



RADIO TEST REPORT

FCC ID : TLZ-CB511
Equipment : IEEE 802.11 a/b/g/n/ac WLAN 2T2R with Bluetooth 5.0 Combo Module
Brand Name : AzureWave
Model Name : AW-CB511NF-BPF
Applicant : AzureWave Technologies, Inc.
8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231
Manufacturer : AzureWave Technologies, Inc.
8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231
Standard : 47 CFR FCC Part 15.407

The product was received on Sep. 03, 2021, and testing was started from Sep. 04, 2021 and completed on Dec. 06, 2021. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A12_1 Ver1.3



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Conducted Output Power	PASS	-
3.4	15.407(a)	Peak Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Declaration of Conformity:

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

Comments and Explanations:

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

Reviewed by: Sam Chen

Report Producer: Sandy Chuang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	1TX/2TX
5.15-5.25GHz	802.11n HT20	20	1TX/2TX
5.15-5.25GHz	802.11n HT20-BF	20	2TX
5.15-5.25GHz	802.11ac VHT20	20	1TX/2TX
5.15-5.25GHz	802.11ac VHT20-BF	20	2TX
5.15-5.25GHz	802.11n HT40	40	1TX/2TX
5.15-5.25GHz	802.11n HT40-BF	40	2TX
5.15-5.25GHz	802.11ac VHT40	40	1TX/2TX
5.15-5.25GHz	802.11ac VHT40-BF	40	2TX
5.15-5.25GHz	802.11ac VHT 80	80	1TX/2TX
5.15-5.25GHz	802.11ac VHT 80-BF	80	2TX
5.25-5.35GHz	802.11a	20	1TX/2TX
5.25-5.35GHz	802.11n HT20	20	1TX/2TX
5.25-5.35GHz	802.11n HT20-BF	20	2TX
5.25-5.35GHz	802.11ac VHT20-BF	20	2TX
5.25-5.35GHz	802.11ac VHT20	20	1TX/2TX



Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11ac VHT20-BF	20	2TX
5.25-5.35GHz	802.11n HT40	40	1TX/2TX
5.25-5.35GHz	802.11n HT40-BF	40	2TX
5.25-5.35GHz	802.11ac VHT40	40	1TX/2TX
5.25-5.35GHz	802.11ac VHT40-BF	40	2TX
5.25-5.35GHz	802.11ac VHT 80	80	1TX/2TX
5.25-5.35GHz	802.11ac VHT 80-BF	80	2TX
5.47-5.725GHz	802.11a	20	1TX/2TX
5.47-5.725GHz	802.11n HT20	20	1TX/2TX
5.47-5.725GHz	802.11n HT20-BF	20	2TX
5.47-5.725GHz	802.11ac VHT20	20	1TX/2TX
5.47-5.725GHz	802.11ac VHT20-BF	20	2TX
5.47-5.725GHz	802.11n HT40	40	1TX/2TX
5.47-5.725GHz	802.11n HT40-BF	40	2TX
5.47-5.725GHz	802.11ac VHT40	40	1TX/2TX
5.47-5.725GHz	802.11ac VHT40-BF	40	2TX
5.47-5.725GHz	802.11ac VHT 80	80	1TX/2TX
5.47-5.725GHz	802.11ac VHT 80-BF	80	2TX
5.725-5.85GHz	802.11a	20	1TX/2TX
5.725-5.85GHz	802.11n HT20	20	1TX/2TX
5.725-5.85GHz	802.11n HT20-BF	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	1TX/2TX
5.725-5.85GHz	802.11ac VHT20-BF	20	2TX
5.725-5.85GHz	802.11n HT40	40	1TX/2TX
5.725-5.85GHz	802.11n HT40-BF	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	1TX/2TX
5.725-5.85GHz	802.11ac VHT40-BF	40	2TX
5.725-5.85GHz	802.11ac VHT 80	80	1TX/2TX
5.725-5.85GHz	802.11ac VHT 80-BF	80	2TX

Note:

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

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Antenna Gain(dBi)		
						WLAN 2.4GHz	WLAN 5GHz	Bluetooth
1	1	NVIDIA	320-1929-000	PIFA	I-PEX MHF4-L	4.3	5.4	4.3
2	2	NVIDIA	320-1929-000	PIFA	I-PEX MHF4-L	4.3	5.4	-

Note 1: The above information was declared by manufacturer.

<WLAN 2.4GHz Function>

For IEEE 802.11b/g/n/VHT mode (1TX/2RX):

The EUT supports 1TX/2RX function, and it supports TX diversity function.

Both Port 1 and Port 2 could be used as transmitting antenna, but only one of them will be used at one time. Port 1 and Port 2 could receive simultaneously.

Both Port 1 and Port 2 are selected to test.

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

<WLAN 5GHz Function>

For IEEE 802.11a/n/ac mode (1TX/2RX):

The EUT supports 1TX/2RX function, and it supports TX diversity function.

Both Port 1 and Port 2 could be used as transmitting antenna, but only one of them will be used at one time. Port 1 and Port 2 could receive simultaneously.

Both Port 1 and Port 2 are selected to test.

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

<Bluetooth Function> (1TX/1RX)

Only Port 1 can be used as transmitting/receiving.

Note 2: Directional gain information

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max. gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right)^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right)^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right)^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} \xi_{j,k} \right)^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2))^2 / N_{ANT}] \Rightarrow 10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$$

Where ;

G1 = Ant 1 Gain ; G2 = Ant 2 Gain

2.4GHz DG = 7.31 dBi

5 GHz U-NII-1 DG = 8.41 dBi

5 GHz U-NII-2A DG = 8.41 dBi

5 GHz U-NII-2C DG = 8.41 dBi

5 GHz U-NII-3 DG = 8.41 dBi

1.1.3 Mode Test Duty Cycle

<Ant. 1> 1TX

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.94	0.27	1.429m	1k
802.11ac VHT20	0.925	0.34	1.344m	1k
802.11ac VHT40	0.875	0.58	668.5u	3k
802.11ac VHT80	0.749	1.26	332.25u	10k

<Ant. 2> 1TX

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.94	0.27	1.429m	1k
802.11ac VHT20	0.94	0.27	1.345m	1k
802.11ac VHT40	0.849	0.71	668.25u	3k
802.11ac VHT80	0.8	0.97	332.5u	10k

<Ant. 1 + Ant. 2> 2TX

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.94	0.27	1.429m	1k
802.11ac VHT20	0.925	0.34	1.344m	1k
802.11ac VHT40	0.875	0.58	668.5u	3k
802.11ac VHT80	0.799	0.97	332.25u	10k

Note:

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

**1.1.4 EUT Operational Condition**

EUT Power Type	From host system			
EUT Power	3.3V			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for n/VHT in 2.4GHz, n/ac in 5GHz.			
Weather Band	☒	With 5600~5650MHz	☐	Without 5600~5650MHz
Function	☐	Outdoor P2M	☐	Indoor P2M
	☐	Fixed P2P	☒	Client
TPC Function	☒	With TPC	☐	Without TPC
Test Software Version	Putty 0.62.0.0			

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT Type

EUT	Power IC Source	Brand Name	Model Name	Part No.	Location
1	Main	uPI	RE0108ADD6-18	XC6223H1819R-G	U11
2	Second	MicrOne	ME6211C18U4AG-N	RE0108ADD6-18WDFN-6L	

Note 1: EUT 1 has been evaluated as the worst EUT, so it was selected to test.

Note 2: The above information was declared by manufacturer.



1.2 Applicable Standards

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

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

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

- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	Lucas Haung	24~25.3 / 54~55	Sep. 07, 2021~ Dec. 06, 2021
Radiated <Below 1GHz>	10CH01-CB	Peter Wu	23~24 / 56~57	Sep. 07, 2021
Radiated <Above 1GHz>	03CH02-CB	Ken Yeh	24.3-25.4 / 55-58	Sep. 04, 2021~ Dec. 03, 2021
Radiated <Co-location>	03CH04-CB	Ken Yeh	23.9-26.1 / 55-58	Sep. 04, 2021~ Dec. 03, 2021
AC Conduction	CO01-CB	Ryo Fan	23~24 / 56~57	Sep. 07, 2021



1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%
Output Power Measurement	1.3 dB	Confidence levels of 95%
Power Density Measurement	2.5 dB	Confidence levels of 95%
Bandwidth Measurement	0.9%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

<Ant. 1> 1TX

Mode
802.11a_Nss1,(6Mbps)_1TX
5180MHz
5200MHz
5240MHz
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
5745MHz
5785MHz
5825MHz
802.11ac VHT20_Nss1,(MCS0)_1TX
5180MHz
5200MHz
5240MHz
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
5745MHz
5785MHz
5825MHz
802.11ac VHT40_Nss1,(MCS0)_1TX
5190MHz
5230MHz
5270MHz
5310MHz



Mode
5510MHz
5550MHz
5670MHz
5710MHz Straddle 5.47-5.725GHz
5710MHz Straddle 5.725-5.85GHz
5755MHz
5795MHz
802.11ac VHT80_Nss1,(MCS0)_1TX
5210MHz
5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
5775MHz

**<Ant. 2> 1TX**

Mode
802.11a_Nss1,(6Mbps)_1TX
5180MHz
5200MHz
5240MHz
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
5745MHz
5785MHz
5825MHz
802.11ac VHT20_Nss1,(MCS0)_1TX
5180MHz
5200MHz
5240MHz
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
5745MHz
5785MHz
5825MHz
802.11ac VHT40_Nss1,(MCS0)_1TX
5190MHz
5230MHz
5270MHz
5310MHz
5510MHz
5550MHz
5670MHz
5710MHz Straddle 5.47-5.725GHz



Mode
5710MHz Straddle 5.725-5.85GHz
5755MHz
5795MHz
802.11ac VHT80_Nss1,(MCS0)_1TX
5210MHz
5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
5775MHz

**<Ant. 1 + Ant. 2> 2TX
For Non-beamforming Mode**

Mode
802.11a_Nss1,(6Mbps)_2TX
5180MHz
5200MHz
5240MHz
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
5745MHz
5785MHz
5825MHz
802.11ac VHT20_Nss1,(MCS0)_2TX
5180MHz
5200MHz
5240MHz
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
5745MHz
5785MHz
5825MHz
802.11ac VHT40_Nss1,(MCS0)_2TX
5190MHz
5230MHz
5270MHz
5310MHz
5510MHz
5550MHz
5670MHz



Mode
5710MHz Straddle 5.47-5.725GHz
5710MHz Straddle 5.725-5.85GHz
5755MHz
5795MHz
802.11ac VHT80_Nss1,(MCS0)_2TX
5210MHz
5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
5775MHz

For Beamforming Mode

Mode
802.11ac VHT20-BF_Nss1,(MCS0)_2TX
5180MHz
5200MHz
5240MHz
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
5745MHz
5785MHz
5825MHz
802.11ac VHT40-BF_Nss1,(MCS0)_2TX
5190MHz
5230MHz
5270MHz
5310MHz
5510MHz
5550MHz
5670MHz
5710MHz Straddle 5.47-5.725GHz
5710MHz Straddle 5.725-5.85GHz



Mode
5755MHz
5795MHz
802.11ac VHT80-BF_Nss1,(MCS0)_2TX
5210MHz
5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
5775MHz

Note:

- ♦ Evaluated VHT20/VHT40/VHT80 mode only due to the similar modulation. The power setting of HT20/HT40 mode are the same or lower than VHT20/VHT40.
- ♦ The EUT supports non-beamforming and beamforming modes, after evaluating, the non-beamforming mode has been selected to execute all tests. The beamforming mode evaluates the output power only.

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	Normal Link
1	EUT 1 in Z axis + WLAN 2.4GHz + Bluetooth
2	EUT 1 in Z axis + WLAN 5GHz + Bluetooth
For operating mode 2 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density
Test Condition	Conducted measurement at transmit chains
1	EUT 1 <Ant. 1> 1TX
2	EUT 1 <Ant. 2> 1TX
3	EUT 1 <Ant. 1 + Ant. 2> 2TX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT 1 in Z axis + WLAN 2.4GHz + Bluetooth
2	EUT 1 in Z axis + WLAN 5GHz + Bluetooth
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 ~ 4 will follow this same test mode.	
3	EUT 1 in Y axis + WLAN 5GHz + Bluetooth
4	EUT 1 in X axis + WLAN 5GHz + Bluetooth
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at X axis, Y axis and Z axis position, and the worst case as below:	
1	EUT 1 in Y axis <Ant. 1> 1TX
2	EUT 1 in Y axis <Ant. 2> 1TX
3	EUT 1 in Z axis <Ant. 1 + Ant. 2> 2TX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
The EUT was performed at X axis, Y axis and Z axis position. EUT Z axis has been evaluated to be the worst case at Unwanted Emissions <Above 1GHz>; thus, the measurement will follow this same test configuration.	
1	EUT 1 in Z axis + WLAN 2.4GHz + Bluetooth
2	EUT 1 in Z axis + WLAN 5GHz + Bluetooth
For operating mode 1 is the worst case and it was record in this test report.	
Refer to Appendix F for Radiated Emission Co-location.	



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT 1 <2.4GHz + Bluetooth>
2	EUT 1 <5GHz + Bluetooth>
Refer to Sporton Test Report No.: FA170220 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link Mode:

During the test, the EUT operation to normal function.

2.4 Accessories

N/A



2.5 Support Equipment

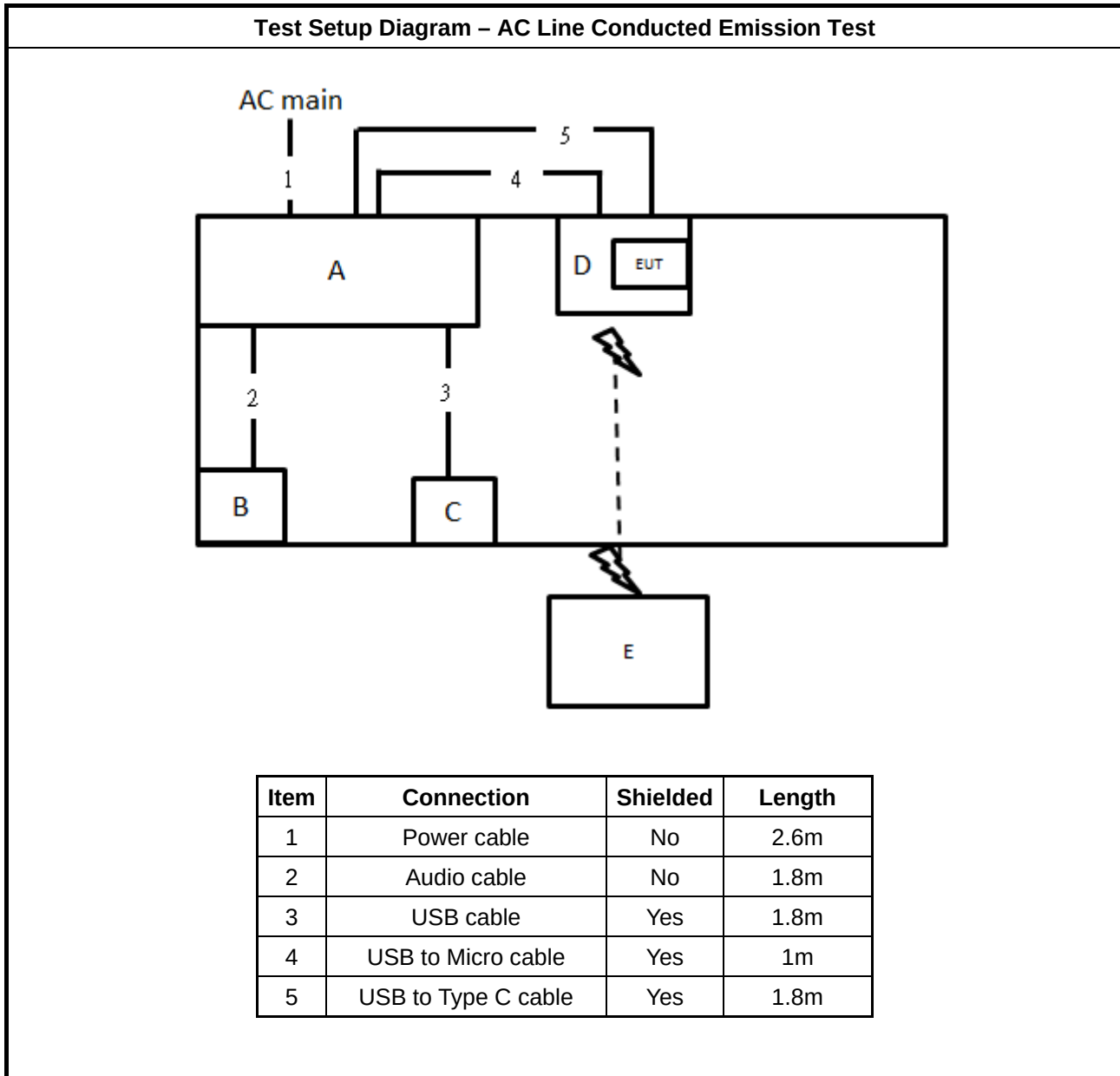
For AC Conduction and Radiated <below 1GHz>

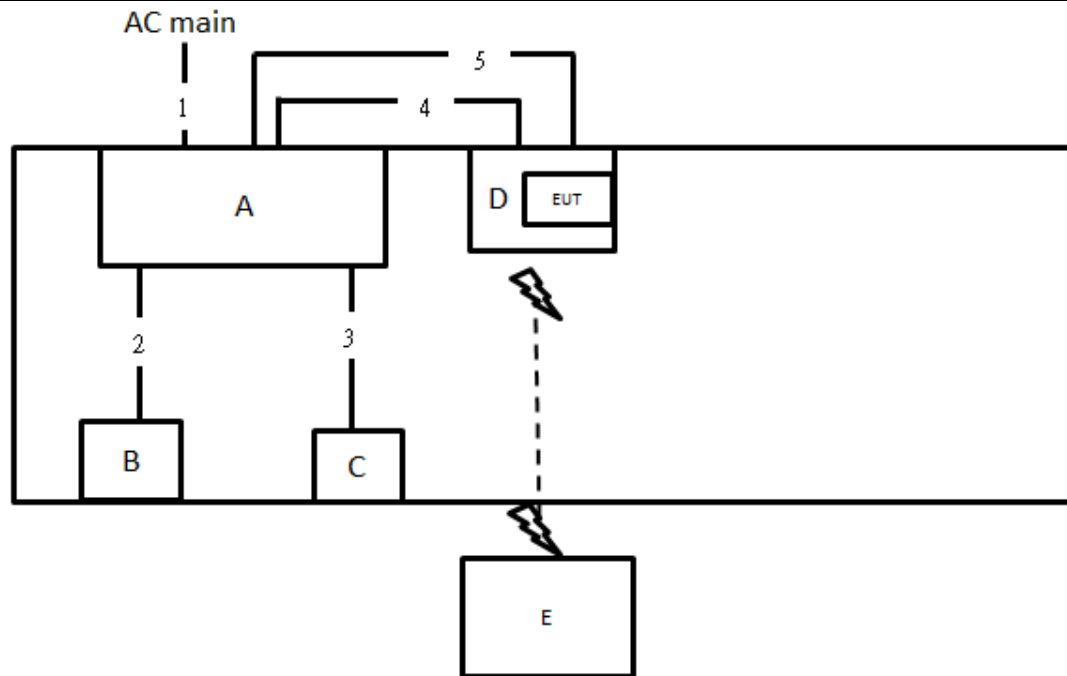
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E6430	N/A
B	Earphone	SHYARO CHI	MIC-04	N/A
C	Mouse	HP	FM100	N/A
D	Fixture	AzureWare	2460 I2	N/A
E	2.4G / 5G AP	ASUS	RP-N53	MSQ-RPN53

For Radiated <Above 1GHz> and RF Conducted

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Fixture	AzureWare	2460 I2	N/A

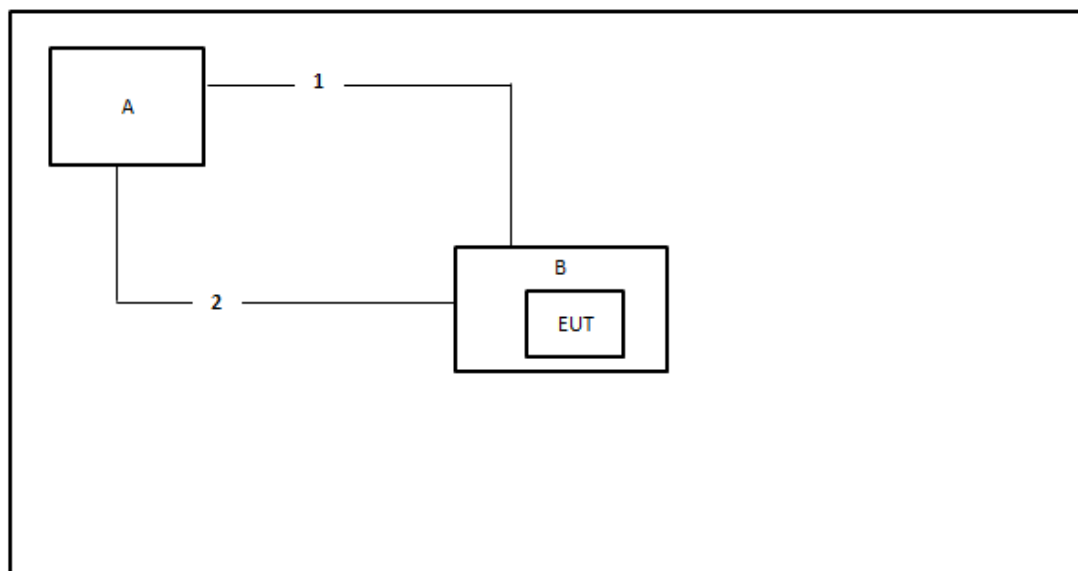
2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	Audio cable	No	1.8m
3	USB cable	Yes	1.8m
4	USB to Micro cable	Yes	1m
5	USB to Type C cable	Yes	1.8m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	USB to Type C cable	Yes	1m
2	USB to Micro cable	Yes	0.5m



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

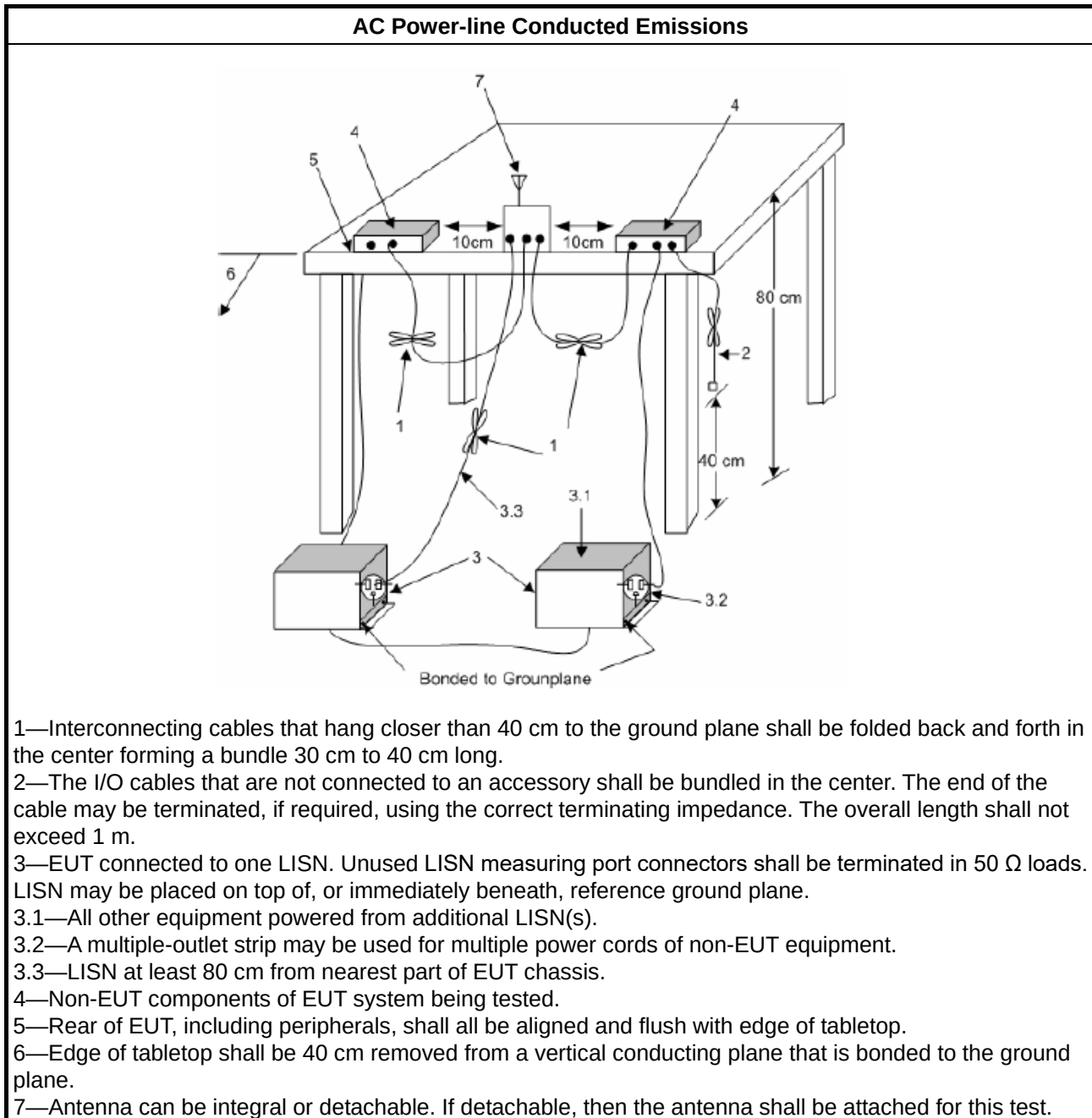
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- b. Margin = -Limit + Level

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

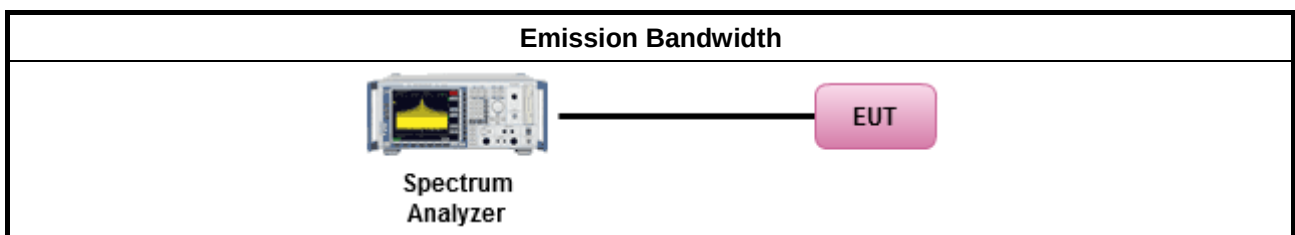
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
☐	- Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm] - Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ - Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$. - Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☒ For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
☒ For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
☐	- Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
Maximum EIRP Limit	
☐ For the 5.85-5.895 GHz band:	
☐	- Indoor AP & subordinate device < 36 dBm - Client device < 30 dBm
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.	
☐ For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
☐ For the 5.725-5.85 GHz band:	
☐	- Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.



P_{Out} = maximum conducted output power in dBm,
G_{TX} = the maximum transmitting antenna directional gain in dBi.

3.3.2 Measuring Instruments

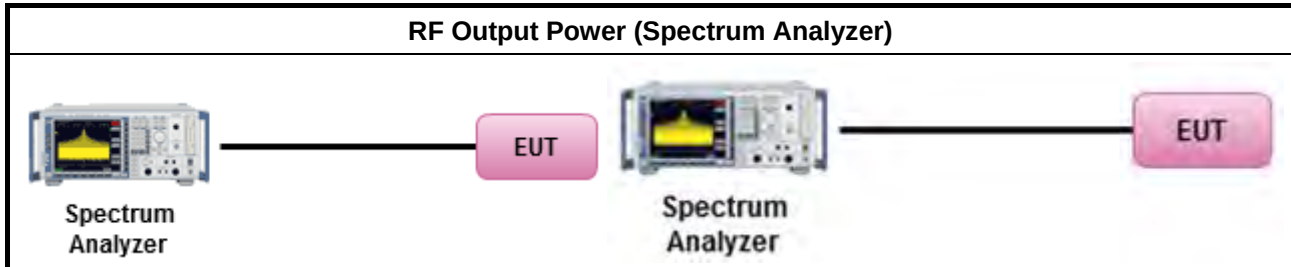
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

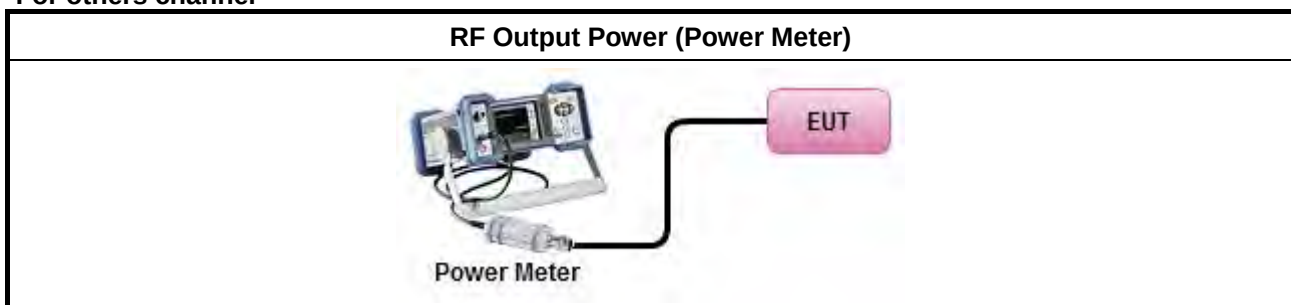
Test Method	
▪ Maximum Conducted Output Power	
	Average over on/off periods with duty factor
☒	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
☒	Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

For straddle channel



For others channel



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
	- Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. - Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. - Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$. - Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
☒ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
	- Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
EIRP Power Spectral Density Limit	
☐ For the 5.85-5.895 GHz band:	
	- Indoor AP & subordinate device < 20dBm/MHz - Client device < 14dBm/MHz
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
	e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; -13 - 0.716 (θ-8) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 (θ-40) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
☐ For the 5.725-5.85 GHz band:	
	- Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output	



power shall be used to determine the power spectral density. And power spectral density in dBm/MHz
 G_{TX} = the maximum transmitting antenna directional gain in dBi.

3.4.2 Measuring Instruments

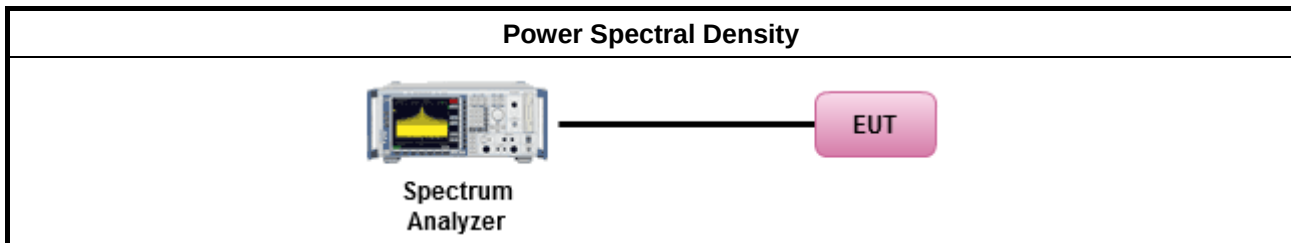
Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method	
Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
☐	Refer as FCC KDB 789033, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth [duty cycle ≥ 98% or external video / power trigger]
☒	Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed) duty cycle < 98% and average over on/off periods with duty factor
☒	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below:	
☒	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
☐	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
☐	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$	
☐	For radiated measurement.

Test Method	
	Refer as FCC KDB 789033 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Unwanted Emissions Limit

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

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

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

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



Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
☒ 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.725 - 5.85 GHz	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.
☐ 5.85 - 5.895 GHz	(i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of -7 dBm/MHz at or above 5.925 GHz. (ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz. (iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/ MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.
Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	

3.5.2 Measuring Instruments

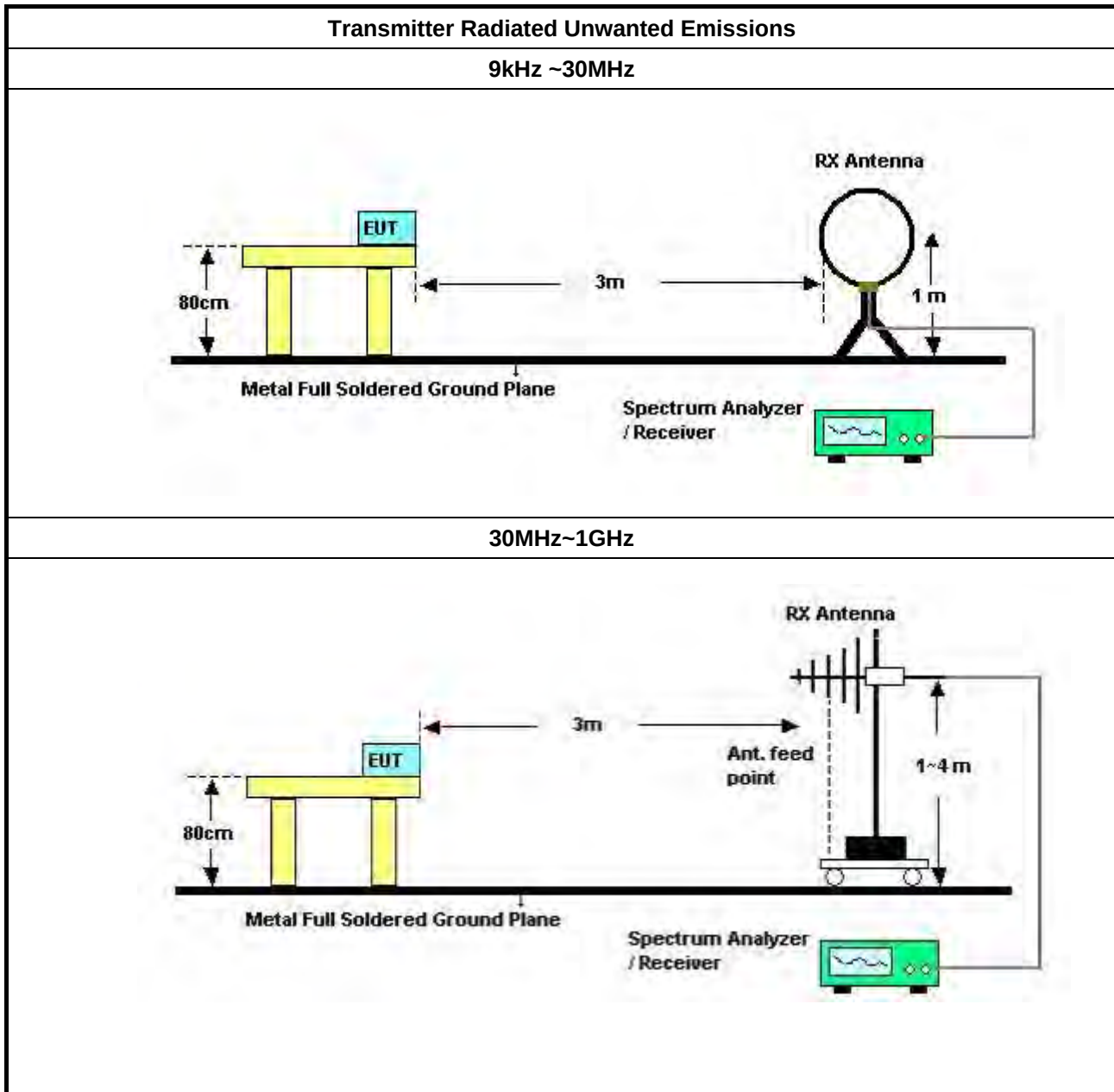
Refer a test equipment and calibration data table in this test report.

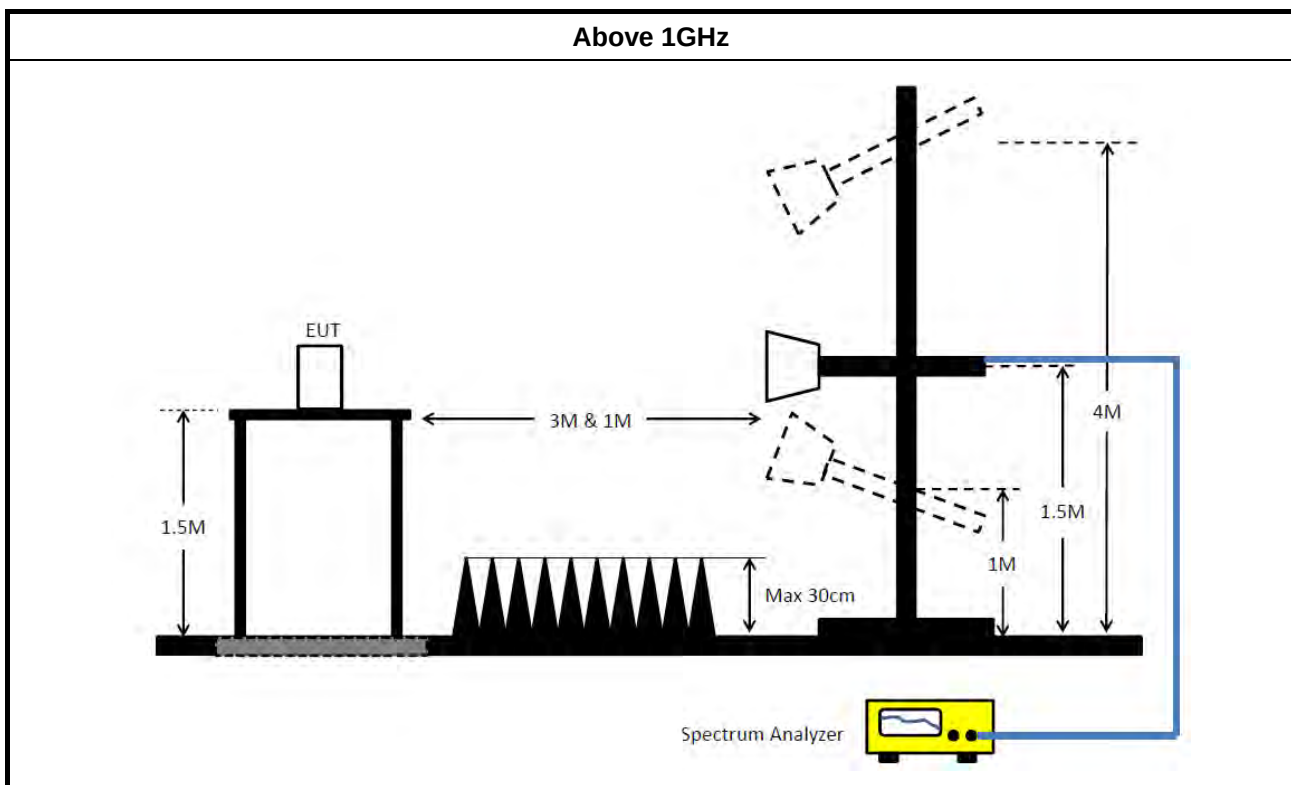


3.5.3 Test Procedures

Test Method	
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).
	☒ Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).
	☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	☒ Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.
☐ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.	
For radiated measurement.	
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
The any unwanted emissions level shall not exceed the fundamental emission level.	
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	

3.5.4 Test Setup





3.5.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

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

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

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

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Mar. 03, 2021	Mar. 02, 2022	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Jan. 06, 2021	Jan. 05, 2022	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Mar. 07, 2021	Mar. 06, 2022	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Jan. 30, 2021	Jan. 29, 2022	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 19, 2021	May 18, 2022	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz ~ 30 MHz	Apr. 14, 2021	Apr. 13, 2022	Radiation (10CH01-CB)
10m Semi Anechoic Chamber NSA	TDK	SAC-10M	10CH01-CB	30MHz~1GHz 10m,3m	Jan. 28, 2021	Jan. 27, 2022	Radiation (10CH01-CB)
10m Semi Anechoic Chamber NSA	TDK	SAC-10M	10CH01-CB	30MHz~1GHz 10m,3m	Jan. 28, 2021	Jan. 27, 2022	Radiation (10CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10783	9kHz ~ 1.3GHz	Mar. 11, 2021	Mar. 10, 2022	Radiation (10CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10784	9kHz ~ 1.3GHz	Mar. 11, 2021	Mar. 10, 2022	Radiation (10CH01-CB)
Low Cable	Woken	SUCOFLEX 104	low cable-01	25MHz ~ 1GHz	Oct. 20, 2020	Oct. 19, 2021	Radiation (10CH01-CB)
High Cable	Woken	SUCOFLEX 104	low cable-02	25MHz ~ 1GHz	Oct. 20, 2020	Oct. 19, 2021	Radiation (10CH01-CB)
Bilog Antenna with 6dB Attenuator	Chase & EMCI	CBL6111A &N-6-06	1543 &AT-N0609	30MHz ~ 1GHz	Jul. 01, 2021	Jun. 30, 2022	Radiation (10CH01-CB)
EMI Test Receiver	Rohde&Schwarz	ESCI	100186	9kHz ~ 3GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (10CH01-CB)
Spectrum Analyzer	Rohde&Schwarz	FSV30	101026	9kHz ~ 30GHz	Mar. 08, 2021	Mar. 07, 2022	Radiation (10CH01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (10CH01-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz 3m	Mar. 27, 2021	Mar. 26, 2022	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	May 04, 2021	May 03, 2022	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (03CH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Oct. 15, 2020	Oct. 14, 2021	Radiation (03CH02-CB)
Signal Analyzer	R&S	FSV40	101903	9kHz ~ 40GHz	Mar. 22, 2021	Mar. 21, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 25, 2021	Feb. 24, 2022	Radiation (03CH04-CB)
Horn Antenna	COM-POWER	AH-118	071028	1GHz ~ 18GHz	Jun. 23, 2021	Jun. 22, 2022	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (03CH04-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Feb. 19, 2021	Feb. 18, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 02, 2021	Aug. 01, 2022	Conducted (TH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Power Sensor	Anritsu	MA2411B	1531343	300MHz~40GHz	Aug. 15, 2021	Aug. 14, 2022	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1728001	300MHz~40GHz	Aug. 15, 2021	Aug. 14, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)

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

NCR means Non-Calibration required.



Conducted Emissions at Powerline

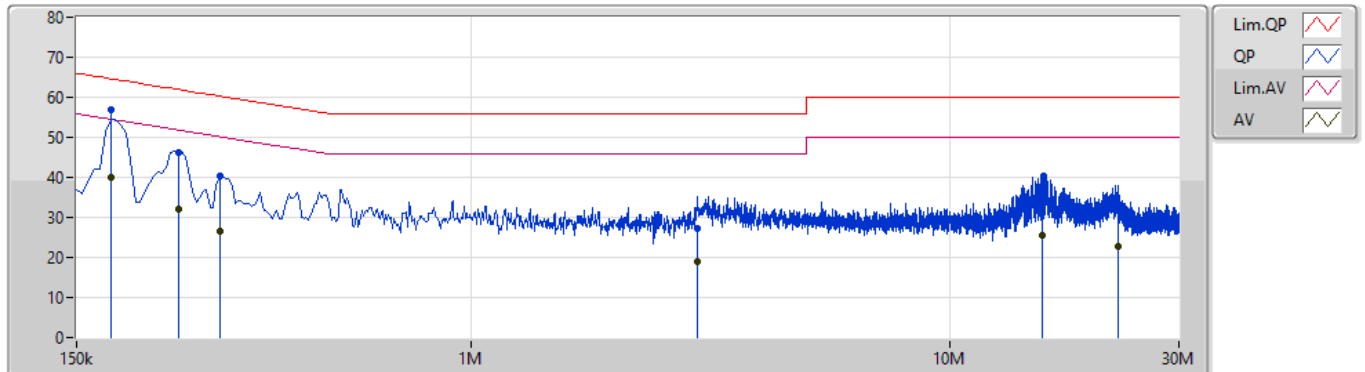
Appendix A

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 2	Pass	QP	177k	56.80	64.62	-7.82	Line

Mode 2

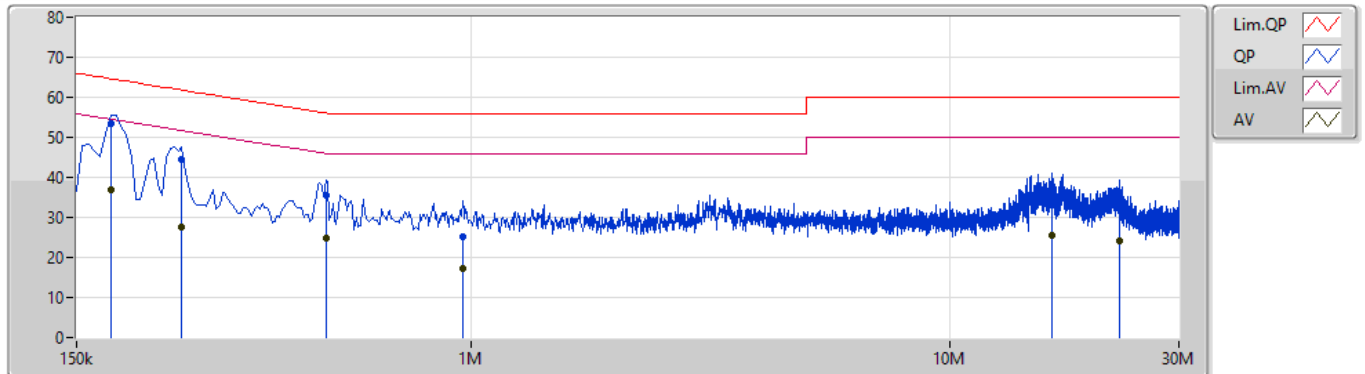
07/09/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	177k	56.80	64.62	-7.82	9.89	Line	"Worst"	46.91	0.04	0.04	9.81			
AV	177k	39.94	54.62	-14.68	9.89	Line	-	30.05	0.04	0.04	9.81			
QP	244.5k	46.27	61.95	-15.68	9.89	Line	-	36.38	0.04	0.04	9.81			
AV	244.5k	32.06	51.95	-19.89	9.89	Line	-	22.17	0.04	0.04	9.81			
QP	298.5k	40.24	60.28	-20.04	9.90	Line	-	30.34	0.04	0.04	9.82			
AV	298.5k	26.66	50.28	-23.62	9.90	Line	-	16.76	0.04	0.04	9.82			
QP	15.522M	37.21	60.00	-22.79	10.38	Line	-	26.83	0.28	0.18	9.92			
AV	15.522M	25.46	50.00	-24.54	10.38	Line	-	15.08	0.28	0.18	9.92			
QP	22.448M	32.40	60.00	-27.60	10.60	Line	-	21.80	0.34	0.25	10.01			
AV	22.448M	22.75	50.00	-27.25	10.60	Line	-	12.15	0.34	0.25	10.01			
QP	2.963M	27.31	56.00	-28.69	10.06	Line	-	17.25	0.11	0.10	9.85			
AV	2.963M	18.81	46.00	-27.19	10.06	Line	-	8.75	0.11	0.10	9.85			

Mode 2

07/09/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	177k	53.32	64.62	-11.30	9.88	Neutral	"Worst"	43.44	0.03	0.04	9.81			
AV	177k	36.76	54.62	-17.86	9.88	Neutral	-	26.88	0.03	0.04	9.81			
QP	249k	44.53	61.79	-17.26	9.88	Neutral	-	34.65	0.03	0.04	9.81			
AV	249k	27.60	51.79	-24.19	9.88	Neutral	-	17.72	0.03	0.04	9.81			
QP	496.5k	35.50	56.06	-20.56	9.89	Neutral	-	25.61	0.03	0.04	9.82			
AV	496.5k	24.76	46.06	-21.30	9.89	Neutral	-	14.87	0.03	0.04	9.82			
QP	960k	25.23	56.00	-30.77	9.92	Neutral	-	15.31	0.05	0.04	9.83			
AV	960k	17.26	46.00	-28.74	9.92	Neutral	-	7.34	0.05	0.04	9.83			
QP	16.35M	34.14	60.00	-25.86	10.39	Neutral	-	23.75	0.26	0.19	9.94			
AV	16.35M	25.42	50.00	-24.58	10.39	Neutral	-	15.03	0.26	0.19	9.94			
QP	22.628M	33.78	60.00	-26.22	10.60	Neutral	-	23.18	0.34	0.25	10.01			
AV	22.628M	24.21	50.00	-25.79	10.60	Neutral	-	13.61	0.34	0.25	10.01			

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)_1TX	36.99M	19.43M	19M4D1D	31.17M	18.111M
802.11ac VHT20_Nss1,(MCS0)_1TX	42.21M	21.049M	21M0D1D	27.96M	18.471M
802.11ac VHT40_Nss1,(MCS0)_1TX	69.06M	37.721M	37M7D1D	47.94M	36.762M
802.11ac VHT80_Nss1,(MCS0)_1TX	94.56M	76.042M	76M0D1D	94.56M	76.042M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	36.15M	22.699M	22M7D1D	23.22M	17.421M
802.11ac VHT20_Nss1,(MCS0)_1TX	41.73M	23.748M	23M7D1D	33.03M	18.651M
802.11ac VHT40_Nss1,(MCS0)_1TX	66.96M	37.841M	37M8D1D	44.34M	36.702M
802.11ac VHT80_Nss1,(MCS0)_1TX	90.12M	76.042M	76M0D1D	90.12M	76.042M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	37.41M	25.247M	25M2D1D	23.835M	17.361M
802.11ac VHT20_Nss1,(MCS0)_1TX	42.51M	26.297M	26M3D1D	24.63M	18.231M
802.11ac VHT40_Nss1,(MCS0)_1TX	96.6M	59.25M	59M2D1D	45.54M	36.762M
802.11ac VHT80_Nss1,(MCS0)_1TX	135.12M	100.45M	100MD1D	92.4M	76.162M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.29M	20.78M	20M8D1D	3.14M	13.853M
802.11ac VHT20_Nss1,(MCS0)_1TX	17.52M	20.45M	20M4D1D	3.76M	15.032M
802.11ac VHT40_Nss1,(MCS0)_1TX	35.34M	40.9M	40M9D1D	3.1M	29.105M
802.11ac VHT80_Nss1,(MCS0)_1TX	75.24M	96.312M	96M3D1D	3.1M	38.801M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Max-OBW = Maximum 99% occupied bandwidth;
 Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Min-OBW = Minimum 99% occupied bandwidth

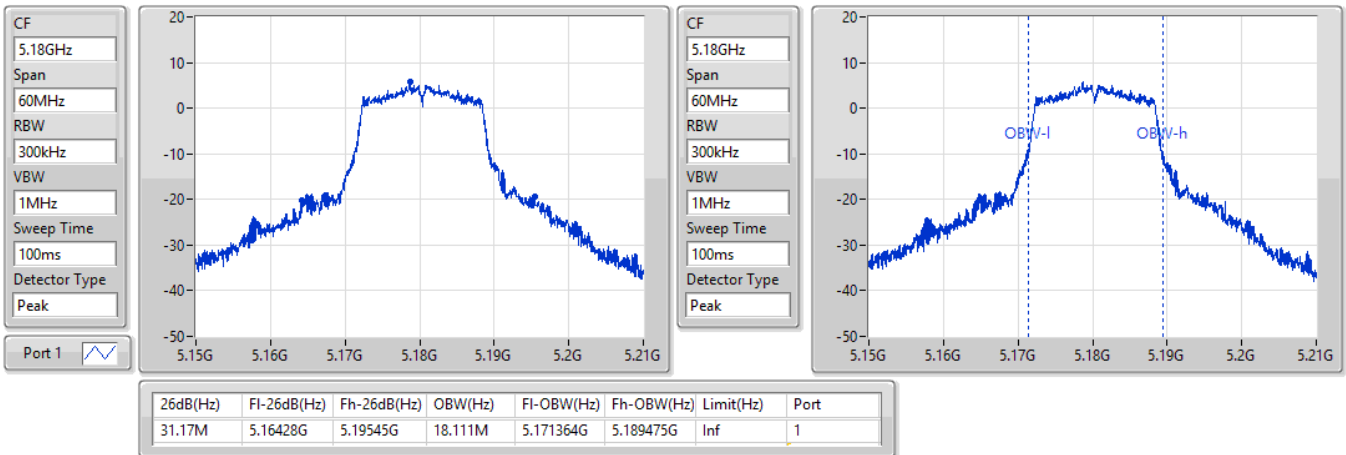
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	31.17M	18.111M
5200MHz	Pass	Inf	33.33M	18.921M
5240MHz	Pass	Inf	36.99M	19.43M
5260MHz	Pass	Inf	36.15M	22.699M
5300MHz	Pass	Inf	31.08M	18.621M
5320MHz	Pass	Inf	23.22M	17.421M
5500MHz	Pass	Inf	24.12M	17.361M
5580MHz	Pass	Inf	37.41M	25.247M
5700MHz	Pass	Inf	31.92M	18.321M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	23.835M	18.696M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	13.853M
5745MHz	Pass	500k	16.29M	20.78M
5785MHz	Pass	500k	16.29M	19.46M
5825MHz	Pass	500k	16.29M	18.321M
802.11ac_VHT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	32.76M	18.621M
5200MHz	Pass	Inf	42.21M	21.049M
5240MHz	Pass	Inf	27.96M	18.471M
5260MHz	Pass	Inf	41.73M	23.748M
5300MHz	Pass	Inf	35.58M	19.37M
5320MHz	Pass	Inf	33.03M	18.651M
5500MHz	Pass	Inf	24.63M	18.231M
5580MHz	Pass	Inf	42.51M	26.297M
5700MHz	Pass	Inf	30.87M	18.501M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	26.34M	18.846M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.76M	15.032M
5745MHz	Pass	500k	17.52M	19.64M
5785MHz	Pass	500k	17.25M	20.45M
5825MHz	Pass	500k	17.52M	19.16M
802.11ac_VHT40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	47.94M	36.762M
5230MHz	Pass	Inf	69.06M	37.721M
5270MHz	Pass	Inf	66.96M	37.841M
5310MHz	Pass	Inf	44.34M	36.702M
5510MHz	Pass	Inf	45.54M	36.762M
5550MHz	Pass	Inf	96.6M	59.25M
5670MHz	Pass	Inf	90M	57.211M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	57.995M	42.329M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	29.105M
5755MHz	Pass	500k	35.34M	40.9M
5795MHz	Pass	500k	35.16M	39.4M
802.11ac_VHT80_Nss1,(MCS0)_1TX	-	-	-	-
5210MHz	Pass	Inf	94.56M	76.042M
5290MHz	Pass	Inf	90.12M	76.042M
5530MHz	Pass	Inf	92.4M	76.162M
5610MHz	Pass	Inf	135.12M	77.121M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	134.475M	100.45M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	38.801M
5775MHz	Pass	500k	75.24M	96.312M

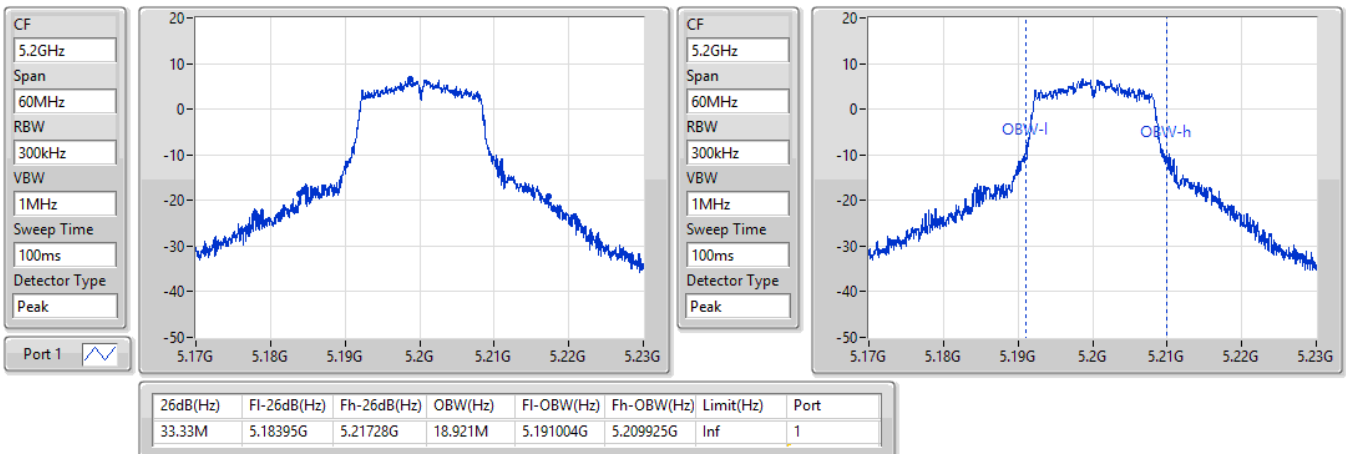
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX
EBW
5180MHz

11/09/2021

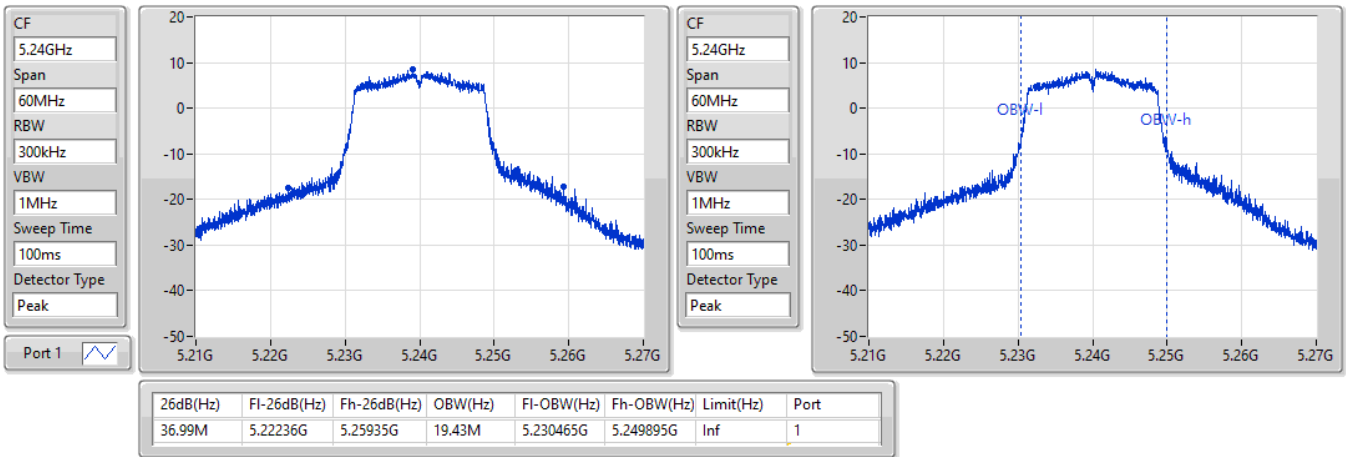

802.11a_Nss1,(6Mbps)_1TX
EBW
5200MHz

11/09/2021

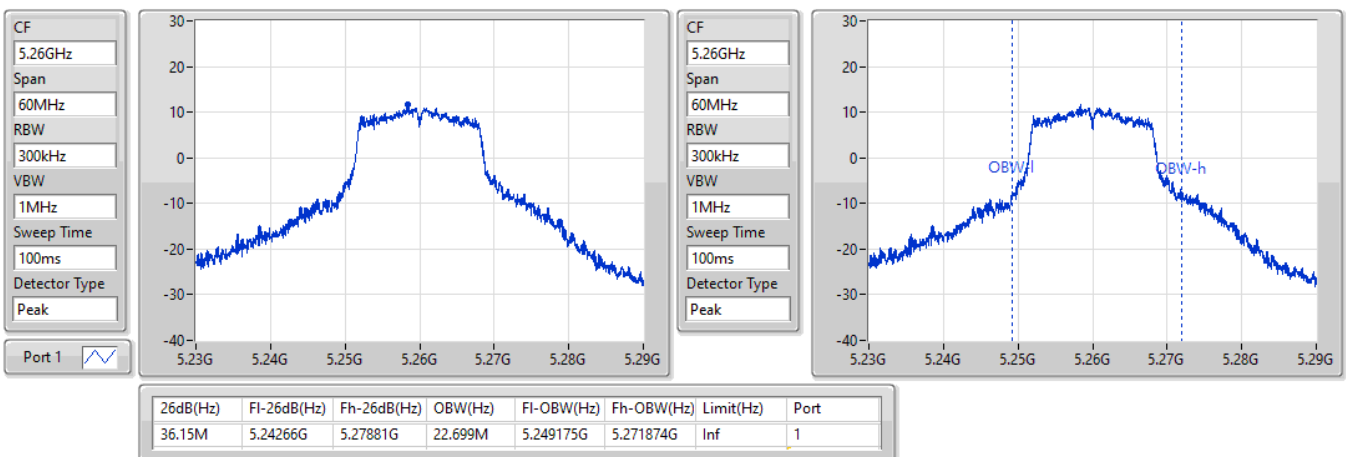


802.11a_Nss1,(6Mbps)_1TX
EBW
5240MHz

18/10/2021

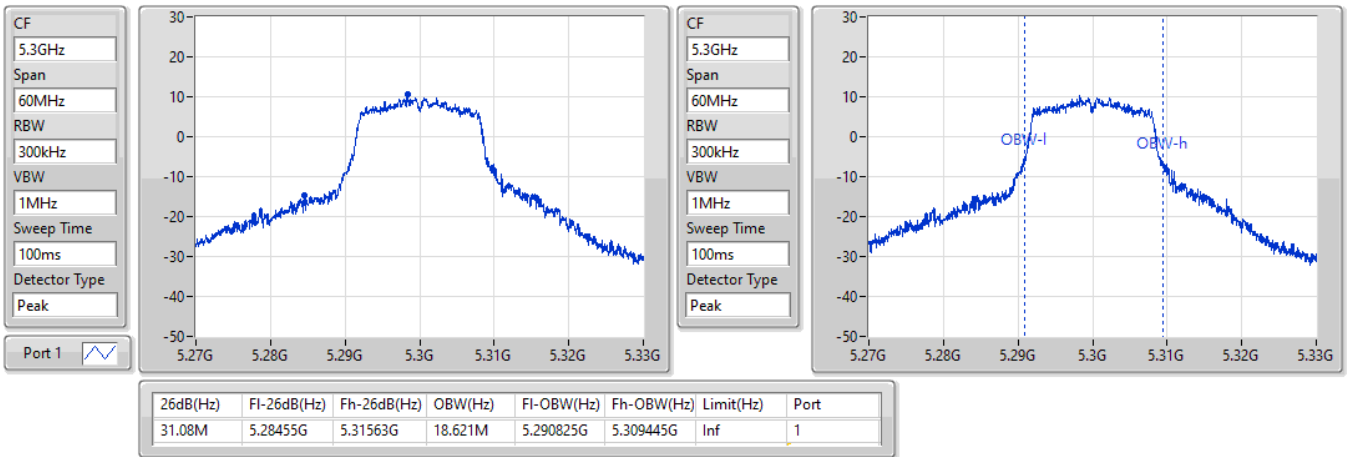

802.11a_Nss1,(6Mbps)_1TX
EBW
5260MHz

05/10/2021

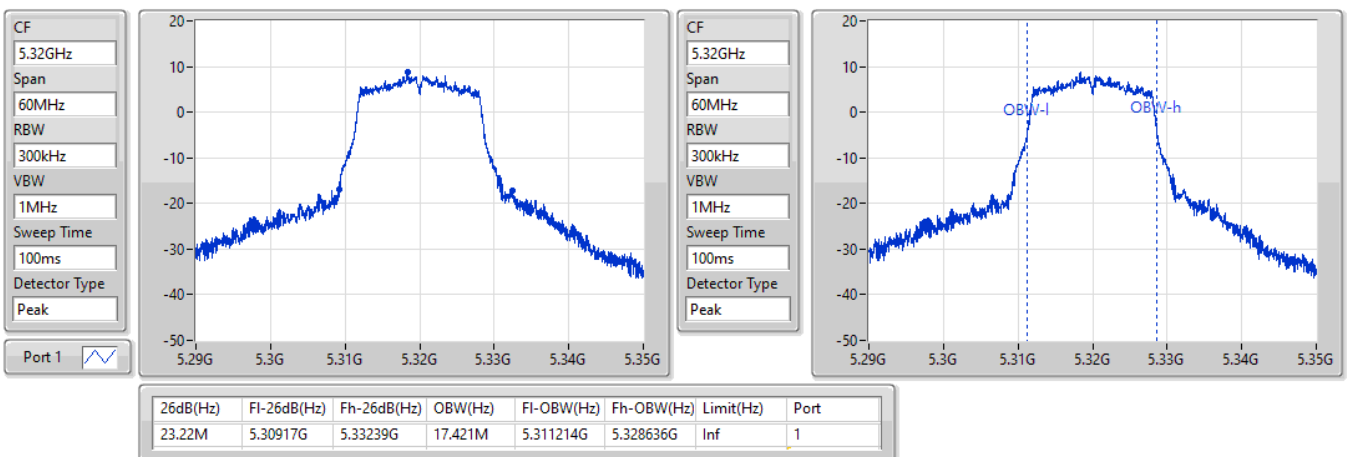


802.11a_Nss1,(6Mbps)_1TX
EBW
5300MHz

05/10/2021

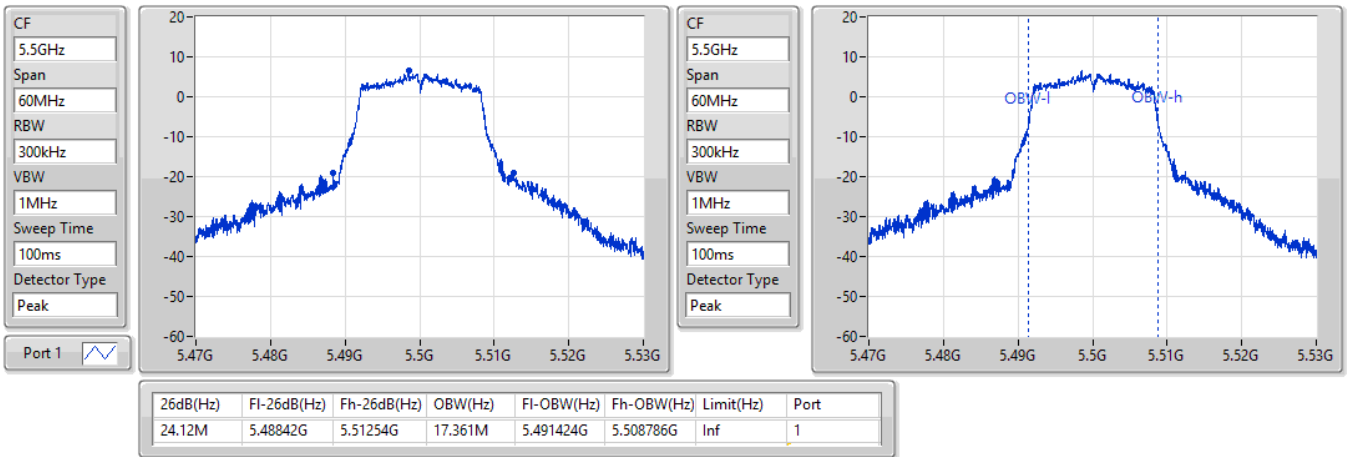

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EBW
5320MHz

05/10/2021

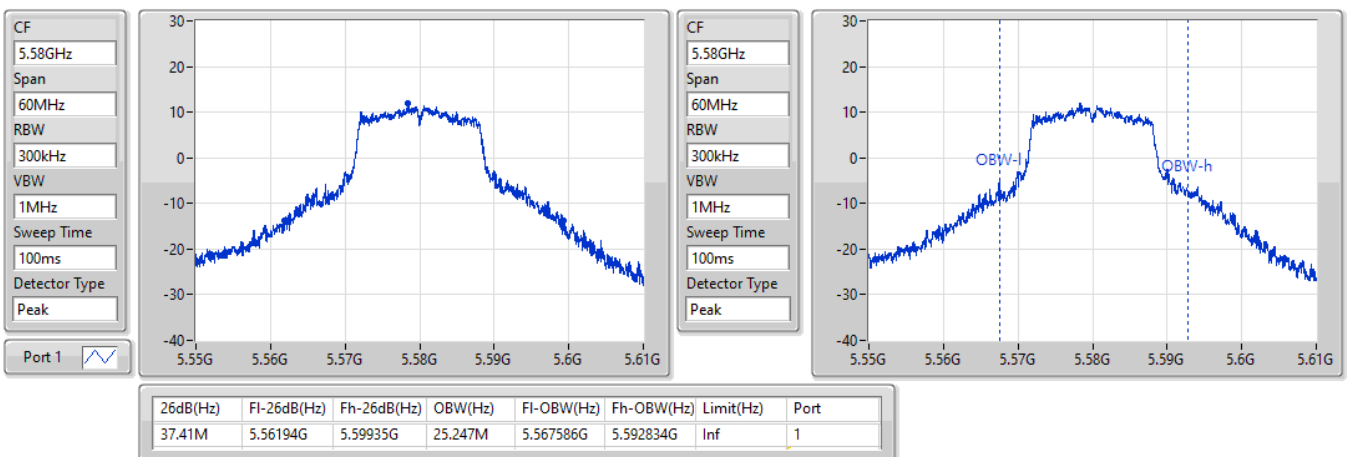


802.11a_Nss1,(6Mbps)_1TX
EBW
5500MHz

11/09/2021

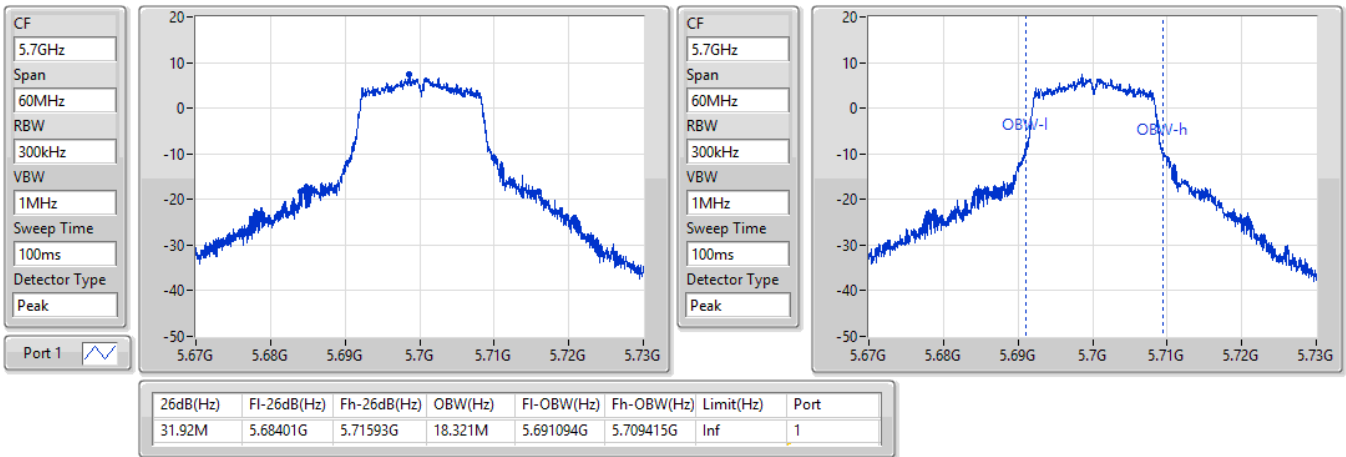

802.11a_Nss1,(6Mbps)_1TX
EBW
5580MHz

05/10/2021

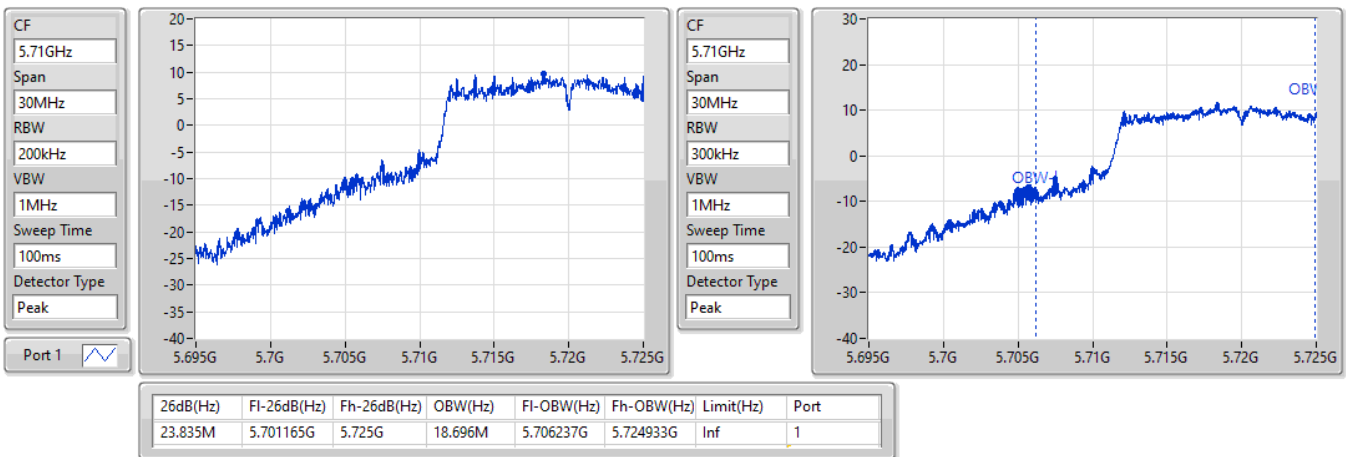


802.11a_Nss1,(6Mbps)_1TX
EBW
5700MHz

11/09/2021

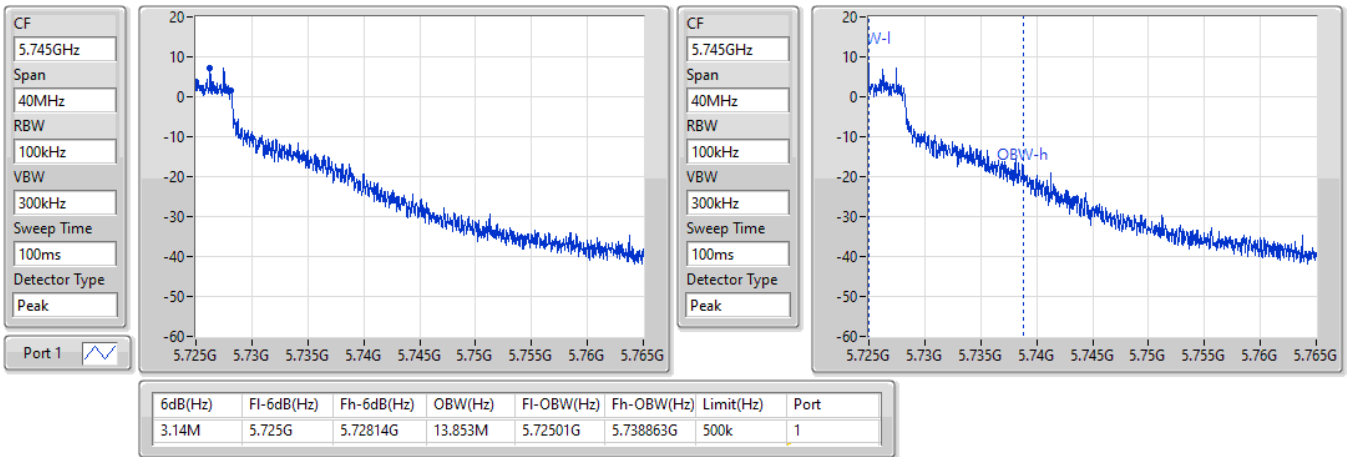

802.11a_Nss1,(6Mbps)_1TX
EBW
5720MHz Straddle 5.47-5.725GHz

05/10/2021

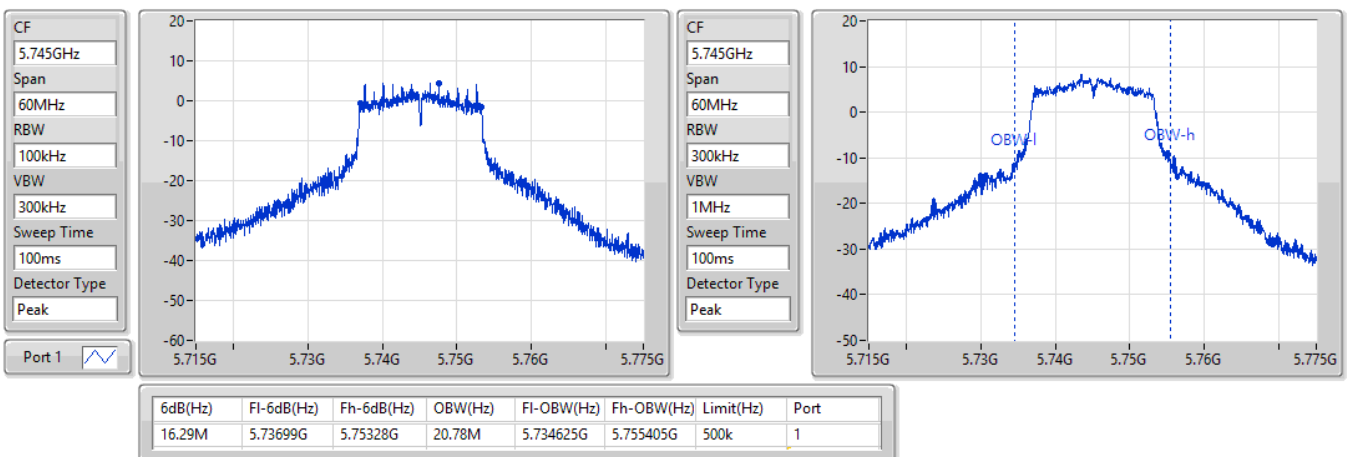


802.11a_Nss1,(6Mbps)_1TX
EBW
5720MHz Straddle 5.725-5.85GHz

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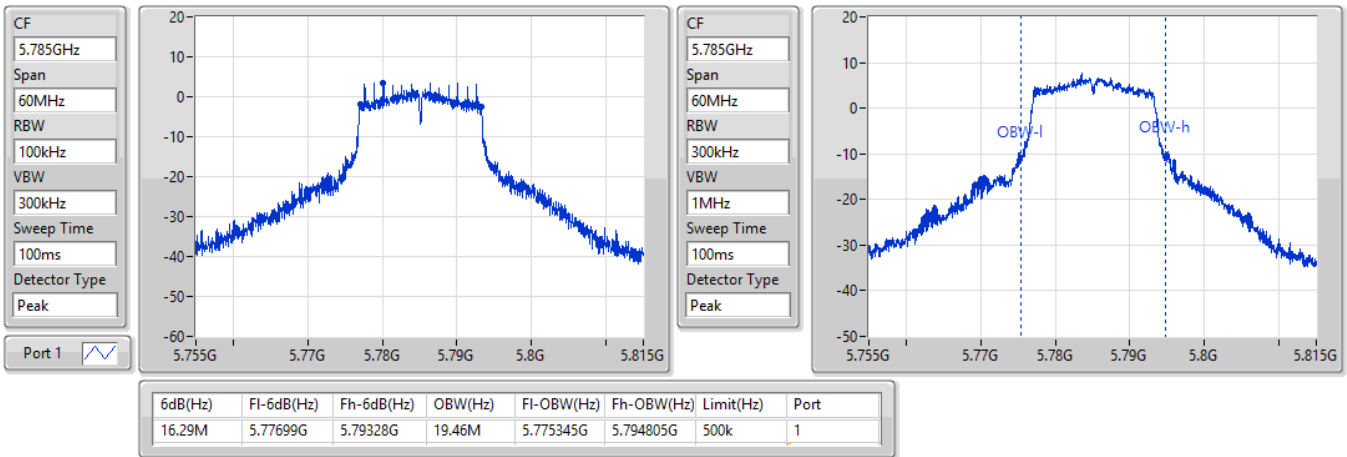

802.11a_Nss1,(6Mbps)_1TX
EBW
5745MHz

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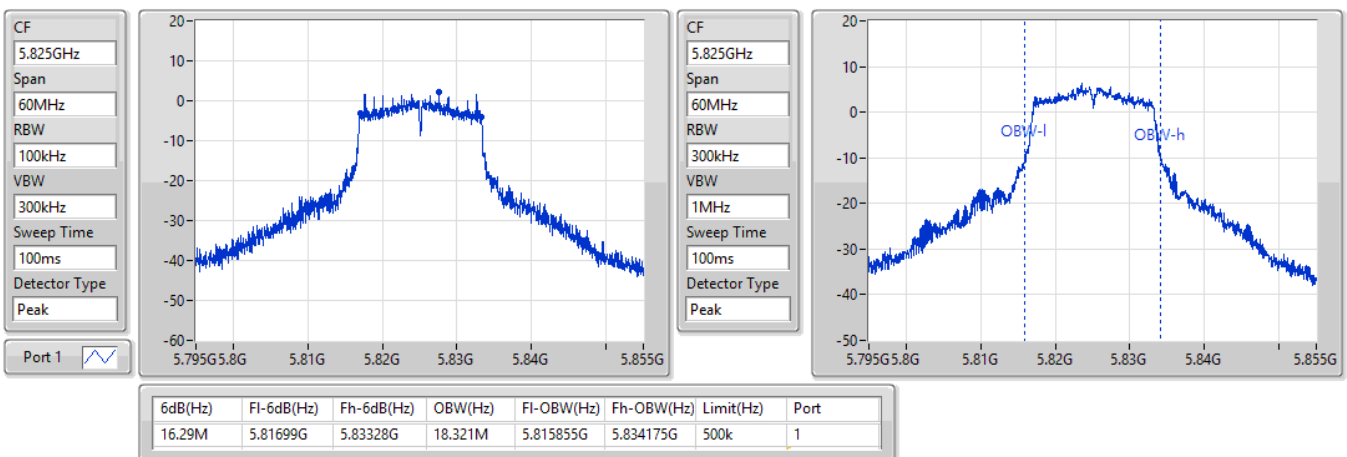


802.11a_Nss1,(6Mbps)_1TX
EBW
5785MHz

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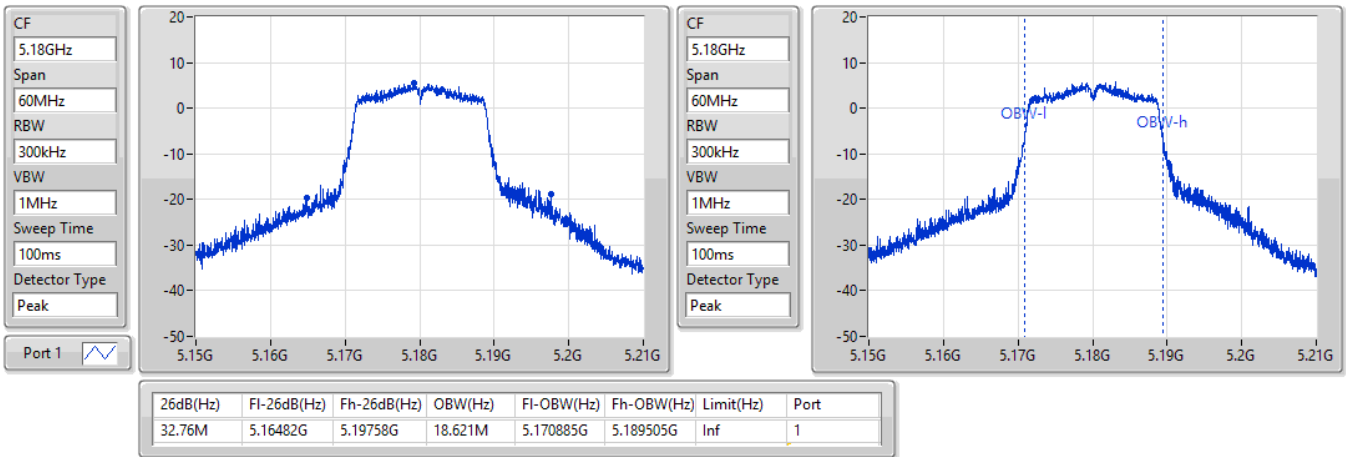

802.11a_Nss1,(6Mbps)_1TX
EBW
5825MHz

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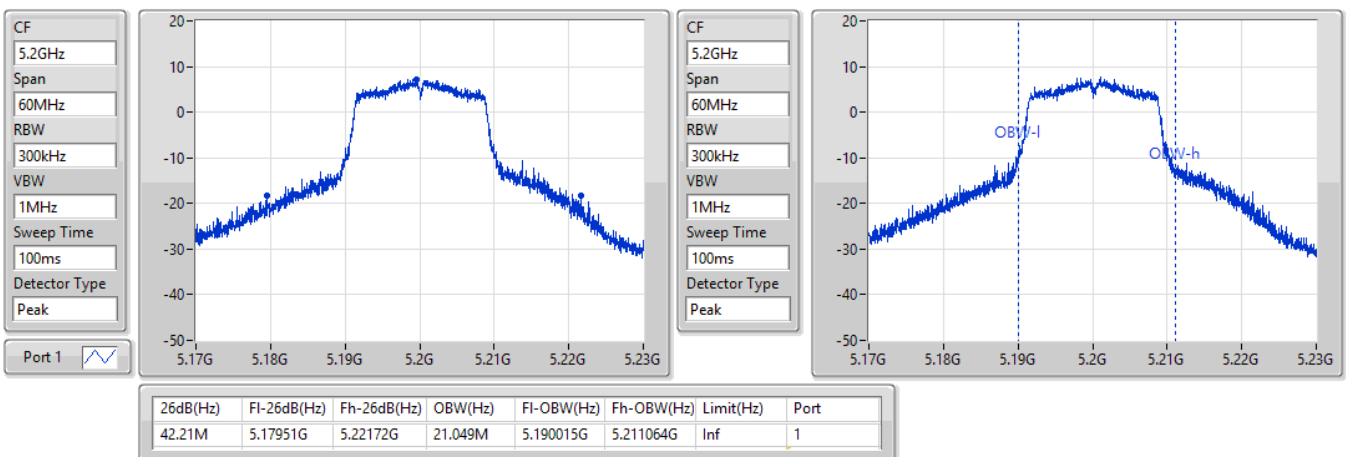


