

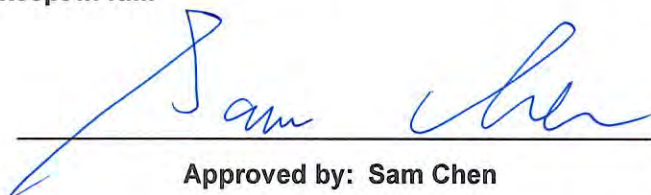


RADIO TEST REPORT

FCC ID : LDK-RUSS9105AXI
Equipment : Catalyst 9105AX 802.11ax Access Point
Brand Name : Cisco
Model Name : C9105AXI-B, C9105AXI-C, C9105AXI-D, C9105AXI-F,
C9105AXI-N, C9105AXI-S, C9105AXI-K, C9105AXI-x
(Refer to section 1.1.5 for more details)
Applicant : Cisco Systems, Inc.
125 West Tasman Drive, San Jose, California, United States,
95134-1706
Manufacturer : Cisco Systems, Inc.
125 West Tasman Drive, San Jose, California, United States,
95134-1706
Standard : 47 CFR FCC Part 15.407

The product was received on Apr. 20, 2020, and testing was started from Apr. 28, 2020 and completed on Jul. 08, 2022. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this 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

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A12_1 Ver1.4

Page Number : 3 of 43
Issued Date : Jul. 19, 2022
Report Version : 01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	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	-
Note: Reference to Sporton Project No.: FR992016-02				

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:

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen**Report Producer: Vicky Huang**

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a20, n (HT20), ac (VHT20), ax (HEW20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5150-5250	a40, n (HT40), ac (VHT40), ax (HEW40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5150-5250	a80, n (HT80), ac (VHT80), ax (HEW80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a20	20	1TX, 2TX
5.15-5.25GHz	802.11a20-BF	20	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	802.11ax HEW20	20	1TX, 2TX
5.15-5.25GHz	802.11ax HEW20-BF	20	2TX
5.15-5.25GHz	802.11a40	40	1TX, 2TX
5.15-5.25GHz	802.11a40-BF	40	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	802.11ax HEW40	40	1TX, 2TX
5.15-5.25GHz	802.11ax HEW40-BF	40	2TX
5.15-5.25GHz	802.11a80	80	1TX, 2TX
5.15-5.25GHz	802.11a80-BF	80	2TX
5.15-5.25GHz	802.11n HT80	80	1TX, 2TX
5.15-5.25GHz	802.11n HT80-BF	80	2TX
5.15-5.25GHz	802.11ac VHT80	80	1TX, 2TX
5.15-5.25GHz	802.11ac VHT80-BF	80	2TX



Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ax HEW80	80	1TX, 2TX
5.15-5.25GHz	802.11ax HEW80-BF	80	2TX
5.25-5.35GHz	802.11a20	20	1TX, 2TX
5.25-5.35GHz	802.11a20-BF	20	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	20	1TX, 2TX
5.25-5.35GHz	802.11ac VHT20-BF	20	2TX
5.25-5.35GHz	802.11ax HEW20	20	1TX, 2TX
5.25-5.35GHz	802.11ax HEW20-BF	20	2TX
5.25-5.35GHz	802.11a40	40	1TX, 2TX
5.25-5.35GHz	802.11a40-BF	40	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	802.11ax HEW40	40	1TX, 2TX
5.25-5.35GHz	802.11ax HEW40-BF	40	2TX
5.25-5.35GHz	802.11a80	80	1TX, 2TX
5.25-5.35GHz	802.11a80-BF	80	2TX
5.25-5.35GHz	802.11n HT80	80	1TX, 2TX
5.25-5.35GHz	802.11n HT80-BF	80	2TX
5.25-5.35GHz	802.11ac VHT80	80	1TX, 2TX
5.25-5.35GHz	802.11ac VHT80-BF	80	2TX
5.25-5.35GHz	802.11ax HEW80	80	1TX, 2TX
5.25-5.35GHz	802.11ax HEW80-BF	80	2TX
5.47-5.725GHz	802.11a20	20	1TX, 2TX
5.47-5.725GHz	802.11a20-BF	20	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	802.11ax HEW20	20	1TX, 2TX
5.47-5.725GHz	802.11ax HEW20-BF	20	2TX
5.47-5.725GHz	802.11a40	40	1TX, 2TX
5.47-5.725GHz	802.11a40-BF	40	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



Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11ax HEW40	40	1TX, 2TX
5.47-5.725GHz	802.11ax HEW40-BF	40	2TX
5.47-5.725GHz	802.11a80	80	1TX, 2TX
5.47-5.725GHz	802.11a80-BF	80	2TX
5.47-5.725GHz	802.11n HT80	80	1TX, 2TX
5.47-5.725GHz	802.11n HT80-BF	80	2TX
5.47-5.725GHz	802.11ac VHT80	80	1TX, 2TX
5.47-5.725GHz	802.11ac VHT80-BF	80	2TX
5.47-5.725GHz	802.11ax HEW80	80	1TX, 2TX
5.47-5.725GHz	802.11ax HEW80-BF	80	2TX

Note:

- ♦ 11a, HT20, HT40 and HT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ HEW20, HEW40, HEW80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	PEGATRON	WIFI_1 ANT	IFA (Inverted-F antenna)	I-PEX	Note 1
2	2	PEGATRON	WIFI_2 ANT	IFA (Inverted-F antenna)	I-PEX	
3	1	PEGATRON	BLE ANT	IFA (Inverted-F antenna)	I-PEX	

Note 1:

Ant.	Port	Gain (dBi)										
		WLAN 2.4GHz			WLAN 5GHz					Bluetooth		
		2400 MHz	2450 MHz	2500 MHz	5150 MHz	5300 MHz	5500 MHz	5700 MHz	5850 MHz	2400 MHz	2450 MHz	2500 MHz
1	1	3.03	3.43	3.02	4.28	4.48	4.63	4.89	4.52	-	-	-
2	2	2.92	3.41	3.11	4.68	4.52	4.49	4.66	4.72	-	-	-
3	1	-	-	-	-	-	-	-	-	2.08	2.30	2.18

Note 2: The above information was declared by manufacturer.

Note 3: 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 ≤ 4	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{SS}} g_{j,k} \right]^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{SS}} g_{j,k} \right]^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{SS}} g_{j,k} \right]^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

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

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

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

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

Where ;

$$G1 = 10 ; G2 = 10 ; G3 = 10 ; G4 = 10 ;$$

**2.4G**

2412MHz G1 = 3.03dBi ; G2 = 2.92 dBi ;2T1S DG=5.99 dBi 2T2S DG=2.98 dBi

2437MHz G1 = 3.43dBi ; G2 = 3.41 dBi ; 2T1S DG=6.43 dBi 2T2S DG=3.42 dBi

2462MHz G1 = 3.43dBi ; G2 = 3.41 dBi ; 2T1S DG=6.43 dBi 2T2S DG=3.42 dBi

5G

5180MHz G1 = 4.28dBi ; G2 = 4.68 dBi ;2T1S DG=7.49 dBi 2T2S DG=4.48 dBi

5200MHz G1 = 4.28dBi ; G2 = 4.68 dBi ;2T1S DG=7.49 dBi 2T2S DG=4.48 dBi

5240MHz G1 = 4.48dBi ; G2 = 4.52 dBi ;2T1S DG=7.51 dBi 2T2S DG=4.5 dBi

5260MHz G1 = 4.48dBi ; G2 = 4.52 dBi ;2T1S DG=7.51 dBi 2T2S DG=4.5 dBi

5300MHz G1 = 4.48dBi ; G2 = 4.52 dBi ;2T1S DG=7.51 dBi 2T2S DG=4.5 dBi

5320MHz G1 = 4.48dBi ; G2 = 4.52 dBi ;2T1S DG=7.51 dBi 2T2S DG=4.5 dBi

5500MHz G1 = 4.63dBi ; G2 = 4.49 dBi ;2T1S DG=7.57 dBi 2T2S DG=4.56 dBi

5580MHz G1 = 4.63dBi ; G2 = 4.49 dBi ;2T1S DG=7.57 dBi 2T2S DG=4.56 dBi

5700MHz G1 = 4.89dBi ; G2 = 4.66 dBi ;2T1S DG=7.79 dBi 2T2S DG=4.78 dBi

5720MHz G1 = 4.89dBi ; G2 = 4.66 dBi ;2T1S DG=7.79 dBi 2T2S DG=4.78 dBi

5745MHz G1 = 4.89dBi ; G2 = 4.66 dBi ;2T1S DG=7.79 dBi 2T2S DG=4.78 dBi

5785MHz G1 = 4.52dBi ; G2 = 4.72 dBi ;2T1S DG=7.63 dBi 2T2S DG=4.62 dBi

5825MHz G1 = 4.52dBi ; G2 = 4.72 dBi ;2T1S DG=7.63 dBi 2T2S DG=4.62 dBi

5190MHz G1 = 4.28dBi ; G2 = 4.68 dBi ;2T1S DG=7.49 dBi 2T2S DG=4.48 dBi

5230MHz G1 = 4.48dBi ; G2 = 4.52 dBi ;2T1S DG=7.51 dBi 2T2S DG=4.5 dBi

5270MHz G1 = 4.48dBi ; G2 = 4.52 dBi ;2T1S DG=7.51 dBi 2T2S DG=4.5 dBi

5310MHz G1 = 4.48dBi ; G2 = 4.52 dBi ;2T1S DG=7.51 dBi 2T2S DG=4.5 dBi

5510MHz G1 = 4.63dBi ; G2 = 4.49 dBi ;2T1S DG=7.57 dBi 2T2S DG=4.56 dBi

5550MHz G1 = 4.63dBi ; G2 = 4.49 dBi ;2T1S DG=7.57 dBi 2T2S DG=4.56 dBi

5670MHz G1 = 4.89dBi ; G2 = 4.66 dBi ;2T1S DG=7.79 dBi 2T2S DG=4.78 dBi

5710MHz G1 = 4.89dBi ; G2 = 4.66 dBi ;2T1S DG=7.79 dBi 2T2S DG=4.78 dBi

5755MHz G1 = 4.89dBi ; G2 = 4.66 dBi ;2T1S DG=7.79 dBi 2T2S DG=4.78 dBi

5795MHz G1 = 4.52dBi ; G2 = 4.72 dBi ;2T1S DG=7.63 dBi 2T2S DG=4.62 dBi

5210MHz G1 = 4.28dBi ; G2 = 4.68 dBi ;2T1S DG=7.49 dBi 2T2S DG=4.48 dBi

5290MHz G1 = 4.48dBi ; G2 = 4.52 dBi ;2T1S DG=7.51 dBi 2T2S DG=4.5 dBi

5530MHz G1 = 4.63dBi ; G2 = 4.49 dBi ;2T1S DG=7.57 dBi 2T2S DG=4.56 dBi

5610MHz G1 = 4.89dBi ; G2 = 4.66 dBi ;2T1S DG=7.79 dBi 2T2S DG=4.78 dBi

5690MHz G1 = 4.89dBi ; G2 = 4.66 dBi ;2T1S DG=7.79 dBi 2T2S DG=4.78 dBi

5775MHz G1 = 4.89dBi ; G2 = 4.66 dBi ;2T1S DG=7.79 dBi 2T2S DG=4.78 dBi

Note 4:**For 2.4GHz function:****For IEEE 802.11 b/g/n/ax (1TX/1RX):**

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

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz function:**For IEEE 802.11a/n/ac/ax (1TX/1RX):**

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

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For Bluetooth function:

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

1.1.3 Mode Test Duty Cycle

<2T1S>

Non-beamforming mode

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
11a20_Nss1,(6Mbps)_2TX	0.99	0.04	2.384m	10
11a40_Nss1,(6Mbps)_2TX	0.99	0.04	2.384m	10
11a80_Nss1,(6Mbps)_2TX	0.99	0.04	2.384m	10
802.11ac VHT20_Nss1,(MCS0)_2TX	0.99	0.04	2.224m	10
802.11ac VHT40_Nss1,(MCS0)_2TX	0.977	0.1	1.093m	1k
802.11ac VHT80_Nss1,(MCS0)_2TX	0.954	0.2	528.438u	3k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.984	0.07	1.711m	10
802.11ax HEW40_Nss1,(MCS0)_2TX	0.972	0.12	885.313u	3k
802.11ax HEW80_Nss1,(MCS0)_2TX	0.949	0.23	454.063u	3k

beamforming mode

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
11a20-BF_Nss1,(6Mbps)_2TX	0.99	0.04	2.384m	10
11a40-BF_Nss1,(6Mbps)_2TX	0.99	0.04	2.384m	10
11a80-BF_Nss1,(6Mbps)_2TX	0.99	0.04	2.384m	10
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	0.99	0.04	2.224m	10
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	0.977	0.1	1.093m	1k
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	0.954	0.2	528.438u	3k
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.984	0.07	1.711m	10
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.972	0.12	885.313u	3k
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.949	0.23	454.063u	3k

<2T2S>

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT20_Nss2,(MCS0)_2TX	0.977	0.1	1.136m	1k
802.11ac VHT40_Nss2,(MCS0)_2TX	0.956	0.2	572.5u	3k
802.11ac VHT80_Nss2,(MCS0)_2TX	0.917	0.38	288.125u	10k
802.11ax HEW20_Nss2,(MCS0)_2TX	0.973	0.12	892.5u	3k
802.11ax HEW40_Nss2,(MCS0)_2TX	0.949	0.23	480.313u	3k
802.11ax HEW80_Nss2,(MCS0)_2TX	0.912	0.4	262.656u	10k

Note:

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

**1.1.4 EUT Operational Condition**

EUT Power Type	From PoE		
Beamforming Function	☒ With beamforming	☐ Without beamforming	
The product has beamforming function for n/ax in 2.4GHz and a/n/ac/ax in 5GHz.			
Weather Band	☒ With 5600~5650MHz	☐ Without 5600~5650MHz	
Operating Mode	☒ Master		
	☐ Slave with radar detection		
	☐ Slave without radar detection		
TPC Function	☒ With TPC	☐ Without TPC	
Test Software Version	TeraTerm V4.75		

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

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

Equipment Name	Model Name	Description
Catalyst 9105AX 802.11ax Access Point	C9105AXI-B	All the models are identical, the difference equipment names/model names for difference marketing strategy.
	C9105AXI-C	
	C9105AXI-D	
	C9105AXI-F	
	C9105AXI-N	
	C9105AXI-S	
	C9105AXI-K	
	C9105AXI-x (x can be A-Z, regional country code)	

Note 1: From the above models, model: C9105AXI-B was selected as representative model for the test and its data was recorded in this report.

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 (other test items)	TH01-CB	Owen Hsu	22.5-23.8 / 56-58	Apr. 28, 2020 May 28, 2020
RF Conducted (2T1S-Non-beamforming 802.11ax-5240/5320/5670MHz)	TH03-CB	Owen Hsu	24.5-24.8 / 66-69	Jun. 23, 2022
Radiated (Cabinet-Above 1GHz)	03CH04-CB	Gino Huang	23.8-24.9 / 55-58	Jun. 22, 2022~ Jul. 08, 2022
Radiated (Below 1GHz)	03CH05-CB	Gino Huang	24.2-26.1 / 55-58	Jun. 22, 2022~ Jul. 08, 2022
Radiated (Radiated Emission Co-location)	03CH06-CB	RJ Huang	23.4-25.5 / 63-69	May 25, 2020
AC Conduction (Mode 1~2)	CO02-CB	GN Hou	22~24 / 65~68	May 28, 2020
AC Conduction (Mode 3)	CO02-CB	Dean Chang	22~23 / 53~54	Jul. 07, 2022

Note:

The tested sample of the test item (Radiated below 1GHz, Radiated Cabinet above 1GHz, AC power-line conducted emissions-Mode 3, Unwanted Emissions (Above 1GHz)-Bandedge/Harmonic-2T1S-Non-beamforming 802.11ax-5240/5320/5670MHz) was received on Jun. 13, 2022.



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))

For AC Conduction(Mode 1~2), RF Conducted(other test items) and Radiated(Radiated Emission Co-location)

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

For others test:

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%
Conducted Emission	3.2 dB	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

<2T1S>

Non-beamforming mode

Mode	Power Setting
11a20_Nss1,(6Mbps)_2TX	-
5180MHz	17
5200MHz	17
5240MHz	17
5260MHz	17
5300MHz	17
5320MHz	17
5500MHz	16
5580MHz	17
5700MHz	15
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
11a40_Nss1,(6Mbps)_2TX	-
5190MHz	15
5230MHz	17
5270MHz	17
5310MHz	15
5510MHz	15
5550MHz	17
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	17
5710MHz Straddle 5.725-5.85GHz	17
11a80_Nss1,(6Mbps)_2TX	-
5210MHz	14
5290MHz	15
5530MHz	14
5610MHz	17
5690MHz Straddle 5.47-5.725GHz	17
5690MHz Straddle 5.725-5.85GHz	17
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	16
5200MHz	17
5240MHz	17
5260MHz	17



Mode	Power Setting
5300MHz	17
5320MHz	17
5500MHz	16
5580MHz	17
5700MHz	14
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	15
5230MHz	17
5270MHz	17
5310MHz	15
5510MHz	14
5550MHz	17
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	17
5710MHz Straddle 5.725-5.85GHz	17
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	15
5290MHz	15
5530MHz	16
5610MHz	17
5690MHz Straddle 5.47-5.725GHz	17
5690MHz Straddle 5.725-5.85GHz	17
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5180MHz	16
5200MHz	17
5240MHz	17
5260MHz	17
5300MHz	17
5320MHz	17
5500MHz	16
5580MHz	17
5700MHz	14
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5190MHz	15
5230MHz	17
5270MHz	17



Mode	Power Setting
5310MHz	15
5510MHz	14
5550MHz	17
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	17
5710MHz Straddle 5.725-5.85GHz	17
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5210MHz	15
5290MHz	15
5530MHz	16
5610MHz	17
5690MHz Straddle 5.47-5.725GHz	17
5690MHz Straddle 5.725-5.85GHz	17

**beamforming mode**

Mode	Power Setting
11a20,BF_Nss1,(6Mbps)_2TX	-
5180MHz	17
5200MHz	17
5240MHz	17
5260MHz	17
5300MHz	17
5320MHz	17
5500MHz	16
5580MHz	17
5700MHz	15
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
11a40,BF_Nss1,(6Mbps)_2TX	-
5190MHz	15
5230MHz	17
5270MHz	17
5310MHz	15
5510MHz	15
5550MHz	17
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	17
5710MHz Straddle 5.725-5.85GHz	17
11a80,BF_Nss1,(6Mbps)_2TX	-
5210MHz	14
5290MHz	15
5530MHz	14
5610MHz	17
5690MHz Straddle 5.47-5.725GHz	17
5690MHz Straddle 5.725-5.85GHz	17
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	16
5200MHz	17
5240MHz	17
5260MHz	17
5300MHz	17
5320MHz	17
5500MHz	16



Mode	Power Setting
5580MHz	17
5700MHz	14
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	15
5230MHz	17
5270MHz	17
5310MHz	15
5510MHz	14
5550MHz	17
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	17
5710MHz Straddle 5.725-5.85GHz	17
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	15
5290MHz	15
5530MHz	16
5610MHz	17
5690MHz Straddle 5.47-5.725GHz	17
5690MHz Straddle 5.725-5.85GHz	17
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5180MHz	16
5200MHz	17
5240MHz	17
5260MHz	17
5300MHz	17
5320MHz	17
5500MHz	16
5580MHz	17
5700MHz	14
5720MHz Straddle 5.47-5.725GHz	17
5720MHz Straddle 5.725-5.85GHz	17
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5190MHz	15
5230MHz	17
5270MHz	17
5310MHz	15
5510MHz	14
5550MHz	17



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Mode	Power Setting
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	17
5710MHz Straddle 5.725-5.85GHz	17
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5210MHz	15
5290MHz	15
5530MHz	16
5610MHz	17
5690MHz Straddle 5.47-5.725GHz	17
5690MHz Straddle 5.725-5.85GHz	17

**<2T2S>**

Mode	Power Setting
802.11ac VHT20_Nss2,(MCS0)_2TX	-
5180MHz	17
5500MHz	17
5700MHz	15
802.11ac VHT40_Nss2,(MCS0)_2TX	-
5190MHz	15
5310MHz	16
5510MHz	15
802.11ac VHT80_Nss2,(MCS0)_2TX	-
5210MHz	15
5290MHz	16
5530MHz	16
5610MHz	
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5180MHz	17
5500MHz	17
5700MHz	15
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5190MHz	15
5310MHz	16
5510MHz	15
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5210MHz	15
5290MHz	16
5530MHz	16

Note:

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



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	EUT_2.4GHz + PoE
2	EUT_5GHz + PoE
3	EUT_Bluetooth LE + PoE
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 Unwanted Emissions Unwanted Emissions (Above 1GHz)
Test Condition	Conducted measurement at transmit chains

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	CTX
	The EUT was performed at X axis, Y axis and Z axis position for Unwanted Emissions above 1GHz. The worst case was found at Z axis in 2.4GHz, at X axis in 5GHz and at Y axis in Bluetooth LE, thus the measurement will follow this same test configuration.
1	EUT in Y axis_Bluetooth LE + PoE
2	EUT in Z axis_2.4GHz + PoE
3	EUT in X axis_5GHz + PoE
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX (Cabinet)
	The EUT was performed at X axis, Y axis and Z axis position. The worst case was found at X axis, thus the measurement will follow this same test configuration.
1	EUT in X axis_5GHz

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, X-axis generated the worst result for Unwanted Emissions (above 1GHz), thus the measurement will follow this same test configuration.	
1	EUT in X axis_WLAN 2.4GHz + WLAN 5GHz
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	WLAN 2.4GHz + WLAN 5GHz + Bluetooth LE
Refer to Sporton Test Report No.: FA992016-11 for Co-location RF Exposure Evaluation.	



Note: It was supplied power by PoE for EUT, and the PoE is for measurement only, would not be marketed.
For Radiated (below 1GHz), Radiated(Cabinet-Above 1GHz) and RF Conducted(2T1S-Non-beamforming 802.11ax-5240/5320/5670MHz)

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

For others test

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

2.3 EUT Operation during Test

For Normal Link Mode:

During the test, the EUT operation to normal function.

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

Accessories				
No.	Equipment Name	Brand Name	Model Name	Remark
1	Mounting bracket*1	Cisco	AIR-AP-BRACKET-8	-

2.5 Support Equipment

For AC Conduction and Radiated (below 1GHz):

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

For Radiated(Cabinet-Above 1GHz) and RF Conducted(2T1S-Non-beamforming 802.11ax-5240/5320 /5670MHz)

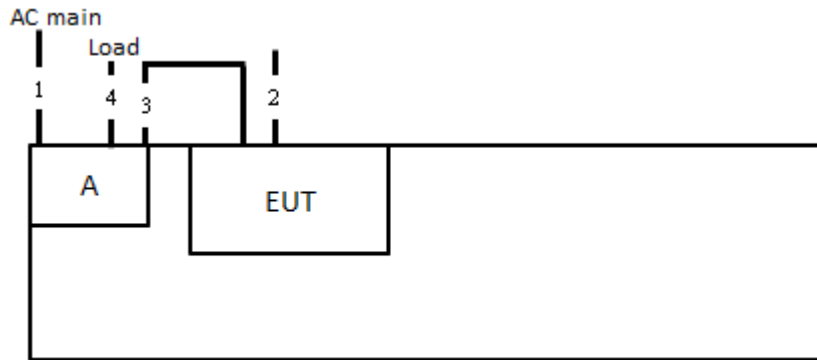
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	PoE	PHIHONG	POE29U-1AT(PL)	N/A

For RF Conducted(other test items):

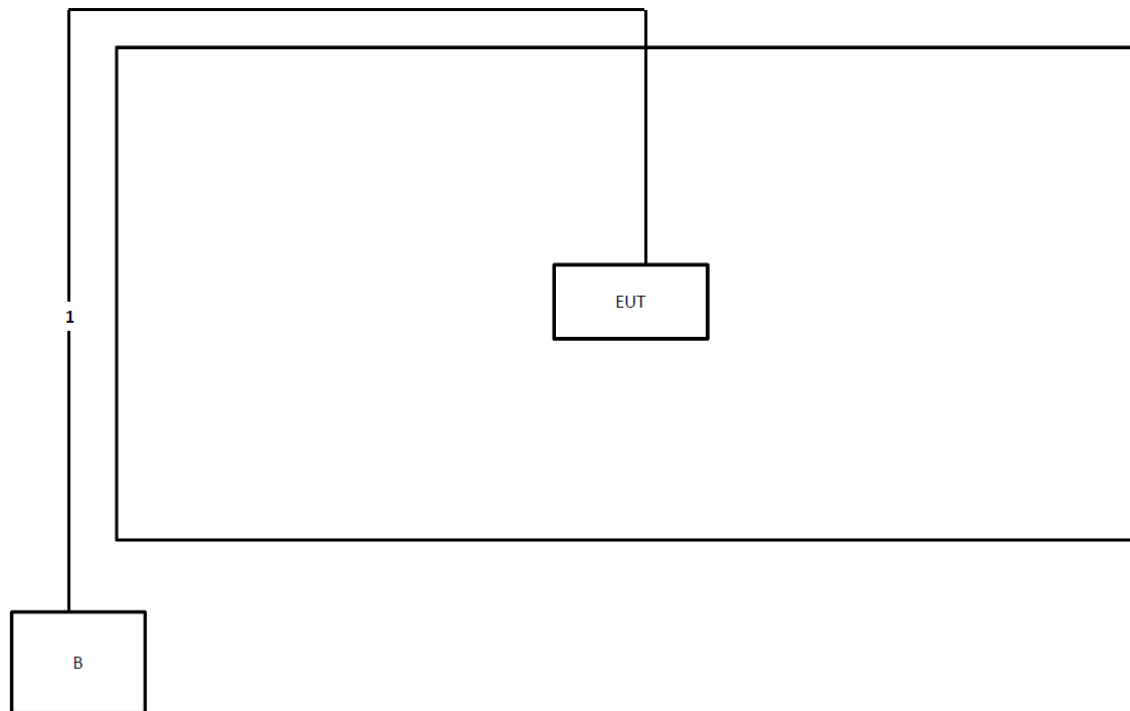
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE	CERIO	POE-G30	N/A
B	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram

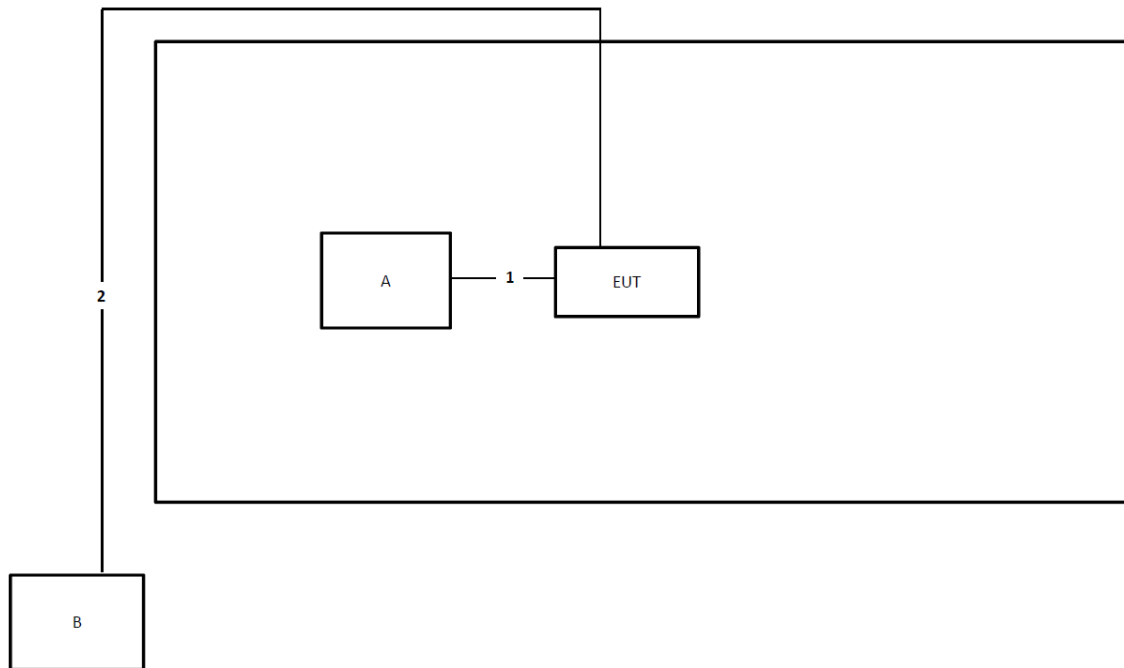
Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RS232 to RJ-45 console cable	No	1.9m
3	RJ-45 cable	No	1.5m
4	RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz


Item	Connection	Shielded	Length
1	RS232 to RJ-45 console cable	No	3.2m
2	RJ-45 cable	No	10m



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.

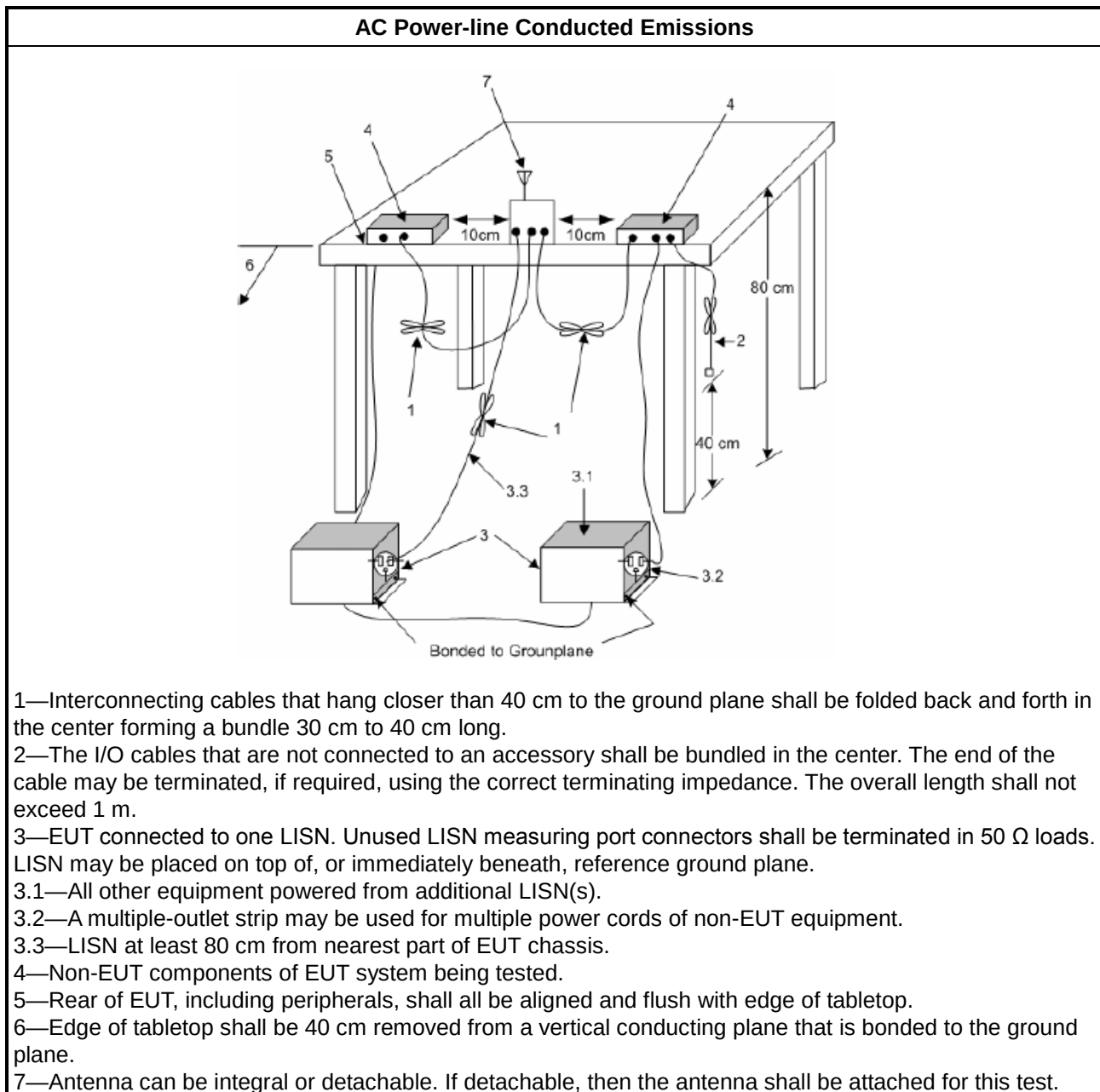
3.1.2 Measuring Instruments

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 $11 \text{ dBm} + 10 \log B$, 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 $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq 500\text{kHz}$.
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 $\geq 500\text{kHz}$.

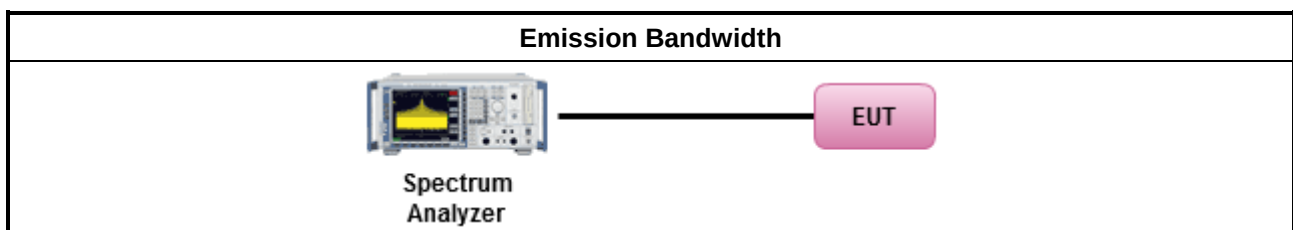
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
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:	
☐	▪ the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$
☒ 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:	
☐	▪ the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$.
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:	
☐	▪ the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$.
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.3.2 Measuring Instruments

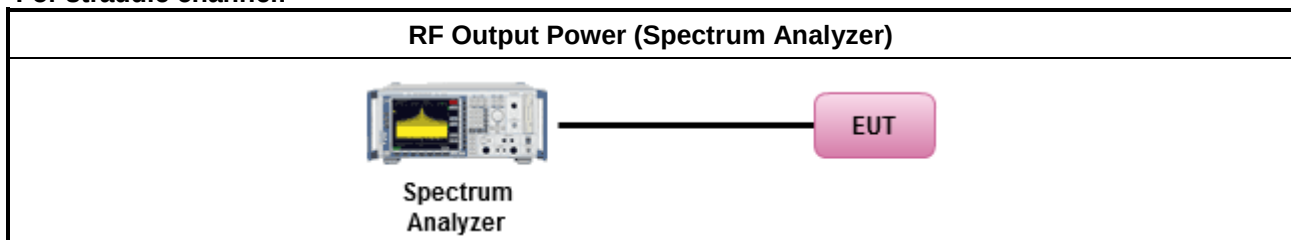
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

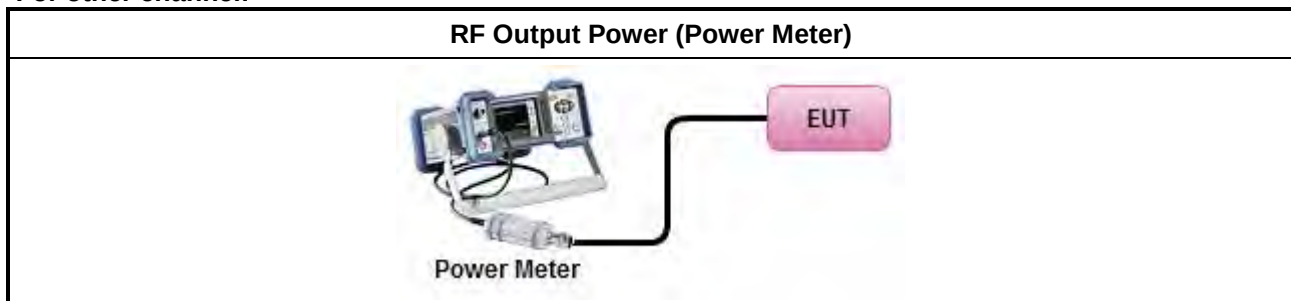
Test Method	
Maximum Conducted Output Power	
	Average over on/off periods with duty factor
☒	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off 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 other 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:
☐	the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
☒	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:
☐	the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$.
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:
☐	the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$.
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

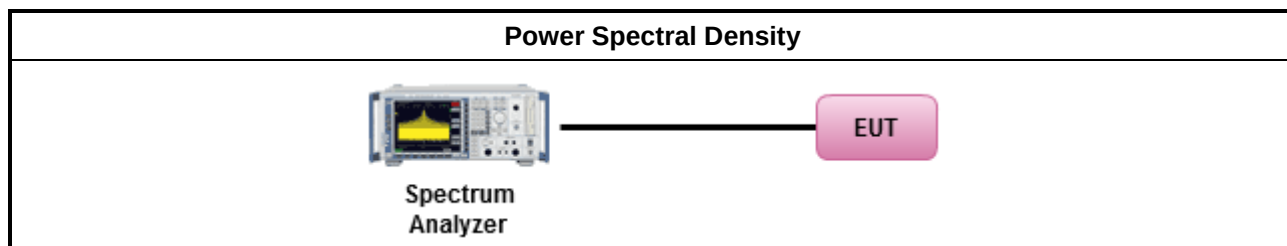
Refer a test equipment and calibration data table in this test report.



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]) $EIRP_{total} = PPSD_{total} + DG$	

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.

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.

