

# FCC Test Report

**FCC ID** : I88WX3310-1  
**Equipment** : AX5400 Gigabit Wireless Extender  
**Model No.** : WX3310-B1  
**Brand Name** : ZYXEL  
**Applicant** : Zyxel Communications Corporation  
**Address** : No.2 Industry East RD. IX, Hsinchu Science  
Park, Hsinchu 30075, Taiwan, R.O.C  
**Standard** : 47 CFR FCC Part 15.407  
**Received Date** : Aug. 26, 2022  
**Tested Date** : Sep. 06 ~ Oct. 11, 2022

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:

Approved by:

  
\_\_\_\_\_  
Along Chen / Assistant Manager

  
\_\_\_\_\_  
Gary Chang / Manager

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**Appendix A. Emission Bandwidth**

**Appendix B. Conducted Output Power**

**Appendix C. Power Spectral Density**

**Appendix D. Unwanted Emissions**

**Appendix E. Frequency Stability**

**Appendix F. AC Power Line Conducted Emissions**

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## Release Record

Report No.	Version	Description	Issued Date
FR282601AN	Rev. 01	Initial issue	Oct. 26, 2022

## Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emissions	[dBuV]: 0.538MHz 40.94 (Margin -15.06dB) - QP	Pass
15.407(b) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 17385.00MHz 67.96 (Margin -0.24dB) - PK	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	Conducted Output Power	Max Power [dBm]: <b>Non-beamforming mode</b> 5150~5250MHz: 29.45 5250~5350MHz: 23.90 5470~5725MHz: 23.88 5725~5850MHz: 29.57 <b>Beamforming mode</b> 5150~5250MHz: 29.38 5250~5350MHz: 23.62 5470~5725MHz: 23.83 5725~5850MHz: 29.53	Pass
15.407(a)	Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	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:

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.

# 1 General Description

## 1.1 Information

### 1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N <sub>TX</sub> )	Data Rate / MCS
5150-5250 5250-5350 5470-5725 5725-5850	a	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	4	6-54 Mbps
5150-5250 5250-5350 5470-5725 5725-5850	n (HT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	4	MCS 0-31
5150-5250 5250-5350 5470-5725 5725-5850	n (HT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	4	MCS 0-31
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	4	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	4	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT80)	5210 5290 5530~5690 5775	42 [1] 58 [1] 106-138 [3] 155 [1]	4	MCS 0-9
5150-5250 5250-5350 5500-5700	ac (VHT160)	5250 5570	50 [1] 114 [1]	4	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ax (HE20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	4	MCS 0-11
5150-5250 5250-5350 5470-5725 5725-5850	ax (HE40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	4	MCS 0-11
5150-5250 5250-5350 5470-5725 5725-5850	ax (HE80)	5210 5290 5530~5690 5775	42 [1] 58 [1] 106-138 [3] 155 [1]	4	MCS 0-11
5150-5250 5250-5350 5500-5700	ax (HE160)	5250 5570	50 [1] 114 [1]	4	MCS 0-11

Note 1: OFDM/OFDMA- BPSK, QPSK, 16QAM, 64QAM, 256QAM and 1024QAM modulation.

Note 2: 802.11n/ac/ax supports beamforming function.

### 1.1.2 Antenna Details

Ant. Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
			2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
Ant1 (RFPCA242309IMLB901)	PIFA	ipex	2.99	2.33	2.99	4.08	4.06
Ant2 (RFPCA242311IMLB901)	PIFA	ipex	3.28	1.27	1.18	1.51	2.11
Ant3 (RFPCA221116IM5B901)	PIFA	ipex	--	5.01	4.1	3.76	3.67
Ant4 (RFPCA232007IMLB901)	PIFA	ipex	--	4.09	3.32	2.64	4.21

### 1.1.3 Power Supply Type of Equipment under Test (EUT)

<b>Power Supply Type</b>	12Vdc from AC adapter
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### 1.1.4 Accessories

Accessories		
No.	Equipment	Description
1	AC adapter	Brand: MNC Model: MAUS-1201501801 I/P: 100-240Vac, 50/60Hz, 0.5A O/P: 12Vdc, 1.5A Power Line: 1.5m non-shielded without core
2	RJ45 cable	Brand: EKSON Model: HQ01-C434 1.8m non-shielded without core

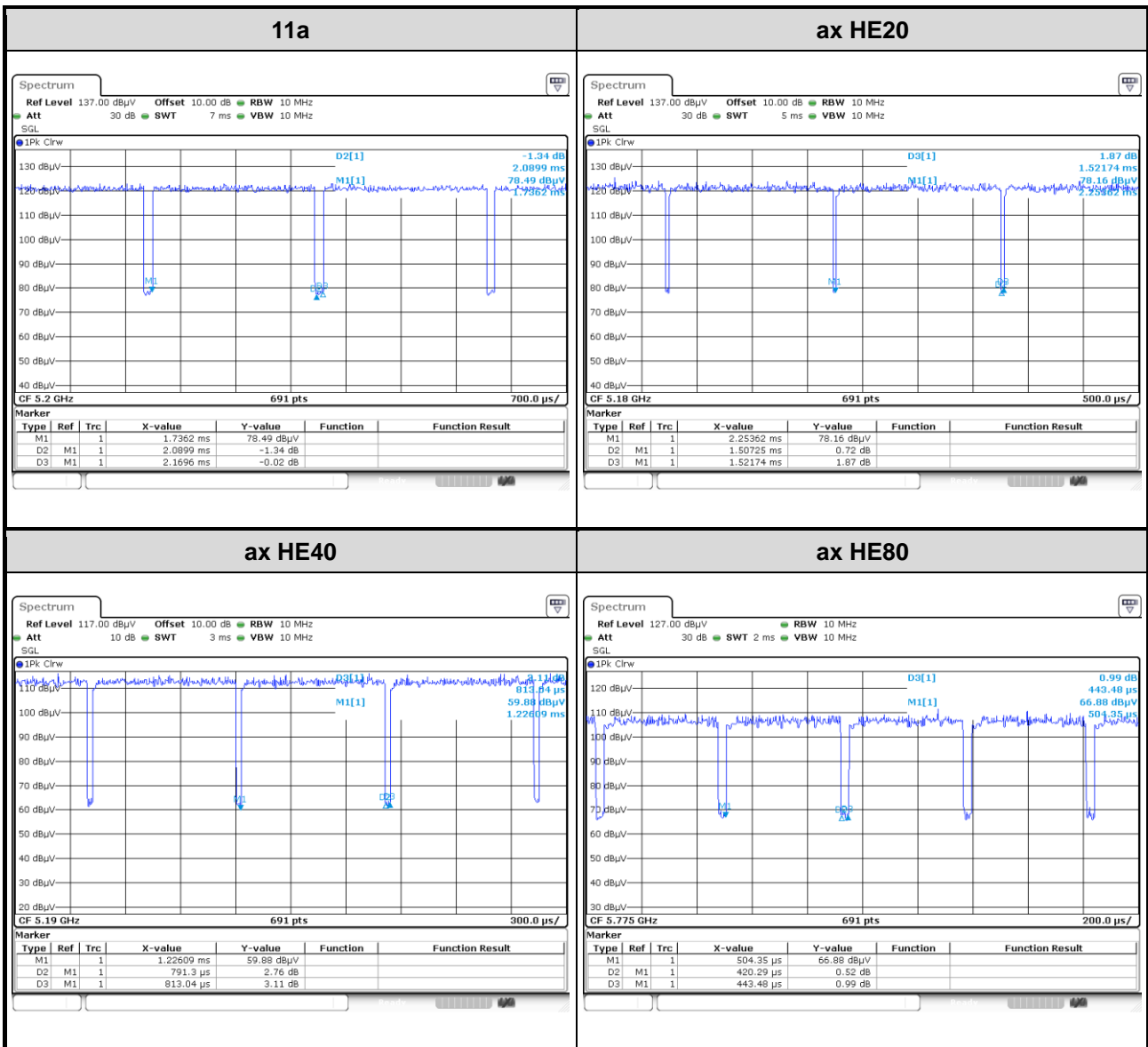
### 1.1.5 Channel List

802.11a / n HT20 / ac VHT20 / ax HE20		802.11n HT40 / ac VHT40 / ax HE40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	118	5590
64	5320	126	5630
100	5500	134	5670
104	5520	142	5710
108	5540	151	5755
112	5560	159	5795
116	5580	<b>802.11ac VHT80 / ax HE80</b>	
120	5600	42	5210
124	5620	58	5290
128	5640	106	5530
132	5660	122	5610
136	5680	138	5690
140	5700	155	5775
144	5720	<b>ac VHT160 / ax HE160</b>	
149	5745	50	5250
153	5765	114	5570
157	5785	---	---
161	5805	---	---
165	5825	---	---

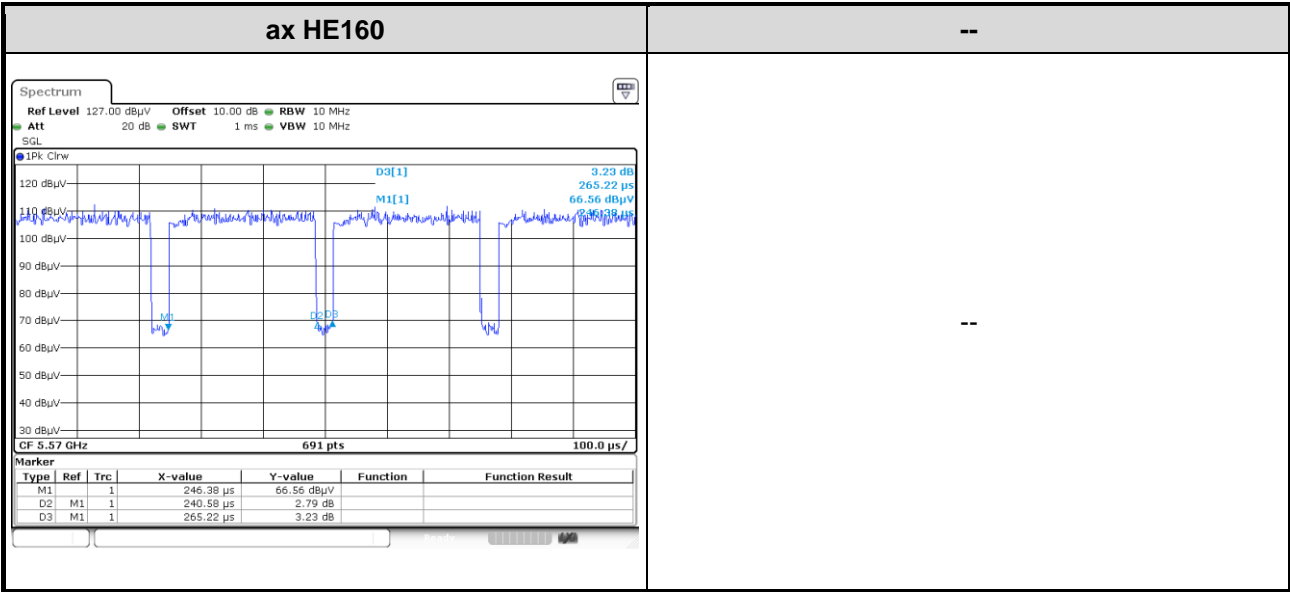
## 1.1.6 Test Tool and Duty Cycle

### Non-beamforming mode

Test Tool	accessMTool, version: 3.2.1.5		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11a	96.33%	0.16
	ax HE20	99.05%	0.04
	ax HE40	97.33%	0.12
	ax HE80	94.77%	0.23
ax HE160	90.71%	0.42	

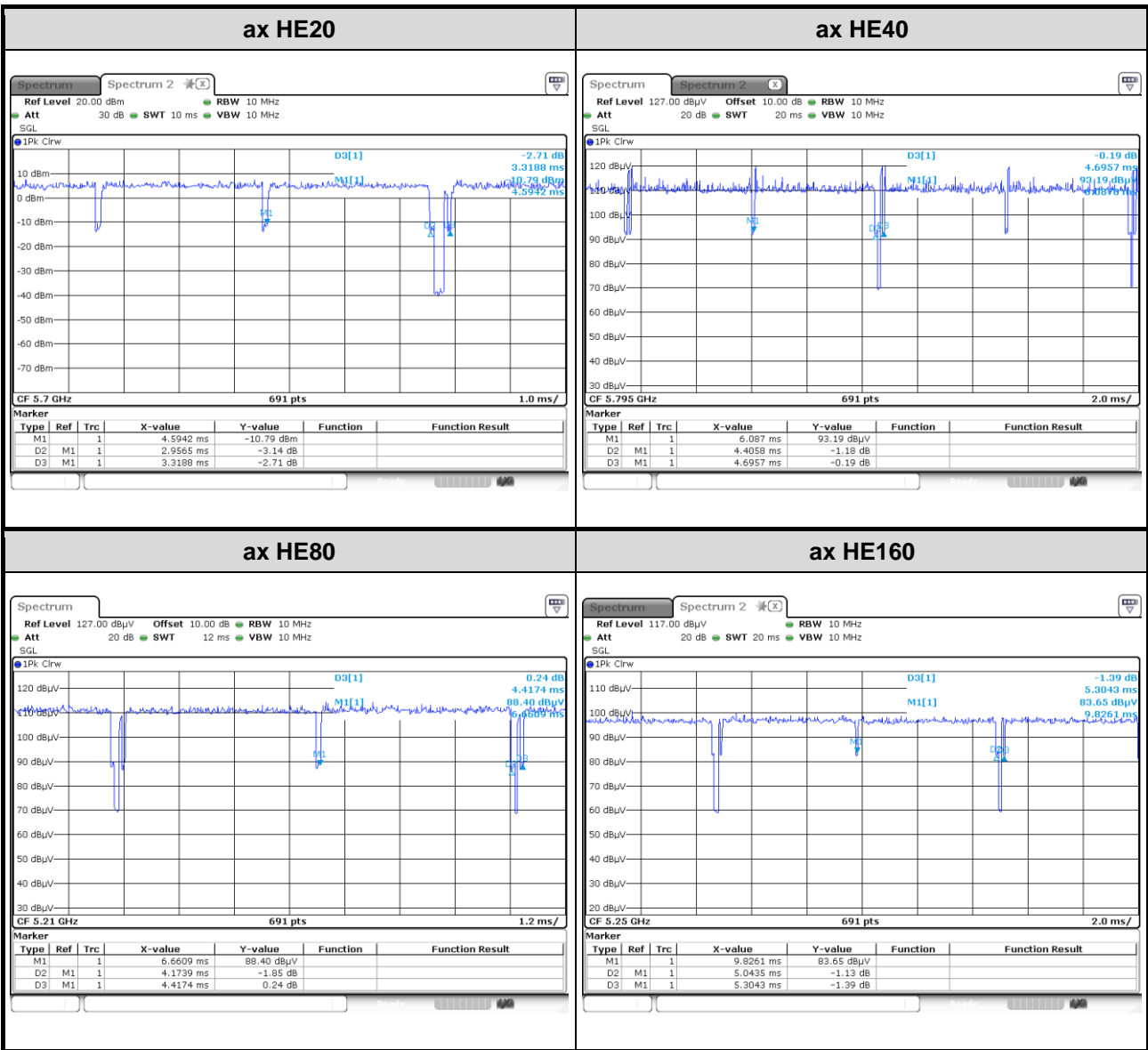






### Beamforming mode

<b>Test Tool</b>	accessMTool, version: 3.2.1.5		
<b>Duty Cycle and Duty Factor</b>	<b>Mode</b>	<b>Duty Cycle (%)</b>	<b>Duty Factor (dB)</b>
	ax HE20	89.08%	0.50
	ax HE40	93.83%	0.28
	ax HE80	94.49%	0.25
	ax HE160	95.08%	0.22



## 1.1.7 Power Index of Test Tool

### *Non-beamforming mode*

Modulation Mode	Test Frequency (MHz)	Power Index
11a	5180	80
11a	5200	96
11a	5240	96
11a	5260	70
11a	5300	70
11a	5320	70
11a	5500	74
11a	5580	74
11a	5700	64
11a	5745	96
11a	5785	96
11a	5825	92
ax HE20	5180	76
ax HE20	5200	96
ax HE20	5240	96
ax HE20	5260	68
ax HE20	5300	68
ax HE20	5320	68
ax HE20	5500	72
ax HE20	5580	72
ax HE20	5700	64
ax HE20	5745	96
ax HE20	5785	96
ax HE20	5825	92

Modulation Mode	Test Frequency (MHz)	Power Index
ax HE40	5190	72
ax HE40	5230	94
ax HE40	5270	68
ax HE40	5310	68
ax HE40	5510	72
ax HE40	5590	72
ax HE40	5670	72
ax HE40	5755	96
ax HE40	5795	96
ax HE80	5210	66
ax HE80	5290	70
ax HE80	5530	72
ax HE80	5610	70
ax HE80	5775	88
ax HE160	5250	64
ax HE160	5570	70

Modulation Mode	Test Frequency (MHz)	Power Index
11a	5720	70
ax HE20	5720	72
ax HE40	5710	72
ax HE80	5690	72

**Beamforming mode**

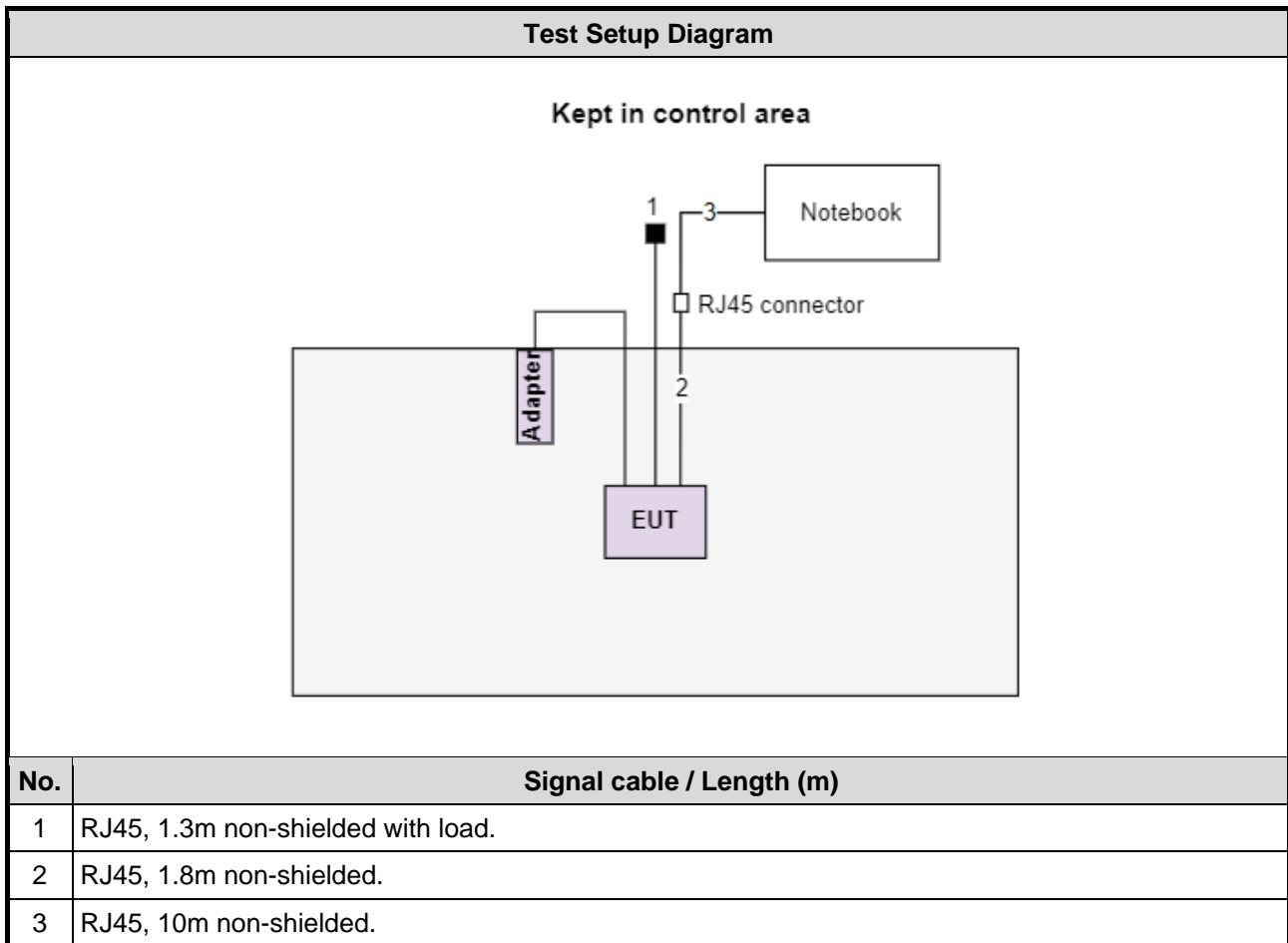
Modulation Mode	Test Frequency (MHz)	Power Index
ax HE20	5180	76
ax HE20	5200	96
ax HE20	5240	96
ax HE20	5260	68
ax HE20	5300	68
ax HE20	5320	68
ax HE20	5500	72
ax HE20	5580	72
ax HE20	5700	64
ax HE20	5745	96
ax HE20	5785	96
ax HE20	5825	92
ax HE40	5190	72
ax HE40	5230	94
ax HE40	5270	68
ax HE40	5310	68
ax HE40	5510	72
ax HE40	5590	72
ax HE40	5670	72
ax HE40	5755	96
ax HE40	5795	96
ax HE80	5210	66
ax HE80	5290	70
ax HE80	5530	72
ax HE80	5610	70
ax HE80	5775	88
ax HE160	5250	64
ax HE160	5570	70

Modulation Mode	Test Frequency (MHz)	Power Index
ax HE20	5720	72
ax HE40	5710	72
ax HE80	5690	72

## 1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E6440	DoC	---
2	RJ45 Load	---	---	---	---

## 1.3 Test Setup Chart



## 1.4 The Equipment List

Test Item	Radiated Emission below 1GHz				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Sep. 06 ~ Sep. 23, 2022				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 15, 2022	Mar. 14, 2023
Spectrum Analyzer	R&S	FSV40	101498	Nov. 29, 2021	Nov. 28, 2022
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 08, 2021	Nov. 07, 2022
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Aug. 03, 2022	Aug. 02, 2023
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 03, 2021	Dec. 02, 2022
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 04, 2021	Nov. 03, 2022
Preamplifier	EMC	EMC02325	980225	Jun. 28, 2022	Jun. 27, 2023
Preamplifier	EMC	EMC118A45SE	980898	Jul. 16, 2022	Jul. 15, 2023
Preamplifier	EMC	EMC184045B	980192	Jul. 08, 2022	Jul. 07, 2023
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 05, 2021	Oct. 04, 2022
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 05, 2021	Oct. 04, 2022
LF cable 11M	EMC	EMCCFD400-NW-N W-11000	200801	Oct. 05, 2021	Oct. 04, 2022
LF cable 1M	EMC	EMCCFD400-NM-N M-1000	160502	Oct. 05, 2021	Oct. 04, 2022
RF Cable	EMC	EMC104-35M-35M- 8000	210920	Oct. 05, 2021	Oct. 04, 2022
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 05, 2021	Oct. 04, 2022
Measurement Software	AUDIX	e3	6.120210g	NA	NA

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

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Sep. 29 ~ Oct. 11, 2022				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101910	Apr. 18, 2022	Apr. 17, 2023
Power Meter	Anritsu	ML2495A	1241002	Nov. 07, 2021	Nov. 06, 2022
Power Sensor	Anritsu	MA2411B	1207366	Nov. 07, 2021	Nov. 06, 2022
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Jun. 22, 2022	Jun. 21, 2023
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 03, 2021	Dec. 02, 2022
Measurement Software	Sporton	SENSE-15407_NII	V5.10.7.20	NA	NA

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

<b>Test Item</b>	Conducted Emission				
<b>Test Site</b>	Conduction room 1 / (CO01-WS)				
<b>Tested Date</b>	Sep. 27, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	R&S	ESR3	101658	Feb. 16, 2022	Feb. 15, 2023
LISN	R&S	ENV216	101579	Apr. 21, 2022	Apr. 20, 2023
LISN (Support Unit)	SCHWARZBECK	NSLK 8127	8127667	Jan .07, 2022	Jan .06, 2023
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 19, 2021	Oct. 18, 2022
50 ohm terminal (Support Unit)	NA	50	04	May 10, 2022	May 09, 2023
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

## 1.5 Test Standards

47 CFR FCC Part 15.407  
ANSI C63.10-2013

## 1.6 Reference Guidance

FCC KDB 412172 D01 Determining ERP and EIRP v01r01  
FCC KDB 662911 D01 Multiple Transmitter Output v02r01  
FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

## 1.7 Deviation from Test Standard and Measurement Procedure

None



## 1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	±34.130 Hz
Conducted power	±0.808 dB
Frequency error	±1×10 <sup>-9</sup>
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Unwanted Emission ≤ 1GHz	±3.41 dB
Unwanted Emission > 1GHz	±4.59 dB
Time	±0.1%
Temperature	±0.4 °C

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## 2 Test Configuration

### 2.1 Testing Facility

<b>Test Laboratory</b>	International Certification Corporation
<b>Test Site</b>	CO01-WS, 03CH01-WS, TH01-WS
<b>Address of Test Site</b>	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

## 2.2 The Worst Test Modes and Channel Details

Frequency band 5150~5350 MHz / 5470~5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
<b>Non-beamforming mode</b>				
AC Power Line Conducted Emissions Unwanted Emissions ≤1GHz	ax HE20	5200	MCS 0	---
Unwanted Emissions >1GHz Conducted Output Power Emission Bandwidth Power Spectral Density	11a	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	6 Mbps	---
	ax HE20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	
	ax HE40	5190 / 5230/ 5270 / 5310 / 5510 5590 / 5670 / 5710	MCS 0	
	ax HE80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
	ax HE160	5250 / 5570	MCS 0	
Frequency Stability	Un-modulation	5300	---	---
<b>Beamforming mode</b>				
Conducted Output Power Power Spectral Density	ax HE20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	---
	ax HE40	5190 / 5230/ 5270 / 5310 / 5510 5590 / 5670 / 5710	MCS 0	
	ax HE80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
	ax HE160	5250 / 5570	MCS 0	
Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
<b>Non-beamforming mode</b>				
AC Power Line Conducted Emissions Unwanted Emissions ≤1GHz	ax HE20	5785	MCS 0	---
Unwanted Emissions >1GHz Conducted Output Power Emission Bandwidth 6dB bandwidth Power Spectral Density	11a	5745 / 5785 / 5825	6 Mbps	---
	ax HE20	5745 / 5785 / 5825	MCS 0	
	ax HE40	5755 / 5795	MCS 0	
	ax HE80	5775	MCS 0	
Frequency Stability	Un-modulation	5785	---	---
<b>Beamforming mode</b>				
Conducted Output Power Power Spectral Density	ax HE20	5745 / 5785 / 5825	MCS 0	---
	ax HE40	5755 / 5795	MCS 0	
	ax HE80	5775	MCS 0	
<b>NOTE:</b>				
1. There are two ways to placed the EUT. One is wall-mounted, and the other is with stand. Two options had been covered during the pretest and found that the wall-mounted was the worst case for final test.				
2. Non-beamforming and beamforming mode had been covered during the pretest. The worst mode is Non-beamforming thus Non-beamforming is tested for all test items.				

### 3 Transmitter Test Results

#### 3.1 Emission Bandwidth

##### 3.1.1 Limit of Emission Bandwidth

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

##### 3.1.2 Test Procedures

###### 26dB Bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW, Detector = Peak.
3. Trace mode = max hold.
4. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

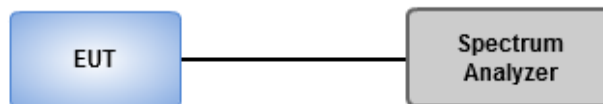
###### Occupied Bandwidth

1. Set RBW = 1 % to 5 % of the OBW.
2. Set VBW  $\geq$  3 RBW.
3. Sample detection and single sweep mode shall be used.
4. Use the 99 % power bandwidth function of the instrument.

###### 6dB Bandwidth

1. Set RBW = 100kHz, VBW = 300kHz.
2. Detector = Peak, Trace mode = max hold.
3. Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

##### 3.1.3 Test Setup



##### 3.1.4 Test Results

<b>Ambient Condition</b>	22-23°C / 65-68%	<b>Tested By</b>	Roger Lu
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Refer to Appendix A.

## 3.2 Conducted Output Power

### 3.2.1 Limit of Conducted Output Power

Frequency band 5150-5250 MHz	
Operating Mode	Limit
<input type="checkbox"/> Outdoor access point	Conducted Power: 1 W The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm)
<input checked="" type="checkbox"/> Indoor access point	Conducted Power: 1 W
<input type="checkbox"/> Fixed point-to-point access points	Conducted Power: 1 W
<input type="checkbox"/> Client devices	Conducted Power: 250 mW

Frequency Band (MHz)	Limit
<input checked="" type="checkbox"/> 5250 ~ 5350	Conducted Power: 250mW or 11dBm+10 log B
<input checked="" type="checkbox"/> 5470 ~ 5725	Conducted Power: 250mW or 11dBm+10 log B
<input checked="" type="checkbox"/> 5725 ~ 5850	Conducted Power: 1 W

Note: "B" is the 26dB emission bandwidth in MHz.

### 3.2.2 Test Procedures

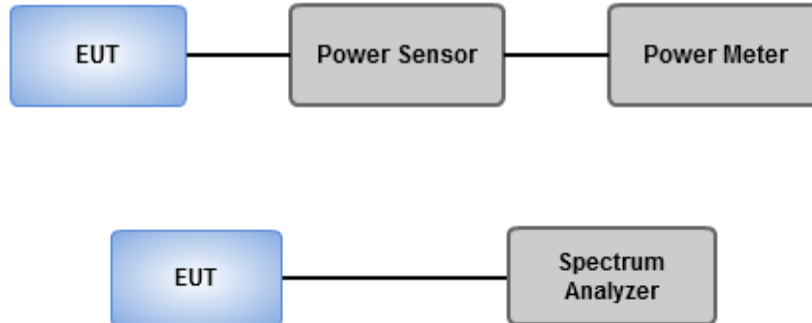
#### Method PM-G (Measurement using a gated RF average power meter)

Measurements is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

#### Spectrum analyzer (For channel that extends across the 5.725 GHz boundary)

1. Set RBW = 1MHz, VBW = 3MHz, Sweep time = Auto, Detector = RMS.
2. Trace average at least 100 traces in power averaging mode.
3. Compute power by integrating the spectrum across the 26 dB EBW.
4. Add  $10 \log(1/X)$ , X:duty cycle) if duty cycle is <98%).

### 3.2.3 Test Setup



### 3.2.4 Test Results

<b>Ambient Condition</b>	22-23°C / 65-68%	<b>Tested By</b>	Roger Lu
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Refer to Appendix B.

### 3.3 Power Spectral Density

#### 3.3.1 Limit of Power Spectral Density

Frequency band 5150-5250 MHz		
Operating Mode		Limit
<input type="checkbox"/>	Outdoor access point	17 dBm / MHz
<input checked="" type="checkbox"/>	Indoor access point	17 dBm / MHz
<input type="checkbox"/>	Fixed point-to-point access points	17 dBm / MHz
<input type="checkbox"/>	Client devices	11 dBm / MHz

Frequency Band (MHz)		Limit
<input checked="" type="checkbox"/>	5250 ~ 5350	11 dBm / MHz
<input checked="" type="checkbox"/>	5470 ~ 5725	11 dBm / MHz
<input checked="" type="checkbox"/>	5725 ~ 5850	30 dBm /500 kHz

### 3.3.2 Test Procedures

#### For 5150 ~ 5250 MHz / 5250 ~ 5350 MHz / 5470 ~ 5725 MHz

Duty cycle  $\geq$  98 %

1. Set RBW = 1 MHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
2. Trace average 100 traces.
3. Use the peak marker function to determine the maximum amplitude level.

Duty cycle  $<$  98 %

1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time  $\geq 10 * (\text{number of points in sweep}) * (\text{total on/off period of the transmitted signal})$ .
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add  $10 \log(1/x)$ , where x is the duty cycle.

#### For 5725 ~ 5850 MHz

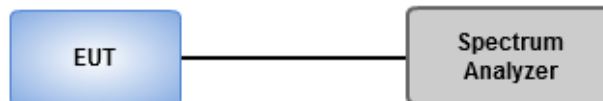
Duty cycle  $\geq$  98 %

1. Set RBW = 500 kHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
2. Trace average 100 traces.
3. Use the peak marker function to determine the maximum amplitude level.

Duty cycle  $<$  98 %

1. Set RBW = 500 kHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time  $\geq 10 * (\text{number of points in sweep}) * (\text{total on/off period of the transmitted signal})$ .
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add  $10 \log(1/x)$ , where x is the duty cycle.

### 3.3.3 Test Setup



### 3.3.4 Test Results

<b>Ambient Condition</b>	22-23°C / 65-68%	<b>Tested By</b>	Roger Lu
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Refer to Appendix C.



### 3.4 Unwanted Emissions

#### 3.4.1 Limit of Unwanted Emissions

Restricted Band Emissions 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:**  
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

**Note 2:**  
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 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).

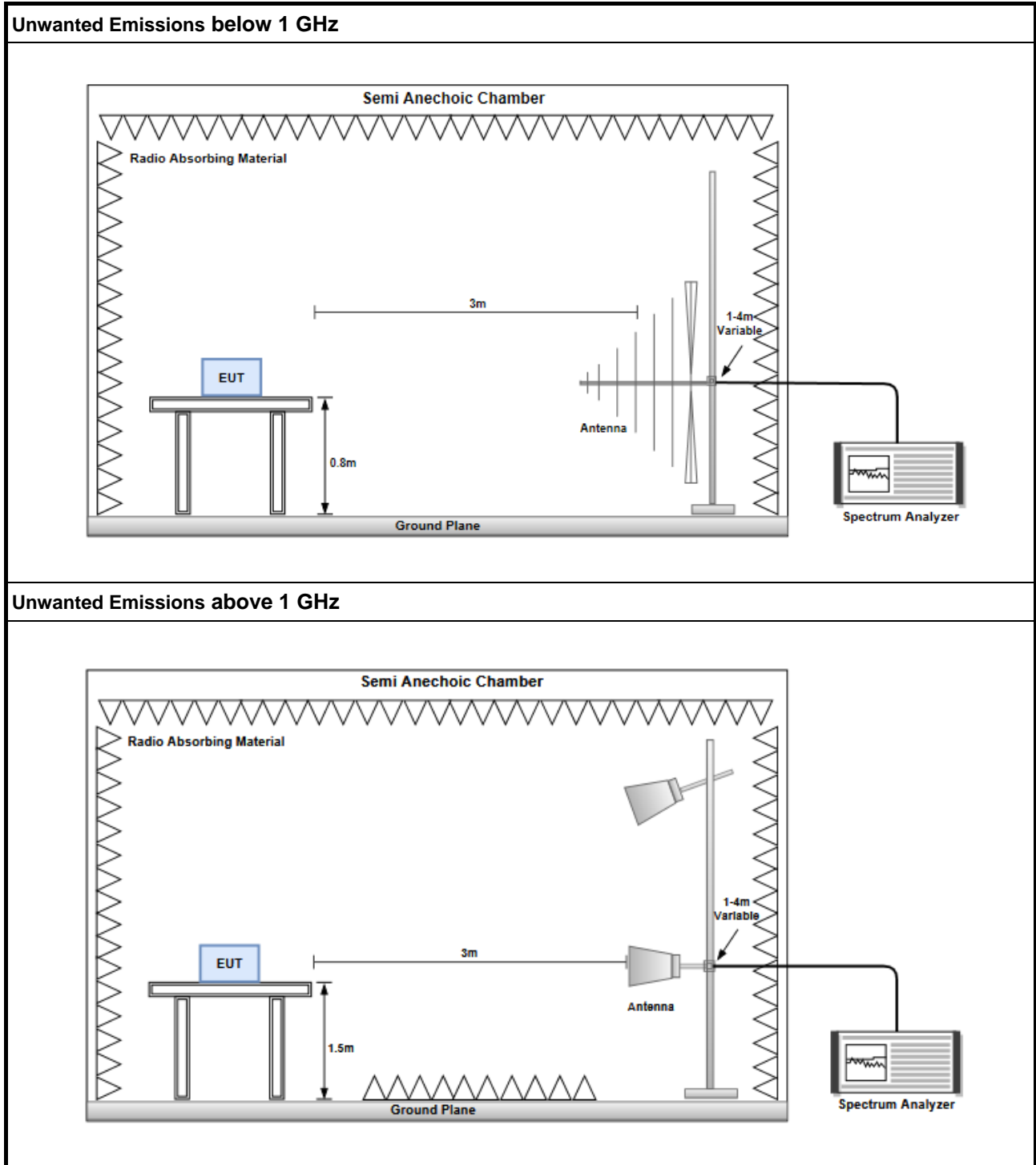
### 3.4.2 Test Procedures

1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

### 3.4.3 Test Setup



### 3.4.4 Test Results

Refer to Appendix D.

## 3.5 Frequency Stability

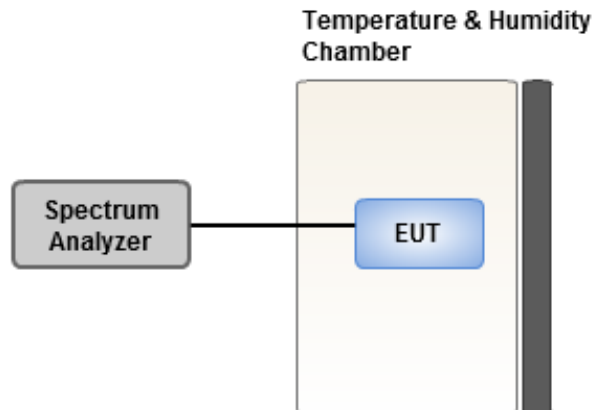
### 3.5.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

### 3.5.2 Test Procedures

1. The EUT is installed in an environment test chamber with external power source.
2. Set the chamber to operate at 20 centigrade and external power source to output at nominal voltage of EUT.
3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
4. When temperature is stabled, measure the frequency stability.
5. The test shall be performed under normal and extreme condition for temperature and voltage.

### 3.5.3 Test Setup



### 3.5.4 Test Results

<b>Ambient Condition</b>	22-23°C / 65-68%	<b>Tested By</b>	Roger Lu
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Refer to Appendix E.

## 3.6 AC Power Line Conducted Emissions

### 3.6.1 Limit of AC Power Line Conducted Emissions

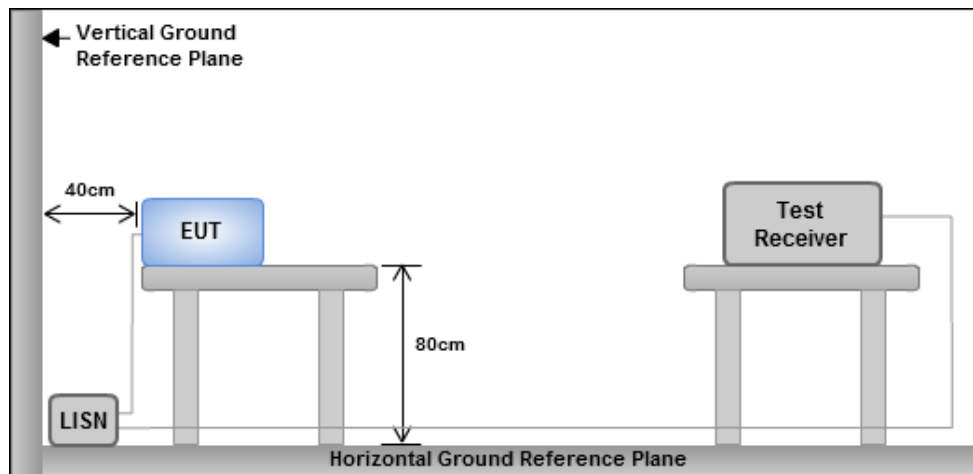
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: \* Decreases with the logarithm of the frequency.

### 3.6.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50  $\Omega$  LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V/60Hz

### 3.6.3 Test Setup



- Note: 1. Support units were connected to second LISN.  
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.6.4 Test Results

Refer to Appendix F.

## 4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

### **Linkou**

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou  
District, New Taipei City, Taiwan  
(R.O.C.)

### **Kwei Shan**

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)  
No.2-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

### **Kwei Shan Site II**

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 333, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666

Fax: 886-3-318-0345

Email: [ICC\\_Service@icertifi.com.tw](mailto:ICC_Service@icertifi.com.tw)

==END==



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	34.53M	17.811M	17M9D1D	21.42M	16.882M
802.11ax HEW20_Nss1,(MCS0)_4TX	36.24M	19.37M	19M4D1D	21.63M	19.1M
802.11ax HEW40_Nss1,(MCS0)_4TX	53.4M	38.321M	38M4D1D	40.44M	37.841M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.2M	77.721M	77M8D1D	81.6M	77.601M
802.11ax HEW160_Nss1,(MCS0)_4TX	82.96M	78.521M	78M6D1D	82.56M	78.361M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.96M	17.151M	17M2D1D	21.42M	16.912M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.99M	19.16M	19M2D1D	21.57M	19.07M
802.11ax HEW40_Nss1,(MCS0)_4TX	40.74M	37.961M	38M0D1D	40.32M	37.901M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.56M	77.721M	77M8D1D	81.6M	77.481M
802.11ax HEW160_Nss1,(MCS0)_4TX	83.12M	78.521M	78M6D1D	82.32M	78.201M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.72M	17.121M	17M2D1D	15.69M	13.568M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.87M	19.16M	19M2D1D	15.765M	14.588M
802.11ax HEW40_Nss1,(MCS0)_4TX	40.92M	38.021M	38M0D1D	35.21M	33.863M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.56M	77.841M	77M9D1D	75.9M	73.388M
802.11ax HEW160_Nss1,(MCS0)_4TX	165.6M	156.882M	157MD1D	164.88M	156.642M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.41M	18.831M	18M9D1D	3.1M	4.138M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.99M	19.67M	19M7D1D	4.4M	4.638M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.86M	38.921M	39M0D1D	3.84M	4.098M
802.11ax HEW80_Nss1,(MCS0)_4TX	77.64M	78.201M	78M3D1D	3.78M	4.118M

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 / Minimum 26dB down bandwidth for other band;  
 Min-OBW = Minimum 99% occupied bandwidth



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	22.29M	17.121M	21.6M	17.121M	21.42M	17.001M	21.84M	16.882M
5200MHz	Pass	Inf	31.59M	17.811M	30M	17.481M	28.02M	17.391M	32.82M	17.541M
5240MHz	Pass	Inf	31.98M	17.751M	26.4M	17.451M	31.35M	17.451M	34.53M	17.601M
5260MHz	Pass	Inf	21.81M	17.151M	21.96M	17.091M	21.45M	17.001M	21.54M	16.912M
5300MHz	Pass	Inf	21.66M	17.151M	21.45M	17.061M	21.63M	16.942M	21.57M	16.912M
5320MHz	Pass	Inf	21.57M	17.091M	21.75M	17.091M	21.42M	17.001M	21.51M	16.912M
5500MHz	Pass	Inf	21.69M	17.121M	21.54M	17.091M	21.48M	16.942M	21.54M	16.972M
5580MHz	Pass	Inf	21.57M	17.121M	21.45M	17.091M	21.45M	16.942M	21.45M	16.942M
5700MHz	Pass	Inf	21.66M	17.121M	21.72M	17.091M	21.63M	17.031M	21.45M	16.972M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.78M	13.688M	15.705M	13.643M	15.69M	13.568M	15.72M	13.568M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	4.218M	3.14M	4.198M	3.1M	4.138M	3.12M	4.138M
5745MHz	Pass	500k	16.35M	17.511M	16.35M	18.501M	16.32M	17.541M	16.35M	17.781M
5785MHz	Pass	500k	16.41M	17.571M	16.35M	18.831M	16.35M	17.511M	16.35M	17.691M
5825MHz	Pass	500k	16.35M	17.361M	16.32M	17.601M	16.35M	17.241M	16.35M	17.301M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.75M	19.13M	21.63M	19.1M	21.87M	19.1M	21.69M	19.16M
5200MHz	Pass	Inf	34.95M	19.34M	28.47M	19.31M	29.85M	19.31M	36.24M	19.34M
5240MHz	Pass	Inf	32.37M	19.31M	27.72M	19.25M	31.74M	19.28M	30.72M	19.37M
5260MHz	Pass	Inf	21.75M	19.13M	21.57M	19.1M	21.66M	19.1M	21.78M	19.13M
5300MHz	Pass	Inf	21.99M	19.16M	21.6M	19.07M	21.72M	19.13M	21.66M	19.1M
5320MHz	Pass	Inf	21.72M	19.13M	21.57M	19.1M	21.57M	19.1M	21.75M	19.16M
5500MHz	Pass	Inf	21.84M	19.16M	21.78M	19.1M	21.69M	19.13M	21.57M	19.07M
5580MHz	Pass	Inf	21.66M	19.16M	21.81M	19.1M	21.63M	19.1M	21.63M	19.1M
5700MHz	Pass	Inf	21.87M	19.13M	21.6M	19.1M	21.84M	19.13M	21.75M	19.07M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.825M	14.633M	15.825M	14.603M	15.795M	14.588M	15.765M	14.603M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.48M	4.638M	4.46M	4.638M	4.42M	4.678M	4.4M	4.638M
5745MHz	Pass	500k	18.99M	19.31M	18.84M	19.58M	18.84M	19.34M	18.87M	19.4M
5785MHz	Pass	500k	18.99M	19.31M	18.93M	19.67M	18.96M	19.37M	18.96M	19.4M
5825MHz	Pass	500k	18.99M	19.28M	18.93M	19.34M	18.9M	19.28M	18.96M	19.28M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.62M	37.841M	40.8M	37.901M	40.5M	37.901M	40.44M	37.901M
5230MHz	Pass	Inf	53.4M	38.321M	42.48M	38.201M	51.42M	38.261M	53.22M	38.321M
5270MHz	Pass	Inf	40.74M	37.961M	40.56M	37.901M	40.74M	37.901M	40.44M	37.961M
5310MHz	Pass	Inf	40.5M	37.961M	40.32M	37.961M	40.32M	37.961M	40.44M	37.961M
5510MHz	Pass	Inf	40.68M	37.961M	40.44M	37.901M	40.44M	38.021M	40.44M	37.961M





Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
5590MHz	Pass	Inf	40.8M	38.021M	40.92M	37.901M	40.32M	38.021M	40.32M	37.961M
5670MHz	Pass	Inf	40.74M	37.901M	40.56M	37.961M	40.44M	37.961M	40.44M	37.961M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.28M	33.863M	35.35M	33.933M	35.28M	33.863M	35.21M	33.863M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.9M	4.138M	3.84M	4.098M	3.9M	4.098M	3.92M	4.098M
5755MHz	Pass	500k	37.68M	38.201M	37.68M	38.801M	37.74M	38.321M	37.62M	38.681M
5795MHz	Pass	500k	37.86M	38.261M	37.74M	38.921M	37.8M	38.381M	37.38M	38.561M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.6M	77.601M	81.72M	77.601M	82.2M	77.601M	81.84M	77.721M
5290MHz	Pass	Inf	82.56M	77.601M	81.6M	77.721M	82.08M	77.601M	81.84M	77.481M
5530MHz	Pass	Inf	82.56M	77.601M	82.08M	77.601M	81.96M	77.721M	82.2M	77.721M
5610MHz	Pass	Inf	82.44M	77.721M	81.84M	77.721M	81.84M	77.721M	82.08M	77.841M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.35M	73.538M	75.9M	73.463M	76.2M	73.388M	76.05M	73.463M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.92M	4.238M	3.94M	4.118M	3.78M	4.138M	3.78M	4.138M
5775MHz	Pass	500k	77.16M	78.081M	76.8M	78.201M	77.64M	77.841M	77.04M	77.841M
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	82.96M	78.521M	82.96M	78.441M	82.72M	78.441M	82.56M	78.361M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	83.12M	78.361M	82.88M	78.521M	82.32M	78.201M	82.56M	78.361M
5570MHz	Pass	Inf	164.88M	156.642M	165.6M	156.882M	165.36M	156.882M	165.12M	156.642M

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

Port X-OBW = Port X 99% occupied bandwidth

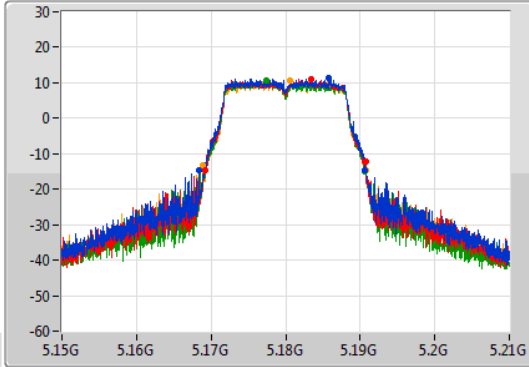


802.11a\_Nss1,(6Mbps)\_4TX

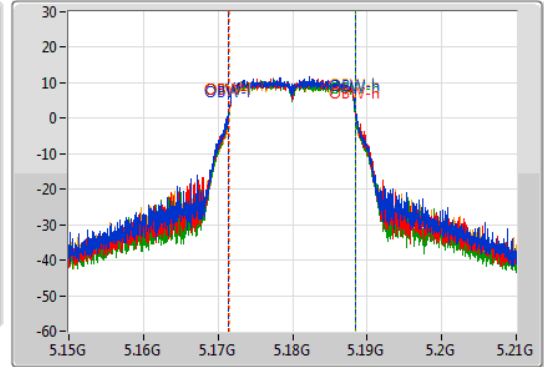
EBW

5180MHz

CF  
5.18GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.18GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

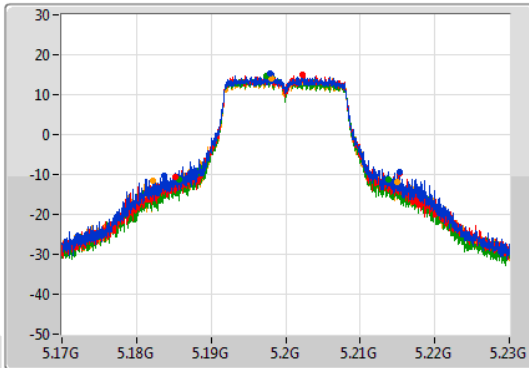
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.29M	5.16836G	5.19065G	17.121M	5.171364G	5.188486G	Inf	1
21.6M	5.16914G	5.19074G	17.121M	5.171394G	5.188516G	Inf	2
21.42M	5.1692G	5.19062G	17.001M	5.171454G	5.188456G	Inf	3
21.84M	5.16896G	5.1908G	16.882M	5.171514G	5.188396G	Inf	4

802.11a\_Nss1,(6Mbps)\_4TX

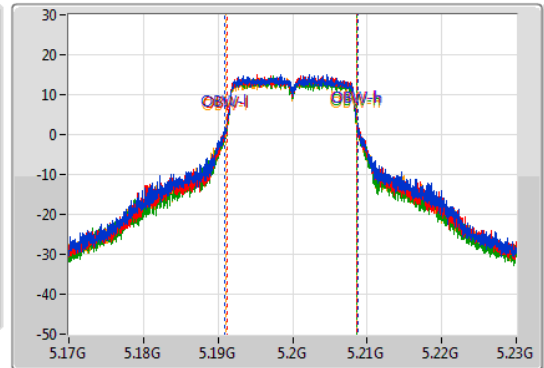
EBW

5200MHz

CF  
5.2GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.2GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

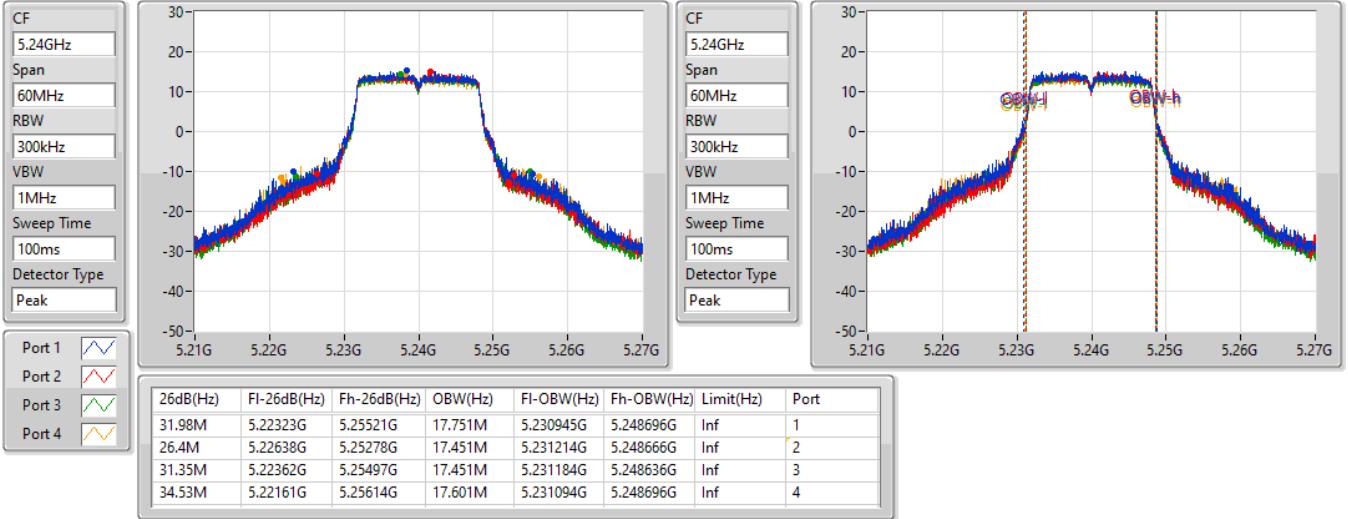
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.59M	5.18374G	5.21533G	17.811M	5.190945G	5.208756G	Inf	1
30M	5.18527G	5.21527G	17.481M	5.191154G	5.208636G	Inf	2
28.02M	5.18572G	5.21374G	17.391M	5.191214G	5.208606G	Inf	3
32.82M	5.18218G	5.215G	17.541M	5.191124G	5.208666G	Inf	4