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5180MHz

11/09/2021

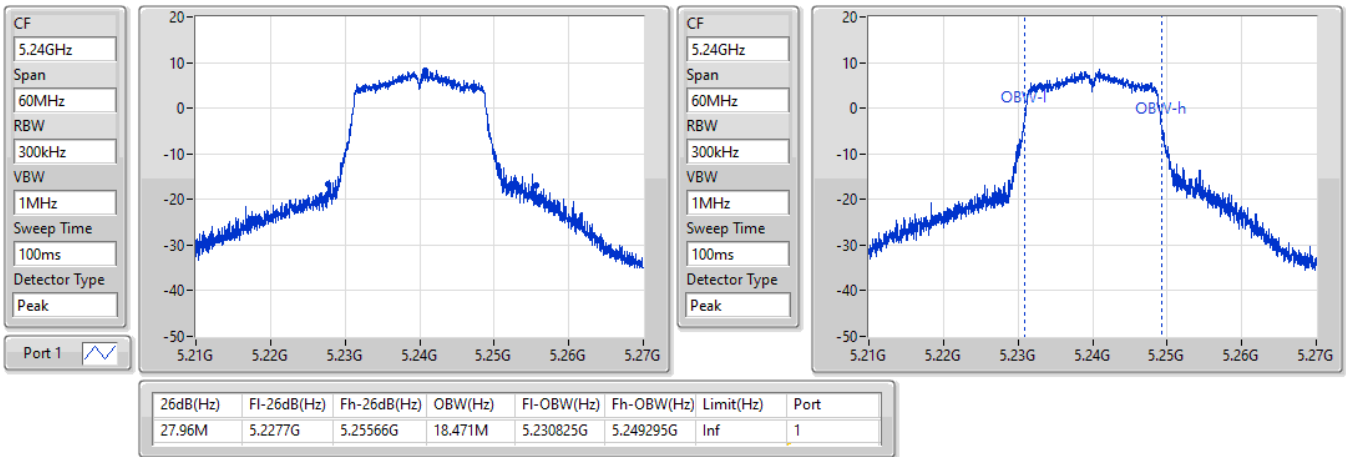

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5200MHz

11/09/2021

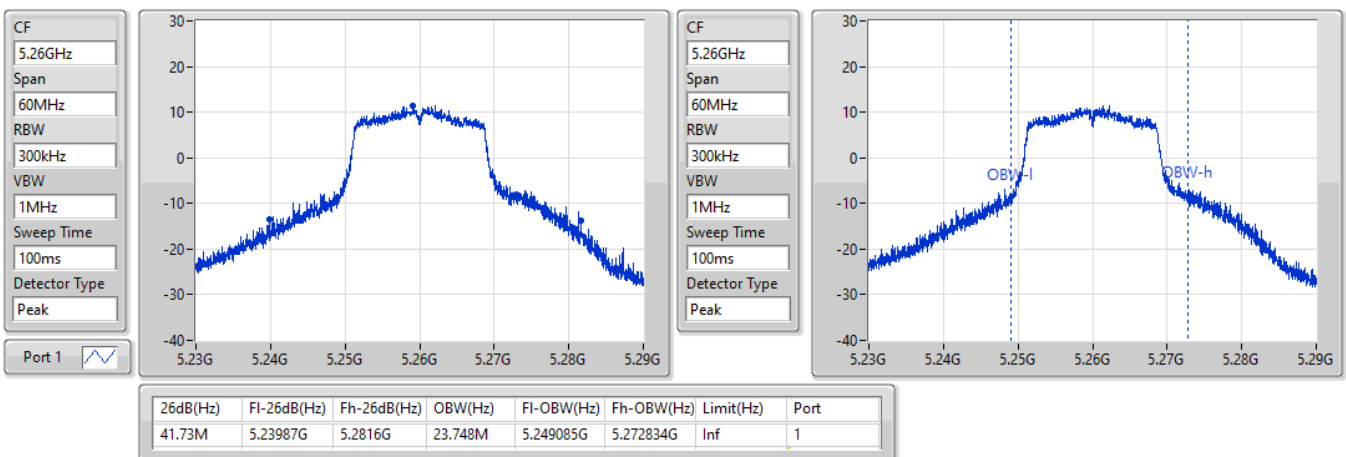


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5240MHz

05/10/2021

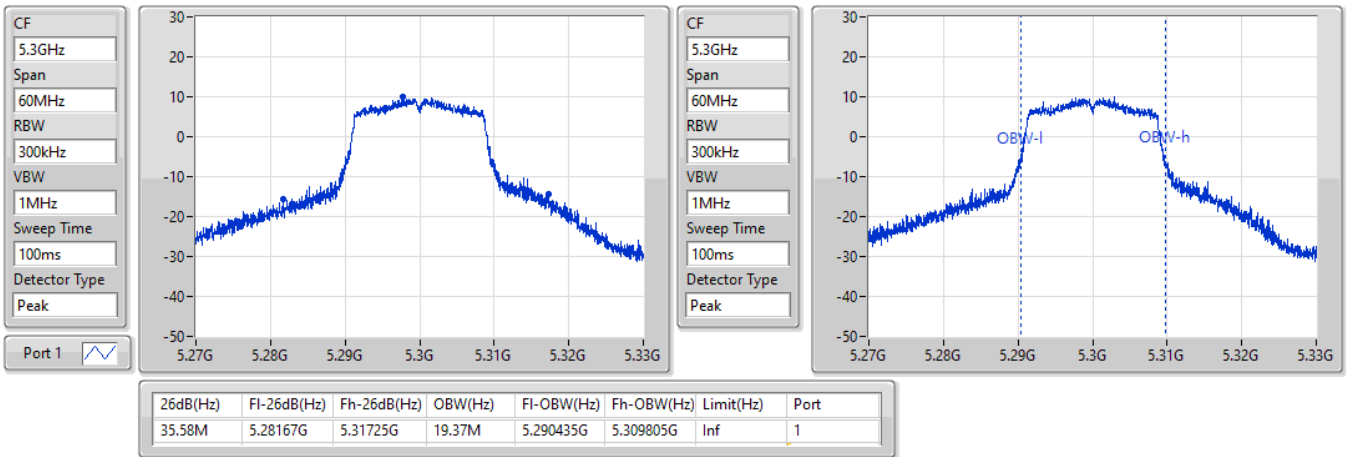

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5260MHz

05/10/2021

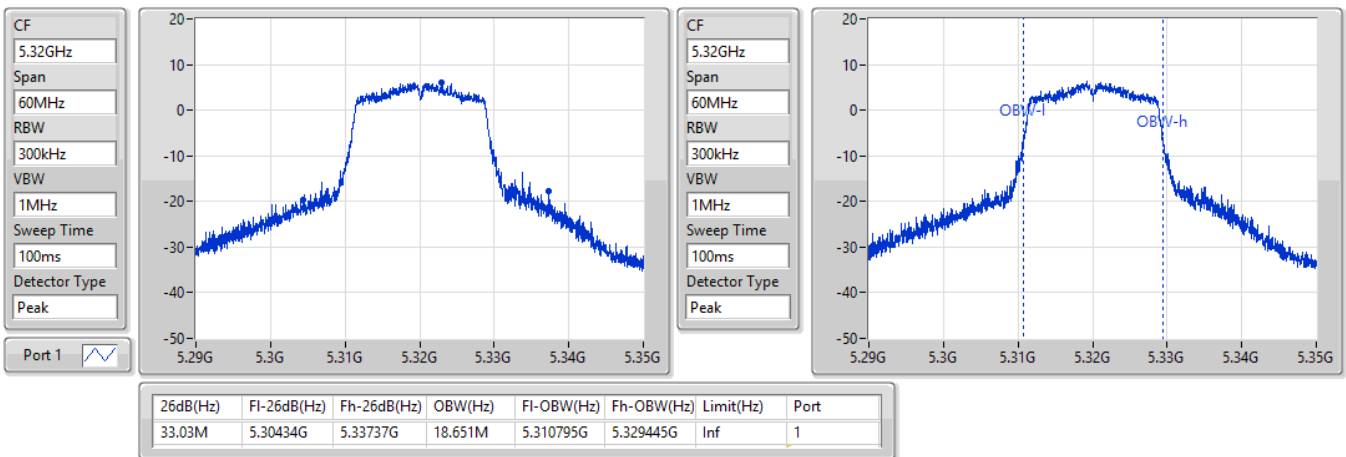


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5300MHz

05/10/2021

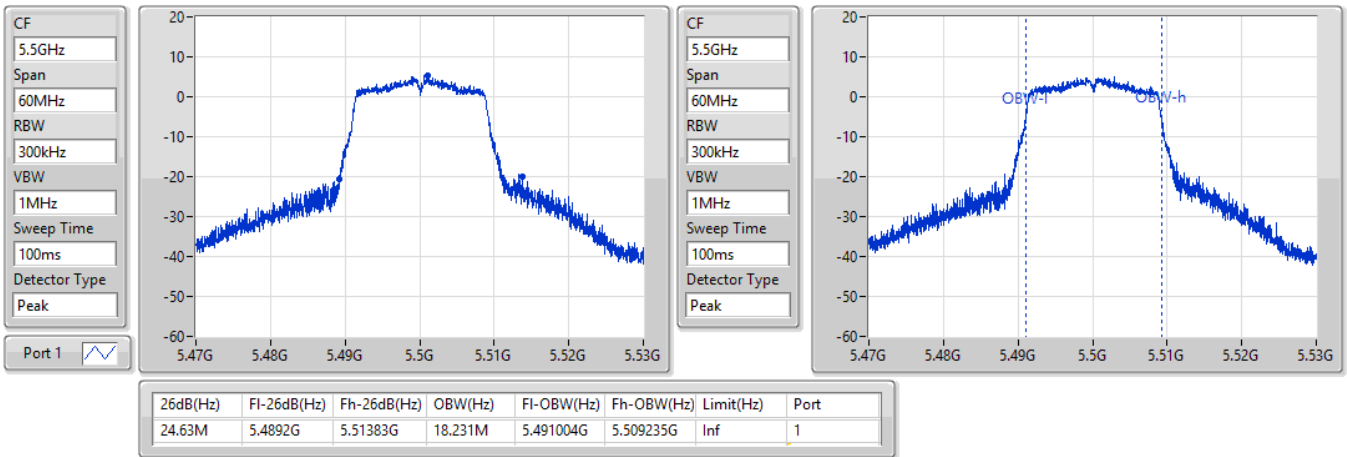

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5320MHz

11/09/2021

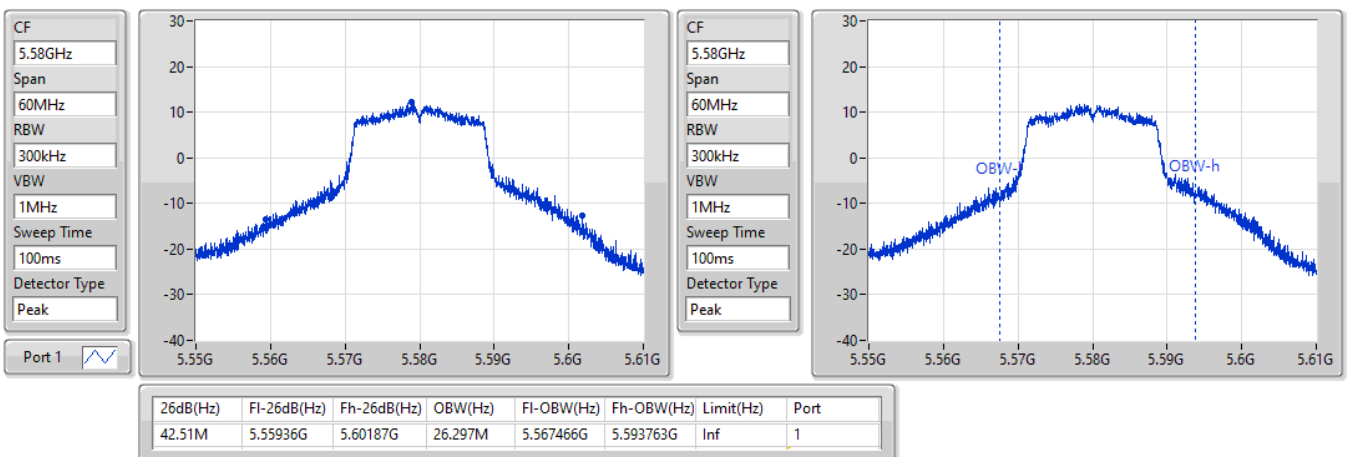


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5500MHz

11/09/2021

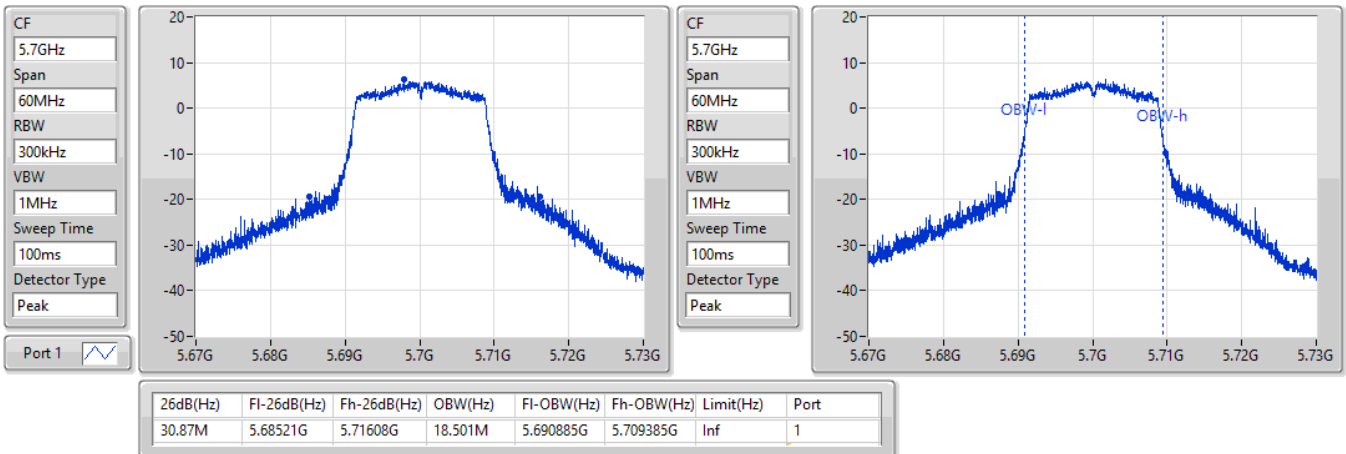

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5580MHz

05/10/2021

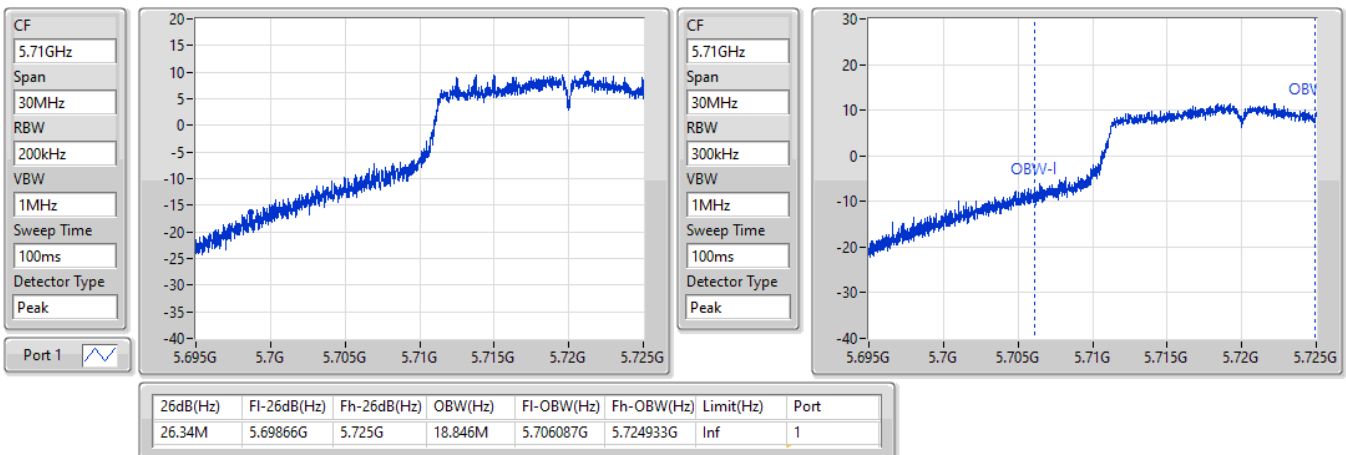


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5700MHz

11/09/2021

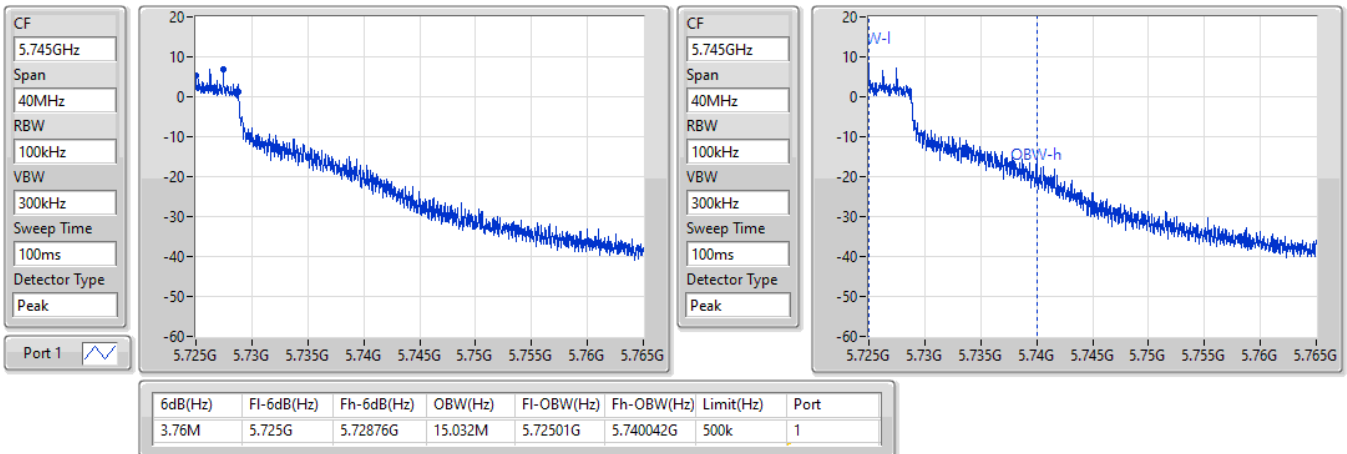

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5720MHz Straddle 5.47-5.725GHz

05/10/2021

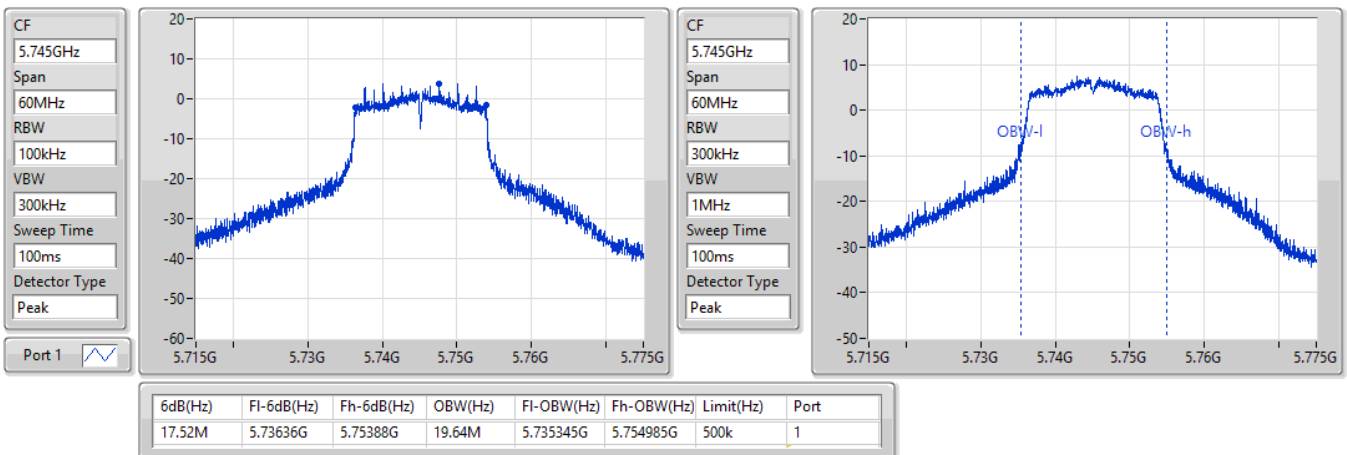


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5720MHz Straddle 5.725-5.85GHz

05/10/2021

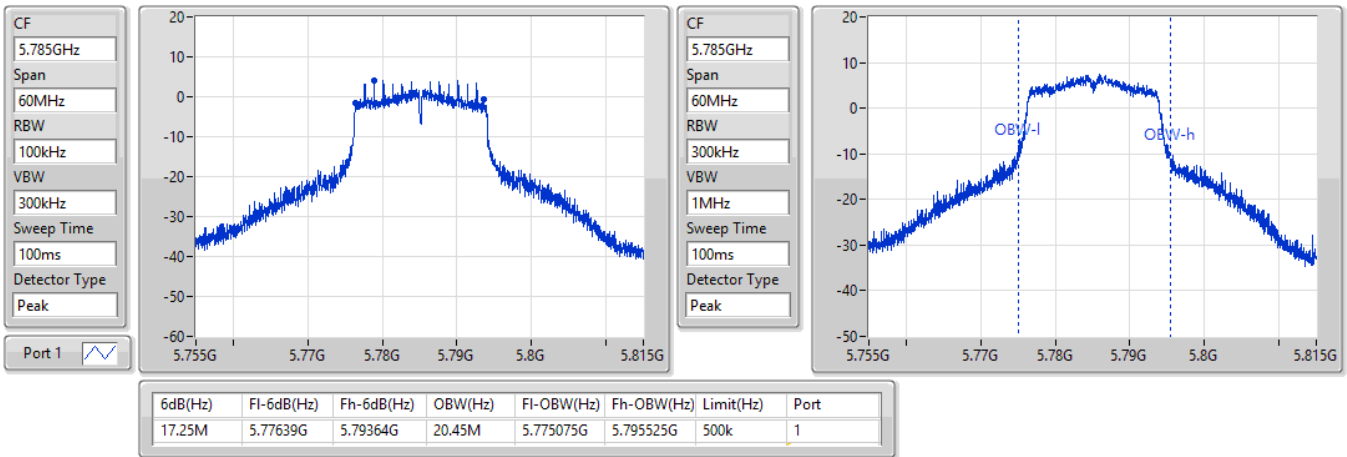

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5745MHz

11/09/2021

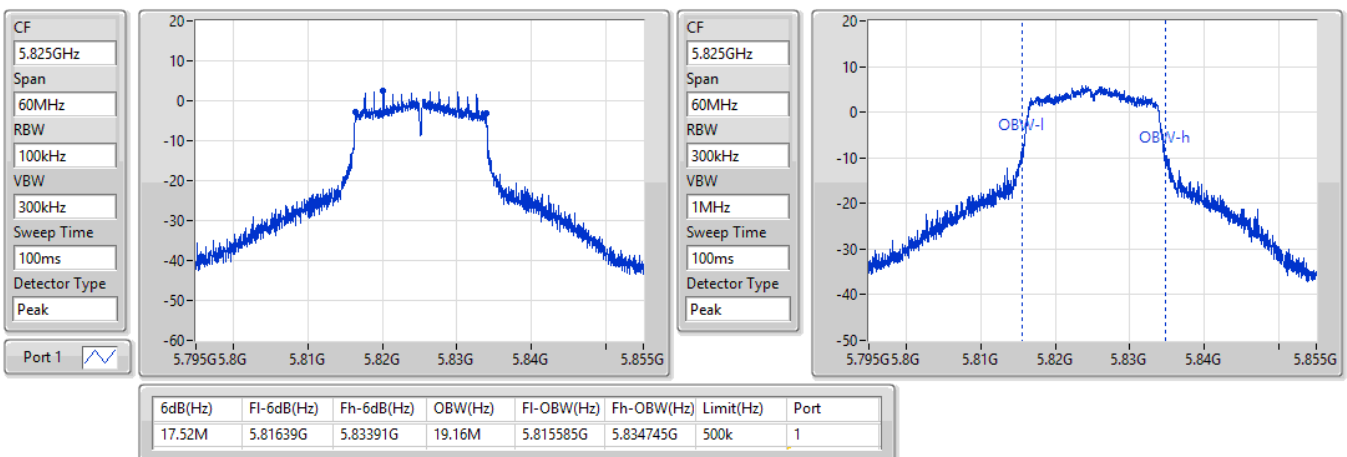


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5785MHz

11/09/2021

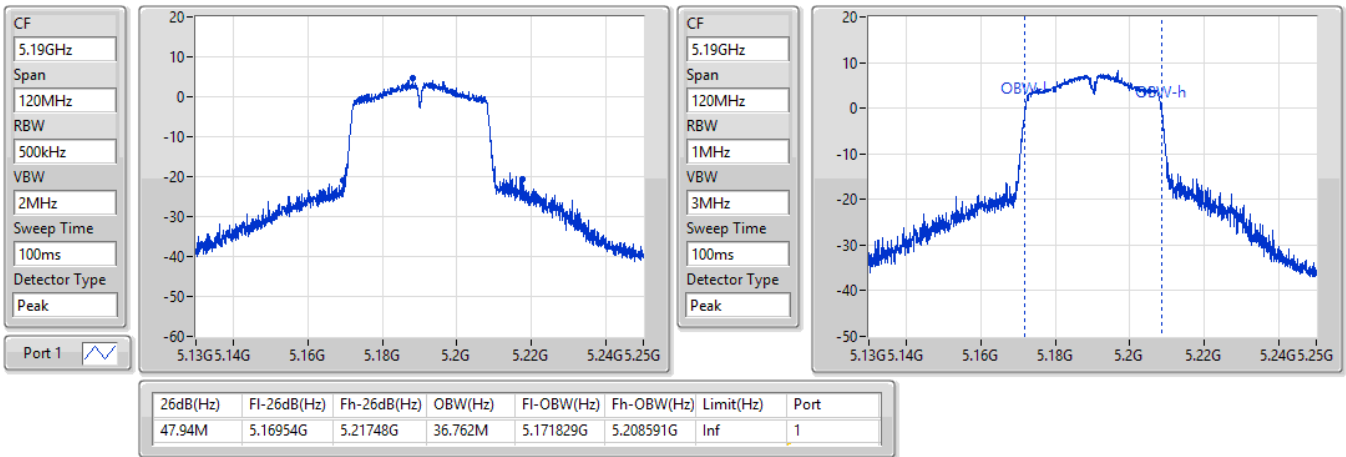

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5825MHz

11/09/2021

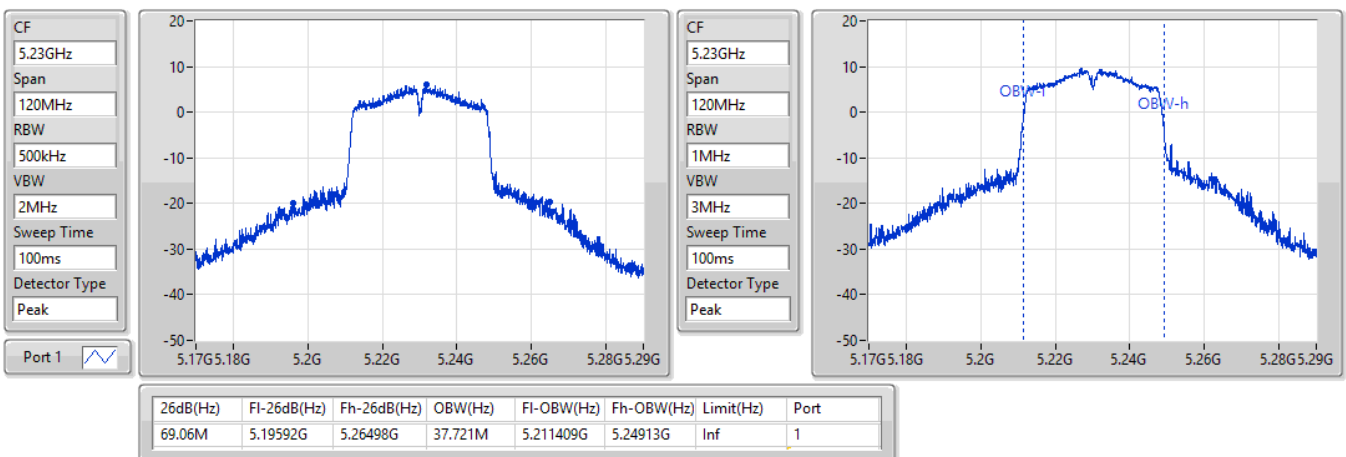


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5190MHz

11/09/2021

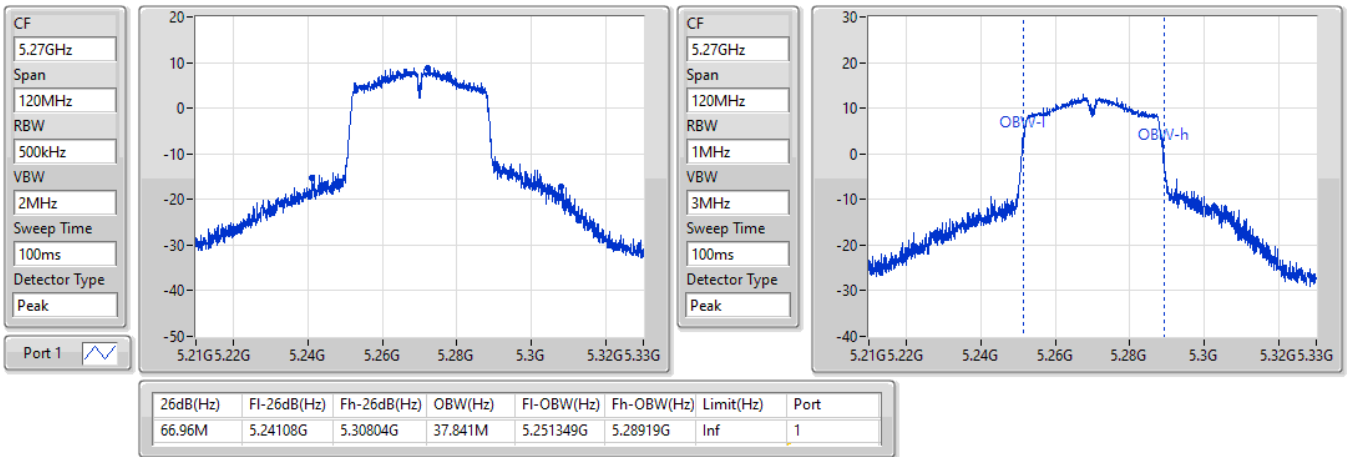

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5230MHz

11/09/2021

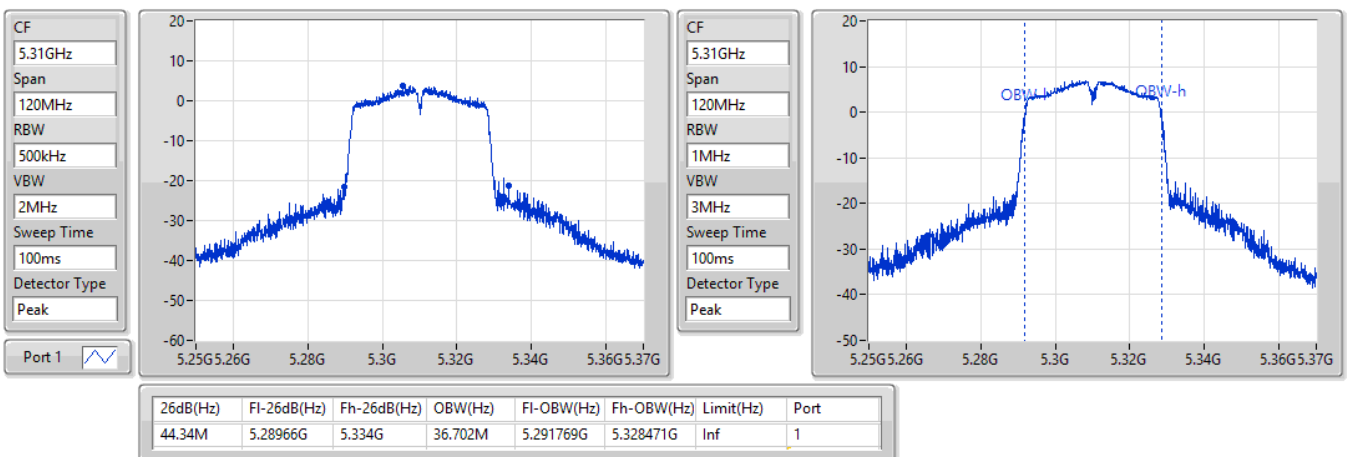


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5270MHz

05/10/2021

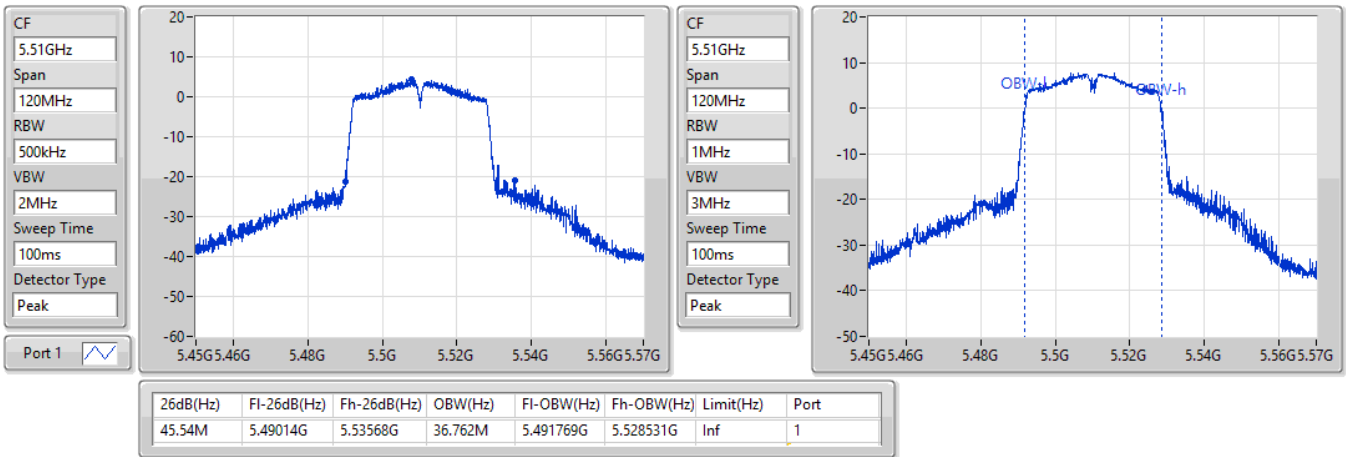

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5310MHz

11/09/2021

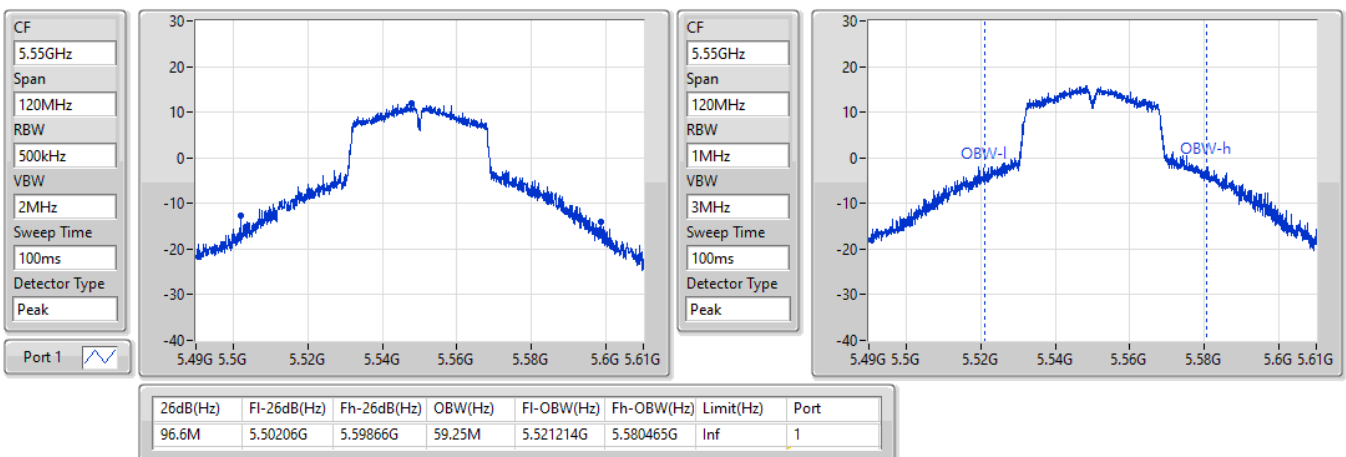


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5510MHz

11/09/2021

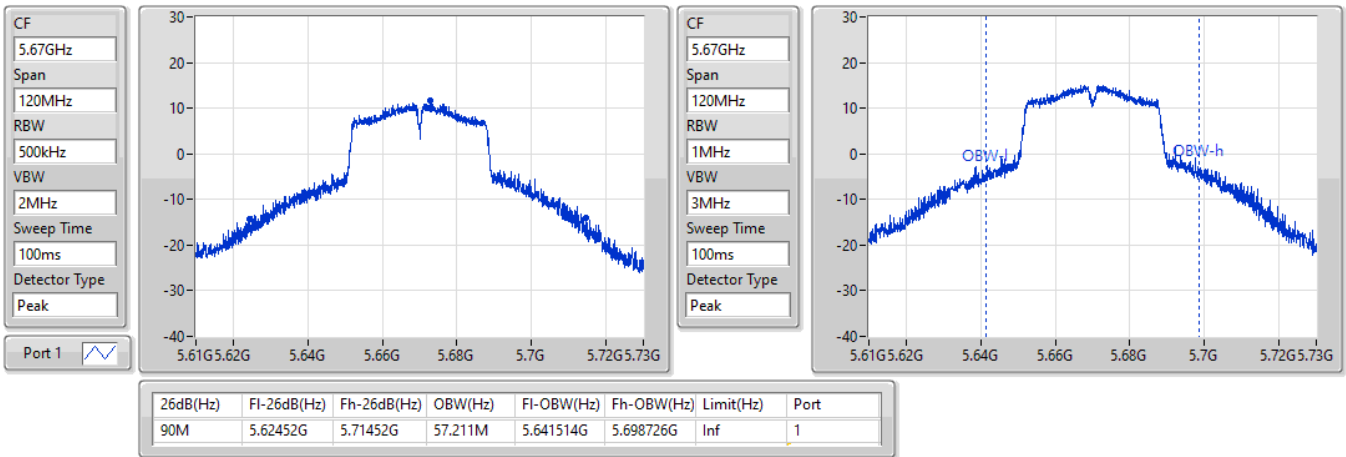

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5550MHz

05/10/2021

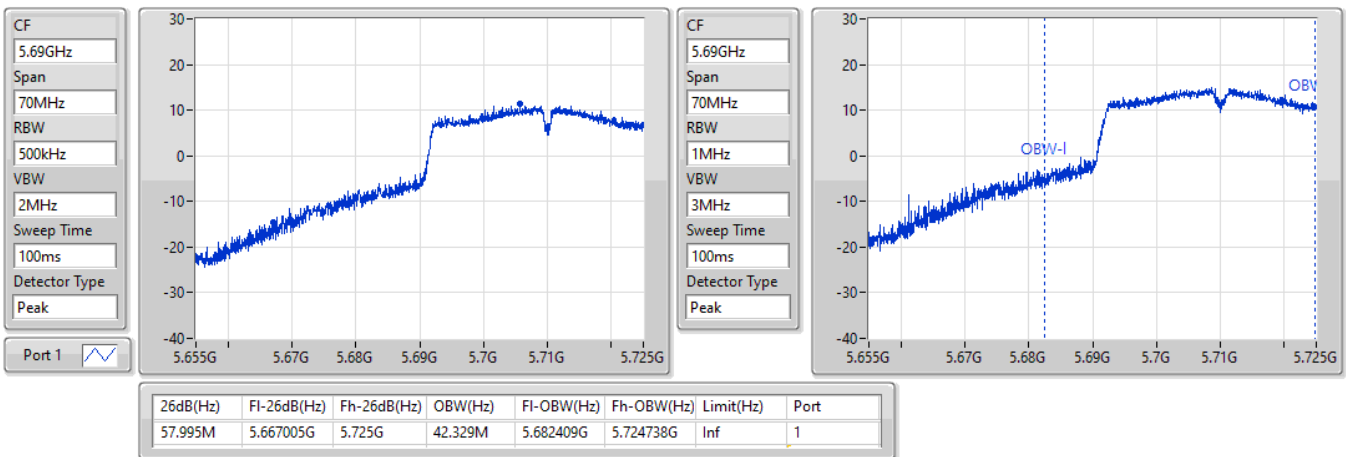


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5670MHz

05/10/2021

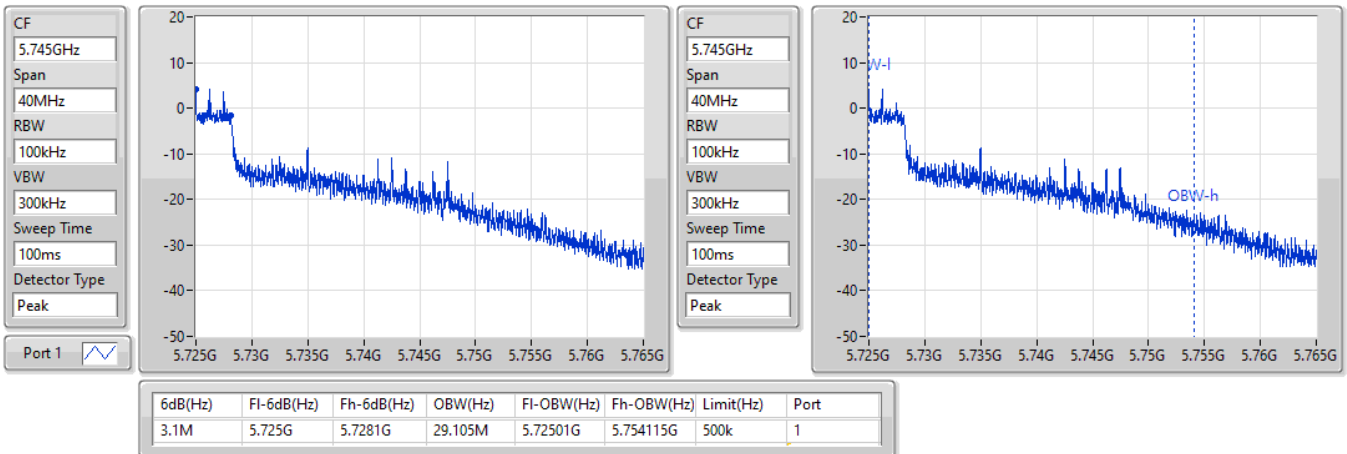

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5710MHz Straddle 5.47-5.725GHz

05/10/2021

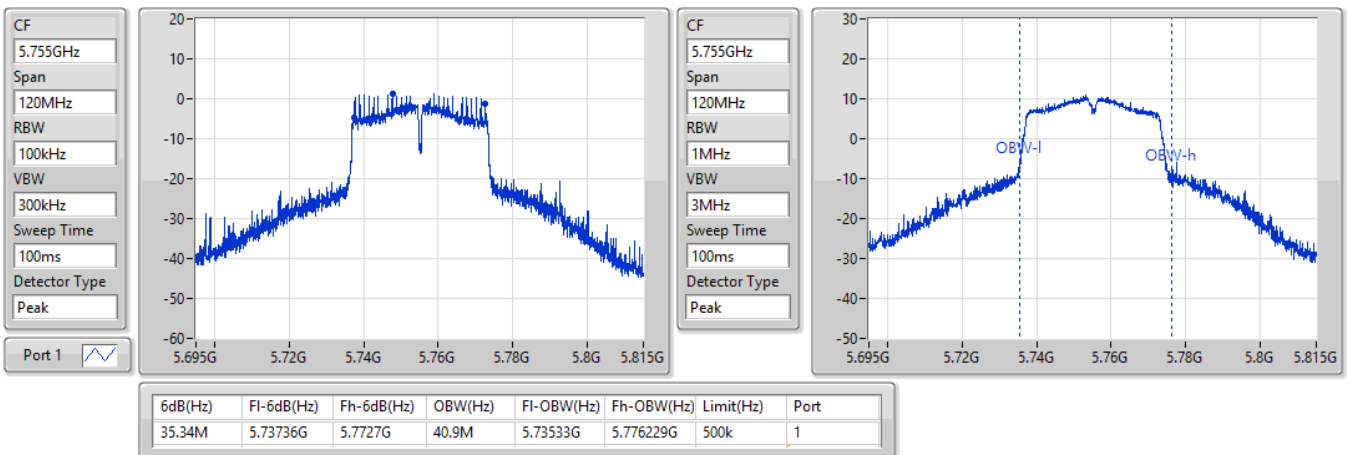


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5710MHz Straddle 5.725-5.85GHz

05/10/2021

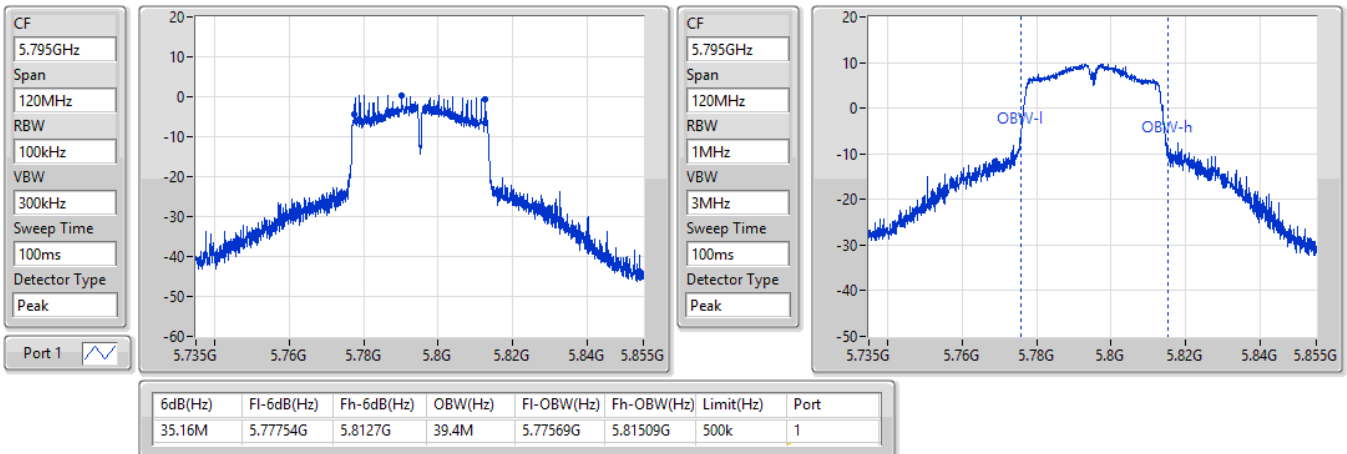

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5755MHz

11/09/2021

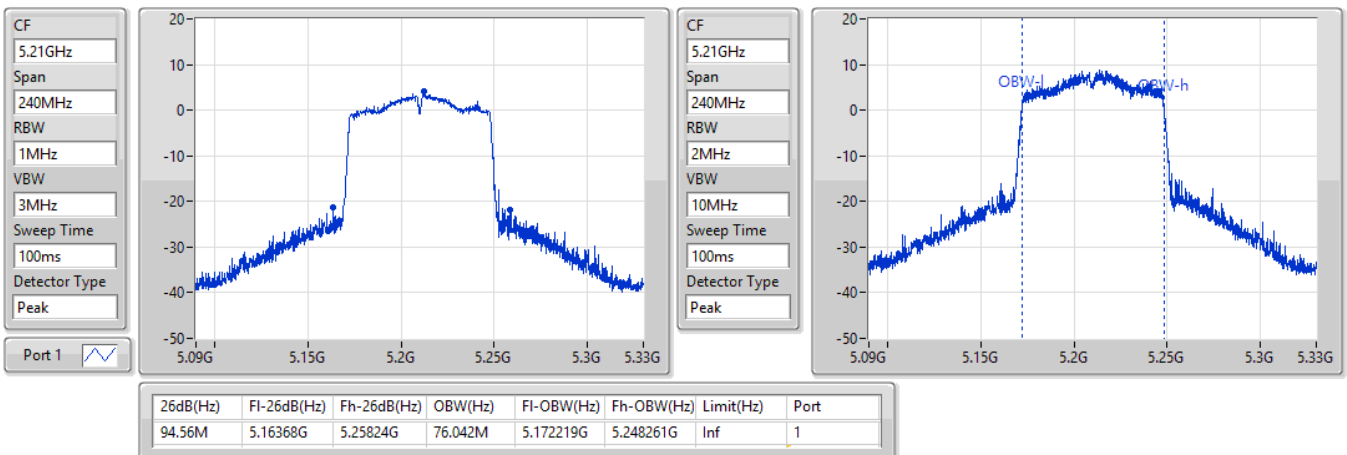


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5795MHz

11/09/2021

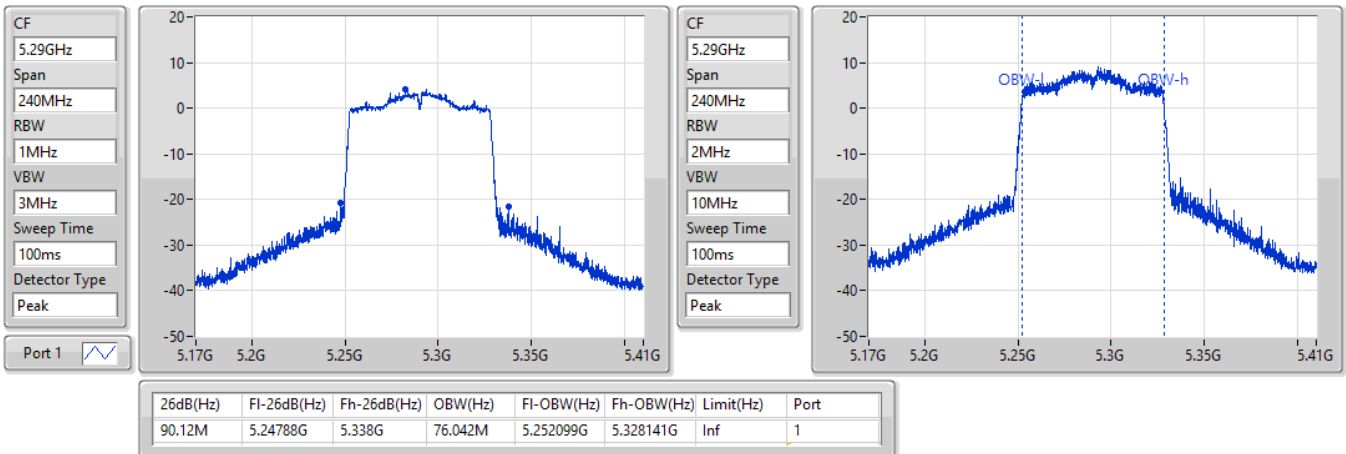

802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5210MHz

11/09/2021

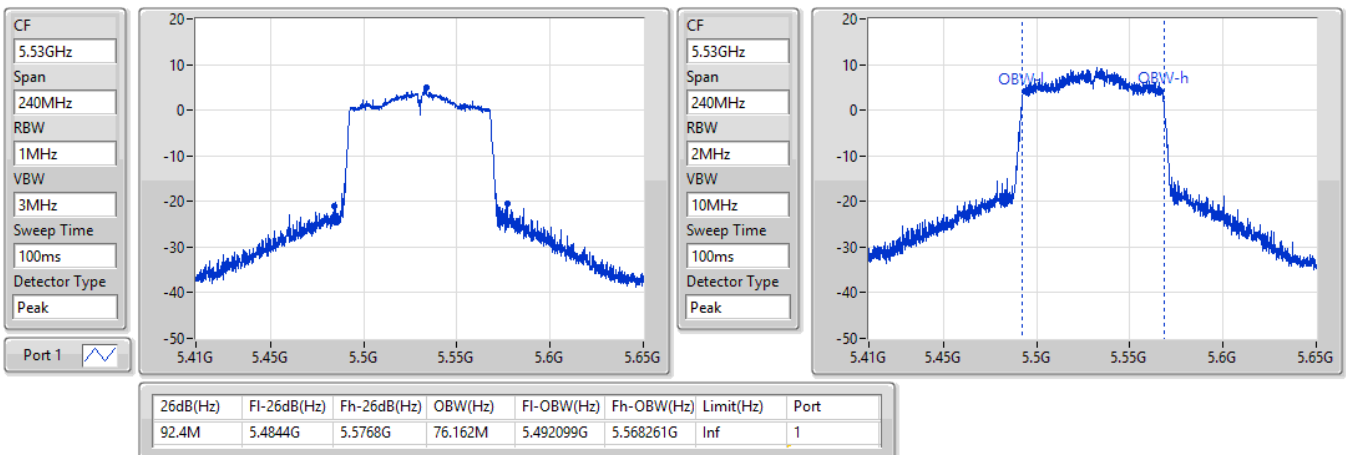


802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5290MHz

11/09/2021

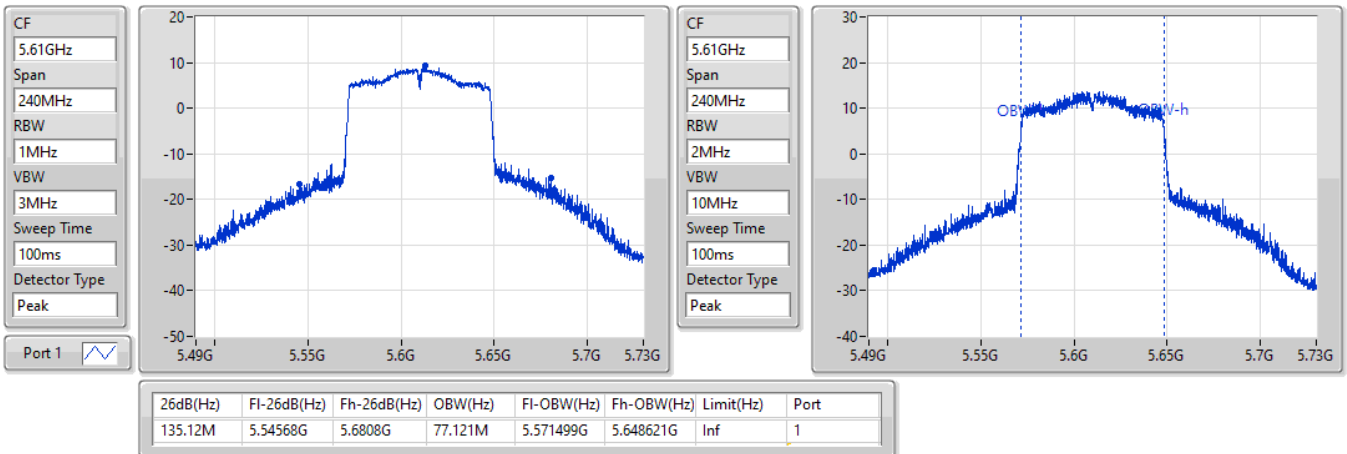

802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5530MHz

11/09/2021

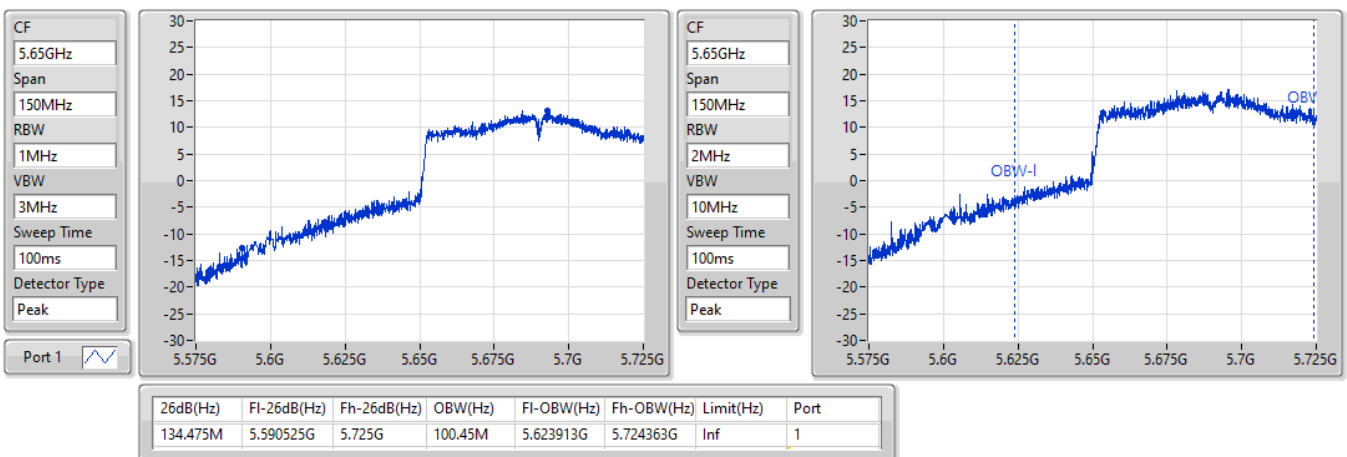


802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5610MHz

05/10/2021

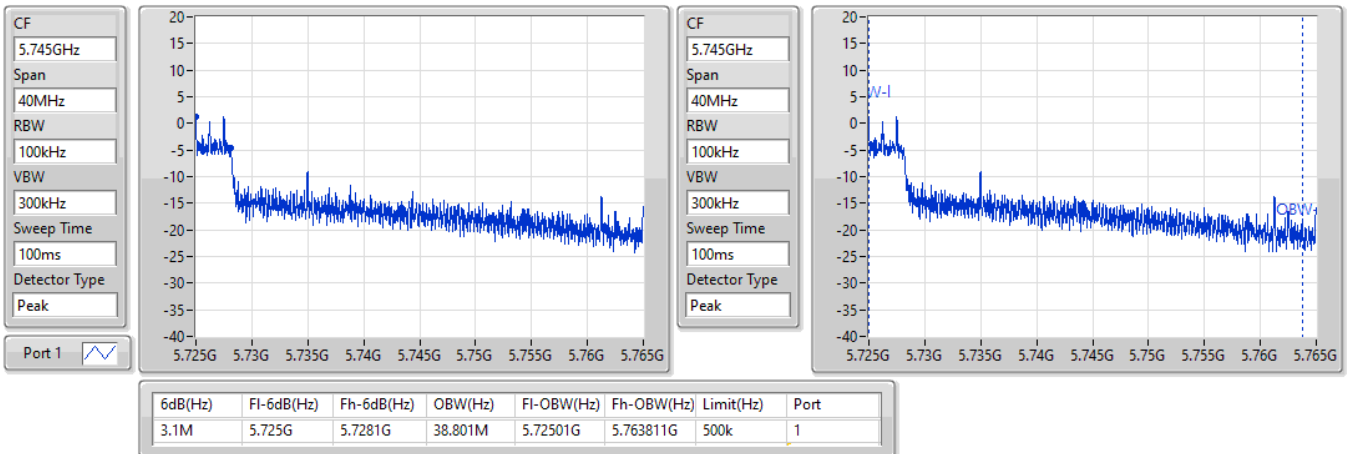

802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5690MHz Straddle 5.47-5.725GHz

05/10/2021

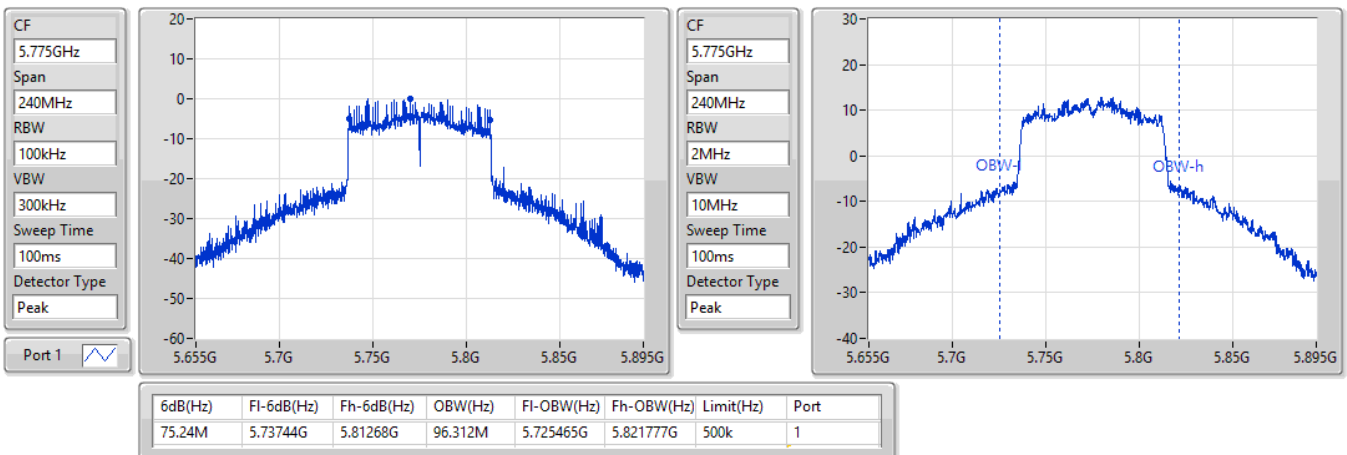


802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5690MHz Straddle 5.725-5.85GHz

05/10/2021


802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5775MHz

11/09/2021



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)_1TX	33.24M	20.75M	20M7D1D	26.88M	17.781M
802.11ac VHT20_Nss1,(MCS0)_1TX	42.96M	22.999M	23M0D1D	33.03M	18.771M
802.11ac VHT40_Nss1,(MCS0)_1TX	67.08M	38.021M	38M0D1D	55.32M	36.882M
802.11ac VHT80_Nss1,(MCS0)_1TX	82.08M	75.922M	75M9D1D	82.08M	75.922M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	37.5M	24.948M	24M9D1D	31.92M	18.321M
802.11ac VHT20_Nss1,(MCS0)_1TX	43.41M	27.196M	27M2D1D	33.57M	18.741M
802.11ac VHT40_Nss1,(MCS0)_1TX	74.7M	38.501M	38M5D1D	55.98M	36.942M
802.11ac VHT80_Nss1,(MCS0)_1TX	94.08M	76.282M	76M3D1D	94.08M	76.282M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	40.29M	26.657M	26M7D1D	23.115M	17.271M
802.11ac VHT20_Nss1,(MCS0)_1TX	45.81M	28.066M	28M1D1D	25.2M	17.856M
802.11ac VHT40_Nss1,(MCS0)_1TX	91.38M	56.192M	56M2D1D	58.555M	36.942M
802.11ac VHT80_Nss1,(MCS0)_1TX	151.8M	97.901M	97M9D1D	120.24M	76.402M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.05M	25.337M	25M3D1D	3.14M	12.474M
802.11ac VHT20_Nss1,(MCS0)_1TX	17.28M	26.417M	26M4D1D	3.74M	14.353M
802.11ac VHT40_Nss1,(MCS0)_1TX	35.4M	49.955M	50M0D1D	3.14M	26.067M
802.11ac VHT80_Nss1,(MCS0)_1TX	75.12M	95.112M	95M1D1D	3.14M	38.681M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Max-OBW = Maximum 99% occupied bandwidth;
 Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Min-OBW = Minimum 99% occupied bandwidth

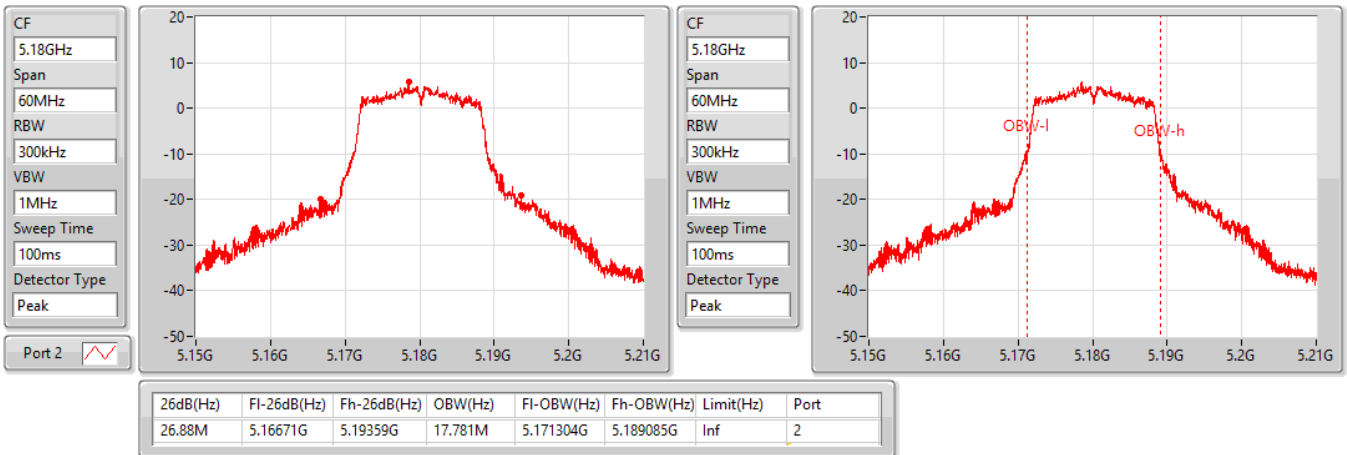
Result

Mode	Result	Limit (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	26.88M	17.781M
5200MHz	Pass	Inf	33.24M	20.75M
5240MHz	Pass	Inf	32.49M	19.22M
5260MHz	Pass	Inf	37.5M	24.948M
5300MHz	Pass	Inf	32.91M	18.951M
5320MHz	Pass	Inf	31.92M	18.321M
5500MHz	Pass	Inf	26.07M	17.631M
5580MHz	Pass	Inf	40.29M	26.657M
5700MHz	Pass	Inf	29.13M	17.781M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	23.115M	17.271M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	12.474M
5745MHz	Pass	500k	15.78M	25.337M
5785MHz	Pass	500k	16.05M	24.138M
5825MHz	Pass	500k	16.05M	24.858M
802.11ac_VHT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	33.03M	18.771M
5200MHz	Pass	Inf	42.96M	22.999M
5240MHz	Pass	Inf	36.36M	19.46M
5260MHz	Pass	Inf	43.41M	27.196M
5300MHz	Pass	Inf	42.96M	22.549M
5320MHz	Pass	Inf	33.57M	18.741M
5500MHz	Pass	Inf	25.2M	18.201M
5580MHz	Pass	Inf	45.81M	28.066M
5700MHz	Pass	Inf	33.06M	18.561M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	26.565M	17.856M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.74M	14.353M
5745MHz	Pass	500k	17.28M	26.417M
5785MHz	Pass	500k	17.28M	25.937M
5825MHz	Pass	500k	17.01M	26.387M
802.11ac_VHT40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	55.32M	36.882M
5230MHz	Pass	Inf	67.08M	38.021M
5270MHz	Pass	Inf	74.7M	38.501M
5310MHz	Pass	Inf	55.98M	36.942M
5510MHz	Pass	Inf	59.16M	36.942M
5550MHz	Pass	Inf	91.38M	56.192M
5670MHz	Pass	Inf	77.94M	42.399M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	58.555M	38.236M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	26.067M
5755MHz	Pass	500k	35.4M	47.736M
5795MHz	Pass	500k	35.16M	49.955M
802.11ac_VHT80_Nss1,(MCS0)_1TX	-	-	-	-
5210MHz	Pass	Inf	82.08M	75.922M
5290MHz	Pass	Inf	94.08M	76.282M
5530MHz	Pass	Inf	120.24M	76.402M
5610MHz	Pass	Inf	151.8M	78.681M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	135.975M	97.901M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	38.681M
5775MHz	Pass	500k	75.12M	95.112M

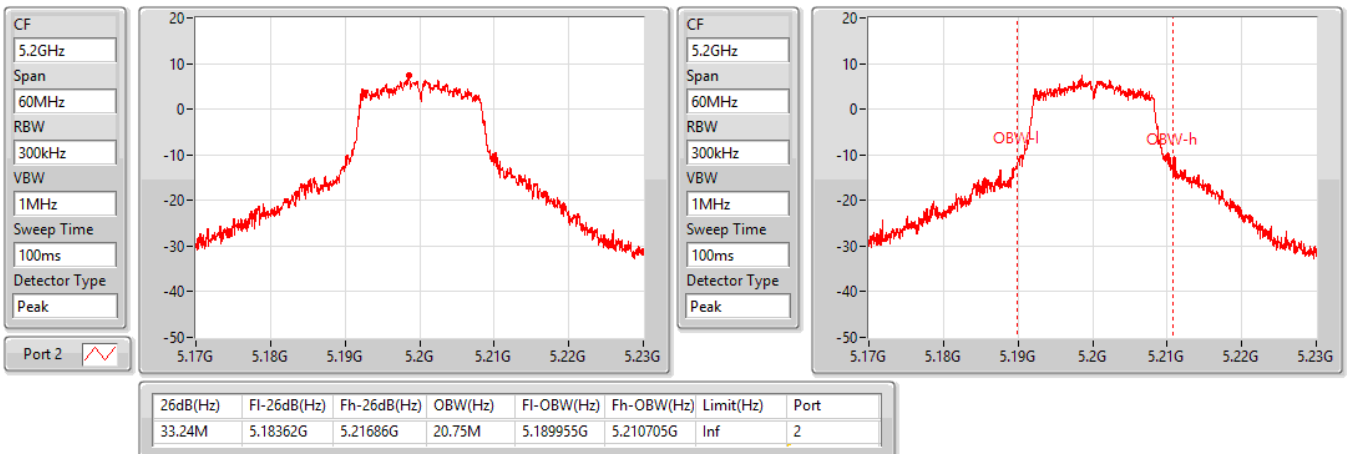
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX
EBW
5180MHz