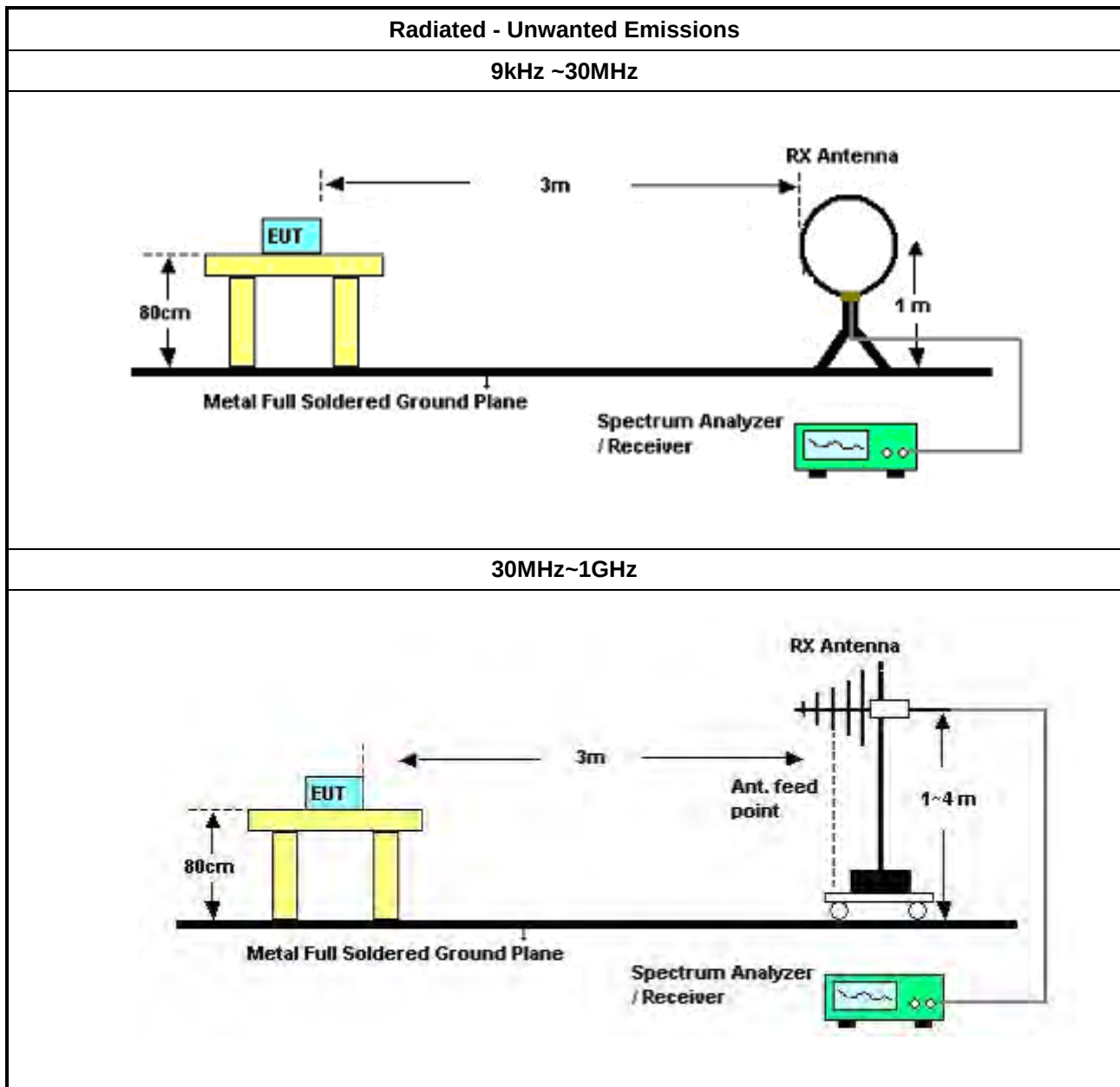
3.5.3 Test Procedures

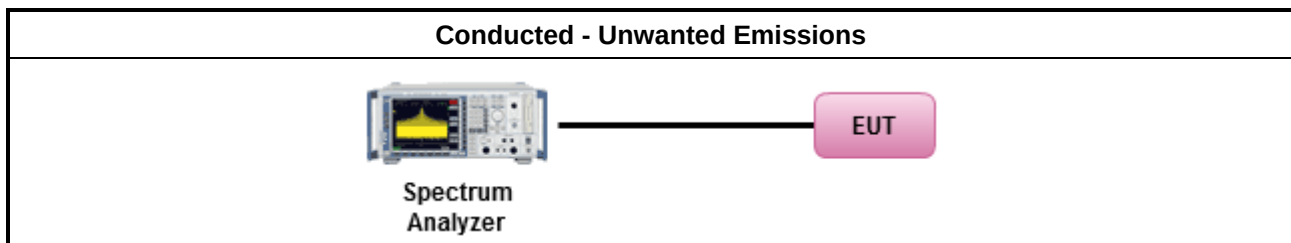
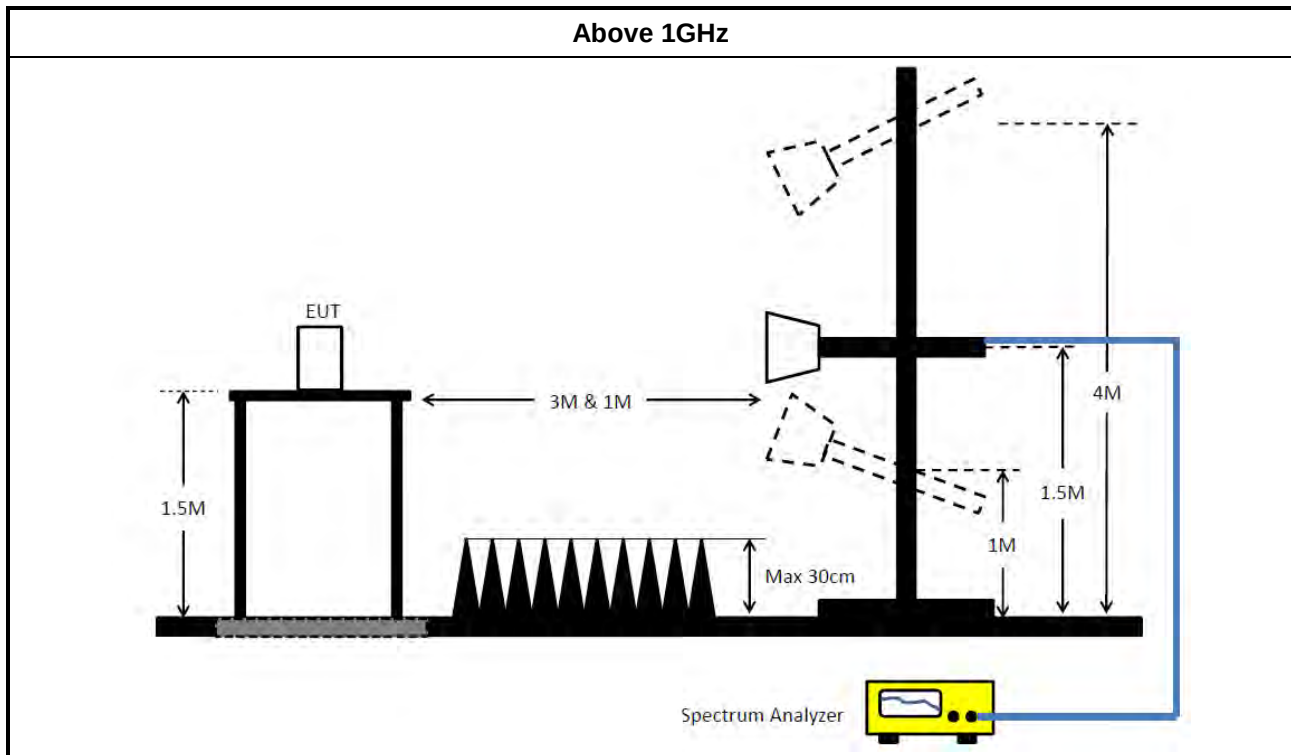
Test Method	
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 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.	



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

3.5.4 Test Setup





3.5.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (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 10 harmonic or 40 GHz, whichever is appropriate.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 21, 2019	Nov. 20, 2020	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Oct. 30, 2019	Oct. 29, 2020	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 22, 2021	Dec. 21, 2022	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Mar. 10, 2020	Mar. 09, 2021	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	May 06, 2022	May 05, 2023	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 21, 2019	Oct. 20, 2020	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 19, 2021	Oct. 18, 2022	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Mar. 19, 2020	Mar. 18, 2021	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Mar. 18, 2022	Mar. 17, 2023	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 24, 2022	Feb. 23, 2023	Radiation (03CH04-CB)
Horn Antenna	ETS • Lindgren	3115	00143147	750MHz~18GHz	Oct. 25, 2021	Oct. 24, 2022	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH04-CB)
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	Mar. 28, 2022	Mar. 27, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 09, 2021	Aug. 08, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1292	1GHz~18GHz	Jul. 17, 2019	Jul. 16, 2020	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 12, 2019	Jun. 11, 2020	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	May 08, 2019	May 07, 2020	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	May 07, 2020	May 06, 2021	Radiation (03CH06-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 21, 2019	Oct. 20, 2020	Radiation (03CH06-CB)
RF Cable-high	HUBER+SUHNER	RG402	High Cable-05	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	HUBER+SUHNER	RG402	High Cable-05+24	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 02, 2019	Jul. 01, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz –26.5 GHz	Nov. 18, 2019	Nov. 17, 2020	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Feb. 07, 2020	Feb. 06, 2021	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Feb. 07, 2020	Feb. 06, 2021	Conducted (TH01-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Jan. 07, 2022	Jan. 06, 2023	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P1	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P2	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P3	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P4	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P5	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

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

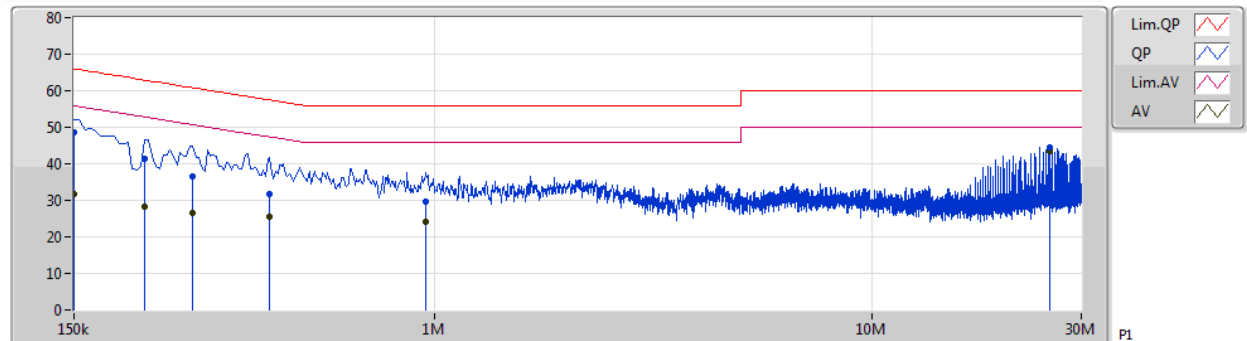
NCR means Non-Calibration required.

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition
Mode 2	Pass	AV	25.337M	43.53	50.00	-6.47	10.88	Line

Mode 2

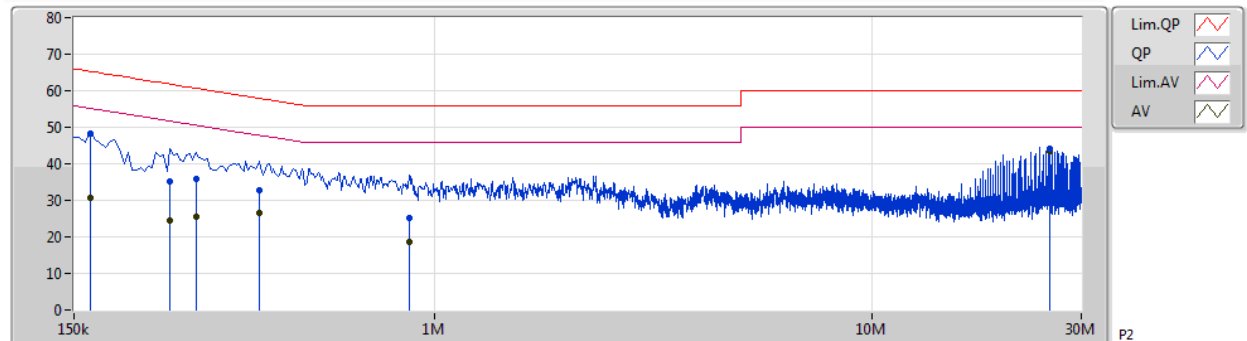
28/05/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)			
QP	150k	48.48	66.00	-17.52	10.20	Line	-	38.28	0.05	0.05	10.10			
AV	150k	31.87	56.00	-24.13	10.20	Line	-	21.67	0.05	0.05	10.10			
QP	217.5k	41.40	62.92	-21.52	10.22	Line	-	31.18	0.05	0.07	10.10			
AV	217.5k	28.36	52.92	-24.56	10.22	Line	-	18.14	0.05	0.07	10.10			
QP	280.5k	36.39	60.80	-24.41	10.22	Line	-	26.17	0.05	0.07	10.10			
AV	280.5k	26.62	50.80	-24.18	10.22	Line	-	16.40	0.05	0.07	10.10			
QP	420k	31.76	57.45	-25.69	10.23	Line	-	21.53	0.05	0.08	10.10			
AV	420k	25.68	47.45	-21.77	10.23	Line	-	15.45	0.05	0.08	10.10			
QP	955.5k	29.54	56.00	-26.46	10.28	Line	-	19.26	0.06	0.12	10.10			
AV	955.5k	24.20	46.00	-21.80	10.28	Line	-	13.92	0.06	0.12	10.10			
QP	25.337M	44.40	60.00	-15.60	10.88	Line	-	33.52	0.53	0.23	10.12			
AV	25.337M	43.53	50.00	-6.47	10.88	Line	"Worst"	32.65	0.53	0.23	10.12			

Mode 2

28/05/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)			
QP	163.5k	48.19	65.27	-17.08	10.21	Neutral	-	37.98	0.05	0.06	10.10			
AV	163.5k	30.63	55.27	-24.64	10.21	Neutral	-	20.42	0.05	0.06	10.10			
QP	249k	35.34	61.79	-26.45	10.22	Neutral	-	25.12	0.05	0.07	10.10			
AV	249k	24.44	51.79	-27.35	10.22	Neutral	-	14.22	0.05	0.07	10.10			
QP	285k	35.80	60.67	-24.87	10.23	Neutral	-	25.57	0.05	0.08	10.10			
AV	285k	25.62	50.67	-25.05	10.23	Neutral	-	15.39	0.05	0.08	10.10			
QP	397.5k	32.68	57.91	-25.23	10.23	Neutral	-	22.45	0.05	0.08	10.10			
AV	397.5k	26.68	47.91	-21.23	10.23	Neutral	-	16.45	0.05	0.08	10.10			
QP	874.5k	25.28	56.00	-30.72	10.27	Neutral	-	15.01	0.06	0.11	10.10			
AV	874.5k	18.49	46.00	-27.51	10.27	Neutral	-	8.22	0.06	0.11	10.10			
QP	25.337M	44.22	60.00	-15.78	10.67	Neutral	-	33.55	0.32	0.23	10.12			
AV	25.337M	43.44	50.00	-6.56	10.67	Neutral	"Worst"	32.77	0.32	0.23	10.12			

<2T1S>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
11a20_Nss1,(6Mbps)_2TX	21.93M	16.642M	16M6D1D	21.54M	16.582M
11a40_Nss1,(6Mbps)_2TX	39.84M	36.342M	36M3D1D	39.72M	36.222M
11a80_Nss1,(6Mbps)_2TX	81.96M	75.922M	75M9D1D	81.48M	75.922M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.81M	19.01M	19M0D1D	21.3M	18.981M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.08M	37.601M	37M6D1D	40.02M	37.481M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.6M	77.121M	77M1D1D	81.36M	77.121M
5.25-5.35GHz	-	-	-	-	-
11a20_Nss1,(6Mbps)_2TX	21.75M	16.642M	16M6D1D	21.51M	16.582M
11a40_Nss1,(6Mbps)_2TX	39.96M	36.342M	36M3D1D	39.66M	36.222M
11a80_Nss1,(6Mbps)_2TX	81.72M	76.042M	76M0D1D	81.6M	75.922M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.78M	19.01M	19M0D1D	21.54M	18.951M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.08M	37.601M	37M6D1D	39.9M	37.541M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.6M	77.121M	77M1D1D	81.12M	77.001M
5.47-5.725GHz	-	-	-	-	-
11a20_Nss1,(6Mbps)_2TX	21.66M	16.702M	16M7D1D	15.6M	13.298M
11a40_Nss1,(6Mbps)_2TX	39.96M	36.402M	36M4D1D	34.895M	32.989M
11a80_Nss1,(6Mbps)_2TX	81.96M	76.042M	76M0D1D	75.525M	72.564M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.87M	19.01M	19M0D1D	15.705M	14.483M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.14M	37.661M	37M7D1D	35.14M	33.618M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.6M	77.241M	77M2D1D	75.75M	73.163M
5.725-5.85GHz	-	-	-	-	-
11a20_Nss1,(6Mbps)_2TX	3.22M	3.998M	4M00D1D	3.18M	3.998M
11a40_Nss1,(6Mbps)_2TX	3.16M	3.598M	3M60D1D	3.14M	3.578M
11a80_Nss1,(6Mbps)_2TX	3.14M	4.558M	4M56D1D	3.14M	4.278M
802.11ax HEW20_Nss1,(MCS0)_2TX	4.48M	4.558M	4M56D1D	4.46M	4.538M
802.11ax HEW40_Nss1,(MCS0)_2TX	3.76M	4.038M	4M04D1D	3.74M	4.018M
802.11ax HEW80_Nss1,(MCS0)_2TX	3.94M	4.178M	4M18D1D	3.64M	4.058M

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)
11a20_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.93M	16.612M	21.54M	16.612M
5200MHz	Pass	Inf	21.84M	16.582M	21.54M	16.642M
5240MHz	Pass	Inf	21.78M	16.582M	21.6M	16.612M
5260MHz	Pass	Inf	21.75M	16.642M	21.6M	16.612M
5300MHz	Pass	Inf	21.72M	16.612M	21.63M	16.612M
5320MHz	Pass	Inf	21.51M	16.582M	21.54M	16.582M
5500MHz	Pass	Inf	21.39M	16.612M	21.66M	16.552M
5580MHz	Pass	Inf	21.48M	16.582M	21.6M	16.702M
5700MHz	Pass	Inf	21.48M	16.582M	21.66M	16.612M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.6M	13.358M	15.75M	13.298M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.22M	3.998M	3.18M	3.998M
11a40_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.84M	36.282M	39.72M	36.342M
5230MHz	Pass	Inf	39.84M	36.222M	39.78M	36.342M
5270MHz	Pass	Inf	39.66M	36.282M	39.78M	36.222M
5310MHz	Pass	Inf	39.96M	36.342M	39.72M	36.282M
5510MHz	Pass	Inf	39.96M	36.402M	39.96M	36.342M
5550MHz	Pass	Inf	39.78M	36.282M	39.84M	36.342M
5670MHz	Pass	Inf	39.84M	36.342M	39.84M	36.282M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.965M	32.989M	34.895M	33.058M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.16M	3.578M	3.14M	3.598M
11a80_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.48M	75.922M	81.96M	75.922M
5290MHz	Pass	Inf	81.6M	75.922M	81.72M	76.042M
5530MHz	Pass	Inf	81.6M	76.042M	81.72M	76.042M
5610MHz	Pass	Inf	81.6M	75.802M	81.96M	75.922M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.525M	72.639M	75.6M	72.564M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	4.558M	3.14M	4.278M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.66M	19.01M	21.6M	18.981M
5200MHz	Pass	Inf	21.63M	19.01M	21.81M	18.981M
5240MHz	Pass	Inf	21.3M	18.981M	21.72M	19.01M
5260MHz	Pass	Inf	21.66M	18.981M	21.75M	18.951M
5300MHz	Pass	Inf	21.54M	19.01M	21.75M	18.981M
5320MHz	Pass	Inf	21.63M	18.981M	21.78M	19.01M
5500MHz	Pass	Inf	21.42M	19.01M	21.72M	18.981M
5580MHz	Pass	Inf	21.39M	18.981M	21.78M	18.981M
5700MHz	Pass	Inf	21.54M	18.951M	21.87M	19.01M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.705M	14.483M	15.735M	14.483M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.46M	4.538M	4.48M	4.558M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.08M	37.541M	40.02M	37.541M
5230MHz	Pass	Inf	40.08M	37.601M	40.08M	37.481M

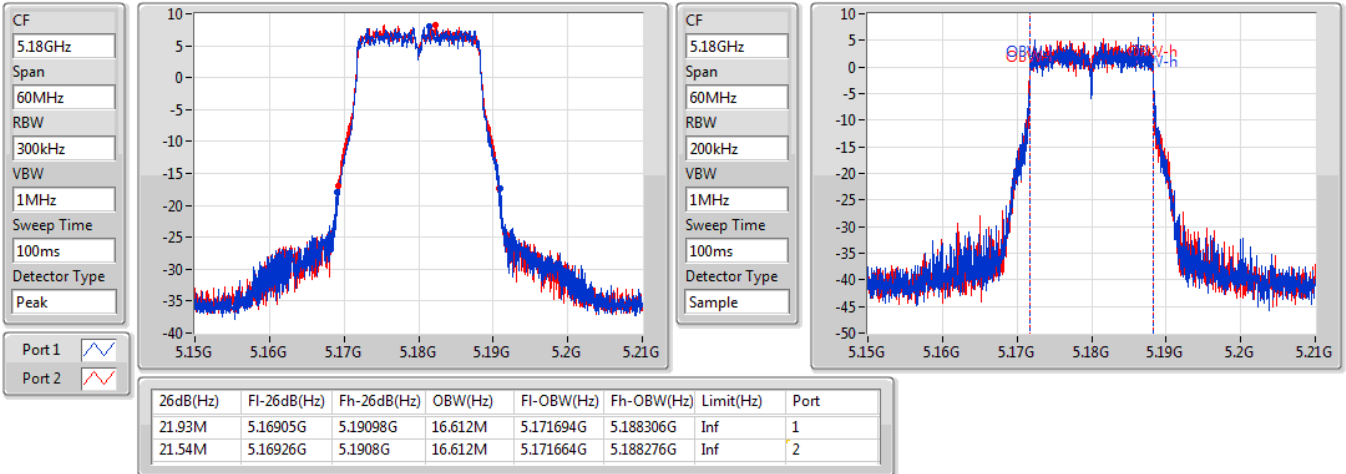
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5270MHz	Pass	Inf	39.9M	37.601M	39.96M	37.541M
5310MHz	Pass	Inf	40.08M	37.601M	39.96M	37.601M
5510MHz	Pass	Inf	39.96M	37.661M	40.14M	37.541M
5550MHz	Pass	Inf	39.96M	37.541M	39.96M	37.541M
5670MHz	Pass	Inf	40.02M	37.541M	40.08M	37.541M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.14M	33.618M	35.14M	33.653M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.76M	4.018M	3.74M	4.038M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.6M	77.121M	81.36M	77.121M
5290MHz	Pass	Inf	81.6M	77.121M	81.12M	77.001M
5530MHz	Pass	Inf	81.6M	77.241M	81.24M	77.121M
5610MHz	Pass	Inf	81.48M	77.001M	81M	77.121M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.825M	73.163M	75.75M	73.238M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.64M	4.178M	3.94M	4.058M

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

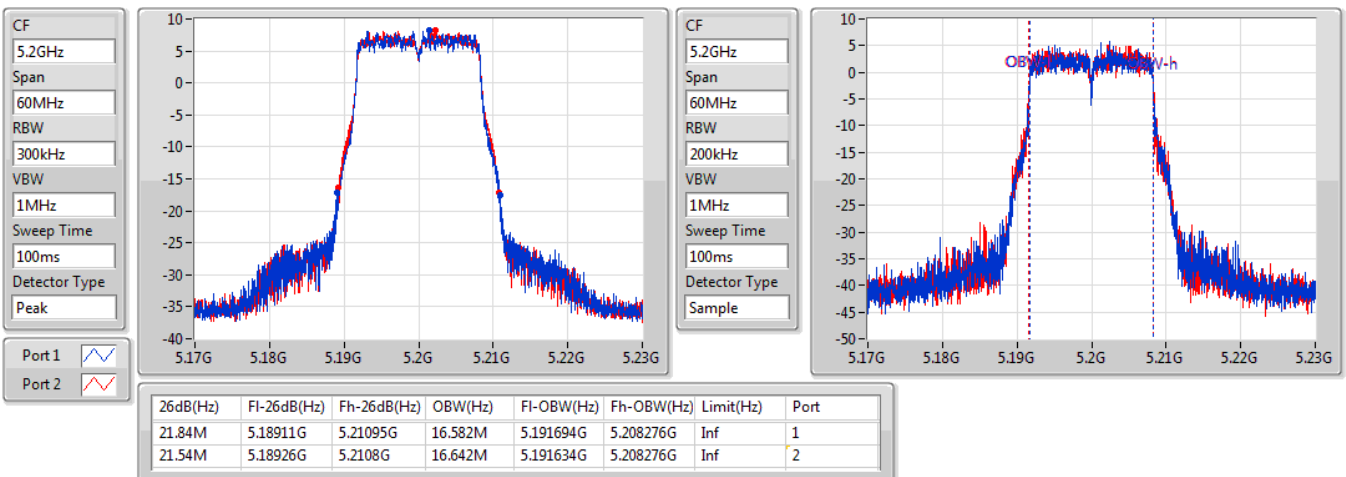
Port X-OBW = Port X 99% occupied bandwidth;

