |
|-------------------------------------------------------------------------------|----------------------------------------------------------|
| <b>Tests Item</b>                                                             | AC power-line conducted emissions                        |
| <b>Condition</b>                                                              | AC power-line conducted measurement for line and neutral |
| <b>Operating Mode</b>                                                         | CTX                                                      |
| 1                                                                             | EUT_2.4GHz + PoE                                         |
| 2                                                                             | EUT_5GHz + PoE                                           |
| 3                                                                             | EUT_Bluetooth LE + PoE                                   |
| 4                                                                             | EUT_Zigbee + PoE                                         |
| For operating mode 3 is the worst case and it was record in this test report. |                                                          |

| The Worst Case Mode for Following Conformance Tests |                                                                                                                                              |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                   | Emission Bandwidth<br>Maximum Conducted Output Power<br>Peak Power Spectral Density<br>Unwanted Emissions<br>Unwanted Emissions (Above 1GHz) |
| <b>Test Condition</b>                               | Conducted measurement at transmit chains                                                                                                     |

| The Worst Case Mode for Following Conformance Tests                           |                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                                             | Unwanted Emissions                                                                                                                                                                                                                                  |
| <b>Test Condition</b>                                                         | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |
| <b>Operating Mode &lt; 1GHz</b>                                               | CTX<br>Y-axis generated the worst result for Unwanted Emission (above 1GHz), thus the measurement will follow this same test configuration.                                                                                                         |
| 1                                                                             | EUT_2.4GHz + PoE in Y axis                                                                                                                                                                                                                          |
| 2                                                                             | EUT_5GHz + PoE in Y axis                                                                                                                                                                                                                            |
| 3                                                                             | EUT_Bluetooth LE + PoE in Y axis                                                                                                                                                                                                                    |
| 4                                                                             | EUT_Zigbee + PoE in Y axis                                                                                                                                                                                                                          |
| For operating mode 2 is the worst case and it was record in this test report. |                                                                                                                                                                                                                                                     |
| <b>Operating Mode &gt; 1GHz</b>                                               | CTX (Cabinet)<br>The EUT was performed at X axis, Y axis and Z axis position. The worst case was found at Y axis, thus the measurement will follow this same test configuration.                                                                    |
| 1                                                                             | EUT_5G in Y axis                                                                                                                                                                                                                                    |



| The Worst Case Mode for Following Conformance Tests                                                                                   |                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>Tests Item</b>                                                                                                                     | Simultaneous Transmission Analysis - Radiated Emission Co-location |
| <b>Test Condition</b>                                                                                                                 | Radiated measurement                                               |
| <b>Operating Mode</b>                                                                                                                 | Normal Link                                                        |
| Y-axis generated the worst result for Unwanted Emissions (above 1GHz), thus the measurement will follow this same test configuration. |                                                                    |
| 1                                                                                                                                     | WLAN 2.4GHz + WLAN 5GHz in Y axis                                  |
| Refer to Appendix F for Radiated Emission Co-location.                                                                                |                                                                    |

| The Worst Case Mode for Following Conformance Tests                                   |                                                                         |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Tests Item</b>                                                                     | Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation |
| <b>Operating Mode</b>                                                                 |                                                                         |
| 1                                                                                     | WLAN 2.4GHz + WLAN 5GHz + Bluetooth LE                                  |
| 2                                                                                     | WLAN 2.4GHz + WLAN 5GHz + Zigbee                                        |
| Refer to Sporton Test Report No.: FA992017-02 for Co-location RF Exposure Evaluation. |                                                                         |

Note: It was supplied power by PoE for EUT, and the PoE is for measurement only, would not be marketed.

**<For Conducted emissions and Radiated measurement (below 1GHz)>**

| Equipment | Brand Name | Model Name     | FCC ID |
|-----------|------------|----------------|--------|
| PoE       | PHIHONG    | POE29U-1AT(PL) | N/A    |

**<For other tests>**

| Equipment | Brand Name | Model Name | FCC ID |
|-----------|------------|------------|--------|
| PoE       | CERIO      | POE-G30    | N/A    |

## 2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 2.4 Accessories

| Accessories |                    |            |              |                     |
|-------------|--------------------|------------|--------------|---------------------|
| No.         | Equipment Name     | Brand Name | Model Name   | Remark              |
| 1           | Mounting bracket*1 | PEGATRON   | 13BK-30N1601 | -                   |
| Optional    |                    |            |              |                     |
| No.         | Equipment Name     | Brand Name | Model Name   | Remark              |
| 2           | Jumper Cable*1     | Tung-Li    | 1402-00WF000 | Non-Shielded, 0.07m |
| 3           | Spacer box*1       | PEGATRON   | 13BK-30Q0701 | -                   |



## 2.5 Support Equipment

**For AC Conduction:**

| Support Equipment |               |            |                |        |
|-------------------|---------------|------------|----------------|--------|
| No.               | Equipment     | Brand Name | Model Name     | FCC ID |
| A                 | PoE           | PHIHONG    | POE29U-1AT(PL) | N/A    |
| B                 | Flash disk3.0 | Transcend  | JetFlash-700   | N/A    |

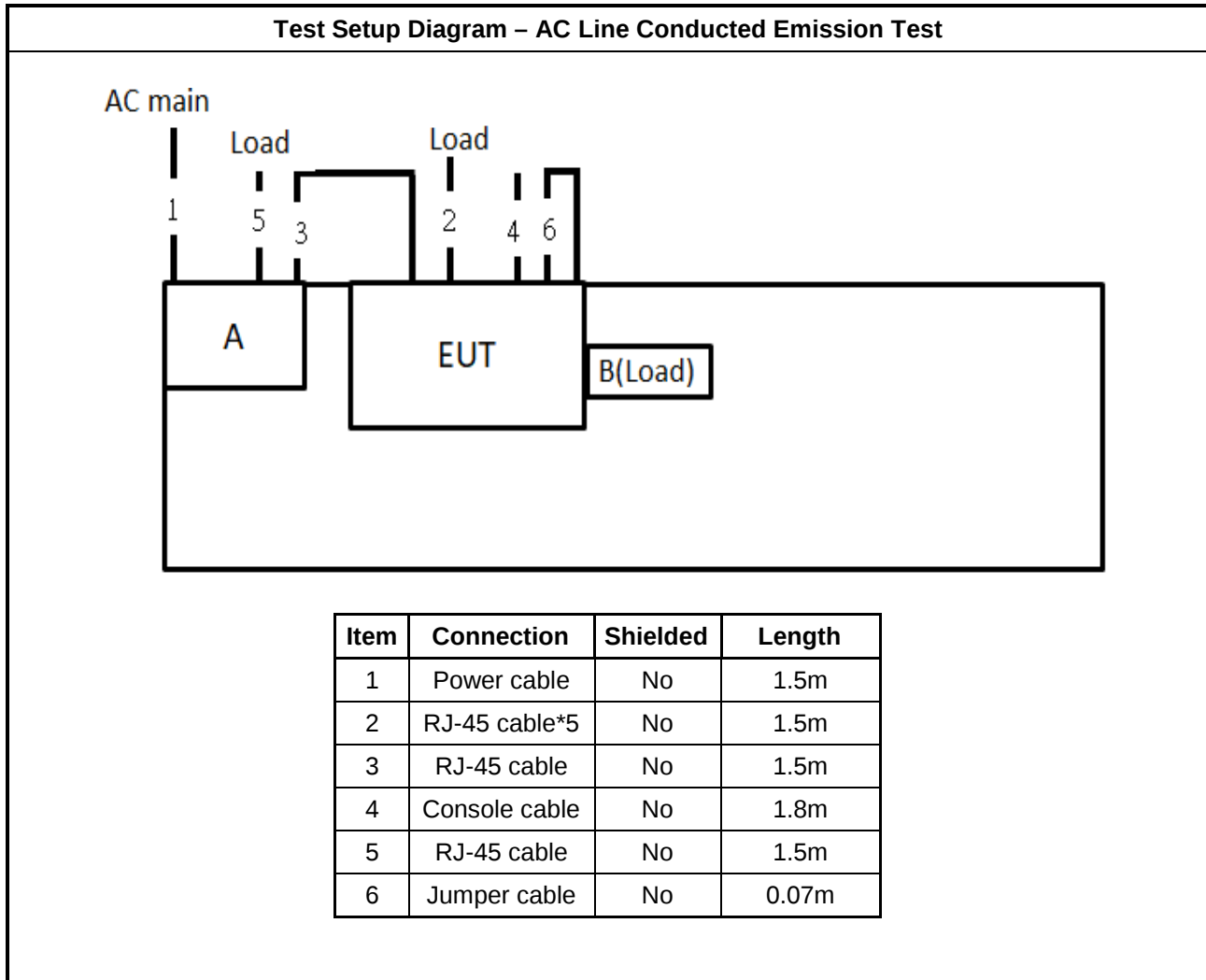
**For Radiated (below 1GHz):**

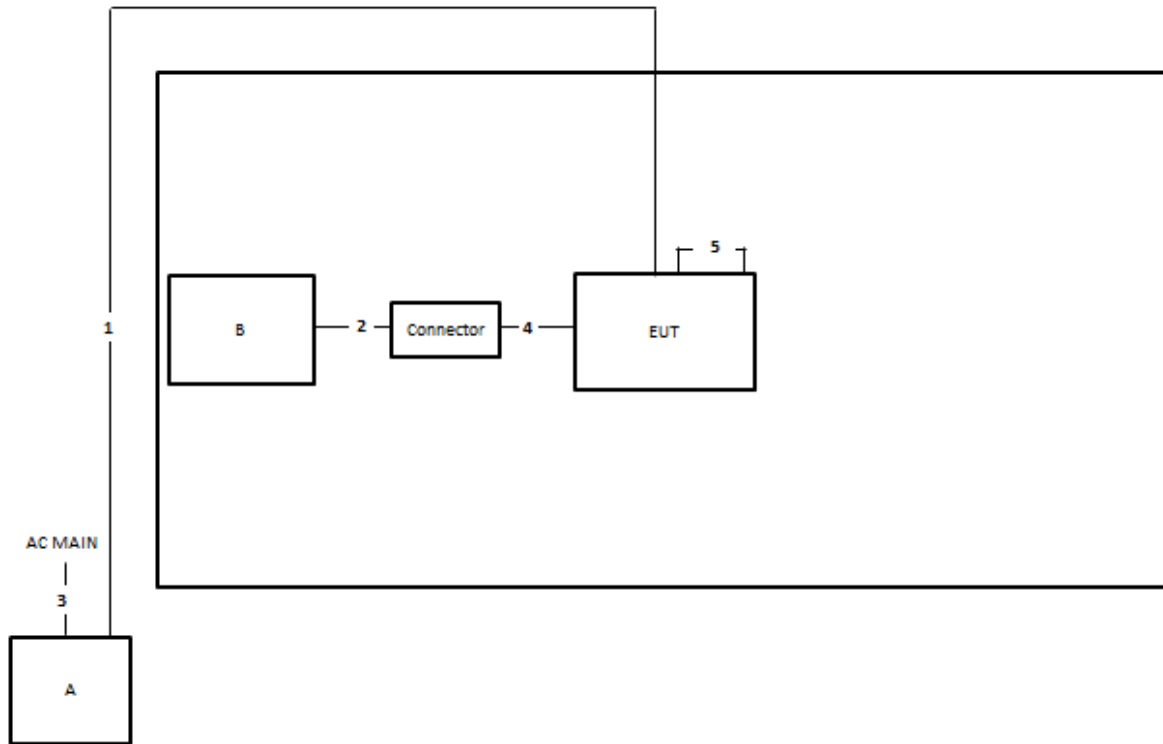
| Support Equipment |           |            |                |        |
|-------------------|-----------|------------|----------------|--------|
| No.               | Equipment | Brand Name | Model Name     | FCC ID |
| A                 | PoE       | PHIHONG    | POE29U-1AT(PL) | N/A    |
| B                 | Notebook  | DELL       | E4300          | N/A    |

**For Radiated (above 1GHz) and RF Conducted:**

| Support Equipment |           |            |            |        |
|-------------------|-----------|------------|------------|--------|
| No.               | Equipment | Brand Name | Model Name | FCC ID |
| A                 | PoE       | CERIO      | POE-G30    | N/A    |
| B                 | Notebook  | DELL       | E4300      | N/A    |

## 2.6 Test Setup Diagram



**Test Setup Diagram - Radiated Test**


| Item | Connection                   | Shielded | Length |
|------|------------------------------|----------|--------|
| 1    | RJ-45 cable                  | No       | 10m    |
| 2    | RS232 to USB console cable   | No       | 1.5m   |
| 3    | Power cable                  | No       | 1.75m  |
| 4    | RS232 to RJ-45 console cable | No       | 1.9m   |
| 5    | Jumper cable                 | No       | 0.07m  |



### 3 Transmitter Test Result

#### 3.1 AC Power-line Conducted Emissions

##### 3.1.1 AC Power-line Conducted Emissions Limit

| AC Power-line Conducted Emissions Limit                  |            |           |
|----------------------------------------------------------|------------|-----------|
| Frequency Emission (MHz)                                 | Quasi-Peak | Average   |
| 0.15-0.5                                                 | 66 - 56 *  | 56 - 46 * |
| 0.5-5                                                    | 56         | 46        |
| 5-30                                                     | 60         | 50        |
| Note 1: * Decreases with the logarithm of the frequency. |            |           |

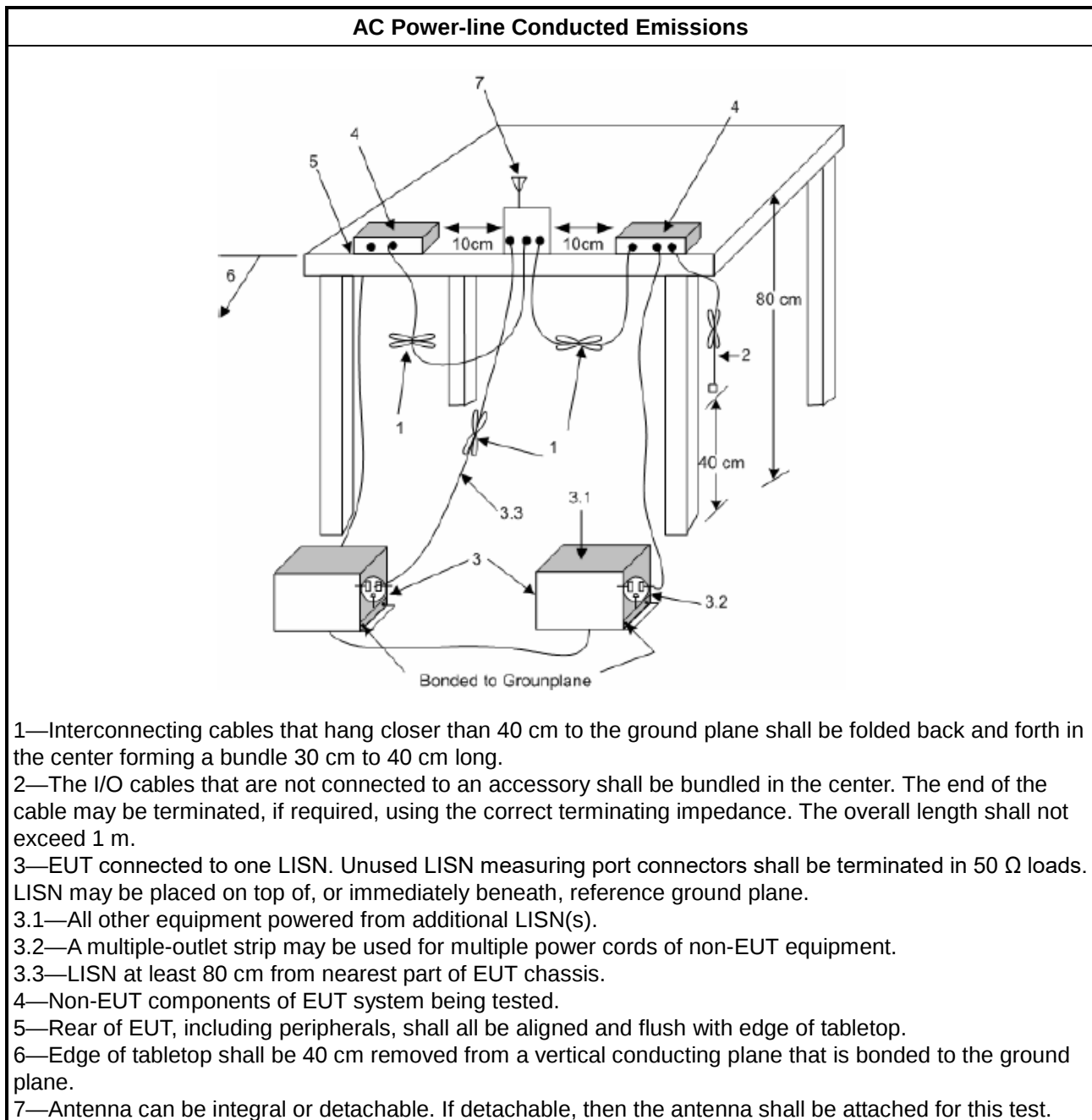
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

| Test Method                                                                                                      |
|------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions. |

### 3.1.4 Test Setup



### 3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

## 3.2 Emission Bandwidth

### 3.2.1 Emission Bandwidth Limit

| Emission Bandwidth Limit            |                                                                                                                                                                                           |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNII Devices</b>                 |                                                                                                                                                                                           |
| <input type="checkbox"/>            | For the 5.15-5.25 GHz band, N/A                                                                                                                                                           |
| <input type="checkbox"/>            | For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz.    |
| <input type="checkbox"/>            | For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz.   |
| <input checked="" type="checkbox"/> | For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq 500\text{kHz}$ .                                                                                                               |
| <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 $\geq 500\text{kHz}$ .                                                                                                               |

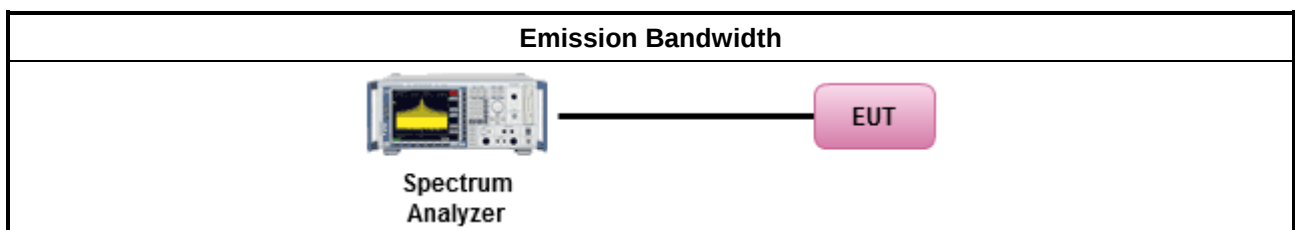
### 3.2.2 Measuring Instruments

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

### 3.2.3 Test Procedures

| Test Method                                                                                           |                                                                             |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <input type="checkbox"/> For the emission bandwidth shall be measured using one of the options below: |                                                                             |
| <input checked="" type="checkbox"/>                                                                   | Refer as FCC KDB 789033, 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.                      |

### 3.2.4 Test Setup



### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

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

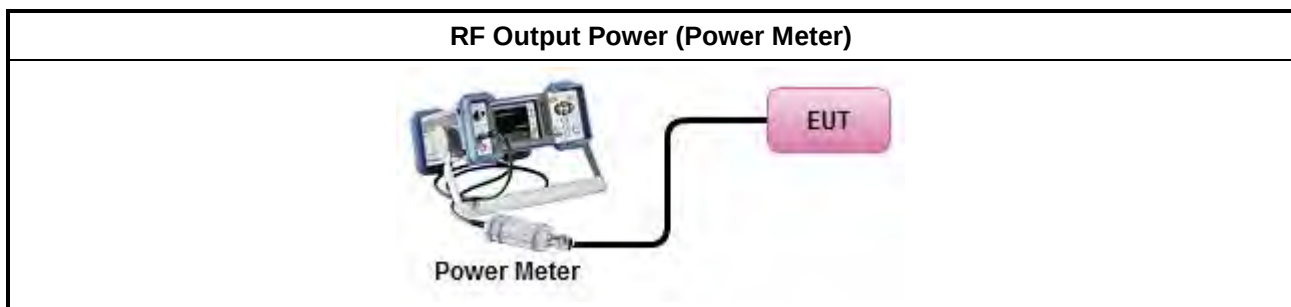
### 3.3.2 Measuring Instruments

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>Maximum Conducted Output Power</li> </ul>                                                                                                                                                                                                                                                                                       |                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                        | Average over on/off periods with duty factor                                             |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).                |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed) |
|                                                                                                                                                                                                                                                                                                                                                                        | Wideband RF power meter and average over on/off periods with duty factor                 |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                    | Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).         |
| <ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>                                                                                                                                                                                                                                                                                           |                                                                                          |
| <ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below:<br/>Refer as 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 display="block">P_{total} = P_1 + P_2 + \dots + P_n</math> (calculated in linear unit [mW] and transfer to log unit [dBm])<br/> <math display="block">EIRP_{total} = P_{total} + DG</math> </li> </ul>                                  |                                                                                          |

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



### 3.4 Peak Power Spectral Density

#### 3.4.1 Peak Power Spectral Density Limit

| Peak Power Spectral Density Limit                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNII Devices</b>                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <input type="checkbox"/> For the 5.15-5.25 GHz band:                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"><li>Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li><li>Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li><li>Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 23)</math>.</li><li>Mobile or Portable Client: the peak power spectral density (PPSD) <math>\leq 11</math> dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 11 - (G_{TX} - 6)</math>.</li></ul> |
| <input 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 type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$ .                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"><li>Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 30 - (G_{TX} - 6)</math>.</li><li>Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>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.                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                        | <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/>-13 dBW/MHz for <math>0^\circ \leq \theta &lt; 8^\circ</math> ; -13 - 0.716 (<math>\theta</math>-8) dBW/MHz for <math>8^\circ \leq \theta &lt; 40^\circ</math><br/>-35.9 - 1.22 (<math>\theta</math>-40) dBW/MHz for <math>40^\circ \leq \theta \leq 45^\circ</math> ; -42 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:                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"><li>Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 30 - (G_{TX} - 6)</math>.</li><li>Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>PPSD</b> = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz<br><b>G<sub>TX</sub></b> = the maximum transmitting antenna directional gain in dBi. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

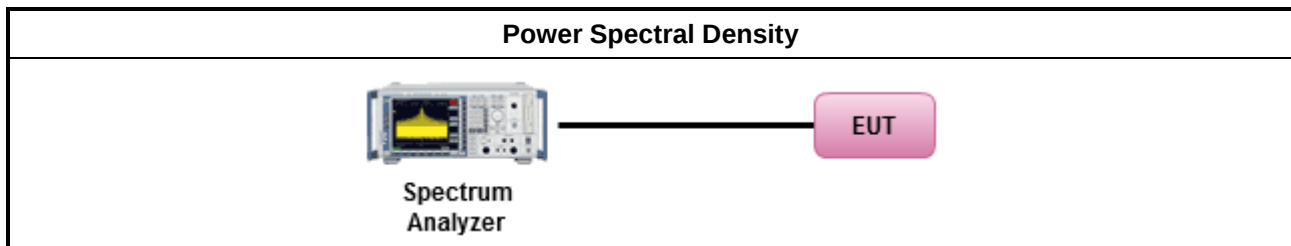
#### 3.4.2 Measuring Instruments

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>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, F5) 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, clause E Method SA-1 (spectral trace averaging).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <input type="checkbox"/> Refer as FCC KDB 789033, 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, clause E Method SA-2 (spectral trace averaging).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| <ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below:</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| <input 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 display="block">PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n</math>           (calculated in linear unit [mW] and transfer to log unit [dBm])<br/> <math display="block">EIRP_{total} = PPSD_{total} + DG</math> </li> </ul>                                                                                                                                                                                                                                                                                                                                            |  |

### 3.4.4 Test Setup



### 3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



### 3.5 Unwanted Emissions

#### 3.5.1 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 type="checkbox"/> 5.15 - 5.25 GHz             | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                               |
| <input type="checkbox"/> 5.25 - 5.35 GHz             | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                               |
| <input 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. |

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of



linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

### 3.5.2 Measuring Instruments

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

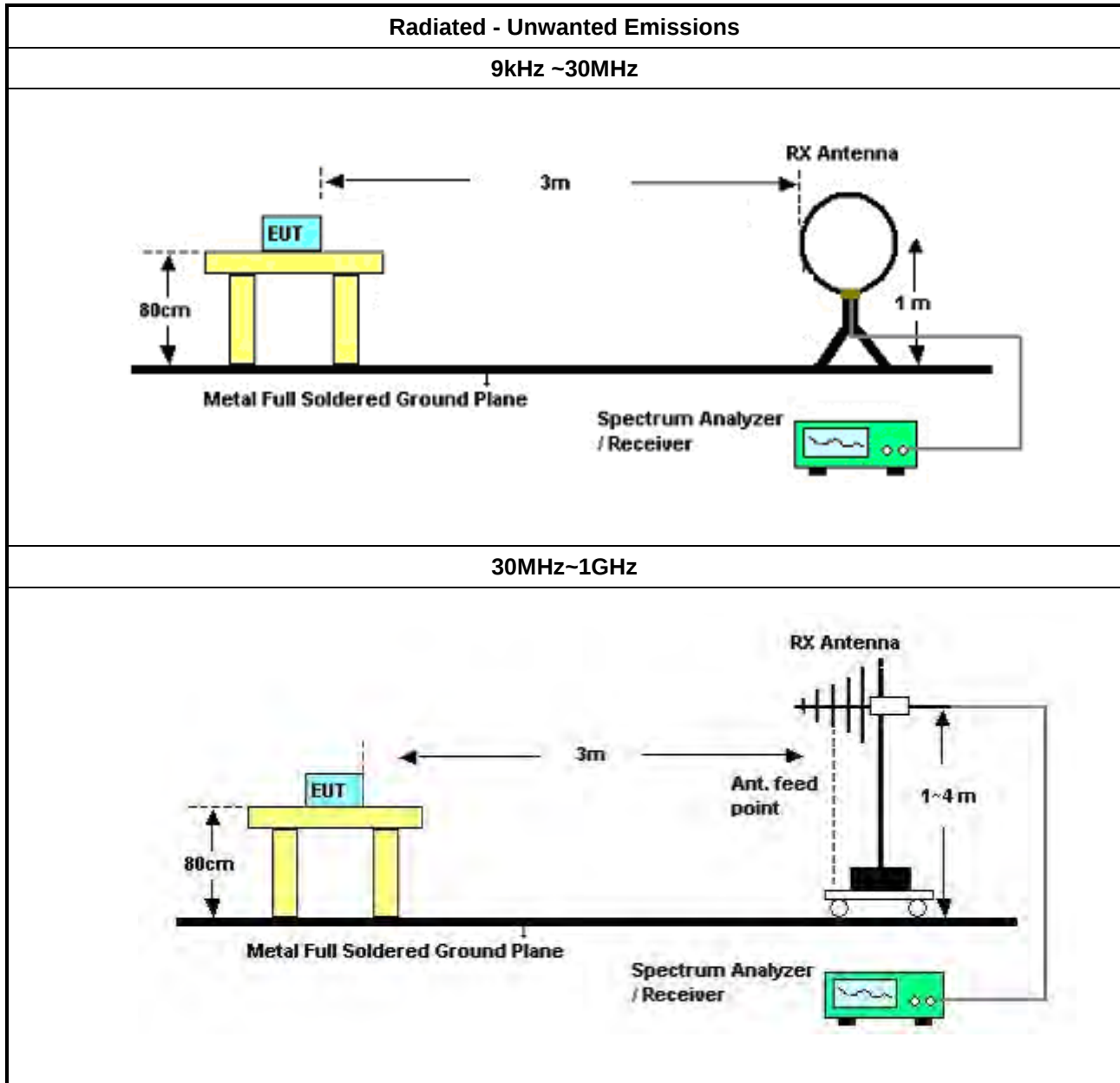
### 3.5.3 Test Procedures

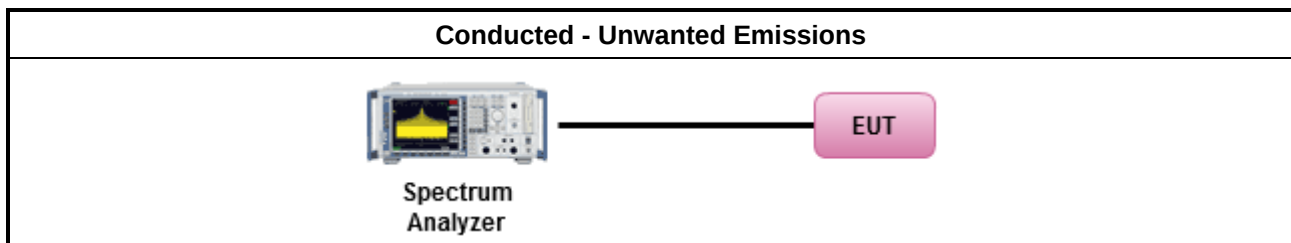
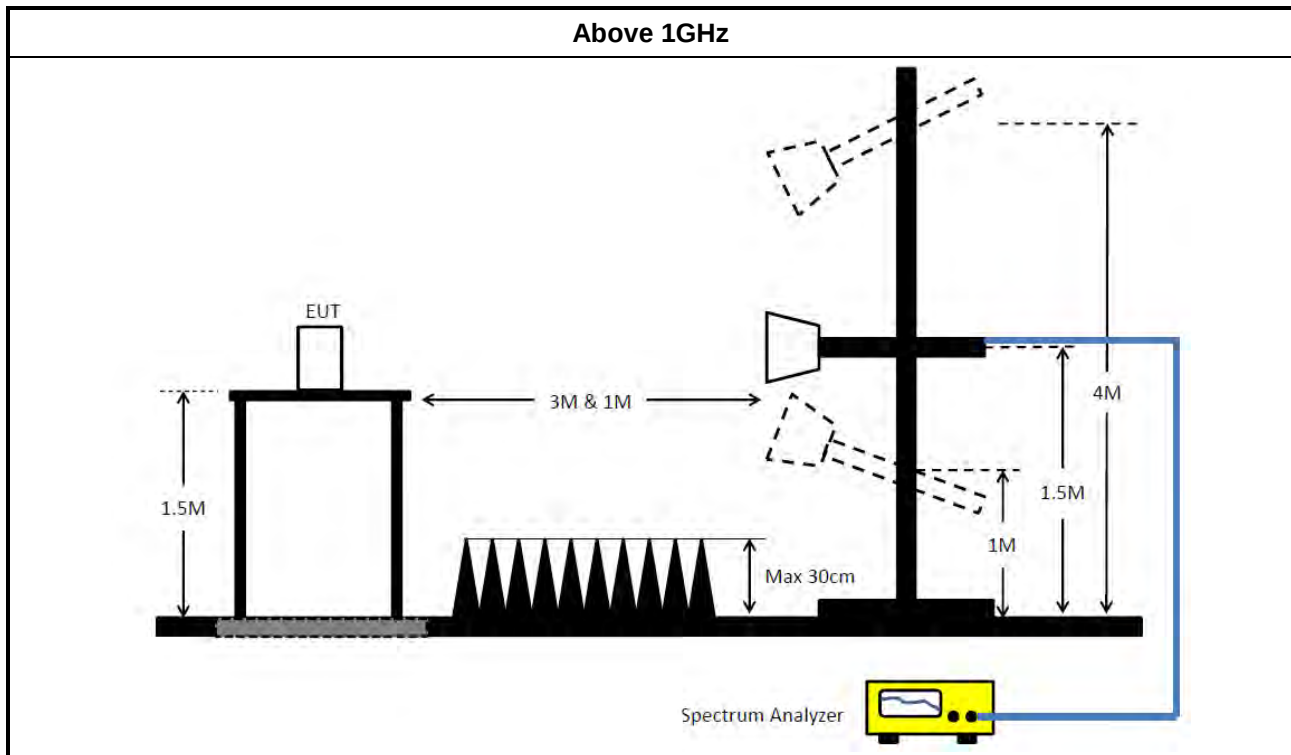
| Test Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 98</math> 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, clause G)2) for unwanted emissions into non-restricted bands.</li></ul>           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"><li>Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li></ul>               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> Refer as FCC KDB 789033, 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, 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                  |
| <ul style="list-style-type: none"><li>All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                  |



| Test Method                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ▪ For conducted and cabinet radiation measurement, refer as FCC KDB 789033, clause G)3). |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                          | ▪ For conducted unwanted emissions into non-restricted bands (relative emission limits).<br>Devices with multiple transmit chains:<br>Refer as FCC KDB 662911, when testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding 10 log(N) if the measurements are made relative to the in-band emissions on the individual outputs. |
|                                                                                          | ▪ For conducted unwanted emissions into restricted bands (absolute emission limits).<br>Devices with multiple transmit chains using options given below:<br>(1) Measure and sum the spectra across the outputs or<br>(2) Measure and add 10 log(N) dB                                                                                                                                                                             |
|                                                                                          | ▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.                                                                                    |

### 3.5.4 Test Setup





### 3.5.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

### 3.5.6 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 10 harmonic or 40 GHz, whichever is appropriate.

### 3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



## 4 Test Equipment and Calibration Data

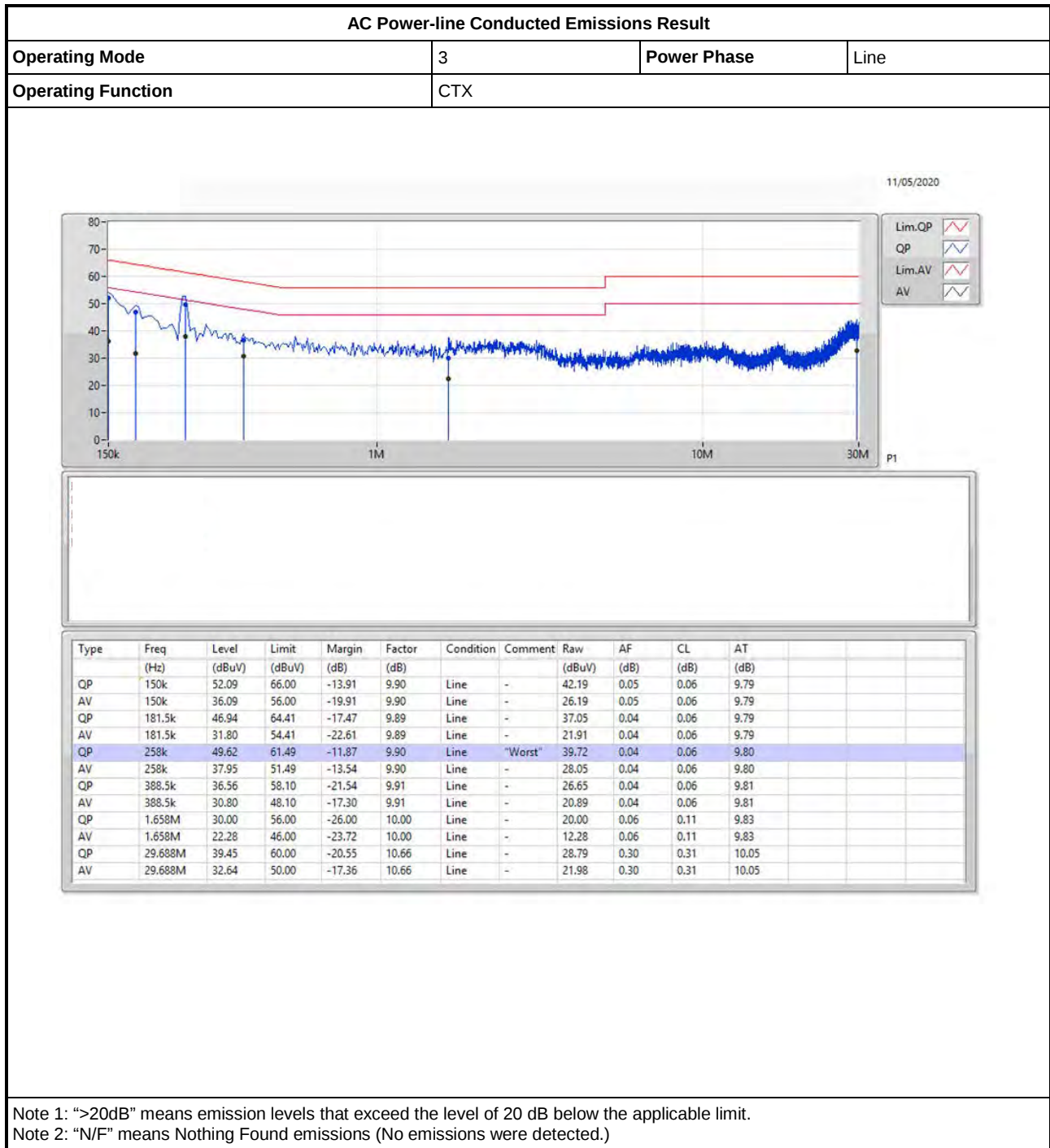
| Instrument                        | Manufacturer | Model No.          | Serial No.       | Characteristics  | Calibration Date | Calibration Due Date | Remark                |
|-----------------------------------|--------------|--------------------|------------------|------------------|------------------|----------------------|-----------------------|
| EMI Receiver                      | Agilent      | N9038A             | My52260123       | 9kHz ~ 8.45GHz   | Feb. 26, 2020    | Feb. 25, 2021        | Conduction (CO01-CB)  |
| LISN                              | F.C.C.       | FCC-LISN-50-16-2   | 04083            | 150kHz ~ 100MHz  | Dec. 25, 2019    | Dec. 24, 2020        | Conduction (CO01-CB)  |
| LISN                              | Schwarzbeck  | NSLK 8127          | 8127647          | 9kHz ~ 30MHz     | Feb. 25, 2020    | Feb. 24, 2021        | Conduction (CO01-CB)  |
| COND Cable                        | Woken        | Cable              | Low cable-CO01   | 9kHz ~ 30MHz     | May 21, 2019     | May 20, 2020         | Conduction (CO01-CB)  |
| Software                          | Audix        | E3                 | 6.120210n        | -                | N.C.R.           | N.C.R.               | Conduction (CO01-CB)  |
| Loop Antenna                      | Teseq        | HLA 6120           | 24155            | 9kHz ~ 30 MHz    | Mar. 29, 2019    | Mar. 28, 2020        | Radiation (03CH05-CB) |
| Loop Antenna                      | Teseq        | HLA 6120           | 24155            | 9kHz ~ 30 MHz    | Apr. 13, 2020    | Apr. 12, 2021        | Radiation (03CH05-CB) |
| Bilog Antenna with 6dB Attenuator | TESEQ & EMCI | CBL 6112D & N-6-06 | 35236 & AT-N0610 | 30MHz ~ 2GHz     | Mar. 28, 2019    | Mar. 27, 2020        | Radiation (03CH05-CB) |
| Bilog Antenna with 6dB Attenuator | TESEQ & EMCI | CBL 6112D & N-6-06 | 35236 & AT-N0610 | 30MHz ~ 2GHz     | Mar. 27, 2020    | Mar. 26, 2021        | Radiation (03CH05-CB) |
| Horn Antenna                      | SCHWARZBECK  | BBHA9120D          | BBHA 9120D-1291  | 1GHz~18GHz       | Oct. 05, 2019    | Oct. 04, 2020        | Radiation (03CH05-CB) |
| Horn Antenna                      | SCHWARZBECK  | BBHA 9170          | BBHA9170507      | 15GHz ~ 40GHz    | Jun. 12, 2019    | Jun. 11, 2020        | Radiation (03CH05-CB) |
| Pre-Amplifier                     | Agilent      | 310N               | 187291           | 0.1MHz ~ 1GHz    | Mar. 20, 2019    | Mar. 19, 2020        | Radiation (03CH05-CB) |
| Pre-Amplifier                     | Agilent      | 310N               | 187291           | 0.1MHz ~ 1GHz    | Mar. 19, 2020    | Mar. 18, 2021        | Radiation (03CH05-CB) |
| Pre-Amplifier                     | Agilent      | 83017A             | MY53270063       | 0.5GHz ~ 26.5GHz | Mar. 19, 2019    | Mar. 18, 2020        | Radiation (03CH05-CB) |
| Pre-Amplifier                     | Agilent      | 83017A             | MY53270063       | 0.5GHz ~ 26.5GHz | Mar. 11, 2020    | Mar. 10, 2021        | Radiation (03CH05-CB) |
| Pre-Amplifier                     | MITEQ        | TTA1840-35-HG      | 1864479          | 18GHz ~ 40GHz    | Jul. 03, 2019    | Jul. 02, 2020        | Radiation (03CH05-CB) |
| Spectrum Analyzer                 | R&S          | FSP40              | 100304           | 9kHz ~ 40GHz     | Aug. 15, 2019    | Aug. 14, 2020        | Radiation (03CH05-CB) |
| EMI Test Receiver                 | R&S          | ESCS               | 826547/017       | 9kHz ~ 2.75GHz   | May 15, 2019     | May 14, 2020         | Radiation (03CH05-CB) |
| RF Cable-low                      | Woken        | RG402              | LOW Cable-04+23  | 30MHz~1GHz       | Oct. 07, 2019    | Oct. 06, 2020        | Radiation (03CH05-CB) |

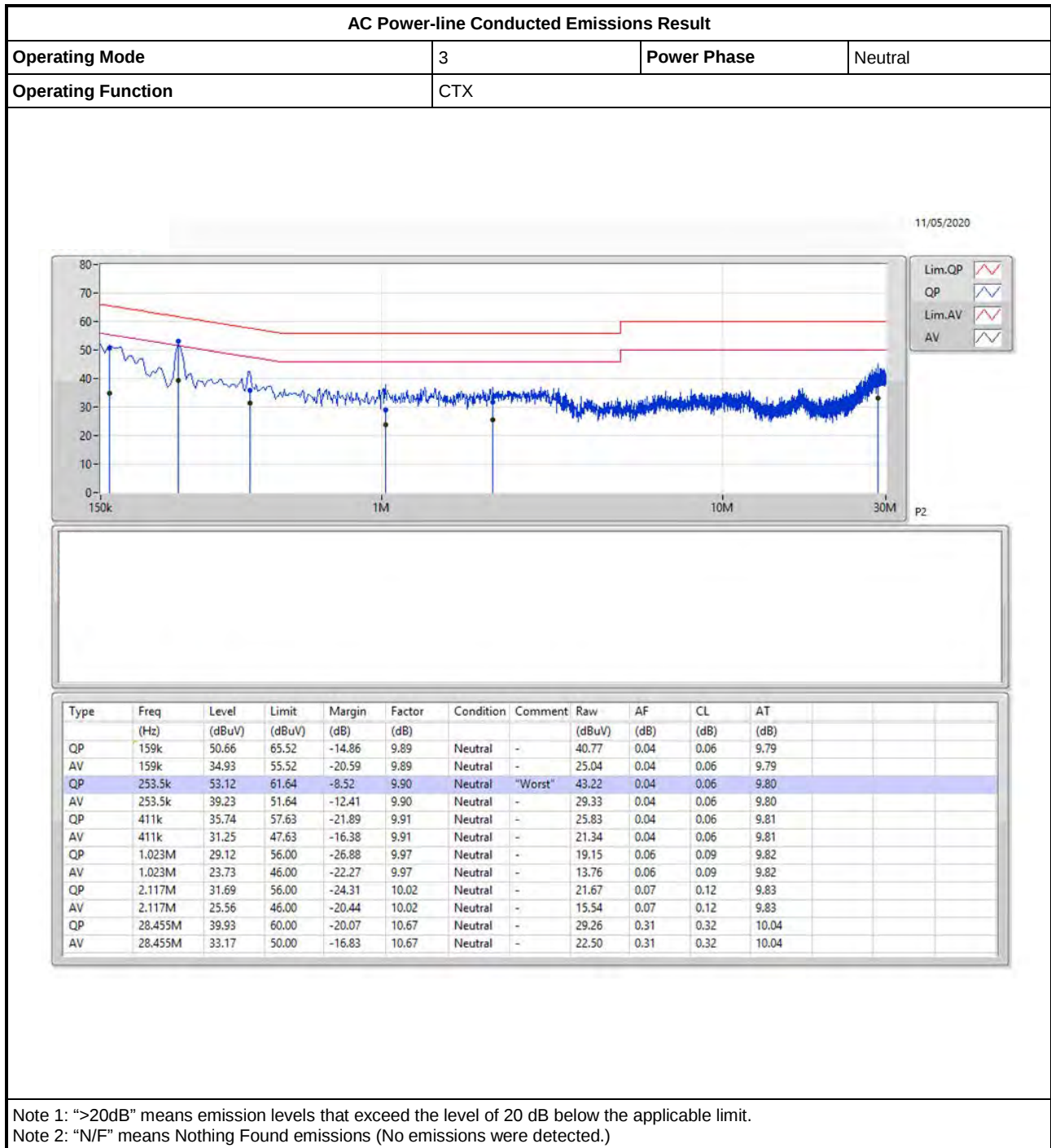


| Instrument        | Manufacturer | Model No. | Serial No.       | Characteristics  | Calibration Date | Calibration Due Date | Remark                |
|-------------------|--------------|-----------|------------------|------------------|------------------|----------------------|-----------------------|
| RF Cable-high     | Woken        | RG402     | High Cable-28    | 1GHz~18GHz       | Oct. 07, 2019    | Oct. 06, 2020        | Radiation (03CH05-CB) |
| RF Cable-high     | Woken        | RG402     | High Cable-04+28 | 1GHz~18GHz       | Oct. 07, 2019    | Oct. 06, 2020        | Radiation (03CH05-CB) |
| RF Cable-high     | Woken        | RG402     | High Cable-40G#1 | 18GHz ~ 40 GHz   | Jul. 24, 2019    | Jul. 23, 2020        | Radiation (03CH05-CB) |
| RF Cable-high     | Woken        | RG402     | High Cable-40G#2 | 18GHz ~ 40 GHz   | Jul. 24, 2019    | Jul. 23, 2020        | Radiation (03CH05-CB) |
| Spectrum analyzer | R&S          | FSV40     | 101027           | 9kHz~40GHz       | Jul. 02, 2019    | Jul. 01, 2020        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402     | High Cable-06    | 1 GHz – 26.5 GHz | Oct. 07, 2019    | Oct. 06, 2020        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402     | High Cable-07    | 1 GHz –26.5 GHz  | Oct. 07, 2019    | Oct. 06, 2020        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402     | High Cable-08    | 1 GHz –26.5 GHz  | Oct. 07, 2019    | Oct. 06, 2020        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402     | High Cable-09    | 1 GHz –26.5 GHz  | Oct. 07, 2019    | Oct. 06, 2020        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402     | High Cable-10    | 1 GHz –26.5 GHz  | Oct. 07, 2019    | Oct. 06, 2020        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402     | High Cable-28    | 1 GHz –26.5 GHz  | Nov. 18, 2019    | Nov. 17, 2020        | Conducted (TH01-CB)   |
| Power Sensor      | Agilent      | E9327A    | US40442088       | 50MHz~18GHz      | Feb. 07, 2020    | Feb. 06, 2021        | Conducted (TH01-CB)   |
| Power Meter       | Agilent      | E4416A    | GB41291199       | 50MHz~18GHz      | Feb. 07, 2020    | Feb. 06, 2021        | Conducted (TH01-CB)   |

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

NCR means Non-Calibration required.