11/09/2021

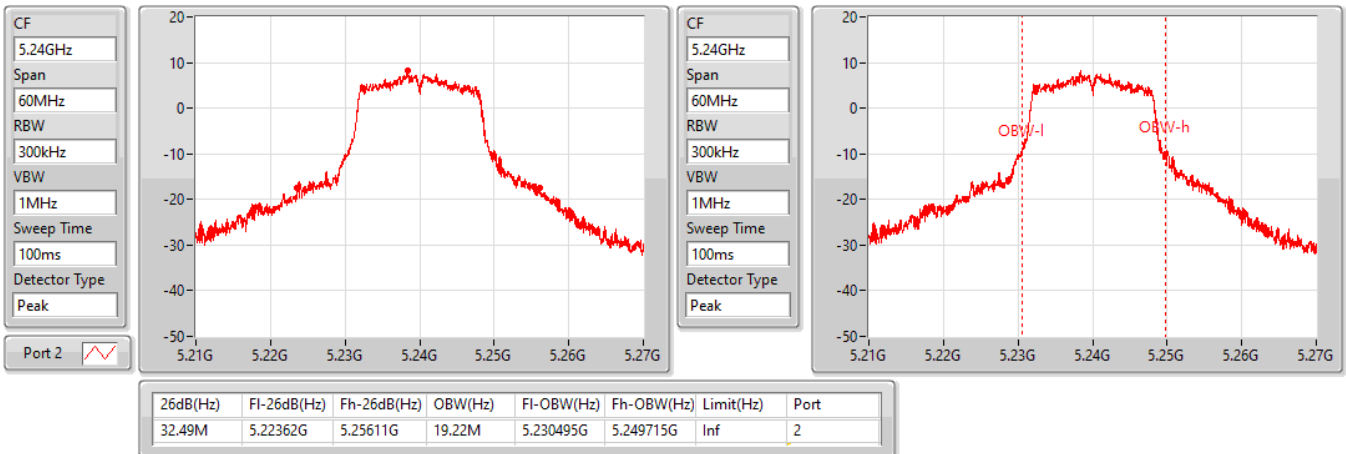

802.11a_Nss1,(6Mbps)_1TX
EBW
5200MHz

11/09/2021

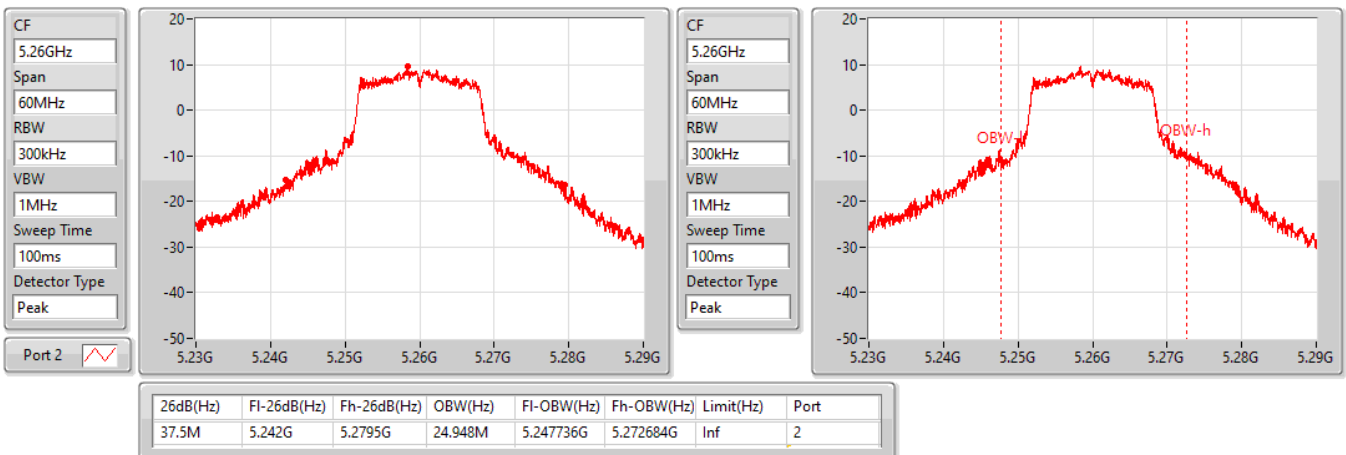


802.11a_Nss1,(6Mbps)_1TX
EBW
5240MHz

18/10/2021

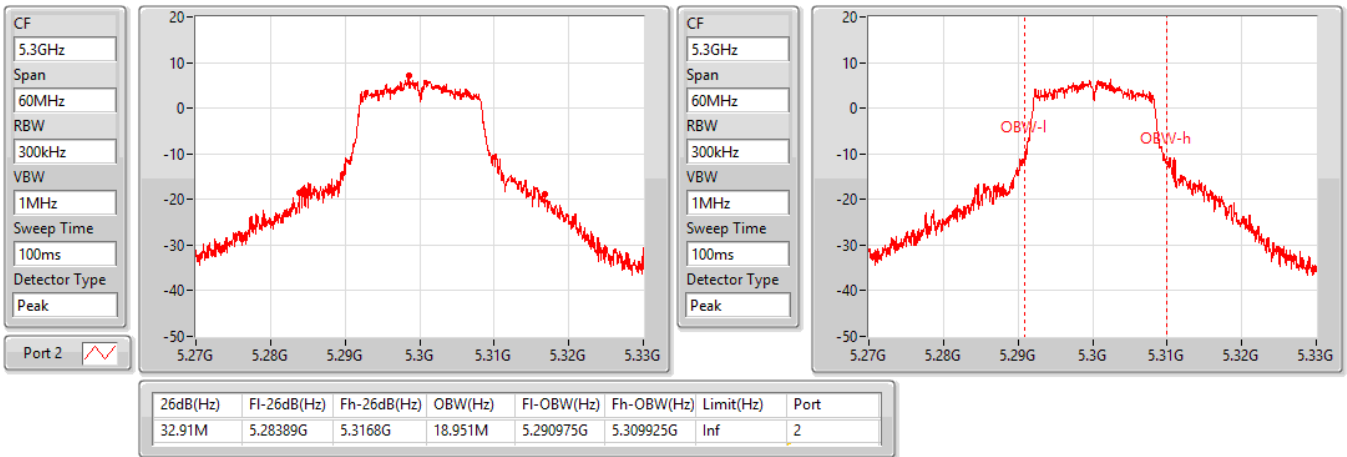

802.11a_Nss1,(6Mbps)_1TX
EBW
5260MHz

05/10/2021

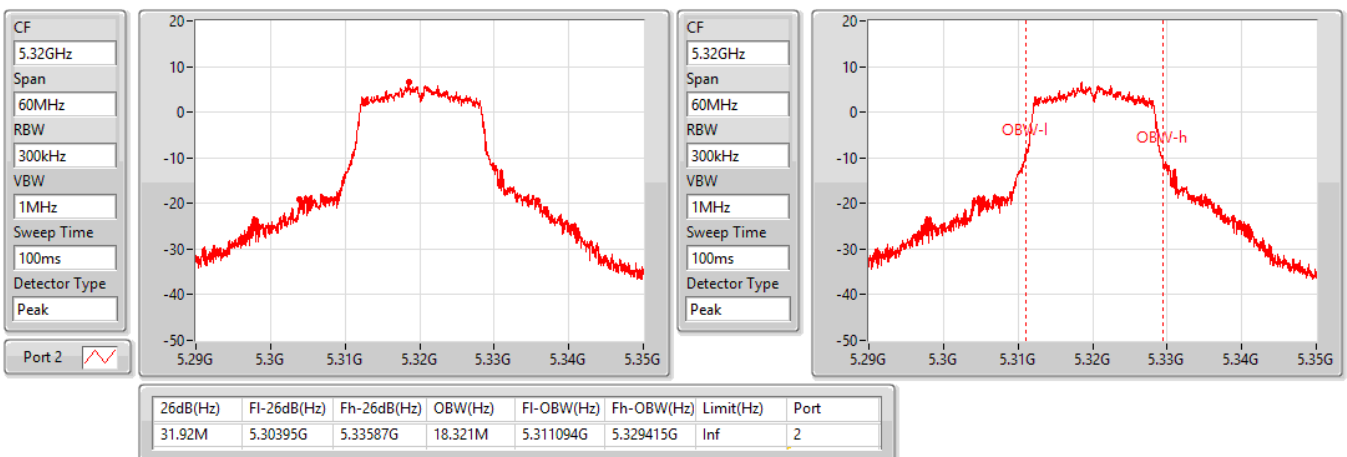


802.11a_Nss1,(6Mbps)_1TX
EBW
5300MHz

11/09/2021

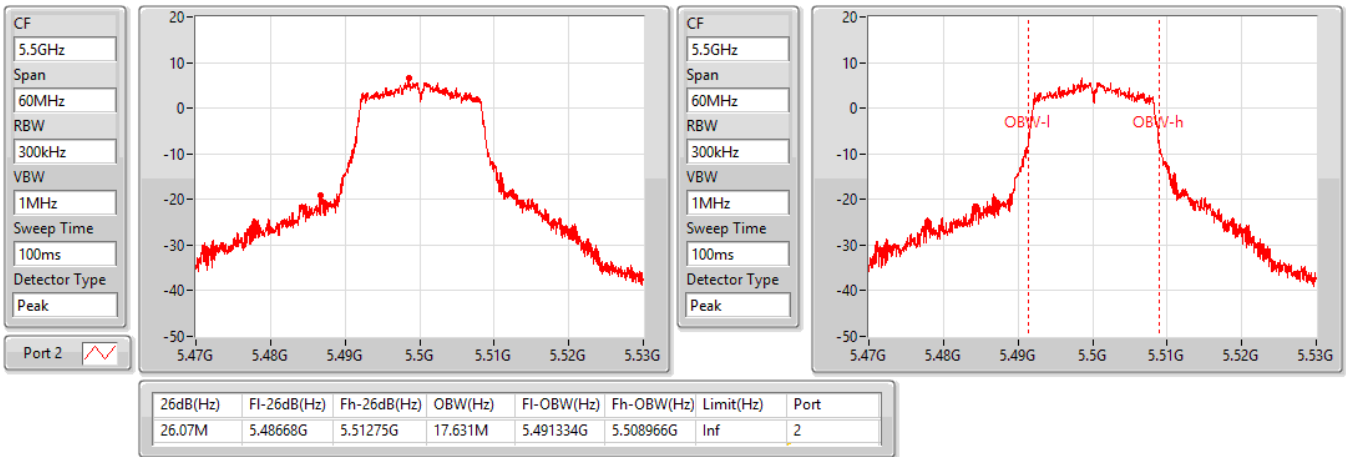

802.11a_Nss1,(6Mbps)_1TX
EBW
5320MHz

11/09/2021

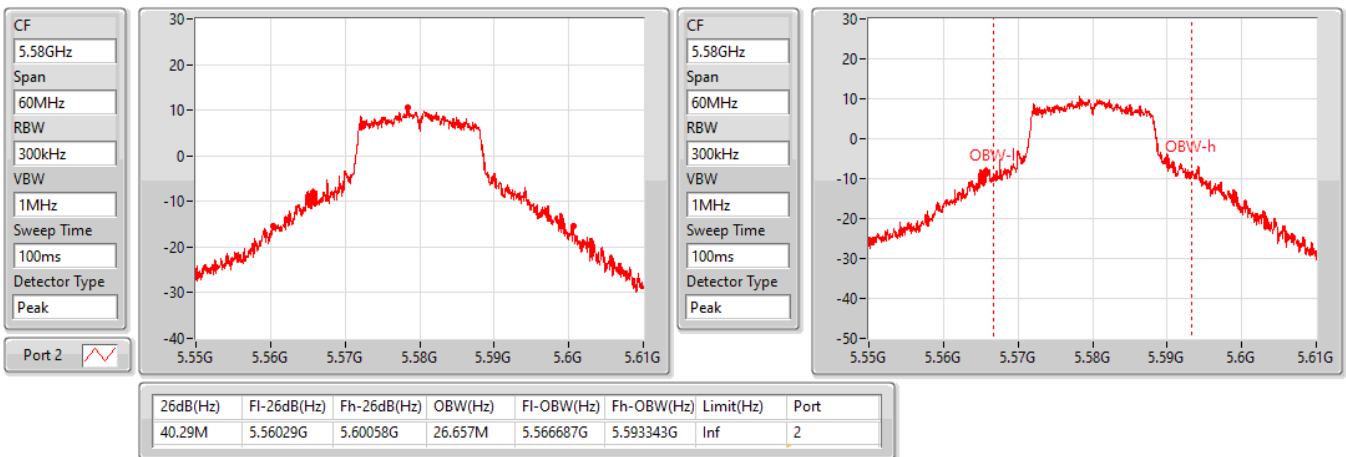


802.11a_Nss1,(6Mbps)_1TX
EBW
5500MHz

11/09/2021

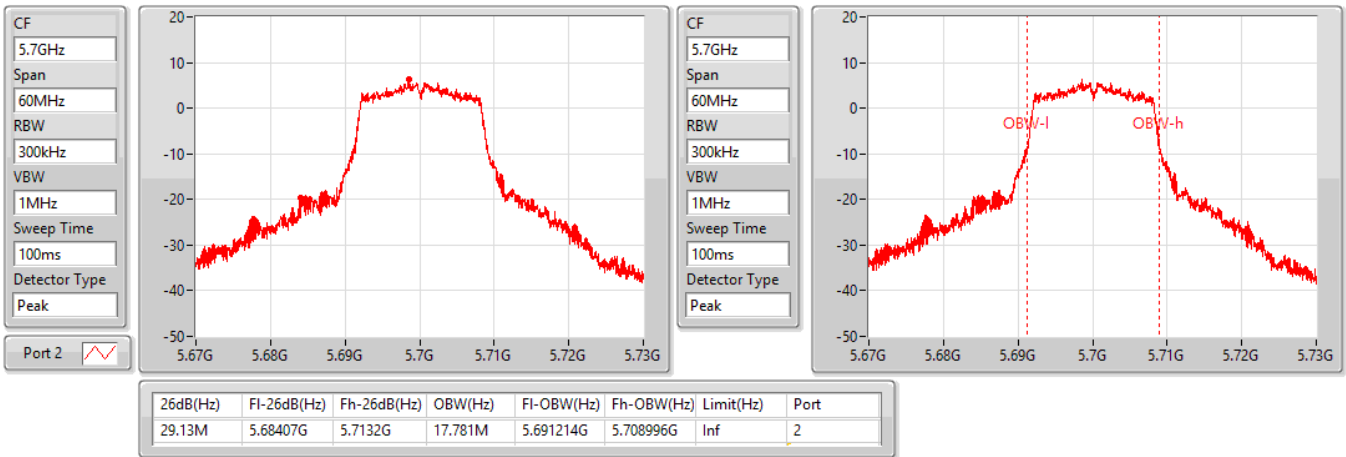

802.11a_Nss1,(6Mbps)_1TX
EBW
5580MHz

05/10/2021

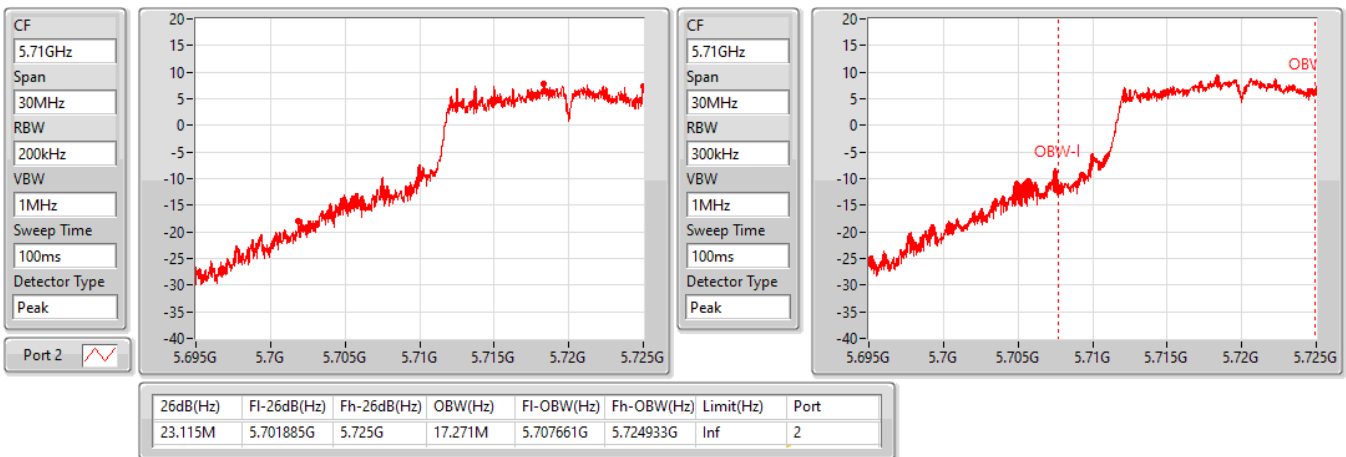


802.11a_Nss1,(6Mbps)_1TX
EBW
5700MHz

11/09/2021

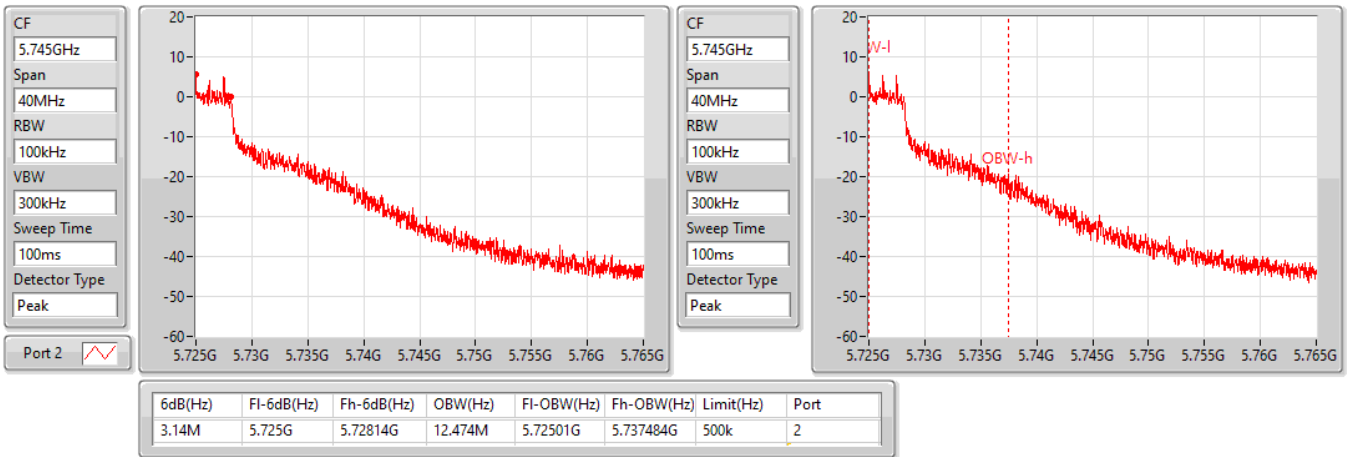

802.11a_Nss1,(6Mbps)_1TX
EBW
5720MHz Straddle 5.47-5.725GHz

05/10/2021

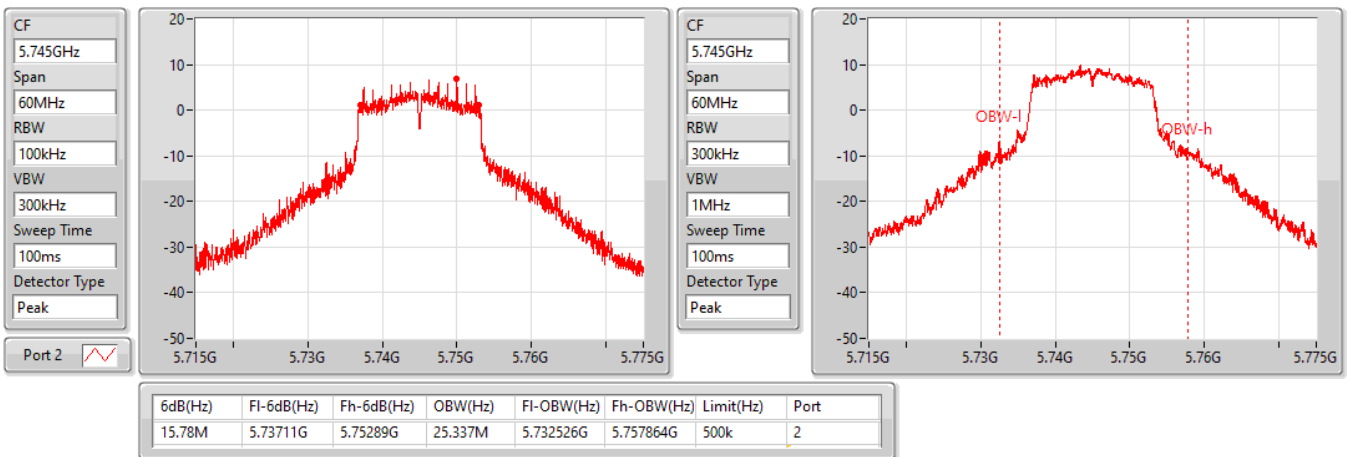


802.11a_Nss1,(6Mbps)_1TX
EBW
5720MHz Straddle 5.725-5.85GHz

05/10/2021

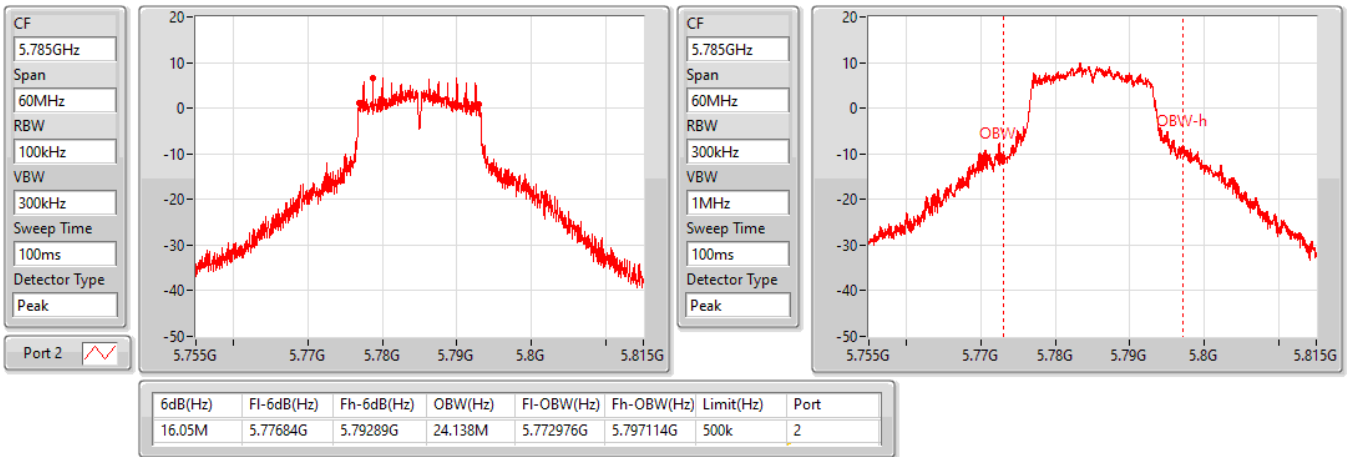

802.11a_Nss1,(6Mbps)_1TX
EBW
5745MHz

05/10/2021

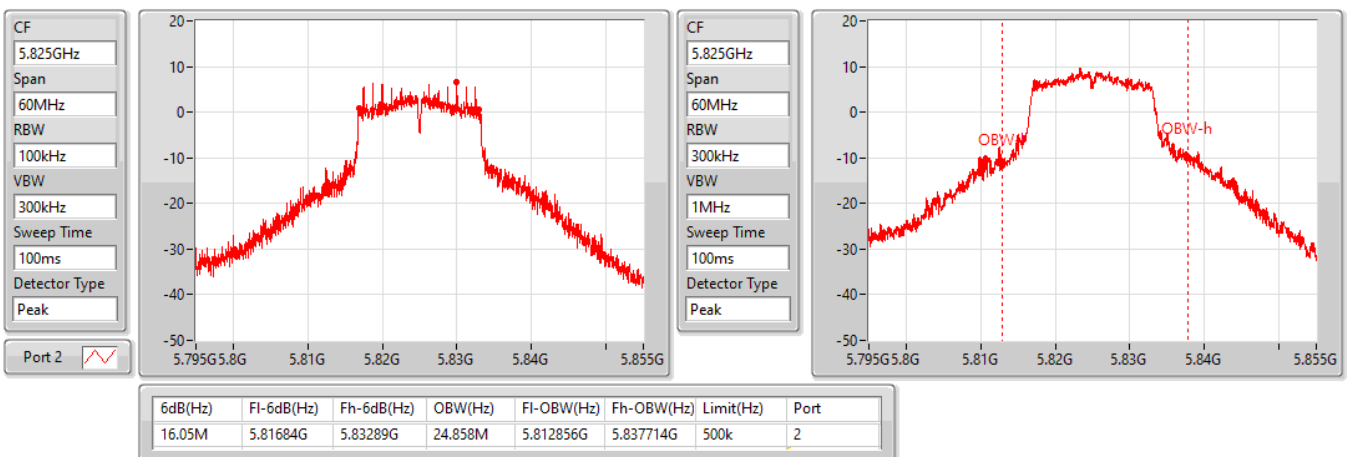


802.11a_Nss1,(6Mbps)_1TX
EBW
5785MHz

05/10/2021

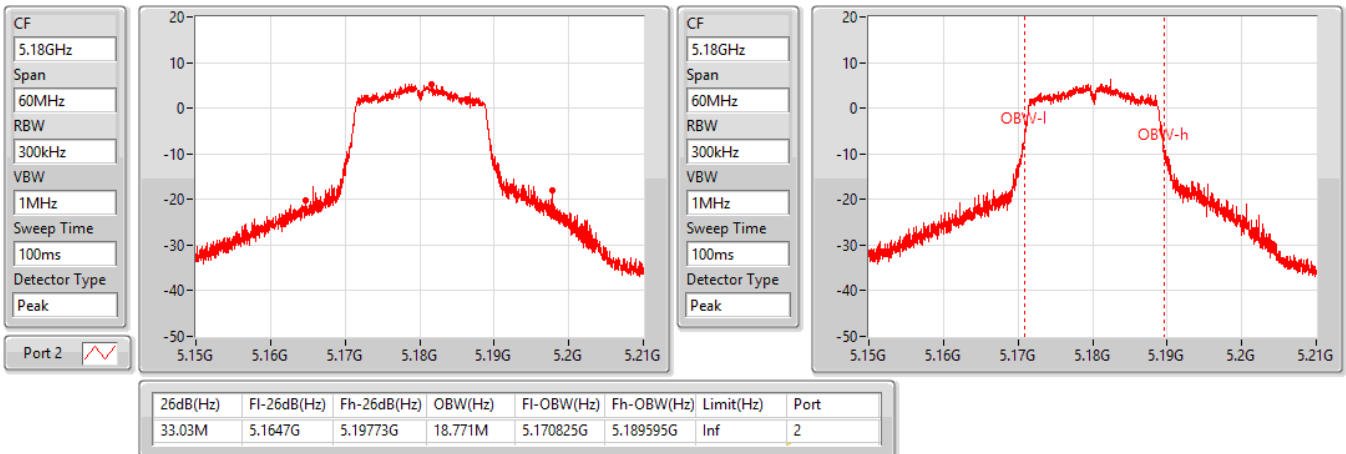

802.11a_Nss1,(6Mbps)_1TX
EBW
5825MHz

05/10/2021

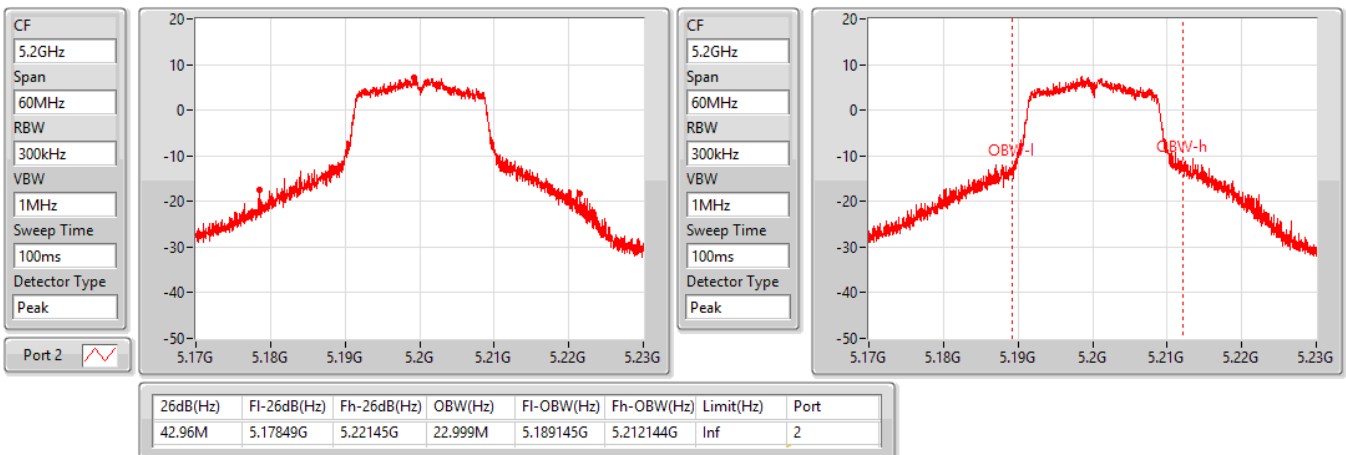


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5180MHz

11/09/2021

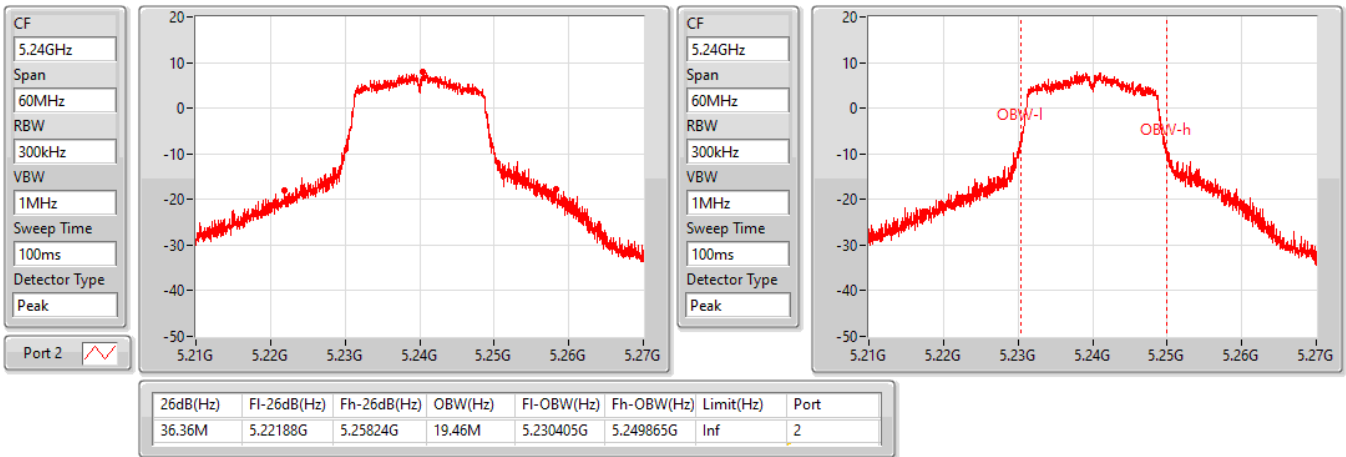

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5200MHz

11/09/2021

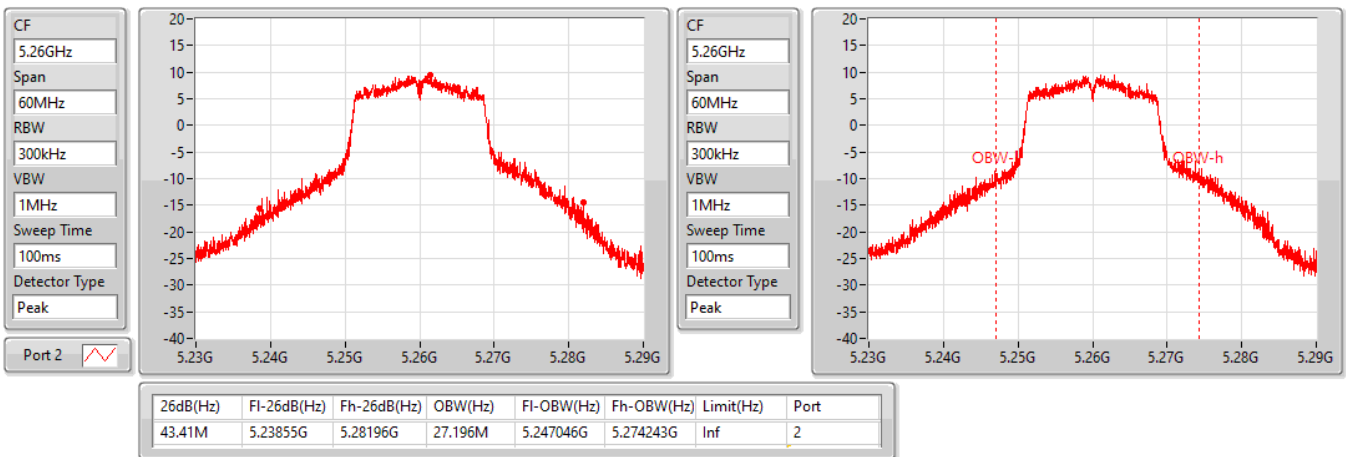


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5240MHz

18/10/2021

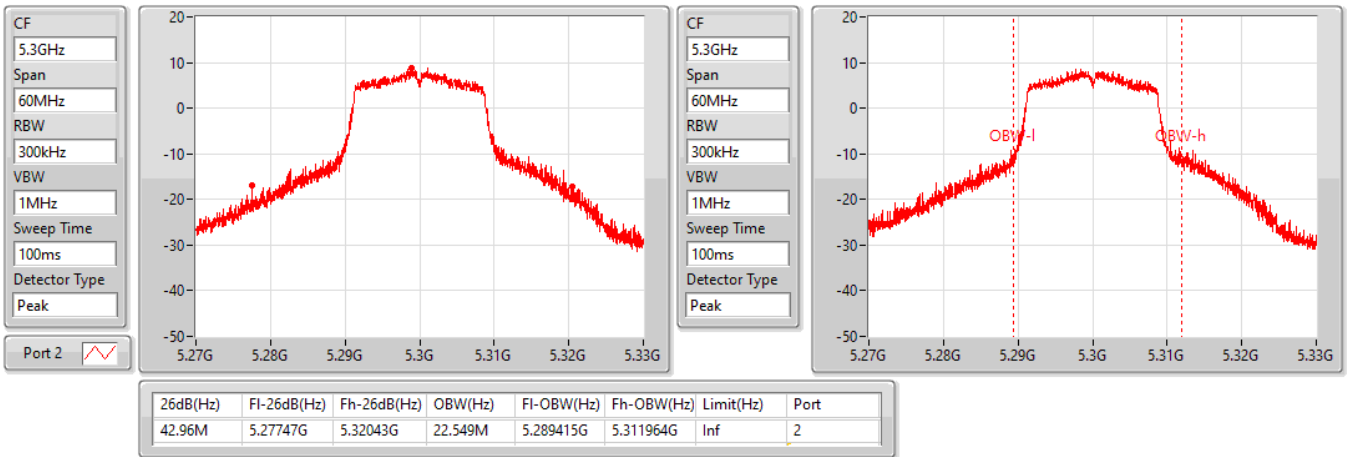

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5260MHz

05/10/2021

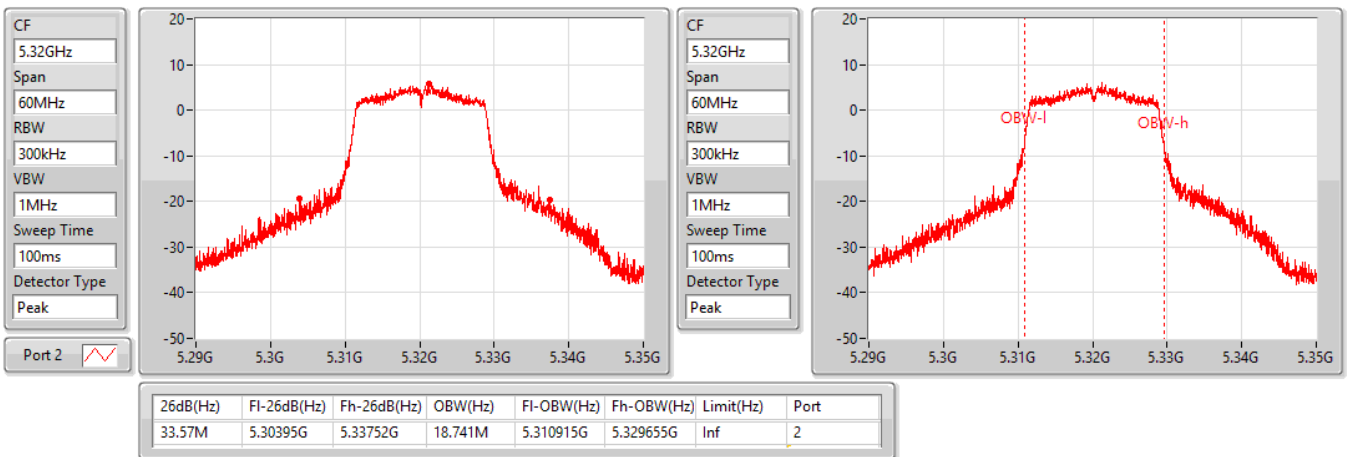


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5300MHz

05/10/2021

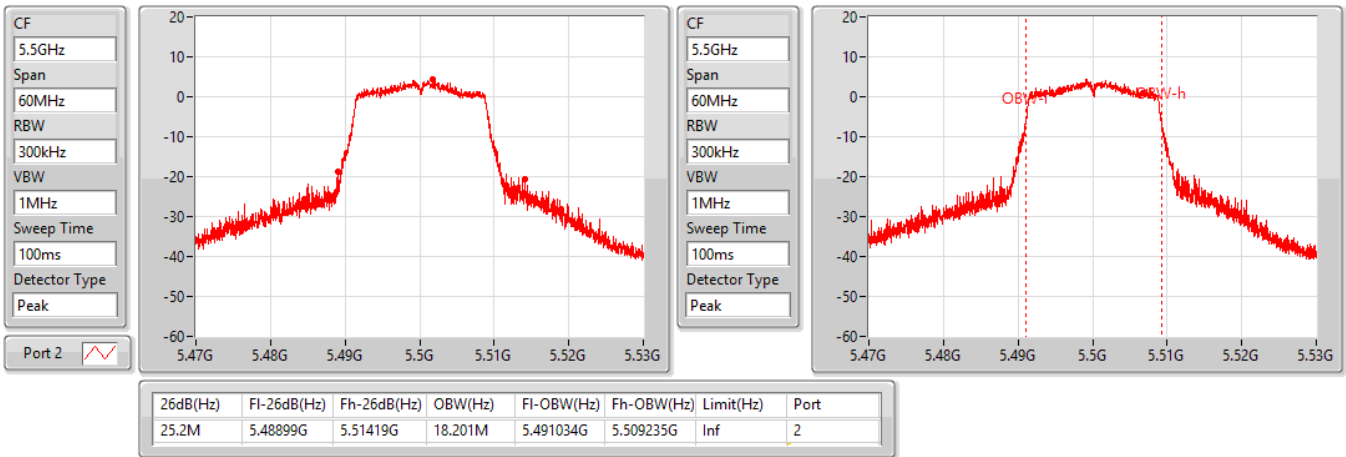

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5320MHz

11/09/2021

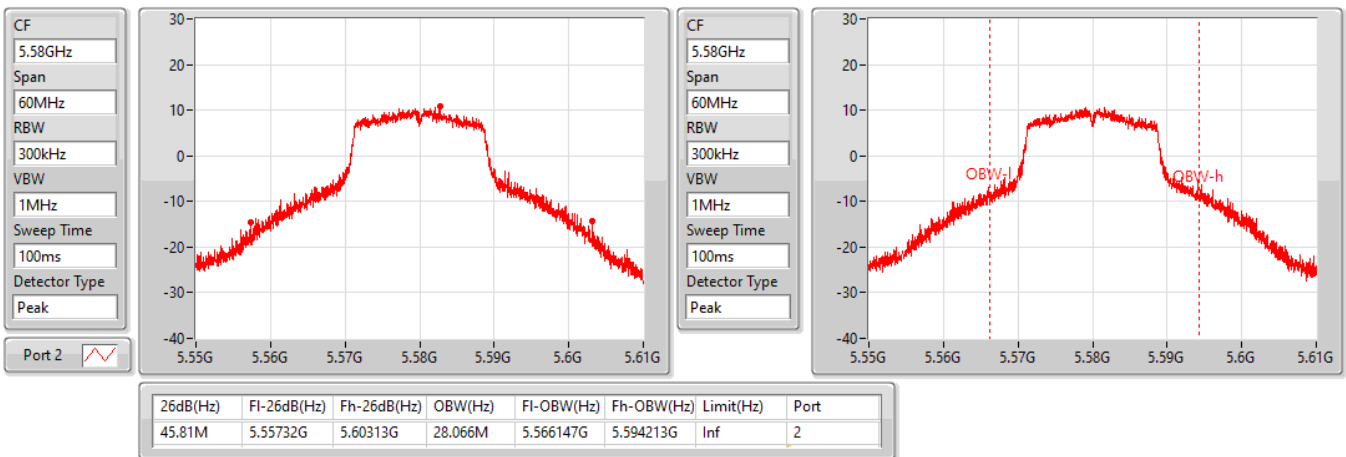


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5500MHz

11/09/2021

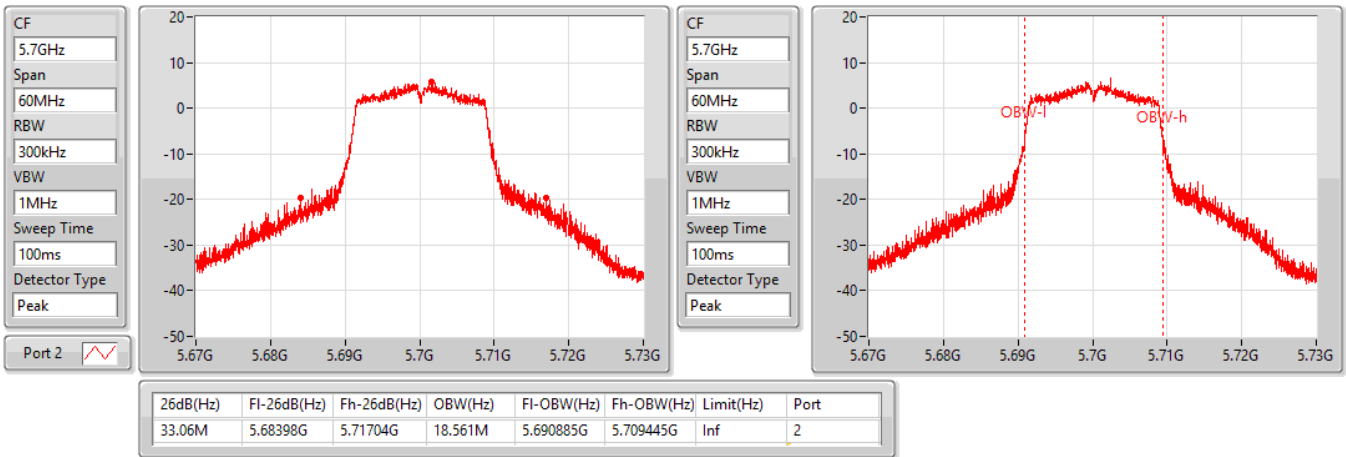

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5580MHz

05/10/2021

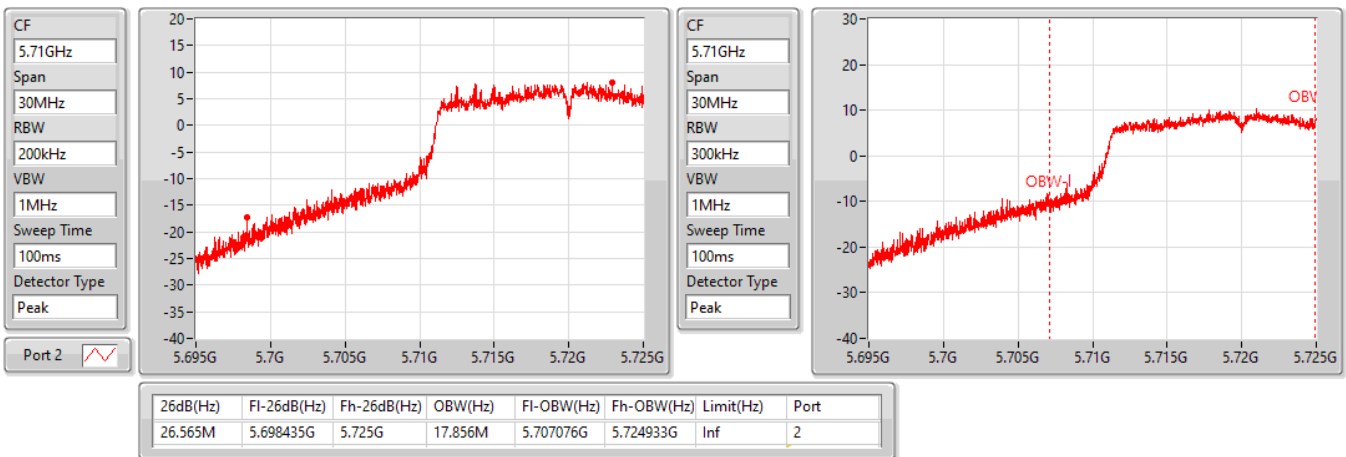


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5700MHz

11/09/2021

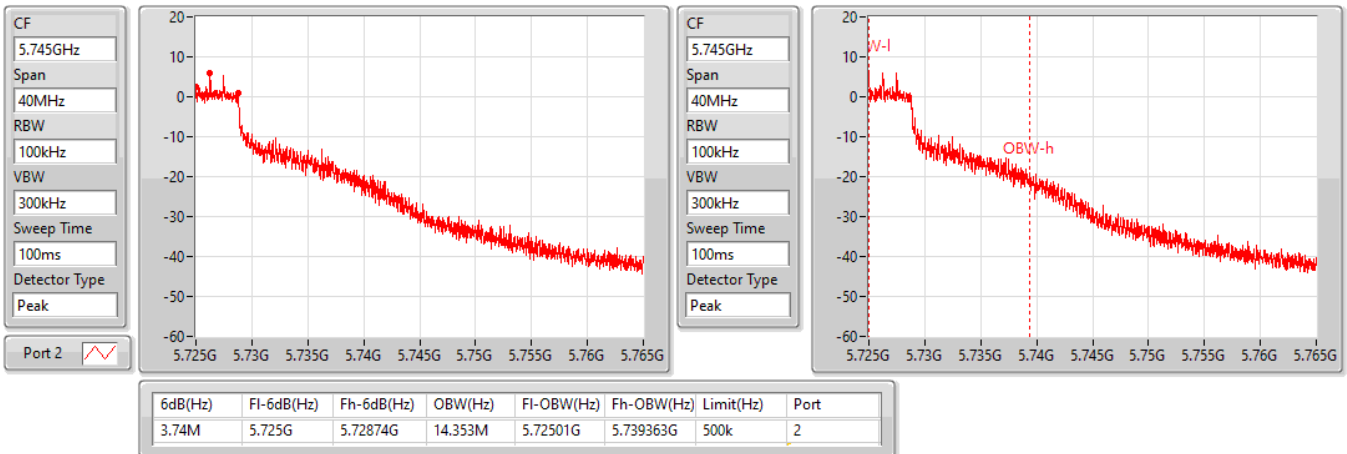

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5720MHz Straddle 5.47-5.725GHz

05/10/2021

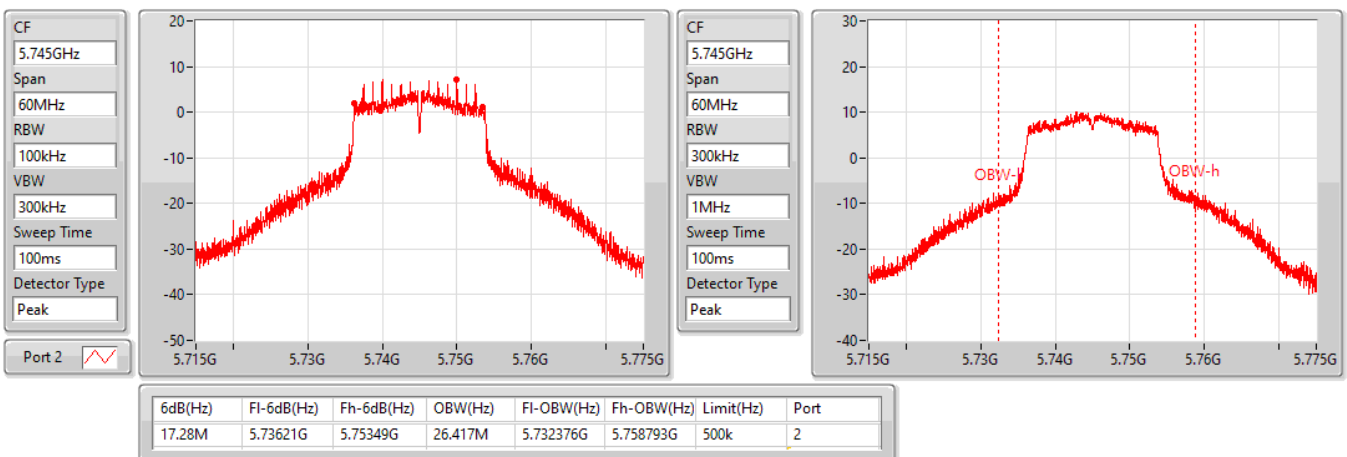


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5720MHz Straddle 5.725-5.85GHz

05/10/2021

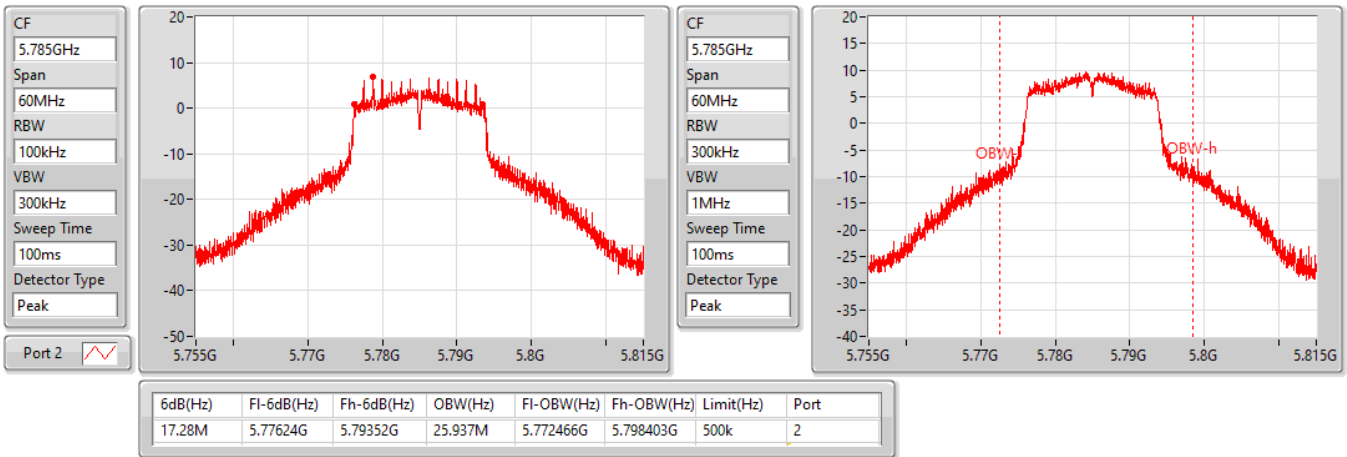

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5745MHz

05/10/2021

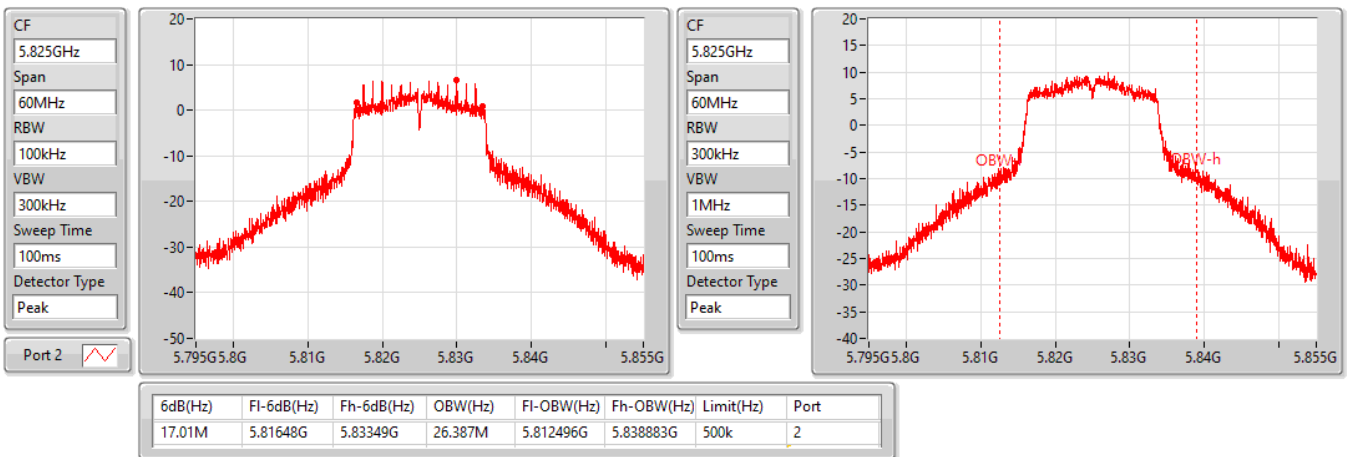


802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5785MHz

05/10/2021

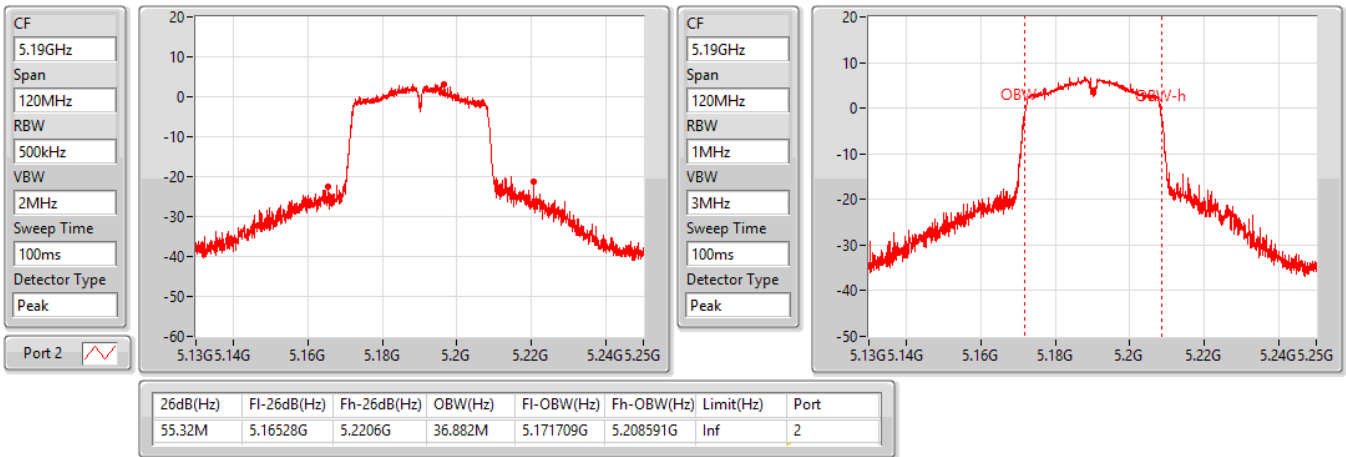

802.11ac VHT20_Nss1,(MCS0)_1TX
EBW
5825MHz

05/10/2021

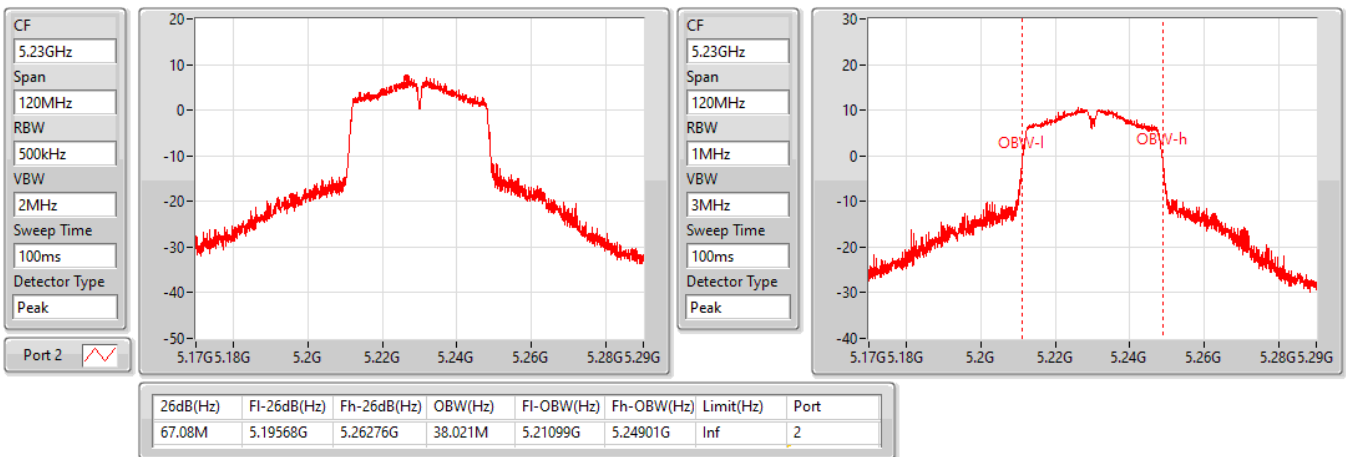


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5190MHz

11/09/2021

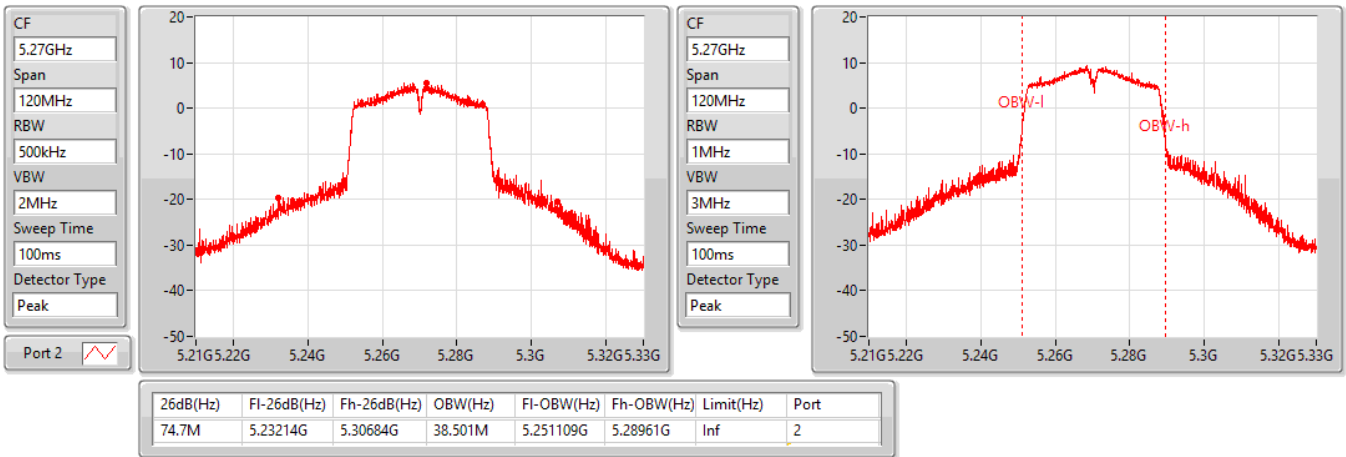

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5230MHz

05/10/2021

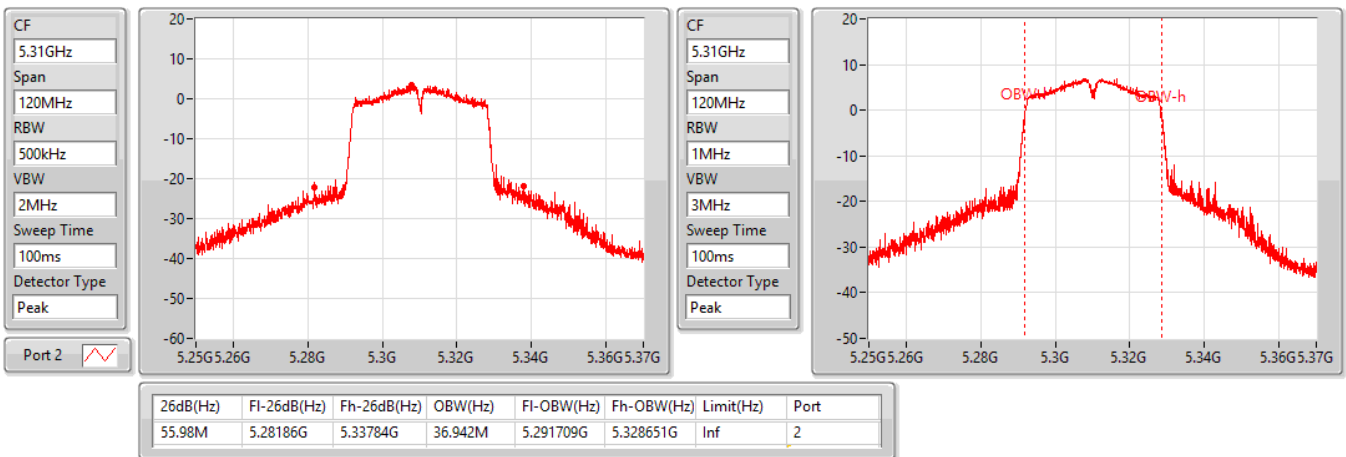


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5270MHz

11/09/2021

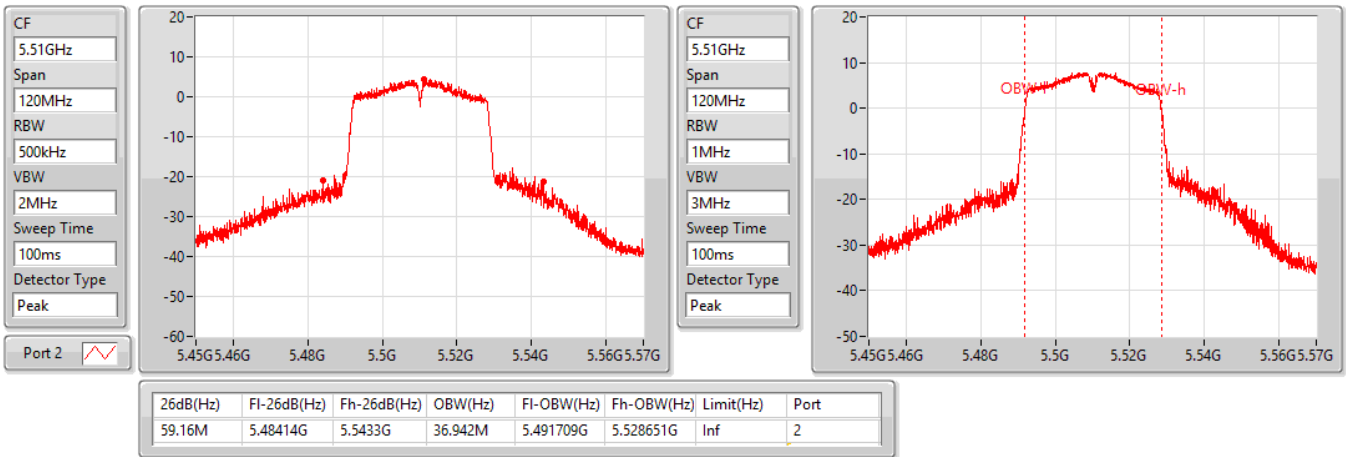

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5310MHz

11/09/2021

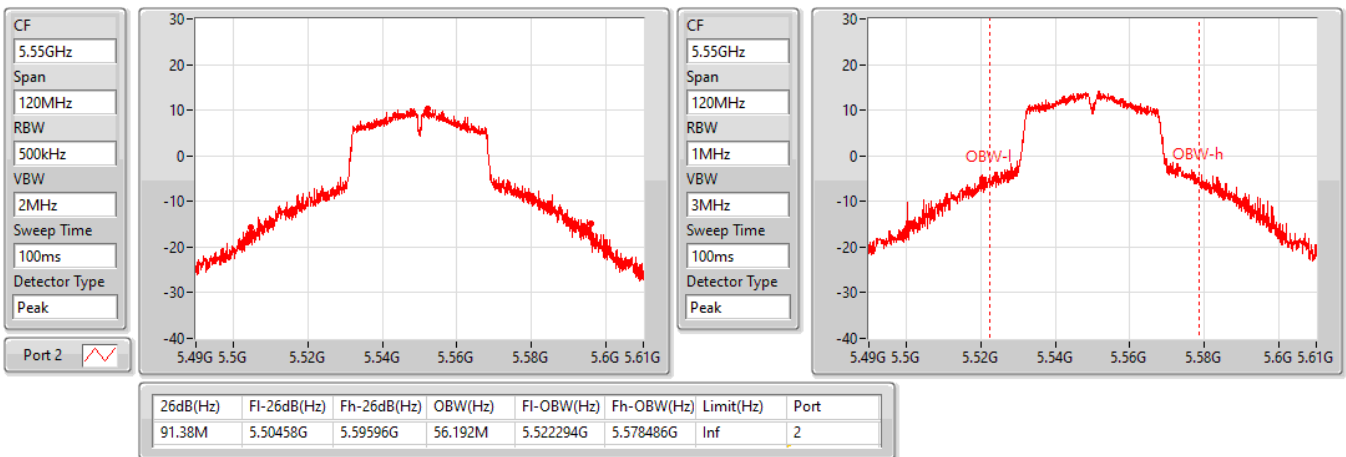


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5510MHz

11/09/2021

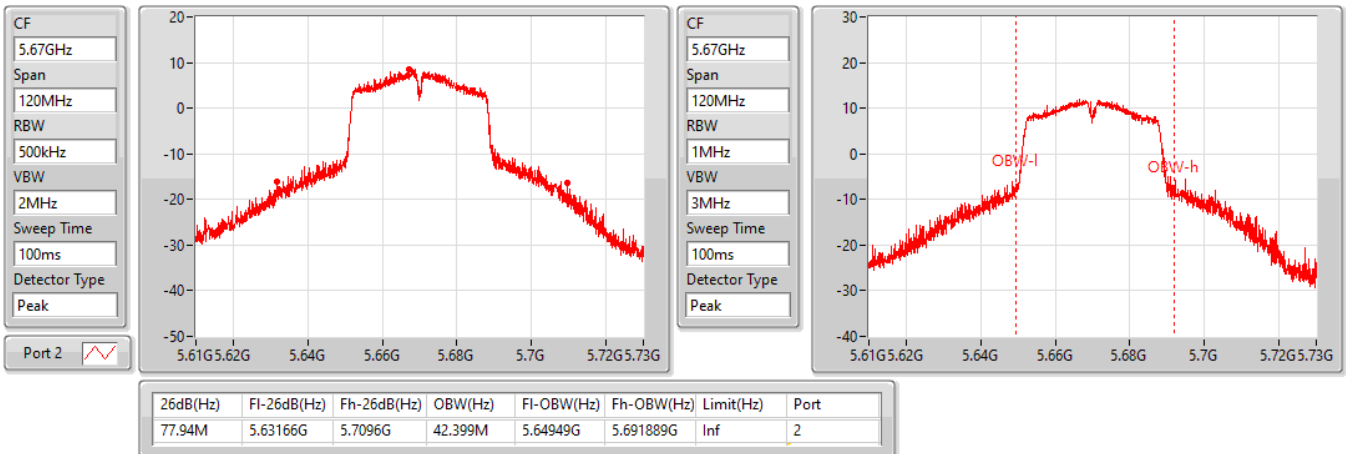

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5550MHz

05/10/2021

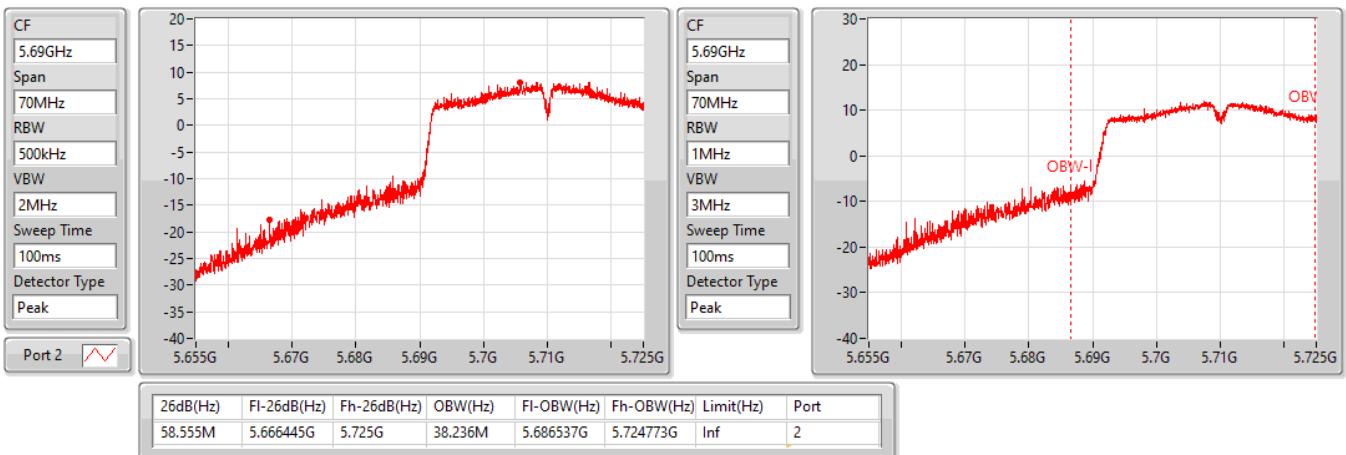


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5670MHz

05/10/2021

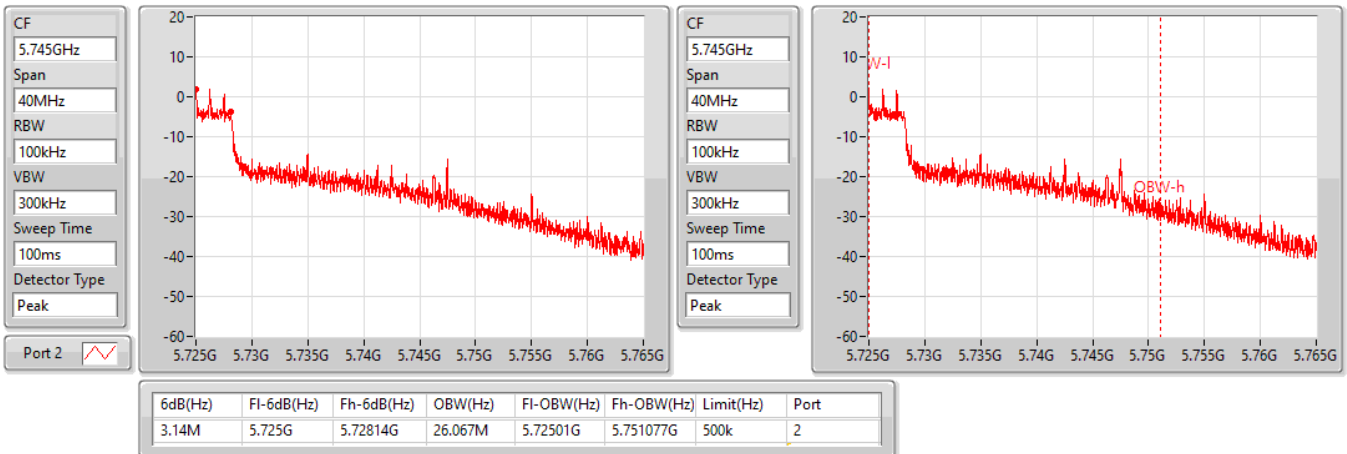

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5710MHz Straddle 5.47-5.725GHz

05/10/2021

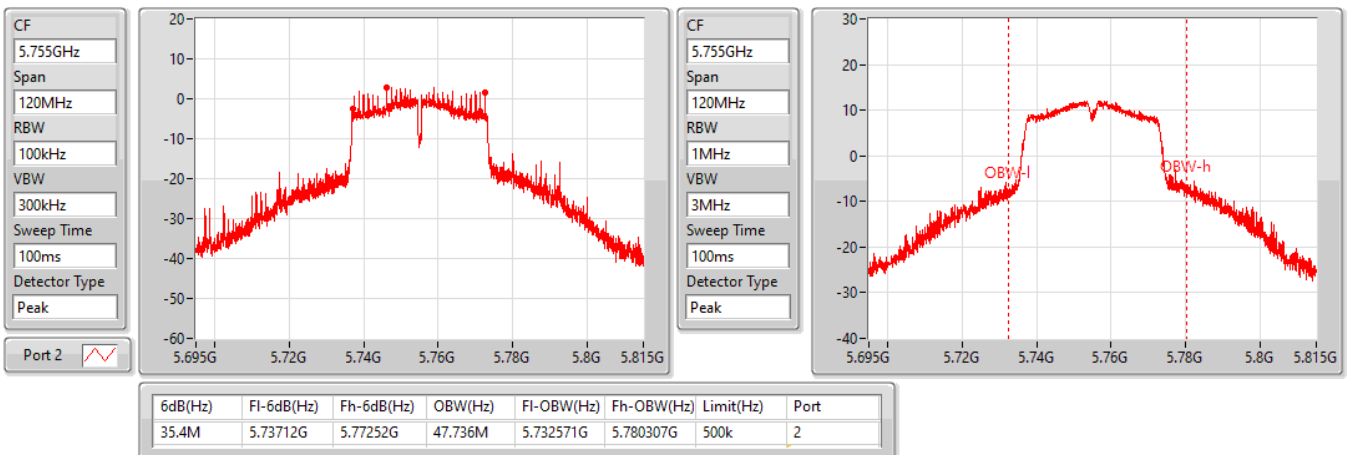


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5710MHz Straddle 5.725-5.85GHz

05/10/2021

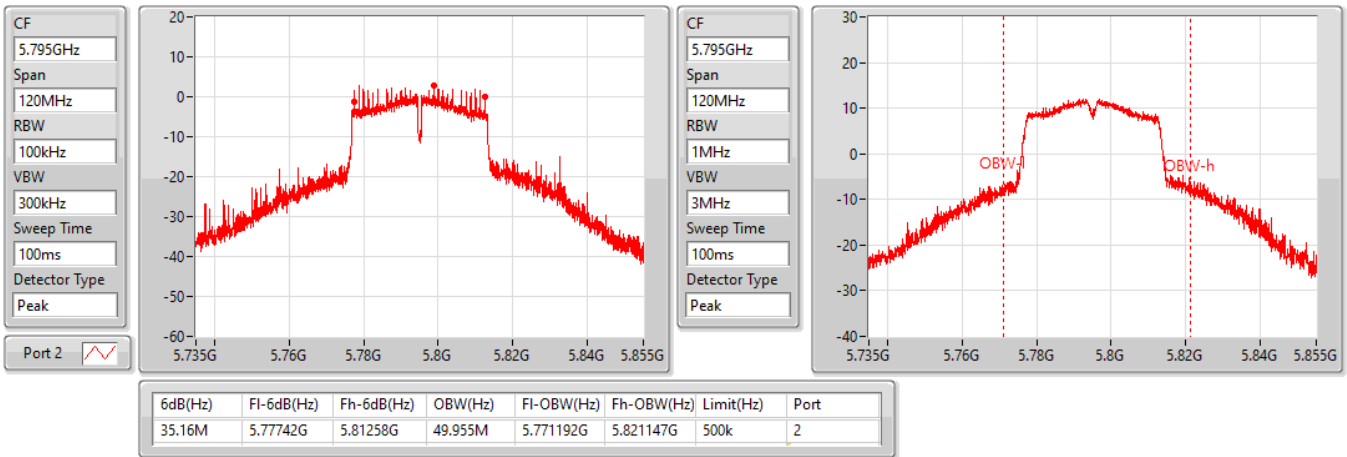

802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5755MHz

05/10/2021

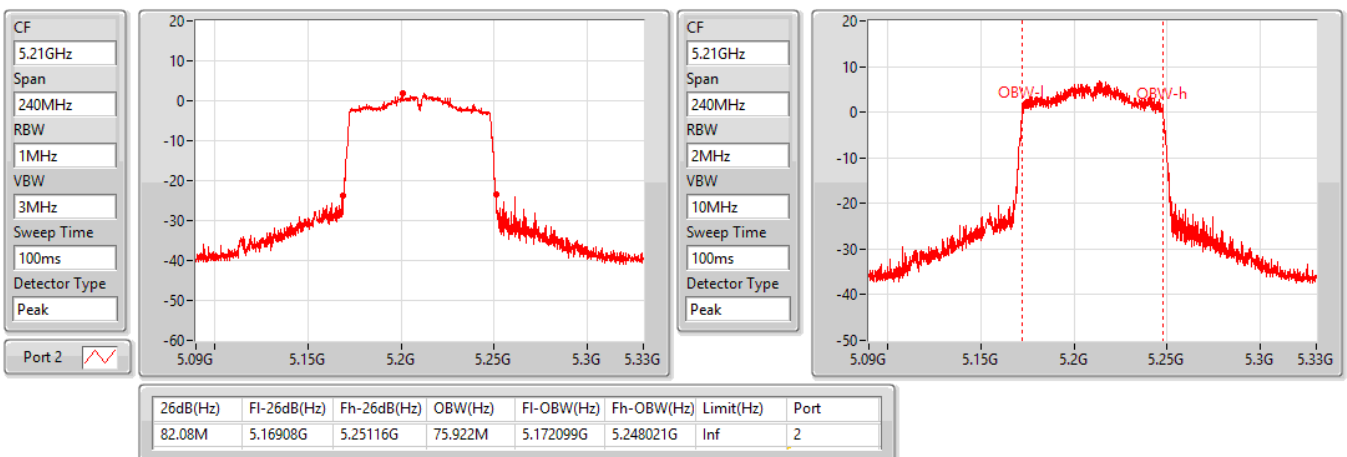


802.11ac VHT40_Nss1,(MCS0)_1TX
EBW
5795MHz

05/10/2021

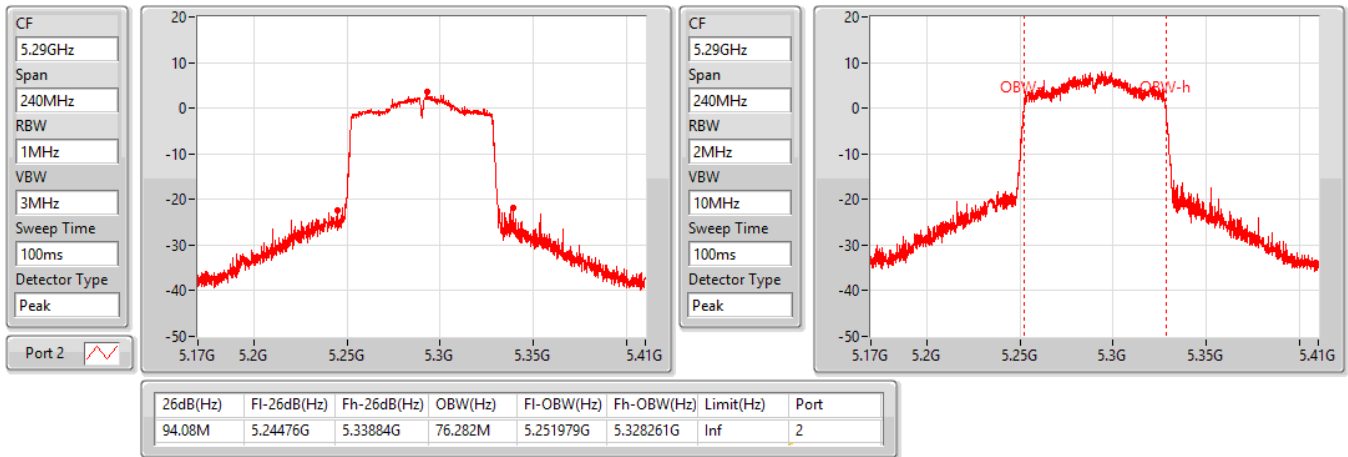

802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5210MHz

11/09/2021

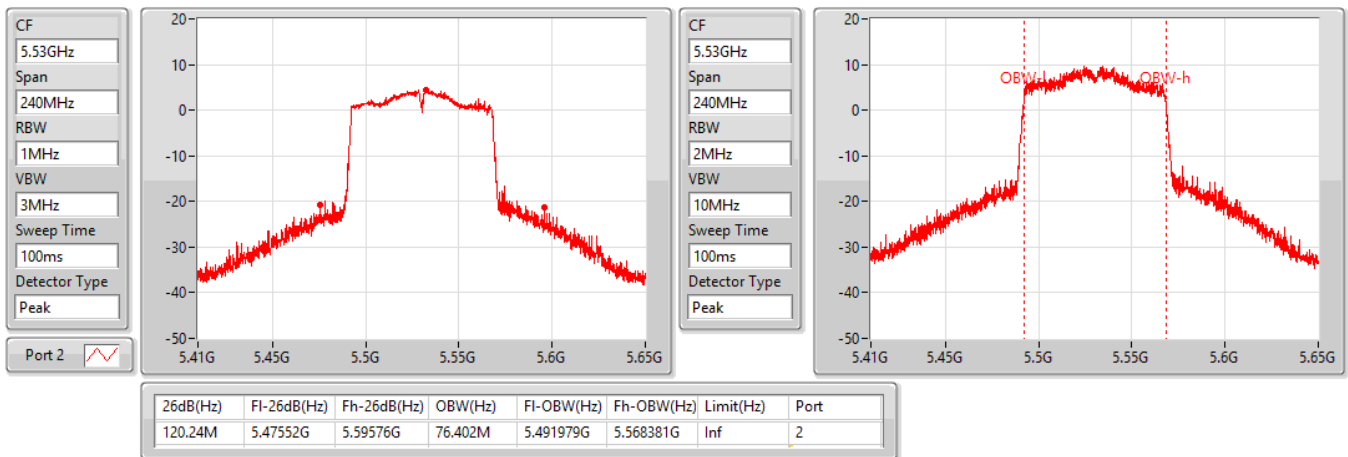


802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5290MHz

11/09/2021

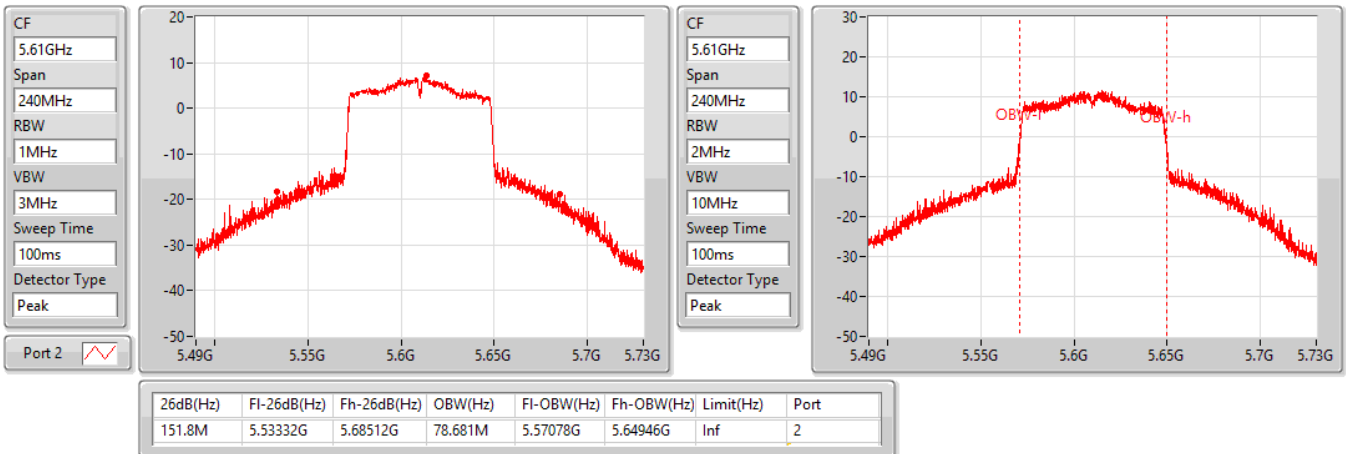

802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5530MHz

11/09/2021

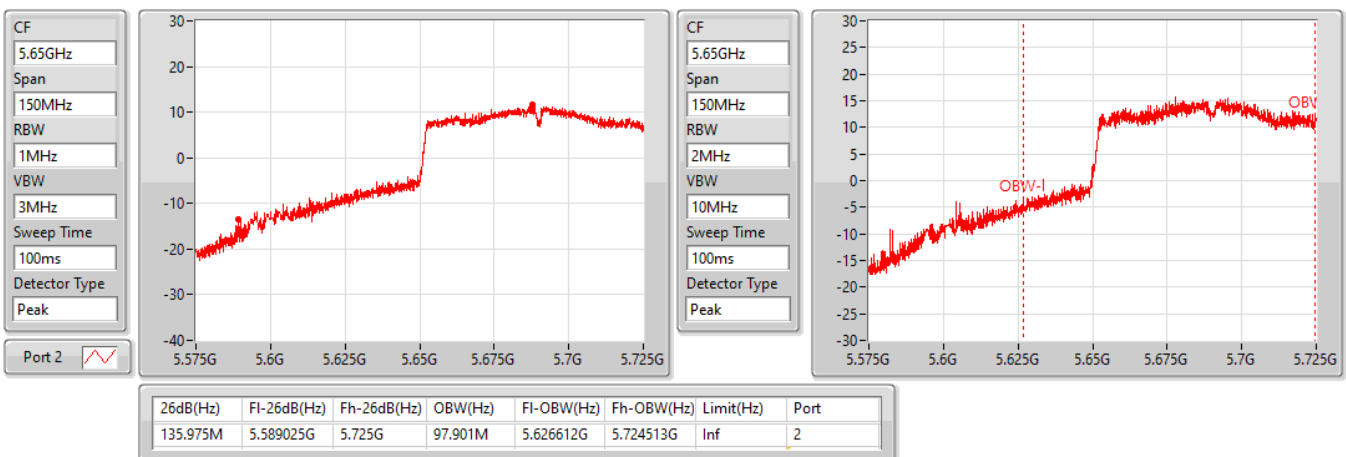


802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5610MHz

11/09/2021

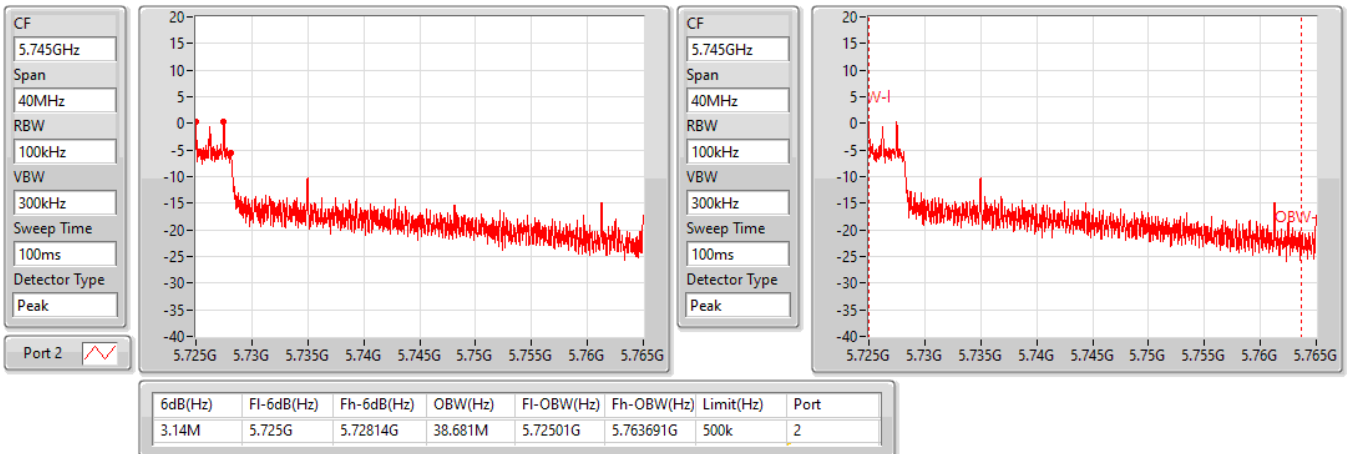

802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5690MHz Straddle 5.47-5.725GHz

05/10/2021

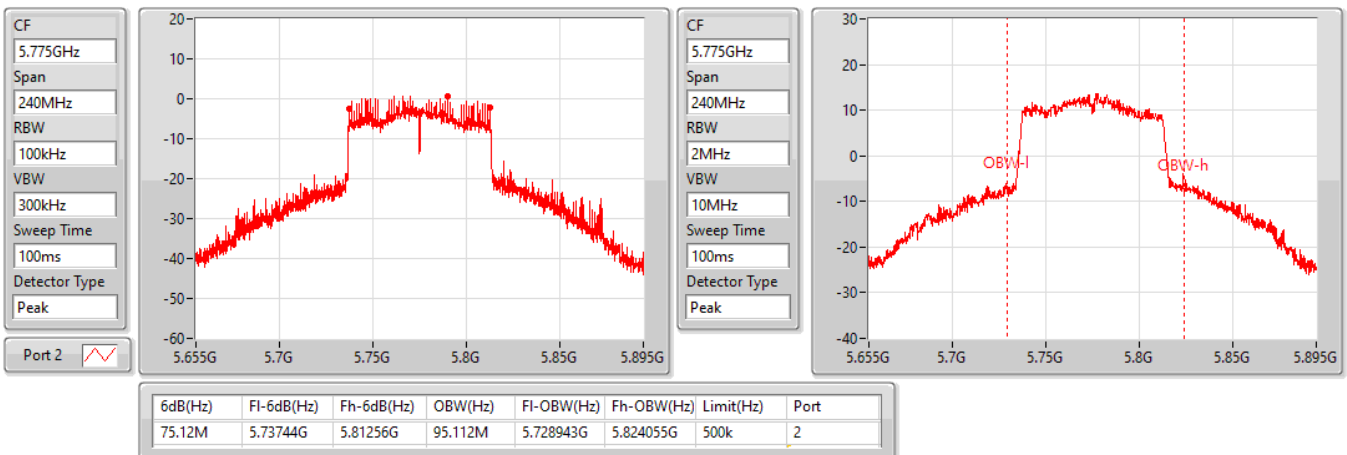


802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5690MHz Straddle 5.725-5.85GHz

05/10/2021


802.11ac VHT80_Nss1,(MCS0)_1TX
EBW
5775MHz

05/10/2021



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)_2TX	40.98M	21.919M	21M9D1D	31.8M	18.321M
802.11ac VHT20_Nss1,(MCS0)_2TX	42.06M	24.258M	24M3D1D	27.09M	18.291M
802.11ac VHT40_Nss1,(MCS0)_2TX	72.42M	38.081M	38M1D1D	40.2M	36.582M
802.11ac VHT80_Nss1,(MCS0)_2TX	81.96M	76.042M	76M0D1D	80.88M	75.802M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	37.44M	22.219M	22M2D1D	26.01M	17.631M
802.11ac VHT20_Nss1,(MCS0)_2TX	43.95M	25.427M	25M4D1D	29.73M	18.441M
802.11ac VHT40_Nss1,(MCS0)_2TX	80.46M	49.655M	49M7D1D	50.94M	36.762M
802.11ac VHT80_Nss1,(MCS0)_2TX	96.72M	76.282M	76M3D1D	88.08M	76.162M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	38.88M	21.469M	21M5D1D	21.39M	15.667M
802.11ac VHT20_Nss1,(MCS0)_2TX	42.54M	25.127M	25M1D1D	24.03M	16.522M
802.11ac VHT40_Nss1,(MCS0)_2TX	85.92M	49.595M	49M6D1D	39.3M	36.462M
802.11ac VHT80_Nss1,(MCS0)_2TX	152.88M	89.88M	89M9D1D	85.08M	75.922M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.32M	20.81M	20M8D1D	3.16M	11.294M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.58M	23.628M	23M6D1D	3.78M	13.333M
802.11ac VHT40_Nss1,(MCS0)_2TX	35.4M	44.498M	44M5D1D	2.9M	26.507M
802.11ac VHT80_Nss1,(MCS0)_2TX	75.12M	98.591M	98M6D1D	3.16M	37.521M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Max-OBW = Maximum 99% occupied bandwidth;
 Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Min-OBW = Minimum 99% occupied bandwidth

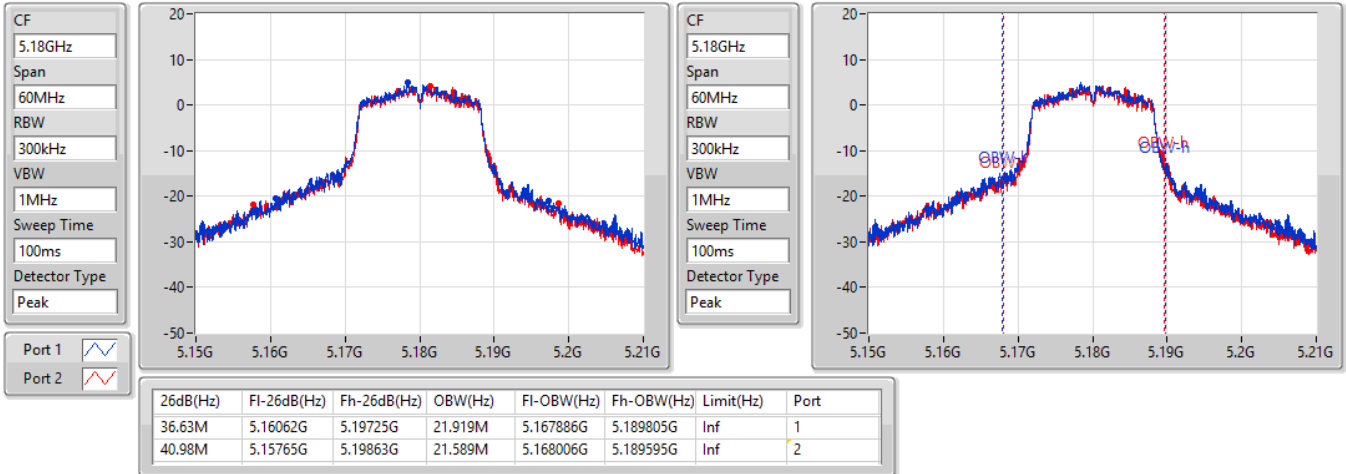
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	36.63M	21.919M	40.98M	21.589M
5200MHz	Pass	Inf	31.8M	18.321M	33.27M	18.951M
5240MHz	Pass	Inf	34.86M	19.16M	34.74M	20.09M
5260MHz	Pass	Inf	34.83M	19.46M	37.26M	22.219M
5300MHz	Pass	Inf	31.92M	18.471M	37.44M	21.859M
5320MHz	Pass	Inf	26.01M	17.631M	34.29M	18.591M
5500MHz	Pass	Inf	21.72M	17.211M	21.81M	17.001M
5580MHz	Pass	Inf	38.88M	21.469M	37.23M	20.45M
5700MHz	Pass	Inf	21.39M	17.061M	21.57M	16.912M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	22.26M	15.667M	24.06M	16.042M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.16M	11.294M	3.18M	12.294M
5745MHz	Pass	500k	16.29M	18.831M	16.29M	20.81M
5785MHz	Pass	500k	16.05M	19.28M	16.32M	19.97M
5825MHz	Pass	500k	16.29M	19.76M	16.29M	20.3M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	27.09M	18.291M	30.6M	18.291M
5200MHz	Pass	Inf	41.76M	23.598M	42.06M	24.258M
5240MHz	Pass	Inf	35.37M	19.07M	39M	19.61M
5260MHz	Pass	Inf	39.09M	21.949M	43.95M	25.427M
5300MHz	Pass	Inf	39.06M	20.93M	42.36M	24.678M
5320MHz	Pass	Inf	29.73M	18.441M	32.19M	18.891M
5500MHz	Pass	Inf	29.52M	18.321M	25.08M	18.021M
5580MHz	Pass	Inf	42.54M	25.127M	40.8M	24.198M
5700MHz	Pass	Inf	24.03M	18.231M	24.63M	18.051M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	26.1M	17.961M	25.005M	16.522M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.8M	13.733M	3.78M	13.333M
5745MHz	Pass	500k	17.52M	23.628M	17.52M	22.849M
5785MHz	Pass	500k	17.28M	23.178M	17.58M	21.199M
5825MHz	Pass	500k	16.89M	20.12M	17.52M	21.439M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	45M	36.642M	40.2M	36.582M
5230MHz	Pass	Inf	72.42M	37.601M	67.32M	38.081M
5270MHz	Pass	Inf	80.4M	41.439M	80.46M	49.655M
5310MHz	Pass	Inf	50.94M	36.762M	56.22M	37.001M
5510MHz	Pass	Inf	44.4M	36.702M	39.3M	36.462M
5550MHz	Pass	Inf	80.94M	46.837M	82.2M	48.096M
5670MHz	Pass	Inf	85.92M	49.595M	67.68M	42.399M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	57.4M	39.04M	53.165M	38.096M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	2.9M	27.526M	3.16M	26.507M
5755MHz	Pass	500k	35.22M	44.498M	35.4M	42.339M
5795MHz	Pass	500k	35.22M	44.138M	35.22M	43.658M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.96M	76.042M	80.88M	75.802M
5290MHz	Pass	Inf	88.08M	76.162M	96.72M	76.282M
5530MHz	Pass	Inf	87.48M	76.162M	85.08M	75.922M
5610MHz	Pass	Inf	152.88M	78.441M	139.44M	78.681M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	120.9M	81.634M	135.825M	89.88M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.16M	37.521M	3.16M	37.861M
5775MHz	Pass	500k	75.12M	90.915M	75.12M	98.591M

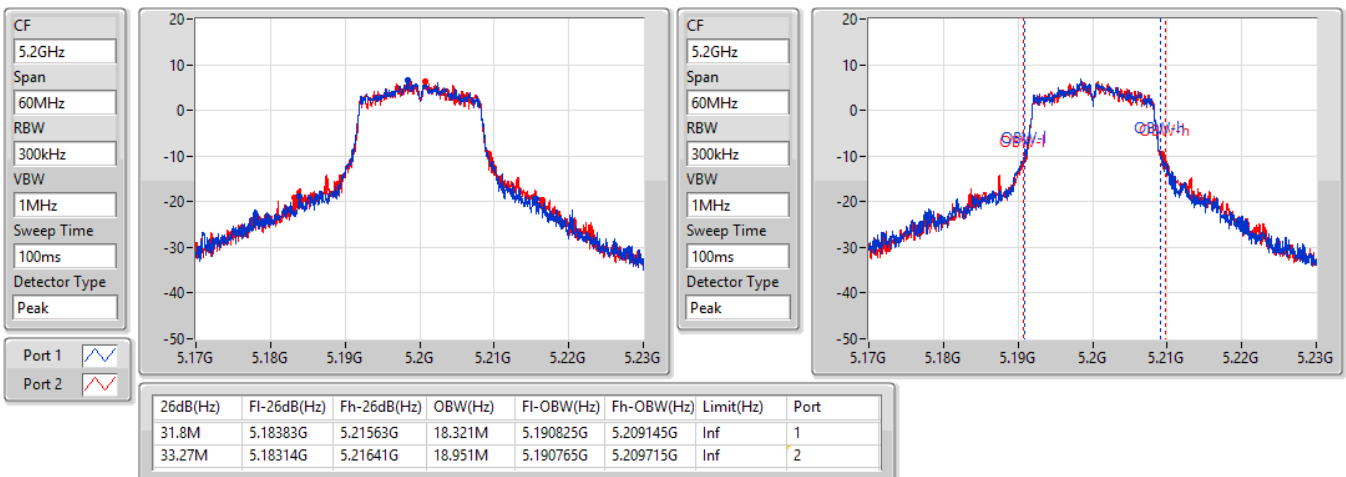
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_2TX
EBW
5180MHz