11a20_Nss1,(6Mbps)_2TX
EBW
5180MHz

28/04/2020

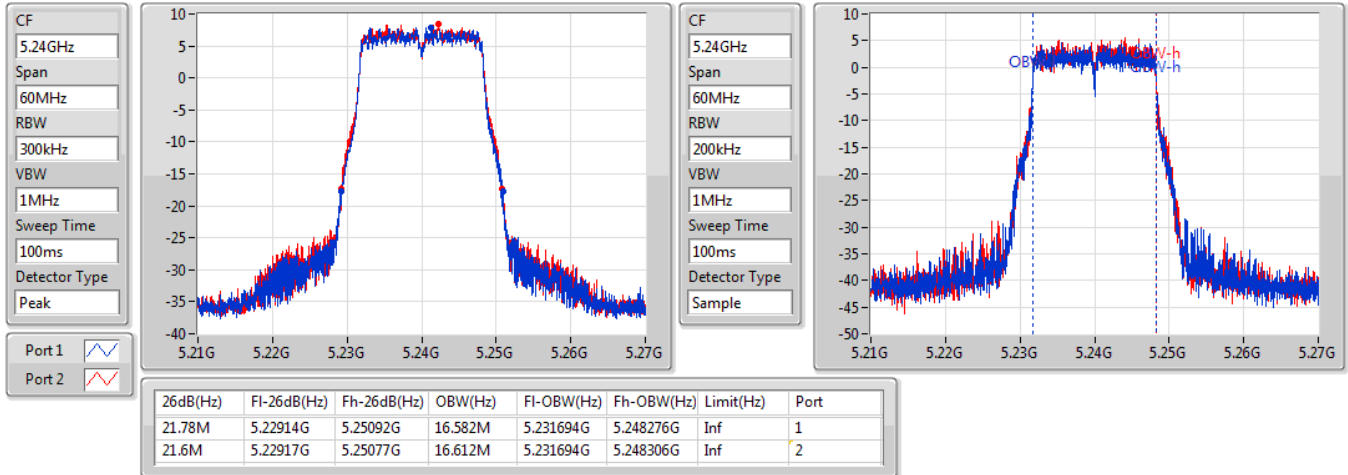

11a20_Nss1,(6Mbps)_2TX
EBW
5200MHz

28/04/2020

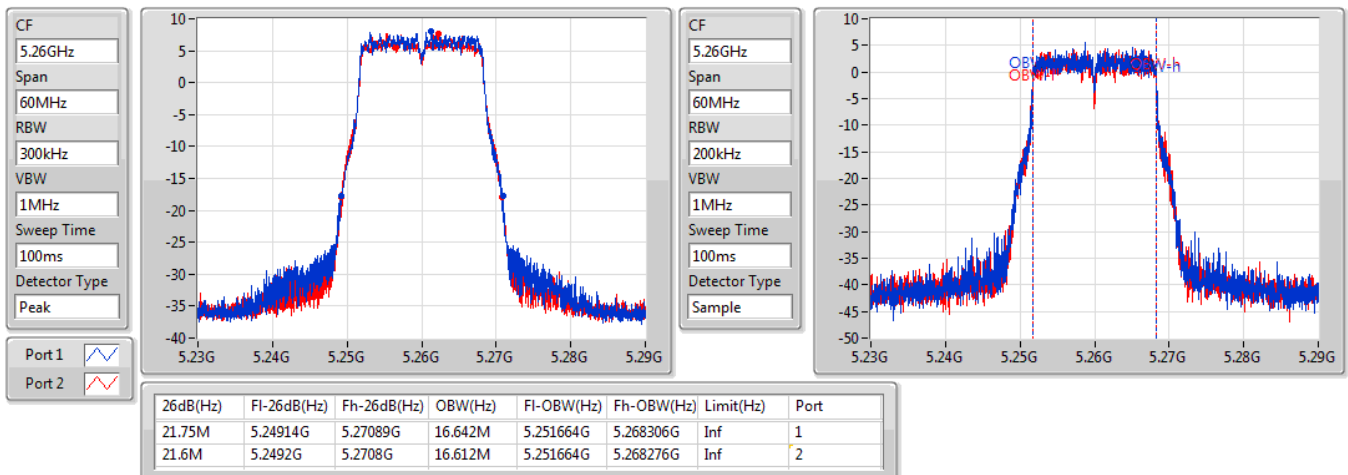


11a20_Nss1,(6Mbps)_2TX
EBW
5240MHz

28/04/2020

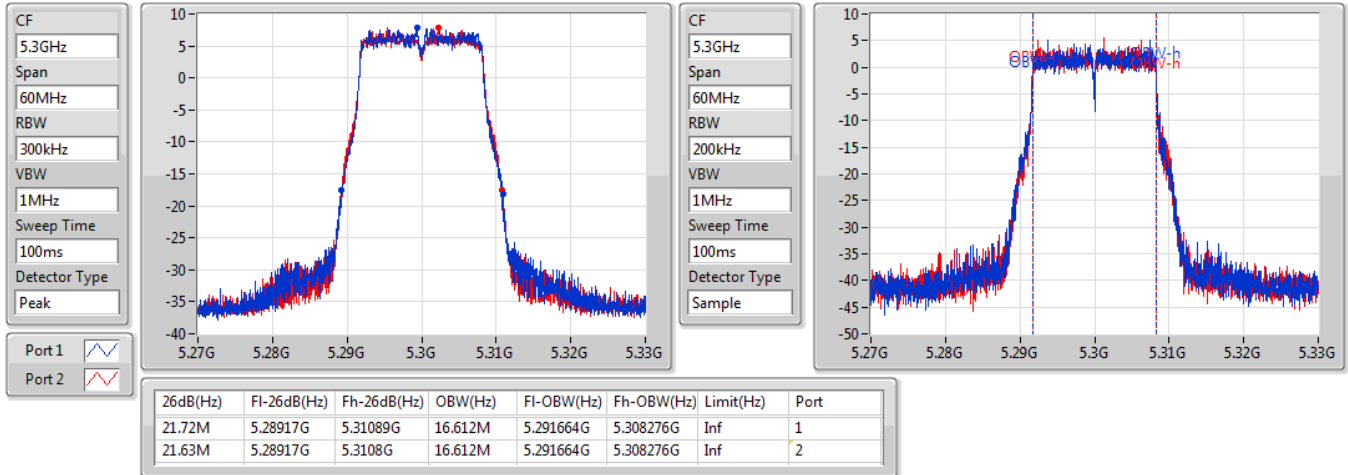

11a20_Nss1,(6Mbps)_2TX
EBW
5260MHz

28/04/2020

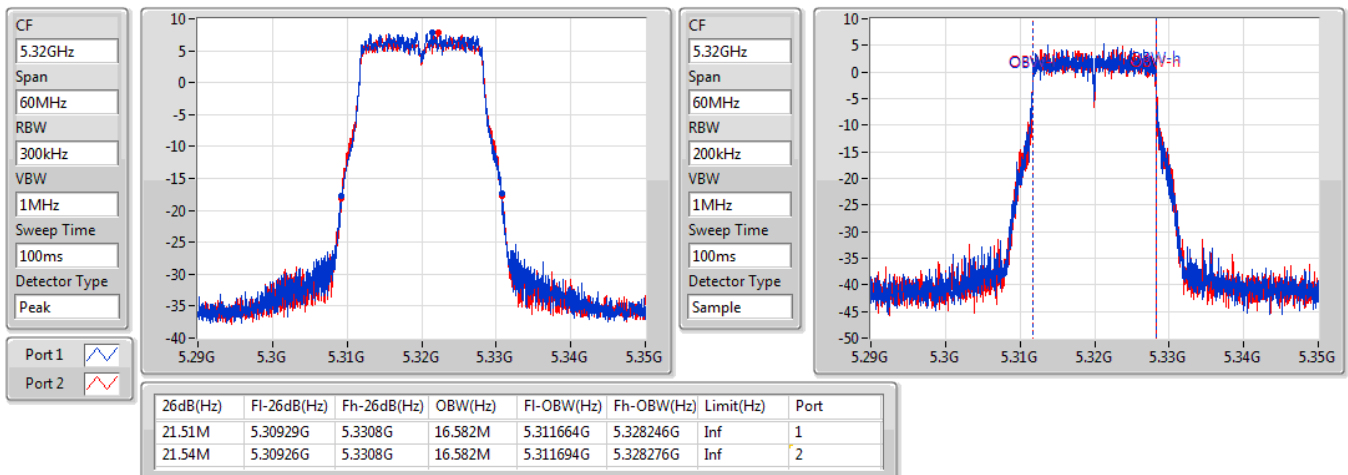


11a20_Nss1,(6Mbps)_2TX
EBW
5300MHz

28/04/2020

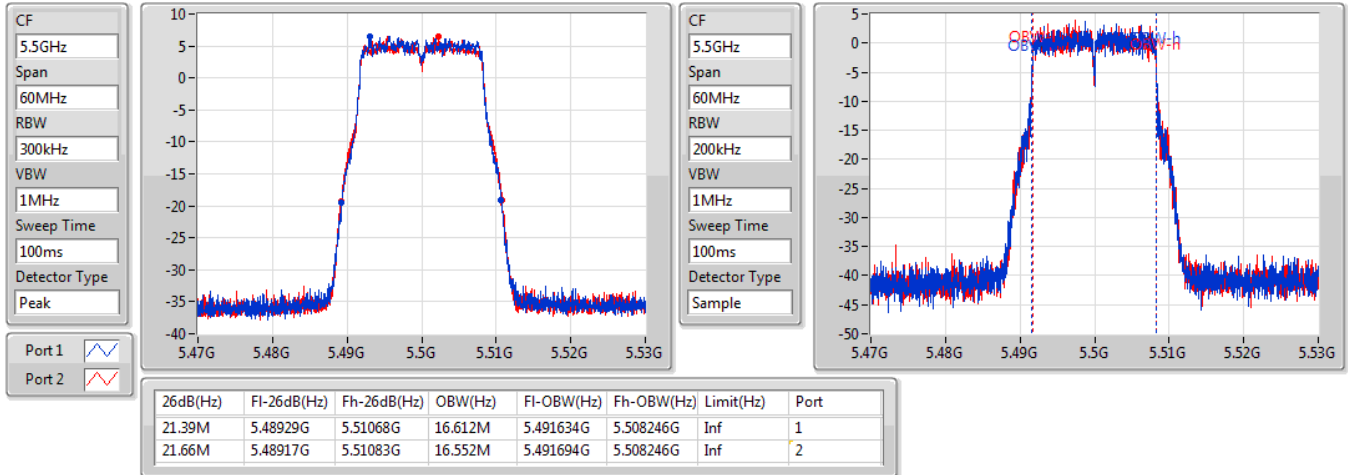

11a20_Nss1,(6Mbps)_2TX
EBW
5320MHz

28/04/2020

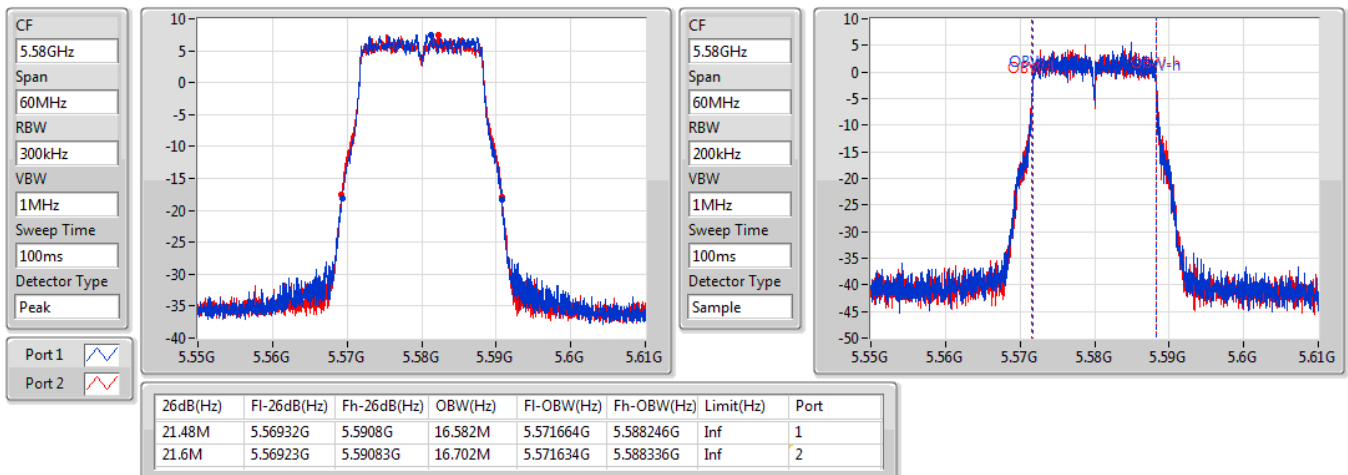


11a20_Nss1,(6Mbps)_2TX
EBW
5500MHz

28/04/2020

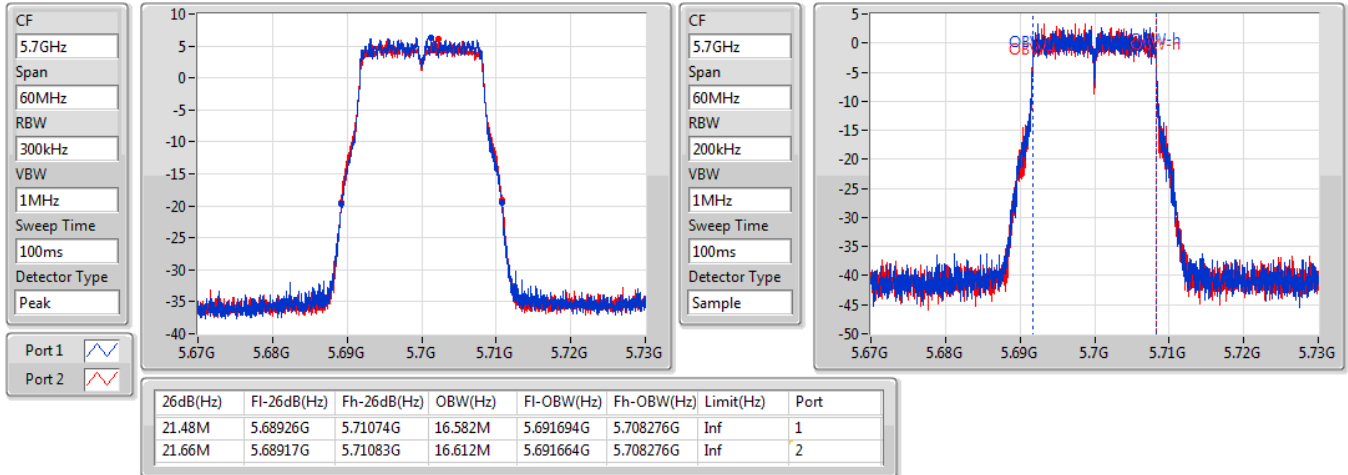

11a20_Nss1,(6Mbps)_2TX
EBW
5580MHz

28/04/2020

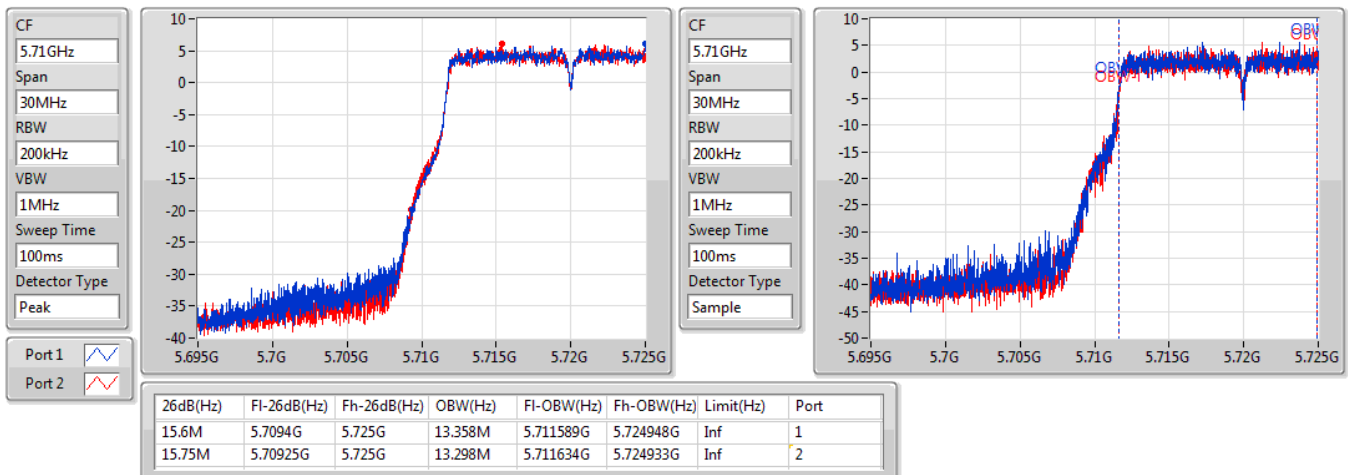


11a20_Nss1,(6Mbps)_2TX
EBW
5700MHz

28/04/2020

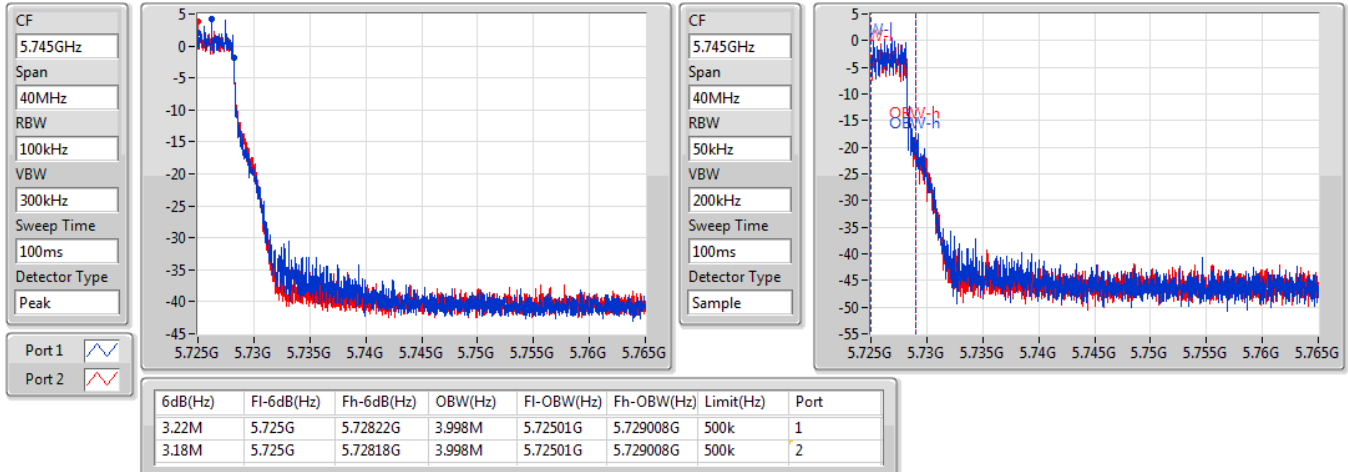

11a20_Nss1,(6Mbps)_2TX
EBW
5720MHz Straddle 5.47-5.725GHz

28/04/2020

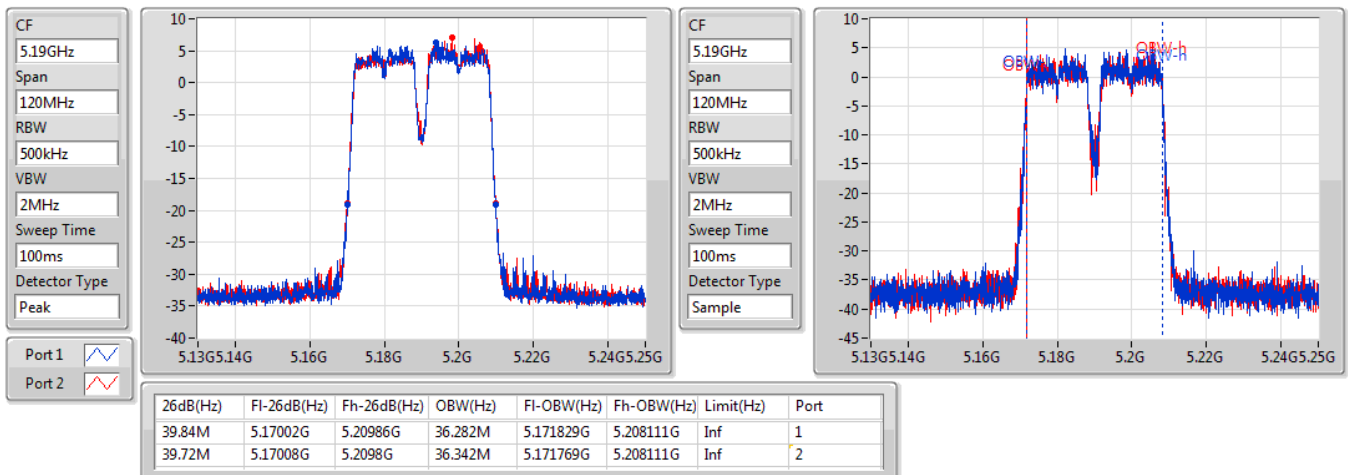


11a20_Nss1,(6Mbps)_2TX
EBW
5720MHz Straddle 5.725-5.85GHz

28/04/2020

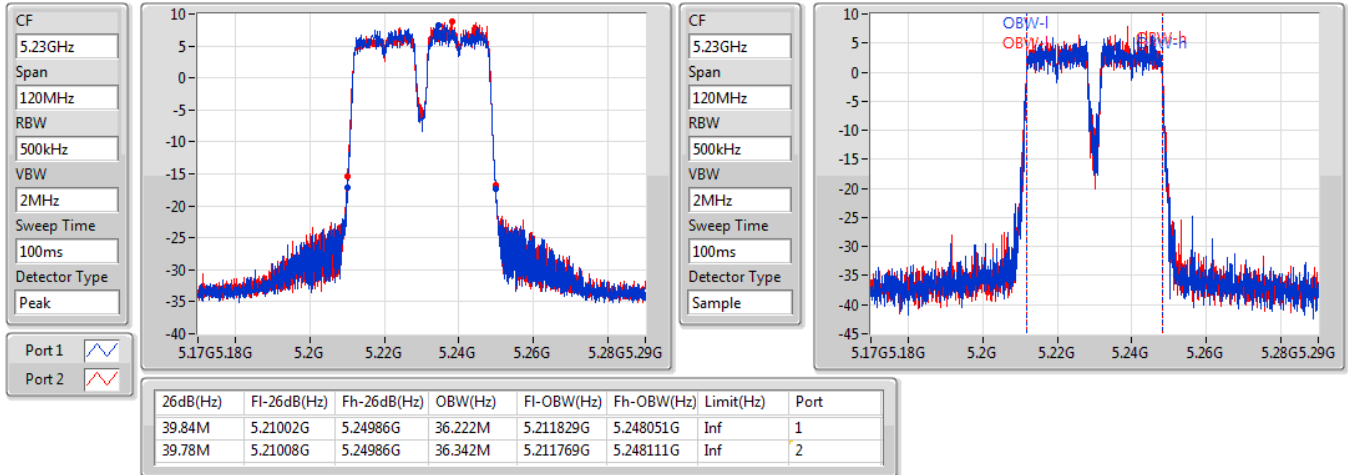

11a40_Nss1,(6Mbps)_2TX
EBW
5190MHz

28/04/2020

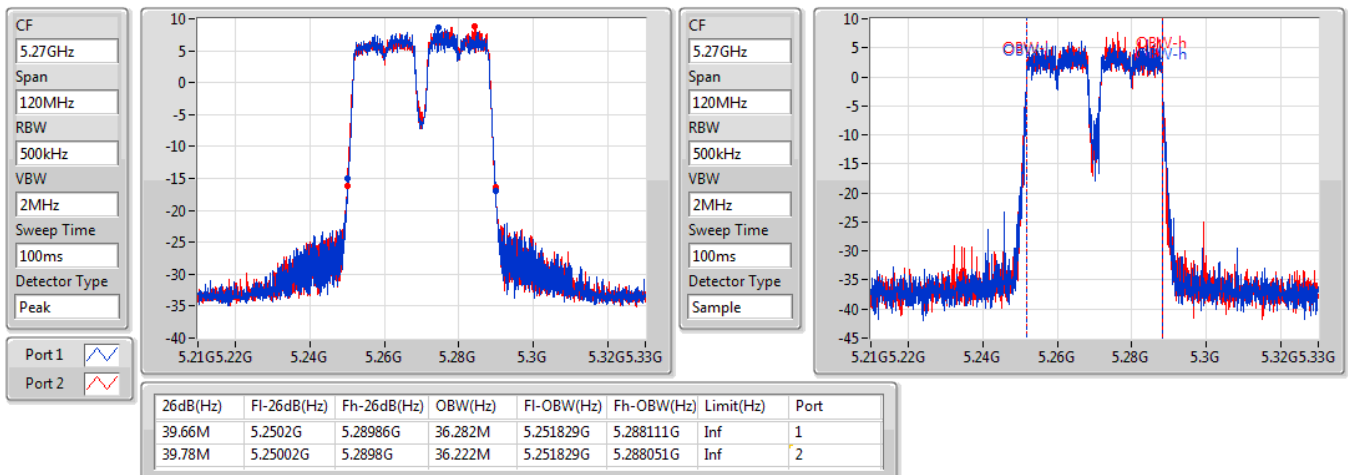


11a40_Nss1,(6Mbps)_2TX
EBW
5230MHz

28/04/2020

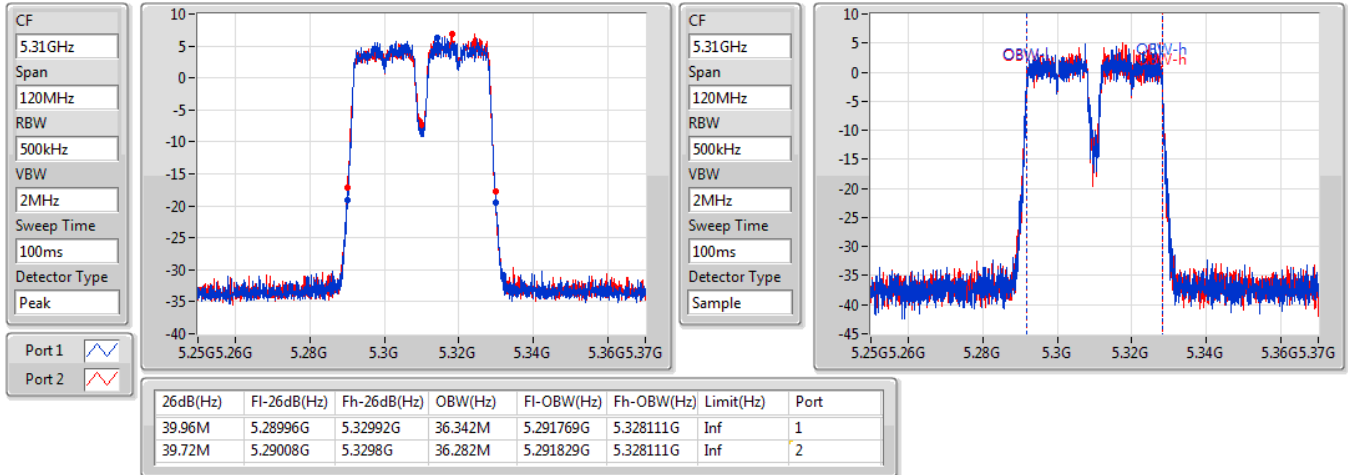

11a40_Nss1,(6Mbps)_2TX
EBW
5270MHz

28/04/2020

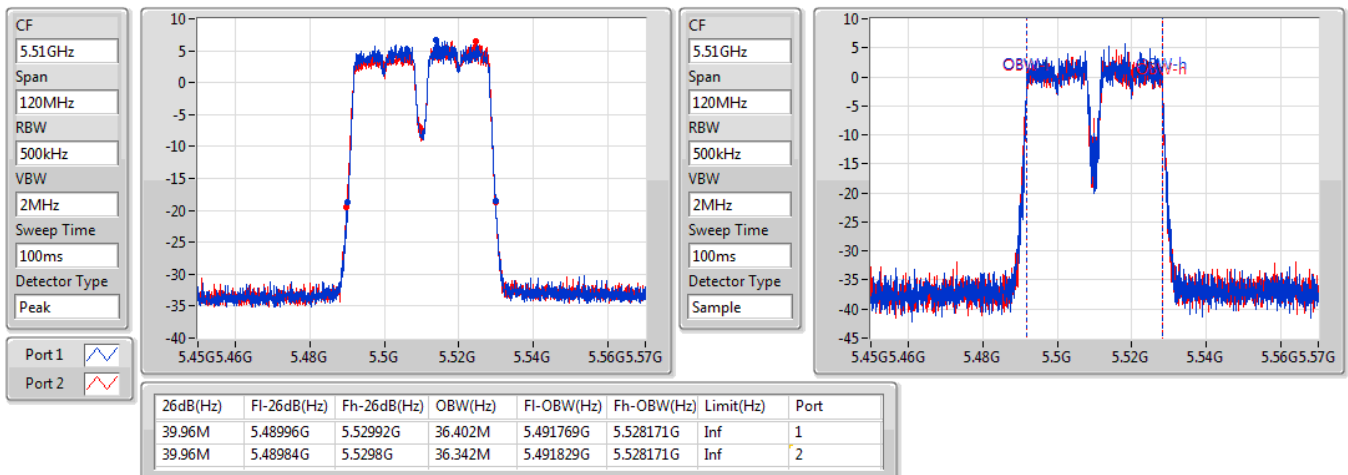


11a40_Nss1,(6Mbps)_2TX
EBW
5310MHz

28/04/2020

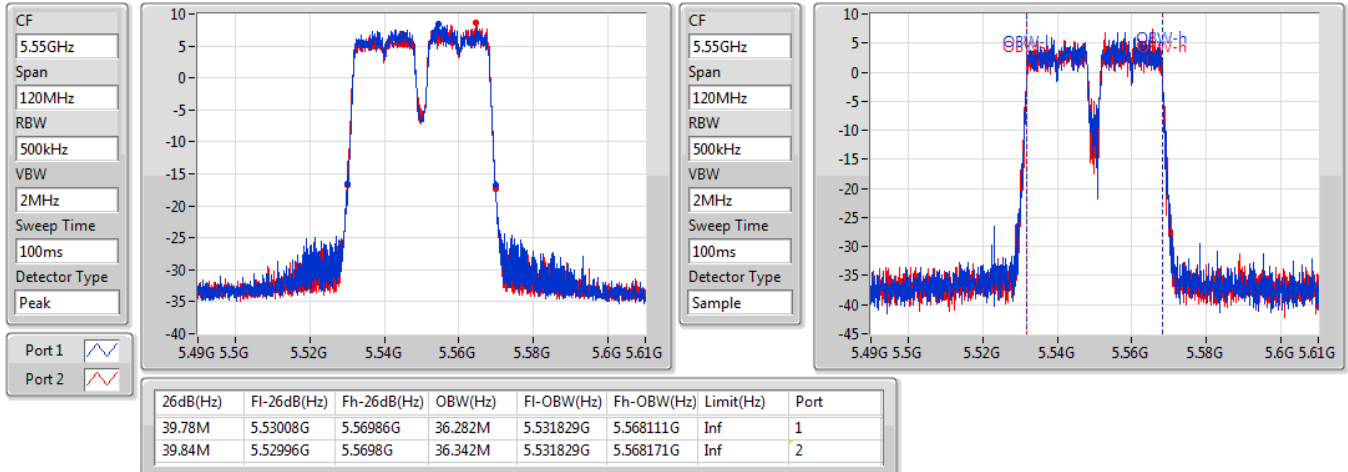

11a40_Nss1,(6Mbps)_2TX
EBW
5510MHz

28/04/2020

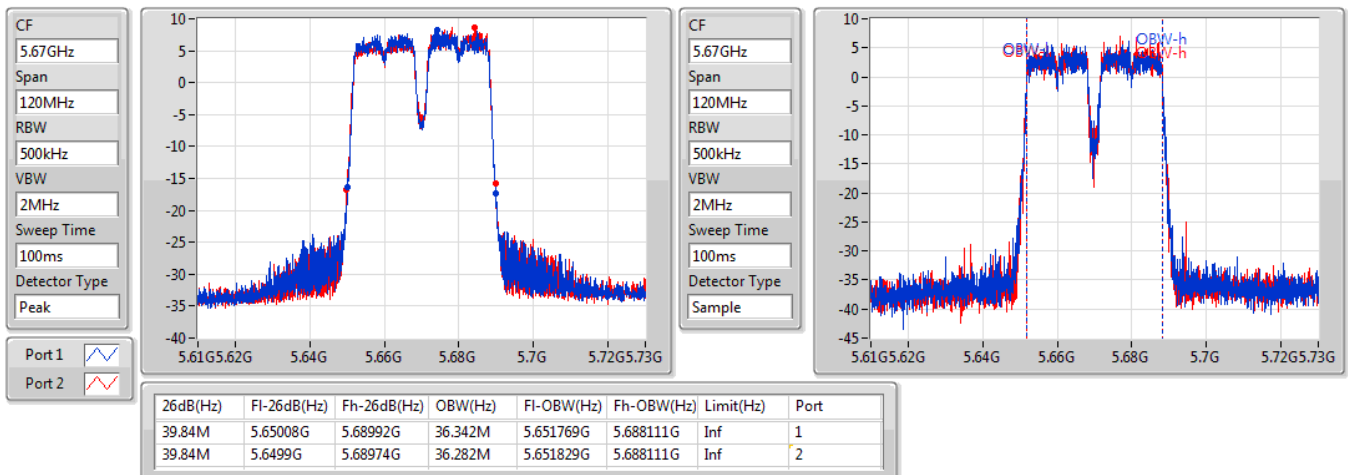


11a40_Nss1,(6Mbps)_2TX
EBW
5550MHz

28/04/2020

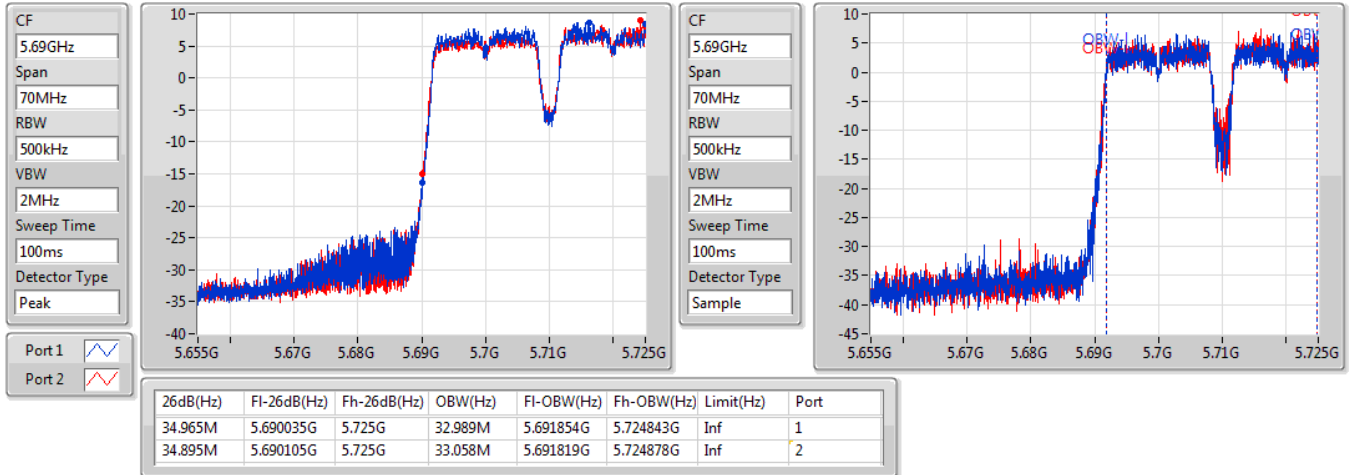

11a40_Nss1,(6Mbps)_2TX
EBW
5670MHz

28/04/2020

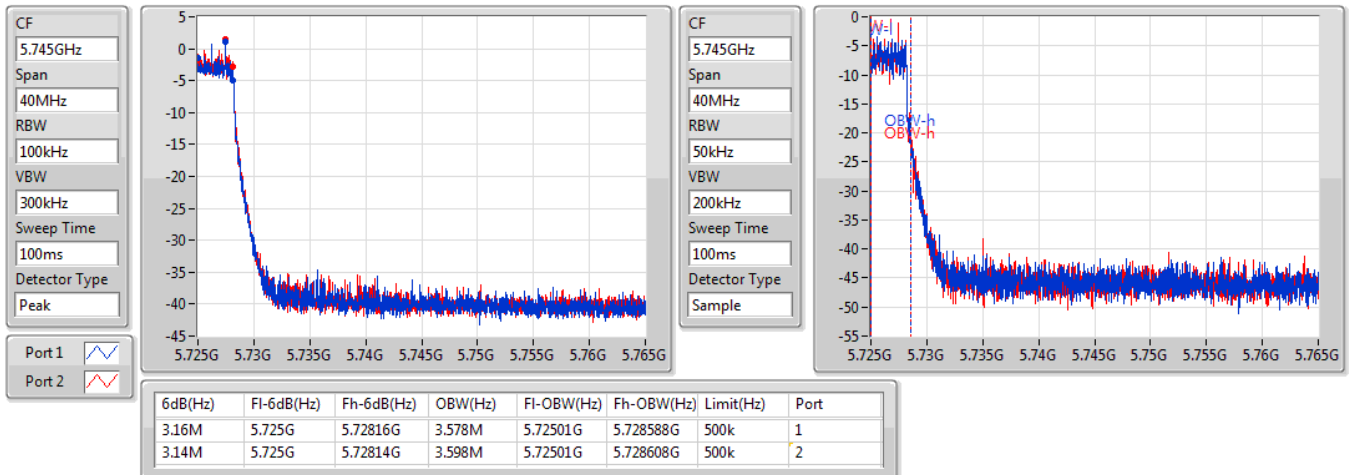


11a40_Nss1,(6Mbps)_2TX
EBW
5710MHz Straddle 5.47-5.725GHz

28/04/2020

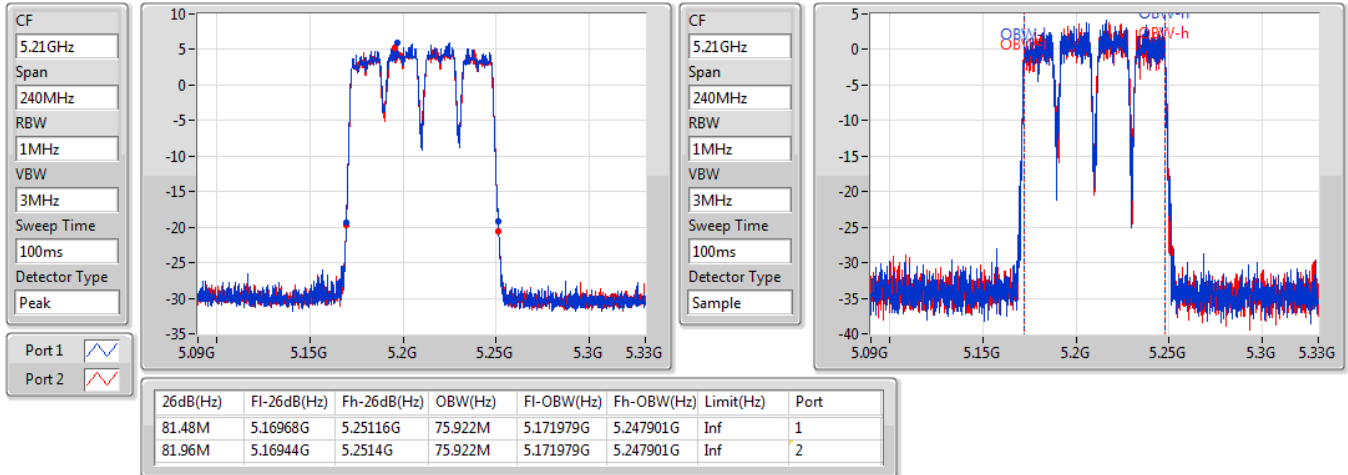

11a40_Nss1,(6Mbps)_2TX
EBW
5710MHz Straddle 5.725-5.85GHz

28/04/2020

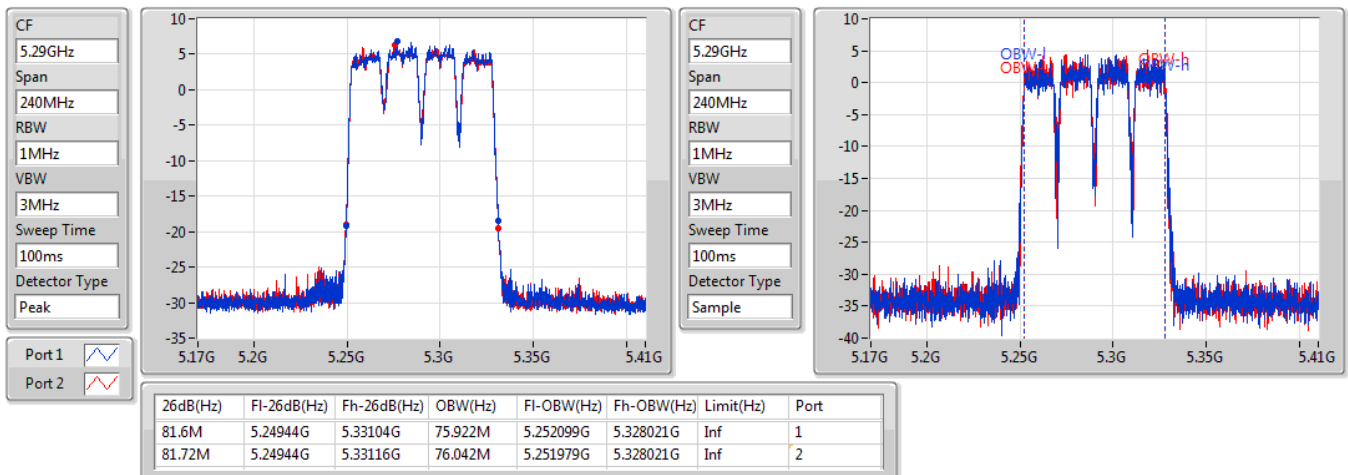


11a80_Nss1,(6Mbps)_2TX
EBW
5210MHz

28/04/2020

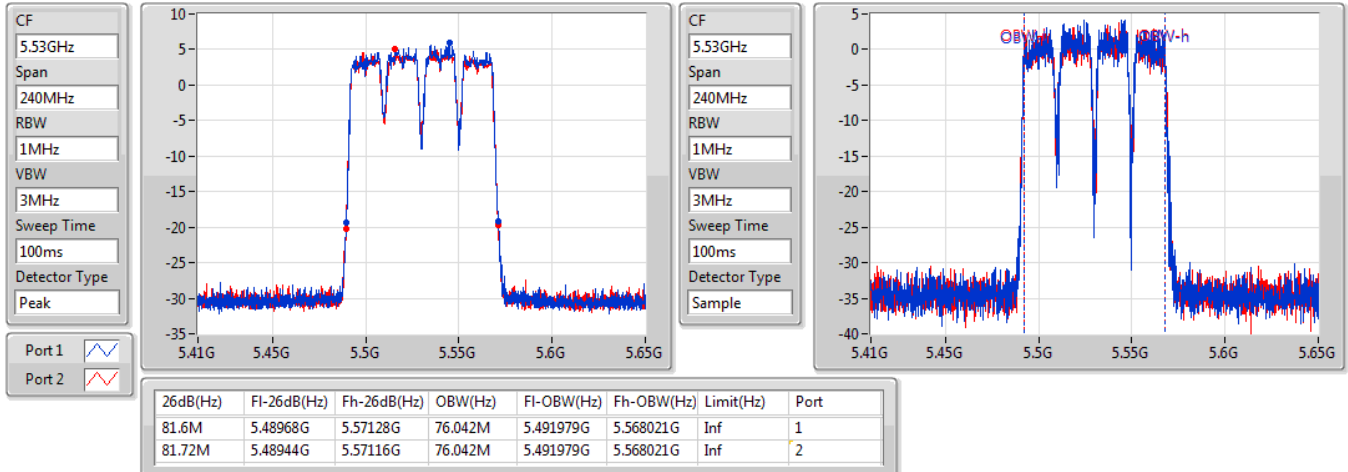

11a80_Nss1,(6Mbps)_2TX
EBW
5290MHz

28/04/2020

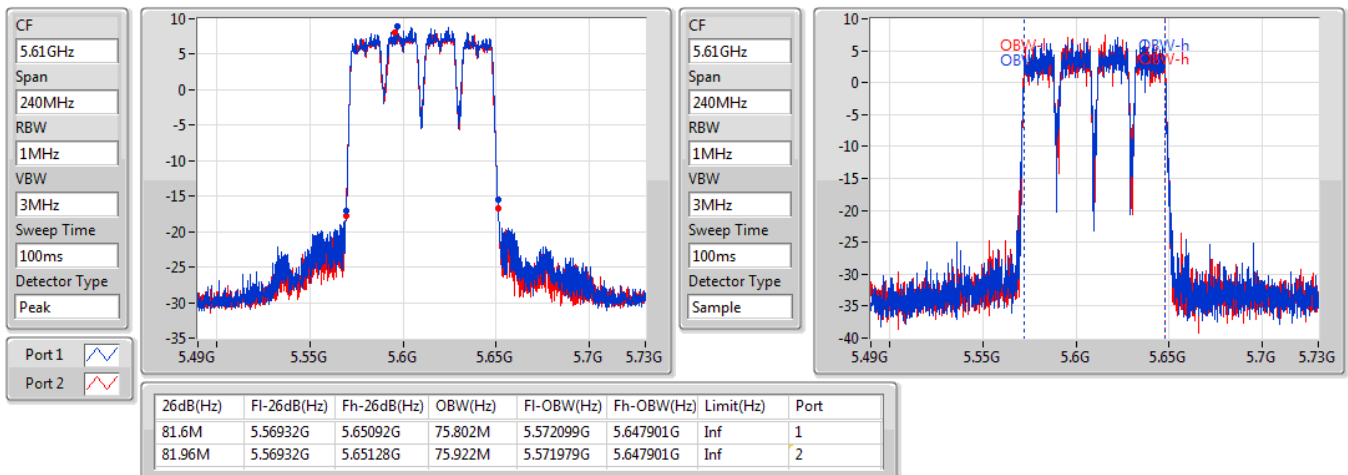


11a80_Nss1,(6Mbps)_2TX
EBW
5530MHz

28/04/2020

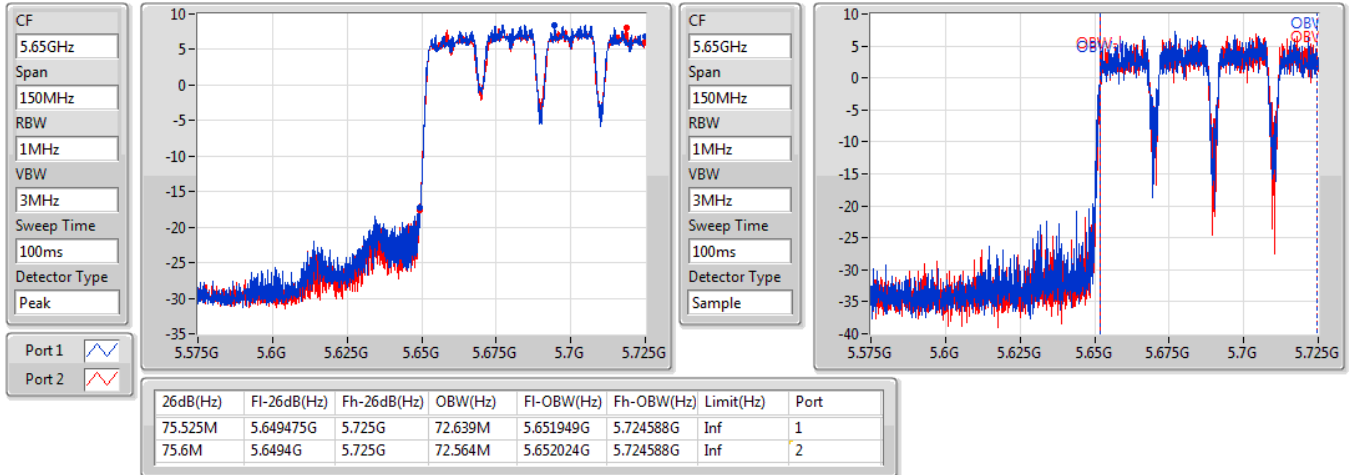

11a80_Nss1,(6Mbps)_2TX
EBW
5610MHz

28/04/2020

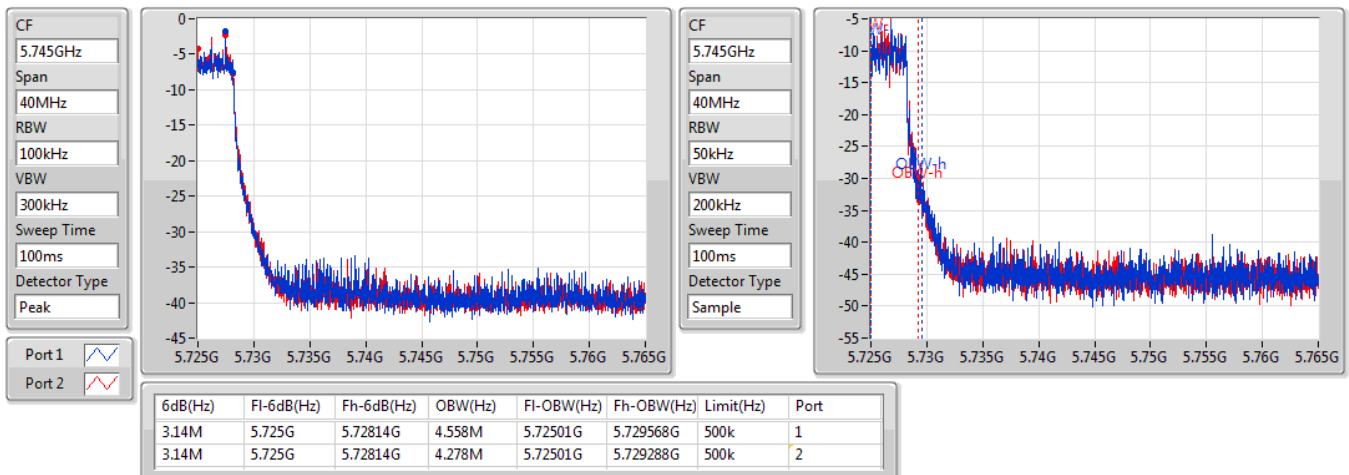


11a80_Nss1,(6Mbps)_2TX
EBW
5690MHz Straddle 5.47-5.725GHz

28/04/2020

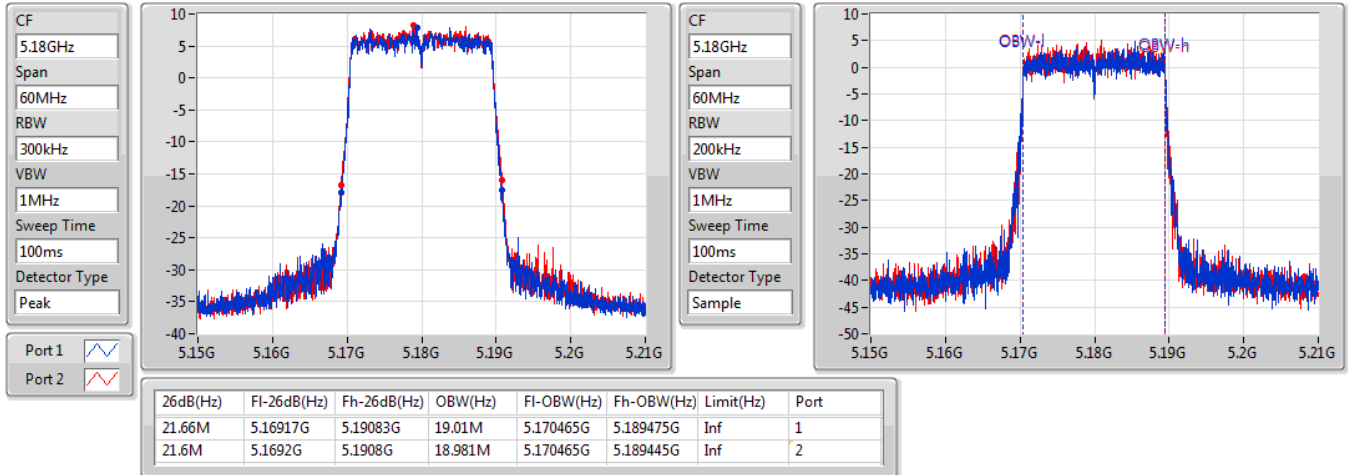

11a80_Nss1,(6Mbps)_2TX
EBW