**<2T1S>**
**Summary**

| Mode                           | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|--------------------------------|------------------|-----------------|----------|------------------|-----------------|
| 5.725-5.85GHz                  | -                | -               | -        | -                | -               |
| 11a20_Nss1,(6Mbps)_2TX         | 16.38M           | 16.792M         | 16M8D1D  | 16.32M           | 16.702M         |
| 11a40_Nss1,(6Mbps)_2TX         | 36.42M           | 36.462M         | 36M5D1D  | 36.3M            | 36.342M         |
| 11a80_Nss1,(6Mbps)_2TX         | 76.32M           | 76.162M         | 76M2D1D  | 76.32M           | 75.922M         |
| 802.11ac VHT20_Nss1,(MCS0)_2TX | 17.61M           | 18.021M         | 18M0D1D  | 17.58M           | 17.931M         |
| 802.11ac VHT40_Nss1,(MCS0)_2TX | 36.3M            | 36.402M         | 36M4D1D  | 36.3M            | 36.282M         |
| 802.11ac VHT80_Nss1,(MCS0)_2TX | 76.08M           | 76.042M         | 76M0D1D  | 75.96M           | 75.682M         |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 19.02M           | 19.04M          | 19M0D1D  | 18.9M            | 19.01M          |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 37.56M           | 37.661M         | 37M7D1D  | 37.56M           | 37.601M         |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | 77.04M           | 77.121M         | 77M1D1D  | 76.56M           | 77.121M         |

**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**

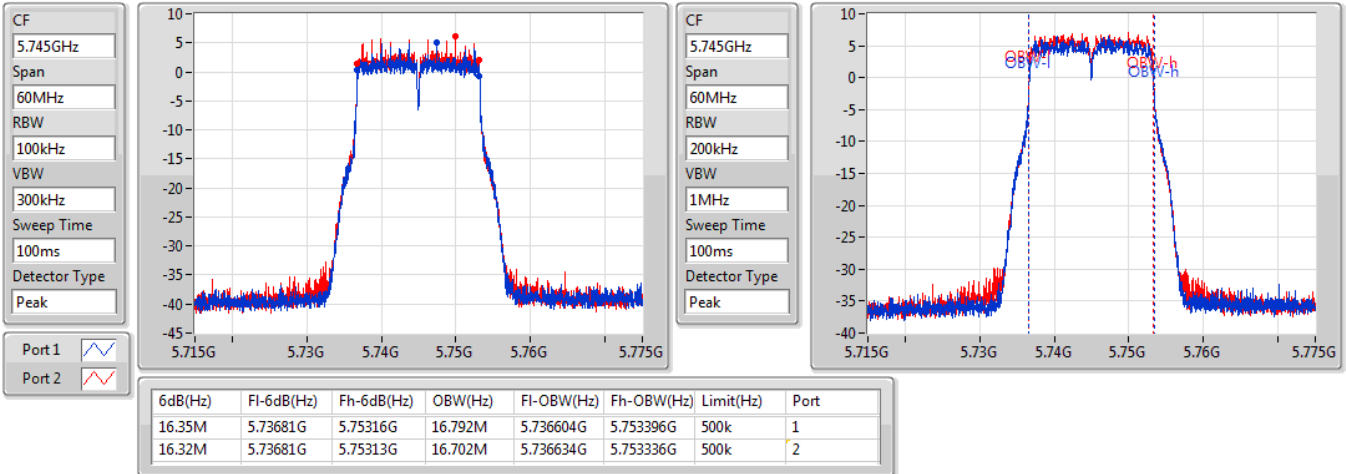
| Mode                           | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) | Port 2-N dB<br>(Hz) | Port 2-OBW<br>(Hz) |
|--------------------------------|--------|---------------|---------------------|--------------------|---------------------|--------------------|
| 11a20_Nss1,(6Mbps)_2TX         | -      | -             | -                   | -                  | -                   | -                  |
| 5745MHz                        | Pass   | 500k          | 16.35M              | 16.792M            | 16.32M              | 16.702M            |
| 5785MHz                        | Pass   | 500k          | 16.35M              | 16.792M            | 16.38M              | 16.702M            |
| 5825MHz                        | Pass   | 500k          | 16.35M              | 16.792M            | 16.35M              | 16.702M            |
| 11a40_Nss1,(6Mbps)_2TX         | -      | -             | -                   | -                  | -                   | -                  |
| 5755MHz                        | Pass   | 500k          | 36.36M              | 36.402M            | 36.3M               | 36.342M            |
| 5795MHz                        | Pass   | 500k          | 36.36M              | 36.462M            | 36.42M              | 36.402M            |
| 11a80_Nss1,(6Mbps)_2TX         | -      | -             | -                   | -                  | -                   | -                  |
| 5775MHz                        | Pass   | 500k          | 76.32M              | 75.922M            | 76.32M              | 76.162M            |
| 802.11ac VHT20_Nss1,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5745MHz                        | Pass   | 500k          | 17.58M              | 18.021M            | 17.61M              | 17.961M            |
| 5785MHz                        | Pass   | 500k          | 17.58M              | 17.991M            | 17.58M              | 17.931M            |
| 5825MHz                        | Pass   | 500k          | 17.58M              | 17.961M            | 17.61M              | 17.931M            |
| 802.11ac VHT40_Nss1,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5755MHz                        | Pass   | 500k          | 36.3M               | 36.402M            | 36.3M               | 36.282M            |
| 5795MHz                        | Pass   | 500k          | 36.3M               | 36.402M            | 36.3M               | 36.282M            |
| 802.11ac VHT80_Nss1,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5775MHz                        | Pass   | 500k          | 76.08M              | 76.042M            | 75.96M              | 75.682M            |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5745MHz                        | Pass   | 500k          | 18.9M               | 19.04M             | 18.96M              | 19.04M             |
| 5785MHz                        | Pass   | 500k          | 19.02M              | 19.04M             | 18.96M              | 19.01M             |
| 5825MHz                        | Pass   | 500k          | 18.99M              | 19.04M             | 18.9M               | 19.04M             |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5755MHz                        | Pass   | 500k          | 37.56M              | 37.601M            | 37.56M              | 37.661M            |
| 5795MHz                        | Pass   | 500k          | 37.56M              | 37.661M            | 37.56M              | 37.661M            |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | -      | -             | -                   | -                  | -                   | -                  |
| 5775MHz                        | Pass   | 500k          | 77.04M              | 77.121M            | 76.56M              | 77.121M            |

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

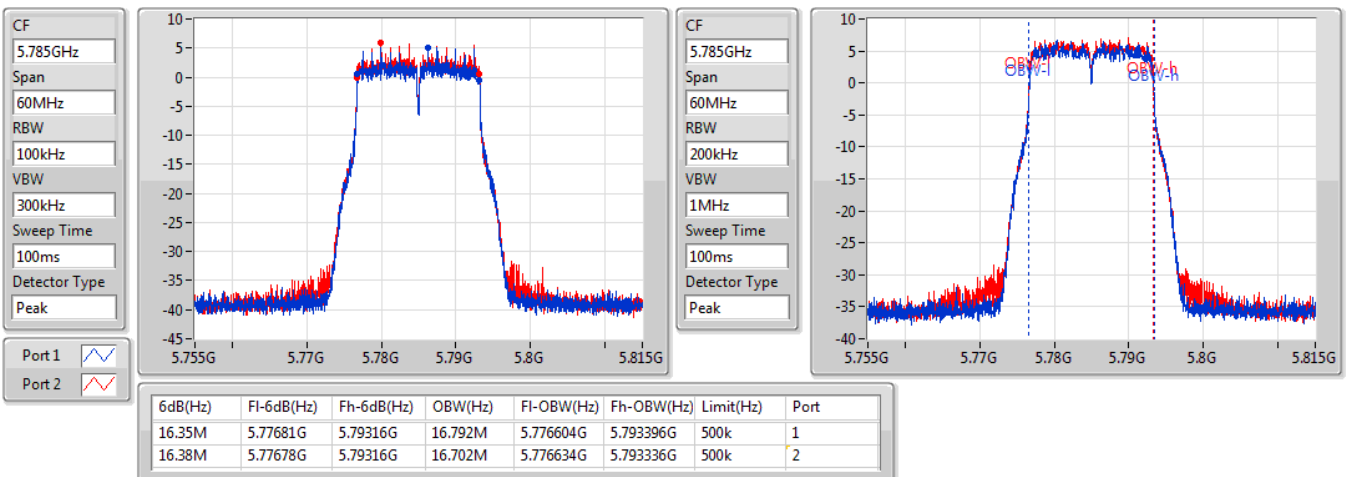
**Port X-OBW** = Port X 99% occupied bandwidth;

**11a20\_Nss1,(6Mbps)\_2TX**
**EBW**
**5745MHz**

07/03/2020

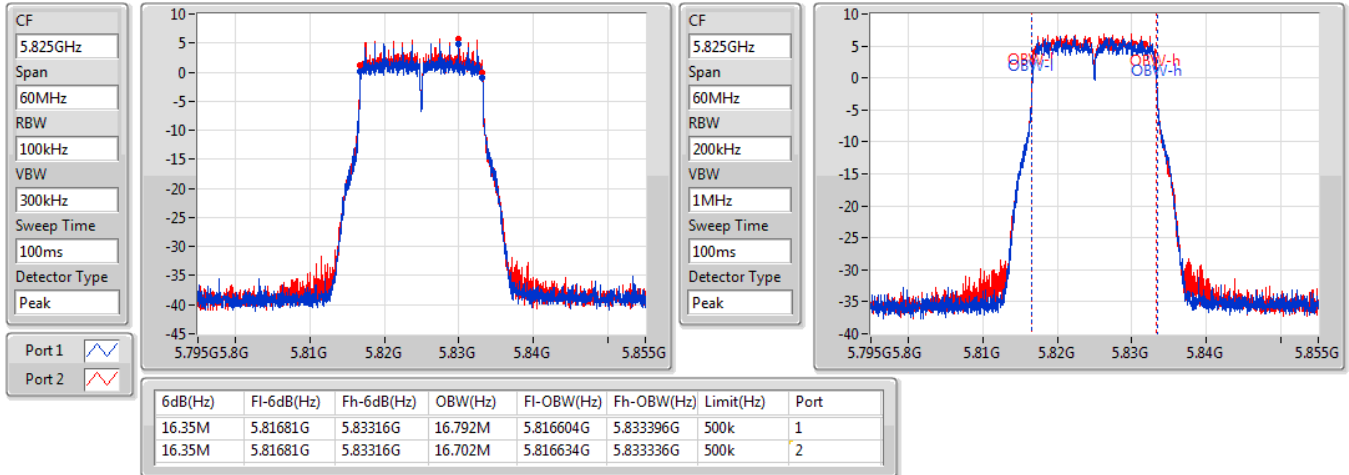

**11a20\_Nss1,(6Mbps)\_2TX**
**EBW**
**5785MHz**

07/03/2020

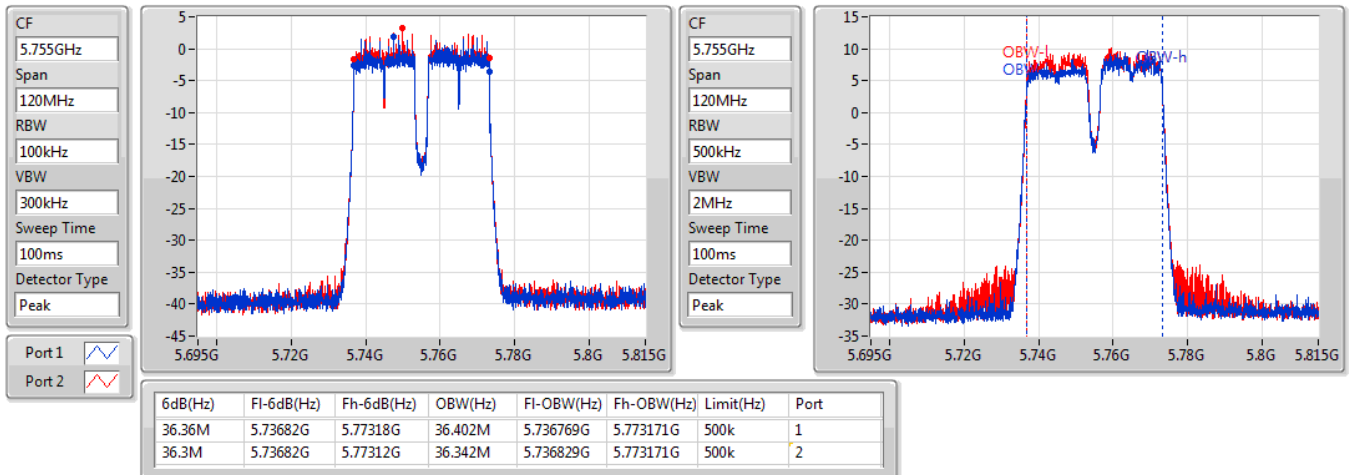


**11a20\_Nss1,(6Mbps)\_2TX**
**EBW**
**5825MHz**

07/03/2020

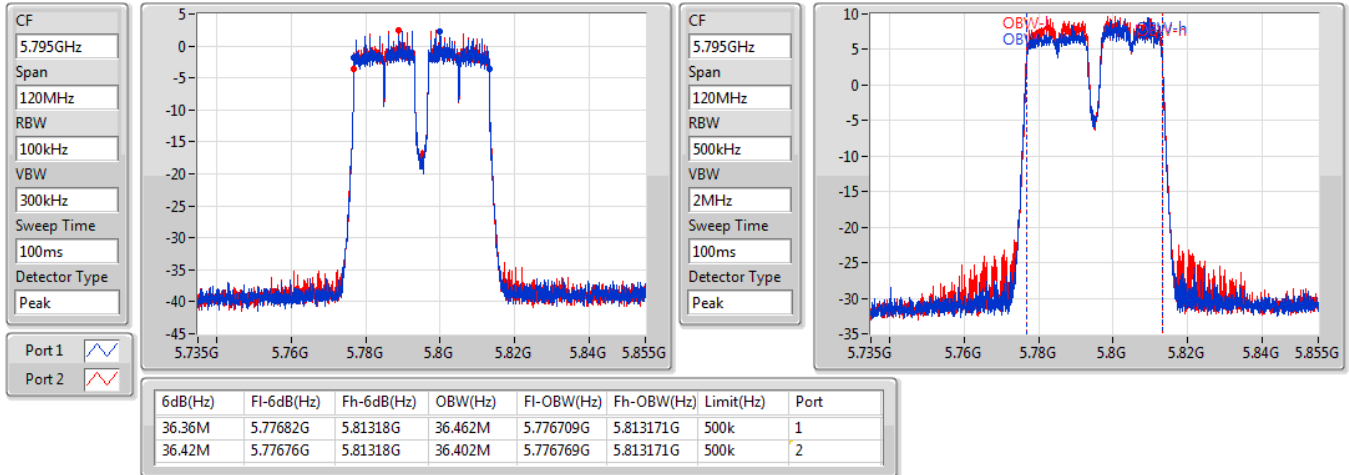

**11a40\_Nss1,(6Mbps)\_2TX**
**EBW**
**5755MHz**

07/03/2020

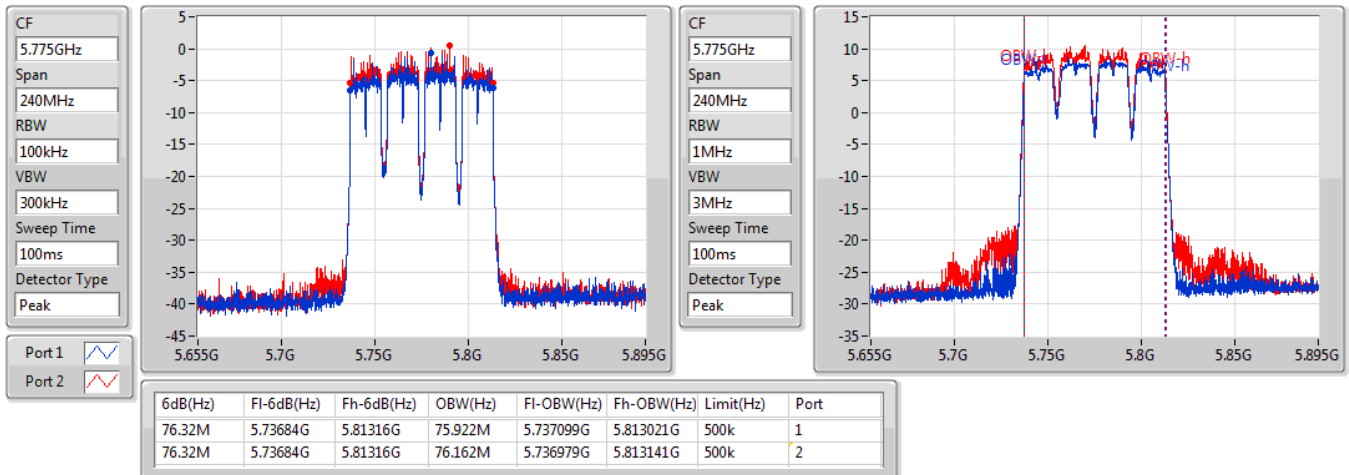


**11a40\_Nss1,(6Mbps)\_2TX**
**EBW**
**5795MHz**

07/03/2020

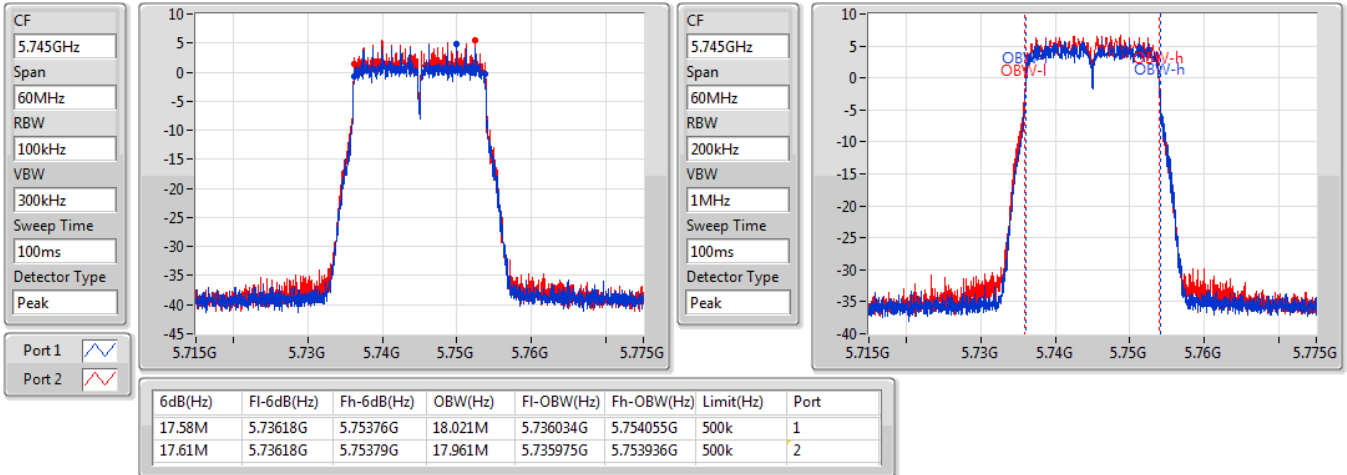

**11a80\_Nss1,(6Mbps)\_2TX**
**EBW**
**5775MHz**

07/03/2020

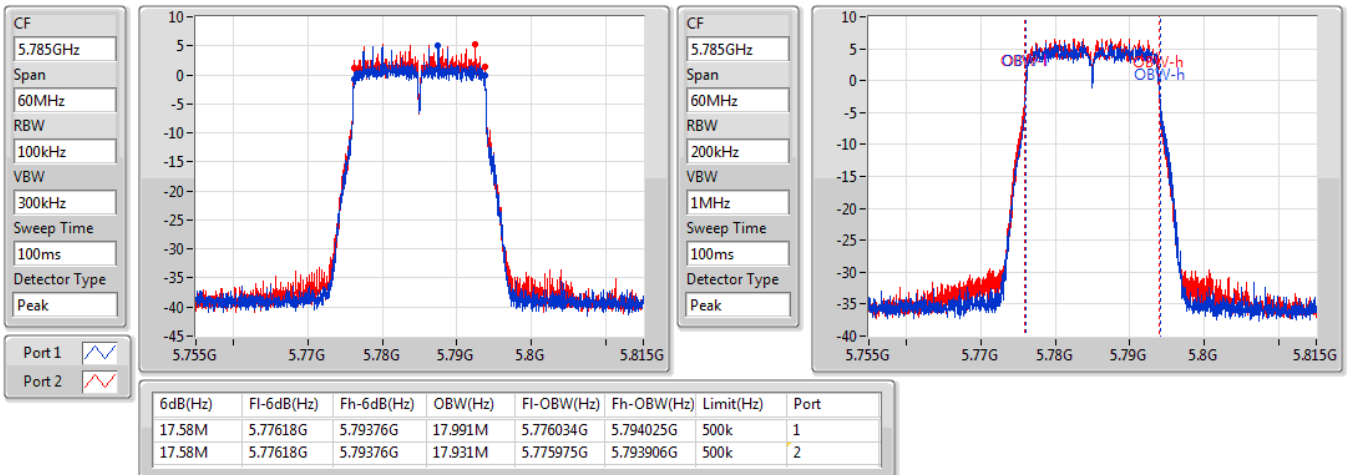


**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**EBW**
**5745MHz**

25/03/2020

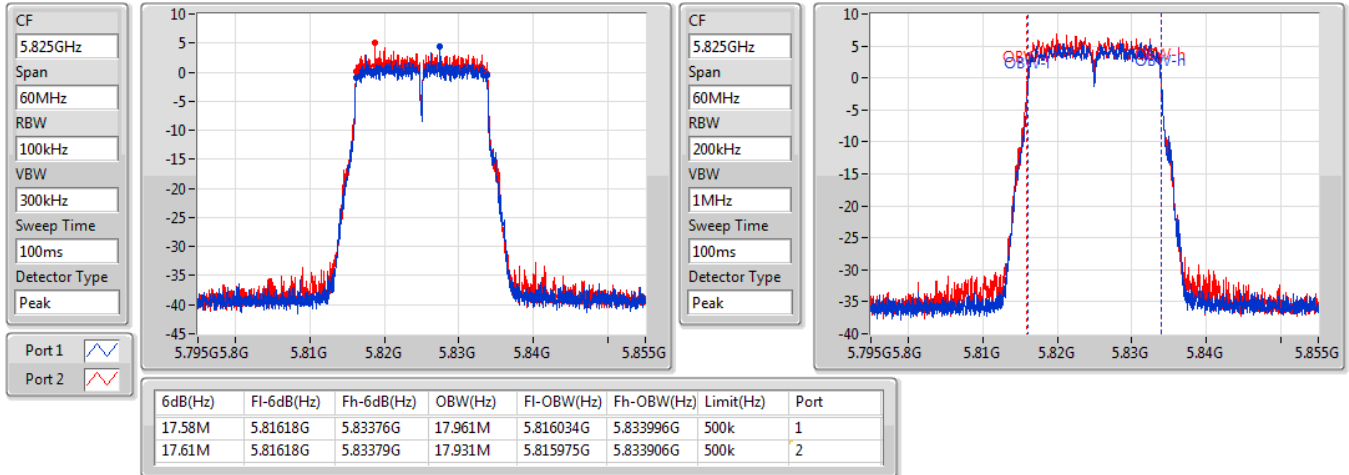

**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**EBW**
**5785MHz**

25/03/2020

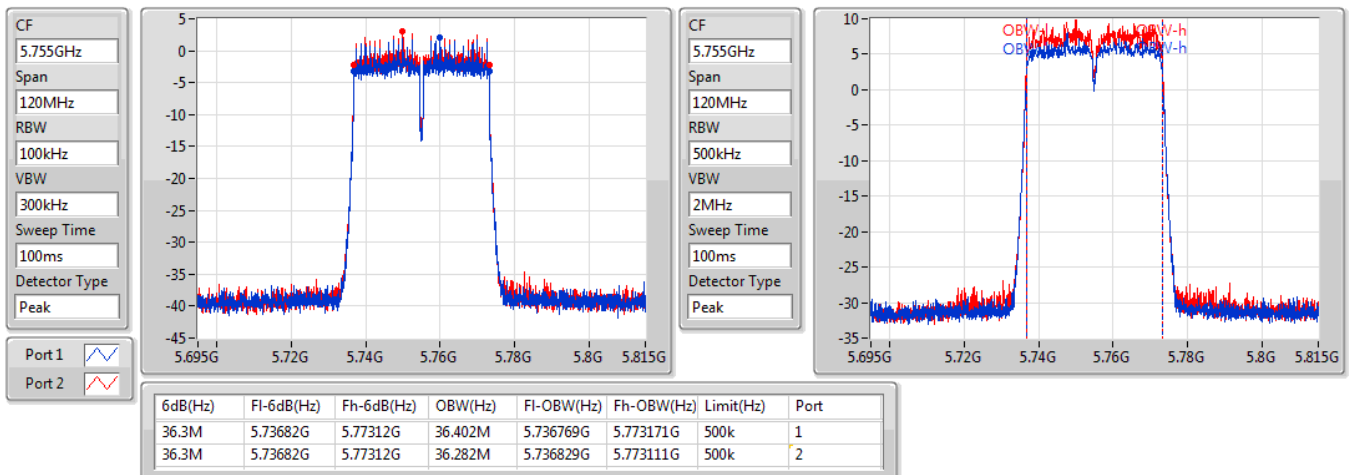


**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**EBW**
**5825MHz**

25/03/2020

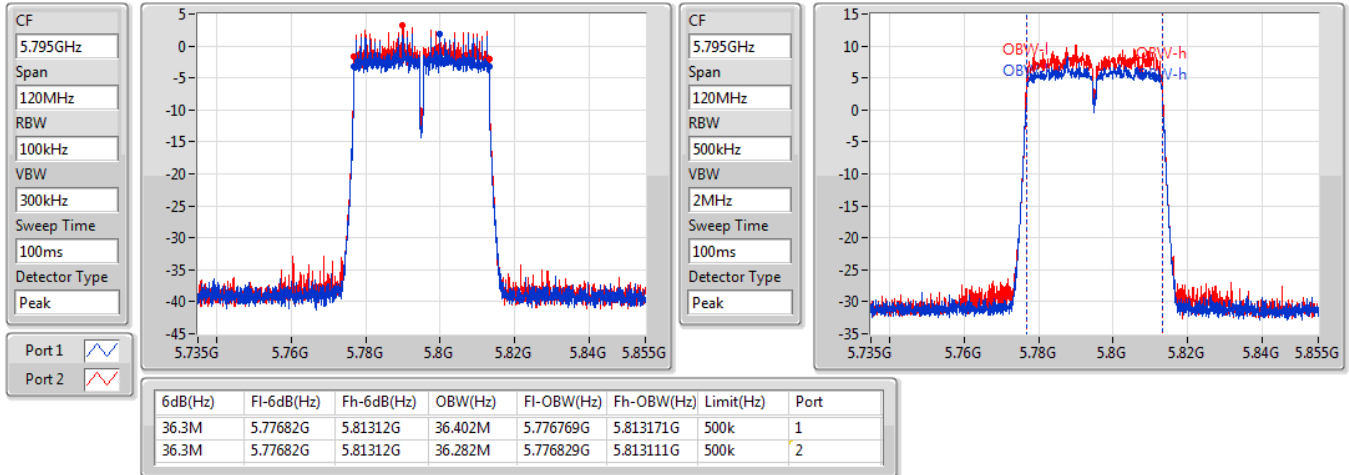

**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**EBW**
**5755MHz**

25/03/2020

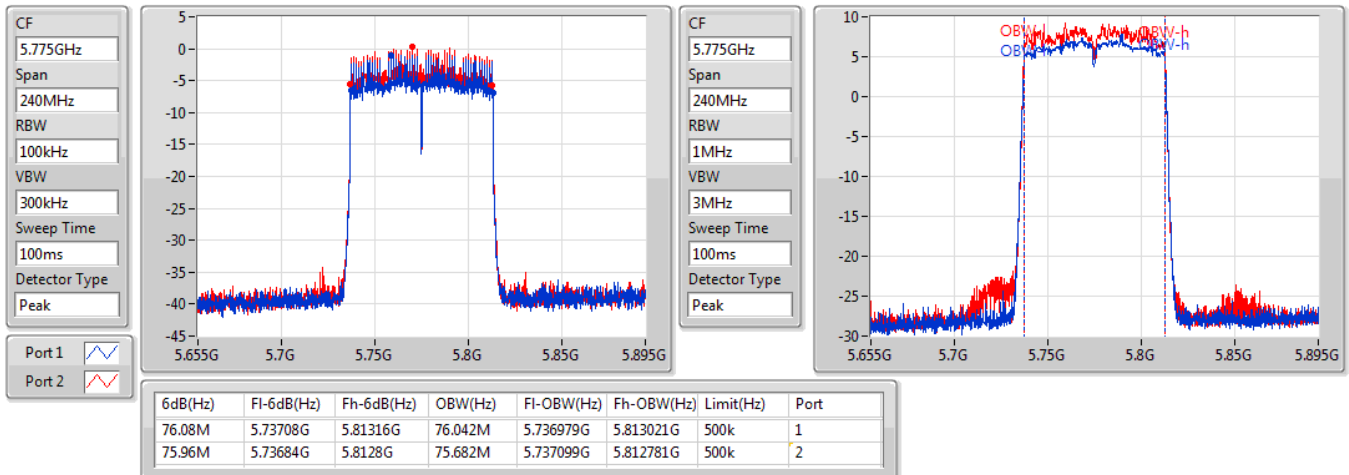


**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**EBW**
**5795MHz**

25/03/2020

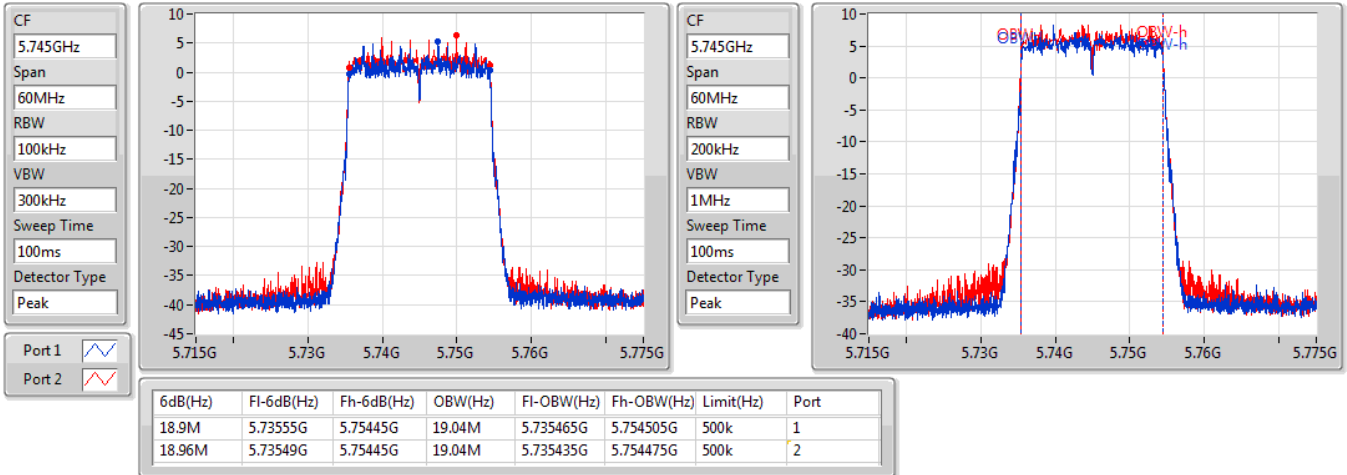

**802.11ac VHT80\_Nss1,(MCS0)\_2TX**
**EBW**
**5775MHz**

25/03/2020

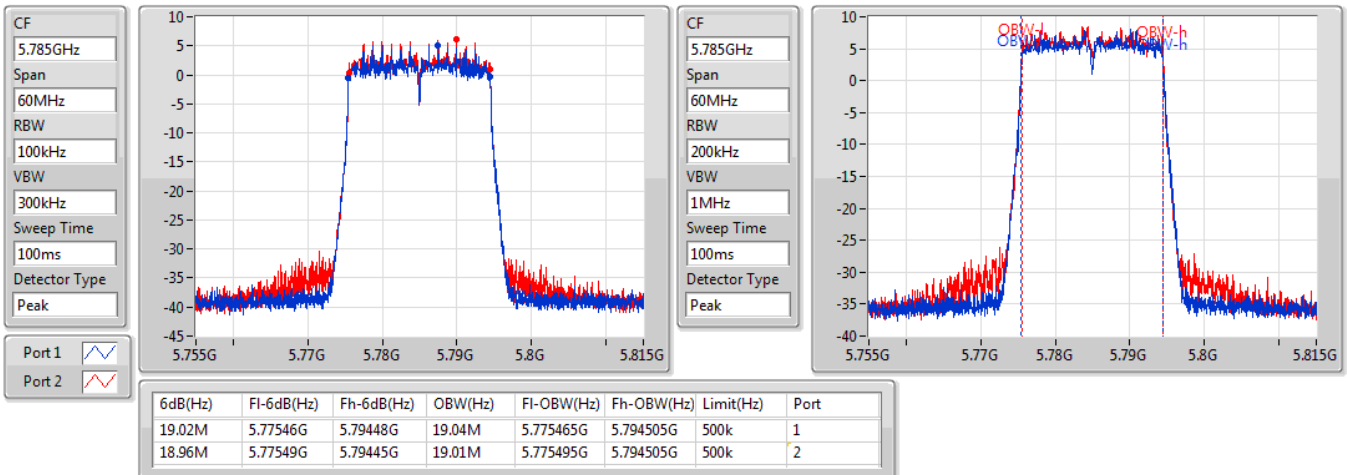


**802.11ax HEW20\_Nss1,(MCS0)\_2TX**
**EBW**
**5745MHz**

07/03/2020

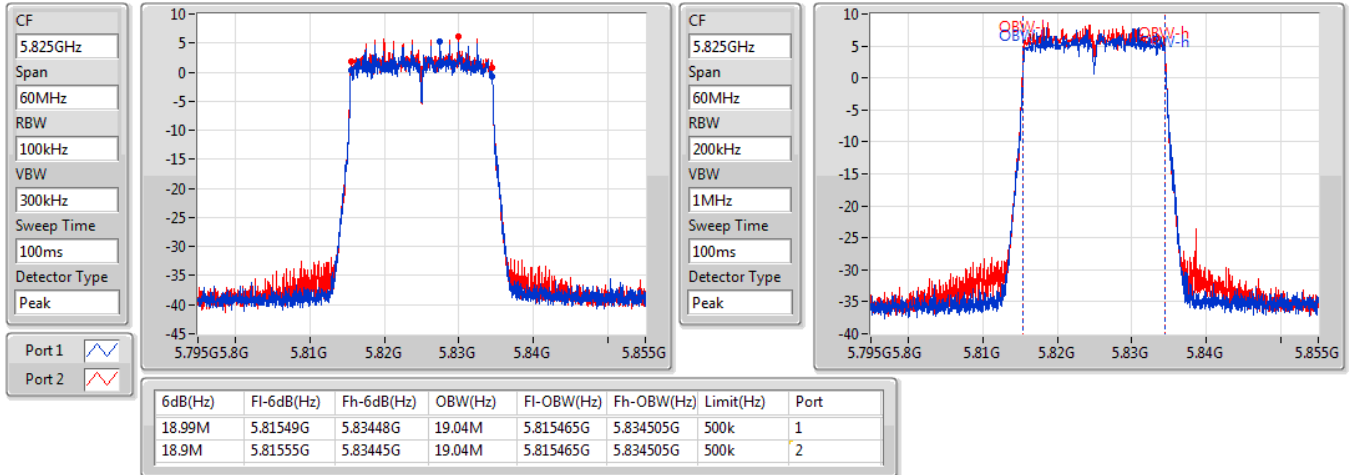

**802.11ax HEW20\_Nss1,(MCS0)\_2TX**
**EBW**
**5785MHz**

07/03/2020

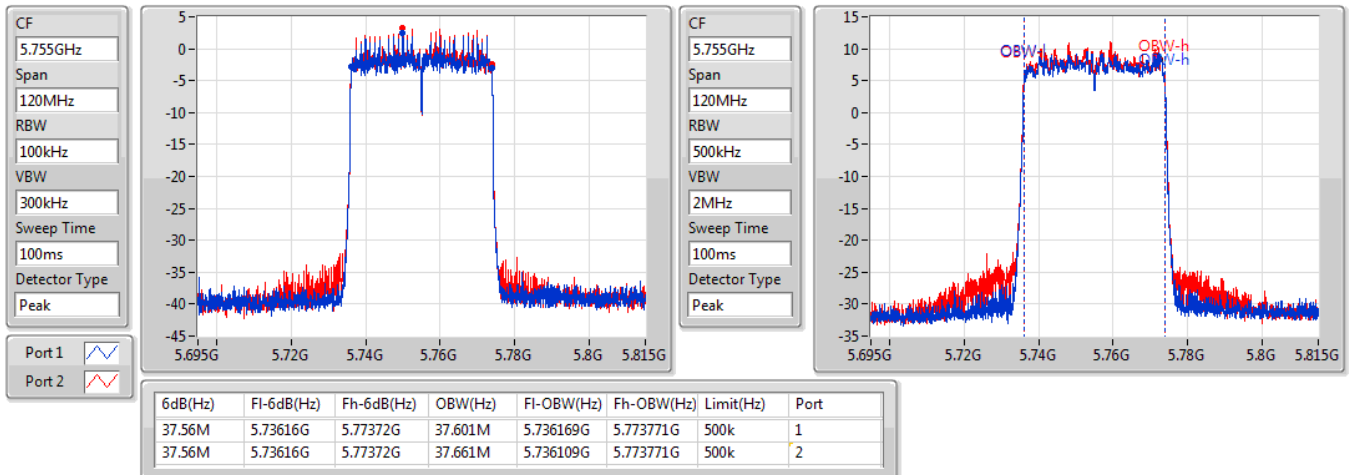


**802.11ax HEW20\_Nss1,(MCS0)\_2TX**
**EBW**
**5825MHz**

07/03/2020

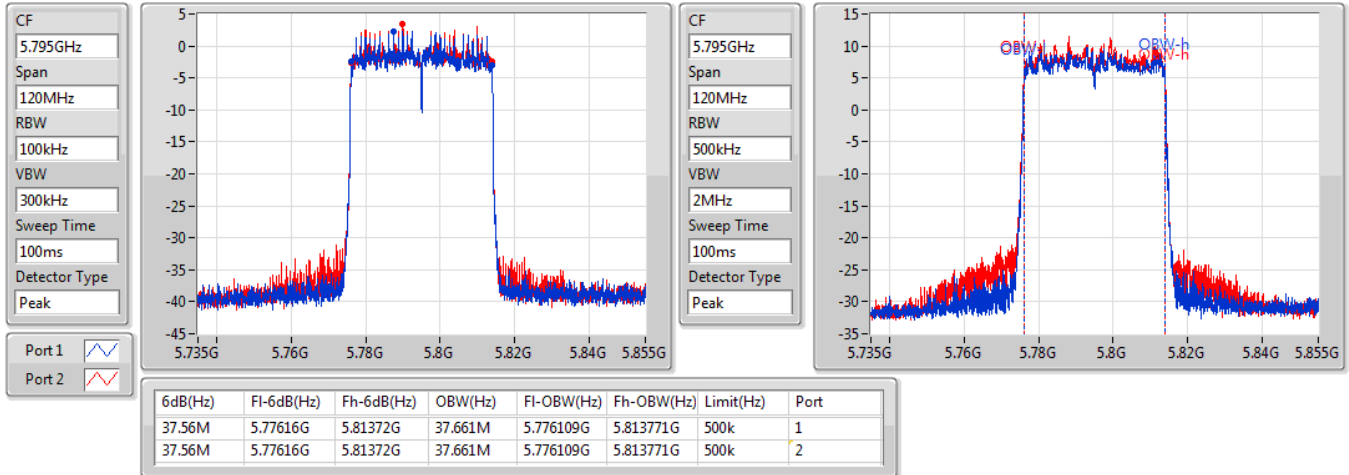

**802.11ax HEW40\_Nss1,(MCS0)\_2TX**
**EBW**
**5755MHz**

07/03/2020

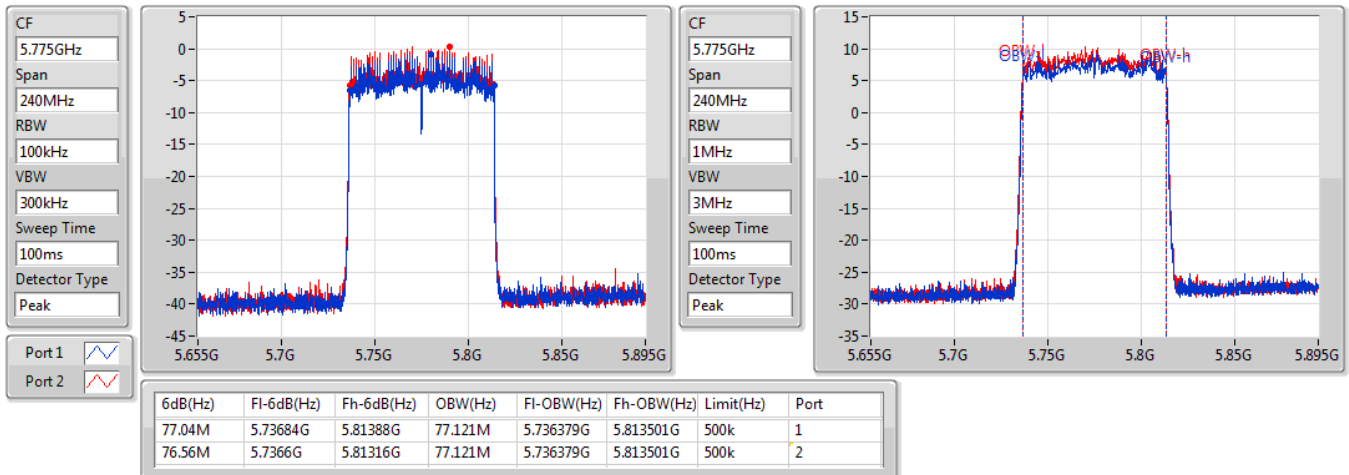


**802.11ax HEW40\_Nss1,(MCS0)\_2TX**
**EBW**
**5795MHz**

07/03/2020


**802.11ax HEW80\_Nss1,(MCS0)\_2TX**
**EBW**
**5775MHz**

07/03/2020





<2T1S>

**Non-beamforming mode**

**Summary**

| Mode                           | Total Power<br>(dBm) | Total Power<br>(W) | EIRP<br>(dBm) | EIRP<br>(W) |
|--------------------------------|----------------------|--------------------|---------------|-------------|
| 5.725-5.85GHz                  | -                    | -                  | -             | -           |
| 11a20_Nss1,(6Mbps)_2TX         | 20.32                | 0.10765            | 25.13         | 0.32584     |
| 11a40_Nss1,(6Mbps)_2TX         | 20.13                | 0.10304            | 25.06         | 0.32063     |
| 11a80_Nss1,(6Mbps)_2TX         | 19.96                | 0.09908            | 24.74         | 0.29785     |
| 802.11ac VHT20_Nss1,(MCS0)_2TX | 20.36                | 0.10864            | 25.14         | 0.32659     |
| 802.11ac VHT40_Nss1,(MCS0)_2TX | 20.18                | 0.10423            | 25.09         | 0.32285     |
| 802.11ac VHT80_Nss1,(MCS0)_2TX | 19.95                | 0.09886            | 24.73         | 0.29717     |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 20.61                | 0.11508            | 25.39         | 0.34594     |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 20.30                | 0.10715            | 25.23         | 0.33343     |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | 20.08                | 0.10186            | 24.86         | 0.30620     |

**Result**

| Mode                           | Result | DG<br>(dBi) | Port 1<br>(dBm) | Port 2<br>(dBm) | Total Power<br>(dBm) | Power Limit<br>(dBm) | EIRP<br>(dBm) |
|--------------------------------|--------|-------------|-----------------|-----------------|----------------------|----------------------|---------------|
| 11a20_Nss1,(6Mbps)_2TX         | -      | -           | -               | -               | -                    | -                    | -             |
| 5745MHz                        | Pass   | 4.78        | 16.84           | 17.47           | 20.18                | 30.00                | 24.96         |
| 5785MHz                        | Pass   | 4.78        | 17.04           | 17.56           | 20.32                | 30.00                | 25.10         |
| 5825MHz                        | Pass   | 4.93        | 16.85           | 17.51           | 20.20                | 30.00                | 25.13         |
| 11a40_Nss1,(6Mbps)_2TX         | -      | -           | -               | -               | -                    | -                    | -             |
| 5755MHz                        | Pass   | 4.78        | 16.84           | 17.29           | 20.08                | 30.00                | 24.86         |
| 5795MHz                        | Pass   | 4.93        | 16.89           | 17.33           | 20.13                | 30.00                | 25.06         |
| 11a80_Nss1,(6Mbps)_2TX         | -      | -           | -               | -               | -                    | -                    | -             |
| 5775MHz                        | Pass   | 4.78        | 16.65           | 17.23           | 19.96                | 30.00                | 24.74         |
| 802.11ac VHT20_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5745MHz                        | Pass   | 4.78        | 16.76           | 17.54           | 20.18                | 30.00                | 24.96         |
| 5785MHz                        | Pass   | 4.78        | 17.07           | 17.62           | 20.36                | 30.00                | 25.14         |
| 5825MHz                        | Pass   | 4.93        | 16.74           | 17.39           | 20.09                | 30.00                | 25.02         |
| 802.11ac VHT40_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5755MHz                        | Pass   | 4.78        | 16.79           | 17.51           | 20.18                | 30.00                | 24.96         |
| 5795MHz                        | Pass   | 4.93        | 16.81           | 17.47           | 20.16                | 30.00                | 25.09         |
| 802.11ac VHT80_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5775MHz                        | Pass   | 4.78        | 16.52           | 17.32           | 19.95                | 30.00                | 24.73         |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5745MHz                        | Pass   | 4.78        | 17.18           | 17.79           | 20.51                | 30.00                | 25.29         |
| 5785MHz                        | Pass   | 4.78        | 17.26           | 17.92           | 20.61                | 30.00                | 25.39         |
| 5825MHz                        | Pass   | 4.93        | 17.15           | 17.73           | 20.46                | 30.00                | 25.39         |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5755MHz                        | Pass   | 4.78        | 16.93           | 17.54           | 20.26                | 30.00                | 25.04         |
| 5795MHz                        | Pass   | 4.93        | 17.02           | 17.54           | 20.30                | 30.00                | 25.23         |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5775MHz                        | Pass   | 4.78        | 16.75           | 17.37           | 20.08                | 30.00                | 24.86         |