11/09/2021

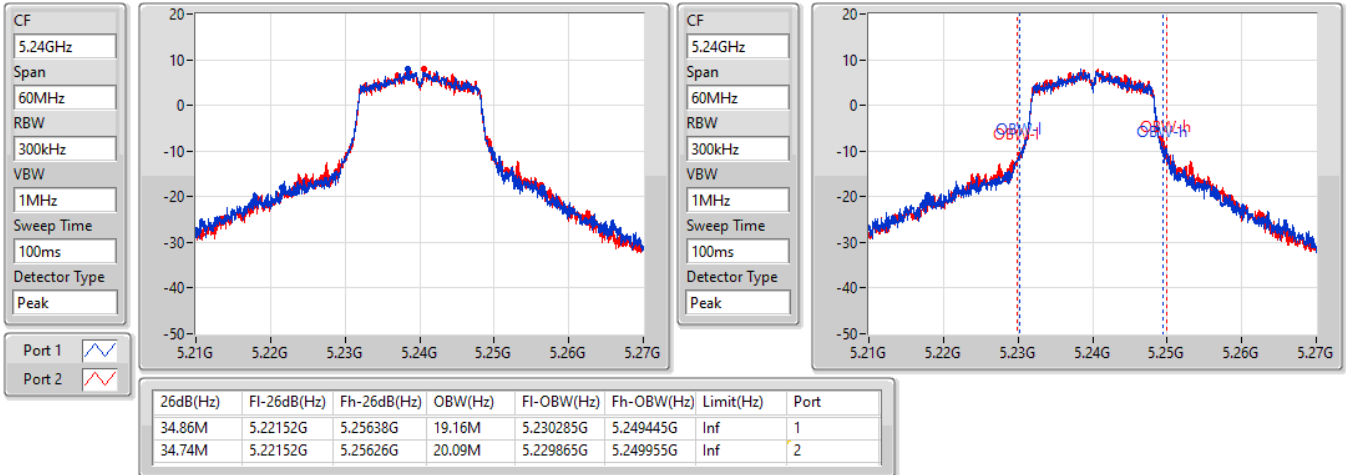

802.11a_Nss1,(6Mbps)_2TX
EBW
5200MHz

11/09/2021

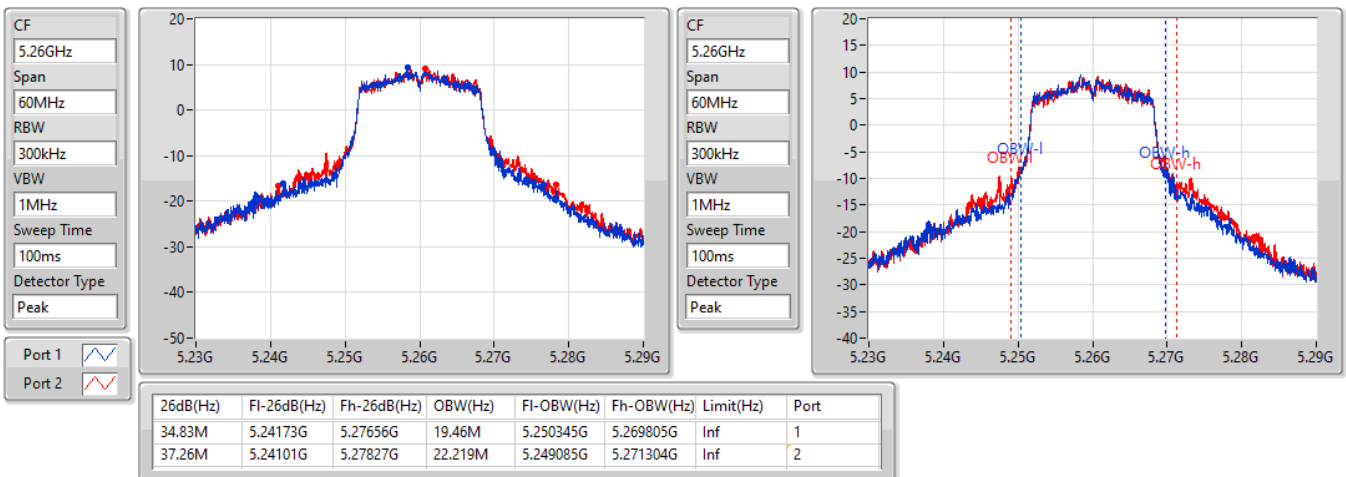


802.11a_Nss1,(6Mbps)_2TX
EBW
5240MHz

18/10/2021

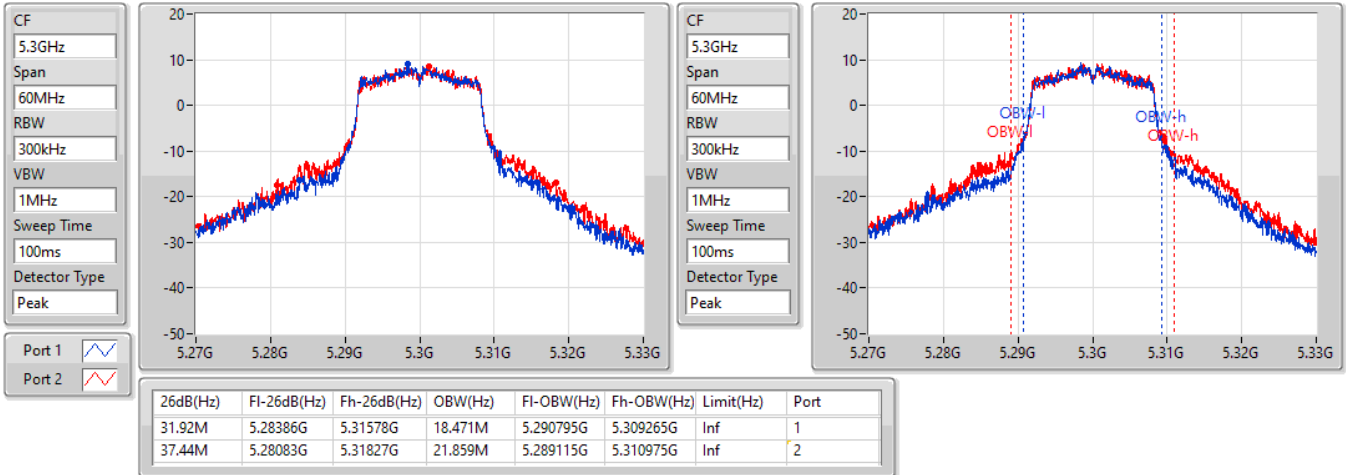

802.11a_Nss1,(6Mbps)_2TX
EBW
5260MHz

05/10/2021

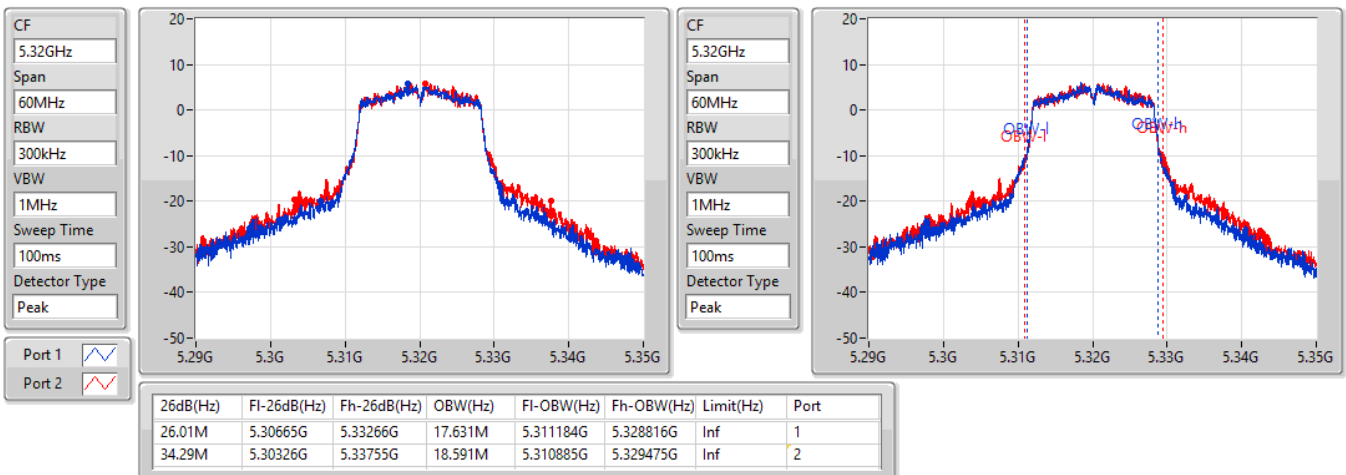


802.11a_Nss1,(6Mbps)_2TX
EBW
5300MHz

05/10/2021

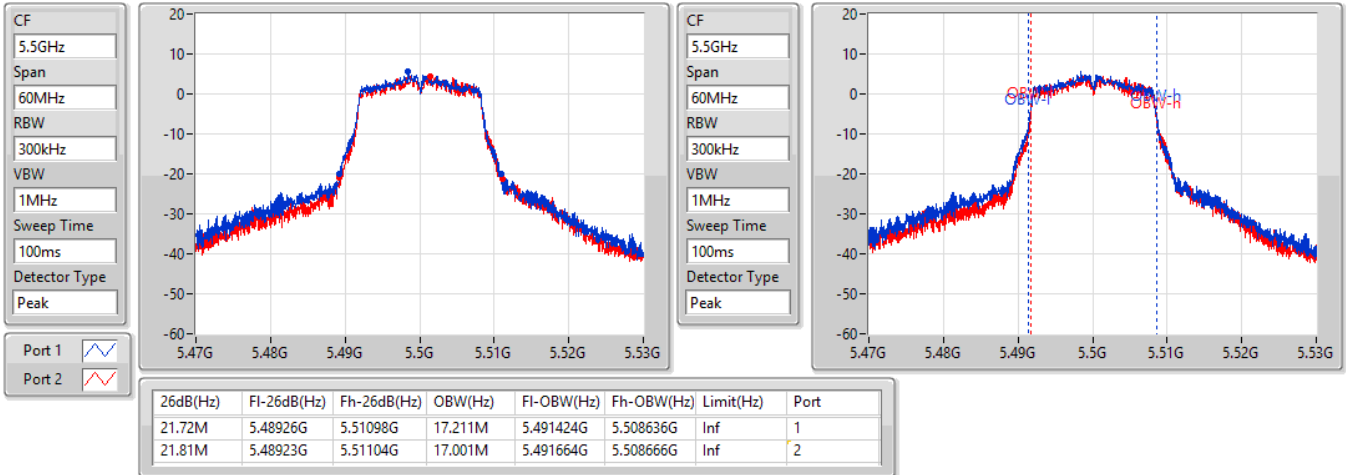

802.11a_Nss1,(6Mbps)_2TX
EBW
5320MHz

11/09/2021

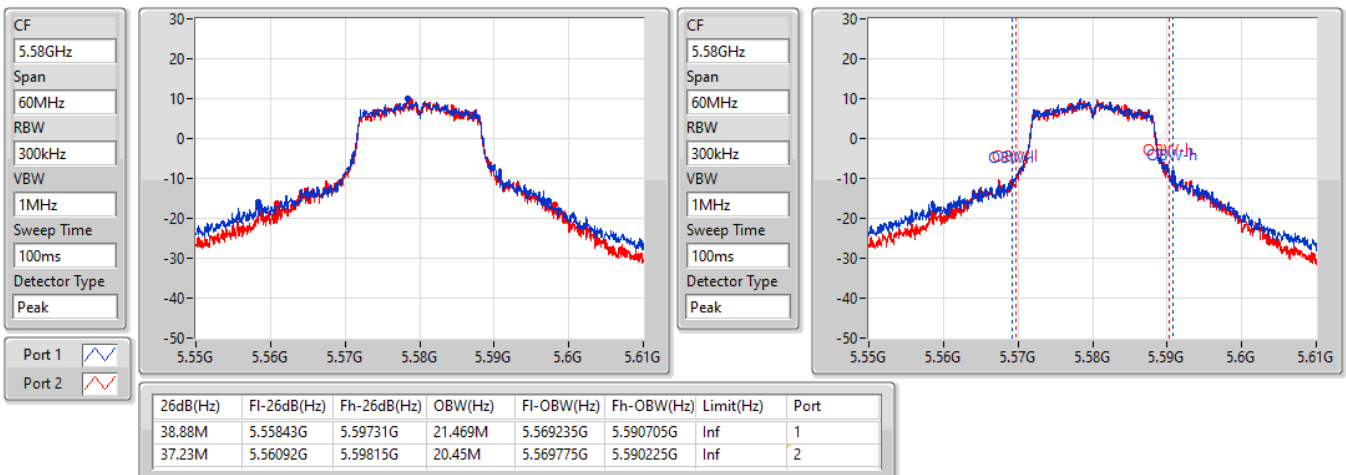


802.11a_Nss1,(6Mbps)_2TX
EBW
5500MHz

11/09/2021

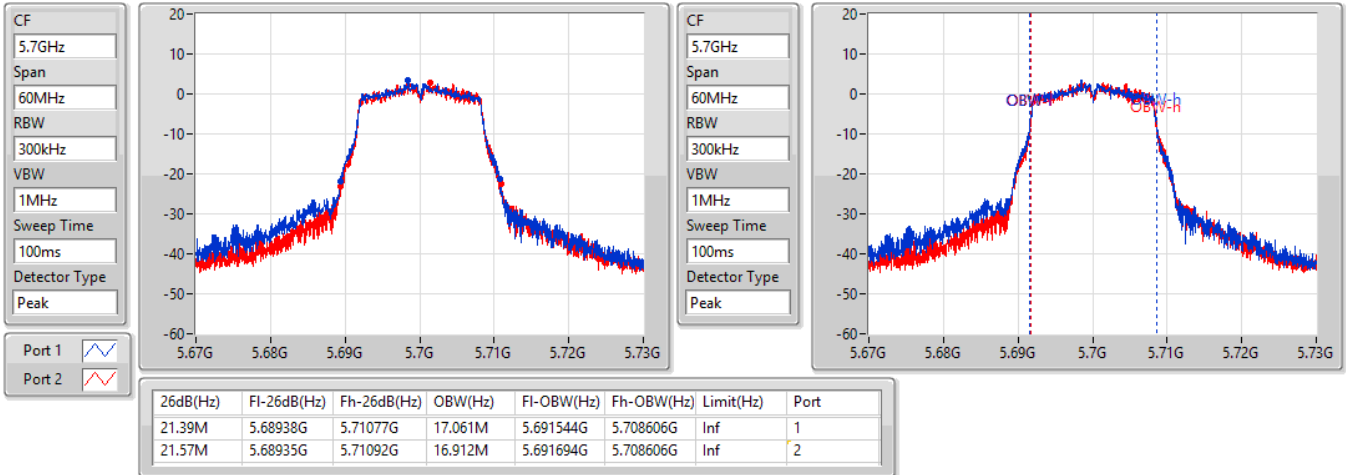

802.11a_Nss1,(6Mbps)_2TX
EBW
5580MHz

05/10/2021

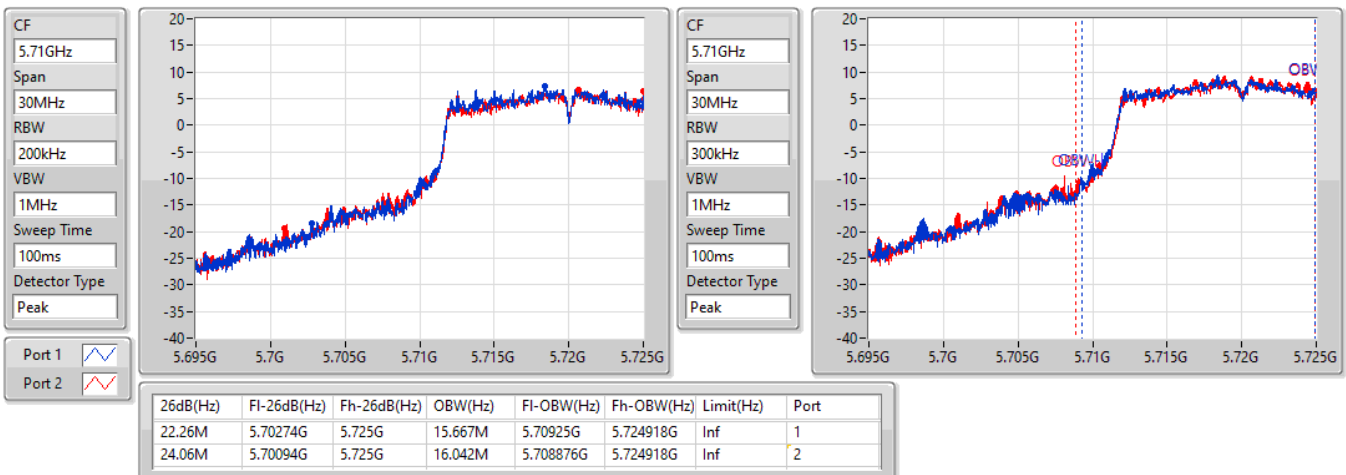


802.11a_Nss1,(6Mbps)_2TX
EBW
5700MHz

11/09/2021

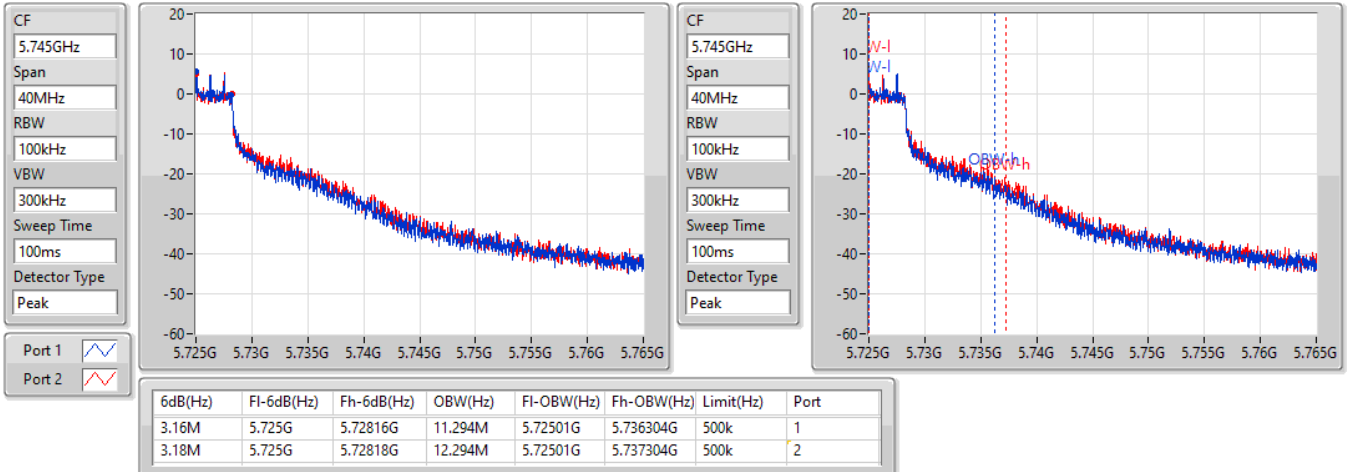

802.11a_Nss1,(6Mbps)_2TX
EBW
5720MHz Straddle 5.47-5.725GHz

05/10/2021

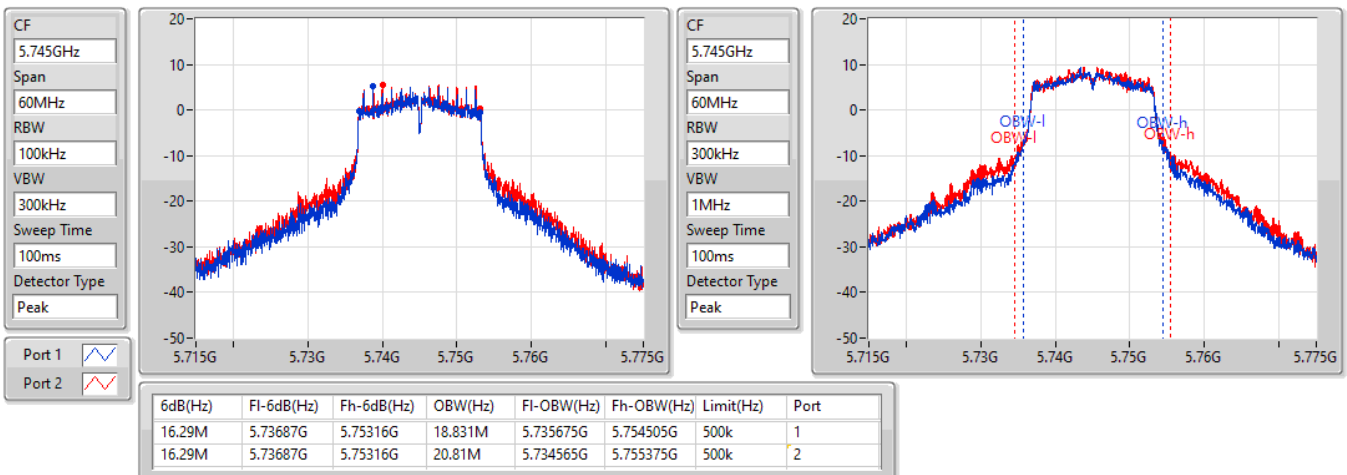


802.11a_Nss1,(6Mbps)_2TX
EBW
5720MHz Straddle 5.725-5.85GHz

05/10/2021


802.11a_Nss1,(6Mbps)_2TX
EBW
5745MHz

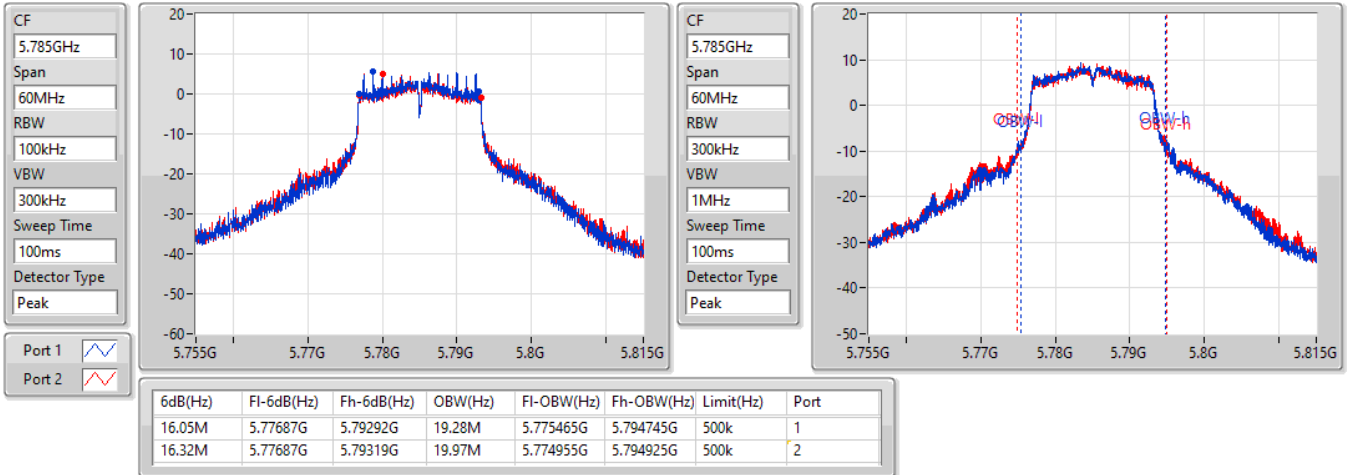
05/10/2021



802.11a_Nss1,(6Mbps)_2TX

5785MHz

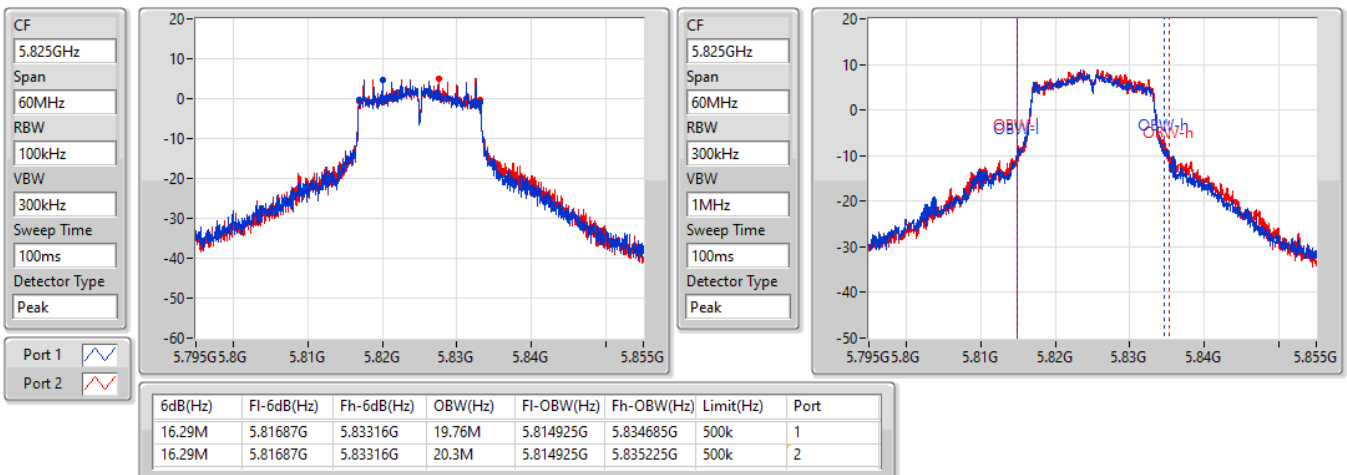
05/10/2021



802.11a_Nss1,(6Mbps)_2TX

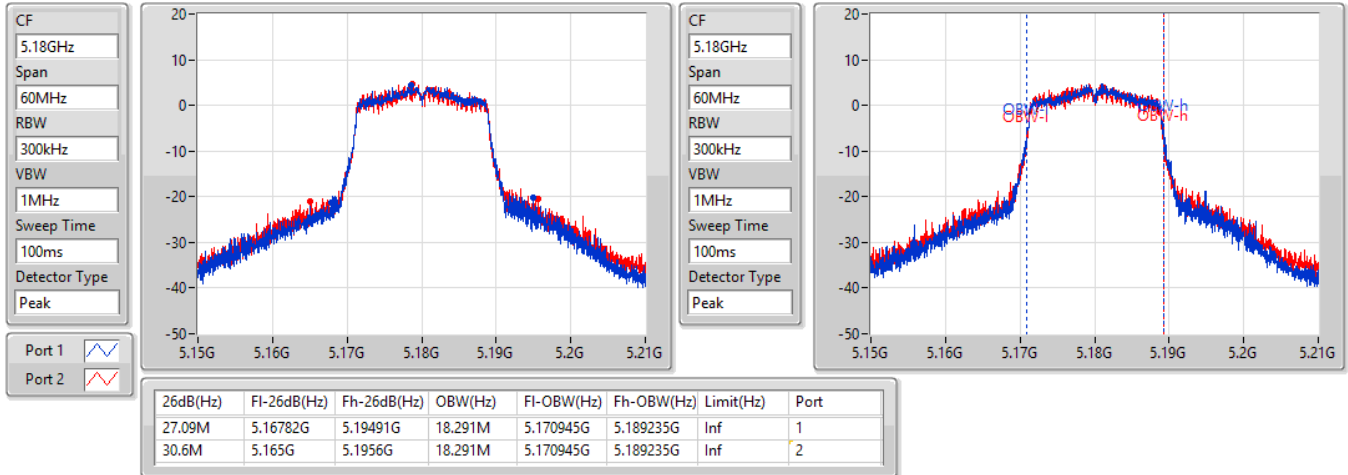
5825MHz

05/10/2021

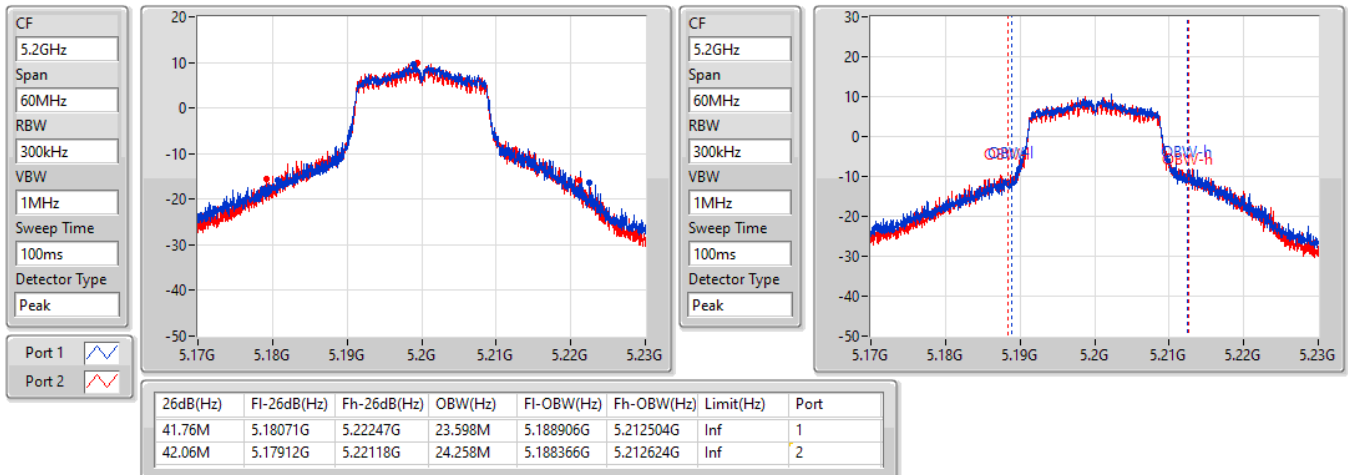


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5180MHz

11/09/2021

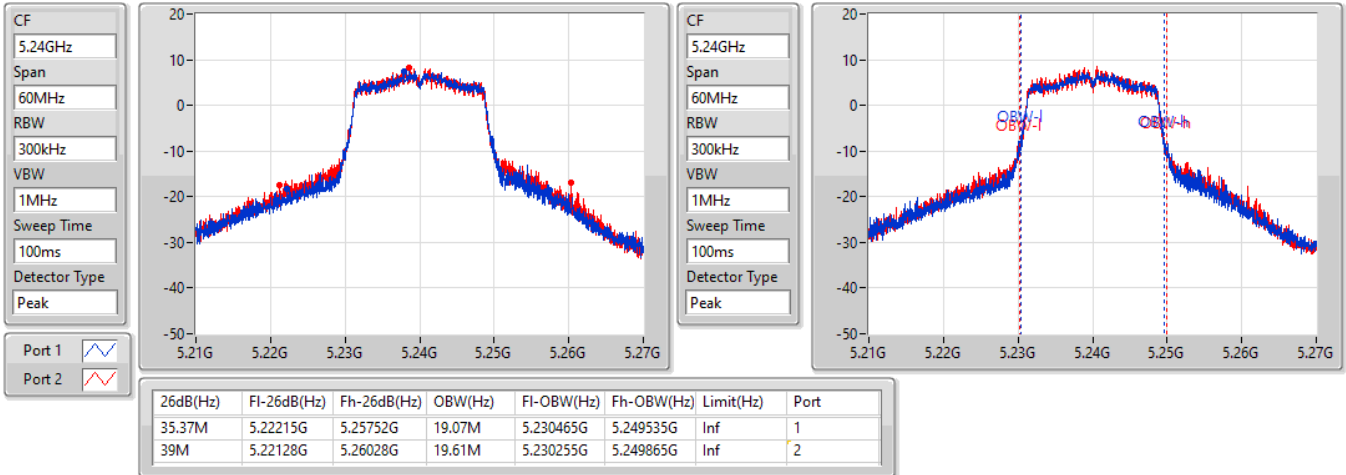

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5200MHz

05/10/2021

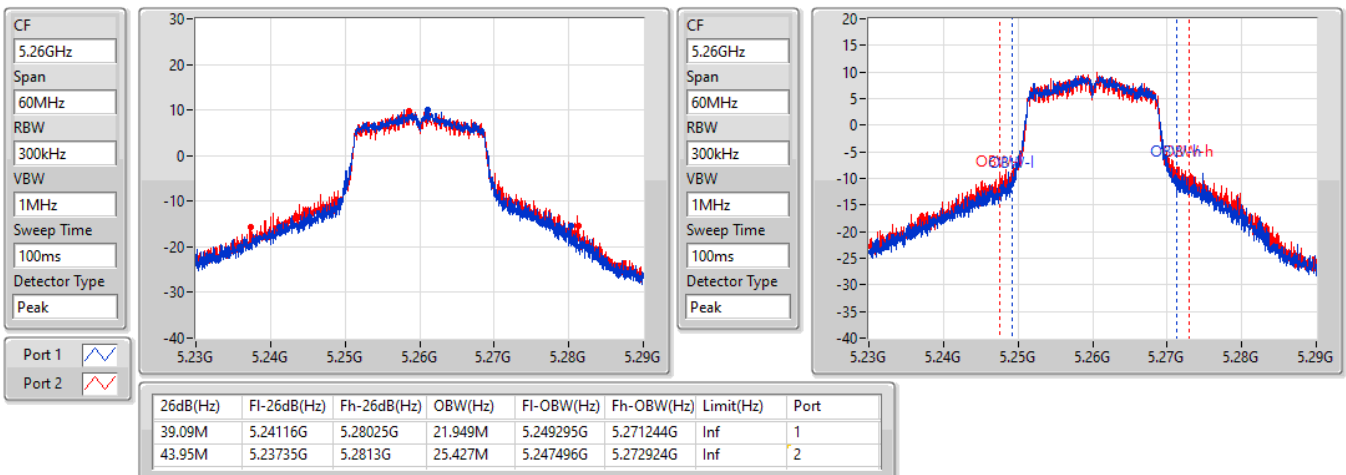


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5240MHz

18/10/2021

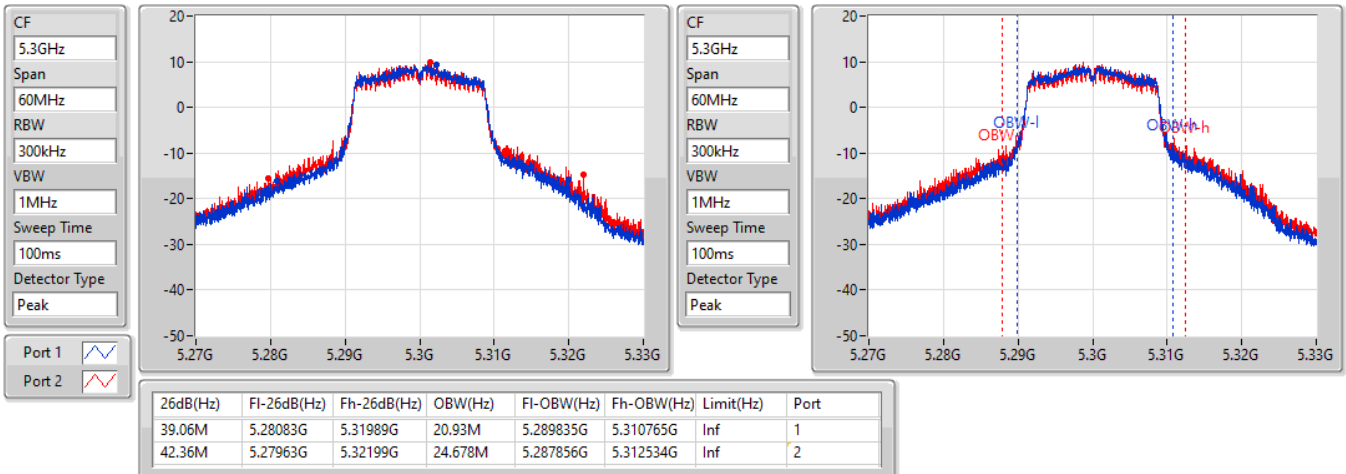

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5260MHz

05/10/2021

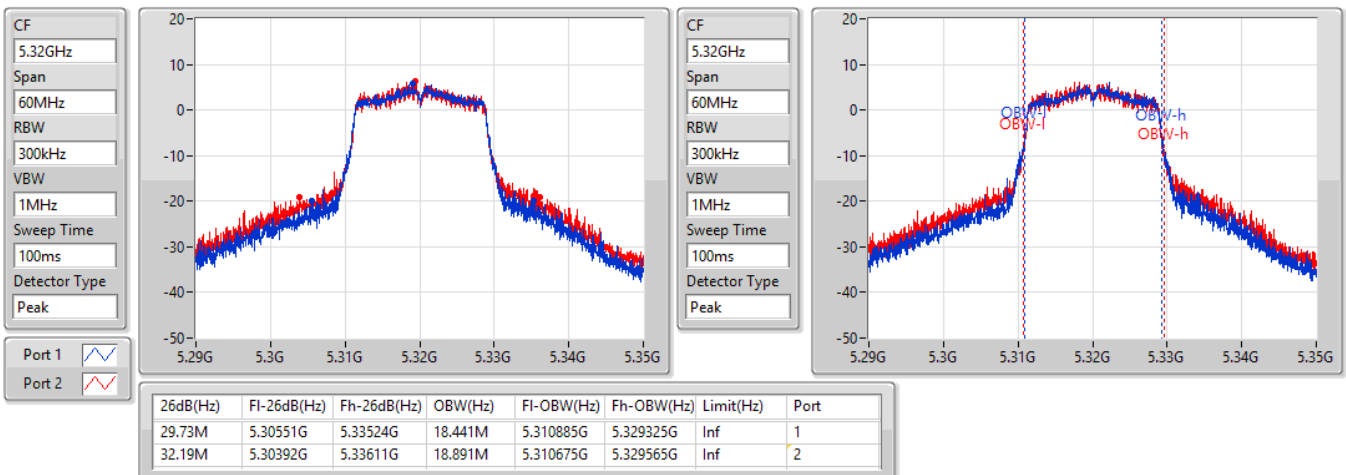


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5300MHz

05/10/2021

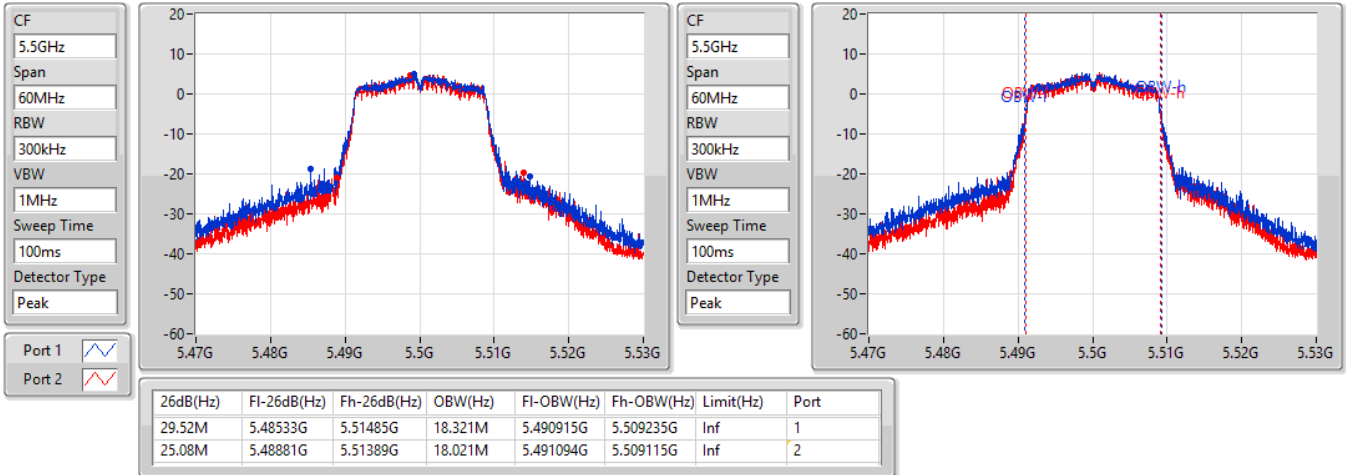

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5320MHz

11/09/2021

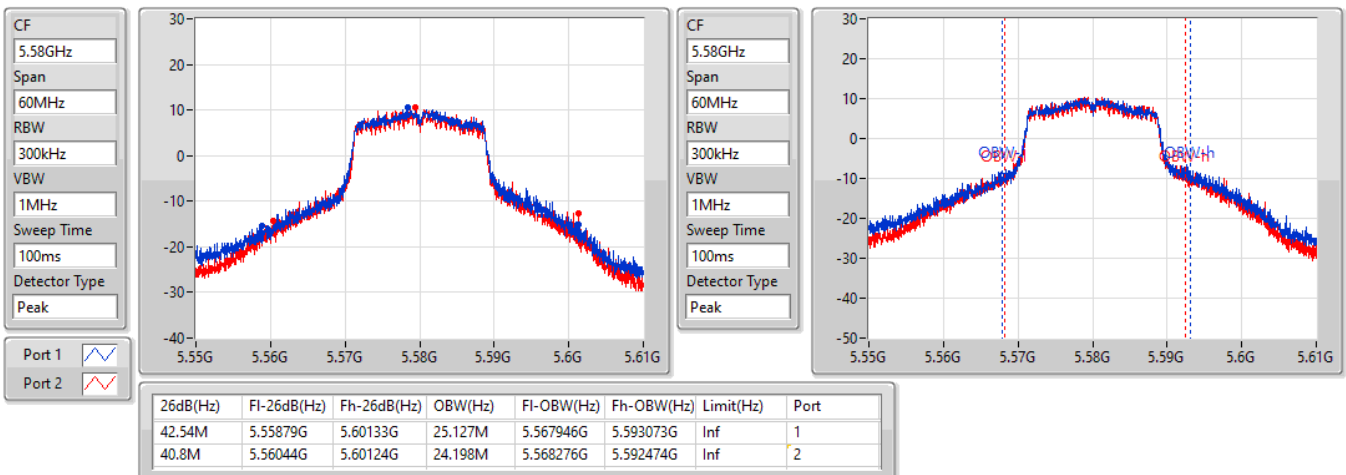


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5500MHz

11/09/2021

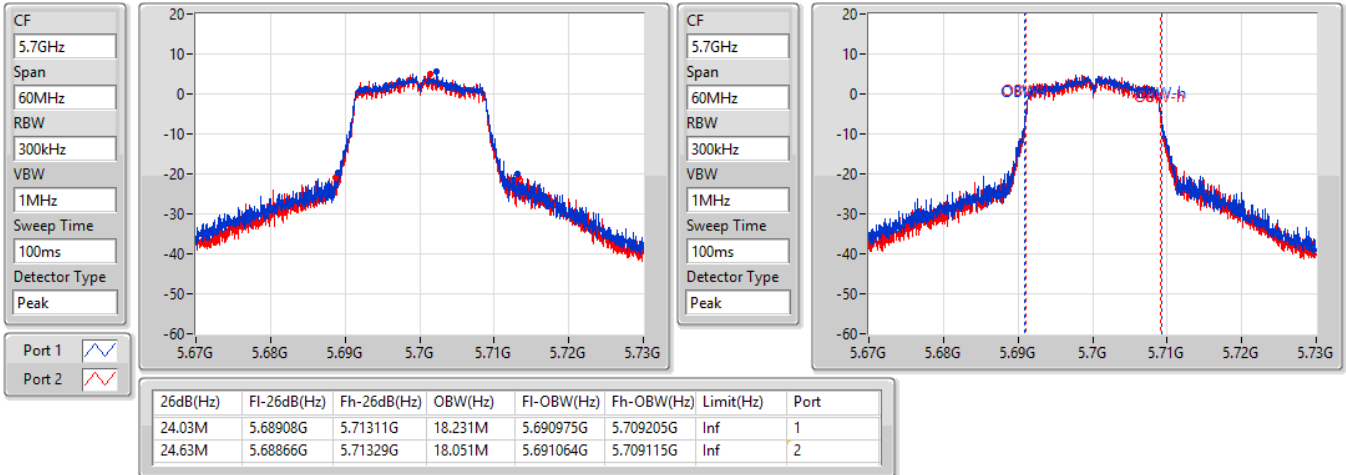

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5580MHz

05/10/2021

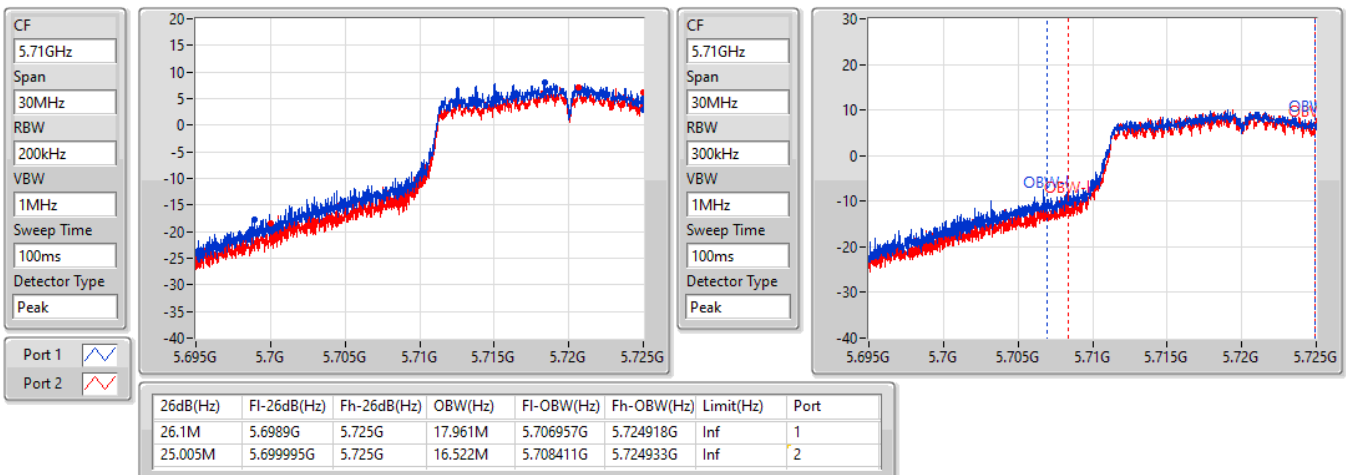


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5700MHz

11/09/2021

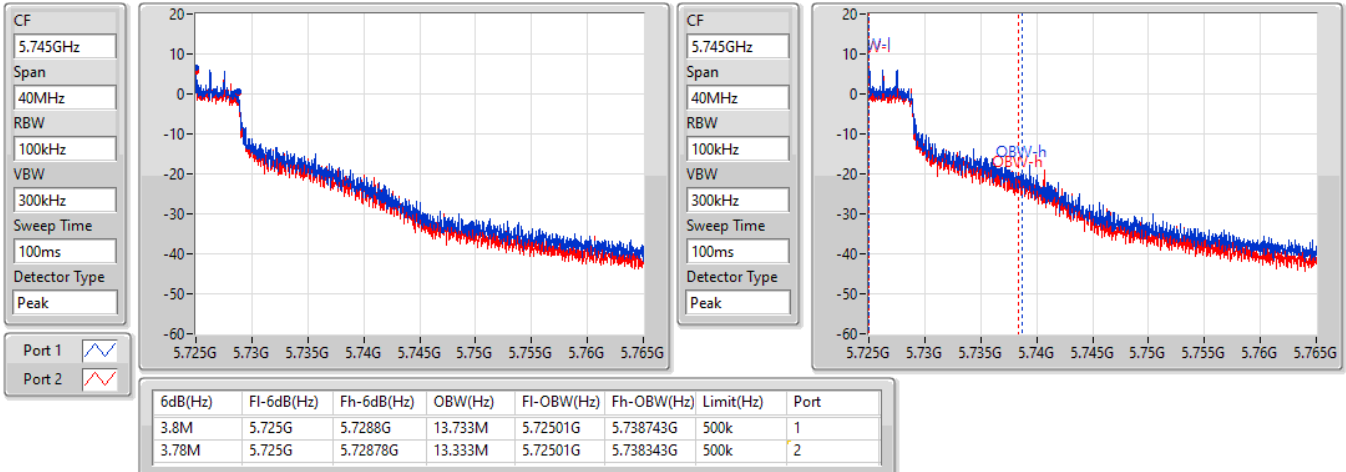

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5720MHz Straddle 5.47-5.725GHz

05/10/2021

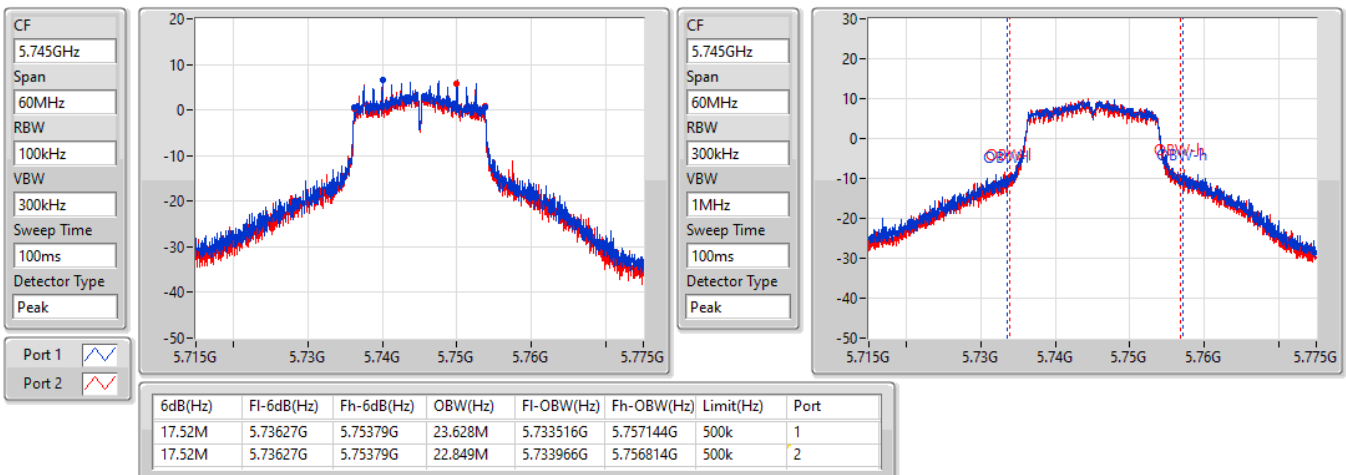


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5720MHz Straddle 5.725-5.85GHz

05/10/2021

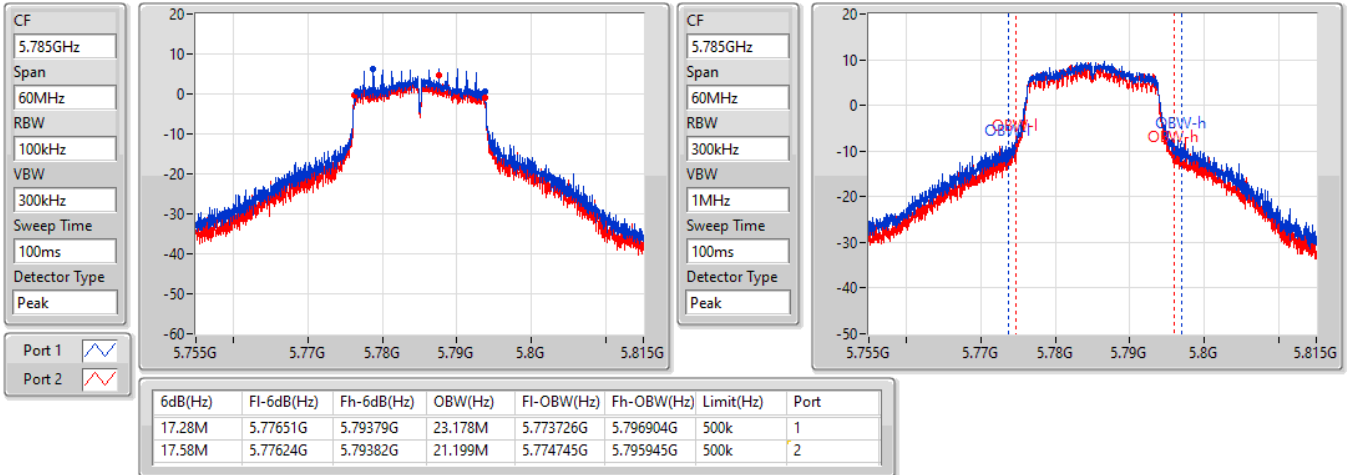

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5745MHz

05/10/2021

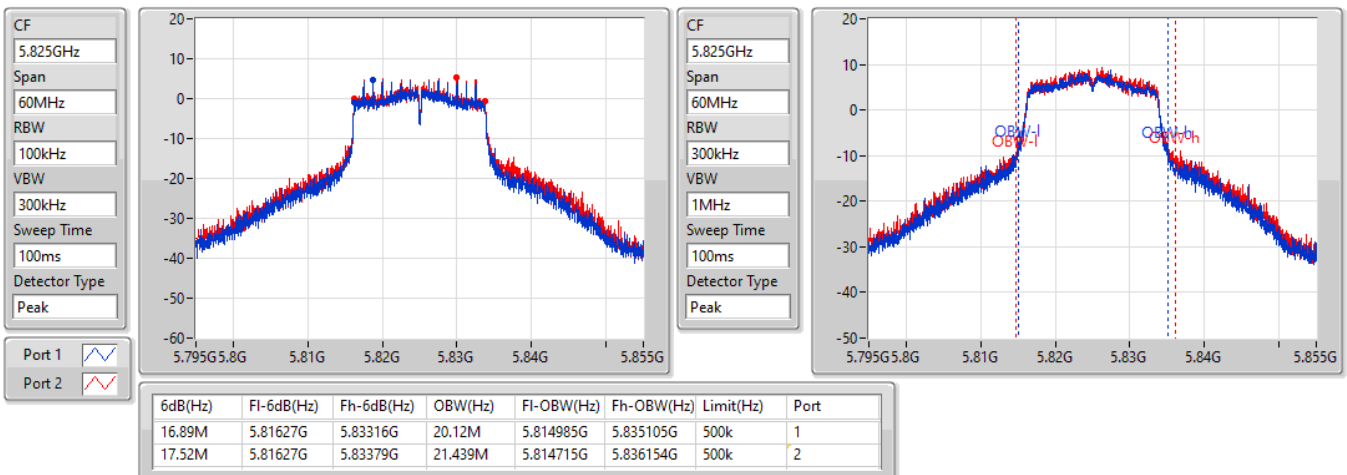


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5785MHz

05/10/2021

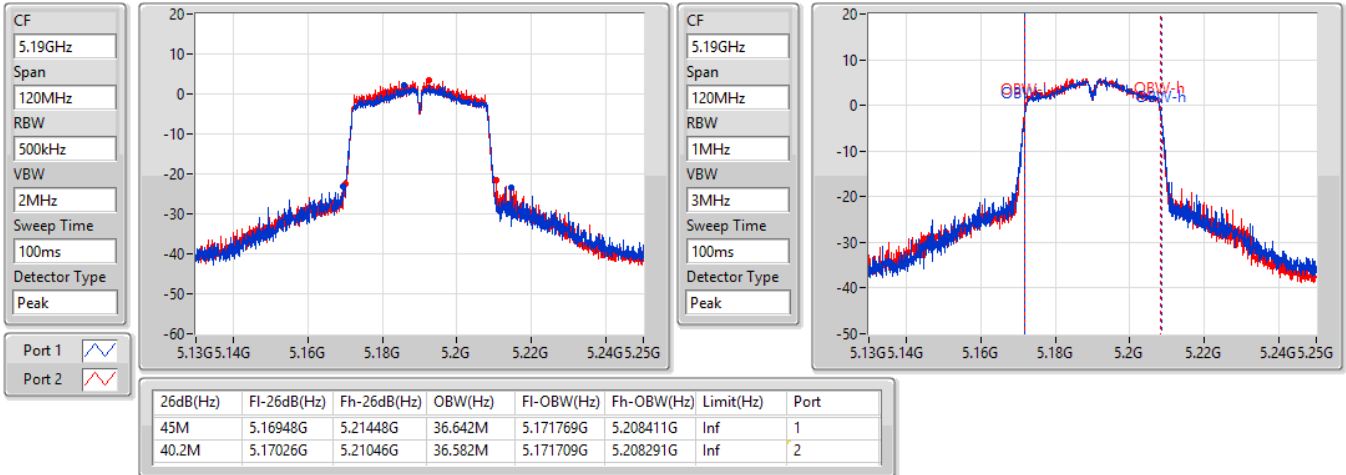

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5825MHz

05/10/2021

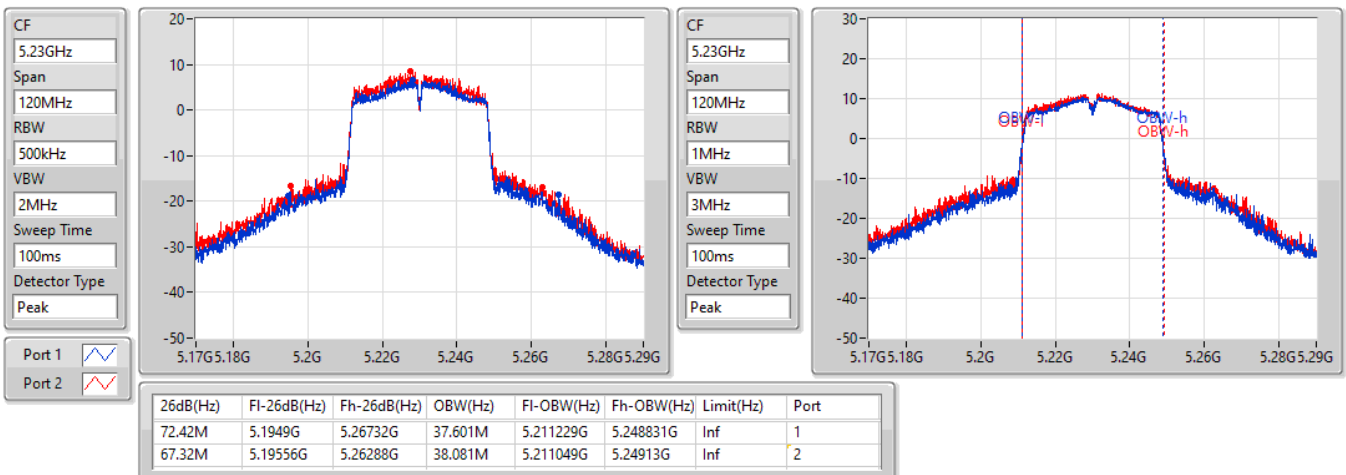


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5190MHz

11/09/2021

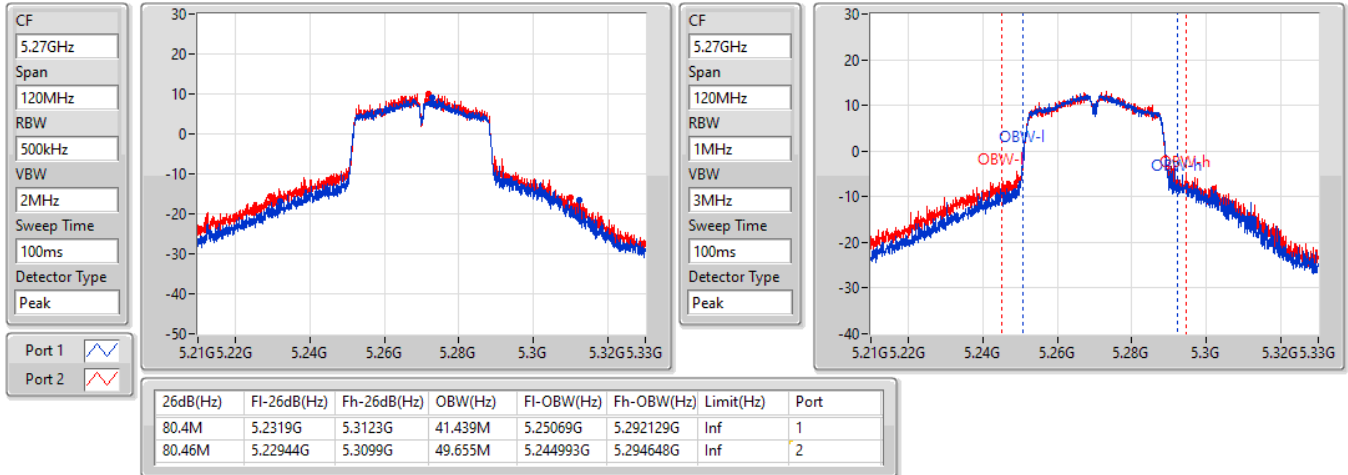

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5230MHz

05/10/2021

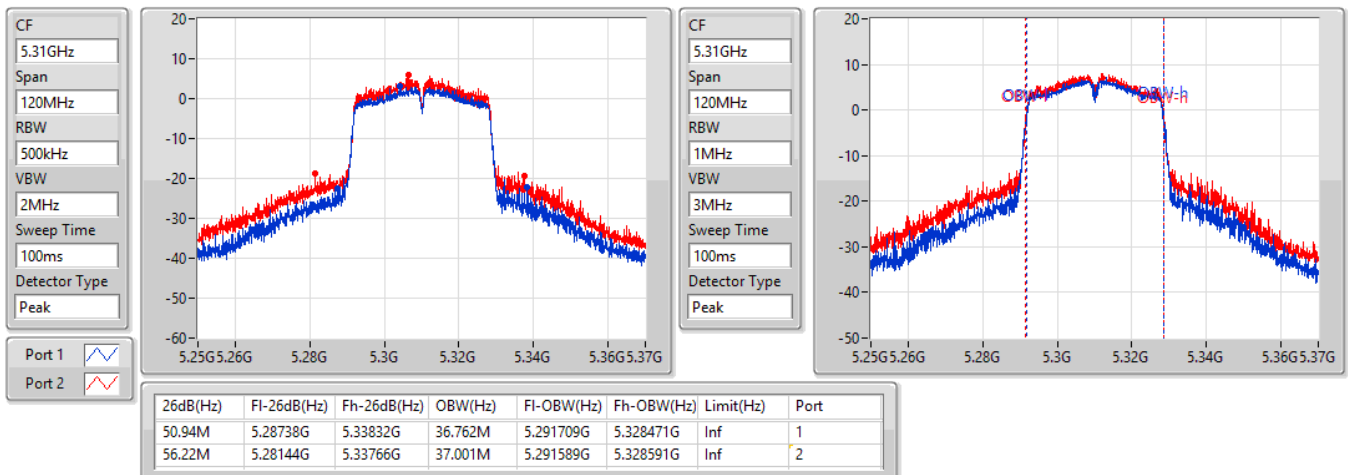


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5270MHz

05/10/2021

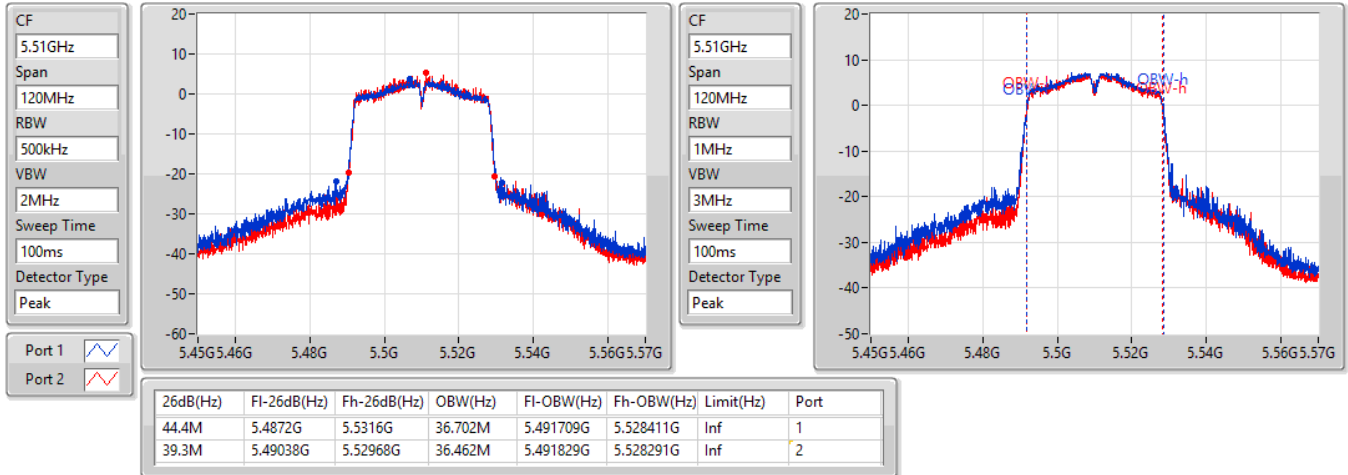

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5310MHz

11/09/2021

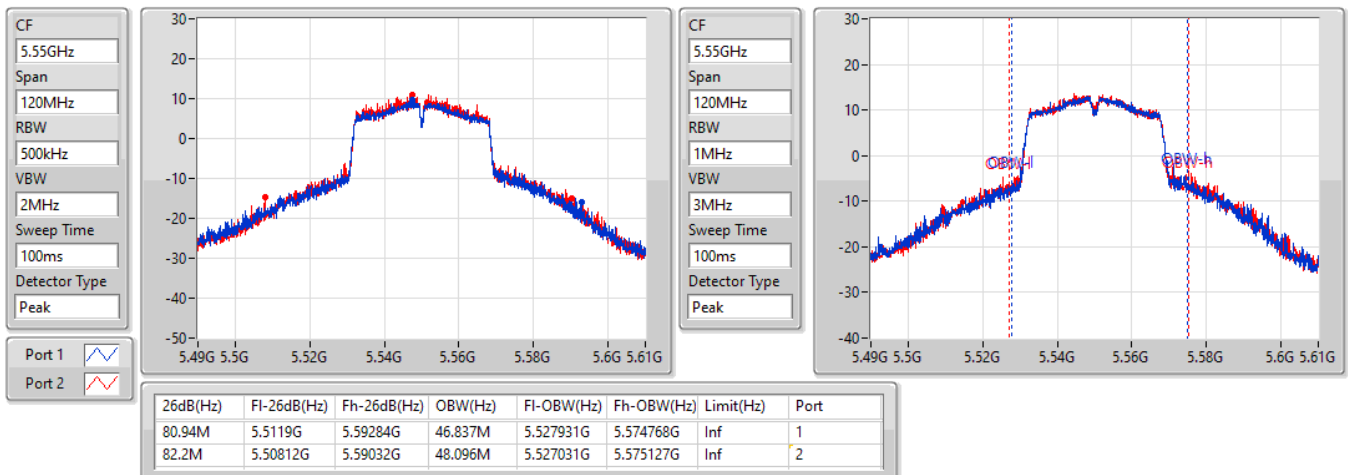


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5510MHz

11/09/2021

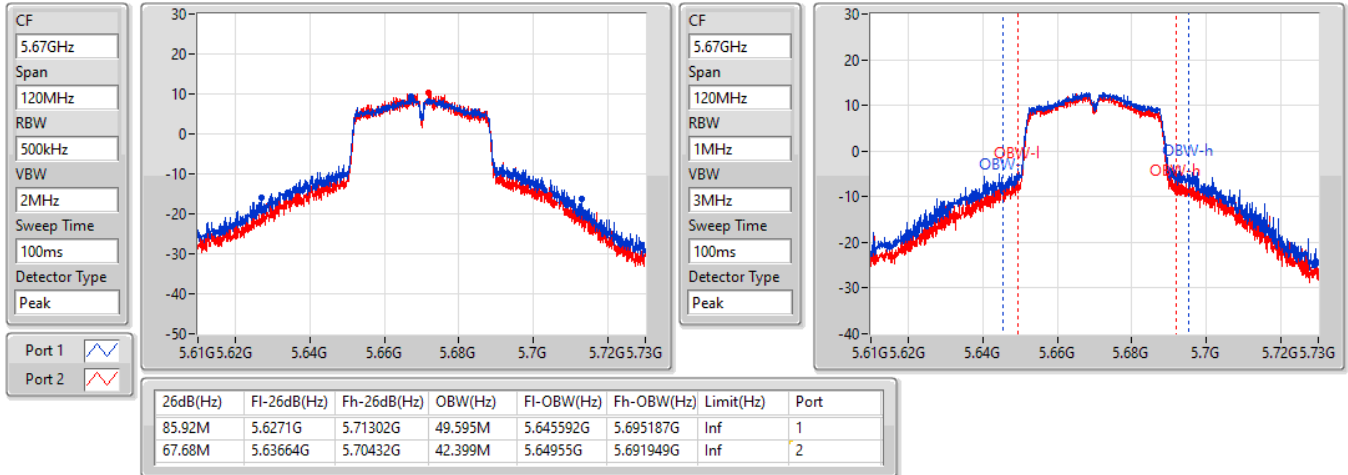

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5550MHz

05/10/2021

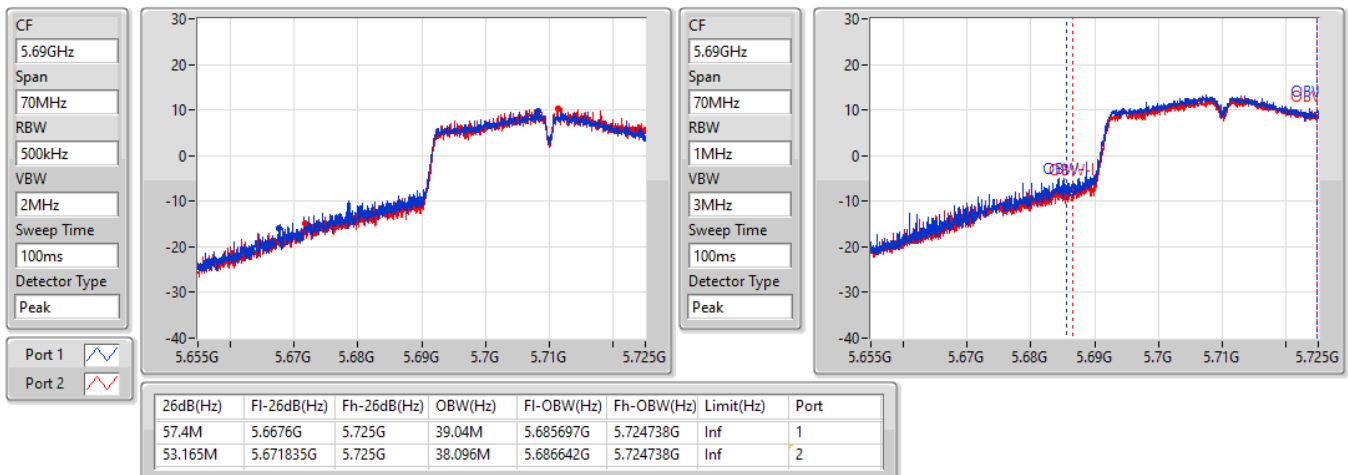


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5670MHz

05/10/2021

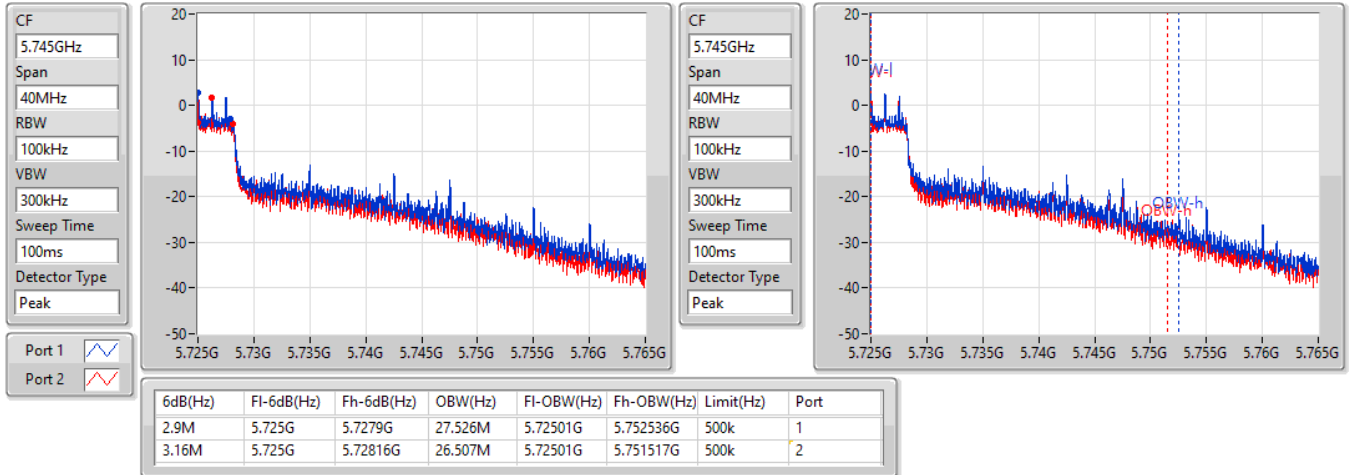

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5710MHz Straddle 5.47-5.725GHz

05/10/2021

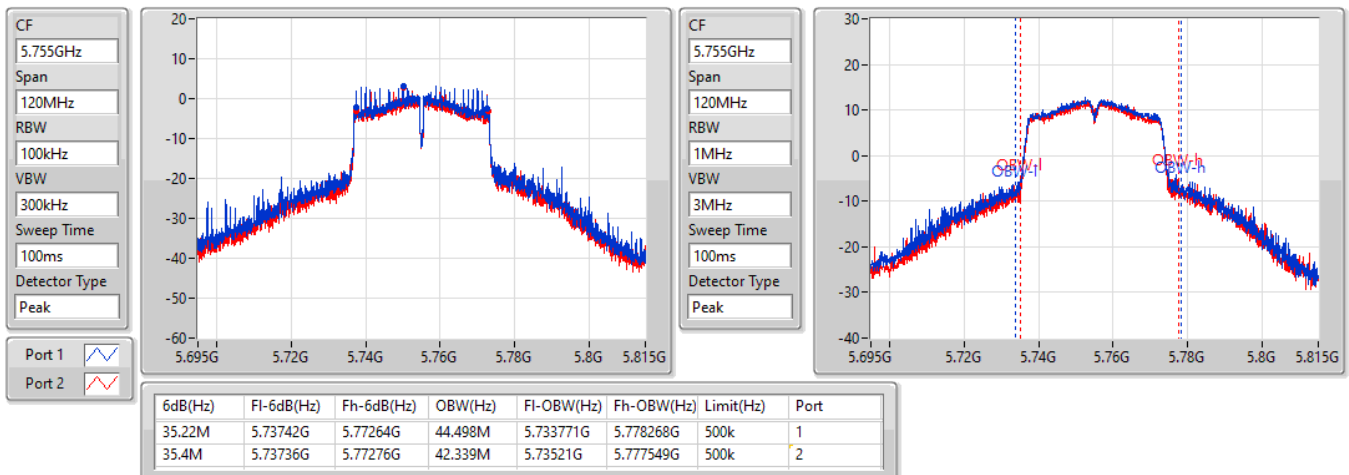


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5710MHz Straddle 5.725-5.85GHz

05/10/2021

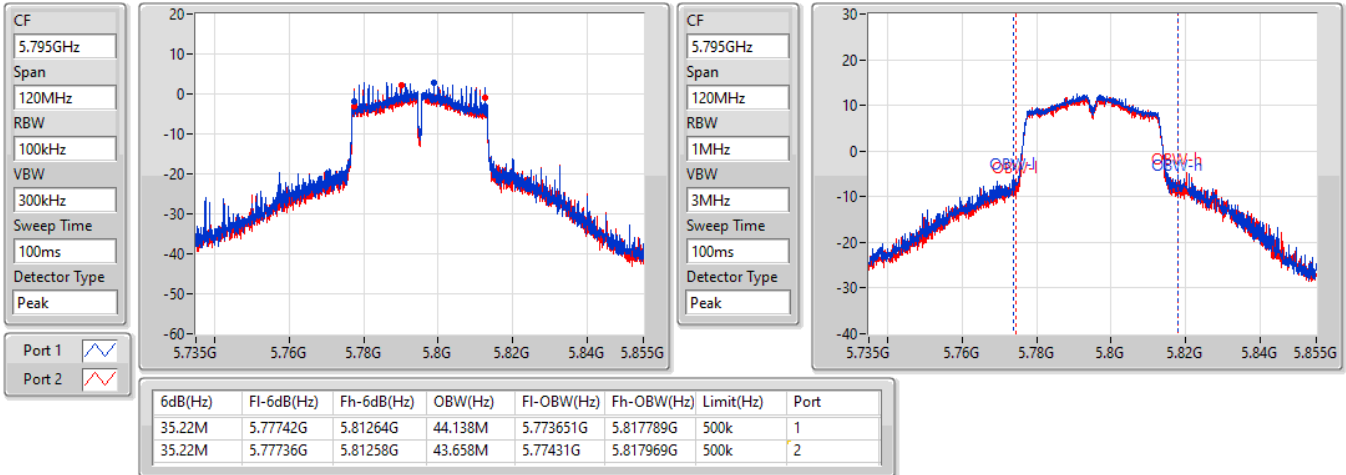

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5755MHz

05/10/2021

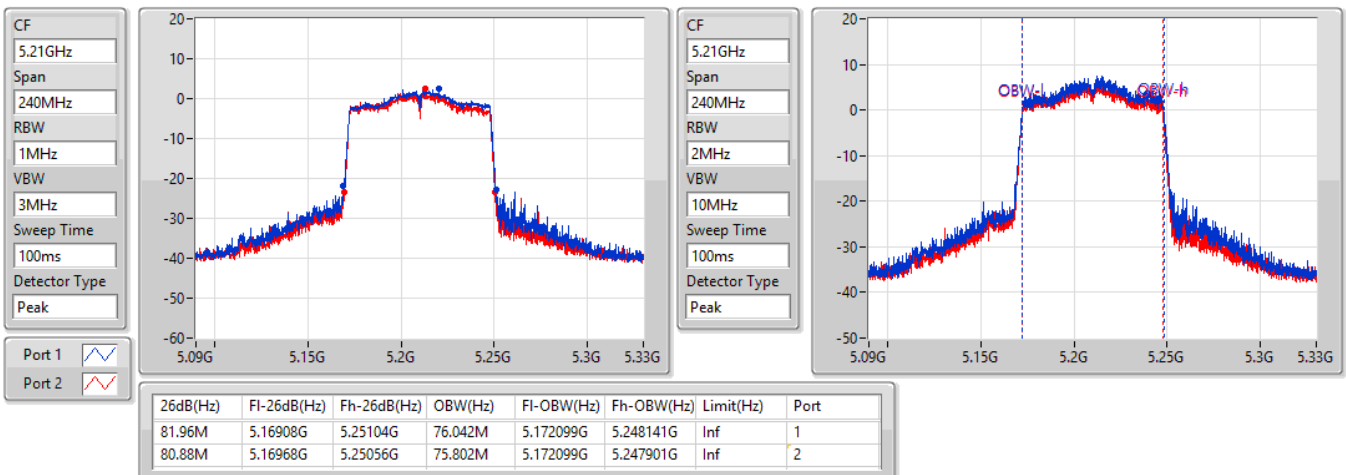


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5795MHz

05/10/2021

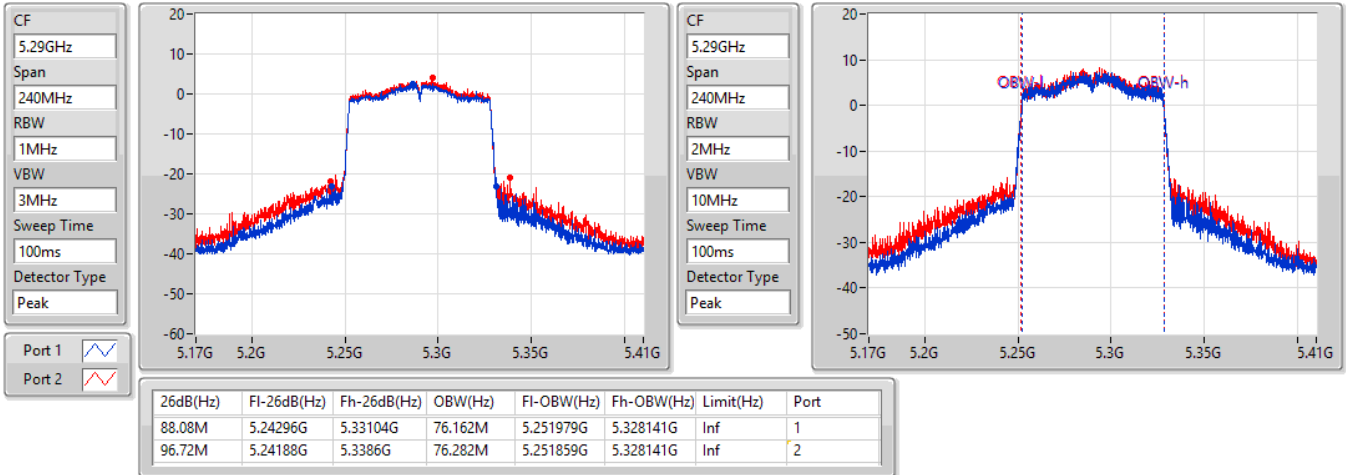

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5210MHz

11/09/2021

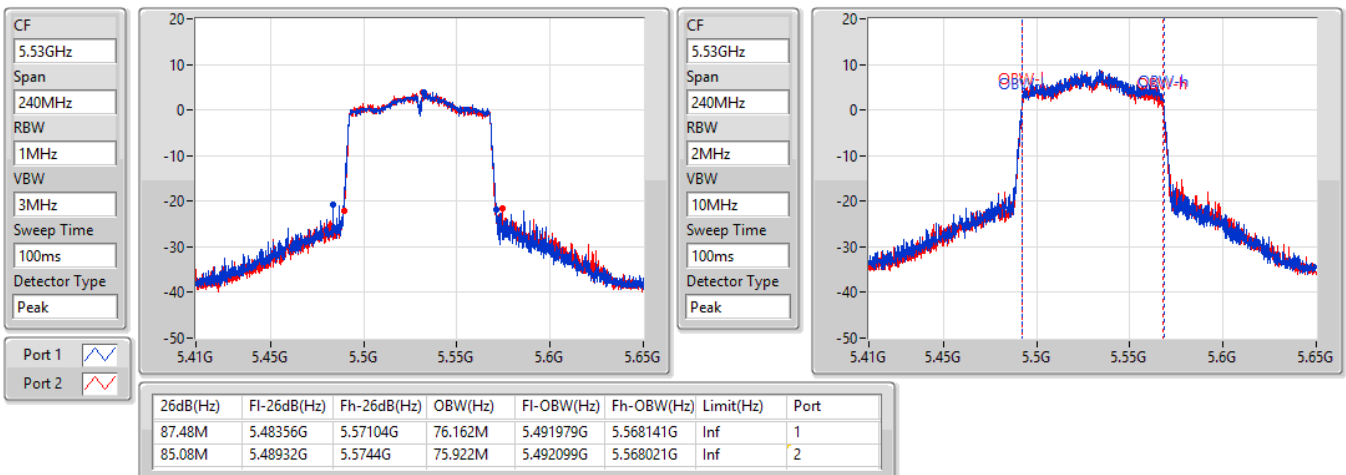


802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5290MHz

11/09/2021

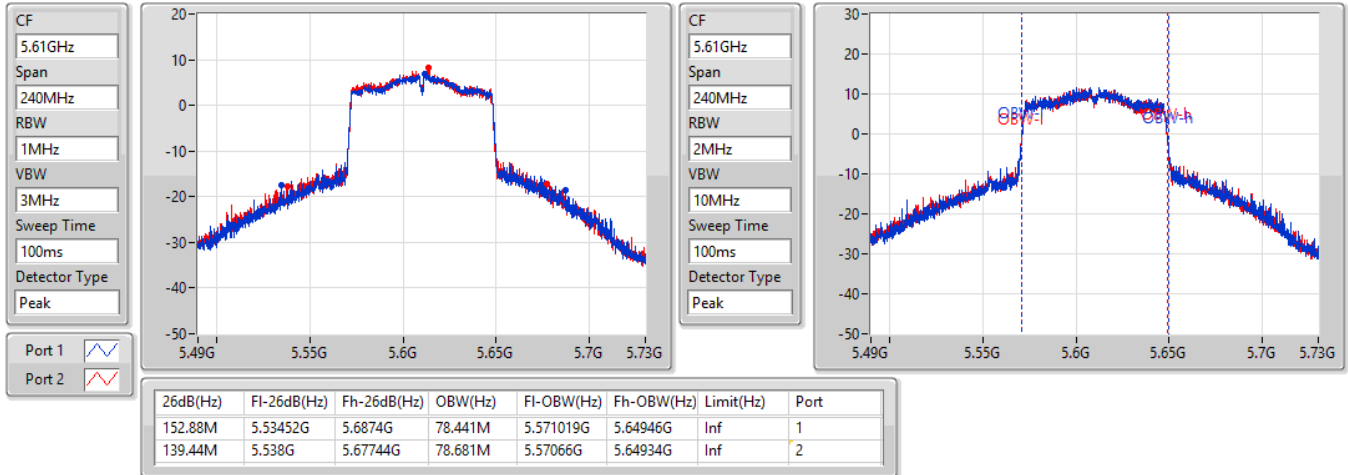

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5530MHz

11/09/2021

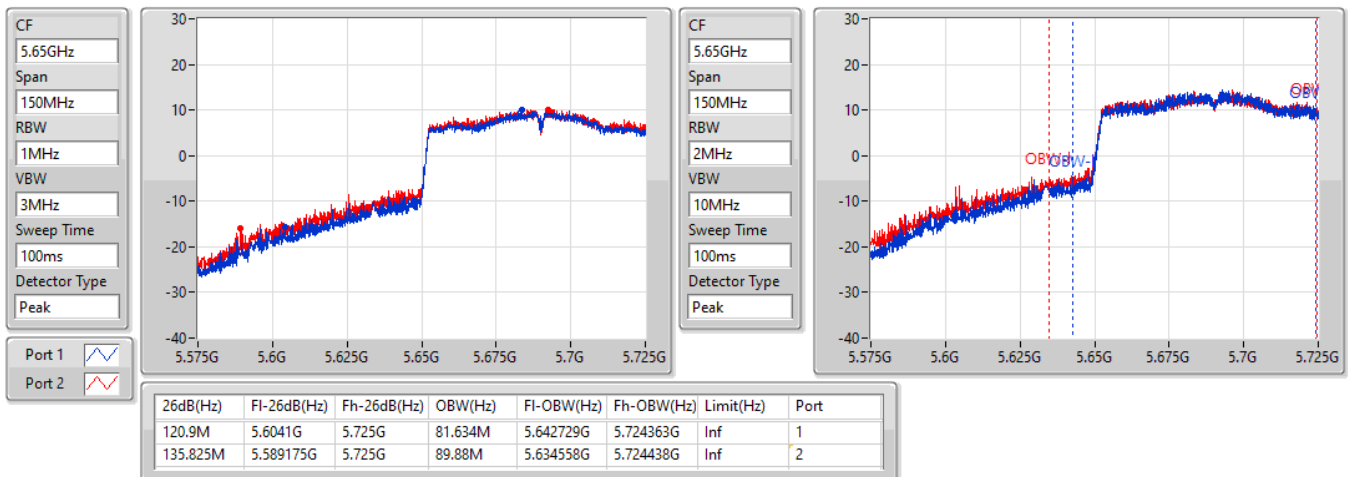


802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5610MHz

11/09/2021

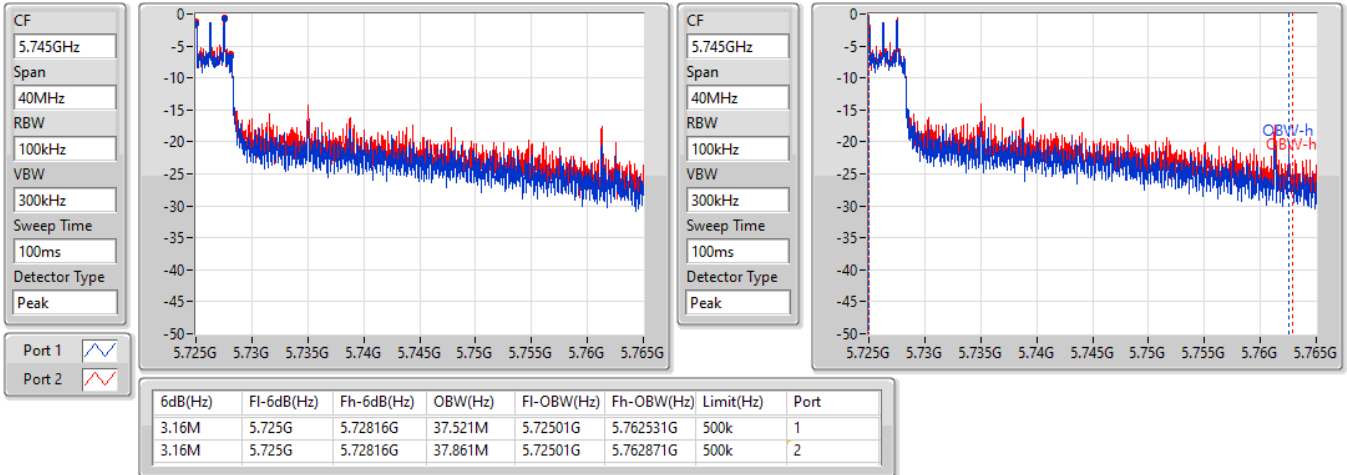

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5690MHz Straddle 5.47-5.725GHz

05/10/2021

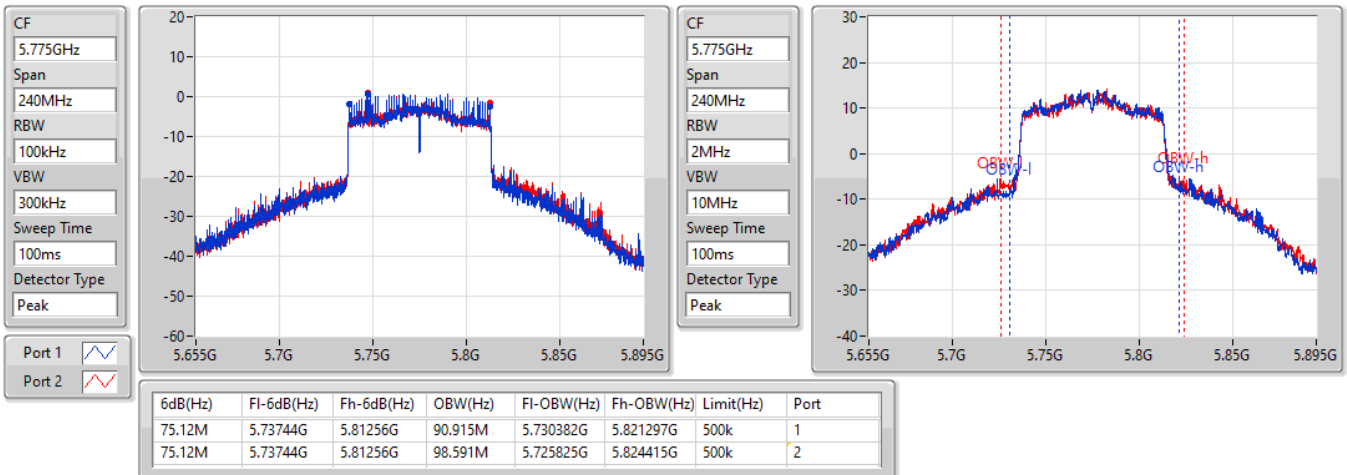


802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5690MHz Straddle 5.725-5.85GHz

05/10/2021


802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5775MHz

05/10/2021



Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	16.75	0.04732
802.11ac VHT20_Nss1,(MCS0)_1TX	16.51	0.04477
802.11ac VHT40_Nss1,(MCS0)_1TX	14.89	0.03083
802.11ac VHT80_Nss1,(MCS0)_1TX	12.21	0.01663
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	18.84	0.07656
802.11ac VHT20_Nss1,(MCS0)_1TX	18.89	0.07745
802.11ac VHT40_Nss1,(MCS0)_1TX	16.86	0.04853
802.11ac VHT80_Nss1,(MCS0)_1TX	12.39	0.01734
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	19.06	0.08054
802.11ac VHT20_Nss1,(MCS0)_1TX	19.16	0.08241
802.11ac VHT40_Nss1,(MCS0)_1TX	19.10	0.08128
802.11ac VHT80_Nss1,(MCS0)_1TX	19.68	0.09290
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	19.00	0.07943
802.11ac VHT20_Nss1,(MCS0)_1TX	19.47	0.08851
802.11ac VHT40_Nss1,(MCS0)_1TX	18.77	0.07534
802.11ac VHT80_Nss1,(MCS0)_1TX	16.78	0.04764



Average Power <Ant. 1> 1TX

Appendix C.1

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-
5180MHz	Pass	5.40	15.14	15.14	23.98
5200MHz	Pass	5.40	16.47	16.47	23.98
5240MHz	Pass	5.40	16.75	16.75	23.98
5260MHz	Pass	5.40	18.84	18.84	23.98
5300MHz	Pass	5.40	17.6	17.60	23.98
5320MHz	Pass	5.40	15.73	15.73	23.98
5500MHz	Pass	5.40	14.44	14.44	23.98
5580MHz	Pass	5.40	19.06	19.06	23.98
5700MHz	Pass	5.40	15.34	15.34	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	18.35	18.35	23.98
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	10.99	10.99	30.00
5745MHz	Pass	5.40	18.9	18.90	30.00
5785MHz	Pass	5.40	19	19.00	30.00
5825MHz	Pass	5.40	17.55	17.55	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
5180MHz	Pass	5.40	14.67	14.67	23.98
5200MHz	Pass	5.40	16.51	16.51	23.98
5240MHz	Pass	5.40	16.35	16.35	23.98
5260MHz	Pass	5.40	18.89	18.89	23.98
5300MHz	Pass	5.40	17.57	17.57	23.98
5320MHz	Pass	5.40	14.91	14.91	23.98
5500MHz	Pass	5.40	13.32	13.32	23.98
5580MHz	Pass	5.40	19.16	19.16	23.98
5700MHz	Pass	5.40	14.65	14.65	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	18.29	18.29	23.98
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	11.53	11.53	30.00
5745MHz	Pass	5.40	19.47	19.47	30.00
5785MHz	Pass	5.40	19.07	19.07	30.00
5825MHz	Pass	5.40	17.99	17.99	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
5190MHz	Pass	5.40	12.88	12.88	23.98
5230MHz	Pass	5.40	14.89	14.89	23.98
5270MHz	Pass	5.40	16.86	16.86	23.98
5310MHz	Pass	5.40	12.83	12.83	23.98
5510MHz	Pass	5.40	13.03	13.03	23.98
5550MHz	Pass	5.40	19.05	19.05	23.98
5670MHz	Pass	5.40	19.1	19.10	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.40	18.9	18.90	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	5.40	7.17	7.17	30.00
5755MHz	Pass	5.40	18.24	18.24	30.00
5795MHz	Pass	5.40	18.77	18.77	30.00
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-
5210MHz	Pass	5.40	12.21	12.21	23.98
5290MHz	Pass	5.40	12.39	12.39	23.98
5530MHz	Pass	5.40	12.62	12.62	23.98
5610MHz	Pass	5.40	16.23	16.23	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.40	19.68	19.68	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	5.40	4.98	4.98	30.00
5775MHz	Pass	5.40	16.78	16.78	30.00

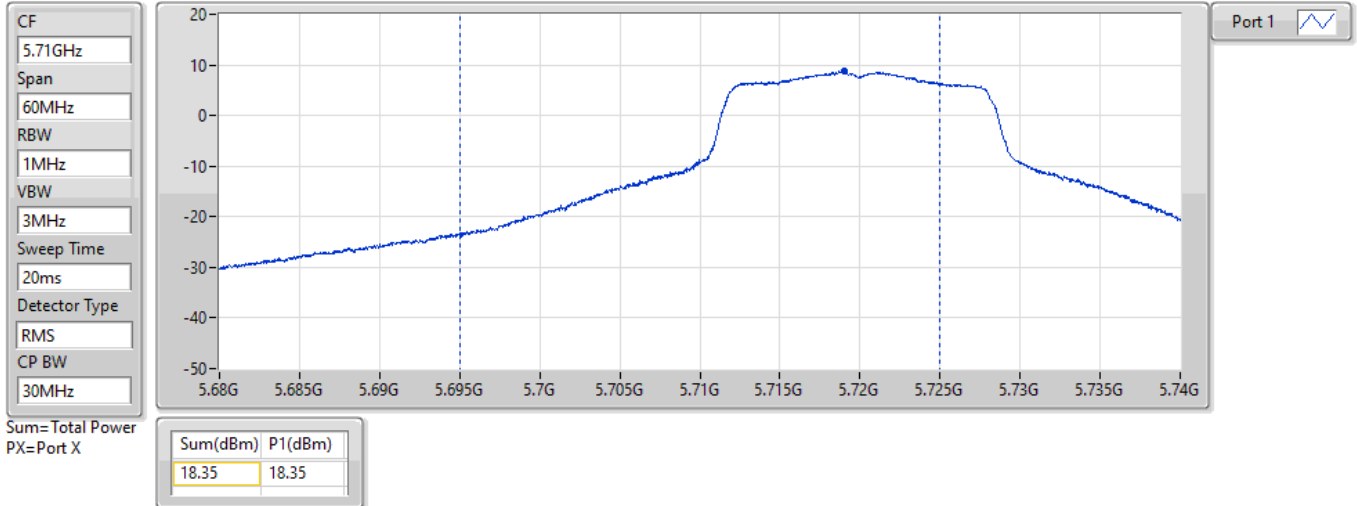
DG = Directional Gain; Port X = Port X output power

802.11a_Nss1,(6Mbps)_1TX

AV Power

5720MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

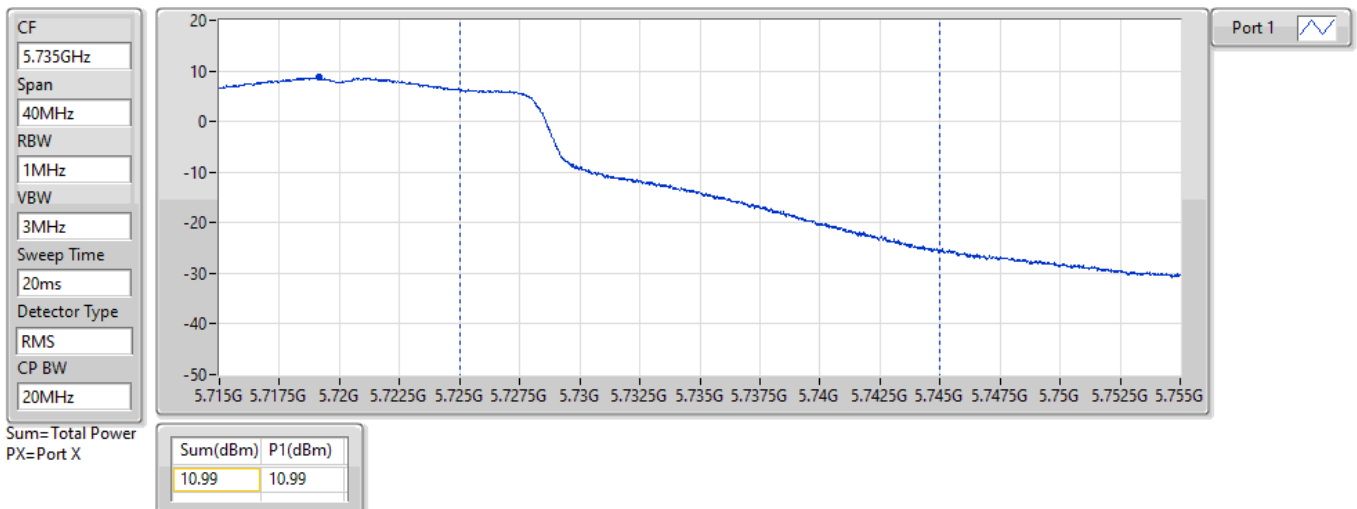


802.11a_Nss1,(6Mbps)_1TX

AV Power

5720MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

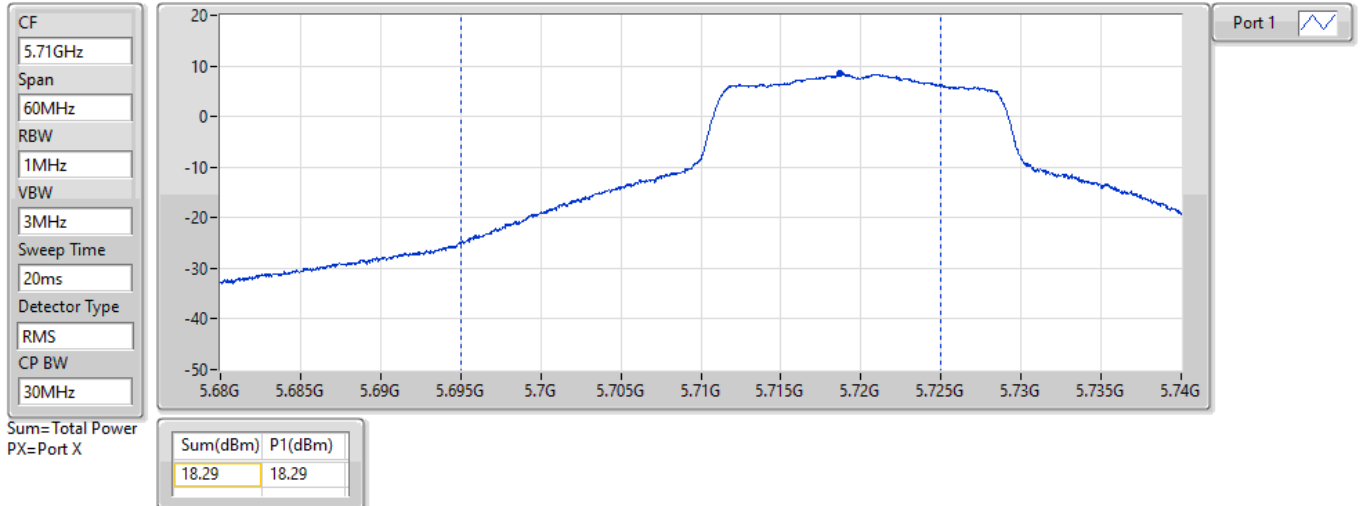


802.11ac VHT20_Nss1,(MCS0)_1TX

AV Power

5720MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

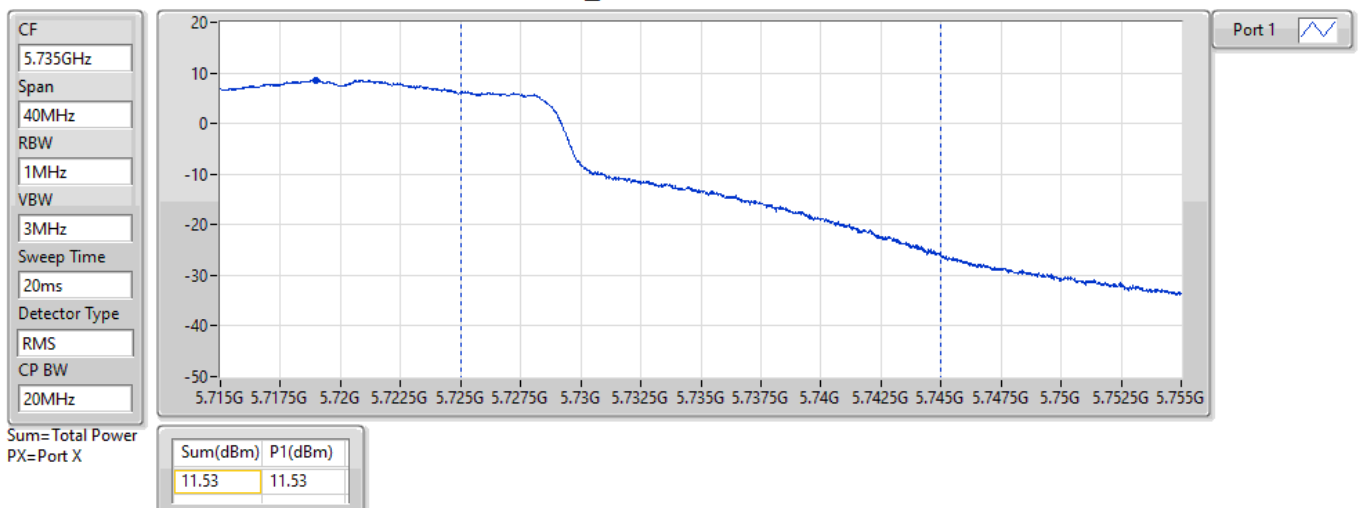


802.11ac VHT20_Nss1,(MCS0)_1TX

AV Power

5720MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

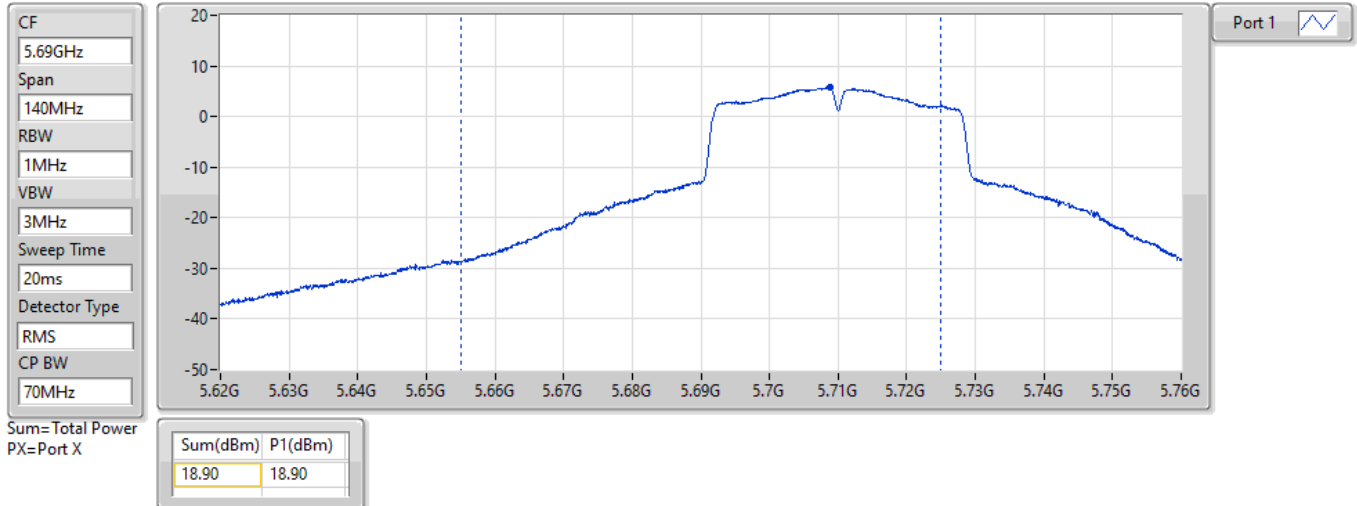


802.11ac VHT40_Nss1,(MCS0)_1TX

AV Power

5710MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

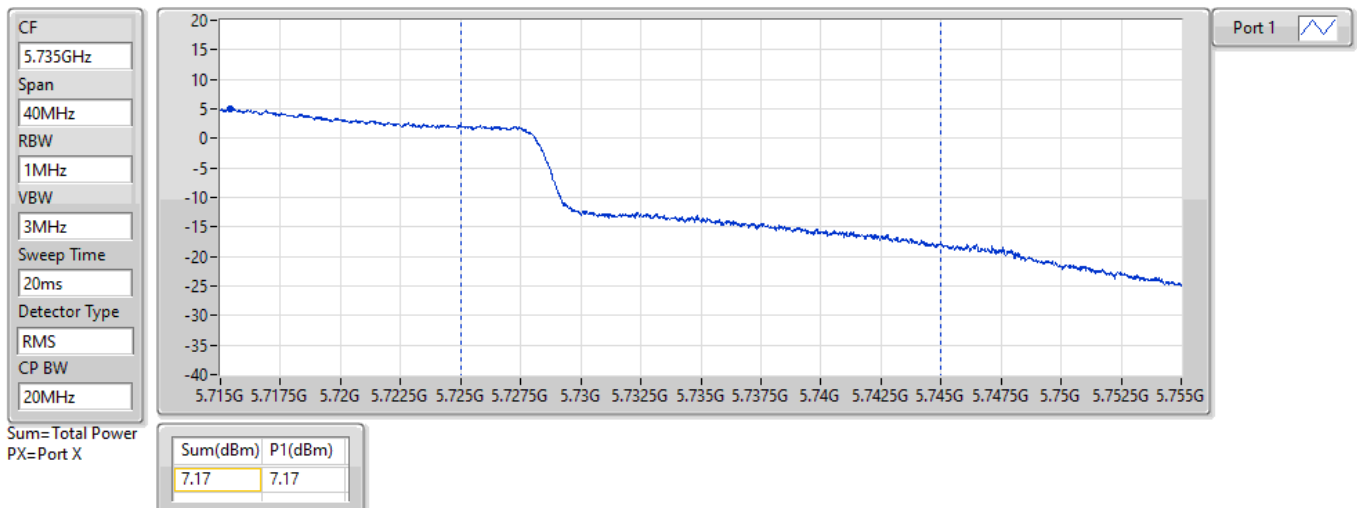


802.11ac VHT40_Nss1,(MCS0)_1TX

AV Power

5710MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

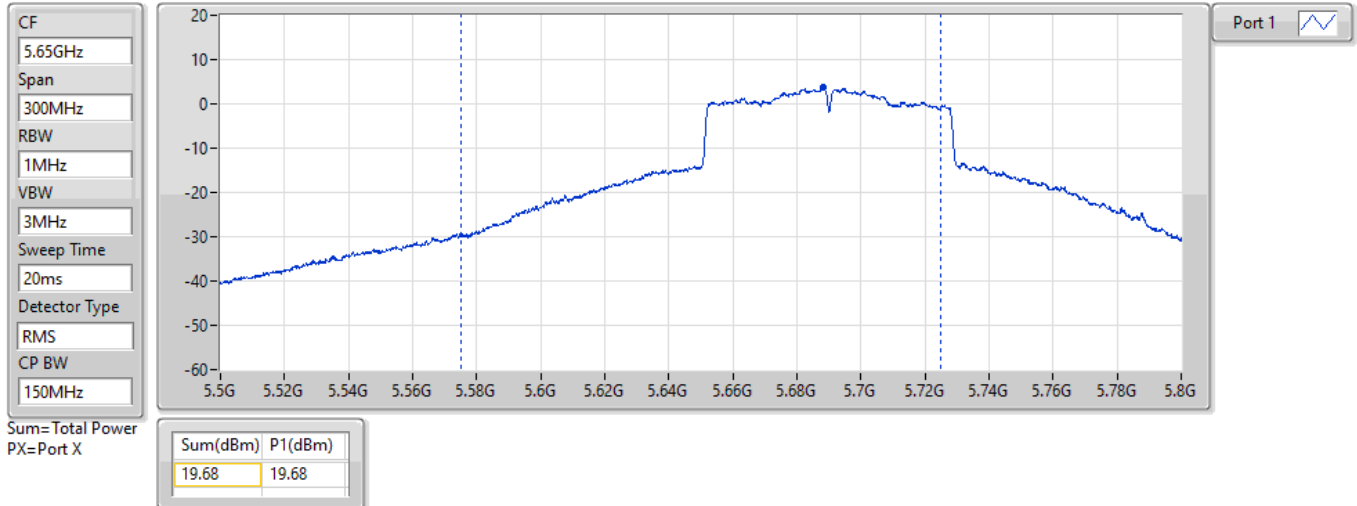


802.11ac VHT80_Nss1,(MCS0)_1TX

AV Power

5690MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

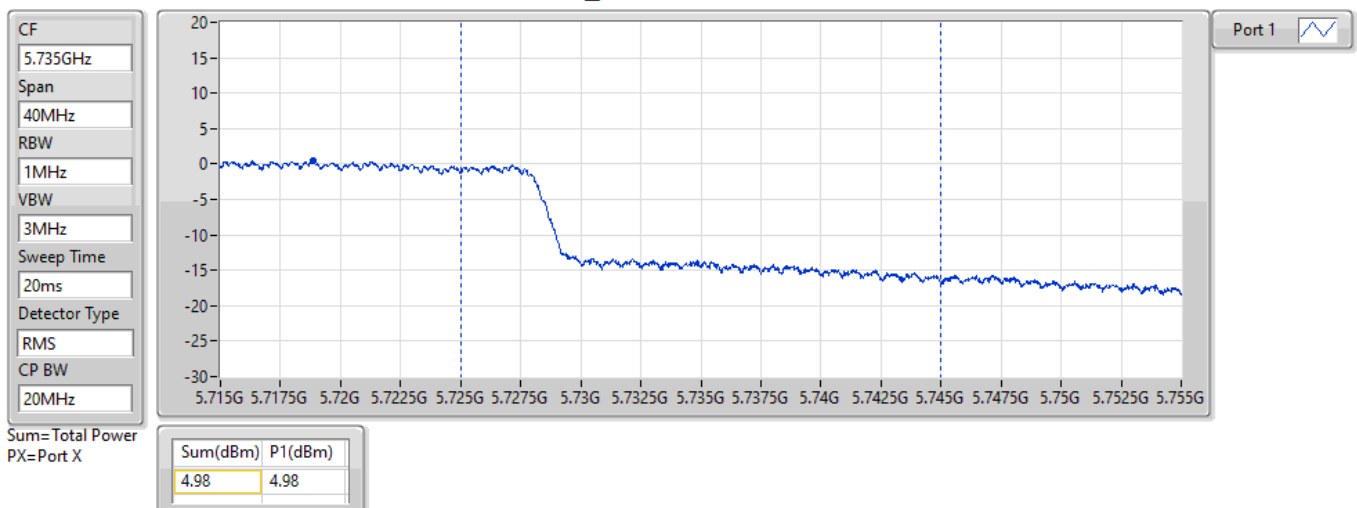


802.11ac VHT80_Nss1,(MCS0)_1TX

AV Power

5690MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021



Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	16.02	0.03999
802.11ac VHT20_Nss1,(MCS0)_1TX	16.07	0.04046
802.11ac VHT40_Nss1,(MCS0)_1TX	15.51	0.03556
802.11ac VHT80_Nss1,(MCS0)_1TX	9.82	0.00959
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	17.26	0.05321
802.11ac VHT20_Nss1,(MCS0)_1TX	17.58	0.05728
802.11ac VHT40_Nss1,(MCS0)_1TX	15.95	0.03936
802.11ac VHT80_Nss1,(MCS0)_1TX	10.55	0.01135
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	18.37	0.06871
802.11ac VHT20_Nss1,(MCS0)_1TX	18.69	0.07396
802.11ac VHT40_Nss1,(MCS0)_1TX	18.83	0.07638
802.11ac VHT80_Nss1,(MCS0)_1TX	18.65	0.07328
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	17.69	0.05875
802.11ac VHT20_Nss1,(MCS0)_1TX	18.10	0.06457
802.11ac VHT40_Nss1,(MCS0)_1TX	17.51	0.05636
802.11ac VHT80_Nss1,(MCS0)_1TX	17.34	0.05420