5690MHz Straddle 5.725-5.85GHz

28/04/2020

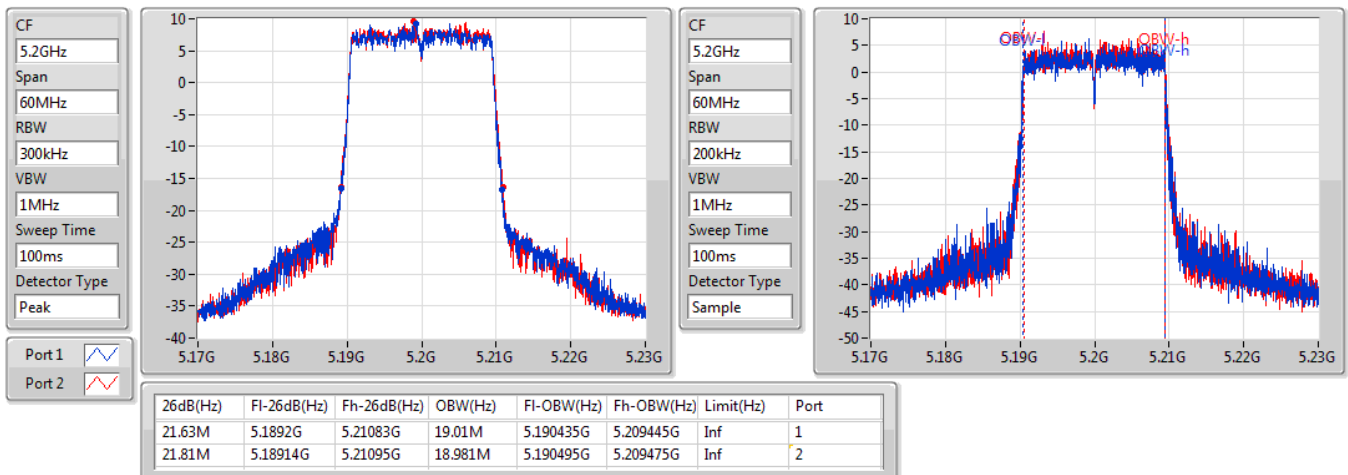


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5180MHz

29/04/2020

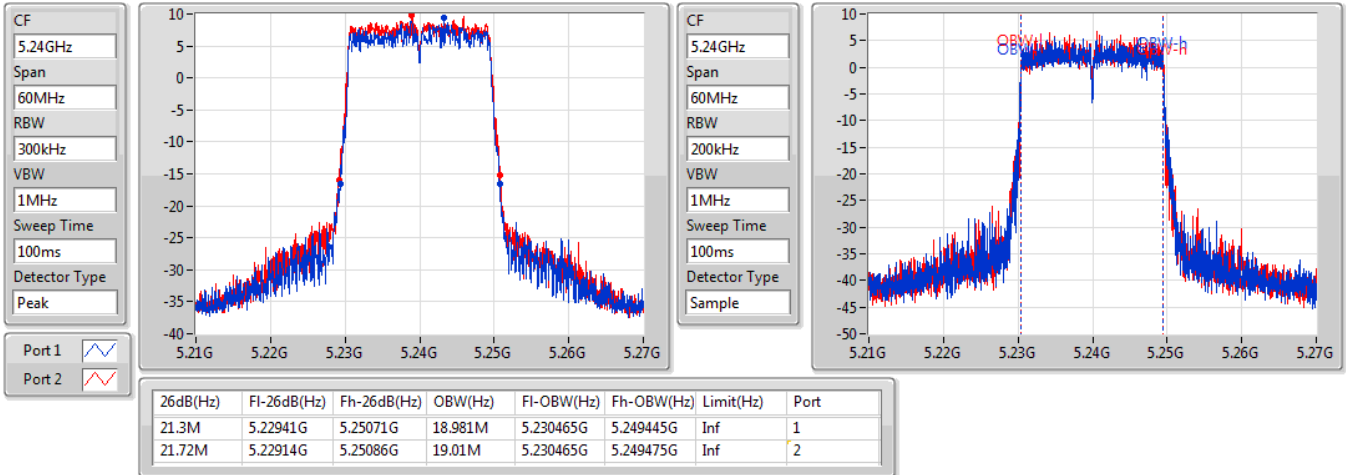

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5200MHz

29/04/2020

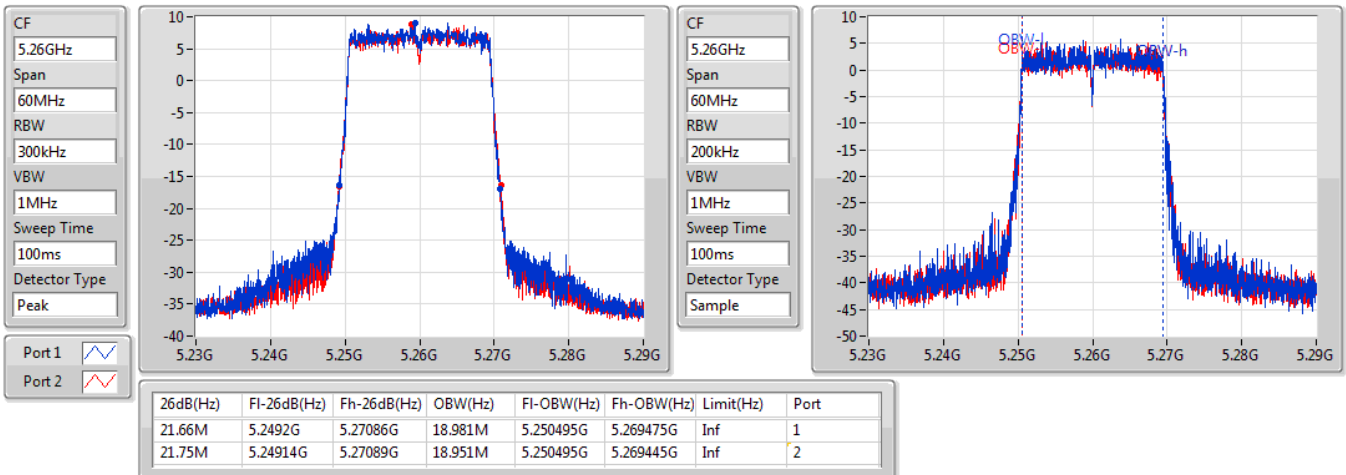


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5240MHz

29/04/2020

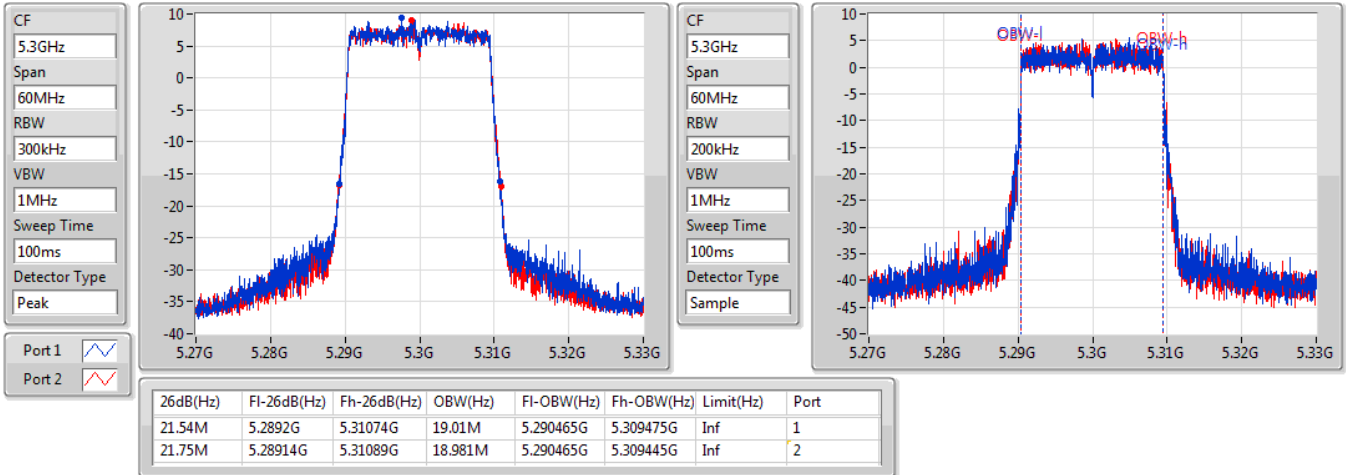

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5260MHz

29/04/2020

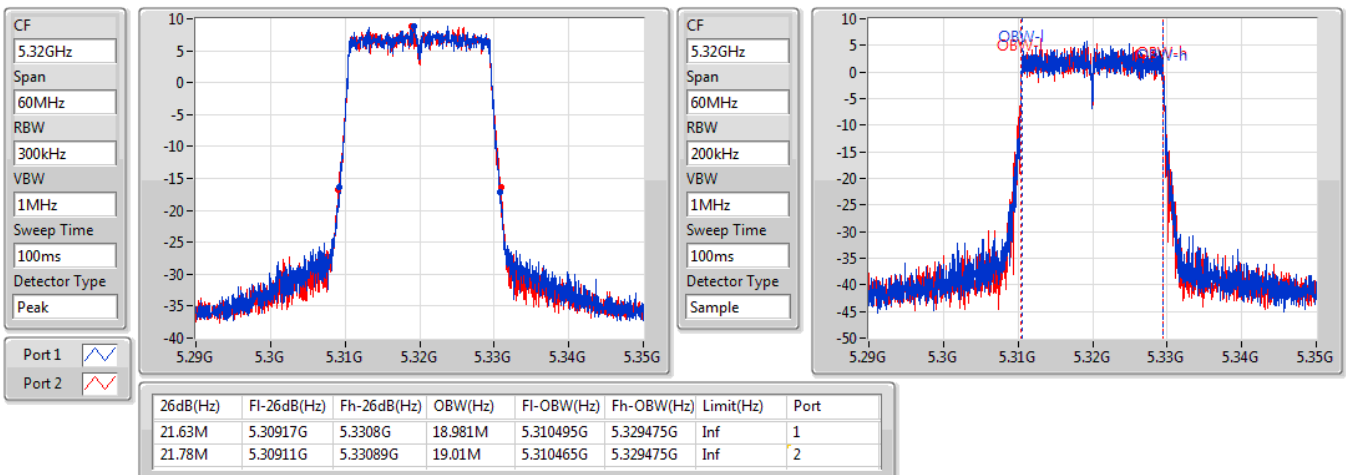


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5300MHz

29/04/2020


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5320MHz

29/04/2020

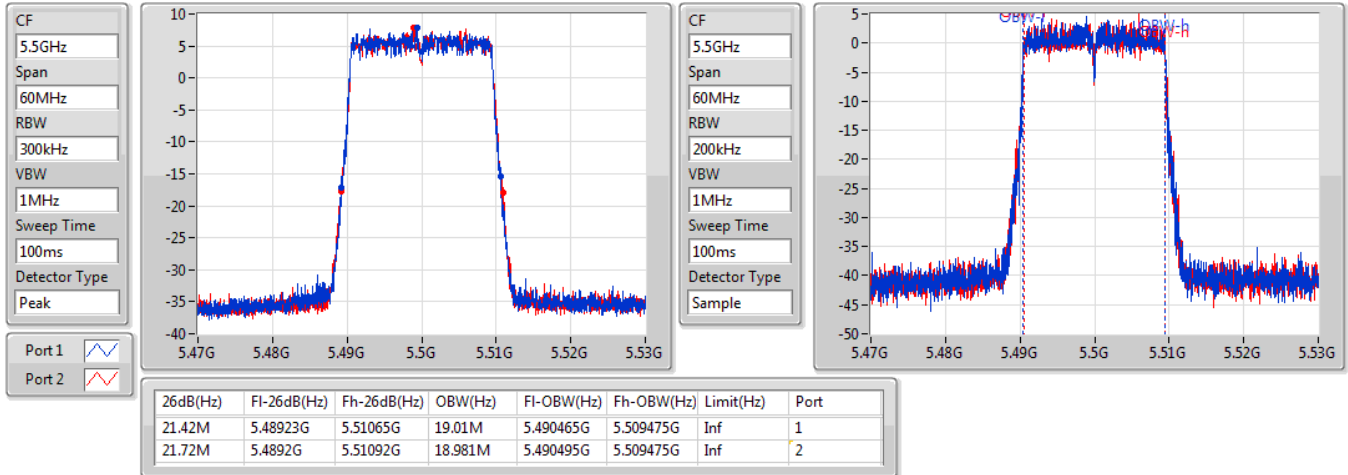


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5500MHz

29/04/2020

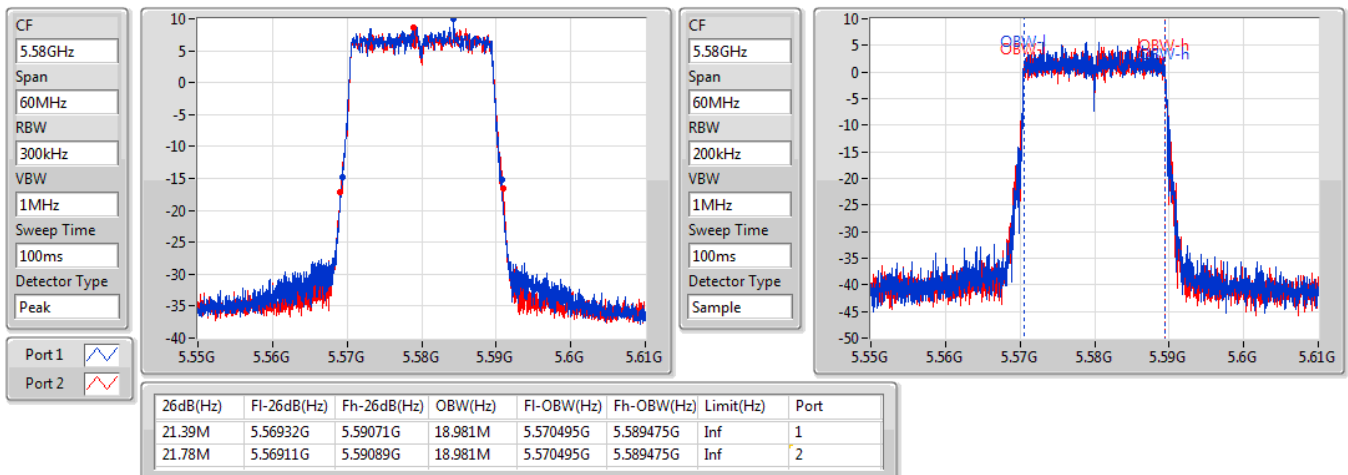


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

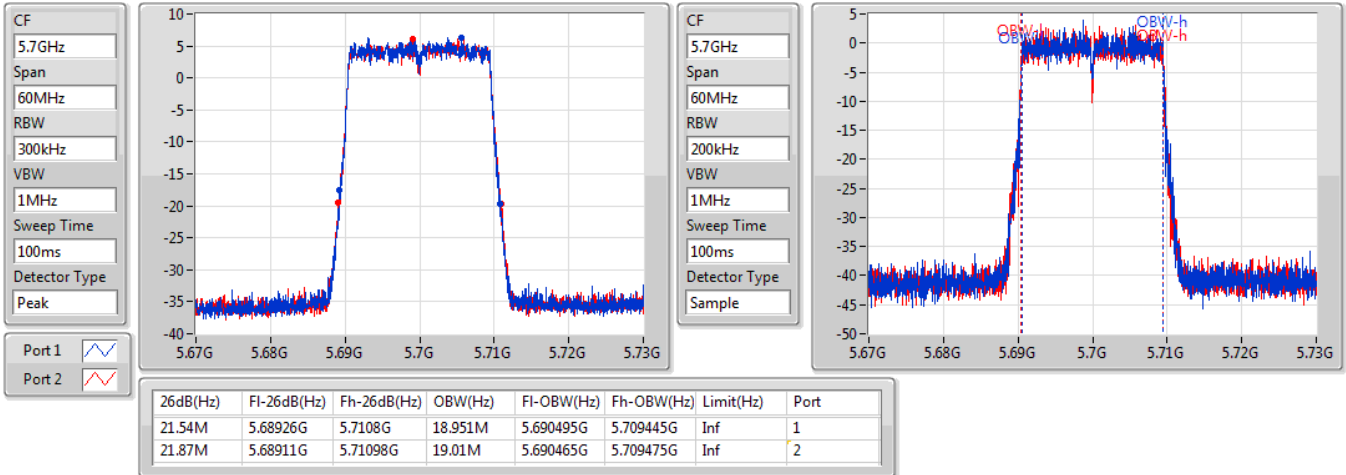
5580MHz

29/04/2020

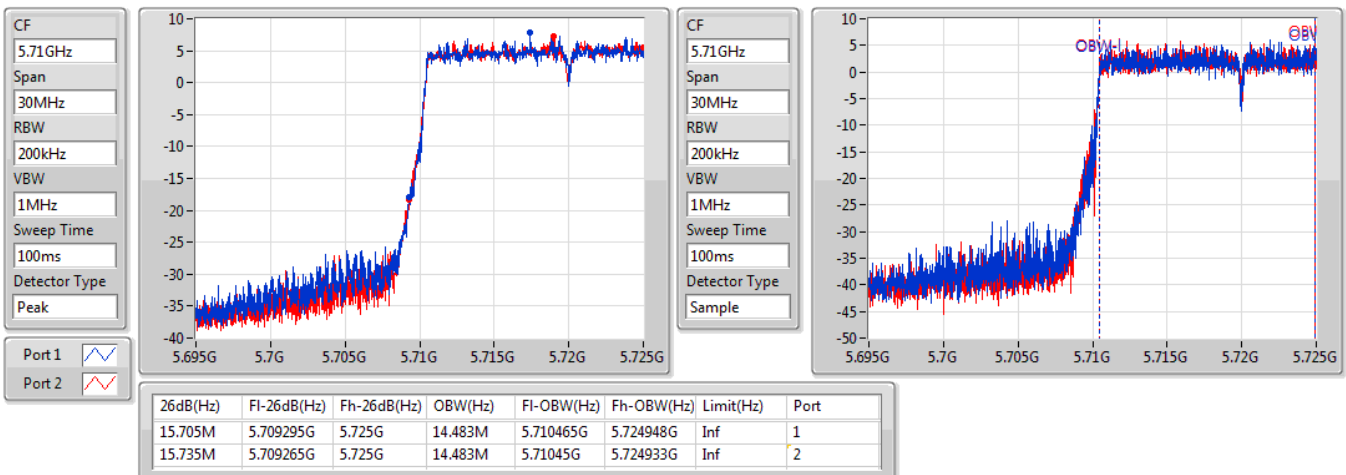


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5700MHz

29/04/2020

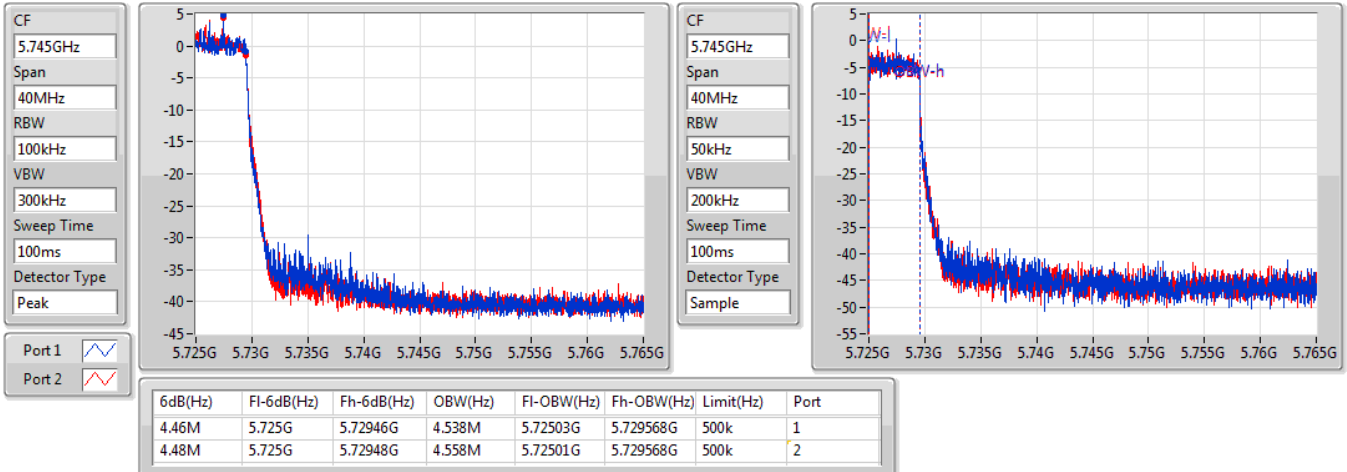

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5720MHz Straddle 5.47-5.725GHz

29/04/2020

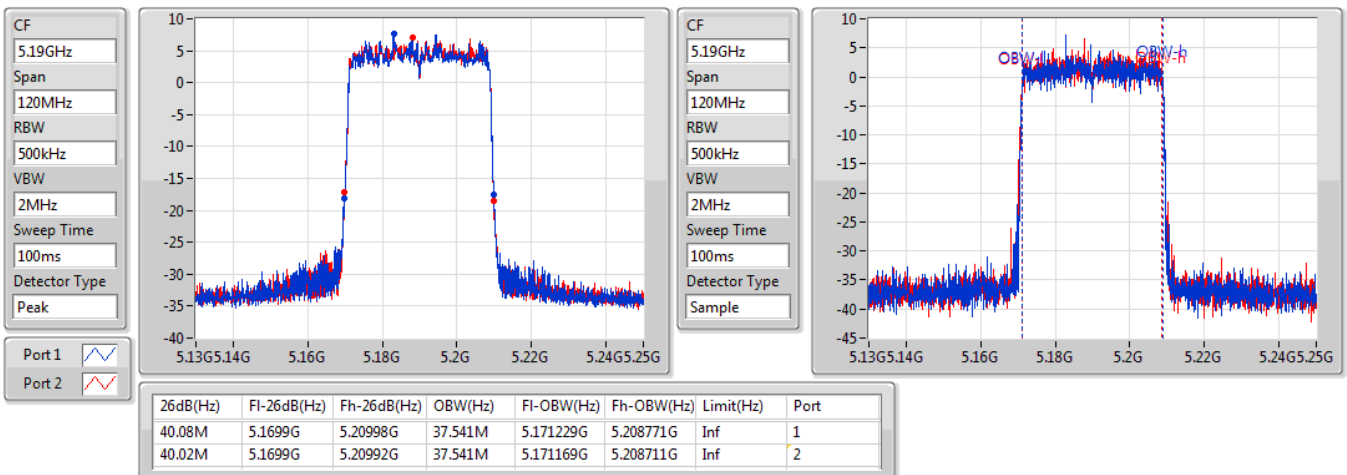


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5720MHz Straddle 5.725-5.85GHz

29/04/2020


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5190MHz

29/04/2020

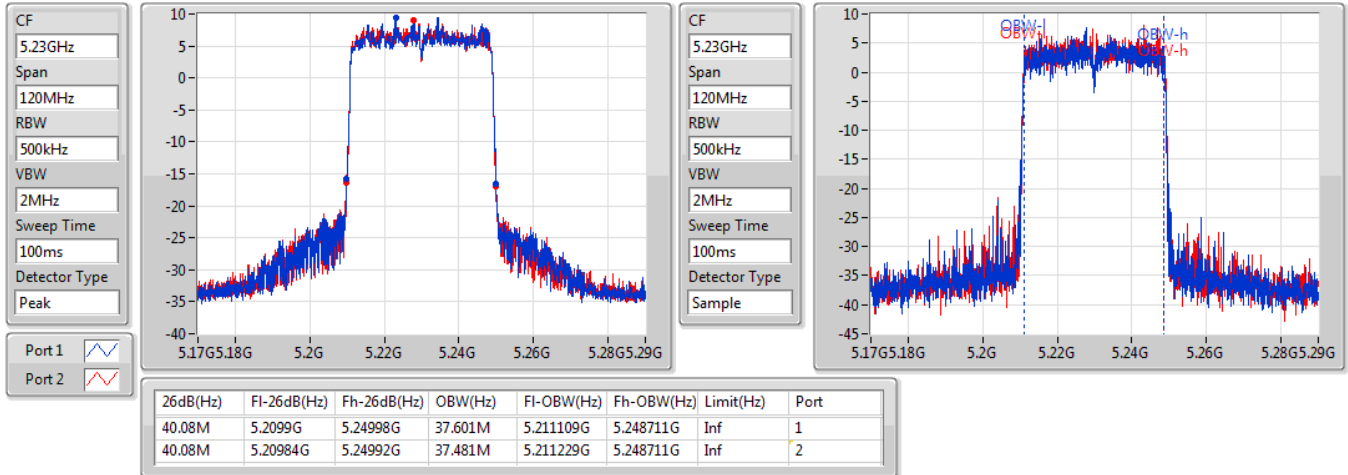


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

5230MHz

29/04/2020

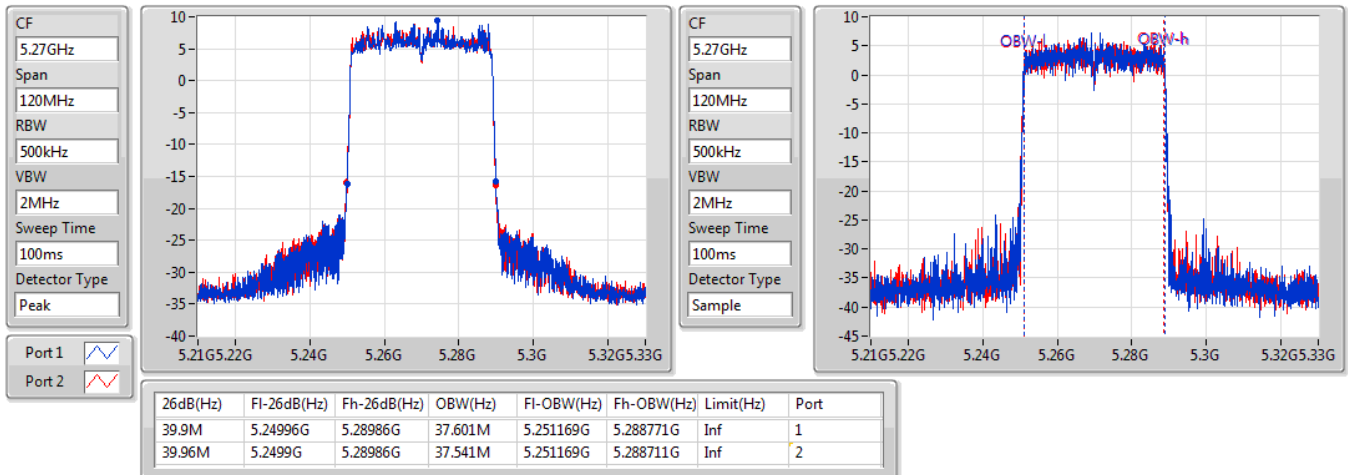


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

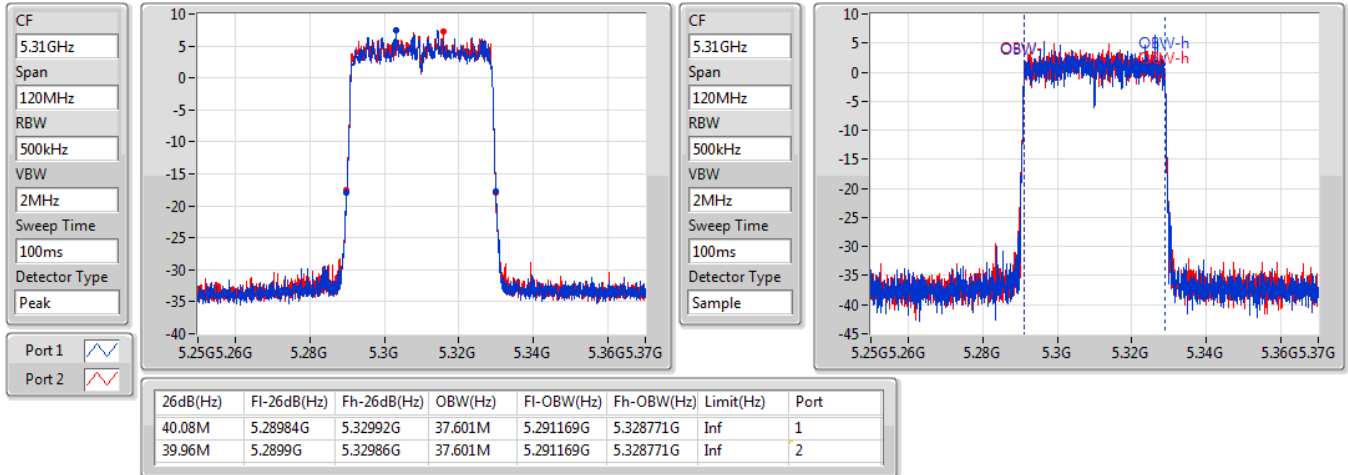
5270MHz

29/04/2020

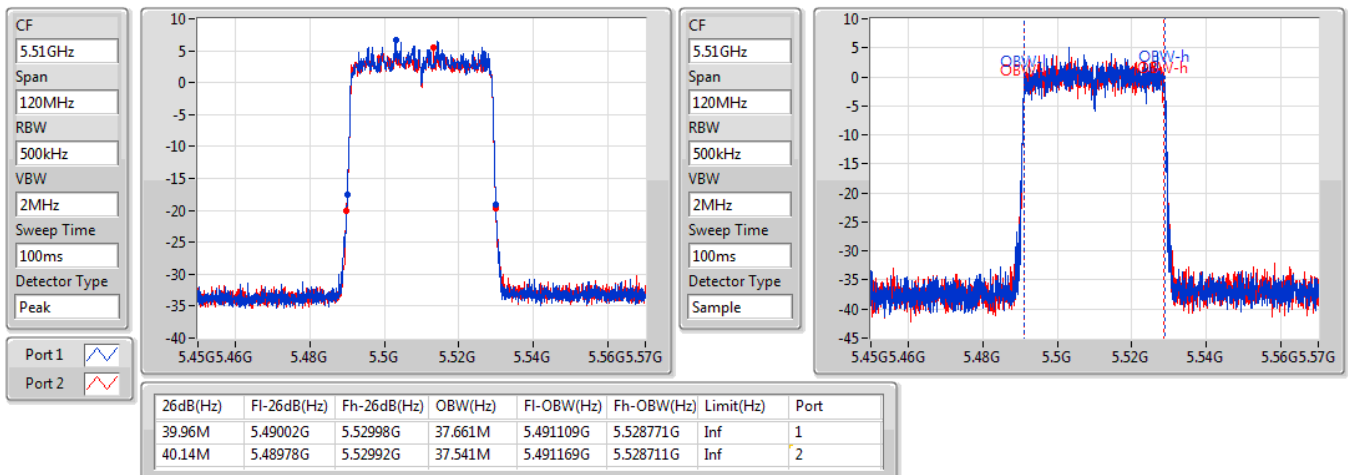


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5310MHz

29/04/2020

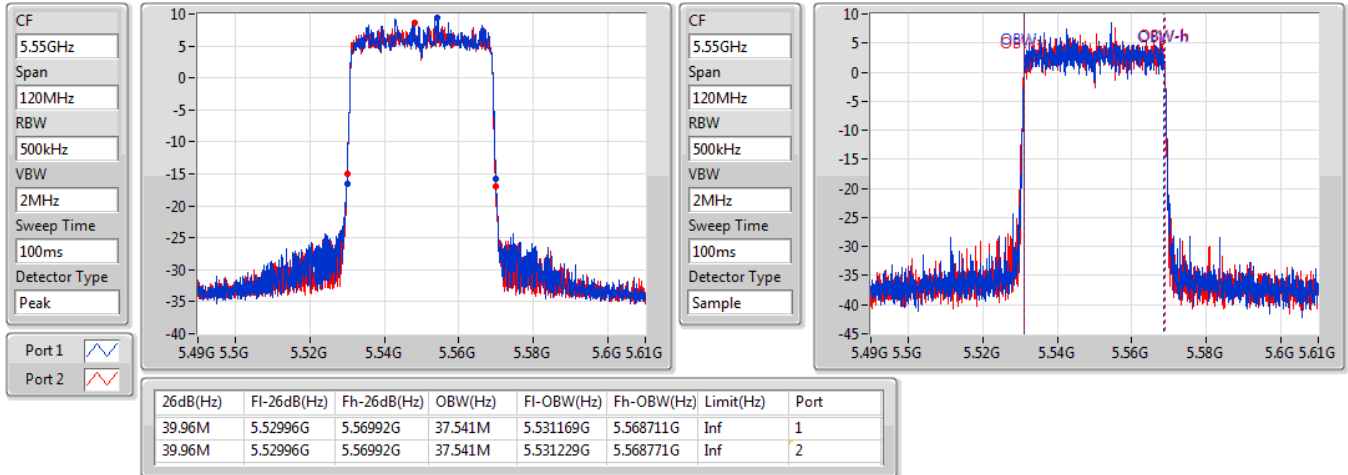

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5510MHz

29/04/2020

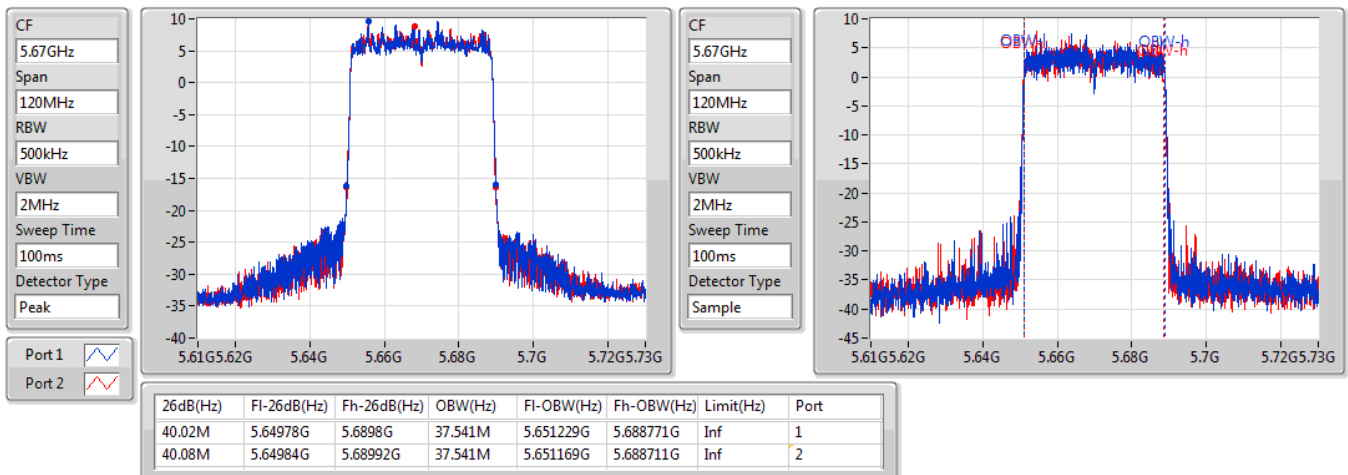


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5550MHz

29/04/2020

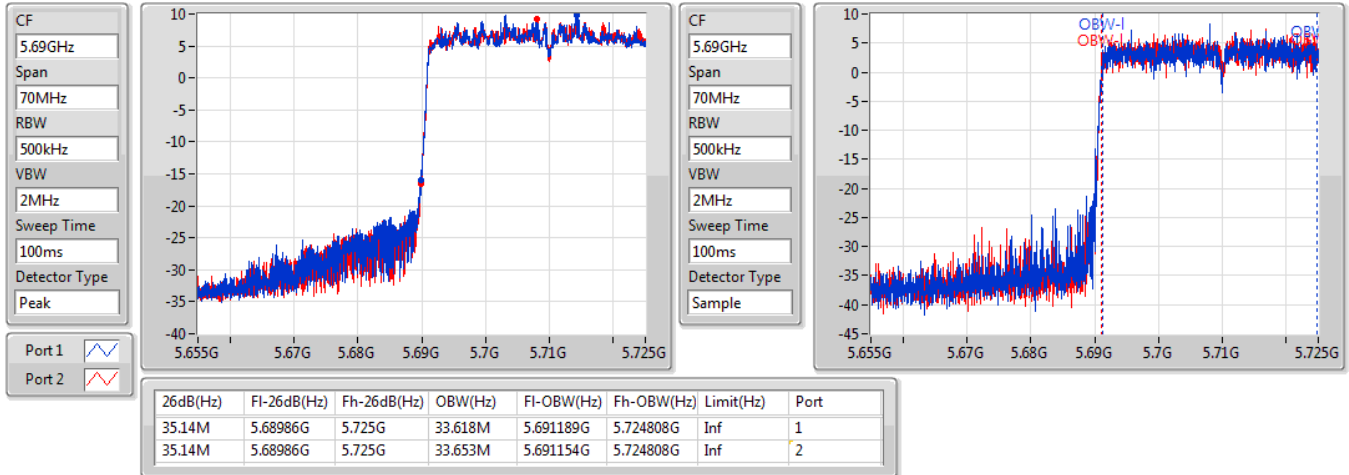

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5670MHz

29/04/2020

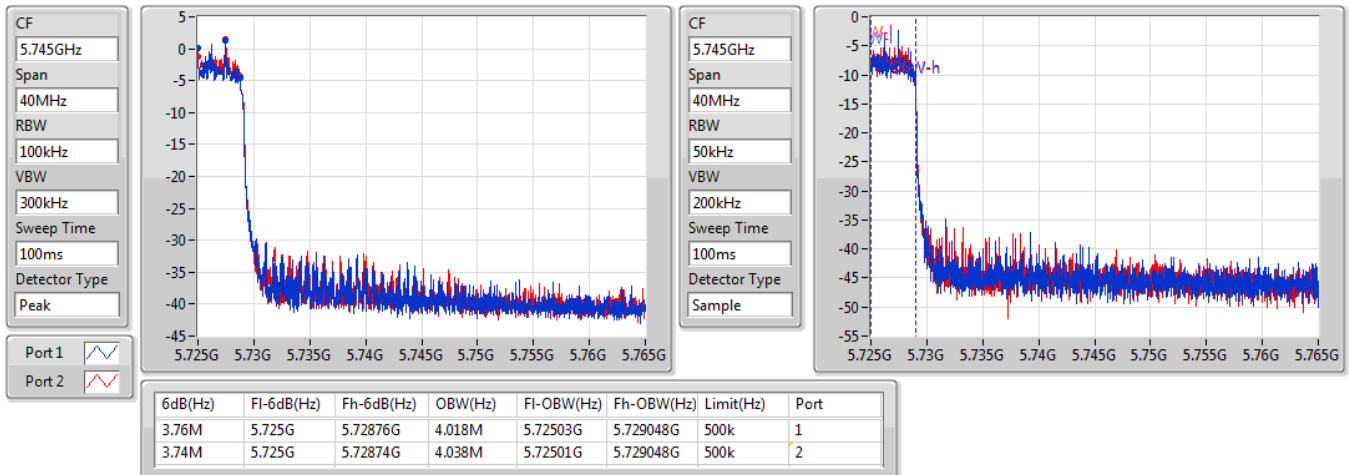


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5710MHz Straddle 5.47-5.725GHz

29/04/2020


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5710MHz Straddle 5.725-5.85GHz