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



<2T1S>

beamforming mode

**Summary**

| Mode                              | Total Power<br>(dBm) | Total Power<br>(W) | EIRP<br>(dBm) | EIRP<br>(W) |
|-----------------------------------|----------------------|--------------------|---------------|-------------|
| 5.725-5.85GHz                     | -                    | -                  | -             | -           |
| 11a20,BF_Nss1,(6Mbps)_2TX         | 20.32                | 0.10765            | 27.96         | 0.62517     |
| 11a40,BF_Nss1,(6Mbps)_2TX         | 20.13                | 0.10304            | 27.89         | 0.61518     |
| 11a80,BF_Nss1,(6Mbps)_2TX         | 19.96                | 0.09908            | 27.56         | 0.57016     |
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | 20.36                | 0.10864            | 27.96         | 0.62517     |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | 20.18                | 0.10423            | 27.92         | 0.61944     |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | 19.95                | 0.09886            | 27.55         | 0.56885     |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | 20.61                | 0.11508            | 28.22         | 0.66374     |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | 20.30                | 0.10715            | 28.06         | 0.63973     |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | 20.08                | 0.10186            | 27.68         | 0.58614     |

## Result

| Mode                              | Result | DG<br>(dBi) | Port 1<br>(dBm) | Port 2<br>(dBm) | Total Power<br>(dBm) | Power Limit<br>(dBm) | EIRP<br>(dBm) |
|-----------------------------------|--------|-------------|-----------------|-----------------|----------------------|----------------------|---------------|
| 11a20,BF_Nss1,(6Mbps)_2TX         | -      | -           | -               | -               | -                    | -                    | -             |
| 5745MHz                           | Pass   | 7.60        | 16.84           | 17.47           | 20.18                | 28.40                | 27.78         |
| 5785MHz                           | Pass   | 7.60        | 17.04           | 17.56           | 20.32                | 28.40                | 27.92         |
| 5825MHz                           | Pass   | 7.76        | 16.85           | 17.51           | 20.20                | 28.24                | 27.96         |
| 11a40,BF_Nss1,(6Mbps)_2TX         | -      | -           | -               | -               | -                    | -                    | -             |
| 5755MHz                           | Pass   | 7.60        | 16.84           | 17.29           | 20.08                | 28.40                | 27.68         |
| 5795MHz                           | Pass   | 7.76        | 16.89           | 17.33           | 20.13                | 28.24                | 27.89         |
| 11a80,BF_Nss1,(6Mbps)_2TX         | -      | -           | -               | -               | -                    | -                    | -             |
| 5775MHz                           | Pass   | 7.60        | 16.65           | 17.23           | 19.96                | 28.40                | 27.56         |
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5745MHz                           | Pass   | 7.60        | 16.76           | 17.54           | 20.18                | 28.40                | 27.78         |
| 5785MHz                           | Pass   | 7.60        | 17.07           | 17.62           | 20.36                | 28.40                | 27.96         |
| 5825MHz                           | Pass   | 7.76        | 16.74           | 17.39           | 20.09                | 28.24                | 27.85         |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5755MHz                           | Pass   | 7.60        | 16.79           | 17.51           | 20.18                | 28.40                | 27.78         |
| 5795MHz                           | Pass   | 7.76        | 16.81           | 17.47           | 20.16                | 28.24                | 27.92         |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5775MHz                           | Pass   | 7.60        | 16.52           | 17.32           | 19.95                | 28.40                | 27.55         |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5745MHz                           | Pass   | 7.60        | 17.18           | 17.79           | 20.51                | 28.40                | 28.11         |
| 5785MHz                           | Pass   | 7.60        | 17.26           | 17.92           | 20.61                | 28.40                | 28.21         |
| 5825MHz                           | Pass   | 7.76        | 17.15           | 17.73           | 20.46                | 28.24                | 28.22         |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5755MHz                           | Pass   | 7.60        | 16.93           | 17.54           | 20.26                | 28.40                | 27.86         |
| 5795MHz                           | Pass   | 7.76        | 17.02           | 17.54           | 20.30                | 28.24                | 28.06         |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | -      | -           | -               | -               | -                    | -                    | -             |
| 5775MHz                           | Pass   | 7.60        | 16.75           | 17.37           | 20.08                | 28.40                | 27.68         |

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

&lt;2T1S&gt;

## Non-beamforming mode

## Summary

| Mode                           | PD<br>(dBm/RBW) |
|--------------------------------|-----------------|
| 5.725-5.85GHz                  | -               |
| 11a20_Nss1,(6Mbps)_2TX         | 5.87            |
| 11a40_Nss1,(6Mbps)_2TX         | 2.97            |
| 11a80_Nss1,(6Mbps)_2TX         | -0.02           |
| 802.11ac VHT20_Nss1,(MCS0)_2TX | 5.24            |
| 802.11ac VHT40_Nss1,(MCS0)_2TX | 2.30            |
| 802.11ac VHT80_Nss1,(MCS0)_2TX | -0.48           |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 5.55            |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 2.66            |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | -0.29           |

RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

**Result**

| Mode                           | Result | DG<br>(dBi) | Port 1<br>(dBm/RBW) | Port 2<br>(dBm/RBW) | PD<br>(dBm/RBW) | PD Limit<br>(dBm/RBW) |
|--------------------------------|--------|-------------|---------------------|---------------------|-----------------|-----------------------|
| 11a20_Nss1,(6Mbps)_2TX         | -      | -           | -                   | -                   | -               | -                     |
| 5745MHz                        | Pass   | 7.60        | 2.46                | 3.22                | 5.83            | 28.40                 |
| 5785MHz                        | Pass   | 7.60        | 2.48                | 3.23                | 5.87            | 28.40                 |
| 5825MHz                        | Pass   | 7.76        | 2.54                | 3.22                | 5.83            | 28.24                 |
| 11a40_Nss1,(6Mbps)_2TX         | -      | -           | -                   | -                   | -               | -                     |
| 5755MHz                        | Pass   | 7.60        | -0.38               | 0.28                | 2.97            | 28.40                 |
| 5795MHz                        | Pass   | 7.76        | -0.30               | 0.34                | 2.96            | 28.24                 |
| 11a80_Nss1,(6Mbps)_2TX         | -      | -           | -                   | -                   | -               | -                     |
| 5775MHz                        | Pass   | 7.60        | -3.44               | -2.51               | -0.02           | 28.40                 |
| 802.11ac VHT20_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5745MHz                        | Pass   | 7.60        | 1.84                | 2.53                | 5.17            | 28.40                 |
| 5785MHz                        | Pass   | 7.60        | 1.87                | 2.66                | 5.24            | 28.40                 |
| 5825MHz                        | Pass   | 7.76        | 1.75                | 2.56                | 5.15            | 28.24                 |
| 802.11ac VHT40_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5755MHz                        | Pass   | 7.60        | -1.06               | -0.35               | 2.28            | 28.40                 |
| 5795MHz                        | Pass   | 7.76        | -0.96               | -0.23               | 2.30            | 28.24                 |
| 802.11ac VHT80_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5775MHz                        | Pass   | 7.60        | -4.06               | -2.91               | -0.48           | 28.40                 |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5745MHz                        | Pass   | 7.60        | 2.19                | 2.91                | 5.53            | 28.40                 |
| 5785MHz                        | Pass   | 7.60        | 2.17                | 3.02                | 5.55            | 28.40                 |
| 5825MHz                        | Pass   | 7.76        | 2.13                | 2.84                | 5.47            | 28.24                 |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5755MHz                        | Pass   | 7.60        | -0.70               | -0.16               | 2.57            | 28.40                 |
| 5795MHz                        | Pass   | 7.76        | -0.63               | 0.04                | 2.66            | 28.24                 |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5775MHz                        | Pass   | 7.60        | -3.66               | -2.82               | -0.29           | 28.40                 |

**DG** = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

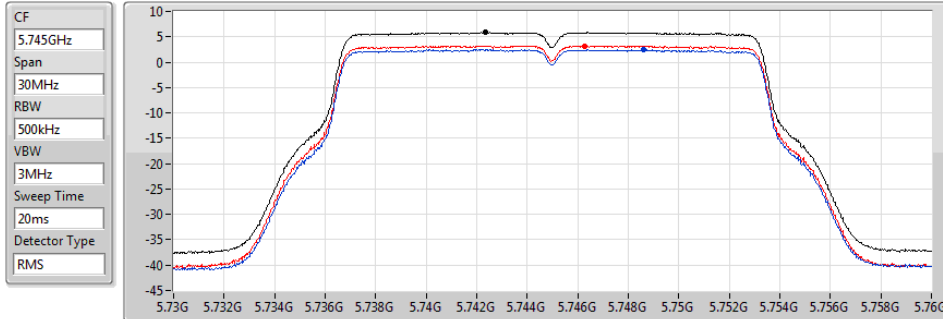
**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

### 11a20\_Nss1,(6Mbps)\_2TX

PSD

5745MHz

07/03/2020



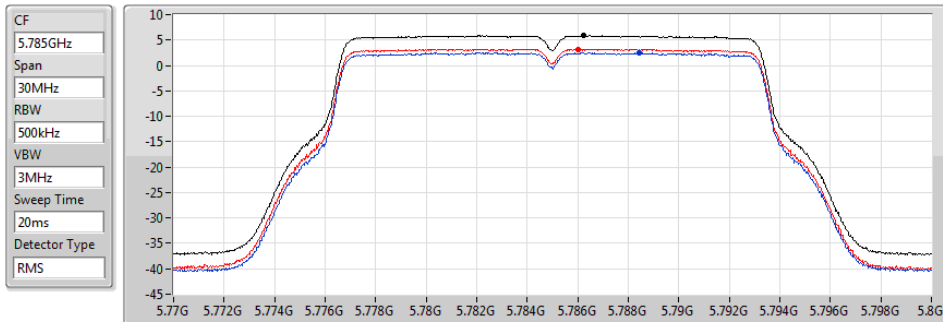
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 5.83      | 5.83      | 2.46      | 3.22      |

### 11a20\_Nss1,(6Mbps)\_2TX

PSD

5785MHz

07/03/2020



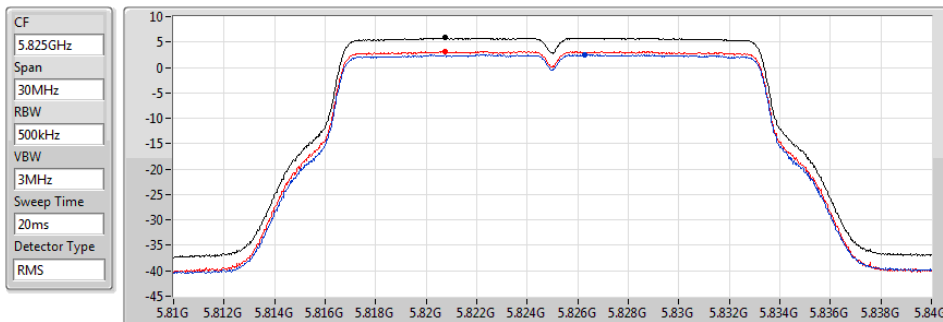
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 5.87      | 5.87      | 2.48      | 3.23      |

### 11a20\_Nss1,(6Mbps)\_2TX

PSD

5825MHz

07/03/2020



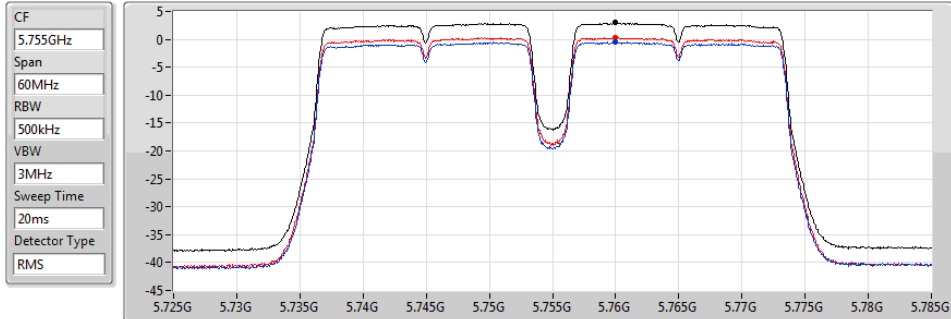
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 5.83      | 5.83      | 2.54      | 3.22      |

### 11a40\_Nss1,(6Mbps)\_2TX

### PSD

5755MHz

07/03/2020



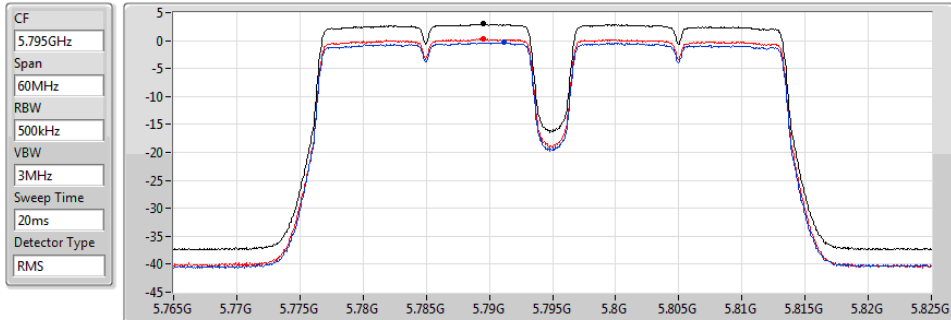
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 2.97      | 2.97      | -0.38     | 0.28      |

### 11a40\_Nss1,(6Mbps)\_2TX

### PSD

5795MHz

07/03/2020



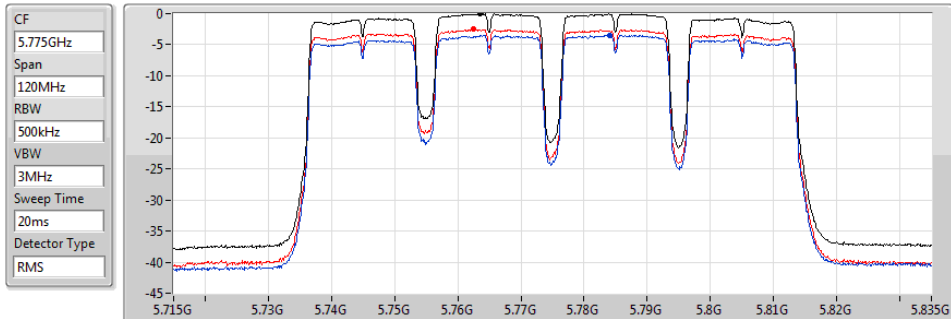
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 2.96      | 2.96      | -0.30     | 0.34      |

### 11a80\_Nss1,(6Mbps)\_2TX

### PSD

5775MHz

07/03/2020



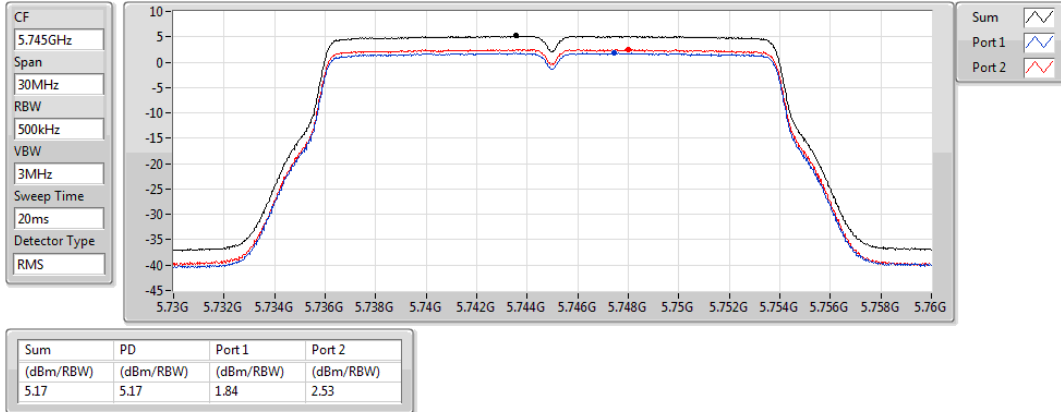
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -0.02     | -0.02     | -3.44     | -2.51     |

### 802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5745MHz

25/03/2020

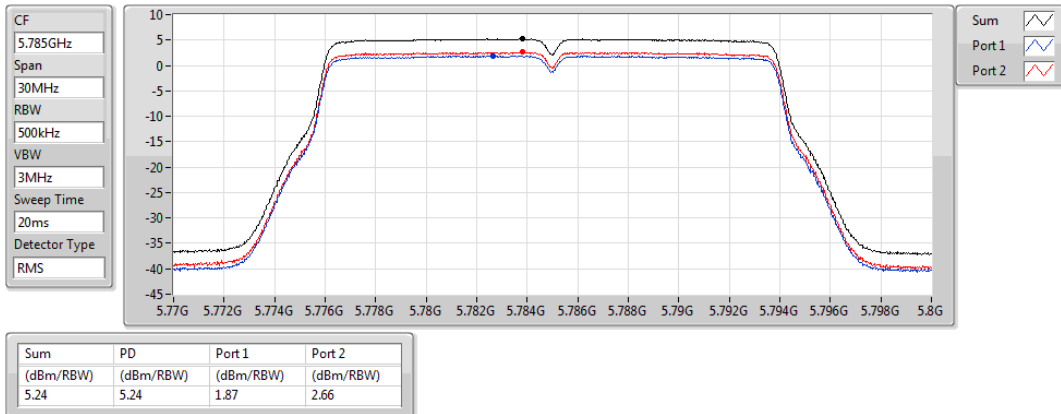


### 802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5785MHz

25/03/2020

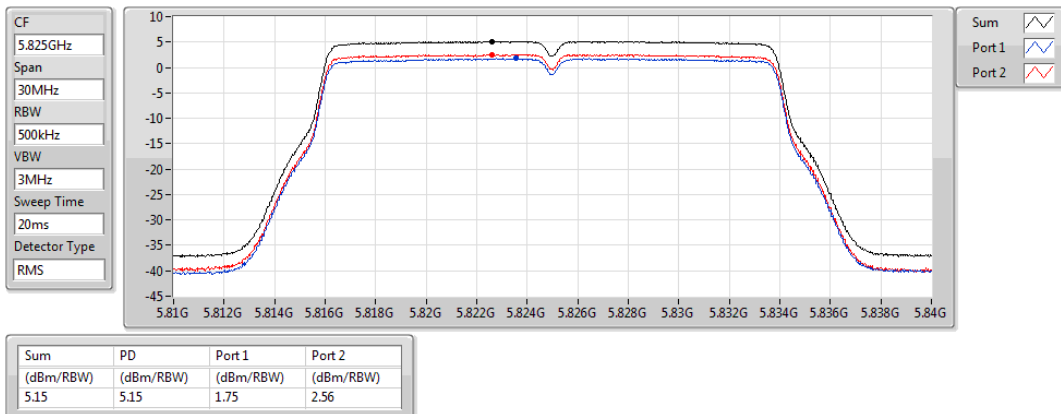


### 802.11ac VHT20\_Nss1,(MCS0)\_2TX

PSD

5825MHz

25/03/2020

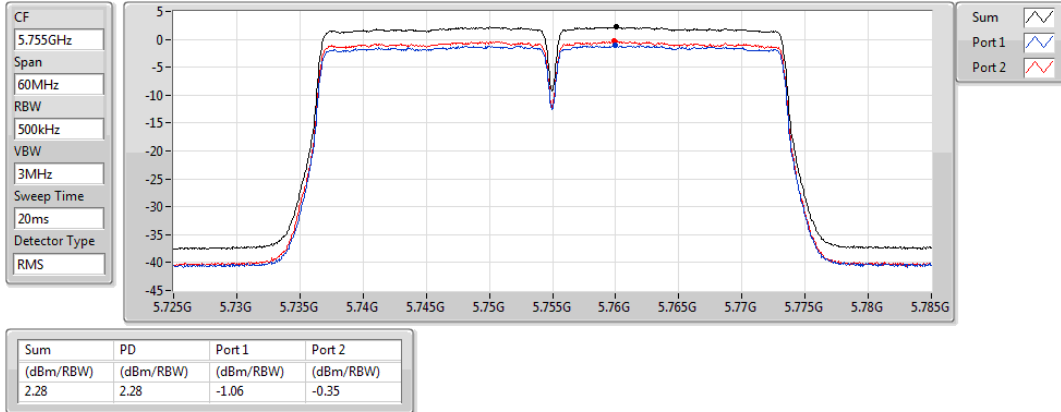


### 802.11ac VHT40\_Nss1,(MCS0)\_2TX

PSD

5755MHz

25/03/2020

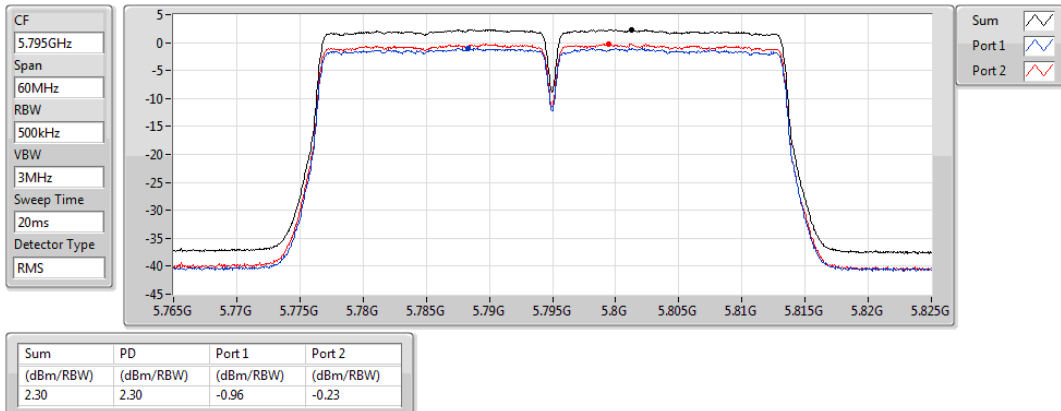


### 802.11ac VHT40\_Nss1,(MCS0)\_2TX

PSD

5795MHz

25/03/2020

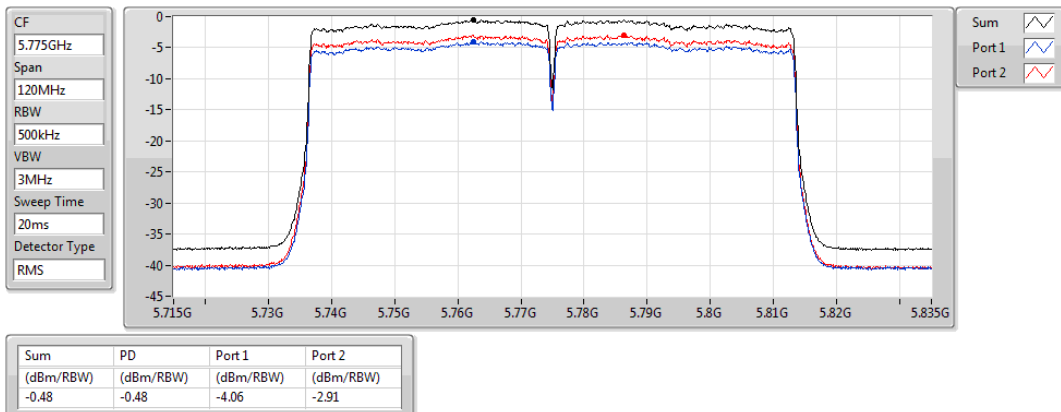


### 802.11ac VHT80\_Nss1,(MCS0)\_2TX

PSD

5775MHz

25/03/2020

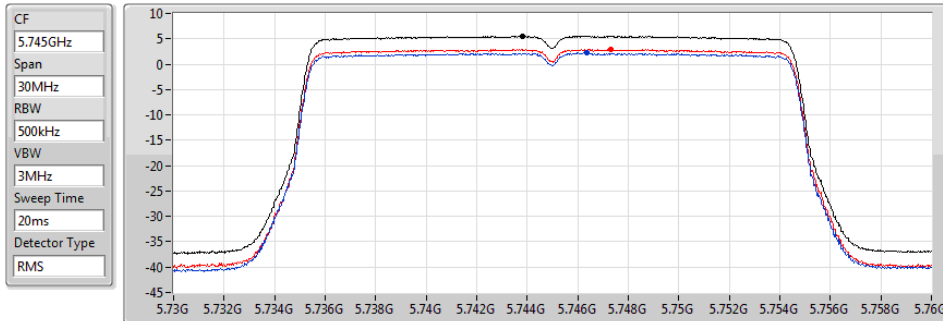


### 802.11ax HEW20\_Nss1,(MCS0)\_2TX

PSD

5745MHz

07/03/2020



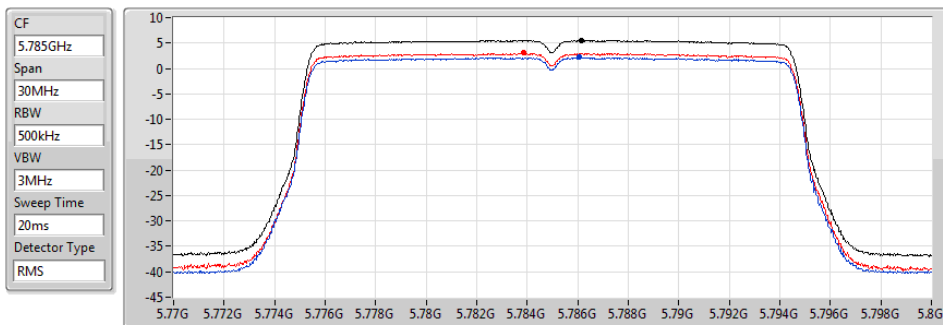
| Sum      | PD       | Port 1   | Port 2   |
|----------|----------|----------|----------|
| (dBm/Hz) | (dBm/Hz) | (dBm/Hz) | (dBm/Hz) |
| 5.53     | 5.53     | 2.19     | 2.91     |

### 802.11ax HEW20\_Nss1,(MCS0)\_2TX

PSD

5785MHz

07/03/2020



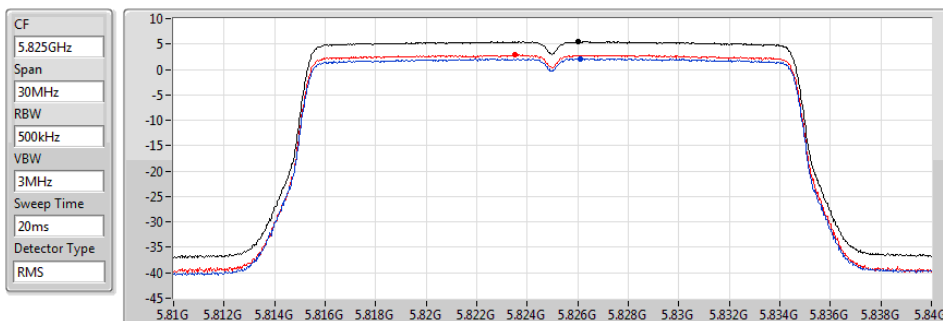
| Sum      | PD       | Port 1   | Port 2   |
|----------|----------|----------|----------|
| (dBm/Hz) | (dBm/Hz) | (dBm/Hz) | (dBm/Hz) |
| 5.55     | 5.55     | 2.17     | 3.02     |

### 802.11ax HEW20\_Nss1,(MCS0)\_2TX

PSD

5825MHz

07/03/2020



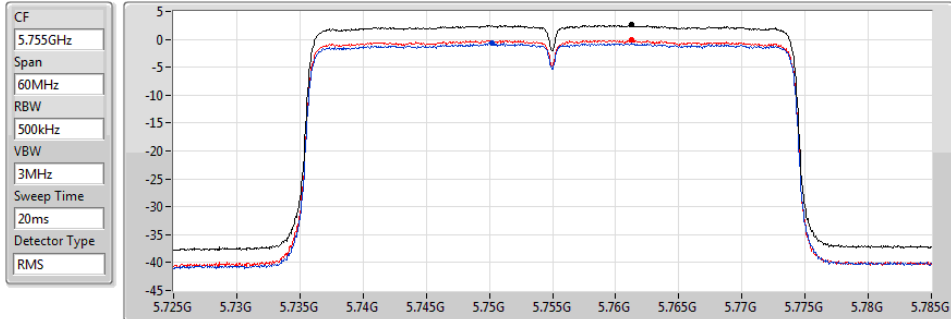
| Sum      | PD       | Port 1   | Port 2   |
|----------|----------|----------|----------|
| (dBm/Hz) | (dBm/Hz) | (dBm/Hz) | (dBm/Hz) |
| 5.47     | 5.47     | 2.13     | 2.84     |

### 802.11ax HEW40\_Nss1,(MCS0)\_2TX

PSD

5755MHz

07/03/2020



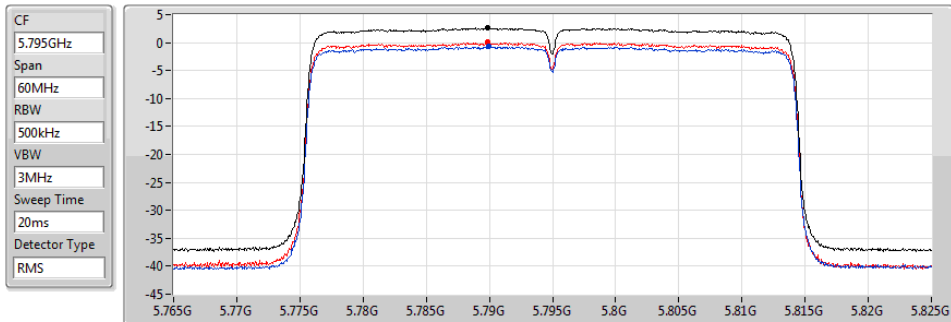
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 2.57      | 2.57      | -0.70     | -0.16     |

### 802.11ax HEW40\_Nss1,(MCS0)\_2TX

PSD

5795MHz

07/03/2020



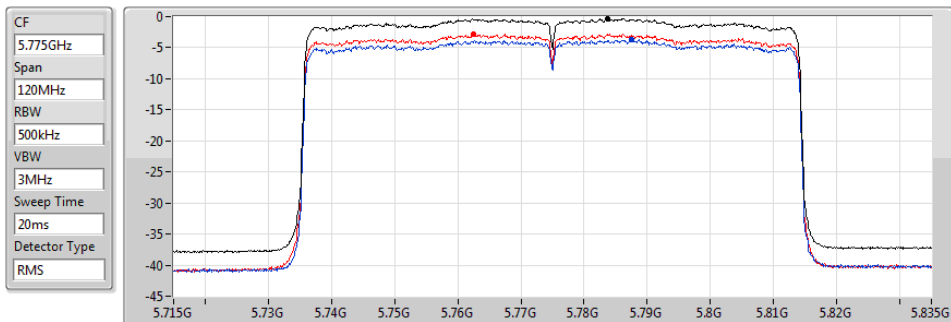
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 2.66      | 2.66      | -0.63     | 0.04      |

### 802.11ax HEW80\_Nss1,(MCS0)\_2TX

PSD

5775MHz

07/03/2020



| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| -0.29     | -0.29     | -3.66     | -2.82     |

&lt;2T1S&gt;

beamforming mode

## Summary

| Mode                              | PD<br>(dBm/RBW) |
|-----------------------------------|-----------------|
| 5.725-5.85GHz                     | -               |
| 11a20,BF_Nss1,(6Mbps)_2TX         | 5.87            |
| 11a40,BF_Nss1,(6Mbps)_2TX         | 2.97            |
| 11a80,BF_Nss1,(6Mbps)_2TX         | -0.02           |
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | 5.24            |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | 2.3             |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | -0.48           |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | 5.55            |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | 2.66            |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | -0.29           |

RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

**Result**

| Mode                              | Result | DG<br>(dBi) | Port 1<br>(dBm/RBW) | Port 2<br>(dBm/RBW) | PD<br>(dBm/RBW) | PD Limit<br>(dBm/RBW) |
|-----------------------------------|--------|-------------|---------------------|---------------------|-----------------|-----------------------|
| 11a20,BF_Nss1,(6Mbps)_2TX         | -      | -           | -                   | -                   | -               | -                     |
| 5745MHz                           | Pass   | 7.60        | 2.46                | 3.22                | 5.83            | 28.40                 |
| 5785MHz                           | Pass   | 7.60        | 2.48                | 3.23                | 5.87            | 28.40                 |
| 5825MHz                           | Pass   | 7.76        | 2.54                | 3.22                | 5.83            | 28.24                 |
| 11a40,BF_Nss1,(6Mbps)_2TX         | -      | -           | -                   | -                   | -               | -                     |
| 5755MHz                           | Pass   | 7.60        | -0.38               | 0.28                | 2.97            | 28.40                 |
| 5795MHz                           | Pass   | 7.76        | -0.3                | 0.34                | 2.96            | 28.24                 |
| 11a80,BF_Nss1,(6Mbps)_2TX         | -      | -           | -                   | -                   | -               | -                     |
| 5775MHz                           | Pass   | 7.60        | -3.44               | -2.51               | -0.02           | 28.40                 |
| 802.11ac VHT20-BF_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5745MHz                           | Pass   | 7.60        | 1.84                | 2.53                | 5.17            | 28.40                 |
| 5785MHz                           | Pass   | 7.60        | 1.87                | 2.66                | 5.24            | 28.40                 |
| 5825MHz                           | Pass   | 7.76        | 1.75                | 2.56                | 5.15            | 28.24                 |
| 802.11ac VHT40-BF_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5755MHz                           | Pass   | 7.60        | -1.06               | -0.35               | 2.28            | 28.40                 |
| 5795MHz                           | Pass   | 7.76        | -0.96               | -0.23               | 2.30            | 28.24                 |
| 802.11ac VHT80-BF_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5775MHz                           | Pass   | 7.60        | -4.06               | -2.91               | -0.48           | 28.40                 |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5745MHz                           | Pass   | 7.60        | 2.19                | 2.91                | 5.53            | 28.40                 |
| 5785MHz                           | Pass   | 7.60        | 2.17                | 3.02                | 5.55            | 28.40                 |
| 5825MHz                           | Pass   | 7.76        | 2.13                | 2.84                | 5.47            | 28.24                 |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5755MHz                           | Pass   | 7.60        | -0.7                | -0.16               | 2.57            | 28.40                 |
| 5795MHz                           | Pass   | 7.76        | -0.63               | 0.04                | 2.66            | 28.24                 |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | -      | -           | -                   | -                   | -               | -                     |
| 5775MHz                           | Pass   | 7.60        | -3.66               | -2.82               | -0.29           | 28.40                 |

**DG** = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

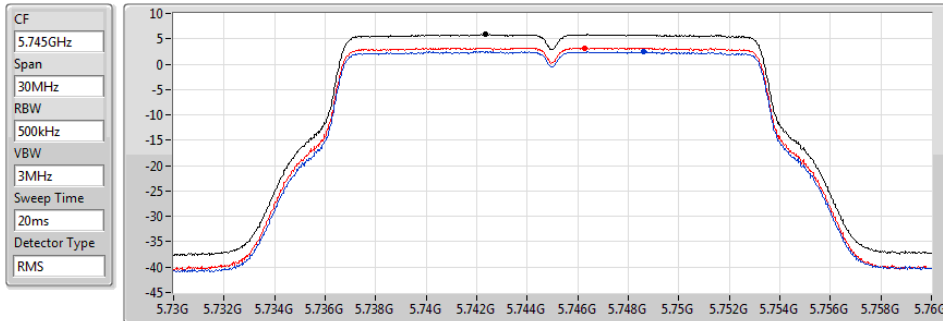
**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

### 11a20,BF\_Nss1,(6Mbps)\_2TX

PSD

5745MHz

07/03/2020



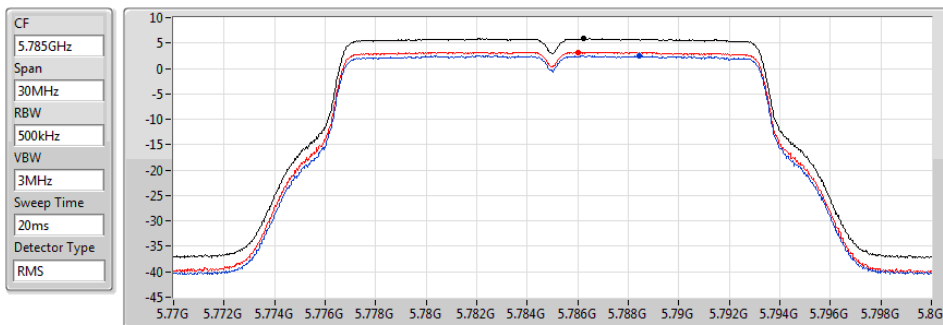
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 5.83      | 5.83      | 2.46      | 3.22      |

### 11a20,BF\_Nss1,(6Mbps)\_2TX

PSD

5785MHz

07/03/2020



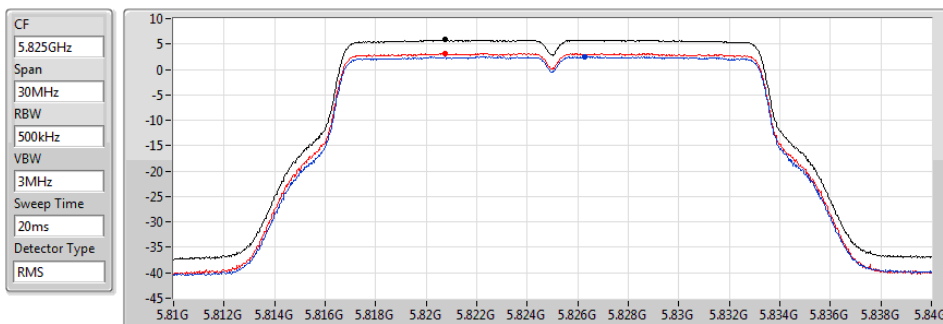
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 5.87      | 5.87      | 2.48      | 3.23      |

### 11a20,BF\_Nss1,(6Mbps)\_2TX

PSD

5825MHz

07/03/2020



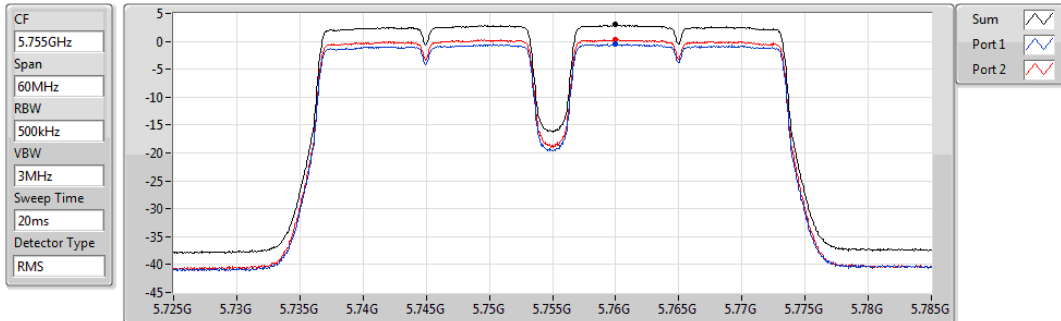
| Sum       | PD        | Port 1    | Port 2    |
|-----------|-----------|-----------|-----------|
| (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) |
| 5.83      | 5.83      | 2.54      | 3.22      |