Result

Mode	Result	DG (dBi)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-
5180MHz	Pass	5.40	13.35	13.35	23.98
5200MHz	Pass	5.40	15.70	15.70	23.98
5240MHz	Pass	5.40	16.02	16.02	23.98
5260MHz	Pass	5.40	17.26	17.26	23.98
5300MHz	Pass	5.40	16.39	16.39	23.98
5320MHz	Pass	5.40	14.06	14.06	23.98
5500MHz	Pass	5.40	13.69	13.69	23.98
5580MHz	Pass	5.40	18.37	18.37	23.98
5700MHz	Pass	5.40	13.80	13.80	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	16.31	16.31	23.98
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	9.10	9.10	30.00
5745MHz	Pass	5.40	17.69	17.69	30.00
5785MHz	Pass	5.40	17.69	17.69	30.00
5825MHz	Pass	5.40	17.45	17.45	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
5180MHz	Pass	5.40	13.55	13.55	23.98
5200MHz	Pass	5.40	16.07	16.07	23.98
5240MHz	Pass	5.40	16.00	16.00	23.98
5260MHz	Pass	5.40	17.58	17.58	23.98
5300MHz	Pass	5.40	16.70	16.70	23.98
5320MHz	Pass	5.40	13.74	13.74	23.98
5500MHz	Pass	5.40	12.45	12.45	23.98
5580MHz	Pass	5.40	18.69	18.69	23.98
5700MHz	Pass	5.40	13.56	13.56	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	16.76	16.76	23.98
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	10.13	10.13	30.00
5745MHz	Pass	5.40	18.10	18.10	30.00
5785MHz	Pass	5.40	17.87	17.87	30.00
5825MHz	Pass	5.40	17.57	17.57	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
5190MHz	Pass	5.40	11.67	11.67	23.98
5230MHz	Pass	5.40	15.51	15.51	23.98
5270MHz	Pass	5.40	15.95	15.95	23.98
5310MHz	Pass	5.40	12.00	12.00	23.98
5510MHz	Pass	5.40	12.91	12.91	23.98
5550MHz	Pass	5.40	18.83	18.83	23.98
5670MHz	Pass	5.40	16.90	16.90	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.40	17.12	17.12	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	5.40	5.70	5.70	30.00
5755MHz	Pass	5.40	17.50	17.50	30.00
5795MHz	Pass	5.40	17.51	17.51	30.00
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-
5210MHz	Pass	5.40	9.82	9.82	23.98
5290MHz	Pass	5.40	10.55	10.55	23.98
5530MHz	Pass	5.40	12.55	12.55	23.98
5610MHz	Pass	5.40	16.49	16.49	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.40	18.65	18.65	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	5.40	4.09	4.09	30.00
5775MHz	Pass	5.40	17.34	17.34	30.00

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

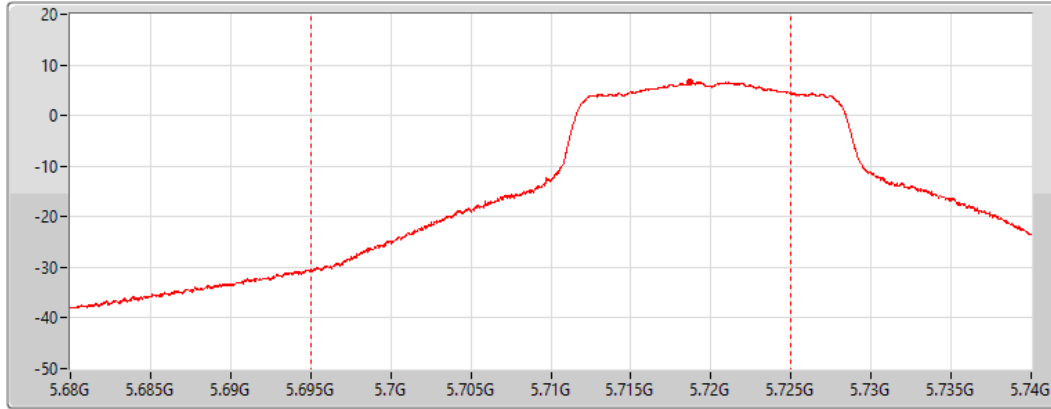
802.11a_Nss1,(6Mbps)_1TX

AV Power

5720MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

CF
5.71GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS
CP BW
30MHz



Port 2

Sum= Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
16.31	-	16.31

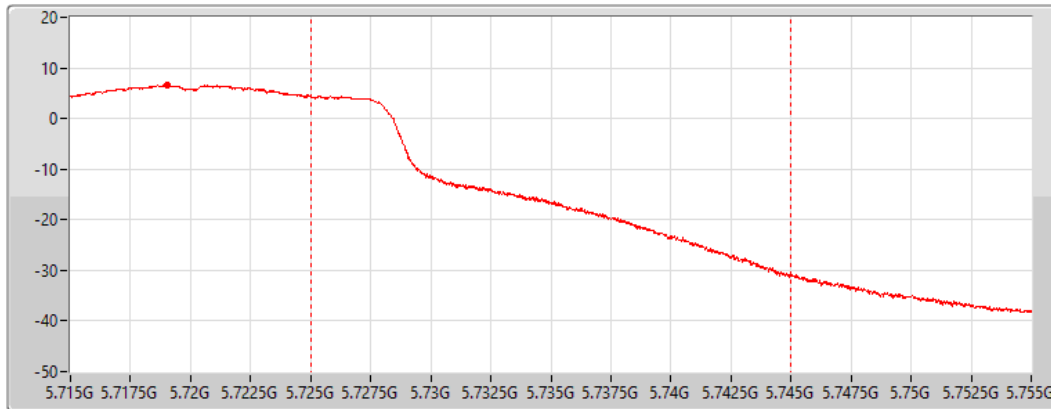
802.11a_Nss1,(6Mbps)_1TX

AV Power

5720MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

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



Port 2

Sum= Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
9.10	-	9.10

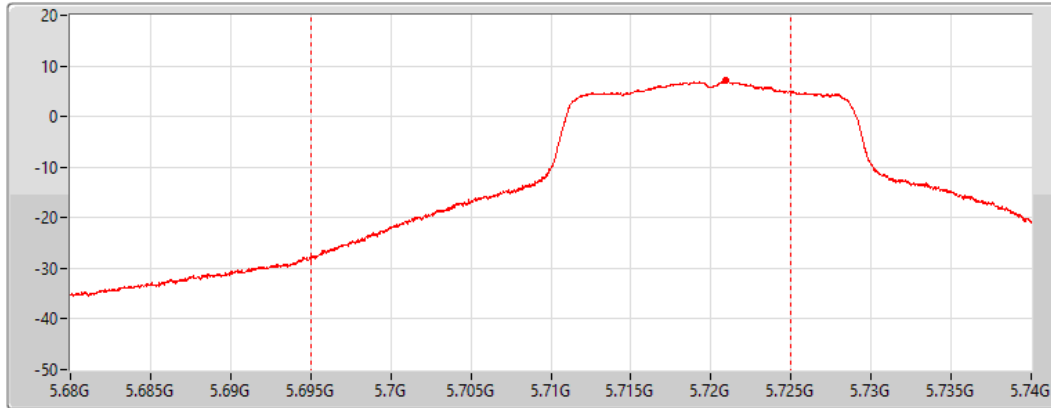
802.11ac VHT20_Nss1,(MCS0)_1TX

AV Power

5720MHz Straddle 5.67-5.725GHz_TnomVnom

05/10/2021

CF
5.71GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS
CP BW
30MHz



Port 2

Sum= Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
16.76	-	16.76

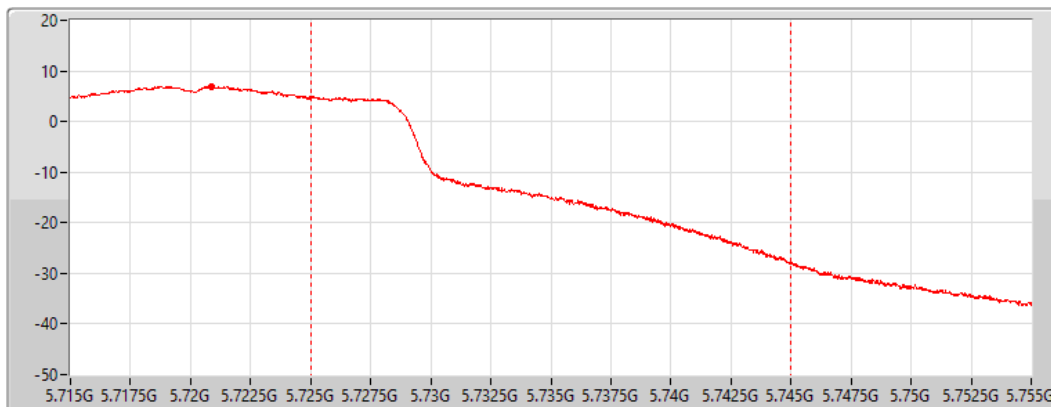
802.11ac VHT20_Nss1,(MCS0)_1TX

AV Power

5720MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

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



Port 2

Sum= Total Power
PX=Port X

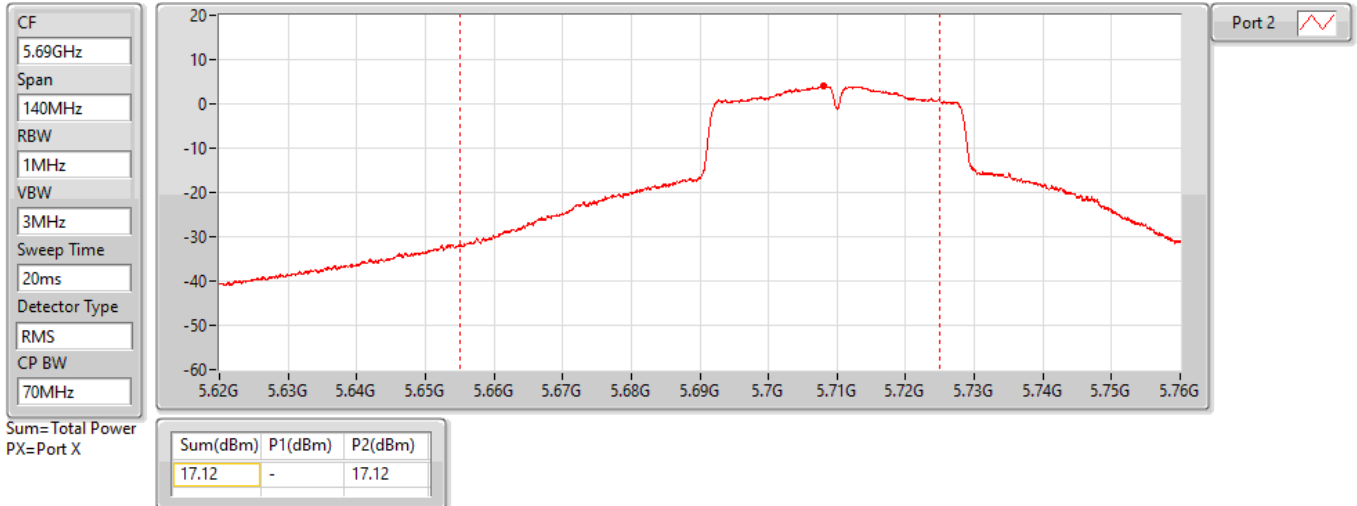
Sum(dBm)	P1(dBm)	P2(dBm)
10.13	-	10.13

802.11ac VHT40_Nss1,(MCS0)_1TX

AV Power

5710MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

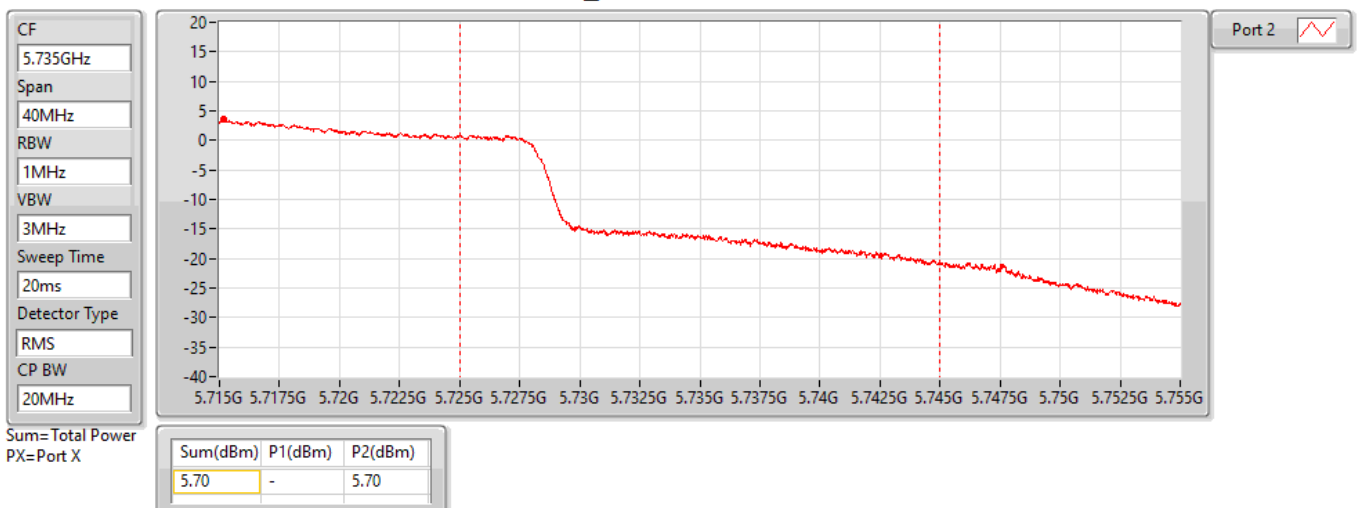


802.11ac VHT40_Nss1,(MCS0)_1TX

AV Power

5710MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021



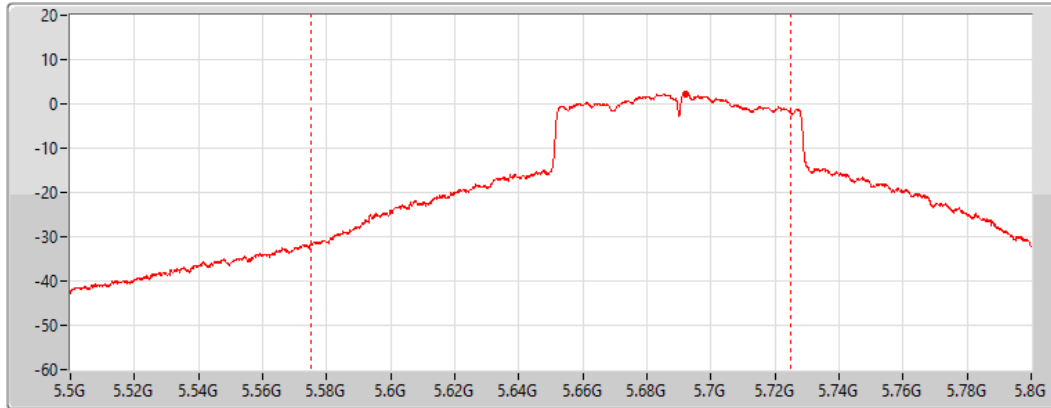
802.11ac VHT80_Nss1,(MCS0)_1TX

AV Power

5690MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

CF
5.65GHz
Span
300MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS
CP BW
150MHz



Port 2

Sum= Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
18.65	-	18.65

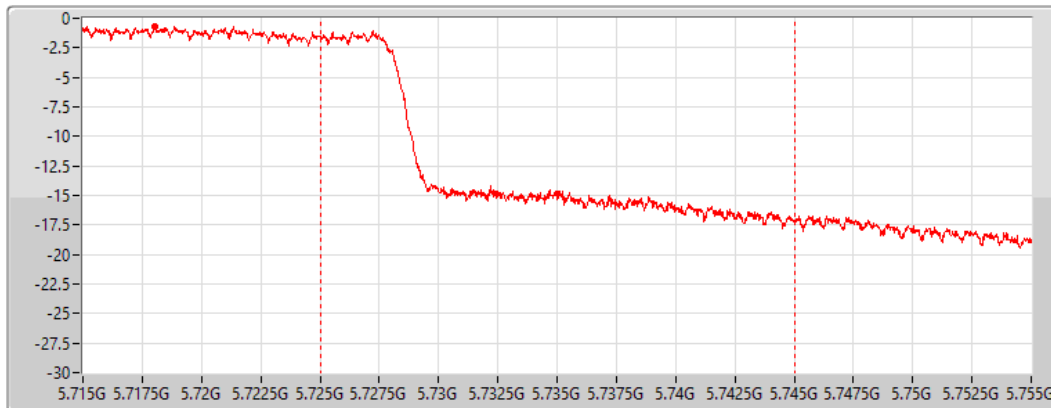
802.11ac VHT80_Nss1,(MCS0)_1TX

AV Power

5690MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

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



Port 2

Sum= Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
4.09	-	4.09



**Average Power <Ant. 1 + Ant. 2> 2TX
For Non-beamforming Mode**

Appendix C.3

Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	18.74	0.07482
802.11ac VHT20_Nss1,(MCS0)_2TX	19.93	0.09840
802.11ac VHT40_Nss1,(MCS0)_2TX	18.32	0.06792
802.11ac VHT80_Nss1,(MCS0)_2TX	12.73	0.01875
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	19.68	0.09290
802.11ac VHT20_Nss1,(MCS0)_2TX	20.24	0.10568
802.11ac VHT40_Nss1,(MCS0)_2TX	19.87	0.09705
802.11ac VHT80_Nss1,(MCS0)_2TX	13.88	0.02443
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	20.30	0.10715
802.11ac VHT20_Nss1,(MCS0)_2TX	20.80	0.12023
802.11ac VHT40_Nss1,(MCS0)_2TX	20.59	0.11455
802.11ac VHT80_Nss1,(MCS0)_2TX	20.31	0.10740
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	19.65	0.09226
802.11ac VHT20_Nss1,(MCS0)_2TX	20.04	0.10093
802.11ac VHT40_Nss1,(MCS0)_2TX	19.61	0.09141
802.11ac VHT80_Nss1,(MCS0)_2TX	19.28	0.08472



**Average Power <Ant. 1 + Ant. 2> 2TX
For Non-beamforming Mode**

Appendix C.3

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.40	12.85	12.25	15.57	23.98
5200MHz	Pass	5.40	14.68	14.32	17.51	23.98
5240MHz	Pass	5.40	15.83	15.62	18.74	23.98
5260MHz	Pass	5.40	16.85	16.48	19.68	23.98
5300MHz	Pass	5.40	16.61	16.49	19.56	23.98
5320MHz	Pass	5.40	13.77	13.82	16.81	23.98
5500MHz	Pass	5.40	13.13	12.47	15.82	23.98
5580MHz	Pass	5.40	17.50	17.06	20.30	23.98
5700MHz	Pass	5.40	11.12	10.54	13.85	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	16.16	15.95	19.07	23.98
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	8.81	8.64	11.74	30.00
5745MHz	Pass	5.40	16.53	16.72	19.64	30.00
5785MHz	Pass	5.40	16.83	16.44	19.65	30.00
5825MHz	Pass	5.40	16.12	16.29	19.22	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.40	12.97	12.56	15.78	23.98
5200MHz	Pass	5.40	17.05	16.78	19.93	23.98
5240MHz	Pass	5.40	15.68	15.36	18.53	23.98
5260MHz	Pass	5.40	17.49	16.95	20.24	23.98
5300MHz	Pass	5.40	17.34	16.68	20.03	23.98
5320MHz	Pass	5.40	13.78	13.39	16.60	23.98
5500MHz	Pass	5.40	13.45	12.06	15.82	23.98
5580MHz	Pass	5.40	18.07	17.48	20.80	23.98
5700MHz	Pass	5.40	12.83	12.21	15.54	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	16.80	15.90	19.38	23.98
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	10.06	9.13	12.63	30.00
5745MHz	Pass	5.40	17.40	16.63	20.04	30.00
5785MHz	Pass	5.40	17.52	16.29	19.96	30.00
5825MHz	Pass	5.40	16.24	16.30	19.28	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	5.40	11.88	11.55	14.73	23.98
5230MHz	Pass	5.40	15.29	15.32	18.32	23.98
5270MHz	Pass	5.40	17.01	16.70	19.87	23.98
5310MHz	Pass	5.40	12.44	12.99	15.73	23.98
5510MHz	Pass	5.40	13.28	12.65	15.99	23.98
5550MHz	Pass	5.40	17.68	17.47	20.59	23.98
5670MHz	Pass	5.40	17.02	16.56	19.81	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.40	17.37	16.54	19.99	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	5.40	5.52	4.75	8.16	30.00
5755MHz	Pass	5.40	16.83	16.29	19.58	30.00
5795MHz	Pass	5.40	16.99	16.16	19.61	30.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	5.40	10.26	9.11	12.73	23.98
5290MHz	Pass	5.40	10.76	10.98	13.88	23.98
5530MHz	Pass	5.40	11.63	11.31	14.48	23.98
5610MHz	Pass	5.40	14.66	14.59	17.64	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.40	17.32	17.28	20.31	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	5.40	2.30	2.61	5.47	30.00
5775MHz	Pass	5.40	16.41	16.13	19.28	30.00

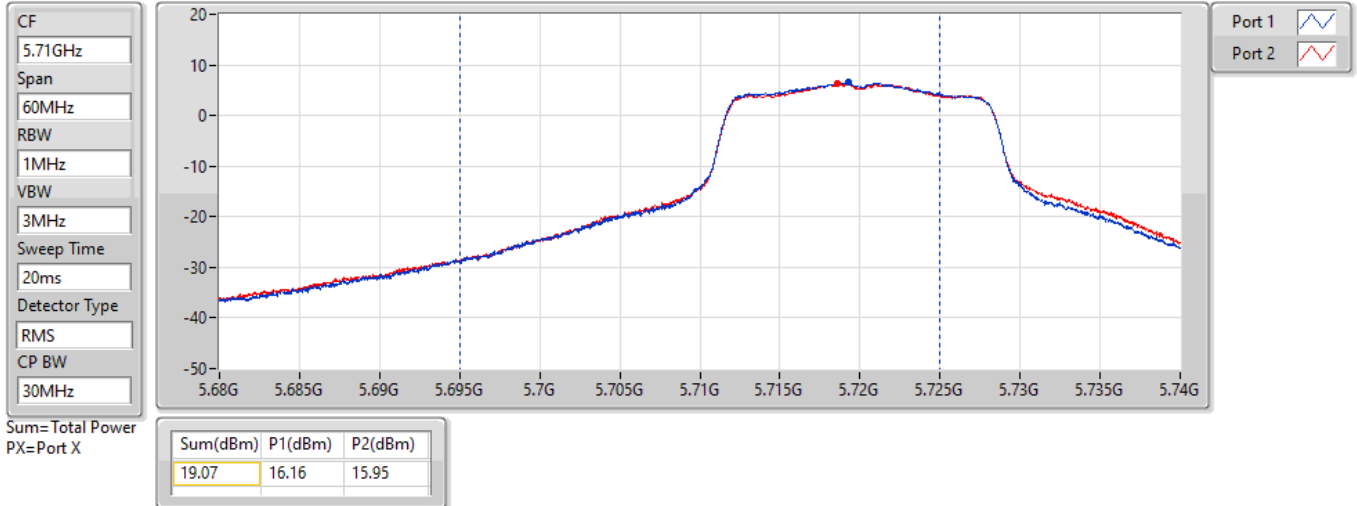
DG = Directional Gain; Port X = Port X output power

802.11a_Nss1,(6Mbps)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

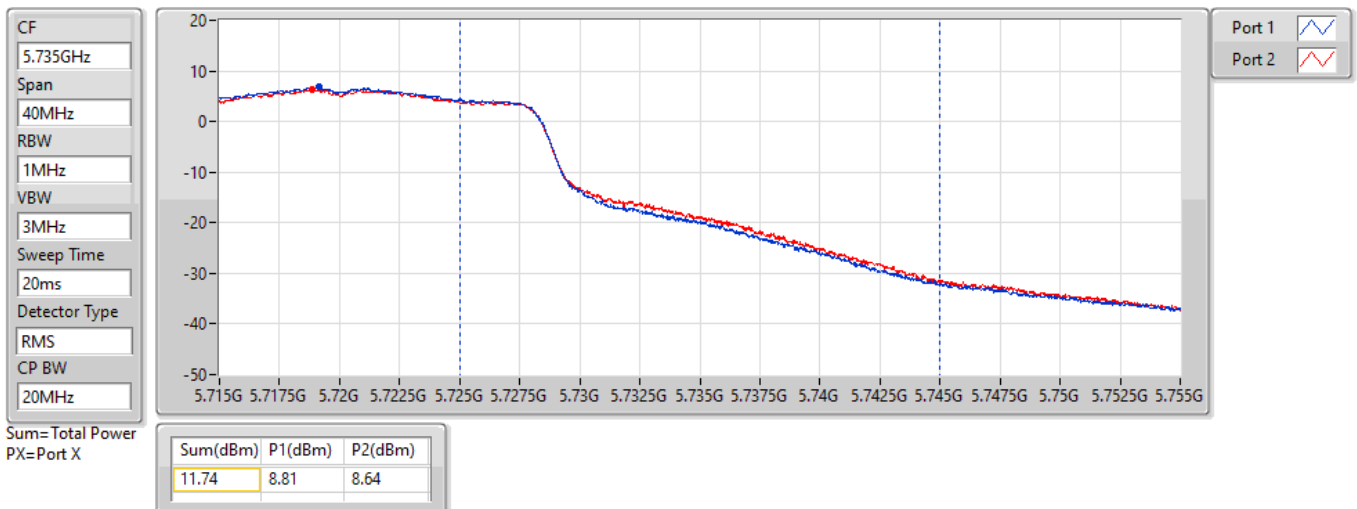


802.11a_Nss1,(6Mbps)_2TX

AV Power

5720MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

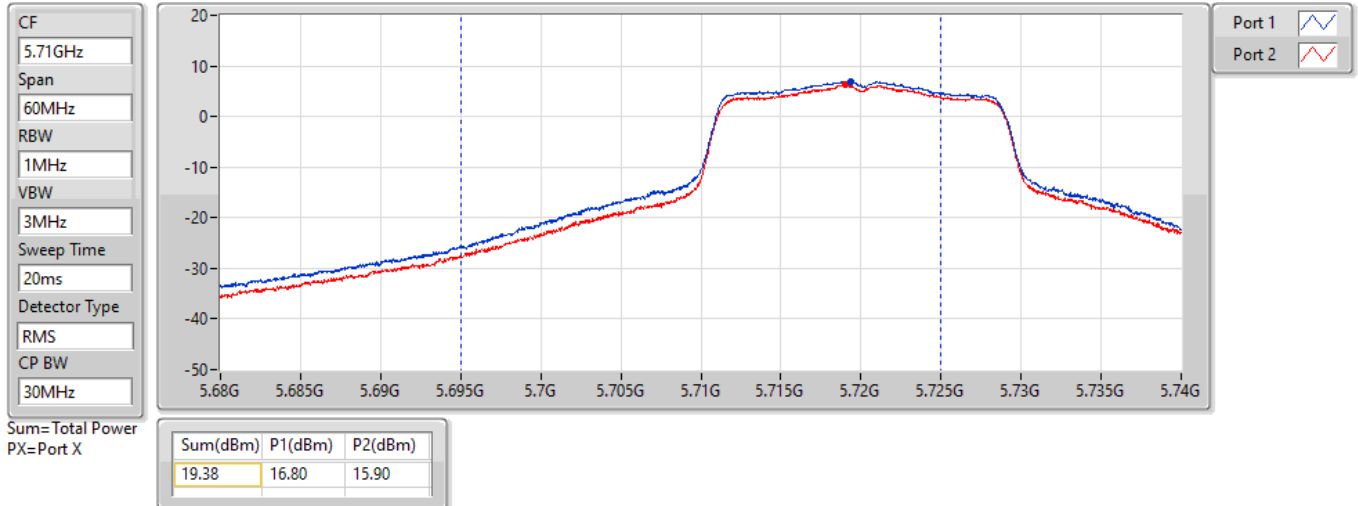


802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

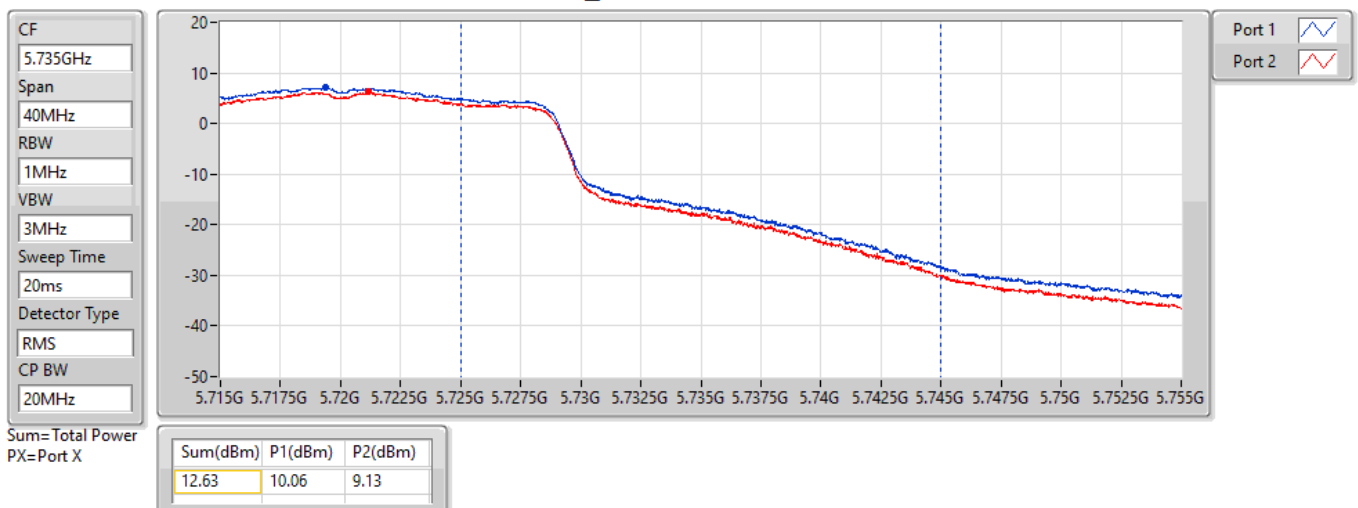


802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

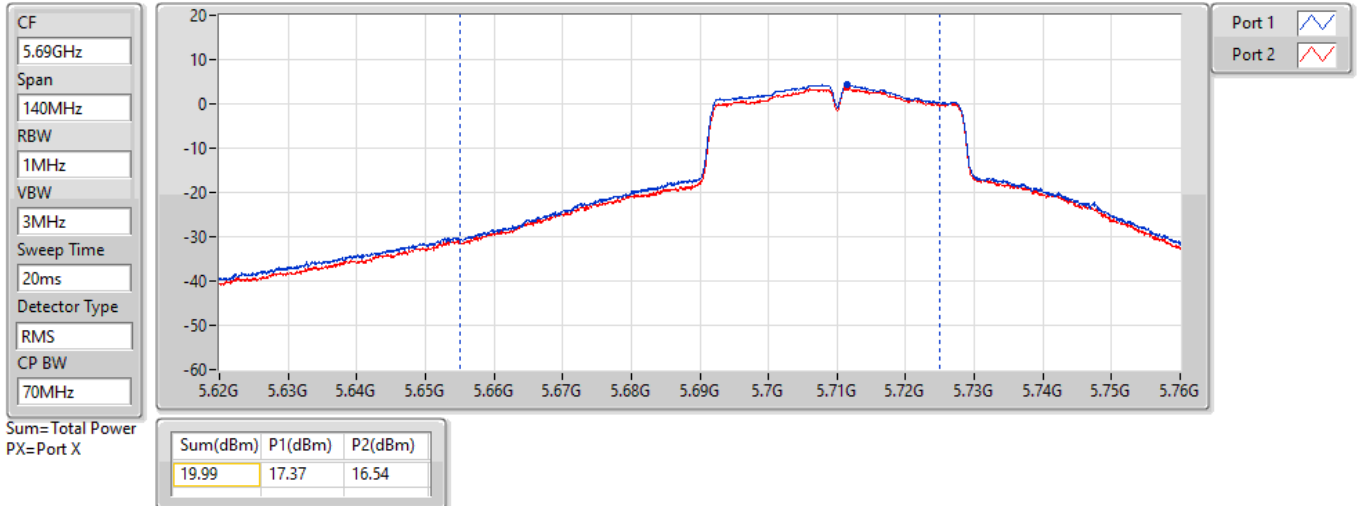


802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

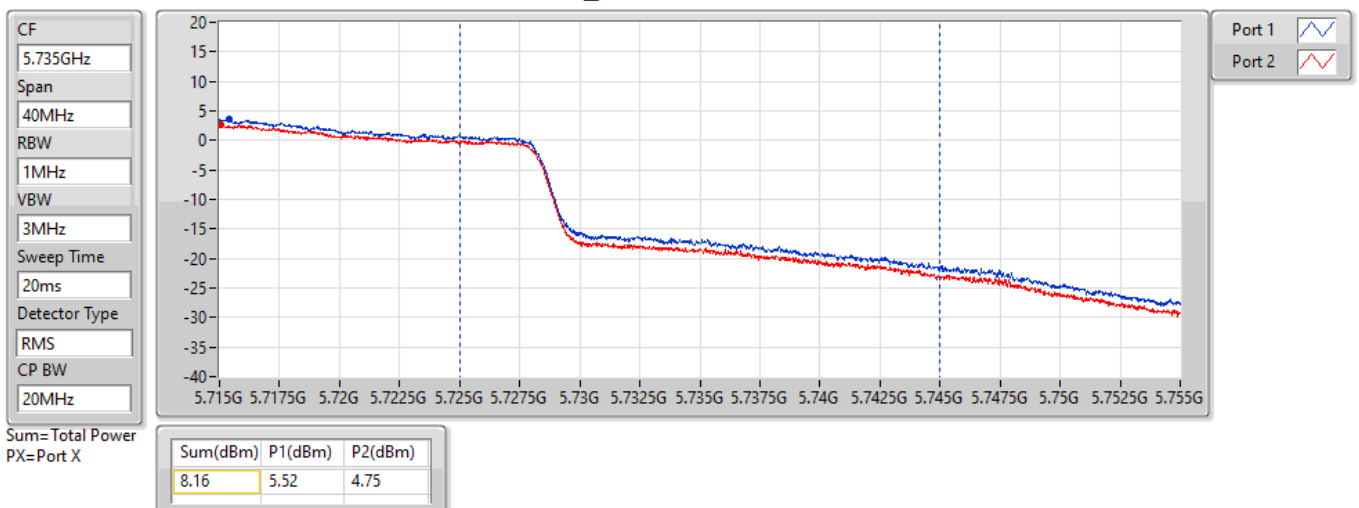


802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

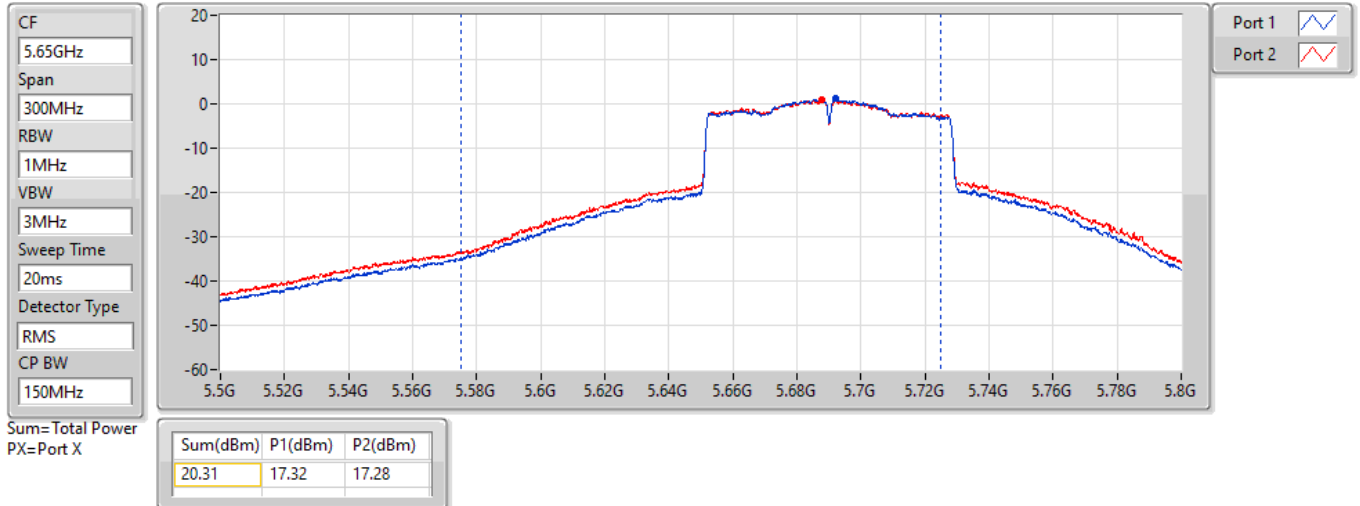


802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

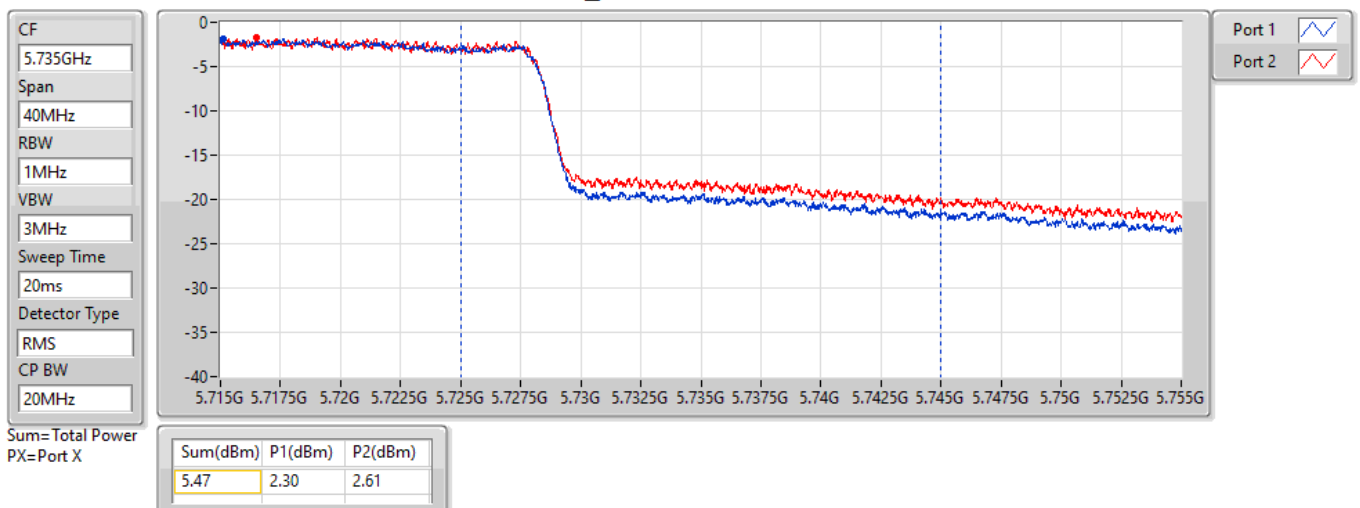


802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021





**Average Power <Ant. 1 + Ant. 2> 2TX
For beamforming Mode**

Appendix C.4

Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	19.93	0.09840
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	18.32	0.06792
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	12.73	0.01875
5.25-5.35GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.24	0.10568
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	19.87	0.09705
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	13.88	0.02443
5.47-5.725GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.80	0.12023
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	20.59	0.11455
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	20.31	0.10740
5.725-5.85GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.04	0.10093
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	19.61	0.09141
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	19.28	0.08472



**Average Power <Ant. 1 + Ant. 2> 2TX
For beamforming Mode**

Appendix C.4

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	8.41	12.97	12.56	15.78	21.57
5200MHz	Pass	8.41	17.05	16.78	19.93	21.57
5240MHz	Pass	8.41	15.68	15.36	18.53	21.57
5260MHz	Pass	8.41	17.49	16.95	20.24	21.57
5300MHz	Pass	8.41	17.34	16.68	20.03	21.57
5320MHz	Pass	8.41	13.78	13.39	16.60	21.57
5500MHz	Pass	8.41	13.45	12.06	15.82	21.57
5580MHz	Pass	8.41	18.07	17.48	20.80	21.57
5700MHz	Pass	8.41	12.83	12.21	15.54	21.57
5720MHz Straddle 5.47-5.725GHz	Pass	8.41	16.8	15.9	19.38	21.57
5720MHz Straddle 5.725-5.85GHz	Pass	8.41	10.06	9.13	12.63	27.59
5745MHz	Pass	8.41	17.4	16.63	20.04	27.59
5785MHz	Pass	8.41	17.52	16.29	19.96	27.59
5825MHz	Pass	8.41	16.24	16.3	19.28	27.59
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	8.41	11.88	11.55	14.73	21.57
5230MHz	Pass	8.41	15.29	15.32	18.32	21.57
5270MHz	Pass	8.41	17.01	16.7	19.87	21.57
5310MHz	Pass	8.41	12.44	12.99	15.73	21.57
5510MHz	Pass	8.41	13.28	12.65	15.99	21.57
5550MHz	Pass	8.41	17.68	17.47	20.59	21.57
5670MHz	Pass	8.41	17.02	16.56	19.81	21.57
5710MHz Straddle 5.47-5.725GHz	Pass	8.41	17.37	16.54	19.99	21.57
5710MHz Straddle 5.725-5.85GHz	Pass	8.41	5.52	4.75	8.16	27.59
5755MHz	Pass	8.41	16.83	16.29	19.58	27.59
5795MHz	Pass	8.41	16.99	16.16	19.61	27.59
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	8.41	10.26	9.11	12.73	21.57
5290MHz	Pass	8.41	10.76	10.98	13.88	21.57
5530MHz	Pass	8.41	11.63	11.31	14.48	21.57
5610MHz	Pass	8.41	14.66	14.59	17.64	21.57
5690MHz Straddle 5.47-5.725GHz	Pass	8.41	17.32	17.28	20.31	21.57
5690MHz Straddle 5.725-5.85GHz	Pass	8.41	2.3	2.61	5.47	27.59
5775MHz	Pass	8.41	16.41	16.13	19.28	27.59

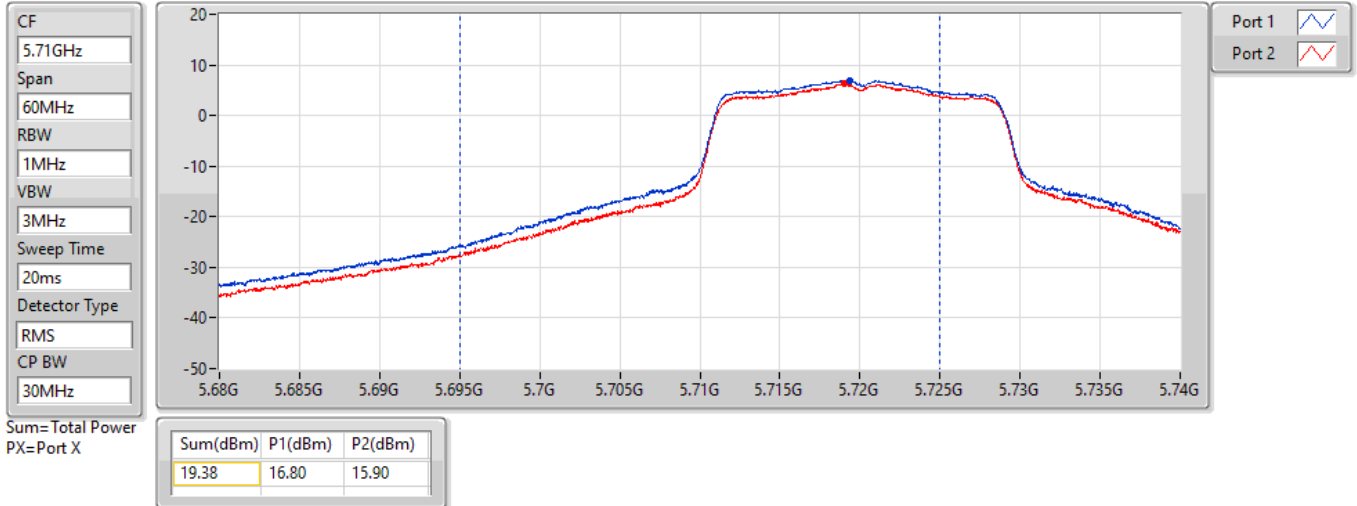
DG = Directional Gain; Port X = Port X output power

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

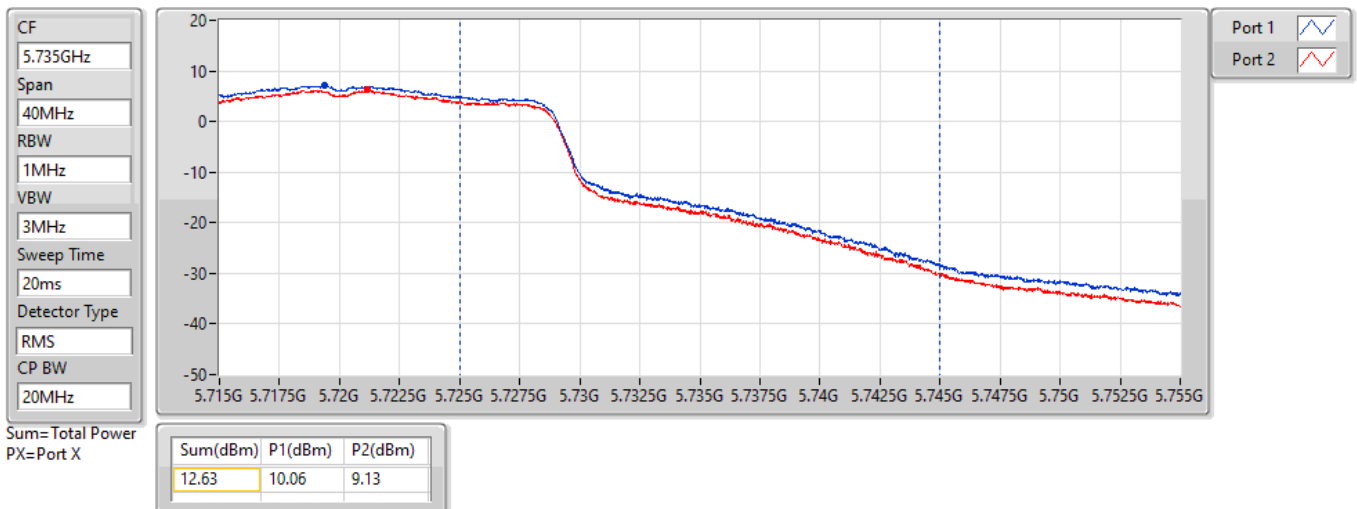


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

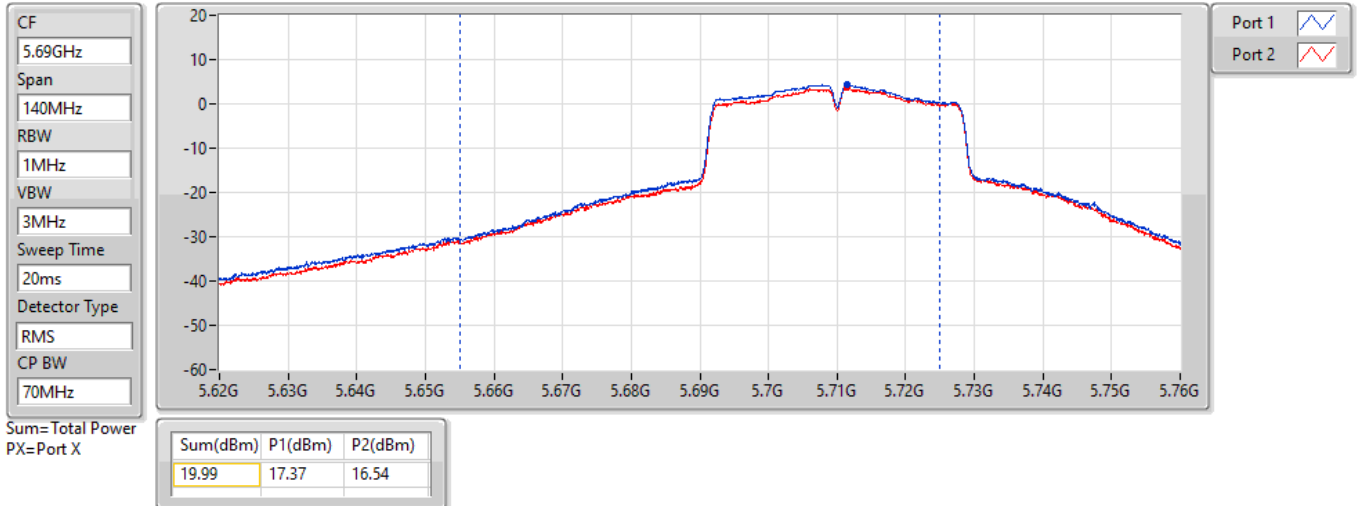


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

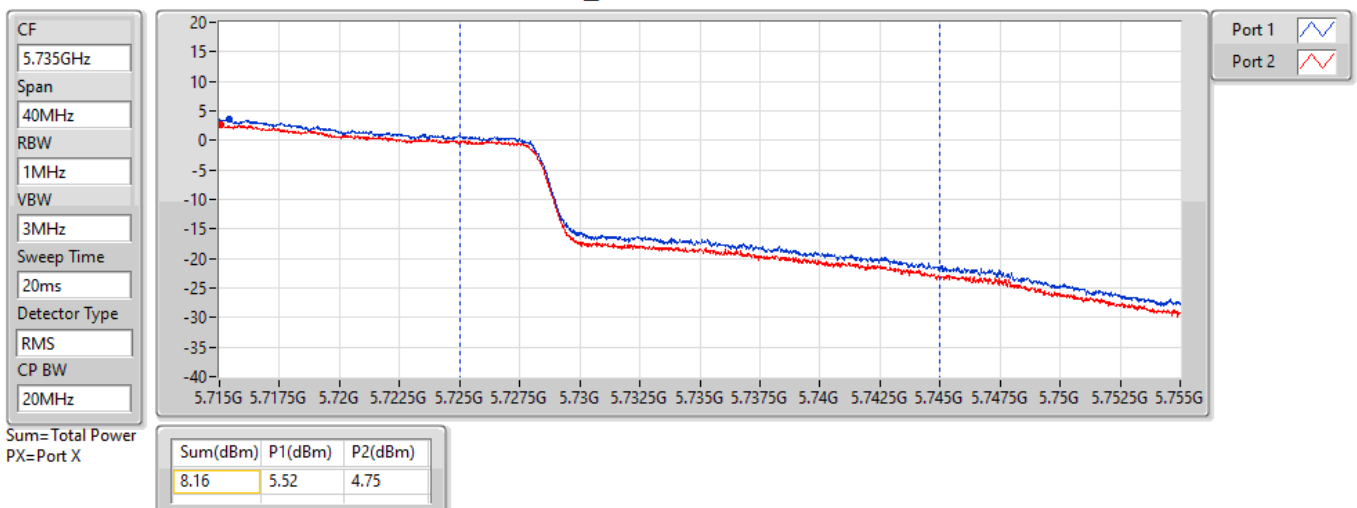


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021

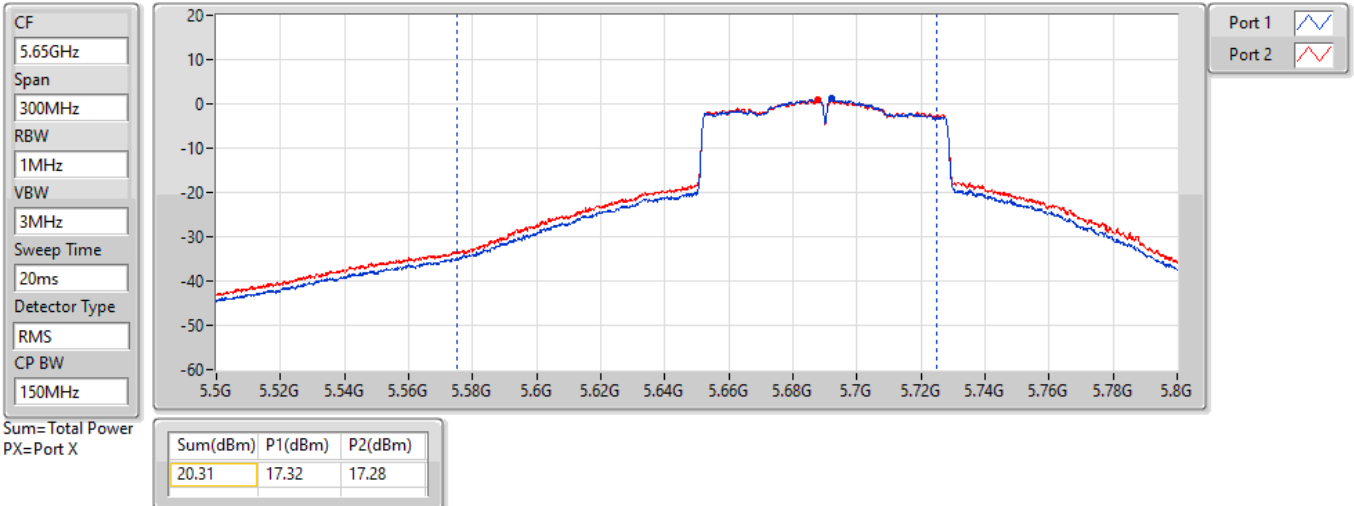


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.47-5.725GHz_TnomVnom

05/10/2021

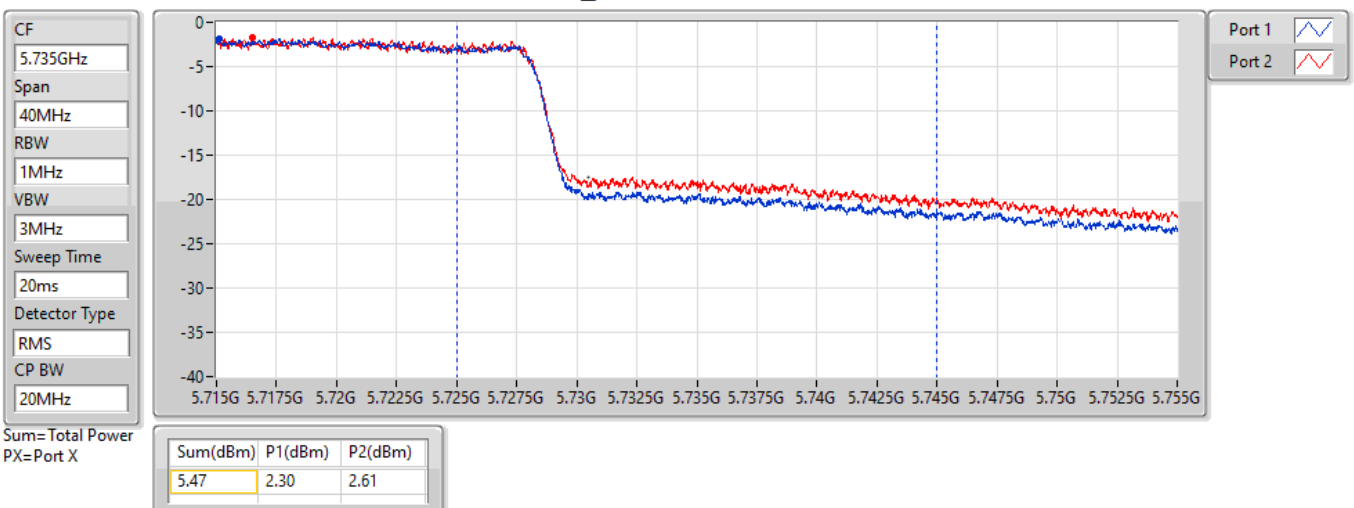


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz_TnomVnom

05/10/2021



Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_1TX	5.19
802.11ac VHT20_Nss1,(MCS0)_1TX	4.85
802.11ac VHT40_Nss1,(MCS0)_1TX	0.56
802.11ac VHT80_Nss1,(MCS0)_1TX	-5.11
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_1TX	7.54
802.11ac VHT20_Nss1,(MCS0)_1TX	7.30
802.11ac VHT40_Nss1,(MCS0)_1TX	2.78
802.11ac VHT80_Nss1,(MCS0)_1TX	-4.69
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_1TX	7.82
802.11ac VHT20_Nss1,(MCS0)_1TX	7.57
802.11ac VHT40_Nss1,(MCS0)_1TX	5.34
802.11ac VHT80_Nss1,(MCS0)_1TX	1.87
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_1TX	6.15
802.11ac VHT20_Nss1,(MCS0)_1TX	6.06
802.11ac VHT40_Nss1,(MCS0)_1TX	2.99
802.11ac VHT80_Nss1,(MCS0)_1TX	-1.48

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-
5180MHz	Pass	5.40	3.81	3.81	11.00
5200MHz	Pass	5.40	5.19	5.19	11.00
5240MHz	Pass	5.40	4.47	4.47	11.00
5260MHz	Pass	5.40	7.54	7.54	11.00
5300MHz	Pass	5.40	6.24	6.24	11.00
5320MHz	Pass	5.40	3.88	3.88	11.00
5500MHz	Pass	5.40	3.04	3.04	11.00
5580MHz	Pass	5.40	7.82	7.82	11.00
5700MHz	Pass	5.40	4.05	4.05	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	7.32	7.32	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	3.22	3.22	30.00
5745MHz	Pass	5.40	6.13	6.13	30.00
5785MHz	Pass	5.40	6.15	6.15	30.00
5825MHz	Pass	5.40	4.74	4.74	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
5180MHz	Pass	5.40	3.00	3.00	11.00
5200MHz	Pass	5.40	4.85	4.85	11.00
5240MHz	Pass	5.40	4.28	4.28	11.00
5260MHz	Pass	5.40	7.30	7.30	11.00
5300MHz	Pass	5.40	5.84	5.84	11.00
5320MHz	Pass	5.40	3.25	3.25	11.00
5500MHz	Pass	5.40	1.74	1.74	11.00
5580MHz	Pass	5.40	7.57	7.57	11.00
5700MHz	Pass	5.40	2.44	2.44	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	7.06	7.06	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	3.19	3.19	30.00
5745MHz	Pass	5.40	6.06	6.06	30.00
5785MHz	Pass	5.40	5.96	5.96	30.00
5825MHz	Pass	5.40	4.86	4.86	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
5190MHz	Pass	5.40	-1.34	-1.34	11.00
5230MHz	Pass	5.40	0.56	0.56	11.00
5270MHz	Pass	5.40	2.78	2.78	11.00
5310MHz	Pass	5.40	-1.66	-1.66	11.00
5510MHz	Pass	5.40	-1.22	-1.22	11.00
5550MHz	Pass	5.40	5.34	5.34	11.00
5670MHz	Pass	5.40	4.71	4.71	11.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.40	4.29	4.29	11.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.40	-0.89	-0.89	30.00
5755MHz	Pass	5.40	2.99	2.99	30.00
5795MHz	Pass	5.40	2.88	2.88	30.00
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-
5210MHz	Pass	5.40	-5.11	-5.11	11.00
5290MHz	Pass	5.40	-4.69	-4.69	11.00
5530MHz	Pass	5.40	-4.45	-4.45	11.00
5610MHz	Pass	5.40	-0.58	-0.58	11.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.40	1.87	1.87	11.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.40	-3.02	-3.02	30.00
5775MHz	Pass	5.40	-1.48	-1.48	30.00

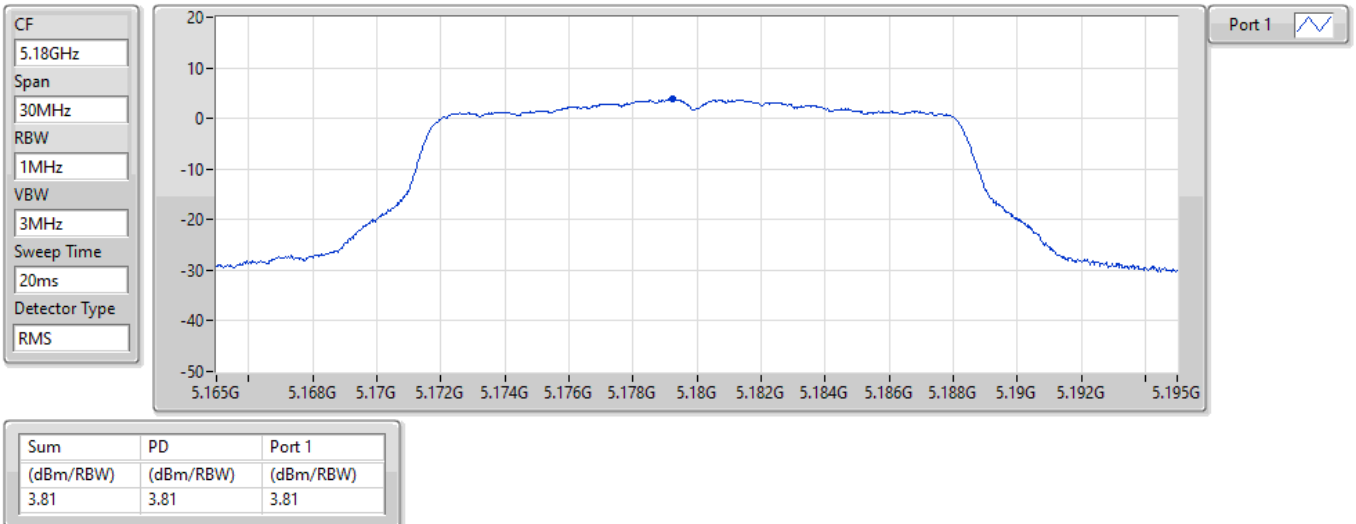
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

802.11a_Nss1,(6Mbps)_1TX

PSD

5180MHz

05/10/2021

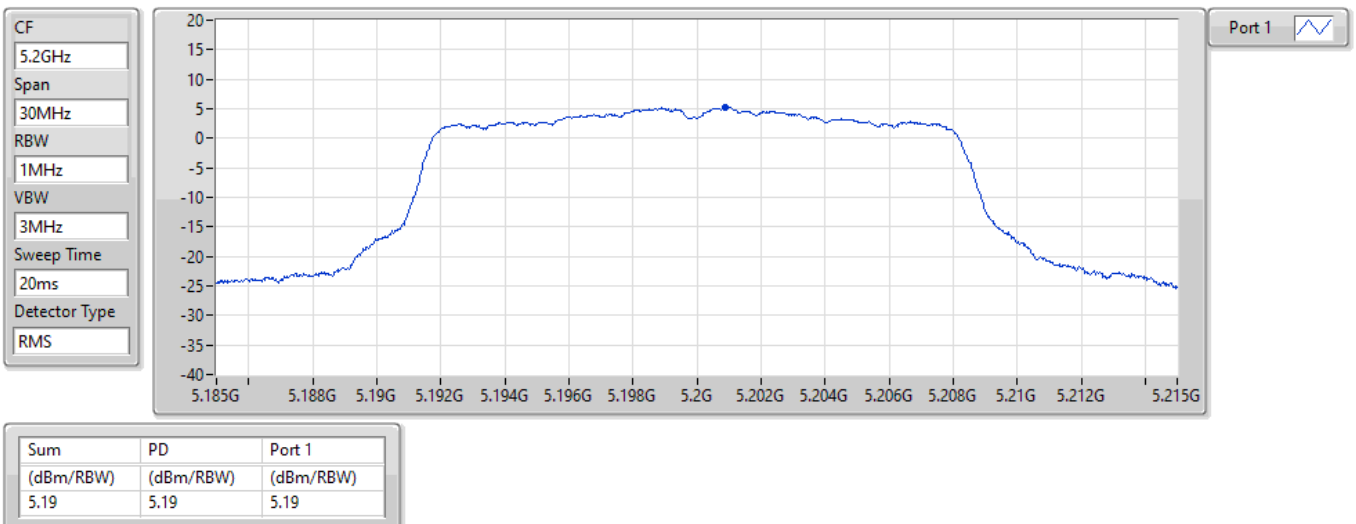


802.11a_Nss1,(6Mbps)_1TX

PSD

5200MHz

05/10/2021

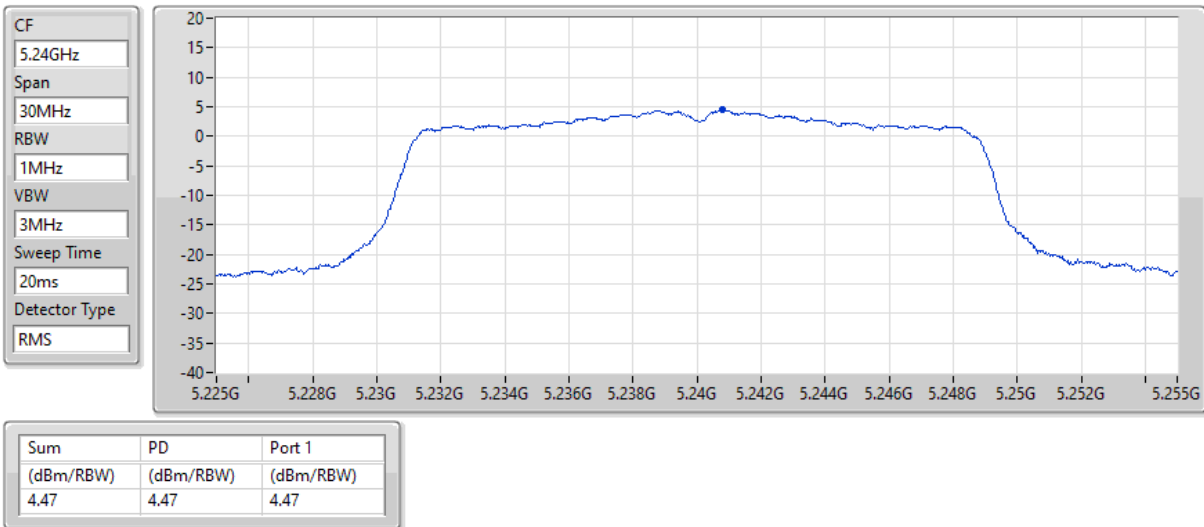


802.11a_Nss1,(6Mbps)_1TX

PSD

5240MHz

18/10/2021

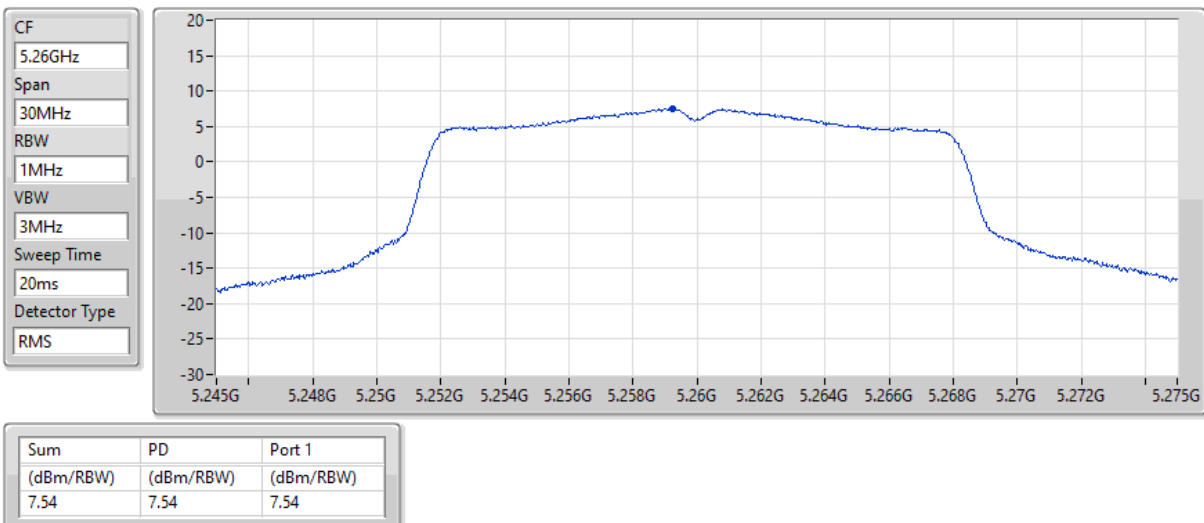


802.11a_Nss1,(6Mbps)_1TX

PSD

5260MHz

05/10/2021

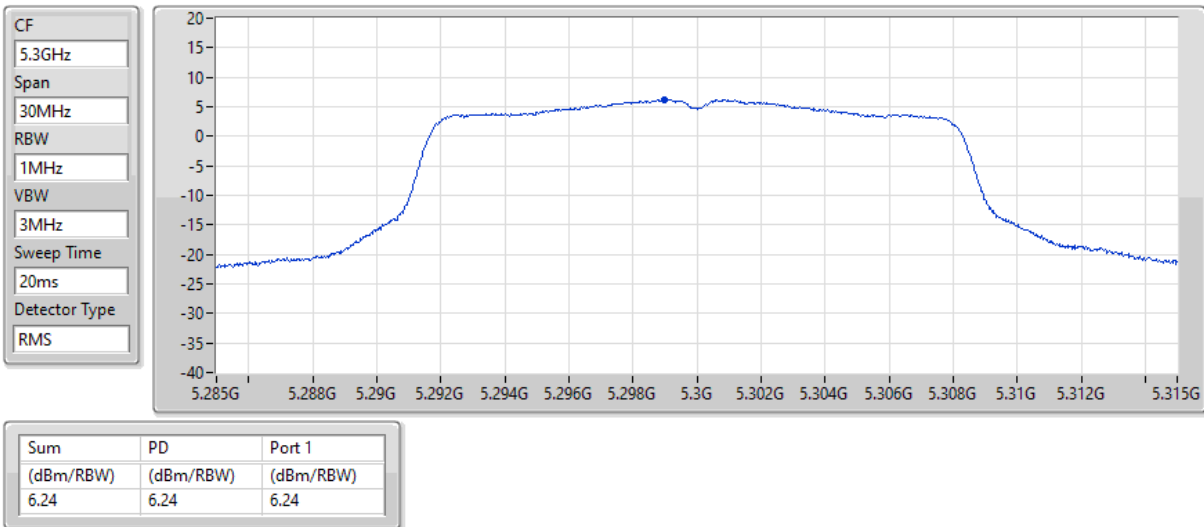


802.11a_Nss1,(6Mbps)_1TX

PSD

5300MHz

05/10/2021

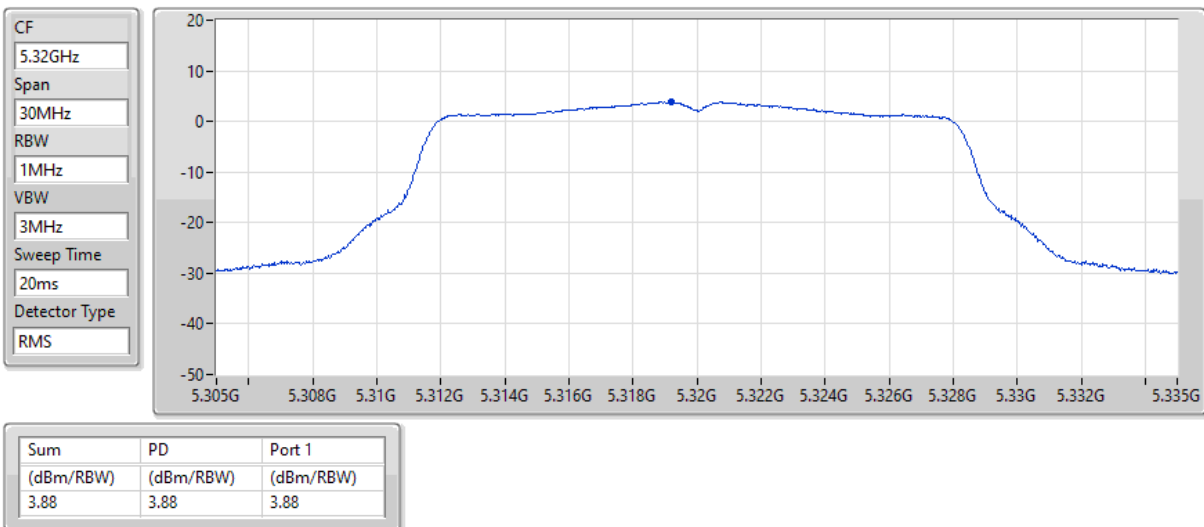


802.11a_Nss1,(6Mbps)_1TX

PSD

5320MHz

23/11/2021

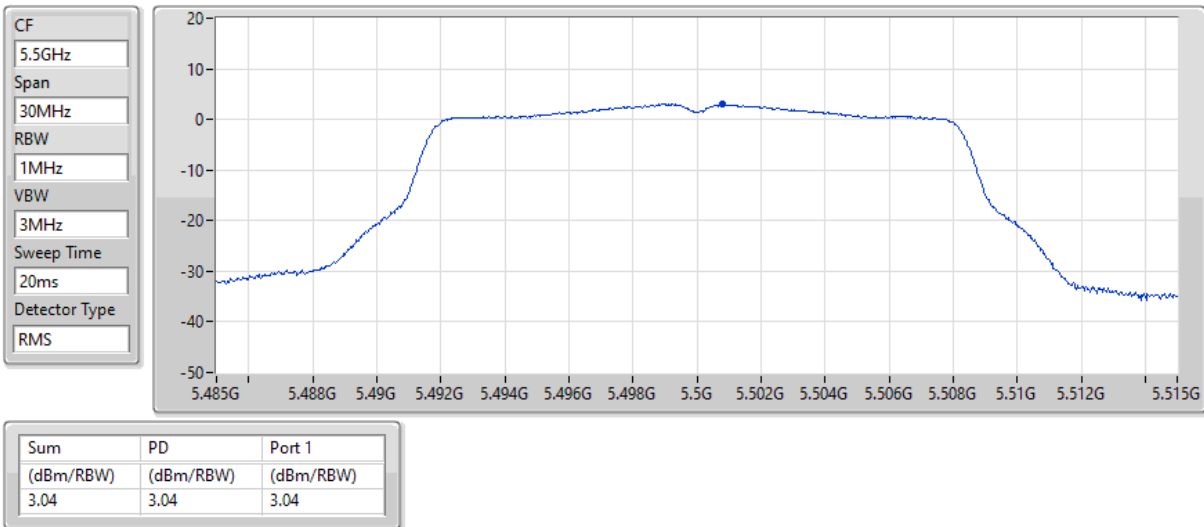


802.11a_Nss1,(6Mbps)_1TX

PSD

5500MHz

05/10/2021

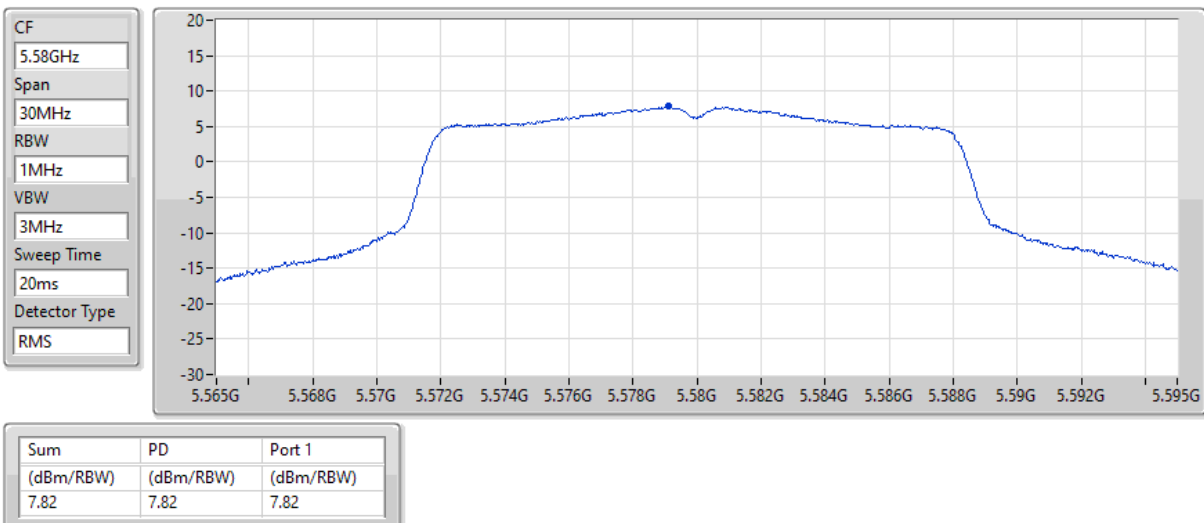


802.11a_Nss1,(6Mbps)_1TX

PSD

5580MHz

05/10/2021

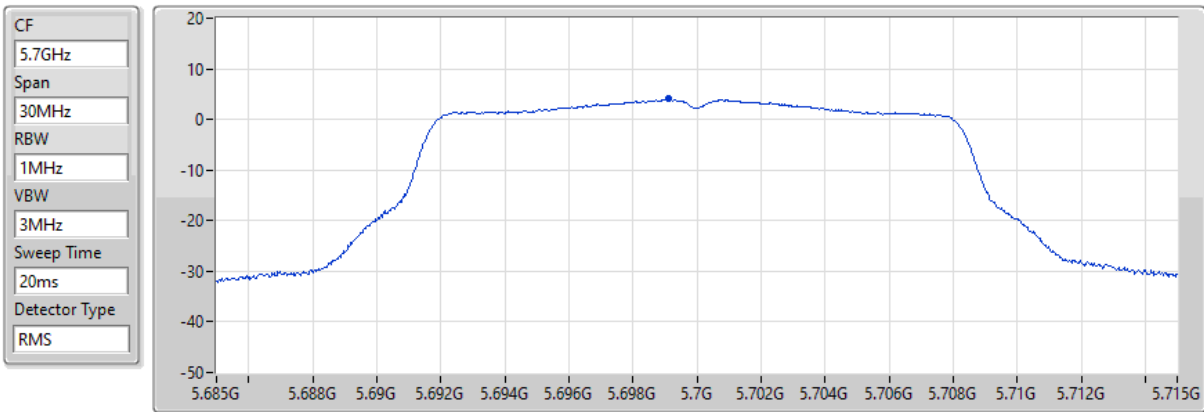


802.11a_Nss1,(6Mbps)_1TX

PSD

5700MHz

05/10/2021



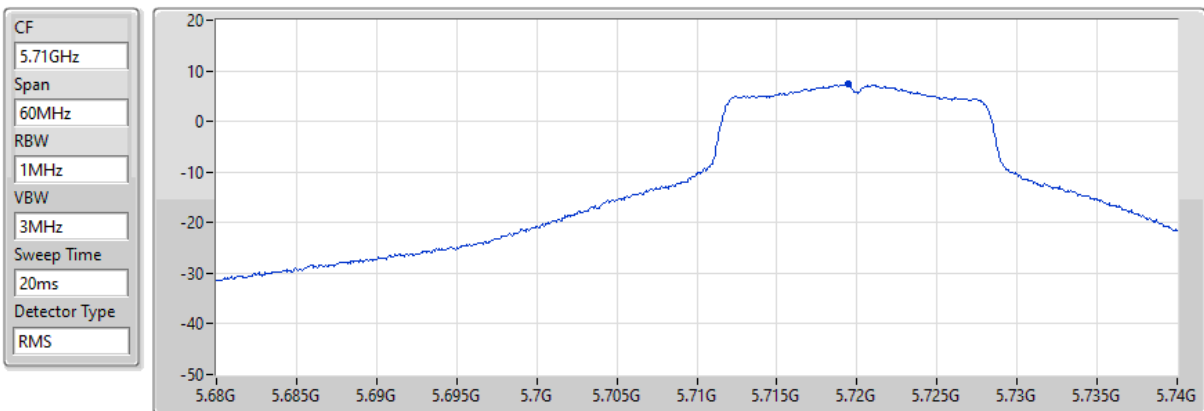
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.05	4.05	4.05

802.11a_Nss1,(6Mbps)_1TX

PSD

5720MHz Straddle 5.47-5.725GHz

05/10/2021



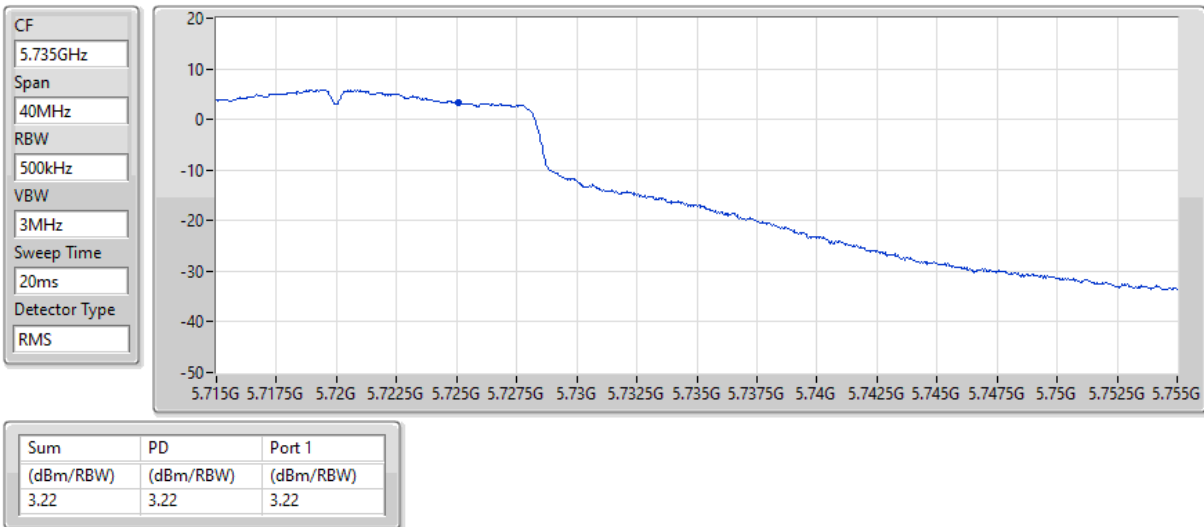
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.32	7.32	7.32