802.11a\_Nss1,(6Mbps)\_4TX

EBW

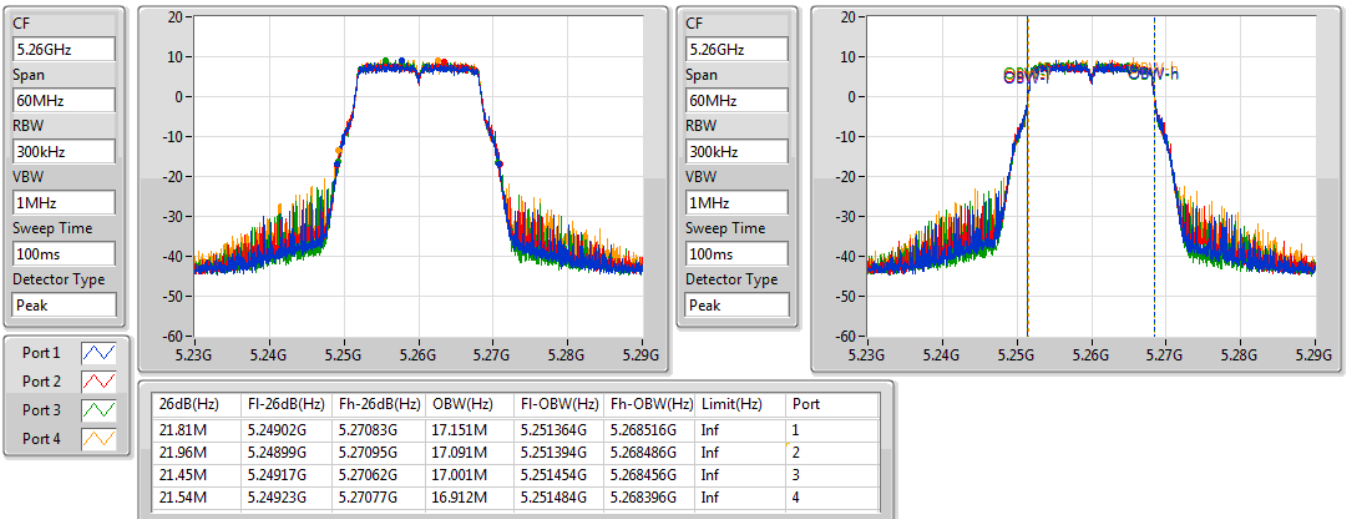
5240MHz



802.11a\_Nss1,(6Mbps)\_4TX

EBW

5260MHz



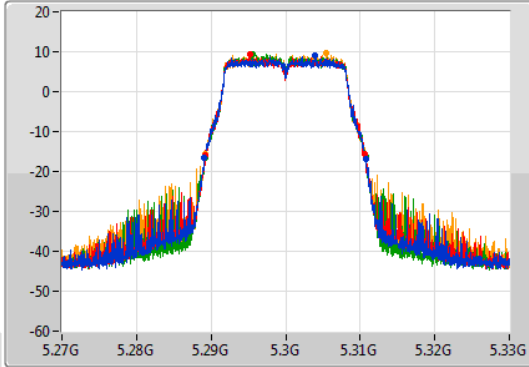


802.11a\_Nss1,(6Mbps)\_4TX

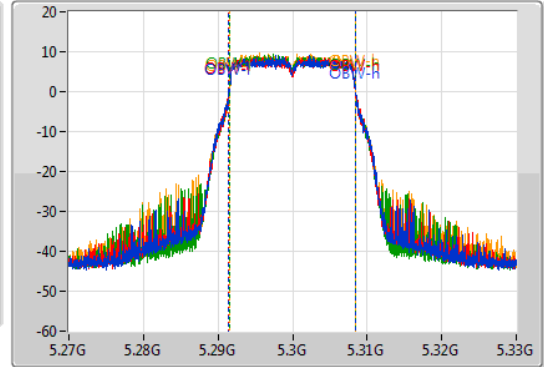
EBW

5300MHz

CF: 5.3GHz  
 Span: 60MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.3GHz  
 Span: 60MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

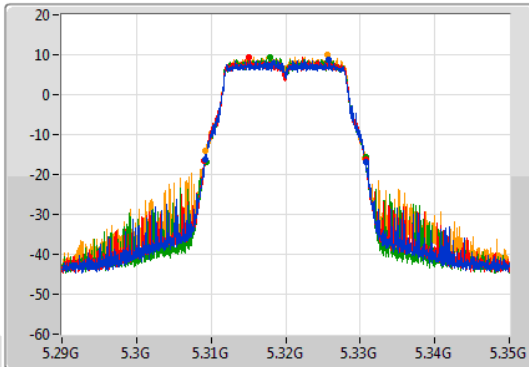
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.66M	5.2891G	5.31077G	17.151M	5.291364G	5.308516G	Inf	1
21.45M	5.2892G	5.31065G	17.061M	5.291424G	5.308486G	Inf	2
21.63M	5.28914G	5.31077G	16.942M	5.291484G	5.308426G	Inf	3
21.57M	5.28923G	5.3108G	16.912M	5.291484G	5.308396G	Inf	4

802.11a\_Nss1,(6Mbps)\_4TX

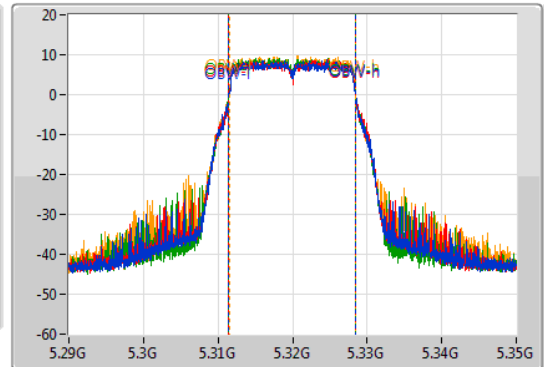
EBW

5320MHz

CF: 5.32GHz  
 Span: 60MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.32GHz  
 Span: 60MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.57M	5.3092G	5.33077G	17.091M	5.311394G	5.328486G	Inf	1
21.75M	5.30905G	5.3308G	17.091M	5.311424G	5.328516G	Inf	2
21.42M	5.30932G	5.33074G	17.001M	5.311454G	5.328456G	Inf	3
21.51M	5.30914G	5.33065G	16.912M	5.311484G	5.328396G	Inf	4

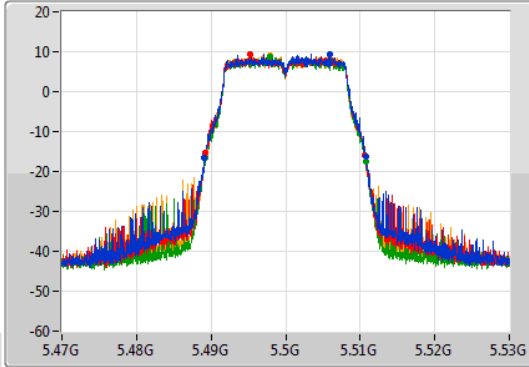


802.11a\_Nss1,(6Mbps)\_4TX

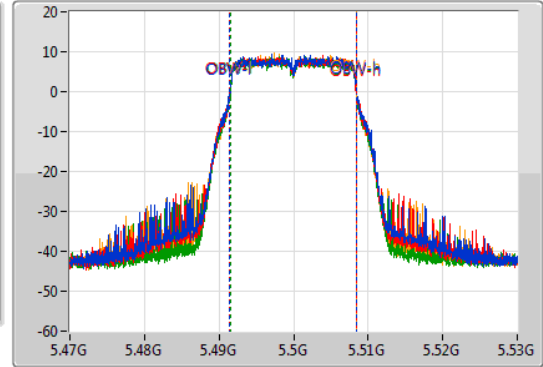
EBW

5500MHz

CF  
5.5GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.5GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

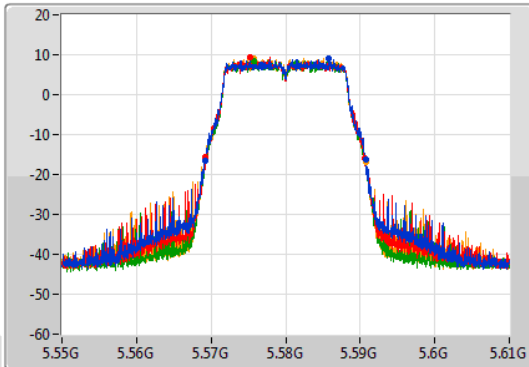
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.69M	5.48911G	5.5108G	17.121M	5.491394G	5.508516G	Inf	1
21.54M	5.48914G	5.51068G	17.091M	5.491424G	5.508516G	Inf	2
21.48M	5.48923G	5.51071G	16.942M	5.491514G	5.508456G	Inf	3
21.54M	5.4892G	5.51074G	16.972M	5.491454G	5.508426G	Inf	4

802.11a\_Nss1,(6Mbps)\_4TX

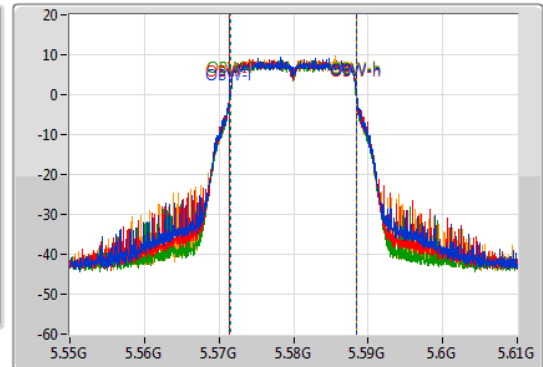
EBW

5580MHz

CF  
5.58GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.58GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

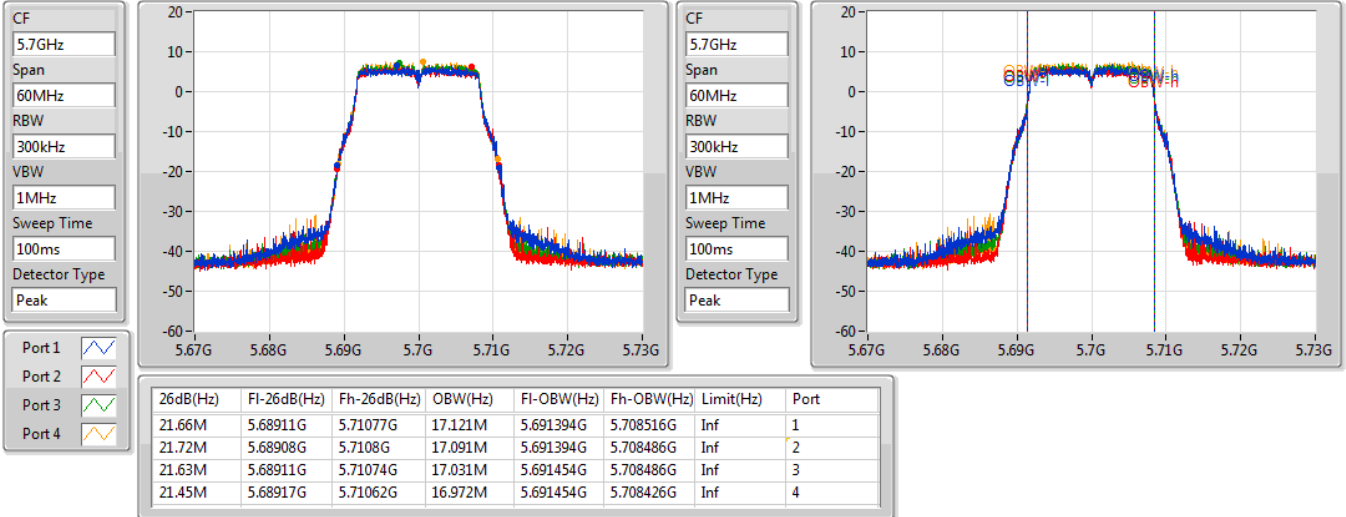
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.57M	5.56914G	5.59071G	17.121M	5.571394G	5.588516G	Inf	1
21.45M	5.56917G	5.59062G	17.091M	5.571424G	5.588516G	Inf	2
21.45M	5.56926G	5.59071G	16.942M	5.571514G	5.588456G	Inf	3
21.45M	5.56926G	5.59071G	16.942M	5.571484G	5.588426G	Inf	4



802.11a\_Nss1,(6Mbps)\_4TX

EBW

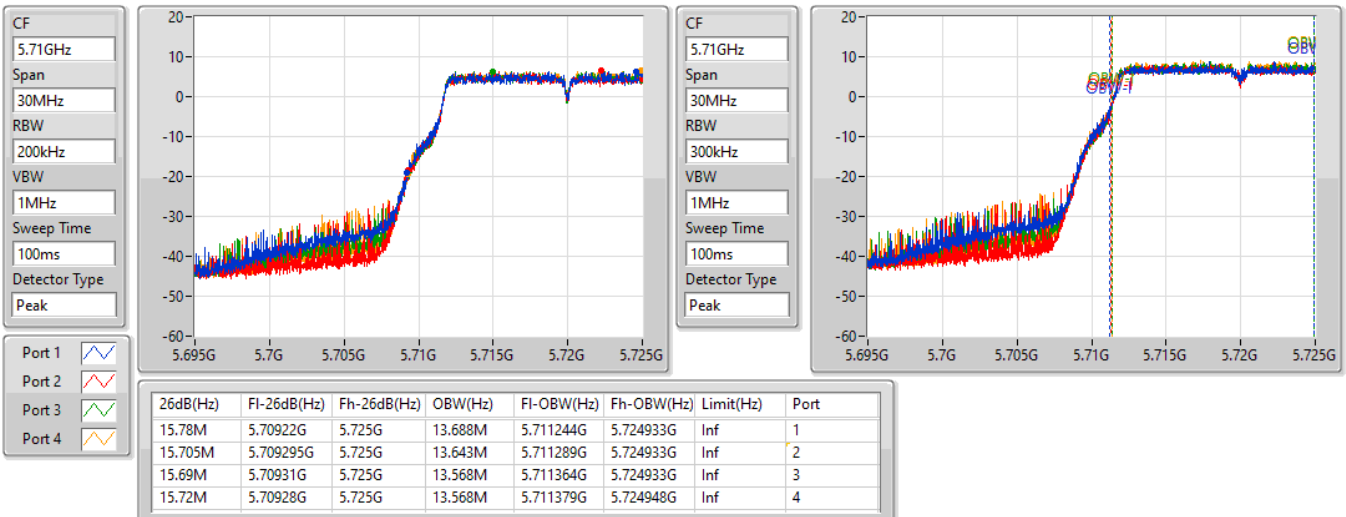
5700MHz



802.11a\_Nss1,(6Mbps)\_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

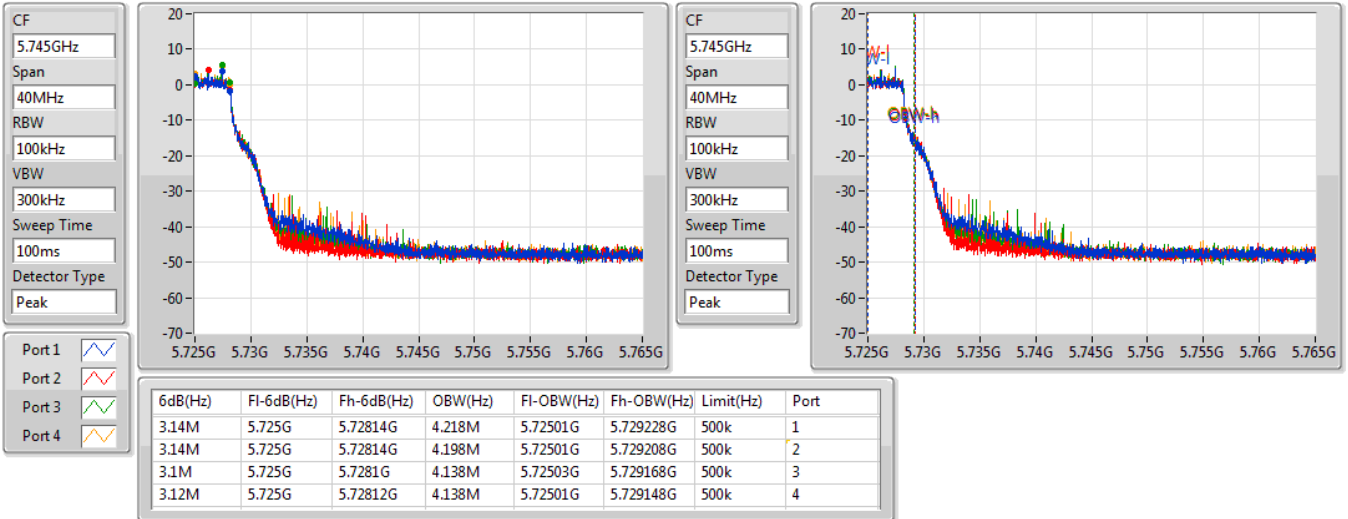




802.11a\_Nss1,(6Mbps)\_4TX

EBW

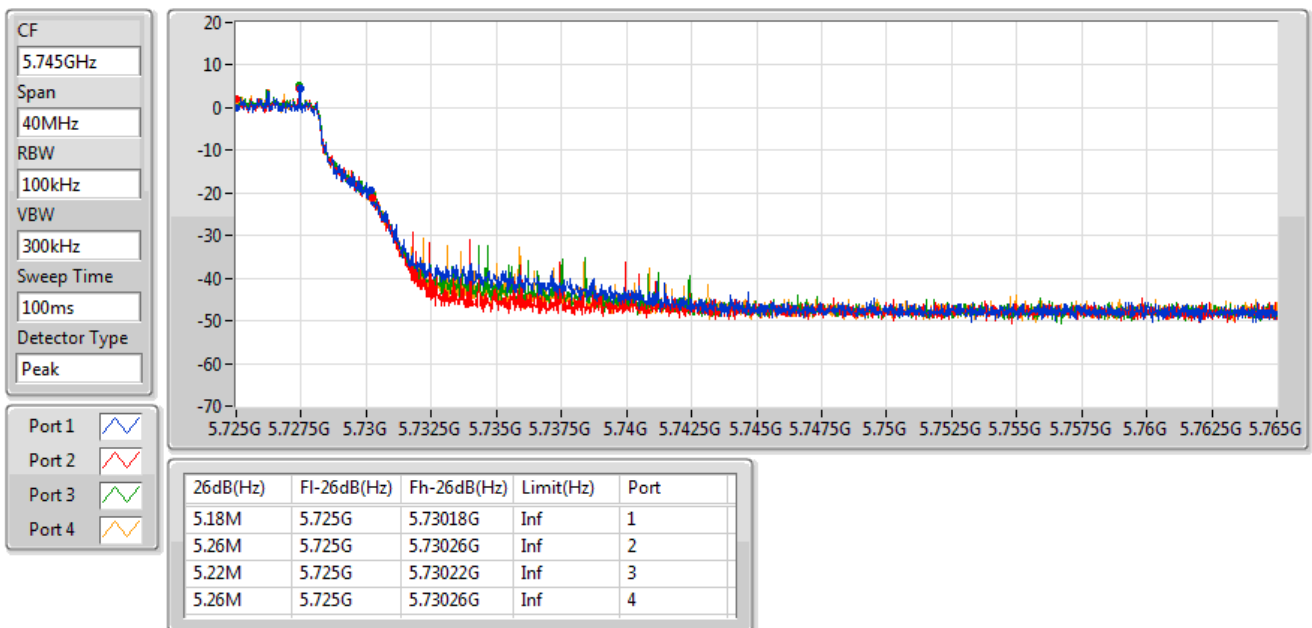
5720MHz Straddle 5.725-5.85GHz



802.11a\_Nss1,(6Mbps)\_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

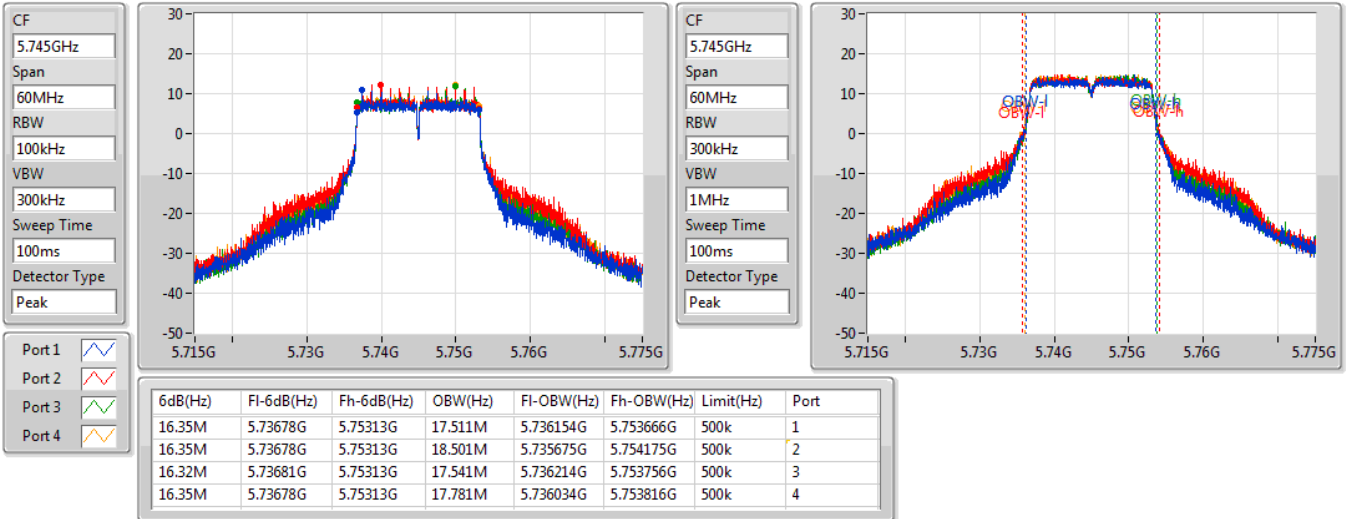




802.11a\_Nss1,(6Mbps)\_4TX

EBW

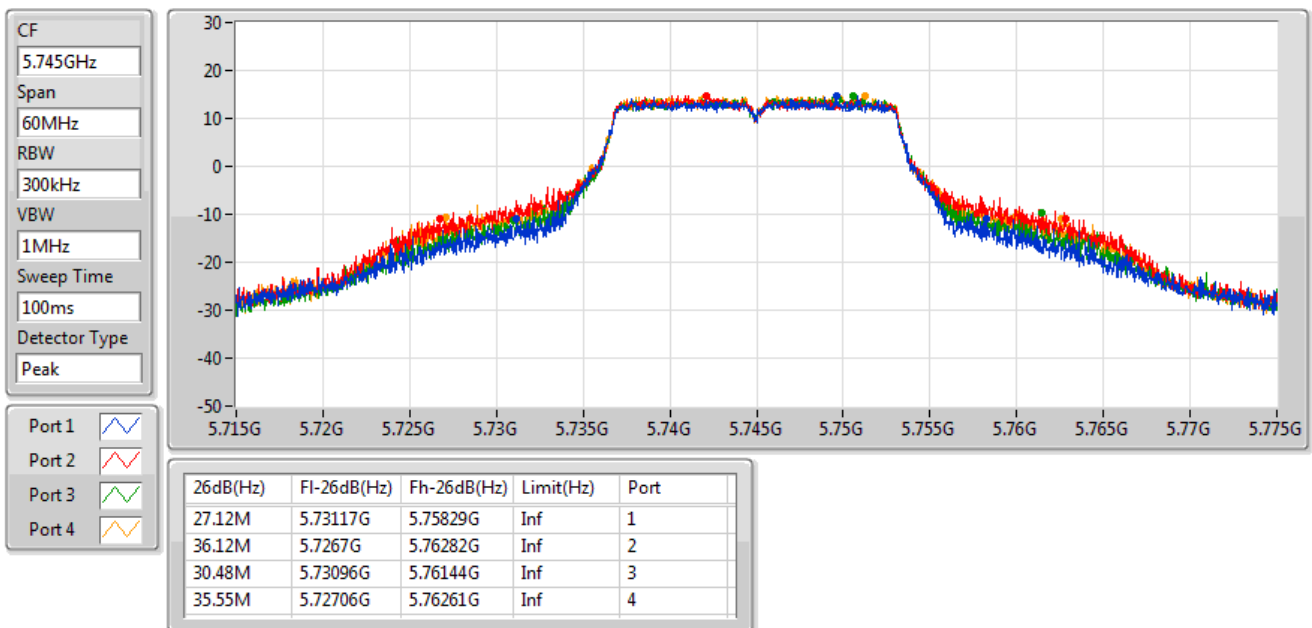
5745MHz



802.11a\_Nss1,(6Mbps)\_4TX

EBW

5745MHz



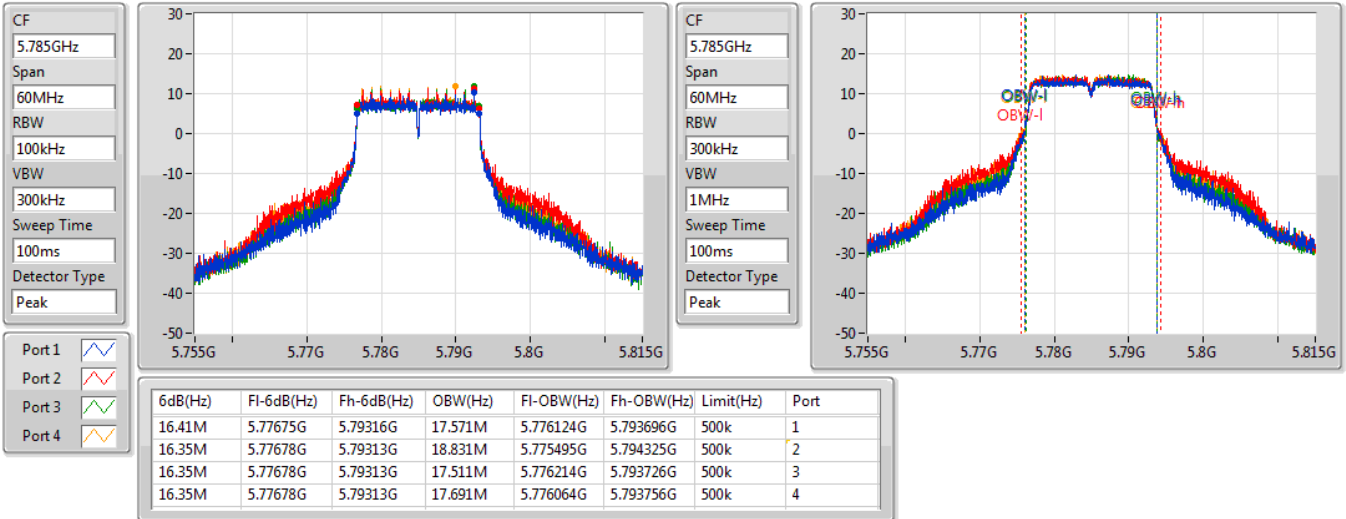




802.11a\_Nss1,(6Mbps)\_4TX

EBW

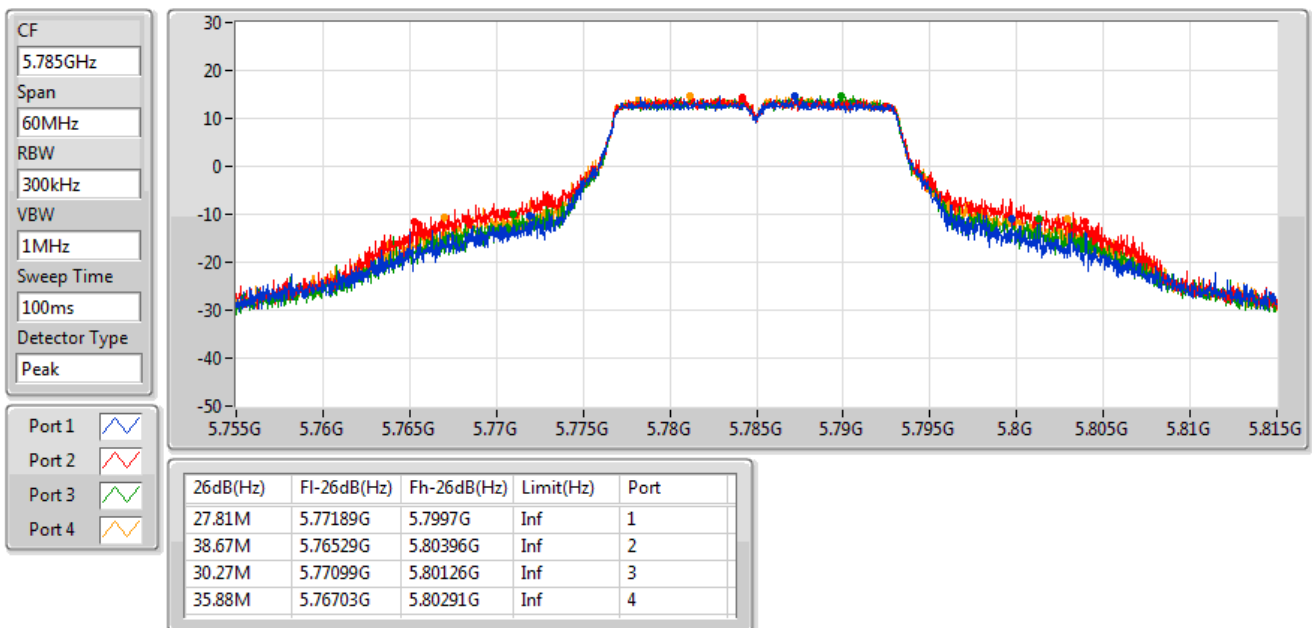
5785MHz



802.11a\_Nss1,(6Mbps)\_4TX

EBW

5785MHz

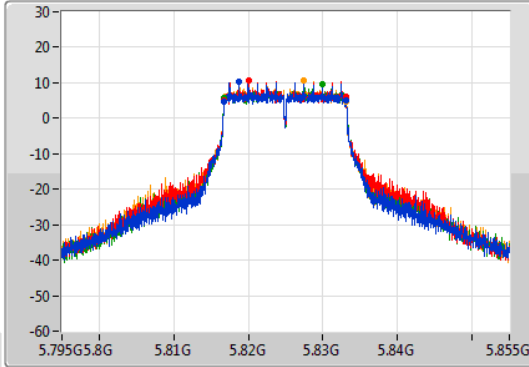


### 802.11a\_Nss1,(6Mbps)\_4TX

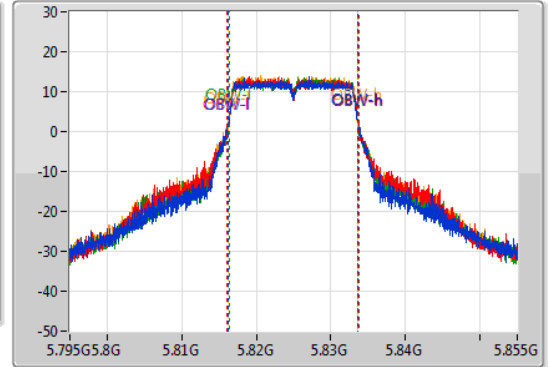
EBW

5825MHz

CF: 5.825GHz  
 Span: 60MHz  
 RBW: 100kHz  
 VBW: 300kHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.825GHz  
 Span: 60MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	5.81678G	5.83313G	17.361M	5.816244G	5.833606G	500k	1
16.32M	5.81678G	5.83313G	17.601M	5.816124G	5.833726G	500k	2
16.35M	5.81678G	5.83313G	17.241M	5.816364G	5.833606G	500k	3
16.35M	5.81678G	5.83313G	17.301M	5.816274G	5.833576G	500k	4

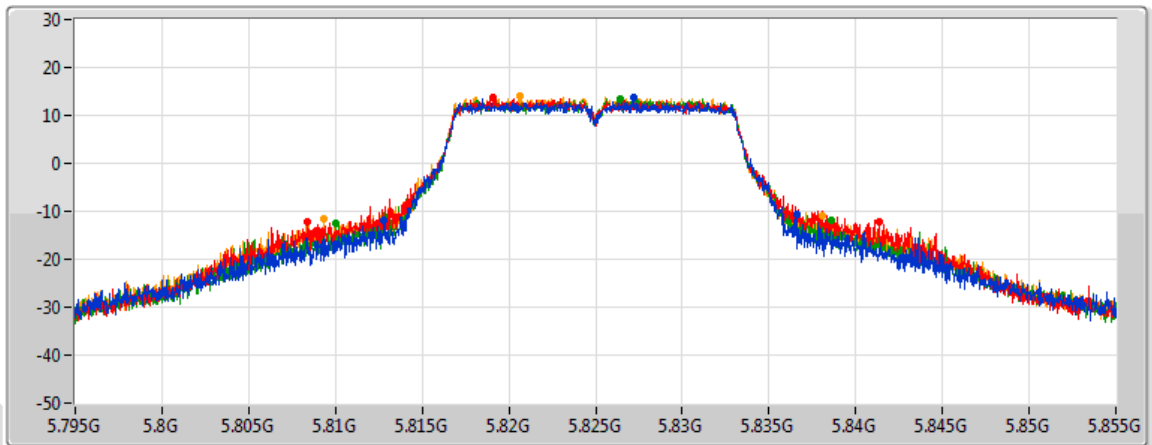
Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

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

EBW

5825MHz

CF: 5.825GHz  
 Span: 60MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

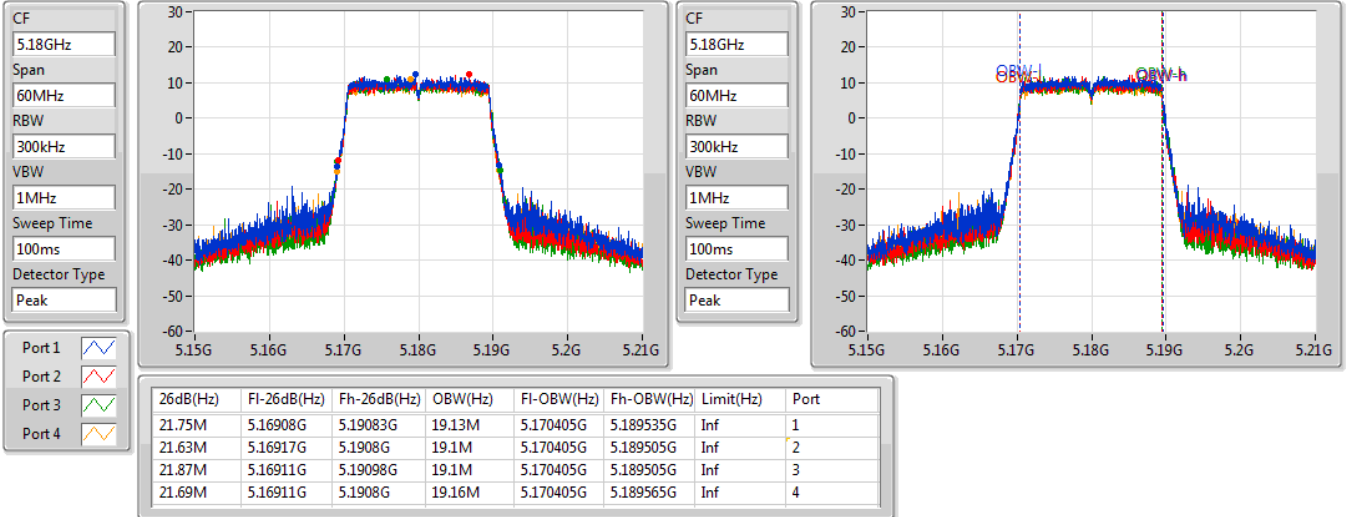
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
23.79M	5.81279G	5.83658G	Inf	1
32.91M	5.80841G	5.84132G	Inf	2
28.56M	5.81006G	5.83862G	Inf	3
28.8M	5.80931G	5.83811G	Inf	4



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

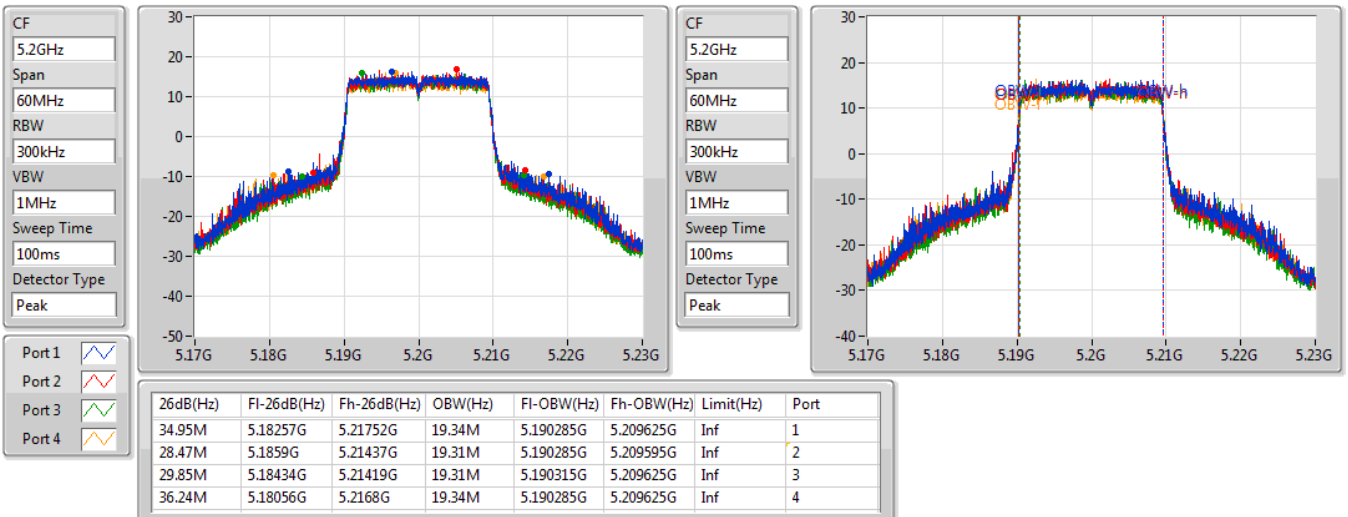
5180MHz



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5200MHz

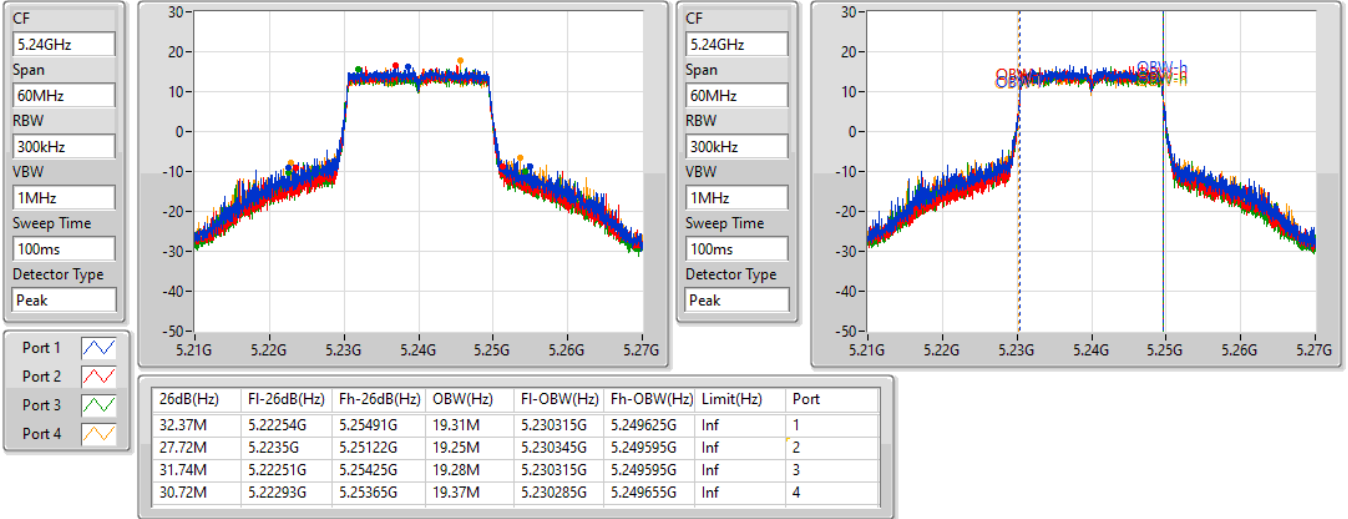




802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

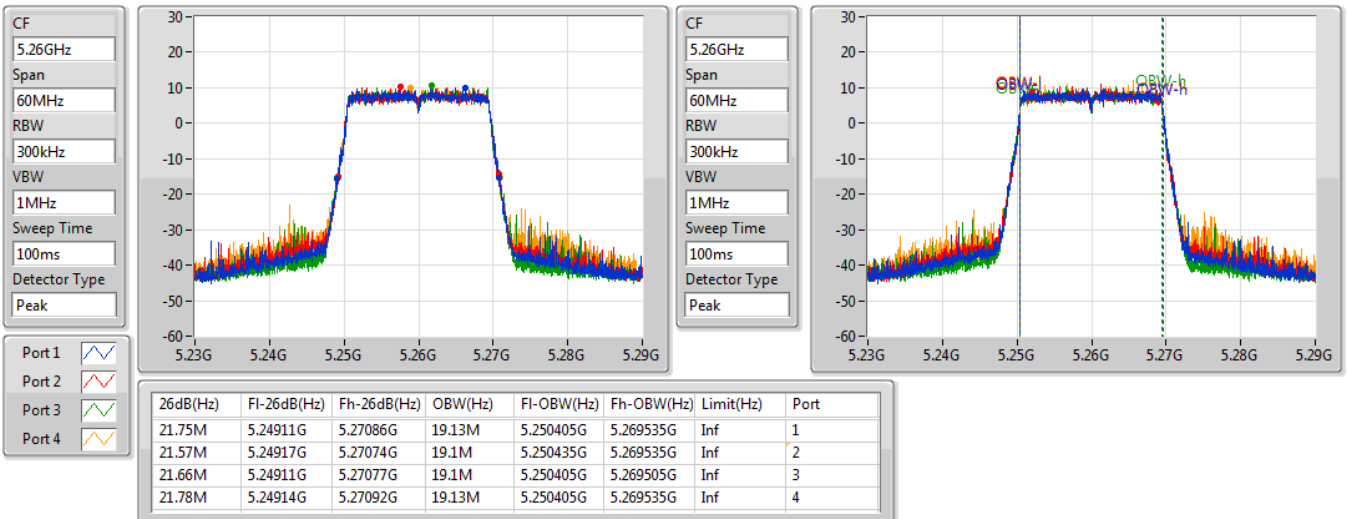
5240MHz



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5260MHz



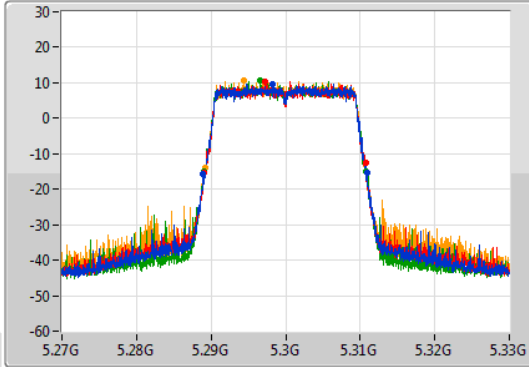


802.11ax HEW20\_Nss1,(MCS0)\_4TX

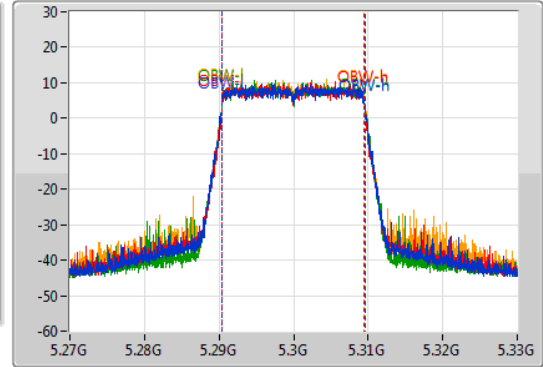
EBW

5300MHz

CF  
5.3GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.3GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

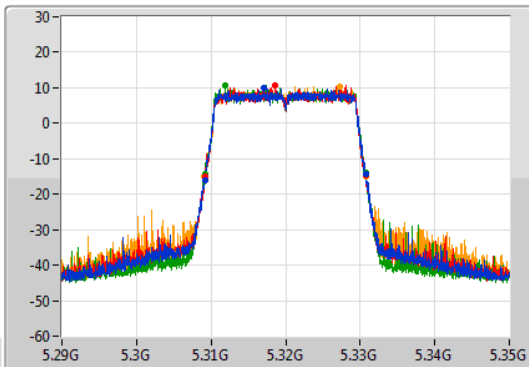
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.99M	5.28896G	5.31095G	19.16M	5.290405G	5.309565G	Inf	1
21.6M	5.28911G	5.31071G	19.07M	5.290435G	5.309505G	Inf	2
21.72M	5.28908G	5.3108G	19.13M	5.290405G	5.309535G	Inf	3
21.66M	5.2892G	5.31086G	19.1M	5.290405G	5.309505G	Inf	4

802.11ax HEW20\_Nss1,(MCS0)\_4TX

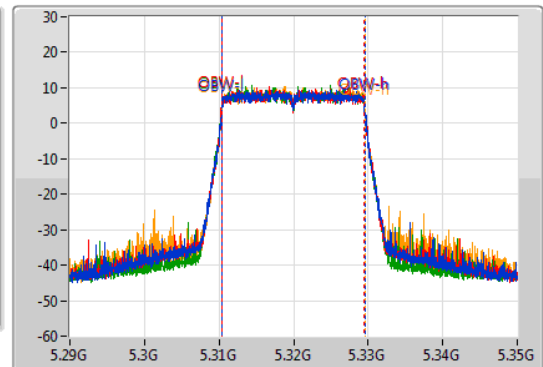
EBW

5320MHz

CF  
5.32GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.32GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.72M	5.30914G	5.33086G	19.13M	5.310405G	5.329535G	Inf	1
21.57M	5.30917G	5.33074G	19.1M	5.310405G	5.329505G	Inf	2
21.57M	5.30917G	5.33074G	19.1M	5.310405G	5.329505G	Inf	3
21.75M	5.30911G	5.33086G	19.16M	5.310405G	5.329565G	Inf	4

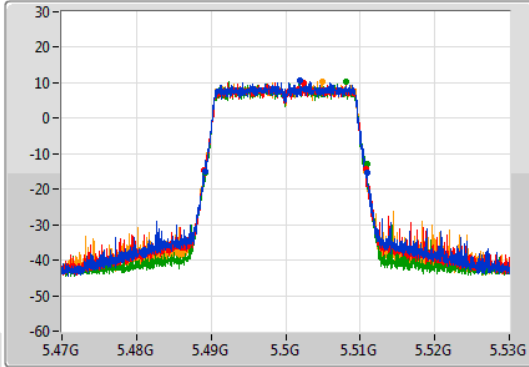


802.11ax HEW20\_Nss1,(MCS0)\_4TX

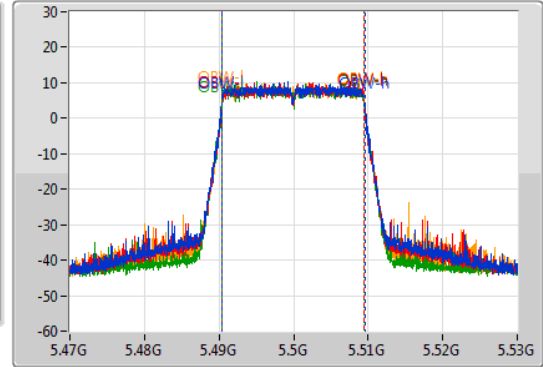
EBW

5500MHz

CF  
5.5GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.5GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

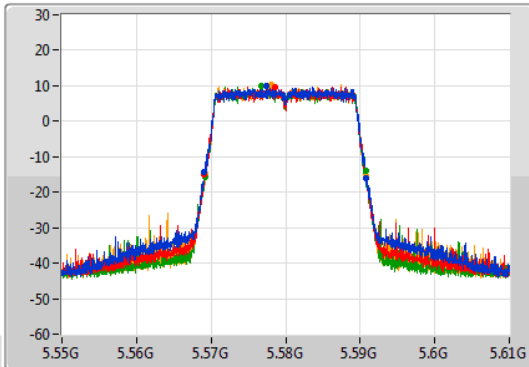
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.84M	5.48914G	5.51098G	19.16M	5.490375G	5.509535G	Inf	1
21.78M	5.48905G	5.51083G	19.1M	5.490405G	5.509505G	Inf	2
21.69M	5.4892G	5.51089G	19.13M	5.490375G	5.509505G	Inf	3
21.57M	5.48914G	5.51071G	19.07M	5.490435G	5.509505G	Inf	4

802.11ax HEW20\_Nss1,(MCS0)\_4TX

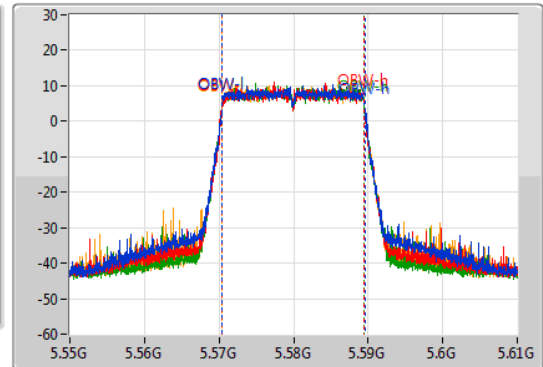
EBW

5580MHz

CF  
5.58GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.58GHz  
Span  
60MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.66M	5.56911G	5.59077G	19.16M	5.570405G	5.589565G	Inf	1
21.81M	5.56905G	5.59086G	19.1M	5.570405G	5.589505G	Inf	2
21.63M	5.56914G	5.59077G	19.1M	5.570405G	5.589505G	Inf	3
21.63M	5.56917G	5.5908G	19.1M	5.570405G	5.589505G	Inf	4

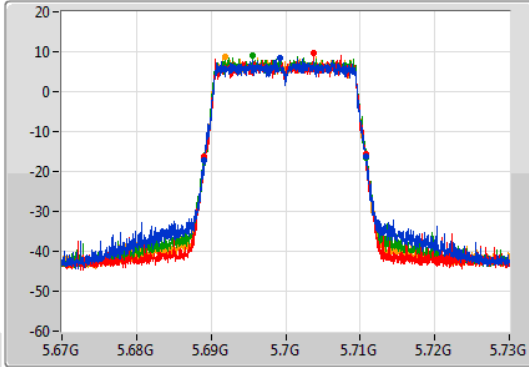


802.11ax HEW20\_Nss1,(MCS0)\_4TX

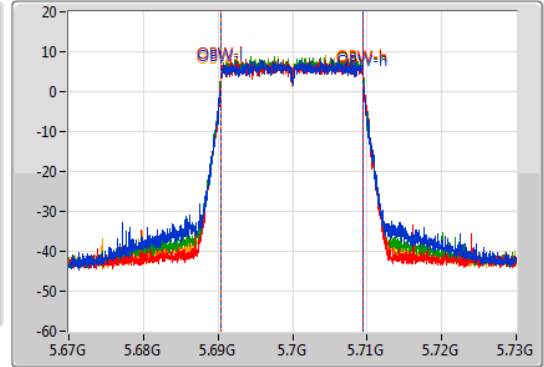
EBW

5700MHz

CF: 5.7GHz  
 Span: 60MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.7GHz  
 Span: 60MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

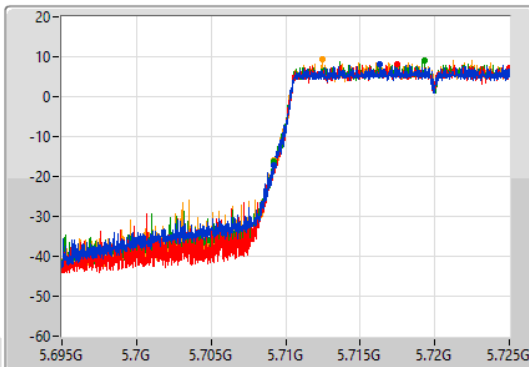
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.87M	5.68899G	5.71086G	19.13M	5.690375G	5.709505G	Inf	1
21.6M	5.68911G	5.71071G	19.1M	5.690405G	5.709505G	Inf	2
21.84M	5.68899G	5.71083G	19.13M	5.690375G	5.709505G	Inf	3
21.75M	5.68908G	5.71083G	19.07M	5.690405G	5.709475G	Inf	4

802.11ax HEW20\_Nss1,(MCS0)\_4TX

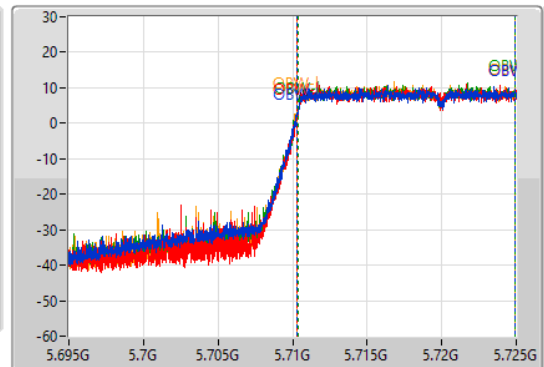
EBW

5720MHz Straddle 5.47-5.725GHz

CF: 5.71GHz  
 Span: 30MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.71GHz  
 Span: 30MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