## 11a40,BF\_Nss1,(6Mbps)\_2TX

## PSD

5755MHz

07/03/2020

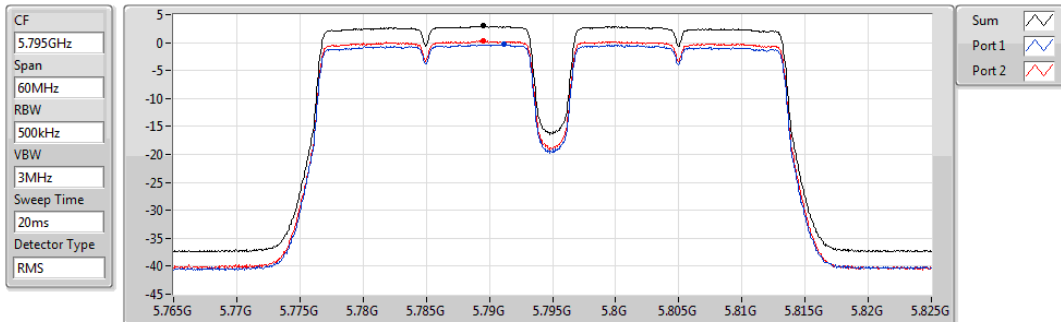


## 11a40,BF\_Nss1,(6Mbps)\_2TX

## PSD

5795MHz

07/03/2020

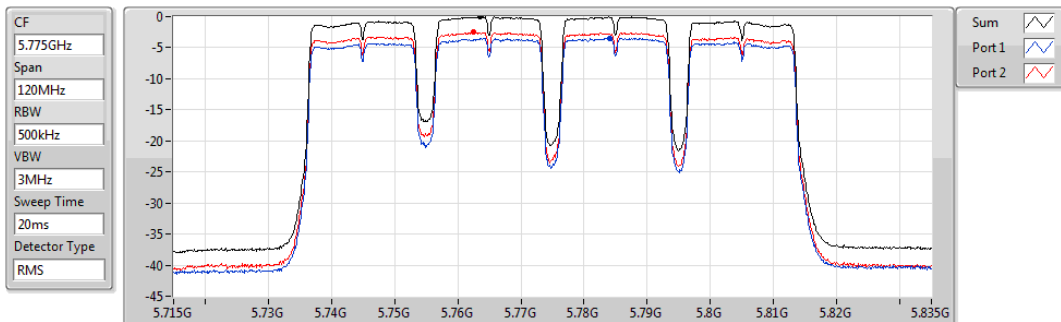


## 11a80,BF\_Nss1,(6Mbps)\_2TX

## PSD

5775MHz

07/03/2020

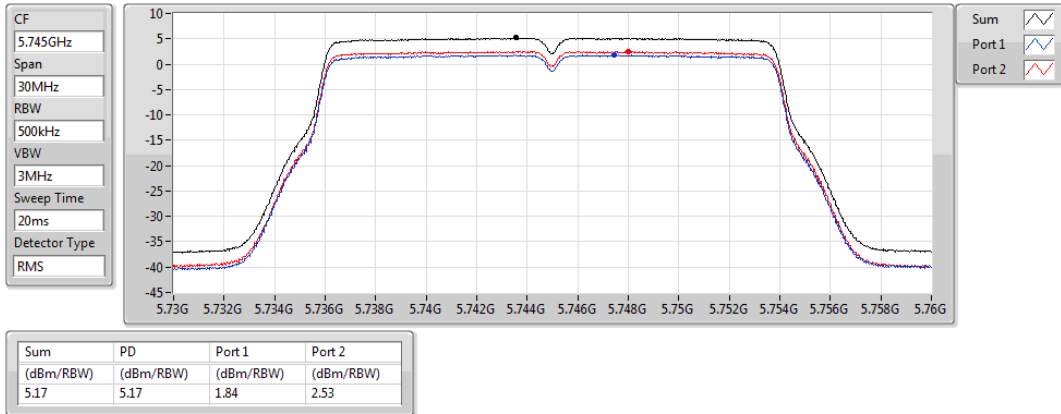


### 802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

PSD

5745MHz

25/03/2020

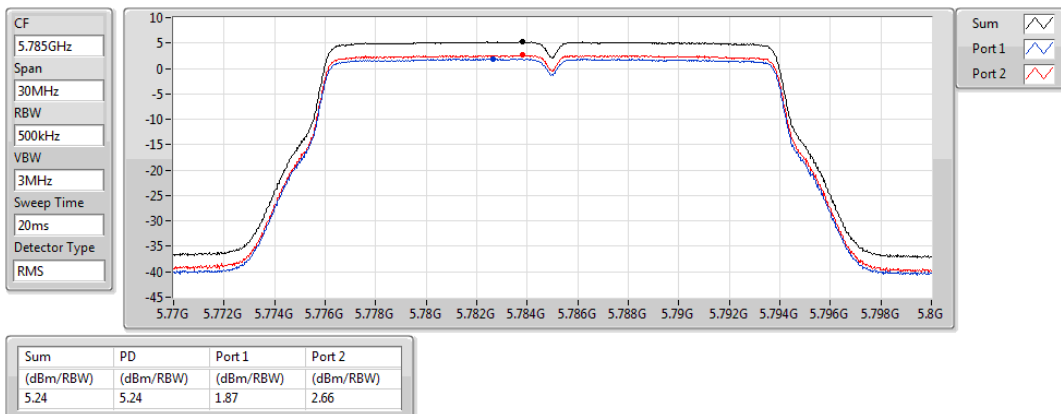


### 802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

PSD

5785MHz

25/03/2020

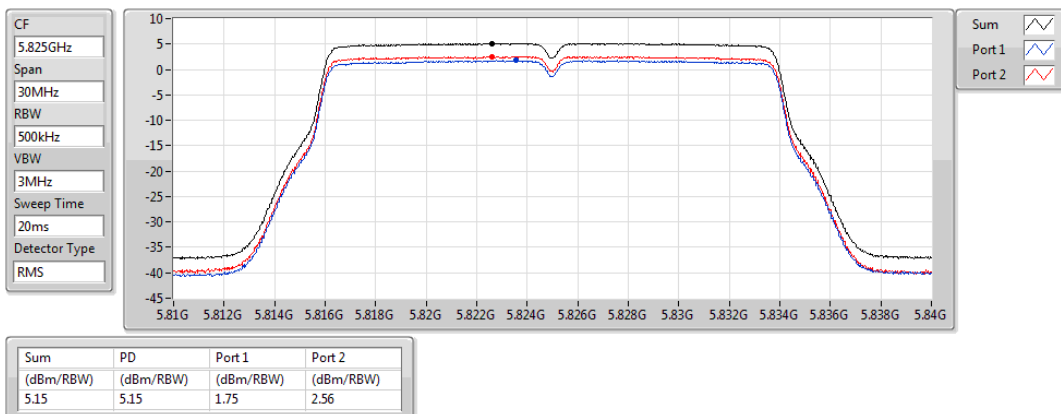


### 802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

PSD

5825MHz

25/03/2020

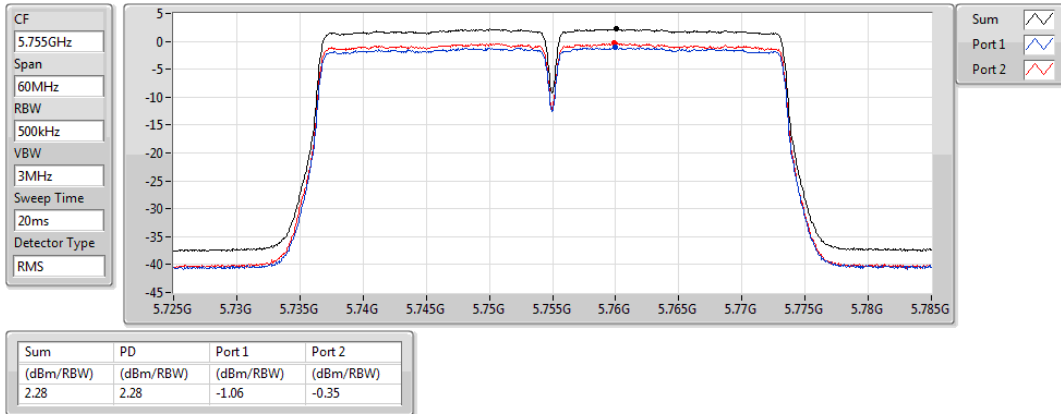


### 802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

PSD

5755MHz

25/03/2020

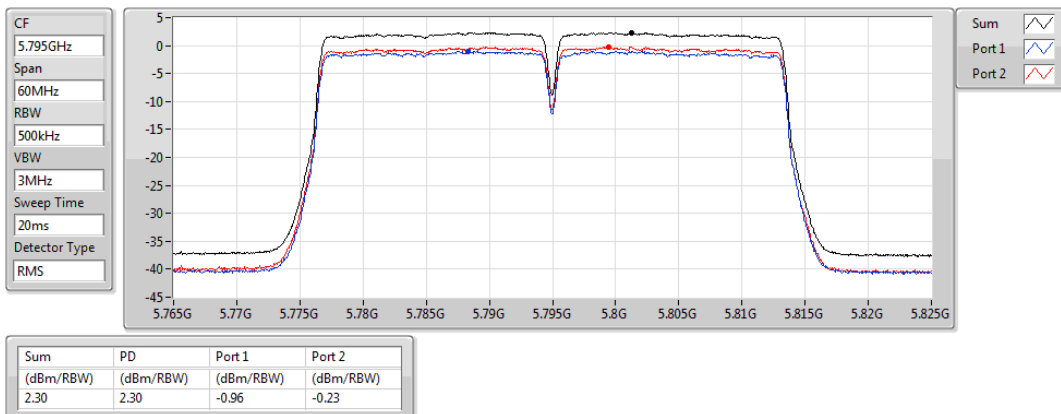


### 802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

PSD

5795MHz

25/03/2020

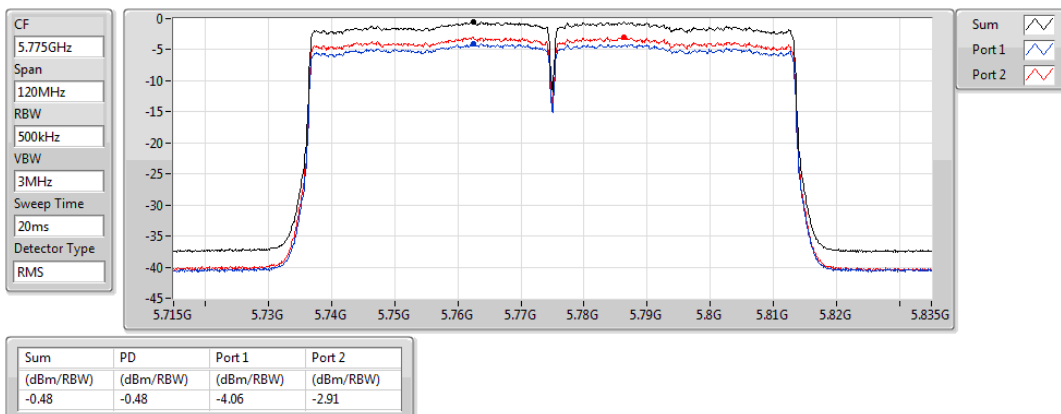


### 802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX

PSD

5775MHz

25/03/2020

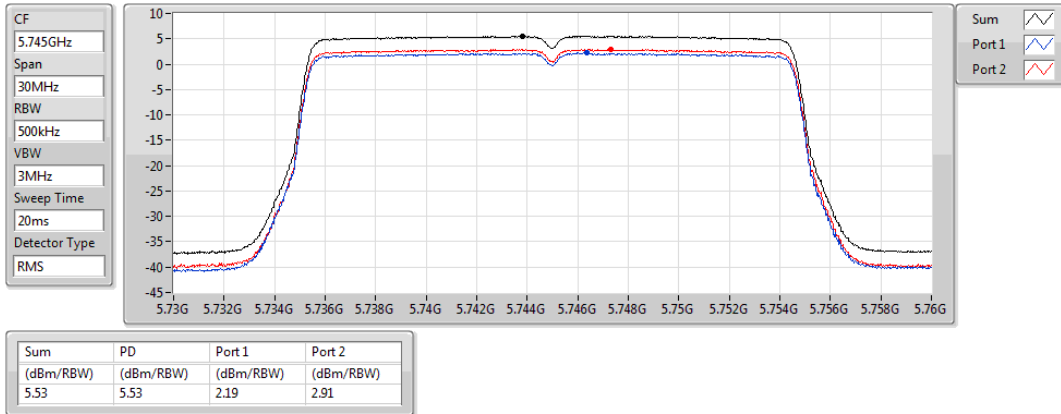


## 802.11ax HEW20-BF\_Nss1,(MCS0)\_2TX

PSD

5745MHz

07/03/2020

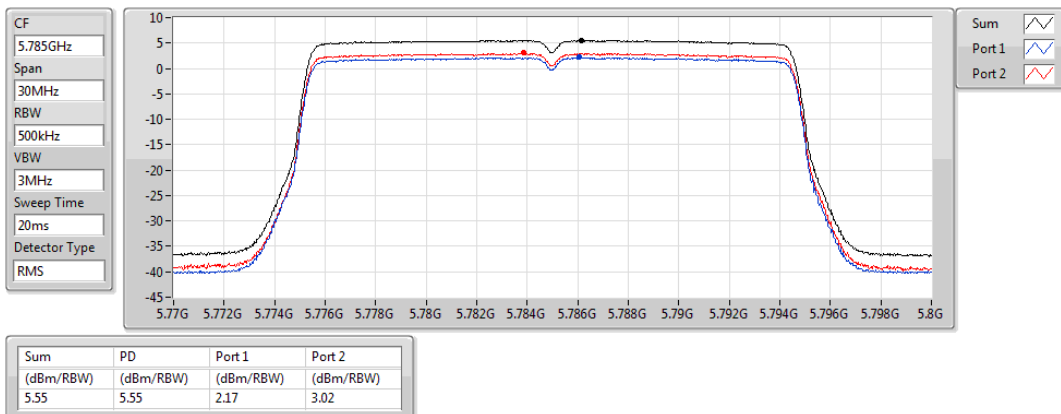


## 802.11ax HEW20-BF\_Nss1,(MCS0)\_2TX

PSD

5785MHz

07/03/2020

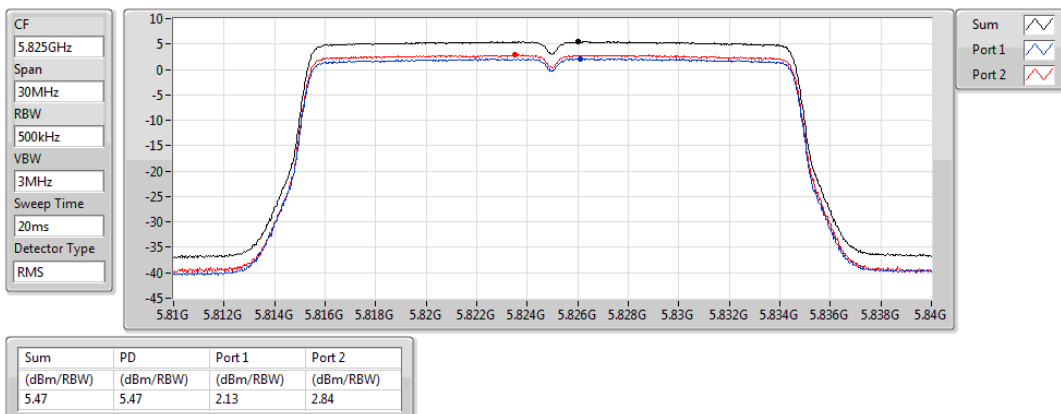


## 802.11ax HEW20-BF\_Nss1,(MCS0)\_2TX

PSD

5825MHz

07/03/2020

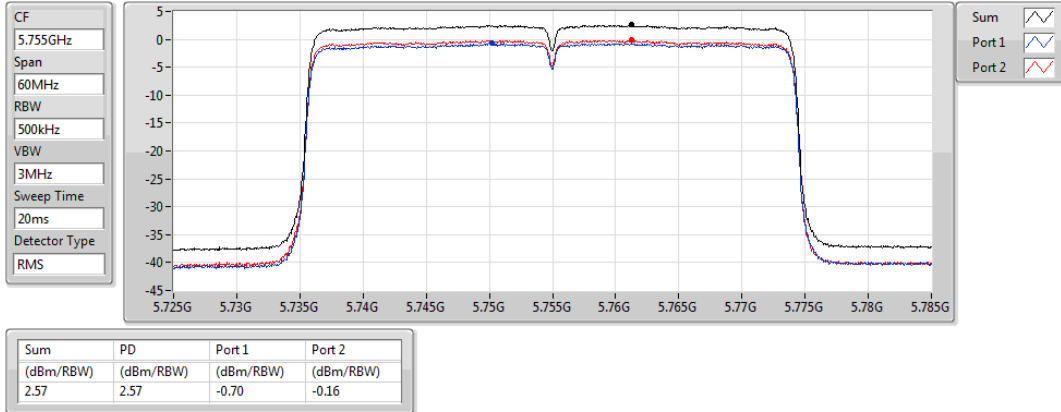


## 802.11ax HEW40-BF\_Nss1,(MCS0)\_2TX

PSD

5755MHz

07/03/2020

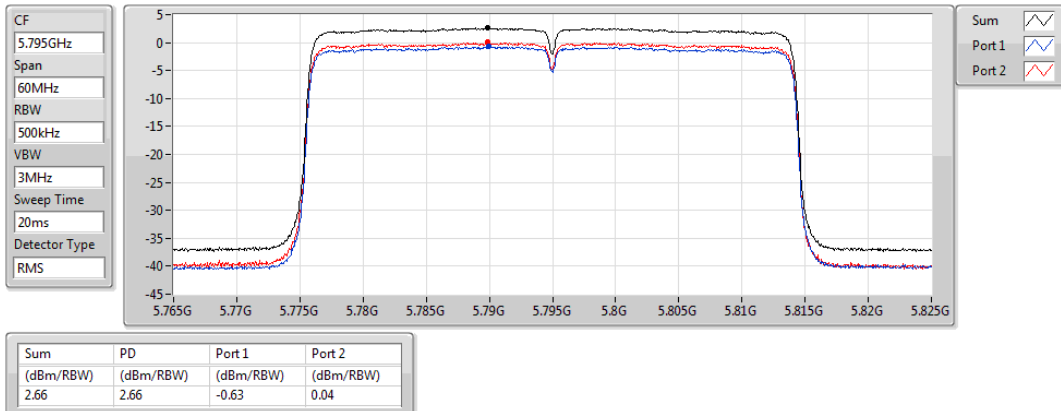


## 802.11ax HEW40-BF\_Nss1,(MCS0)\_2TX

PSD

5795MHz

07/03/2020

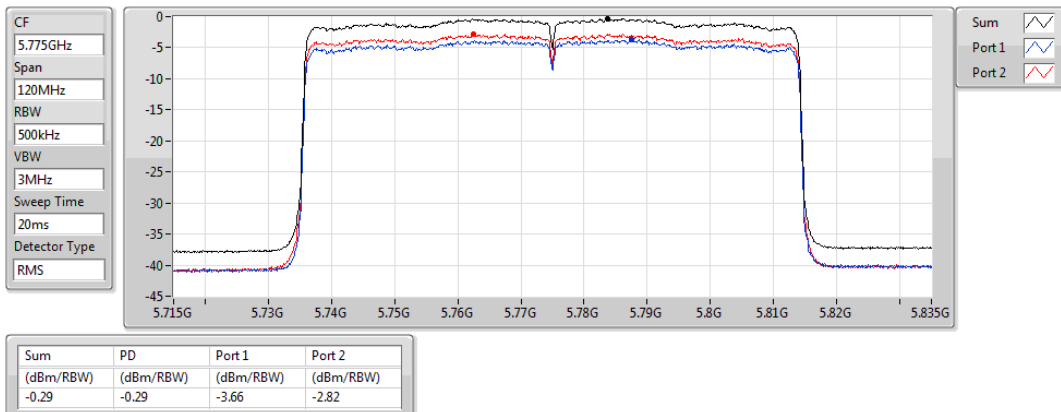


## 802.11ax HEW80-BF\_Nss1,(MCS0)\_2TX

PSD

5775MHz

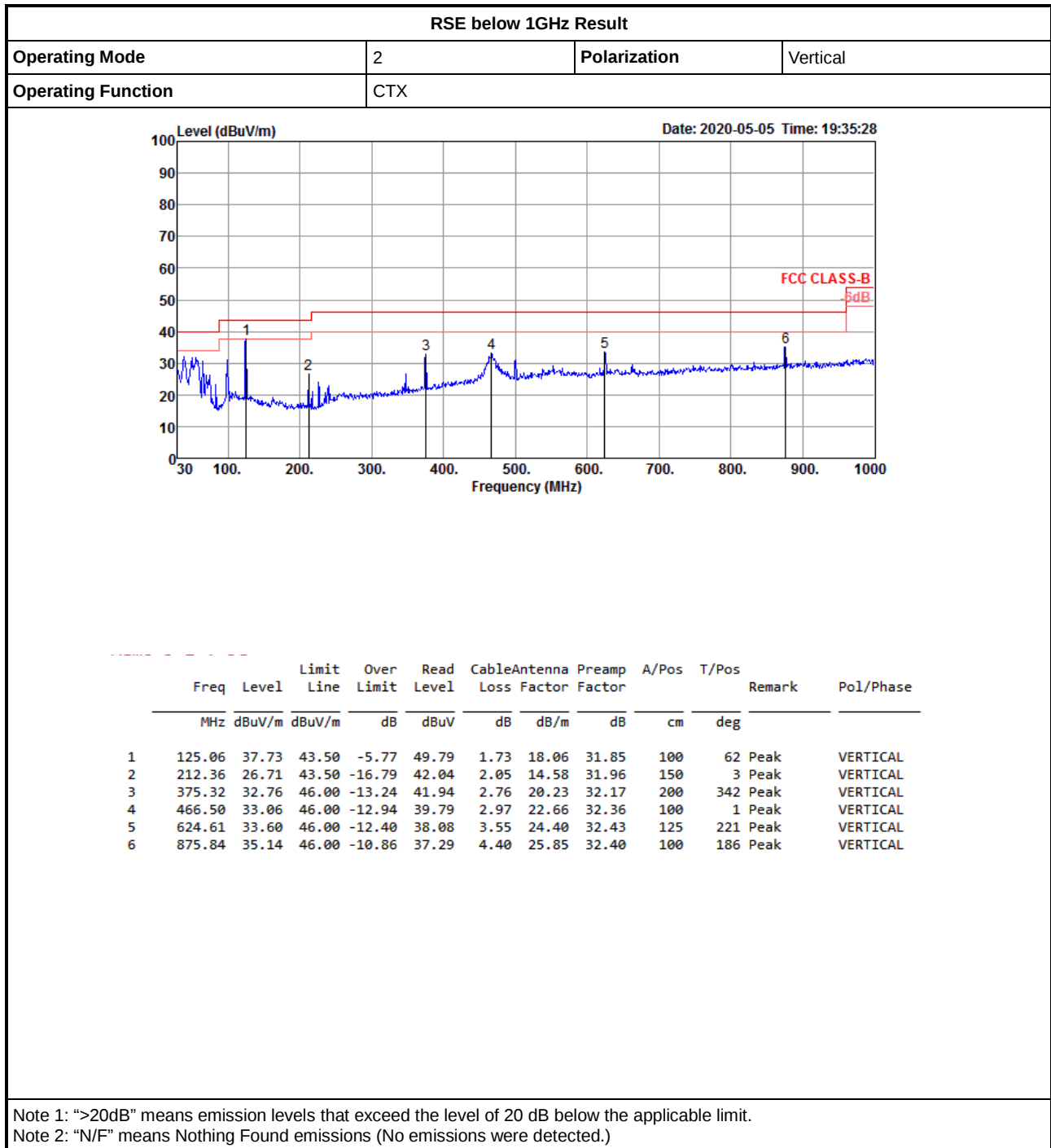
07/03/2020

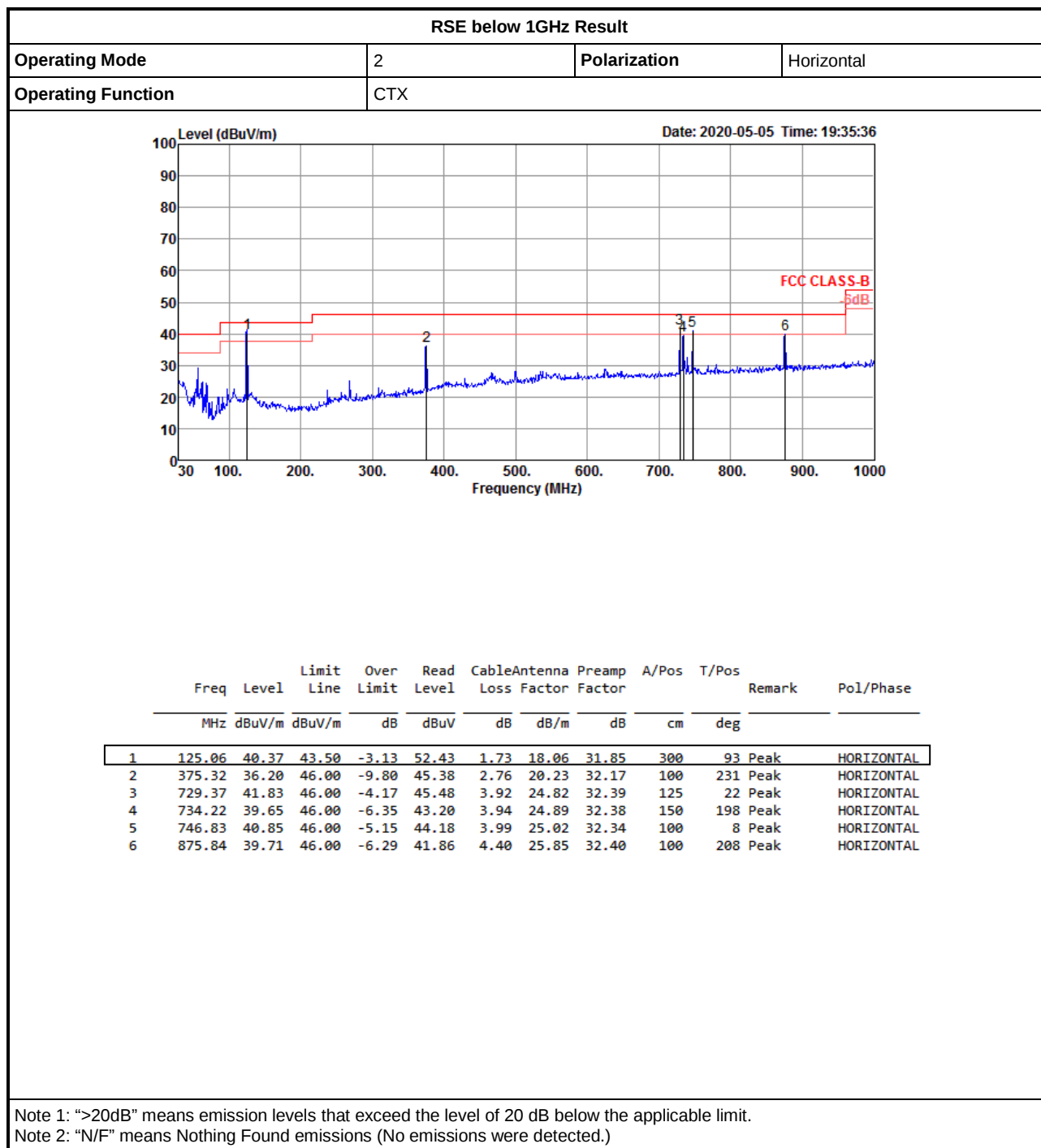




## RSE below 1GHz Result

Appendix E.1







**For Radiated Cabinet:**

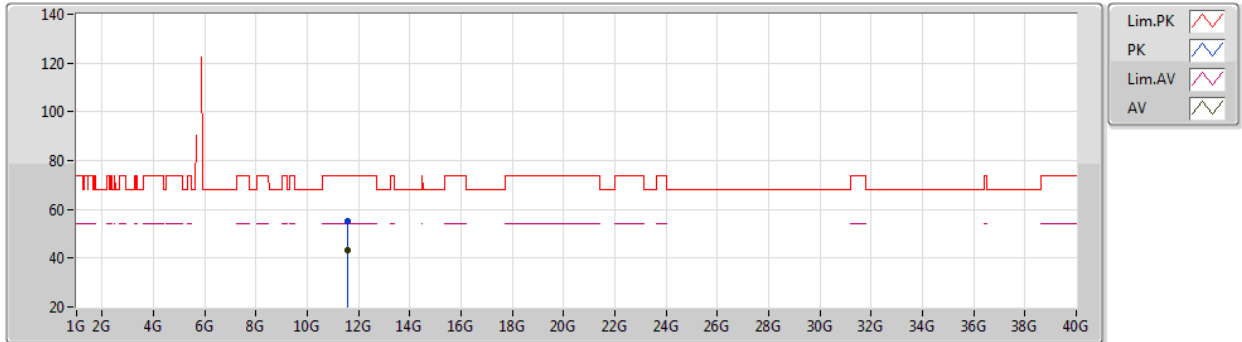
**Summary**

| Mode                           | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|--------------------------------|--------|------|--------------|-------------------|-------------------|----------------|-------------|-----------|----------------|---------------|----------|
| 5.725-5.85GHz                  | -      | -    | -            | -                 | -                 | -              | -           | -         | -              | -             | -        |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | Pass   | AV   | 11.57174G    | 43.02             | 54.00             | -10.98         | 3           | Vertical  | 317            | 2.21          | -        |

# 802.11ax HEW20\_Nss1,(MCS0)\_2TX

10/03/2020

## 5785MHz\_TX



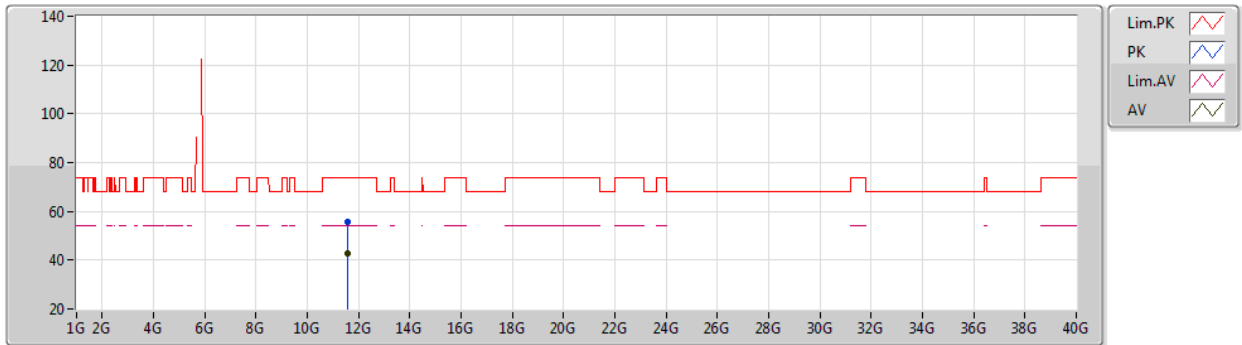
EUT Y\_2TX  
Setting 17  
05-M-J-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK   | 11.5619G     | 55.22             | 74.00             | -18.78         | 41.75         | 3           | Vertical  | 317            | 2.21          | -       | 39.57      | 8.92       | 35.02      |
| AV   | 11.57174G    | 43.02             | 54.00             | -10.98         | 29.56         | 3           | Vertical  | 317            | 2.21          | -       | 39.56      | 8.92       | 35.02      |

# 802.11ax HEW20\_Nss1,(MCS0)\_2TX

10/03/2020

## 5785MHz\_TX



EUT Y\_2TX  
Setting 17  
05-M-J-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |  |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|--|
| PK   | 11.56238G    | 55.64             | 74.00             | -18.36         | 42.17         | 3           | Horizontal | 195            | 1.76          | -       | 39.57      | 8.92       | 35.02      |  |
| AV   | 11.56784G    | 42.86             | 54.00             | -11.14         | 29.40         | 3           | Horizontal | 195            | 1.76          | -       | 39.56      | 8.92       | 35.02      |  |

<2T1S>

For Conducted Harmonic (1~8GHz):

**Summary**

| Mode                           | Result | F-Start<br>(Hz) | F-Stop<br>(Hz) | Type | Freq<br>(Hz) | DG<br>(dBi) | P1<br>(dBm) | P2<br>(dBm) | Psum<br>(dBm) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------|--------|-----------------|----------------|------|--------------|-------------|-------------|-------------|---------------|---------------|----------------|----------------|
| 5.725-5.85GHz                  | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 11a20_Nss1,(6Mbps)_2TX         | Pass   | 1G              | 5.685G         | AV   | 5.44314G     | 7.60        | -60.47      | -60.96      | -57.70        | -50.10        | -41.20         | -8.90          |
| 11a40_Nss1,(6Mbps)_2TX         | Pass   | 1G              | 5.645G         | AV   | 5.43249G     | 7.76        | -60.08      | -60.91      | -57.46        | -49.70        | -41.20         | -8.50          |
| 11a80_Nss1,(6Mbps)_2TX         | Pass   | 5.565G          | 5.725G         | PK   | 5.6338G      | 7.60        | -45.18      | -40.41      | -39.16        | -31.56        | -27.00         | -4.56          |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | Pass   | 1G              | 5.685G         | AV   | 5.45368G     | 7.60        | -60.51      | -59.69      | -57.07        | -49.47        | -41.20         | -8.27          |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | Pass   | 1G              | 5.645G         | AV   | 5.44991G     | 7.76        | -60.76      | -60.08      | -57.40        | -49.64        | -41.20         | -8.44          |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | Pass   | 5.565G          | 5.725G         | PK   | 5.64948G     | 7.60        | -45.46      | -43.02      | -41.06        | -33.46        | -27.00         | -6.46          |

DG = Directional Gain;

PX=Port X; Psum=P1+.P2+...PX

**Result**

| Mode                           | Result | F-Start<br>(Hz) | F-Stop<br>(Hz) | Type | Freq<br>(Hz) | DG<br>(dBi) | P1<br>(dBm) | P2<br>(dBm) | Psum<br>(dBm) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------|--------|-----------------|----------------|------|--------------|-------------|-------------|-------------|---------------|---------------|----------------|----------------|
| 11a20_Nss1,(6Mbps)_2TX         | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5720MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5745MHz                        | Pass   | 1G              | 5.685G         | AV   | 5.45309G     | 7.60        | -60.16      | -61.55      | -57.79        | -50.19        | -41.20         | -8.99          |
| 5745MHz                        | Pass   | 5.89G           | 8G             | AV   | 7.49017G     | 7.60        | -71.60      | -71.46      | -68.52        | -60.92        | -41.20         | -19.72         |
| 5745MHz                        | Pass   | 1G              | 5.685G         | PK   | 5.65045G     | 7.60        | -47.57      | -49.04      | -45.23        | -37.63        | -26.67         | -10.96         |
| 5745MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.68532G     | 7.60        | -49.69      | -46.65      | -44.90        | -37.30        | -0.86          | -36.44         |
| 5745MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.60        | -59.36      | -58.81      | -56.07        | -48.47        | 27.00          | -75.47         |
| 5745MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.88872G     | 7.60        | -50.87      | -48.59      | -46.57        | -38.97        | -0.15          | -38.82         |
| 5745MHz                        | Pass   | 5.89G           | 8G             | PK   | 5.95014G     | 7.60        | -49.34      | -51.18      | -47.15        | -39.55        | -27.00         | -12.55         |
| 5785MHz                        | Pass   | 1G              | 5.685G         | AV   | 5.44314G     | 7.60        | -60.47      | -60.96      | -57.70        | -50.10        | -41.20         | -8.90          |
| 5785MHz                        | Pass   | 5.89G           | 8G             | AV   | 7.4849G      | 7.60        | -71.57      | -70.95      | -68.24        | -60.64        | -41.20         | -19.44         |
| 5785MHz                        | Pass   | 1G              | 5.685G         | PK   | 5.55148G     | 7.60        | -52.24      | -49.81      | -47.85        | -40.25        | -27.00         | -13.25         |
| 5785MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.6858G      | 7.60        | -48.91      | -47.11      | -44.91        | -37.31        | -0.51          | -36.80         |
| 5785MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.60        | -59.45      | -58.88      | -56.15        | -48.55        | 27.00          | -75.55         |
| 5785MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.88992G     | 7.60        | -48.72      | -47.58      | -45.10        | -37.50        | -1.04          | -36.46         |
| 5785MHz                        | Pass   | 5.89G           | 8G             | PK   | 6.03111G     | 7.60        | -49.88      | -50.45      | -47.15        | -39.55        | -27.00         | -12.55         |
| 5825MHz                        | Pass   | 1G              | 5.685G         | AV   | 5.44841G     | 7.76        | -60.48      | -61.43      | -57.92        | -50.16        | -41.20         | -8.96          |
| 5825MHz                        | Pass   | 5.89G           | 8G             | AV   | 7.30344G     | 7.76        | -71.23      | -71.54      | -68.37        | -60.61        | -41.20         | -19.41         |
| 5825MHz                        | Pass   | 1G              | 5.685G         | PK   | 5.53508G     | 7.76        | -54.44      | -48.55      | -47.55        | -39.79        | -27.00         | -12.79         |
| 5825MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.685G       | 7.76        | -51.93      | -49.35      | -47.44        | -39.68        | -1.10          | -38.58         |
| 5825MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.76        | -59.48      | -60.39      | -56.90        | -49.14        | 27.00          | -76.14         |
| 5825MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.88984G     | 7.76        | -49.11      | -48.30      | -45.68        | -37.92        | -0.98          | -36.94         |
| 5825MHz                        | Pass   | 5.89G           | 8G             | PK   | 5.92772G     | 7.76        | -46.87      | -48.18      | -44.47        | -36.71        | -27.00         | -9.71          |
| 11a40_Nss1,(6Mbps)_2TX         | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5710MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5755MHz                        | Pass   | 1G              | 5.645G         | AV   | 5.44062G     | 7.60        | -60.00      | -60.88      | -57.41        | -49.81        | -41.20         | -8.61          |
| 5755MHz                        | Pass   | 5.93G           | 8G             | AV   | 7.29465G     | 7.60        | -72.39      | -70.88      | -68.56        | -60.96        | -41.20         | -19.76         |
| 5755MHz                        | Pass   | 1G              | 5.645G         | PK   | 5.63803G     | 7.60        | -50.71      | -47.91      | -46.08        | -38.48        | -27.00         | -11.48         |
| 5755MHz                        | Pass   | 5.645G          | 5.725G         | PK   | 5.64996G     | 7.60        | -48.44      | -44.89      | -43.30        | -35.70        | -27.00         | -8.70          |
| 5755MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.60        | -59.40      | -60.41      | -56.87        | -49.27        | 27.00          | -76.27         |
| 5755MHz                        | Pass   | 5.85G           | 5.93G          | PK   | 5.92872G     | 7.60        | -48.73      | -48.62      | -45.66        | -38.06        | -27.00         | -11.06         |
| 5755MHz                        | Pass   | 5.93G           | 8G             | PK   | 5.93207G     | 7.60        | -50.84      | -48.81      | -46.70        | -39.10        | -27.00         | -12.10         |
| 5795MHz                        | Pass   | 1G              | 5.645G         | AV   | 5.43249G     | 7.76        | -60.08      | -60.91      | -57.46        | -49.70        | -41.20         | -8.50          |
| 5795MHz                        | Pass   | 5.93G           | 8G             | AV   | 7.59868G     | 7.76        | -72.21      | -70.69      | -68.37        | -60.61        | -41.20         | -19.41         |
| 5795MHz                        | Pass   | 1G              | 5.645G         | PK   | 5.64036G     | 7.76        | -51.79      | -49.41      | -47.43        | -39.67        | -27.00         | -12.67         |
| 5795MHz                        | Pass   | 5.645G          | 5.725G         | PK   | 5.64564G     | 7.76        | -49.92      | -47.48      | -45.52        | -37.76        | -27.00         | -10.76         |
| 5795MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.76        | -59.22      | -60.24      | -56.69        | -48.93        | 27.00          | -75.93         |
| 5795MHz                        | Pass   | 5.85G           | 5.93G          | PK   | 5.92712G     | 7.76        | -47.34      | -48.45      | -44.85        | -37.09        | -27.00         | -10.09         |
| 5795MHz                        | Pass   | 5.93G           | 8G             | PK   | 5.9582G      | 7.76        | -49.19      | -48.28      | -45.70        | -37.94        | -27.00         | -10.94         |
| 11a80_Nss1,(6Mbps)_2TX         | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5690MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5775MHz                        | Pass   | 1G              | 5.565G         | AV   | 5.43262G     | 7.60        | -60.04      | -61.24      | -57.59        | -49.99        | -41.20         | -8.79          |
| 5775MHz                        | Pass   | 6.01G           | 8G             | AV   | 7.30524G     | 7.60        | -71.51      | -71.27      | -68.38        | -60.78        | -41.20         | -19.58         |
| 5775MHz                        | Pass   | 1G              | 5.565G         | PK   | 5.56044G     | 7.60        | -50.62      | -47.97      | -46.09        | -38.49        | -27.00         | -11.49         |
| 5775MHz                        | Pass   | 5.565G          | 5.725G         | PK   | 5.6338G      | 7.60        | -45.18      | -40.41      | -39.16        | -31.56        | -27.00         | -4.56          |
| 5775MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.60        | -57.97      | -59.16      | -55.51        | -47.91        | 27.00          | -74.91         |
| 5775MHz                        | Pass   | 5.85G           | 6.01G          | PK   | 5.93288G     | 7.60        | -44.00      | -42.68      | -40.28        | -32.68        | -27.00         | -5.68          |
| 5775MHz                        | Pass   | 6.01G           | 8G             | PK   | 6.01473G     | 7.60        | -51.10      | -49.07      | -46.96        | -39.36        | -27.00         | -12.36         |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5720MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5745MHz                        | Pass   | 1G              | 5.685G         | AV   | 5.44021G     | 7.60        | -60.94      | -60.91      | -57.91        | -50.31        | -41.20         | -9.11          |
| 5745MHz                        | Pass   | 5.89G           | 8G             | AV   | 7.29552G     | 7.60        | -70.66      | -72.25      | -68.37        | -60.77        | -41.20         | -19.57         |
| 5745MHz                        | Pass   | 1G              | 5.685G         | PK   | 5.64635G     | 7.60        | -51.65      | -47.33      | -45.96        | -38.36        | -27.00         | -11.36         |

| Mode                           | Result | F-Start<br>(Hz) | F-Stop<br>(Hz) | Type | Freq<br>(Hz) | DG<br>(dBi) | P1<br>(dBm) | P2<br>(dBm) | Psum<br>(dBm) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------|--------|-----------------|----------------|------|--------------|-------------|-------------|-------------|---------------|---------------|----------------|----------------|
| 5745MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.68516G     | 7.60        | -49.49      | -47.41      | -45.32        | -37.72        | -0.98          | -36.74         |
| 5745MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.60        | -60.00      | -59.56      | -56.76        | -49.16        | 27.00          | -76.16         |
| 5745MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.89G        | 7.60        | -50.75      | -51.46      | -48.08        | -40.48        | -1.10          | -39.38         |
| 5745MHz                        | Pass   | 5.89G           | 8G             | PK   | 5.95884G     | 7.60        | -50.31      | -49.02      | -46.61        | -39.01        | -27.00         | -12.01         |
| 5785MHz                        | Pass   | 1G              | 5.685G         | AV   | 5.45368G     | 7.60        | -60.51      | -59.69      | -57.07        | -49.47        | -41.20         | -8.27          |
| 5785MHz                        | Pass   | 5.89G           | 8G             | AV   | 7.30001G     | 7.60        | -71.63      | -71.28      | -68.44        | -60.84        | -41.20         | -19.64         |
| 5785MHz                        | Pass   | 1G              | 5.685G         | PK   | 5.54211G     | 7.60        | -50.74      | -50.09      | -47.39        | -39.79        | -27.00         | -12.79         |
| 5785MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.68628G     | 7.60        | -48.63      | -47.10      | -44.79        | -37.19        | -0.15          | -37.04         |
| 5785MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.60        | -58.99      | -59.64      | -56.29        | -48.69        | 27.00          | -75.69         |
| 5785MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.8896G      | 7.60        | -47.52      | -46.53      | -43.99        | -36.39        | -0.80          | -35.59         |
| 5785MHz                        | Pass   | 5.89G           | 8G             | PK   | 5.96174G     | 7.60        | -51.68      | -48.42      | -46.74        | -39.14        | -27.00         | -12.14         |
| 5825MHz                        | Pass   | 1G              | 5.685G         | AV   | 5.44431G     | 7.76        | -60.75      | -61.15      | -57.94        | -50.18        | -41.20         | -8.98          |
| 5825MHz                        | Pass   | 5.89G           | 8G             | AV   | 7.5089G      | 7.76        | -71.85      | -71.35      | -68.58        | -60.82        | -41.20         | -19.62         |
| 5825MHz                        | Pass   | 1G              | 5.685G         | PK   | 5.579G       | 7.76        | -49.83      | -50.53      | -47.16        | -39.40        | -27.00         | -12.40         |
| 5825MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.685G       | 7.76        | -51.23      | -50.64      | -47.91        | -40.15        | -1.10          | -39.05         |
| 5825MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.76        | -59.44      | -59.28      | -56.35        | -48.59        | 27.00          | -75.59         |
| 5825MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.89G        | 7.76        | -49.60      | -47.20      | -45.23        | -37.47        | -1.10          | -36.37         |
| 5825MHz                        | Pass   | 5.89G           | 8G             | PK   | 5.92561G     | 7.76        | -47.65      | -46.26      | -43.89        | -36.13        | -27.00         | -9.13          |
| 802.11ax HEW40_Nss1(MCS0)_2TX  | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5710MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5755MHz                        | Pass   | 1G              | 5.645G         | AV   | 5.44701G     | 7.60        | -59.85      | -61.25      | -57.48        | -49.88        | -41.20         | -8.68          |
| 5755MHz                        | Pass   | 5.93G           | 8G             | AV   | 7.56556G     | 7.60        | -71.25      | -72.06      | -68.63        | -61.03        | -41.20         | -19.83         |
| 5755MHz                        | Pass   | 1G              | 5.645G         | PK   | 5.63861G     | 7.60        | -48.88      | -48.22      | -45.53        | -37.93        | -27.00         | -10.93         |
| 5755MHz                        | Pass   | 5.645G          | 5.725G         | PK   | 5.65076G     | 7.60        | -46.67      | -45.29      | -42.92        | -35.32        | -26.44         | -8.88          |
| 5755MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.60        | -60.09      | -58.91      | -56.45        | -48.85        | 27.00          | -75.85         |
| 5755MHz                        | Pass   | 5.85G           | 5.93G          | PK   | 5.9284G      | 7.60        | -49.41      | -48.07      | -45.68        | -38.08        | -27.00         | -11.08         |
| 5755MHz                        | Pass   | 5.93G           | 8G             | PK   | 5.95536G     | 7.60        | -48.86      | -50.03      | -46.40        | -38.80        | -27.00         | -11.80         |
| 5795MHz                        | Pass   | 1G              | 5.645G         | AV   | 5.44991G     | 7.76        | -60.76      | -60.08      | -57.40        | -49.64        | -41.20         | -8.44          |
| 5795MHz                        | Pass   | 5.93G           | 8G             | AV   | 7.48147G     | 7.76        | -71.22      | -71.47      | -68.33        | -60.57        | -41.20         | -19.37         |
| 5795MHz                        | Pass   | 1G              | 5.645G         | PK   | 5.52597G     | 7.76        | -51.11      | -50.09      | -47.56        | -39.80        | -27.00         | -12.80         |
| 5795MHz                        | Pass   | 5.645G          | 5.725G         | PK   | 5.64644G     | 7.76        | -50.04      | -47.64      | -45.67        | -37.91        | -27.00         | -10.91         |
| 5795MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.76        | -59.62      | -59.18      | -56.38        | -48.62        | 27.00          | -75.62         |
| 5795MHz                        | Pass   | 5.85G           | 5.93G          | PK   | 5.92728G     | 7.76        | -48.16      | -47.35      | -44.73        | -36.97        | -27.00         | -9.97          |
| 5795MHz                        | Pass   | 5.93G           | 8G             | PK   | 5.94604G     | 7.76        | -49.51      | -47.90      | -45.62        | -37.86        | -27.00         | -10.86         |
| 802.11ax HEW80_Nss1(MCS0)_2TX  | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5690MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5775MHz                        | Pass   | 1G              | 5.565G         | AV   | 5.42406G     | 7.60        | -60.22      | -60.96      | -57.56        | -49.96        | -41.20         | -8.76          |
| 5775MHz                        | Pass   | 6.01G           | 8G             | AV   | 7.27688G     | 7.60        | -71.51      | -71.56      | -68.52        | -60.92        | -41.20         | -19.72         |
| 5775MHz                        | Pass   | 1G              | 5.565G         | PK   | 5.55815G     | 7.60        | -49.95      | -48.97      | -46.42        | -38.82        | -27.00         | -11.82         |
| 5775MHz                        | Pass   | 5.565G          | 5.725G         | PK   | 5.64948G     | 7.60        | -45.46      | -43.02      | -41.06        | -33.46        | -27.00         | -6.46          |
| 5775MHz                        | Pass   | 5.725G          | 5.85G          | PK   | 5.85G        | 7.60        | -58.87      | -59.67      | -56.24        | -48.64        | 27.00          | -75.64         |
| 5775MHz                        | Pass   | 5.85G           | 6.01G          | PK   | 5.92552G     | 7.60        | -44.88      | -43.52      | -41.14        | -33.54        | -27.00         | -6.54          |
| 5775MHz                        | Pass   | 6.01G           | 8G             | PK   | 6.0105G      | 7.60        | -48.43      | -51.82      | -46.79        | -39.19        | -27.00         | -12.19         |

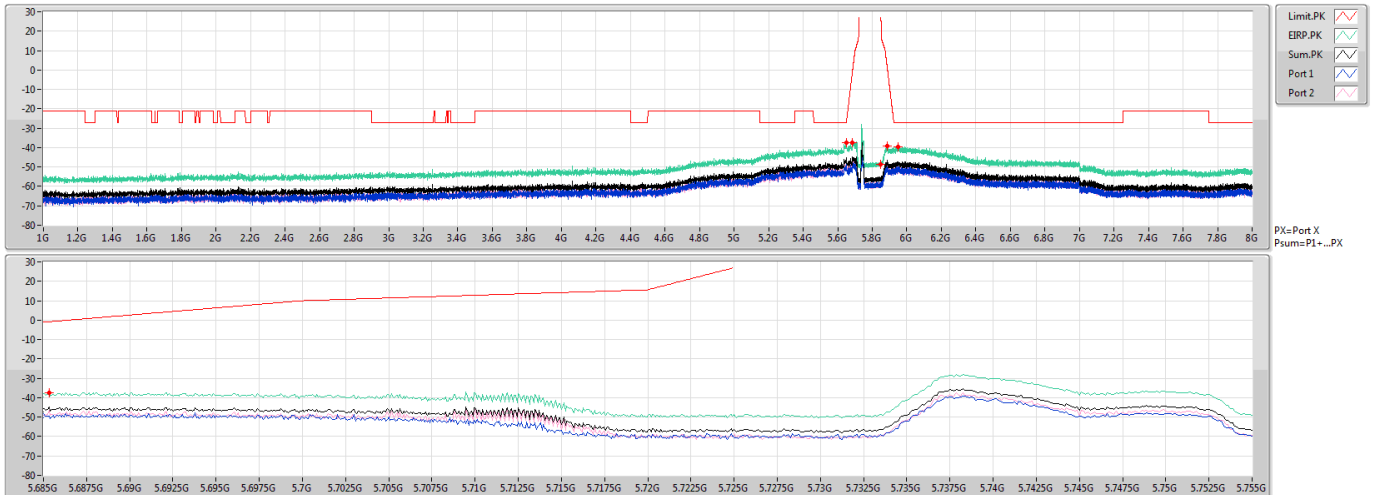
DG = Directional Gain;  
PX=Port X; Psum=P1+.P2+...PX