29/04/2020

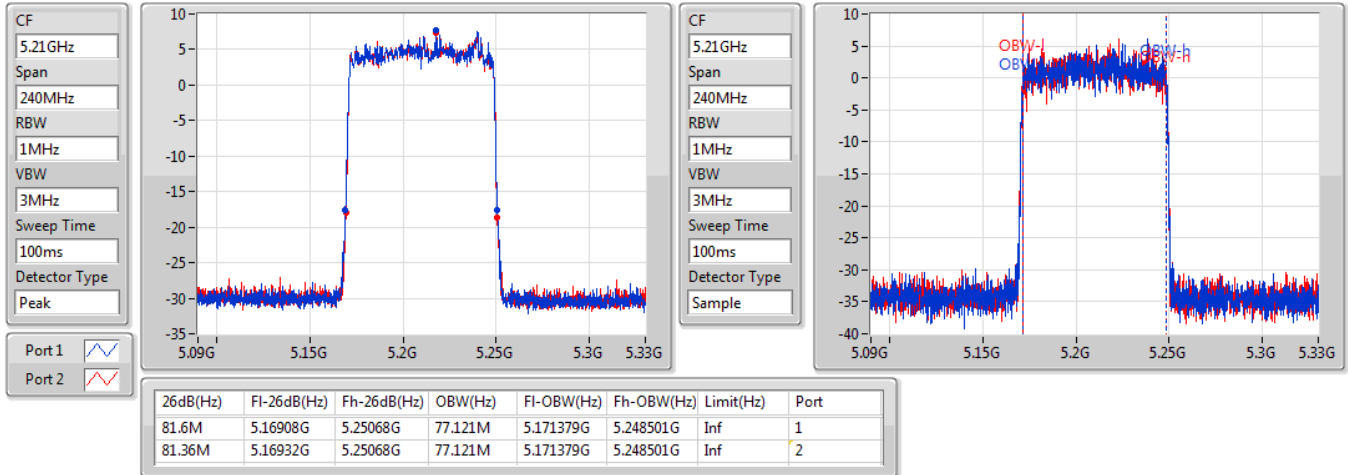


802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5210MHz

29/04/2020

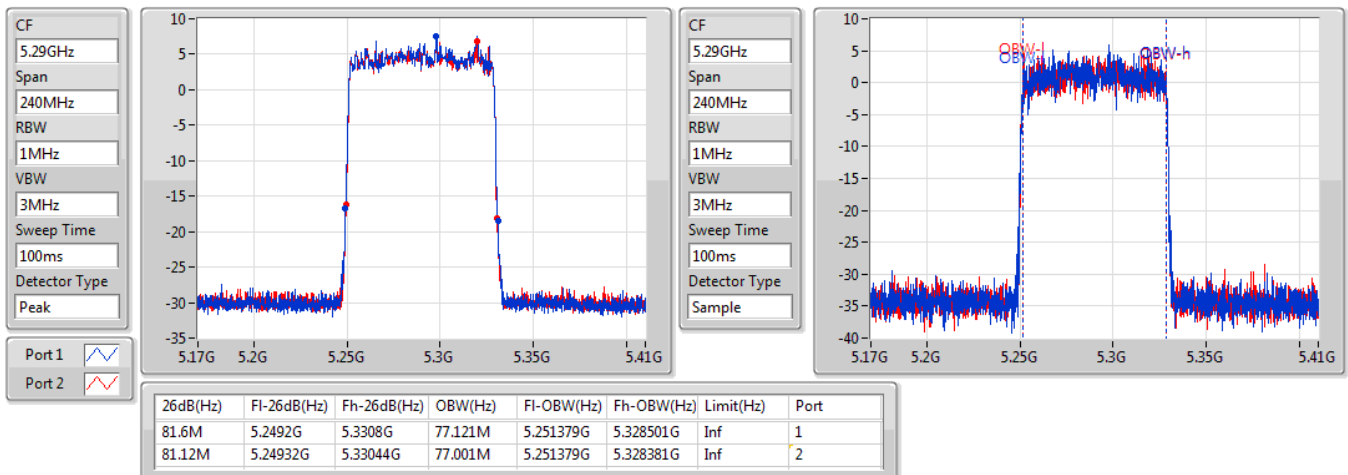


802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

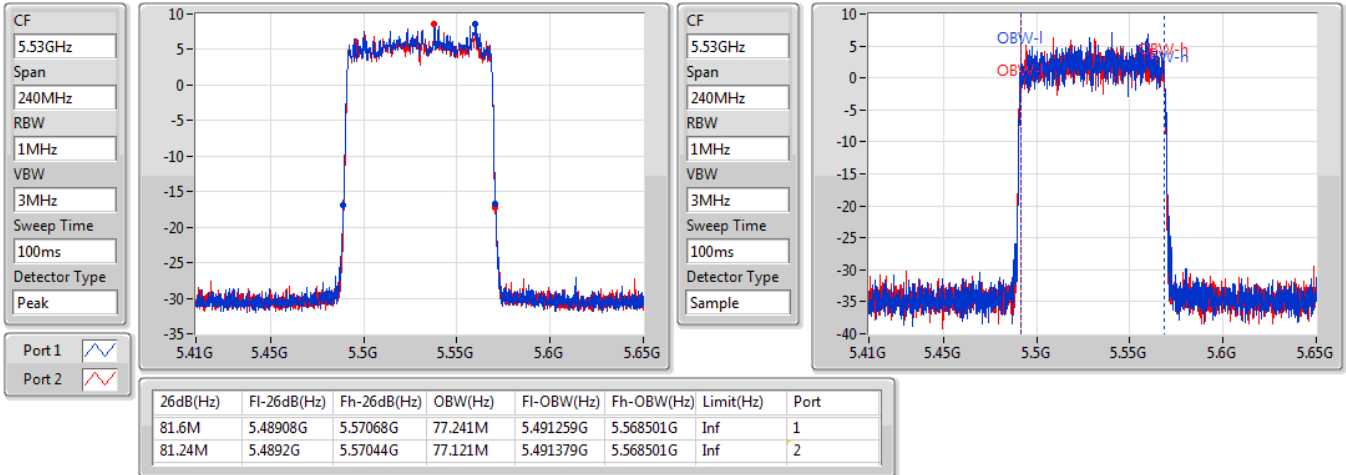
5290MHz

29/04/2020

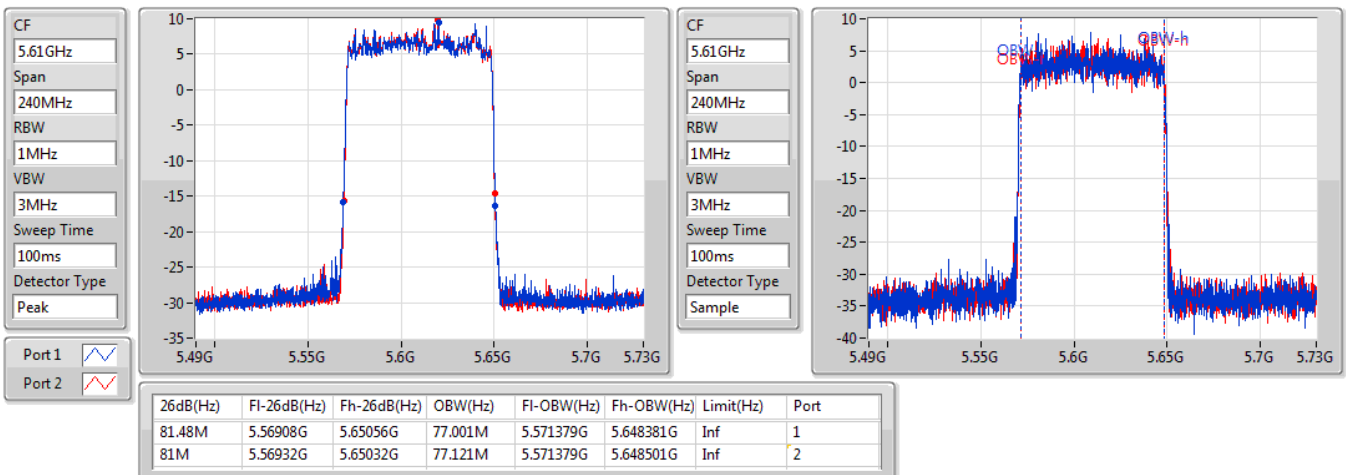


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5530MHz

29/04/2020

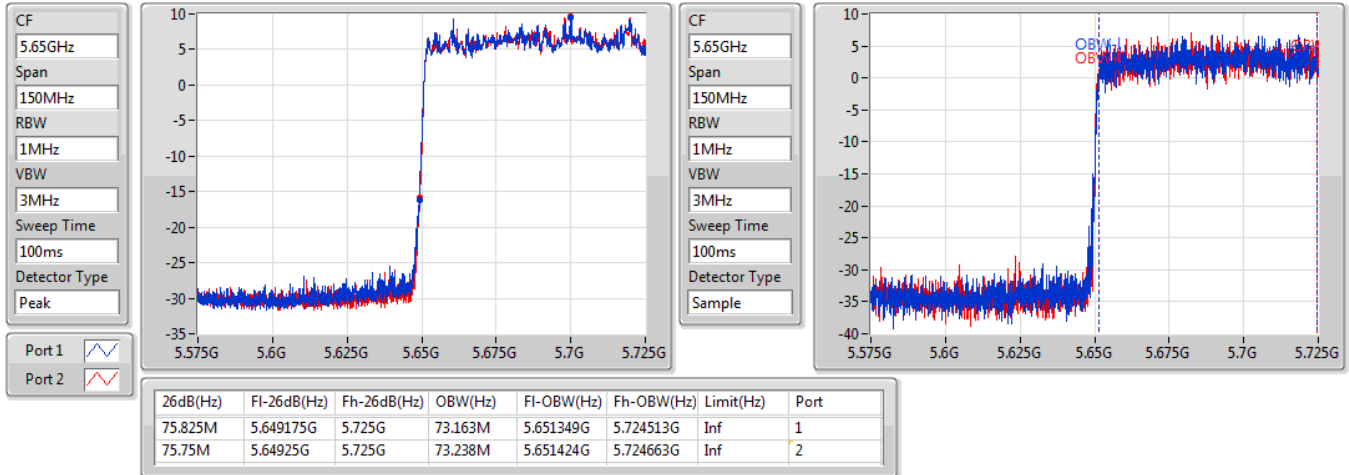

802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5610MHz

29/04/2020

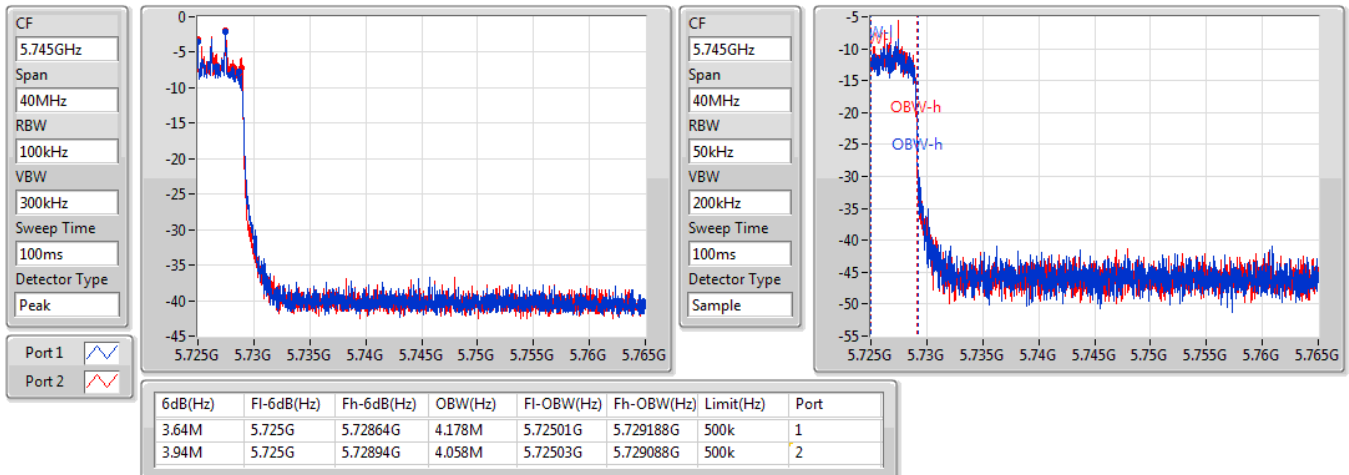


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5690MHz Straddle 5.47-5.725GHz

29/04/2020


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5690MHz Straddle 5.725-5.85GHz

29/04/2020



<2T2S>

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ax HEW20_Nss2,(MCS0)_2TX	21.51M	19.13M	19M1D1D	21.24M	19.04M
802.11ax HEW40_Nss2,(MCS0)_2TX	40.08M	37.601M	37M6D1D	39.96M	37.601M
802.11ax HEW80_Nss2,(MCS0)_2TX	81.6M	77.001M	77M0D1D	81.12M	77.001M
5.25-5.35GHz	-	-	-	-	-
802.11ax HEW40_Nss2,(MCS0)_2TX	40.08M	37.601M	37M6D1D	39.96M	37.541M
802.11ax HEW80_Nss2,(MCS0)_2TX	81.48M	77.001M	77M0D1D	81.12M	77.001M
5.47-5.725GHz	-	-	-	-	-
802.11ax HEW20_Nss2,(MCS0)_2TX	21.51M	19.1M	19M1D1D	21.24M	19.04M
802.11ax HEW40_Nss2,(MCS0)_2TX	40.08M	37.601M	37M6D1D	39.96M	37.541M
802.11ax HEW80_Nss2,(MCS0)_2TX	81.72M	77.121M	77M1D1D	81.12M	77.001M

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

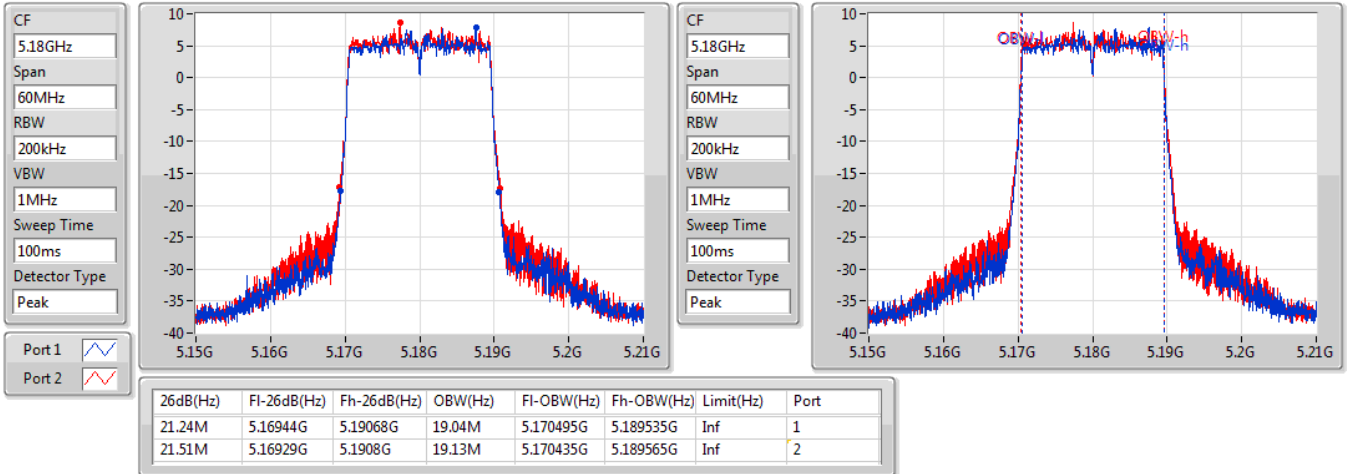
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.24M	19.04M	21.51M	19.13M
5500MHz	Pass	Inf	21.24M	19.04M	21.51M	19.1M
5700MHz	Pass	Inf	21.24M	19.04M	21.48M	19.1M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.08M	37.601M	39.96M	37.601M
5310MHz	Pass	Inf	40.08M	37.541M	39.96M	37.601M
5510MHz	Pass	Inf	40.08M	37.541M	39.96M	37.601M
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.12M	77.001M	81.6M	77.001M
5290MHz	Pass	Inf	81.12M	77.001M	81.48M	77.001M
5530MHz	Pass	Inf	81.12M	77.121M	81.72M	77.001M

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

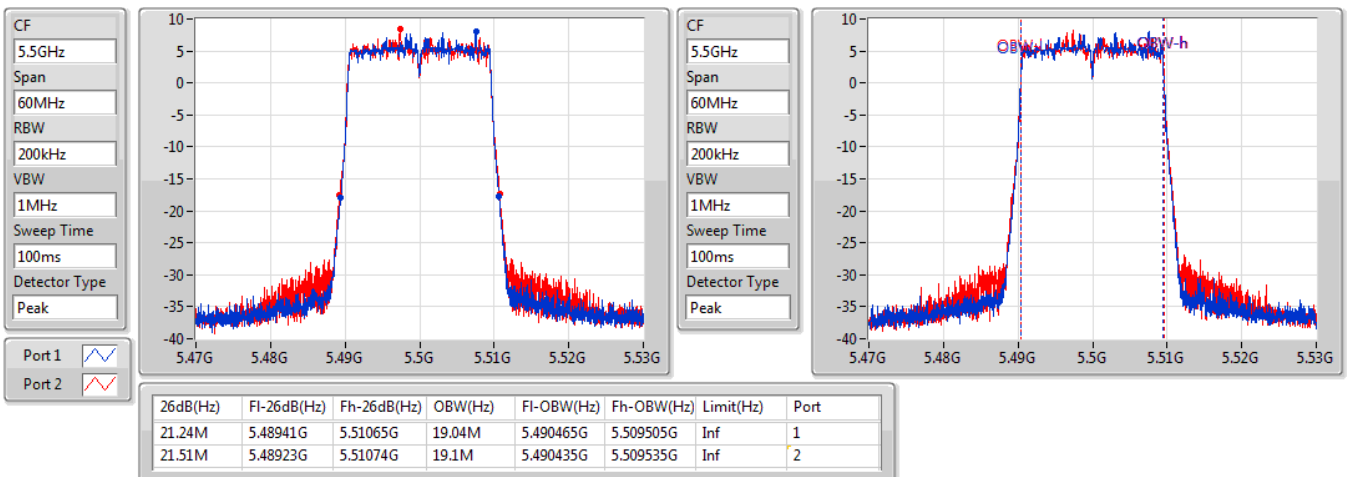
Port X-OBW = Port X 99% occupied bandwidth;

802.11ax HEW20_Nss2,(MCS0)_2TX
EBW
5180MHz

11/05/2020

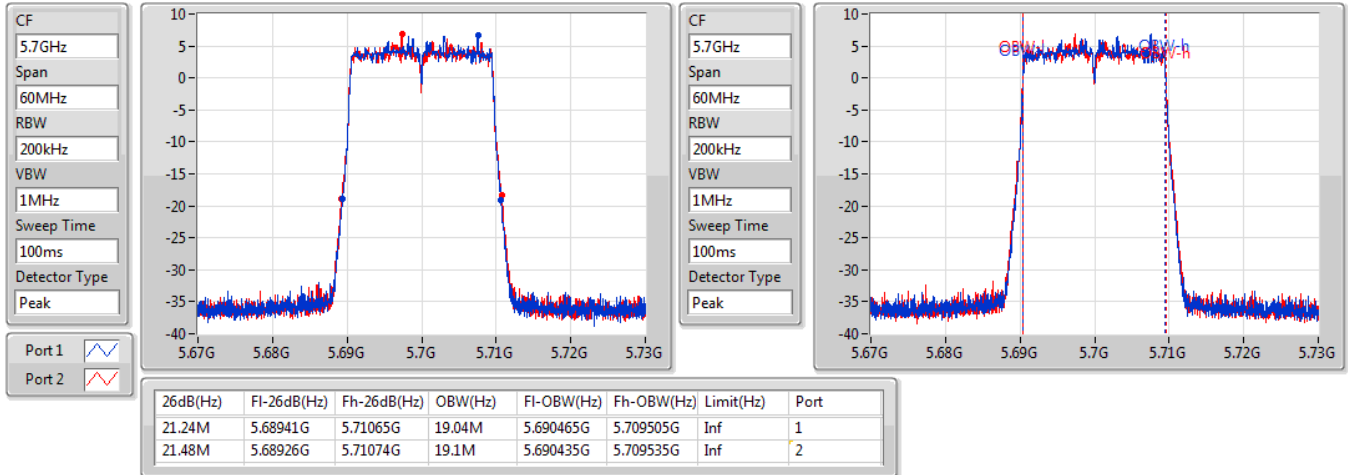

802.11ax HEW20_Nss2,(MCS0)_2TX
EBW
5500MHz

11/05/2020

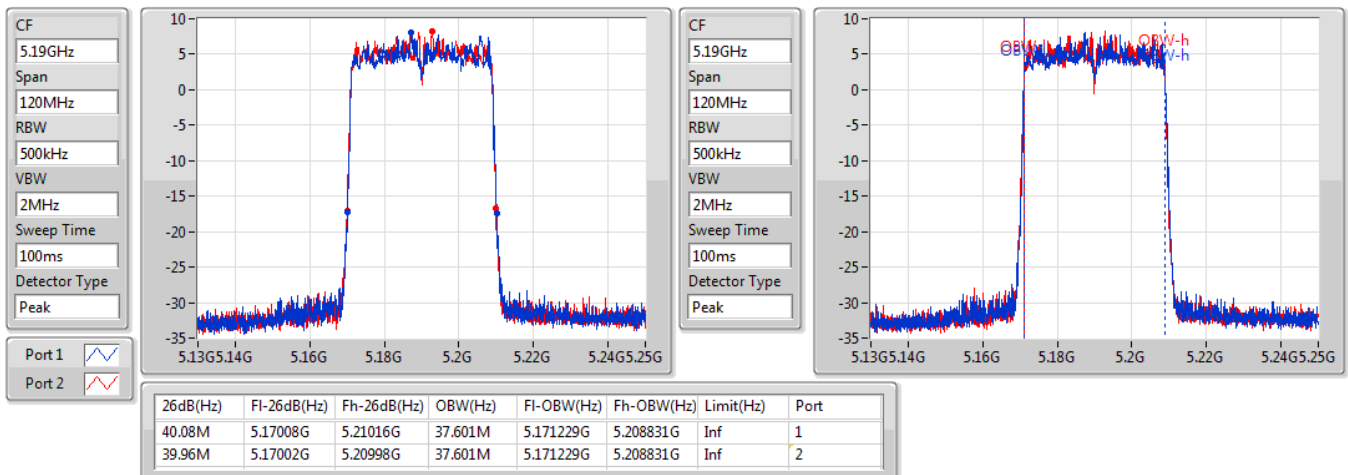


802.11ax HEW20_Nss2,(MCS0)_2TX
EBW
5700MHz

11/05/2020

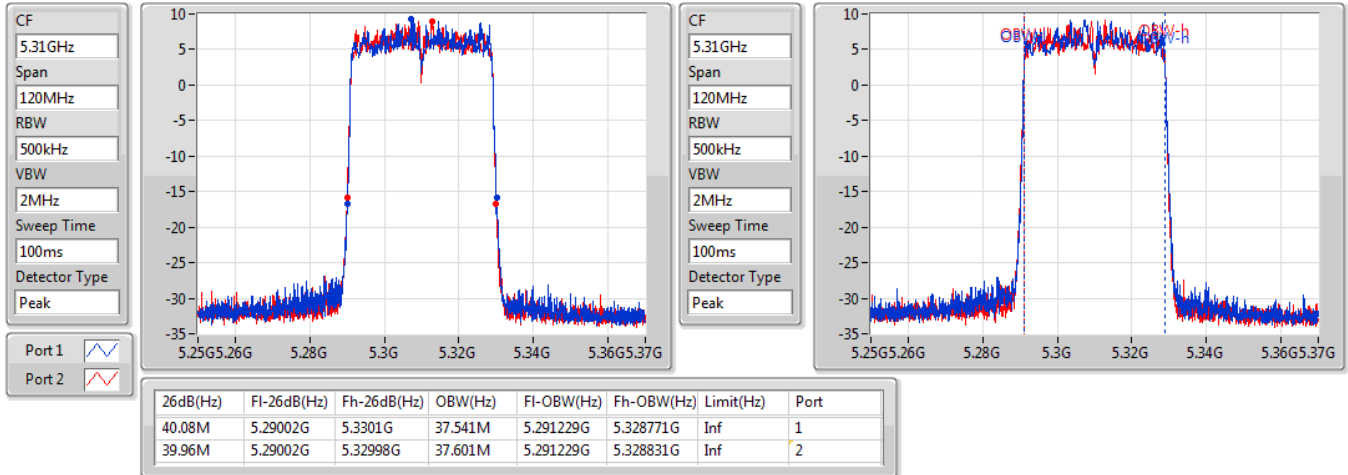

802.11ax HEW40_Nss2,(MCS0)_2TX
EBW
5190MHz

11/05/2020

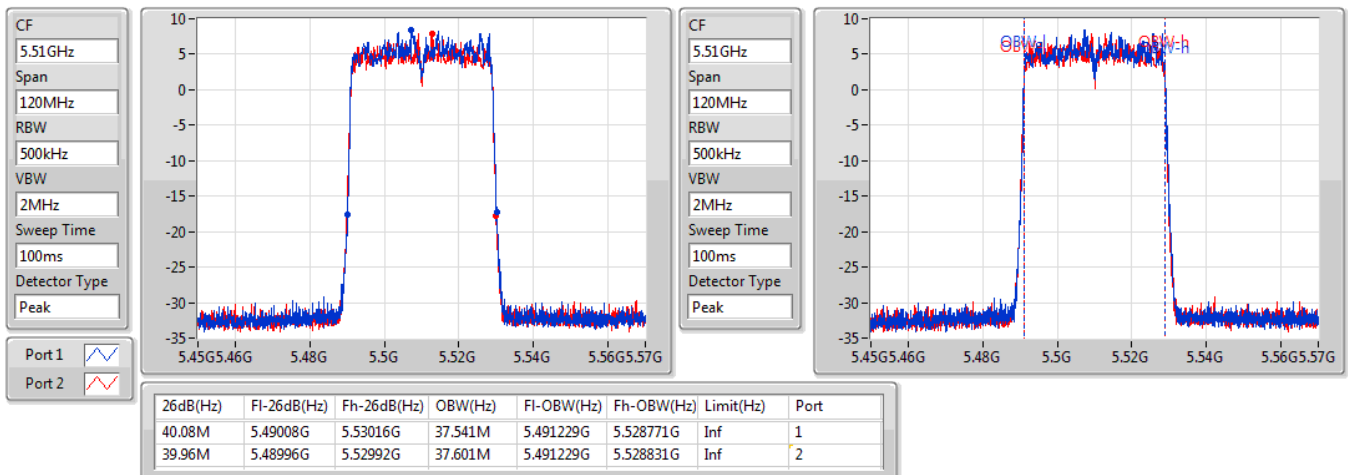


802.11ax HEW40_Nss2,(MCS0)_2TX
EBW
5310MHz

11/05/2020

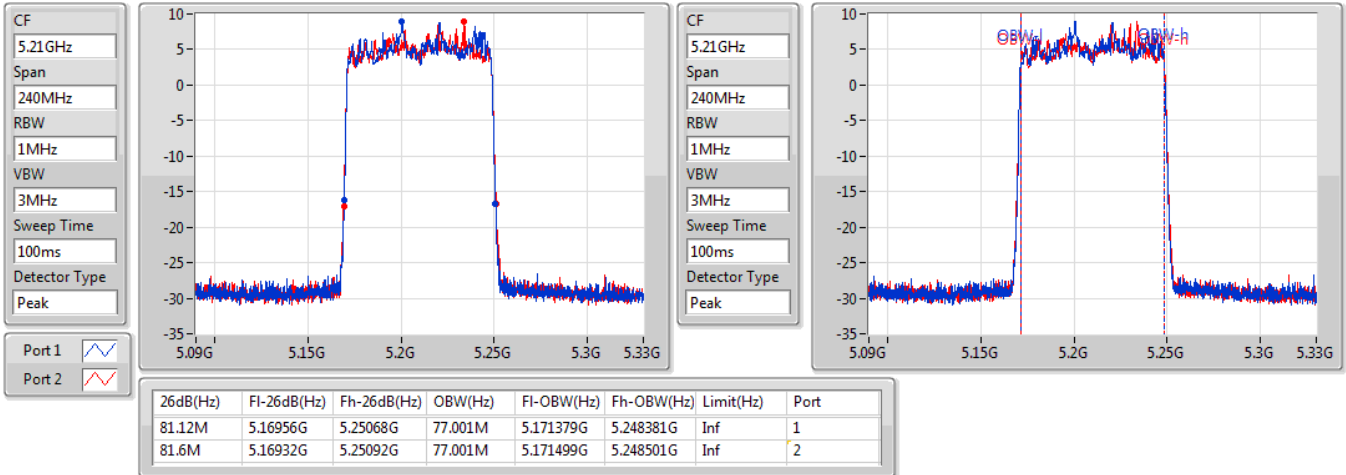

802.11ax HEW40_Nss2,(MCS0)_2TX
EBW
5510MHz

11/05/2020

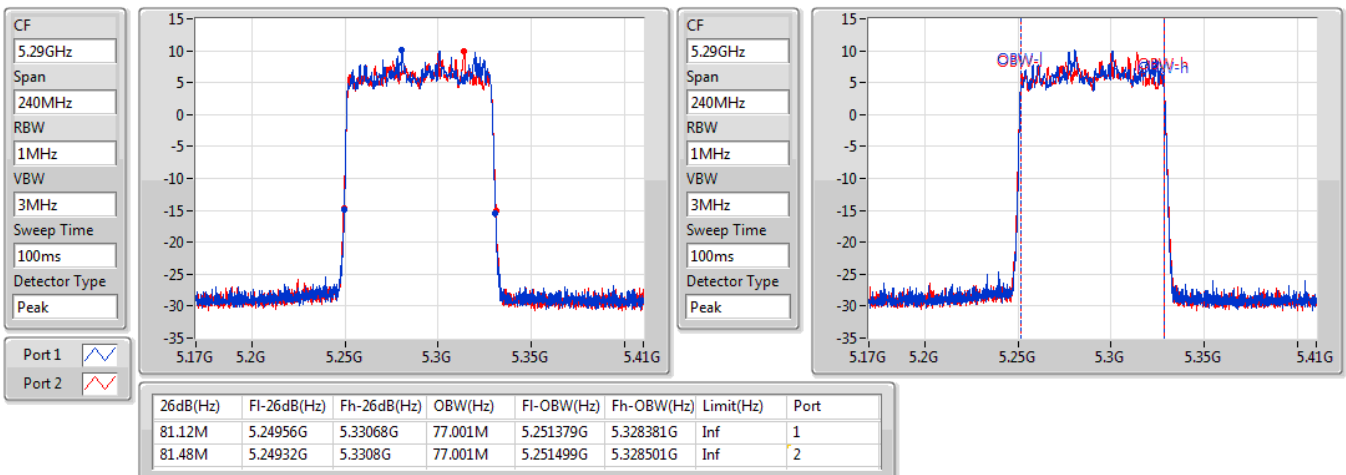


802.11ax HEW80_Nss2,(MCS0)_2TX
EBW
5210MHz

11/05/2020


802.11ax HEW80_Nss2,(MCS0)_2TX
EBW
5290MHz

11/05/2020

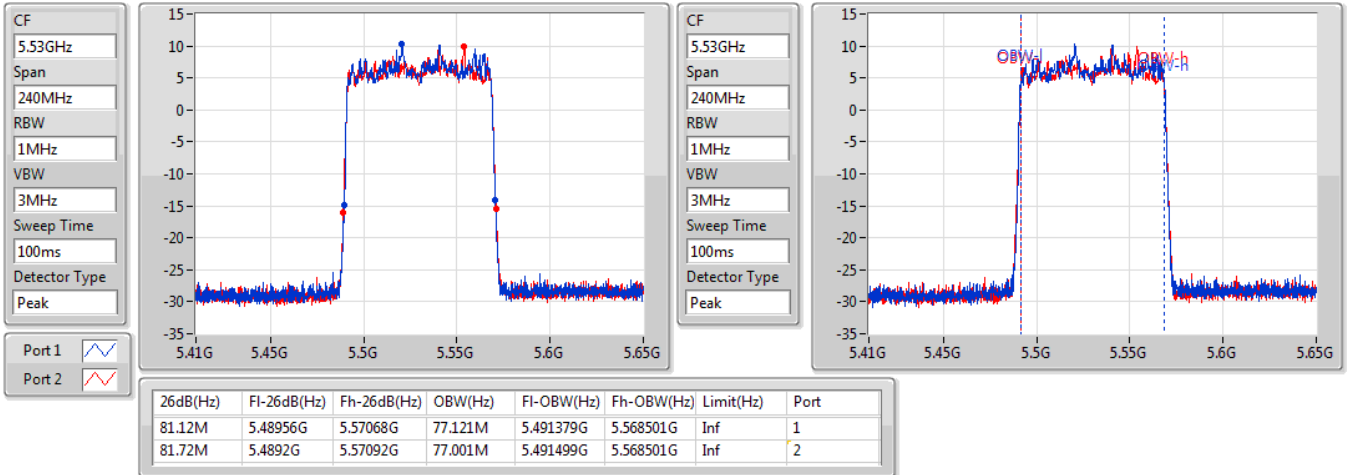


802.11ax HEW80_Nss2,(MCS0)_2TX

EBW

5530MHz

11/05/2020



<2T1S>

For Non-beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
11a20_Nss1,(6Mbps)_2TX	20.40	0.10965	24.99	0.31550
11a40_Nss1,(6Mbps)_2TX	20.02	0.10046	24.54	0.28445
11a80_Nss1,(6Mbps)_2TX	17.16	0.05200	21.84	0.15276
802.11ac VHT20_Nss1,(MCS0)_2TX	20.30	0.10715	24.82	0.30339
802.11ac VHT40_Nss1,(MCS0)_2TX	19.86	0.09683	24.38	0.27416
802.11ac VHT80_Nss1,(MCS0)_2TX	17.81	0.06039	22.49	0.17742
802.11ax HEW20_Nss1,(MCS0)_2TX	20.73	0.11830	25.27	0.33651
802.11ax HEW40_Nss1,(MCS0)_2TX	20.13	0.10304	24.65	0.29174
802.11ax HEW80_Nss1,(MCS0)_2TX	18.17	0.06561	22.85	0.19275
5.25-5.35GHz	-	-	-	-
11a20_Nss1,(6Mbps)_2TX	20.26	0.10617	24.78	0.30061
11a40_Nss1,(6Mbps)_2TX	19.98	0.09954	24.50	0.28184
11a80_Nss1,(6Mbps)_2TX	18.01	0.06324	22.53	0.17906
802.11ac VHT20_Nss1,(MCS0)_2TX	19.92	0.09817	24.44	0.27797
802.11ac VHT40_Nss1,(MCS0)_2TX	19.83	0.09616	24.35	0.27227
802.11ac VHT80_Nss1,(MCS0)_2TX	17.76	0.05970	22.28	0.16904
802.11ax HEW20_Nss1,(MCS0)_2TX	20.36	0.10864	24.88	0.30761
802.11ax HEW40_Nss1,(MCS0)_2TX	20.13	0.10304	24.65	0.29174
802.11ax HEW80_Nss1,(MCS0)_2TX	18.15	0.06531	22.67	0.18493
5.47-5.725GHz	-	-	-	-
11a20_Nss1,(6Mbps)_2TX	19.88	0.09727	24.51	0.28249
11a40_Nss1,(6Mbps)_2TX	20.12	0.10280	25.01	0.31696
11a80_Nss1,(6Mbps)_2TX	20.15	0.10351	25.04	0.31915
802.11ac VHT20_Nss1,(MCS0)_2TX	19.88	0.09727	24.51	0.28249
802.11ac VHT40_Nss1,(MCS0)_2TX	20.19	0.10447	25.08	0.32211
802.11ac VHT80_Nss1,(MCS0)_2TX	19.87	0.09705	24.76	0.29923
802.11ax HEW20_Nss1,(MCS0)_2TX	20.11	0.10257	24.74	0.29785
802.11ax HEW40_Nss1,(MCS0)_2TX	20.44	0.11066	25.33	0.34119
802.11ax HEW80_Nss1,(MCS0)_2TX	20.28	0.10666	25.17	0.32885
5.725-5.85GHz	-	-	-	-
11a20_Nss1,(6Mbps)_2TX	12.67	0.01849	17.56	0.05702
11a40_Nss1,(6Mbps)_2TX	9.22	0.00836	14.11	0.02576
11a80_Nss1,(6Mbps)_2TX	5.81	0.00381	10.70	0.01175
802.11ac VHT20_Nss1,(MCS0)_2TX	13.73	0.02360	18.62	0.07278
802.11ac VHT40_Nss1,(MCS0)_2TX	9.53	0.00897	14.42	0.02767
802.11ac VHT80_Nss1,(MCS0)_2TX	5.52	0.00356	10.41	0.01099
802.11ax HEW20_Nss1,(MCS0)_2TX	13.61	0.02296	18.50	0.07079
802.11ax HEW40_Nss1,(MCS0)_2TX	9.66	0.00925	14.55	0.02851
802.11ax HEW80_Nss1,(MCS0)_2TX	6.01	0.00399	10.90	0.01230

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)
11a20_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	4.68	17.05	17.25	20.16	30.00	24.84
5200MHz	Pass	4.68	17.18	17.41	20.31	30.00	24.99
5240MHz	Pass	4.52	17.19	17.58	20.40	30.00	24.92
5260MHz	Pass	4.52	17.17	16.89	20.04	23.98	24.56
5300MHz	Pass	4.52	17.03	17.12	20.09	23.98	24.61
5320MHz	Pass	4.52	17.28	17.21	20.26	23.98	24.78
5500MHz	Pass	4.63	15.98	15.93	18.97	23.98	23.60
5580MHz	Pass	4.63	16.93	16.81	19.88	23.98	24.51
5700MHz	Pass	4.89	15.78	15.56	18.68	23.98	23.57
5720MHz Straddle 5.47-5.725GHz	Pass	4.89	16.44	16.07	19.27	22.93	24.16
5720MHz Straddle 5.725-5.85GHz	Pass	4.89	9.71	9.60	12.67	30.00	17.56
11a40_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	4.68	14.95	15.11	18.04	30.00	22.72
5230MHz	Pass	4.52	16.85	17.16	20.02	30.00	24.54
5270MHz	Pass	4.52	16.84	17.09	19.98	23.98	24.50
5310MHz	Pass	4.52	15.02	15.14	18.09	23.98	22.61
5510MHz	Pass	4.63	15.18	15.01	18.11	23.98	22.74
5550MHz	Pass	4.63	17.01	16.87	19.95	23.98	24.58
5670MHz	Pass	4.89	17.06	17.15	20.12	23.98	25.01
5710MHz Straddle 5.47-5.725GHz	Pass	4.89	16.52	16.65	19.60	23.98	24.49
5710MHz Straddle 5.725-5.85GHz	Pass	4.89	6.10	6.32	9.22	30.00	14.11
11a80_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	4.68	14.16	14.13	17.16	30.00	21.84
5290MHz	Pass	4.52	14.92	15.08	18.01	23.98	22.53
5530MHz	Pass	4.63	14.12	14.06	17.10	23.98	21.73
5610MHz	Pass	4.89	17.16	17.11	20.15	23.98	25.04
5690MHz Straddle 5.47-5.725GHz	Pass	4.89	16.66	16.62	19.65	23.98	24.54
5690MHz Straddle 5.725-5.85GHz	Pass	4.89	2.64	2.95	5.81	30.00	10.70
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	4.68	15.63	15.84	18.75	30.00	23.43
5200MHz	Pass	4.68	17.07	17.19	20.14	30.00	24.82
5240MHz	Pass	4.52	17.36	17.22	20.30	30.00	24.82
5260MHz	Pass	4.52	16.92	16.84	19.89	23.98	24.41
5300MHz	Pass	4.52	17.08	16.74	19.92	23.98	24.44
5320MHz	Pass	4.52	16.96	16.84	19.91	23.98	24.43
5500MHz	Pass	4.63	15.82	15.67	18.76	23.98	23.39
5580MHz	Pass	4.63	16.99	16.74	19.88	23.98	24.51
5700MHz	Pass	4.89	14.68	14.53	17.62	23.98	22.51
5720MHz Straddle 5.47-5.725GHz	Pass	4.89	16.44	16.05	19.26	23.00	24.15
5720MHz Straddle 5.725-5.85GHz	Pass	4.89	10.85	10.59	13.73	30.00	18.62
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	4.68	14.93	15.03	17.99	30.00	22.67
5230MHz	Pass	4.52	16.77	16.93	19.86	30.00	24.38

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)
5270MHz	Pass	4.52	16.76	16.87	19.83	23.98	24.35
5310MHz	Pass	4.52	14.84	15.09	17.98	23.98	22.50
5510MHz	Pass	4.63	14.19	13.68	16.95	23.98	21.58
5550MHz	Pass	4.63	16.78	16.71	19.76	23.98	24.39
5670MHz	Pass	4.89	17.20	17.16	20.19	23.98	25.08
5710MHz Straddle 5.47-5.725GHz	Pass	4.89	16.67	16.70	19.70	23.98	24.59
5710MHz Straddle 5.725-5.85GHz	Pass	4.89	6.46	6.57	9.53	30.00	14.42
802.11ac VHT80_Nss1.(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	4.68	14.78	14.81	17.81	30.00	22.49
5290MHz	Pass	4.52	14.69	14.80	17.76	23.98	22.28
5530MHz	Pass	4.63	15.94	15.64	18.80	23.98	23.43
5610MHz	Pass	4.89	16.80	16.91	19.87	23.98	24.76
5690MHz Straddle 5.47-5.725GHz	Pass	4.89	16.62	16.41	19.53	23.98	24.42
5690MHz Straddle 5.725-5.85GHz	Pass	4.89	2.47	2.54	5.52	30.00	10.41
802.11ax HEW20_Nss1.(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	4.68	16.19	16.38	19.30	30.00	23.98
5200MHz	Pass	4.68	17.48	17.68	20.59	30.00	25.27
5240MHz	Pass	4.52	17.55	17.89	20.73	30.00	25.25
5260MHz	Pass	4.52	17.28	17.06	20.18	23.98	24.70
5300MHz	Pass	4.52	17.39	17.26	20.34	23.98	24.86
5320MHz	Pass	4.52	17.38	17.32	20.36	23.98	24.88
5500MHz	Pass	4.63	16.32	16.21	19.28	23.98	23.91
5580MHz	Pass	4.63	17.15	17.04	20.11	23.98	24.74
5700MHz	Pass	4.89	15.05	14.83	17.95	23.98	22.84
5720MHz Straddle 5.47-5.725GHz	Pass	4.89	16.52	16.19	19.37	22.96	24.26
5720MHz Straddle 5.725-5.85GHz	Pass	4.89	10.59	10.61	13.61	30.00	18.50
802.11ax HEW40_Nss1.(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	4.68	15.13	15.45	18.30	30.00	22.98
5230MHz	Pass	4.52	16.93	17.31	20.13	30.00	24.65
5270MHz	Pass	4.52	17.05	17.19	20.13	23.98	24.65
5310MHz	Pass	4.52	15.10	15.39	18.26	23.98	22.78
5510MHz	Pass	4.63	14.21	14.08	17.16	23.98	21.79
5550MHz	Pass	4.63	17.05	17.13	20.10	23.98	24.73
5670MHz	Pass	4.89	17.36	17.49	20.44	23.98	25.33
5710MHz Straddle 5.47-5.725GHz	Pass	4.89	16.72	16.86	19.80	23.98	24.69
5710MHz Straddle 5.725-5.85GHz	Pass	4.89	6.42	6.87	9.66	30.00	14.55
802.11ax HEW80_Nss1.(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	4.68	15.11	15.21	18.17	30.00	22.85
5290MHz	Pass	4.52	15.11	15.16	18.15	23.98	22.67
5530MHz	Pass	4.63	16.25	16.19	19.23	23.98	23.86
5610MHz	Pass	4.89	17.20	17.34	20.28	23.98	25.17
5690MHz Straddle 5.47-5.725GHz	Pass	4.89	16.82	16.72	19.78	23.98	24.67
5690MHz Straddle 5.725-5.85GHz	Pass	4.89	2.76	3.23	6.01	30.00	10.90

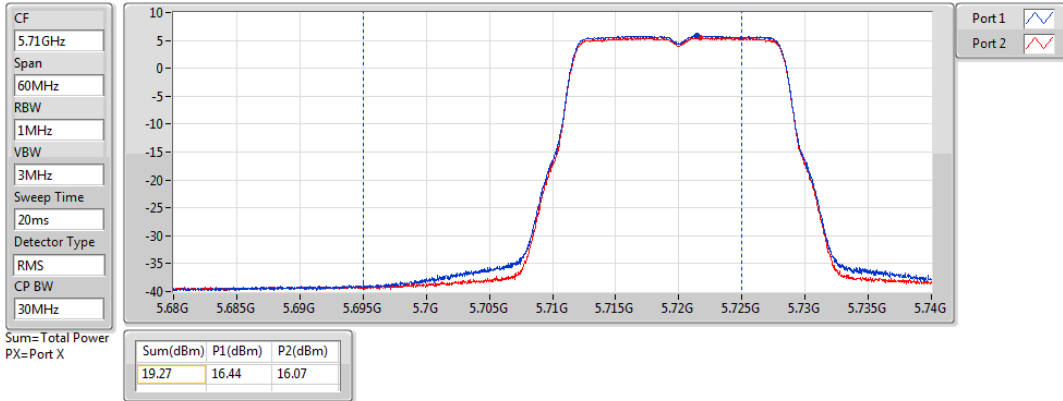
DG = Directional Gain; Port X = Port X output power