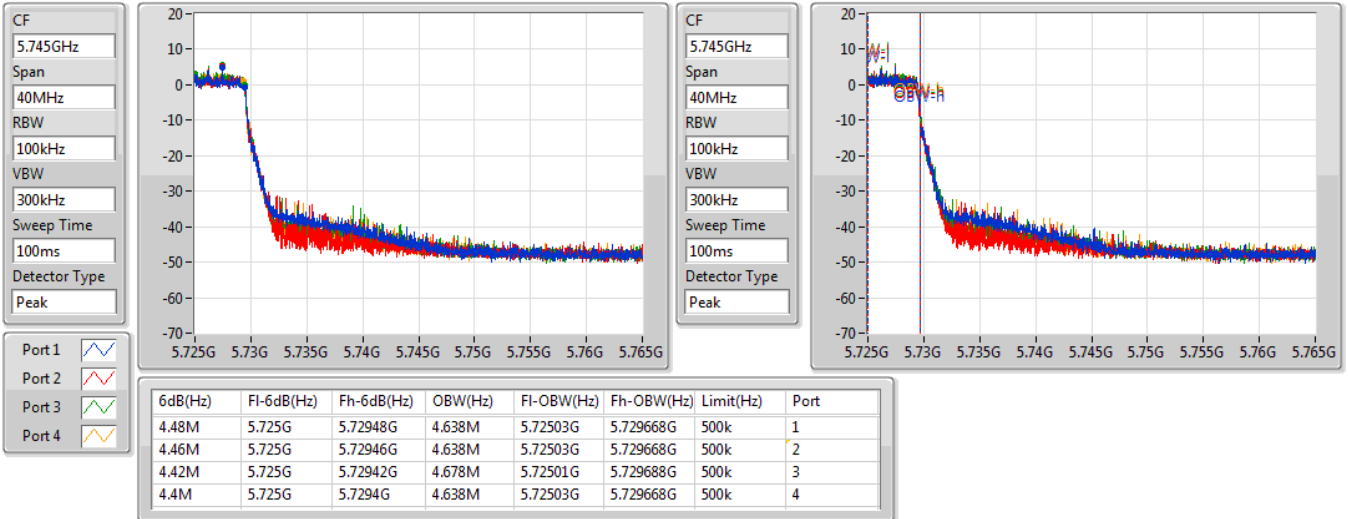
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.825M	5.709175G	5.725G	14.633M	5.7103G	5.724933G	Inf	1
15.825M	5.709175G	5.725G	14.603M	5.71033G	5.724933G	Inf	2
15.795M	5.709205G	5.725G	14.588M	5.710345G	5.724933G	Inf	3
15.765M	5.709235G	5.725G	14.603M	5.71033G	5.724933G	Inf	4



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

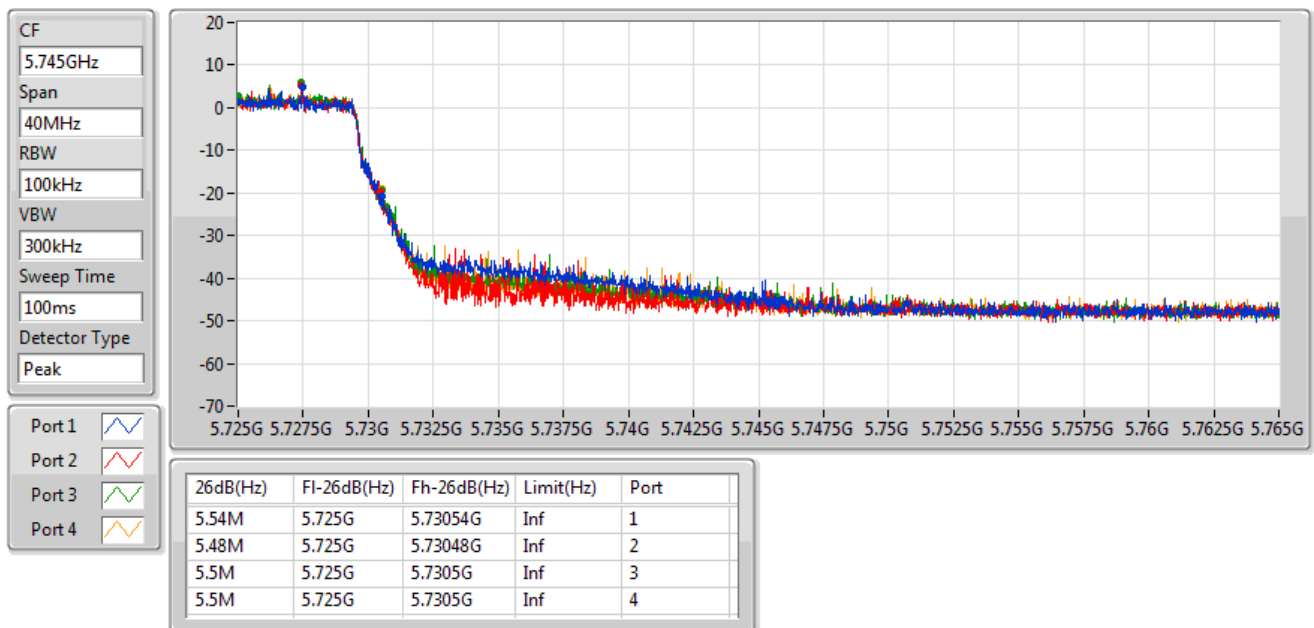
5720MHz Straddle 5.725-5.85GHz



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5720MHz Straddle 5.725-5.85GHz



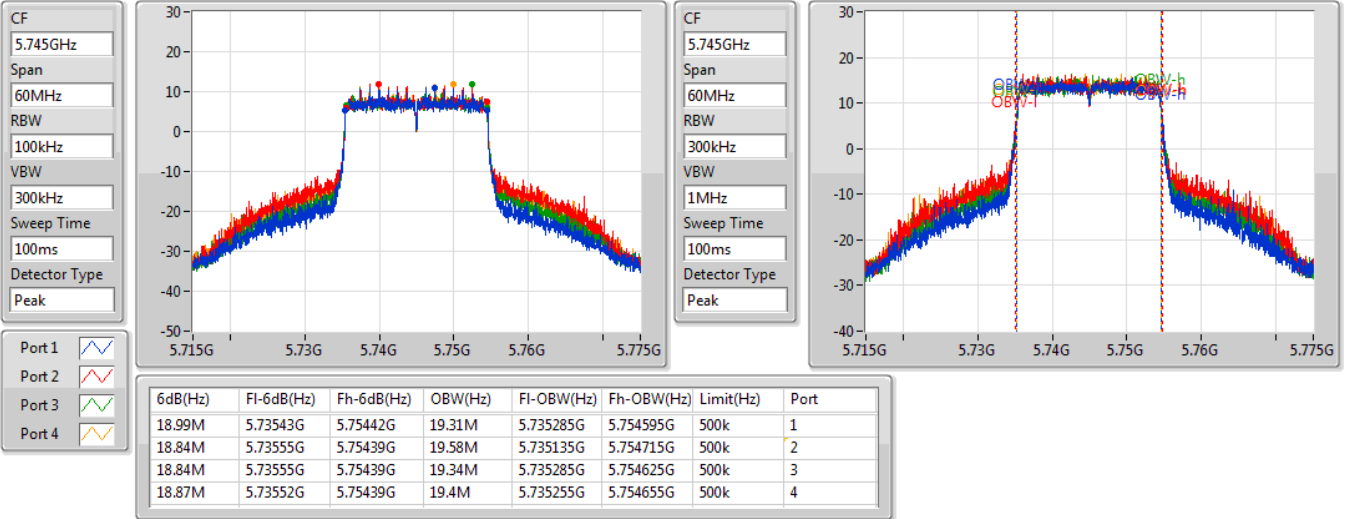




802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

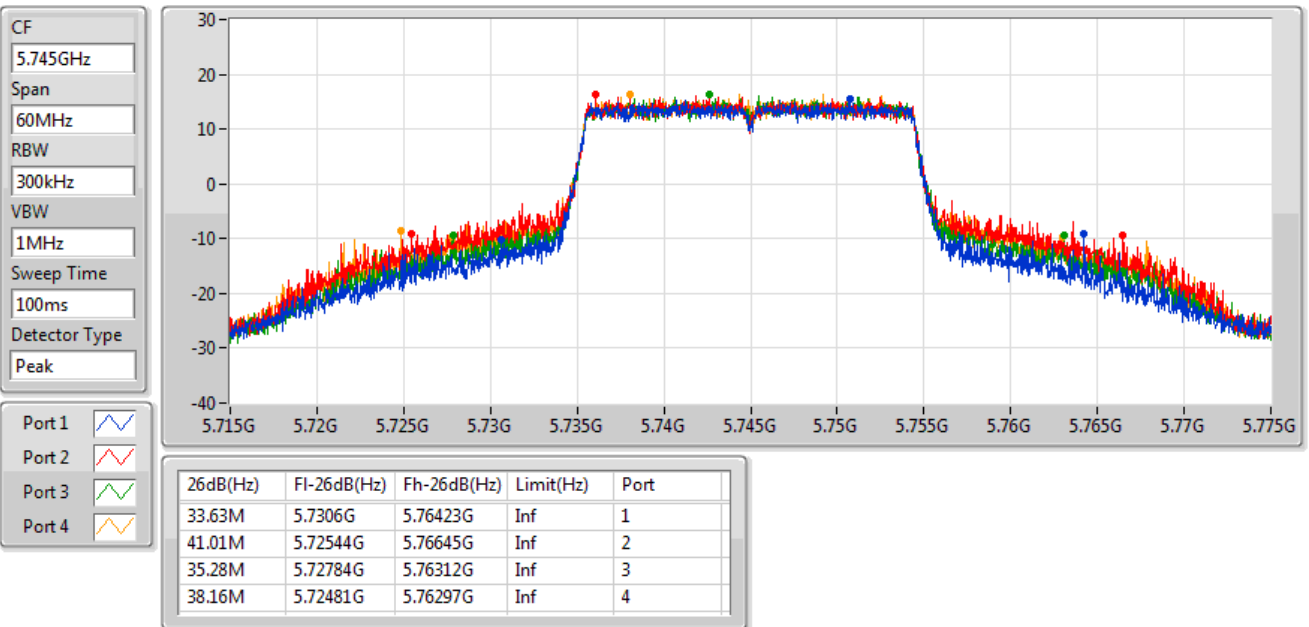
5745MHz



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5745MHz

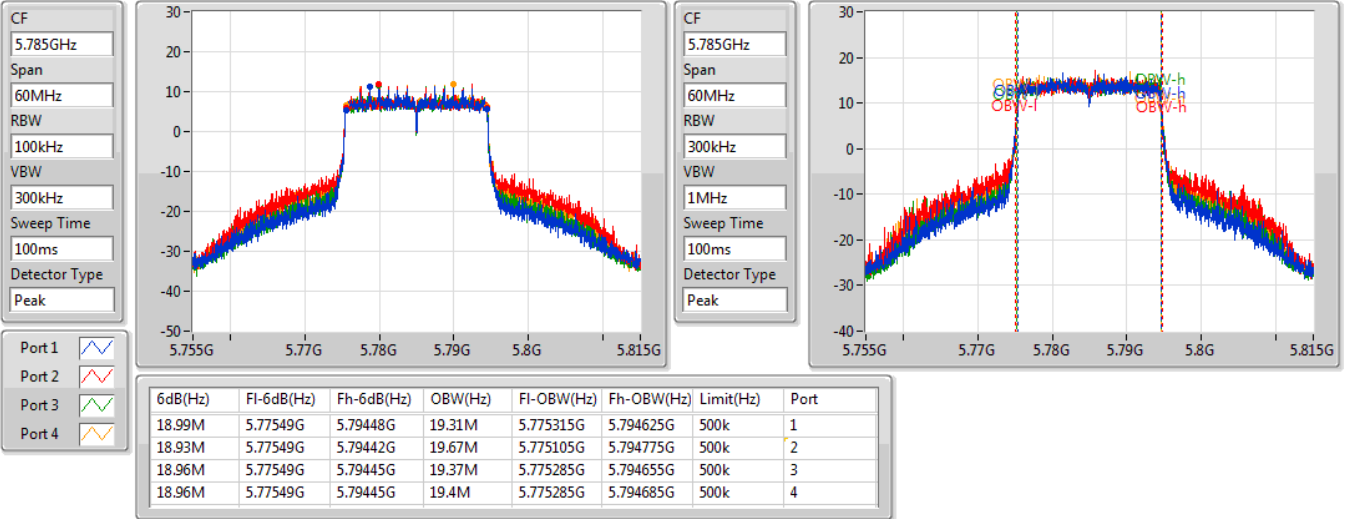




802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

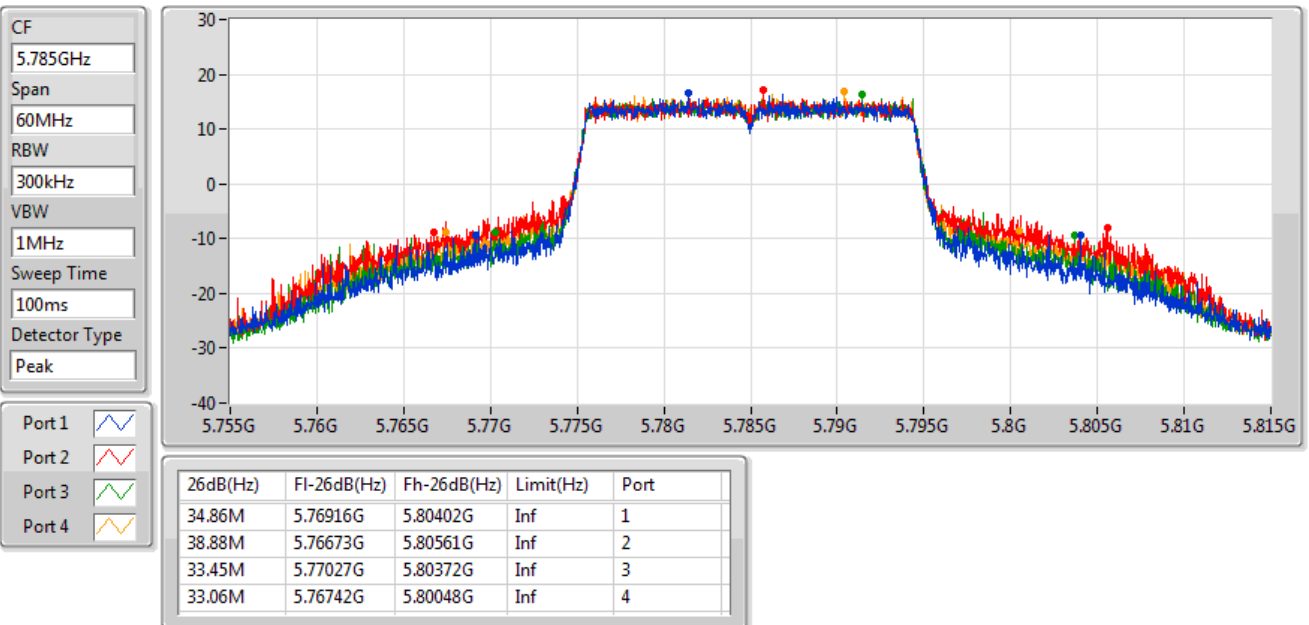
5785MHz



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5785MHz

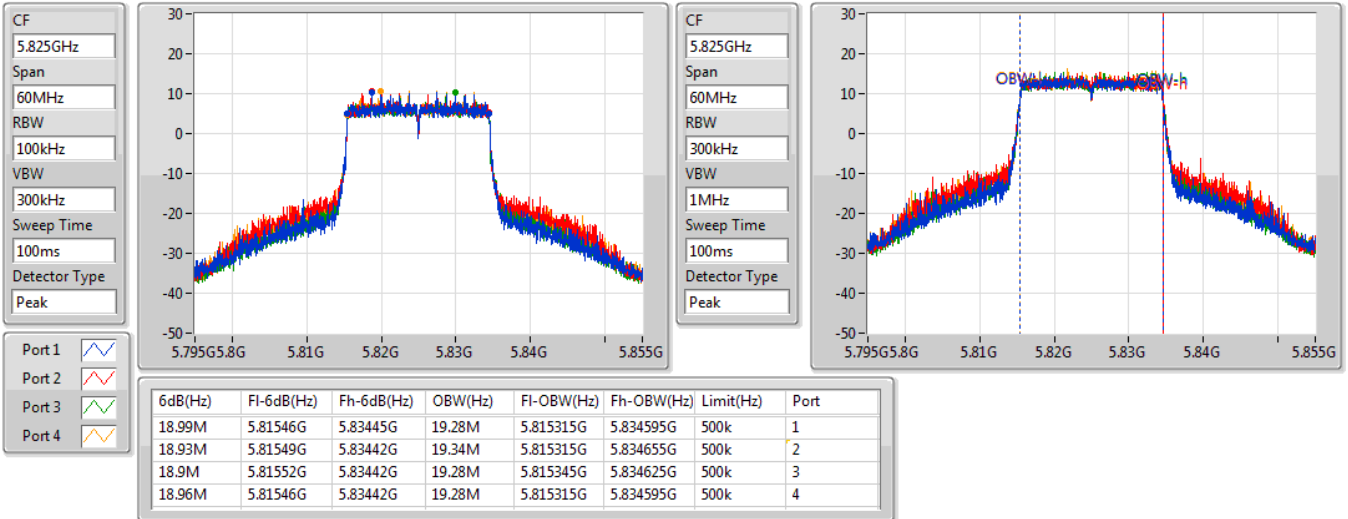




802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

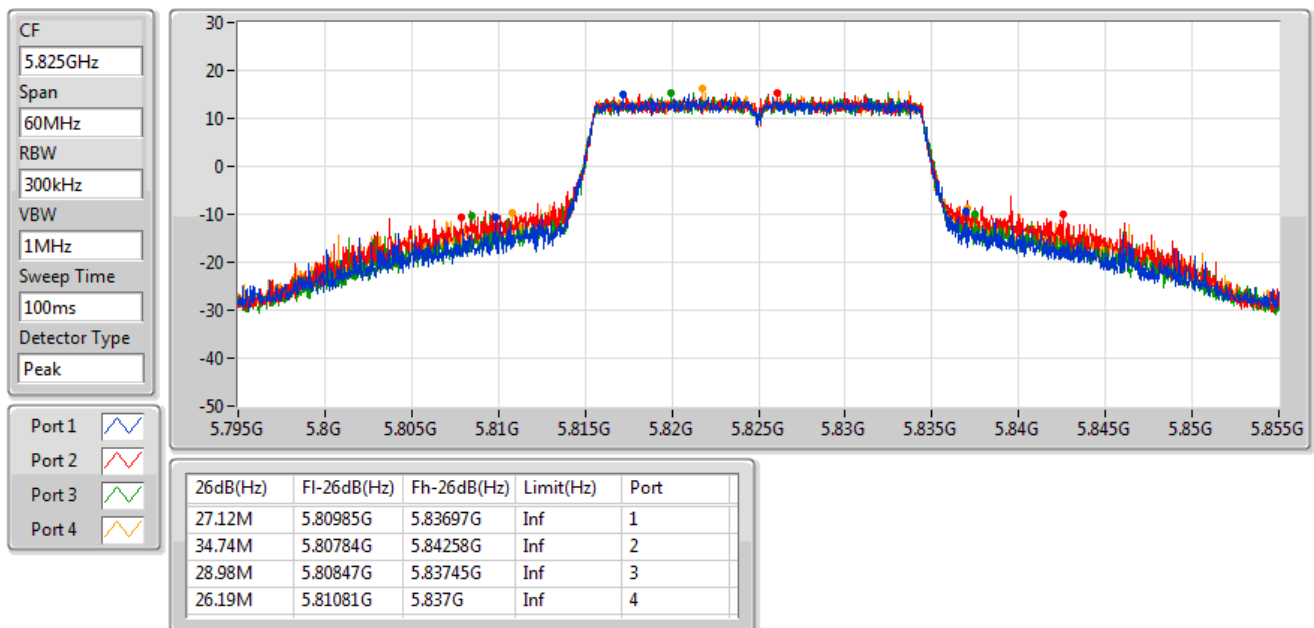
5825MHz



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5825MHz

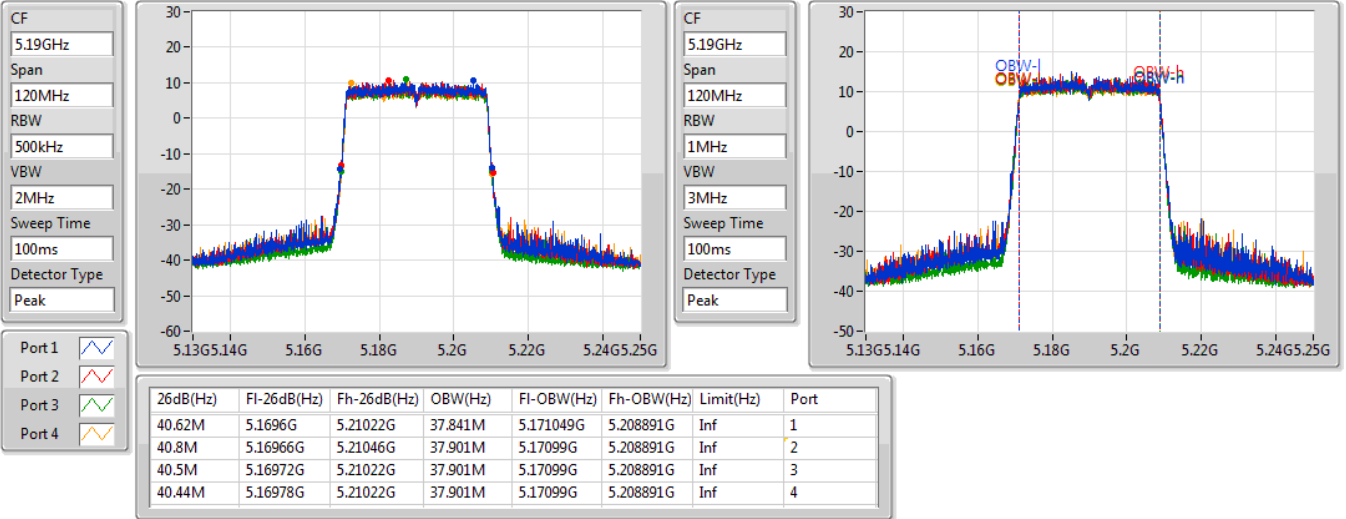




802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

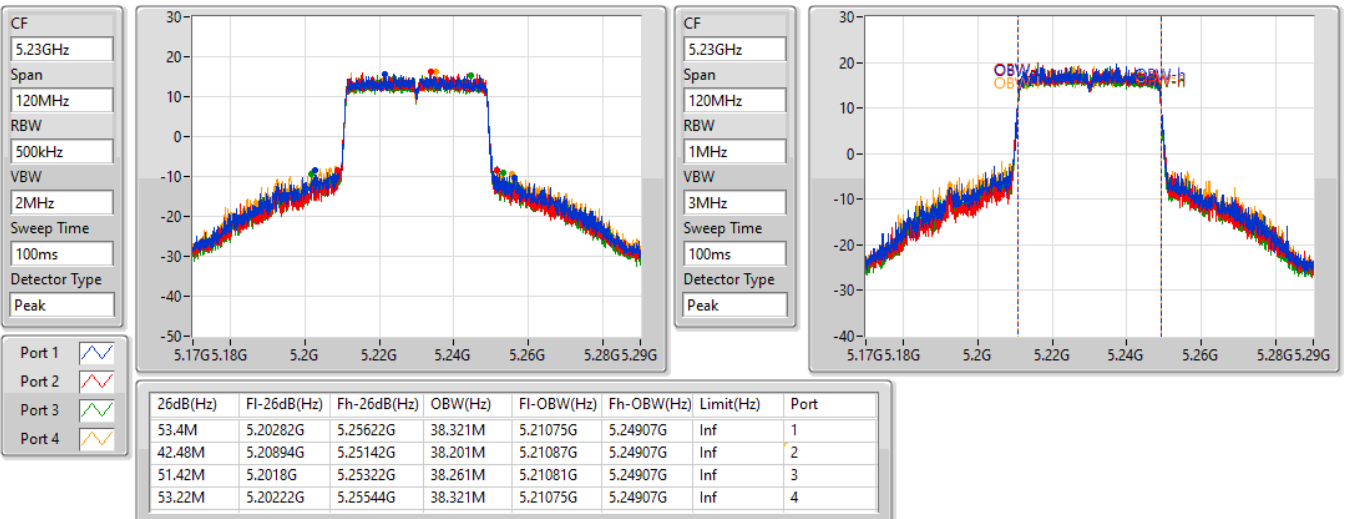
5190MHz



802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

5230MHz



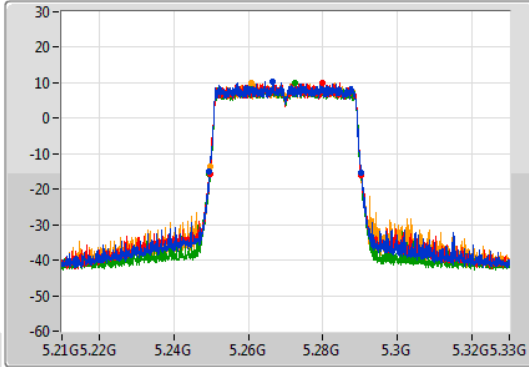


802.11ax HEW40\_Nss1,(MCS0)\_4TX

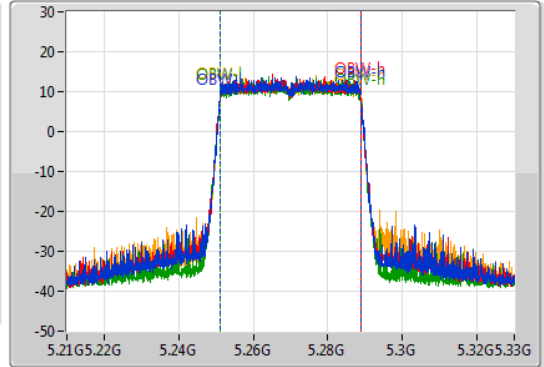
EBW

5270MHz

CF  
5.27GHz  
Span  
120MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.27GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

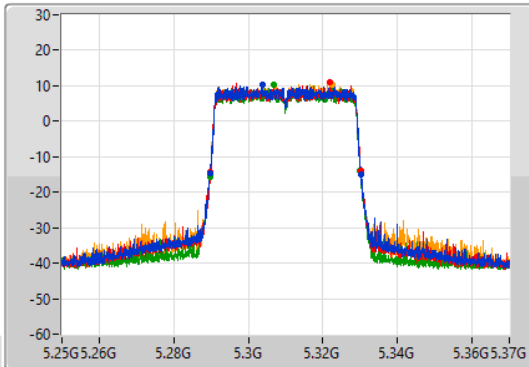
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.74M	5.2496G	5.29034G	37.961M	5.25099G	5.288951G	Inf	1
40.56M	5.24972G	5.29028G	37.901M	5.25099G	5.288891G	Inf	2
40.74M	5.24954G	5.29028G	37.901M	5.25099G	5.288891G	Inf	3
40.44M	5.24978G	5.29022G	37.961M	5.25099G	5.288951G	Inf	4

802.11ax HEW40\_Nss1,(MCS0)\_4TX

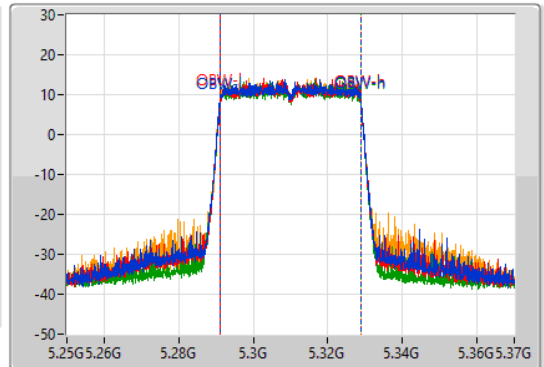
EBW

5310MHz

CF  
5.31GHz  
Span  
120MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.31GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.5M	5.28972G	5.33022G	37.961M	5.29099G	5.328951G	Inf	1
40.32M	5.28978G	5.3301G	37.961M	5.29099G	5.328951G	Inf	2
40.32M	5.28972G	5.33004G	37.961M	5.29099G	5.328951G	Inf	3
40.44M	5.28972G	5.33016G	37.961M	5.29099G	5.328951G	Inf	4

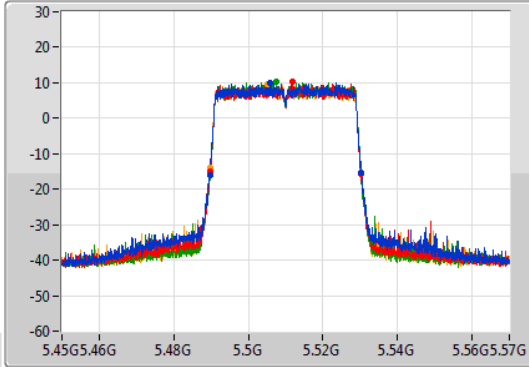


802.11ax HEW40\_Nss1,(MCS0)\_4TX

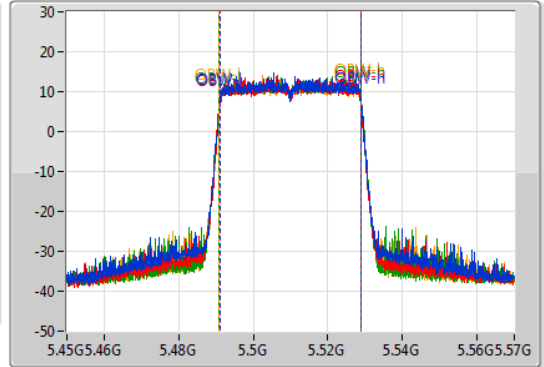
EBW

5510MHz

CF  
5.51GHz  
Span  
120MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.51GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

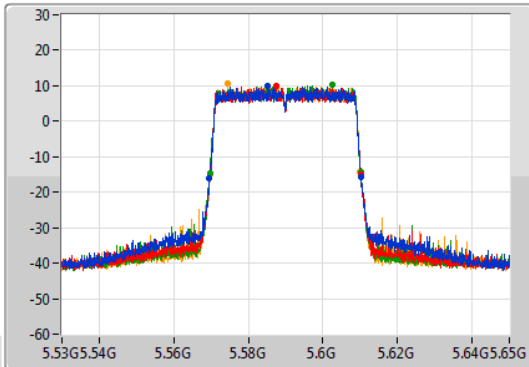
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.68M	5.48966G	5.53034G	37.961M	5.49099G	5.528951G	Inf	1
40.44M	5.48966G	5.5301G	37.901M	5.49099G	5.528891G	Inf	2
40.44M	5.48978G	5.53022G	38.021M	5.49093G	5.528951G	Inf	3
40.44M	5.48978G	5.53022G	37.961M	5.49093G	5.528891G	Inf	4

802.11ax HEW40\_Nss1,(MCS0)\_4TX

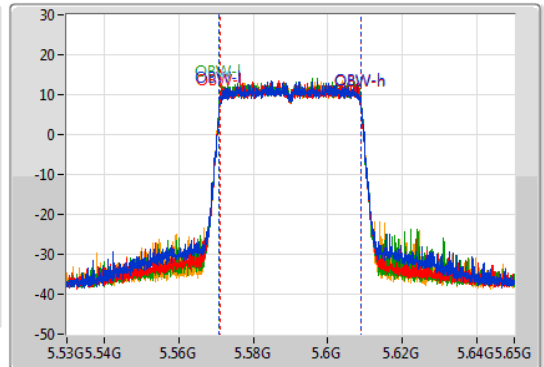
EBW

5590MHz

CF  
5.59GHz  
Span  
120MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.59GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.8M	5.56948G	5.61028G	38.021M	5.57093G	5.608951G	Inf	1
40.92M	5.56936G	5.61028G	37.901M	5.57099G	5.608891G	Inf	2
40.32M	5.56984G	5.61016G	38.021M	5.57093G	5.608951G	Inf	3
40.32M	5.56972G	5.61004G	37.961M	5.57099G	5.608951G	Inf	4

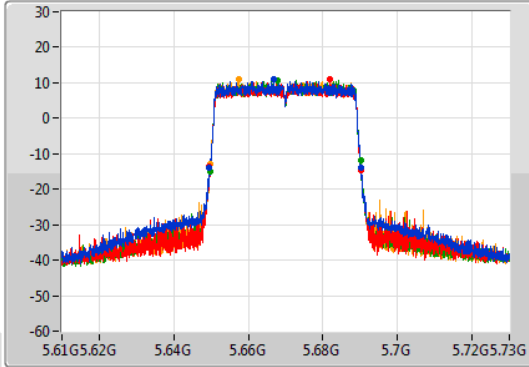


802.11ax HEW40\_Nss1,(MCS0)\_4TX

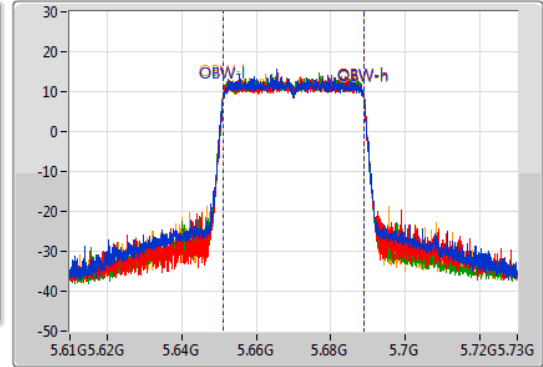
EBW

5670MHz

CF: 5.67GHz  
 Span: 120MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.67GHz  
 Span: 120MHz  
 RBW: 1MHz  
 VBW: 3MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

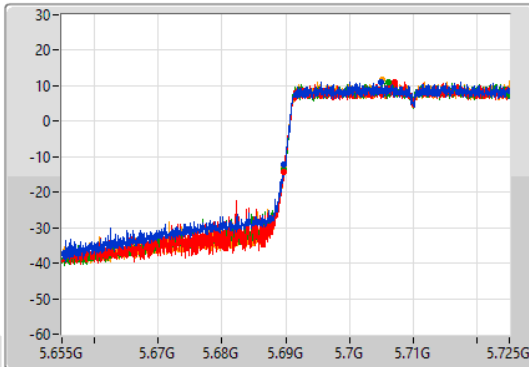
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.74M	5.64954G	5.69028G	37.901M	5.65099G	5.688891G	Inf	1
40.56M	5.6496G	5.69016G	37.961M	5.65099G	5.688951G	Inf	2
40.44M	5.64966G	5.6901G	37.961M	5.65099G	5.688951G	Inf	3
40.44M	5.64972G	5.69016G	37.961M	5.65099G	5.688951G	Inf	4

802.11ax HEW40\_Nss1,(MCS0)\_4TX

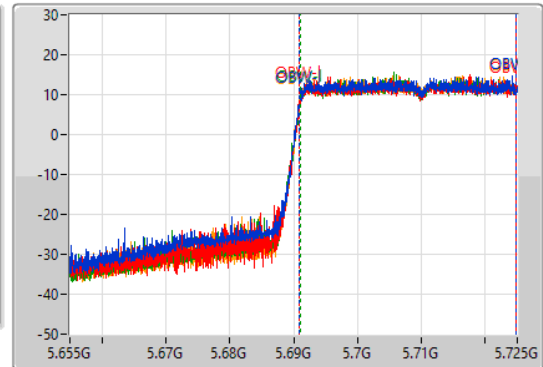
EBW

5710MHz Straddle 5.47-5.725GHz

CF: 5.69GHz  
 Span: 70MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.69GHz  
 Span: 70MHz  
 RBW: 1MHz  
 VBW: 3MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

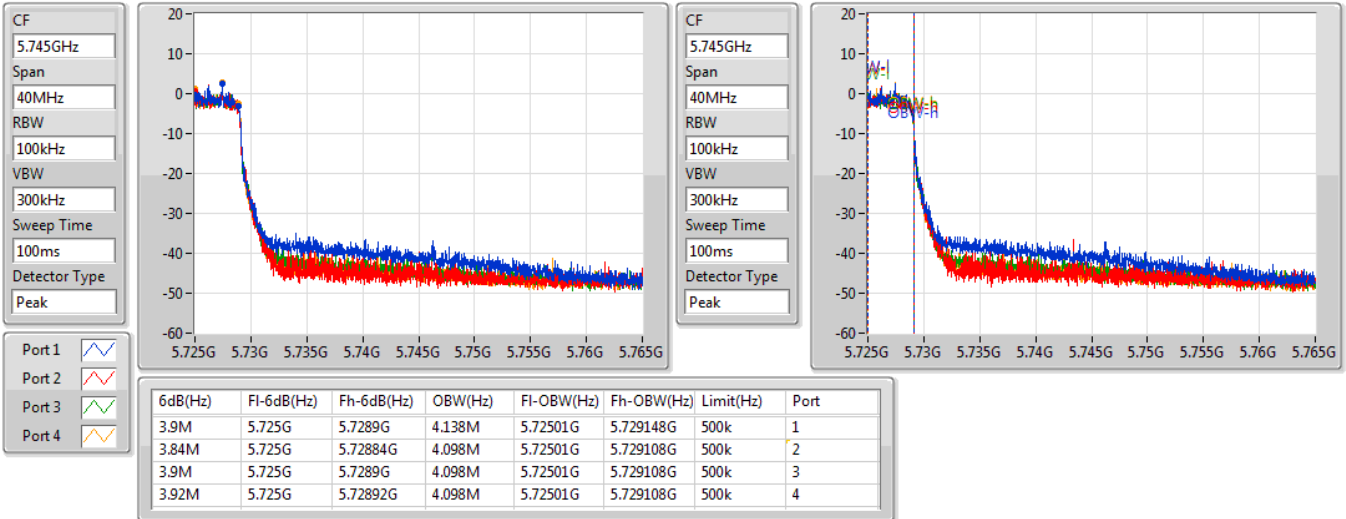
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.28M	5.68972G	5.725G	33.863M	5.690945G	5.724808G	Inf	1
35.35M	5.68965G	5.725G	33.933M	5.69091G	5.724843G	Inf	2
35.28M	5.68972G	5.725G	33.863M	5.69098G	5.724843G	Inf	3
35.21M	5.68979G	5.725G	33.863M	5.690945G	5.724808G	Inf	4



802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

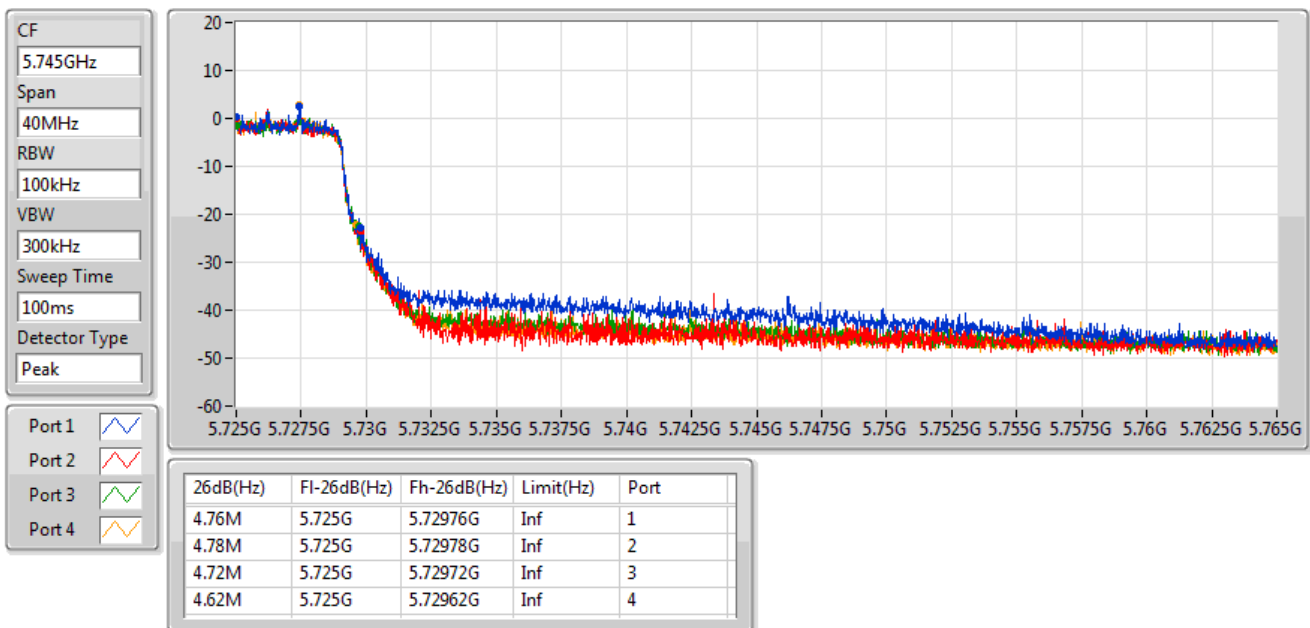
5710MHz Straddle 5.725-5.85GHz



802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

5710MHz Straddle 5.725-5.85GHz



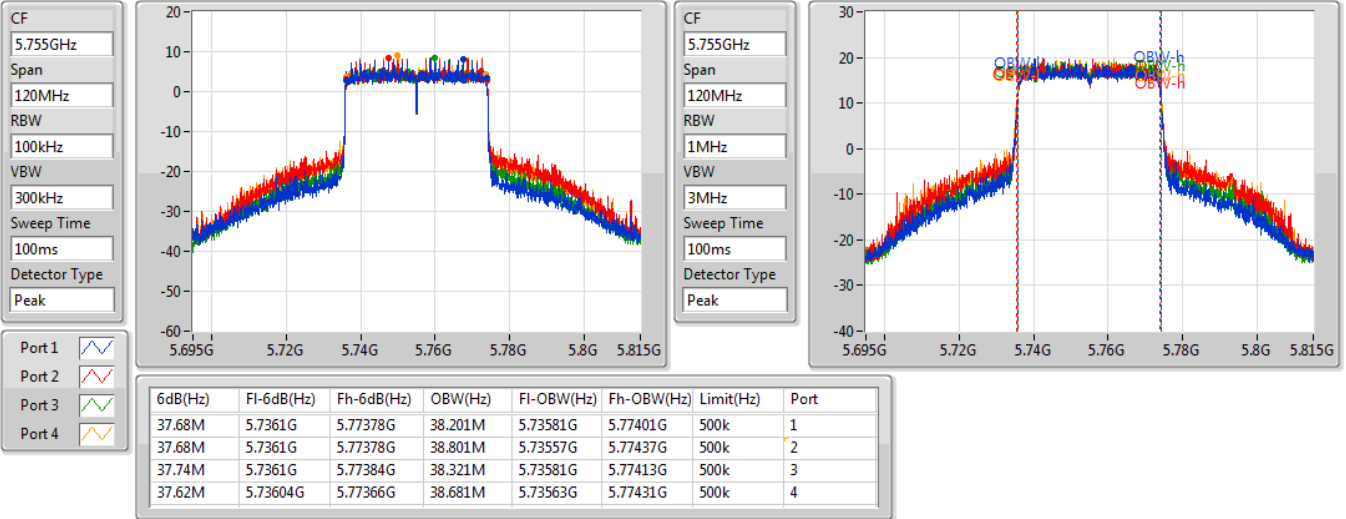




802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

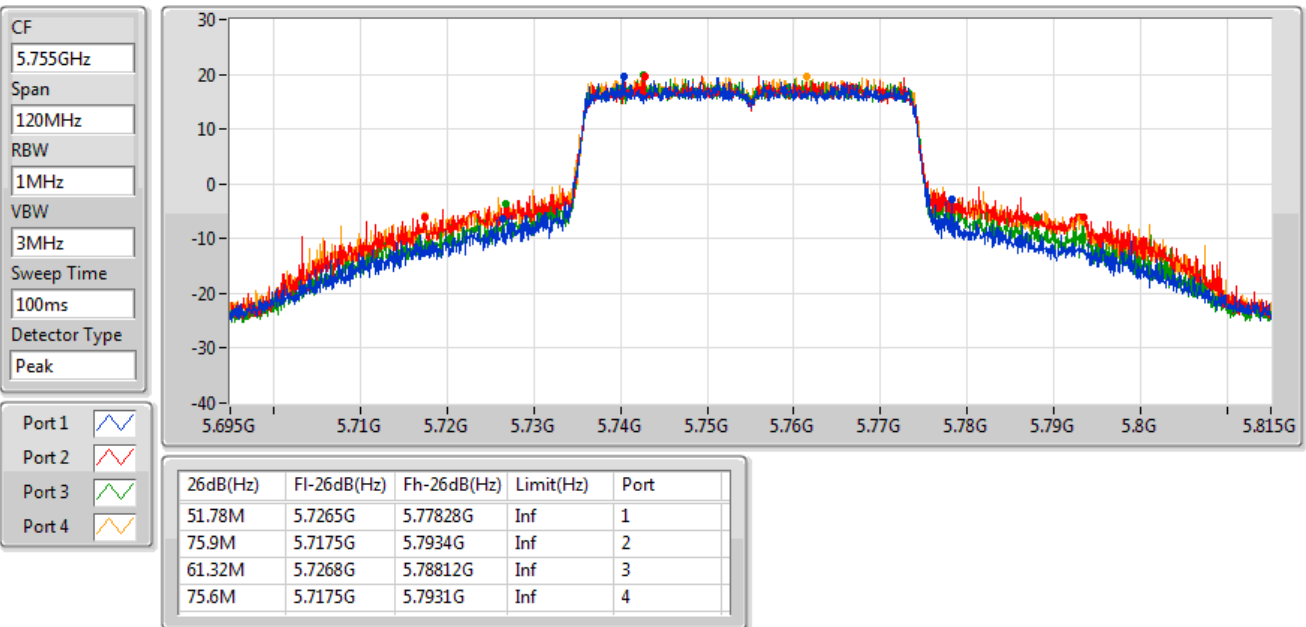
5755MHz



802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

5755MHz

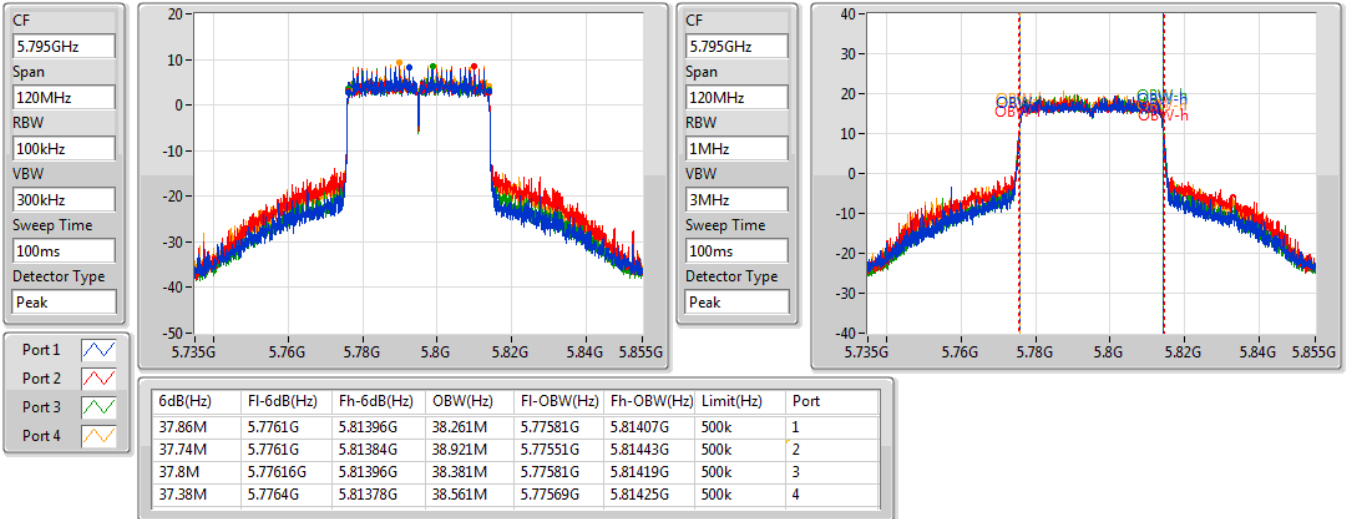




802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

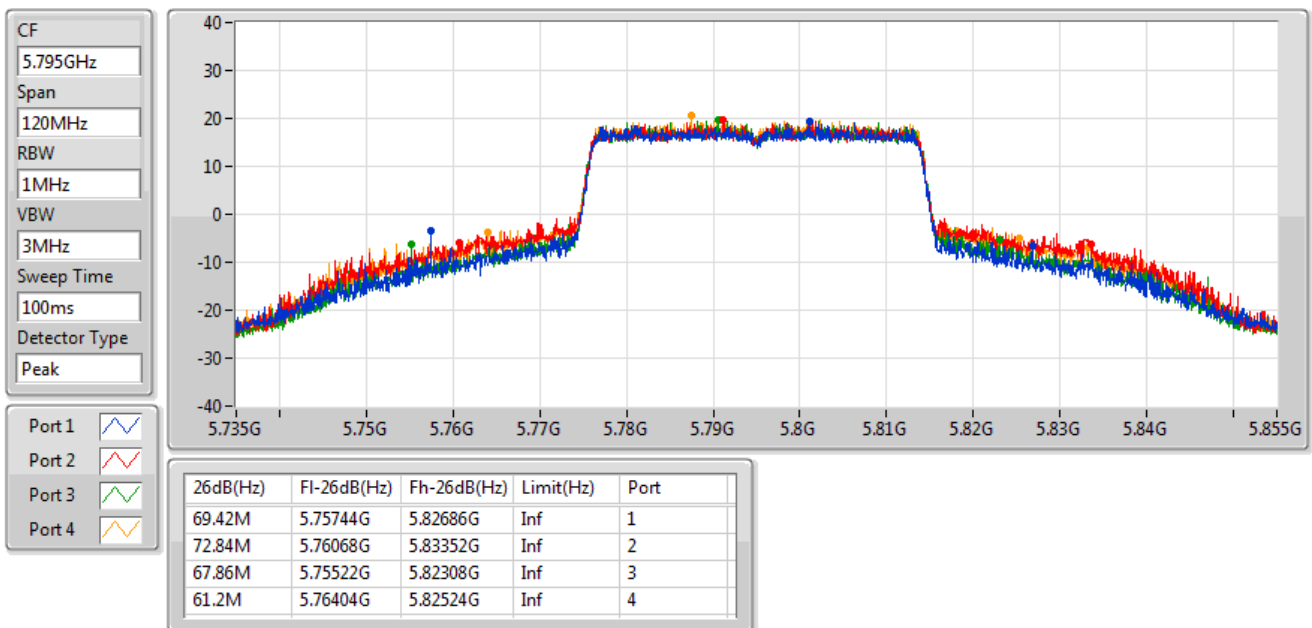
5795MHz



802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

5795MHz



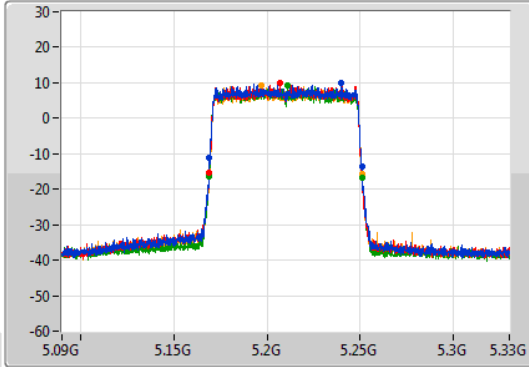


802.11ax HEW80\_Nss1,(MCS0)\_4TX

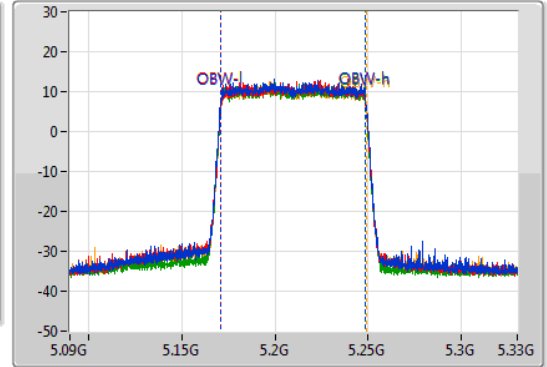
EBW

5210MHz

CF  
5.21GHz  
Span  
240MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.21GHz  
Span  
240MHz  
RBW  
2MHz  
VBW  
10MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

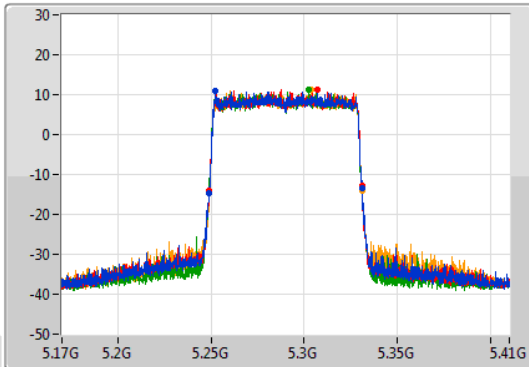
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.6M	5.1692G	5.2508G	77.601M	5.171139G	5.248741G	Inf	1
81.72M	5.16908G	5.2508G	77.601M	5.171139G	5.248741G	Inf	2
82.2M	5.16896G	5.25116G	77.601M	5.171139G	5.248741G	Inf	3
81.84M	5.16908G	5.25092G	77.721M	5.171139G	5.248861G	Inf	4

802.11ax HEW80\_Nss1,(MCS0)\_4TX

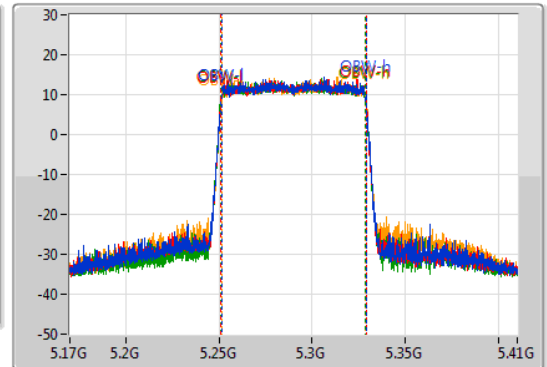
EBW

5290MHz

CF  
5.29GHz  
Span  
240MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.29GHz  
Span  
240MHz  
RBW  
2MHz  
VBW  
10MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.56M	5.2486G	5.33116G	77.601M	5.251259G	5.328861G	Inf	1
81.6M	5.2492G	5.3308G	77.721M	5.251139G	5.328861G	Inf	2
82.08M	5.24872G	5.3308G	77.601M	5.251139G	5.328741G	Inf	3
81.84M	5.24908G	5.33092G	77.481M	5.251259G	5.328741G	Inf	4