802.11a_Nss1,(6Mbps)_1TX

PSD

5720MHz Straddle 5.725-5.85GHz

05/10/2021

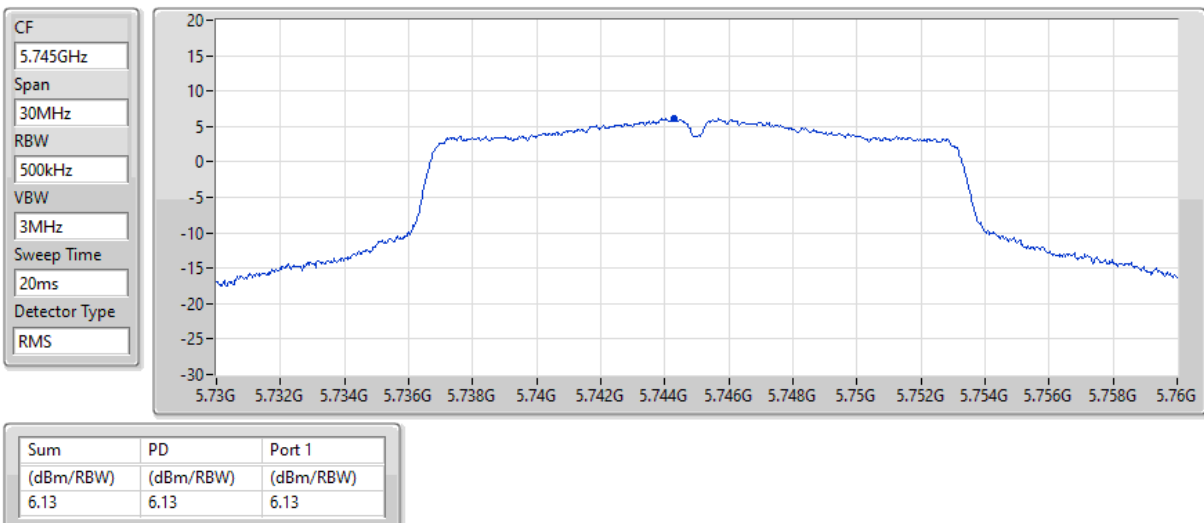


802.11a_Nss1,(6Mbps)_1TX

PSD

5745MHz

05/10/2021

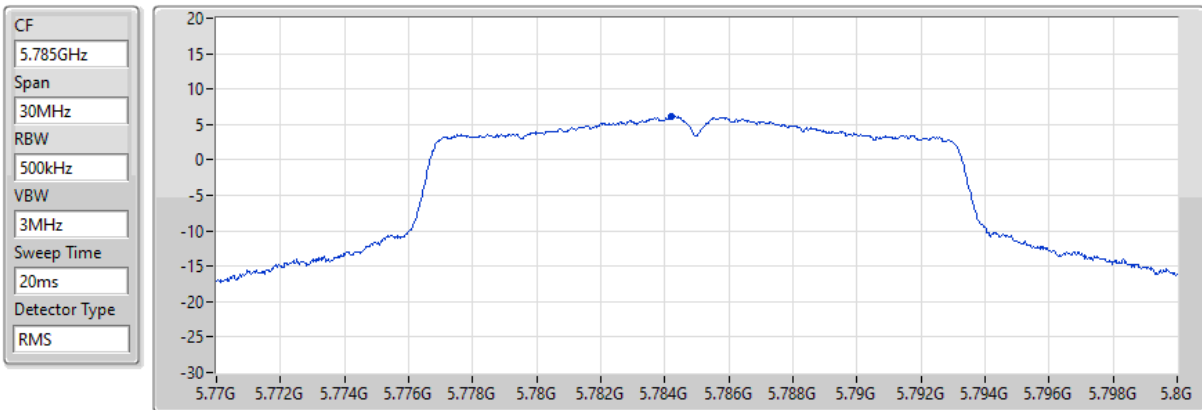


802.11a_Nss1,(6Mbps)_1TX

PSD

5785MHz

05/10/2021

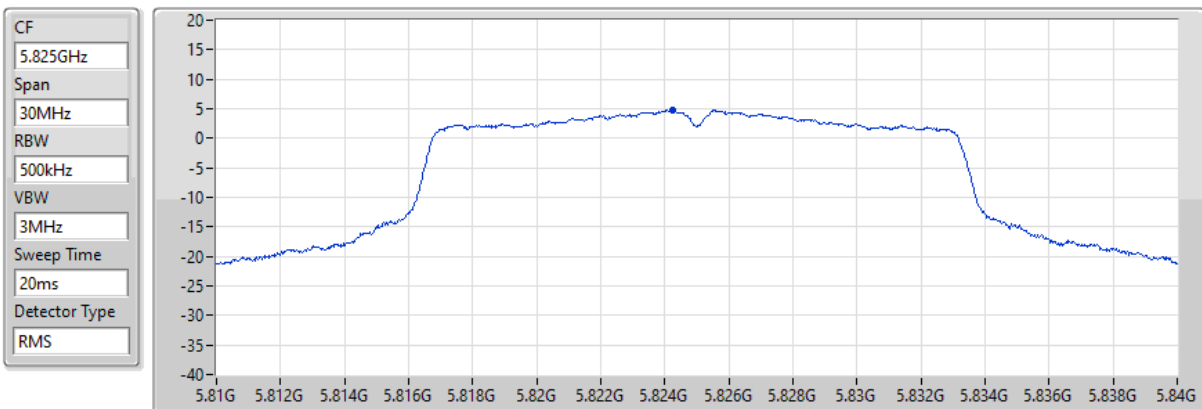


802.11a_Nss1,(6Mbps)_1TX

PSD

5825MHz

05/10/2021

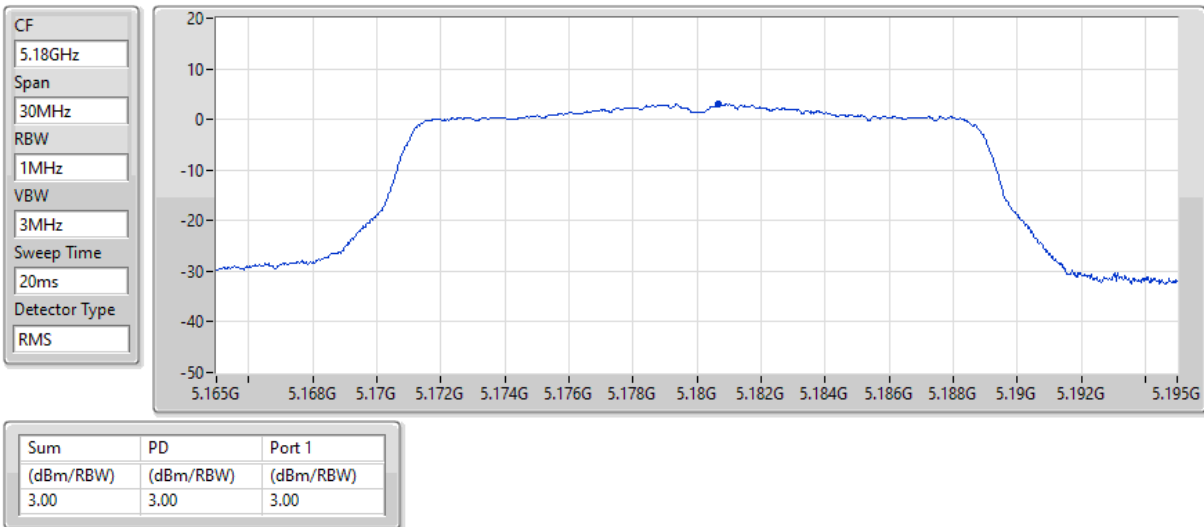


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5180MHz

05/10/2021

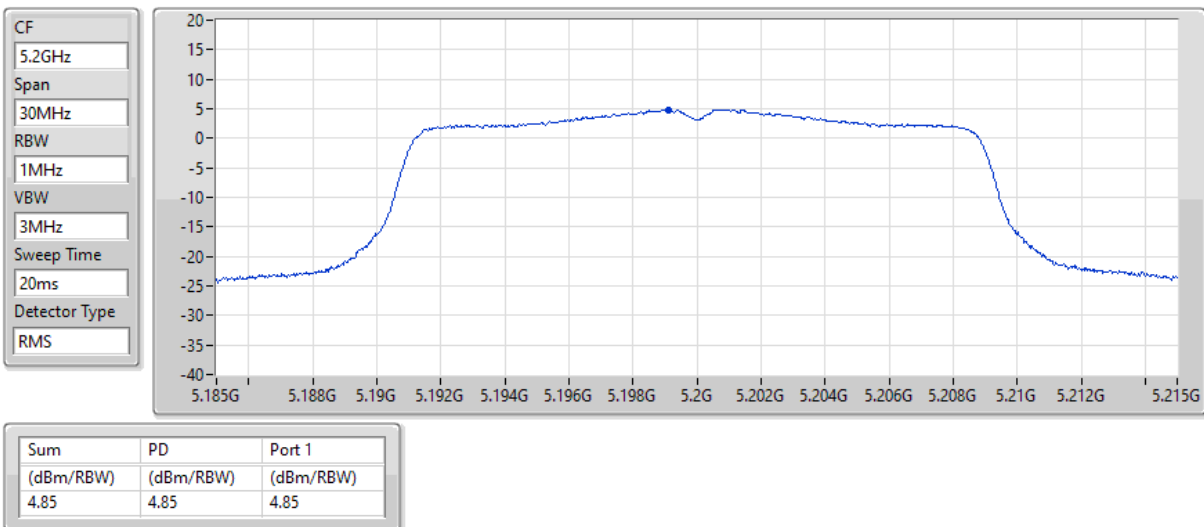


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5200MHz

05/10/2021

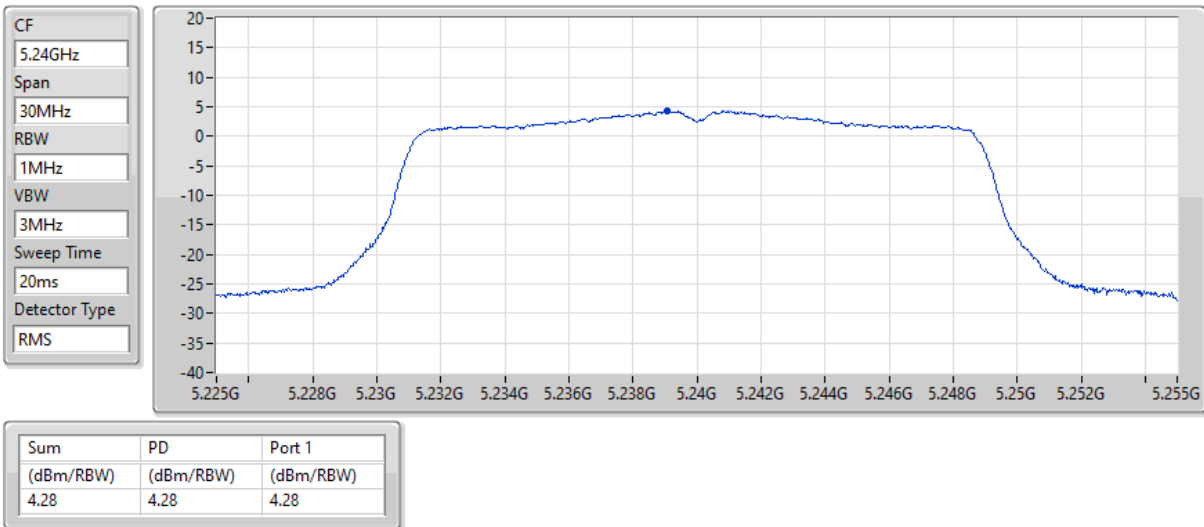


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5240MHz

05/10/2021

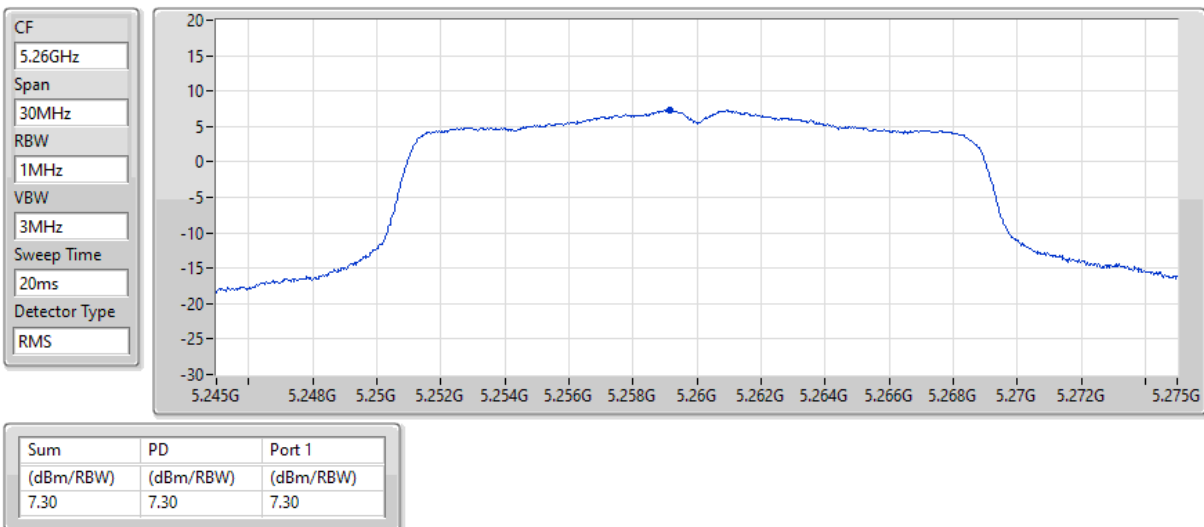


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5260MHz

05/10/2021

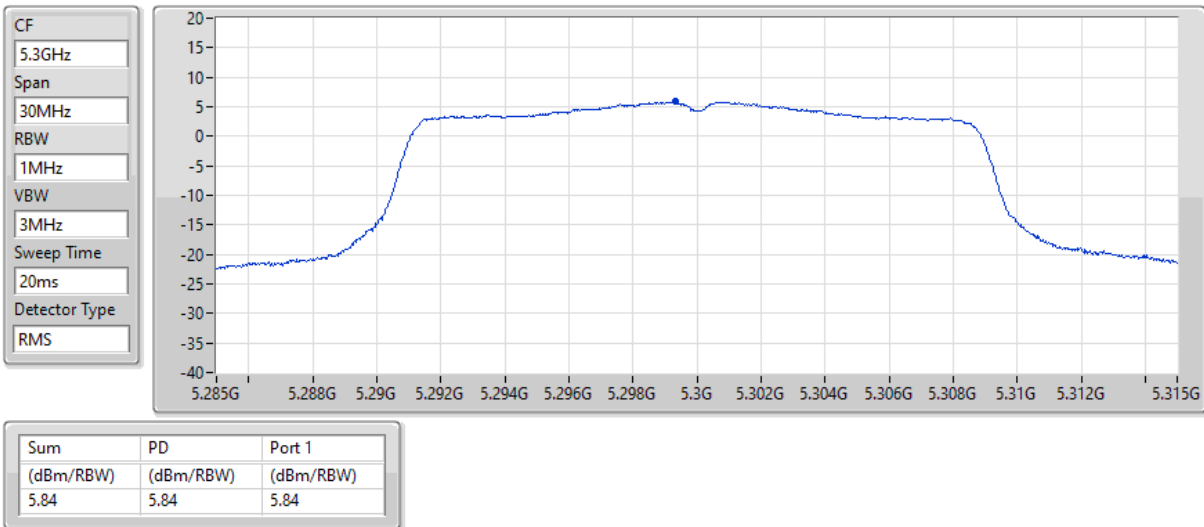


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5300MHz

05/10/2021

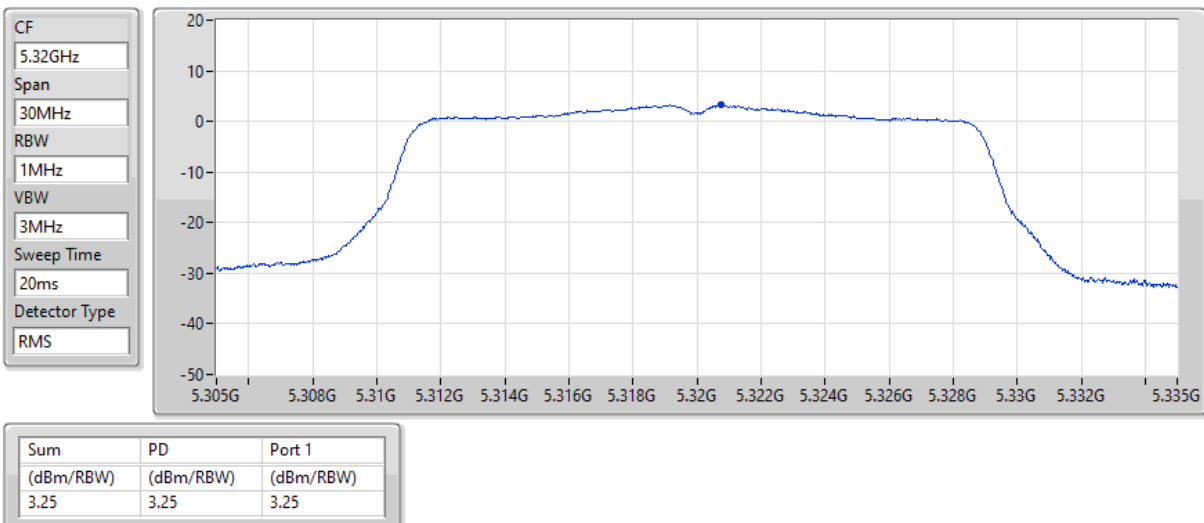


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5320MHz

05/10/2021

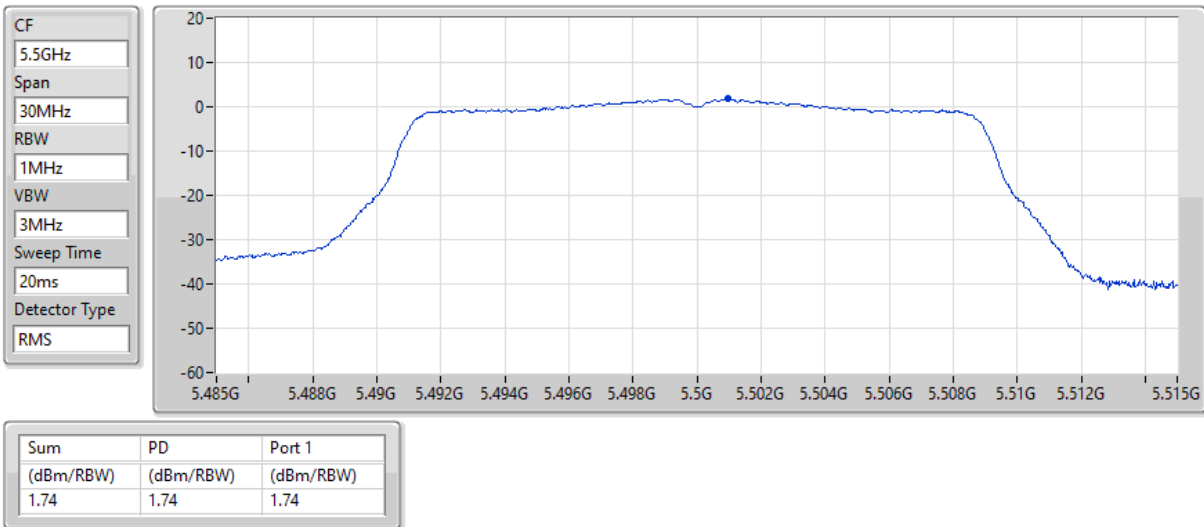


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5500MHz

05/10/2021

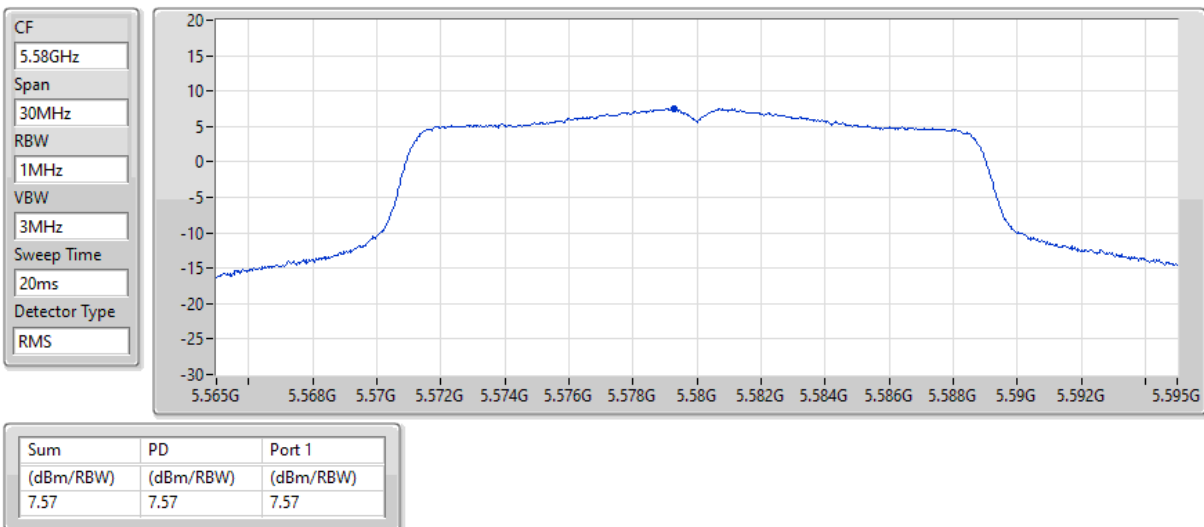


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5580MHz

05/10/2021

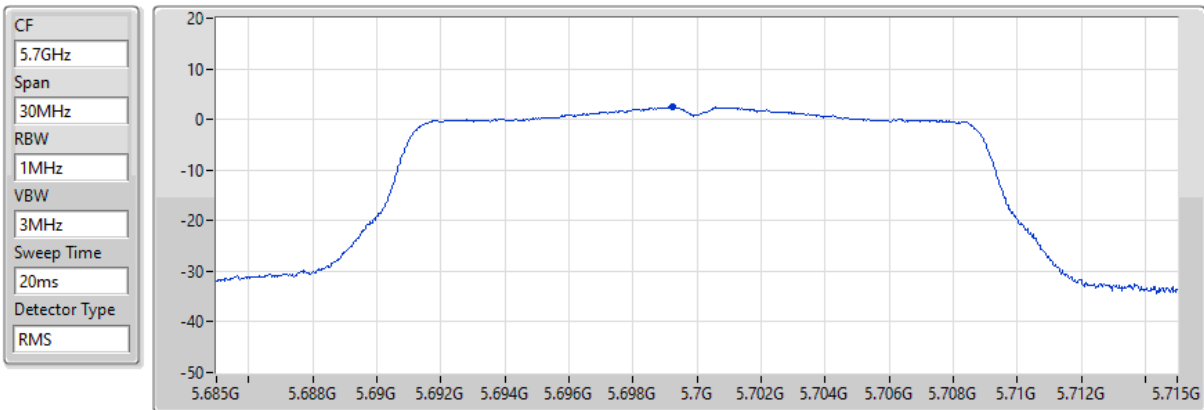


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5700MHz

23/11/2021

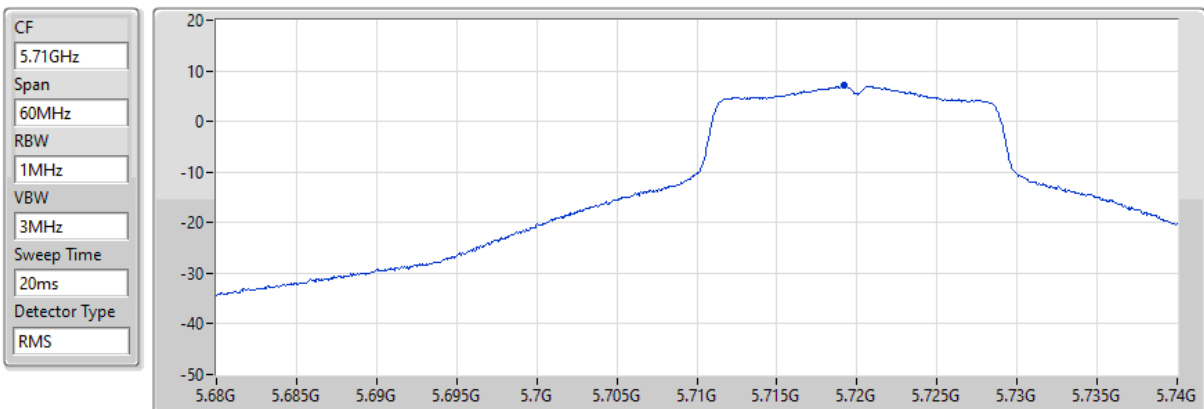


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5720MHz Straddle 5.47-5.725GHz

05/10/2021

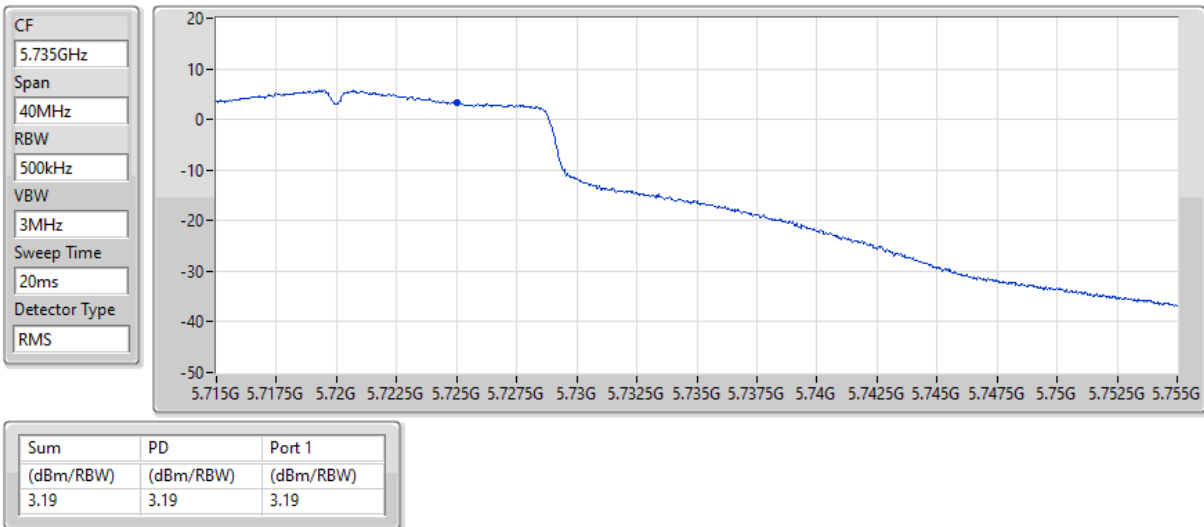


802.11ac VHT20_Nss1,(MCS0)_1TX

5720MHz Straddle 5.725-5.85GHz

05/10/2021

PSD

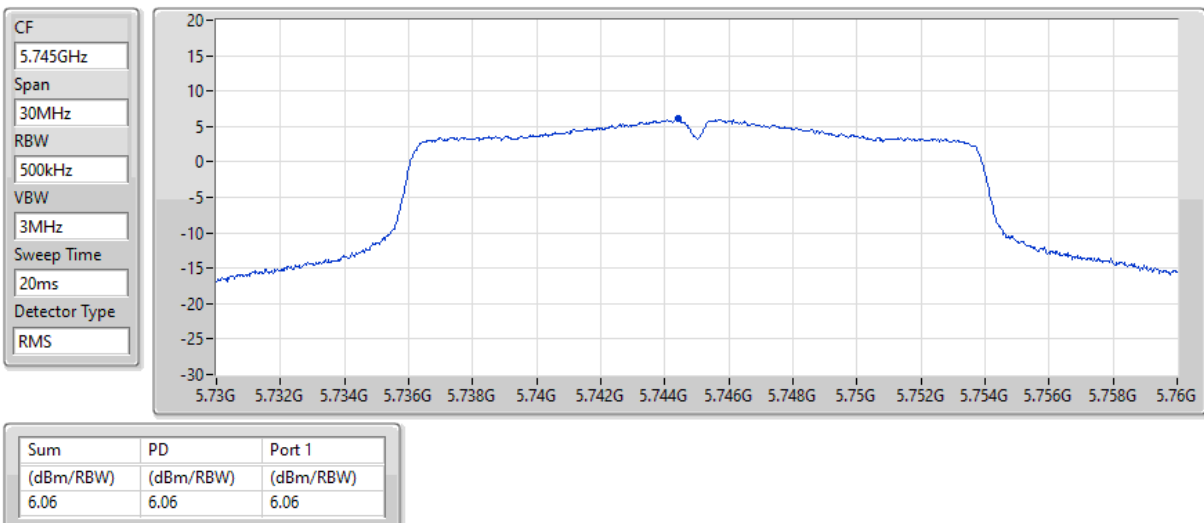


802.11ac VHT20_Nss1,(MCS0)_1TX

5745MHz

05/10/2021

PSD

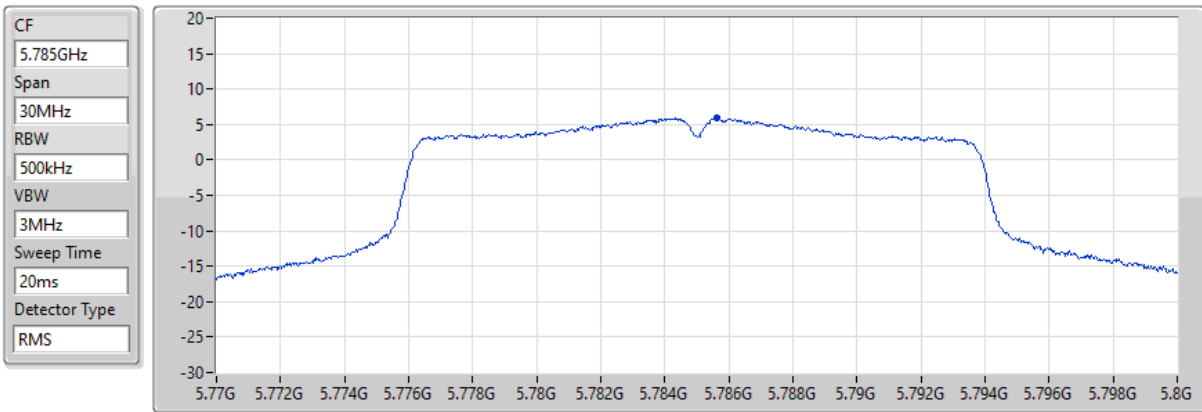


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5785MHz

05/10/2021

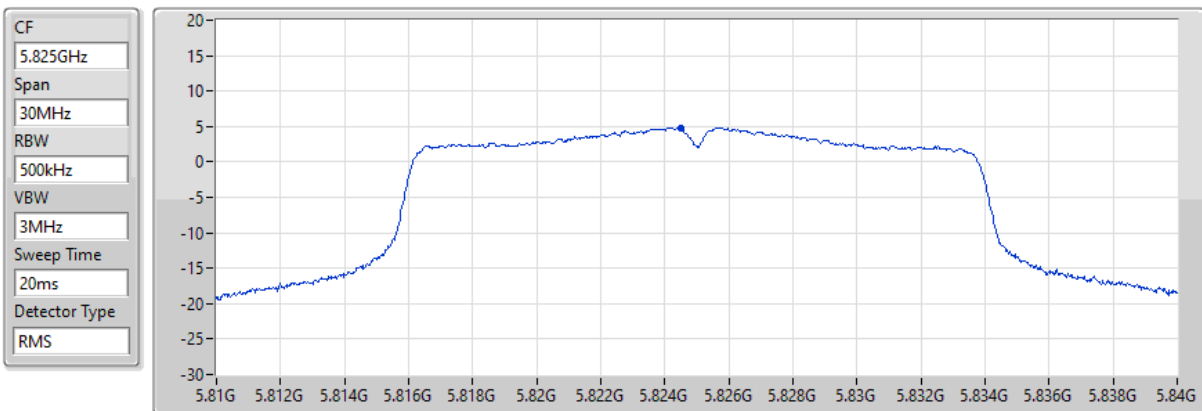


802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5825MHz

05/10/2021

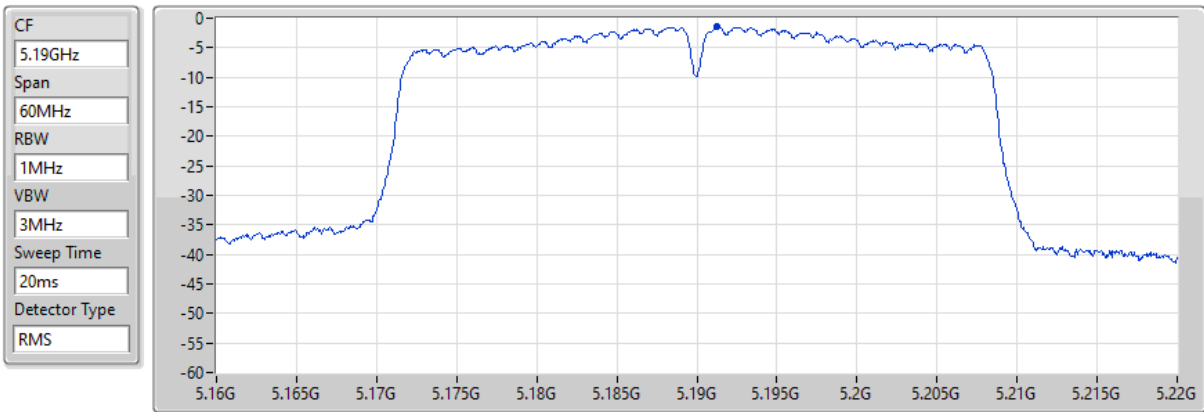


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5190MHz

05/10/2021

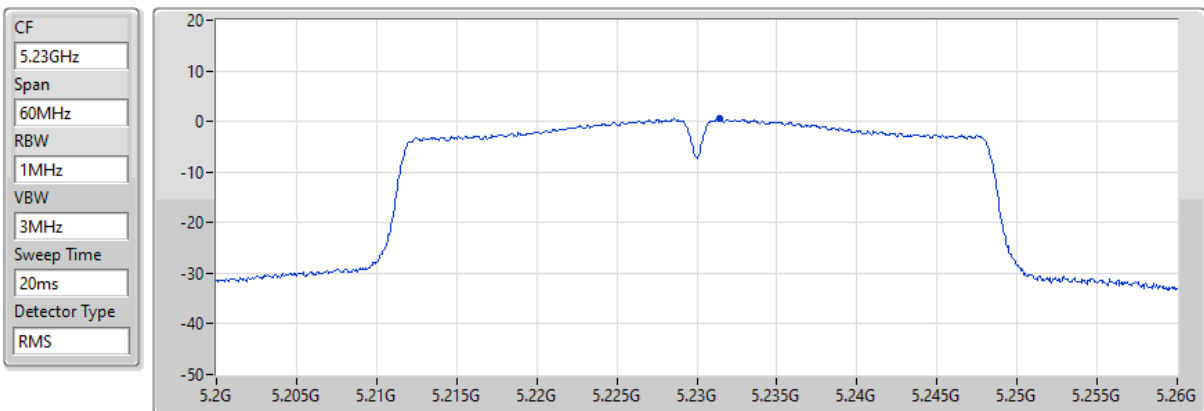


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5230MHz

05/10/2021

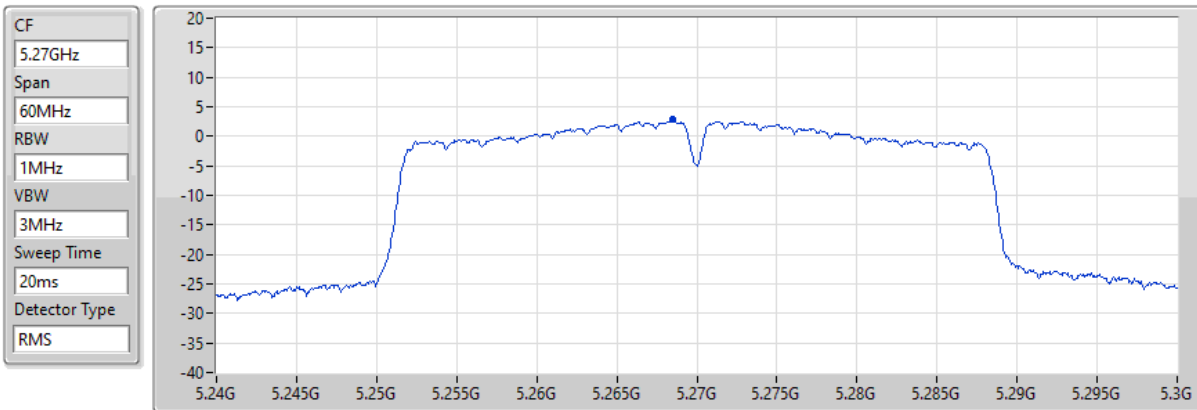


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5270MHz

05/10/2021



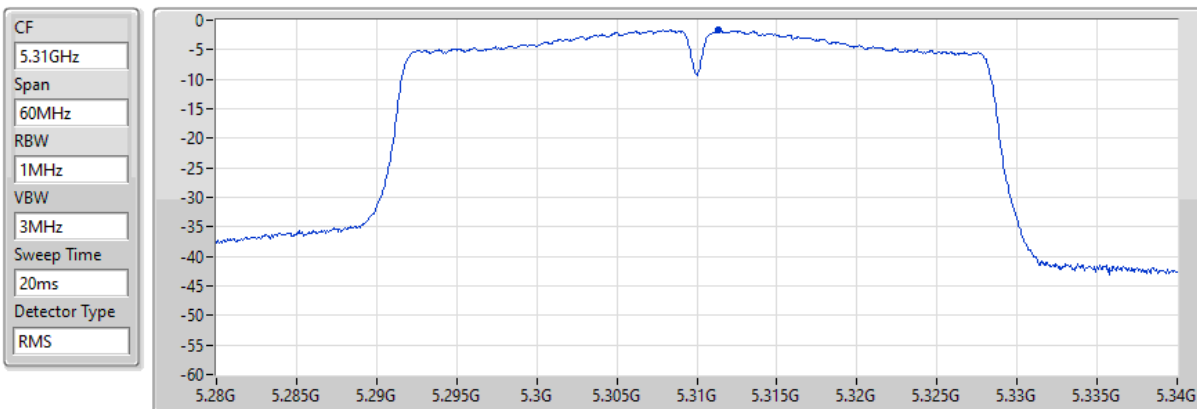
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.78	2.78	2.78

802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5310MHz

05/10/2021



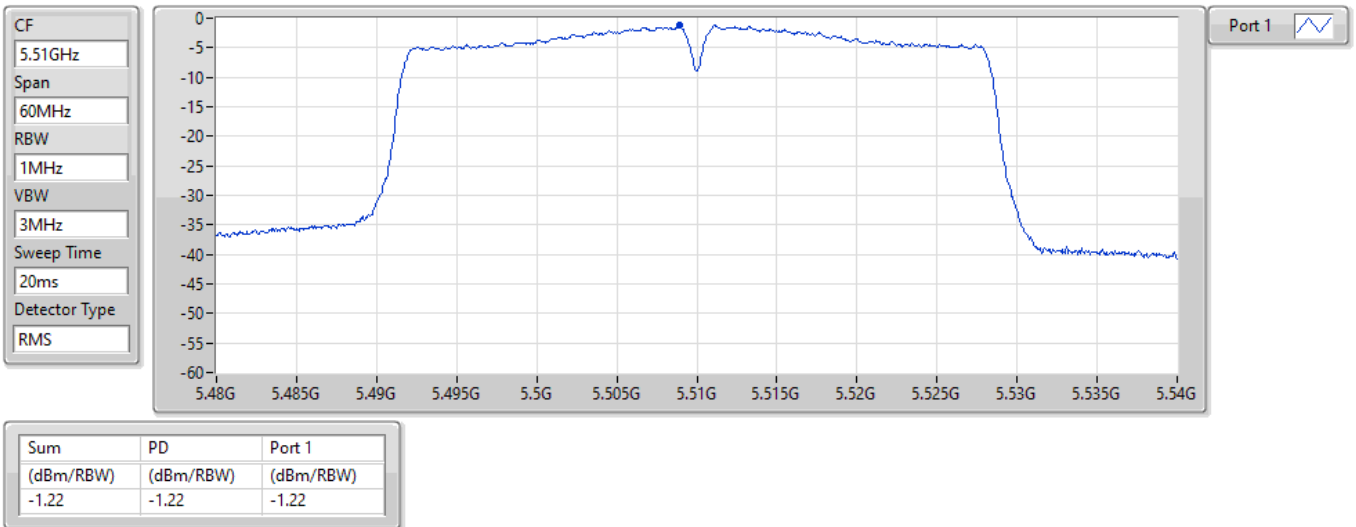
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.66	-1.66	-1.66

802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5510MHz

05/10/2021

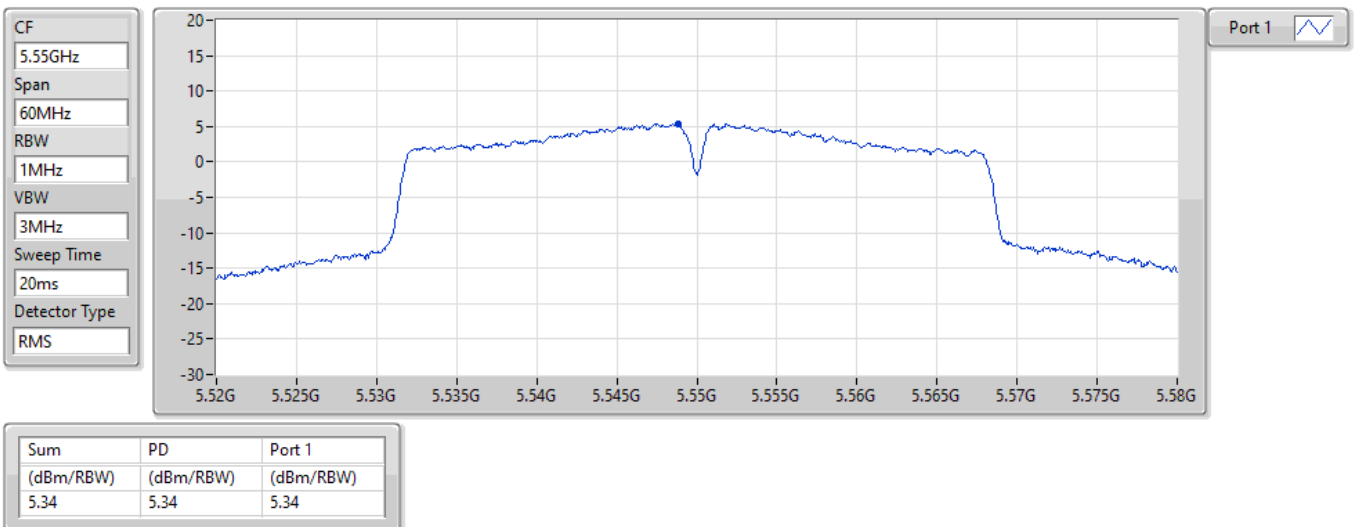


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5550MHz

05/10/2021

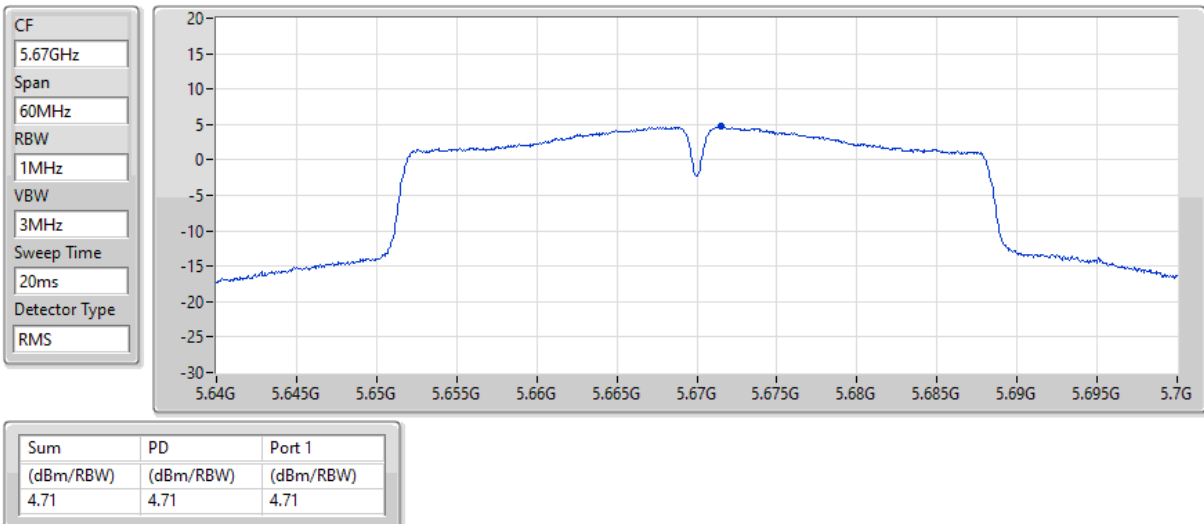


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5670MHz

05/10/2021

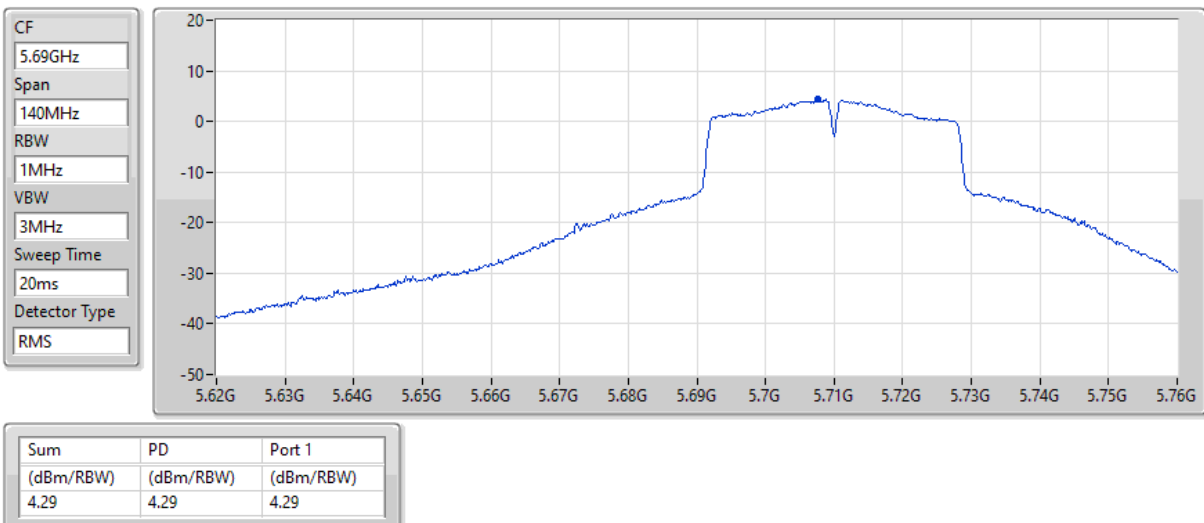


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5710MHz Straddle 5.47-5.725GHz

05/10/2021

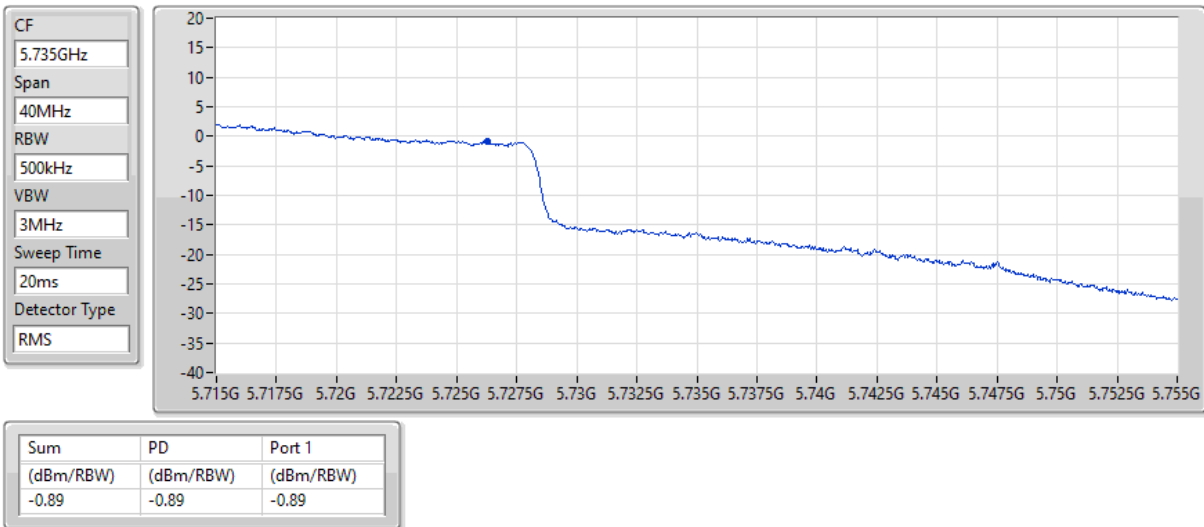


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5710MHz Straddle 5.725-5.85GHz

05/10/2021

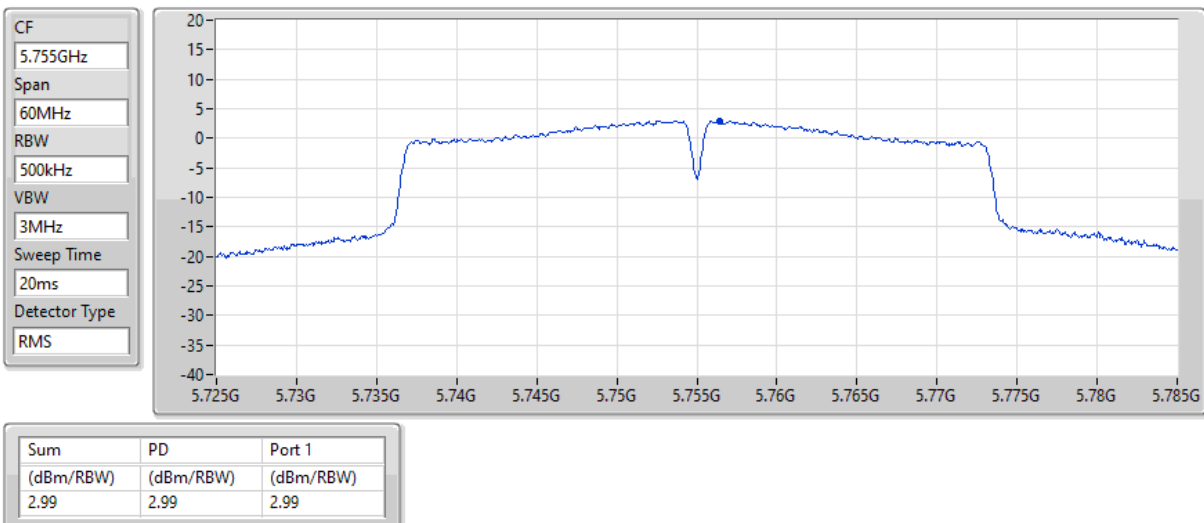


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5755MHz

05/10/2021

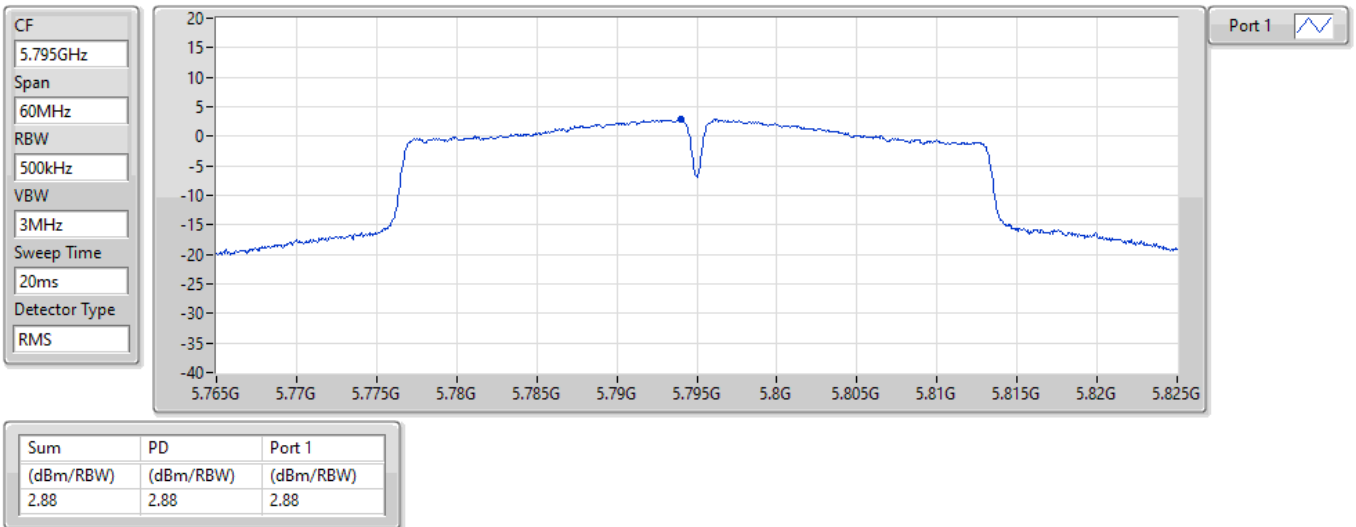


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5795MHz

05/10/2021

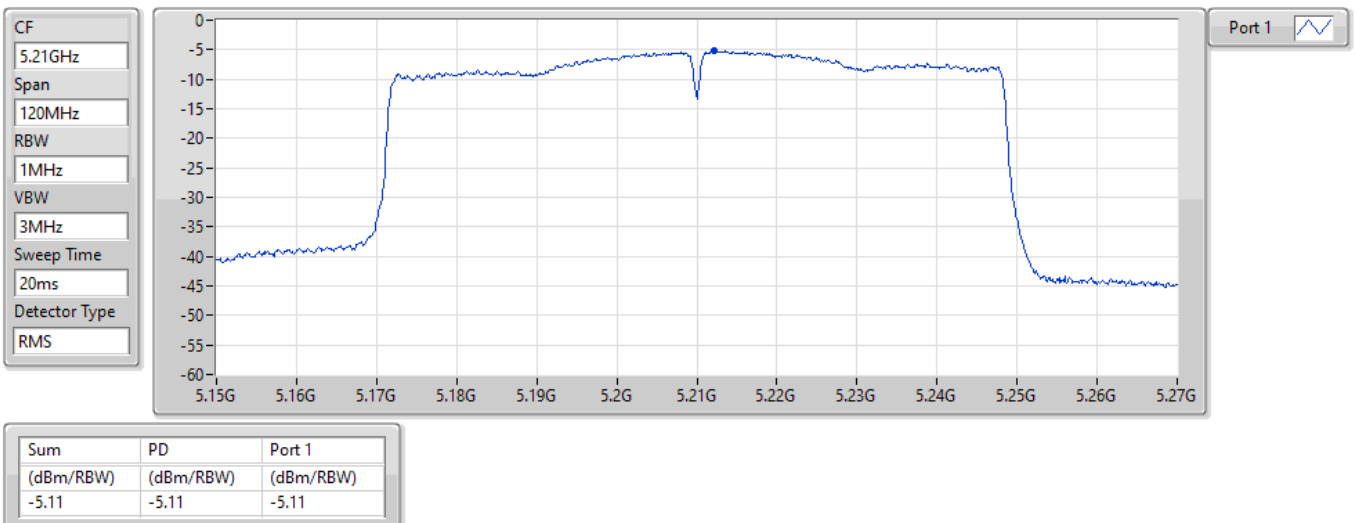


802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5210MHz

05/10/2021

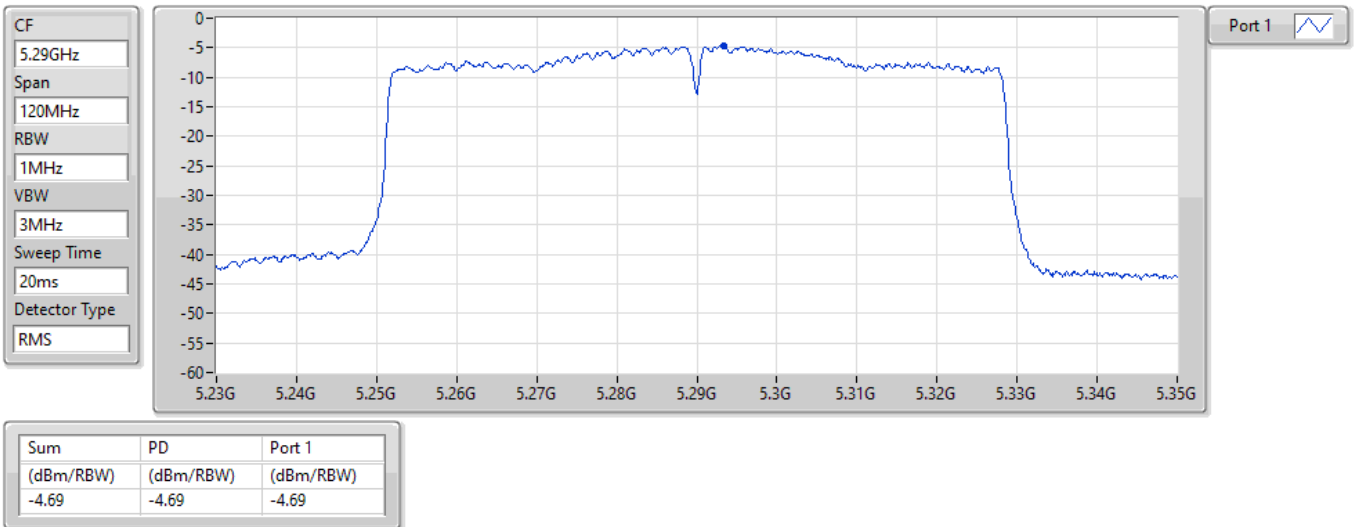


802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5290MHz

05/10/2021

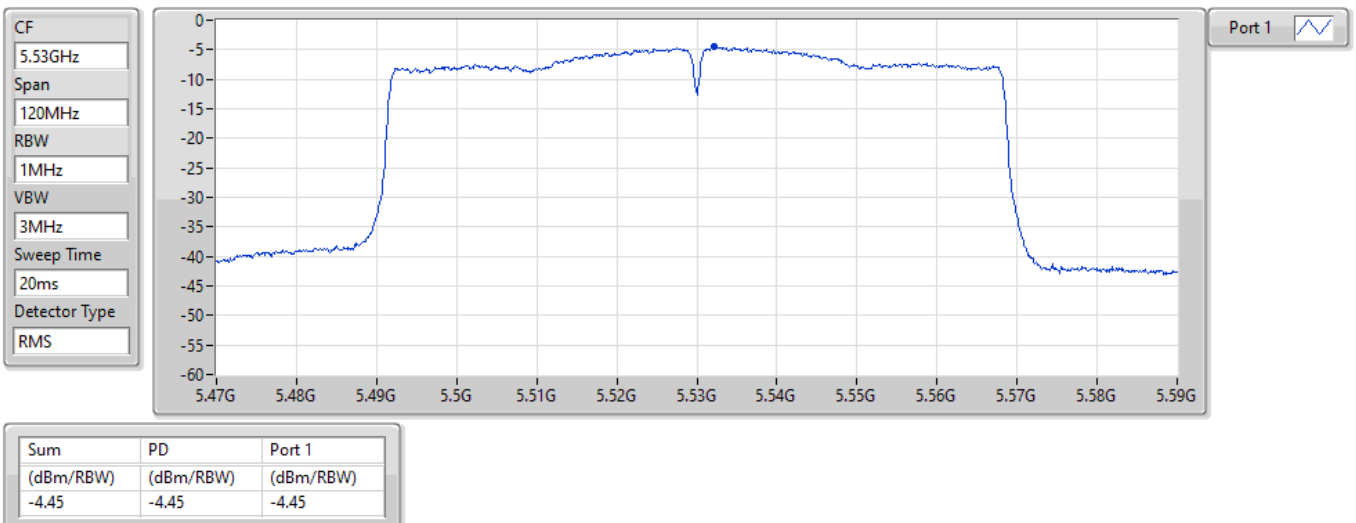


802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5530MHz

05/10/2021

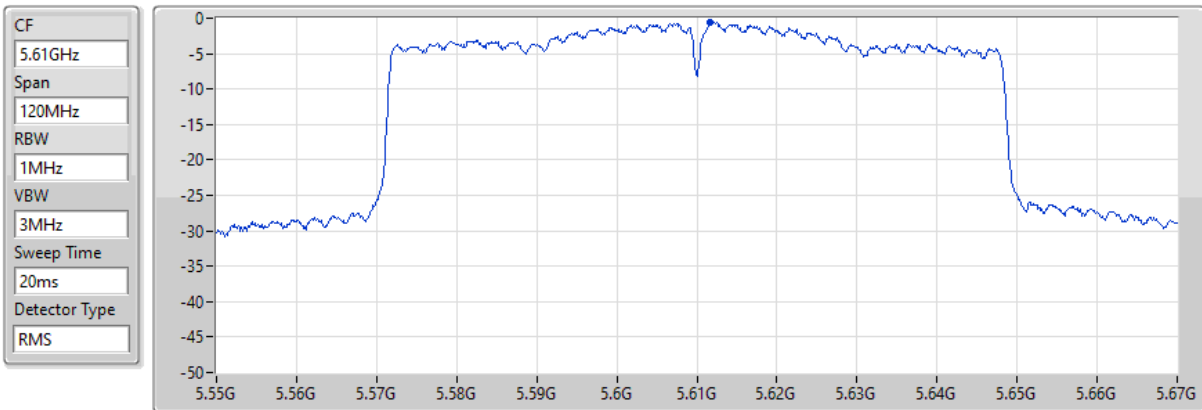


802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5610MHz

05/10/2021



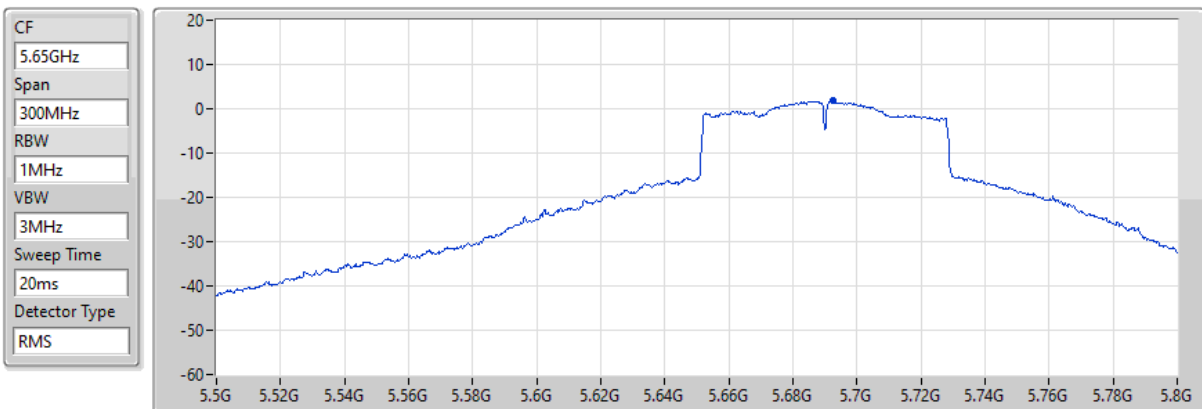
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.58	-0.58	-0.58

802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5690MHz Straddle 5.47-5.725GHz

05/10/2021



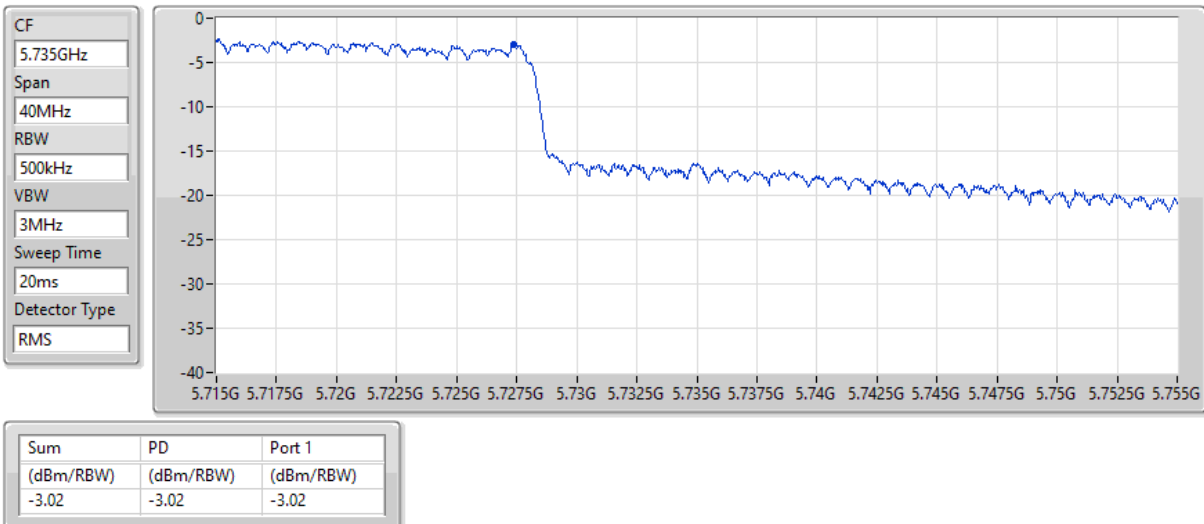
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.87	1.87	1.87

802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5690MHz Straddle 5.725-5.85GHz

05/10/2021

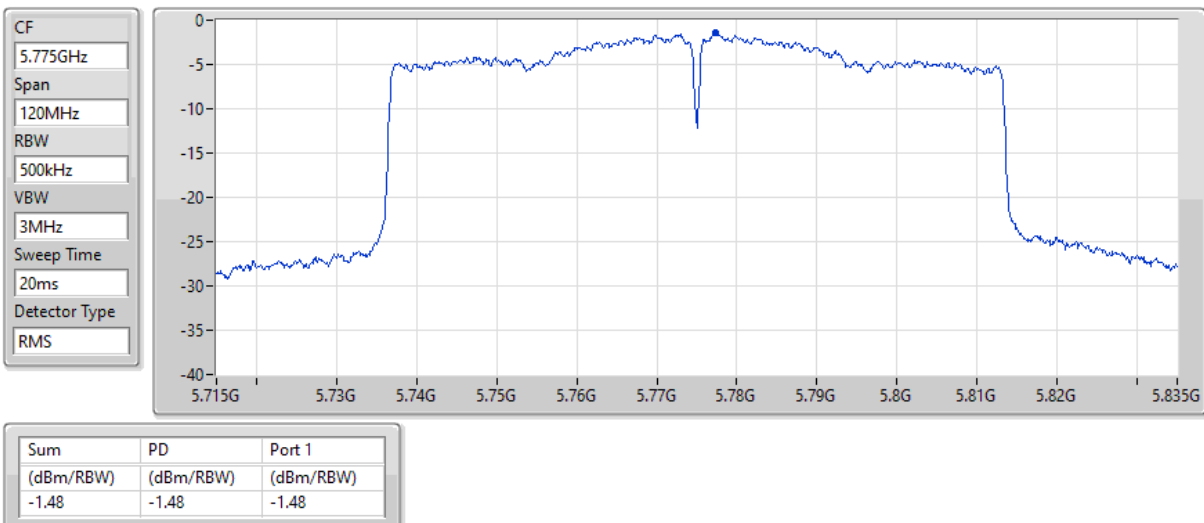


802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5775MHz

05/10/2021



Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_1TX	3.91
802.11ac VHT20_Nss1,(MCS0)_1TX	3.97
802.11ac VHT40_Nss1,(MCS0)_1TX	0.92
802.11ac VHT80_Nss1,(MCS0)_1TX	-8.11
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_1TX	5.27
802.11ac VHT20_Nss1,(MCS0)_1TX	5.33
802.11ac VHT40_Nss1,(MCS0)_1TX	1.40
802.11ac VHT80_Nss1,(MCS0)_1TX	-7.22
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_1TX	6.29
802.11ac VHT20_Nss1,(MCS0)_1TX	6.34
802.11ac VHT40_Nss1,(MCS0)_1TX	4.07
802.11ac VHT80_Nss1,(MCS0)_1TX	0.68
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_1TX	4.37
802.11ac VHT20_Nss1,(MCS0)_1TX	4.43
802.11ac VHT40_Nss1,(MCS0)_1TX	0.78
802.11ac VHT80_Nss1,(MCS0)_1TX	-1.91

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-
5180MHz	Pass	5.40	-	1.45	1.45	11.00
5200MHz	Pass	5.40	-	3.85	3.85	11.00
5240MHz	Pass	5.40	-	3.91	3.91	11.00
5260MHz	Pass	5.40	-	5.27	5.27	11.00
5300MHz	Pass	5.40	-	2.82	2.82	11.00
5320MHz	Pass	5.40	-	2.30	2.30	11.00
5500MHz	Pass	5.40	-	1.88	1.88	11.00
5580MHz	Pass	5.40	-	6.29	6.29	11.00
5700MHz	Pass	5.40	-	2.05	2.05	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	-	5.29	5.29	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	-	1.40	1.40	30.00
5745MHz	Pass	5.40	-	4.37	4.37	30.00
5785MHz	Pass	5.40	-	4.23	4.23	30.00
5825MHz	Pass	5.40	-	3.97	3.97	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5180MHz	Pass	5.40	-	1.43	1.43	11.00
5200MHz	Pass	5.40	-	3.97	3.97	11.00
5240MHz	Pass	5.40	-	3.64	3.64	11.00
5260MHz	Pass	5.40	-	5.33	5.33	11.00
5300MHz	Pass	5.40	-	4.34	4.34	11.00
5320MHz	Pass	5.40	-	1.59	1.59	11.00
5500MHz	Pass	5.40	-	0.36	0.36	11.00
5580MHz	Pass	5.40	-	6.34	6.34	11.00
5700MHz	Pass	5.40	-	1.57	1.57	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.40	-	5.68	5.68	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.40	-	1.72	1.72	30.00
5745MHz	Pass	5.40	-	4.43	4.43	30.00
5785MHz	Pass	5.40	-	4.16	4.16	30.00
5825MHz	Pass	5.40	-	4.01	4.01	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5190MHz	Pass	5.40	-	-2.99	-2.99	11.00
5230MHz	Pass	5.40	-	0.92	0.92	11.00
5270MHz	Pass	5.40	-	1.40	1.40	11.00
5310MHz	Pass	5.40	-	-2.60	-2.60	11.00
5510MHz	Pass	5.40	-	-1.77	-1.77	11.00
5550MHz	Pass	5.40	-	4.07	4.07	11.00
5670MHz	Pass	5.40	-	2.09	2.09	11.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.40	-	2.16	2.16	11.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.40	-	-2.79	-2.79	30.00
5755MHz	Pass	5.40	-	0.78	0.78	30.00
5795MHz	Pass	5.40	-	0.65	0.65	30.00
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5210MHz	Pass	5.40	-	-8.11	-8.11	11.00
5290MHz	Pass	5.40	-	-7.22	-7.22	11.00
5530MHz	Pass	5.40	-	-5.34	-5.34	11.00
5610MHz	Pass	5.40	-	-3.23	-3.23	11.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.40	-	0.68	0.68	11.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.40	-	-3.79	-3.79	30.00
5775MHz	Pass	5.40	-	-1.91	-1.91	30.00

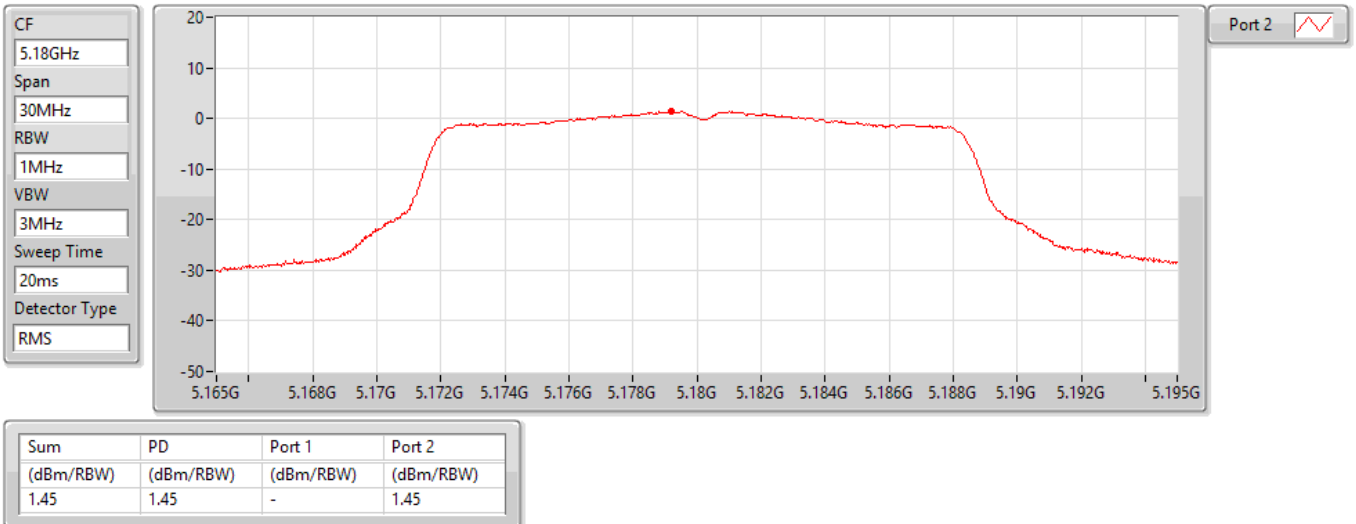
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

802.11a_Nss1,(6Mbps)_1TX

PSD

5180MHz

11/09/2021

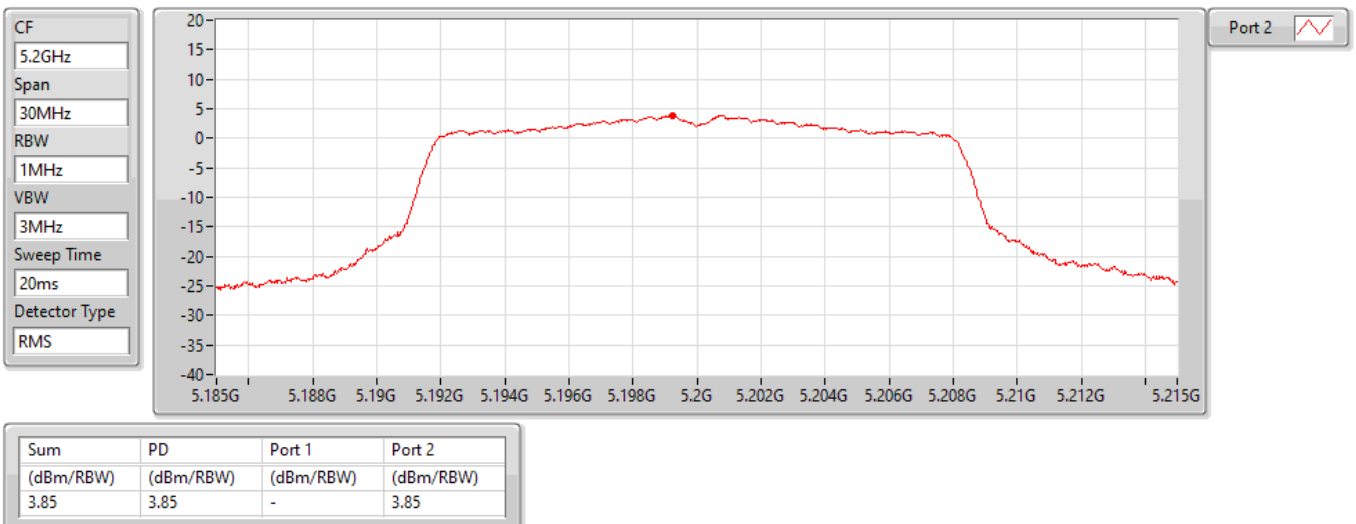


802.11a_Nss1,(6Mbps)_1TX

PSD

5200MHz

18/10/2021

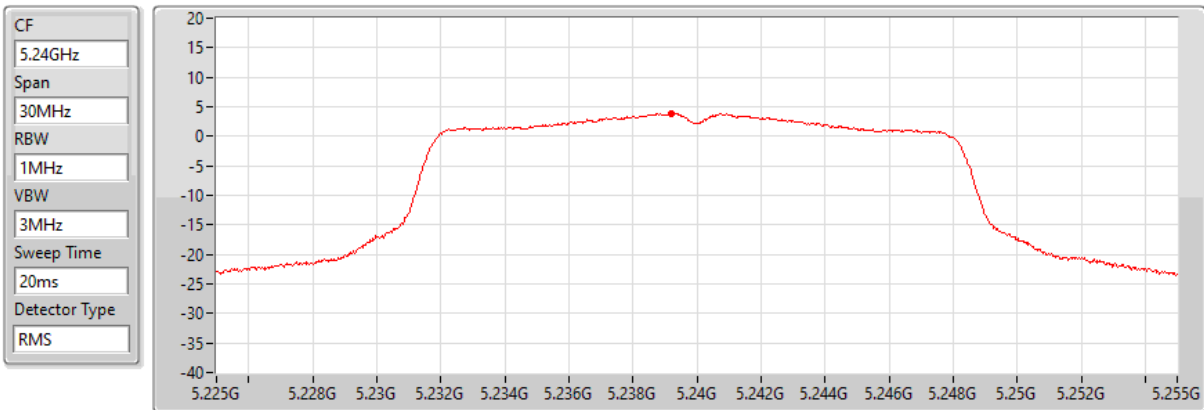


802.11a_Nss1,(6Mbps)_1TX

PSD

5240MHz

18/10/2021



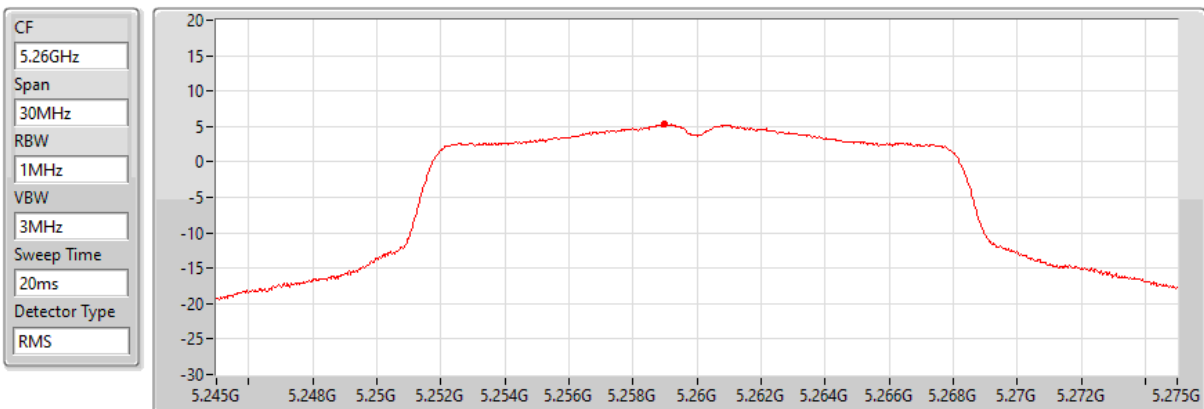
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.91	3.91	-	3.91

802.11a_Nss1,(6Mbps)_1TX

PSD

5260MHz

05/10/2021



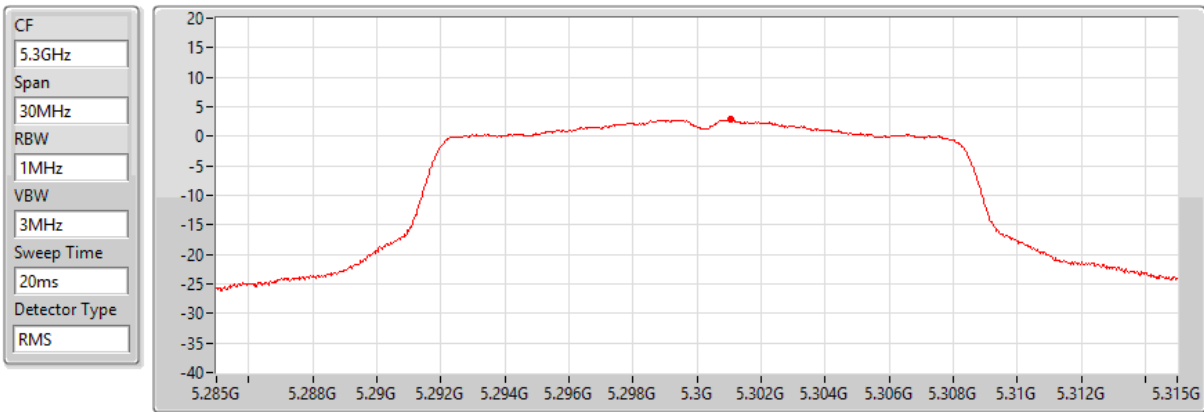
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.27	5.27	-	5.27

802.11a_Nss1,(6Mbps)_1TX

PSD

5300MHz

11/09/2021



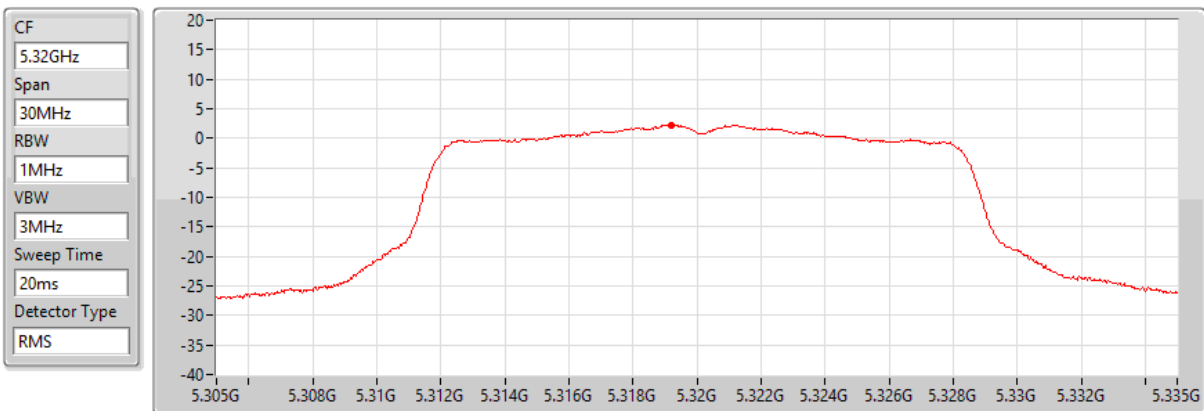
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.82	2.82	-	2.82

802.11a_Nss1,(6Mbps)_1TX

PSD

5320MHz

11/09/2021



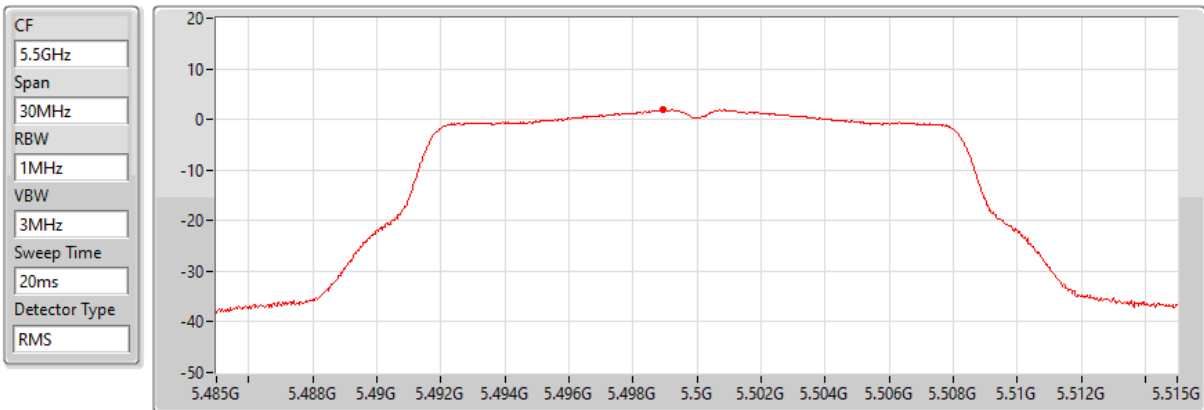
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.30	2.30	-	2.30

802.11a_Nss1,(6Mbps)_1TX

PSD

5500MHz

24/11/2021



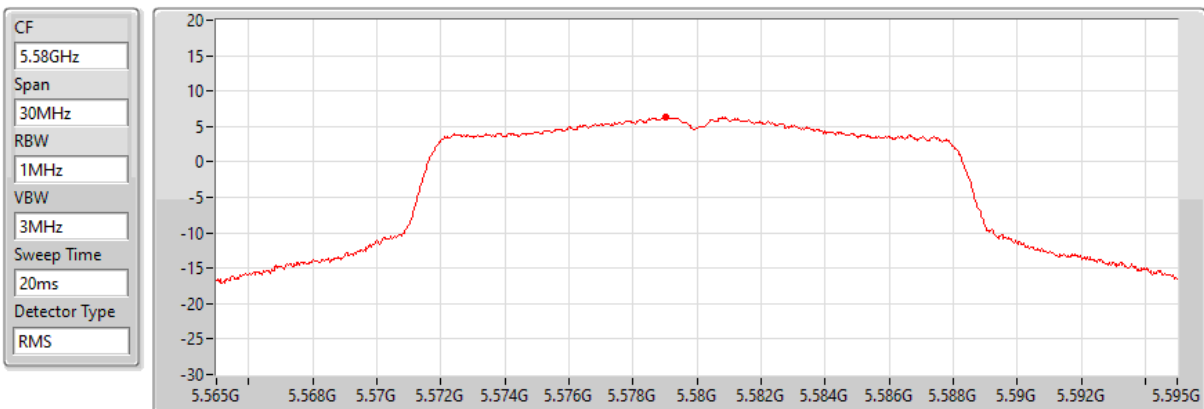
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
1.88	1.88	-	1.88

802.11a_Nss1,(6Mbps)_1TX

PSD

5580MHz

05/10/2021



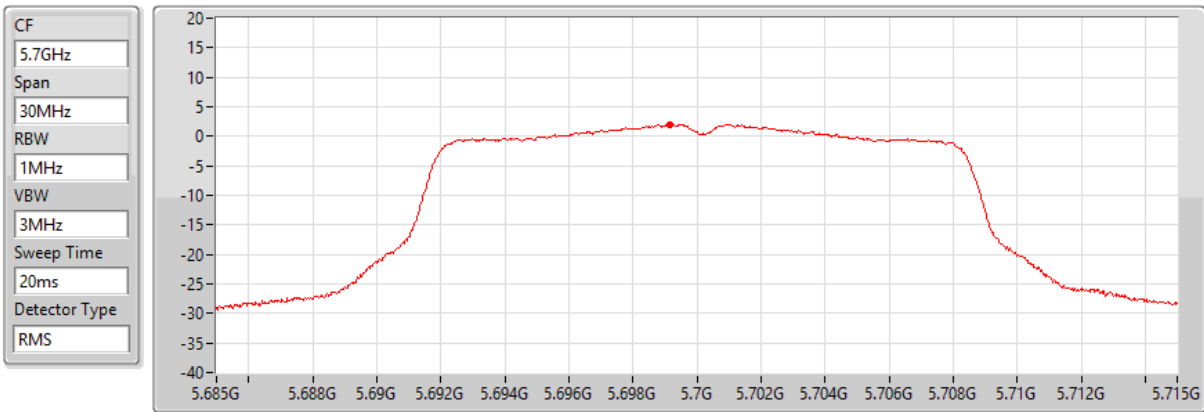
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.29	6.29	-	6.29

802.11a_Nss1,(6Mbps)_1TX

PSD

5700MHz

11/09/2021



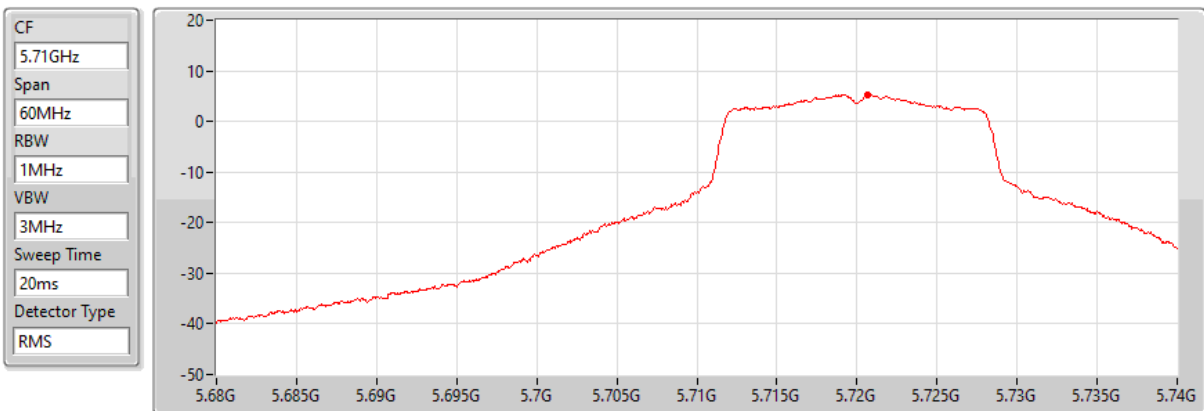
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.05	2.05	-	2.05

802.11a_Nss1,(6Mbps)_1TX

PSD

5720MHz Straddle 5.47-5.725GHz

05/10/2021



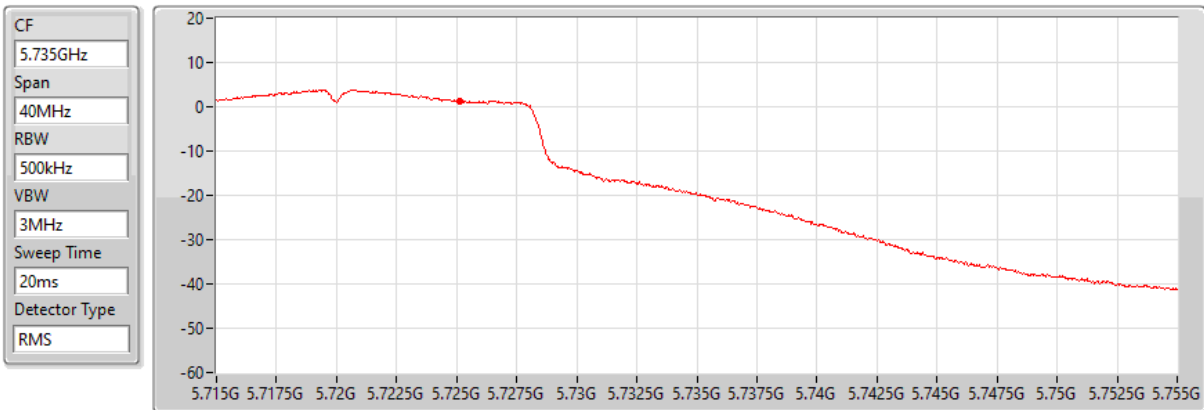
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.29	5.29	-	5.29

802.11a_Nss1,(6Mbps)_1TX

PSD

5720MHz Straddle 5.725-5.85GHz

05/10/2021



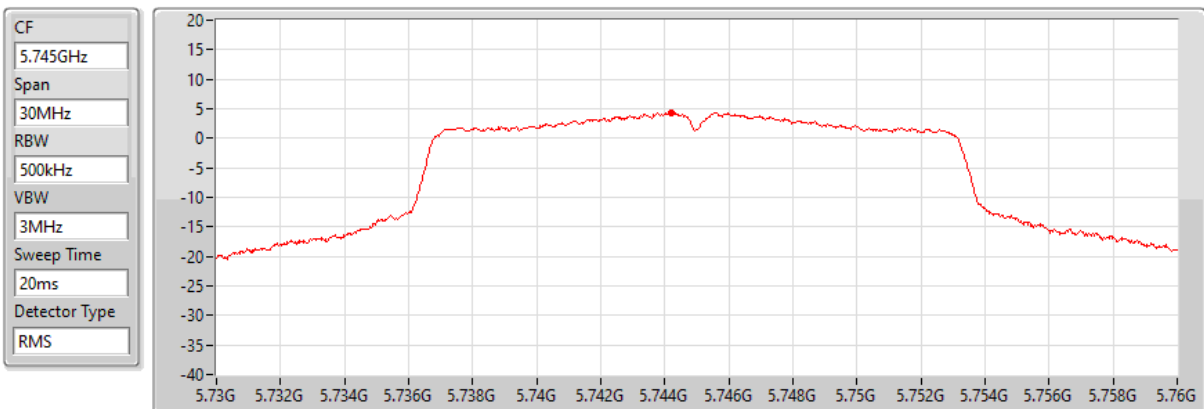
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
1.40	1.40	-	1.40