11a20_Nss1,(6Mbps)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz

29/04/2020

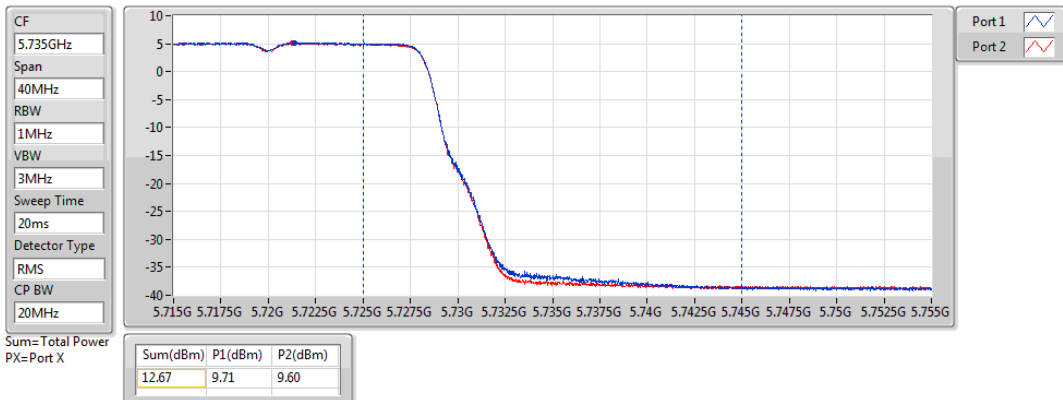


11a20_Nss1,(6Mbps)_2TX

AV Power

5720MHz Straddle 5.725-5.85GHz

28/04/2020

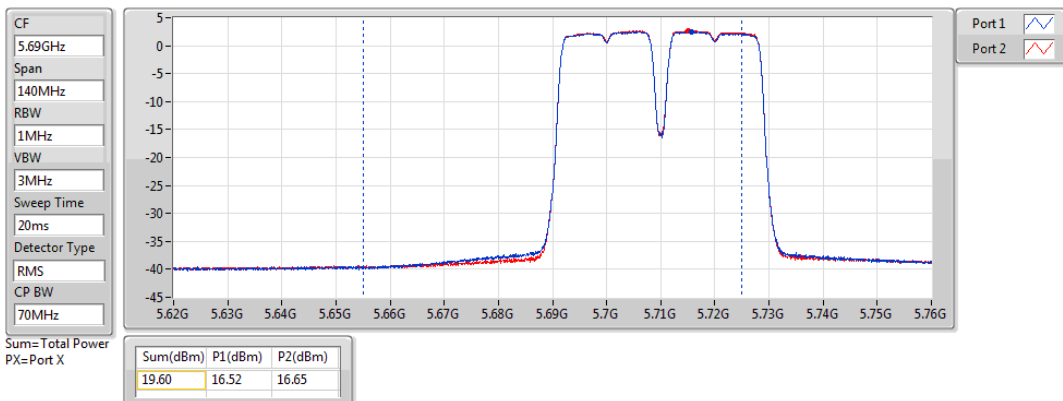


11a40_Nss1,(6Mbps)_2TX

AV Power

5710MHz Straddle 5.47-5.725GHz

29/04/2020

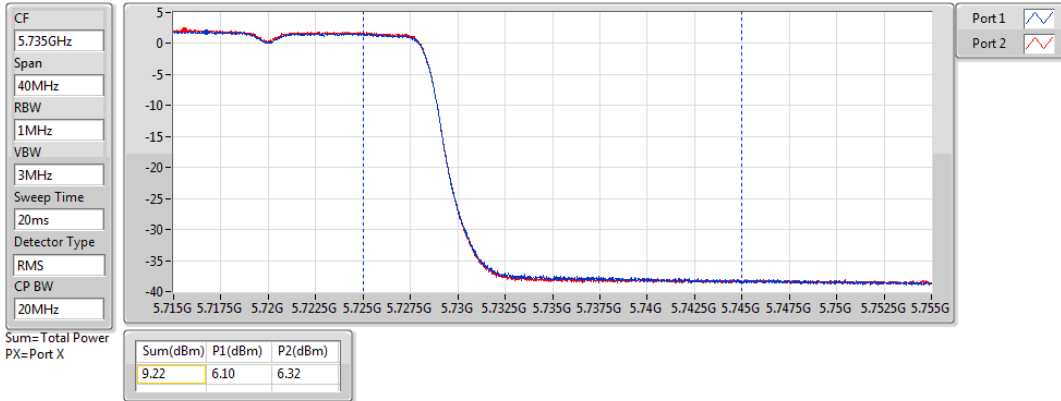


11a40_Nss1,(6Mbps)_2TX

AV Power

5710MHz Straddle 5.725-5.85GHz

28/04/2020

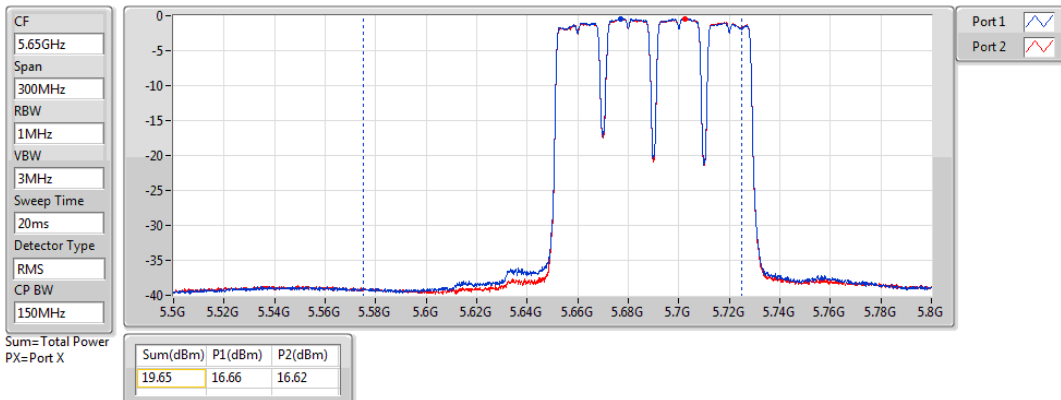


11a80_Nss1,(6Mbps)_2TX

AV Power

5690MHz Straddle 5.47-5.725GHz

29/04/2020

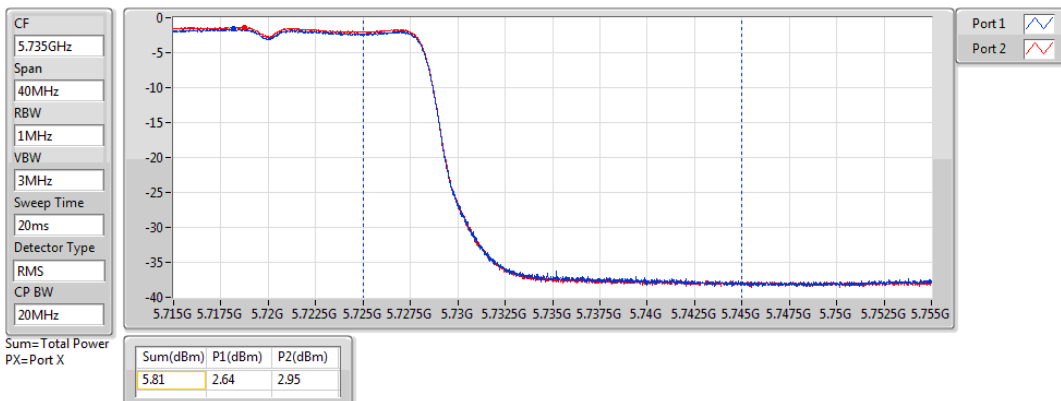


11a80_Nss1,(6Mbps)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz

28/04/2020

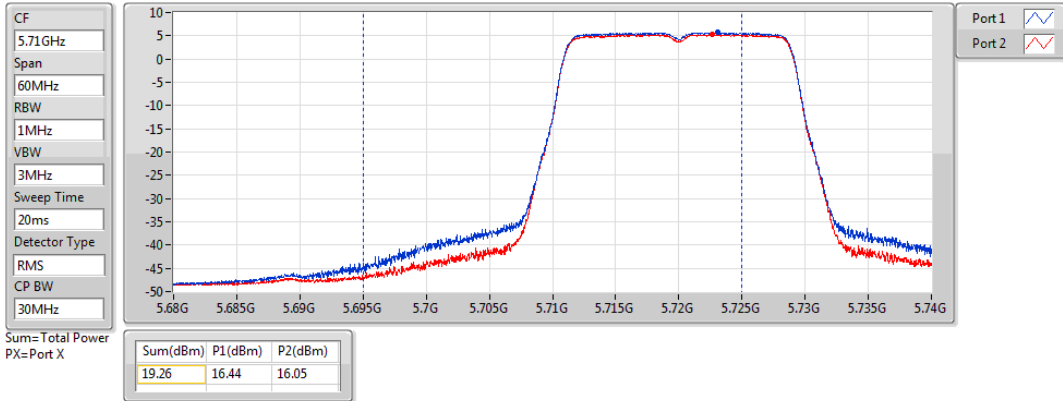


802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz

29/04/2020

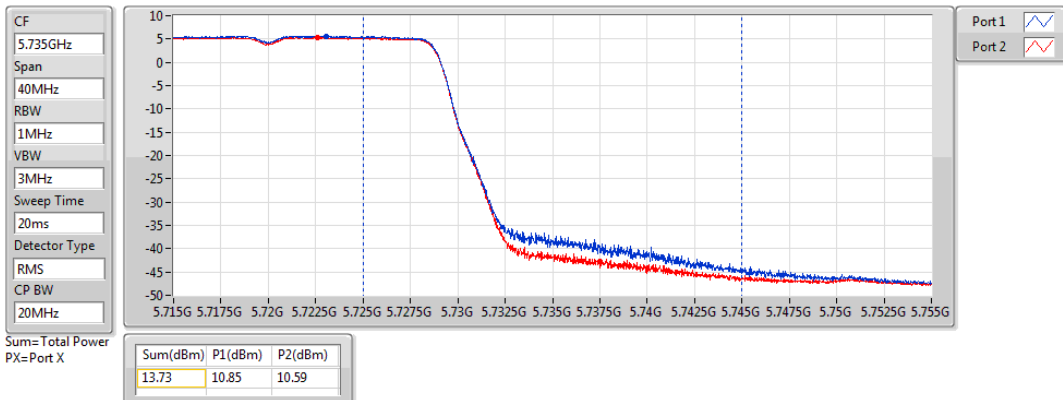


802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.725-5.85GHz

29/04/2020

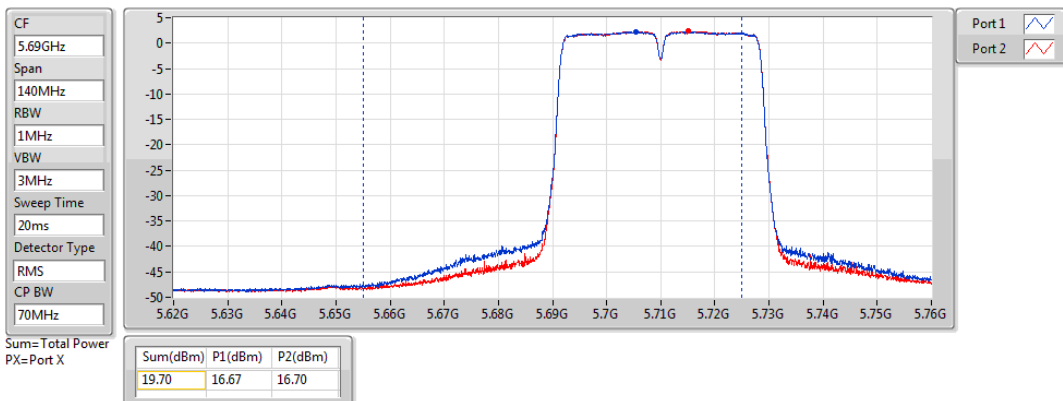


802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.47-5.725GHz

29/04/2020

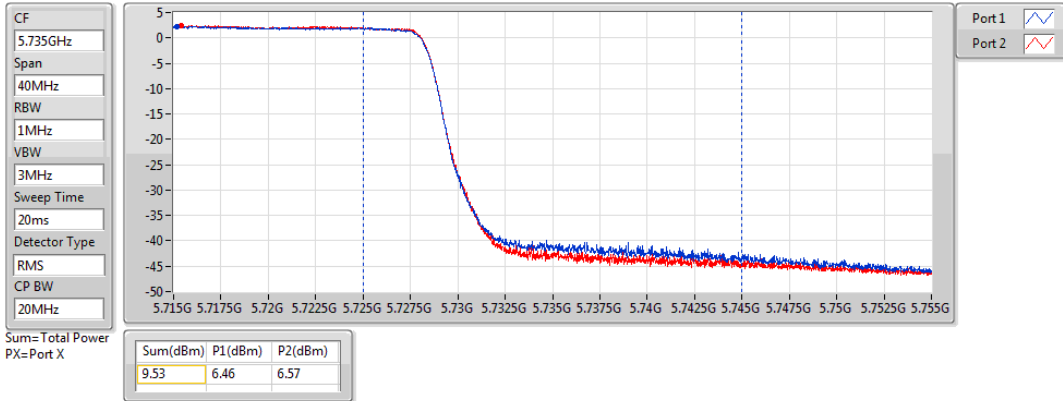


802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.725-5.85GHz

29/04/2020

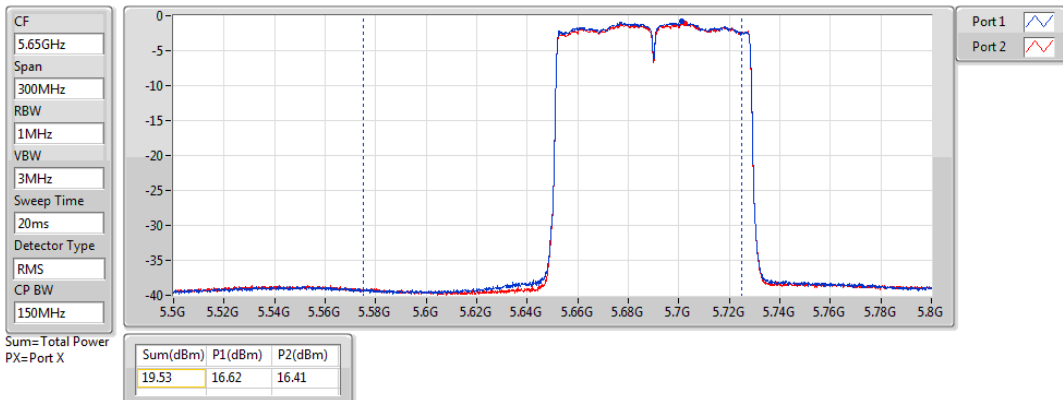


802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.47-5.725GHz

29/04/2020

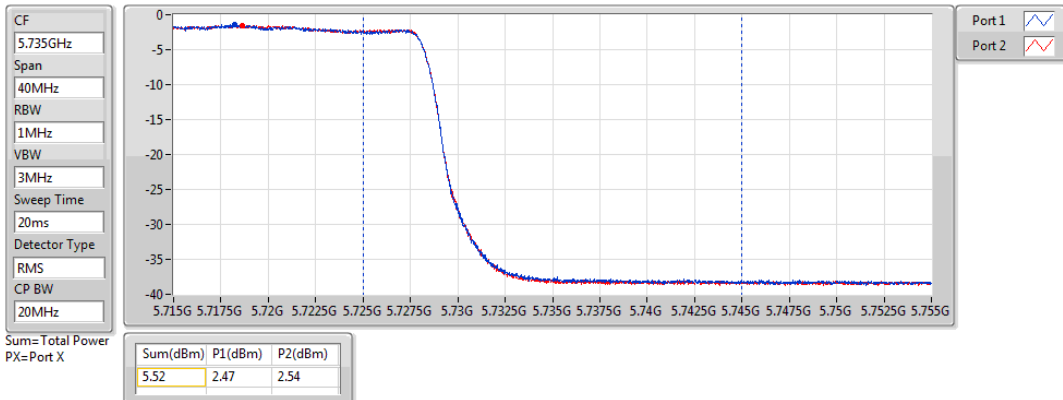


802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz

29/04/2020

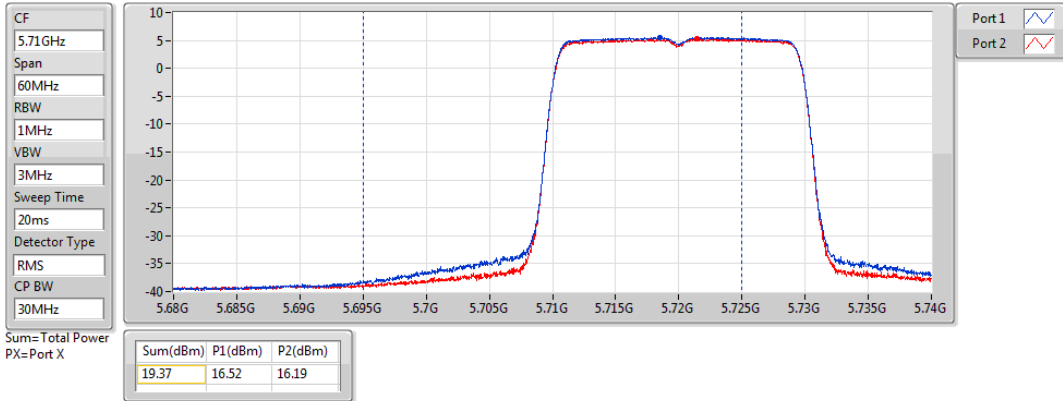


802.11ax HEW20_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz

29/04/2020

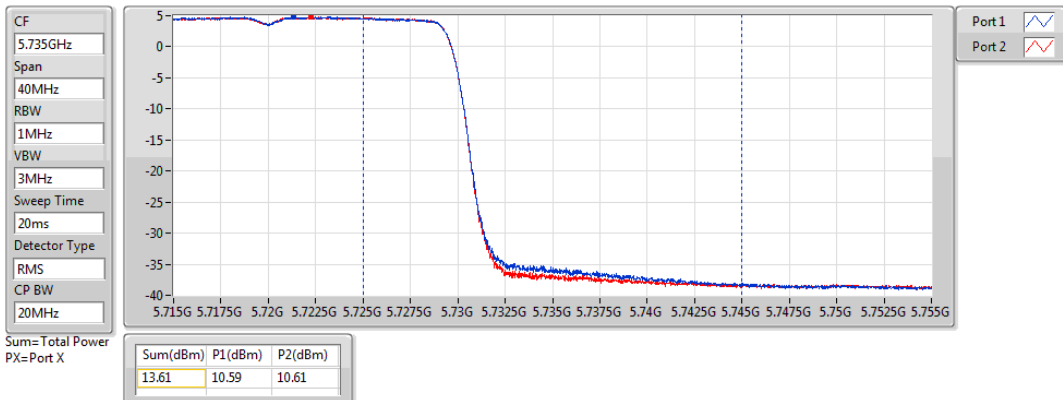


802.11ax HEW20_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.725-5.85GHz

29/04/2020

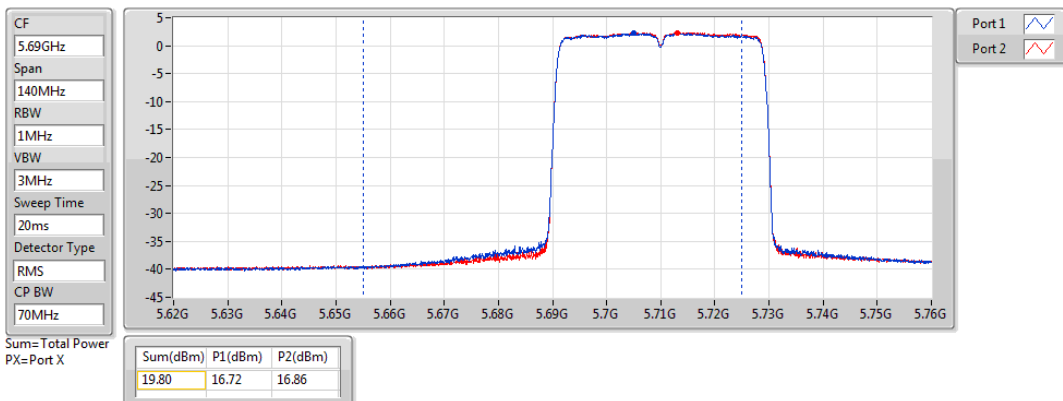


802.11ax HEW40_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.47-5.725GHz

29/04/2020

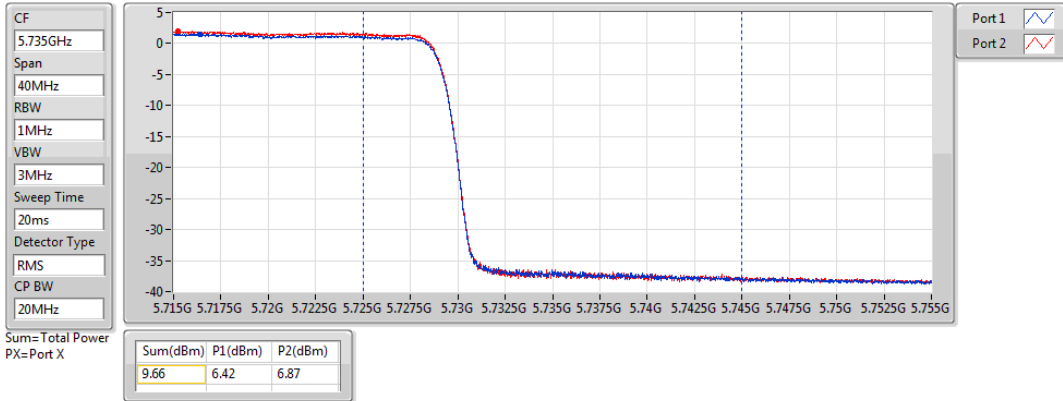


802.11ax HEW40_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.725-5.85GHz

29/04/2020

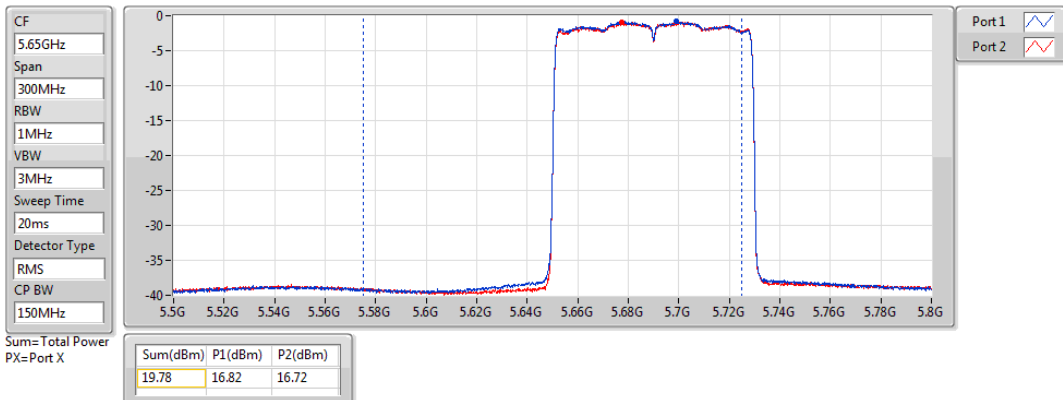


802.11ax HEW80_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.47-5.725GHz

29/04/2020

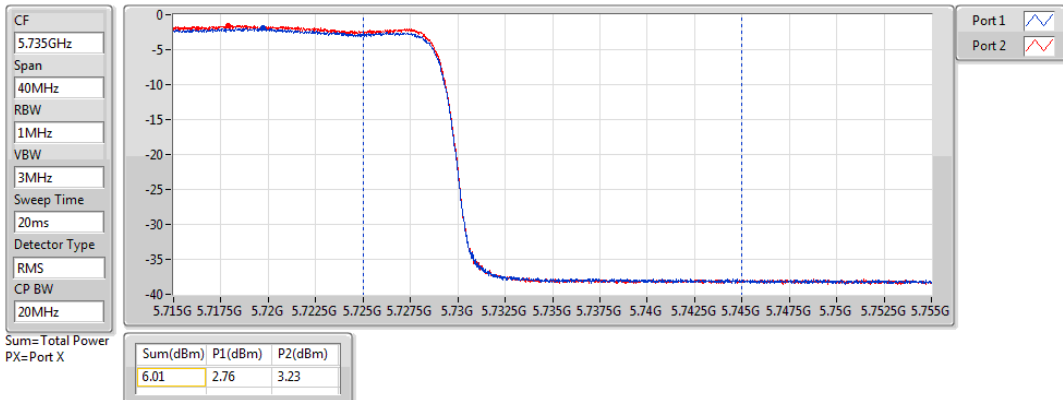


802.11ax HEW80_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz

29/04/2020



<2T1S>

For beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
11a20,BF_Nss1,(6Mbps)_2TX	20.40	0.10965	27.91	0.61802
11a40,BF_Nss1,(6Mbps)_2TX	20.02	0.10046	27.53	0.56624
11a80,BF_Nss1,(6Mbps)_2TX	17.16	0.05200	24.65	0.29174
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.30	0.10715	27.81	0.60395
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	19.86	0.09683	27.37	0.54576
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	17.81	0.06039	25.30	0.33884
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	20.73	0.11830	28.24	0.66681
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.13	0.10304	27.64	0.58076
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	18.17	0.06561	25.66	0.36813
5.25-5.35GHz	-	-	-	-
11a20,BF_Nss1,(6Mbps)_2TX	20.26	0.10617	27.77	0.59841
11a40,BF_Nss1,(6Mbps)_2TX	19.98	0.09954	27.49	0.56105
11a80,BF_Nss1,(6Mbps)_2TX	18.01	0.06324	25.52	0.35645
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	19.92	0.09817	27.43	0.55335
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	19.83	0.09616	27.34	0.54200
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	17.76	0.05970	25.27	0.33651
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	20.36	0.10864	27.87	0.61235
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.13	0.10304	27.64	0.58076
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	18.15	0.06531	25.66	0.36813
5.47-5.725GHz	-	-	-	-
11a20,BF_Nss1,(6Mbps)_2TX	19.88	0.09727	27.45	0.55590
11a40,BF_Nss1,(6Mbps)_2TX	20.12	0.10280	27.91	0.61802
11a80,BF_Nss1,(6Mbps)_2TX	20.15	0.10351	27.94	0.62230
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	19.88	0.09727	27.45	0.55590
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	20.19	0.10447	27.98	0.62806
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	19.87	0.09705	27.66	0.58345
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	20.11	0.10257	27.68	0.58614
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.44	0.11066	28.23	0.66527
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	20.28	0.10666	28.07	0.64121
5.725-5.85GHz	-	-	-	-
11a20,BF_Nss1,(6Mbps)_2TX	12.67	0.01849	20.46	0.11117
11a40,BF_Nss1,(6Mbps)_2TX	9.22	0.00836	17.01	0.05023
11a80,BF_Nss1,(6Mbps)_2TX	5.81	0.00381	13.60	0.02291
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	13.73	0.02360	21.52	0.14191
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	9.53	0.00897	17.32	0.05395
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	5.52	0.00356	13.31	0.02143
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	13.61	0.02296	21.40	0.13804
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	9.66	0.00925	17.45	0.05559
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	6.01	0.00399	13.80	0.02399

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)
11a20,BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	7.49	17.05	17.25	20.16	28.51	27.65
5200MHz	Pass	7.49	17.18	17.41	20.31	28.51	27.80
5240MHz	Pass	7.51	17.19	17.58	20.40	28.49	27.91
5260MHz	Pass	7.51	17.17	16.89	20.04	22.47	27.55
5300MHz	Pass	7.51	17.03	17.12	20.09	22.47	27.60
5320MHz	Pass	7.51	17.28	17.21	20.26	22.47	27.77
5500MHz	Pass	7.57	15.98	15.93	18.97	22.41	26.54
5580MHz	Pass	7.57	16.93	16.81	19.88	22.41	27.45
5700MHz	Pass	7.79	15.78	15.56	18.68	22.19	26.47
5720MHz Straddle 5.47-5.725GHz	Pass	7.79	16.44	16.07	19.27	21.14	27.06
5720MHz Straddle 5.725-5.85GHz	Pass	7.79	9.71	9.6	12.67	28.21	20.46
11a40,BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	7.49	14.95	15.11	18.04	28.51	25.53
5230MHz	Pass	7.51	16.85	17.16	20.02	28.49	27.53
5270MHz	Pass	7.51	16.84	17.09	19.98	22.47	27.49
5310MHz	Pass	7.51	15.02	15.14	18.09	22.47	25.60
5510MHz	Pass	7.57	15.18	15.01	18.11	22.41	25.68
5550MHz	Pass	7.57	17.01	16.87	19.95	22.41	27.52
5670MHz	Pass	7.79	17.06	17.15	20.12	22.19	27.91
5710MHz Straddle 5.47-5.725GHz	Pass	7.79	16.52	16.65	19.60	22.19	27.39
5710MHz Straddle 5.725-5.85GHz	Pass	7.79	6.1	6.32	9.22	28.21	17.01
11a80,BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	7.49	14.16	14.13	17.16	28.51	24.65
5290MHz	Pass	7.51	14.92	15.08	18.01	22.47	25.52
5530MHz	Pass	7.57	14.12	14.06	17.10	22.41	24.67
5610MHz	Pass	7.79	17.16	17.11	20.15	22.19	27.94
5690MHz Straddle 5.47-5.725GHz	Pass	7.79	16.66	16.62	19.65	22.19	27.44
5690MHz Straddle 5.725-5.85GHz	Pass	7.79	2.64	2.95	5.81	28.21	13.60
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	7.49	15.63	15.84	18.75	28.51	26.24
5200MHz	Pass	7.49	17.07	17.19	20.14	28.51	27.63
5240MHz	Pass	7.51	17.36	17.22	20.30	28.49	27.81
5260MHz	Pass	7.51	16.92	16.84	19.89	22.47	27.40
5300MHz	Pass	7.51	17.08	16.74	19.92	22.47	27.43
5320MHz	Pass	7.51	16.96	16.84	19.91	22.47	27.42
5500MHz	Pass	7.57	15.82	15.67	18.76	22.41	26.33
5580MHz	Pass	7.57	16.99	16.74	19.88	22.41	27.45
5700MHz	Pass	7.79	14.68	14.53	17.62	22.19	25.41
5720MHz Straddle 5.47-5.725GHz	Pass	7.79	16.44	16.05	19.26	21.21	27.05
5720MHz Straddle 5.725-5.85GHz	Pass	7.79	10.85	10.59	13.73	28.21	21.52
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	7.49	14.93	15.03	17.99	28.51	25.48
5230MHz	Pass	7.51	16.77	16.93	19.86	28.49	27.37

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)
5270MHz	Pass	7.51	16.76	16.87	19.83	22.47	27.34
5310MHz	Pass	7.51	14.84	15.09	17.98	22.47	25.49
5510MHz	Pass	7.57	14.19	13.68	16.95	22.41	24.52
5550MHz	Pass	7.57	16.78	16.71	19.76	22.41	27.33
5670MHz	Pass	7.79	17.2	17.16	20.19	22.19	27.98
5710MHz Straddle 5.47-5.725GHz	Pass	7.79	16.67	16.7	19.70	22.19	27.49
5710MHz Straddle 5.725-5.85GHz	Pass	7.79	6.46	6.57	9.53	28.21	17.32
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	7.49	14.78	14.81	17.81	28.51	25.30
5290MHz	Pass	7.51	14.69	14.8	17.76	22.47	25.27
5530MHz	Pass	7.57	15.94	15.64	18.80	22.41	26.37
5610MHz	Pass	7.79	16.8	16.91	19.87	22.19	27.66
5690MHz Straddle 5.47-5.725GHz	Pass	7.79	16.62	16.41	19.53	22.19	27.32
5690MHz Straddle 5.725-5.85GHz	Pass	7.79	2.47	2.54	5.52	28.21	13.31
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	7.49	16.19	16.38	19.30	28.51	26.79
5200MHz	Pass	7.49	17.48	17.68	20.59	28.51	28.08
5240MHz	Pass	7.51	17.55	17.89	20.73	28.49	28.24
5260MHz	Pass	7.51	17.28	17.06	20.18	22.47	27.69
5300MHz	Pass	7.51	17.39	17.26	20.34	22.47	27.85
5320MHz	Pass	7.51	17.38	17.32	20.36	22.47	27.87
5500MHz	Pass	7.57	16.32	16.21	19.28	22.41	26.85
5580MHz	Pass	7.57	17.15	17.04	20.11	22.41	27.68
5700MHz	Pass	7.79	15.05	14.83	17.95	22.19	25.74
5720MHz Straddle 5.47-5.725GHz	Pass	7.79	16.52	16.19	19.37	21.17	27.16
5720MHz Straddle 5.725-5.85GHz	Pass	7.79	10.59	10.61	13.61	28.21	21.40
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	7.49	15.13	15.45	18.30	28.51	25.79
5230MHz	Pass	7.51	16.93	17.31	20.13	28.49	27.64
5270MHz	Pass	7.51	17.05	17.19	20.13	22.47	27.64
5310MHz	Pass	7.51	15.1	15.39	18.26	22.47	25.77
5510MHz	Pass	7.57	14.21	14.08	17.16	22.41	24.73
5550MHz	Pass	7.57	17.05	17.13	20.10	22.41	27.67
5670MHz	Pass	7.79	17.36	17.49	20.44	22.19	28.23
5710MHz Straddle 5.47-5.725GHz	Pass	7.79	16.72	16.86	19.80	22.19	27.59
5710MHz Straddle 5.725-5.85GHz	Pass	7.79	6.42	6.87	9.66	28.21	17.45
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	7.49	15.11	15.21	18.17	28.51	25.66
5290MHz	Pass	7.51	15.11	15.16	18.15	22.47	25.66
5530MHz	Pass	7.57	16.25	16.19	19.23	22.41	26.80
5610MHz	Pass	7.79	17.2	17.34	20.28	22.19	28.07
5690MHz Straddle 5.47-5.725GHz	Pass	7.79	16.82	16.72	19.78	22.19	27.57
5690MHz Straddle 5.725-5.85GHz	Pass	7.79	2.76	3.23	6.01	28.21	13.80

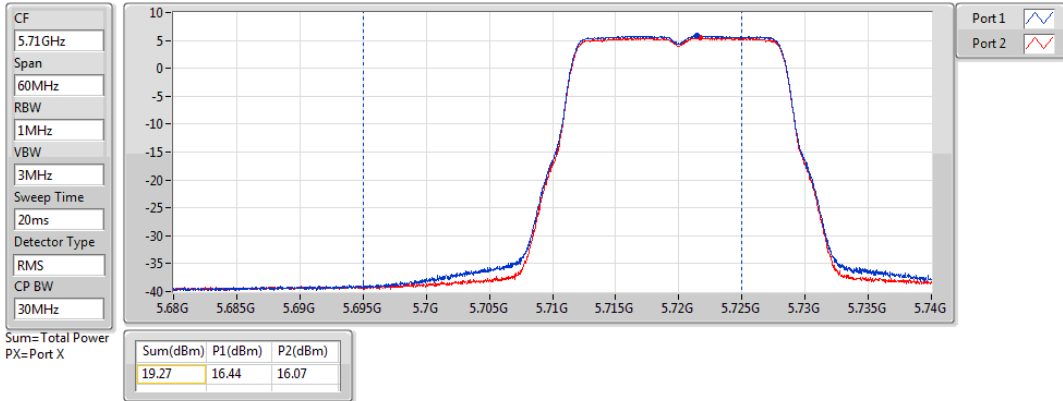
DG = Directional Gain; **Port X** = Port X output power