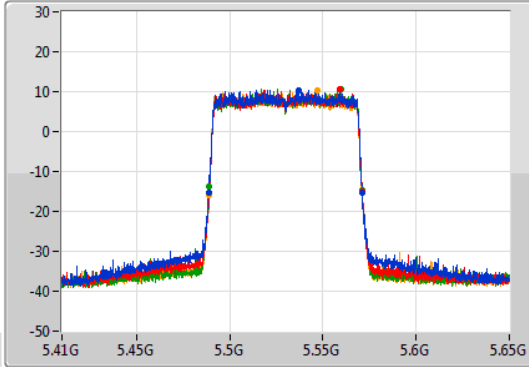


802.11ax HEW80\_Nss1,(MCS0)\_4TX

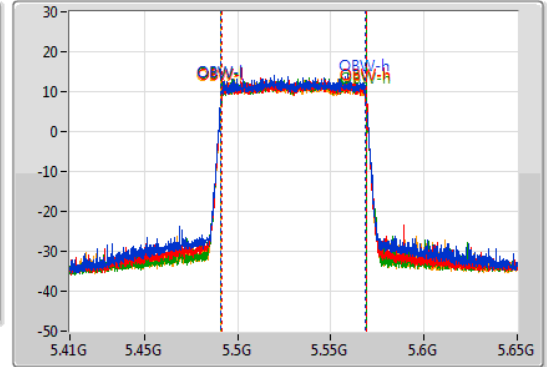
EBW

5530MHz

CF: 5.53GHz  
 Span: 240MHz  
 RBW: 1MHz  
 VBW: 3MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.53GHz  
 Span: 240MHz  
 RBW: 2MHz  
 VBW: 10MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

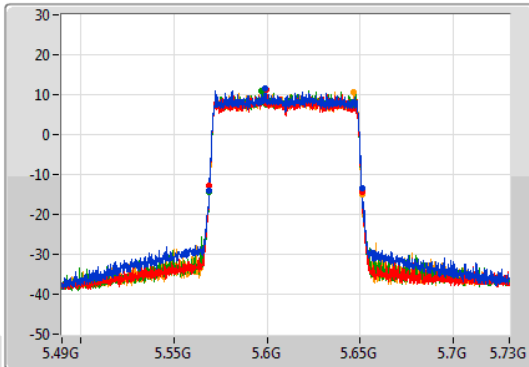
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.56M	5.4886G	5.57116G	77.601M	5.491139G	5.568741G	Inf	1
82.08M	5.48884G	5.57092G	77.601M	5.491259G	5.568861G	Inf	2
81.96M	5.4892G	5.57116G	77.721M	5.491139G	5.568861G	Inf	3
82.2M	5.48884G	5.57104G	77.721M	5.491139G	5.568861G	Inf	4

802.11ax HEW80\_Nss1,(MCS0)\_4TX

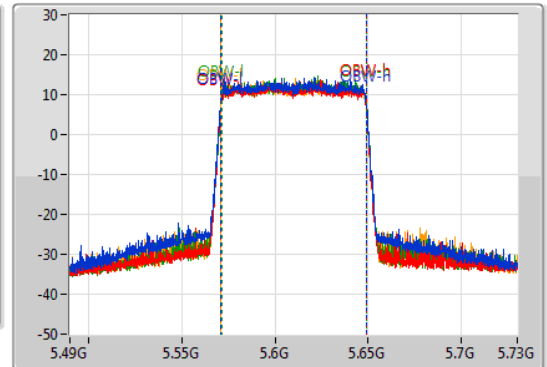
EBW

5610MHz

CF: 5.61GHz  
 Span: 240MHz  
 RBW: 1MHz  
 VBW: 3MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.61GHz  
 Span: 240MHz  
 RBW: 2MHz  
 VBW: 10MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]  
 Port 3: [Waveform icon]  
 Port 4: [Waveform icon]

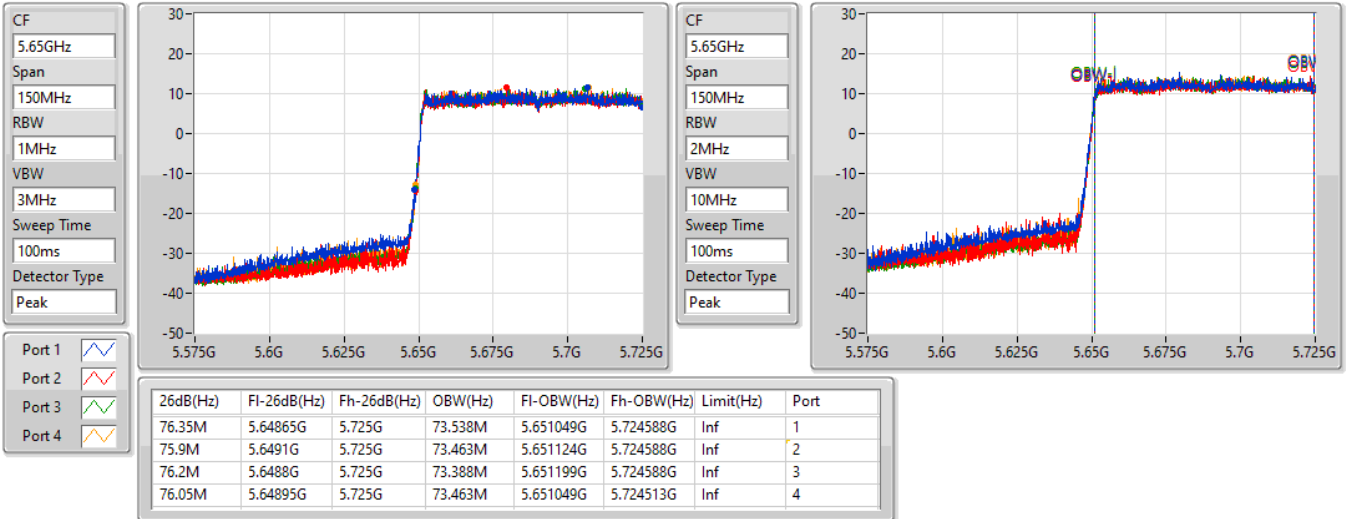
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.44M	5.56872G	5.65116G	77.721M	5.571139G	5.648861G	Inf	1
81.84M	5.56908G	5.65092G	77.721M	5.571139G	5.648861G	Inf	2
81.84M	5.56908G	5.65092G	77.721M	5.571259G	5.648981G	Inf	3
82.08M	5.56896G	5.65104G	77.841M	5.571019G	5.648861G	Inf	4



802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

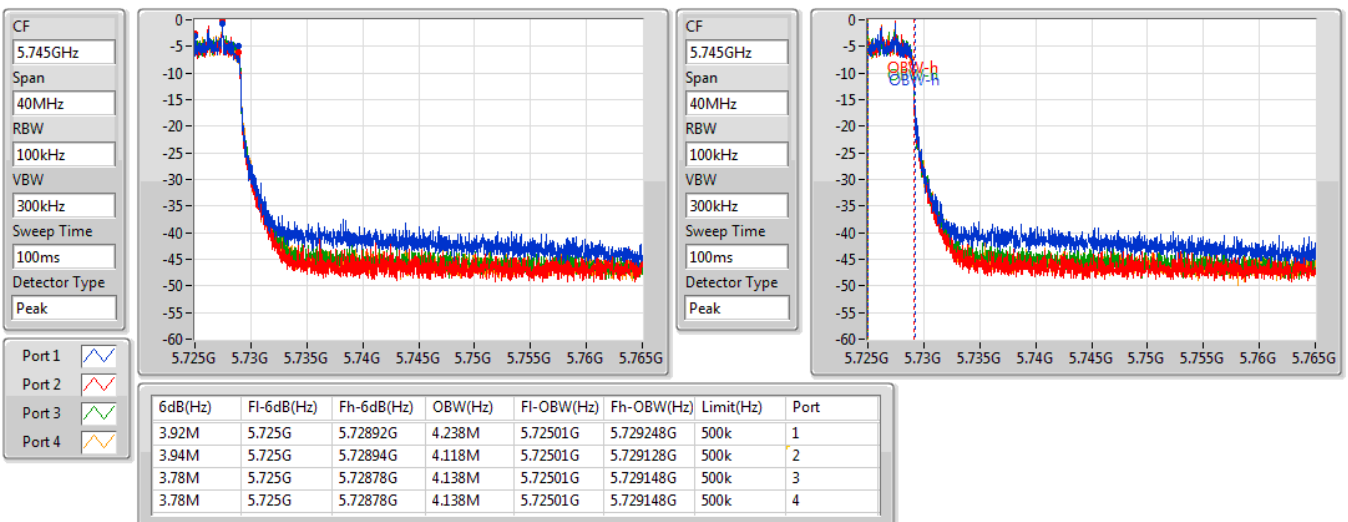
5690MHz Straddle 5.47-5.725GHz



802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

5690MHz Straddle 5.725-5.85GHz

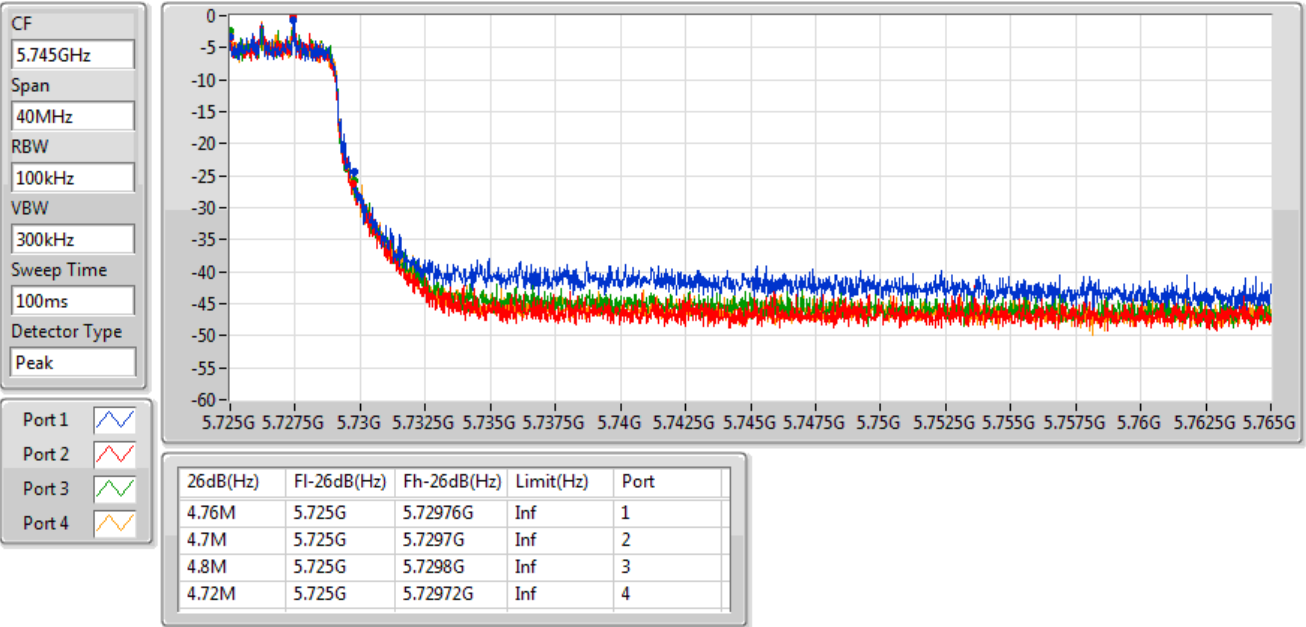




802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

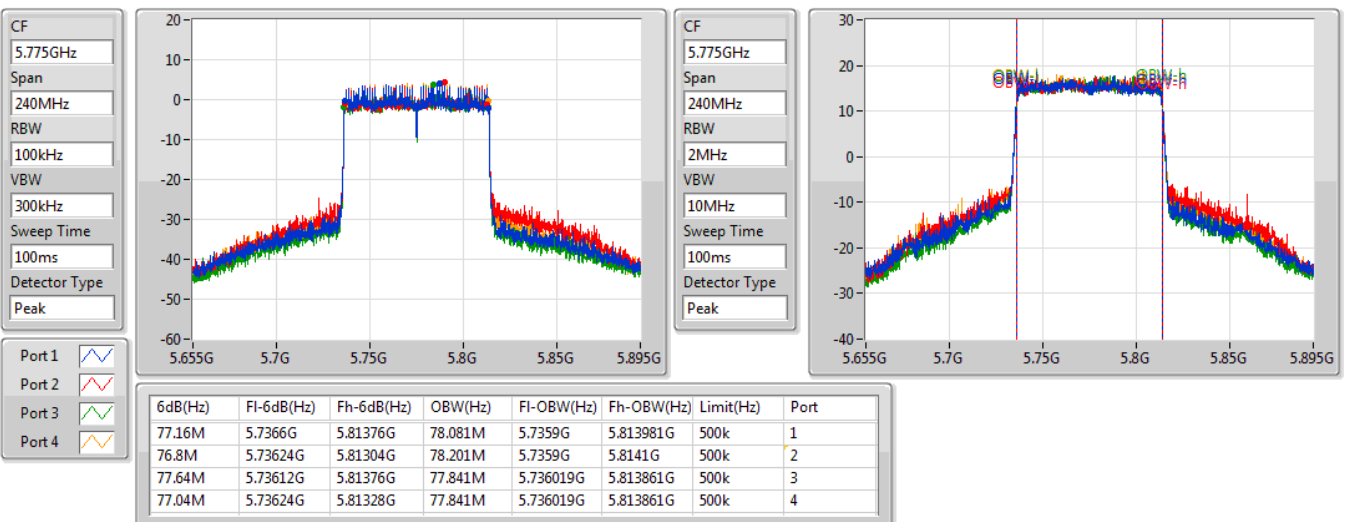
5690MHz Straddle 5.725-5.85GHz



802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

5775MHz



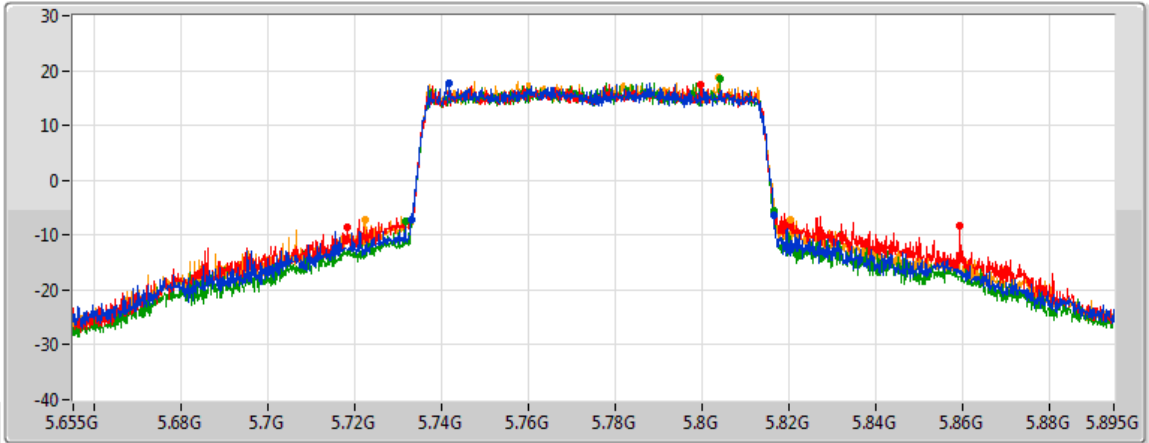


802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

5775MHz

CF  
5.775GHz  
Span  
240MHz  
RBW  
2MHz  
VBW  
10MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

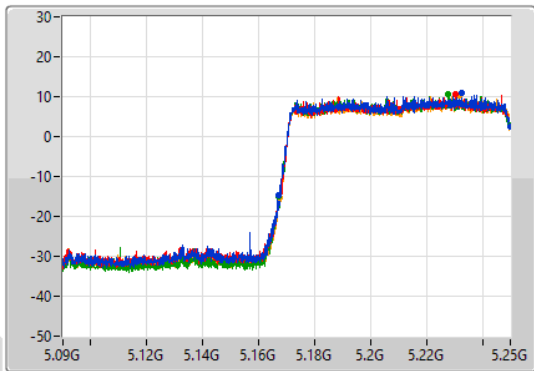
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
83.76M	5.73288G	5.81664G	Inf	1
141.48M	5.71812G	5.8596G	Inf	2
85.2M	5.73156G	5.81676G	Inf	3
98.04M	5.72244G	5.82048G	Inf	4

802.11ax HEW160\_Nss1,(MCS0)\_4TX

EBW

5250MHz Straddle 5.15-5.25GHz

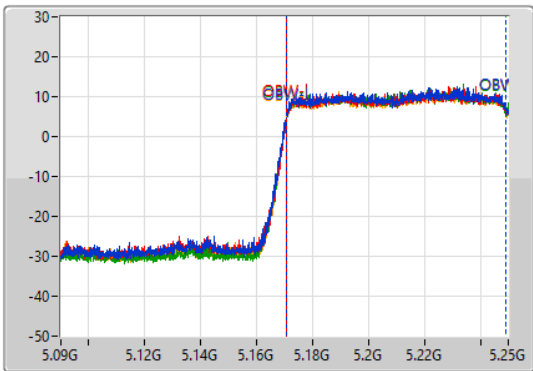
CF  
5.17GHz  
Span  
160MHz  
RBW  
2MHz  
VBW  
10MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.96M	5.16704G	5.25G	78.521M	5.17072G	5.24924G	Inf	1
82.96M	5.16704G	5.25G	78.441M	5.1708G	5.24924G	Inf	2
82.72M	5.16728G	5.25G	78.441M	5.1708G	5.24924G	Inf	3
82.56M	5.16744G	5.25G	78.361M	5.1708G	5.24916G	Inf	4

CF  
5.17GHz  
Span  
160MHz  
RBW  
3MHz  
VBW  
10MHz  
Sweep Time  
100ms  
Detector Type  
Peak

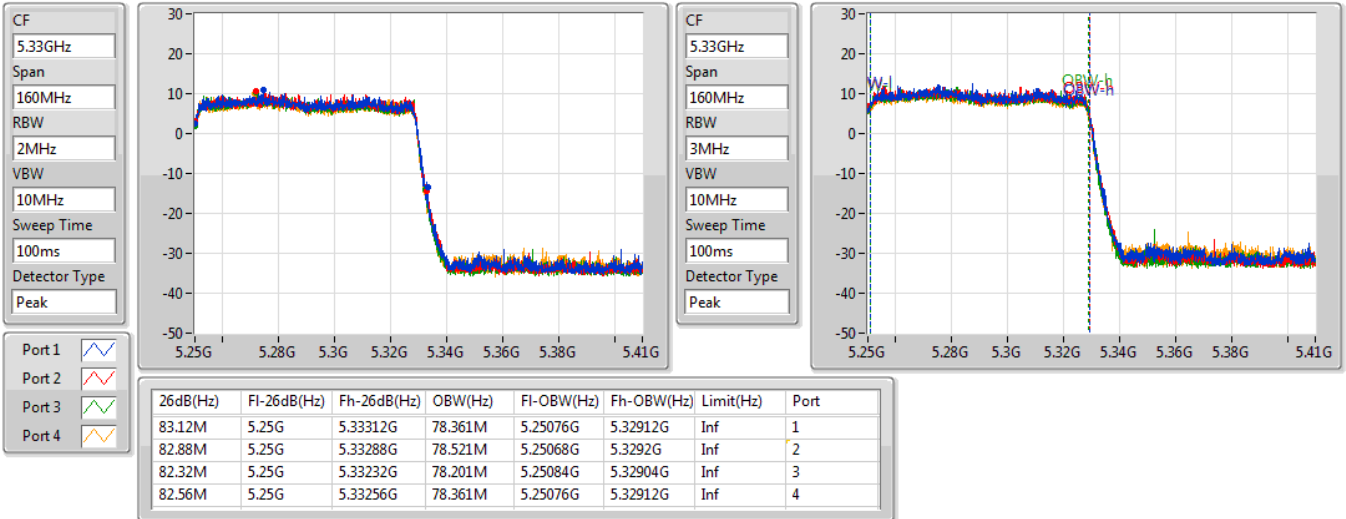




802.11ax HEW160\_Nss1,(MCS0)\_4TX

EBW

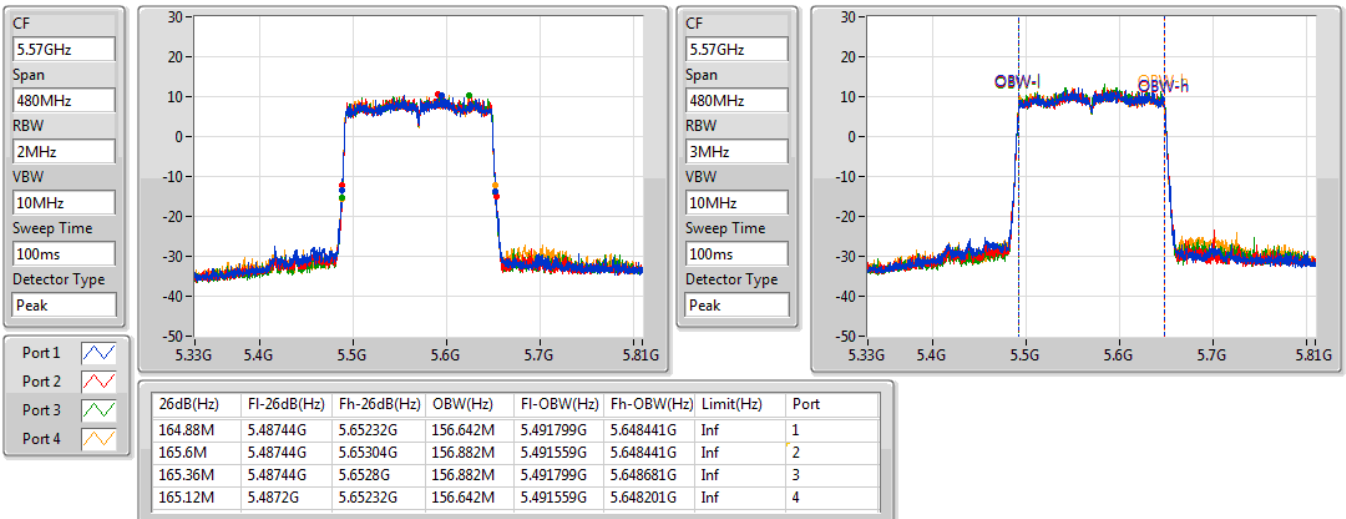
5250MHz Straddle 5.25-5.35GHz



802.11ax HEW160\_Nss1,(MCS0)\_4TX

EBW

5570MHz







**Non-beamforming mode**

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	29.26	0.84333	34.27	2.67301
802.11ax HEW20_Nss1,(MCS0)_4TX	29.45	0.88105	34.46	2.79254
802.11ax HEW40_Nss1,(MCS0)_4TX	28.74	0.74817	33.75	2.37137
802.11ax HEW80_Nss1,(MCS0)_4TX	22.28	0.16904	27.29	0.53580
802.11ax HEW160_Nss1,(MCS0)_4TX	19.38	0.08670	24.39	0.27479
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	23.90	0.24547	28.00	0.63096
802.11ax HEW20_Nss1,(MCS0)_4TX	23.66	0.23227	27.76	0.59704
802.11ax HEW40_Nss1,(MCS0)_4TX	23.53	0.22542	27.63	0.57943
802.11ax HEW80_Nss1,(MCS0)_4TX	23.69	0.23388	27.79	0.60117
802.11ax HEW160_Nss1,(MCS0)_4TX	19.26	0.08433	23.36	0.21677
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	23.81	0.24044	27.89	0.61518
802.11ax HEW20_Nss1,(MCS0)_4TX	23.45	0.22131	27.53	0.56624
802.11ax HEW40_Nss1,(MCS0)_4TX	23.88	0.24434	27.96	0.62517
802.11ax HEW80_Nss1,(MCS0)_4TX	23.70	0.23442	27.78	0.59979
802.11ax HEW160_Nss1,(MCS0)_4TX	22.74	0.18793	26.82	0.48084
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	29.37	0.86497	33.58	2.28034
802.11ax HEW20_Nss1,(MCS0)_4TX	29.57	0.90573	33.78	2.38781
802.11ax HEW40_Nss1,(MCS0)_4TX	29.53	0.89743	33.74	2.36592
802.11ax HEW80_Nss1,(MCS0)_4TX	27.67	0.58479	31.88	1.54170



## Conducted Output Power(Average)

## Appendix B

### Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	5.01	19.95	19.72	19.19	19.28	25.57	30.00	30.58	36.00
5200MHz	Pass	5.01	23.52	23.52	22.96	22.91	29.26	30.00	34.27	36.00
5240MHz	Pass	5.01	23.51	23.36	23.01	23.03	29.25	30.00	34.26	36.00
5260MHz	Pass	4.10	17.49	17.66	17.61	17.68	23.63	24.00	27.73	30.00
5300MHz	Pass	4.10	17.73	17.89	17.93	17.97	23.90	24.00	28.00	30.00
5320MHz	Pass	4.10	17.49	17.73	18.05	17.98	23.84	24.00	27.94	30.00
5500MHz	Pass	4.08	17.94	17.91	17.42	17.87	23.81	24.00	27.89	30.00
5580MHz	Pass	4.08	17.76	17.77	17.52	17.89	23.76	24.00	27.84	30.00
5700MHz	Pass	4.08	15.48	15.43	15.99	16.01	21.76	24.00	25.84	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.08	15.84	15.82	16.15	16.27	22.04	22.96	26.12	28.96
5720MHz Straddle 5.725-5.85GHz	Pass	4.21	9.68	9.53	10.05	10	15.84	30.00	20.05	36.00
5745MHz	Pass	4.21	23.12	23.45	23.32	23.49	29.37	30.00	33.58	36.00
5785MHz	Pass	4.21	23.08	23.42	23.31	23.53	29.36	30.00	33.57	36.00
5825MHz	Pass	4.21	22.11	22.55	22.25	22.68	28.42	30.00	32.63	36.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	5.01	19.19	18.75	18.22	18.15	24.62	30.00	29.63	36.00
5200MHz	Pass	5.01	23.73	23.68	23.22	23.04	29.45	30.00	34.46	36.00
5240MHz	Pass	5.01	23.69	23.38	22.91	22.85	29.24	30.00	34.25	36.00
5260MHz	Pass	4.10	17.41	17.34	17.36	17.45	23.41	24.00	27.51	30.00
5300MHz	Pass	4.10	17.52	17.55	17.77	17.71	23.66	24.00	27.76	30.00
5320MHz	Pass	4.10	16.99	17.36	17.41	17.65	23.38	24.00	27.48	30.00
5500MHz	Pass	4.08	17.58	17.66	17.12	17.32	23.45	24.00	27.53	30.00
5580MHz	Pass	4.08	17.43	17.47	17.11	17.58	23.42	24.00	27.50	30.00
5700MHz	Pass	4.08	15.83	15.76	16.26	16.25	22.05	24.00	26.13	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.08	16.15	16.32	16.68	16.76	22.51	22.98	26.59	28.98
5720MHz Straddle 5.725-5.85GHz	Pass	4.21	10.93	11.17	11.53	11.56	17.33	30.00	21.54	36.00
5745MHz	Pass	4.21	23.29	23.62	23.39	23.68	29.52	30.00	33.73	36.00
5785MHz	Pass	4.21	23.28	23.58	23.66	23.67	29.57	30.00	33.78	36.00
5825MHz	Pass	4.21	22.26	22.62	22.39	22.65	28.50	30.00	32.71	36.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	5.01	17.85	17.64	17.02	17.04	23.42	30.00	28.43	36.00
5230MHz	Pass	5.01	23.12	22.71	22.51	22.49	28.74	30.00	33.75	36.00
5270MHz	Pass	4.10	17.75	17.32	17.09	17.41	23.42	24.00	27.52	30.00
5310MHz	Pass	4.10	17.73	17.65	17.21	17.43	23.53	24.00	27.63	30.00
5510MHz	Pass	4.08	17.36	17.28	17.55	17.28	23.39	24.00	27.47	30.00
5590MHz	Pass	4.08	17.35	17.25	17.78	17.53	23.50	24.00	27.58	30.00



**Conducted Output Power(Average)**

**Appendix B**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
5670MHz	Pass	4.08	18.01	17.66	17.84	17.93	23.88	24.00	27.96	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	4.08	17.7	17.31	17.4	17.39	23.47	24.00	27.55	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	4.21	8.03	7.79	7.88	7.82	13.90	30.00	18.11	36.00
5755MHz	Pass	4.21	23.11	23.46	23.44	23.85	29.49	30.00	33.70	36.00
5795MHz	Pass	4.21	23.22	23.57	23.45	23.76	29.53	30.00	33.74	36.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	5.01	16.73	16.41	16.03	15.82	22.28	30.00	27.29	36.00
5290MHz	Pass	4.10	17.83	17.81	17.42	17.61	23.69	24.00	27.79	30.00
5530MHz	Pass	4.08	17.71	17.45	17.49	17.21	23.49	24.00	27.57	30.00
5610MHz	Pass	4.08	17.95	17.43	17.67	17.65	23.70	24.00	27.78	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	4.08	17.76	17.43	17.56	17.67	23.63	24.00	27.71	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	4.21	4.52	4.53	4.64	4.64	10.60	30.00	14.81	36.00
5775MHz	Pass	4.21	21.51	21.56	21.61	21.92	27.67	30.00	31.88	36.00
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	5.01	13.62	13.37	13.4	13.01	19.38	30.00	24.39	36.00
5250MHz Straddle 5.25-5.35GHz	Pass	4.10	13.54	13.36	13.1	12.93	19.26	24.00	23.36	30.00
5570MHz	Pass	4.08	16.69	16.64	16.78	16.75	22.74	24.00	26.82	30.00

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

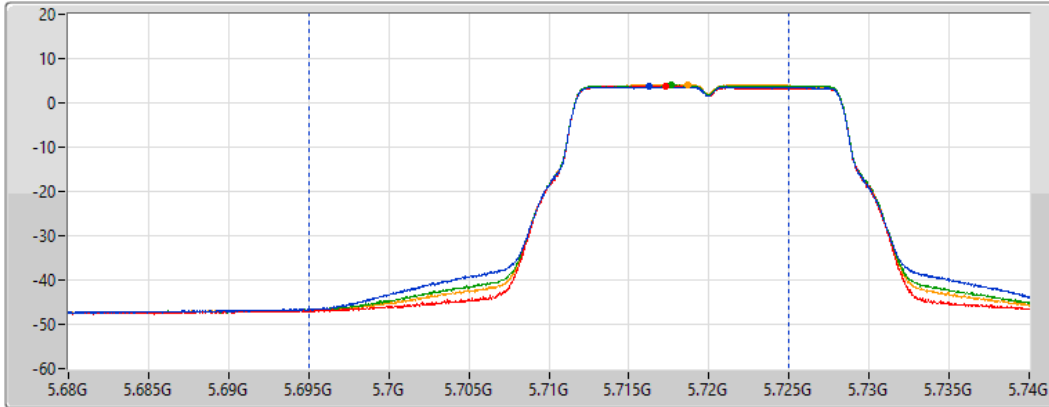


### 802.11a\_Nss1,(6Mbps)\_4TX

AV Power

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

CF  
5.71GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
5ms  
Detector Type  
RMS  
CP BW  
30MHz



Port 1  
Port 2  
Port 3  
Port 4

Sum= Total Power  
PX=Port X

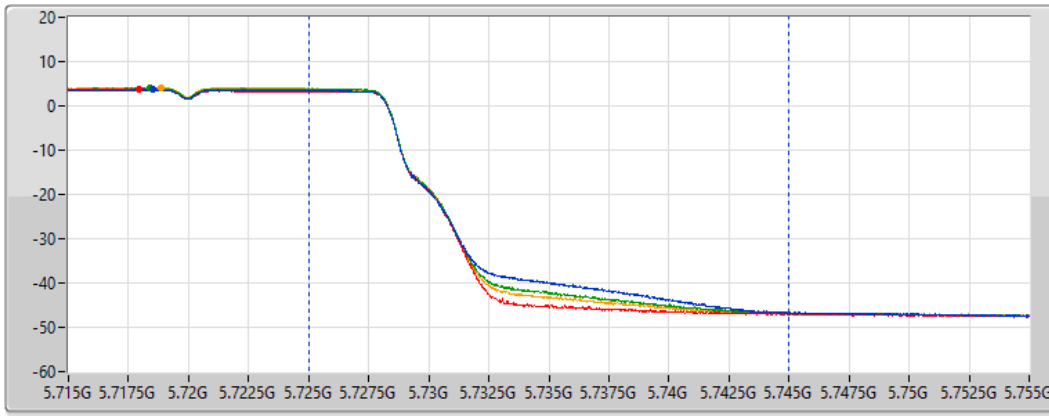
Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
22.04	15.84	15.82	16.15	16.27

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

AV Power

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

CF  
5.735GHz  
Span  
40MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
5ms  
Detector Type  
RMS  
CP BW  
20MHz



Port 1  
Port 2  
Port 3  
Port 4

Sum= Total Power  
PX=Port X

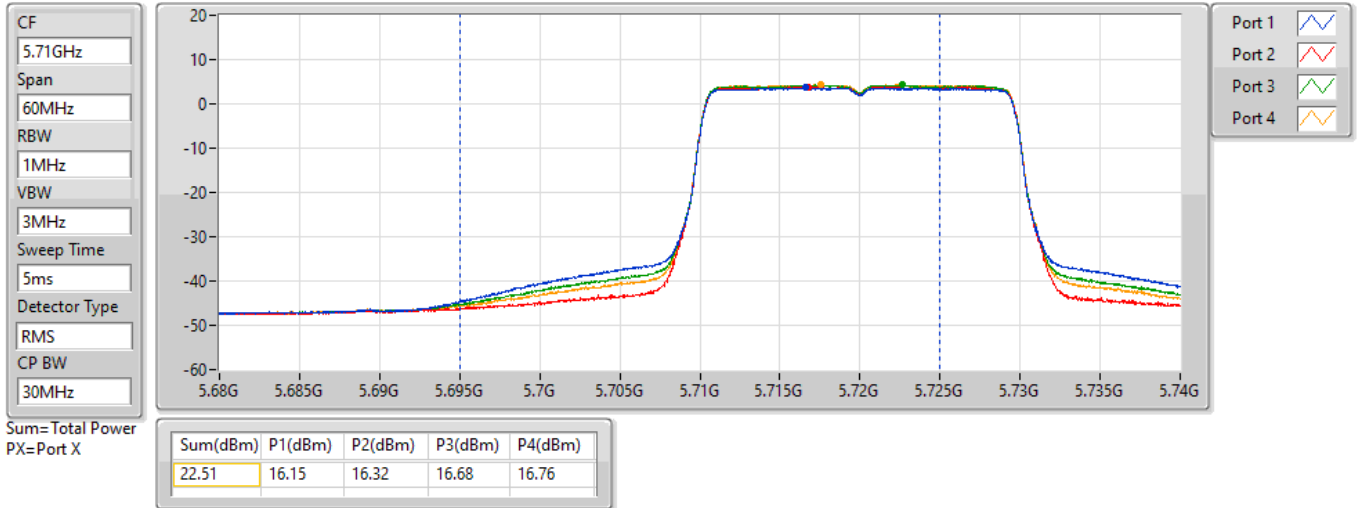
Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
15.84	9.68	9.53	10.05	10.00



802.11ax HEW20\_Nss1,(MCS0)\_4TX

AV Power

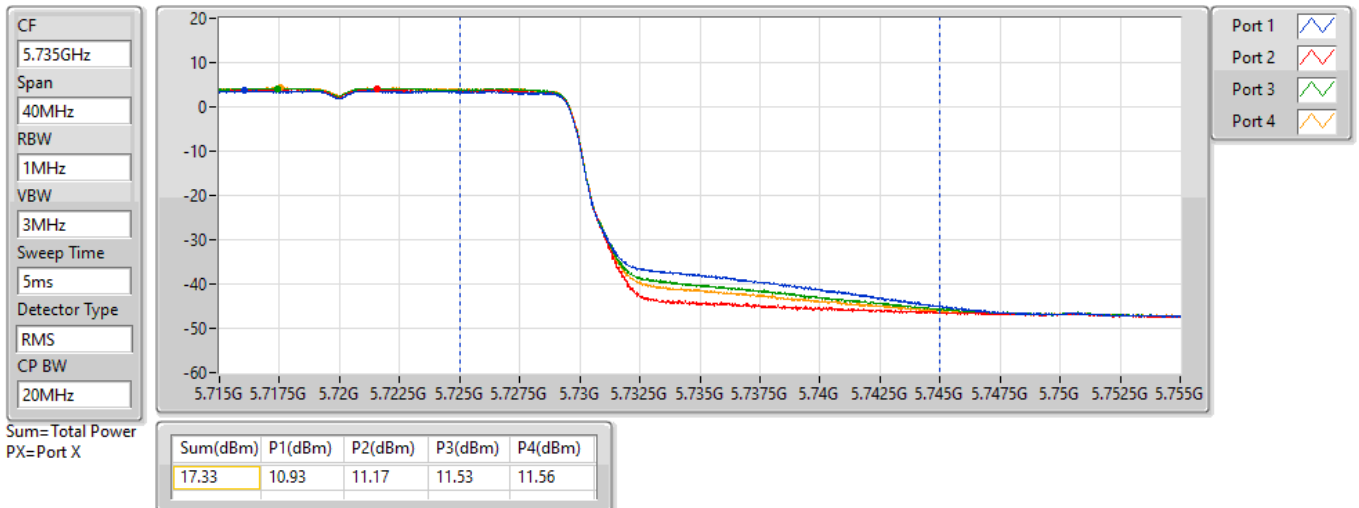
5720MHz Straddle 5.47-5.725GHz\_TnomVnom



802.11ax HEW20\_Nss1,(MCS0)\_4TX

AV Power

5720MHz Straddle 5.725-5.85GHz\_TnomVnom

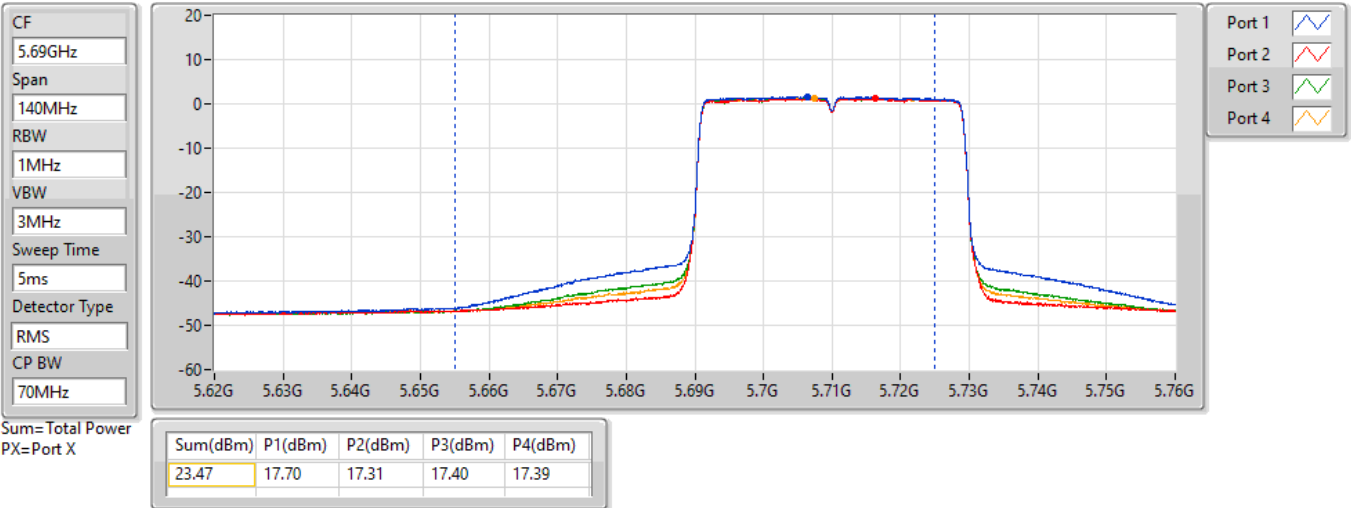




802.11ax HEW40\_Nss1,(MCS0)\_4TX

AV Power

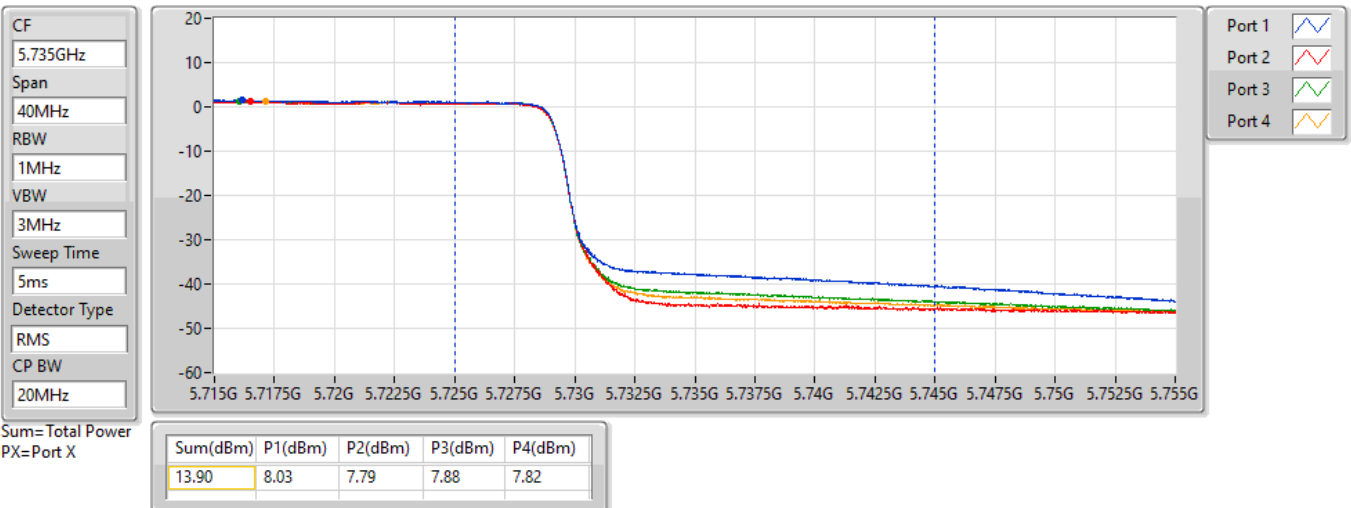
5710MHz Straddle 5.47-5.725GHz\_TnomVnom



802.11ax HEW40\_Nss1,(MCS0)\_4TX

AV Power

5710MHz Straddle 5.725-5.85GHz\_TnomVnom

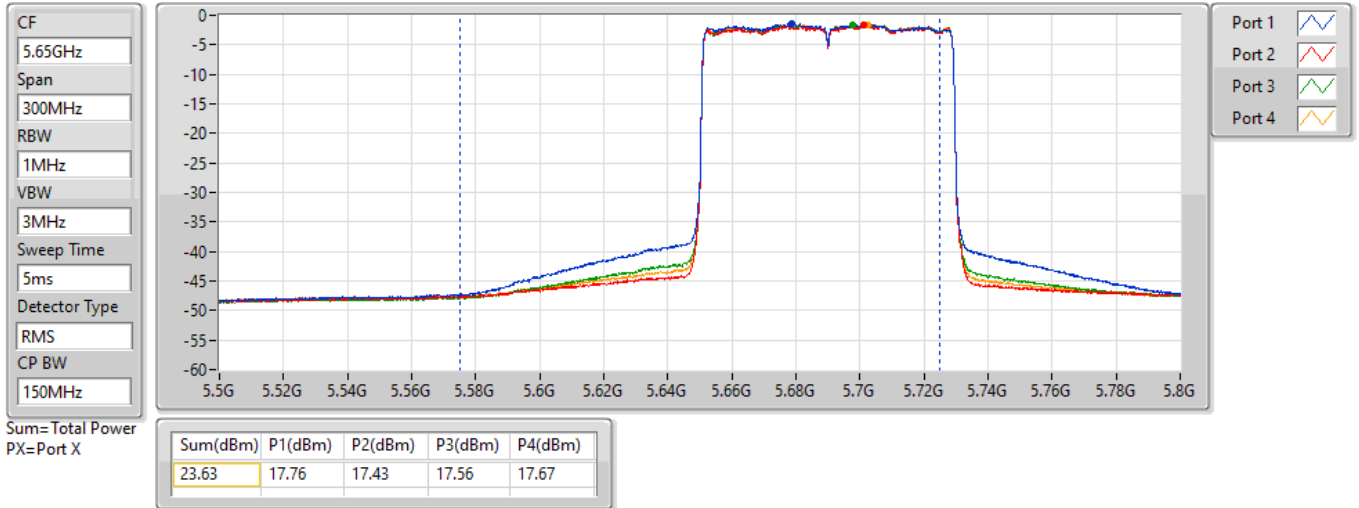




### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

AV Power

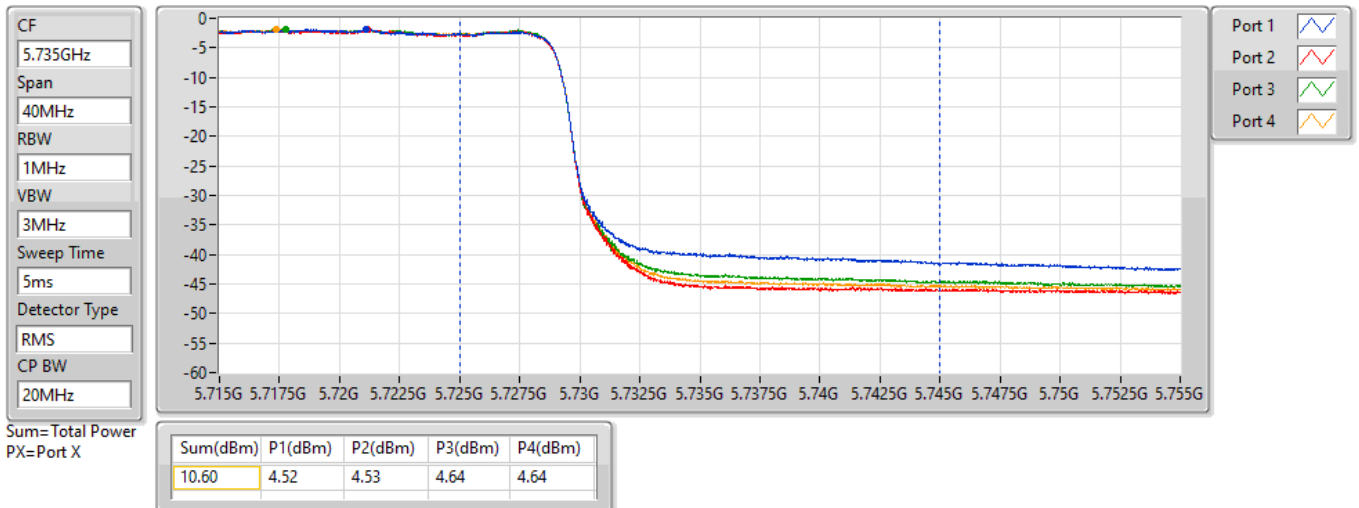
#### 5690MHz Straddle 5.47-5.725GHz\_TnomVnom



### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

AV Power

#### 5690MHz Straddle 5.725-5.85GHz\_TnomVnom

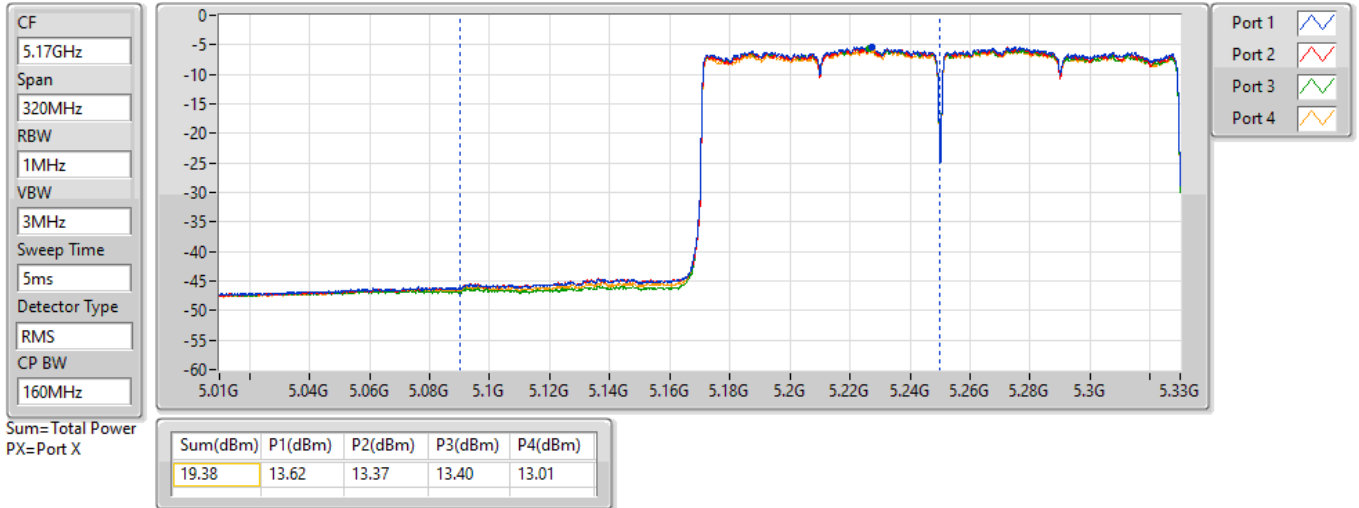




802.11ax HEW160\_Nss1,(MCS0)\_4TX

AV Power

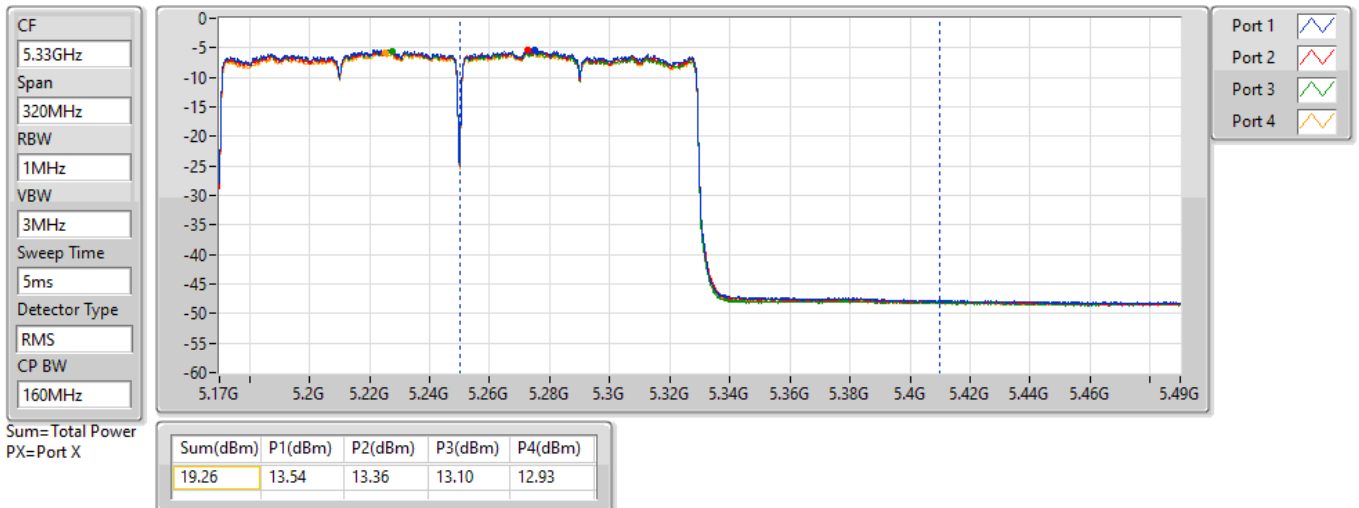
5250MHz Straddle 5.15-5.25GHz\_TnomVnom



802.11ax HEW160\_Nss1,(MCS0)\_4TX

AV Power

5250MHz Straddle 5.25-5.35GHz\_TnomVnom







**Beamforming mode**

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	29.38	0.86696	34.49	2.81190
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	28.69	0.73961	33.80	2.39883
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	22.23	0.16711	27.34	0.54200
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	19.11	0.08147	24.22	0.26424
5.25-5.35GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	23.62	0.23014	28.83	0.76384
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	23.49	0.22336	28.70	0.74131
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	23.62	0.23014	28.83	0.76384
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	18.94	0.07834	24.15	0.26002
5.47-5.725GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	23.39	0.21827	28.32	0.67920
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	23.83	0.24155	28.76	0.75162
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	23.64	0.23121	28.57	0.71945
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	22.60	0.18197	27.53	0.56624
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	29.53	0.89743	34.30	2.69153
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	29.48	0.88716	34.25	2.66073
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	27.62	0.57810	32.39	1.73380



**Conducted Output Power(Average)**

**Appendix B**

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	5.11	19.11	18.65	18.15	18.09	24.54	30.00	29.65	36.00
5200MHz	Pass	5.11	23.69	23.62	23.15	22.94	29.38	30.00	34.49	36.00
5240MHz	Pass	5.11	23.64	23.32	22.85	22.81	29.19	30.00	34.30	36.00
5260MHz	Pass	5.21	17.36	17.29	17.31	17.42	23.37	24.00	28.58	30.00
5300MHz	Pass	5.21	17.49	17.51	17.72	17.68	23.62	24.00	28.83	30.00
5320MHz	Pass	5.21	16.95	17.34	17.36	17.58	23.33	24.00	28.54	30.00
5500MHz	Pass	4.93	17.52	17.61	17.06	17.28	23.39	24.00	28.32	30.00
5580MHz	Pass	4.93	17.36	17.42	17.06	17.53	23.37	24.00	28.30	30.00
5700MHz	Pass	4.93	15.77	15.72	16.21	16.22	22.01	24.00	26.94	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.93	15.9	15.78	16.2	16.32	22.08	22.98	27.01	28.98
5720MHz Straddle 5.725-5.85GHz	Pass	4.77	10.86	10.8	11.22	11.32	17.08	30.00	21.85	36.00
5745MHz	Pass	4.77	23.25	23.57	23.34	23.62	29.47	30.00	34.24	36.00
5785MHz	Pass	4.77	23.24	23.51	23.62	23.64	29.53	30.00	34.30	36.00
5825MHz	Pass	4.77	21.72	22.11	22.85	22.13	28.24	30.00	33.01	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	5.11	17.79	17.59	16.96	17.02	23.38	30.00	28.49	36.00
5230MHz	Pass	5.11	23.08	22.65	22.47	22.45	28.69	30.00	33.80	36.00
5270MHz	Pass	5.21	17.71	17.28	17.05	17.36	23.38	24.00	28.59	30.00
5310MHz	Pass	5.21	17.68	17.61	17.19	17.38	23.49	24.00	28.70	30.00
5510MHz	Pass	4.93	17.32	17.24	17.48	17.22	23.34	24.00	28.27	30.00
5590MHz	Pass	4.93	17.29	17.21	17.74	17.48	23.46	24.00	28.39	30.00
5670MHz	Pass	4.93	17.96	17.62	17.78	17.88	23.83	24.00	28.76	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	4.93	17.01	16.96	17	16.99	23.01	24.00	27.94	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	4.77	7.75	7.69	7.61	7.82	13.74	30.00	18.51	36.00
5755MHz	Pass	4.77	23.04	23.41	23.38	23.81	29.44	30.00	34.21	36.00
5795MHz	Pass	4.77	23.16	23.54	23.4	23.72	29.48	30.00	34.25	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	5.11	16.68	16.35	15.96	15.78	22.23	30.00	27.34	36.00
5290MHz	Pass	5.21	17.76	17.74	17.36	17.54	23.62	24.00	28.83	30.00
5530MHz	Pass	4.93	17.66	17.41	17.44	17.16	23.44	24.00	28.37	30.00
5610MHz	Pass	4.93	17.89	17.36	17.62	17.61	23.64	24.00	28.57	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	4.93	17.2	17.02	17.27	17.2	23.19	24.00	28.12	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	4.77	3.95	3.99	4.28	4.12	10.11	30.00	14.88	36.00
5775MHz	Pass	4.77	21.45	21.52	21.55	21.88	27.62	30.00	32.39	36.00



## Conducted Output Power(Average)

## Appendix B

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	5.11	13.45	13.25	12.96	12.66	19.11	30.00	24.22	36.00
5250MHz Straddle 5.25-5.35GHz	Pass	5.21	13.22	13.2	12.66	12.54	18.94	24.00	24.15	30.00
5570MHz	Pass	4.93	16.52	16.51	16.65	16.64	22.60	24.00	27.53	30.00

DG = Directional Gain; Port X = Port X output power  
Directional gain is measured. Please refer to antenna test report.