## 11a20\_Nss1,(6Mbps)\_2TX

5745MHz

CSE-PK

07/03/2020



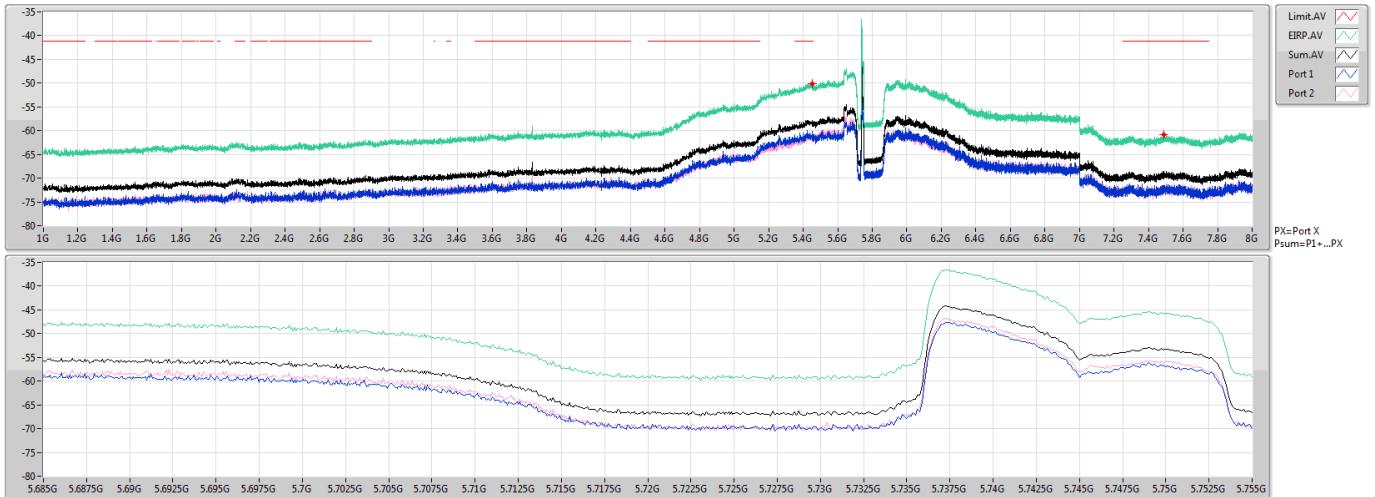
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 1G          | 5.685G     | 1M      | PK   | 5.65045G | -37.63    | -26.67     | -10.96     | 7.60   | 0.00    | -45.23    | -47.57  | -49.04  |
| 5.685G      | 5.725G     | 1M      | PK   | 5.68532G | -37.30    | -0.86      | -36.44     | 7.60   | 0.00    | -44.90    | -49.69  | -46.65  |
| 5.725G      | 5.85G      | 1M      | PK   | 5.85G    | -48.47    | 27.00      | -75.47     | 7.60   | 0.00    | -56.07    | -59.36  | -58.81  |
| 5.85G       | 5.89G      | 1M      | PK   | 5.88872G | -38.97    | -0.15      | -38.82     | 7.60   | 0.00    | -46.57    | -50.87  | -48.59  |
| 5.89G       | 8G         | 1M      | PK   | 5.95014G | -39.55    | -27.00     | -12.55     | 7.60   | 0.00    | -47.15    | -49.34  | -51.18  |

## 11a20\_Nss1,(6Mbps)\_2TX

5745MHz

CSE-AV

07/03/2020



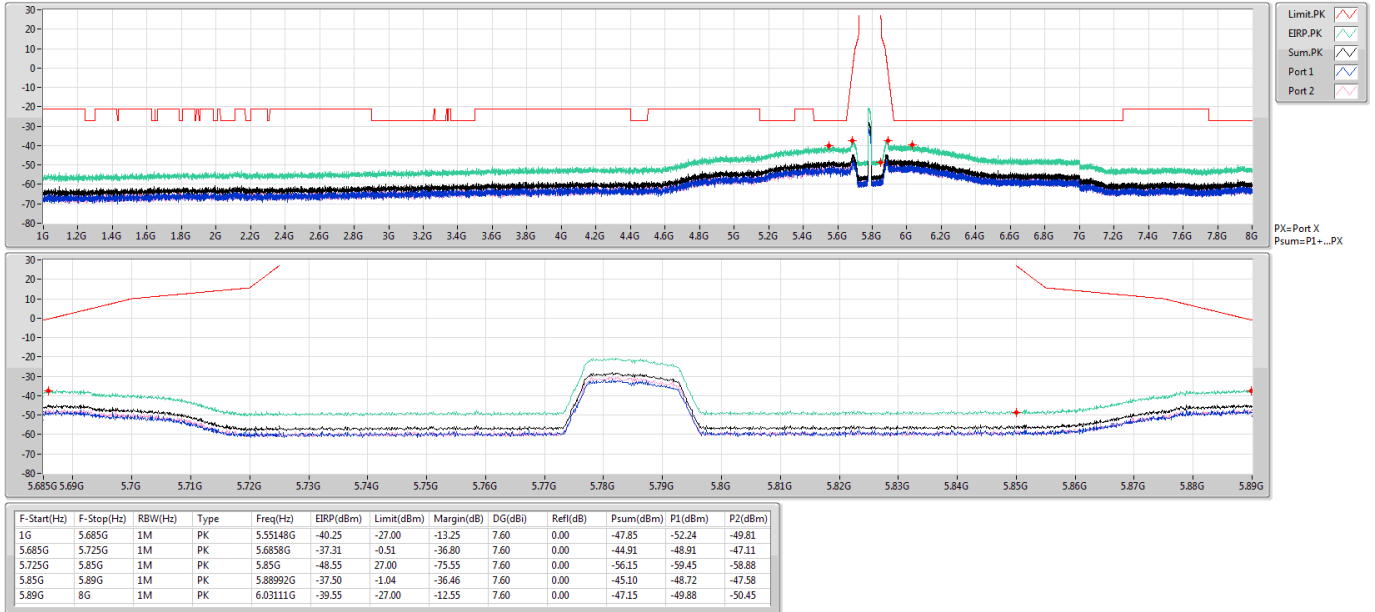
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 1G          | 5.685G     | 1M      | AV   | 5.45309G | -50.19    | -41.20     | -8.99      | 7.60   | 0.00    | -57.79    | -60.16  | -61.55  |
| 5.89G       | 8G         | 1M      | AV   | 7.49017G | -60.92    | -41.20     | -19.72     | 7.60   | 0.00    | -68.52    | -71.60  | -71.46  |

## 11a20\_Nss1,(6Mbps)\_2TX

5785MHz

CSE-PK

07/03/2020

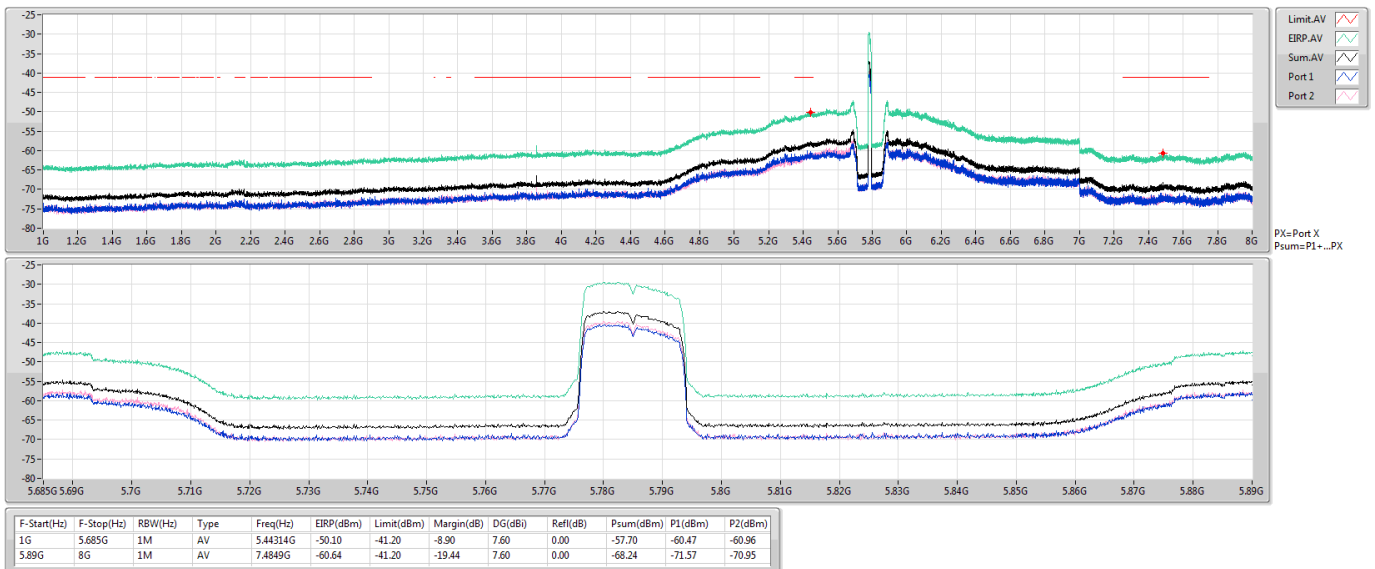


## 11a20\_Nss1,(6Mbps)\_2TX

5785MHz

CSE-AV

07/03/2020

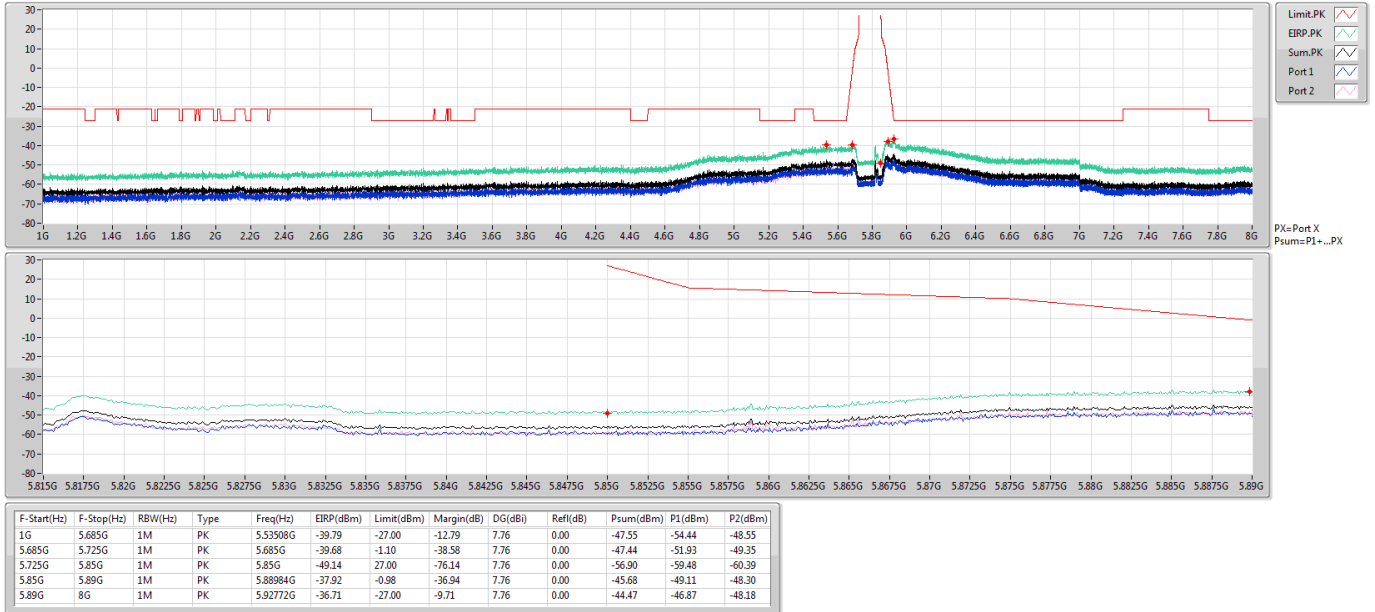


## 11a20\_Nss1,(6Mbps)\_2TX

5825MHz

CSE-PK

07/03/2020

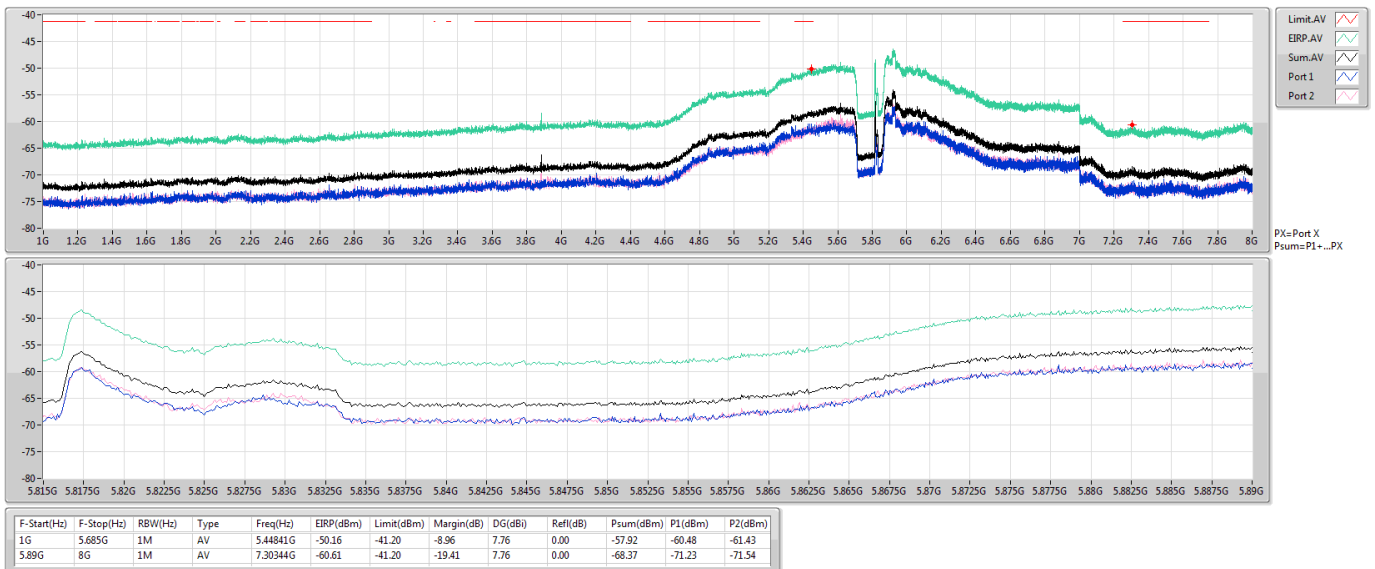


## 11a20\_Nss1,(6Mbps)\_2TX

5825MHz

CSE-AV

07/03/2020

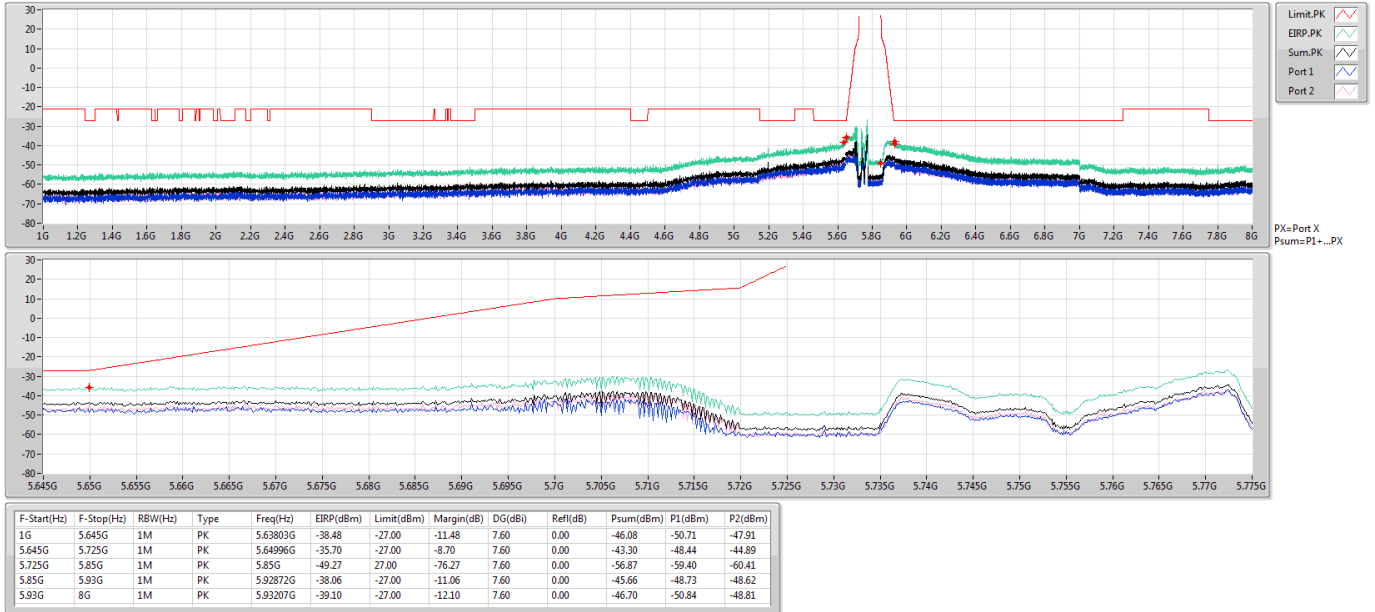


## 11a40\_Nss1,(6Mbps)\_2TX

5755MHz

CSE-PK

07/03/2020

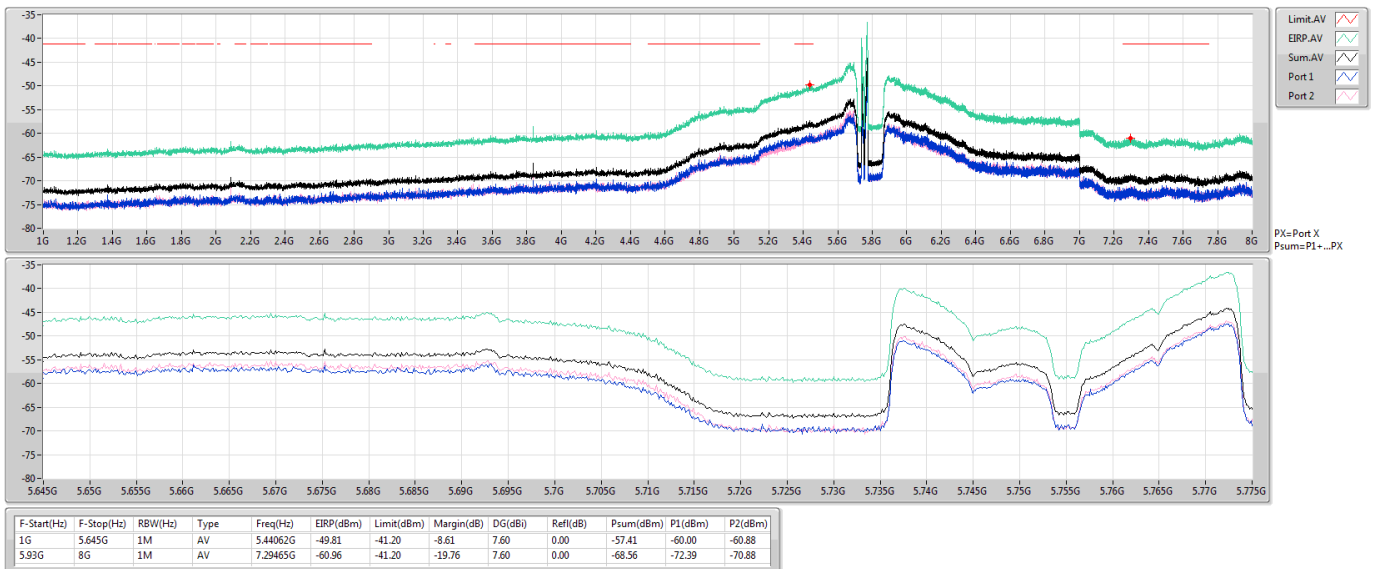


## 11a40\_Nss1,(6Mbps)\_2TX

5755MHz

CSE-AV

07/03/2020

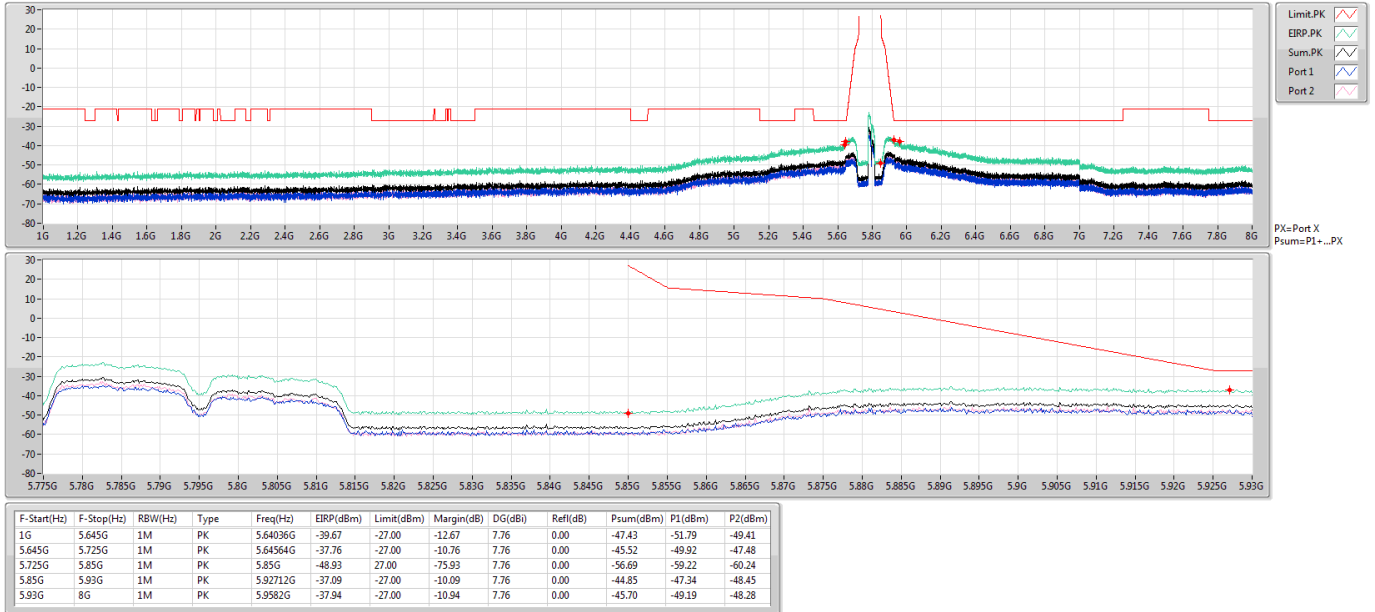


## 11a40\_Nss1,(6Mbps)\_2TX

5795MHz

CSE-PK

07/03/2020

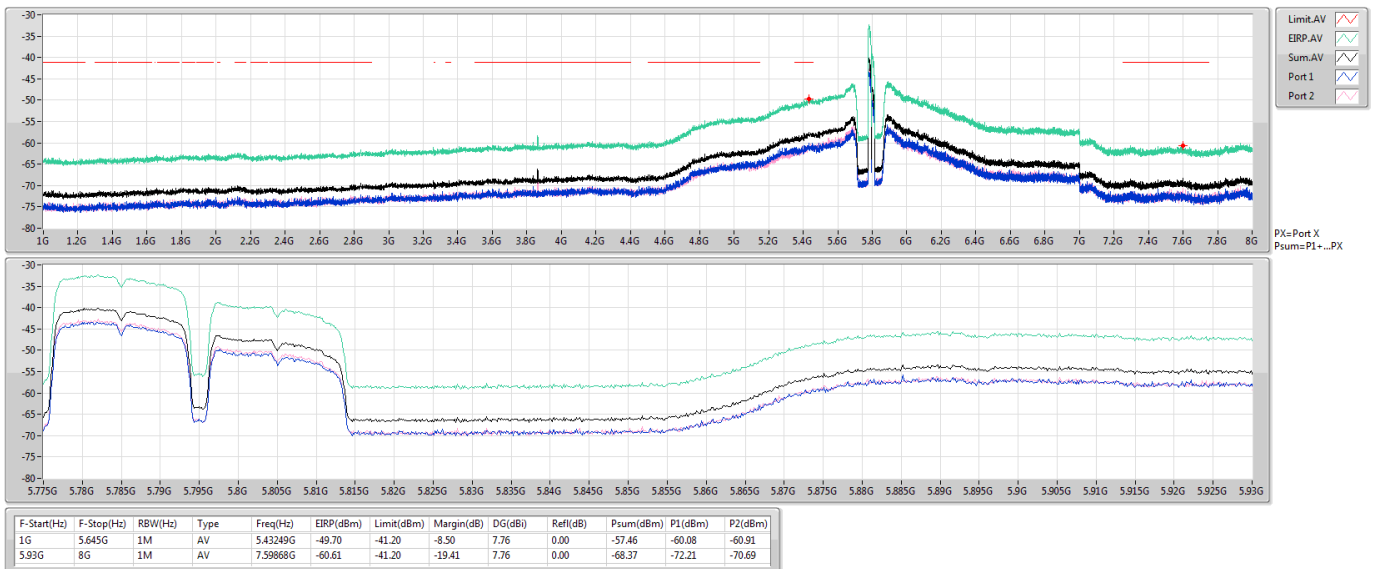


## 11a40\_Nss1,(6Mbps)\_2TX

5795MHz

CSE-AV

07/03/2020

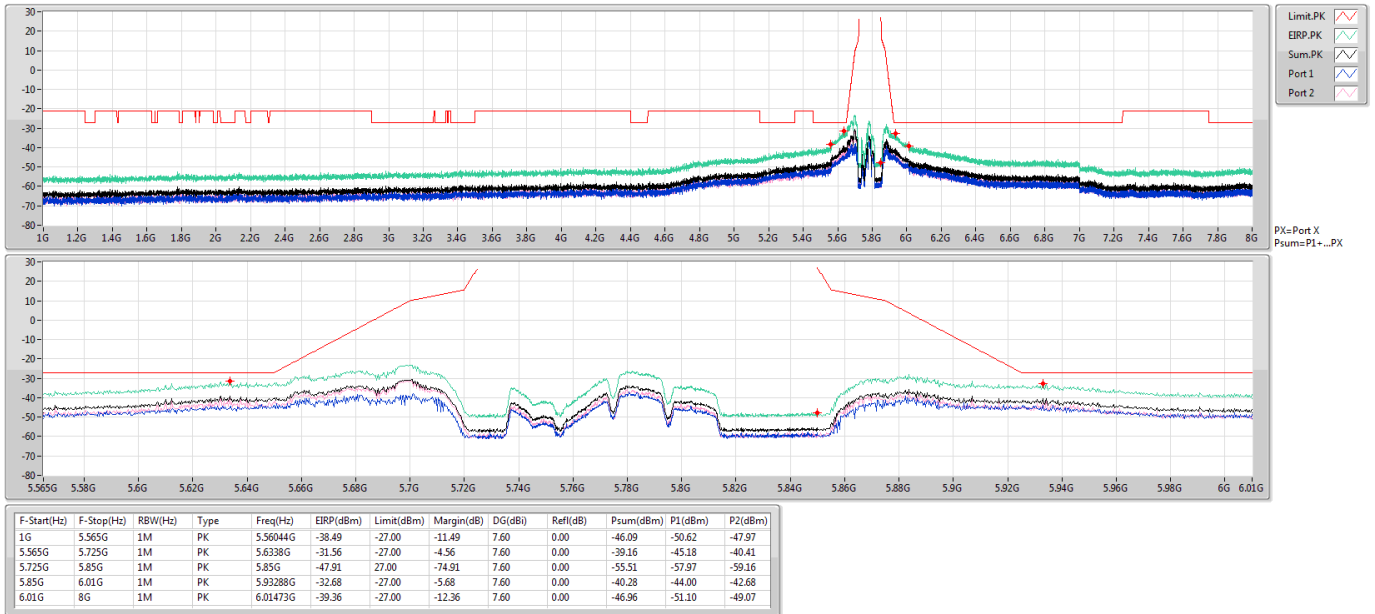


## 11a80\_Nss1,(6Mbps)\_2TX

5775MHz

CSE-PK

07/03/2020

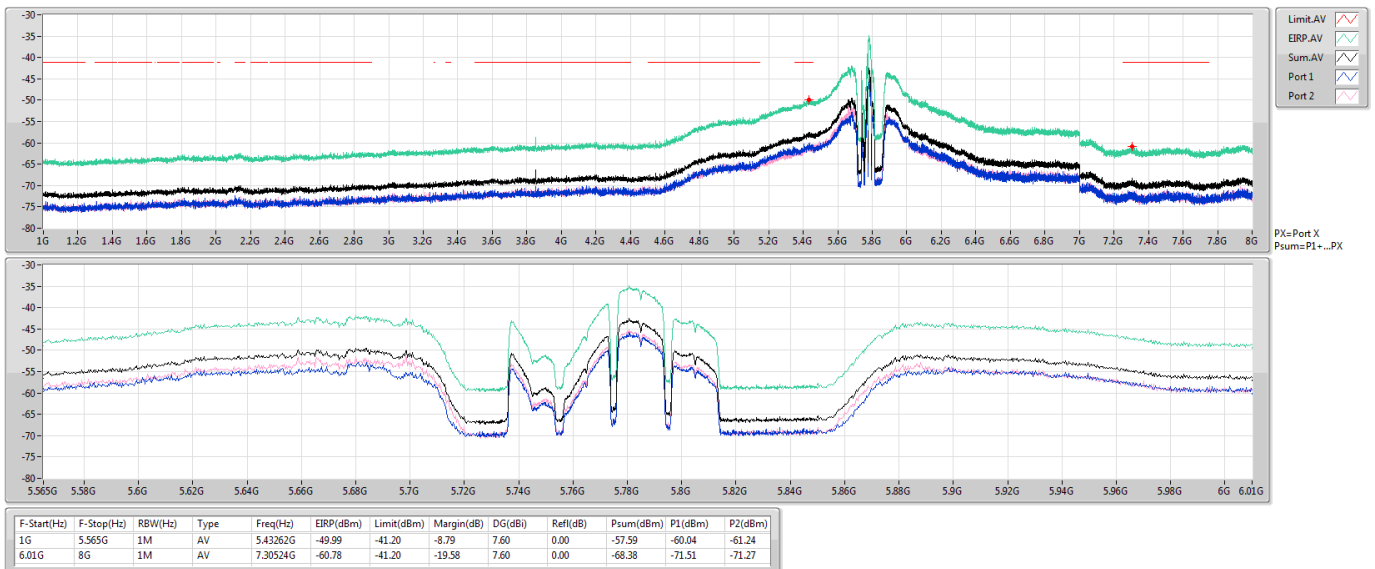


## 11a80\_Nss1,(6Mbps)\_2TX

5775MHz

CSE-AV

07/03/2020

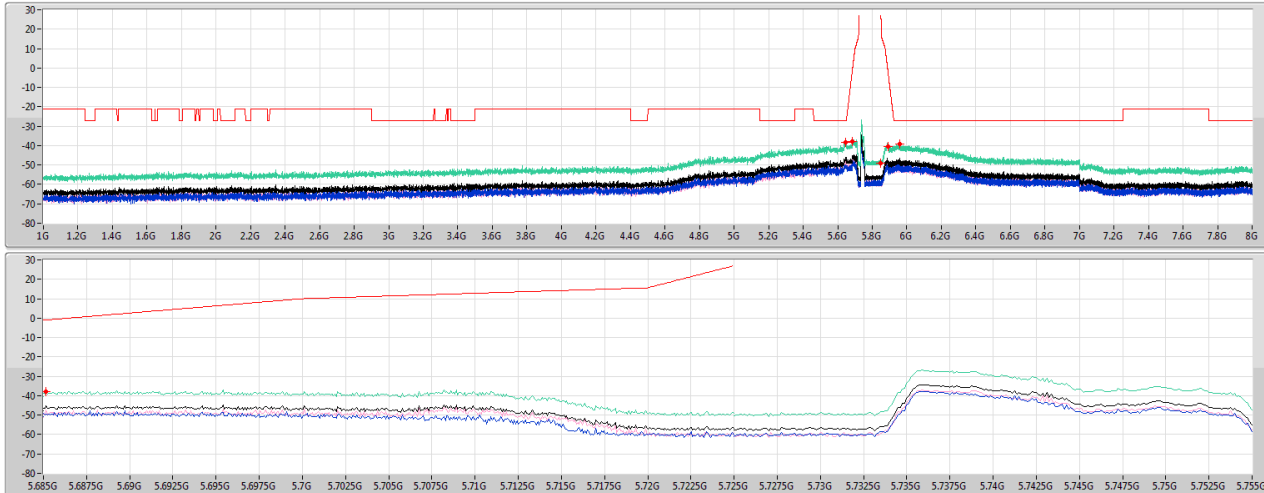


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5745MHz

CSE-PK

07/03/2020

PX=Port X  
Psum=P1+...PX

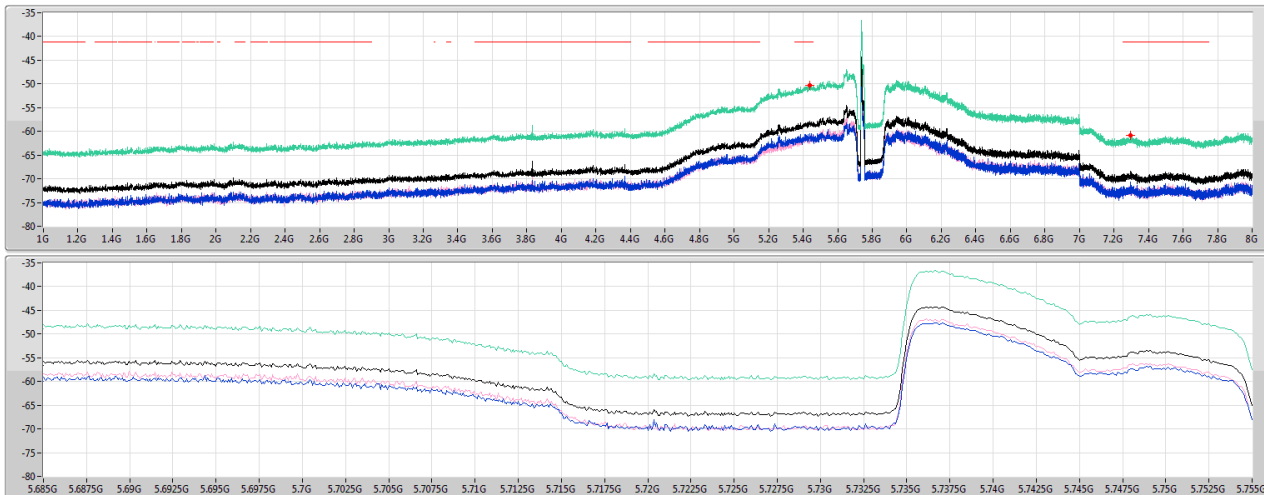
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 1G          | 5.685G     | 1M      | PK   | 5.64635G | -38.36    | -27.00     | -11.36     | 7.60   | 0.00    | -45.96    | -51.65  | -47.33  |
| 5.685G      | 5.725G     | 1M      | PK   | 5.68516G | -37.72    | -0.08      | -36.74     | 7.60   | 0.00    | -45.32    | -49.49  | -47.41  |
| 5.725G      | 5.85G      | 1M      | PK   | 5.85G    | -49.16    | 27.00      | -76.16     | 7.60   | 0.00    | -56.76    | -60.00  | -59.56  |
| 5.85G       | 5.89G      | 1M      | PK   | 5.89G    | -40.48    | -1.10      | -39.38     | 7.60   | 0.00    | -48.08    | -50.75  | -51.46  |
| 5.89G       | 8G         | 1M      | PK   | 5.95884G | -39.01    | -27.00     | -12.01     | 7.60   | 0.00    | -46.61    | -50.31  | -49.02  |

## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5745MHz

CSE-AV

07/03/2020

PX=Port X  
Psum=P1+...PX

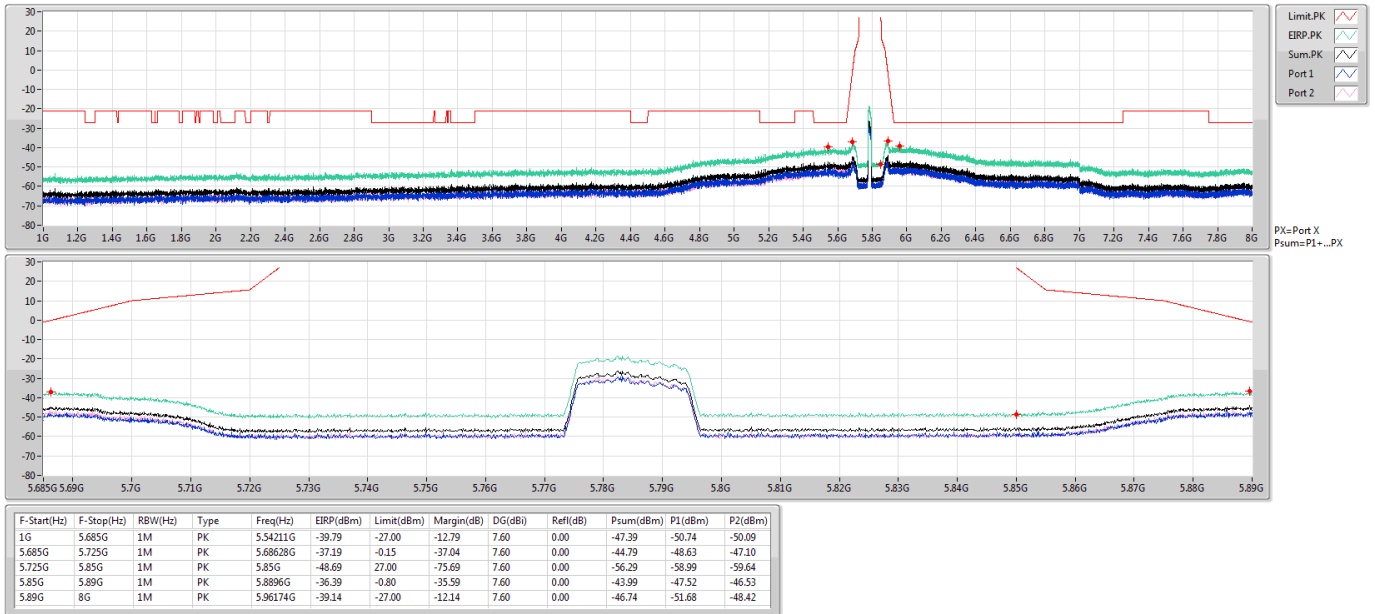
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 1G          | 5.685G     | 1M      | AV   | 5.44021G | -50.31    | -41.20     | -9.11      | 7.60   | 0.00    | -57.91    | -60.94  | -60.91  |
| 5.89G       | 8G         | 1M      | AV   | 7.2952G  | -60.77    | -41.20     | -19.57     | 7.60   | 0.00    | -68.37    | -70.66  | -72.25  |

## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5785MHz

CSE-PK

07/03/2020

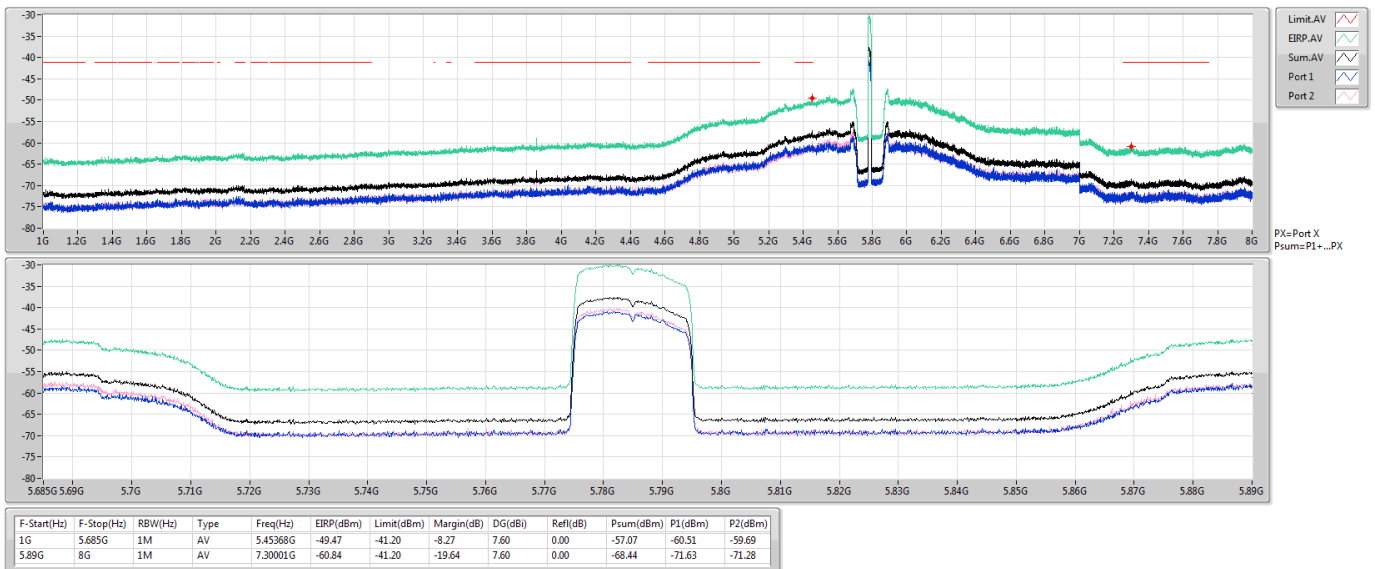


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5785MHz

CSE-AV

07/03/2020

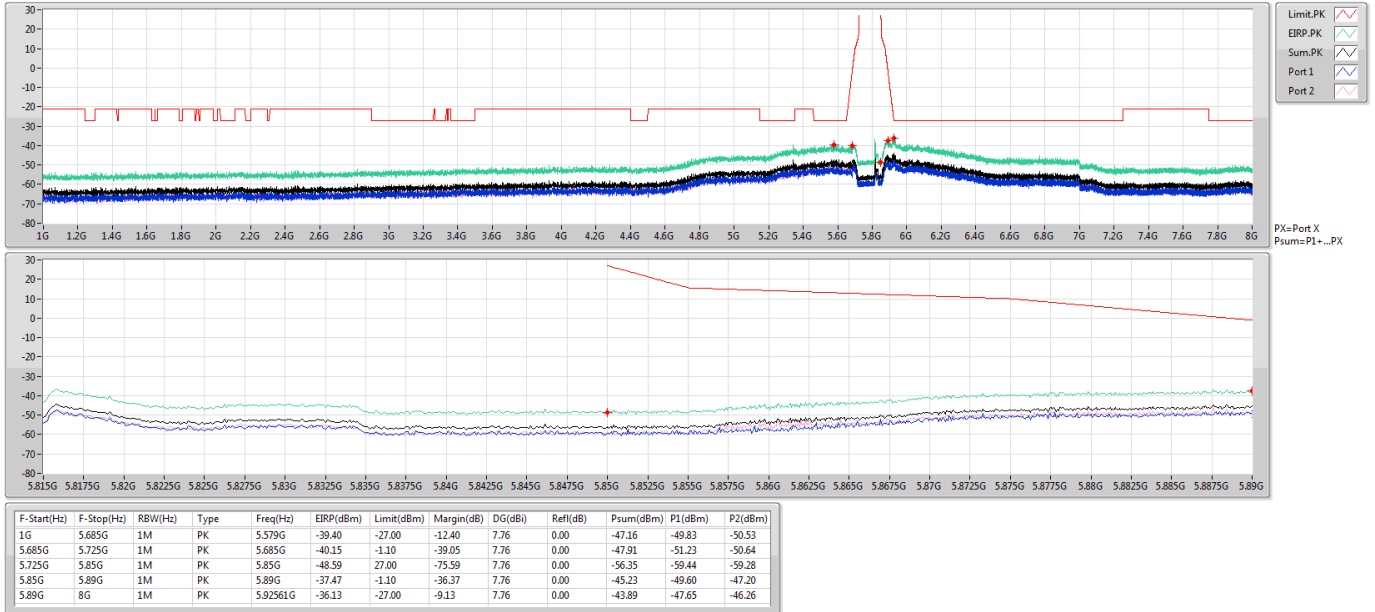


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5825MHz

CSE-PK

07/03/2020

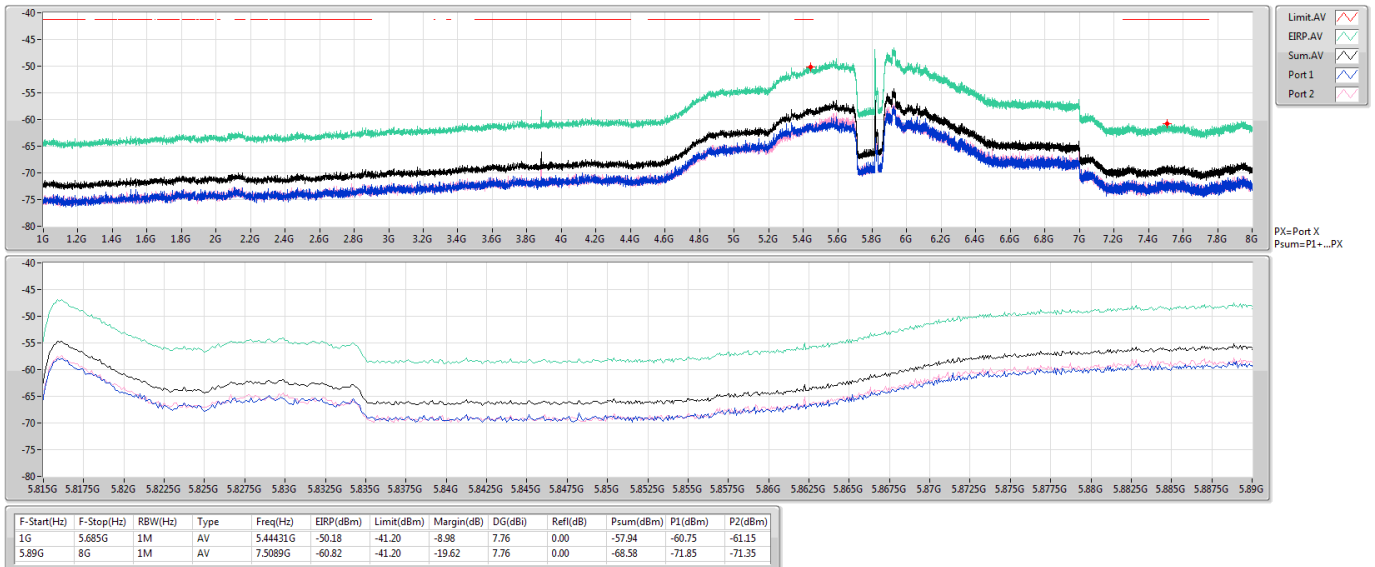


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5825MHz

CSE-AV

07/03/2020

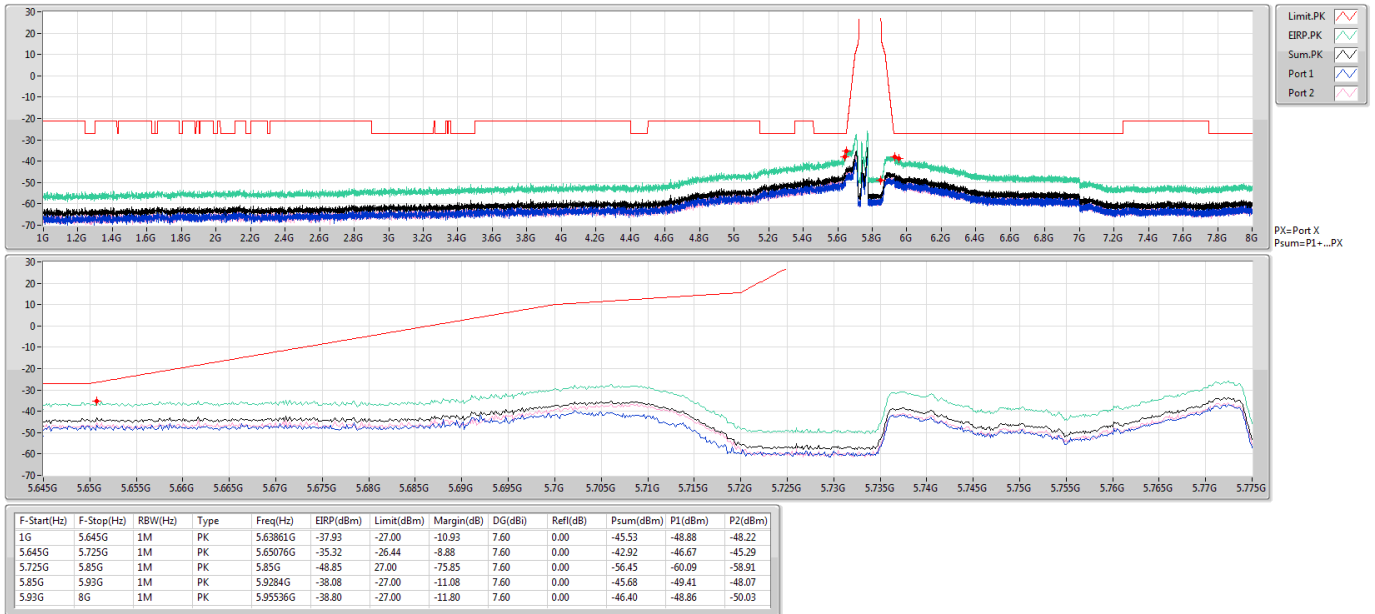


## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

5755MHz

CSE-PK

07/03/2020

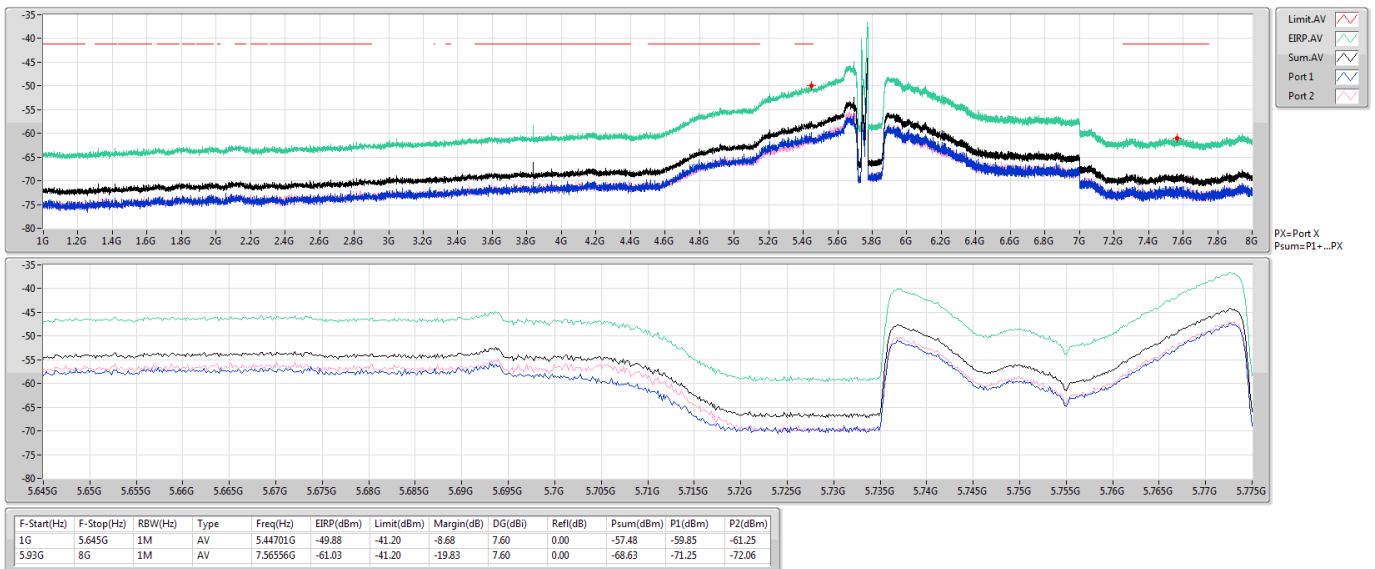


## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

5755MHz

CSE-AV

07/03/2020

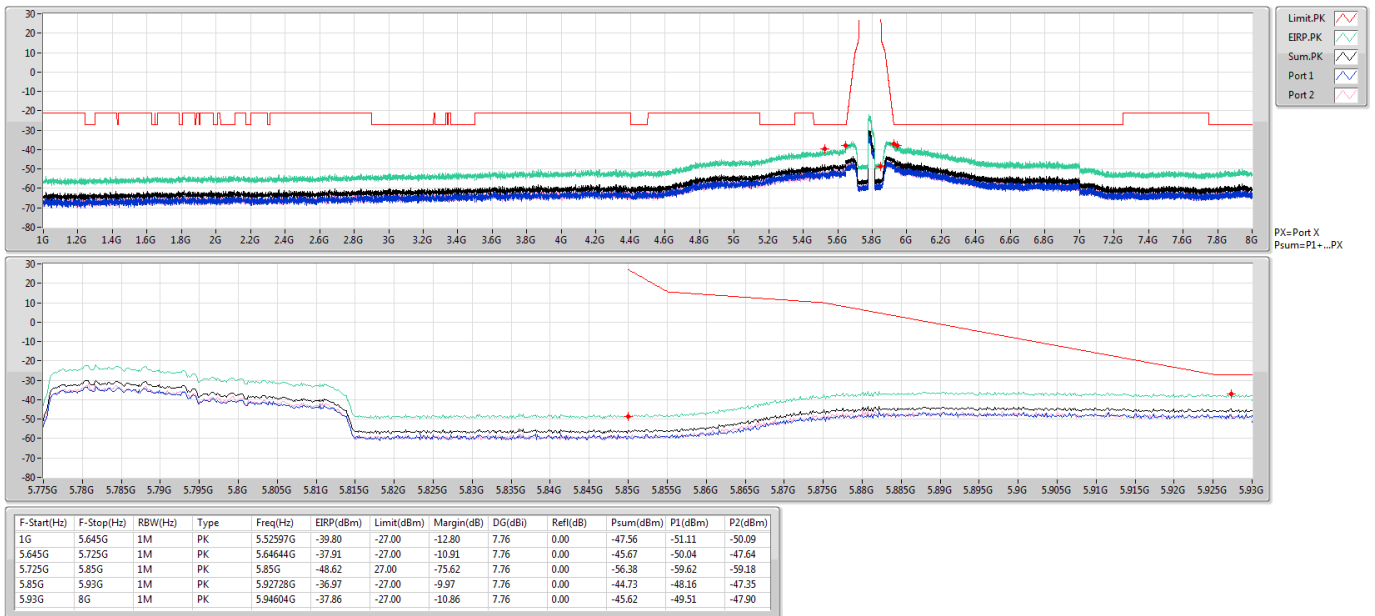


## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

5795MHz

CSE-PK

07/03/2020

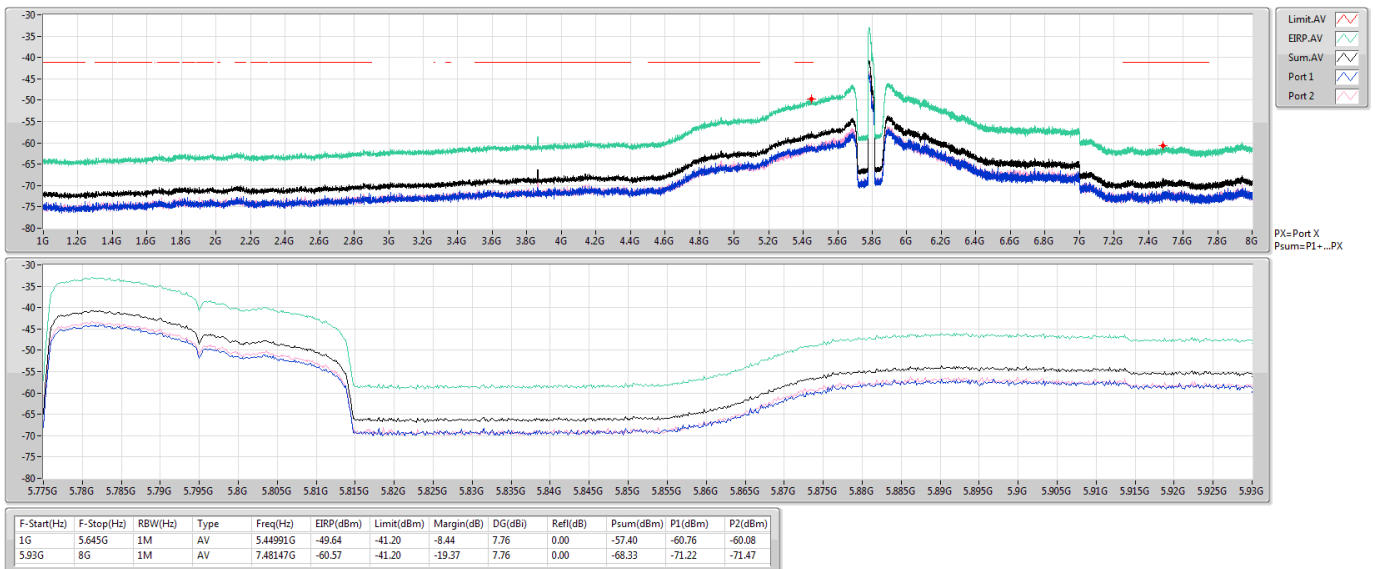


## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

5795MHz

CSE-AV

07/03/2020

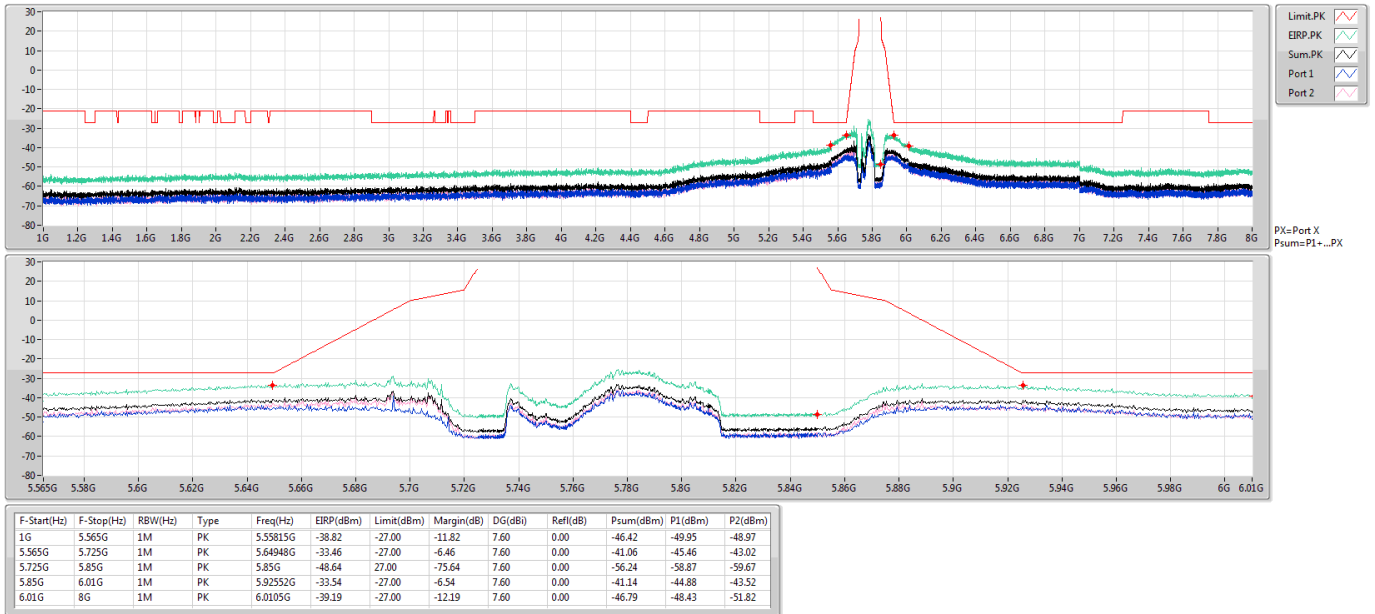


## 802.11ax HEW80\_Nss1,(MCS0)\_2TX

5775MHz

CSE-PK

07/03/2020

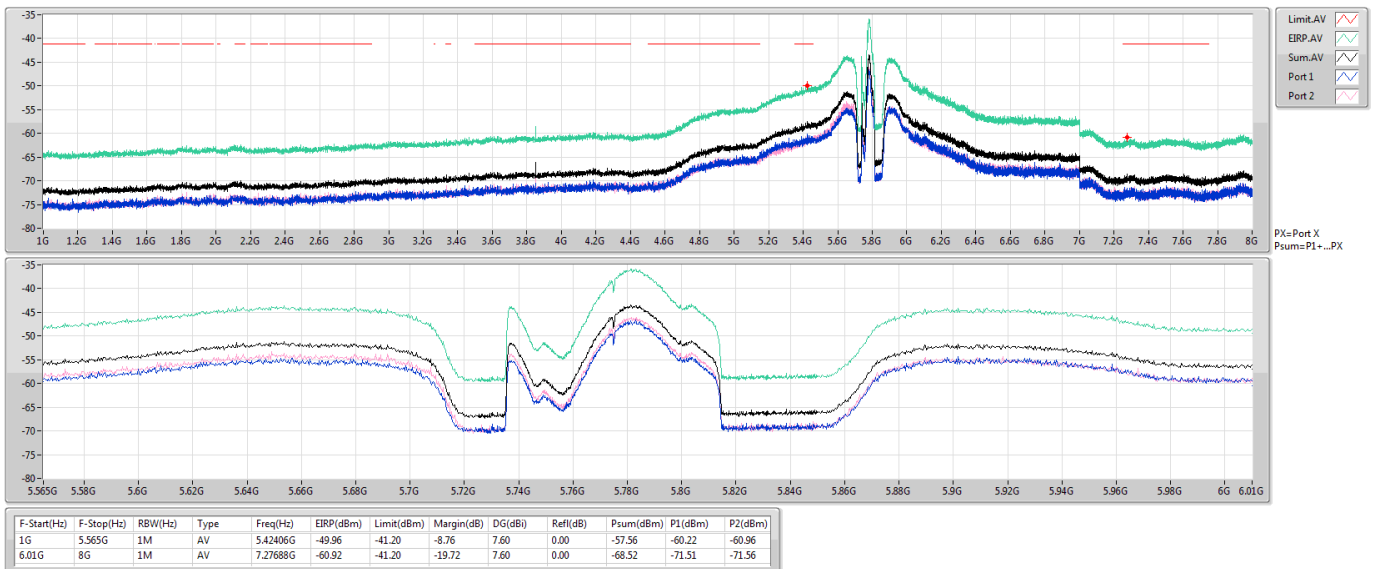


## 802.11ax HEW80\_Nss1,(MCS0)\_2TX

5775MHz

CSE-AV

07/03/2020



<2T1S>

For Conducted Harmonic (8~40GHz):

**Summary**

| Mode                           | Result | F-Start<br>(Hz) | F-Stop<br>(Hz) | Type | Freq<br>(Hz) | DG<br>(dBi) | P1<br>(dBm) | P2<br>(dBm) | Psum<br>(dBm) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------|--------|-----------------|----------------|------|--------------|-------------|-------------|-------------|---------------|---------------|----------------|----------------|
| 5.725-5.85GHz                  | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 11a20_Nss1,(6Mbps)_2TX         | Pass   | 8G              | 12G            | AV   | 11.65G       | 7.76        | -70.40      | -65.40      | -64.21        | -56.45        | -41.20         | -15.25         |
| 11a40_Nss1,(6Mbps)_2TX         | Pass   | 8G              | 12G            | AV   | 11.59G       | 7.76        | -73.22      | -70.32      | -68.52        | -60.76        | -41.20         | -19.56         |
| 11a80_Nss1,(6Mbps)_2TX         | Pass   | 12G             | 40G            | AV   | 40G          | 7.60        | -74.04      | -74.06      | -71.04        | -63.44        | -41.20         | -22.24         |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | Pass   | 8G              | 12G            | AV   | 11.651G      | 7.76        | -70.68      | -65.22      | -64.13        | -56.37        | -41.20         | -15.17         |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | Pass   | 8G              | 12G            | AV   | 11.5835G     | 7.76        | -72.98      | -71.51      | -69.17        | -61.41        | -41.20         | -20.21         |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | Pass   | 8G              | 12G            | AV   | 11.5455G     | 7.60        | -68.72      | -73.96      | -67.58        | -59.98        | -41.20         | -18.78         |

DG = Directional Gain;

PX=Port X; Psum=P1+.P2+...PX

**Result**

| Mode                           | Result | F-Start<br>(Hz) | F-Stop<br>(Hz) | Type | Freq<br>(Hz) | DG<br>(dBi) | P1<br>(dBm) | P2<br>(dBm) | Psum<br>(dBm) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------|--------|-----------------|----------------|------|--------------|-------------|-------------|-------------|---------------|---------------|----------------|----------------|
| 11a20_Nss1,(6Mbps)_2TX         | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5720MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5745MHz                        | Pass   | 8G              | 12G            | AV   | 11.4905G     | 7.60        | -69.58      | -69.53      | -66.54        | -58.94        | -41.20         | -17.74         |
| 5745MHz                        | Pass   | 12G             | 40G            | AV   | 39.993G      | 7.60        | -73.61      | -73.99      | -70.79        | -63.19        | -41.20         | -21.99         |
| 5745MHz                        | Pass   | 8G              | 12G            | PK   | 11.4855G     | 7.60        | -62.86      | -57.92      | -56.71        | -49.11        | -21.20         | -27.91         |
| 5745MHz                        | Pass   | 12G             | 40G            | PK   | 37.1475G     | 7.60        | -64.41      | -70.29      | -63.41        | -55.81        | -27.00         | -28.81         |
| 5785MHz                        | Pass   | 8G              | 12G            | AV   | 11.5695G     | 7.60        | -69.51      | -65.93      | -64.35        | -56.75        | -41.20         | -15.55         |
| 5785MHz                        | Pass   | 12G             | 40G            | AV   | 39.9965G     | 7.60        | -73.79      | -74.12      | -70.94        | -63.34        | -41.20         | -22.14         |
| 5785MHz                        | Pass   | 8G              | 12G            | PK   | 11.571G      | 7.60        | -61.99      | -55.90      | -54.94        | -47.34        | -21.20         | -26.14         |
| 5785MHz                        | Pass   | 12G             | 40G            | PK   | 37.361G      | 7.60        | -65.60      | -64.56      | -62.04        | -54.44        | -27.00         | -27.44         |
| 5825MHz                        | Pass   | 8G              | 12G            | AV   | 11.65G       | 7.76        | -70.40      | -65.40      | -64.21        | -56.45        | -41.20         | -15.25         |
| 5825MHz                        | Pass   | 12G             | 40G            | AV   | 39.9965G     | 7.76        | -74.38      | -74.01      | -71.18        | -63.42        | -41.20         | -22.22         |
| 5825MHz                        | Pass   | 8G              | 12G            | PK   | 11.6565G     | 7.76        | -62.35      | -56.50      | -55.50        | -47.74        | -21.20         | -26.54         |
| 5825MHz                        | Pass   | 12G             | 40G            | PK   | 37.228G      | 7.76        | -65.67      | -66.20      | -62.92        | -55.16        | -27.00         | -28.16         |
| 11a40_Nss1,(6Mbps)_2TX         | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5710MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5755MHz                        | Pass   | 8G              | 12G            | AV   | 11.51G       | 7.60        | -73.73      | -71.57      | -69.51        | -61.91        | -41.20         | -20.71         |
| 5755MHz                        | Pass   | 12G             | 40G            | AV   | 39.9825G     | 7.60        | -73.67      | -74.45      | -71.03        | -63.43        | -41.20         | -22.23         |
| 5755MHz                        | Pass   | 8G              | 12G            | PK   | 11.5075G     | 7.60        | -62.74      | -62.91      | -59.81        | -52.21        | -21.20         | -31.01         |
| 5755MHz                        | Pass   | 12G             | 40G            | PK   | 36.6155G     | 7.60        | -64.50      | -67.24      | -62.65        | -55.05        | -27.00         | -28.05         |
| 5795MHz                        | Pass   | 8G              | 12G            | AV   | 11.59G       | 7.76        | -73.22      | -70.32      | -68.52        | -60.76        | -41.20         | -19.56         |
| 5795MHz                        | Pass   | 12G             | 40G            | AV   | 39.9965G     | 7.76        | -73.64      | -73.38      | -70.50        | -62.74        | -41.20         | -21.54         |
| 5795MHz                        | Pass   | 8G              | 12G            | PK   | 11.587G      | 7.76        | -65.69      | -59.99      | -58.95        | -51.19        | -21.20         | -29.99         |
| 5795MHz                        | Pass   | 12G             | 40G            | PK   | 36.6785G     | 7.76        | -66.13      | -66.06      | -63.08        | -55.32        | -27.00         | -28.32         |
| 11a80_Nss1,(6Mbps)_2TX         | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5690MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5775MHz                        | Pass   | 8G              | 12G            | AV   | 11.559G      | 7.60        | -76.77      | -72.73      | -71.29        | -63.69        | -41.20         | -22.49         |
| 5775MHz                        | Pass   | 12G             | 40G            | AV   | 40G          | 7.60        | -74.04      | -74.06      | -71.04        | -63.44        | -41.20         | -22.24         |
| 5775MHz                        | Pass   | 8G              | 12G            | PK   | 11.563G      | 7.60        | -66.15      | -64.19      | -62.05        | -54.45        | -21.20         | -33.25         |
| 5775MHz                        | Pass   | 12G             | 40G            | PK   | 36.6855G     | 7.60        | -66.91      | -65.60      | -63.20        | -55.60        | -27.00         | -28.60         |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5720MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5745MHz                        | Pass   | 8G              | 12G            | AV   | 11.4905G     | 7.60        | -70.39      | -68.57      | -66.38        | -58.78        | -41.20         | -17.58         |
| 5745MHz                        | Pass   | 12G             | 40G            | AV   | 40G          | 7.60        | -73.56      | -73.68      | -70.61        | -63.01        | -41.20         | -21.81         |
| 5745MHz                        | Pass   | 8G              | 12G            | PK   | 11.4885G     | 7.60        | -64.22      | -59.13      | -57.96        | -50.36        | -21.20         | -29.16         |
| 5745MHz                        | Pass   | 12G             | 40G            | PK   | 37.2035G     | 7.60        | -65.34      | -68.21      | -63.53        | -55.93        | -27.00         | -28.93         |
| 5785MHz                        | Pass   | 8G              | 12G            | AV   | 11.57G       | 7.60        | -70.06      | -66.44      | -64.87        | -57.27        | -41.20         | -16.07         |
| 5785MHz                        | Pass   | 12G             | 40G            | AV   | 40G          | 7.60        | -74.45      | -73.71      | -71.05        | -63.45        | -41.20         | -22.25         |
| 5785MHz                        | Pass   | 8G              | 12G            | PK   | 11.5685G     | 7.60        | -62.06      | -55.98      | -55.02        | -47.42        | -21.20         | -26.22         |
| 5785MHz                        | Pass   | 12G             | 40G            | PK   | 37.1965G     | 7.60        | -68.34      | -64.71      | -63.15        | -55.55        | -27.00         | -28.55         |
| 5825MHz                        | Pass   | 8G              | 12G            | AV   | 11.651G      | 7.76        | -70.68      | -65.22      | -64.13        | -56.37        | -41.20         | -15.17         |
| 5825MHz                        | Pass   | 12G             | 40G            | AV   | 40G          | 7.76        | -74.20      | -73.44      | -70.79        | -63.03        | -41.20         | -21.83         |
| 5825MHz                        | Pass   | 8G              | 12G            | PK   | 11.654G      | 7.76        | -61.46      | -57.51      | -56.04        | -48.28        | -21.20         | -27.08         |
| 5825MHz                        | Pass   | 12G             | 40G            | PK   | 37.221G      | 7.76        | -66.48      | -66.19      | -63.32        | -55.56        | -27.00         | -28.56         |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5710MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5755MHz                        | Pass   | 8G              | 12G            | AV   | 11.51G       | 7.60        | -73.08      | -72.03      | -69.51        | -61.91        | -41.20         | -20.71         |
| 5755MHz                        | Pass   | 12G             | 40G            | AV   | 40G          | 7.60        | -73.47      | -74.27      | -70.84        | -63.24        | -41.20         | -22.04         |
| 5755MHz                        | Pass   | 8G              | 12G            | PK   | 11.511G      | 7.60        | -65.14      | -62.16      | -60.39        | -52.79        | -21.20         | -31.59         |
| 5755MHz                        | Pass   | 12G             | 40G            | PK   | 37.123G      | 7.60        | -68.87      | -64.81      | -63.37        | -55.77        | -27.00         | -28.77         |
| 5795MHz                        | Pass   | 8G              | 12G            | AV   | 11.5835G     | 7.76        | -72.98      | -71.51      | -69.17        | -61.41        | -41.20         | -20.21         |
| 5795MHz                        | Pass   | 12G             | 40G            | AV   | 39.9965G     | 7.76        | -73.81      | -73.80      | -70.79        | -63.03        | -41.20         | -21.83         |
| 5795MHz                        | Pass   | 8G              | 12G            | PK   | 11.589G      | 7.76        | -66.23      | -61.06      | -59.91        | -52.15        | -21.20         | -30.95         |

| Mode                           | Result | F-Start<br>(Hz) | F-Stop<br>(Hz) | Type | Freq<br>(Hz) | DG<br>(dBi) | P1<br>(dBm) | P2<br>(dBm) | Psum<br>(dBm) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------|--------|-----------------|----------------|------|--------------|-------------|-------------|-------------|---------------|---------------|----------------|----------------|
| 5795MHz                        | Pass   | 12G             | 40G            | PK   | 38.306G      | 7.76        | -67.14      | -65.27      | -63.09        | -55.33        | -27.00         | -28.33         |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5690MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5775MHz                        | Pass   | 8G              | 12G            | AV   | 11.5455G     | 7.60        | -68.72      | -73.96      | -67.58        | -59.98        | -41.20         | -18.78         |
| 5775MHz                        | Pass   | 12G             | 40G            | AV   | 39.993G      | 7.60        | -74.72      | -73.47      | -71.04        | -63.44        | -41.20         | -22.24         |
| 5775MHz                        | Pass   | 8G              | 12G            | PK   | 11.5775G     | 7.60        | -58.57      | -69.24      | -58.21        | -50.61        | -21.20         | -29.41         |
| 5775MHz                        | Pass   | 12G             | 40G            | PK   | 37.1755G     | 7.60        | -65.61      | -65.07      | -62.32        | -54.72        | -27.00         | -27.72         |

DG = Directional Gain;

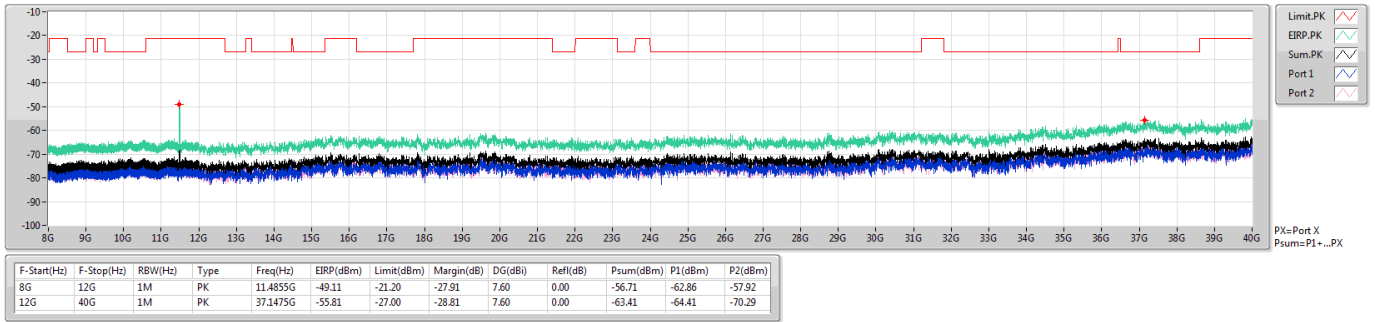
PX=Port X; Psum=P1+.P2+...PX

## 11a20\_Nss1,(6Mbps)\_2TX

5745MHz

CSE-PK

07/03/2020

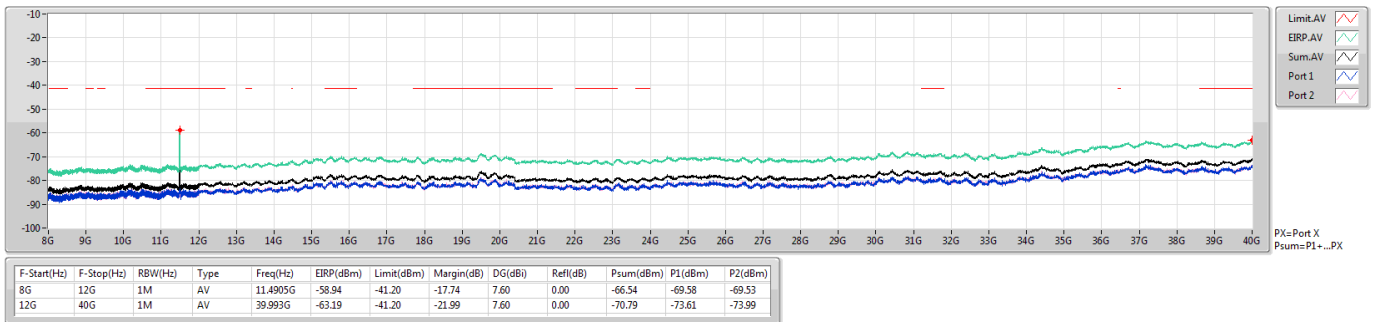


## 11a20\_Nss1,(6Mbps)\_2TX

5745MHz

CSE-AV

07/03/2020

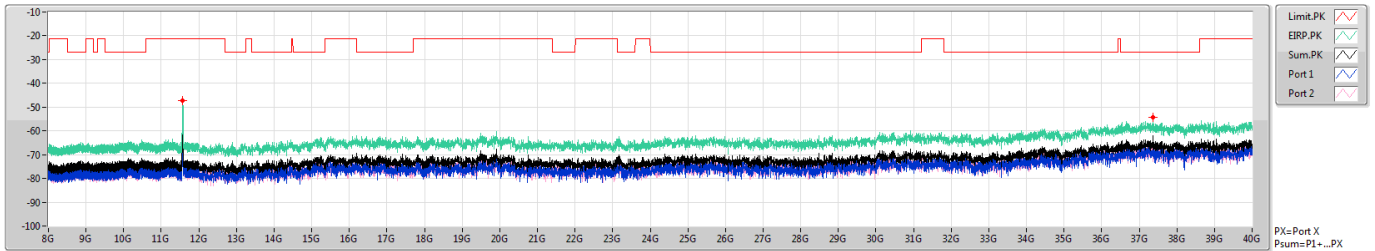


## 11a20\_Nss1,(6Mbps)\_2TX

5785MHz

CSE-PK

07/03/2020



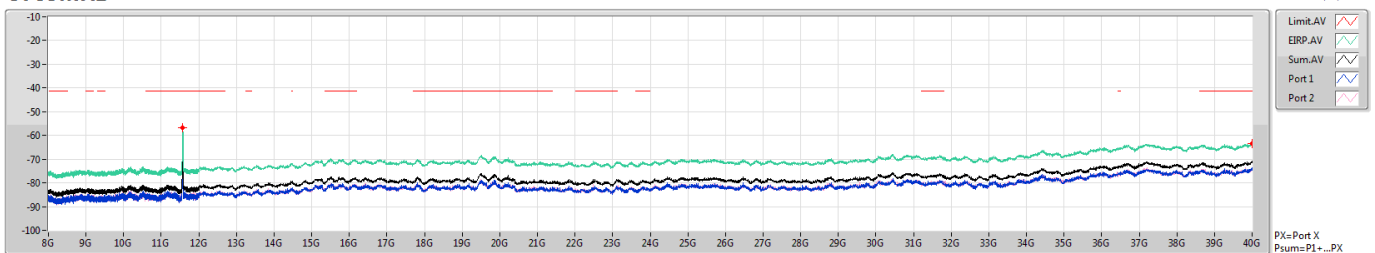
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.571G  | -47.34    | -21.20     | -26.14     | 7.60   | 0.00    | -54.94    | -61.99  | -55.90  |
| 12G         | 40G        | 1M      | PK   | 37.361G  | -54.44    | -27.00     | -27.44     | 7.60   | 0.00    | -62.04    | -65.60  | -64.56  |

## 11a20\_Nss1,(6Mbps)\_2TX

5785MHz

CSE-AV

07/03/2020



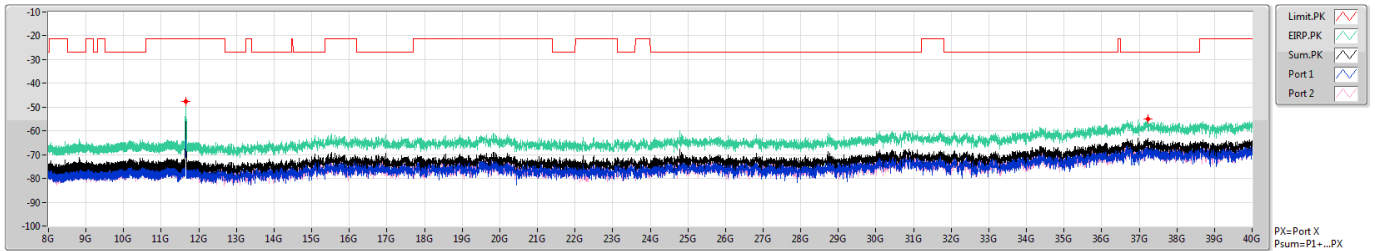
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.5695G | -56.75    | -41.20     | -15.55     | 7.60   | 0.00    | -64.35    | -69.51  | -65.93  |
| 12G         | 40G        | 1M      | AV   | 39.9965G | -63.34    | -41.20     | -22.14     | 7.60   | 0.00    | -70.94    | -73.79  | -74.12  |

## 11a20\_Nss1,(6Mbps)\_2TX

CSE-PK

5825MHz

07/03/2020



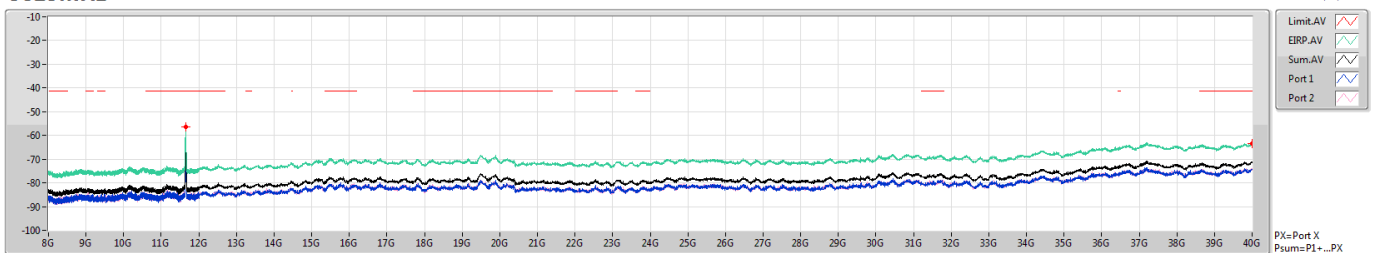
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.6565G | -47.74    | -21.20     | -26.54     | 7.76   | 0.00    | -55.50    | -62.35  | -56.50  |
| 12G         | 40G        | 1M      | PK   | 37.228G  | -55.16    | -27.00     | -28.16     | 7.76   | 0.00    | -62.92    | -65.67  | -66.20  |

## 11a20\_Nss1,(6Mbps)\_2TX

CSE-AV

5825MHz

07/03/2020



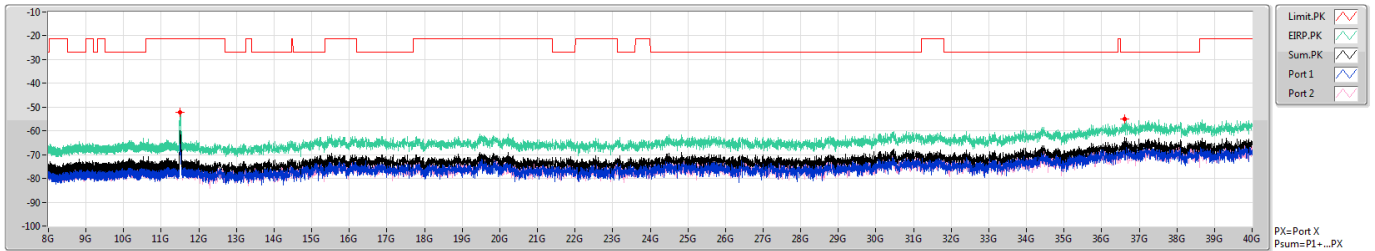
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.65G   | -56.45    | -41.20     | -15.25     | 7.76   | 0.00    | -64.21    | -70.40  | -65.40  |
| 12G         | 40G        | 1M      | AV   | 39.9965G | -63.42    | -41.20     | -22.22     | 7.76   | 0.00    | -71.18    | -74.38  | -74.01  |

## 11a40\_Nss1,(6Mbps)\_2TX

5755MHz

CSE-PK

07/03/2020



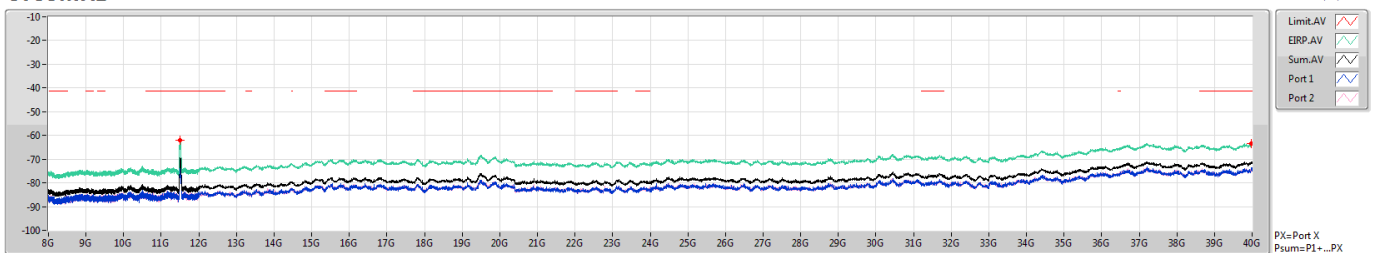
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dBi) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|---------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.5075G | -52.21    | -21.20     | -31.01     | 7.60    | 0.00    | -59.81    | -62.74  | -62.91  |
| 12G         | 40G        | 1M      | PK   | 36.6155G | -55.05    | -27.00     | -28.05     | 7.60    | 0.00    | -62.65    | -64.50  | -67.24  |

## 11a40\_Nss1,(6Mbps)\_2TX

5755MHz

CSE-AV

07/03/2020



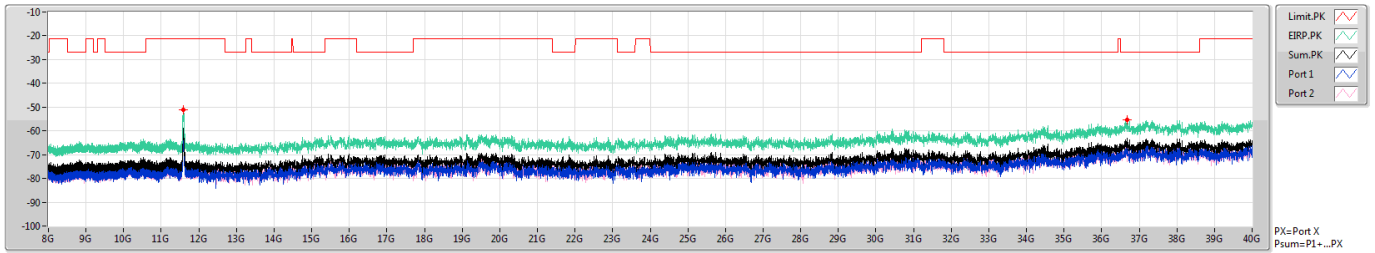
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dBi) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|---------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.51G   | -61.91    | -41.20     | -20.71     | 7.60    | 0.00    | -69.51    | -73.73  | -71.57  |
| 12G         | 40G        | 1M      | AV   | 39.9825G | -63.43    | -41.20     | -22.23     | 7.60    | 0.00    | -71.03    | -73.67  | -74.45  |

## 11a40\_Nss1,(6Mbps)\_2TX

5795MHz

CSE-PK

07/03/2020



| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.587G  | -51.19    | -21.20     | -29.99     | 7.76   | 0.00    | -58.95    | -65.69  | -59.99  |
| 12G         | 40G        | 1M      | PK   | 36.6785G | -55.32    | -27.00     | -28.32     | 7.76   | 0.00    | -63.08    | -66.13  | -66.06  |

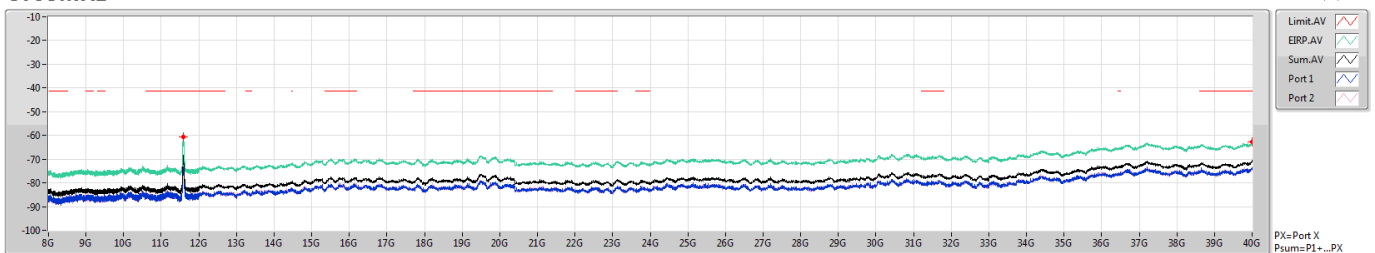
PX=Port X  
Psum=P1+...PX

## 11a40\_Nss1,(6Mbps)\_2TX

5795MHz

CSE-AV

07/03/2020



| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.59G   | -60.76    | -41.20     | -19.56     | 7.76   | 0.00    | -68.52    | -73.22  | -70.32  |
| 12G         | 40G        | 1M      | AV   | 39.9965G | -62.74    | -41.20     | -21.54     | 7.76   | 0.00    | -70.50    | -73.64  | -73.38  |

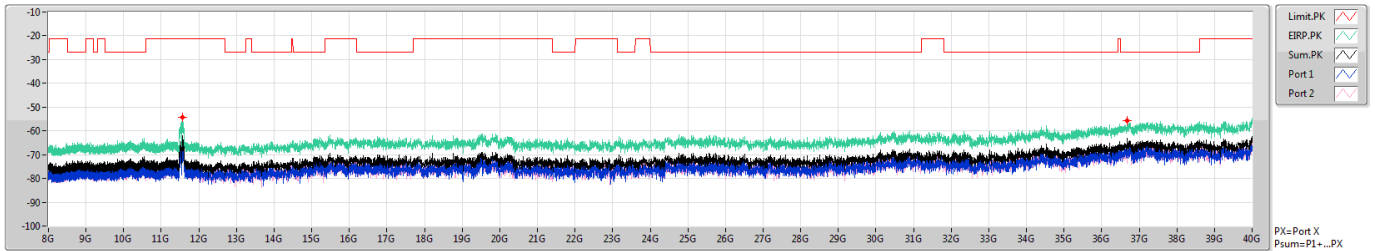
PX=Port X  
Psum=P1+...PX

## 11a80\_Nss1,(6Mbps)\_2TX

CSE-PK

5775MHz

07/03/2020



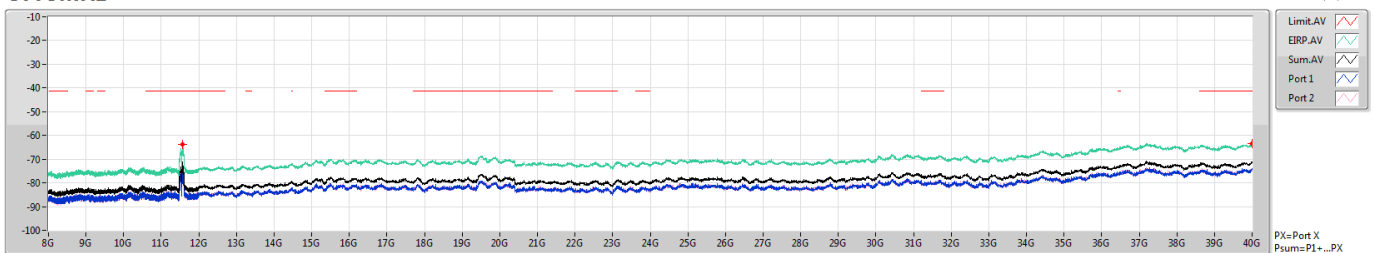
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.563G  | -54.45    | -21.20     | -33.25     | 7.60   | 0.00    | -62.05    | -66.15  | -64.19  |
| 12G         | 40G        | 1M      | PK   | 36.6855G | -55.60    | -27.00     | -28.60     | 7.60   | 0.00    | -63.20    | -66.91  | -65.60  |

## 11a80\_Nss1,(6Mbps)\_2TX

CSE-AV

5775MHz

07/03/2020



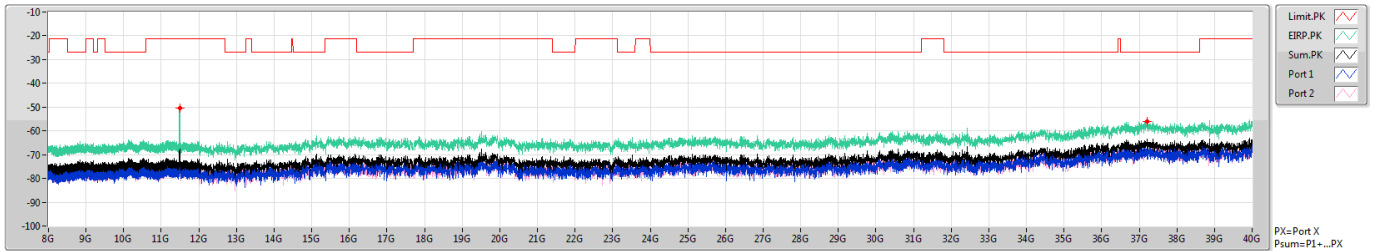
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.559G  | -63.69    | -41.20     | -22.49     | 7.60   | 0.00    | -71.29    | -76.77  | -72.73  |
| 12G         | 40G        | 1M      | AV   | 40G      | -63.44    | -41.20     | -22.24     | 7.60   | 0.00    | -71.04    | -74.04  | -74.06  |

## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

CSE-PK

5745MHz

07/03/2020



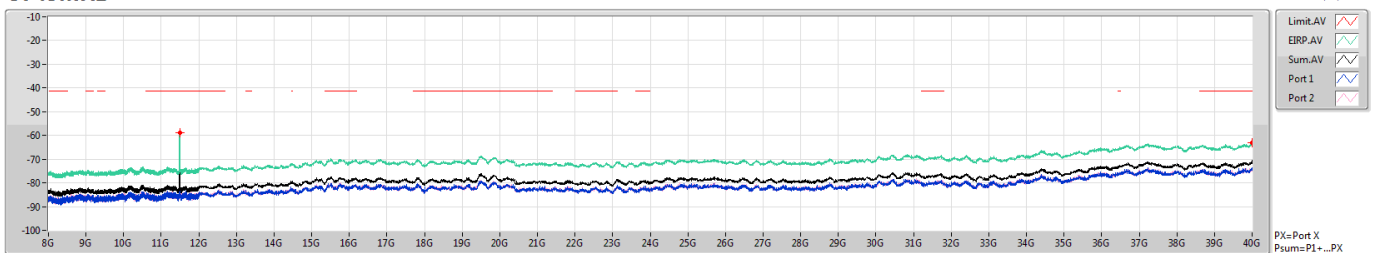
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.4885G | -50.36    | -21.20     | -29.16     | 7.60   | 0.00    | -57.96    | -64.22  | -59.13  |
| 12G         | 40G        | 1M      | PK   | 37.2035G | -55.93    | -27.00     | -28.93     | 7.60   | 0.00    | -63.53    | -65.34  | -68.21  |

## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

CSE-AV

5745MHz

07/03/2020



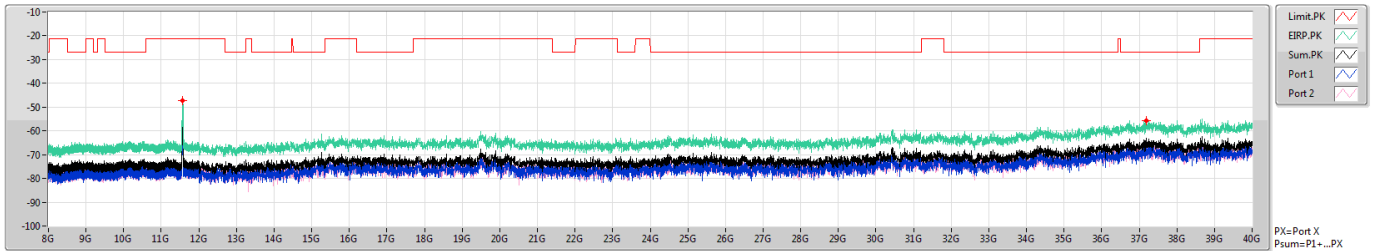
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.4905G | -58.78    | -41.20     | -17.58     | 7.60   | 0.00    | -66.38    | -70.39  | -68.57  |
| 12G         | 40G        | 1M      | AV   | 40G      | -63.01    | -41.20     | -21.81     | 7.60   | 0.00    | -70.61    | -73.56  | -73.68  |

## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

CSE-PK

5785MHz

07/03/2020

PX=Port X  
Psum=P1+...PX

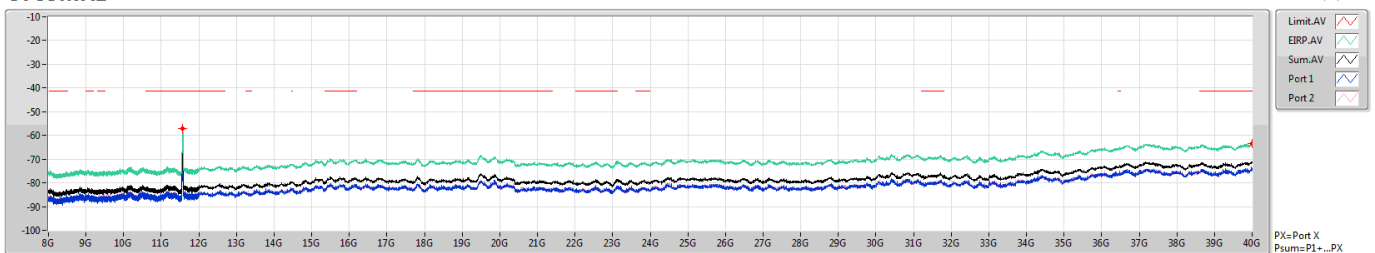
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.5685G | -47.42    | -21.20     | -26.22     | 7.60   | 0.00    | -55.02    | -62.06  | -55.98  |
| 12G         | 40G        | 1M      | PK   | 37.1965G | -55.55    | -27.00     | -28.55     | 7.60   | 0.00    | -63.15    | -68.34  | -64.71  |

## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

CSE-AV

5785MHz

07/03/2020

PX=Port X  
Psum=P1+...PX

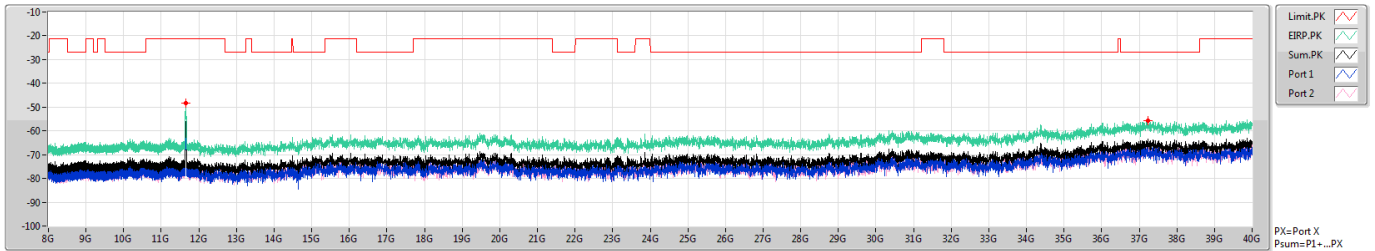
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.57G   | -57.27    | -41.20     | -16.07     | 7.60   | 0.00    | -64.87    | -70.06  | -66.44  |
| 12G         | 40G        | 1M      | AV   | 40G      | -63.45    | -41.20     | -22.25     | 7.60   | 0.00    | -71.05    | -74.45  | -73.71  |

## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

CSE-PK

5825MHz

07/03/2020

PX=Port X  
Psum=P1+...PX

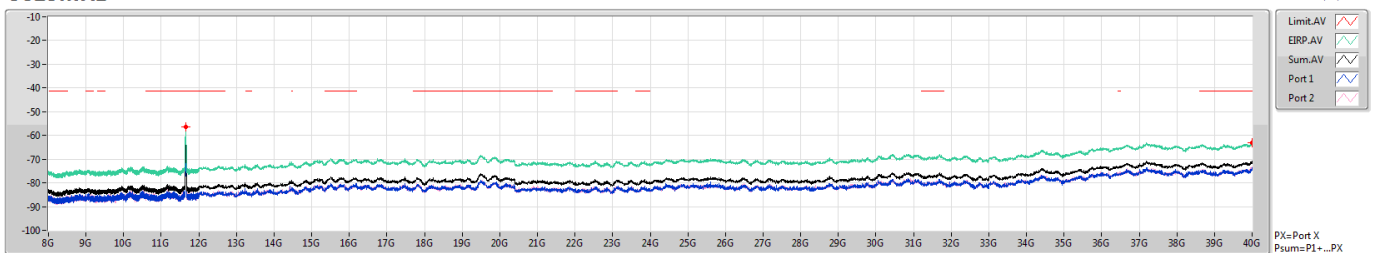
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dBi) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|---------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.654G  | -48.28    | -21.20     | -27.08     | 7.76    | 0.00    | -56.04    | -61.46  | -57.51  |
| 12G         | 40G        | 1M      | PK   | 37.221G  | -55.56    | -27.00     | -28.56     | 7.76    | 0.00    | -63.32    | -66.48  | -66.19  |

## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

CSE-AV

5825MHz

07/03/2020

PX=Port X  
Psum=P1+...PX

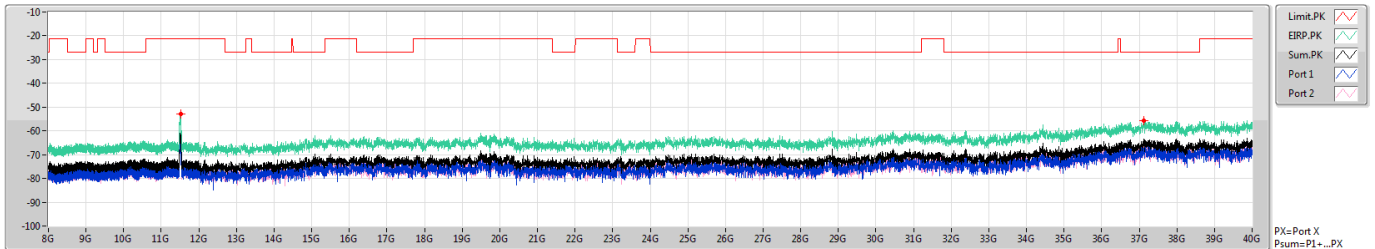
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dBi) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|---------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.651G  | -56.37    | -41.20     | -15.17     | 7.76    | 0.00    | -64.13    | -70.68  | -65.22  |
| 12G         | 40G        | 1M      | AV   | 40G      | -63.03    | -41.20     | -21.83     | 7.76    | 0.00    | -70.79    | -74.20  | -73.44  |

## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

CSE-PK

5755MHz

07/03/2020

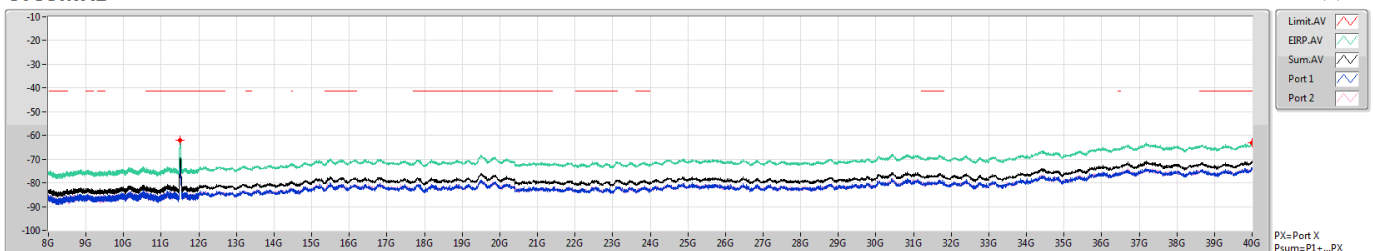
PX=Port X  
Psum=P1+...PX

## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

CSE-AV

5755MHz

07/03/2020

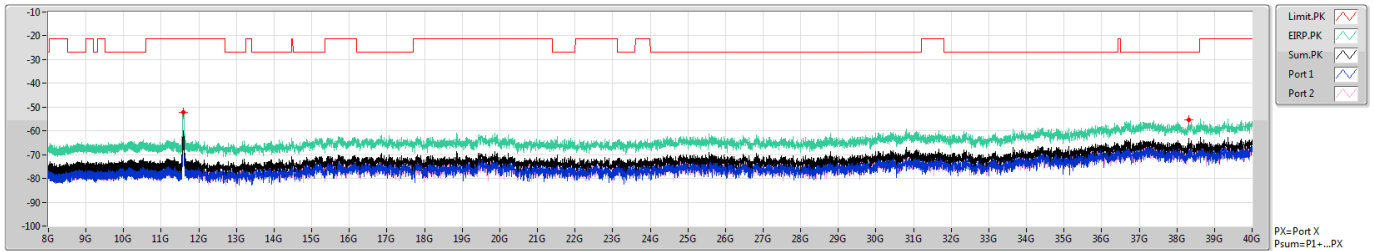
PX=Port X  
Psum=P1+...PX

## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

CSE-PK

5795MHz

07/03/2020



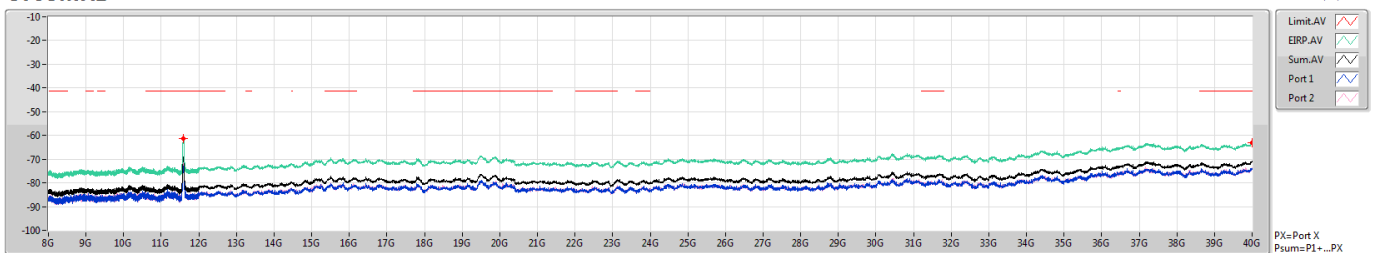
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.589G  | -52.15    | -21.20     | -30.95     | 7.76   | 0.00    | -59.91    | -66.23  | -61.06  |
| 12G         | 40G        | 1M      | PK   | 38.306G  | -55.33    | -27.00     | -28.33     | 7.76   | 0.00    | -63.09    | -67.14  | -65.27  |

## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

CSE-AV

5795MHz

07/03/2020



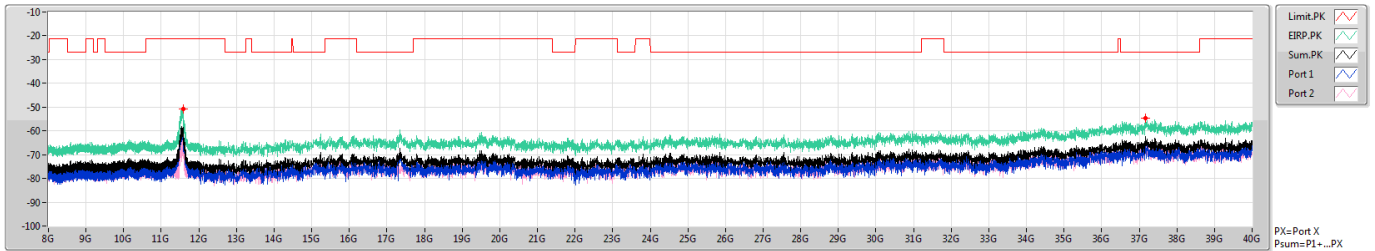
| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.5835G | -61.41    | -41.20     | -20.21     | 7.76   | 0.00    | -69.17    | -72.98  | -71.51  |
| 12G         | 40G        | 1M      | AV   | 39.9965G | -63.03    | -41.20     | -21.83     | 7.76   | 0.00    | -70.79    | -73.81  | -73.80  |

## 802.11ax HEW80\_Nss1,(MCS0)\_2TX

CSE-PK

5775MHz

07/03/2020



| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | PK   | 11.5775G | -50.61    | -21.20     | -29.41     | 7.60   | 0.00    | -58.21    | -58.57  | -69.24  |
| 12G         | 40G        | 1M      | PK   | 37.1755G | -54.72    | -27.00     | -27.72     | 7.60   | 0.00    | -62.32    | -65.61  | -65.07  |

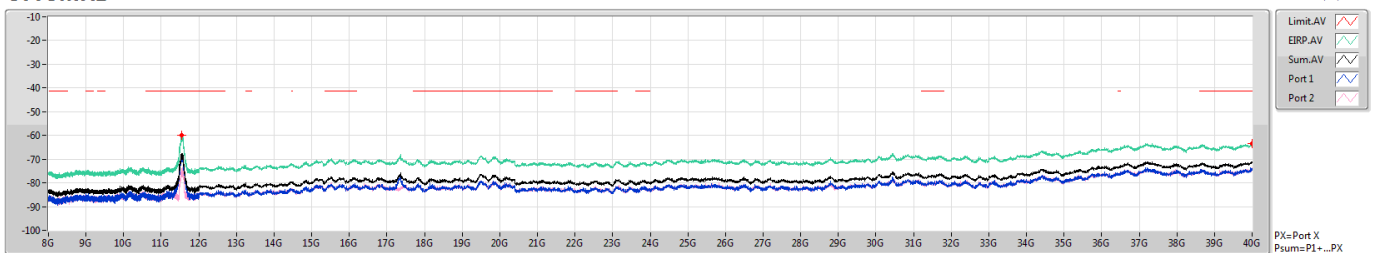
PX=Port X  
Psum=P1+...PX

## 802.11ax HEW80\_Nss1,(MCS0)\_2TX

CSE-AV

5775MHz

07/03/2020



| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | Type | Freq(Hz) | EIRP(dBm) | Limit(dBm) | Margin(dB) | DG(dB) | Ref(dB) | Psum(dBm) | P1(dBm) | P2(dBm) |
|-------------|------------|---------|------|----------|-----------|------------|------------|--------|---------|-----------|---------|---------|
| 8G          | 12G        | 1M      | AV   | 11.5455G | -59.98    | -41.20     | -18.78     | 7.60   | 0.00    | -67.58    | -68.72  | -73.96  |
| 12G         | 40G        | 1M      | AV   | 39.993G  | -63.44    | -41.20     | -22.24     | 7.60   | 0.00    | -71.04    | -74.72  | -73.47  |

PX=Port X  
Psum=P1+...PX

<2T1S>

For Conducted Bandedge:

### Summary

| Mode                           | Result | F-Start<br>(Hz) | F-Stop<br>(Hz) | Type | Freq<br>(Hz) | DG<br>(dBi) | P1<br>(dBm) | P2<br>(dBm) | Psum<br>(dBm) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------|--------|-----------------|----------------|------|--------------|-------------|-------------|-------------|---------------|---------------|----------------|----------------|
| 5.725-5.85GHz                  | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 11a20_Nss1,(6Mbps)_2TX         | Pass   | 4.9G            | 5.685G         | AV   | 5.45038G     | 7.60        | -57.05      | -57.62      | -54.32        | -46.72        | -41.20         | -5.52          |
| 11a40_Nss1,(6Mbps)_2TX         | Pass   | 4.9G            | 5.645G         | AV   | 5.42821G     | 7.60        | -57.15      | -57.37      | -54.25        | -46.65        | -41.20         | -5.45          |
| 11a80_Nss1,(6Mbps)_2TX         | Pass   | 5.565G          | 5.725G         | PK   | 5.63188G     | 7.60        | -43.55      | -39.15      | -37.80        | -30.20        | -27.00         | -3.20          |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | Pass   | 4.9G            | 5.685G         | AV   | 5.44351G     | 7.60        | -56.31      | -58.69      | -54.33        | -46.73        | -41.20         | -5.53          |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | Pass   | 4.9G            | 5.645G         | AV   | 5.45288G     | 7.76        | -58.05      | -57.07      | -54.52        | -46.76        | -41.20         | -5.56          |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | Pass   | 5.565G          | 5.725G         | PK   | 5.64884G     | 7.60        | -43.25      | -39.72      | -38.13        | -30.53        | -27.00         | -3.53          |

DG = Directional Gain;

PX=Port X; Psum=P1+.P2+...PX

**Result**

| Mode                           | Result | F-Start<br>(Hz) | F-Stop<br>(Hz) | Type | Freq<br>(Hz) | DG<br>(dBi) | P1<br>(dBm) | P2<br>(dBm) | Psum<br>(dBm) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------|--------|-----------------|----------------|------|--------------|-------------|-------------|-------------|---------------|---------------|----------------|----------------|
| 11a20_Nss1,(6Mbps)_2TX         | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5720MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5745MHz                        | Pass   | 4.9G            | 5.685G         | AV   | 5.44283G     | 7.60        | -57.33      | -57.51      | -54.41        | -46.81        | -41.20         | -5.61          |
| 5745MHz                        | Pass   | 4.9G            | 5.685G         | PK   | 5.64183G     | 7.60        | -46.84      | -45.81      | -43.28        | -35.68        | -27.00         | -8.68          |
| 5745MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.68508G     | 7.60        | -45.39      | -44.66      | -42.00        | -34.40        | -1.04          | -33.36         |
| 5745MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.88968G     | 7.60        | -44.42      | -45.76      | -42.03        | -34.43        | -0.86          | -33.57         |
| 5745MHz                        | Pass   | 5.89G           | 6.5G           | PK   | 5.94002G     | 7.60        | -45.68      | -44.42      | -41.99        | -34.39        | -27.00         | -7.39          |
| 5785MHz                        | Pass   | 4.9G            | 5.685G         | AV   | 5.45038G     | 7.60        | -57.05      | -57.62      | -54.32        | -46.72        | -41.20         | -5.52          |
| 5785MHz                        | Pass   | 4.9G            | 5.685G         | PK   | 5.60778G     | 7.60        | -49.03      | -44.92      | -43.50        | -35.90        | -27.00         | -8.90          |
| 5785MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.68556G     | 7.60        | -45.22      | -44.25      | -41.70        | -34.10        | -0.69          | -33.41         |
| 5785MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.88968G     | 7.60        | -43.03      | -44.58      | -40.73        | -33.13        | -0.86          | -32.27         |
| 5785MHz                        | Pass   | 5.89G           | 6.5G           | PK   | 6.05279G     | 7.60        | -44.79      | -46.31      | -42.47        | -34.87        | -27.00         | -7.87          |
| 5825MHz                        | Pass   | 4.9G            | 5.685G         | AV   | 5.44253G     | 7.76        | -57.40      | -57.77      | -54.57        | -46.81        | -41.20         | -5.61          |
| 5825MHz                        | Pass   | 4.9G            | 5.685G         | PK   | 5.61926G     | 7.76        | -46.09      | -46.57      | -43.31        | -35.55        | -27.00         | -8.55          |
| 5825MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.68516G     | 7.76        | -46.58      | -45.82      | -43.17        | -35.41        | -0.98          | -34.43         |
| 5825MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.88976G     | 7.76        | -43.60      | -43.61      | -40.59        | -32.83        | -0.92          | -31.91         |
| 5825MHz                        | Pass   | 5.89G           | 6.5G           | PK   | 5.92706G     | 7.76        | -45.28      | -43.84      | -41.49        | -33.73        | -27.00         | -6.73          |
| 11a40_Nss1,(6Mbps)_2TX         | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5710MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5755MHz                        | Pass   | 4.9G            | 5.645G         | AV   | 5.42821G     | 7.60        | -57.15      | -57.37      | -54.25        | -46.65        | -41.20         | -5.45          |
| 5755MHz                        | Pass   | 4.9G            | 5.645G         | PK   | 5.64267G     | 7.60        | -47.90      | -43.78      | -42.36        | -34.76        | -27.00         | -7.76          |
| 5755MHz                        | Pass   | 5.645G          | 5.725G         | PK   | 5.6474G      | 7.60        | -46.26      | -42.61      | -41.05        | -33.45        | -27.00         | -6.45          |
| 5755MHz                        | Pass   | 5.85G           | 5.93G          | PK   | 5.92664G     | 7.60        | -44.04      | -44.52      | -41.26        | -33.66        | -27.00         | -6.66          |
| 5755MHz                        | Pass   | 5.93G           | 6.5G           | PK   | 5.94454G     | 7.60        | -46.71      | -44.27      | -42.31        | -34.71        | -27.00         | -7.71          |
| 5795MHz                        | Pass   | 4.9G            | 5.645G         | AV   | 5.44739G     | 7.76        | -56.44      | -58.90      | -54.49        | -46.73        | -41.20         | -5.53          |
| 5795MHz                        | Pass   | 4.9G            | 5.645G         | PK   | 5.58009G     | 7.76        | -46.11      | -45.60      | -42.84        | -35.08        | -27.00         | -8.08          |
| 5795MHz                        | Pass   | 5.645G          | 5.725G         | PK   | 5.649G       | 7.76        | -45.26      | -45.03      | -42.13        | -34.37        | -27.00         | -7.37          |
| 5795MHz                        | Pass   | 5.85G           | 5.93G          | PK   | 5.92472G     | 7.76        | -43.59      | -44.32      | -40.93        | -33.17        | -26.79         | -6.38          |
| 5795MHz                        | Pass   | 5.93G           | 6.5G           | PK   | 5.93791G     | 7.76        | -44.56      | -45.16      | -41.84        | -34.08        | -27.00         | -7.08          |
| 11a80_Nss1,(6Mbps)_2TX         | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5690MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5775MHz                        | Pass   | 4.9G            | 5.565G         | AV   | 5.45278G     | 7.60        | -56.93      | -57.86      | -54.36        | -46.76        | -41.20         | -5.56          |
| 5775MHz                        | Pass   | 4.9G            | 5.565G         | PK   | 5.56226G     | 7.60        | -49.25      | -42.81      | -41.92        | -34.32        | -27.00         | -7.32          |
| 5775MHz                        | Pass   | 5.565G          | 5.725G         | PK   | 5.63188G     | 7.60        | -43.55      | -39.15      | -37.80        | -30.20        | -27.00         | -3.20          |
| 5775MHz                        | Pass   | 5.85G           | 6.01G          | PK   | 5.93608G     | 7.60        | -43.49      | -39.61      | -38.12        | -30.52        | -27.00         | -3.52          |
| 5775MHz                        | Pass   | 6.01G           | 6.5G           | PK   | 6.02868G     | 7.60        | -44.74      | -45.56      | -42.12        | -34.52        | -27.00         | -7.52          |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5720MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5745MHz                        | Pass   | 4.9G            | 5.685G         | AV   | 5.45951G     | 7.60        | -58.02      | -57.35      | -54.66        | -47.06        | -41.20         | -5.86          |
| 5745MHz                        | Pass   | 4.9G            | 5.685G         | PK   | 5.64349G     | 7.60        | -48.30      | -43.95      | -42.59        | -34.99        | -27.00         | -7.99          |
| 5745MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.68588G     | 7.60        | -43.91      | -45.08      | -41.45        | -33.85        | -0.45          | -33.40         |
| 5745MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.89G        | 7.60        | -47.31      | -45.01      | -43.00        | -35.40        | -1.10          | -34.30         |
| 5745MHz                        | Pass   | 5.89G           | 6.5G           | PK   | 6.03442G     | 7.60        | -47.09      | -43.57      | -41.97        | -34.37        | -27.00         | -7.37          |
| 5785MHz                        | Pass   | 4.9G            | 5.685G         | AV   | 5.44351G     | 7.60        | -56.31      | -58.69      | -54.33        | -46.73        | -41.20         | -5.53          |
| 5785MHz                        | Pass   | 4.9G            | 5.685G         | PK   | 5.6012G      | 7.60        | -46.55      | -45.75      | -43.12        | -35.52        | -27.00         | -8.52          |
| 5785MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.68524G     | 7.60        | -45.59      | -44.47      | -41.98        | -34.38        | -0.92          | -33.46         |
| 5785MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.88976G     | 7.60        | -44.94      | -42.98      | -40.84        | -33.24        | -0.92          | -32.32         |
| 5785MHz                        | Pass   | 5.89G           | 6.5G           | PK   | 6.04631G     | 7.60        | -45.00      | -46.02      | -42.47        | -34.87        | -27.00         | -7.87          |
| 5825MHz                        | Pass   | 4.9G            | 5.685G         | AV   | 5.42889G     | 7.76        | -57.16      | -58.30      | -54.68        | -46.92        | -41.20         | -5.72          |
| 5825MHz                        | Pass   | 4.9G            | 5.685G         | PK   | 5.57275G     | 7.76        | -46.32      | -46.20      | -43.25        | -35.49        | -27.00         | -8.49          |
| 5825MHz                        | Pass   | 5.685G          | 5.725G         | PK   | 5.685G       | 7.76        | -46.05      | -46.76      | -43.38        | -35.62        | -1.10          | -34.52         |
| 5825MHz                        | Pass   | 5.85G           | 5.89G          | PK   | 5.88976G     | 7.76        | -44.85      | -44.40      | -41.61        | -33.85        | -0.92          | -32.93         |
| 5825MHz                        | Pass   | 5.89G           | 6.5G           | PK   | 5.93049G     | 7.76        | -43.45      | -44.14      | -40.77        | -33.01        | -27.00         | -6.01          |

| Mode                           | Result | F-Start<br>(Hz) | F-Stop<br>(Hz) | Type | Freq<br>(Hz) | DG<br>(dBi) | P1<br>(dBm) | P2<br>(dBm) | Psum<br>(dBm) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------|--------|-----------------|----------------|------|--------------|-------------|-------------|-------------|---------------|---------------|----------------|----------------|
| 802.11ax HEW40_Nss1,(MCS0)_2TX | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5710MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5755MHz                        | Pass   | 4.9G            | 5.645G         | AV   | 5.41247G     | 7.60        | -57.61      | -57.45      | -54.52        | -46.92        | -41.20         | -5.72          |
| 5755MHz                        | Pass   | 4.9G            | 5.645G         | PK   | 5.63951G     | 7.60        | -45.41      | -44.80      | -42.08        | -34.48        | -27.00         | -7.48          |
| 5755MHz                        | Pass   | 5.645G          | 5.725G         | PK   | 5.6474G      | 7.60        | -45.08      | -43.21      | -41.03        | -33.43        | -27.00         | -6.43          |
| 5755MHz                        | Pass   | 5.85G           | 5.93G          | PK   | 5.92984G     | 7.60        | -44.46      | -45.33      | -41.86        | -34.26        | -27.00         | -7.26          |
| 5755MHz                        | Pass   | 5.93G           | 6.5G           | PK   | 5.96969G     | 7.60        | -46.43      | -44.64      | -42.43        | -34.83        | -27.00         | -7.83          |
| 5795MHz                        | Pass   | 4.9G            | 5.645G         | AV   | 5.45288G     | 7.76        | -58.05      | -57.07      | -54.52        | -46.76        | -41.20         | -5.56          |
| 5795MHz                        | Pass   | 4.9G            | 5.645G         | PK   | 5.64444G     | 7.76        | -44.77      | -48.02      | -43.09        | -35.33        | -27.00         | -8.33          |
| 5795MHz                        | Pass   | 5.645G          | 5.725G         | PK   | 5.64548G     | 7.76        | -45.86      | -44.79      | -42.28        | -34.52        | -27.00         | -7.52          |
| 5795MHz                        | Pass   | 5.85G           | 5.93G          | PK   | 5.92776G     | 7.76        | -43.23      | -45.21      | -41.10        | -33.34        | -27.00         | -6.34          |
| 5795MHz                        | Pass   | 5.93G           | 6.5G           | PK   | 5.93143G     | 7.76        | -47.01      | -43.36      | -41.80        | -34.04        | -27.00         | -7.04          |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | -      | -               | -              | -    | -            | -           | -           | -           | -             | -             | -              | -              |
| 5690MHz Straddle 5.725-5.85GHz |        |                 |                |      |              |             |             |             |               |               |                |                |
| 5775MHz                        | Pass   | 4.9G            | 5.565G         | AV   | 5.41878G     | 7.60        | -56.72      | -58.40      | -54.47        | -46.87        | -41.20         | -5.67          |
| 5775MHz                        | Pass   | 4.9G            | 5.565G         | PK   | 5.52485G     | 7.60        | -47.95      | -45.37      | -43.46        | -35.86        | -27.00         | -8.86          |
| 5775MHz                        | Pass   | 5.565G          | 5.725G         | PK   | 5.64884G     | 7.60        | -43.25      | -39.72      | -38.13        | -30.53        | -27.00         | -3.53          |
| 5775MHz                        | Pass   | 5.85G           | 6.01G          | PK   | 5.92936G     | 7.60        | -42.15      | -42.05      | -39.09        | -31.49        | -27.00         | -4.49          |
| 5775MHz                        | Pass   | 6.01G           | 6.5G           | PK   | 6.13109G     | 7.60        | -43.59      | -48.76      | -42.44        | -34.84        | -27.00         | -7.84          |

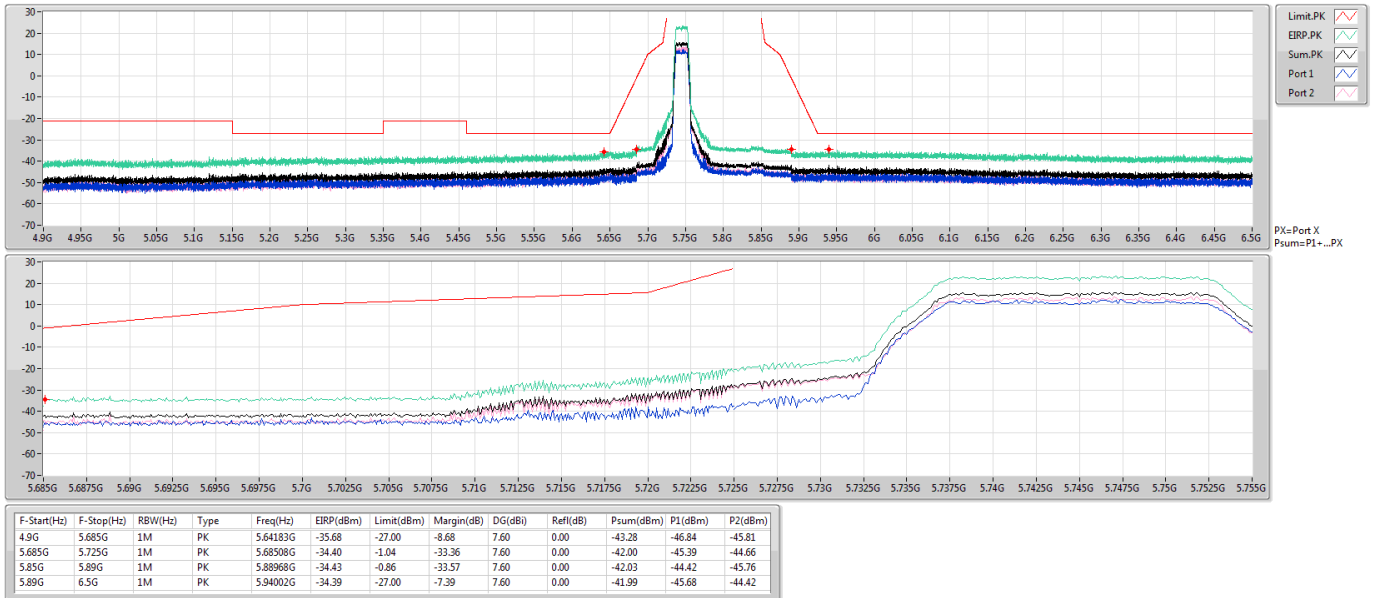
DG = Directional Gain;  
PX=Port X; Psum=P1+.P2+...PX