11a20,BF_Nss1,(6Mbps)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz

29/04/2020

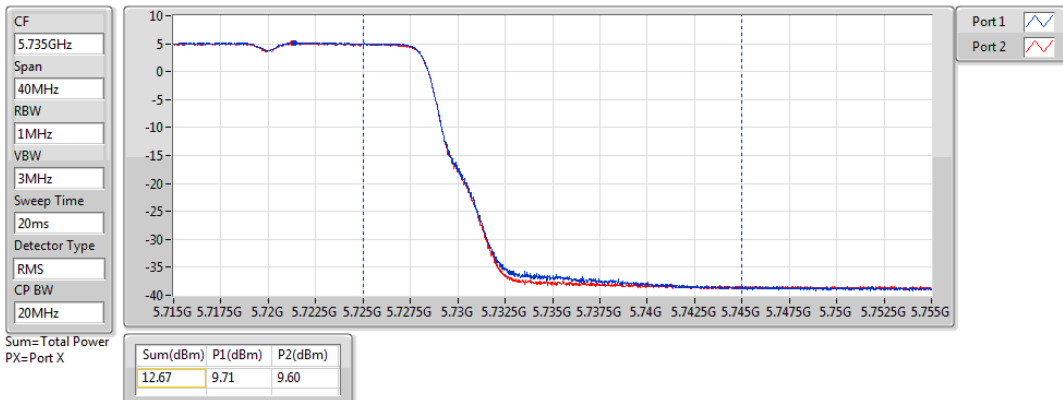


11a20,BF_Nss1,(6Mbps)_2TX

AV Power

5720MHz Straddle 5.725-5.85GHz

28/04/2020

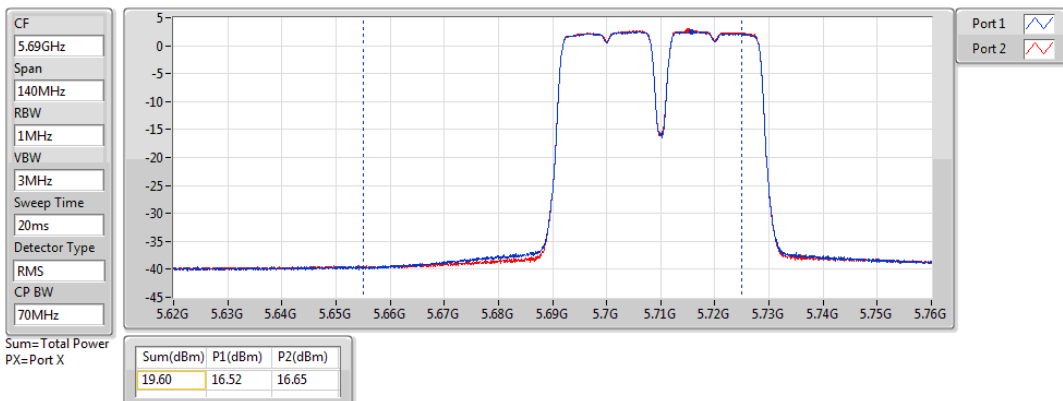


11a40,BF_Nss1,(6Mbps)_2TX

AV Power

5710MHz Straddle 5.47-5.725GHz

29/04/2020

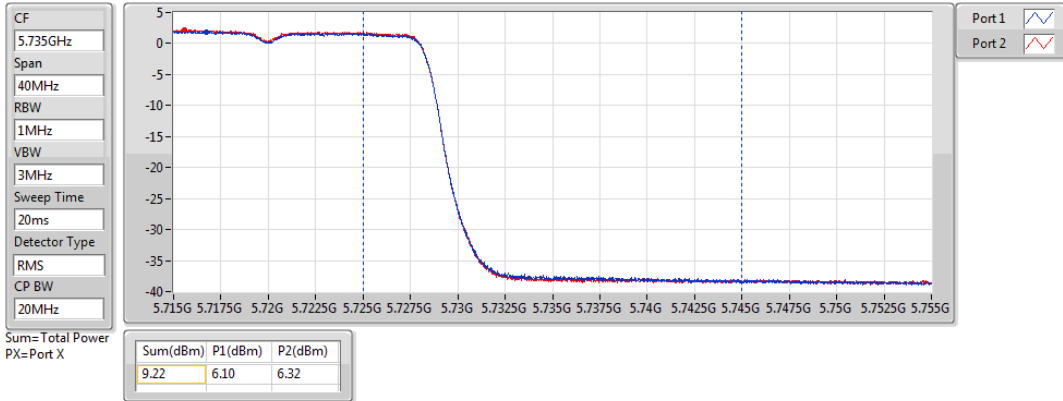


11a40,BF_Nss1,(6Mbps)_2TX

AV Power

5710MHz Straddle 5.725-5.85GHz

28/04/2020

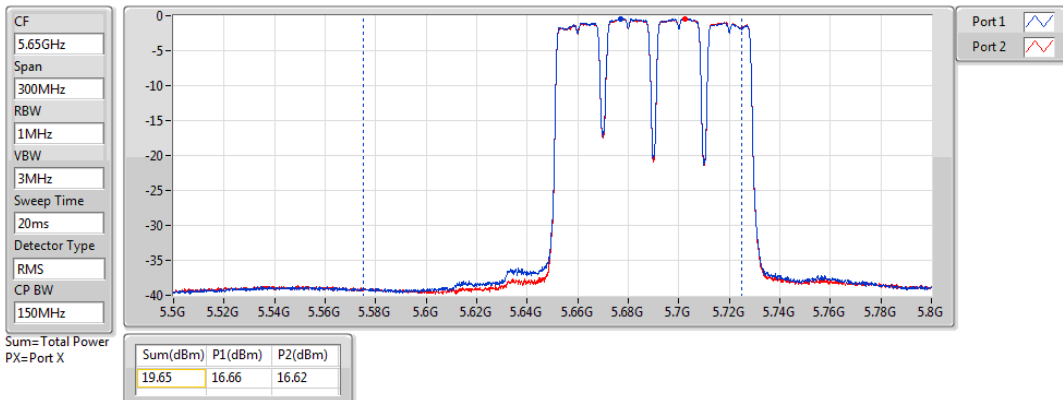


11a80,BF_Nss1,(6Mbps)_2TX

AV Power

5690MHz Straddle 5.47-5.725GHz

29/04/2020

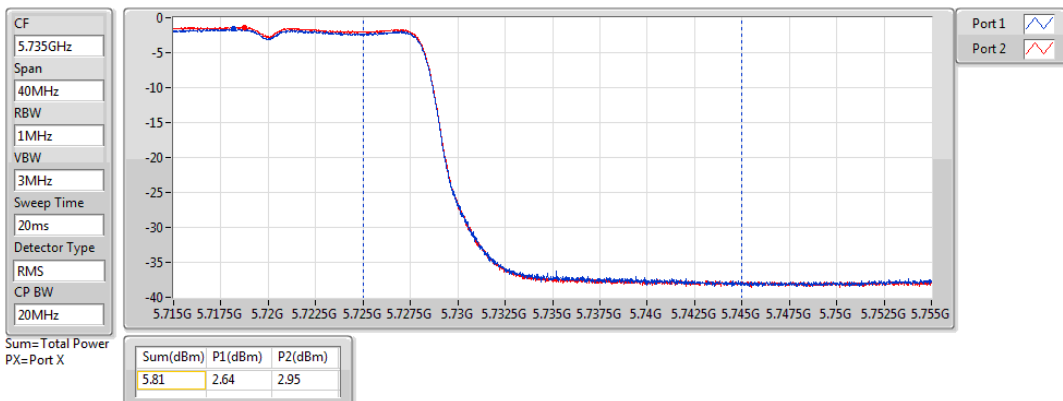


11a80,BF_Nss1,(6Mbps)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz

28/04/2020

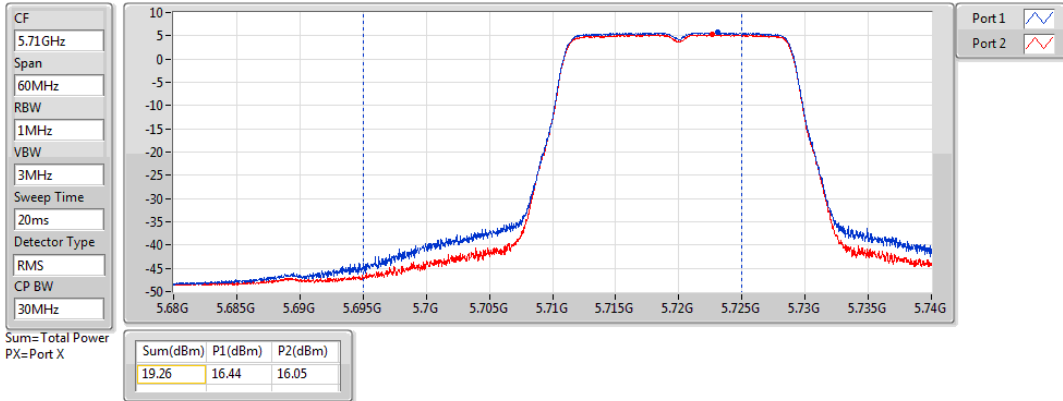


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz

29/04/2020

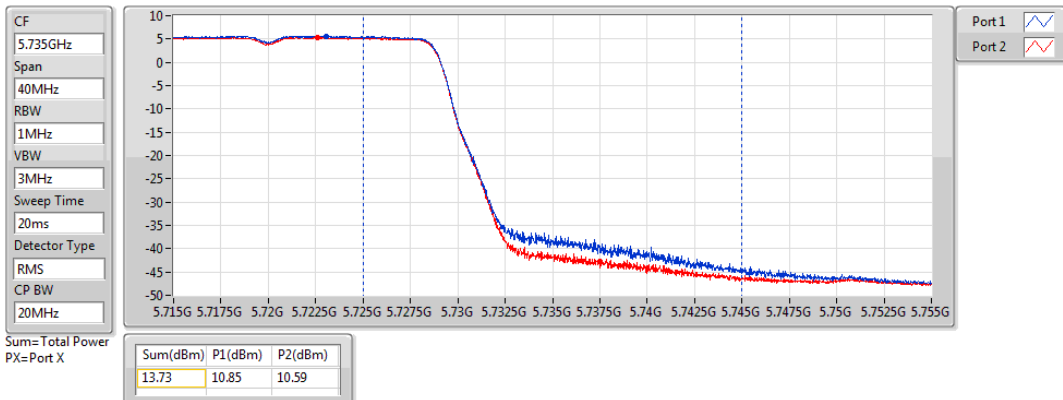


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.725-5.85GHz

29/04/2020

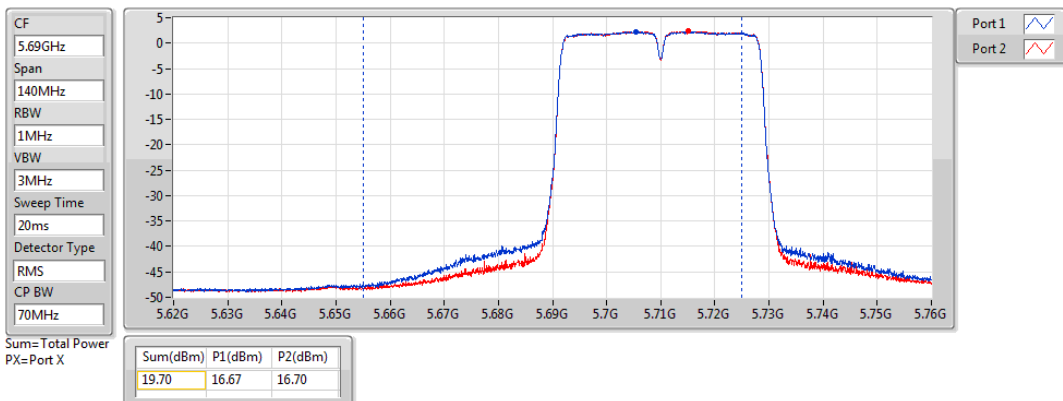


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.47-5.725GHz

29/04/2020

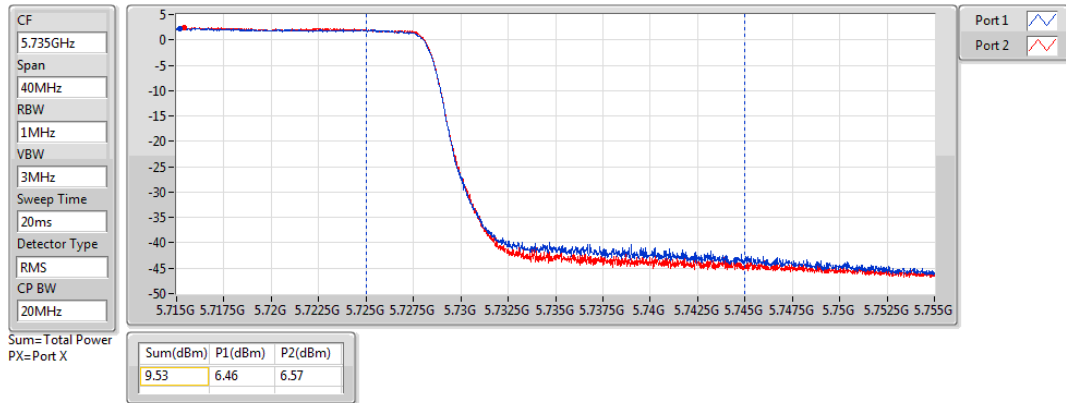


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.725-5.85GHz

29/04/2020

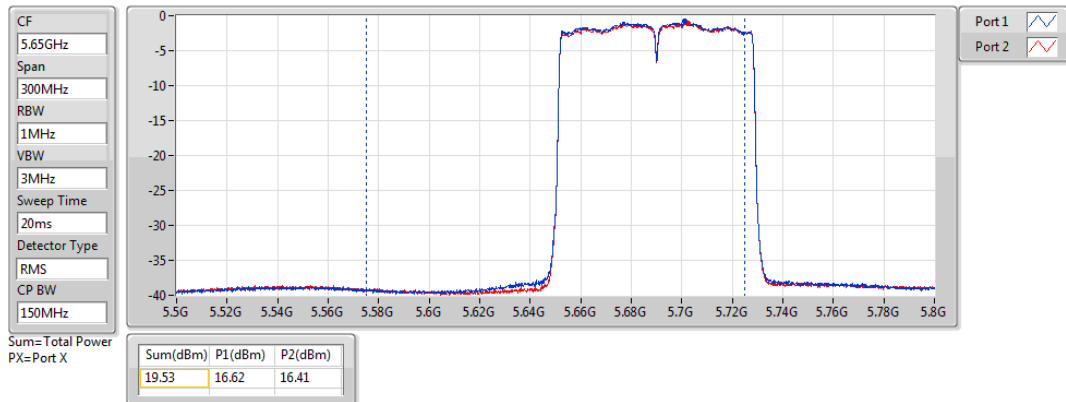


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.47-5.725GHz

29/04/2020

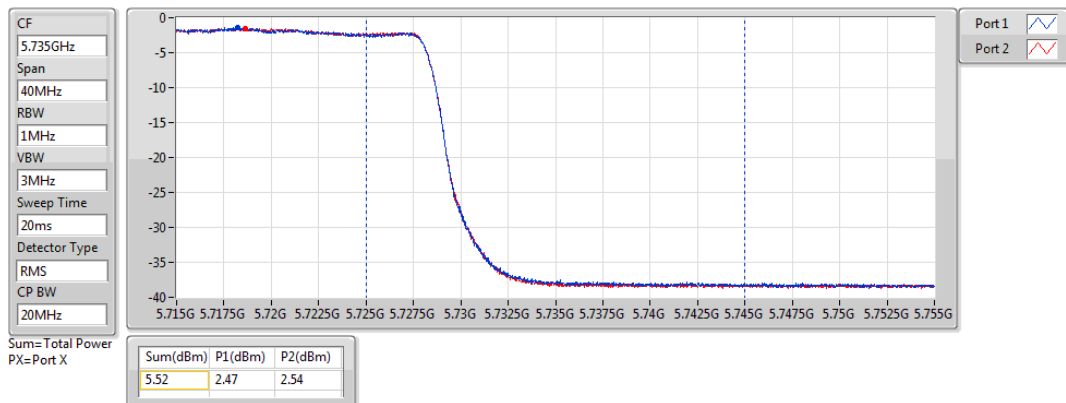


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz

29/04/2020

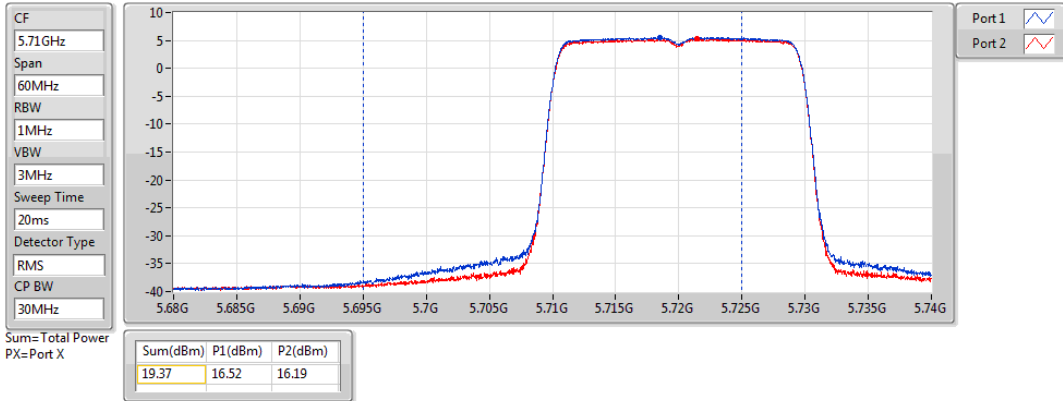


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz

29/04/2020

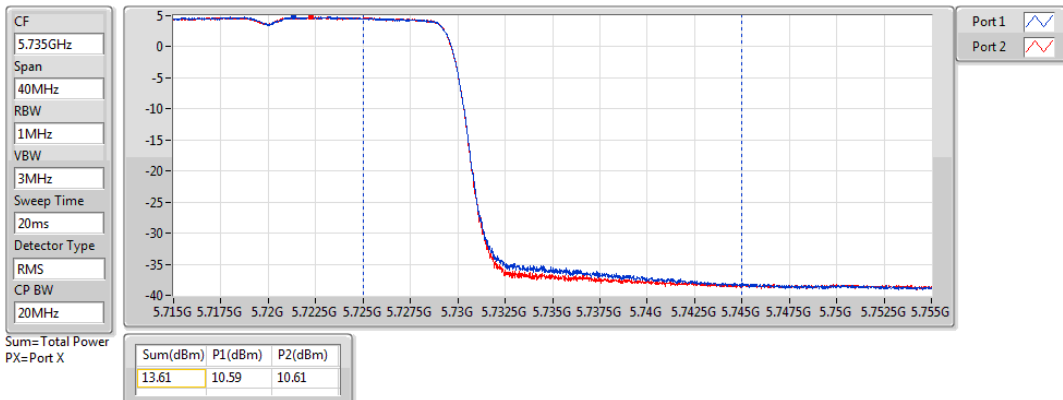


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.725-5.85GHz

29/04/2020

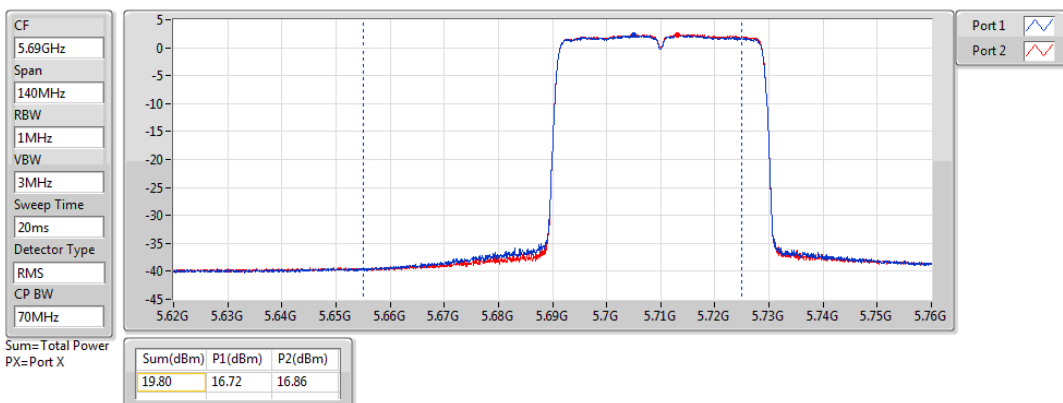


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.47-5.725GHz

29/04/2020

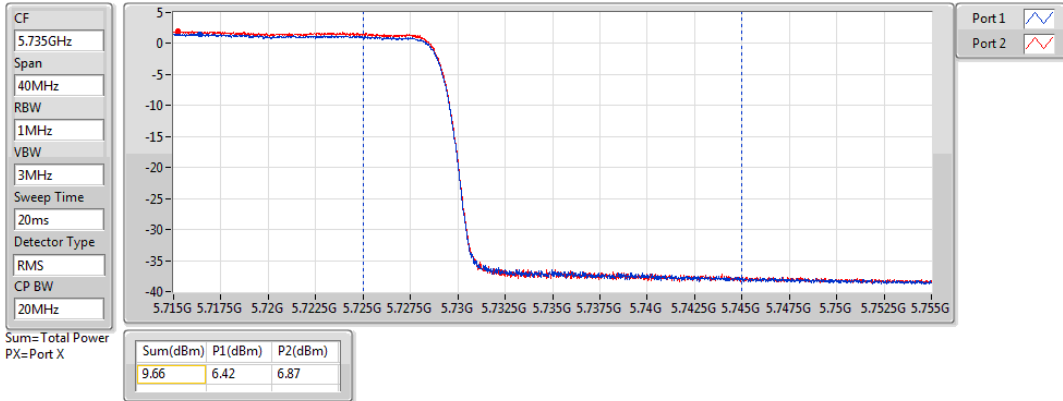


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

AV Power

5710MHz Straddle 5.725-5.85GHz

29/04/2020

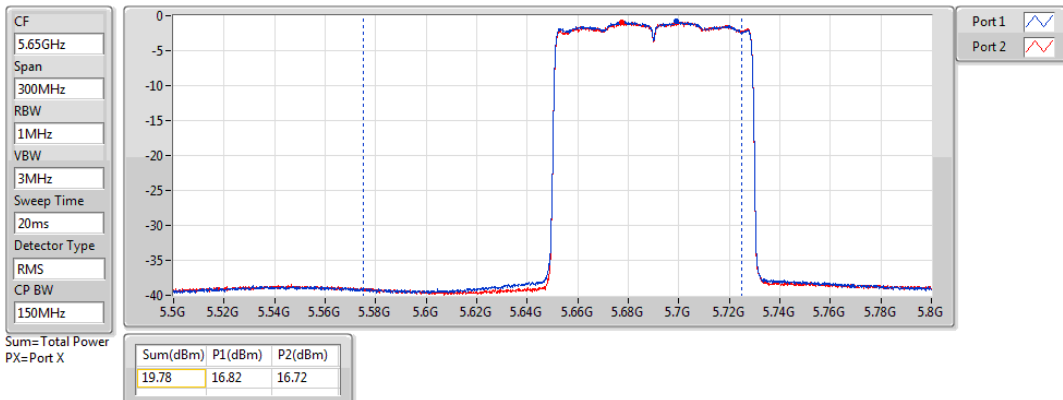


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.47-5.725GHz

29/04/2020

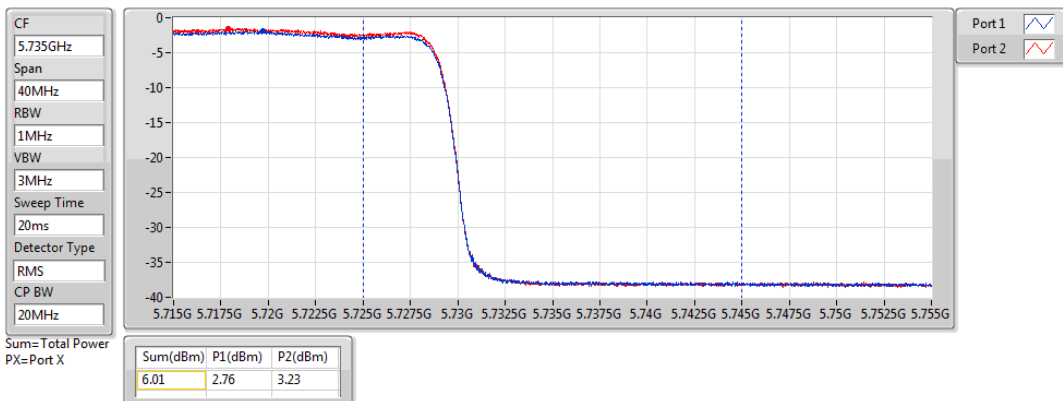


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz

29/04/2020



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Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT20_Nss2,(MCS0)_2TX	20.36	0.10864	24.84	0.30479
802.11ac VHT40_Nss2,(MCS0)_2TX	18.02	0.06339	22.50	0.17783
802.11ac VHT80_Nss2,(MCS0)_2TX	17.98	0.06281	22.46	0.17620
802.11ax HEW20_Nss2,(MCS0)_2TX	20.50	0.11220	24.98	0.31477
802.11ax HEW40_Nss2,(MCS0)_2TX	18.37	0.06871	22.85	0.19275
802.11ax HEW80_Nss2,(MCS0)_2TX	18.21	0.06622	22.69	0.18578
5.25-5.35GHz	-	-	-	-
802.11ac VHT40_Nss2,(MCS0)_2TX	19.07	0.08072	23.57	0.22751
802.11ac VHT80_Nss2,(MCS0)_2TX	19.09	0.08110	23.59	0.22856
802.11ax HEW40_Nss2,(MCS0)_2TX	19.46	0.08831	23.96	0.24889
802.11ax HEW80_Nss2,(MCS0)_2TX	19.24	0.08395	23.74	0.23659
5.47-5.725GHz	-	-	-	-
802.11ac VHT20_Nss2,(MCS0)_2TX	20.20	0.10471	24.76	0.29923
802.11ac VHT40_Nss2,(MCS0)_2TX	18.29	0.06745	22.85	0.19275
802.11ac VHT80_Nss2,(MCS0)_2TX	19.07	0.08072	23.63	0.23067
802.11ax HEW20_Nss2,(MCS0)_2TX	20.43	0.11041	24.99	0.31550
802.11ax HEW40_Nss2,(MCS0)_2TX	18.42	0.06950	22.98	0.19861
802.11ax HEW80_Nss2,(MCS0)_2TX	19.35	0.08610	23.91	0.24604

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)
802.11ac VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	4.48	17.12	17.56	20.36	30.00	24.84
5500MHz	Pass	4.56	17.15	17.22	20.20	23.98	24.76
5700MHz	Pass	4.78	15.87	15.52	18.71	23.98	23.49
802.11ac VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	4.48	14.83	15.19	18.02	30.00	22.50
5310MHz	Pass	4.50	16.02	16.09	19.07	23.98	23.57
5510MHz	Pass	4.56	15.48	15.08	18.29	23.98	22.85
802.11ac VHT80_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	4.48	15.01	14.93	17.98	30.00	22.46
5290MHz	Pass	4.50	16.12	16.04	19.09	23.98	23.59
5530MHz	Pass	4.56	16.15	15.96	19.07	23.98	23.63
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	4.48	17.36	17.62	20.50	30.00	24.98
5500MHz	Pass	4.56	17.38	17.46	20.43	23.98	24.99
5700MHz	Pass	4.78	16.11	15.79	18.96	23.98	23.74
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	4.48	15.08	15.62	18.37	30.00	22.85
5310MHz	Pass	4.50	16.39	16.50	19.46	23.98	23.96
5510MHz	Pass	4.56	15.49	15.32	18.42	23.98	22.98
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	4.48	15.18	15.21	18.21	30.00	22.69
5290MHz	Pass	4.50	16.25	16.20	19.24	23.98	23.74
5530MHz	Pass	4.56	16.46	16.22	19.35	23.98	23.91

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

<2T1S>

For Non-beamforming mode

Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
11a20_Nss1,(6Mbps)_2TX	7.37
11a40_Nss1,(6Mbps)_2TX	4.08
11a80_Nss1,(6Mbps)_2TX	-1.69
802.11ac VHT20_Nss1,(MCS0)_2TX	7.07
802.11ac VHT40_Nss1,(MCS0)_2TX	3.71
802.11ac VHT80_Nss1,(MCS0)_2TX	-1.08
802.11ax HEW20_Nss1,(MCS0)_2TX	7.08
802.11ax HEW40_Nss1,(MCS0)_2TX	3.76
802.11ax HEW80_Nss1,(MCS0)_2TX	-0.84
5.25-5.35GHz	-
11a20_Nss1,(6Mbps)_2TX	7.04
11a40_Nss1,(6Mbps)_2TX	3.99
11a80_Nss1,(6Mbps)_2TX	-0.75
802.11ac VHT20_Nss1,(MCS0)_2TX	6.62
802.11ac VHT40_Nss1,(MCS0)_2TX	3.62
802.11ac VHT80_Nss1,(MCS0)_2TX	-1.29
802.11ax HEW20_Nss1,(MCS0)_2TX	6.79
802.11ax HEW40_Nss1,(MCS0)_2TX	3.74
802.11ax HEW80_Nss1,(MCS0)_2TX	-1.04
5.47-5.725GHz	-
11a20_Nss1,(6Mbps)_2TX	7.17
11a40_Nss1,(6Mbps)_2TX	4.17
11a80_Nss1,(6Mbps)_2TX	1.36
802.11ac VHT20_Nss1,(MCS0)_2TX	6.91
802.11ac VHT40_Nss1,(MCS0)_2TX	3.85
802.11ac VHT80_Nss1,(MCS0)_2TX	0.81
802.11ax HEW20_Nss1,(MCS0)_2TX	6.87
802.11ax HEW40_Nss1,(MCS0)_2TX	3.93
802.11ax HEW80_Nss1,(MCS0)_2TX	1.12
5.725-5.85GHz	-
11a20_Nss1,(6Mbps)_2TX	4.97
11a40_Nss1,(6Mbps)_2TX	1.59
11a80_Nss1,(6Mbps)_2TX	-1.86
802.11ac VHT20_Nss1,(MCS0)_2TX	5.32
802.11ac VHT40_Nss1,(MCS0)_2TX	1.87
802.11ac VHT80_Nss1,(MCS0)_2TX	-2.01
802.11ax HEW20_Nss1,(MCS0)_2TX	4.61
802.11ax HEW40_Nss1,(MCS0)_2TX	1.33
802.11ax HEW80_Nss1,(MCS0)_2TX	-2.21

RBW = 500 kHz 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)
11a20_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.49	4.14	4.30	7.19	15.51
5200MHz	Pass	7.49	4.25	4.39	7.29	15.51
5240MHz	Pass	7.51	4.37	4.48	7.37	15.49
5260MHz	Pass	7.51	4.03	3.79	6.89	9.49
5300MHz	Pass	7.51	4.23	3.91	7.02	9.49
5320MHz	Pass	7.51	4.10	4.04	7.04	9.49
5500MHz	Pass	7.57	2.93	2.65	5.78	9.43
5580MHz	Pass	7.57	4.09	3.89	6.94	9.43
5700MHz	Pass	7.79	2.52	2.22	5.33	9.21
5720MHz Straddle 5.47-5.725GHz	Pass	7.79	4.39	3.98	7.17	9.21
5720MHz Straddle 5.725-5.85GHz	Pass	7.79	2.03	1.97	4.97	28.21
11a40_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5190MHz	Pass	7.49	-0.94	-0.67	2.16	15.51
5230MHz	Pass	7.51	1.03	1.25	4.08	15.49
5270MHz	Pass	7.51	1.10	0.98	3.99	9.49
5310MHz	Pass	7.51	-1.06	-0.84	2.01	9.49
5510MHz	Pass	7.57	-0.68	-1.00	2.12	9.43
5550MHz	Pass	7.57	1.04	1.05	3.98	9.43
5670MHz	Pass	7.79	1.22	1.24	4.17	9.21
5710MHz Straddle 5.47-5.725GHz	Pass	7.79	1.11	1.17	4.15	9.21
5710MHz Straddle 5.725-5.85GHz	Pass	7.79	-1.44	-1.24	1.59	28.21
11a80_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5210MHz	Pass	7.49	-4.51	-4.74	-1.69	15.51
5290MHz	Pass	7.51	-3.74	-3.73	-0.75	9.49
5530MHz	Pass	7.57	-4.47	-4.50	-1.56	9.43
5610MHz	Pass	7.79	-1.63	-1.56	1.36	9.21
5690MHz Straddle 5.47-5.725GHz	Pass	7.79	-1.90	-1.91	1.07	9.21
5690MHz Straddle 5.725-5.85GHz	Pass	7.79	-4.93	-4.68	-1.86	28.21
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.49	1.46	1.60	4.50	15.51
5200MHz	Pass	7.49	3.91	3.96	6.88	15.51
5240MHz	Pass	7.51	4.17	4.02	7.07	15.49
5260MHz	Pass	7.51	3.83	3.50	6.62	9.49
5300MHz	Pass	7.51	3.88	3.50	6.60	9.49
5320MHz	Pass	7.51	3.76	3.57	6.62	9.49
5500MHz	Pass	7.57	2.61	2.32	5.44	9.43
5580MHz	Pass	7.57	3.81	3.43	6.59	9.43
5700MHz	Pass	7.79	1.28	1.04	4.11	9.21
5720MHz Straddle 5.47-5.725GHz	Pass	7.79	4.21	3.73	6.91	9.21
5720MHz Straddle 5.725-5.85GHz	Pass	7.79	2.61	2.15	5.32	28.21
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	7.49	-1.22	-1.19	1.78	15.51
5230MHz	Pass	7.51	0.75	0.83	3.71	15.49

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
5270MHz	Pass	7.51	0.67	0.65	3.62	9.49
5310MHz	Pass	7.51	-1.28	-1.18	1.74	9.49
5510MHz	Pass	7.57	-2.14	-2.61	0.60	9.43
5550MHz	Pass	7.57	0.82	0.55	3.65	9.43
5670MHz	Pass	7.79	0.94	0.79	3.85	9.21
5710MHz Straddle 5.47-5.725GHz	Pass	7.79	0.91	0.85	3.80	9.21
5710MHz Straddle 5.725-5.85GHz	Pass	7.79	-1.18	-1.03	1.87	28.21
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	7.49	-3.88	-4.20	-1.08	15.51
5290MHz	Pass	7.51	-4.11	-4.29	-1.29	9.49
5530MHz	Pass	7.57	-2.78	-3.24	-0.01	9.43
5610MHz	Pass	7.79	-1.98	-2.11	0.81	9.21
5690MHz Straddle 5.47-5.725GHz	Pass	7.79	-2.29	-2.56	0.50	9.21
5690MHz Straddle 5.725-5.85GHz	Pass	7.79	-4.99	-4.96	-2.01	28.21
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.49	2.74	2.87	5.79	15.51
5200MHz	Pass	7.49	3.97	4.27	7.06	15.51
5240MHz	Pass	7.51	4.07	4.23	7.08	15.49
5260MHz	Pass	7.51	3.76	3.42	6.58	9.49
5300MHz	Pass	7.51	3.91	3.70	6.77	9.49
5320MHz	Pass	7.51	3.88	3.70	6.79	9.49
5500MHz	Pass	7.57	2.70	2.38	5.51	9.43
5580MHz	Pass	7.57	3.54	3.43	6.44	9.43
5700MHz	Pass	7.79	1.39	1.05	4.18	9.21
5720MHz Straddle 5.47-5.725GHz	Pass	7.79	4.03	3.74	6.87	9.21
5720MHz Straddle 5.725-5.85GHz	Pass	7.79	1.64	1.71	4.61	28.21
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	7.49	-1.32	-1.15	1.75	15.51
5230MHz	Pass	7.51	0.73	0.86	3.76	15.49
5270MHz	Pass	7.51	0.74	0.75	3.74	9.49
5310MHz	Pass	7.51	-1.37	-0.98	1.70	9.49
5510MHz	Pass	7.57	-2.19	-2.27	0.69	9.43
5550MHz	Pass	7.57	0.78	0.79	3.75	9.43
5670MHz	Pass	7.79	0.92	1.02	3.93	9.21
5710MHz Straddle 5.47-5.725GHz	Pass	7.79	0.76	0.75	3.75	9.21
5710MHz Straddle 5.725-5.85GHz	Pass	7.79	-1.88	-1.39	1.33	28.21
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	7.49	-3.69	-3.86	-0.84	15.51
5290MHz	Pass	7.51	-3.96	-3.94	-1.04	9.49
5530MHz	Pass	7.57	-2.73	-3.02	0.11	9.43
5610MHz	Pass	7.79	-1.82	-1.78	1.12	9.21
5690MHz Straddle 5.47-5.725GHz	Pass	7.79	-2.20	-2.34	0.72	9.21
5690MHz Straddle 5.725-5.85GHz	Pass	7.79	-5.48	-4.88	-2.21	28.21

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

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

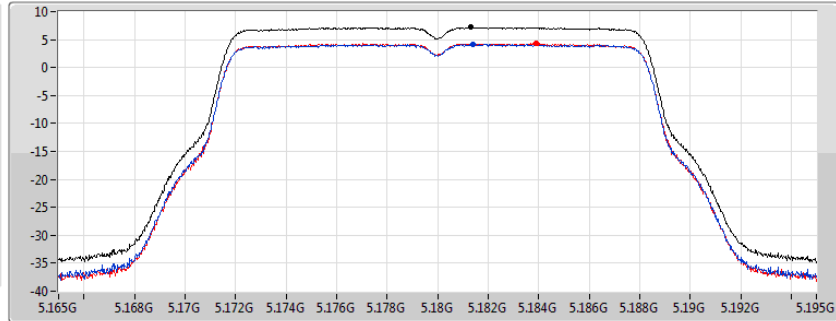
11a20_Nss1,(6Mbps)_2TX

PSD

5180MHz

29/04/2020

CF
5.18GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.19	7.19	4.14	4.30

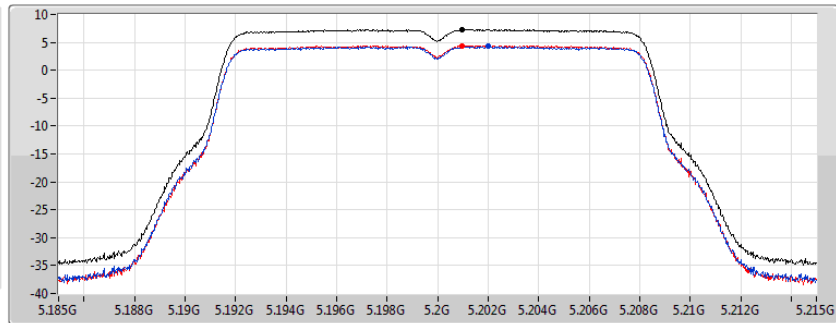
11a20_Nss1,(6Mbps)_2TX

PSD

5200MHz

29/04/2020

CF
5.2GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.29	7.29	4.25	4.39

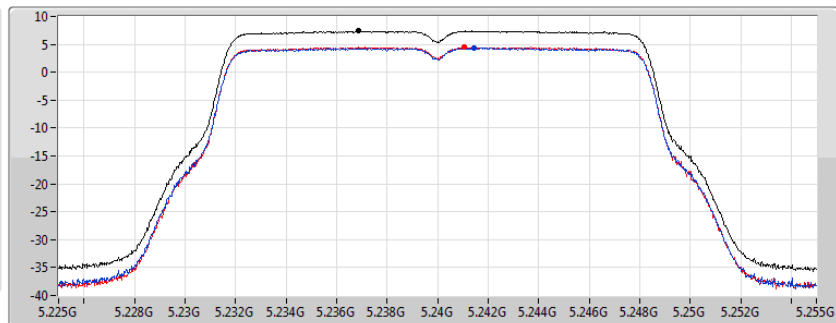
11a20_Nss1,(6Mbps)_2TX

PSD

5240MHz

29/04/2020

CF
5.24GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

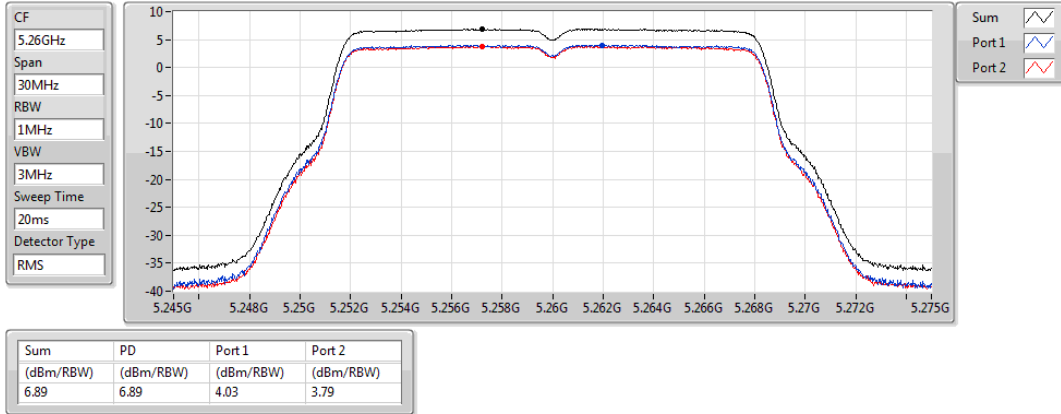
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.37	7.37	4.37	4.48

11a20_Nss1,(6Mbps)_2TX

PSD

5260MHz

29/04/2020

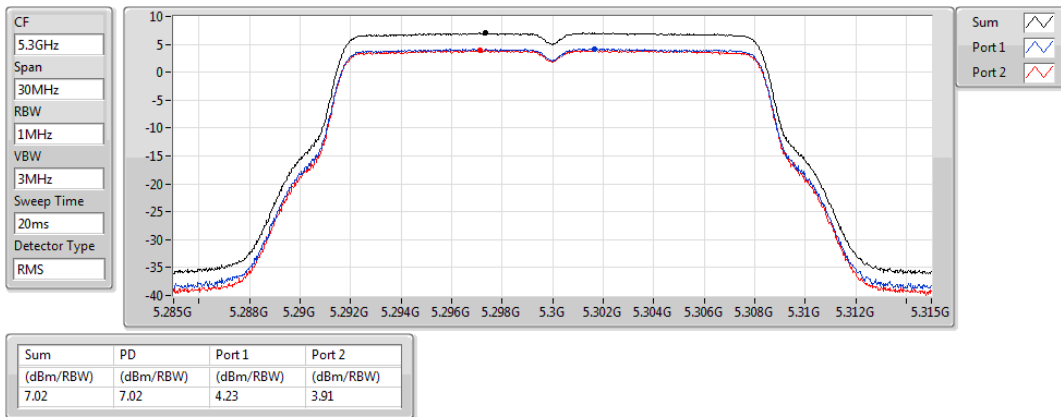


11a20_Nss1,(6Mbps)_2TX

PSD

5300MHz

29/04/2020

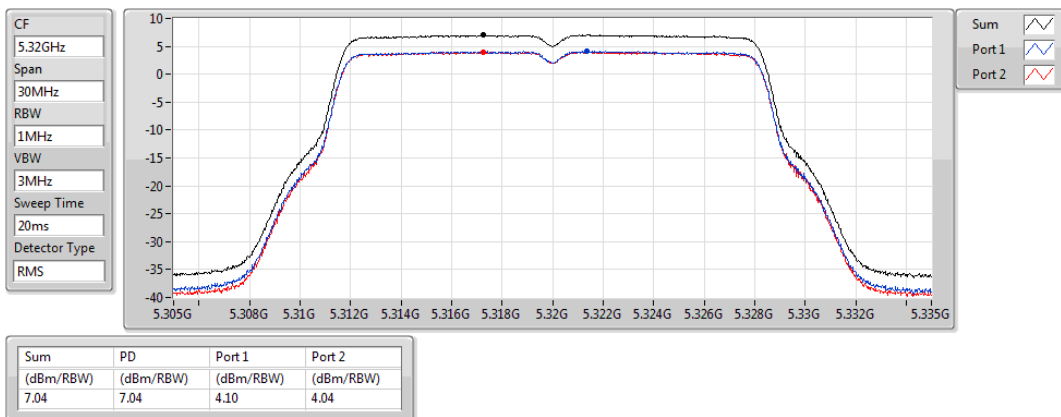


11a20_Nss1,(6Mbps)_2TX

PSD

5320MHz

29/04/2020

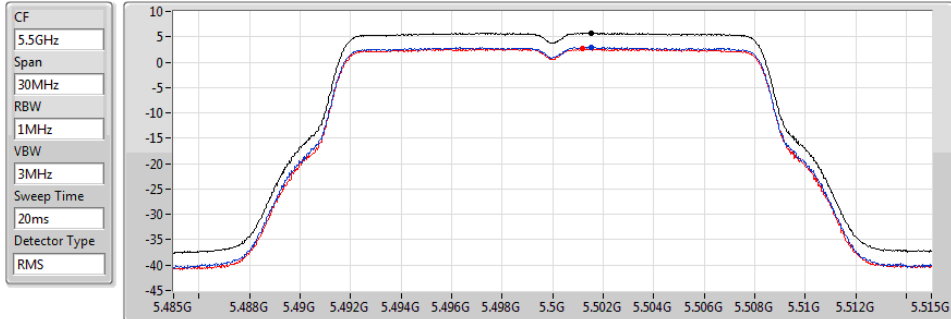


11a20_Nss1,(6Mbps)_2TX

PSD

5500MHz

29/04/2020



Sum
Port 1
Port 2

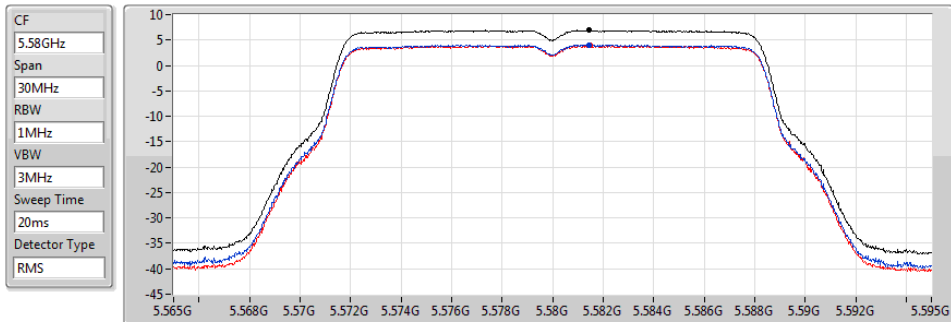
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.78	5.78	2.93	2.65