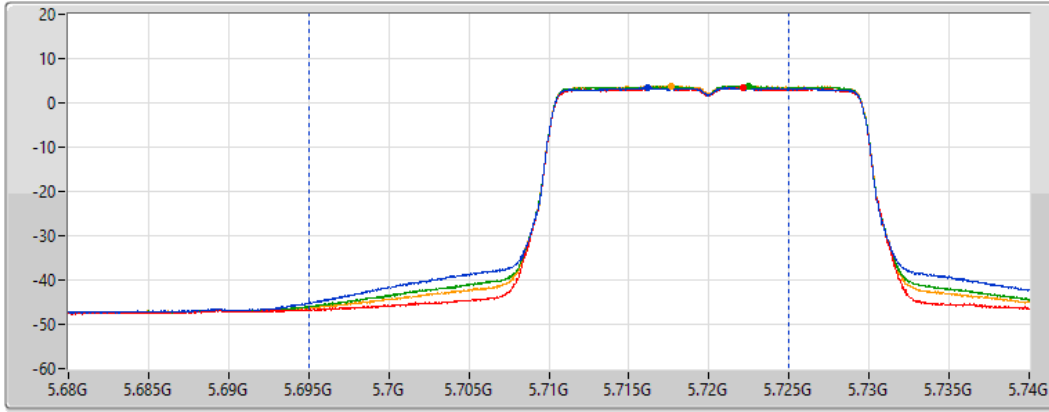


### 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

AV Power

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

CF  
5.71GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
5ms  
Detector Type  
RMS  
CP BW  
30MHz



Port 1  
Port 2  
Port 3  
Port 4

Sum= Total Power  
PX=Port X

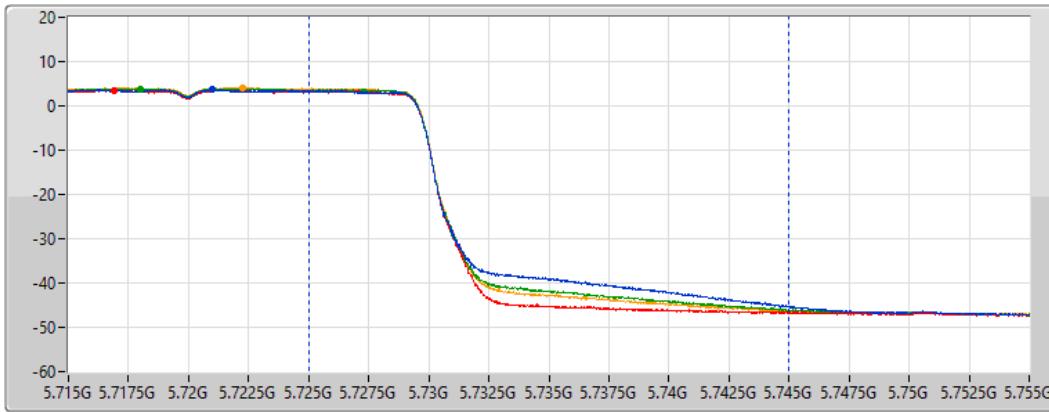
Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
22.08	15.90	15.78	16.20	16.32

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

AV Power

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

CF  
5.735GHz  
Span  
40MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
5ms  
Detector Type  
RMS  
CP BW  
20MHz



Port 1  
Port 2  
Port 3  
Port 4

Sum= Total Power  
PX=Port X

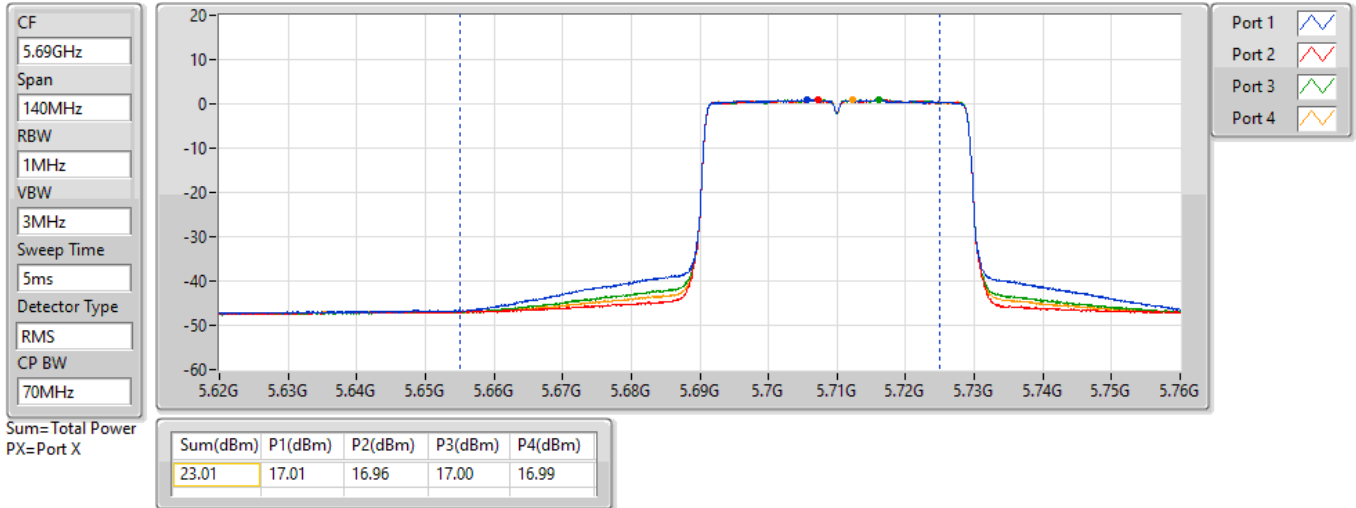
Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
17.08	10.86	10.80	11.22	11.32



802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

AV Power

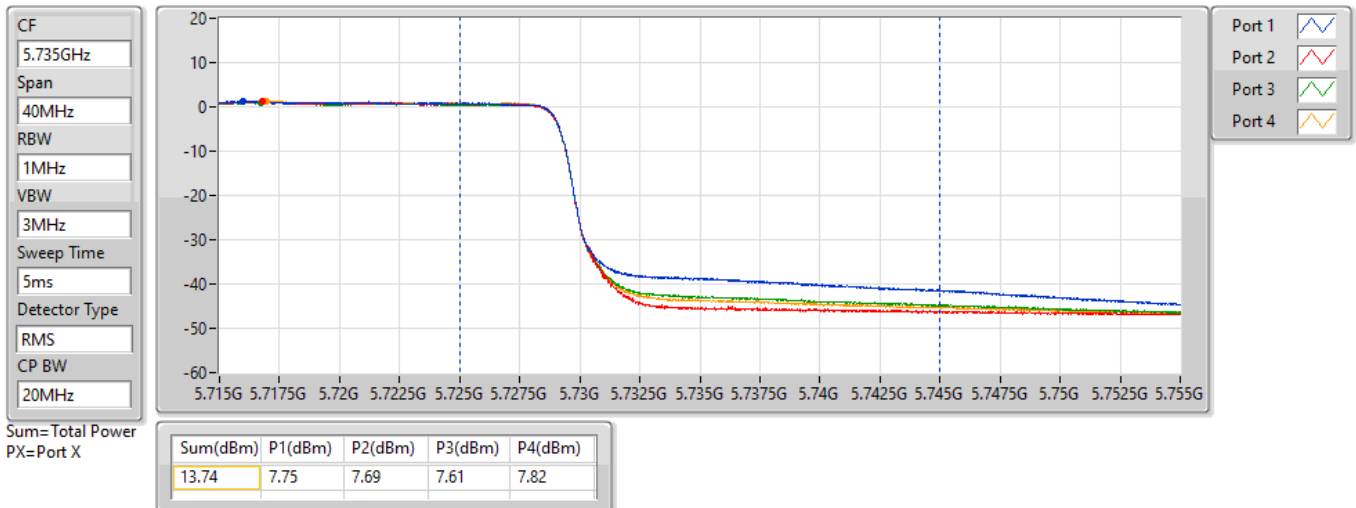
5710MHz Straddle 5.47-5.725GHz\_TnomVnom



802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

AV Power

5710MHz Straddle 5.725-5.85GHz\_TnomVnom

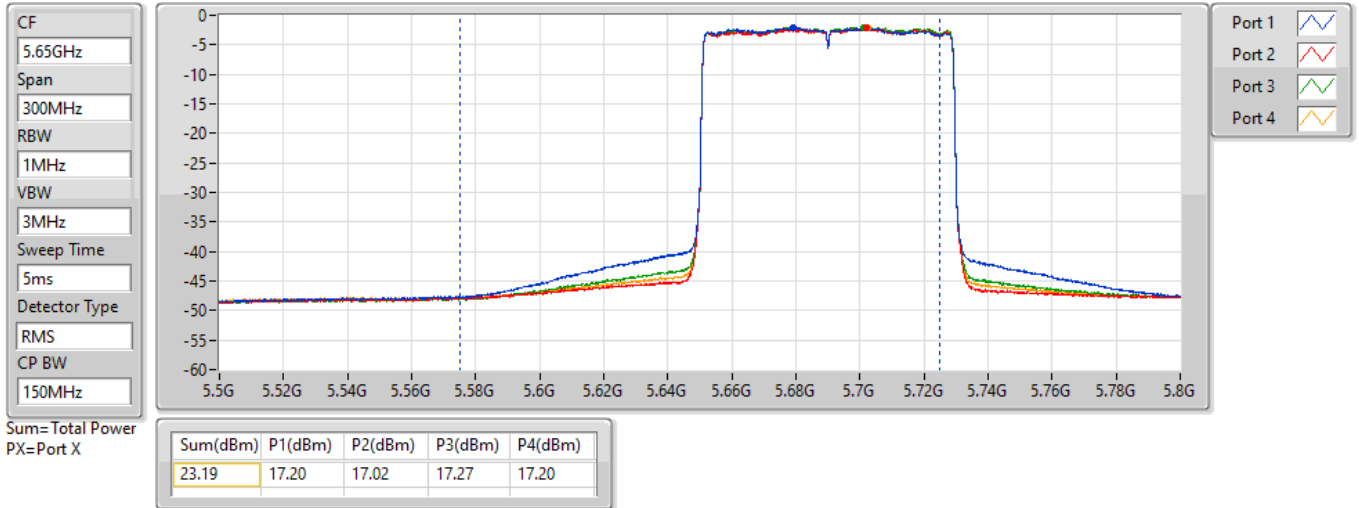




### 802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX

AV Power

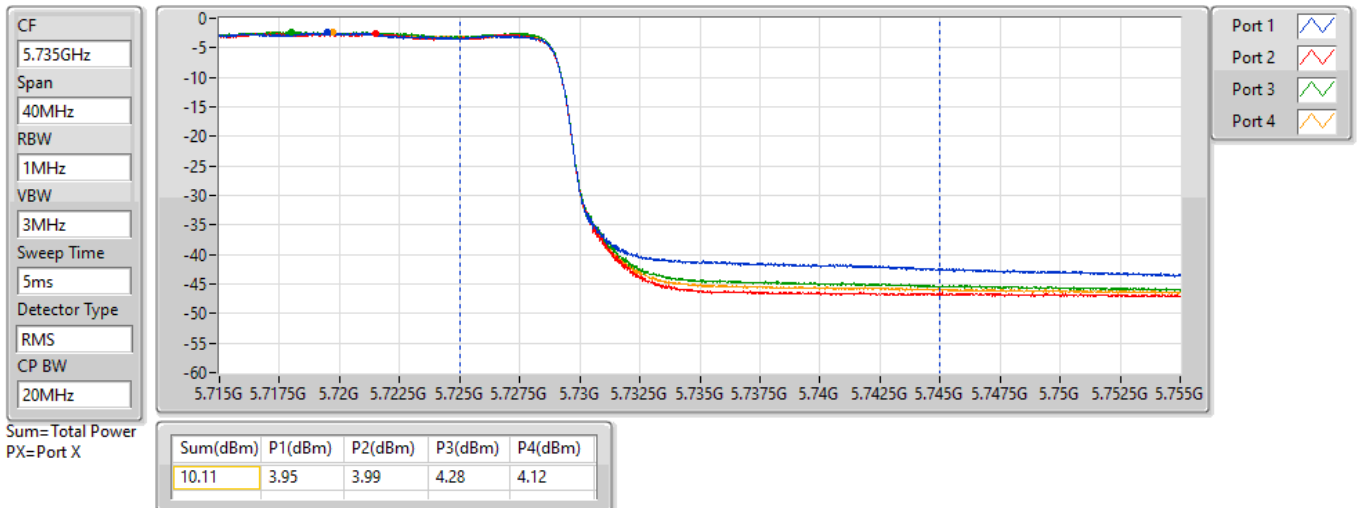
#### 5690MHz Straddle 5.47-5.725GHz\_TnomVnom



### 802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX

AV Power

#### 5690MHz Straddle 5.725-5.85GHz\_TnomVnom

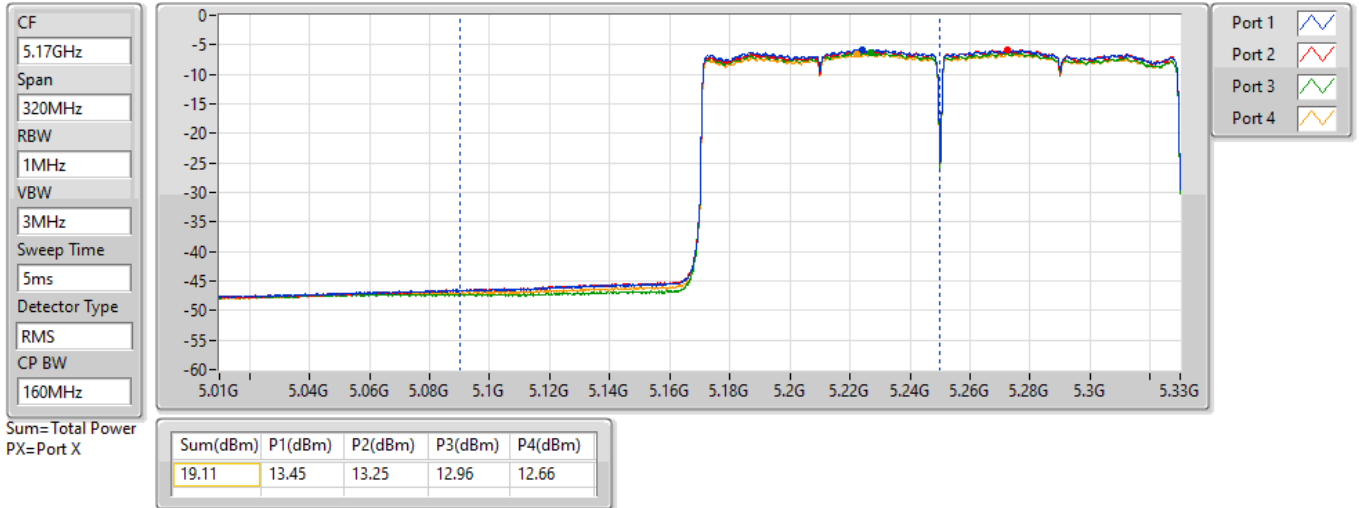




802.11ax HEW160-BF\_Nss1,(MCS0)\_4TX

AV Power

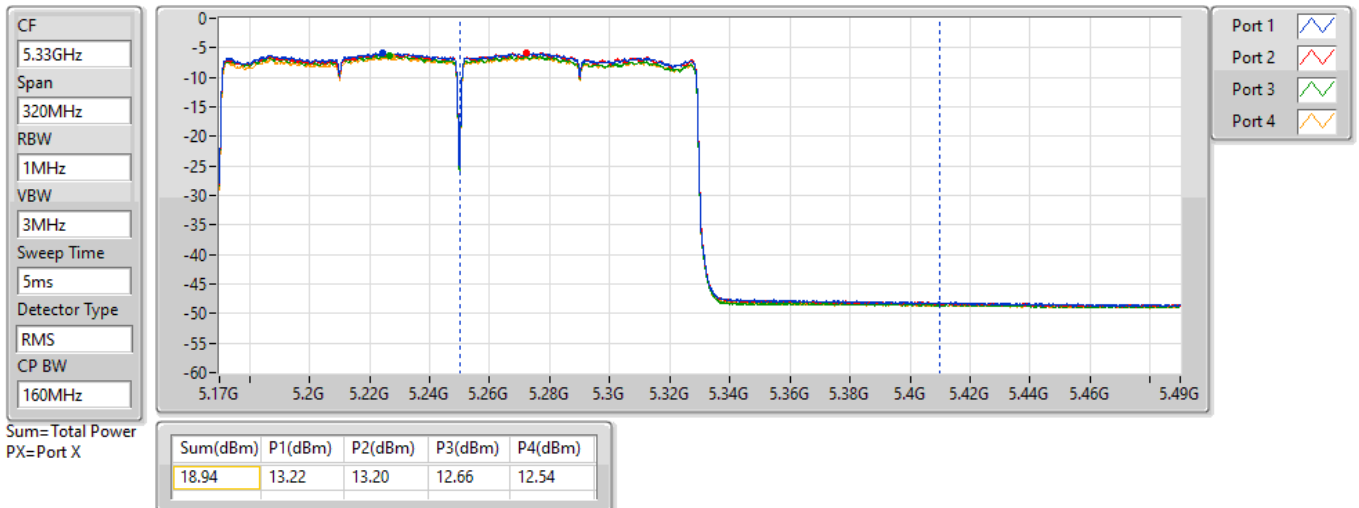
5250MHz Straddle 5.15-5.25GHz\_TnomVnom



802.11ax HEW160-BF\_Nss1,(MCS0)\_4TX

AV Power

5250MHz Straddle 5.25-5.35GHz\_TnomVnom









**Non-beamforming mode**

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	15.94	21.05
802.11ax HEW20_Nss1,(MCS0)_4TX	15.57	20.68
802.11ax HEW40_Nss1,(MCS0)_4TX	12.08	17.19
802.11ax HEW80_Nss1,(MCS0)_4TX	2.56	7.67
802.11ax HEW160_Nss1,(MCS0)_4TX	0.17	5.28
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	10.68	15.89
802.11ax HEW20_Nss1,(MCS0)_4TX	9.72	14.93
802.11ax HEW40_Nss1,(MCS0)_4TX	6.69	11.90
802.11ax HEW80_Nss1,(MCS0)_4TX	4.10	9.31
802.11ax HEW160_Nss1,(MCS0)_4TX	0.12	5.33
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	10.39	15.32
802.11ax HEW20_Nss1,(MCS0)_4TX	10.05	14.98
802.11ax HEW40_Nss1,(MCS0)_4TX	7.14	12.07
802.11ax HEW80_Nss1,(MCS0)_4TX	4.12	9.05
802.11ax HEW160_Nss1,(MCS0)_4TX	0.66	5.59
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	14.47	19.24
802.11ax HEW20_Nss1,(MCS0)_4TX	14.16	18.93
802.11ax HEW40_Nss1,(MCS0)_4TX	11.19	15.96
802.11ax HEW80_Nss1,(MCS0)_4TX	6.47	11.24

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



Result

Mode	Result	DG	Port 1	Port 2	Port 3	Port 4	PD	PD Limit	EIRP PD	EIRP PD Limit
		(dBi)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	5.11	6.87	6.68	6.27	6.15	12.27	17.00	17.38	23.00
5200MHz	Pass	5.11	10.50	10.32	9.79	9.64	15.88	17.00	20.99	23.00
5240MHz	Pass	5.11	10.42	10.29	10.08	9.88	15.94	17.00	21.05	23.00
5260MHz	Pass	5.21	4.70	4.60	4.81	4.99	10.68	11.00	15.89	17.00
5300MHz	Pass	5.21	4.24	4.30	4.55	4.75	10.30	11.00	15.51	17.00
5320MHz	Pass	5.21	4.24	4.45	4.79	5.08	10.49	11.00	15.70	17.00
5500MHz	Pass	4.93	4.59	4.52	4.46	4.53	10.39	11.00	15.32	17.00
5580MHz	Pass	4.93	4.45	4.64	4.48	4.53	10.34	11.00	15.27	17.00
5700MHz	Pass	4.93	2.28	2.13	2.70	2.96	8.34	11.00	13.27	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.93	3.83	3.91	4.14	4.19	9.86	11.00	14.79	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	4.77	1.94	2.02	2.52	2.56	8.11	30.00	12.88	36.00
5745MHz	Pass	4.77	8.36	8.92	8.70	8.93	14.47	30.00	19.24	36.00
5785MHz	Pass	4.77	8.35	8.85	8.78	8.97	14.43	30.00	19.20	36.00
5825MHz	Pass	4.77	7.35	7.87	7.78	7.89	13.46	30.00	18.23	36.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	5.11	5.69	5.33	4.94	4.81	10.99	17.00	16.10	23.00
5200MHz	Pass	5.11	10.09	10.12	9.41	9.40	15.57	17.00	20.68	23.00
5240MHz	Pass	5.11	9.98	9.79	9.54	9.59	15.50	17.00	20.61	23.00
5260MHz	Pass	5.21	3.61	3.95	3.72	3.95	9.72	11.00	14.93	17.00
5300MHz	Pass	5.21	3.35	3.62	3.76	4.13	9.51	11.00	14.72	17.00
5320MHz	Pass	5.21	3.30	3.82	3.57	3.95	9.49	11.00	14.70	17.00
5500MHz	Pass	4.93	3.85	4.05	3.42	3.68	9.56	11.00	14.49	17.00
5580MHz	Pass	4.93	3.70	3.83	3.52	3.77	9.46	11.00	14.39	17.00
5700MHz	Pass	4.93	1.90	2.06	2.69	2.55	8.06	11.00	12.99	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.93	3.99	4.01	4.43	4.35	10.05	11.00	14.98	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	4.77	1.97	2.34	2.72	2.66	8.29	30.00	13.06	36.00
5745MHz	Pass	4.77	8.16	8.40	8.39	8.54	14.16	30.00	18.93	36.00
5785MHz	Pass	4.77	8.02	8.37	8.19	8.63	14.09	30.00	18.86	36.00
5825MHz	Pass	4.77	7.07	7.51	7.20	7.48	13.11	30.00	17.88	36.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	5.11	1.14	0.98	0.72	0.63	6.69	17.00	11.80	23.00
5230MHz	Pass	5.11	6.63	6.27	5.98	6.20	12.08	17.00	17.19	23.00
5270MHz	Pass	5.21	0.92	1.02	0.33	0.76	6.62	11.00	11.83	17.00
5310MHz	Pass	5.21	1.10	0.88	0.36	1.07	6.69	11.00	11.90	17.00
5510MHz	Pass	4.93	0.93	0.63	1.04	0.55	6.55	11.00	11.48	17.00



Mode	Result	DG	Port 1	Port 2	Port 3	Port 4	PD	PD Limit	EIRP PD	EIRP PD Limit
		(dBi)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5590MHz	Pass	4.93	0.56	0.63	0.85	0.67	6.48	11.00	11.41	17.00
5670MHz	Pass	4.93	1.40	1.05	1.53	1.33	7.12	11.00	12.05	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	4.93	1.52	1.15	1.30	1.27	7.14	11.00	12.07	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	4.77	-0.31	-0.47	-0.47	-0.50	5.37	30.00	10.14	36.00
5755MHz	Pass	4.77	5.30	5.19	5.26	5.79	11.19	30.00	15.96	36.00
5795MHz	Pass	4.77	5.08	5.38	5.23	5.81	11.17	30.00	15.94	36.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	5.11	-2.61	-3.08	-3.57	-3.68	2.56	17.00	7.67	23.00
5290MHz	Pass	5.21	-1.60	-1.56	-1.89	-1.99	4.10	11.00	9.31	17.00
5530MHz	Pass	4.93	-1.91	-2.20	-2.28	-2.55	3.62	11.00	8.55	17.00
5610MHz	Pass	4.93	-1.71	-2.13	-1.84	-1.90	3.90	11.00	8.83	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	4.93	-1.72	-1.86	-1.69	-1.58	4.12	11.00	9.05	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	4.77	-3.83	-3.58	-3.42	-3.38	2.41	30.00	7.18	36.00
5775MHz	Pass	4.77	0.49	0.85	0.54	1.05	6.47	30.00	11.24	36.00
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	5.11	-5.58	-5.65	-5.77	-6.11	0.17	17.00	5.28	23.00
5250MHz Straddle 5.25-5.35GHz	Pass	5.21	-5.44	-5.57	-5.99	-6.18	0.12	11.00	5.33	17.00
5570MHz	Pass	4.93	-5.06	-5.31	-5.12	-5.38	0.66	11.00	5.59	17.00

DG = Directional Gain; RBW = 500kHz 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; Directional gain is measured. Please refer to antenna test report.

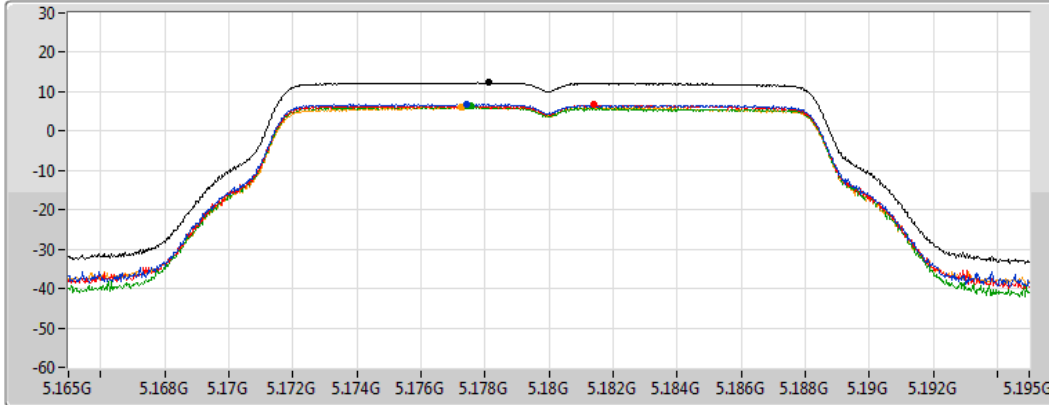


802.11a\_Nss1,(6Mbps)\_4TX

PSD

5180MHz

CF  
5.18GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

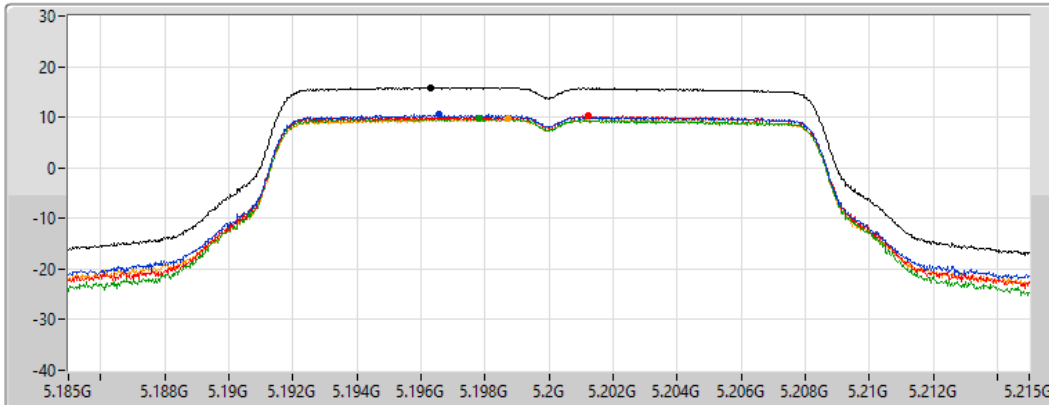
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.27	12.27	6.87	6.68	6.27	6.15

802.11a\_Nss1,(6Mbps)\_4TX

PSD

5200MHz

CF  
5.2GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.88	15.88	10.50	10.32	9.79	9.64

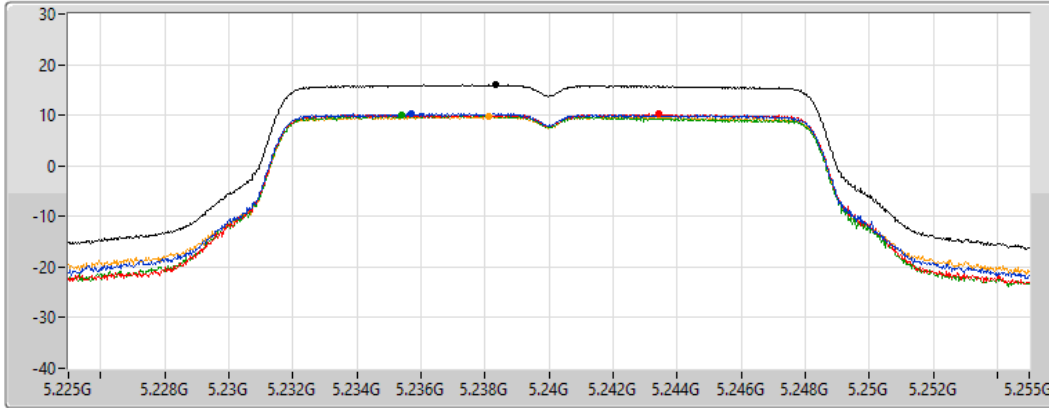


### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5240MHz

CF  
5.24GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

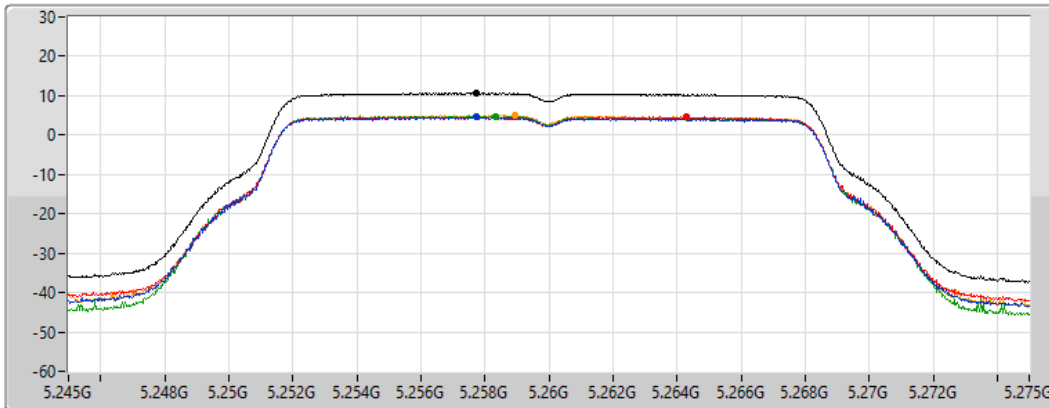
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.94	15.94	10.42	10.29	10.08	9.88

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

PSD

#### 5260MHz

CF  
5.26GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.68	10.68	4.70	4.60	4.81	4.99

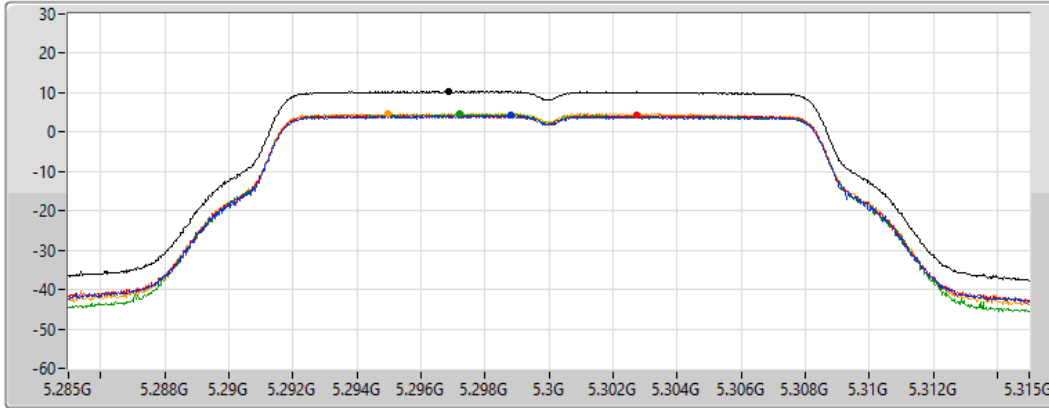


### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5300MHz

CF  
5.3GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

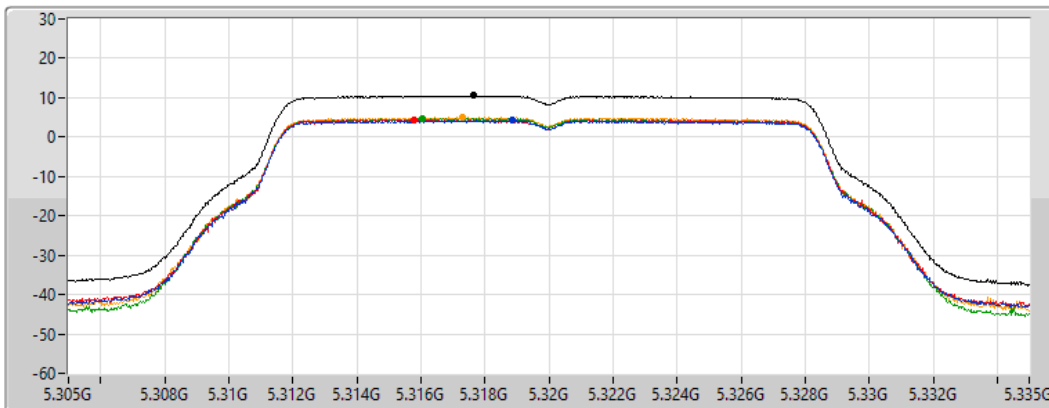
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.30	10.30	4.24	4.30	4.55	4.75

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

PSD

#### 5320MHz

CF  
5.32GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.49	10.49	4.24	4.45	4.79	5.08

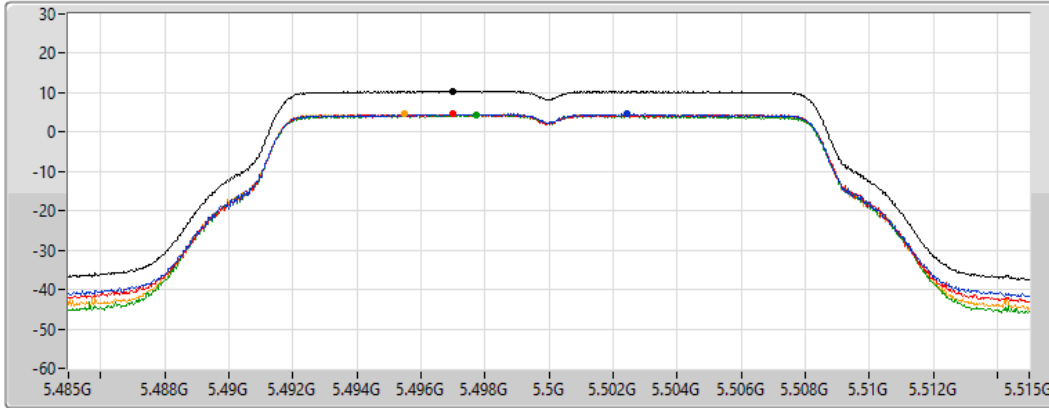


### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5500MHz

CF  
5.5GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

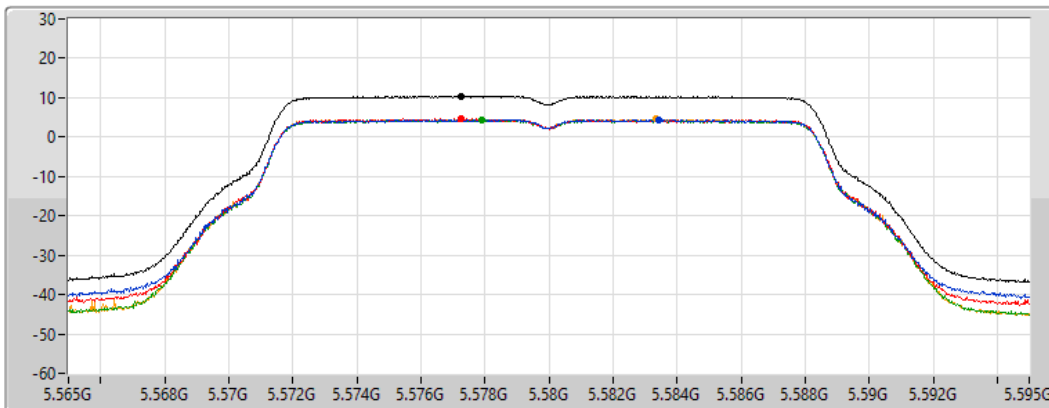
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.39	10.39	4.59	4.52	4.46	4.53

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

PSD

#### 5580MHz

CF  
5.58GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.34	10.34	4.45	4.64	4.48	4.53

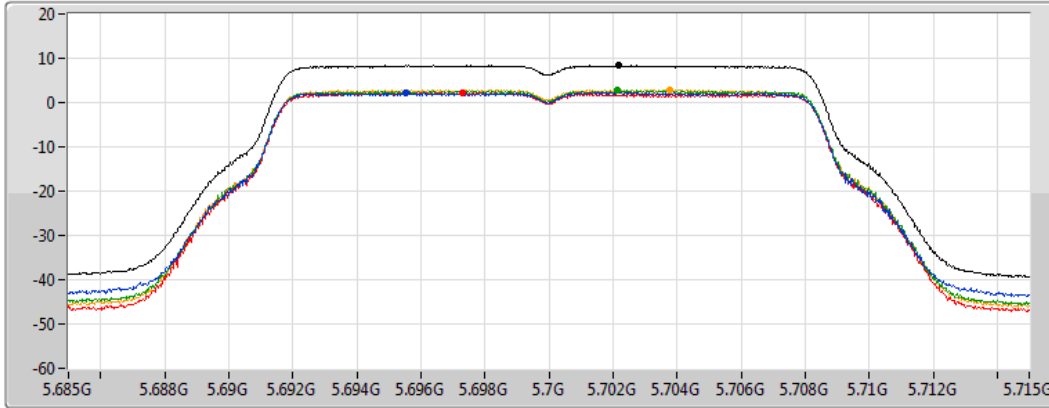


### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5700MHz

CF  
5.7GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

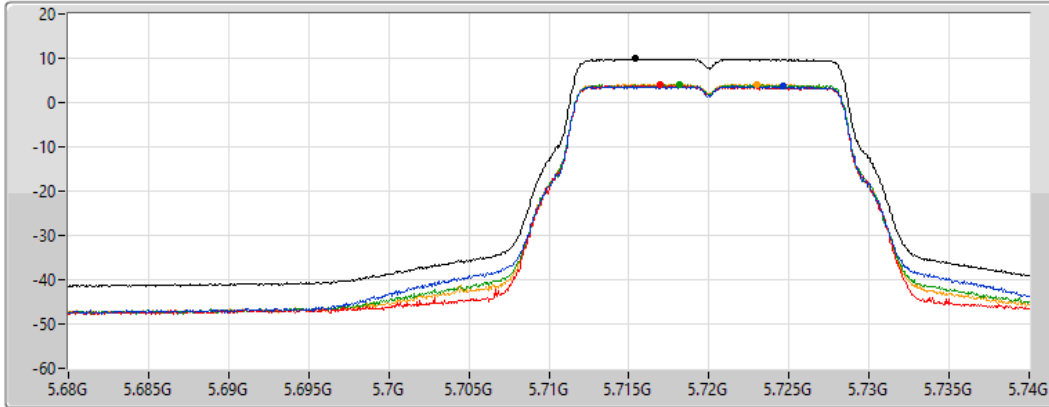
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.34	8.34	2.28	2.13	2.70	2.96

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

PSD

#### 5720MHz Straddle 5.47-5.725GHz

CF  
5.71GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.86	9.86	3.83	3.91	4.14	4.19

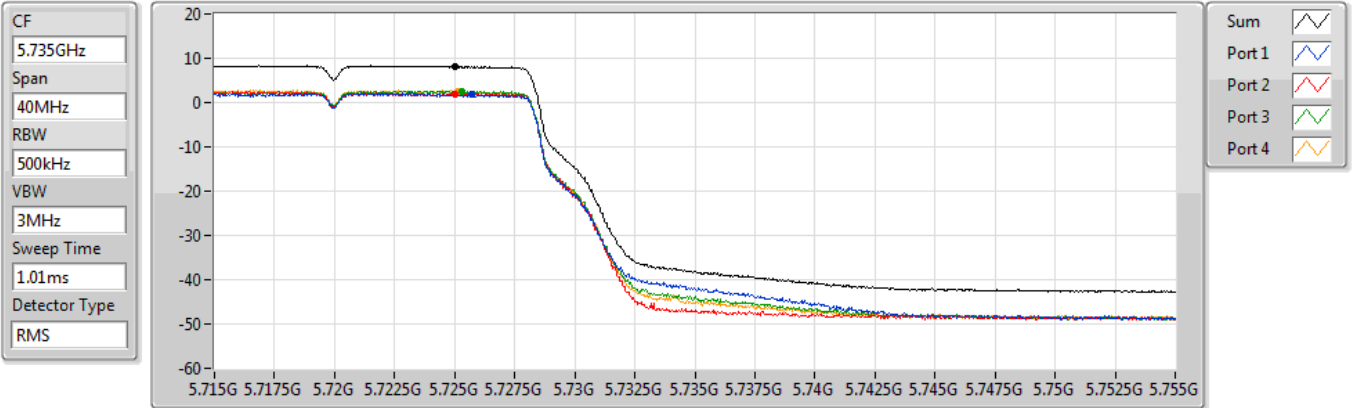




### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5720MHz Straddle 5.725-5.85GHz

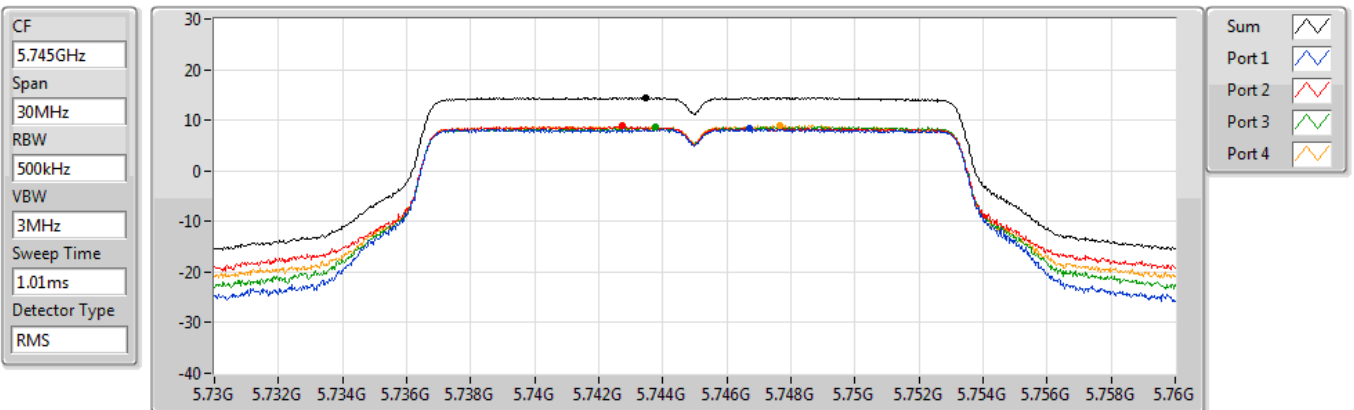


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.11	8.11	1.94	2.02	2.52	2.56

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

PSD

#### 5745MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.47	14.47	8.36	8.92	8.70	8.93

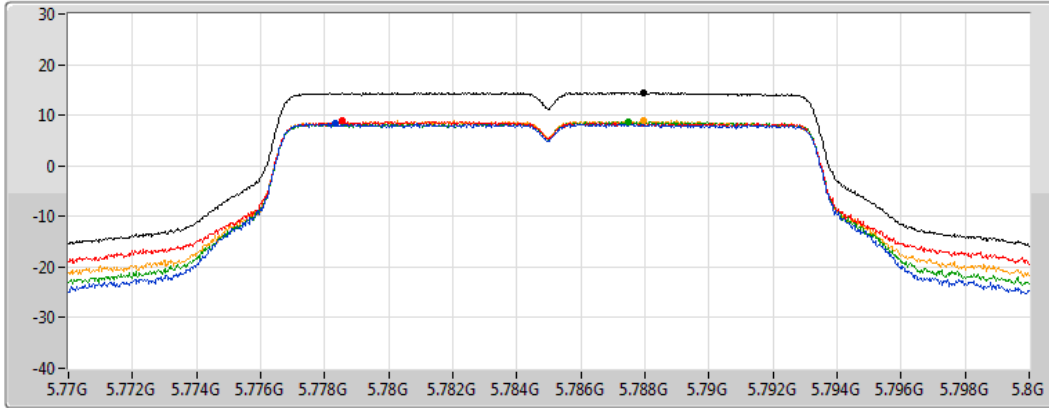


### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5785MHz

CF  
5.785GHz  
Span  
30MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

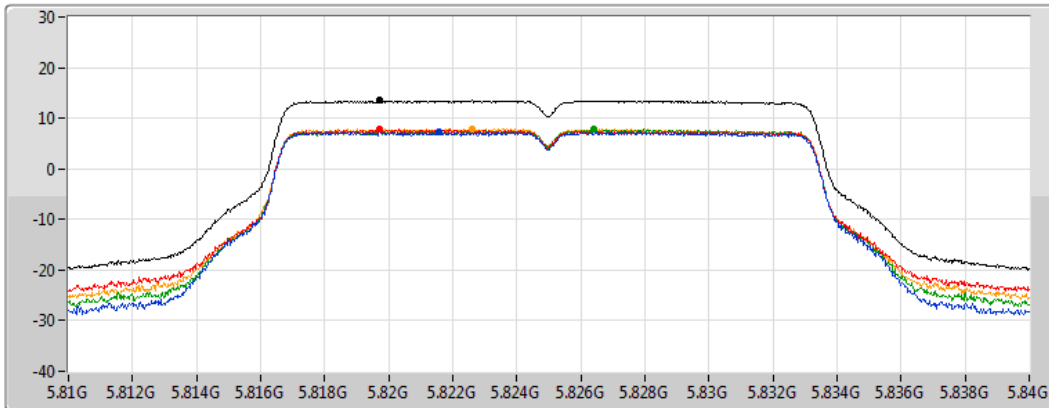
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.43	14.43	8.35	8.85	8.78	8.97

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

PSD

#### 5825MHz

CF  
5.825GHz  
Span  
30MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.46	13.46	7.35	7.87	7.78	7.89

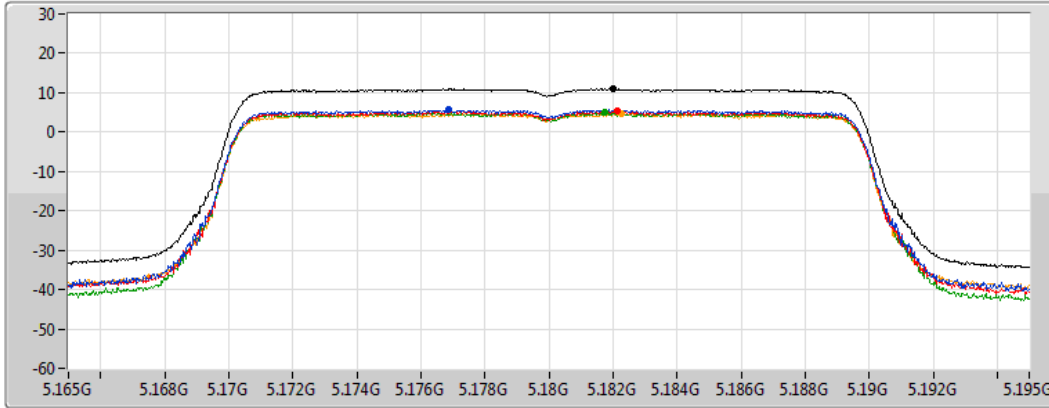


### 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

#### 5180MHz

CF  
5.18GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

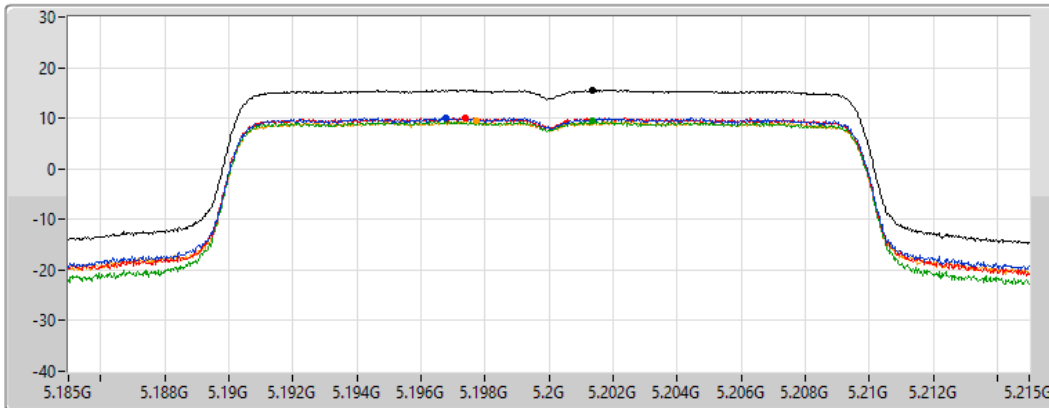
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.99	10.99	5.69	5.33	4.94	4.81

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

PSD

#### 5200MHz

CF  
5.2GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.57	15.57	10.09	10.12	9.41	9.40

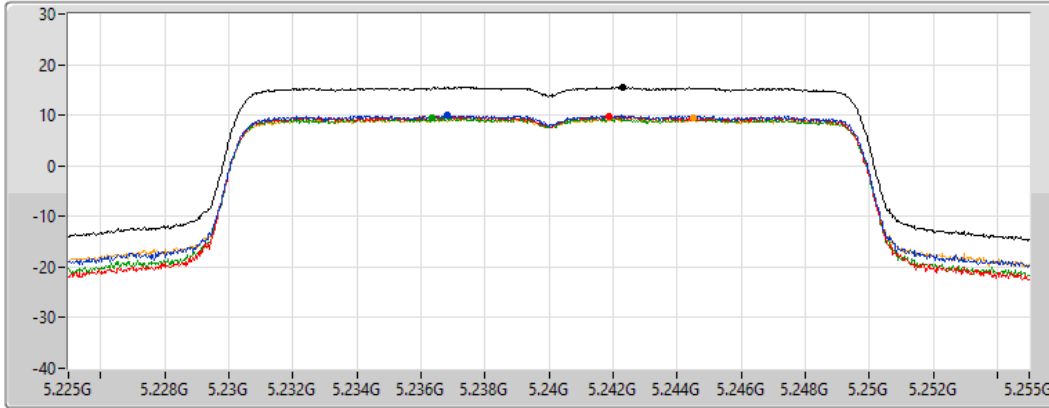


### 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

#### 5240MHz

CF  
5.24GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

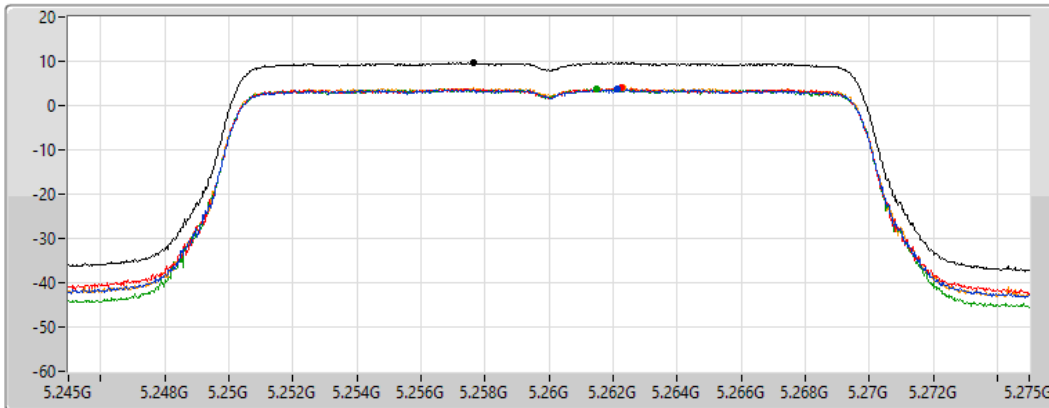
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.50	15.50	9.98	9.79	9.54	9.59