802.11a_Nss1,(6Mbps)_1TX

PSD

5745MHz

05/10/2021



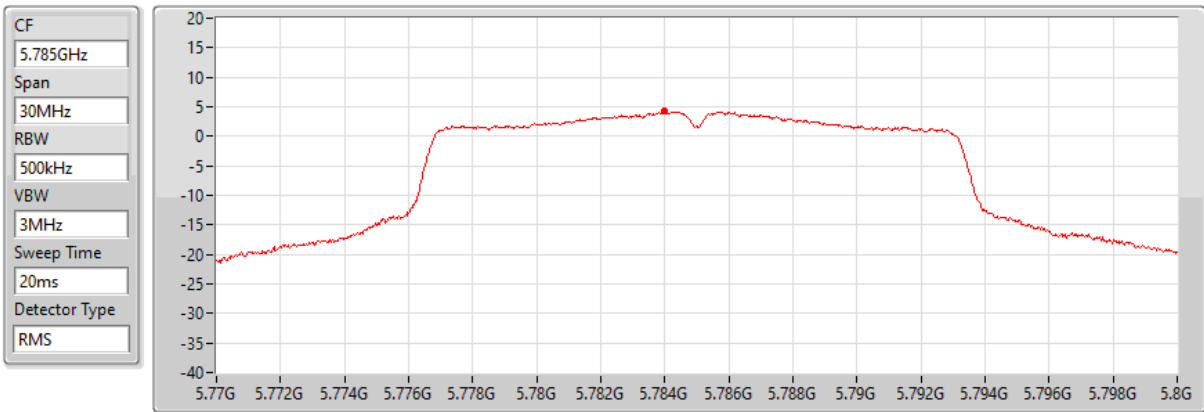
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.37	4.37	-	4.37

802.11a_Nss1,(6Mbps)_1TX

PSD

5785MHz

05/10/2021



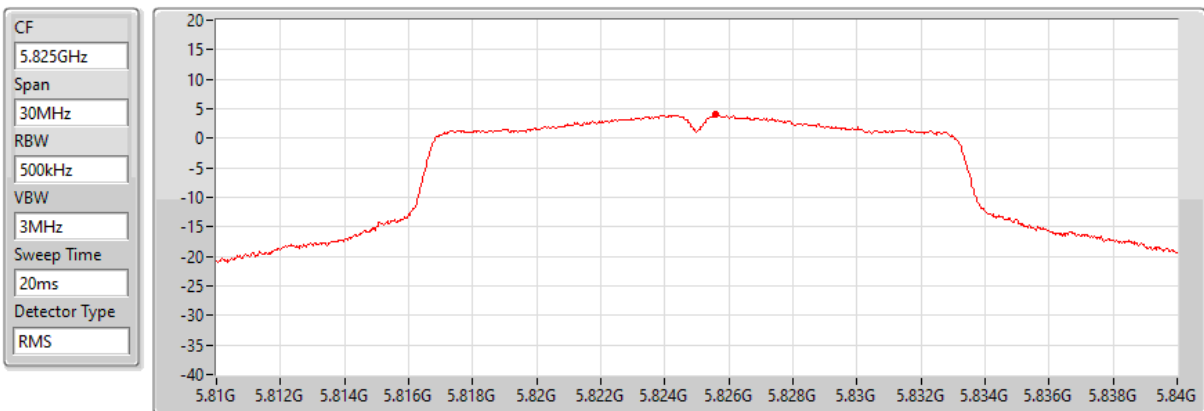
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.23	4.23	-	4.23

802.11a_Nss1,(6Mbps)_1TX

PSD

5825MHz

05/10/2021



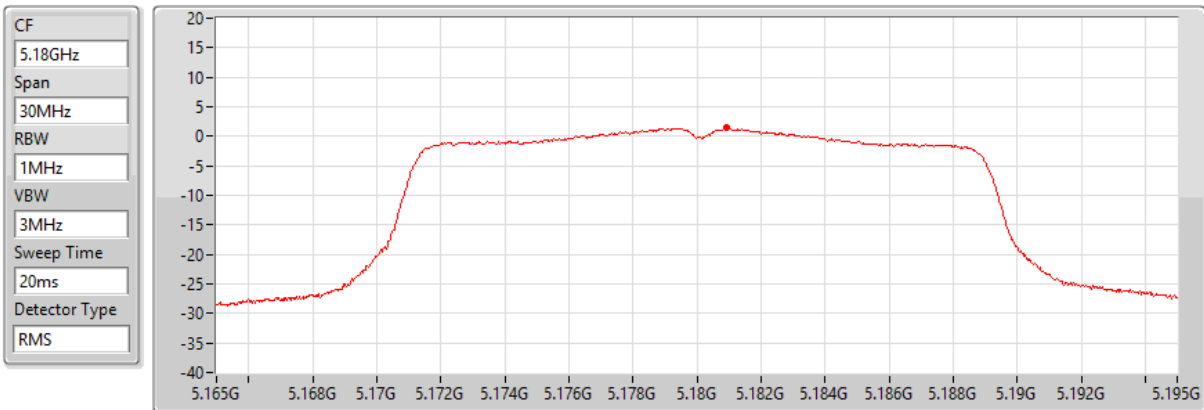
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.97	3.97	-	3.97

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5180MHz

11/09/2021



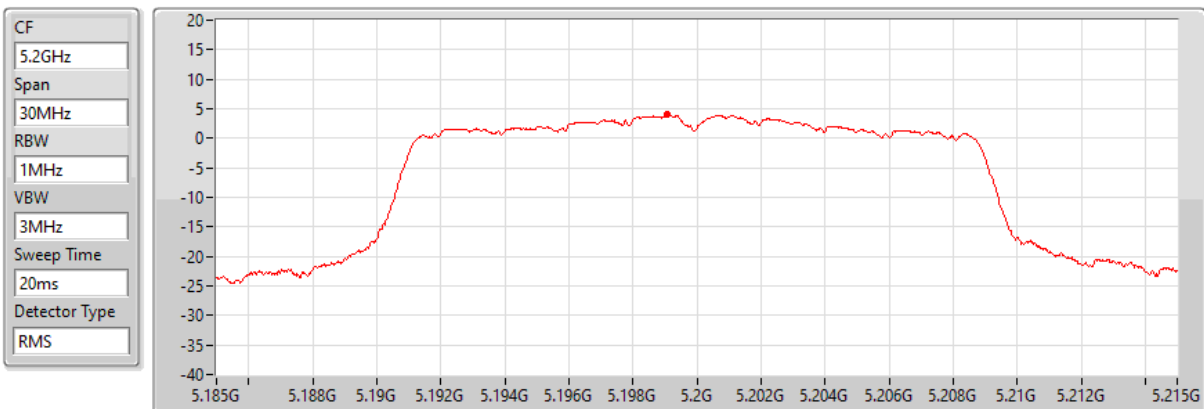
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.43	1.43	-	1.43

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5200MHz

05/10/2021



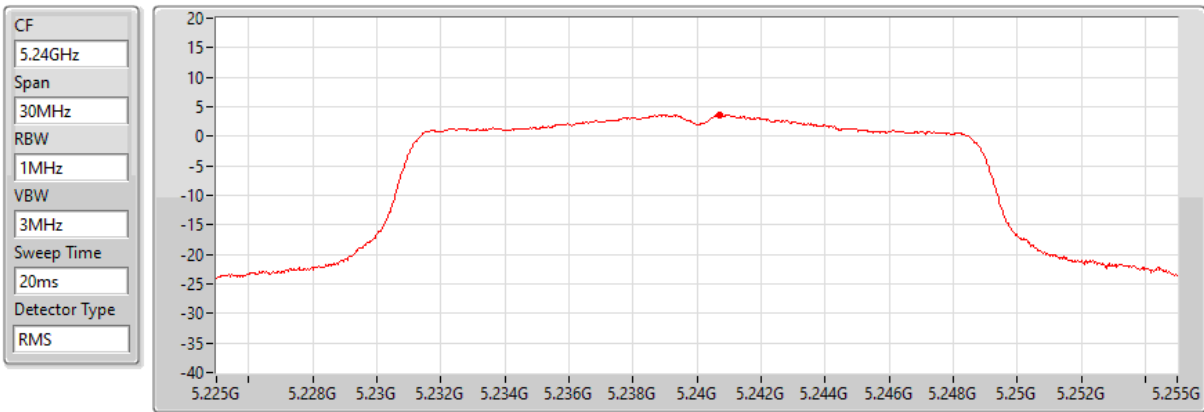
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.97	3.97	-	3.97

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5240MHz

18/10/2021



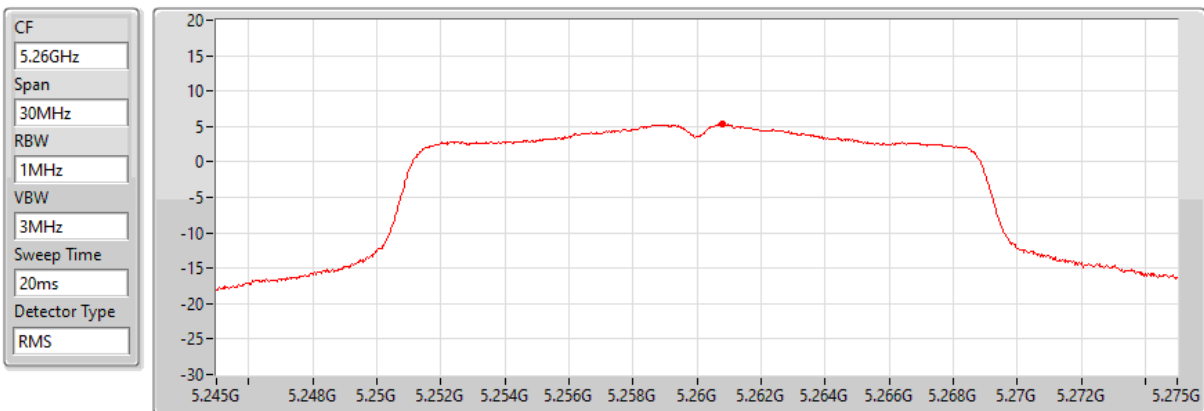
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
3.64	3.64	-	3.64

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5260MHz

05/10/2021



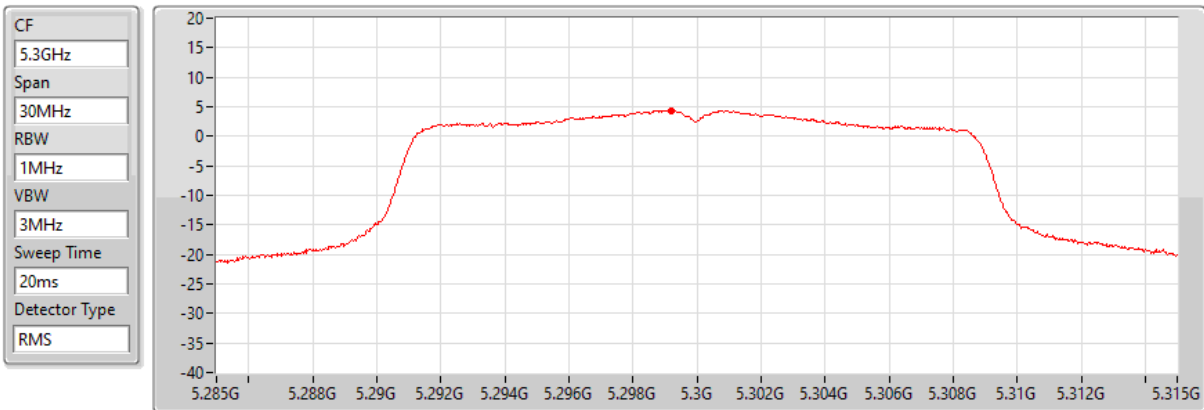
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.33	5.33	-	5.33

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5300MHz

05/10/2021



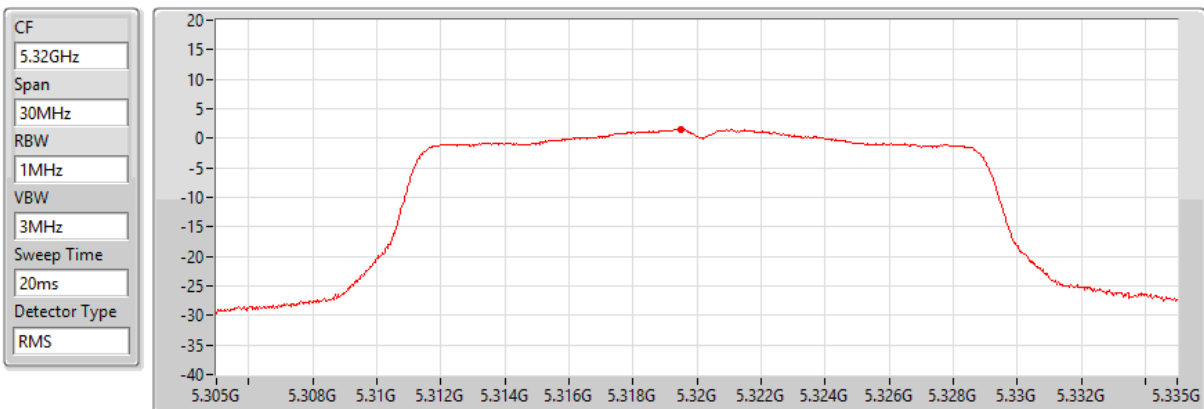
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.34	4.34	-	4.34

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5320MHz

11/09/2021



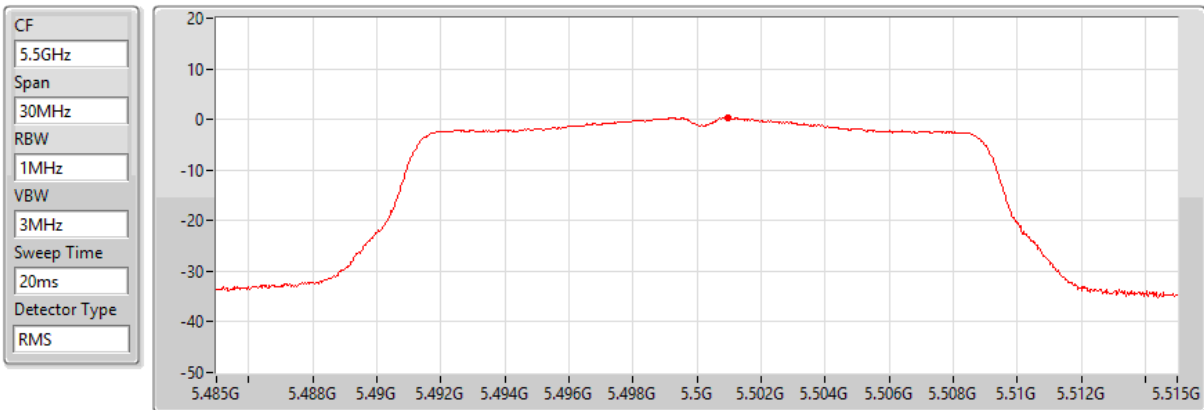
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
1.59	1.59	-	1.59

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5500MHz

11/09/2021



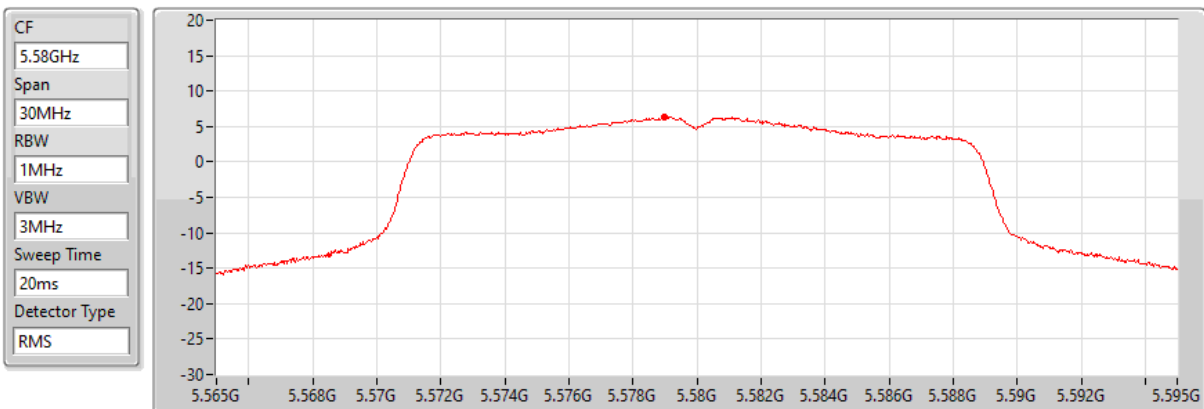
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
0.36	0.36	-	0.36

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5580MHz

05/10/2021



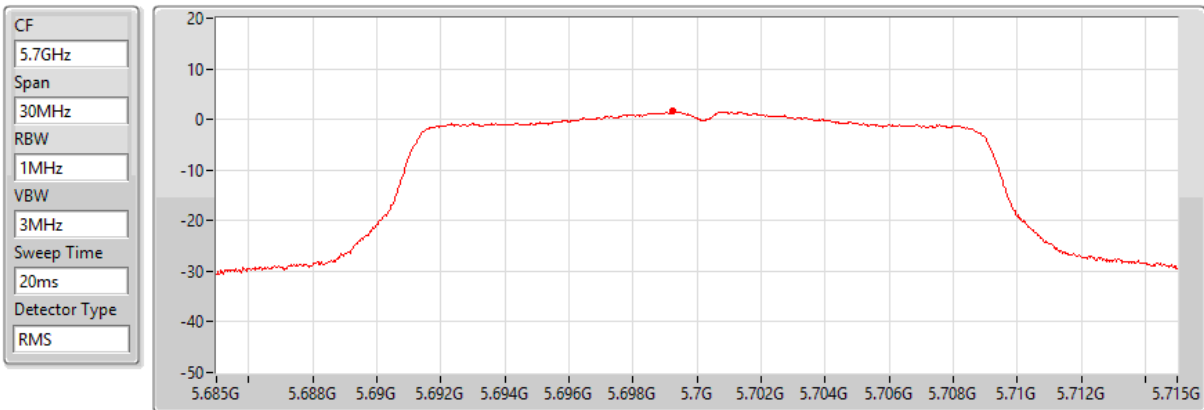
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.34	6.34	-	6.34

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5700MHz

11/09/2021



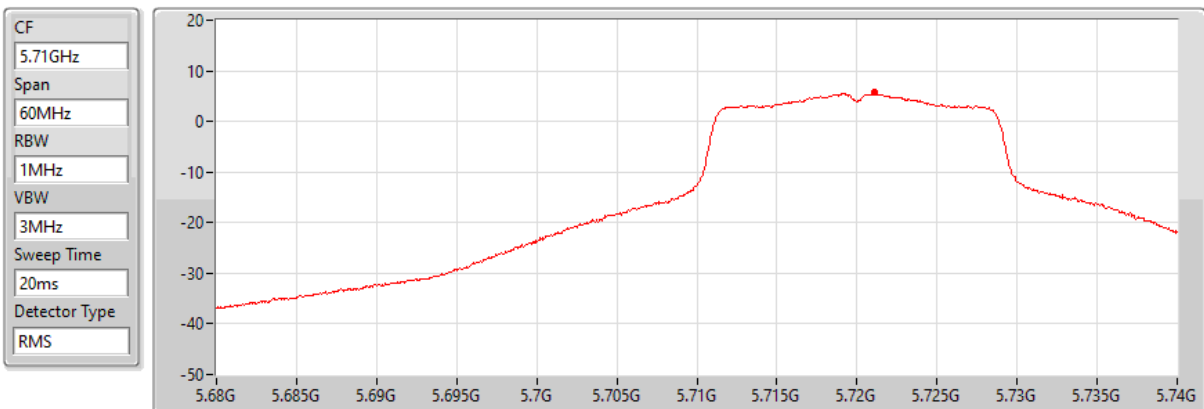
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
1.57	1.57	-	1.57

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5720MHz Straddle 5.47-5.725GHz

05/10/2021



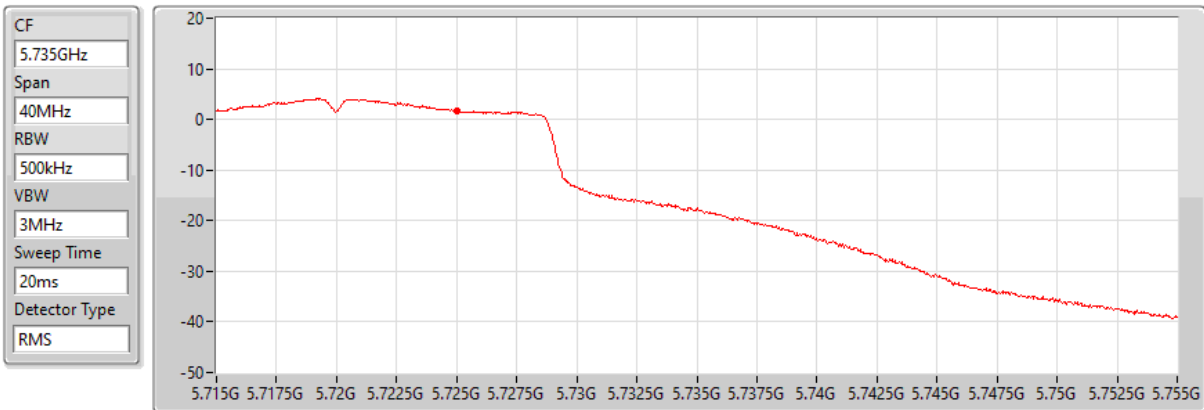
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.68	5.68	-	5.68

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5720MHz Straddle 5.725-5.85GHz

05/10/2021



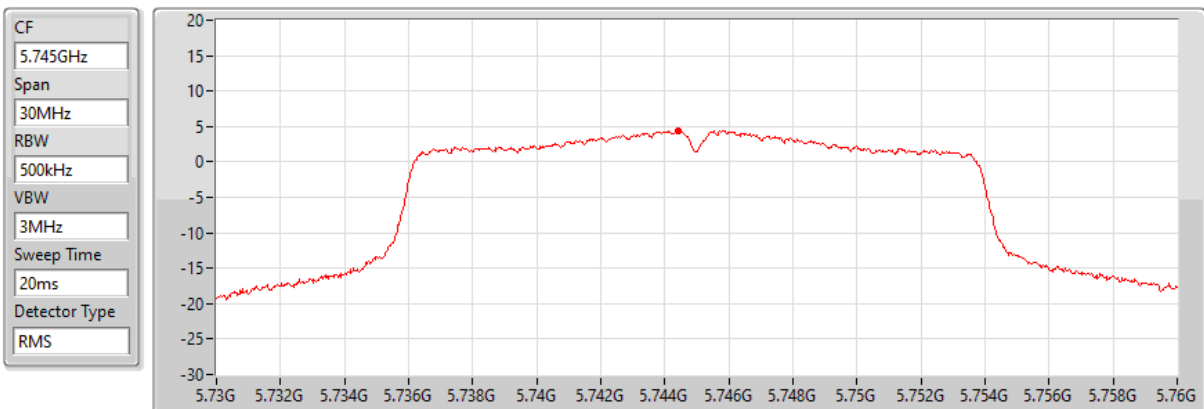
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.72	1.72	-	1.72

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5745MHz

05/10/2021



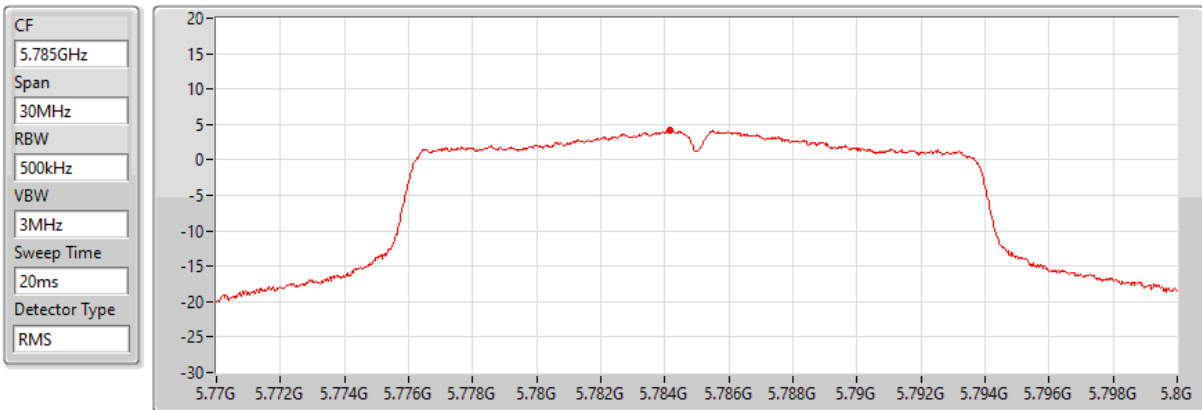
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.43	4.43	-	4.43

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5785MHz

05/10/2021



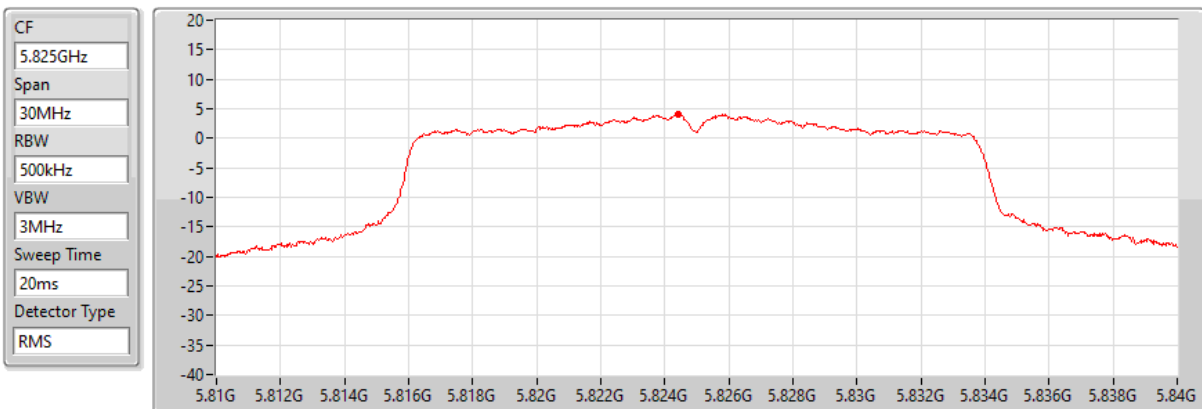
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.16	4.16	-	4.16

802.11ac VHT20_Nss1,(MCS0)_1TX

PSD

5825MHz

05/10/2021



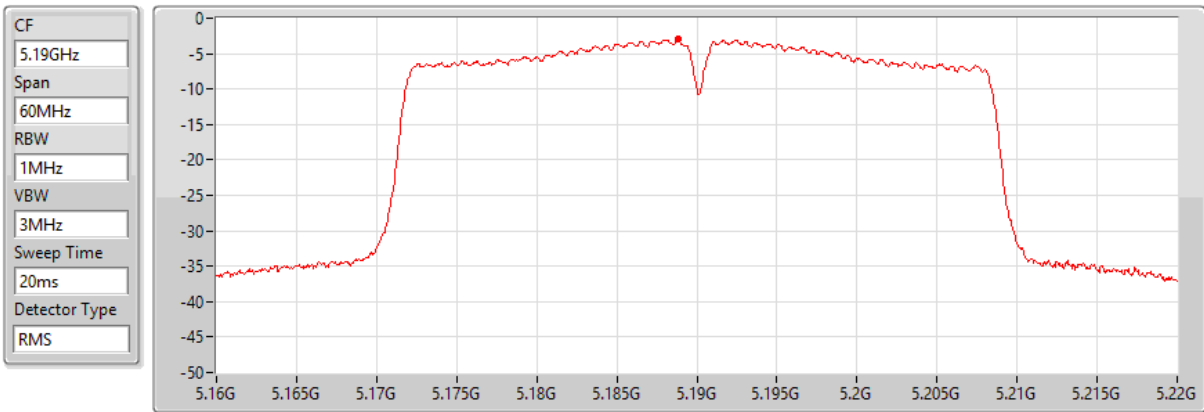
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.01	4.01	-	4.01

802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5190MHz

11/09/2021

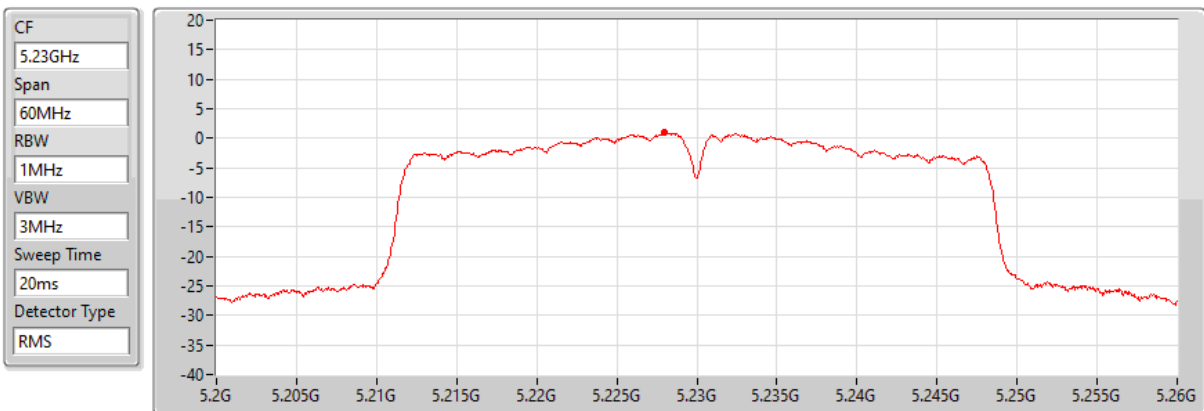


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5230MHz

05/10/2021

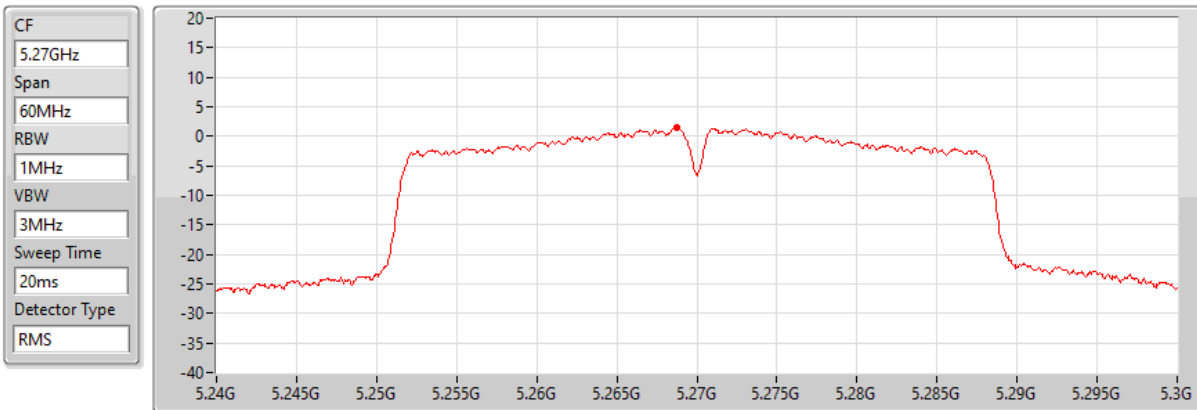


802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5270MHz

05/10/2021



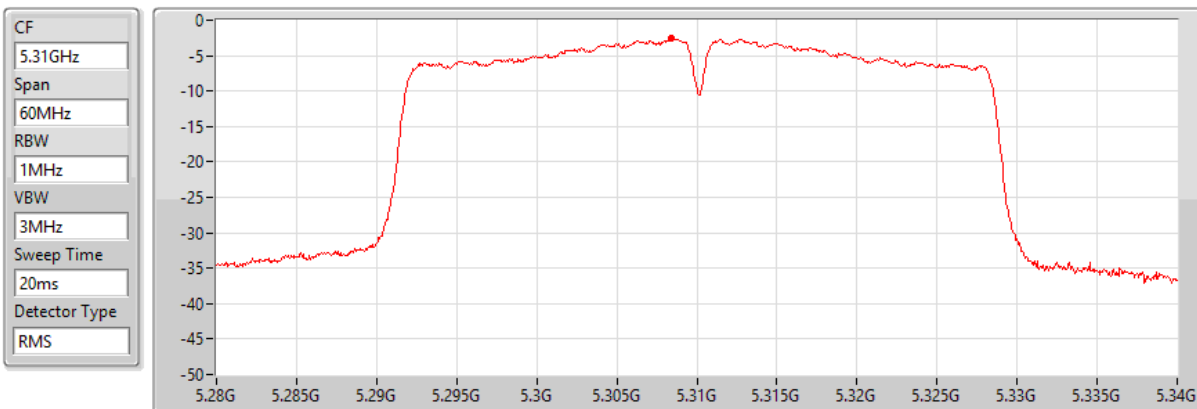
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
1.40	1.40	-	1.40

802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5310MHz

11/09/2021



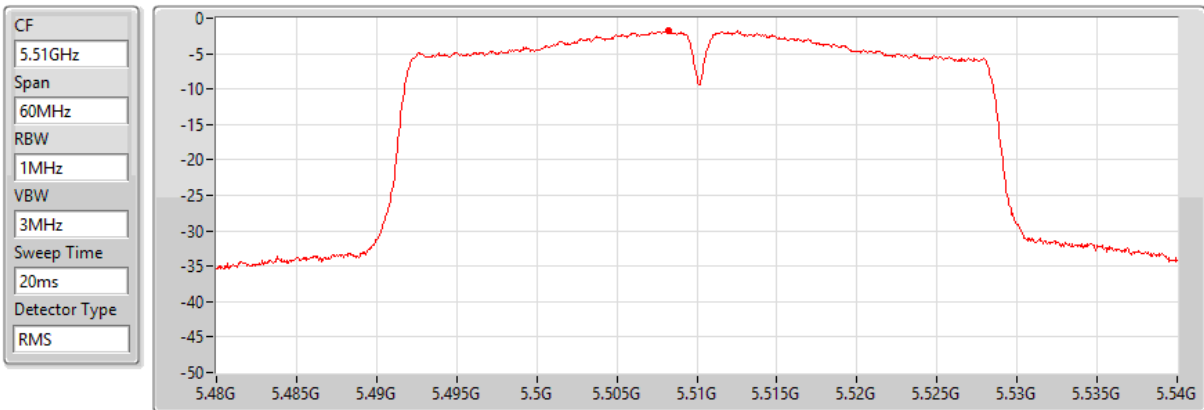
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-2.60	-2.60	-	-2.60

802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5510MHz

11/09/2021



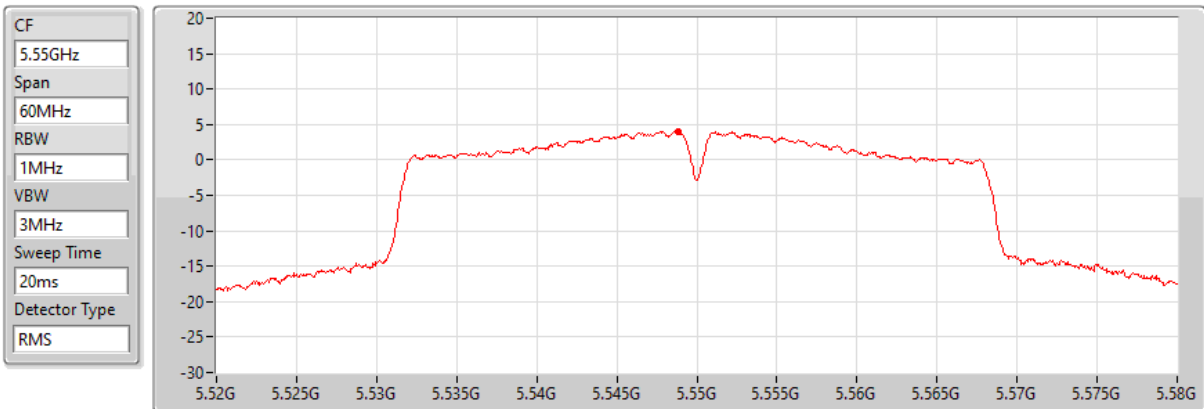
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-1.77	-1.77	-	-1.77

802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5550MHz

05/10/2021



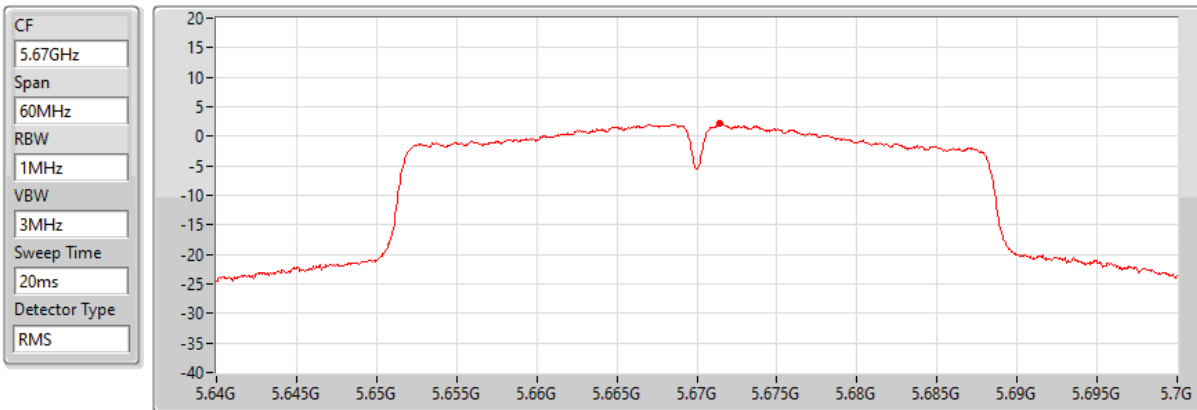
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.07	4.07	-	4.07

802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5670MHz

05/10/2021



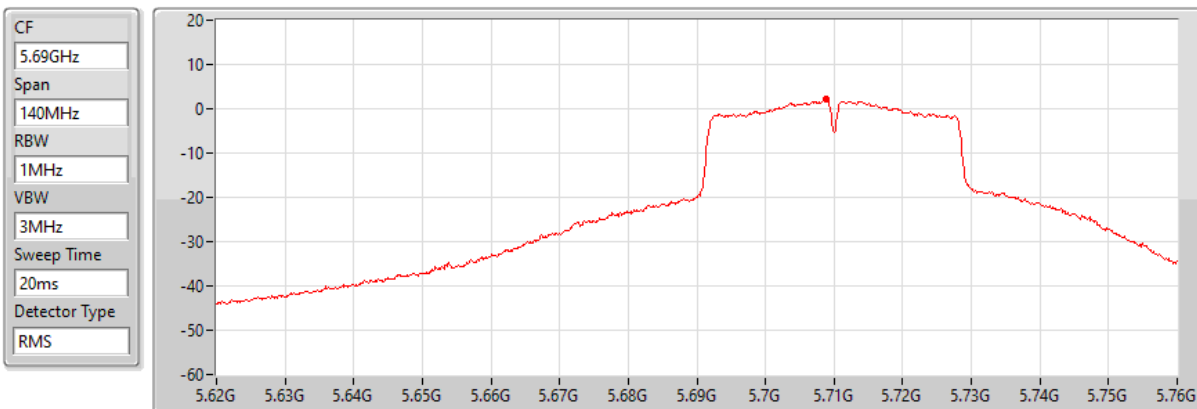
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.09	2.09	-	2.09

802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5710MHz Straddle 5.47-5.725GHz

05/10/2021



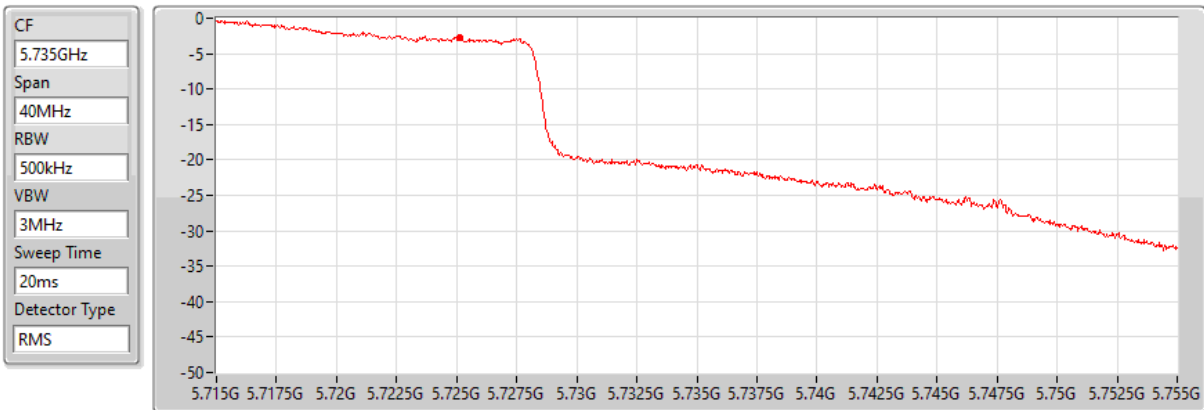
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.16	2.16	-	2.16

802.11ac VHT40_Nss1,(MCS0)_1TX

5710MHz Straddle 5.725-5.85GHz

05/10/2021

PSD



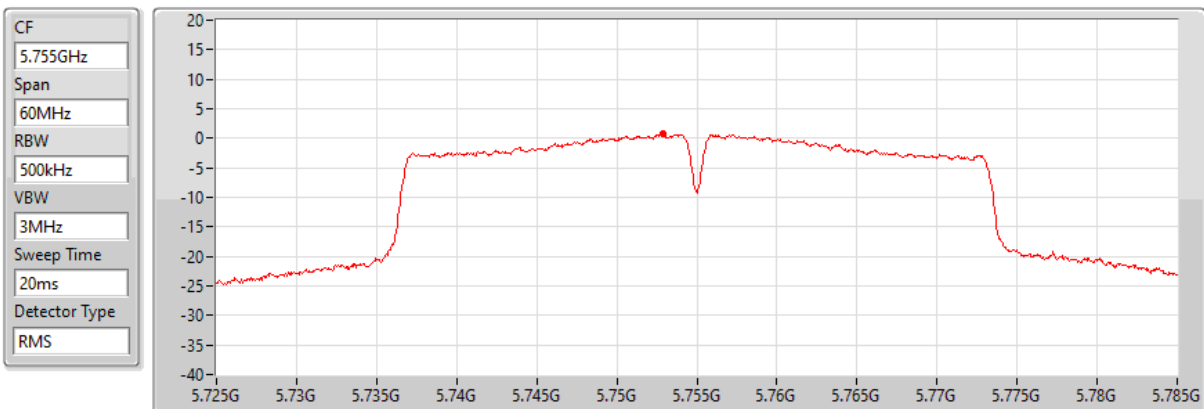
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.79	-2.79	-	-2.79

802.11ac VHT40_Nss1,(MCS0)_1TX

5755MHz

05/10/2021

PSD



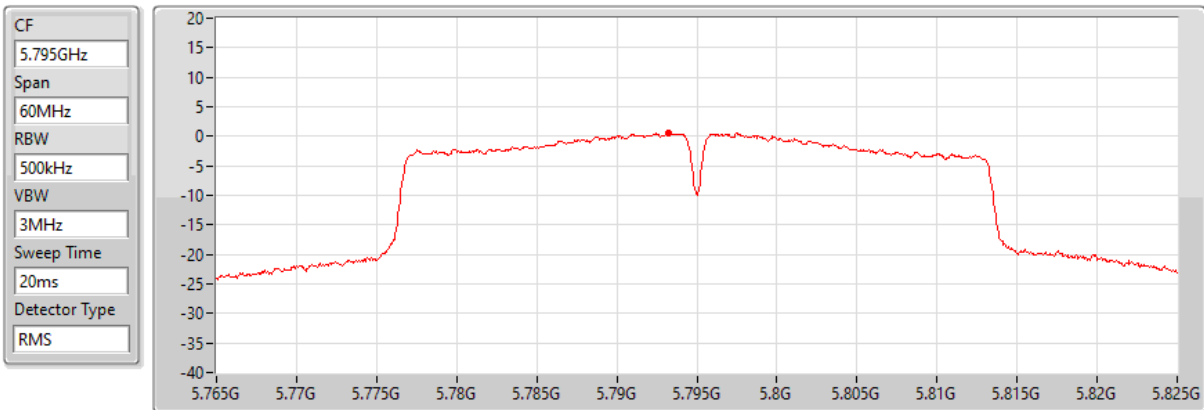
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.78	0.78	-	0.78

802.11ac VHT40_Nss1,(MCS0)_1TX

PSD

5795MHz

05/10/2021



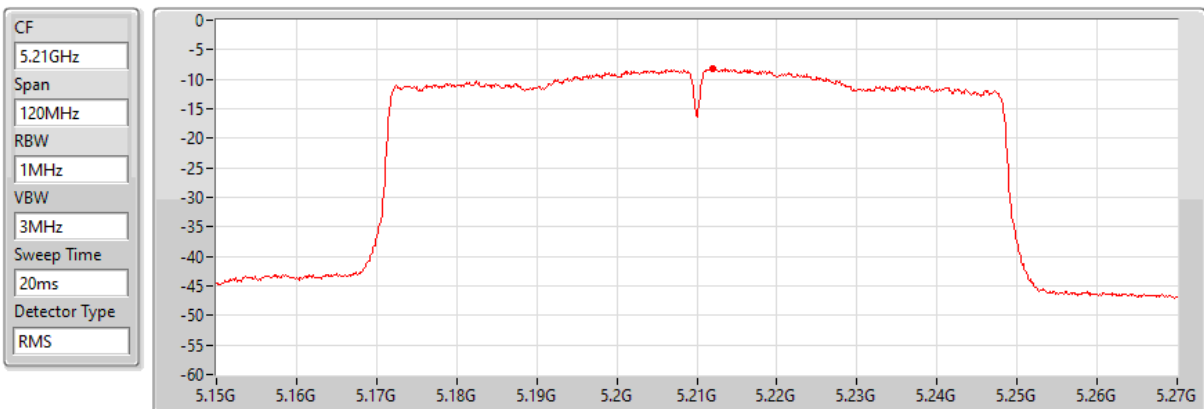
Sum	PD	Port 1	Port 2
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
0.65	0.65	-	0.65

802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5210MHz

05/10/2021



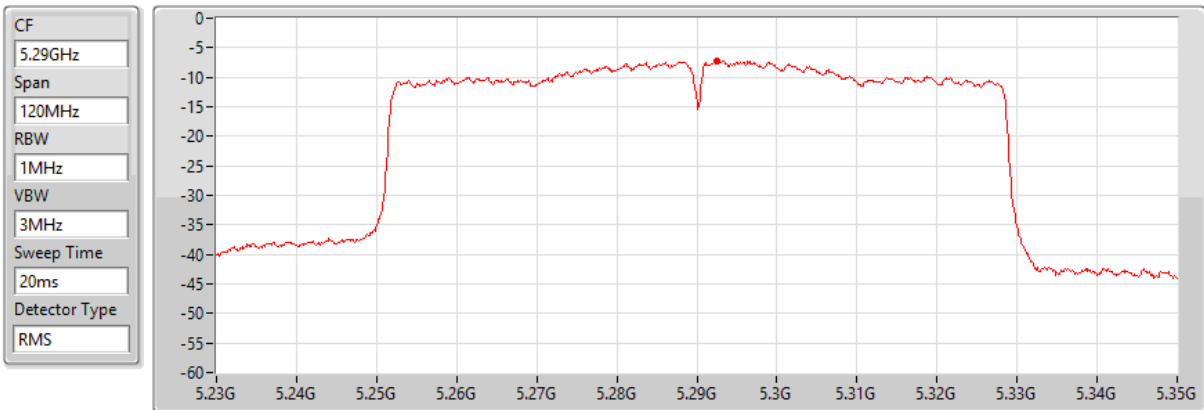
Sum	PD	Port 1	Port 2
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-8.11	-8.11	-	-8.11

802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5290MHz

11/09/2021



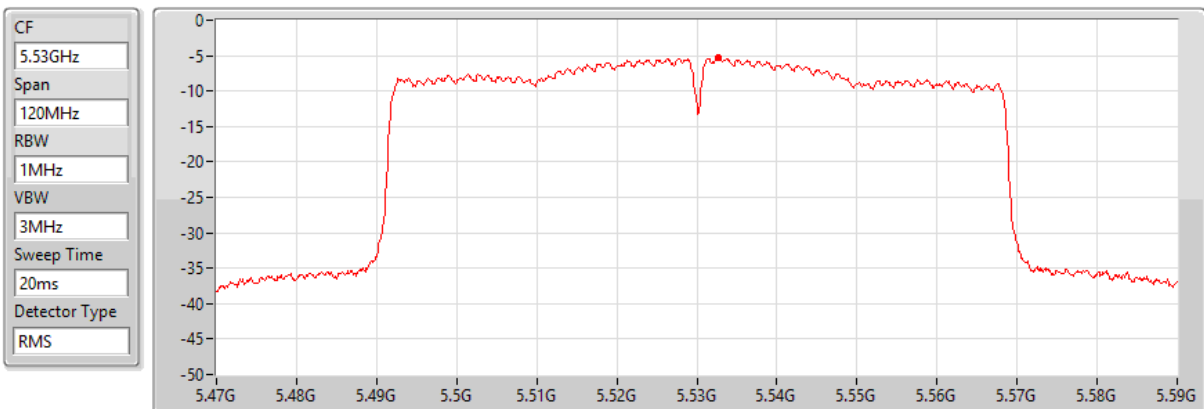
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.22	-7.22	-	-7.22

802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5530MHz

11/09/2021



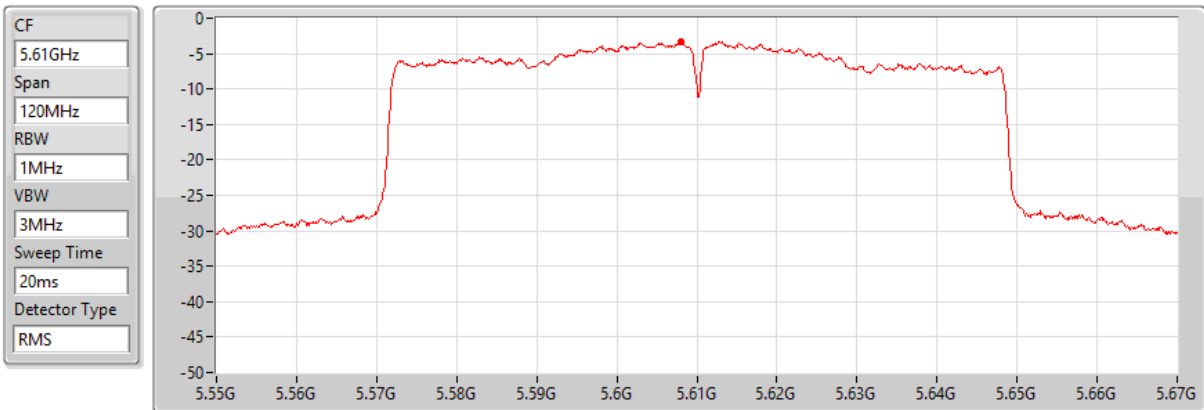
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.34	-5.34	-	-5.34

802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5610MHz

11/09/2021



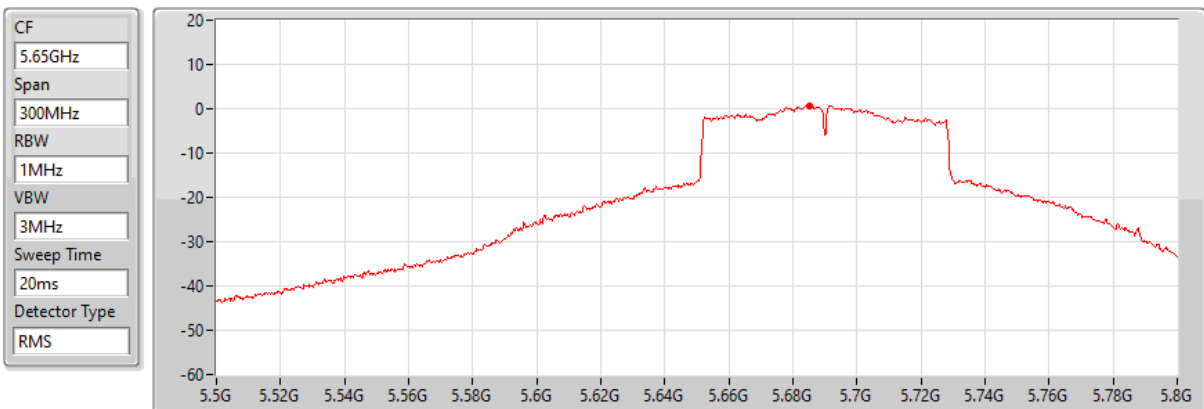
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.23	-3.23	-	-3.23

802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5690MHz Straddle 5.47-5.725GHz

05/10/2021



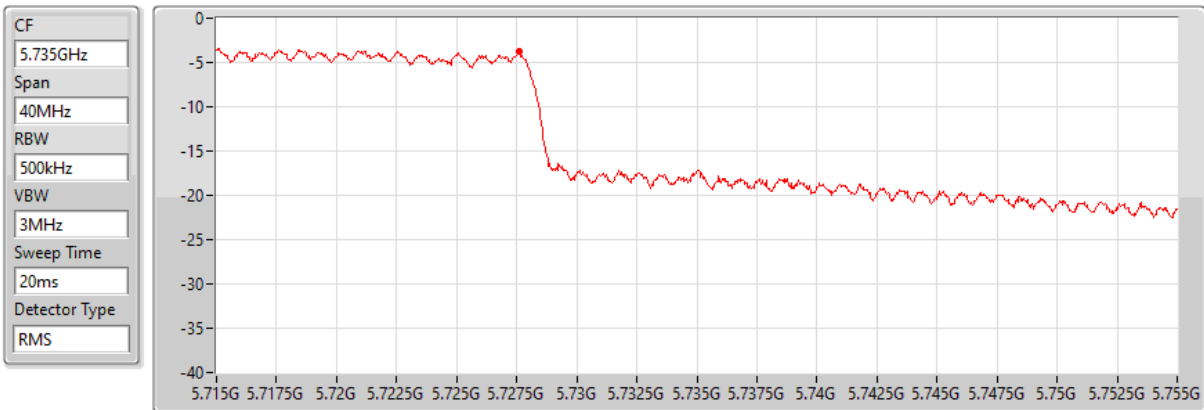
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.68	0.68	-	0.68

802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5690MHz Straddle 5.725-5.85GHz

05/10/2021



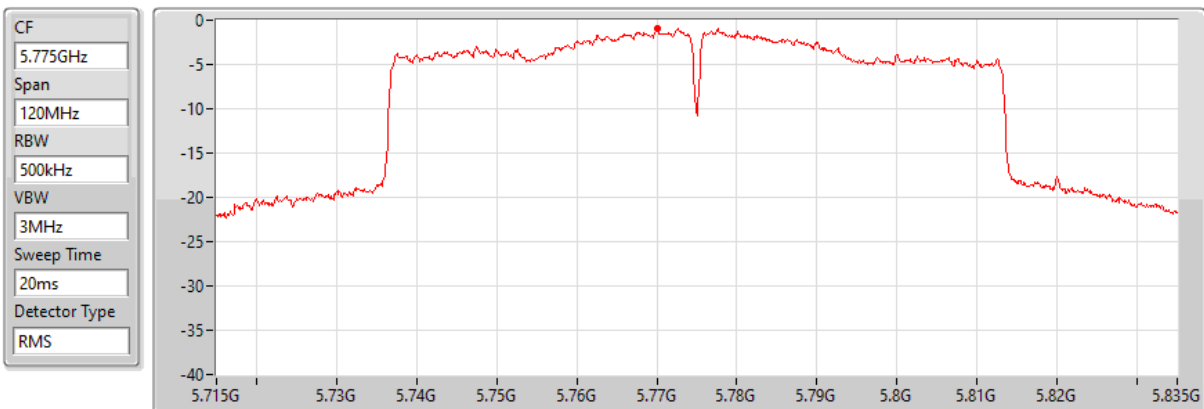
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.79	-3.79	-	-3.79

802.11ac VHT80_Nss1,(MCS0)_1TX

PSD

5775MHz

05/10/2021



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.99	-0.99	-	-0.99

Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_2TX	6.54
802.11ac VHT20_Nss1,(MCS0)_2TX	8.14
802.11ac VHT40_Nss1,(MCS0)_2TX	3.69
802.11ac VHT80_Nss1,(MCS0)_2TX	-5.31
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_2TX	7.93
802.11ac VHT20_Nss1,(MCS0)_2TX	8.35
802.11ac VHT40_Nss1,(MCS0)_2TX	5.26
802.11ac VHT80_Nss1,(MCS0)_2TX	-4.25
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_2TX	8.45
802.11ac VHT20_Nss1,(MCS0)_2TX	8.35
802.11ac VHT40_Nss1,(MCS0)_2TX	5.87
802.11ac VHT80_Nss1,(MCS0)_2TX	2.41
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	6.50
802.11ac VHT20_Nss1,(MCS0)_2TX	6.83
802.11ac VHT40_Nss1,(MCS0)_2TX	3.50
802.11ac VHT80_Nss1,(MCS0)_2TX	0.35

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	8.41	0.74	0.17	3.40	8.59
5200MHz	Pass	8.41	2.57	2.26	5.37	8.59
5240MHz	Pass	8.41	3.76	3.32	6.54	8.59
5260MHz	Pass	8.41	5.21	4.68	7.93	8.59
5300MHz	Pass	8.41	5.09	4.70	7.90	8.59
5320MHz	Pass	8.41	1.92	1.80	4.78	8.59
5500MHz	Pass	8.41	1.24	0.52	3.79	8.59
5580MHz	Pass	8.41	5.72	5.38	8.45	8.59
5700MHz	Pass	8.41	-0.73	-1.24	1.91	8.59
5720MHz Straddle 5.47-5.725GHz	Pass	8.41	5.13	4.92	8.04	8.59
5720MHz Straddle 5.725-5.85GHz	Pass	8.41	1.24	0.91	4.04	27.59
5745MHz	Pass	8.41	3.52	3.57	6.50	27.59
5785MHz	Pass	8.41	3.54	3.17	6.35	27.59
5825MHz	Pass	8.41	3.04	3.16	5.98	27.59
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	8.41	0.81	0.23	3.42	8.59
5200MHz	Pass	8.41	5.69	4.73	8.14	8.59
5240MHz	Pass	8.41	3.30	3.00	6.12	8.59
5260MHz	Pass	8.41	5.69	5.05	8.35	8.59
5300MHz	Pass	8.41	5.44	4.57	7.96	8.59
5320MHz	Pass	8.41	1.55	1.27	4.36	8.59
5500MHz	Pass	8.41	1.18	0.31	3.77	8.59
5580MHz	Pass	8.41	5.39	5.40	8.35	8.59
5700MHz	Pass	8.41	0.59	0.20	3.34	8.59
5720MHz Straddle 5.47-5.725GHz	Pass	8.41	5.47	4.82	8.03	8.59
5720MHz Straddle 5.725-5.85GHz	Pass	8.41	1.77	0.88	4.24	27.59
5745MHz	Pass	8.41	4.14	3.49	6.83	27.59
5785MHz	Pass	8.41	4.01	2.90	6.36	27.59
5825MHz	Pass	8.41	2.62	2.83	5.71	27.59
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	8.41	-2.92	-3.09	-0.07	8.59
5230MHz	Pass	8.41	0.72	0.79	3.69	8.59
5270MHz	Pass	8.41	2.52	2.17	5.26	8.59
5310MHz	Pass	8.41	-2.12	-1.67	0.91	8.59
5510MHz	Pass	8.41	-3.85	-4.44	-1.16	8.59
5550MHz	Pass	8.41	3.03	2.79	5.87	8.59
5670MHz	Pass	8.41	2.89	1.92	5.43	8.59
5710MHz Straddle 5.47-5.725GHz	Pass	8.41	2.69	1.93	5.26	8.59
5710MHz Straddle 5.725-5.85GHz	Pass	8.41	-2.18	-3.04	0.30	27.59
5755MHz	Pass	8.41	0.84	0.22	3.50	27.59
5795MHz	Pass	8.41	0.67	-0.19	3.21	27.59
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	8.41	-7.73	-8.70	-5.31	8.59
5290MHz	Pass	8.41	-7.18	-6.92	-4.25	8.59
5530MHz	Pass	8.41	-6.39	-6.74	-3.56	8.59
5610MHz	Pass	8.41	-3.19	-3.47	-0.48	8.59
5690MHz Straddle 5.47-5.725GHz	Pass	8.41	-0.37	-0.81	2.41	8.59
5690MHz Straddle 5.725-5.85GHz	Pass	8.41	-5.40	-4.98	-2.32	27.59
5775MHz	Pass	8.41	-2.51	-2.69	0.35	27.59

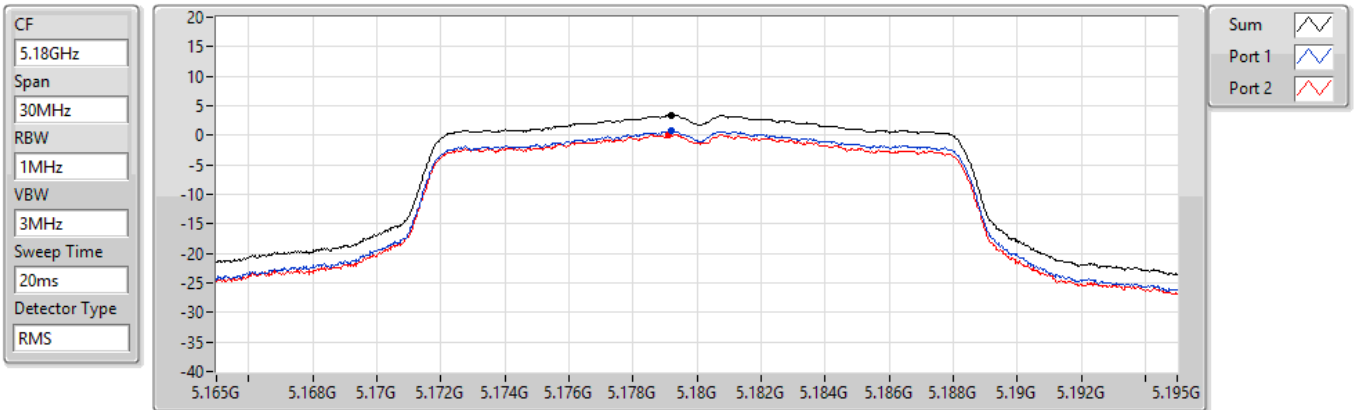
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