## 11a20\_Nss1,(6Mbps)\_2TX

5745MHz

CSE-PK

06/03/2020

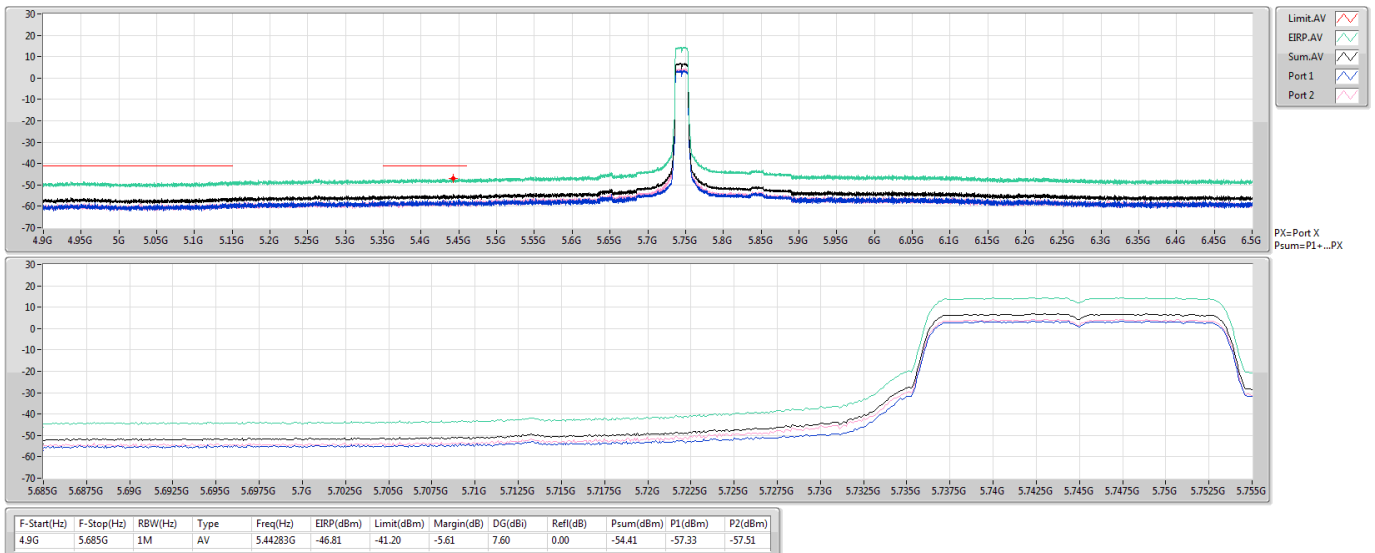


## 11a20\_Nss1,(6Mbps)\_2TX

5745MHz

CSE-AV

06/03/2020

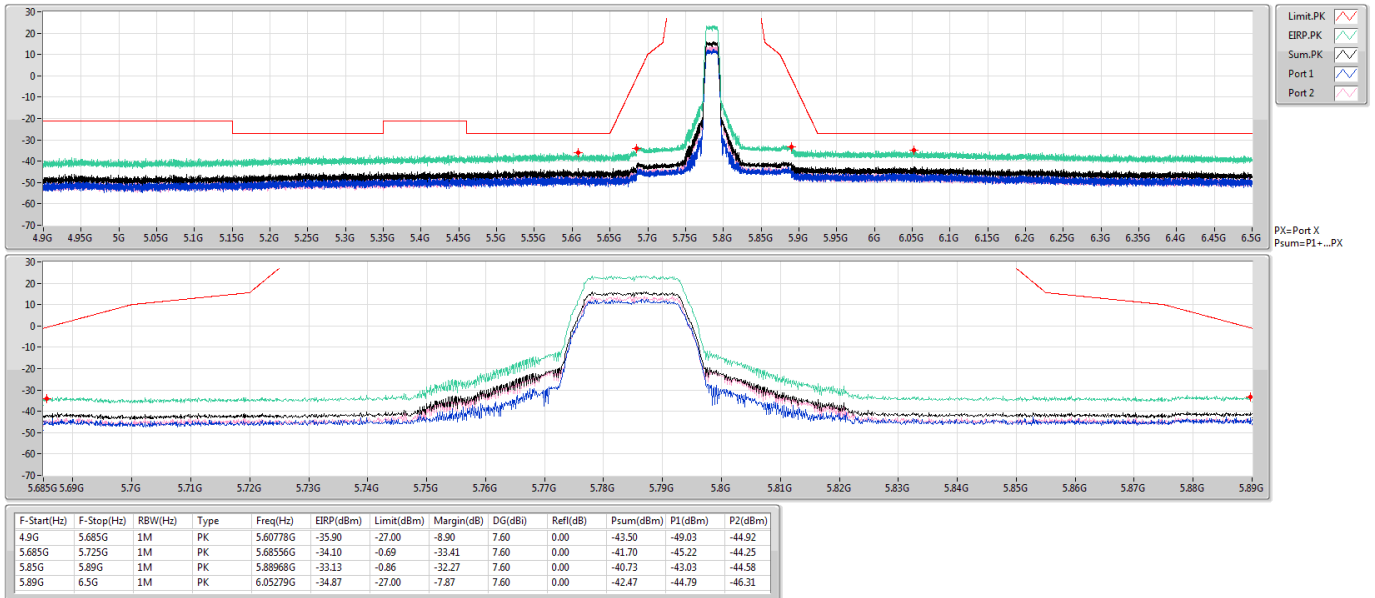


## 11a20\_Nss1,(6Mbps)\_2TX

5785MHz

CSE-PK

06/03/2020

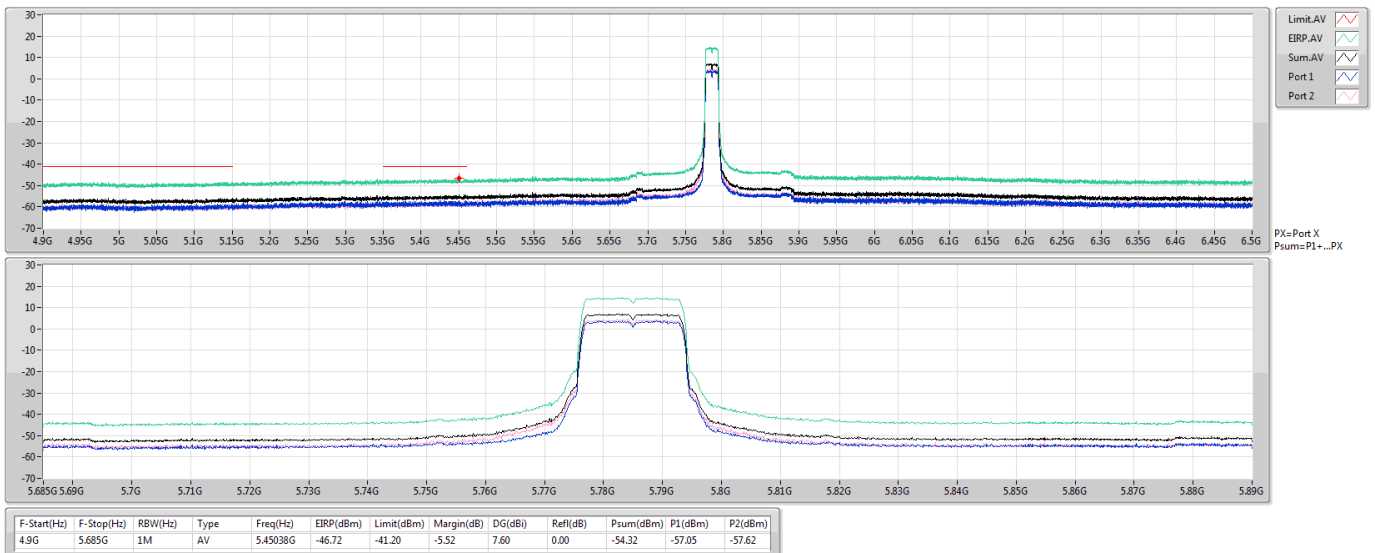


## 11a20\_Nss1,(6Mbps)\_2TX

5785MHz

CSE-AV

06/03/2020

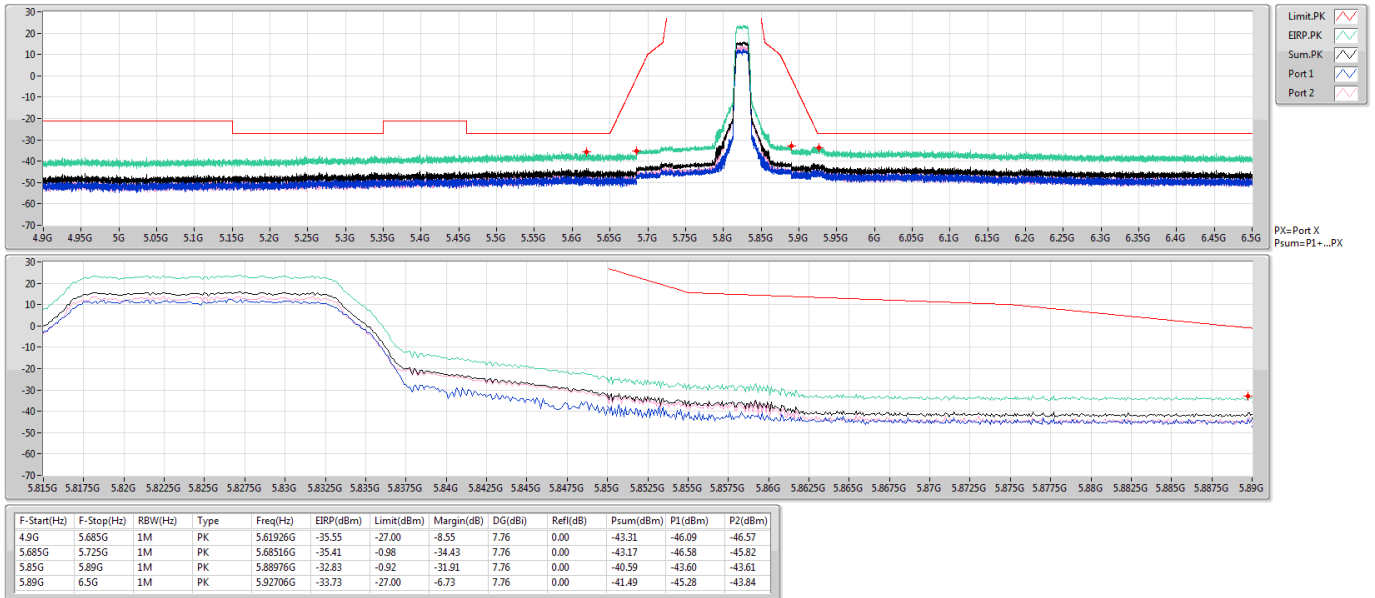


## 11a20\_Nss1,(6Mbps)\_2TX

5825MHz

CSE-PK

06/03/2020

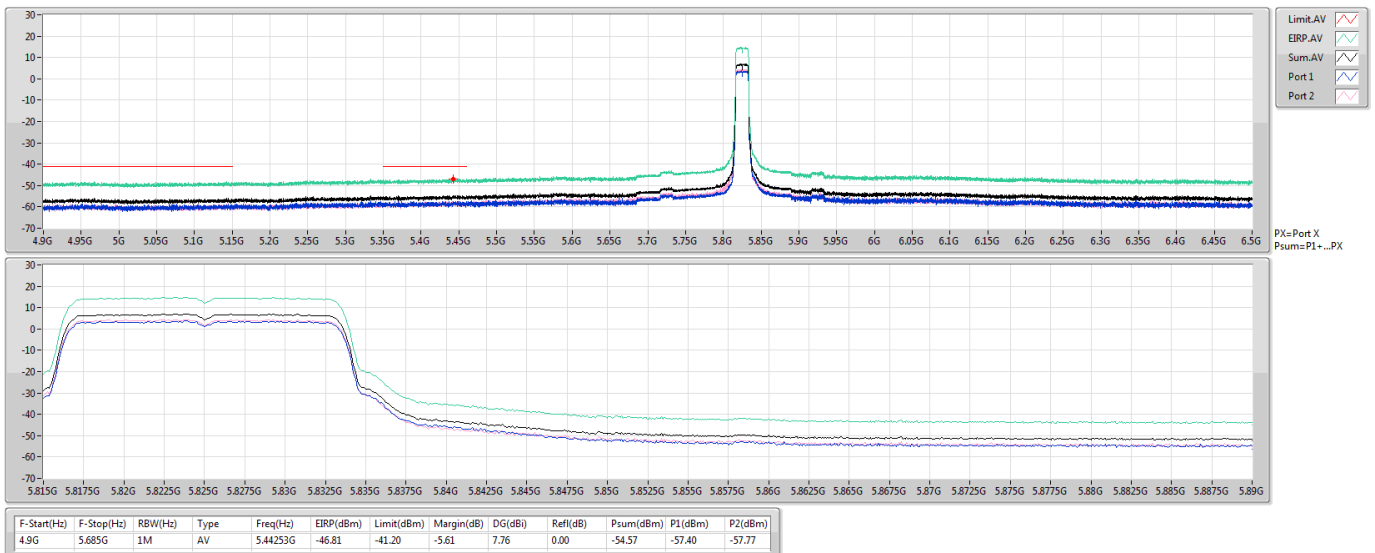


## 11a20\_Nss1,(6Mbps)\_2TX

5825MHz

CSE-AV

06/03/2020

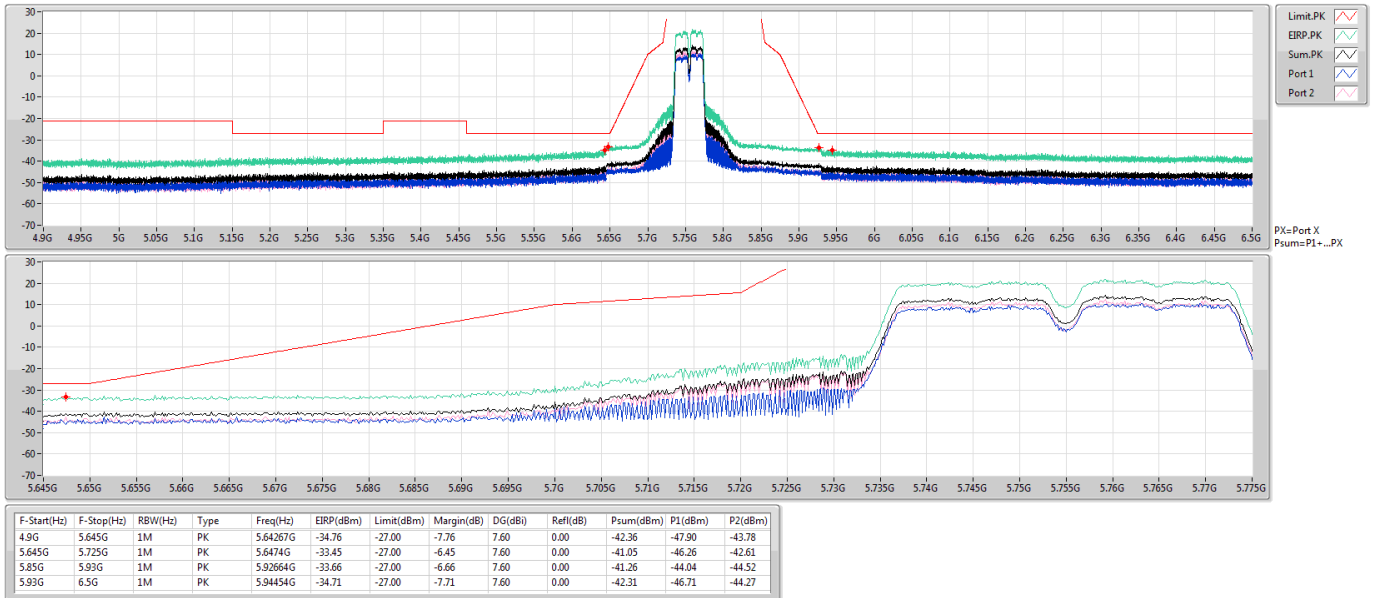


## 11a40\_Nss1,(6Mbps)\_2TX

5755MHz

CSE-PK

06/03/2020

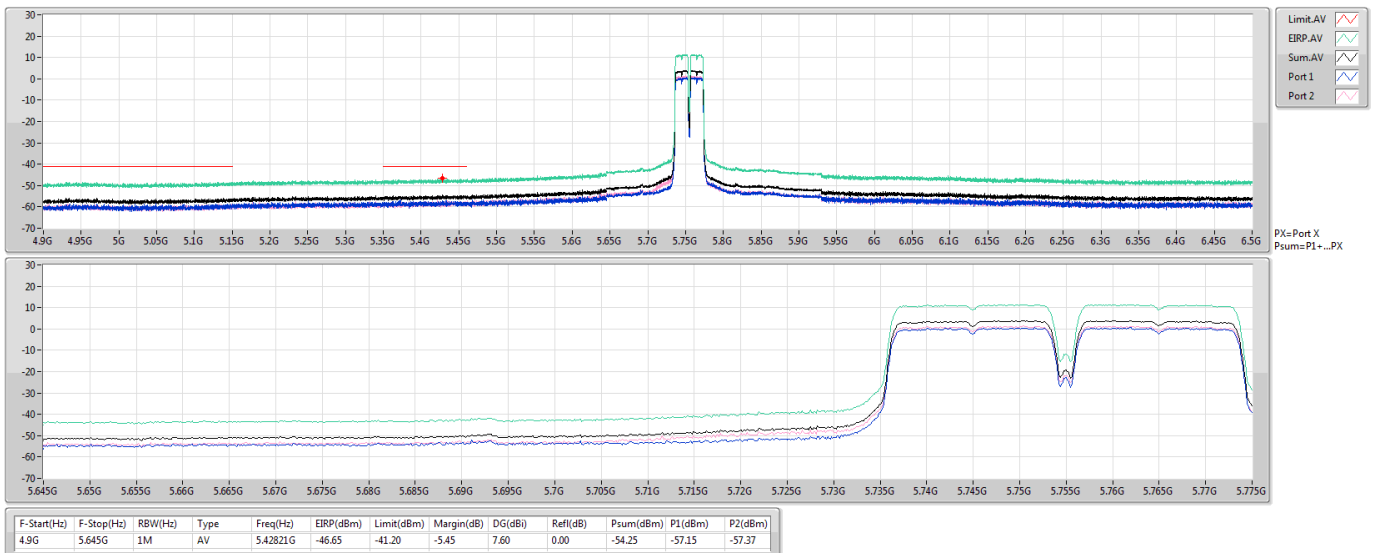


## 11a40\_Nss1,(6Mbps)\_2TX

5755MHz

CSE-AV

06/03/2020

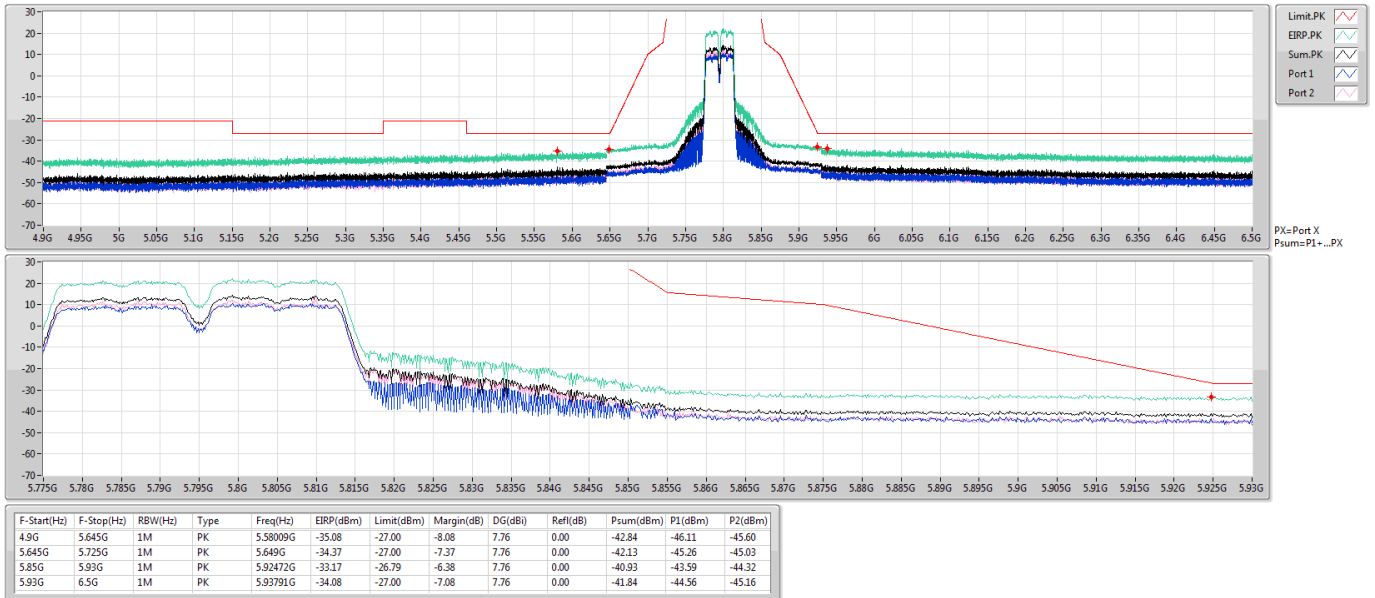


## 11a40\_Nss1,(6Mbps)\_2TX

5795MHz

CSE-PK

06/03/2020

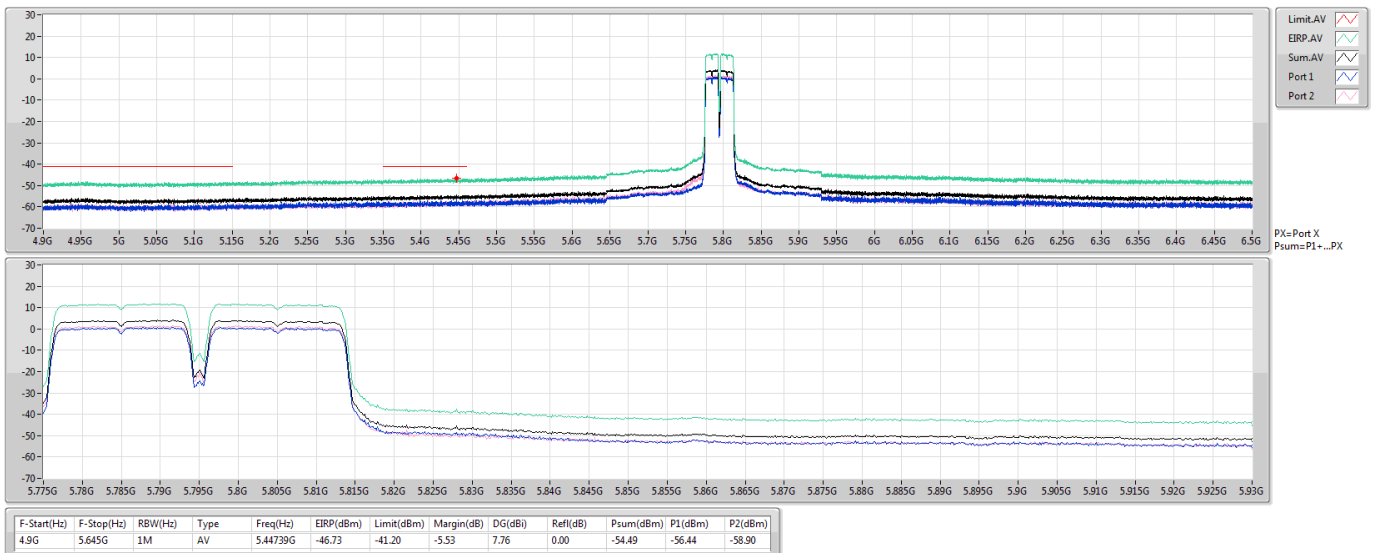


## 11a40\_Nss1,(6Mbps)\_2TX

5795MHz

CSE-AV

06/03/2020

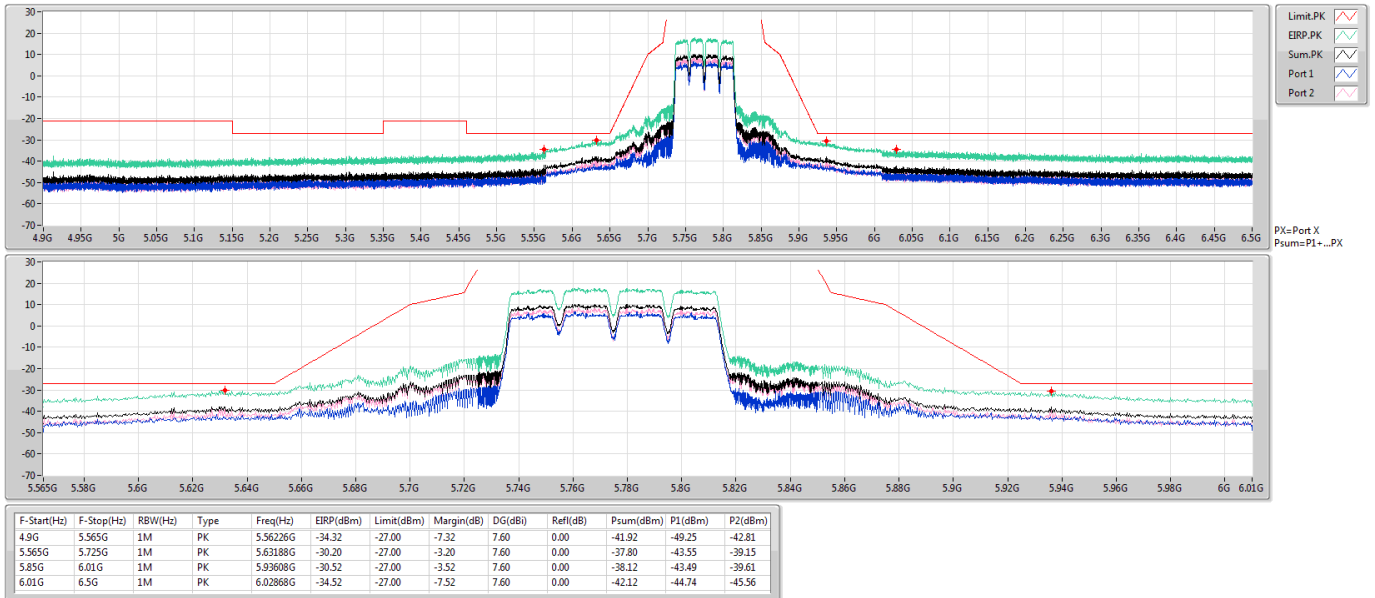


## 11a80\_Nss1,(6Mbps)\_2TX

5775MHz

CSE-PK

06/03/2020

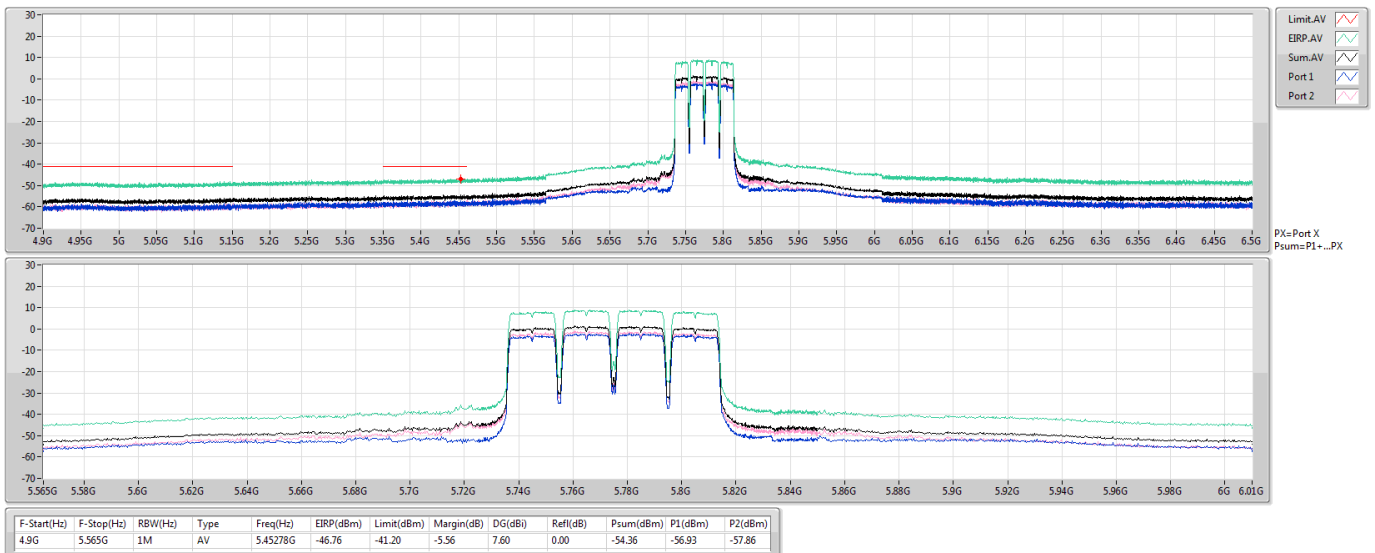


## 11a80\_Nss1,(6Mbps)\_2TX

5775MHz

CSE-AV

06/03/2020

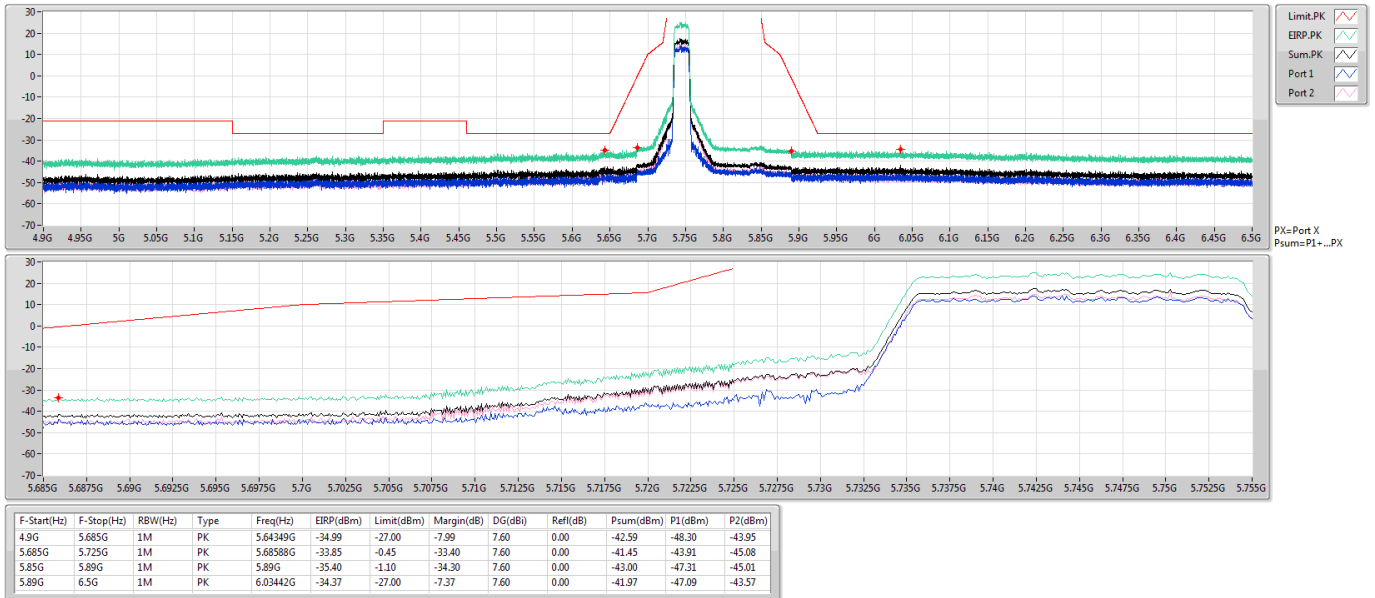


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5745MHz

CSE-PK

06/03/2020

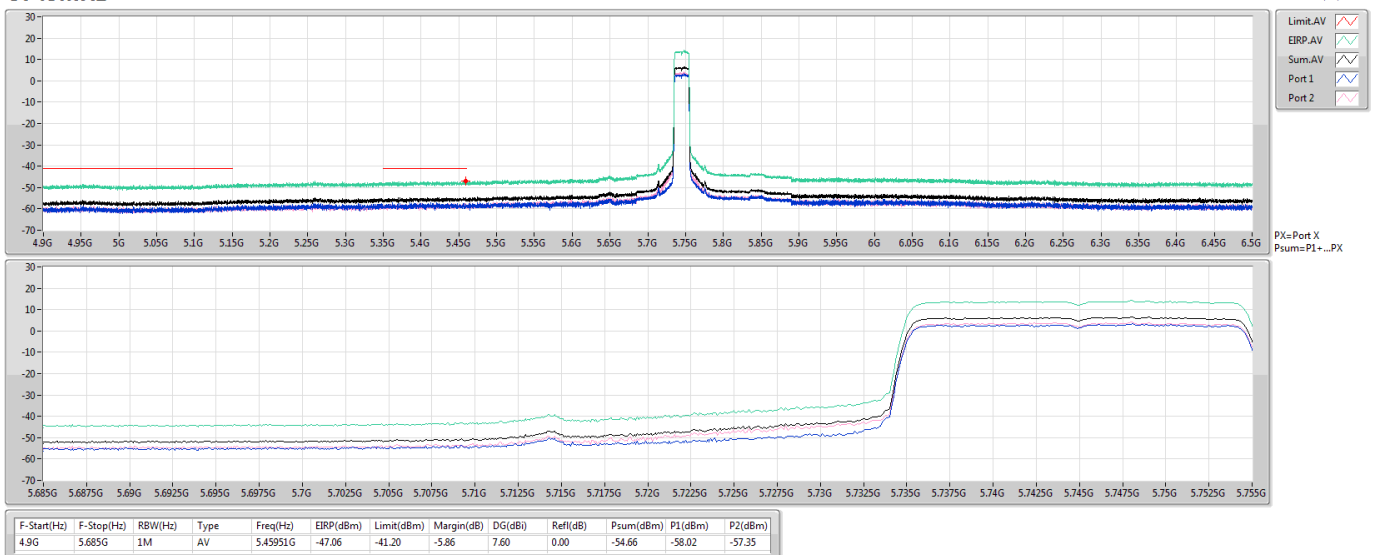


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5745MHz

CSE-AV

06/03/2020

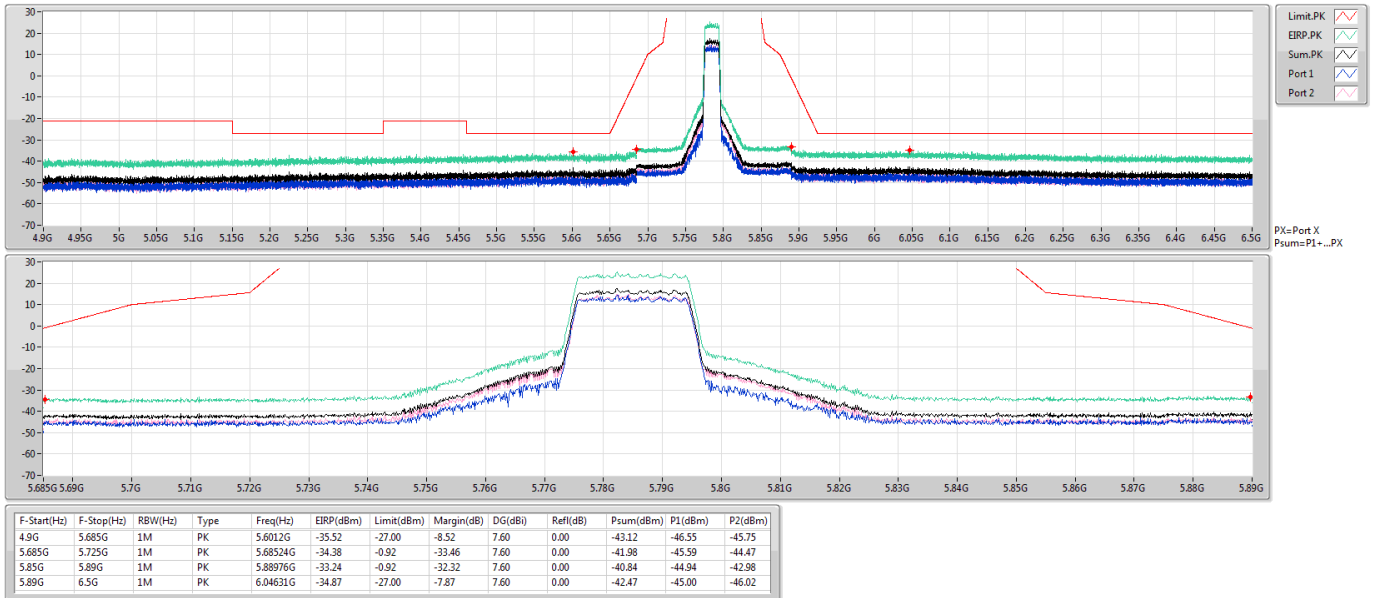


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5785MHz

CSE-PK

06/03/2020

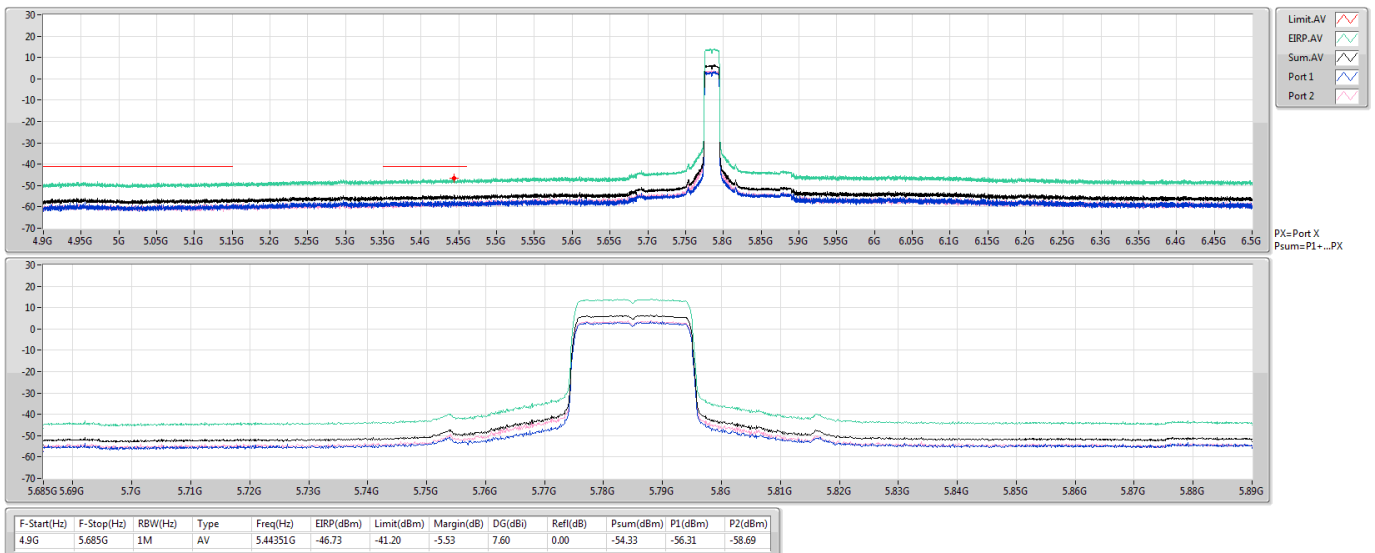


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

5785MHz

CSE-AV

06/03/2020

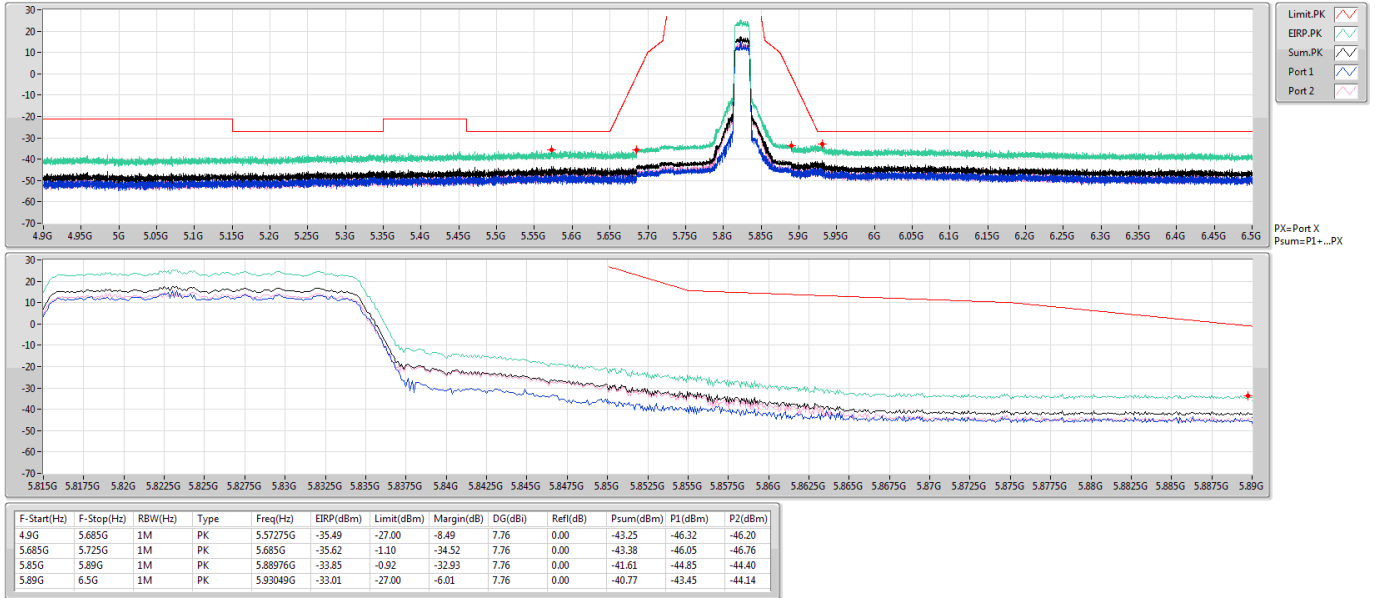


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

CSE-PK

5825MHz

06/03/2020

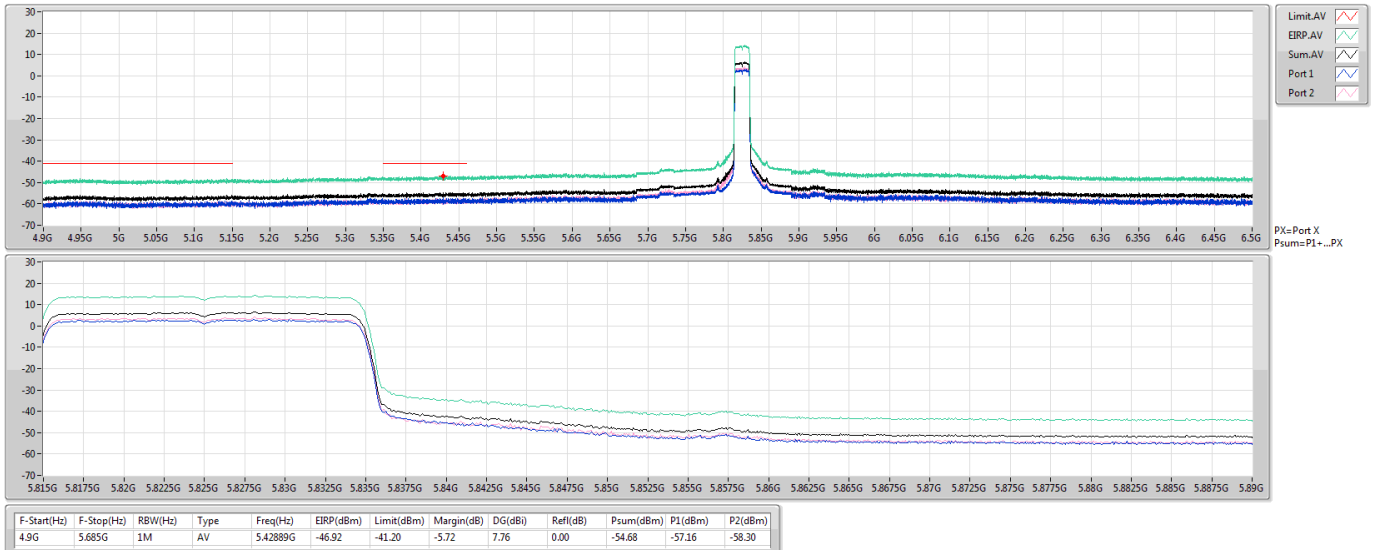


## 802.11ax HEW20\_Nss1,(MCS0)\_2TX

CSE-AV

5825MHz

06/03/2020

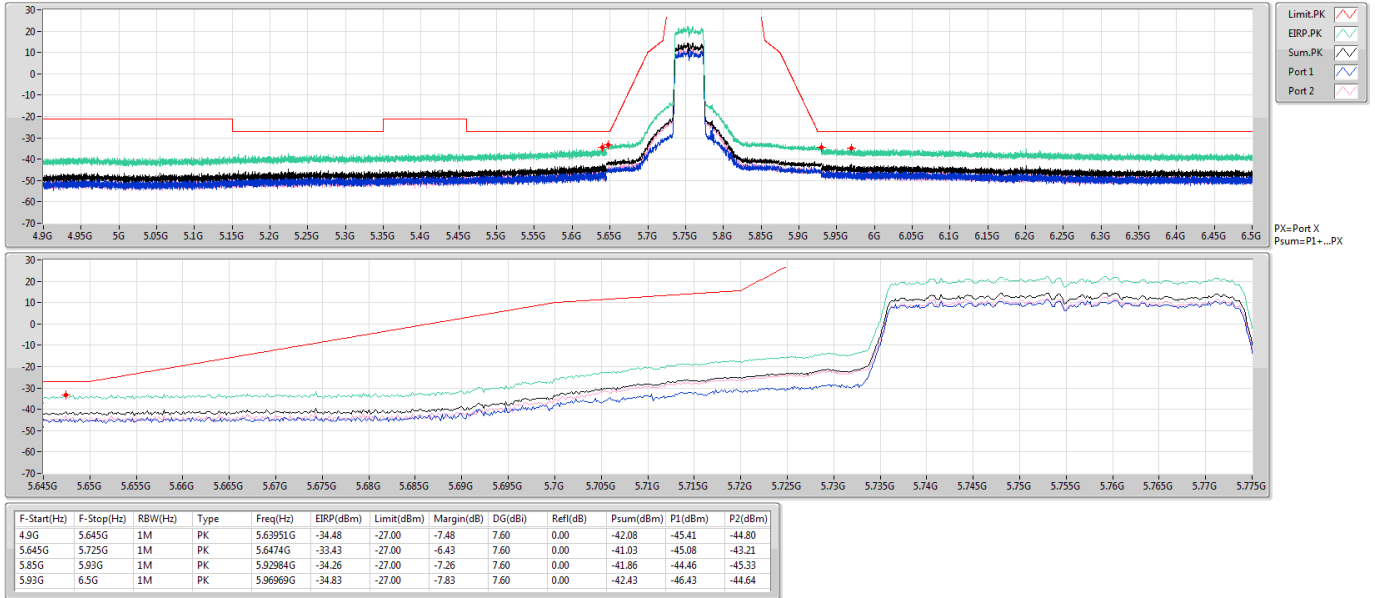


## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

CSE-PK

5755MHz

06/03/2020

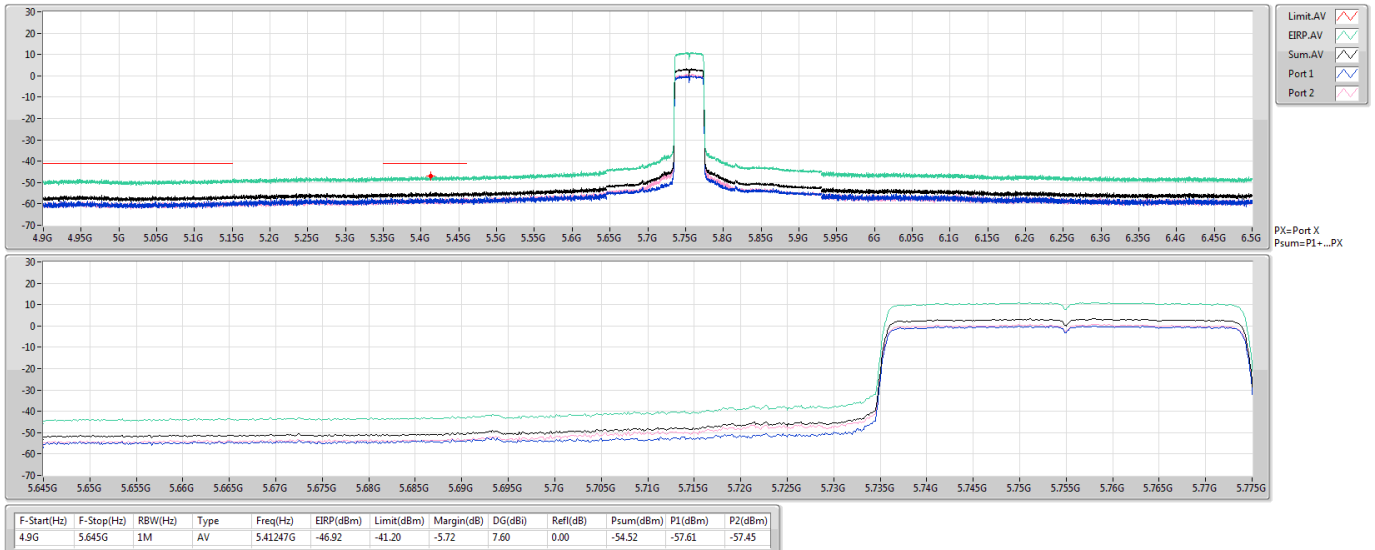


## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

CSE-AV

5755MHz

06/03/2020

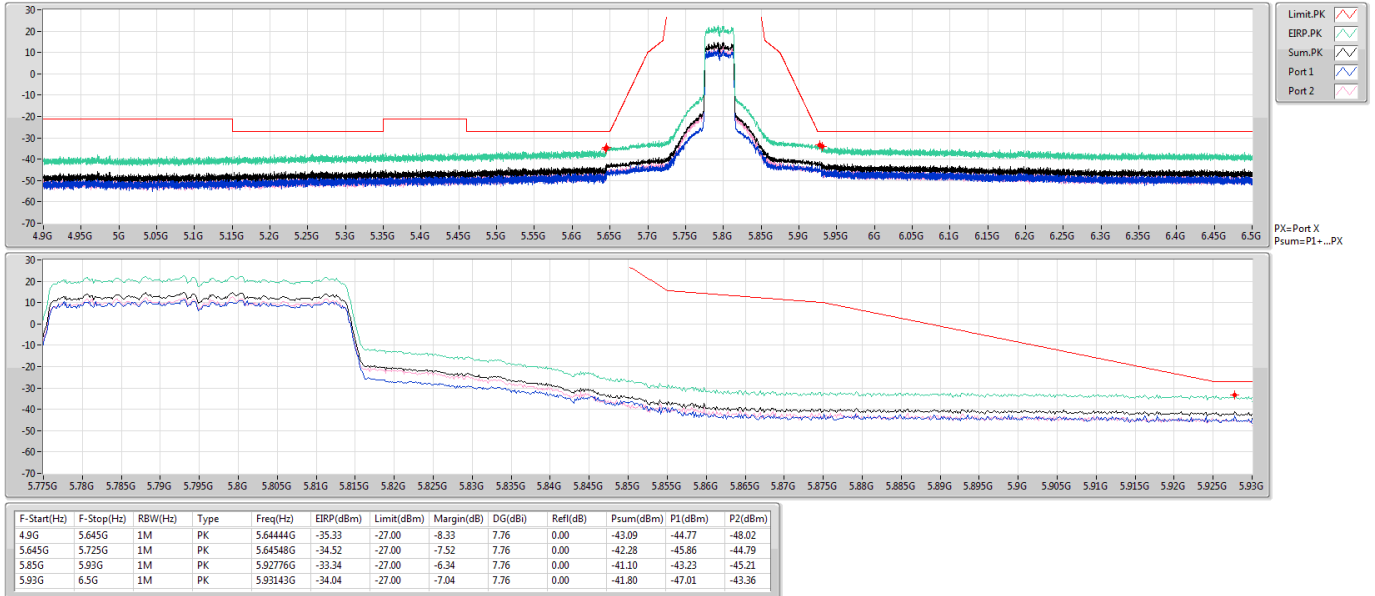


## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

CSE-PK

5795MHz

06/03/2020

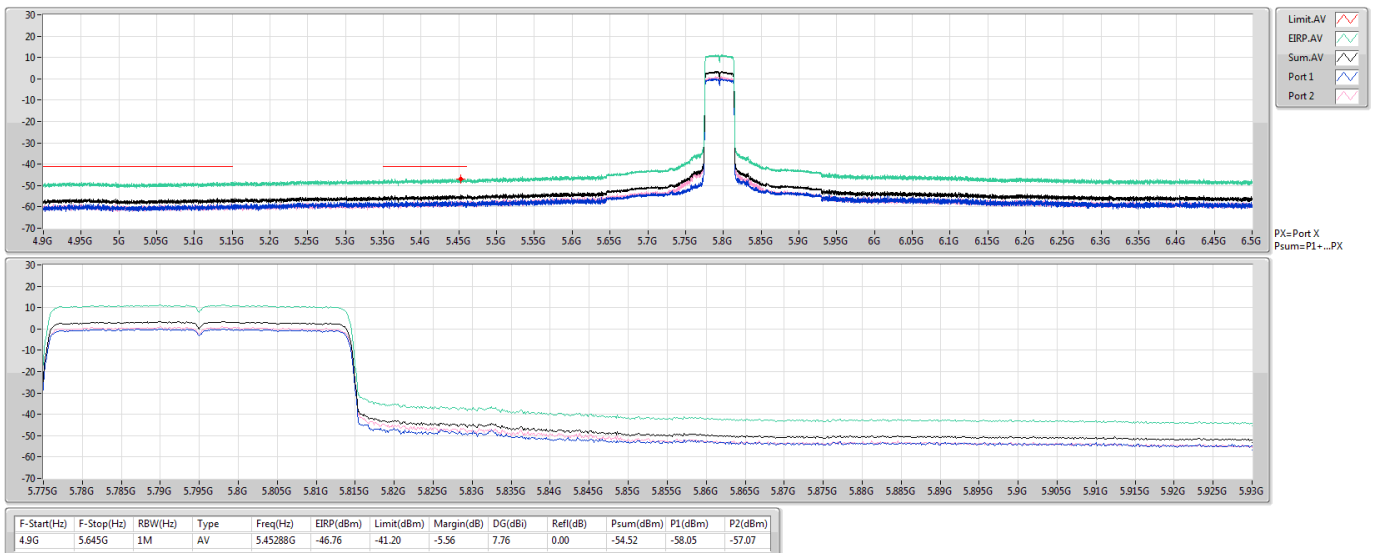


## 802.11ax HEW40\_Nss1,(MCS0)\_2TX

CSE-AV

5795MHz

06/03/2020

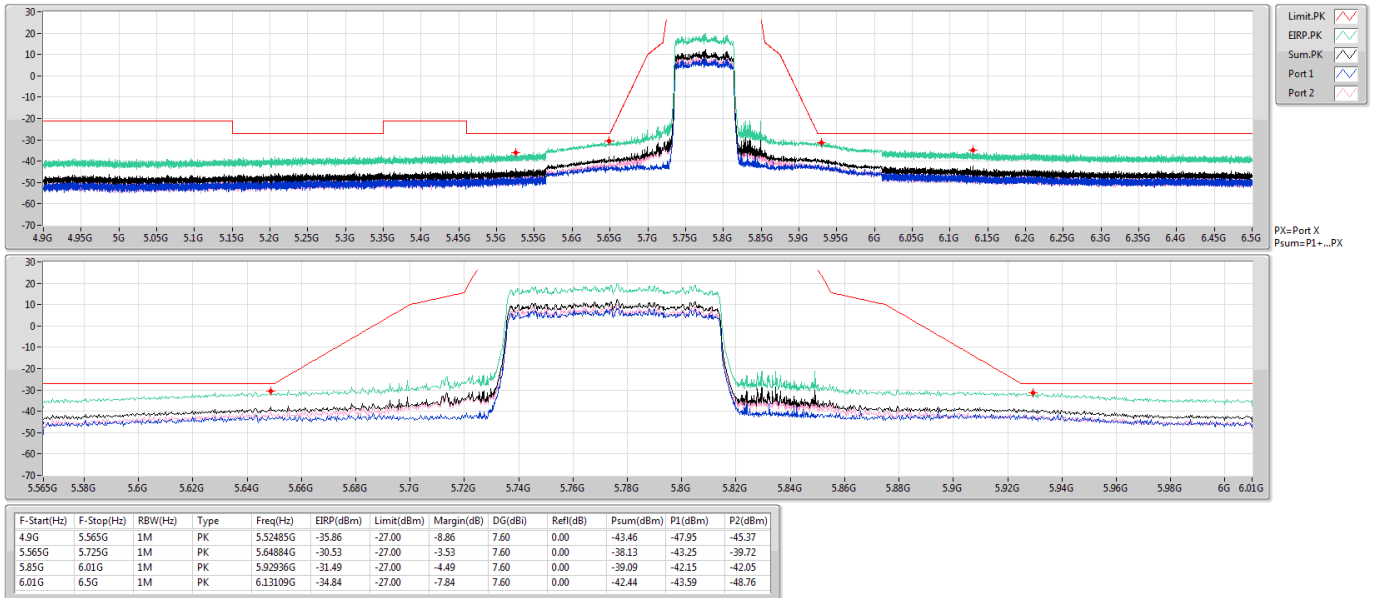


## 802.11ax HEW80\_Nss1,(MCS0)\_2TX

5775MHz

CSE-PK

06/03/2020



## 802.11ax HEW80\_Nss1,(MCS0)\_2TX

5775MHz

CSE-AV

06/03/2020