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

PSD

#### 5260MHz

CF  
5.26GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.72	9.72	3.61	3.95	3.72	3.95

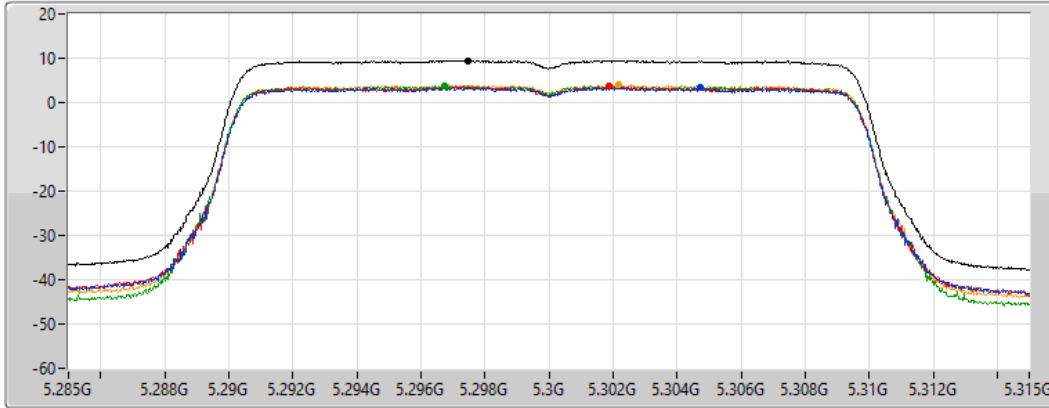


### 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

#### 5300MHz

CF  
5.3GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

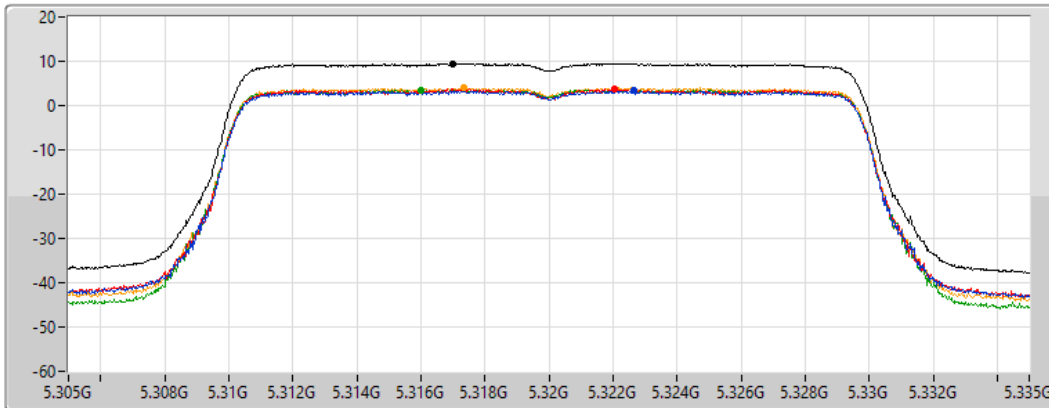
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.51	9.51	3.35	3.62	3.76	4.13

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

PSD

#### 5320MHz

CF  
5.32GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.49	9.49	3.30	3.82	3.57	3.95

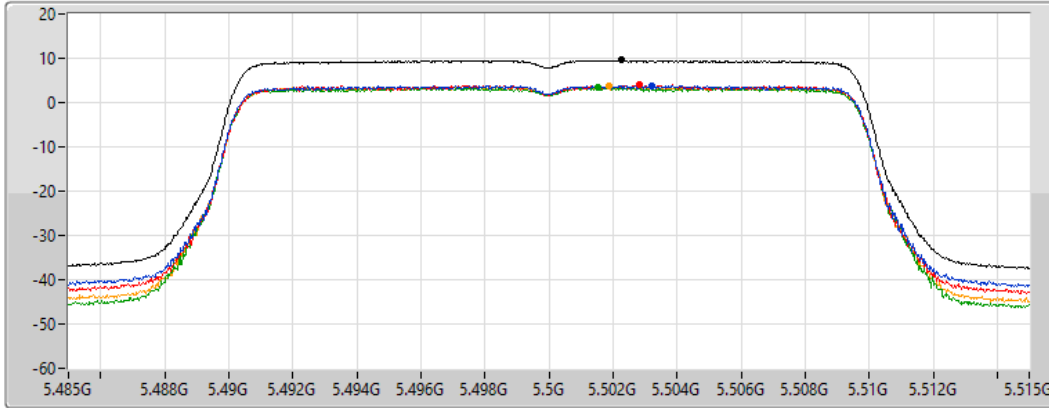


### 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

#### 5500MHz

CF  
5.5GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

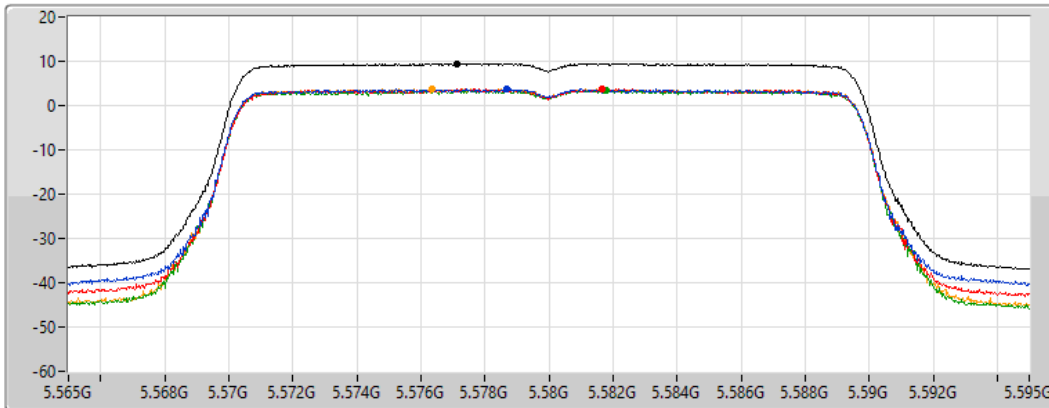
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.56	9.56	3.85	4.05	3.42	3.68

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

PSD

#### 5580MHz

CF  
5.58GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.46	9.46	3.70	3.83	3.52	3.77

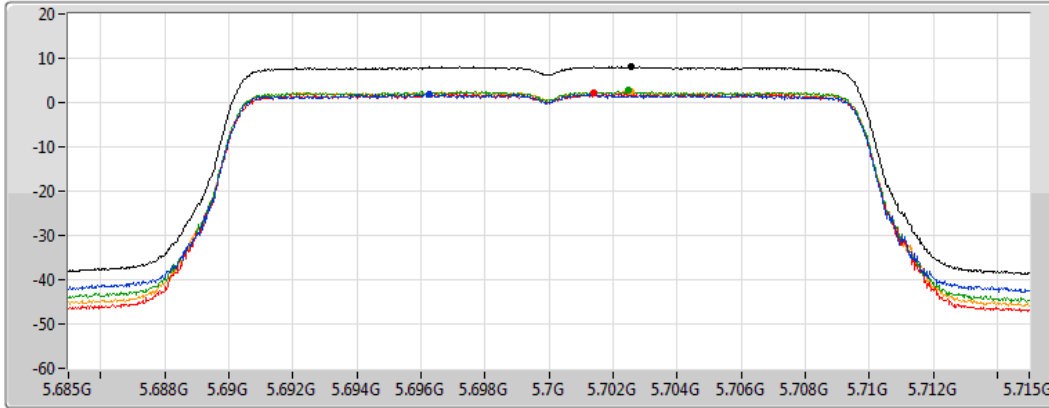


802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

5700MHz

CF  
5.7GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

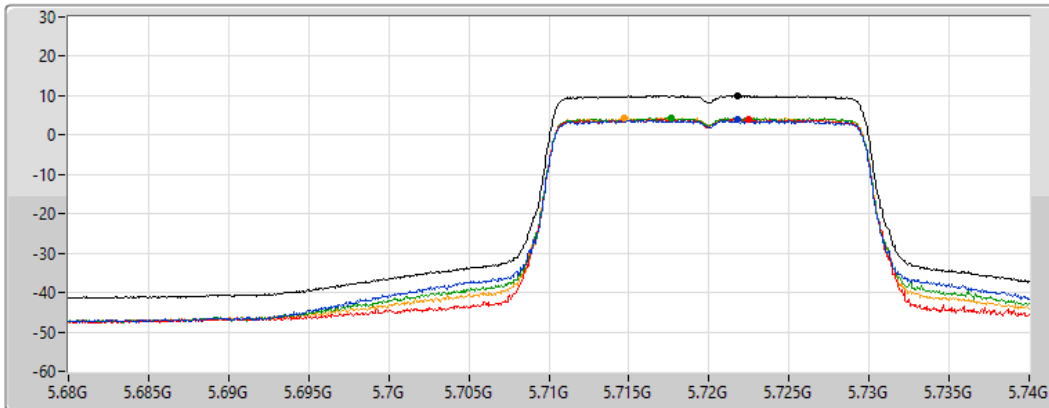
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.06	8.06	1.90	2.06	2.69	2.55

802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

5720MHz Straddle 5.47-5.725GHz

CF  
5.71GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



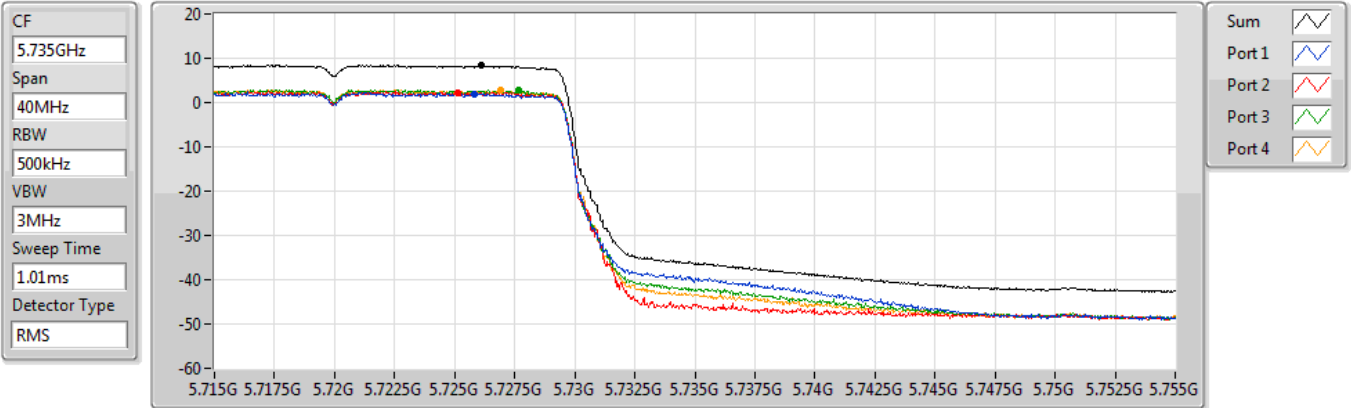
Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.05	10.05	3.99	4.01	4.43	4.35

802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

5720MHz Straddle 5.725-5.85GHz

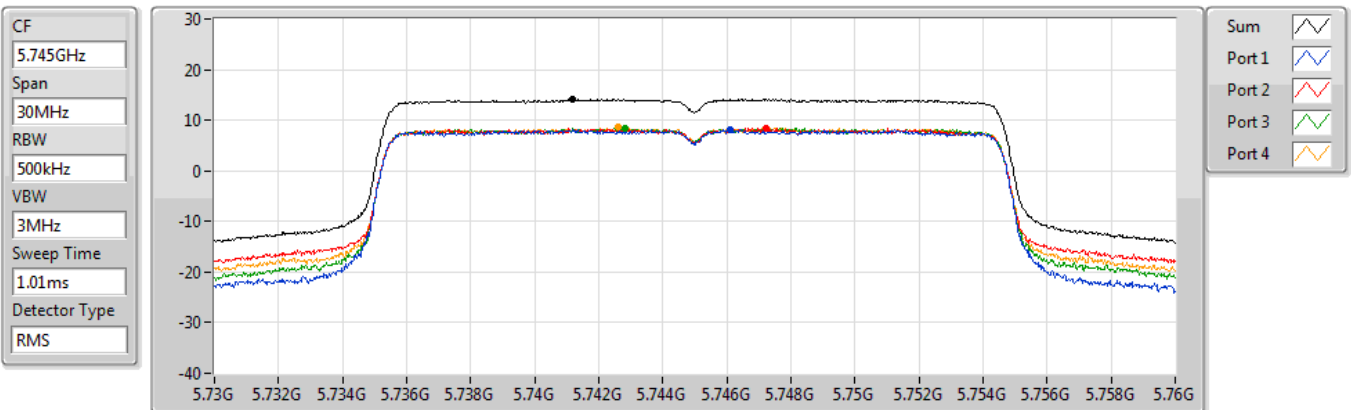


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.29	8.29	1.97	2.34	2.72	2.66

802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

5745MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.16	14.16	8.16	8.40	8.39	8.54



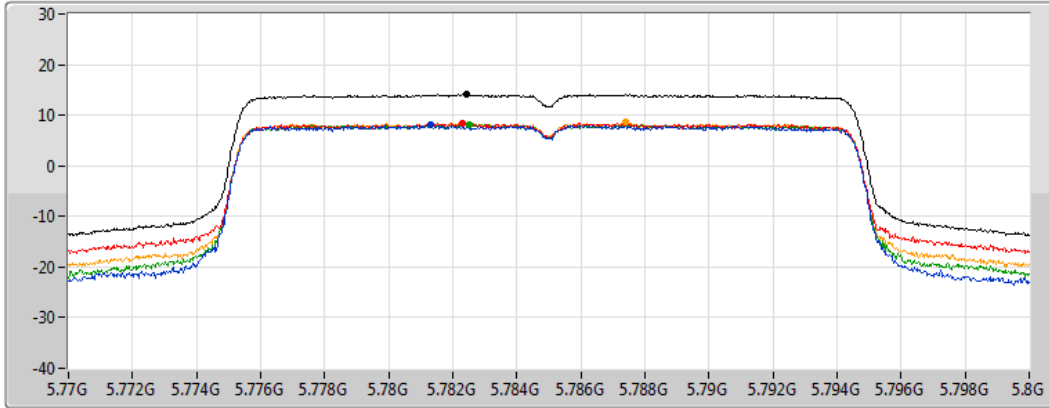


### 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

#### 5785MHz

CF  
5.785GHz  
Span  
30MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

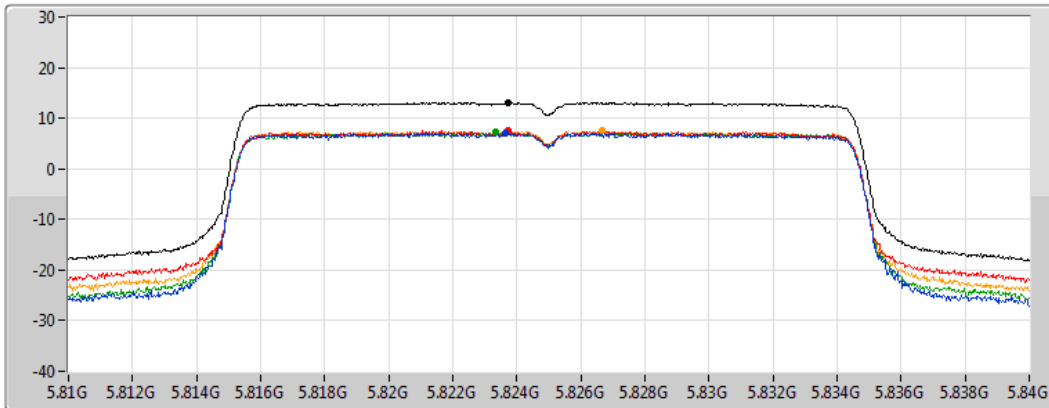
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.09	14.09	8.02	8.37	8.19	8.63

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

PSD

#### 5825MHz

CF  
5.825GHz  
Span  
30MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.11	13.11	7.07	7.51	7.20	7.48

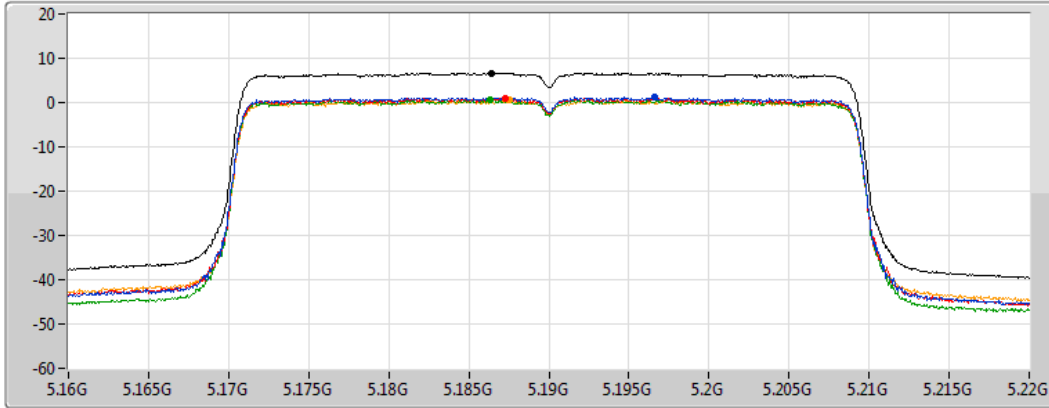


### 802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

#### 5190MHz

CF  
5.19GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

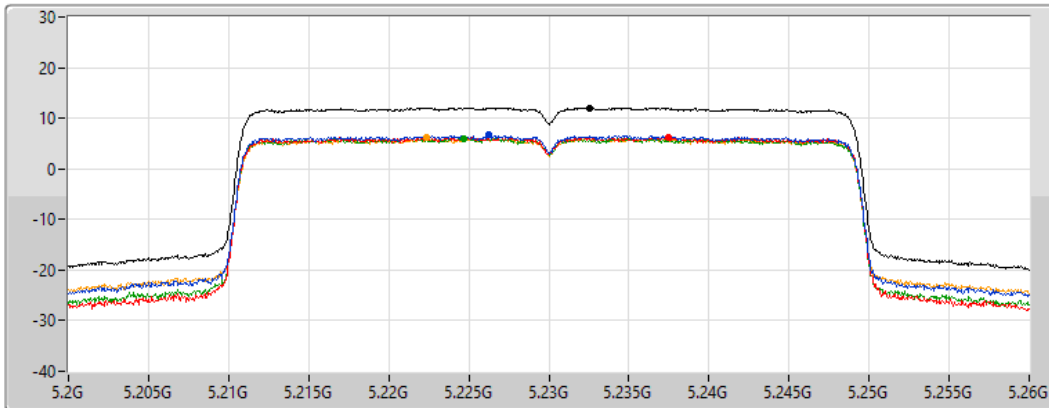
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.69	6.69	1.14	0.98	0.72	0.63

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

PSD

#### 5230MHz

CF  
5.23GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

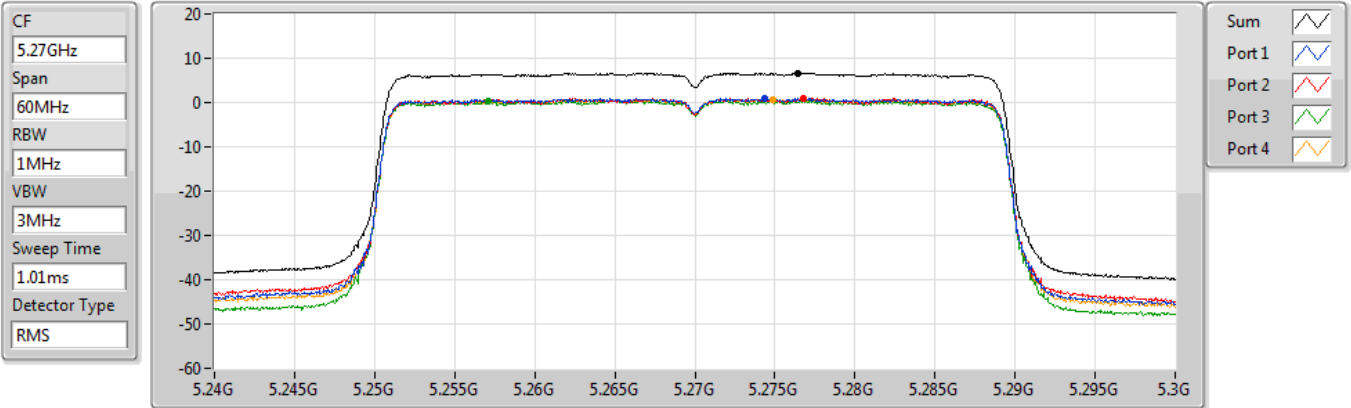
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.08	12.08	6.63	6.27	5.98	6.20



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

PSD

#### 5270MHz

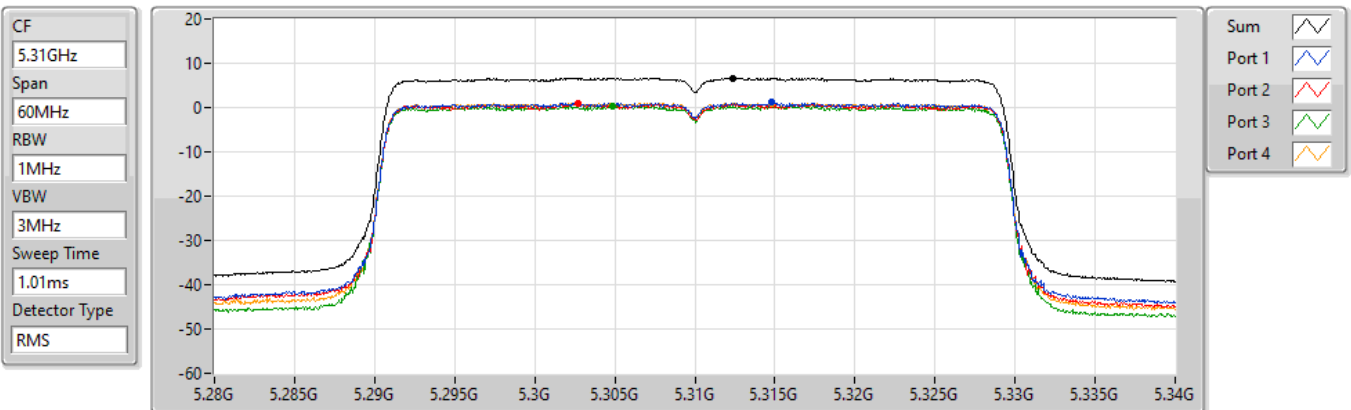


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.62	6.62	0.92	1.02	0.33	0.76

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

PSD

#### 5310MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.69	6.69	1.10	0.88	0.36	1.07

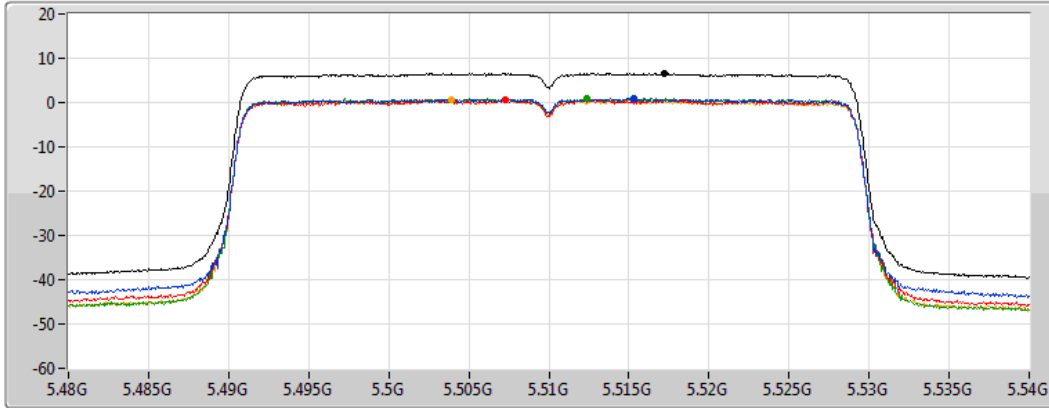


### 802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

#### 5510MHz

CF  
5.51GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

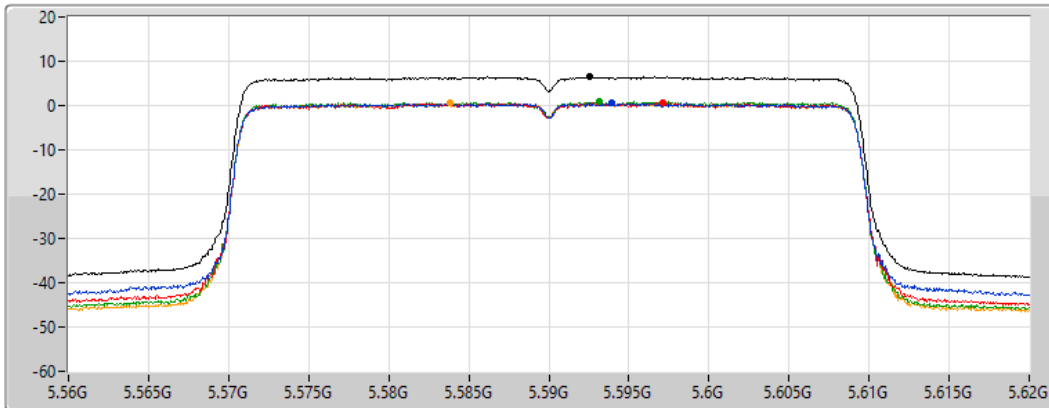
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.55	6.55	0.93	0.63	1.04	0.55

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

PSD

#### 5590MHz

CF  
5.59GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.48	6.48	0.56	0.63	0.85	0.67

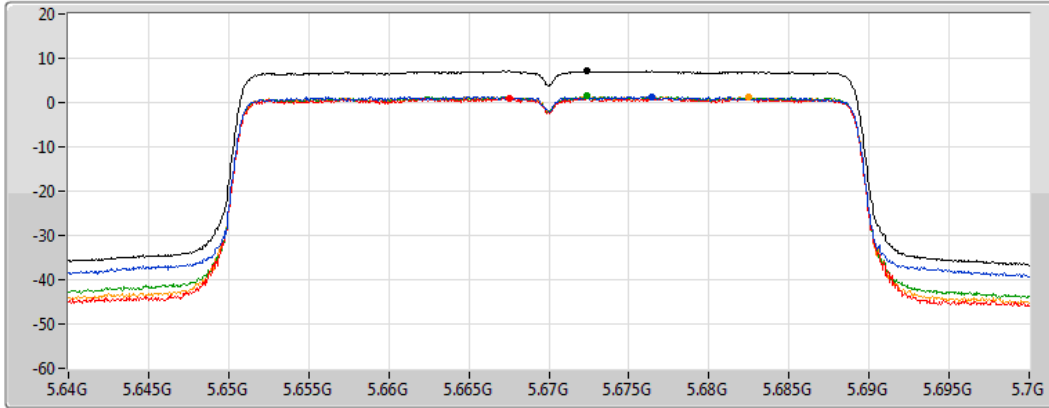


### 802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

#### 5670MHz

CF  
5.67GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

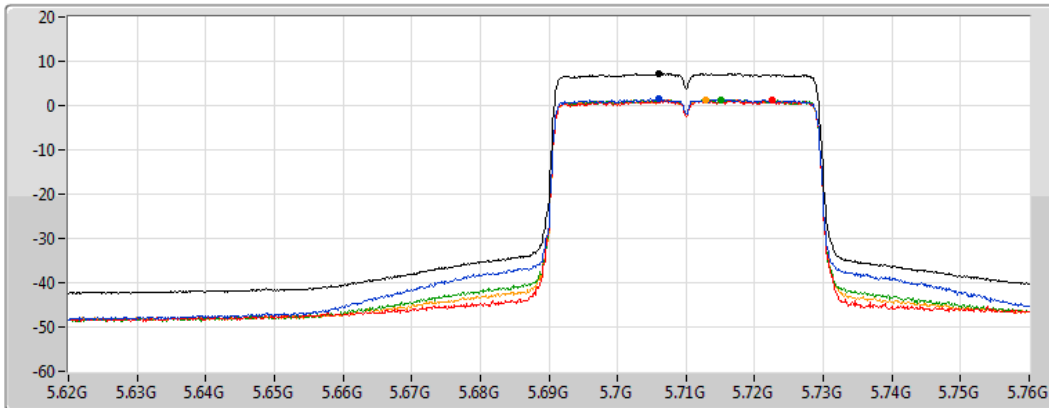
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.12	7.12	1.40	1.05	1.53	1.33

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

PSD

#### 5710MHz Straddle 5.47-5.725GHz

CF  
5.69GHz  
Span  
140MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



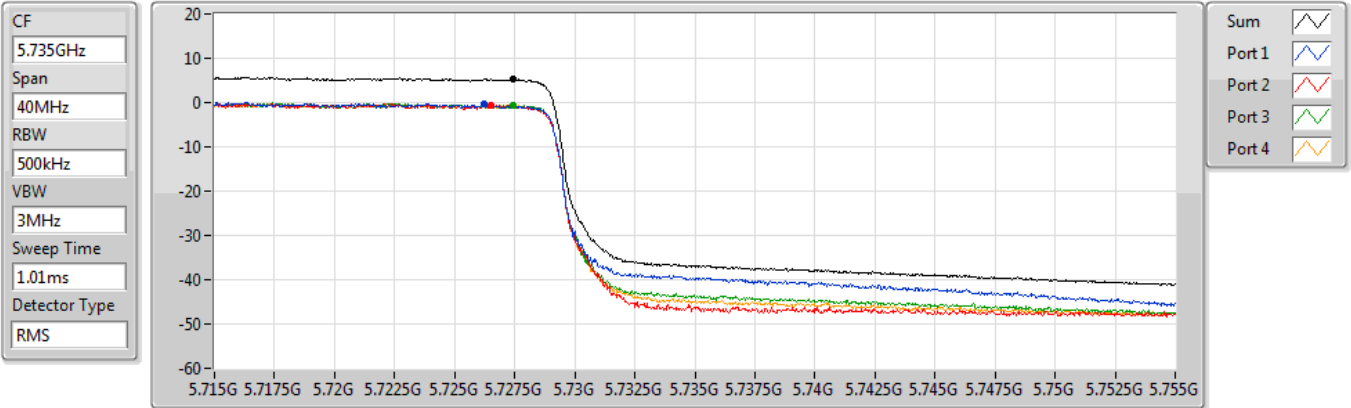
Sum   
Port 1   
Port 2   
Port 3   
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.14	7.14	1.52	1.15	1.30	1.27

802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

5710MHz Straddle 5.725-5.85GHz

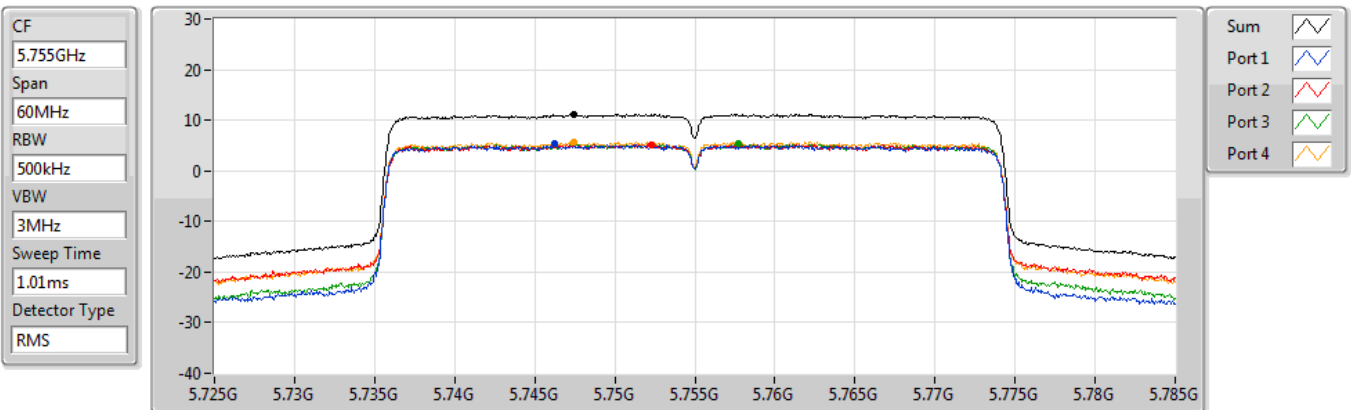


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.37	5.37	-0.31	-0.47	-0.47	-0.50

802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

5755MHz



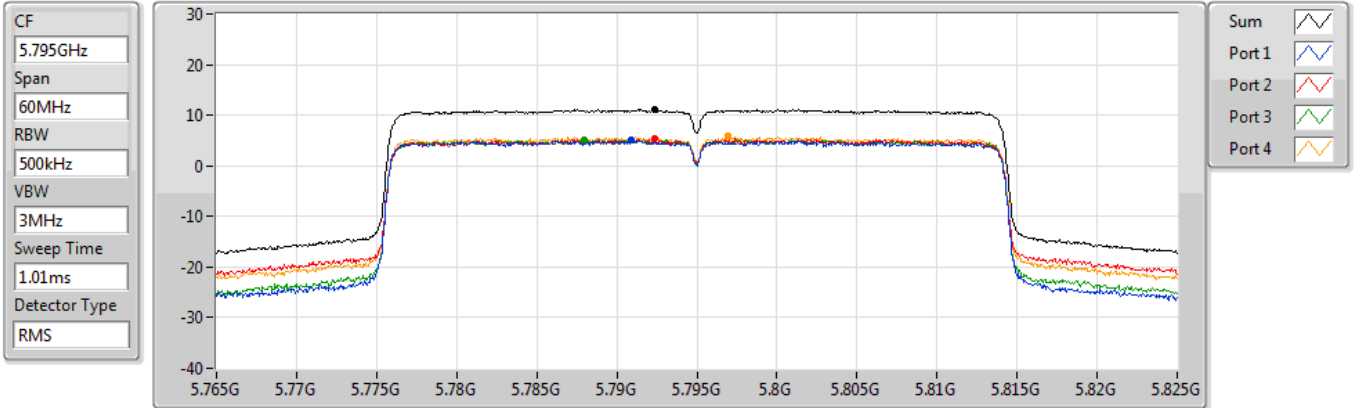
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.19	11.19	5.30	5.19	5.26	5.79



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

PSD

5795MHz

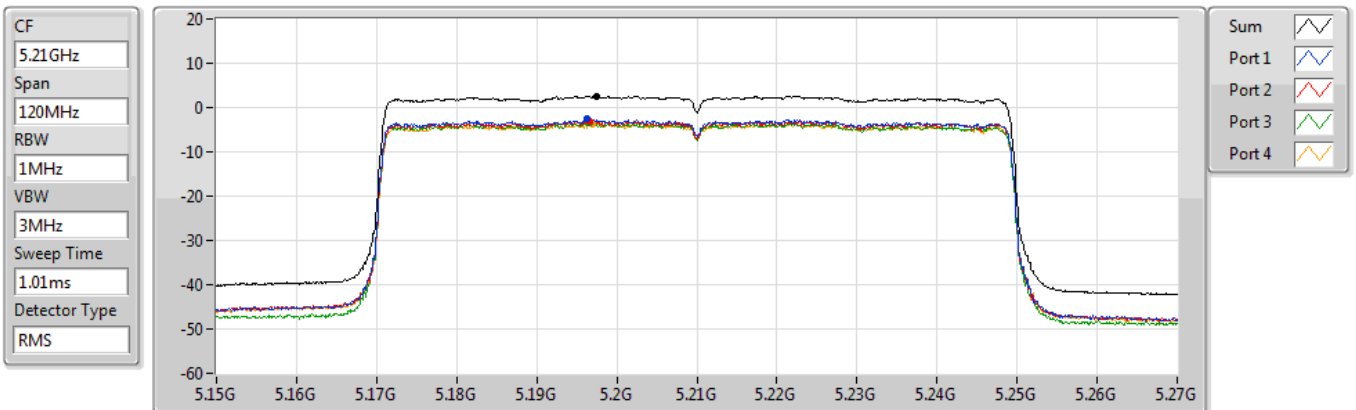


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.17	11.17	5.08	5.38	5.23	5.81

### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

5210MHz



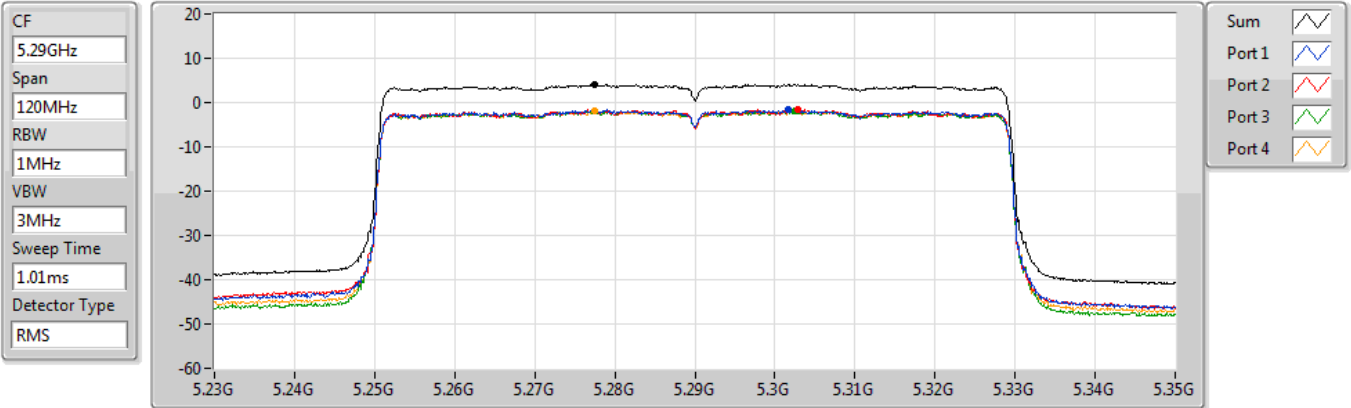
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.56	2.56	-2.61	-3.08	-3.57	-3.68



### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5290MHz

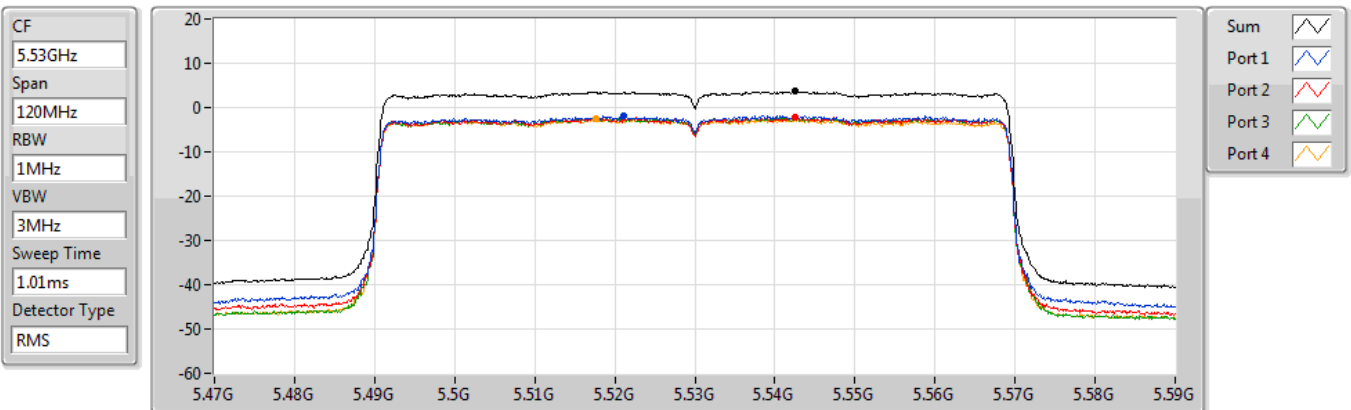


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.10	4.10	-1.60	-1.56	-1.89	-1.99

### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5530MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.62	3.62	-1.91	-2.20	-2.28	-2.55



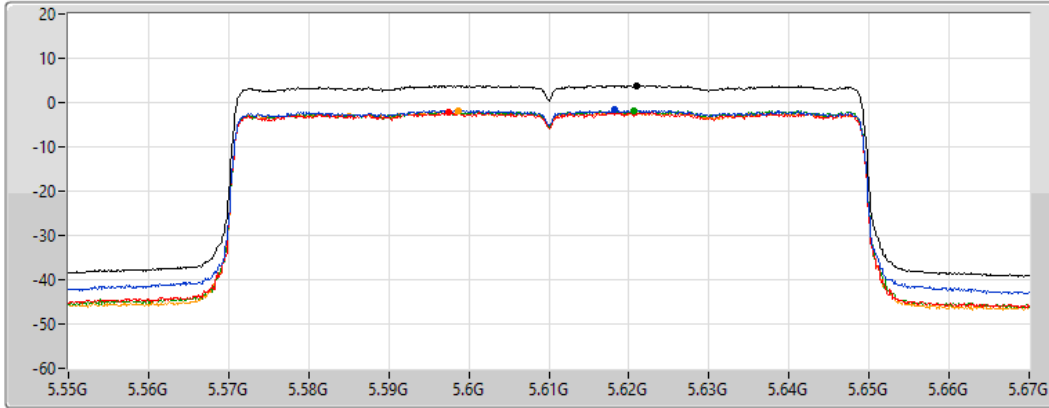


### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5610MHz

CF  
5.61GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

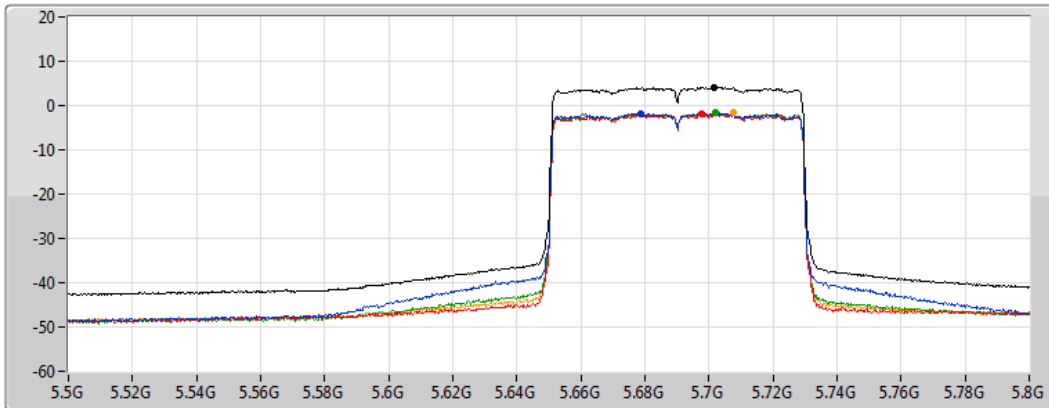
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.90	3.90	-1.71	-2.13	-1.84	-1.90

### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5690MHz Straddle 5.47-5.725GHz

CF  
5.65GHz  
Span  
300MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

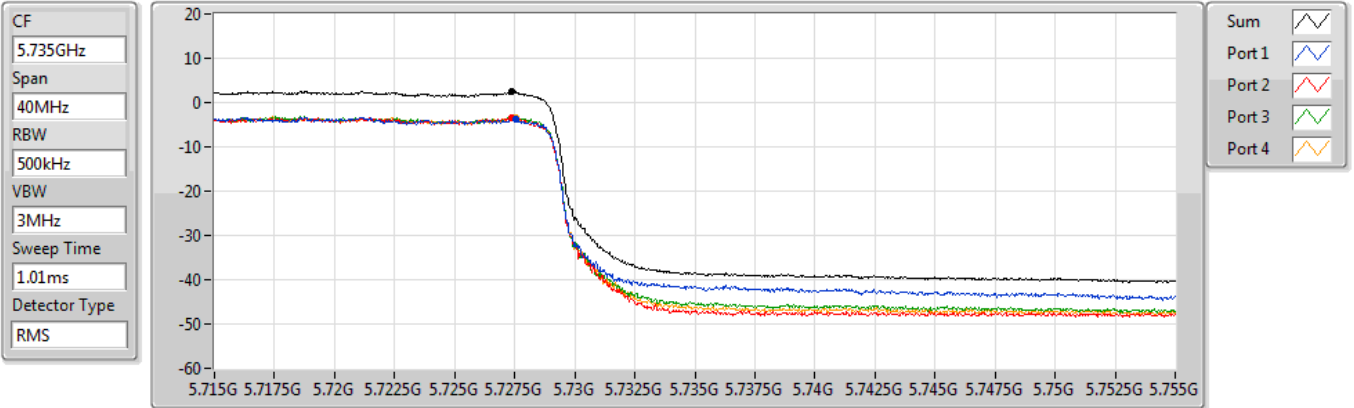
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.12	4.12	-1.72	-1.86	-1.69	-1.58



### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5690MHz Straddle 5.725-5.85GHz

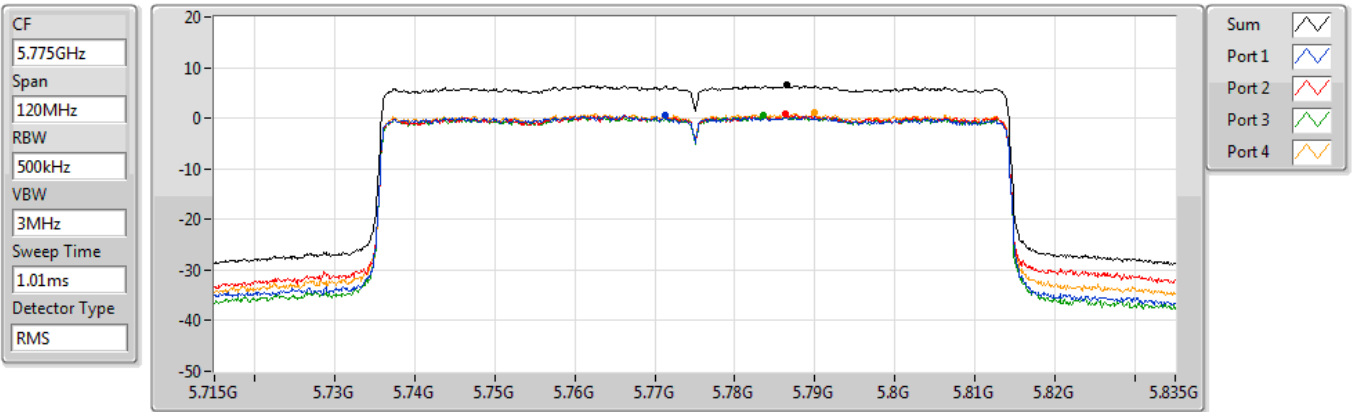


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.41	2.41	-3.83	-3.58	-3.42	-3.38

### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5775MHz



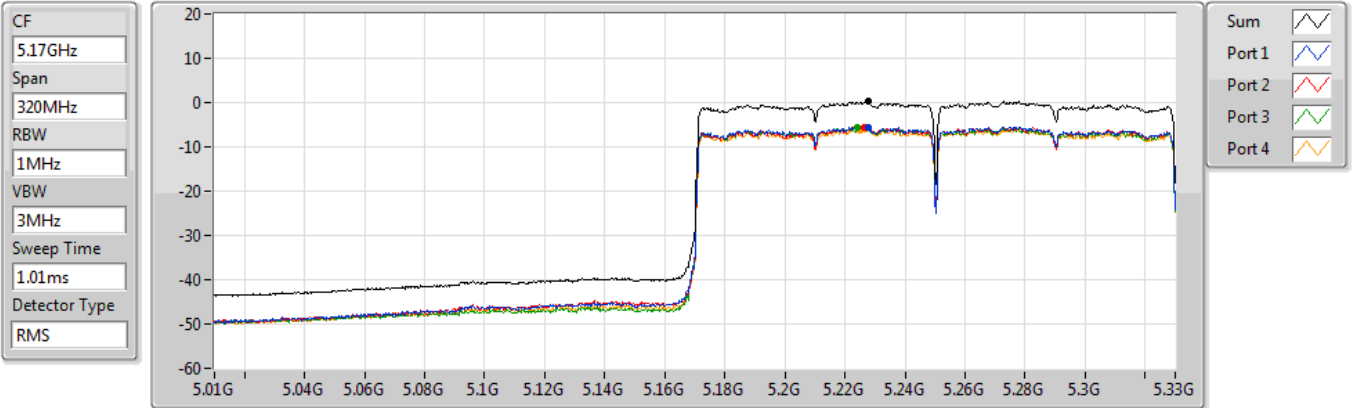
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.47	6.47	0.49	0.85	0.54	1.05



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

PSD

#### 5250MHz Straddle 5.15-5.25GHz

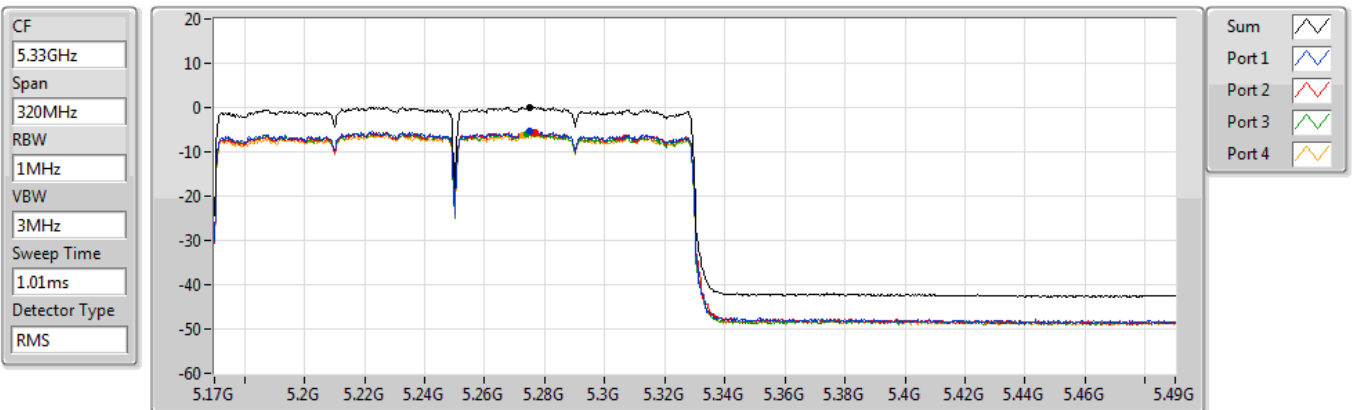


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.17	0.17	-5.58	-5.65	-5.77	-6.11

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

PSD

#### 5250MHz Straddle 5.25-5.35GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.12	0.12	-5.44	-5.57	-5.99	-6.18

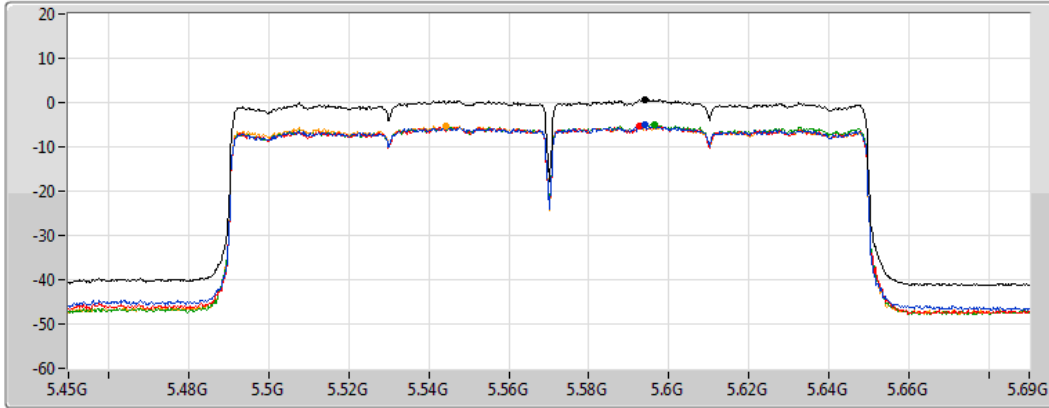


802.11ax HEW160\_Nss1,(MCS0)\_4TX

PSD

5570MHz

CF  
5.57GHz  
Span  
240MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.66	0.66	-5.06	-5.31	-5.12	-5.38



**Beamforming mode**

**Summary**

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	16.30	21.41
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	12.56	17.67
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	2.87	7.98
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	0.61	5.72
5.25-5.35GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	10.41	15.62
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	7.20	12.41
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	4.57	9.78
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	0.48	5.69
5.47-5.725GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	10.30	15.23
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	7.82	12.75
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	4.56	9.49
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-0.46	4.47
5.725-5.85GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	14.94	19.71
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	11.60	16.37
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	6.67	11.44

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



Result

Mode	Result	DG	PD	PD Limit	EIRP PD	EIRP PD Limit	Port 1	Port 2	Port 3	Port 4
		(dBi)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	5.11	11.27	17.00	16.38	23.00	5.78	5.78	5.45	4.94
5200MHz	Pass	5.11	16.30	17.00	21.41	23.00	10.80	10.97	10.10	10.13
5240MHz	Pass	5.11	15.94	17.00	21.05	23.00	10.34	10.51	9.89	9.70
5260MHz	Pass	5.21	10.20	11.00	15.41	17.00	4.23	4.38	4.61	4.47
5300MHz	Pass	5.21	10.41	11.00	15.62	17.00	4.30	4.58	4.52	4.94
5320MHz	Pass	5.21	10.23	11.00	15.44	17.00	4.03	4.32	4.63	4.60
5500MHz	Pass	4.93	10.30	11.00	15.23	17.00	4.47	4.73	4.34	4.38
5580MHz	Pass	4.93	10.16	11.00	15.09	17.00	4.44	4.32	4.36	4.29
5700MHz	Pass	4.93	8.68	11.00	13.61	17.00	2.73	2.59	2.94	3.07
5720MHz Straddle 5.47-5.725GHz	Pass	4.93	9.98	11.00	14.91	17.00	4.02	3.95	4.44	4.46
5720MHz Straddle 5.725-5.85GHz	Pass	4.77	8.43	30.00	13.20	36.00	2.35	2.62	3.02	2.73
5745MHz	Pass	4.77	14.85	30.00	19.62	36.00	8.75	8.97	9.14	9.19
5785MHz	Pass	4.77	14.94	30.00	19.71	36.00	8.88	9.07	9.21	9.26
5825MHz	Pass	4.77	13.91	30.00	18.68	36.00	7.92	8.17	7.97	8.25
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	5.11	7.19	17.00	12.30	23.00	1.61	1.67	1.08	0.99
5230MHz	Pass	5.11	12.56	17.00	17.67	23.00	7.13	6.91	6.27	6.59
5270MHz	Pass	5.21	7.04	11.00	12.25	17.00	1.36	1.56	1.25	1.10
5310MHz	Pass	5.21	7.20	11.00	12.41	17.00	1.38	1.56	1.25	1.35
5510MHz	Pass	4.93	7.30	11.00	12.23	17.00	1.72	1.71	1.67	1.23
5590MHz	Pass	4.93	7.46	11.00	12.39	17.00	1.59	1.40	1.82	1.46
5670MHz	Pass	4.93	7.82	11.00	12.75	17.00	2.33	1.73	1.94	2.10
5710MHz Straddle 5.47-5.725GHz	Pass	4.93	7.49	11.00	12.42	17.00	1.77	2.00	1.64	1.53
5710MHz Straddle 5.725-5.85GHz	Pass	4.77	5.65	30.00	10.42	36.00	-0.02	-0.43	-0.10	-0.21
5755MHz	Pass	4.77	11.57	30.00	16.34	36.00	5.53	5.73	5.78	5.97
5795MHz	Pass	4.77	11.60	30.00	16.37	36.00	5.60	5.81	5.80	6.10
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	5.11	2.87	17.00	7.98	23.00	-2.51	-2.58	-3.26	-3.54
5290MHz	Pass	5.21	4.57	11.00	9.78	17.00	-1.17	-1.00	-1.36	-1.54
5530MHz	Pass	4.93	4.21	11.00	9.14	17.00	-1.35	-1.53	-1.55	-2.02
5610MHz	Pass	4.93	4.51	11.00	9.44	17.00	-0.92	-1.57	-1.12	-1.55
5690MHz Straddle 5.47-5.725GHz	Pass	4.93	4.56	11.00	9.49	17.00	-0.98	-1.73	-1.23	-1.56
5690MHz Straddle 5.725-5.85GHz	Pass	4.77	2.37	30.00	7.14	36.00	-3.54	-3.53	-3.46	-3.48



Mode	Result	DG	PD	PD Limit	EIRP PD	EIRP PD Limit	Port 1	Port 2	Port 3	Port 4
		(dBi)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5775MHz	Pass	4.77	6.67	30.00	11.44	36.00	1.03	1.14	0.62	1.29
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	5.11	0.61	17.00	5.72	23.00	-5.10	-5.12	-5.09	-5.73
5250MHz Straddle 5.25-5.35GHz	Pass	5.21	0.48	11.00	5.69	17.00	-5.25	-4.90	-5.42	-5.97
5570MHz	Pass	4.93	-0.46	11.00	4.47	17.00	-6.12	-6.06	-6.17	-6.35

DG = Directional Gain; RBW = 500kHz 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;

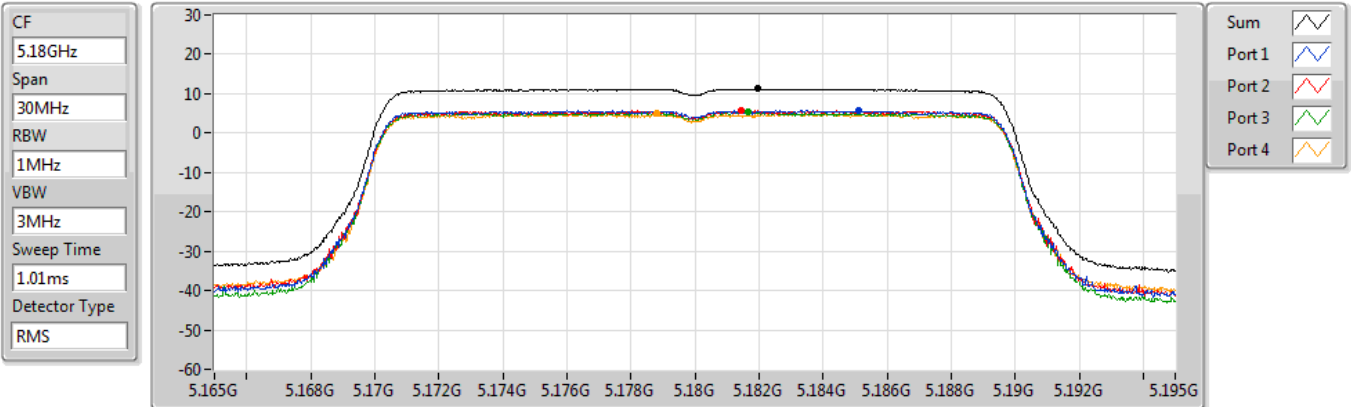
Directional gain is measured. Please refer to antenna test report.