802.11a_Nss1,(6Mbps)_2TX

PSD

5180MHz

11/09/2021

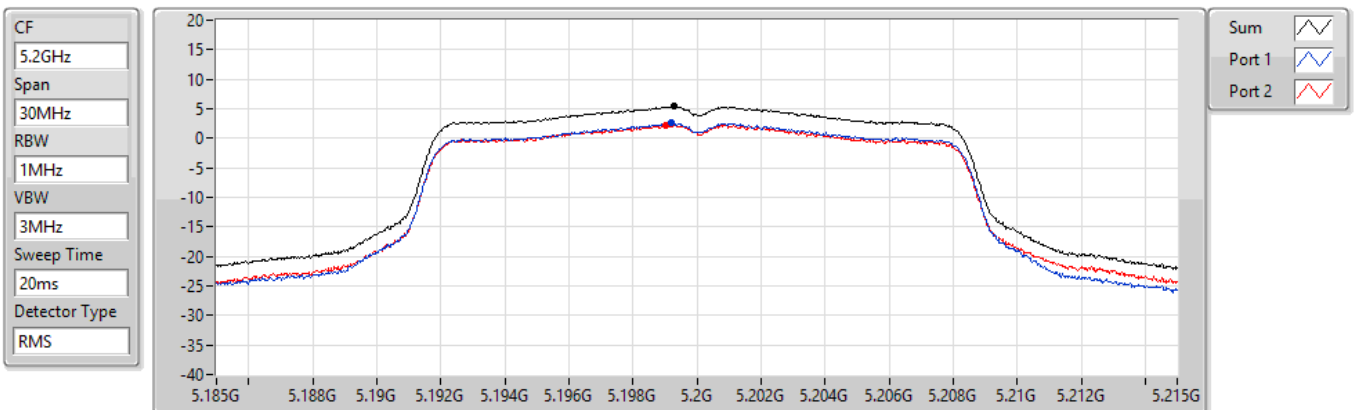


802.11a_Nss1,(6Mbps)_2TX

PSD

5200MHz

11/09/2021

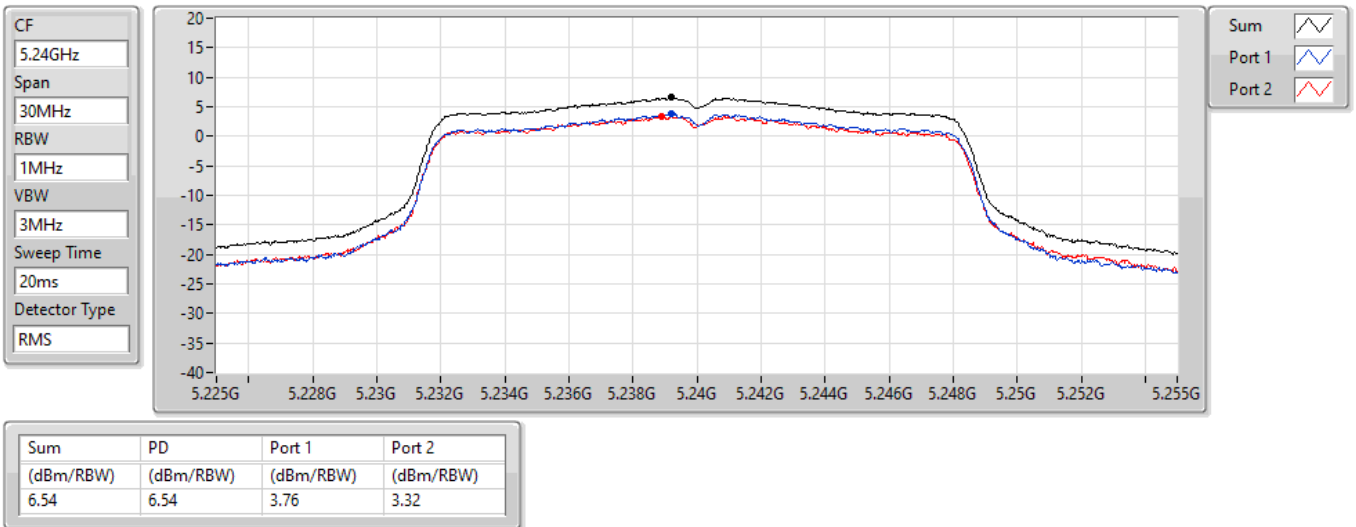


802.11a_Nss1,(6Mbps)_2TX

PSD

5240MHz

18/10/2021

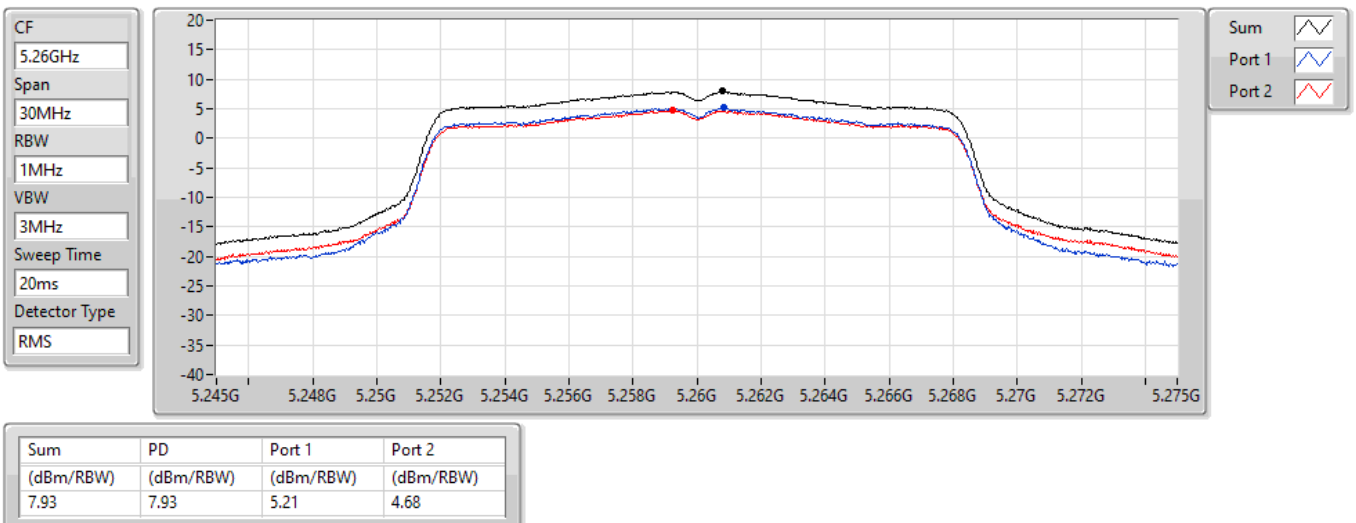


802.11a_Nss1,(6Mbps)_2TX

PSD

5260MHz

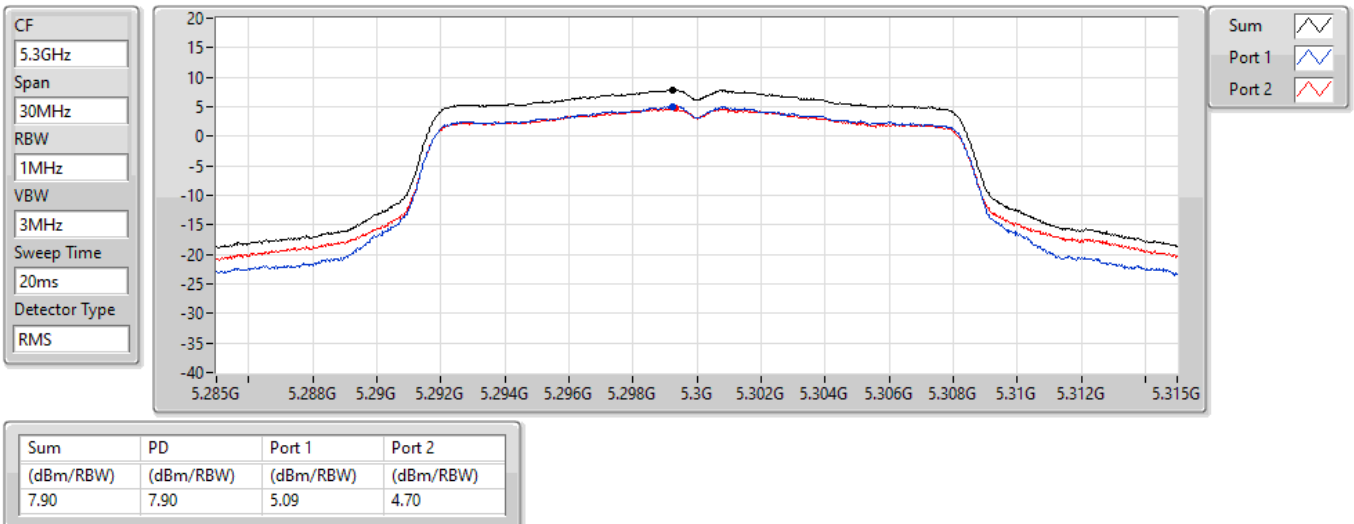
05/10/2021



802.11a_Nss1,(6Mbps)_2TX

5300MHz

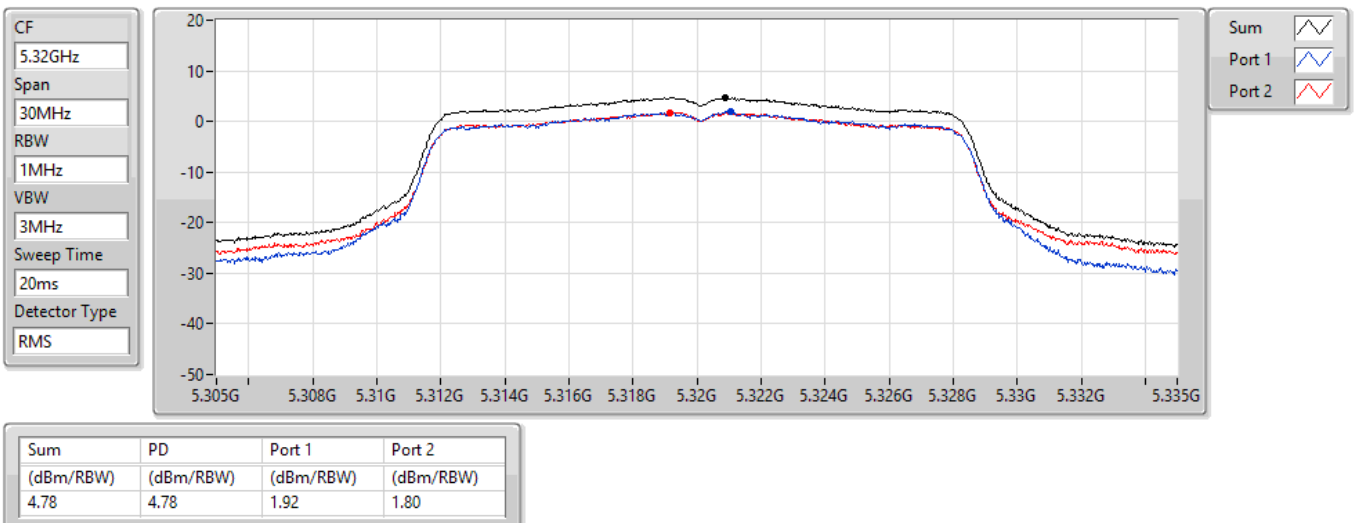
05/10/2021



802.11a_Nss1,(6Mbps)_2TX

5320MHz

11/09/2021

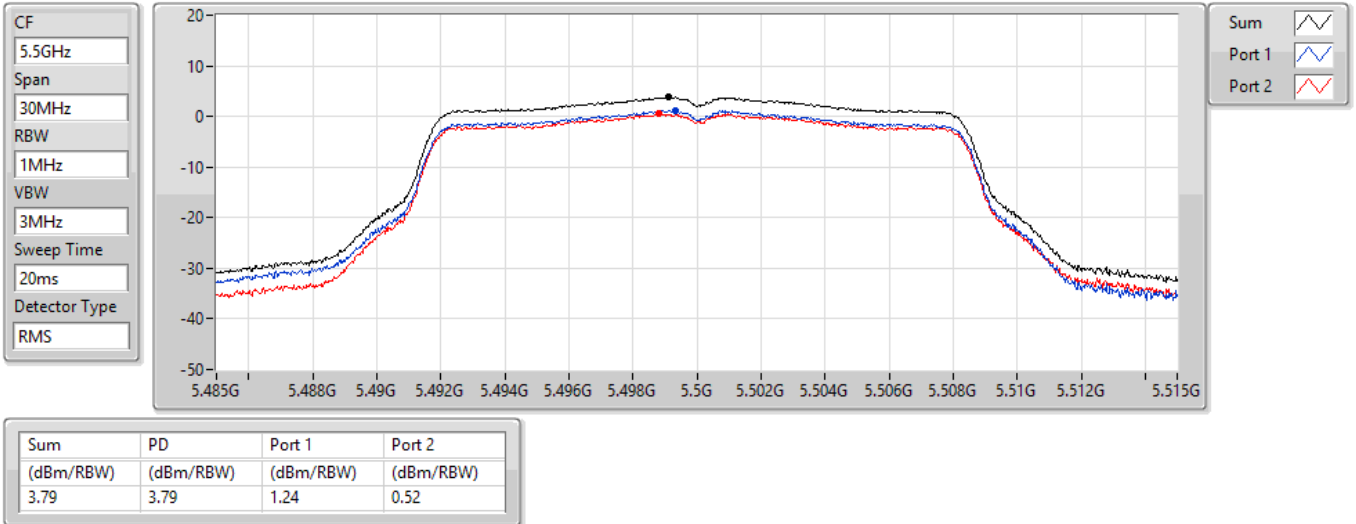


802.11a_Nss1,(6Mbps)_2TX

PSD

5500MHz

11/09/2021

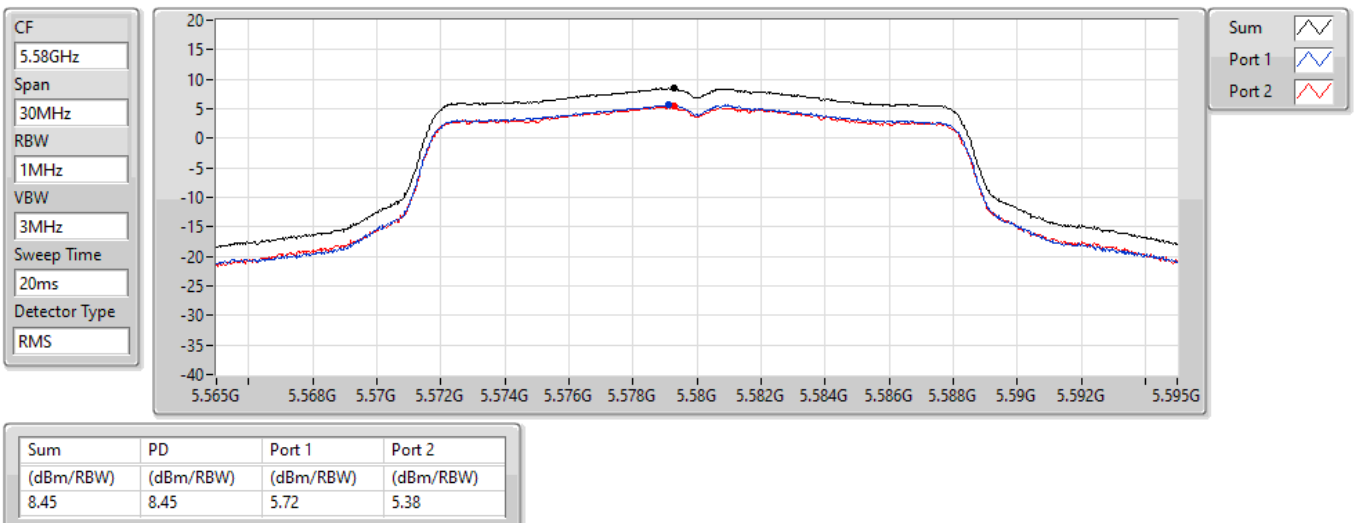


802.11a_Nss1,(6Mbps)_2TX

PSD

5580MHz

05/10/2021

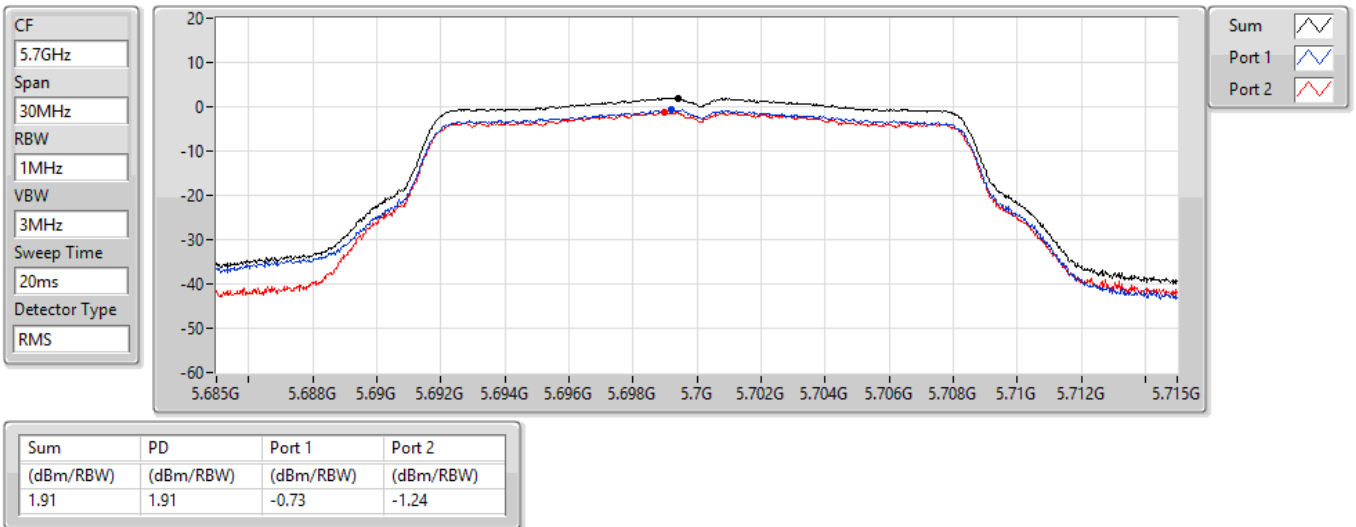


802.11a_Nss1,(6Mbps)_2TX

PSD

5700MHz

11/09/2021

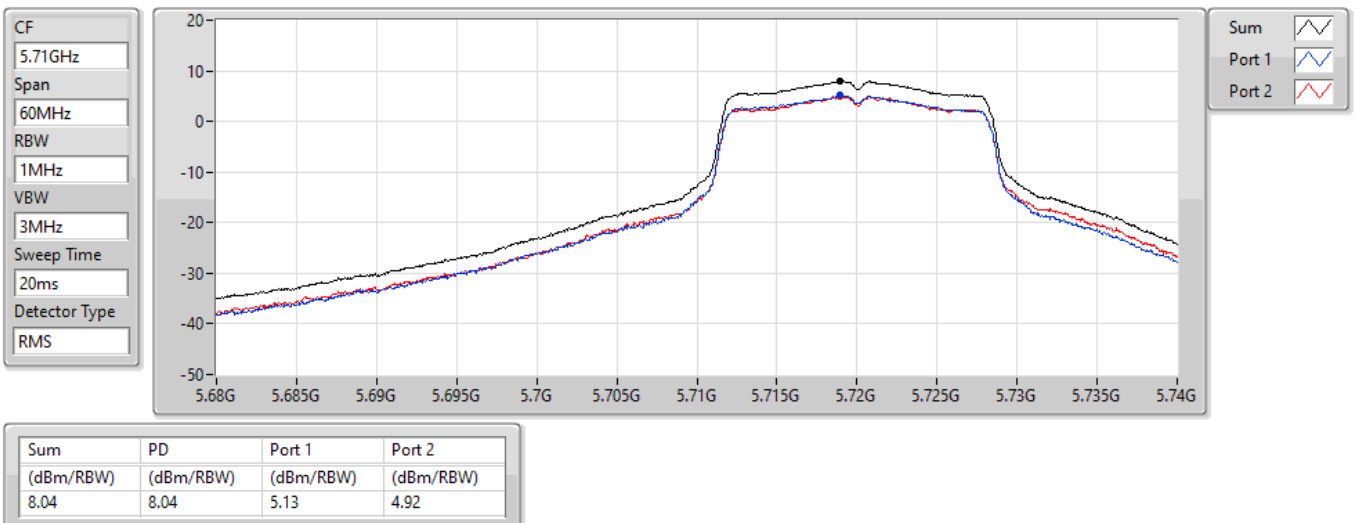


802.11a_Nss1,(6Mbps)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

05/10/2021

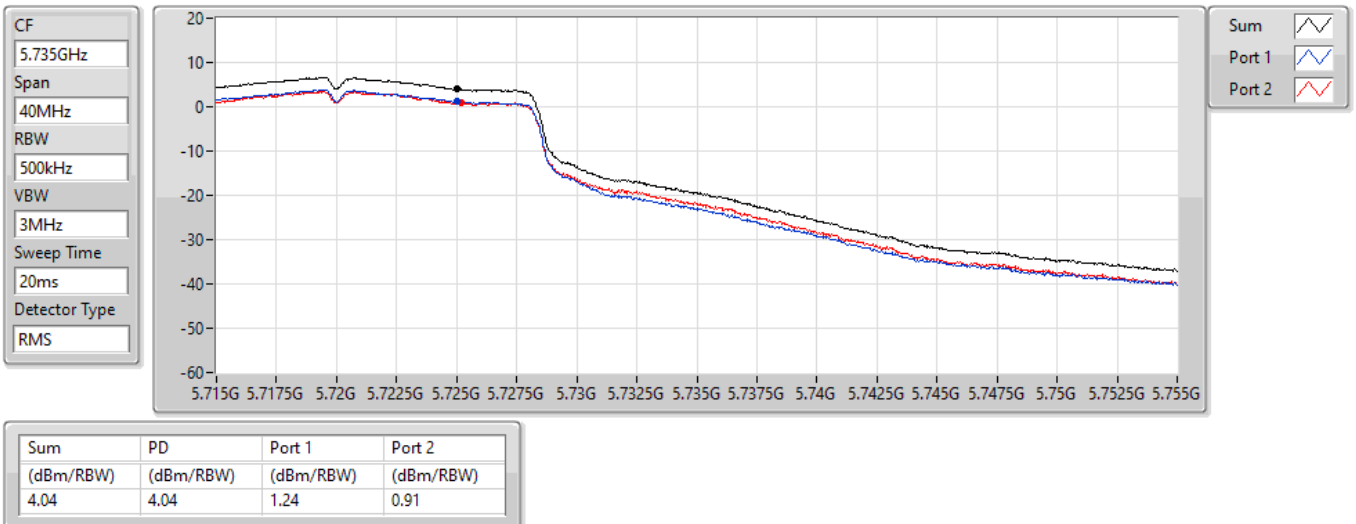


802.11a_Nss1,(6Mbps)_2TX

5720MHz Straddle 5.725-5.85GHz

PSD

05/10/2021

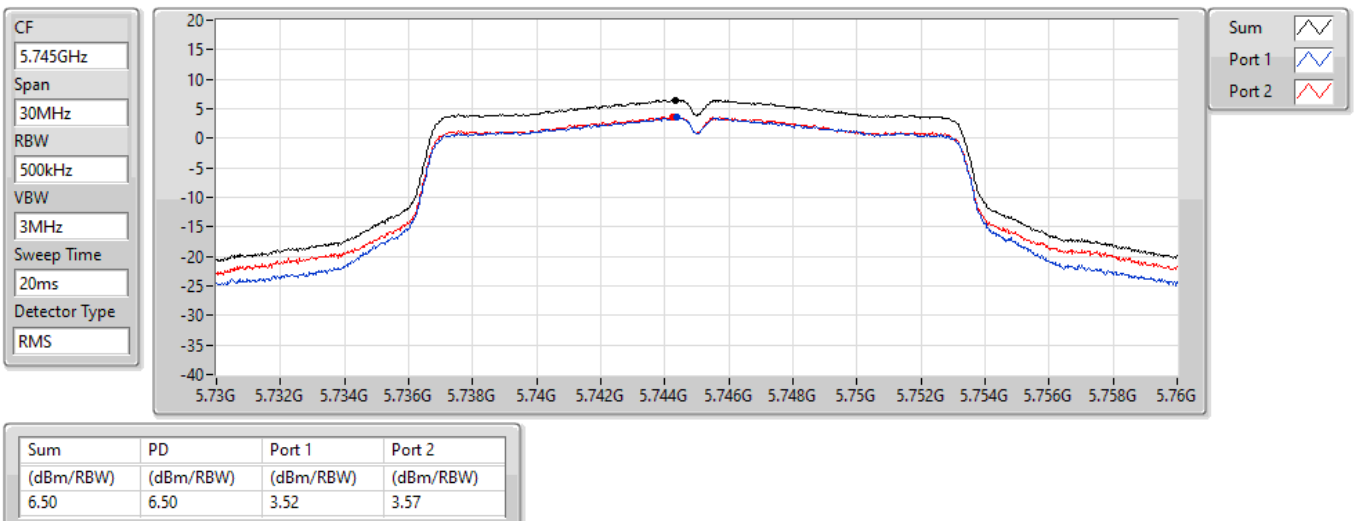


802.11a_Nss1,(6Mbps)_2TX

5745MHz

PSD

05/10/2021

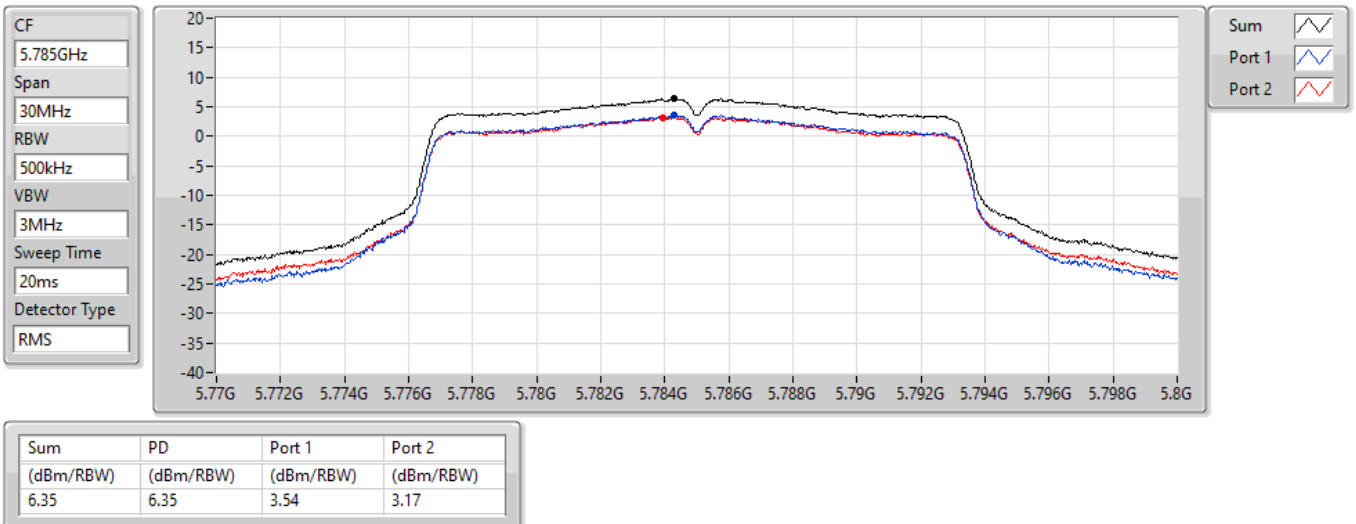


802.11a_Nss1,(6Mbps)_2TX

PSD

5785MHz

05/10/2021

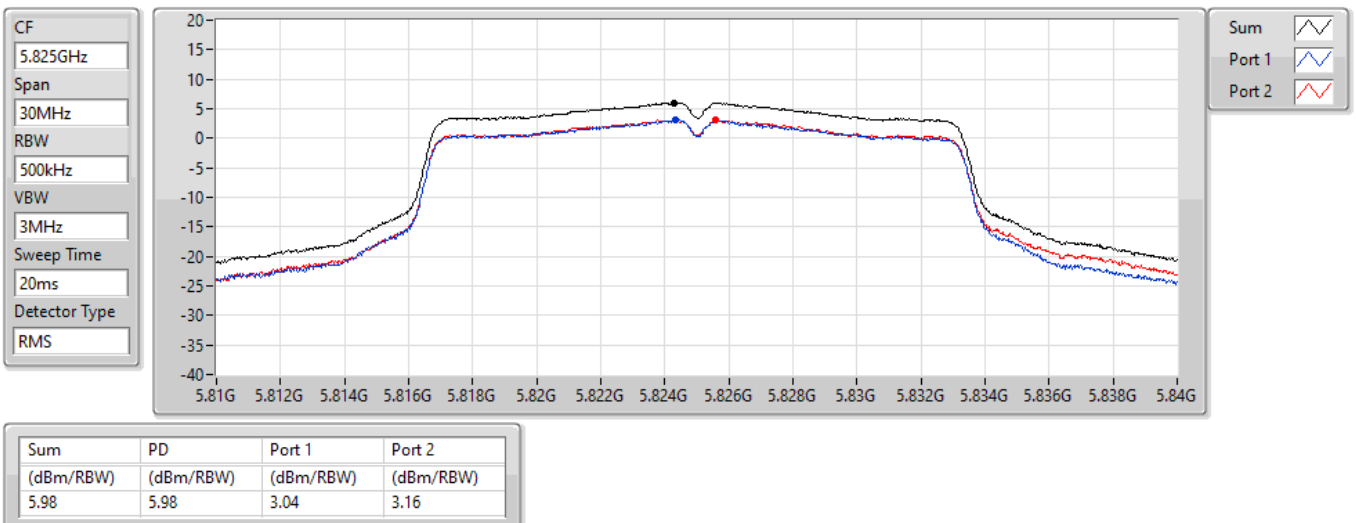


802.11a_Nss1,(6Mbps)_2TX

PSD

5825MHz

05/10/2021

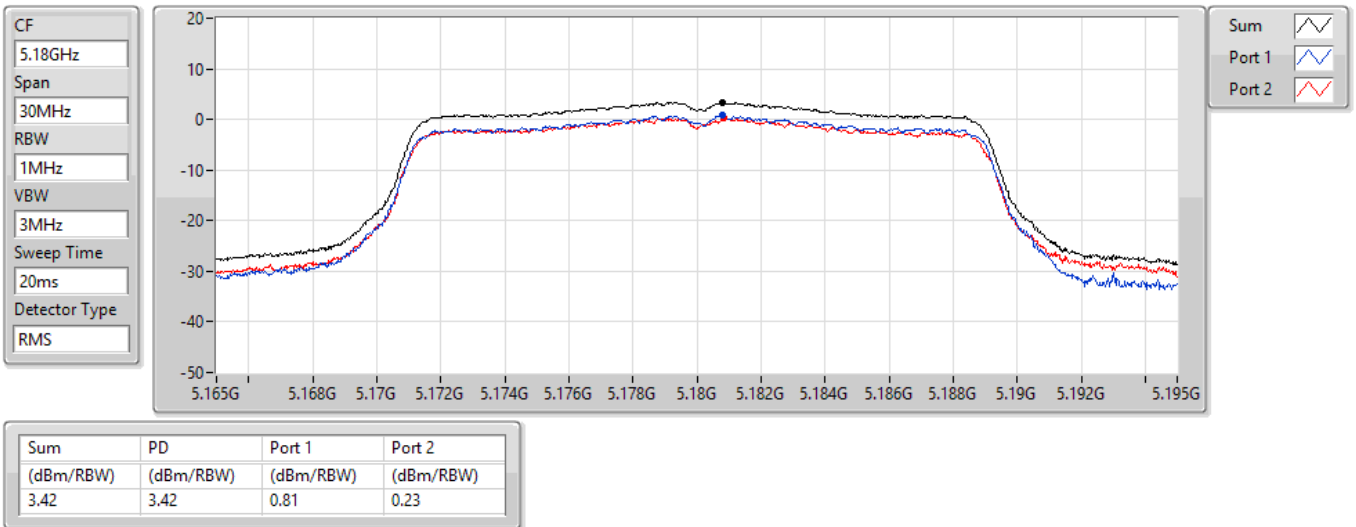


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5180MHz

11/09/2021

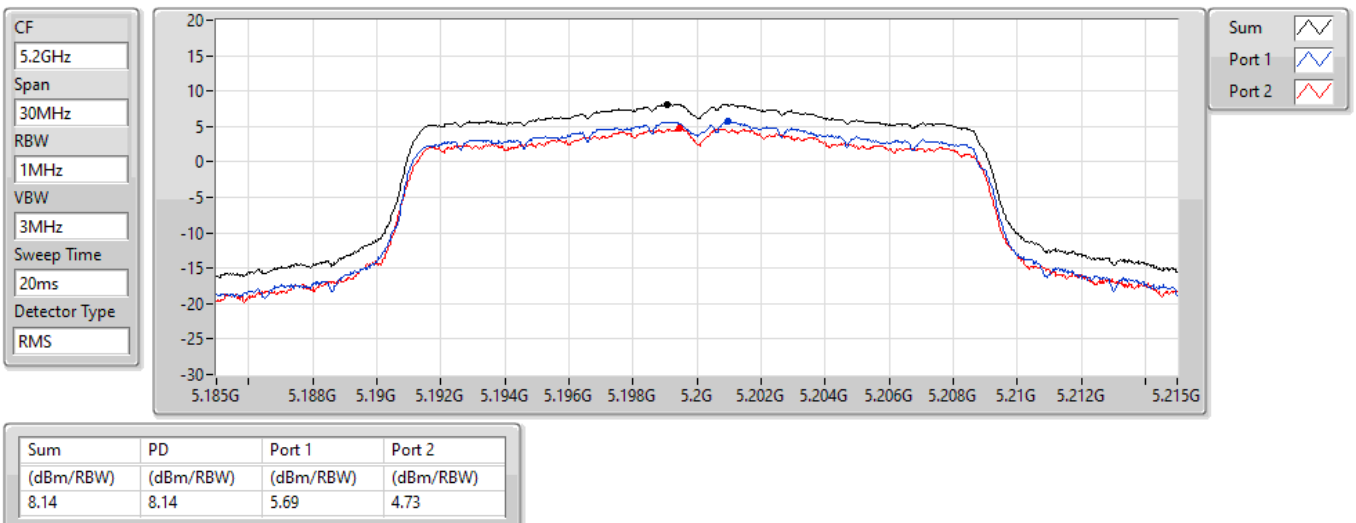


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5200MHz

05/10/2021

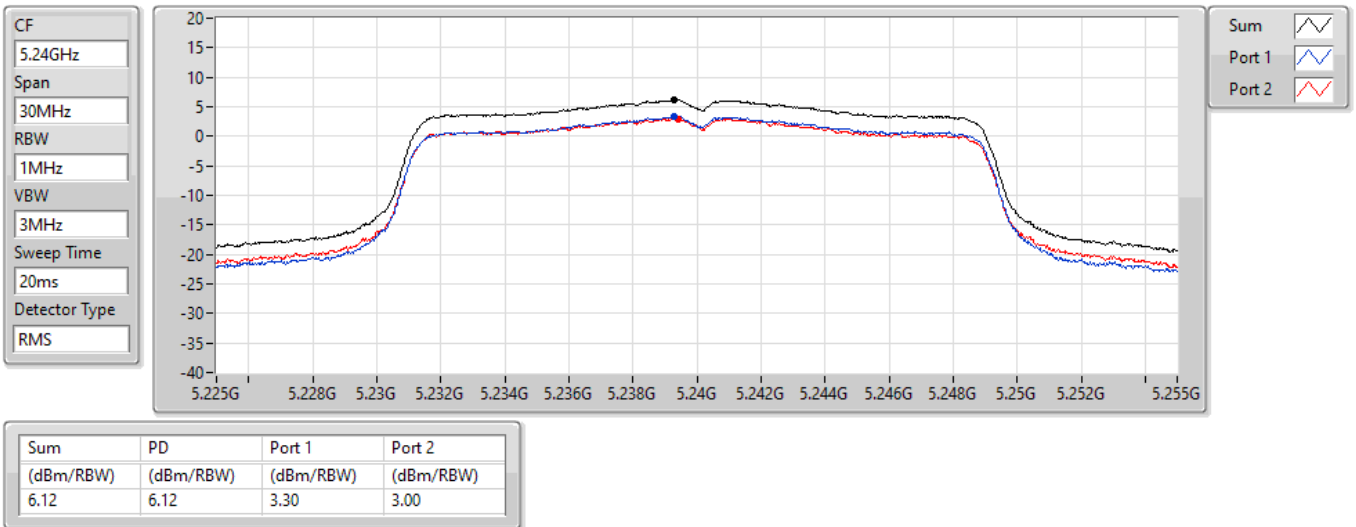


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5240MHz

18/10/2021

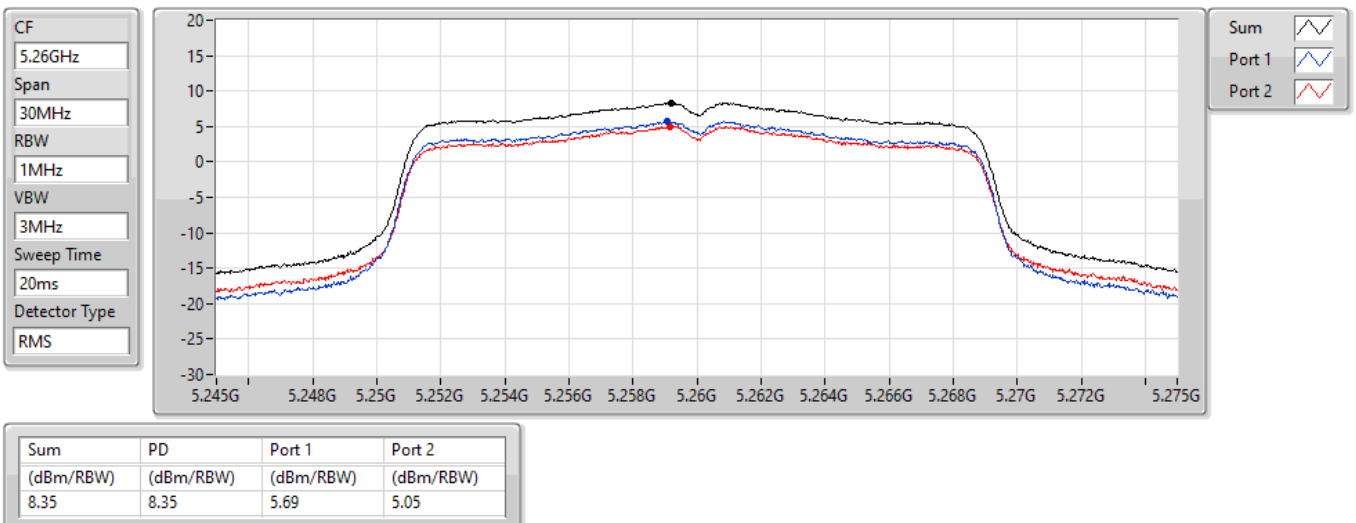


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5260MHz

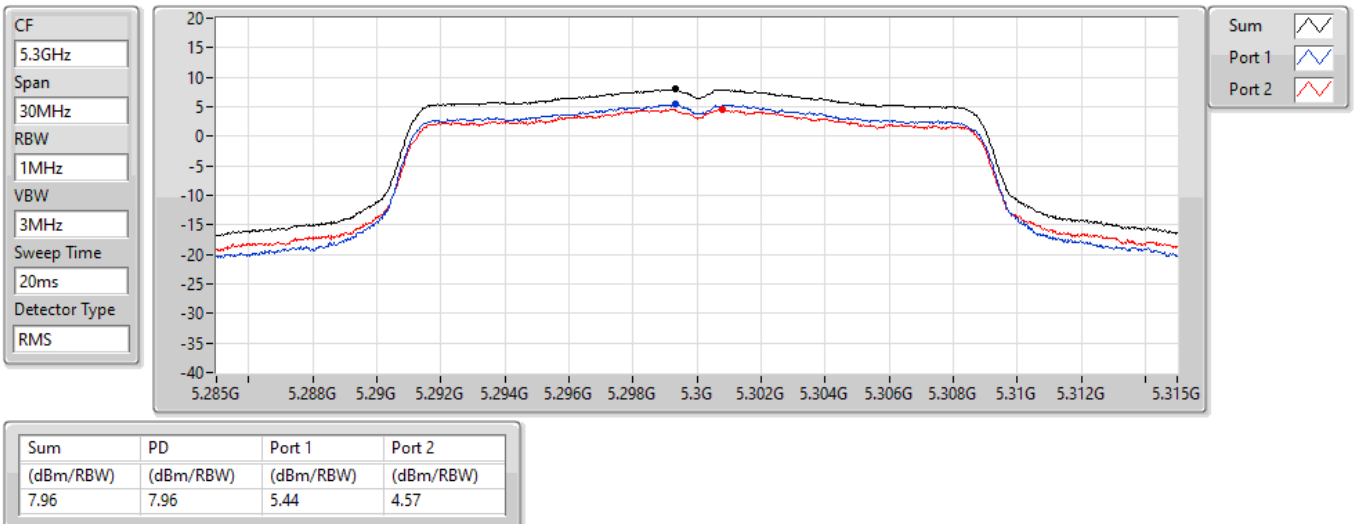
05/10/2021



802.11ac VHT20_Nss1,(MCS0)_2TX

5300MHz

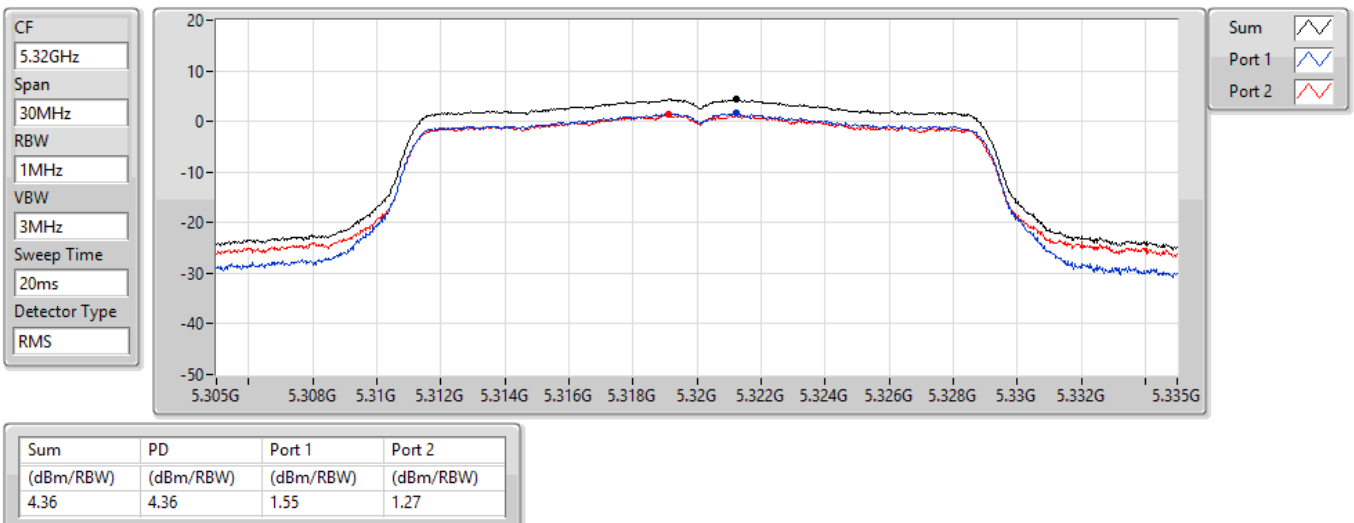
05/10/2021



802.11ac VHT20_Nss1,(MCS0)_2TX

5320MHz

11/09/2021

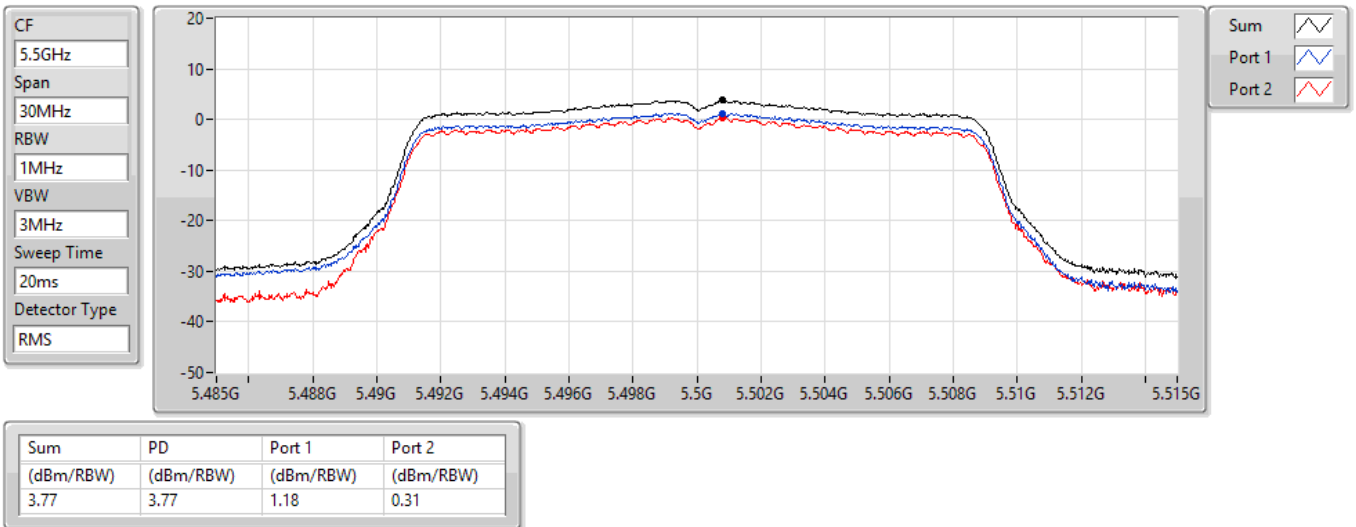


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5500MHz

11/09/2021

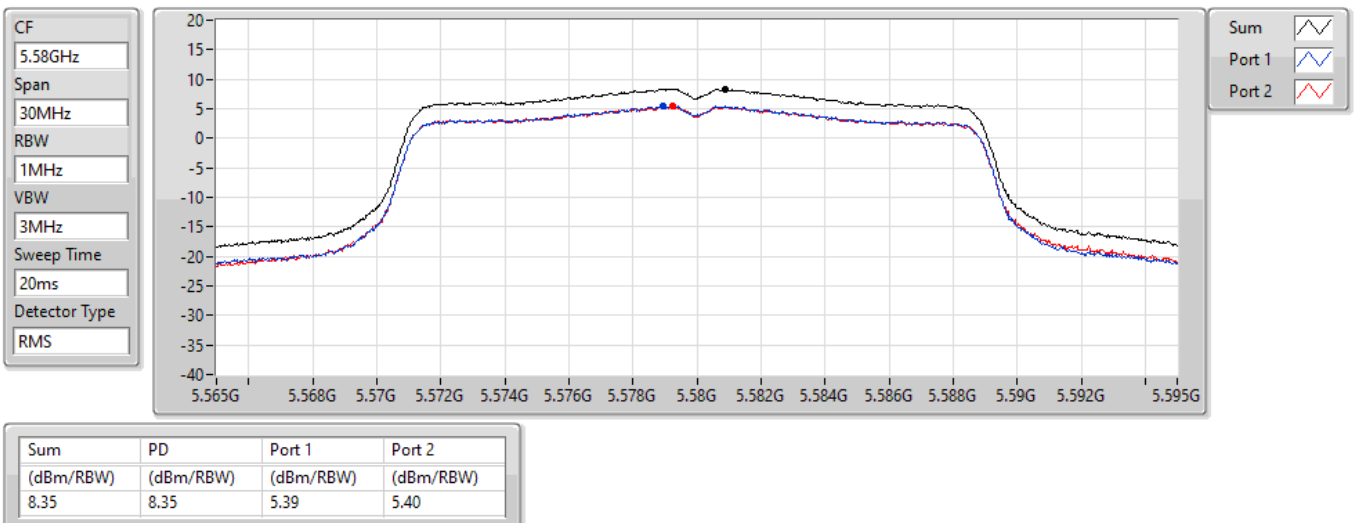


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5580MHz

06/10/2021

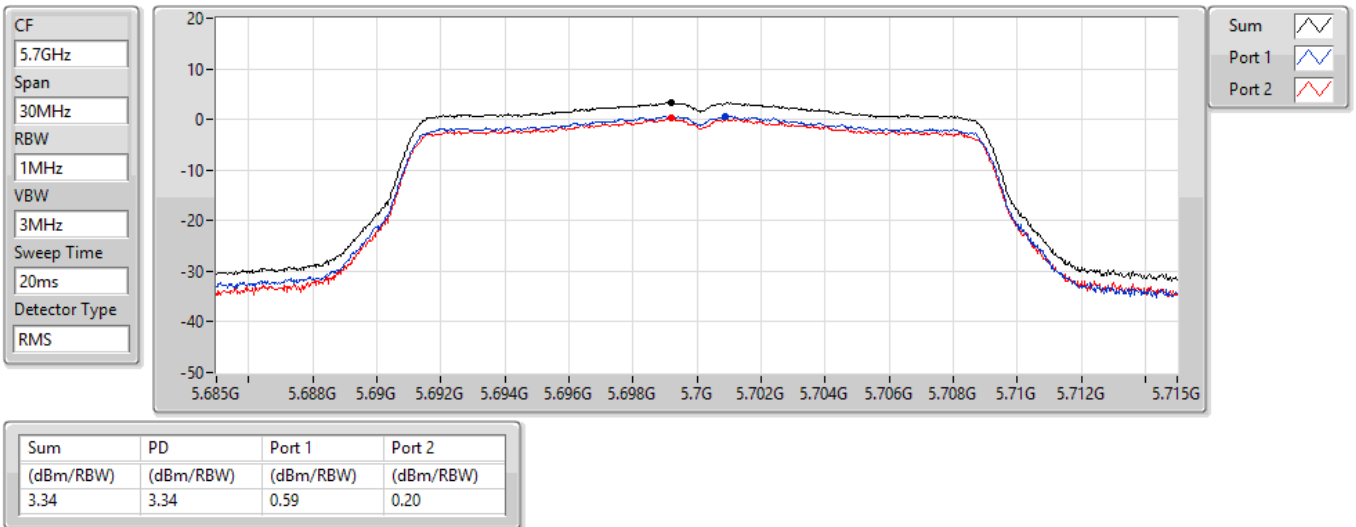


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5700MHz

11/09/2021

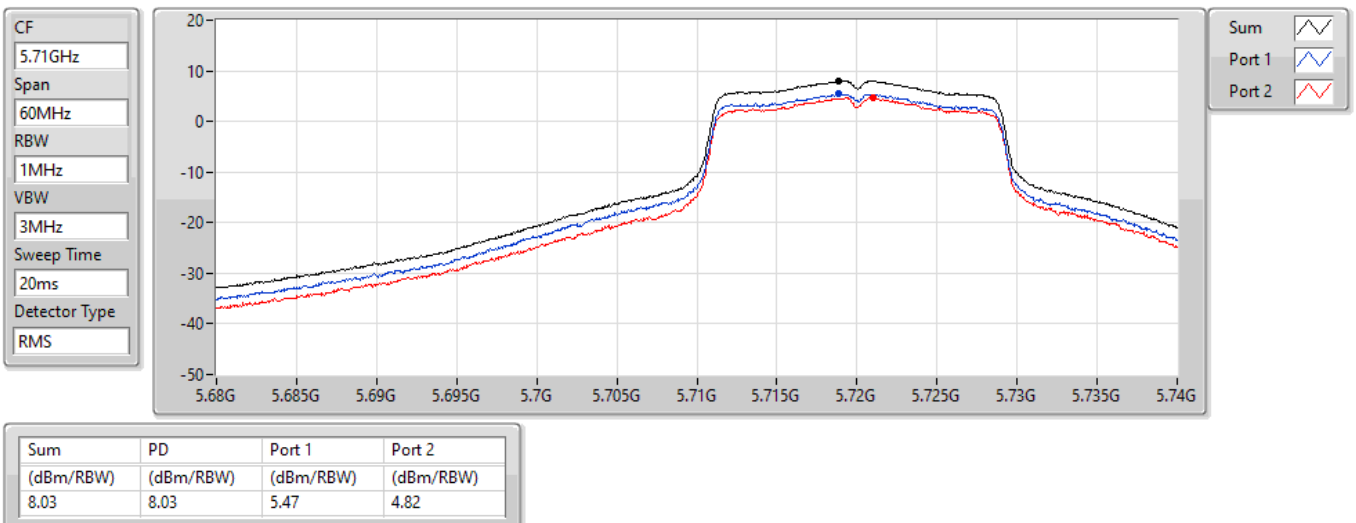


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

05/10/2021

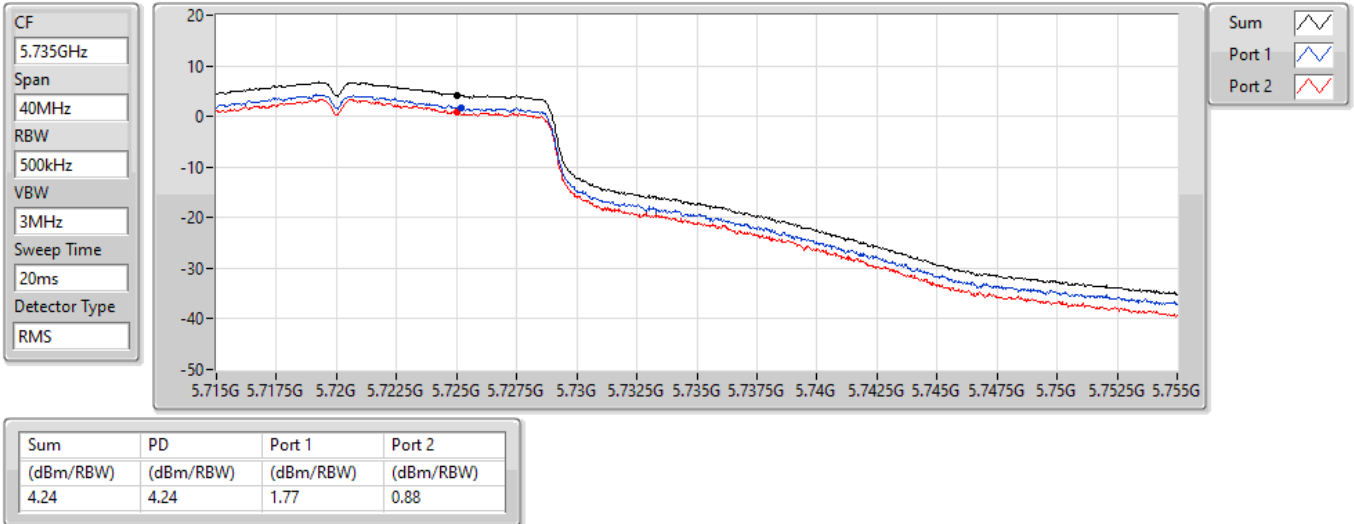


802.11ac VHT20_Nss1,(MCS0)_2TX

5720MHz Straddle 5.725-5.85GHz

PSD

05/10/2021

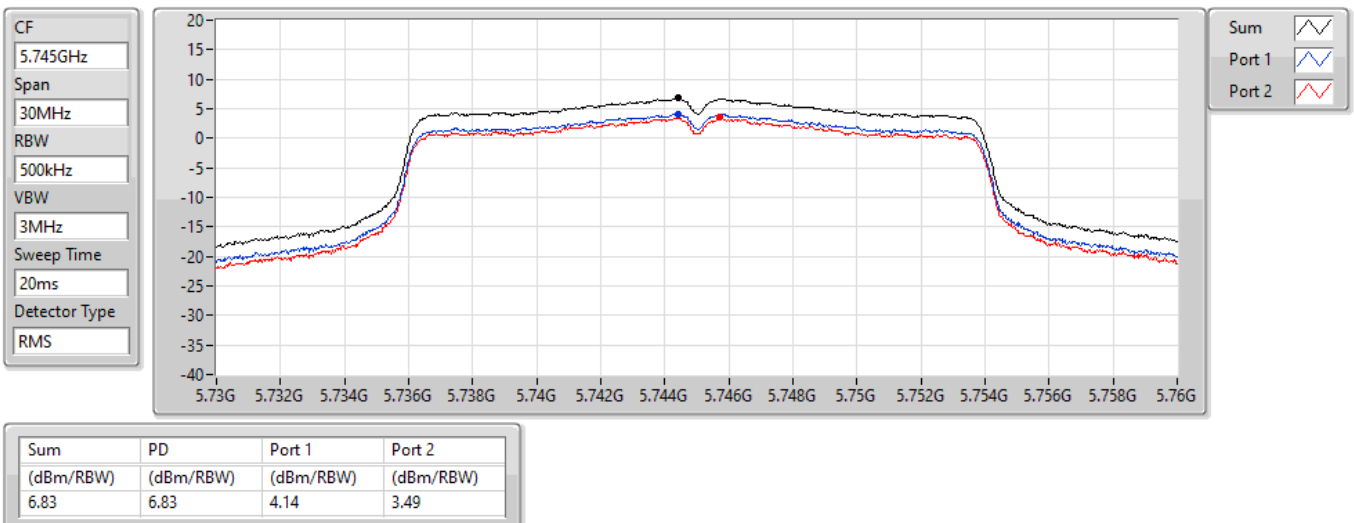


802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz

PSD

05/10/2021

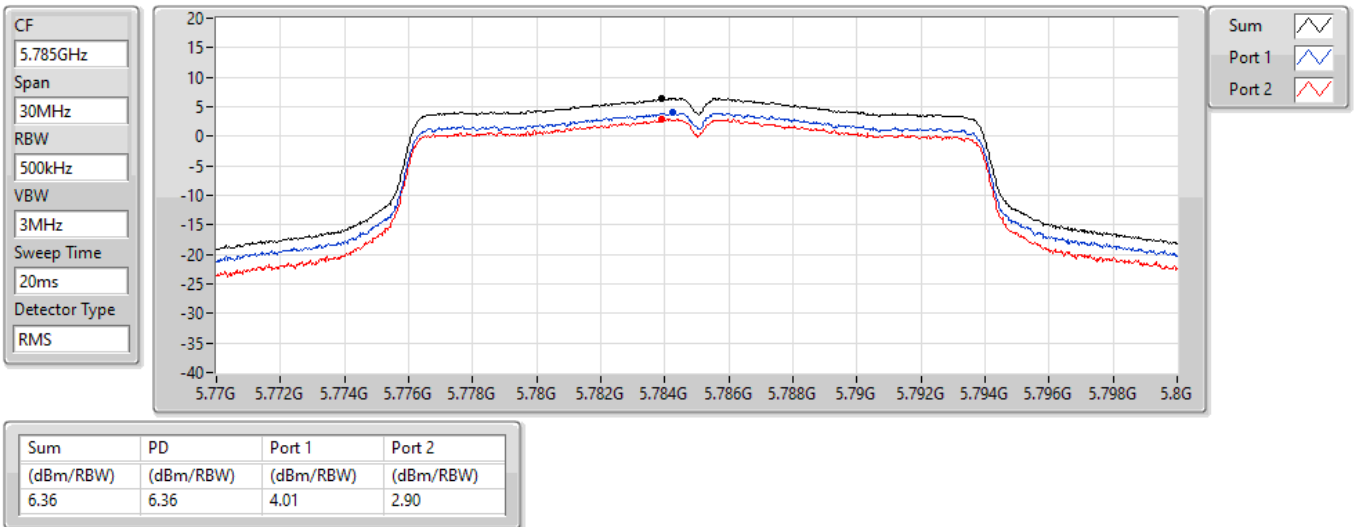


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5785MHz

05/10/2021

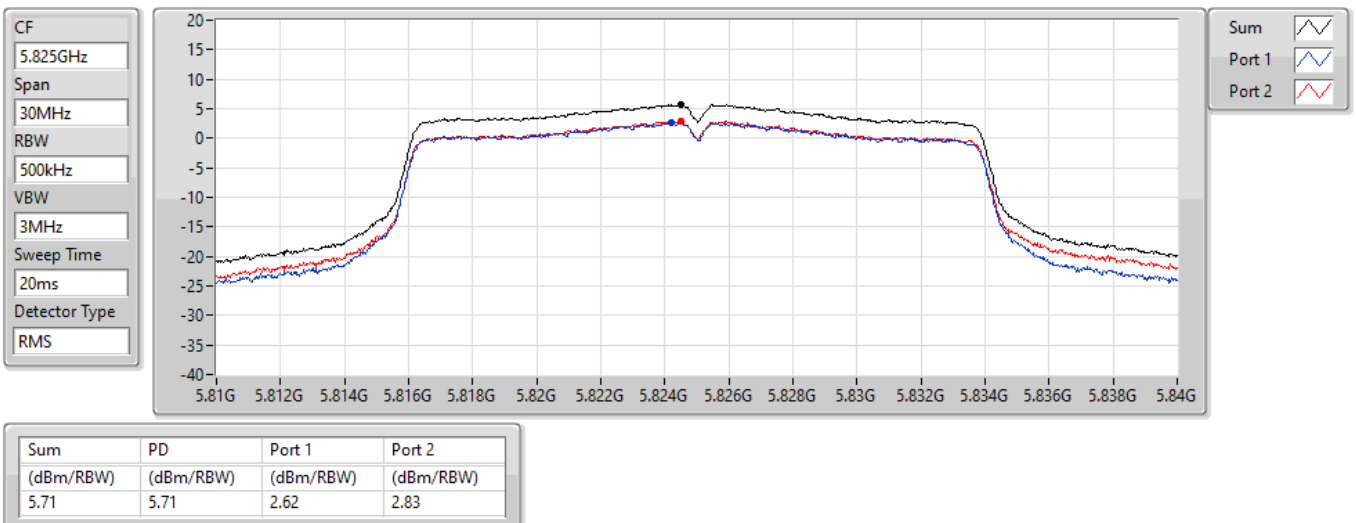


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5825MHz

05/10/2021

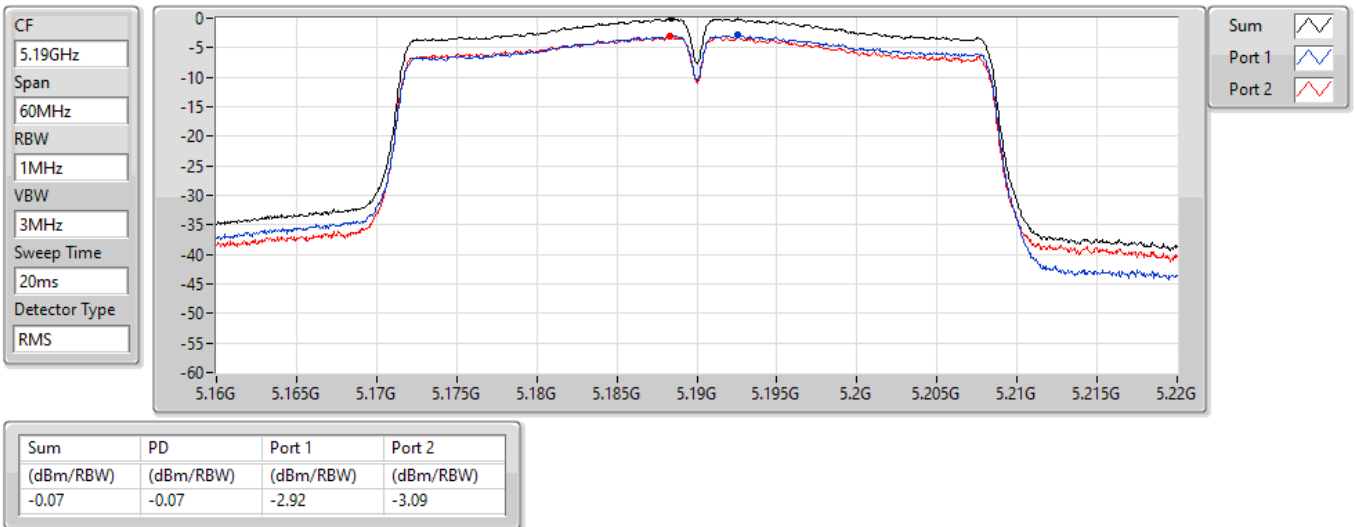


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5190MHz

05/10/2021

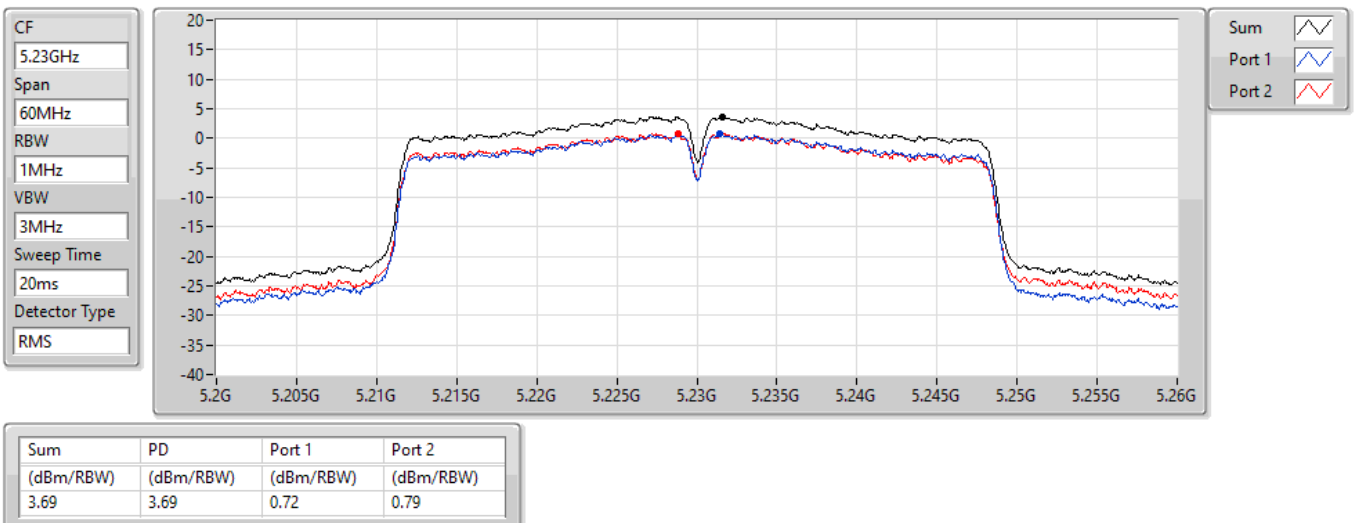


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5230MHz

05/10/2021

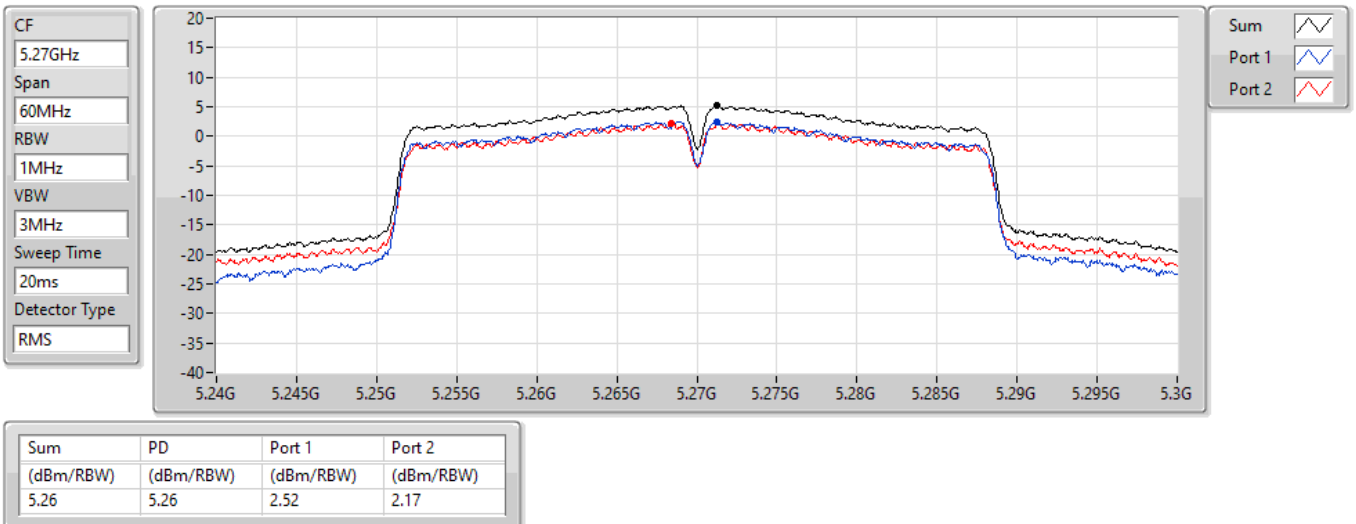


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5270MHz

05/10/2021

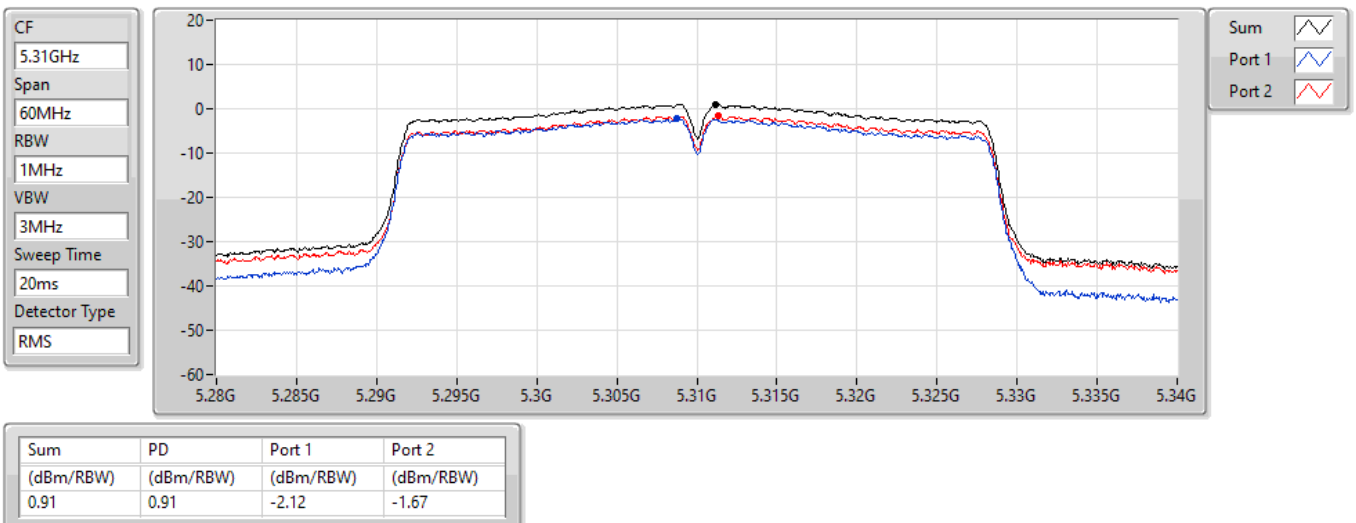


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5310MHz

24/11/2021

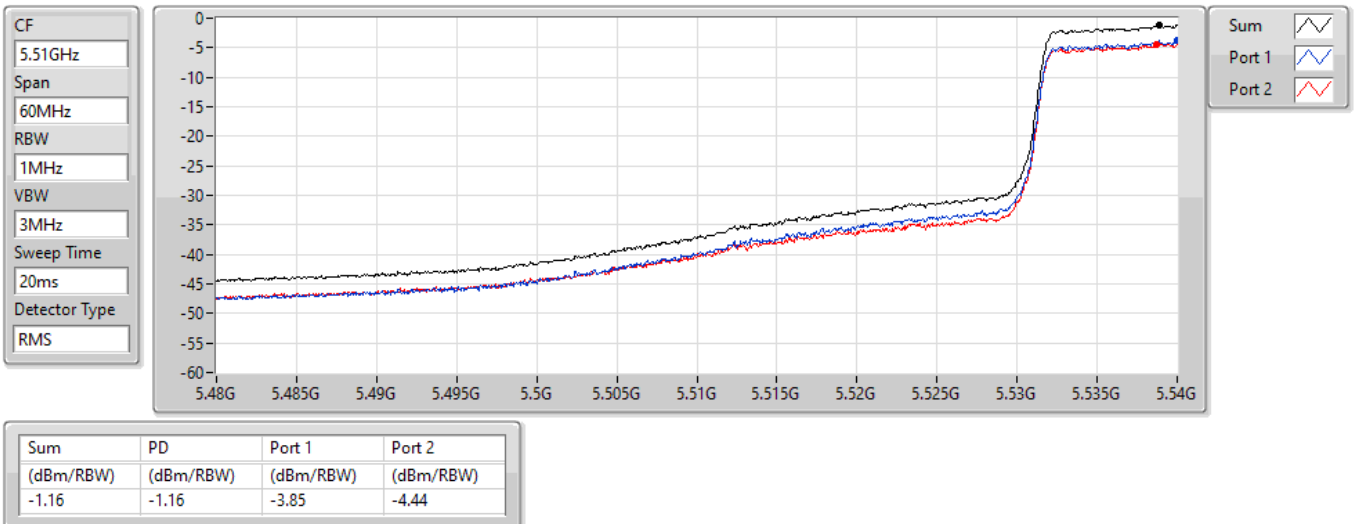


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5510MHz

05/10/2021

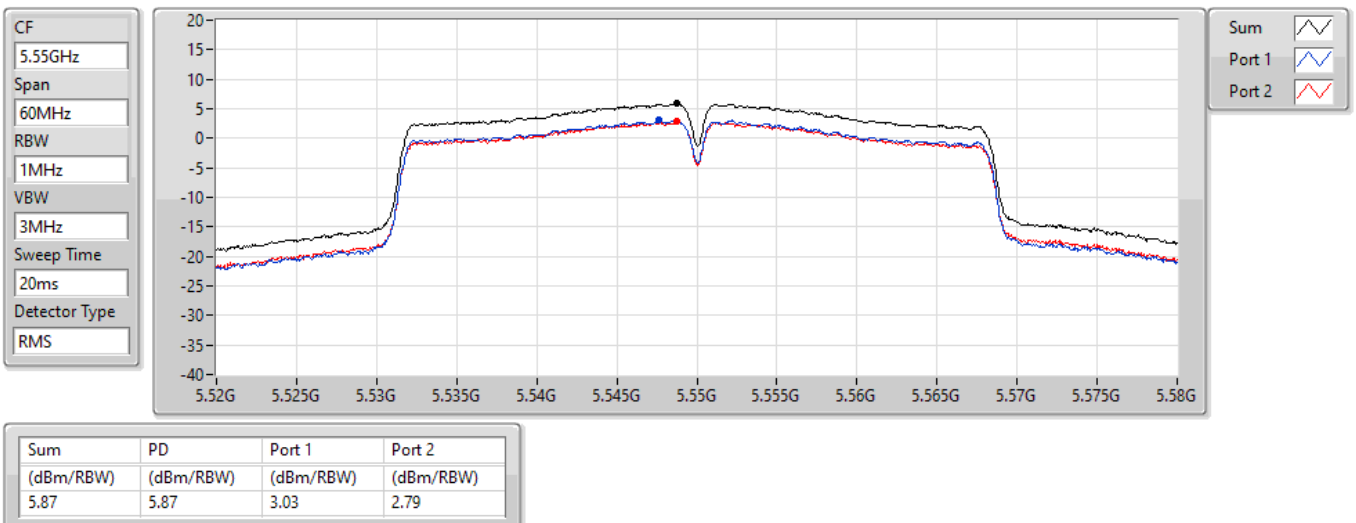


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5550MHz

05/10/2021

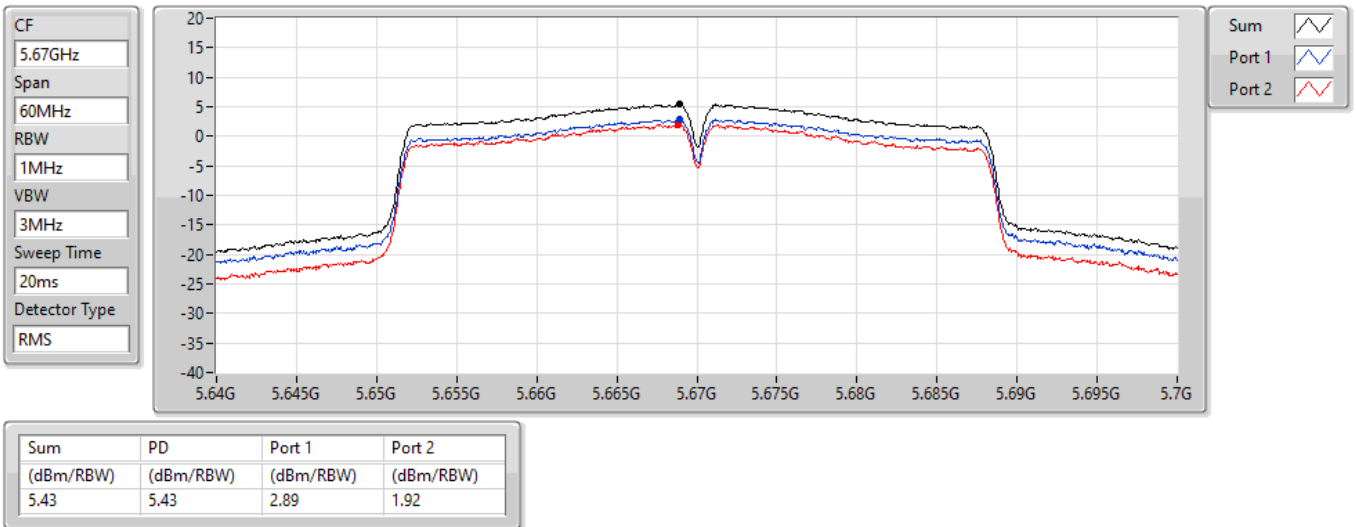


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5670MHz

05/10/2021

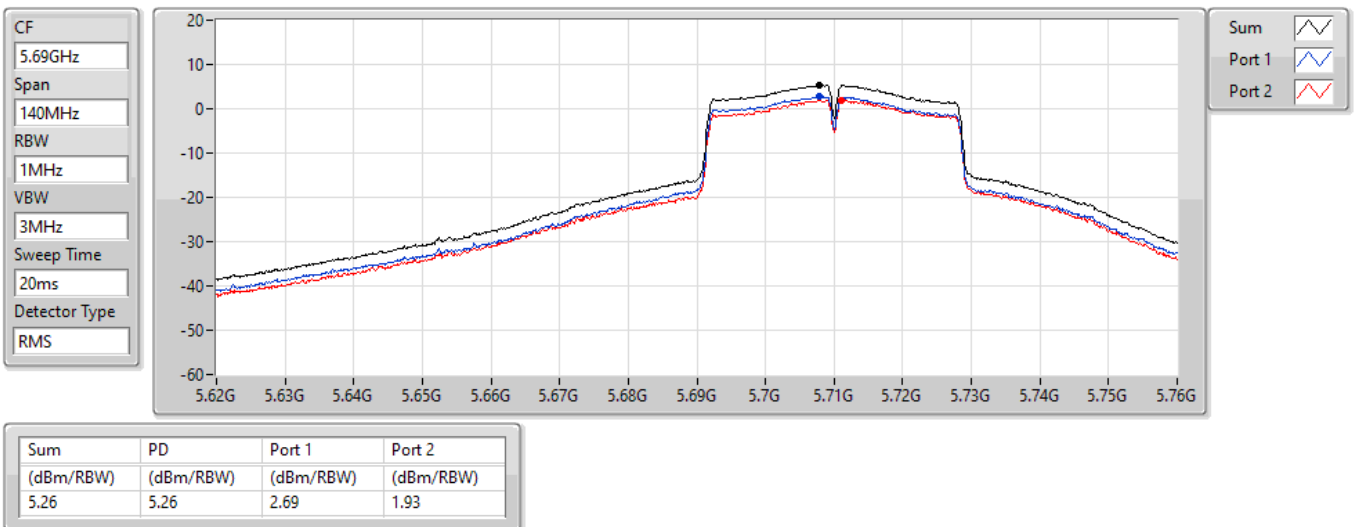


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.47-5.725GHz

05/10/2021

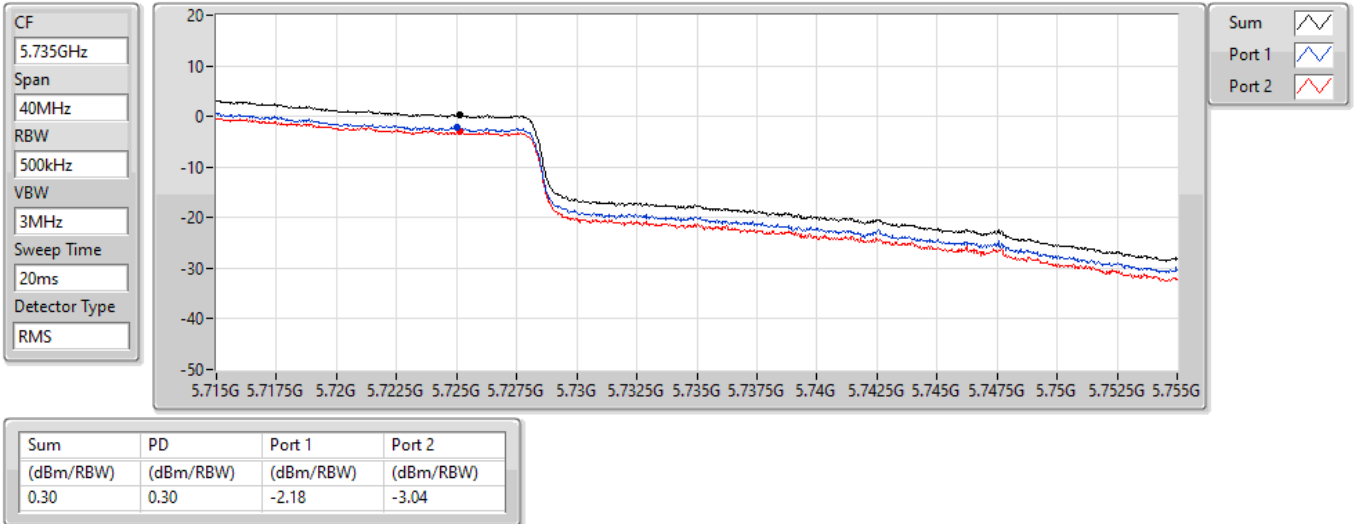


802.11ac VHT40_Nss1,(MCS0)_2TX

5710MHz Straddle 5.725-5.85GHz

PSD

05/10/2021

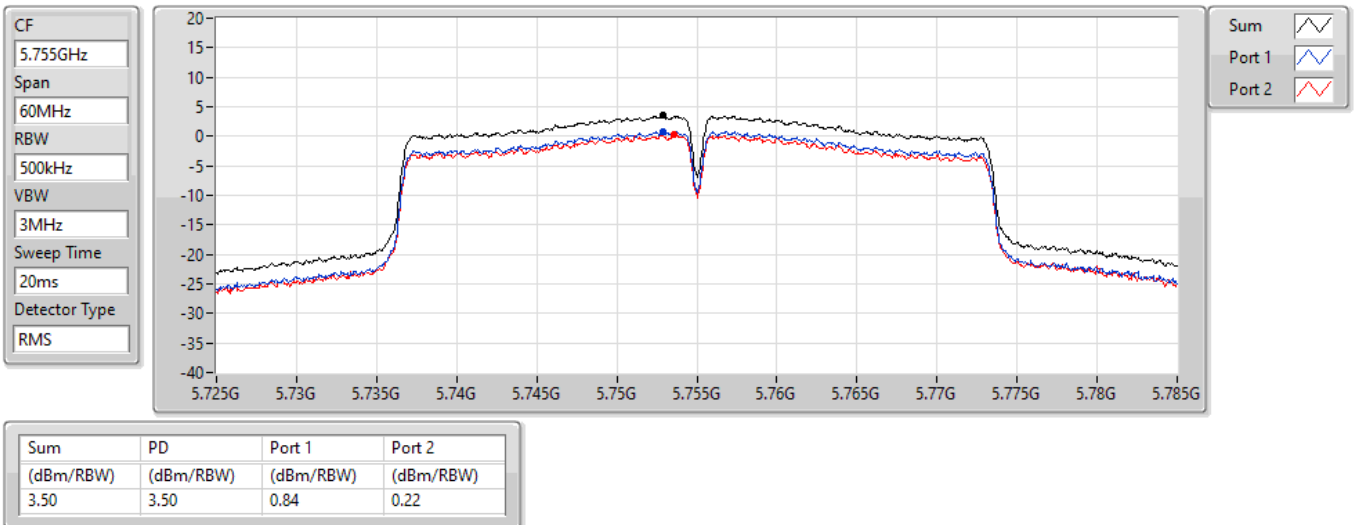


802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz

PSD

05/10/2021

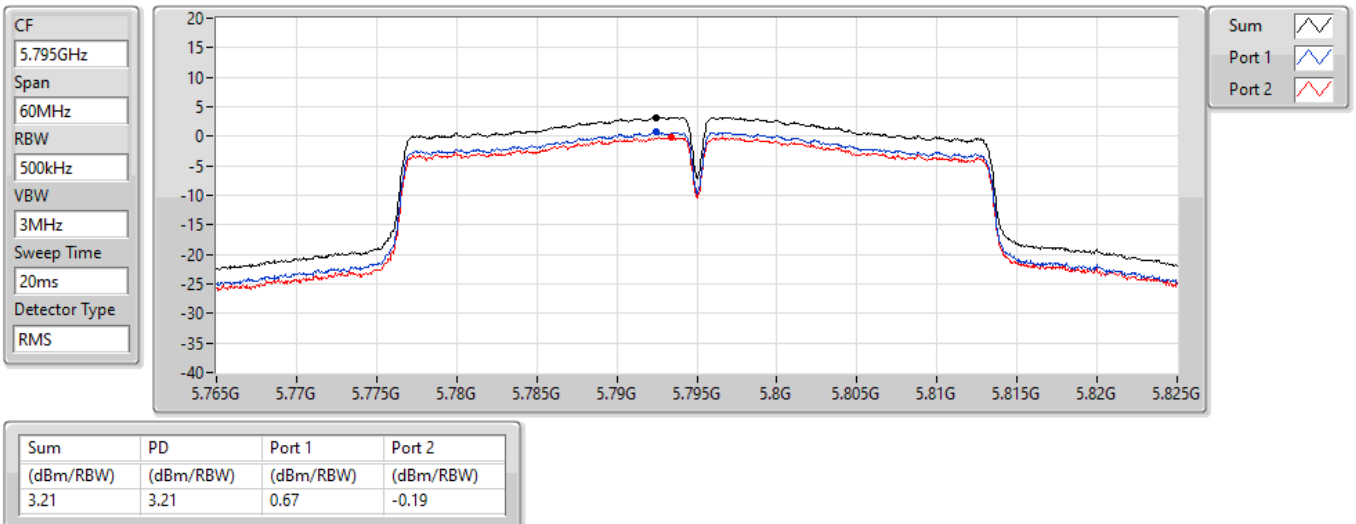


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5795MHz

05/10/2021

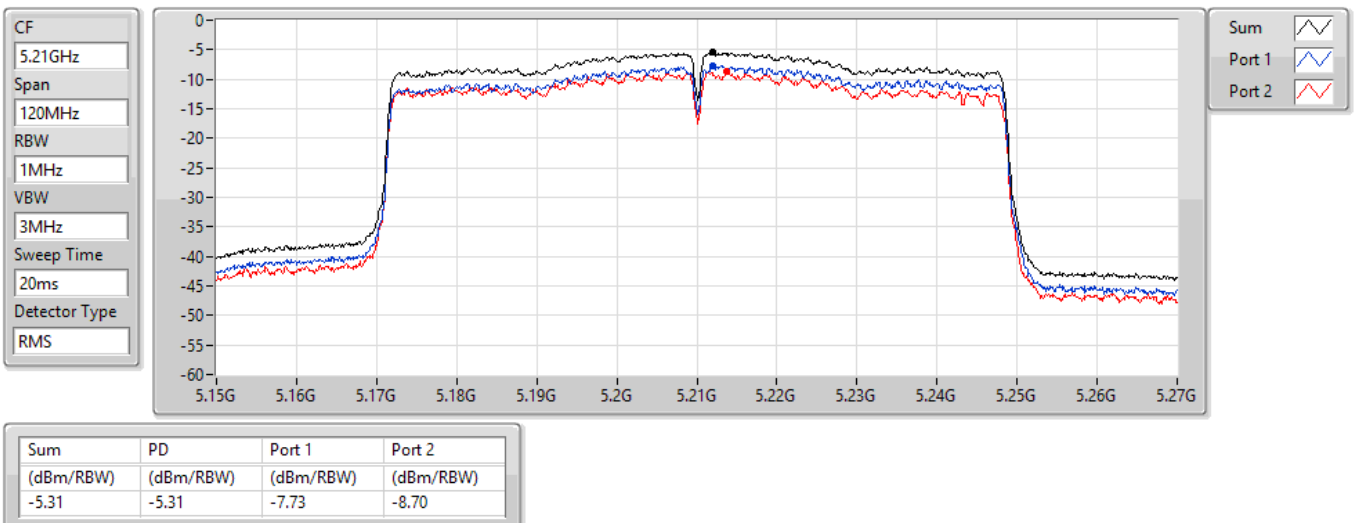


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5210MHz

11/09/2021

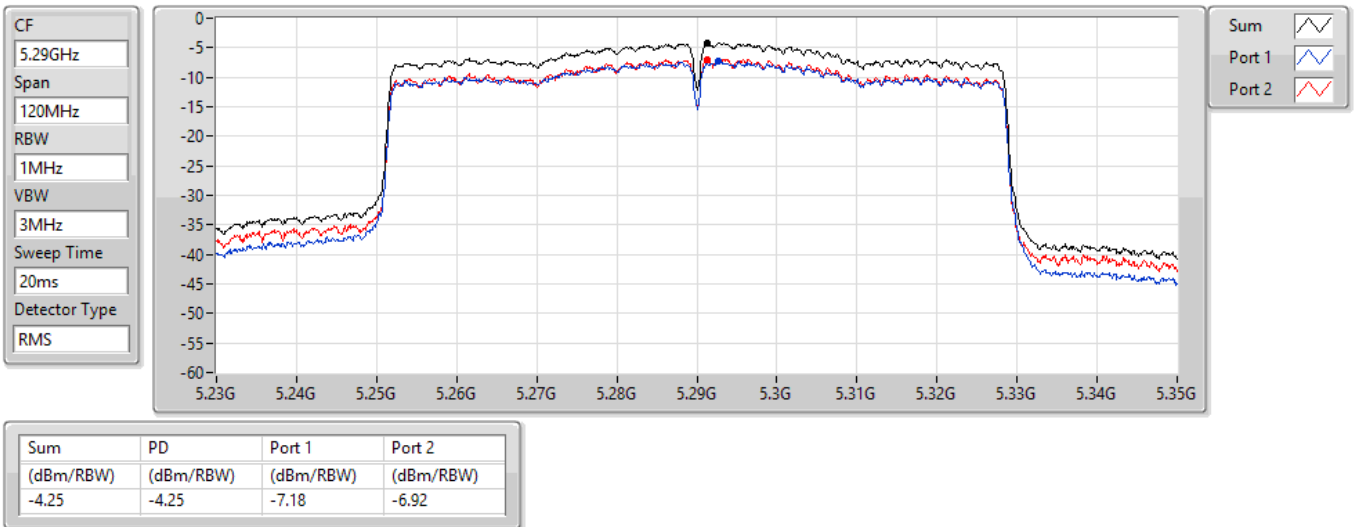


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5290MHz

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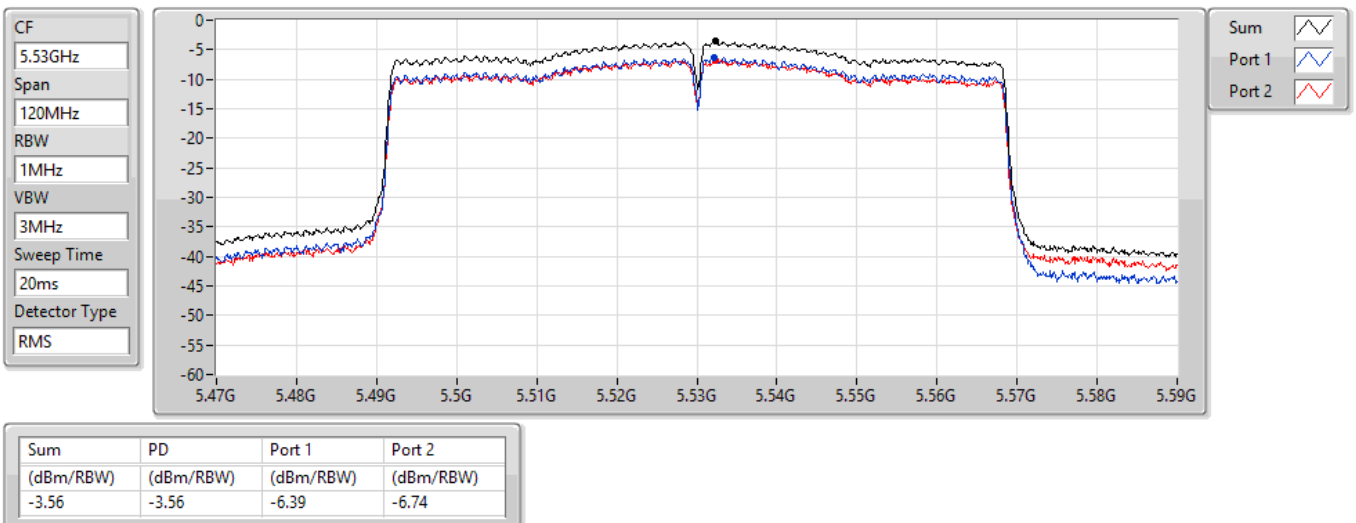


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5530MHz

11/09/2021

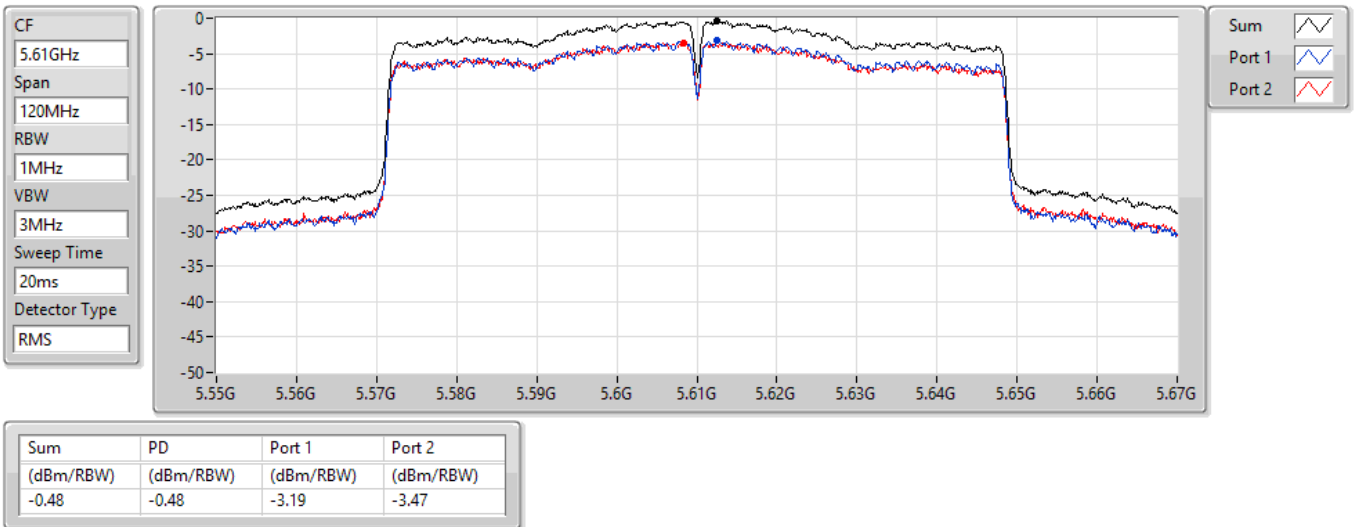


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5610MHz

11/09/2021

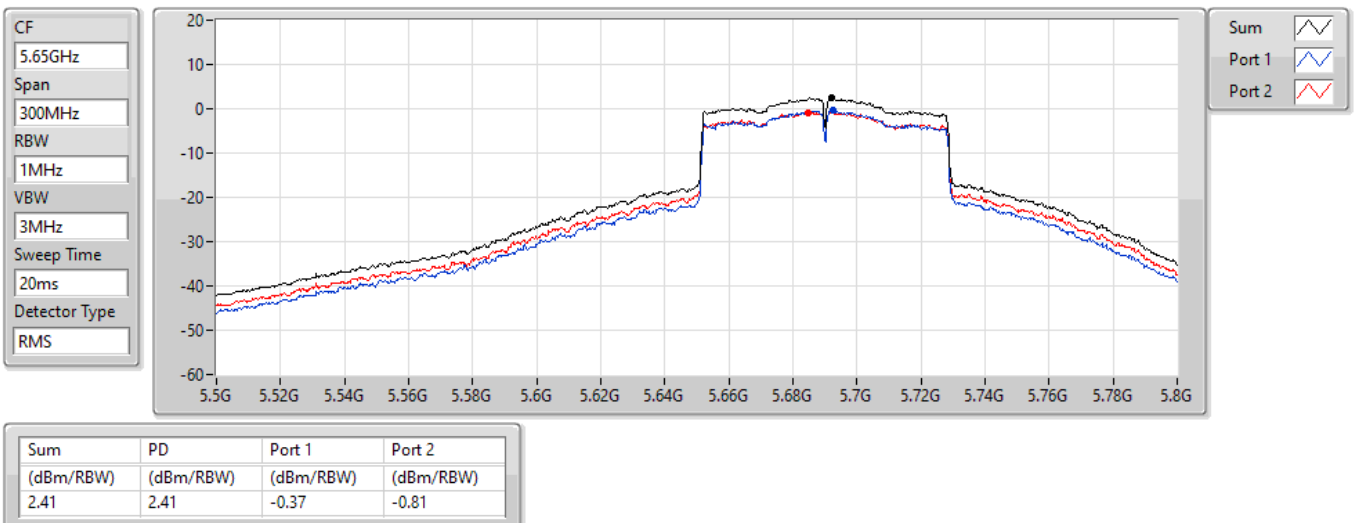


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.47-5.725GHz

05/10/2021

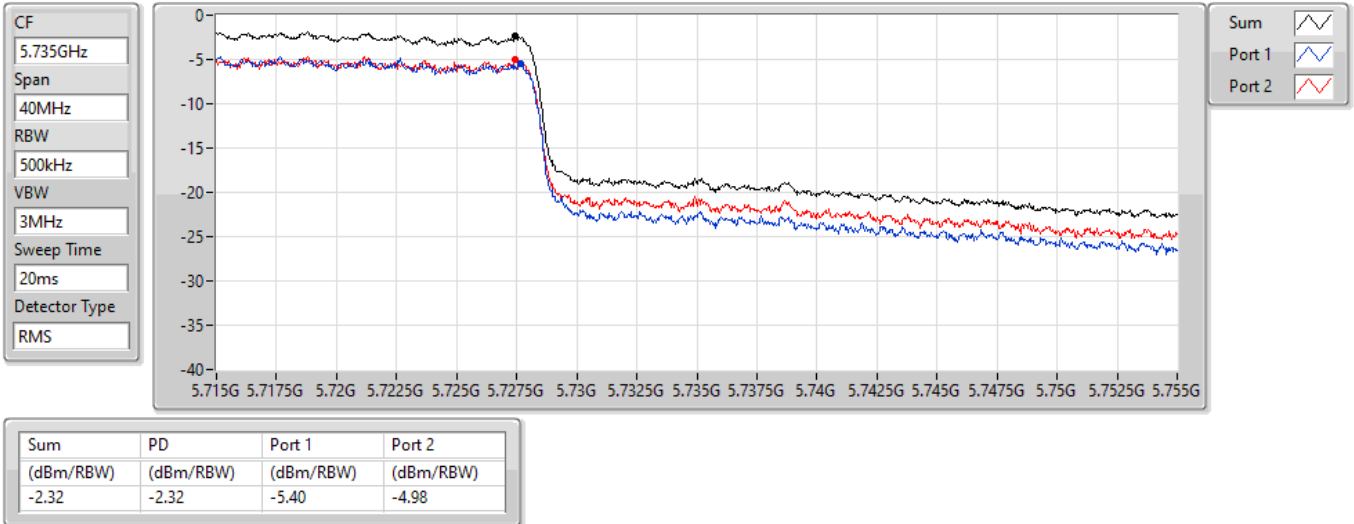


802.11ac VHT80_Nss1,(MCS0)_2TX

5690MHz Straddle 5.725-5.85GHz

PSD

05/10/2021

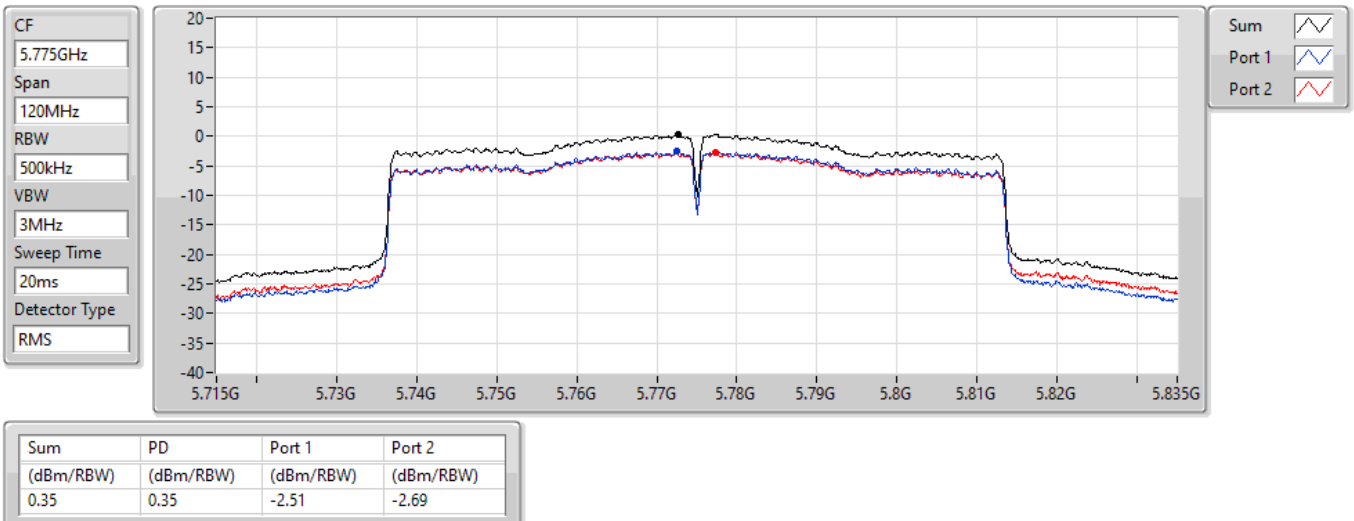


802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz

PSD

05/10/2021





Radiated Emissions below 1GHz

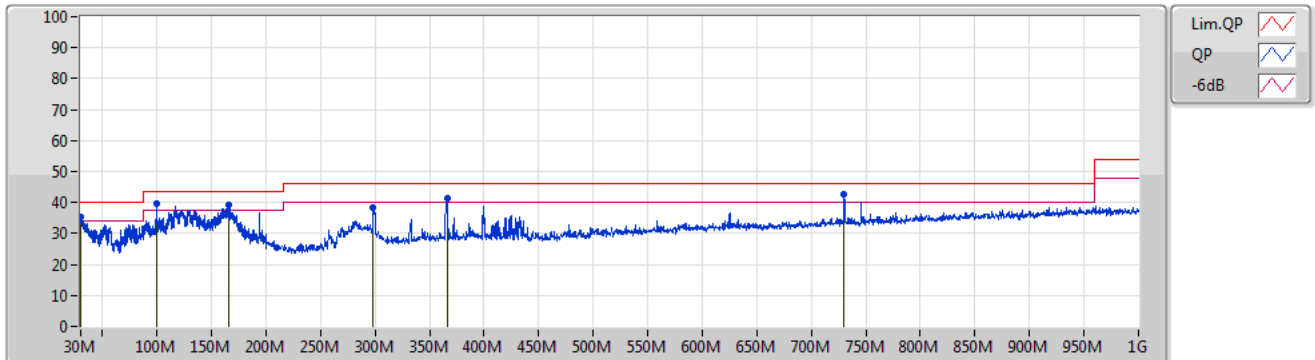
Appendix E.1

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 2	Pass	PK	730M	42.85	46.00	-3.15	Vertical

07/09/2021

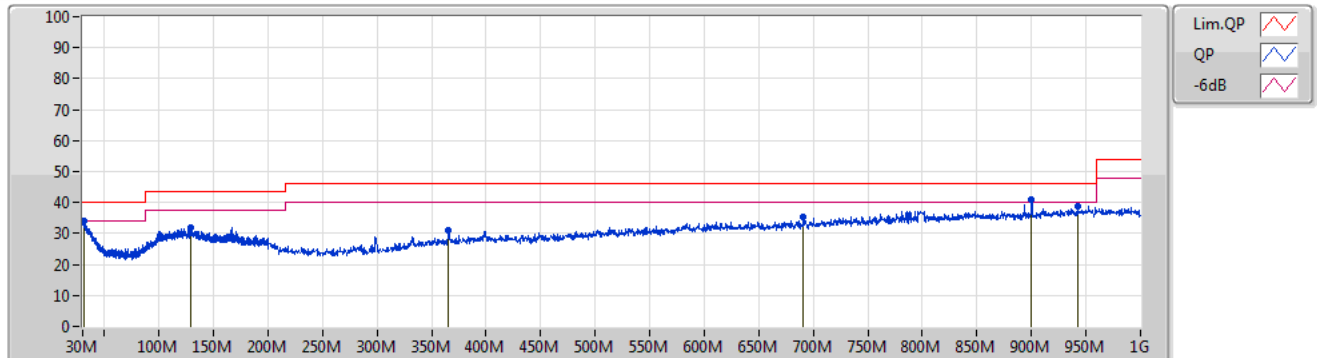
Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30.51M	35.21	40.00	-4.79	-3.21	3	Vertical	318	2.00	-	38.42	23.65	1.02	27.88
PK	99.53M	39.77	43.50	-3.73	-8.53	3	Vertical	346	1.00	-	48.30	16.89	2.39	27.81
PK	166M	39.18	43.50	-4.32	-8.41	3	Vertical	178	1.00	-	47.59	15.78	3.29	27.48
PK	298.4M	38.56	46.00	-7.44	-9.38	3	Vertical	0	2.00	-	47.94	13.20	3.79	26.37
PK	366.4M	41.47	46.00	-4.53	-7.49	3	Vertical	337	3.00	-	48.96	15.38	4.17	27.04
PK	730M	42.85	46.00	-3.15	-1.00	3	Vertical	270	1.00	"Worst"	43.85	20.70	5.92	27.62

07/09/2021

Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	31.02M	34.07	40.00	-5.93	-3.35	3	Horizontal	236	4.00	-	37.42	23.50	1.04	27.89
PK	129.45M	31.96	43.50	-11.54	-6.83	3	Horizontal	160	1.00	-	38.79	17.92	2.84	27.59
PK	365.2M	30.92	46.00	-15.08	-7.51	3	Horizontal	125	4.00	-	38.43	15.36	4.16	27.03
PK	690.8M	35.25	46.00	-10.75	-2.05	3	Horizontal	14	1.00	-	37.30	19.86	5.76	27.67
PK	900M	40.77	46.00	-5.23	1.60	3	Horizontal	241	1.00	"Worst"	39.17	21.64	6.60	26.64
PK	942.4M	38.80	46.00	-7.20	2.74	3	Horizontal	19	3.00	-	36.06	22.19	6.94	26.39

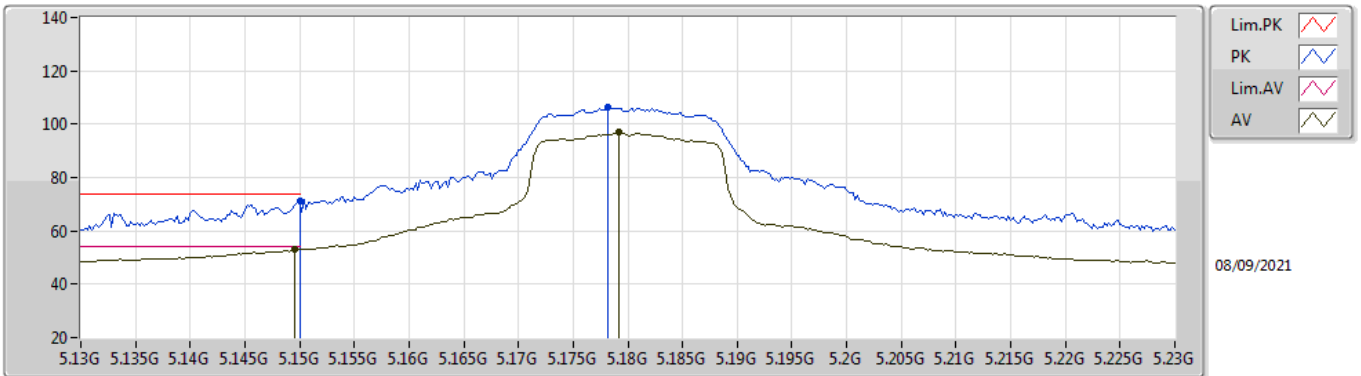


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.25-5.35GHz	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	Pass	AV	5.3502G	52.98	54.00	-1.02	3	Vertical	341	2.62	-

802.11a_Nss1,(6Mbps)_1TX

5180MHz_TnomVnom

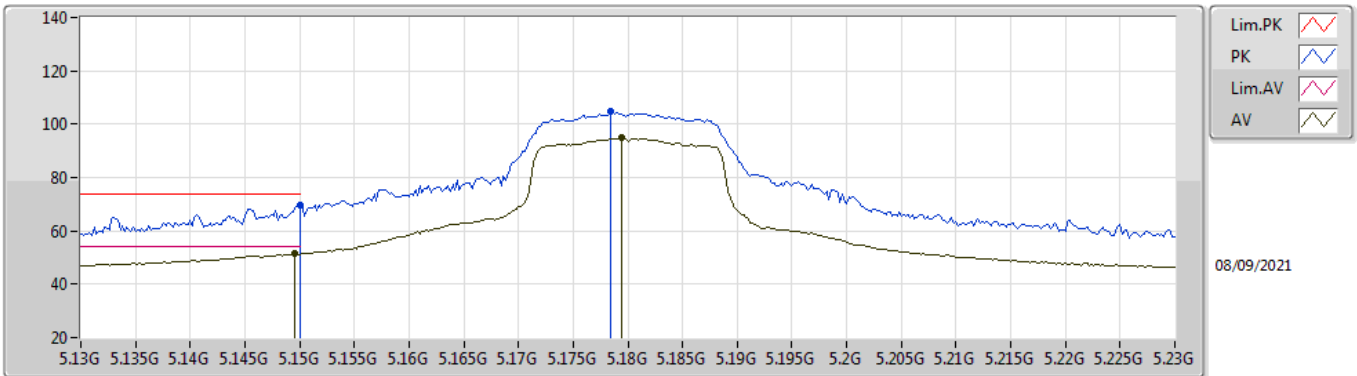


EUT V_1TX
Setting 60
02-B-S-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.15G	71.41	74.00	-2.59	65.06	3	Vertical	344	2.50	-	33.50	5.00	32.15
AV	5.1496G	52.93	54.00	-1.07	46.58	3	Vertical	344	2.50	-	33.50	5.00	32.15
PK	5.1782G	106.52	Inf	-Inf	100.11	3	Vertical	344	2.50	-	33.50	5.06	32.15
AV	5.1792G	96.87	Inf	-Inf	90.46	3	Vertical	344	2.50	-	33.50	5.06	32.15

802.11a_Nss1,(6Mbps)_1TX

5180MHz_TnomVnom

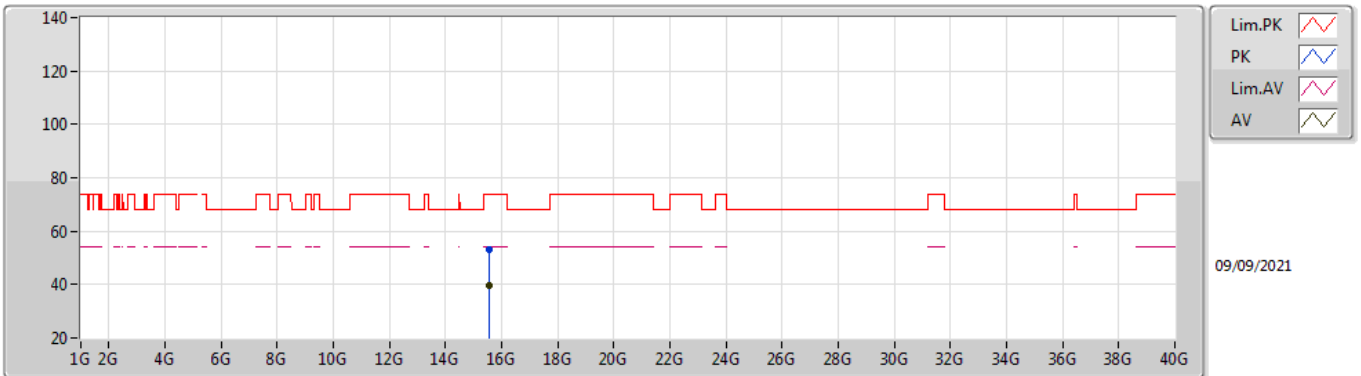


EUT V_1TX
Setting 60
02-B-S-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.15G	69.69	74.00	-4.31	63.34	3	Horizontal	307	2.39	-	33.50	5.00	32.15	
AV	5.1496G	51.46	54.00	-2.54	45.11	3	Horizontal	307	2.39	-	33.50	5.00	32.15	
PK	5.1784G	104.59	Inf	-Inf	98.18	3	Horizontal	307	2.39	-	33.50	5.06	32.15	
AV	5.1794G	94.97	Inf	-Inf	88.56	3	Horizontal	307	2.39	-	33.50	5.06	32.15	

802.11a_Nss1,(6Mbps)_1TX

5180MHz_TnomVnom

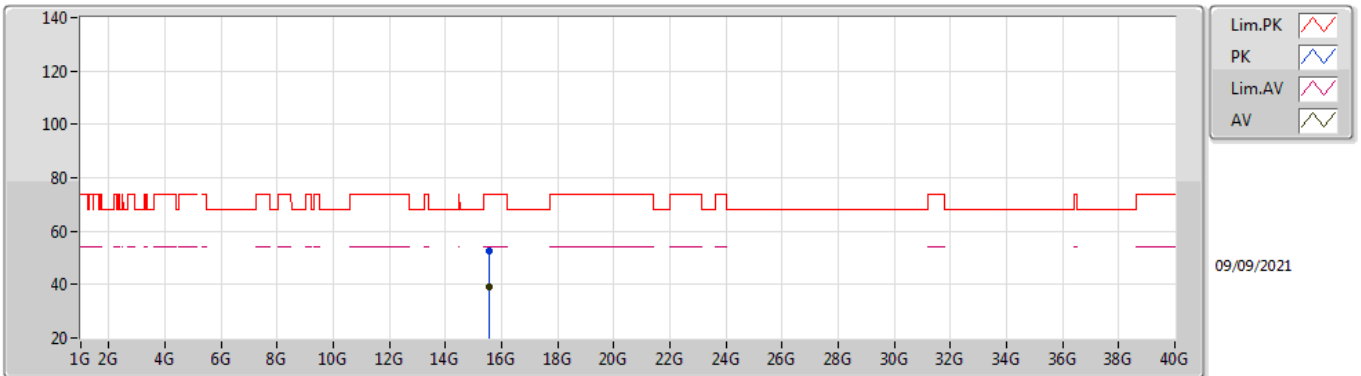


EUT V_1TX
Setting 60
02-B-S-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	15.54284G	53.01	74.00	-20.99	39.40	3	Vertical	255	2.31	-	37.77	9.04	33.20
AV	15.53694G	39.47	54.00	-14.53	25.83	3	Vertical	255	2.31	-	37.79	9.04	33.19

802.11a_Nss1,(6Mbps)_1TX

5180MHz_TnomVnom

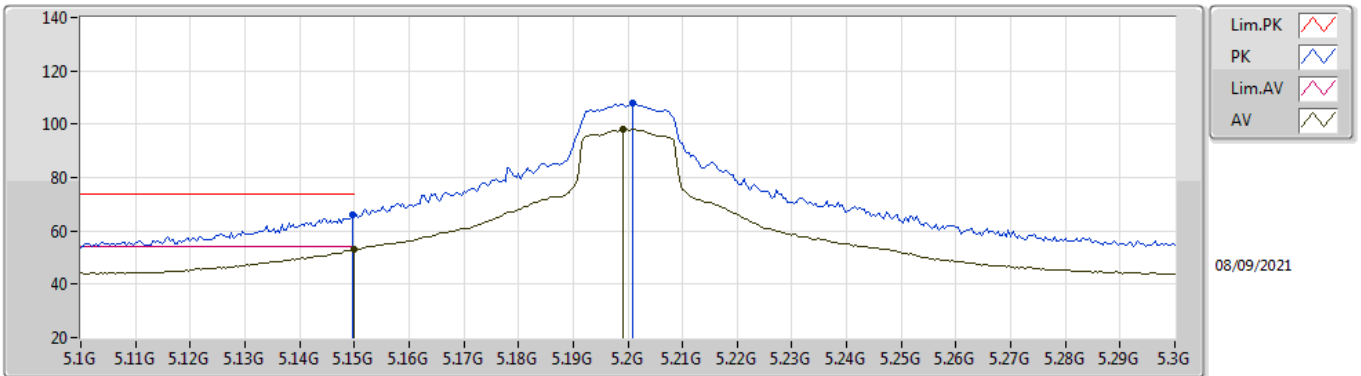


EUT V_1TX
Setting 60
02-B-S-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	15.53548G	52.74	74.00	-21.26	39.10	3	Horizontal	176	2.84	-	37.79	9.04	33.19
AV	15.53916G	39.26	54.00	-14.74	25.64	3	Horizontal	176	2.84	-	37.78	9.04	33.20

802.11a_Nss1,(6Mbps)_1TX

5200MHz_TnomVnom



EUT V_1TX
Setting 63
02-B-S-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1496G	66.17	74.00	-7.83	59.82	3	Vertical	342	2.25	-	33.50	5.00	32.15
AV	5.15G	52.92	54.00	-1.08	46.57	3	Vertical	342	2.25	-	33.50	5.00	32.15
PK	5.2008G	107.71	Inf	-Inf	101.26	3	Vertical	342	2.25	-	33.50	5.10	32.15
AV	5.1992G	98.26	Inf	-Inf	91.81	3	Vertical	342	2.25	-	33.50	5.10	32.15