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

PSD

#### 5180MHz

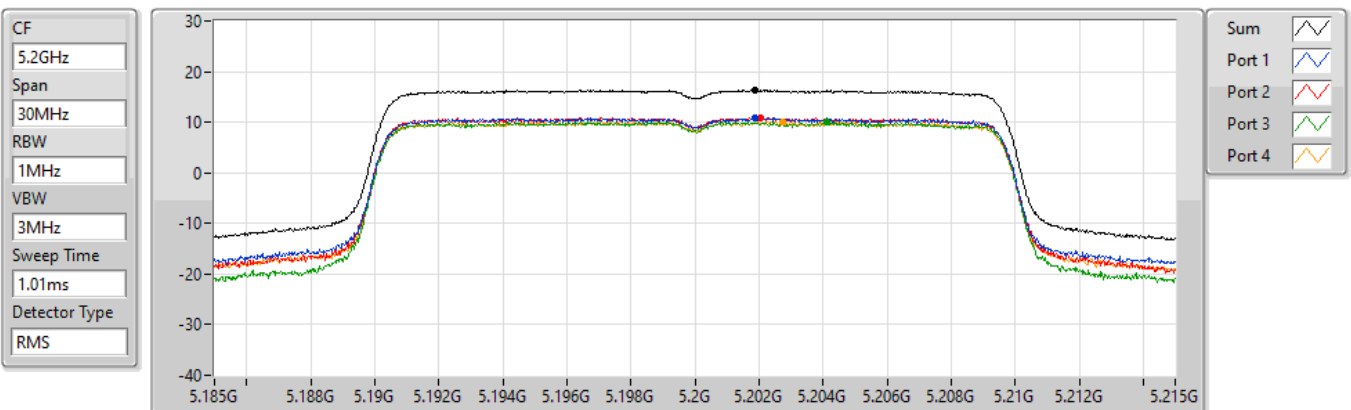


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.27	11.27	5.78	5.78	5.45	4.94

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

PSD

#### 5200MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
16.30	16.30	10.80	10.97	10.10	10.13



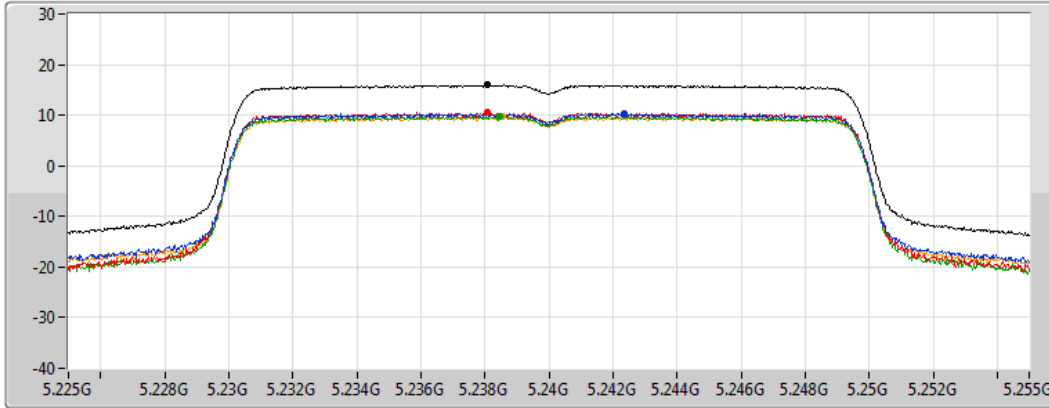


### 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

PSD

#### 5240MHz

CF  
5.24GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

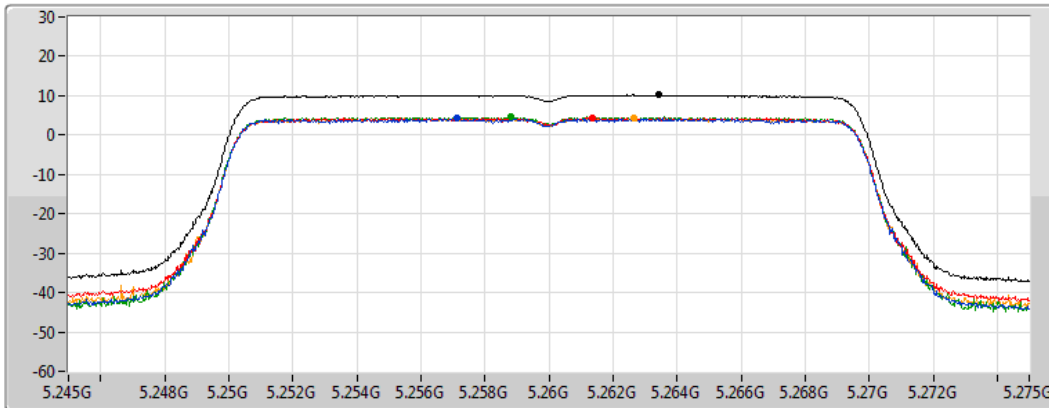
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.94	15.94	10.34	10.51	9.89	9.70

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

PSD

#### 5260MHz

CF  
5.26GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

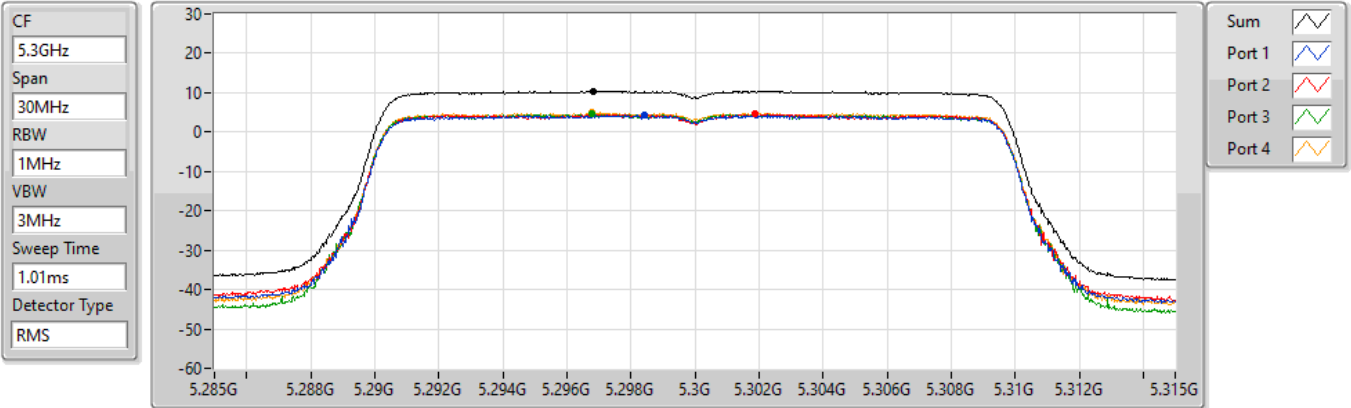
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.20	10.20	4.23	4.38	4.61	4.47



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

PSD

#### 5300MHz

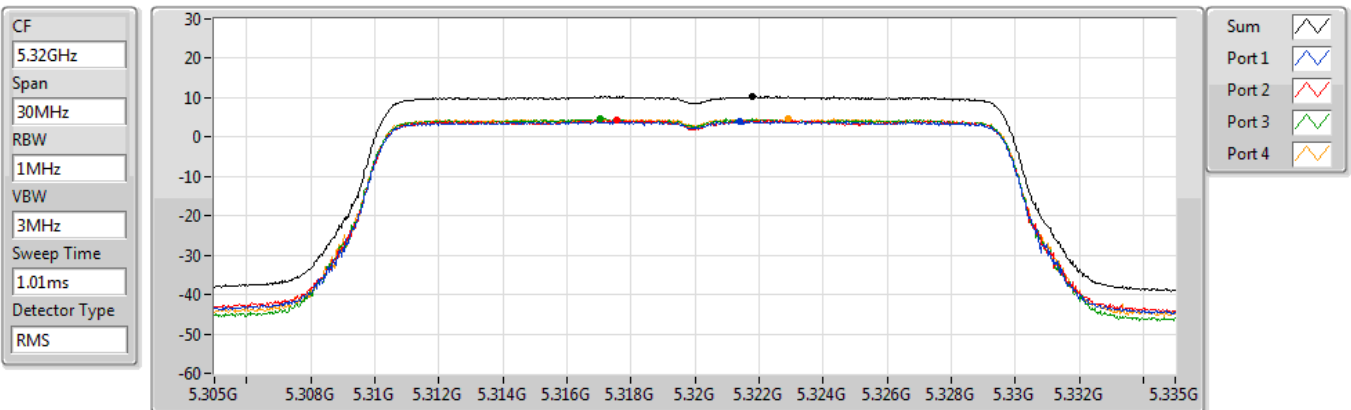


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.41	10.41	4.30	4.58	4.52	4.94

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

PSD

#### 5320MHz



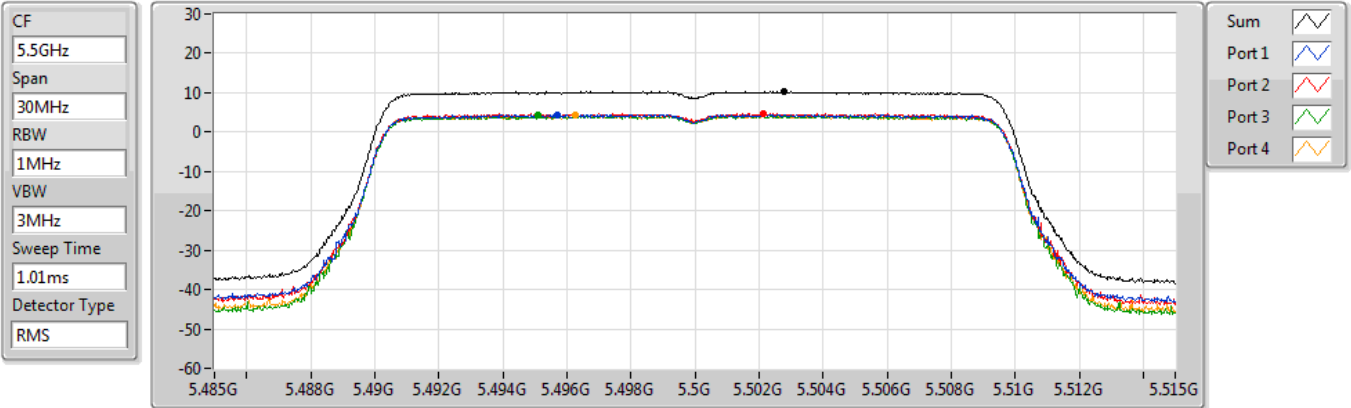
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.23	10.23	4.03	4.32	4.63	4.60



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

PSD

#### 5500MHz

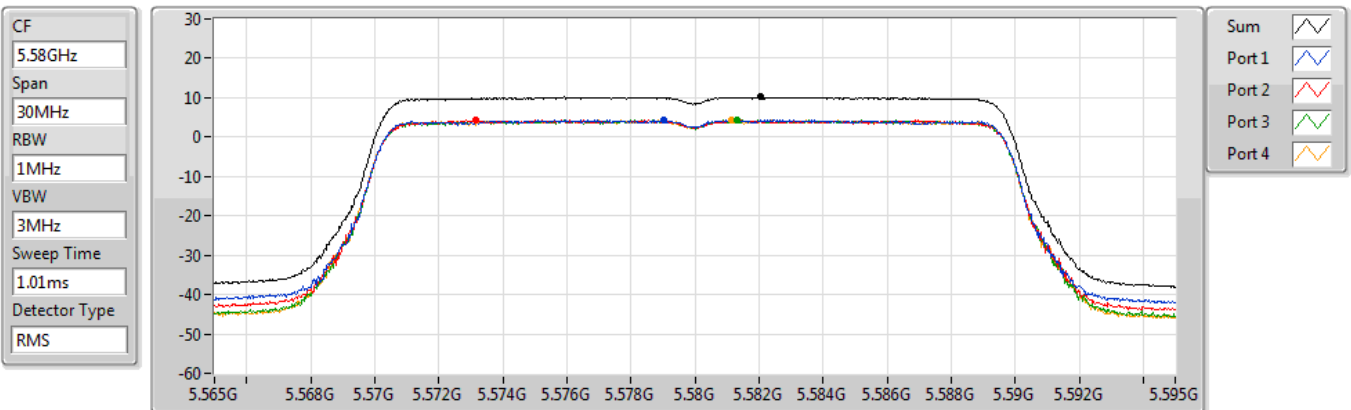


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.30	10.30	4.47	4.73	4.34	4.38

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

PSD

#### 5580MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.16	10.16	4.44	4.32	4.36	4.29

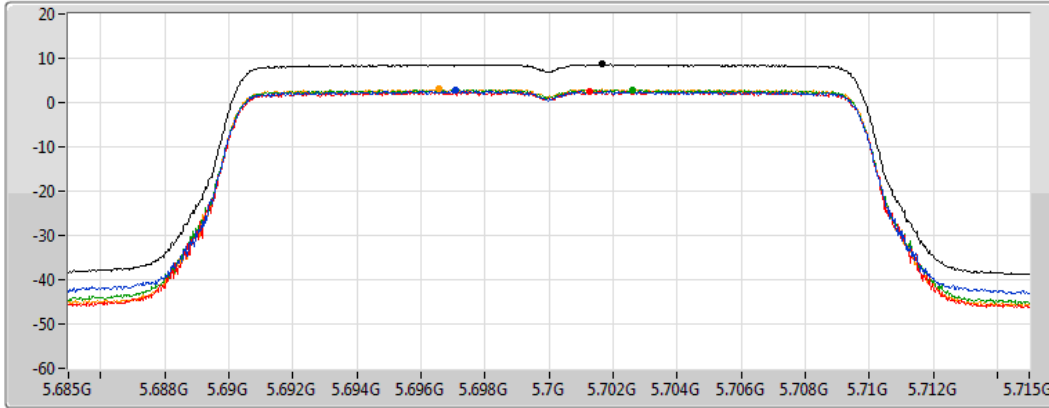


802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

PSD

5700MHz

CF  
5.7GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

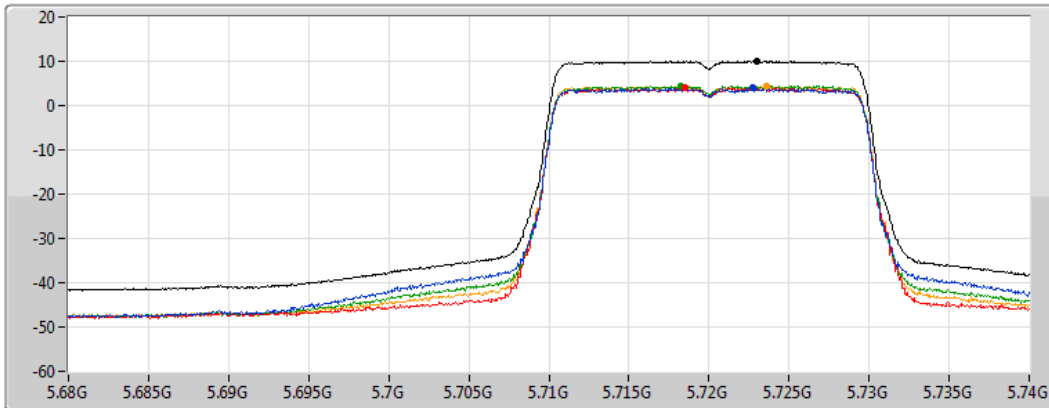
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.68	8.68	2.73	2.59	2.94	3.07

802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

PSD

5720MHz Straddle 5.47-5.725GHz

CF  
5.71GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

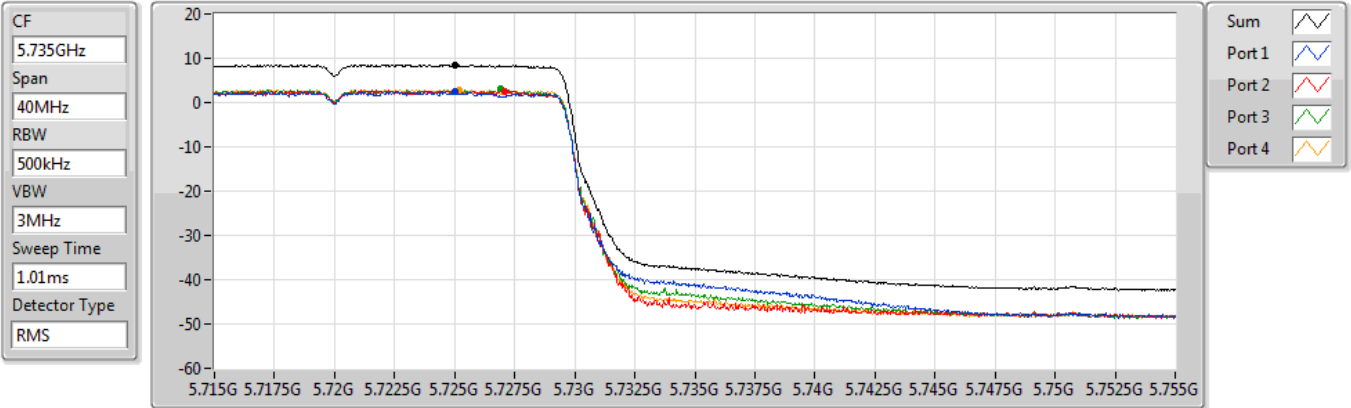
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.98	9.98	4.02	3.95	4.44	4.46



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

PSD

#### 5720MHz Straddle 5.725-5.85GHz

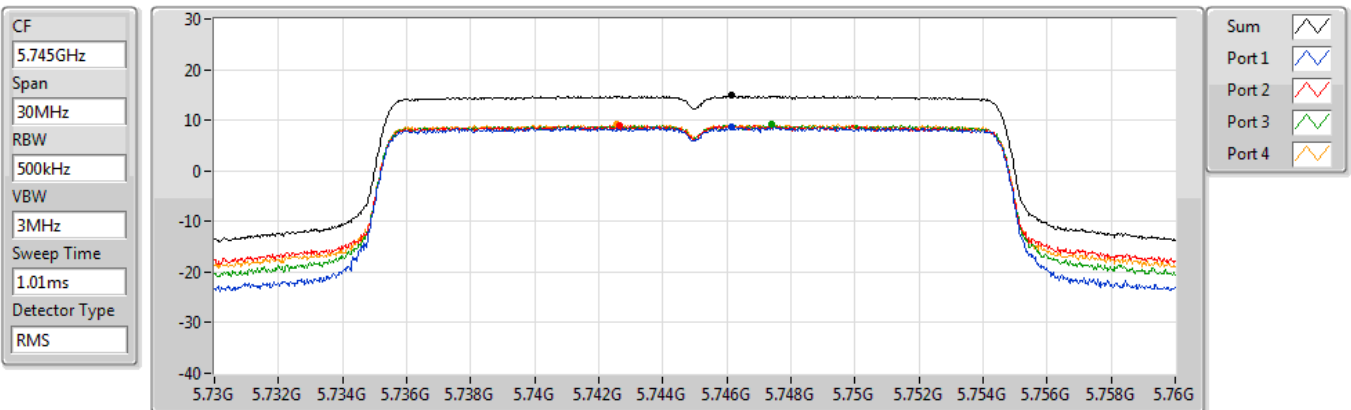


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.43	8.43	2.35	2.62	3.02	2.73

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

PSD

#### 5745MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.85	14.85	8.75	8.97	9.14	9.19

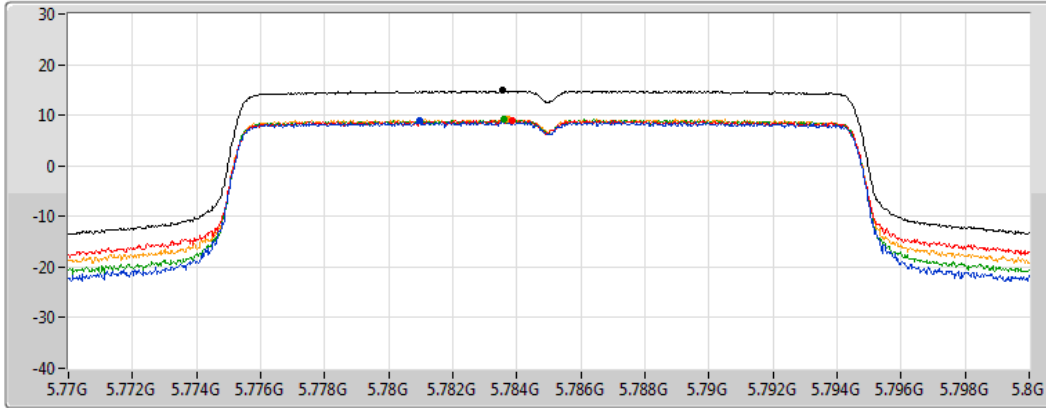


### 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

PSD

#### 5785MHz

CF  
5.785GHz  
Span  
30MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

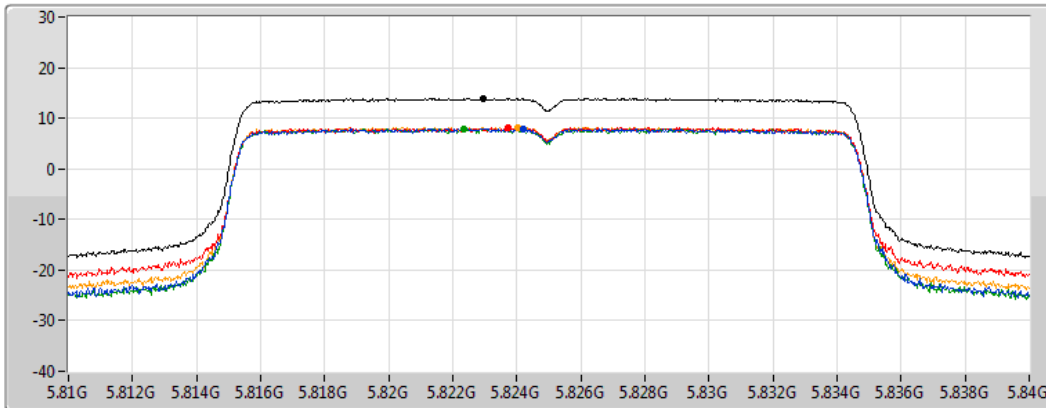
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.94	14.94	8.88	9.07	9.21	9.26

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

PSD

#### 5825MHz

CF  
5.825GHz  
Span  
30MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.91	13.91	7.92	8.17	7.97	8.25

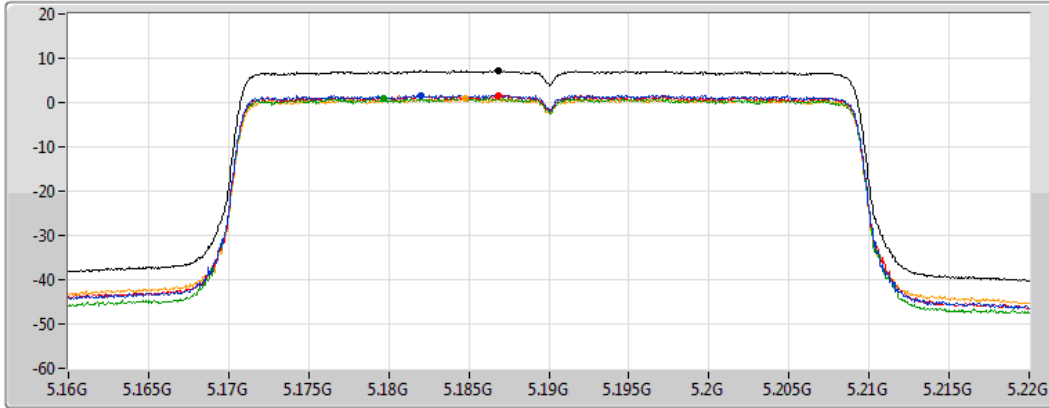


### 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

#### 5190MHz

CF  
5.19GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

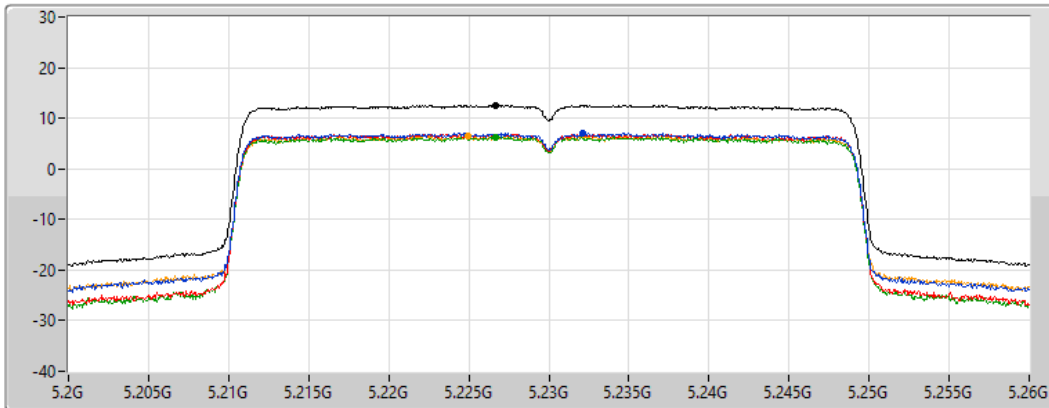
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.19	7.19	1.61	1.67	1.08	0.99

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

PSD

#### 5230MHz

CF  
5.23GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.56	12.56	7.13	6.91	6.27	6.59

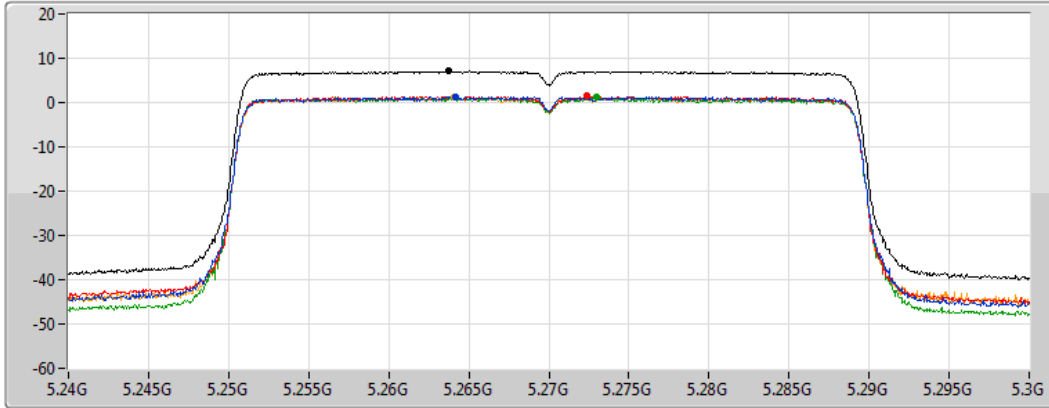


802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

5270MHz

CF  
5.27GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

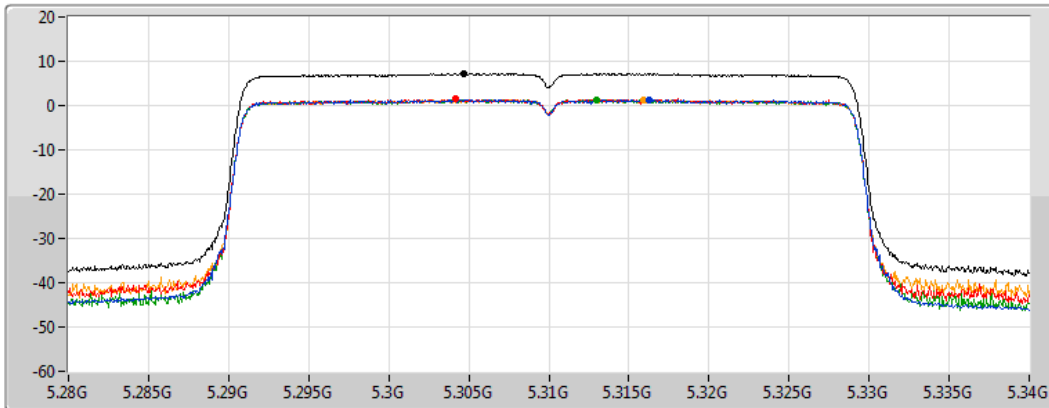
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.04	7.04	1.36	1.56	1.25	1.10

802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

5310MHz

CF  
5.31GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.20	7.20	1.38	1.56	1.25	1.35



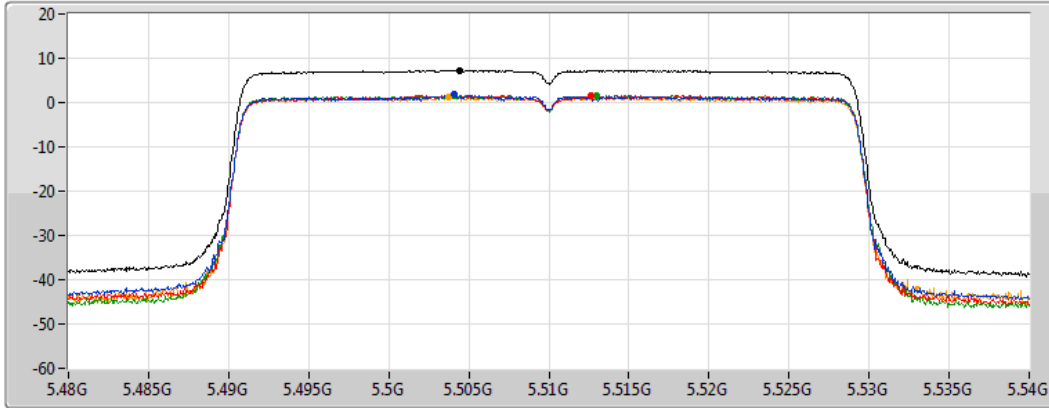


### 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

#### 5510MHz

CF  
5.51GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

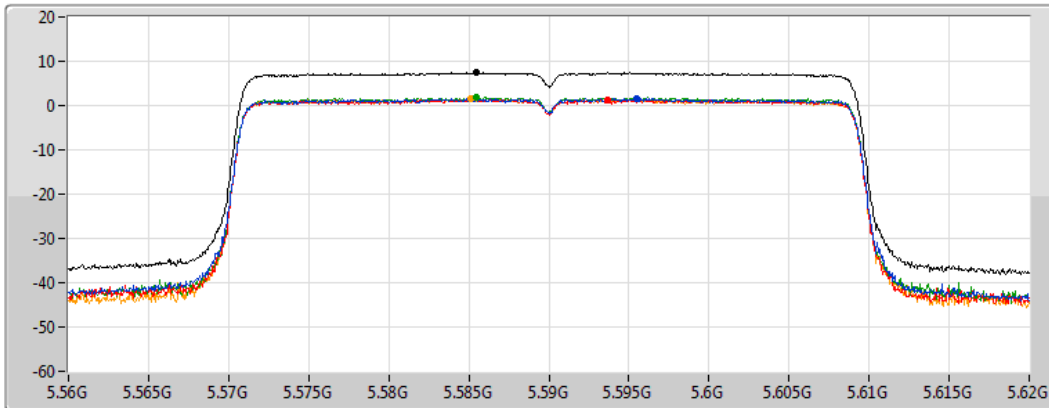
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.30	7.30	1.72	1.71	1.67	1.23

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

PSD

#### 5590MHz

CF  
5.59GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.46	7.46	1.59	1.40	1.82	1.46

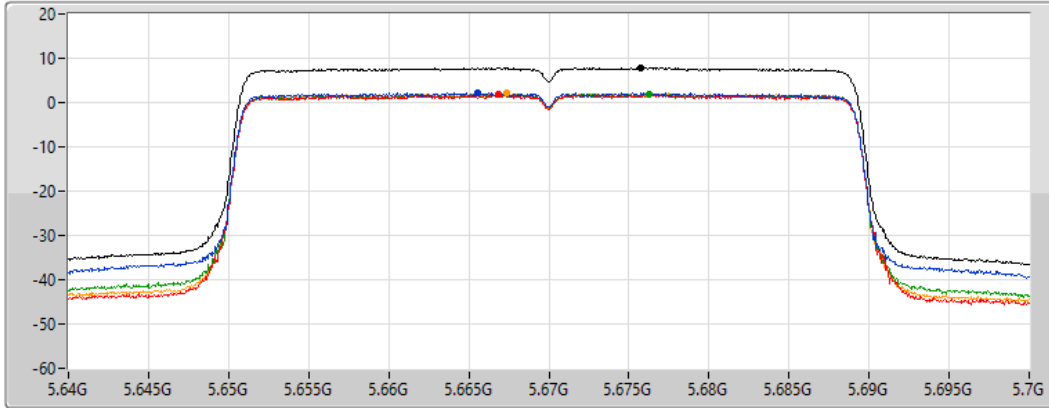


### 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

#### 5670MHz

CF  
5.67GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

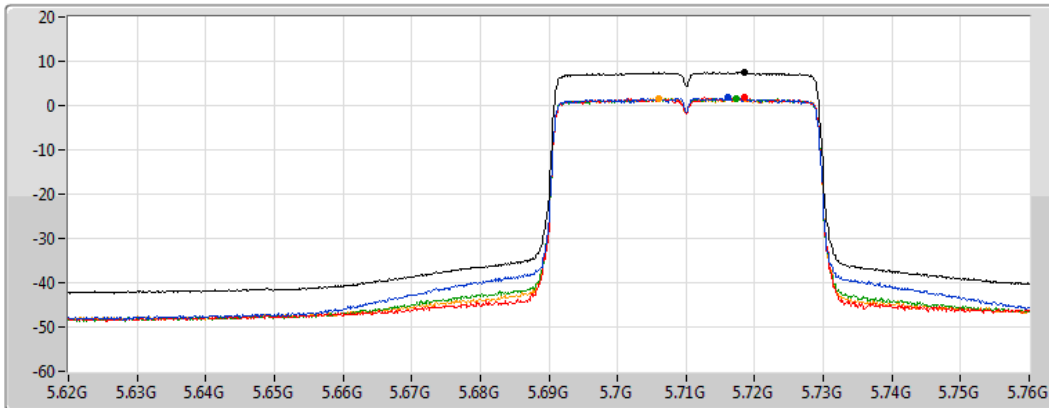
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.82	7.82	2.33	1.73	1.94	2.10

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

PSD

#### 5710MHz Straddle 5.47-5.725GHz

CF  
5.69GHz  
Span  
140MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

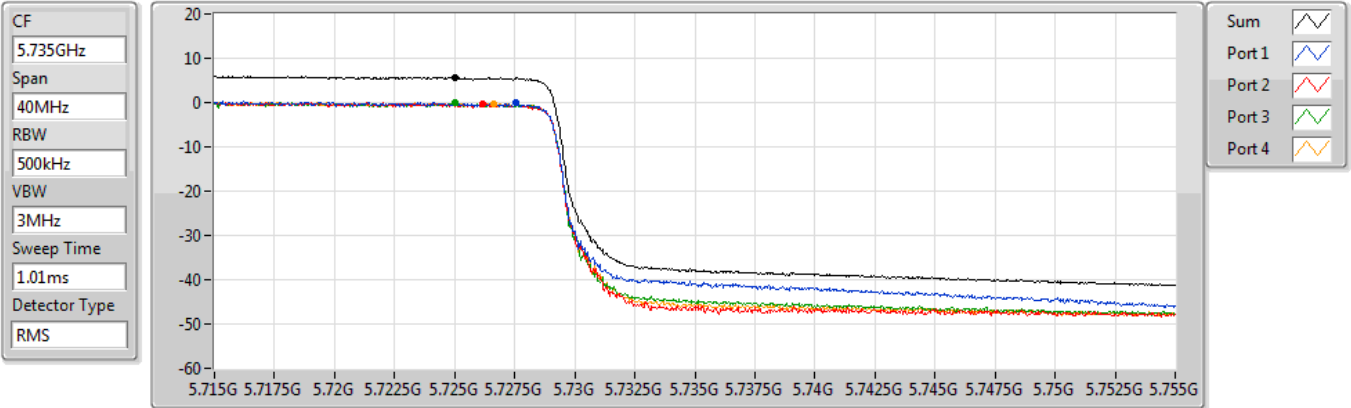
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.49	7.49	1.77	2.00	1.64	1.53



802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

5710MHz Straddle 5.725-5.85GHz

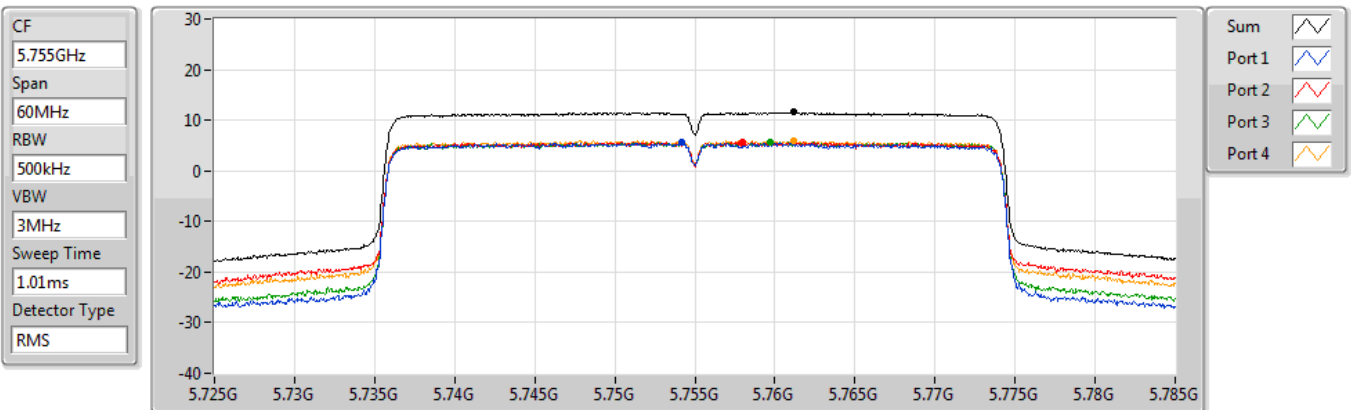


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.65	5.65	-0.02	-0.43	-0.10	-0.21

802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

5755MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.57	11.57	5.53	5.73	5.78	5.97

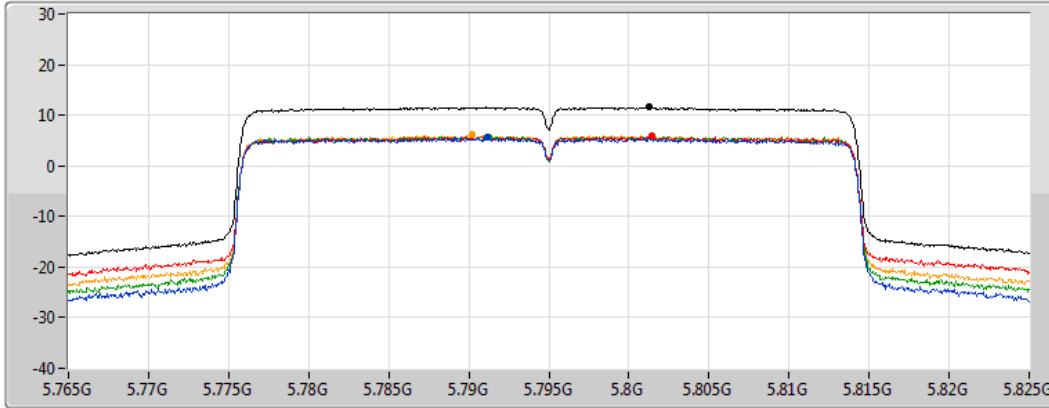


### 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

#### 5795MHz

CF  
5.795GHz  
Span  
60MHz  
RBW  
500kHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

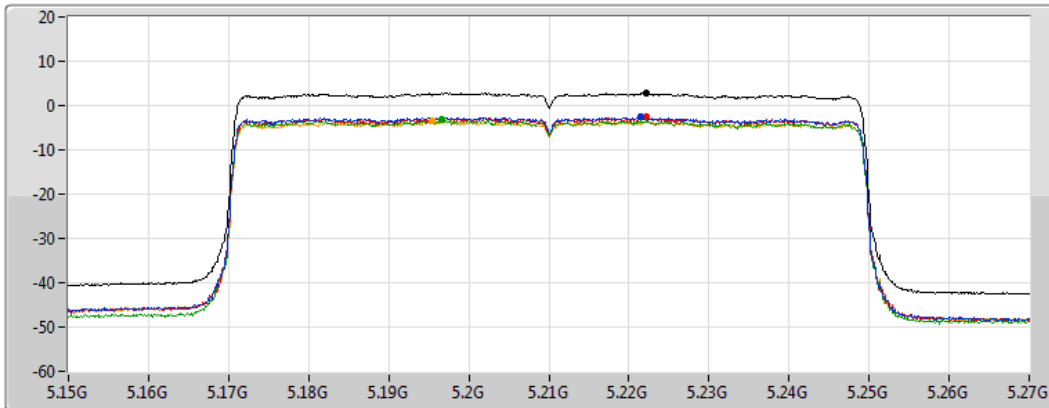
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.60	11.60	5.60	5.81	5.80	6.10

### 802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX

PSD

#### 5210MHz

CF  
5.21GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.87	2.87	-2.51	-2.58	-3.26	-3.54

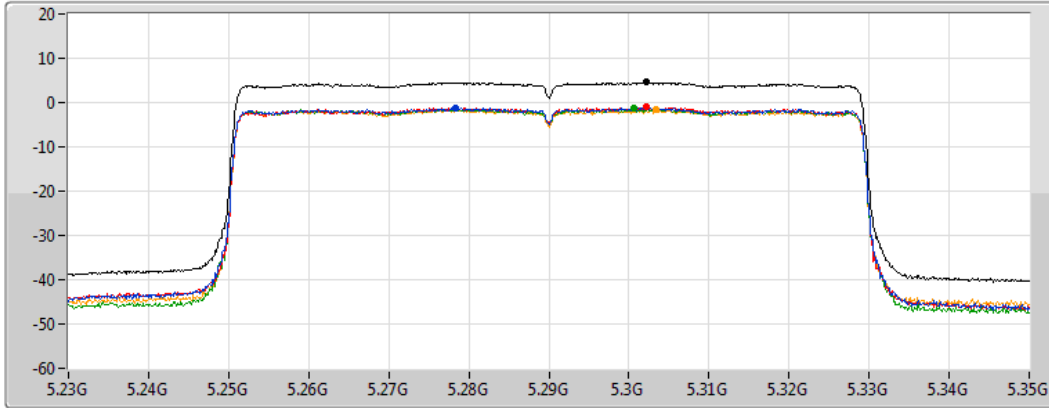


### 802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX

PSD

#### 5290MHz

CF  
5.29GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

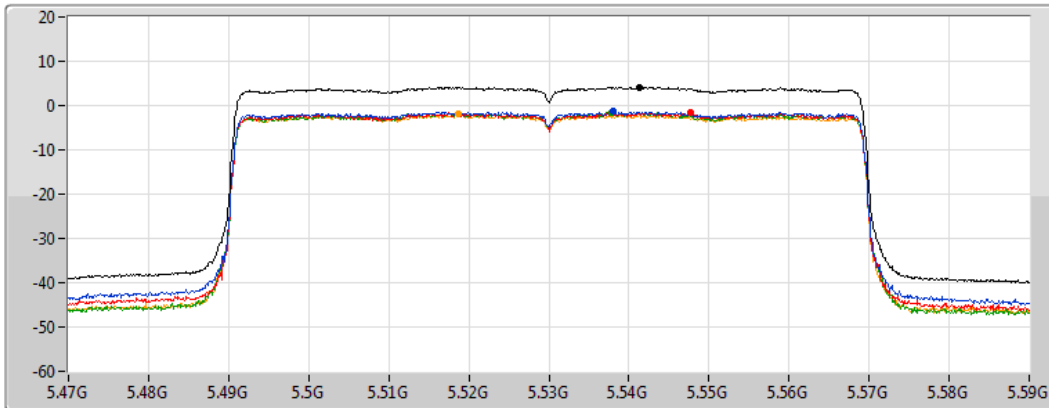
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.57	4.57	-1.17	-1.00	-1.36	-1.54

### 802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX

PSD

#### 5530MHz

CF  
5.53GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.21	4.21	-1.35	-1.53	-1.55	-2.02

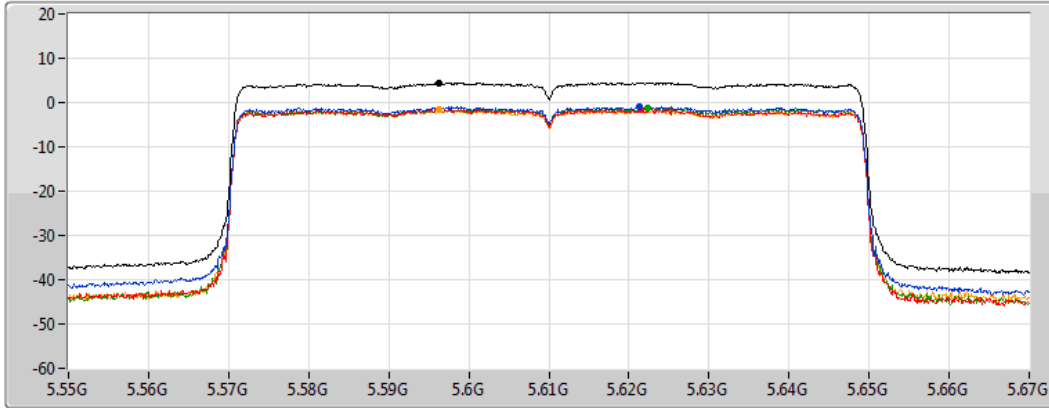


802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX

PSD

5610MHz

CF  
5.61GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

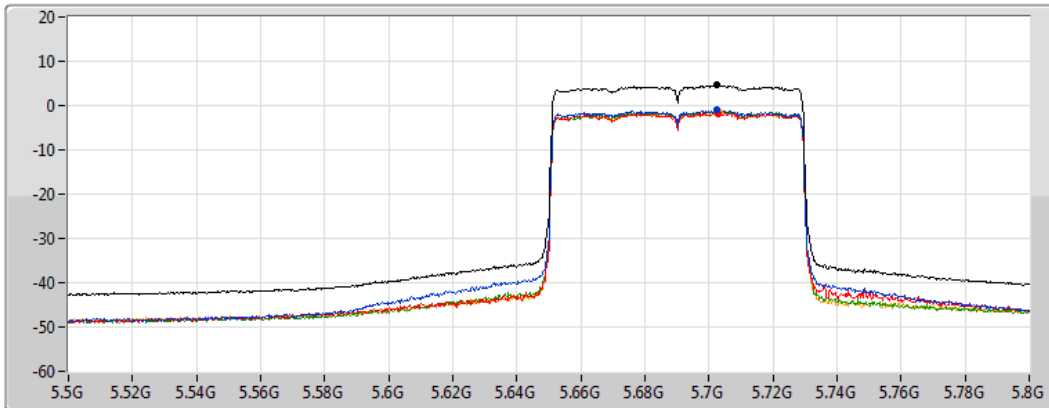
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.51	4.51	-0.92	-1.57	-1.12	-1.55

802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX

PSD

5690MHz Straddle 5.47-5.725GHz

CF  
5.65GHz  
Span  
300MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



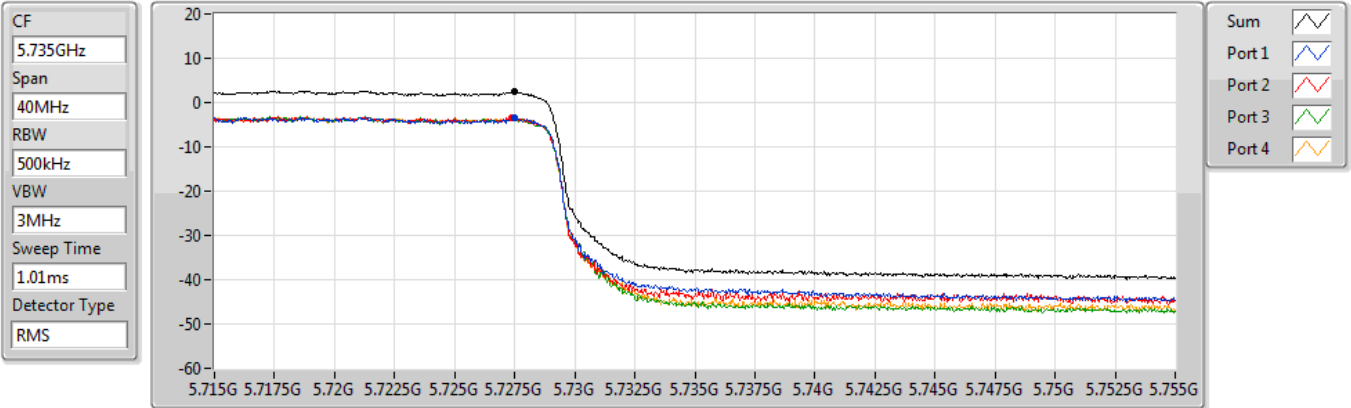
Sum  
Port 1  
Port 2  
Port 3  
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.56	4.56	-0.98	-1.73	-1.23	-1.56

**802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX**

PSD

**5690MHz Straddle 5.725-5.85GHz**

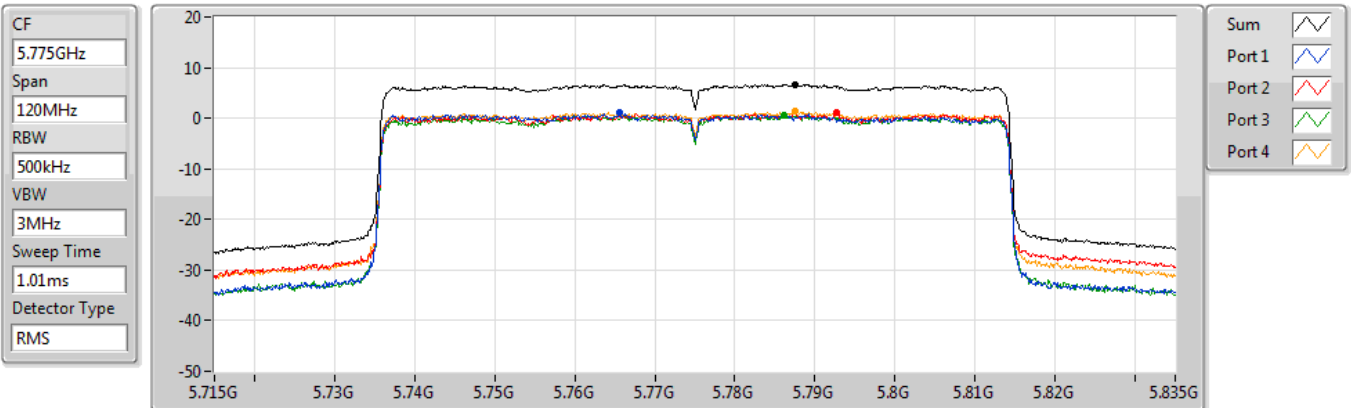


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.37	2.37	-3.54	-3.53	-3.46	-3.48

**802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX**

PSD

**5775MHz**



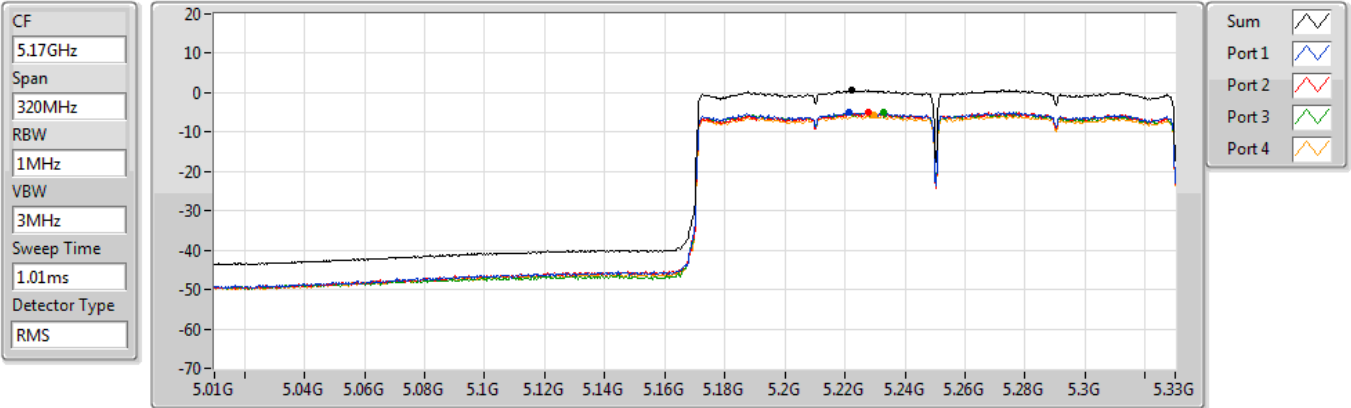
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.67	6.67	1.03	1.14	0.62	1.29



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

PSD

#### 5250MHz Straddle 5.15-5.25GHz

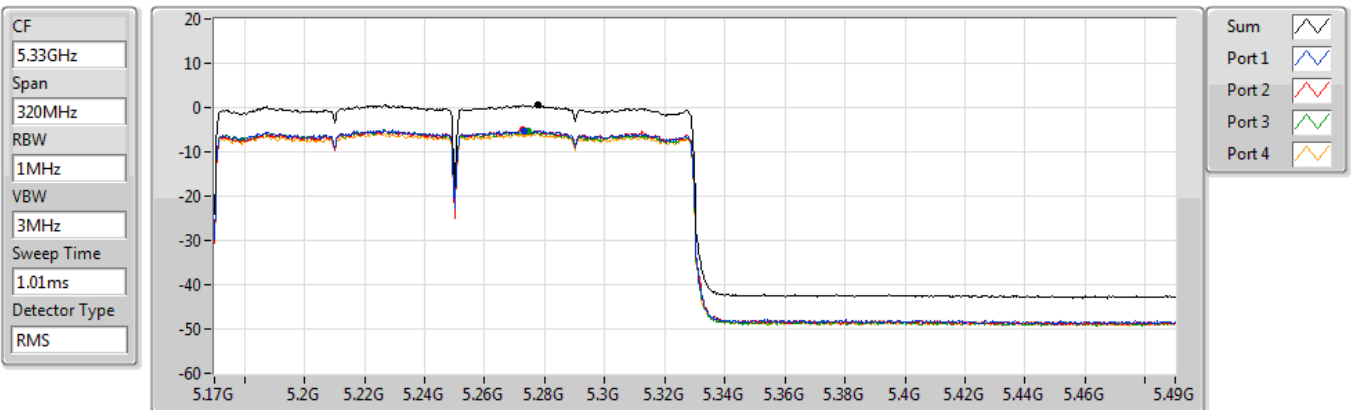


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.61	0.61	-5.10	-5.12	-5.09	-5.73

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

PSD

#### 5250MHz Straddle 5.25-5.35GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.48	0.48	-5.25	-4.90	-5.42	-5.97



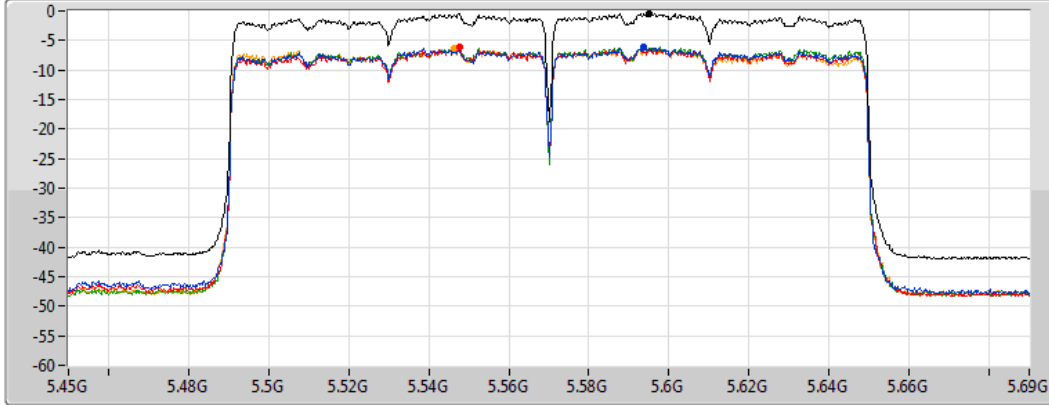


### 802.11ax HEW160-BF\_Nss1,(MCS0)\_4TX

PSD

5570MHz

CF  
5.57GHz  
Span  
240MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.46	-0.46	-6.12	-6.06	-6.17	-6.35

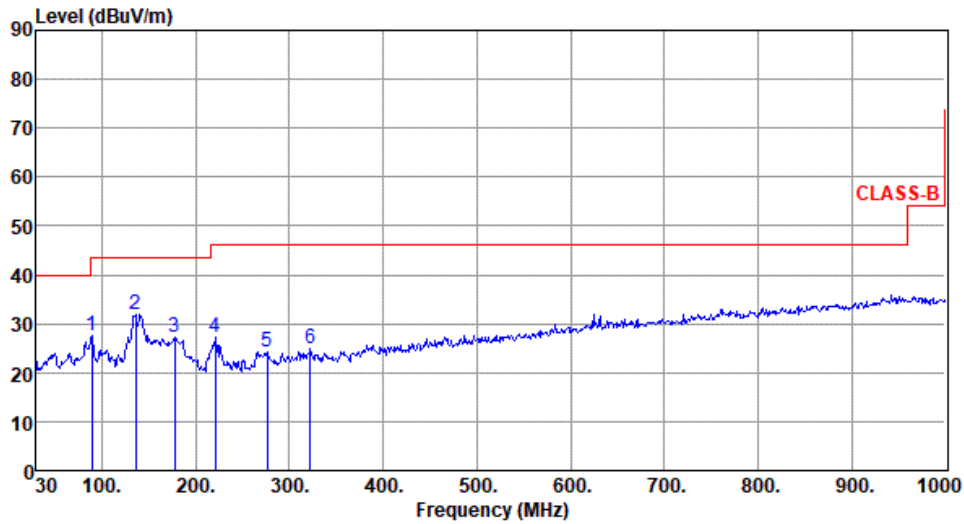


**Non-beamforming mode**

**Unwanted Emissions (Below 1GHz)**

<b>Modulation</b>	ax HE40-OFDMA	<b>Test Freq. (MHz)</b>	5230
<b>Polarization</b>	Horizontal		

Test By :Roger Lu-      Temperature(°C):24      Humidity(%):66



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	89.17	27.53	43.50	-15.97	42.26	-14.73	Peak	---	---
2	135.73	32.04	43.50	-11.46	41.75	-9.71	Peak	---	---
3	177.44	27.18	43.50	-16.32	37.34	-10.16	Peak	---	---
4	221.09	27.30	46.00	-18.70	39.32	-12.02	Peak	---	---
5	276.38	24.12	46.00	-21.88	32.90	-8.78	Peak	---	---
6	321.97	24.75	46.00	-21.25	32.30	-7.55	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

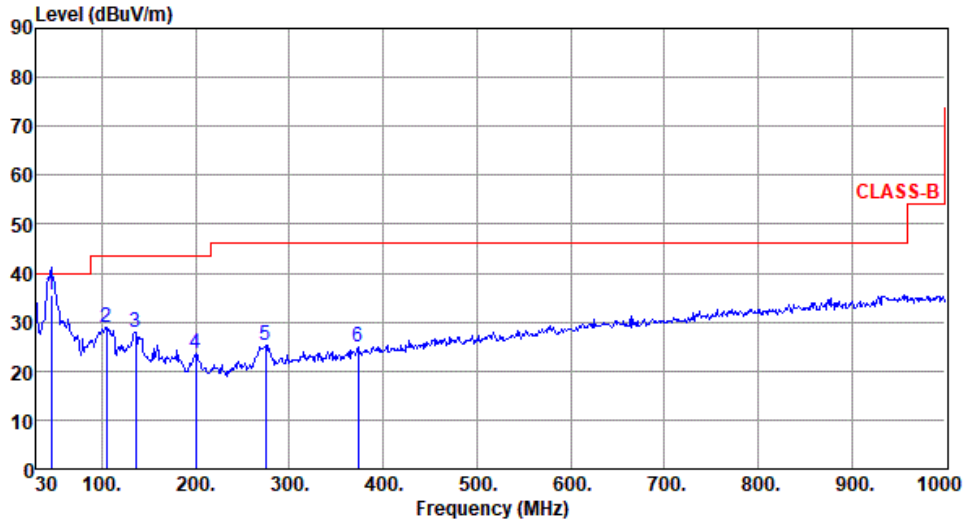
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



<b>Modulation</b>	ax HE40-OFDMA	<b>Test Freq. (MHz)</b>	5230
<b>Polarization</b>	Vertical		

Test By :Roger Lu-      Temperature(°C):24      Humidity(%):66



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	46.11	35.68	40.00	-4.32	43.91	-8.23	QP	100	183
2	104.69	29.03	43.50	-14.47	41.43	-12.40	Peak	---	---
3	135.73	27.93	43.50	-15.57	37.64	-9.71	Peak	---	---
4	199.75	23.58	43.50	-19.92	35.49	-11.91	Peak	---	---
5	274.44	25.35	46.00	-20.65	34.18	-8.83	Peak	---	---
6	373.38	24.94	46.00	-21.06	31.29	-6.35	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

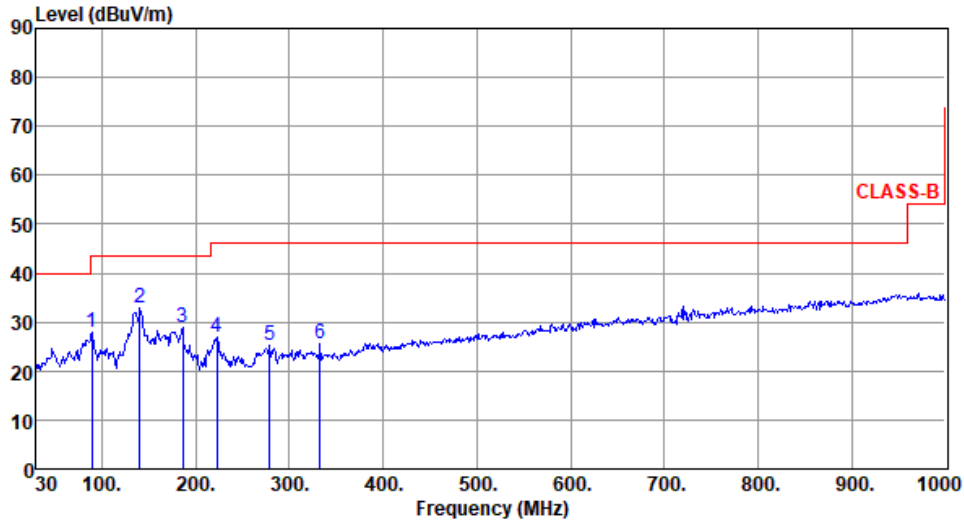
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5745
<b>Polarization</b>	Horizontal		

Test By :Roger Lu-      Temperature(°C):24      Humidity(%):66



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	89.17	27.94	43.50	-15.56	42.67	-14.73	Peak	---	---
2	140.58	32.79	43.50	-10.71	42.12	-9.33	Peak	---	---
3	186.17	28.93	43.50	-14.57	40.17	-11.24	Peak	---	---
4	223.03	26.94	46.00	-19.06	39.03	-12.09	Peak	---	---
5	279.29	25.15	46.00	-20.85	33.86	-8.71	Peak	---	---
6	332.64	25.53	46.00	-20.47	32.90	-7.37	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

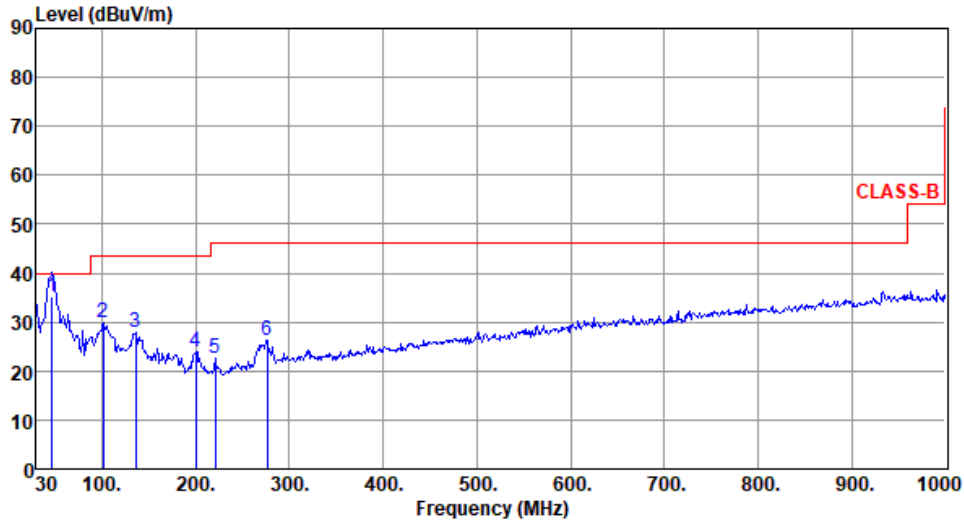
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		

Test By :Roger Lu-      Temperature(°C):24      Humidity(%):66



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	46.41	35.35	40.00	-4.65	43.67	-8.32	QP	100	177
2	101.78	29.86	43.50	-13.64	42.82	-12.96	Peak	---	---
3	135.73	27.74	43.50	-15.76	37.45	-9.71	Peak	---	---
4	199.75	23.88	43.50	-19.62	35.79	-11.91	Peak	---	---
5	221.09	22.56	46.00	-23.44	34.58	-12.02	Peak	---	---
6	276.38	26.29	46.00	-19.71	35.07	-8.78	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Unwanted Emissions (Above 1GHz) for 11a

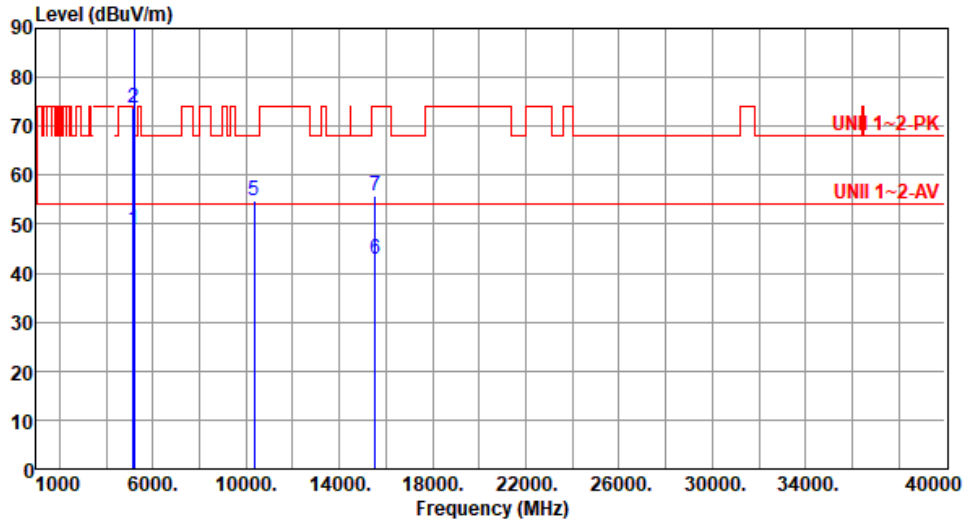
Modulation	11a	Test Freq. (MHz)	5180						
Polarization	Horizontal								
Test By : Roger Lu-      Temperature(°C):26      Humidity(%):61									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	49.44	54.00	-4.56	49.64	-0.20	Average	222	215
2	5150.00	69.52	74.00	-4.48	69.72	-0.20	Peak	222	215
3 *	5180.00	106.23			106.48	-0.25	Average	100	90
4 *	5180.00	115.88			116.13	-0.25	Peak	100	90
5	10360.00	54.05	68.20	-14.15	47.70	6.35	Peak	100	122
6	15540.00	43.10	54.00	-10.90	39.96	3.14	Average	100	47
7	15540.00	55.96	74.00	-18.04	52.82	3.14	Peak	100	47

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)  
 \*Factor includes antenna factor , cable loss and amplifier gain  
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).  
 Note 3: "\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		

Test By : Roger Lu-      Temperature(°C):26      Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	48.93	54.00	-5.07	49.13	-0.20	Average	230	152
2	5150.00	73.58	74.00	-0.42	73.78	-0.20	Peak	230	152
3 *	5180.00	105.17			105.42	-0.25	Average	100	188
4 *	5180.00	115.41			115.66	-0.25	Peak	100	188
5	10360.00	54.72	68.20	-13.48	48.37	6.35	Peak	100	20
6	15540.00	42.73	54.00	-11.27	39.59	3.14	Average	100	162
7	15540.00	55.87	74.00	-18.13	52.73	3.14	Peak	100	162

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

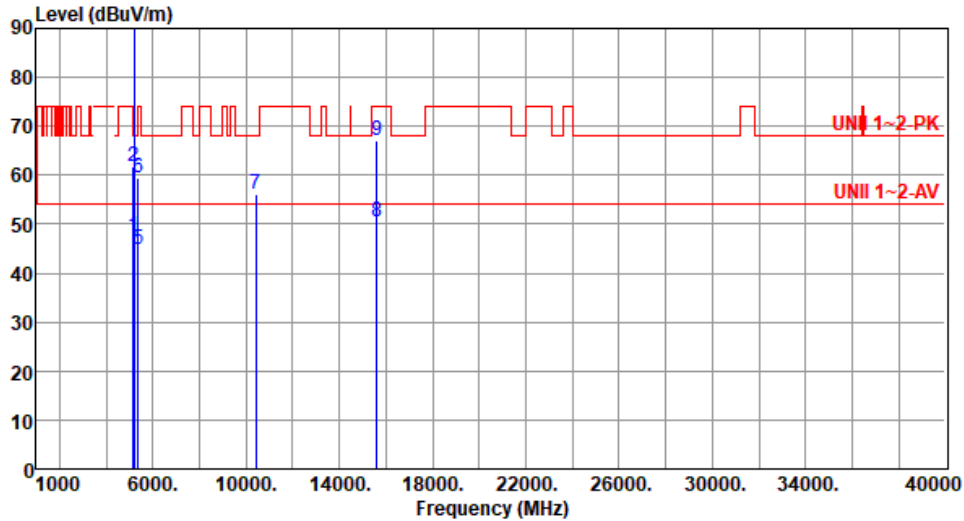
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		

Test By : Roger Lu-      Temperature(°C):26      Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	47.46	54.00	-6.54	47.66	-0.20	Average	100	86
2	5150.00	61.72	74.00	-12.28	61.92	-0.20	Peak	100	86
3 *	5200.00	110.03			110.32	-0.29	Average	100	86
4 *	5200.00	119.56			119.85	-0.29	Peak	100	86
5	5350.00	44.74	54.00	-9.26	45.59	-0.85	Average	100	86
6	5350.00	59.29	74.00	-14.71	60.14	-0.85	Peak	100	86
7	10400.00	56.26	68.20	-11.94	49.80	6.46	Peak	100	67
8	15600.00	50.51	54.00	-3.49	47.64	2.87	Average	215	103
9	15600.00	67.23	74.00	-6.77	64.36	2.87	Peak	215	103

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

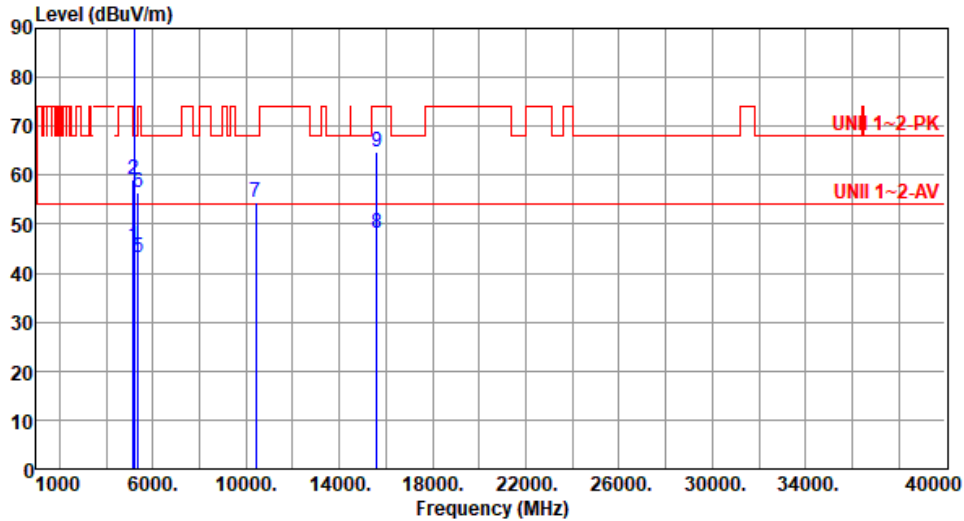
Note 3:"\*" is Peak / Average value of fundamental frequency





Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		

Test By : Roger Lu-      Temperature(°C):26      Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	45.61	54.00	-8.39	45.81	-0.20	Average	100	194
2	5150.00	59.13	74.00	-14.87	59.33	-0.20	Peak	100	194
3 *	5200.00	108.47			108.76	-0.29	Average	100	194
4 *	5200.00	118.31			118.60	-0.29	Peak	100	194
5	5350.00	43.26	54.00	-10.74	44.11	-0.85	Average	100	194
6	5350.00	56.59	74.00	-17.41	57.44	-0.85	Peak	100	194
7	10400.00	54.62	68.20	-13.58	48.16	6.46	Peak	100	126
8	15600.00	48.29	54.00	-5.71	45.42	2.87	Average	136	110
9	15600.00	64.61	74.00	-9.39	61.74	2.87	Peak	136	110

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

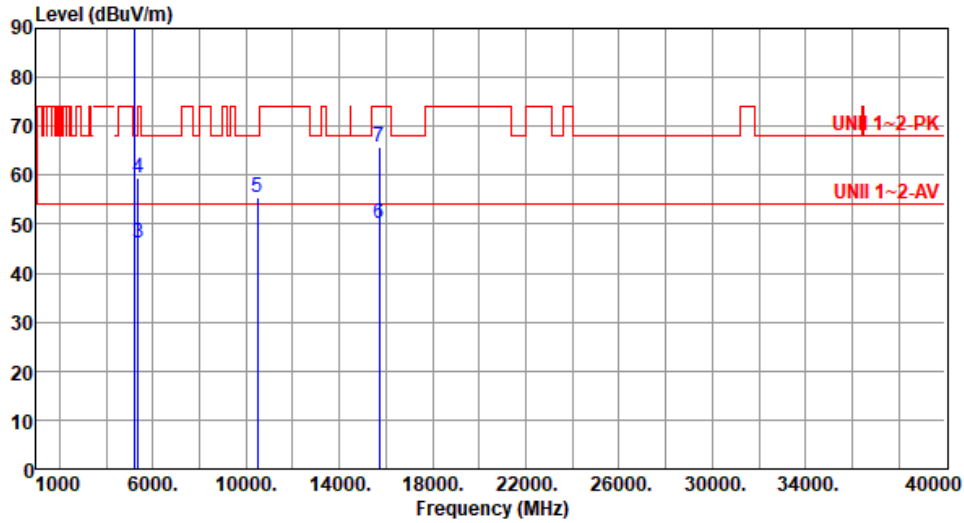
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	*	5240.00	110.68			111.20	-0.52	Average	100	88
2	*	5240.00	121.65			122.17	-0.52	Peak	100	88
3		5350.00	46.05	54.00	-7.95	46.90	-0.85	Average	100	88
4		5350.00	59.31	74.00	-14.69	60.16	-0.85	Peak	100	88
5		10480.00	55.36	68.20	-12.84	48.77	6.59	Peak	100	124
6		15720.00	50.07	54.00	-3.93	47.02	3.05	Average	219	108
7		15720.00	65.81	74.00	-8.19	62.76	3.05	Peak	219	108

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

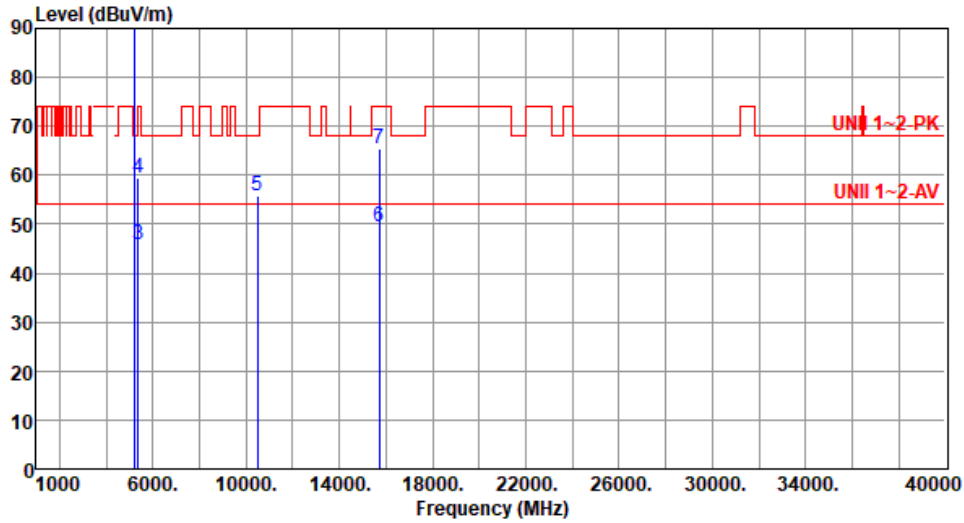
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1 *	5240.00	108.74			109.26	-0.52	Average	100	189
2 *	5240.00	119.24			119.76	-0.52	Peak	100	189
3	5350.00	45.93	54.00	-8.07	46.78	-0.85	Average	100	189
4	5350.00	59.28	74.00	-14.72	60.13	-0.85	Peak	100	189
5	10480.00	55.70	68.20	-12.50	49.11	6.59	Peak	100	128
6	15720.00	49.54	54.00	-4.46	46.49	3.05	Average	132	110
7	15720.00	65.38	74.00	-8.62	62.33	3.05	Peak	132	110

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

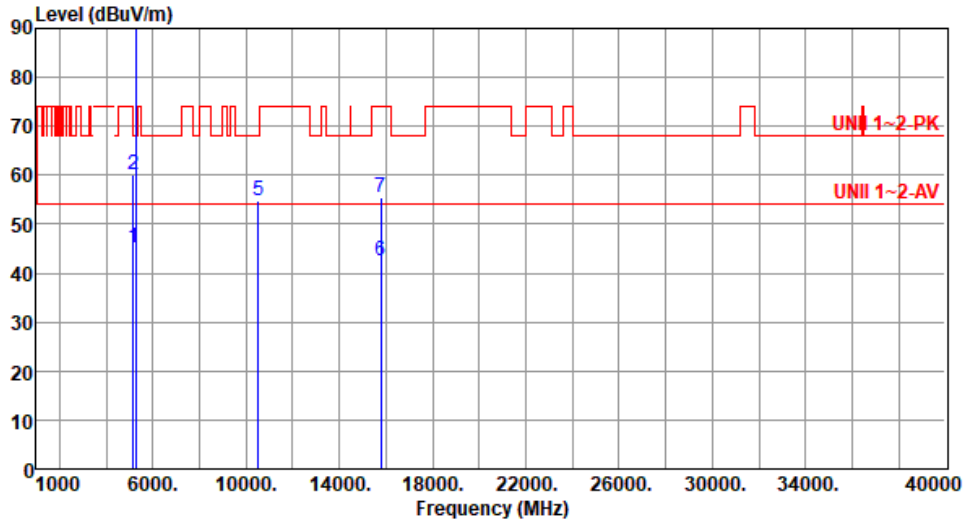
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	45.32	54.00	-8.68	45.52	-0.20	Average	100	88
2	5150.00	59.99	74.00	-14.01	60.19	-0.20	Peak	100	88
3 *	5260.00	105.54			106.13	-0.59	Average	100	88
4 *	5260.00	115.68			116.27	-0.59	Peak	100	88
5	10520.00	54.63	68.20	-13.57	48.02	6.61	Peak	100	45
6	15780.00	42.45	54.00	-11.55	39.30	3.15	Average	100	102
7	15780.00	55.62	74.00	-18.38	52.47	3.15	Peak	100	102

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

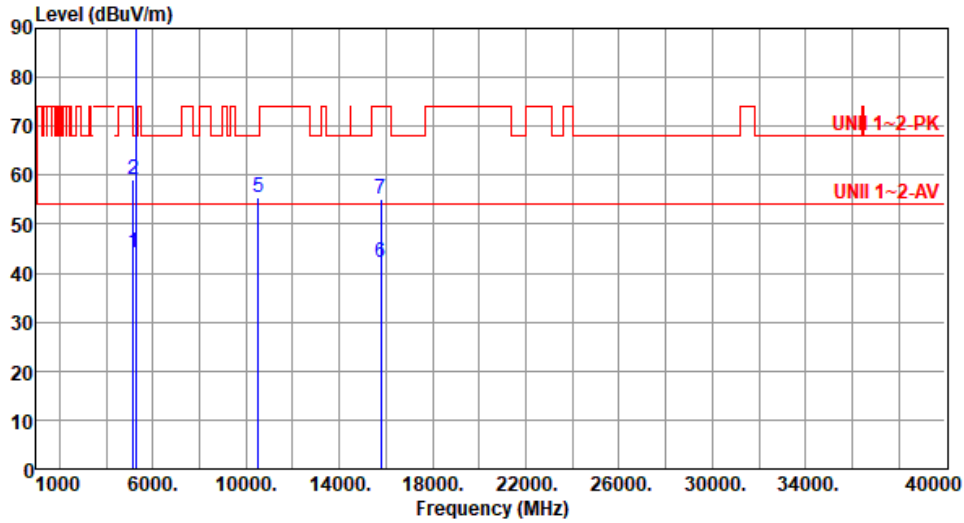
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	44.23	54.00	-9.77	44.43	-0.20	Average	100	191
2	5150.00	59.27	74.00	-14.73	59.47	-0.20	Peak	100	191
3 *	5260.00	103.44			104.03	-0.59	Average	100	191
4 *	5260.00	113.26			113.85	-0.59	Peak	100	191
5	10520.00	55.46	68.20	-12.74	48.85	6.61	Peak	100	36
6	15780.00	42.19	54.00	-11.81	39.04	3.15	Average	100	156
7	15780.00	55.11	74.00	-18.89	51.96	3.15	Peak	100	156

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

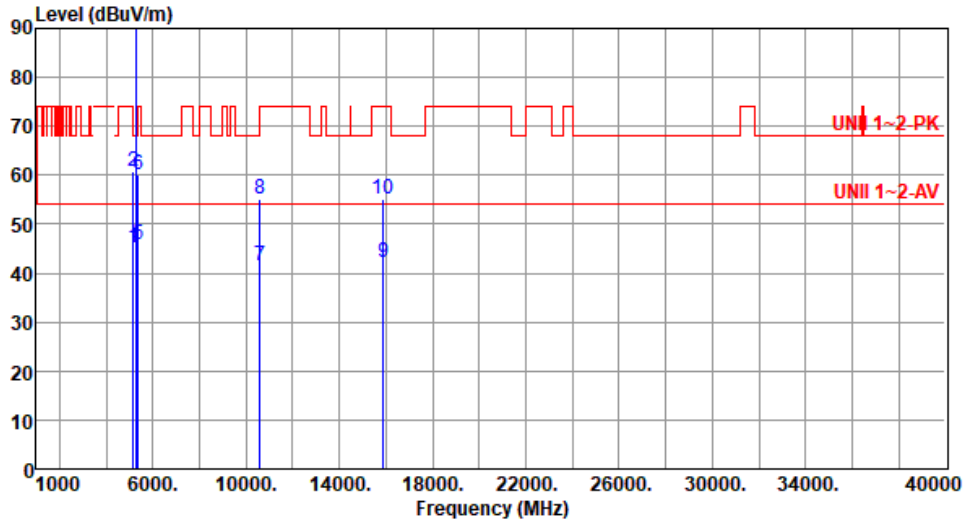
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal		

Test By :Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	45.04	54.00	-8.96	45.24	-0.20	Average	100	87
2	5150.00	60.88	74.00	-13.12	61.08	-0.20	Peak	100	87
3 *	5300.00	106.15			106.81	-0.66	Average	100	87
4 *	5300.00	116.21			116.87	-0.66	Peak	100	87
5	5350.00	45.93	54.00	-8.07	46.78	-0.85	Average	100	87
6	5350.00	60.27	74.00	-13.73	61.12	-0.85	Peak	100	87
7	10600.00	41.57	54.00	-12.43	35.08	6.49	Average	100	144
8	10600.00	55.16	74.00	-18.84	48.67	6.49	Peak	100	144
9	15900.00	42.21	54.00	-11.79	38.88	3.33	Average	100	126
10	15900.00	55.03	74.00	-18.97	51.70	3.33	Peak	100	126

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

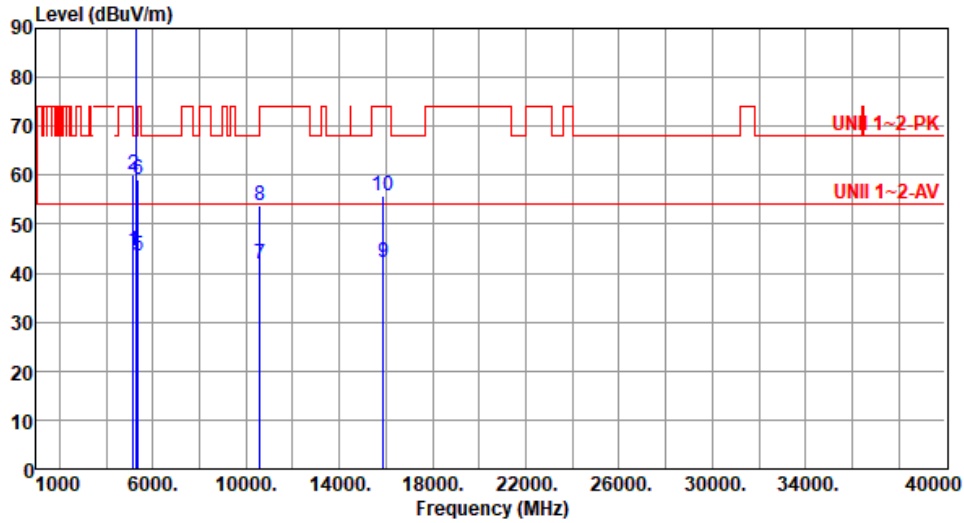
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	44.43	54.00	-9.57	44.63	-0.20	Average	100	188
2	5150.00	60.14	74.00	-13.86	60.34	-0.20	Peak	100	188
3 *	5300.00	103.06			103.72	-0.66	Average	100	188
4 *	5300.00	113.53			114.19	-0.66	Peak	100	188
5	5350.00	43.42	54.00	-10.58	44.27	-0.85	Average	100	188
6	5350.00	59.09	74.00	-14.91	59.94	-0.85	Peak	100	188
7	10600.00	41.80	54.00	-12.20	35.31	6.49	Average	100	121
8	10600.00	53.89	74.00	-20.11	47.40	6.49	Peak	100	121
9	15900.00	42.23	54.00	-11.77	38.90	3.33	Average	100	65
10	15900.00	55.63	74.00	-18.37	52.30	3.33	Peak	100	65

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

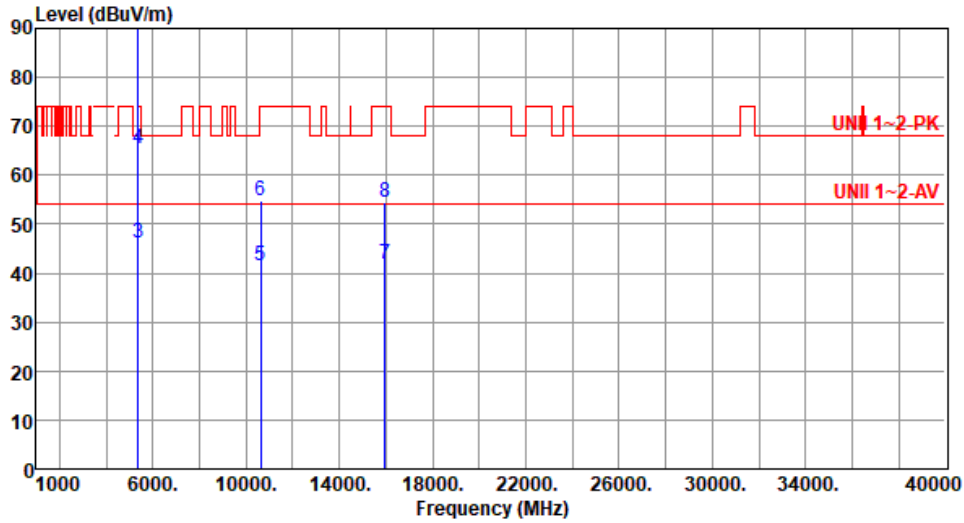
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1 *	5320.00	105.98			106.72	-0.74	Average	100	89
2 *	5320.00	116.51			117.25	-0.74	Peak	100	89
3	5350.00	46.26	54.00	-7.74	47.11	-0.85	Average	100	89
4	5350.00	65.41	74.00	-8.59	66.26	-0.85	Peak	100	89
5	10640.00	41.53	54.00	-12.47	35.02	6.51	Average	100	24
6	10640.00	54.66	74.00	-19.34	48.15	6.51	Peak	100	24
7	15960.00	41.92	54.00	-12.08	38.44	3.48	Average	100	128
8	15960.00	54.58	74.00	-19.42	51.10	3.48	Peak	100	128

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

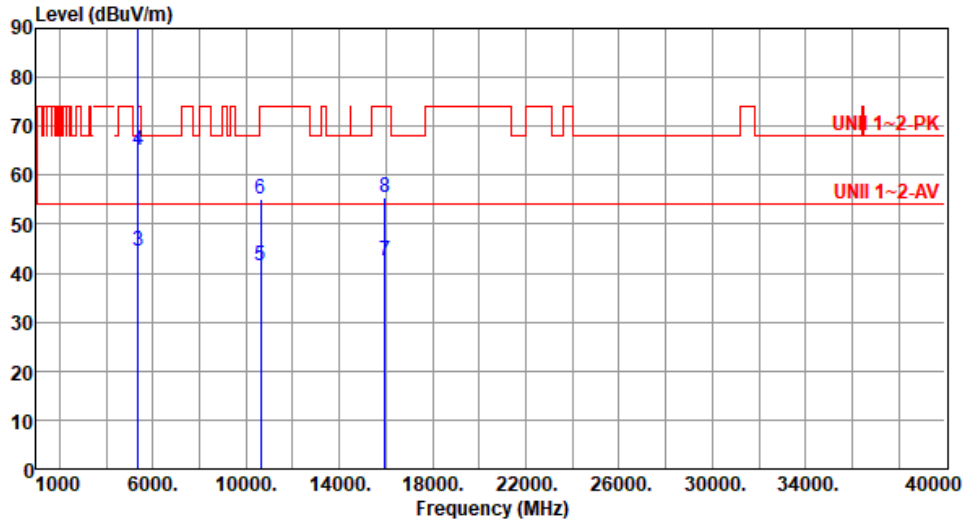
Note 3:"\*" is Peak / Average value of fundamental frequency





Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1 *	5320.00	102.36			103.10	-0.74	Average	100	190
2 *	5320.00	112.80			113.54	-0.74	Peak	100	190
3	5350.00	44.52	54.00	-9.48	45.37	-0.85	Average	270	160
4	5350.00	65.02	74.00	-8.98	65.87	-0.85	Peak	270	160
5	10640.00	41.49	54.00	-12.51	34.98	6.51	Average	100	106
6	10640.00	54.99	74.00	-19.01	48.48	6.51	Peak	100	106
7	15960.00	42.61	54.00	-11.39	39.13	3.48	Average	100	173
8	15960.00	55.31	74.00	-18.69	51.83	3.48	Peak	100	173

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

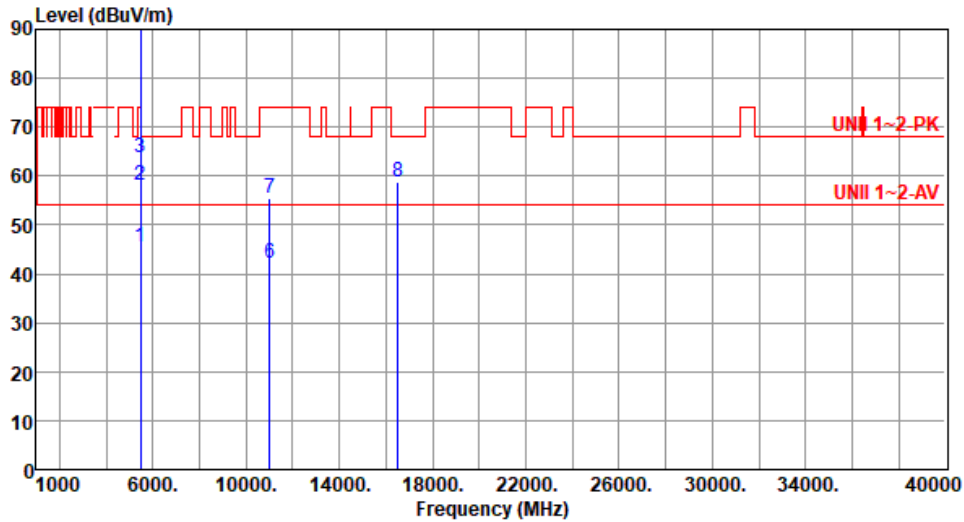
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5460.00	45.53	54.00	-8.47	46.15	-0.62	Average	100	90
2	5460.00	58.19	74.00	-15.81	58.81	-0.62	Peak	100	90
3	5470.00	63.61	68.20	-4.59	64.20	-0.59	Peak	100	90
4 *	5500.00	104.79			105.32	-0.53	Average	100	90
5 *	5500.00	115.30			115.83	-0.53	Peak	100	90
6	11000.00	42.15	54.00	-11.85	35.31	6.84	Average	100	76
7	11000.00	55.50	74.00	-18.50	48.66	6.84	Peak	100	76
8	16500.00	58.75	68.20	-9.45	52.81	5.94	Peak	100	231

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

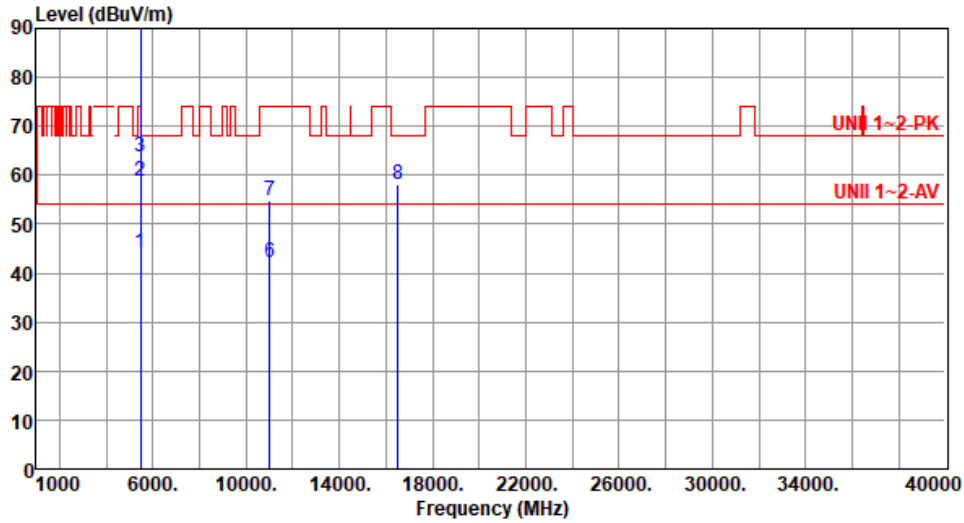
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: "\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5460.00	44.29	54.00	-9.71	44.91	-0.62	Average	178	117
2	5460.00	58.62	74.00	-15.38	59.24	-0.62	Peak	178	117
3	5470.00	63.63	68.20	-4.57	64.22	-0.59	Peak	178	117
4 *	5500.00	103.18			103.71	-0.53	Average	178	117
5 *	5500.00	113.69			114.22	-0.53	Peak	178	117
6	11000.00	42.14	54.00	-11.86	35.30	6.84	Average	100	31
7	11000.00	54.81	74.00	-19.19	47.97	6.84	Peak	100	31
8	16500.00	58.04	68.20	-10.16	52.10	5.94	Peak	100	58

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

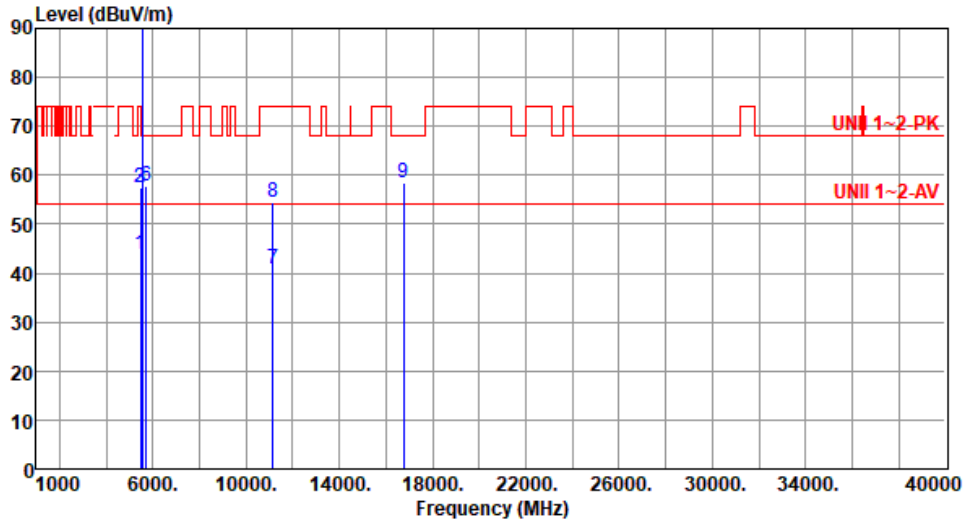
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5460.00	43.92	54.00	-10.08	44.54	-0.62	Average	100	92
2	5460.00	57.40	74.00	-16.60	58.02	-0.62	Peak	100	92
3	5470.00	57.47	68.20	-10.73	58.06	-0.59	Peak	100	92
4 *	5580.00	104.07			104.68	-0.61	Average	100	92
5 *	5580.00	114.29			114.90	-0.61	Peak	100	92
6	5725.00	57.89	68.20	-10.31	57.99	-0.10	Peak	100	92
7	11160.00	40.99	54.00	-13.01	34.87	6.12	Average	100	169
8	11160.00	54.48	74.00	-19.52	48.36	6.12	Peak	100	169
9	16740.00	58.45	68.20	-9.75	52.11	6.34	Peak	100	70

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

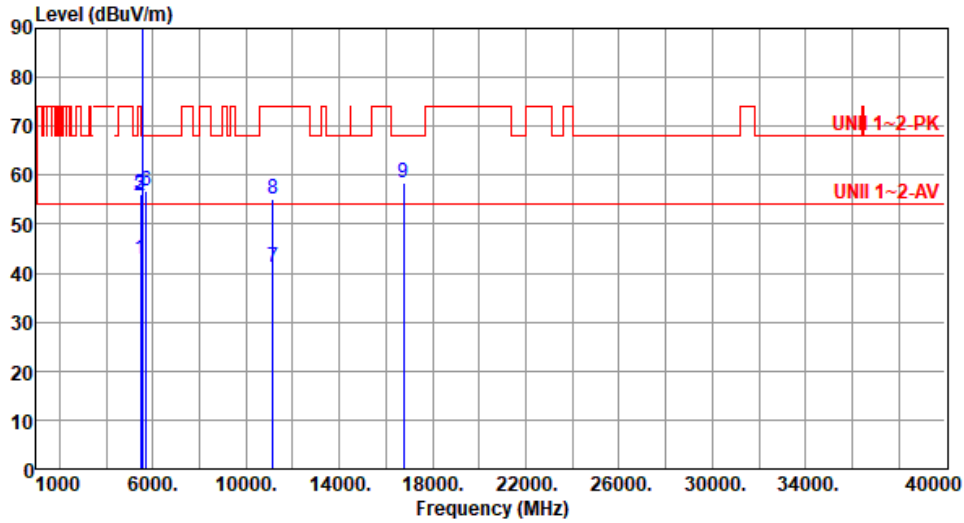
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5460.00	42.98	54.00	-11.02	43.60	-0.62	Average	163	117
2	5460.00	55.93	74.00	-18.07	56.55	-0.62	Peak	163	117
3	5470.00	56.14	68.20	-12.06	56.73	-0.59	Peak	163	117
4 *	5580.00	103.00			103.61	-0.61	Average	163	117
5 *	5580.00	113.09			113.70	-0.61	Peak	163	117
6	5725.00	56.92	68.20	-11.28	57.02	-0.10	Peak	163	117
7	11160.00	41.15	54.00	-12.85	35.03	6.12	Average	100	149
8	11160.00	55.20	74.00	-18.80	49.08	6.12	Peak	100	149
9	16740.00	58.42	68.20	-9.78	52.08	6.34	Peak	100	71

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

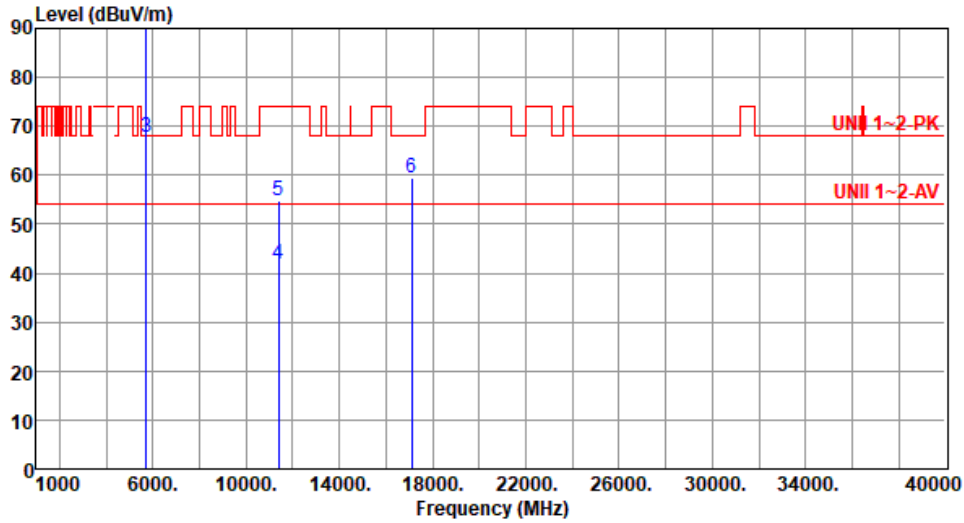
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency



Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		

Test By : Roger Lu-      Temperature(°C):25      Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1 *	5700.00	101.34			101.60	-0.26	Average	100	94
2 *	5700.00	111.80			112.06	-0.26	Peak	100	94
3	5725.00	67.73	68.20	-0.47	67.83	-0.10	Peak	100	94
4	11400.00	41.79	54.00	-12.21	35.55	6.24	Average	100	167
5	11400.00	54.71	74.00	-19.29	48.47	6.24	Peak	100	167
6	17100.00	59.33	68.20	-8.87	53.45	5.88	Peak	100	167

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"\*" is Peak / Average value of fundamental frequency