11a20_Nss1,(6Mbps)_2TX

PSD

5580MHz

29/04/2020



Sum
Port 1
Port 2

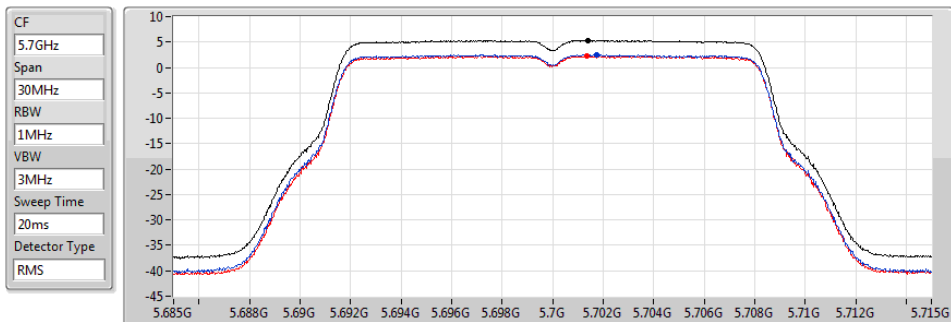
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.94	6.94	4.09	3.89

11a20_Nss1,(6Mbps)_2TX

PSD

5700MHz

29/04/2020



Sum
Port 1
Port 2

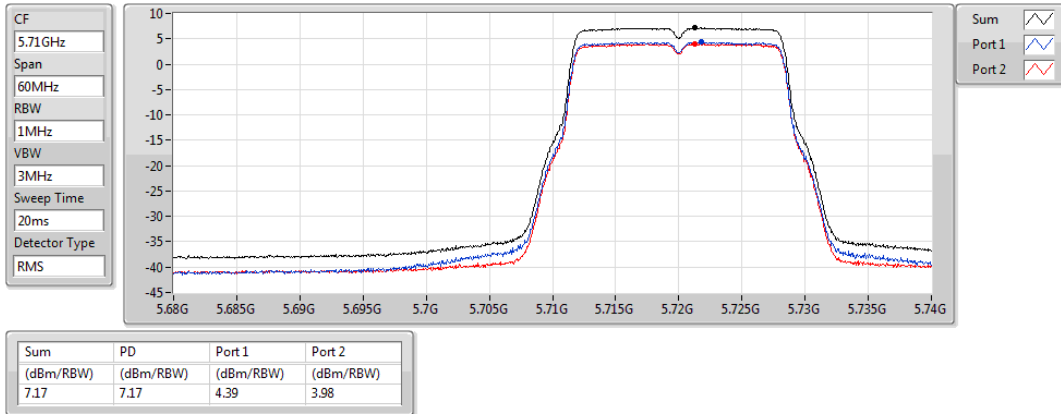
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.33	5.33	2.52	2.22

11a20_Nss1,(6Mbps)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

29/04/2020

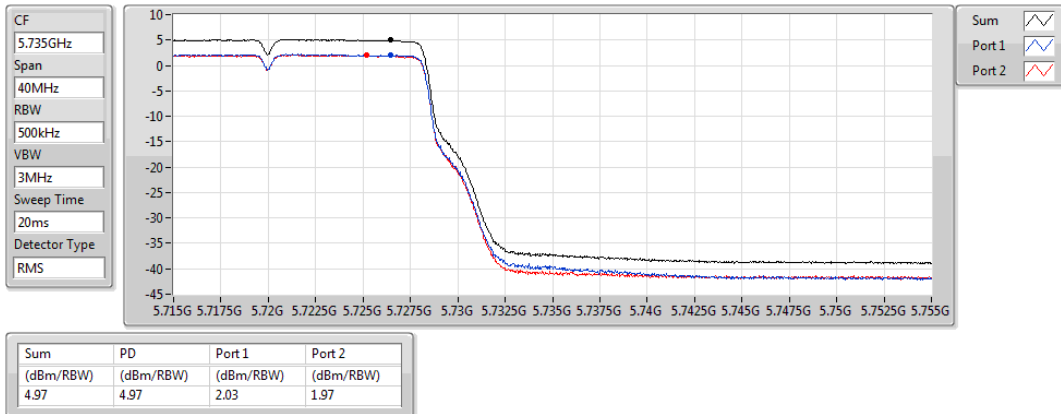


11a20_Nss1,(6Mbps)_2TX

PSD

5720MHz Straddle 5.725-5.85GHz

28/04/2020

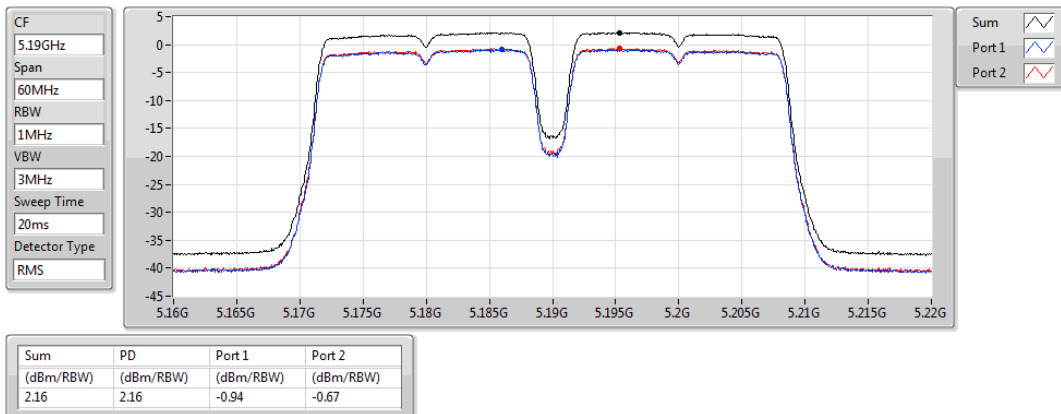


11a40_Nss1,(6Mbps)_2TX

PSD

5190MHz

29/04/2020

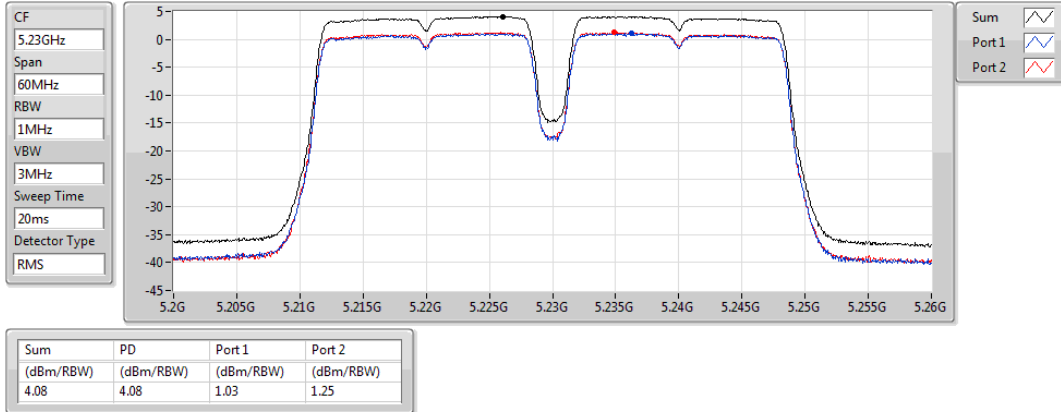


11a40_Nss1,(6Mbps)_2TX

PSD

5230MHz

29/04/2020

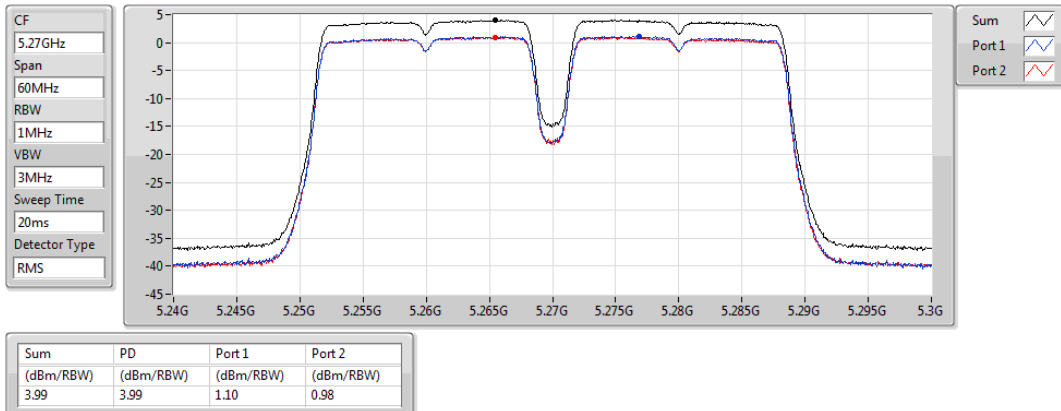


11a40_Nss1,(6Mbps)_2TX

PSD

5270MHz

29/04/2020

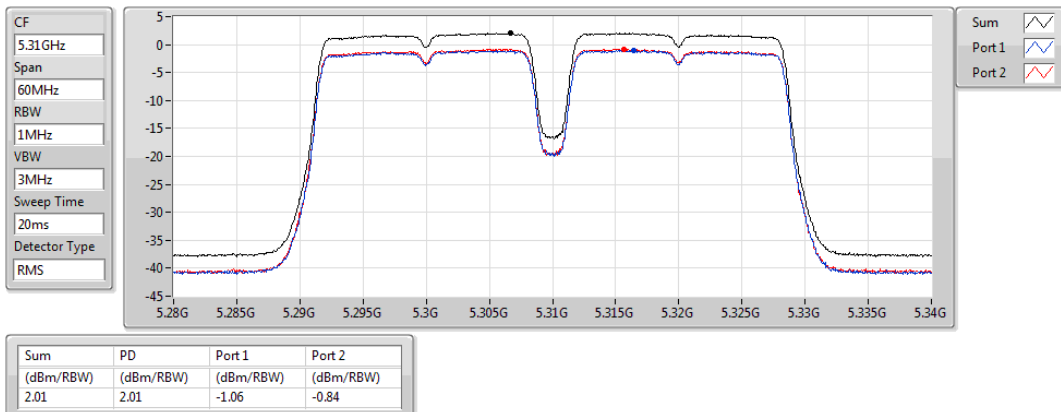


11a40_Nss1,(6Mbps)_2TX

PSD

5310MHz

29/04/2020

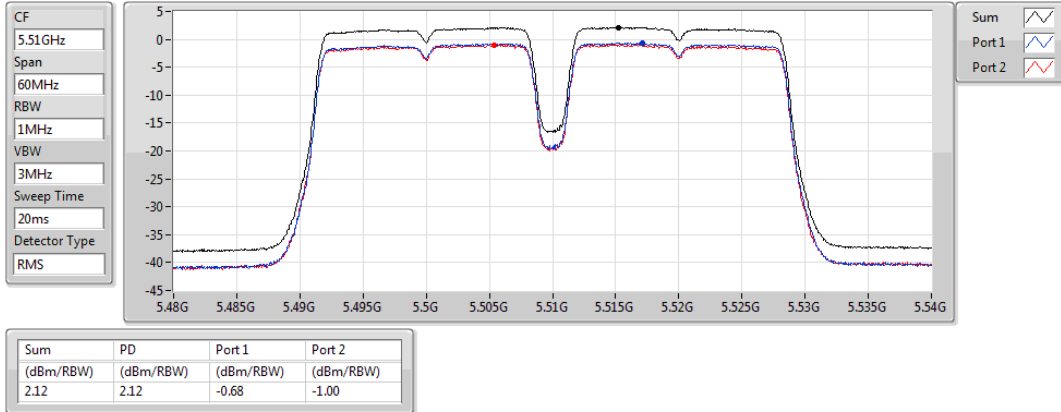


11a40_Nss1,(6Mbps)_2TX

PSD

5510MHz

29/04/2020

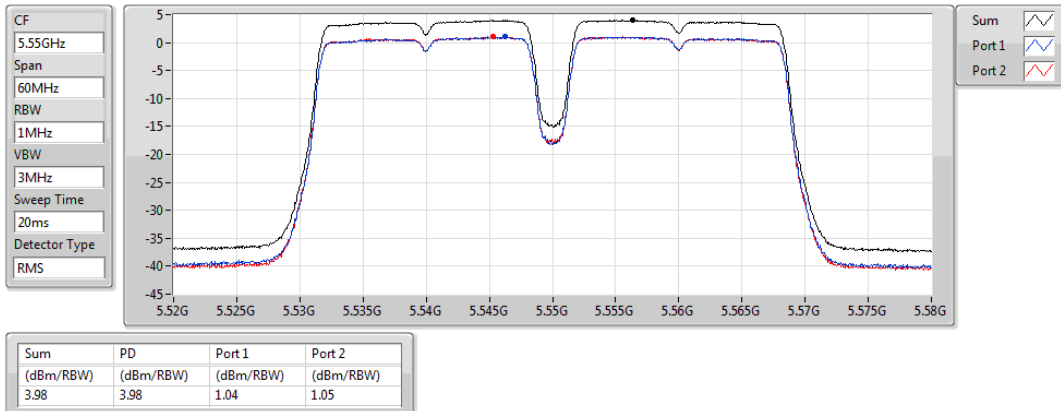


11a40_Nss1,(6Mbps)_2TX

PSD

5550MHz

29/04/2020

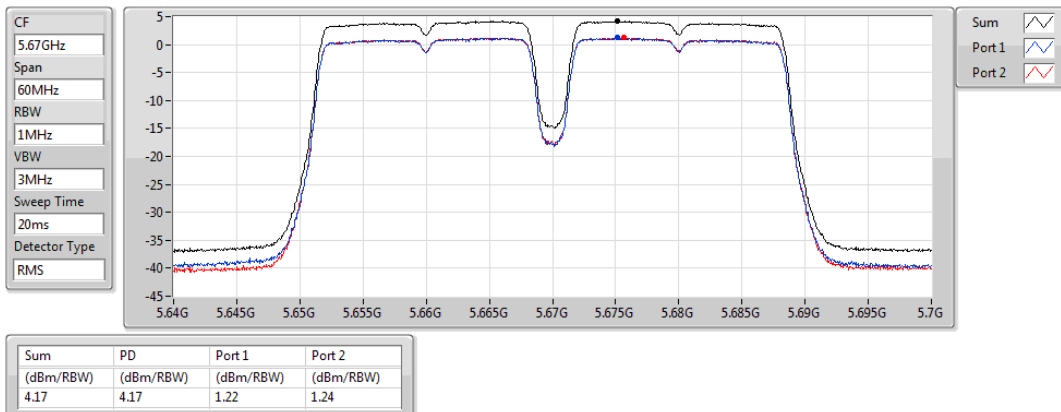


11a40_Nss1,(6Mbps)_2TX

PSD

5670MHz

29/04/2020

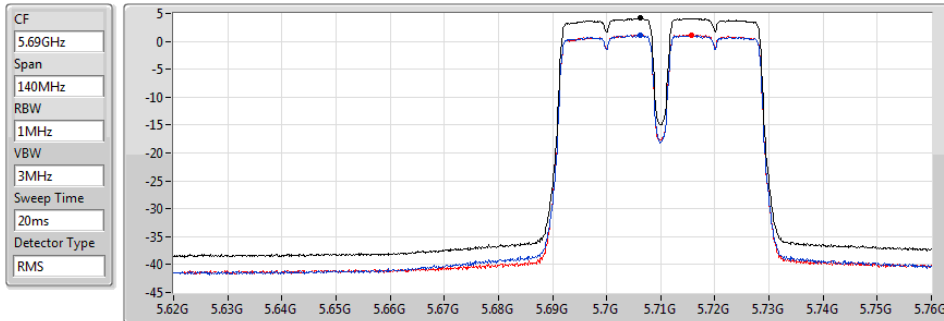


11a40_Nss1,(6Mbps)_2TX

PSD

5710MHz Straddle 5.47-5.725GHz

29/04/2020



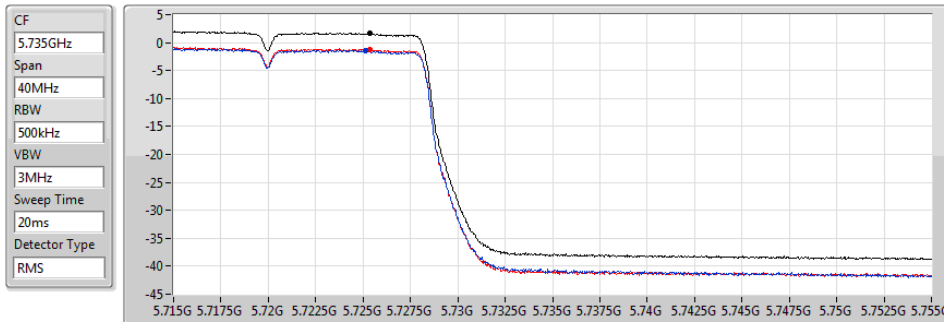
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.15	4.15	1.11	1.17

11a40_Nss1,(6Mbps)_2TX

PSD

5710MHz Straddle 5.725-5.85GHz

28/04/2020



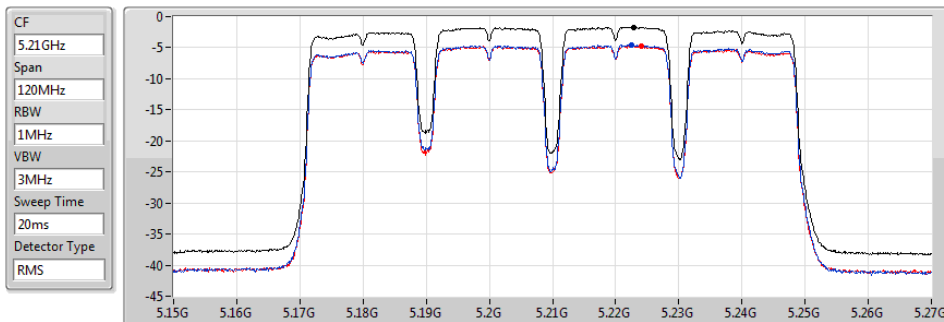
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.59	1.59	-1.44	-1.24

11a80_Nss1,(6Mbps)_2TX

PSD

5210MHz

29/04/2020



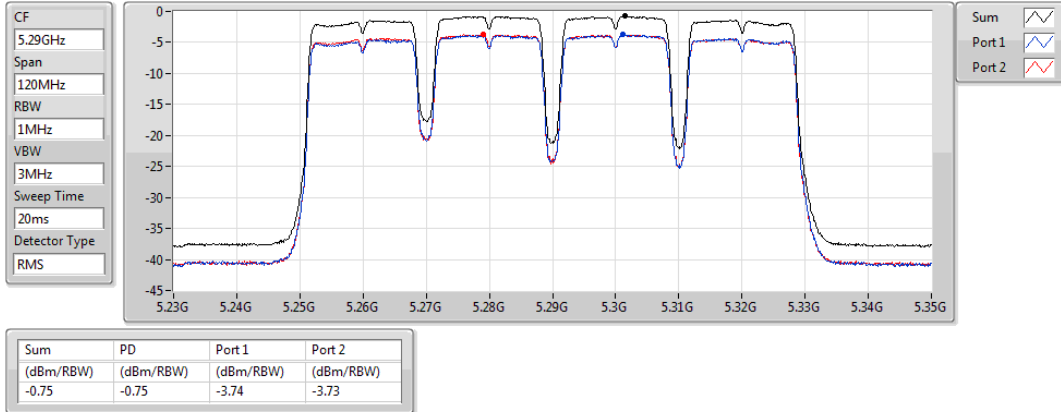
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.69	-1.69	-4.51	-4.74

11a80_Nss1,(6Mbps)_2TX

PSD

5290MHz

29/04/2020

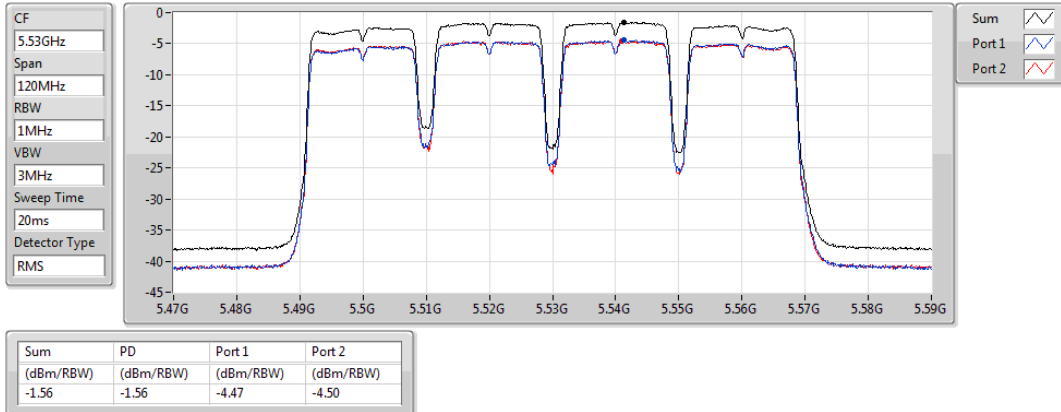


11a80_Nss1,(6Mbps)_2TX

PSD

5530MHz

29/04/2020

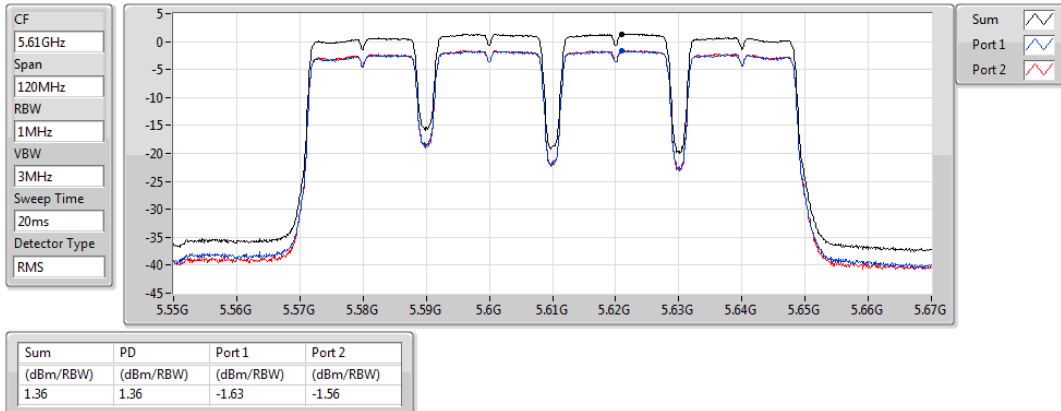


11a80_Nss1,(6Mbps)_2TX

PSD

5610MHz

29/04/2020

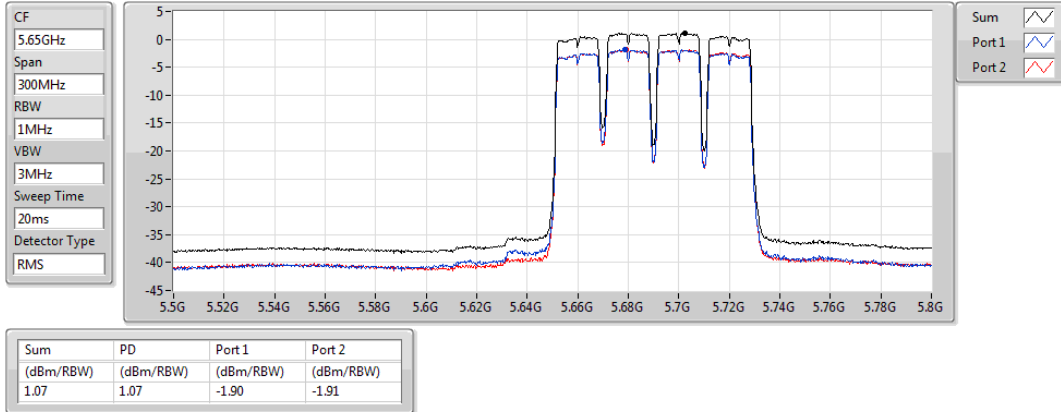


11a80_Nss1,(6Mbps)_2TX

PSD

5690MHz Straddle 5.47-5.725GHz

29/04/2020

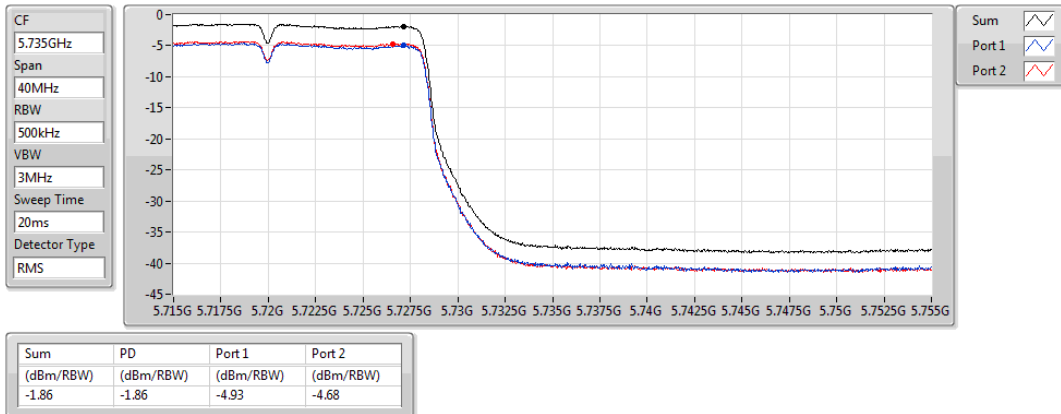


11a80_Nss1,(6Mbps)_2TX

PSD

5690MHz Straddle 5.725-5.85GHz

28/04/2020

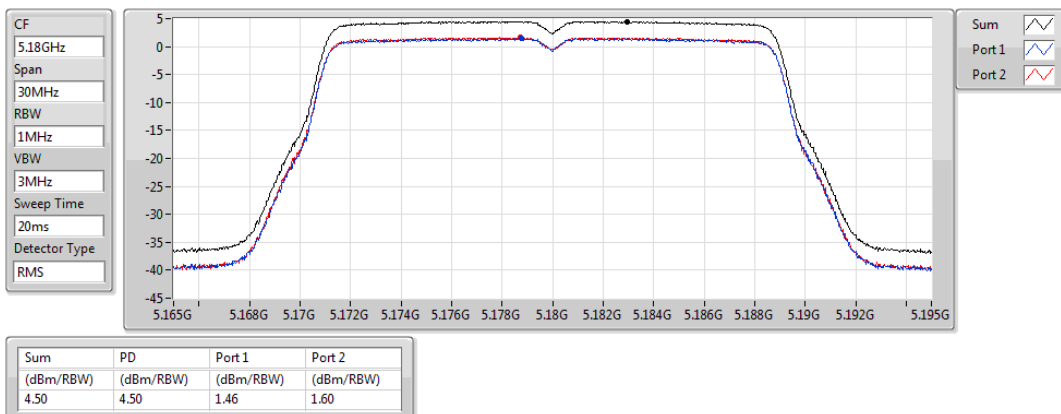


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5180MHz

29/04/2020

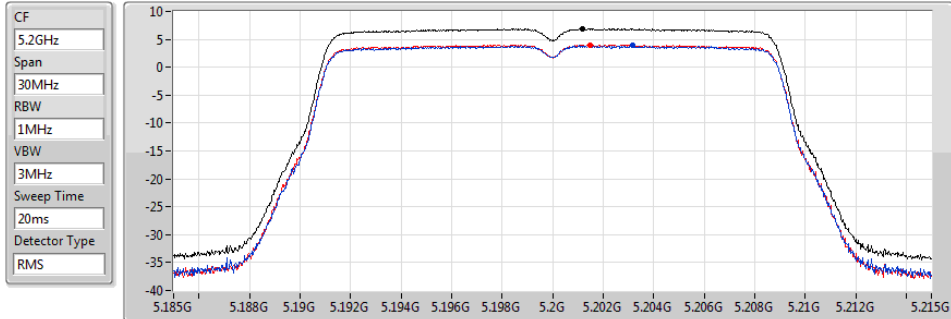


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5200MHz

29/04/2020



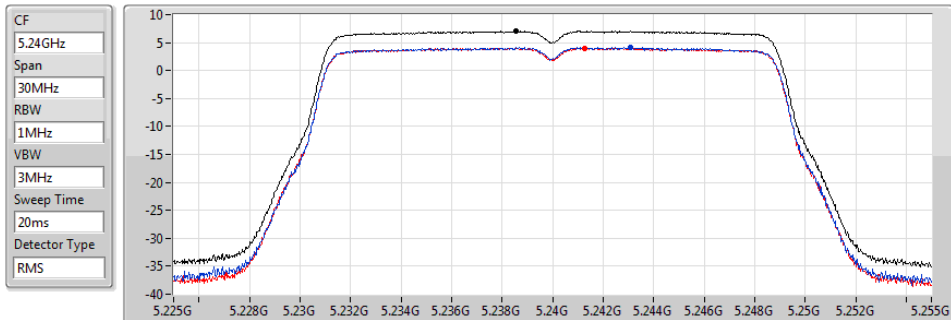
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.88	6.88	3.91	3.96

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5240MHz

29/04/2020



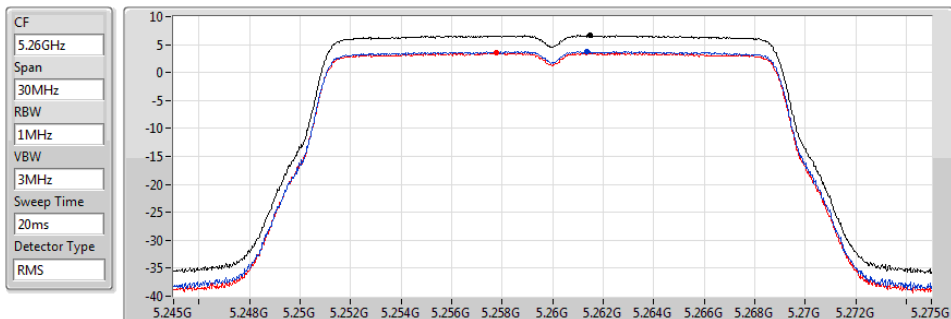
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.07	7.07	4.17	4.02

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5260MHz

29/04/2020



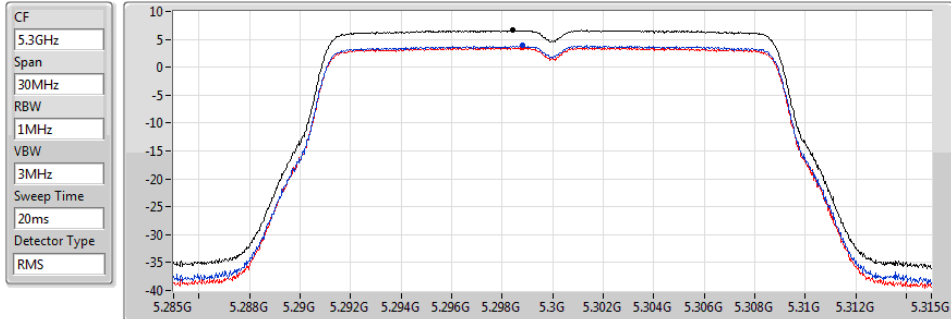
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.62	6.62	3.83	3.50

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5300MHz

29/04/2020



Sum
Port 1
Port 2

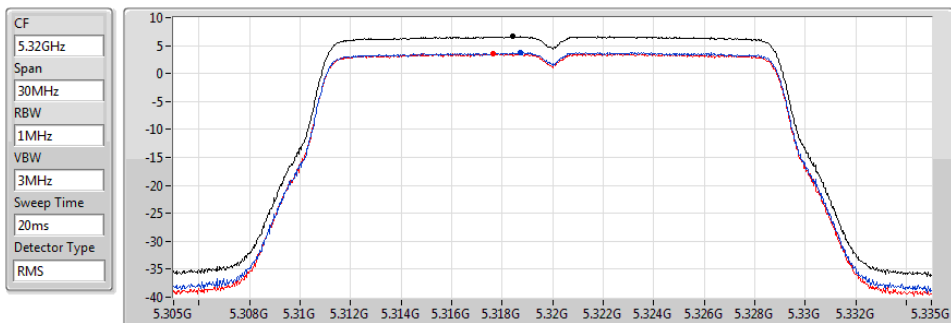
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.60	6.60	3.88	3.50

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5320MHz

29/04/2020



Sum
Port 1
Port 2

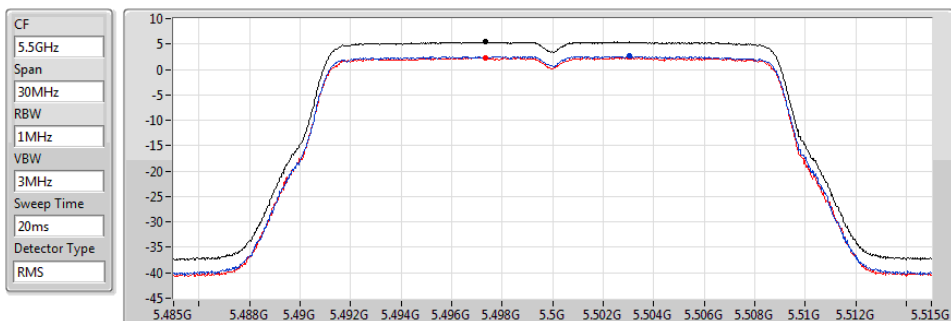
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.62	6.62	3.76	3.57

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5500MHz

29/04/2020



Sum
Port 1
Port 2

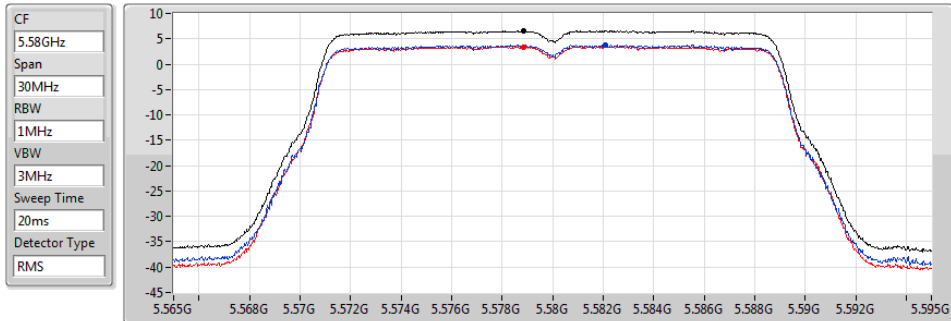
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.44	5.44	2.61	2.32

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5580MHz

29/04/2020



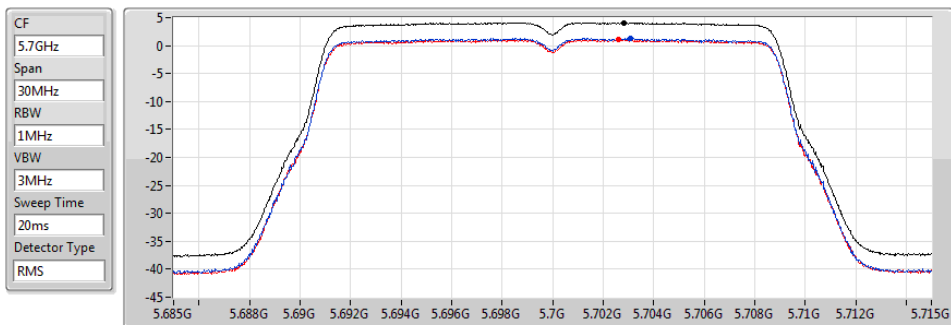
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.59	6.59	3.81	3.43

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5700MHz

29/04/2020



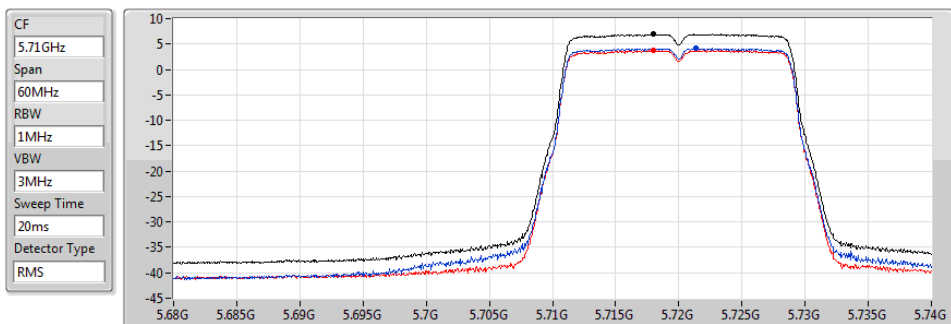
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.11	4.11	1.28	1.04

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

29/04/2020



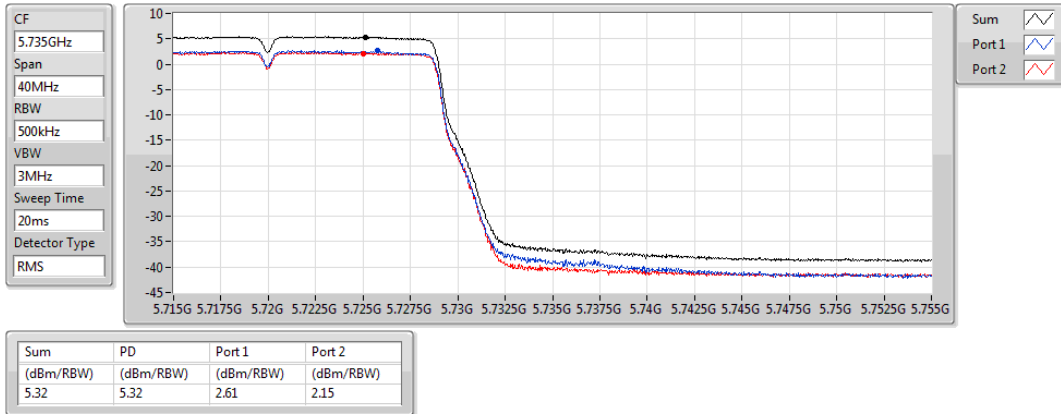
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.91	6.91	4.21	3.73

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.725-5.85GHz

29/04/2020

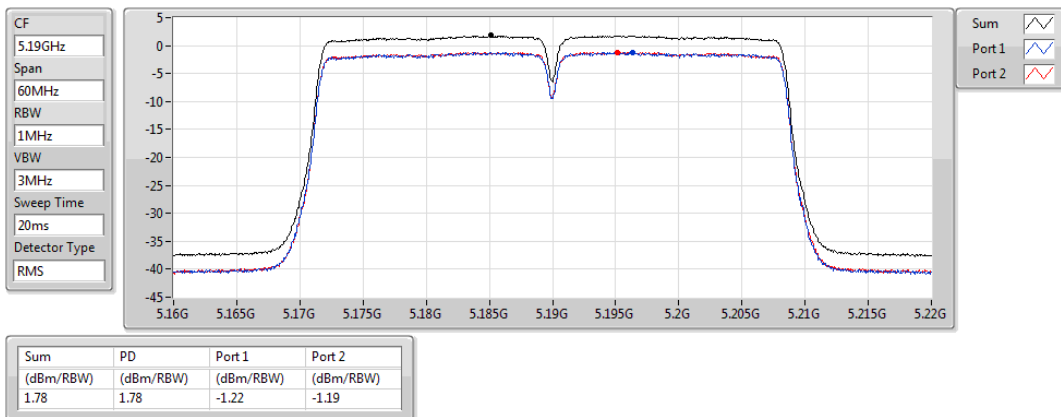


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5190MHz

29/04/2020

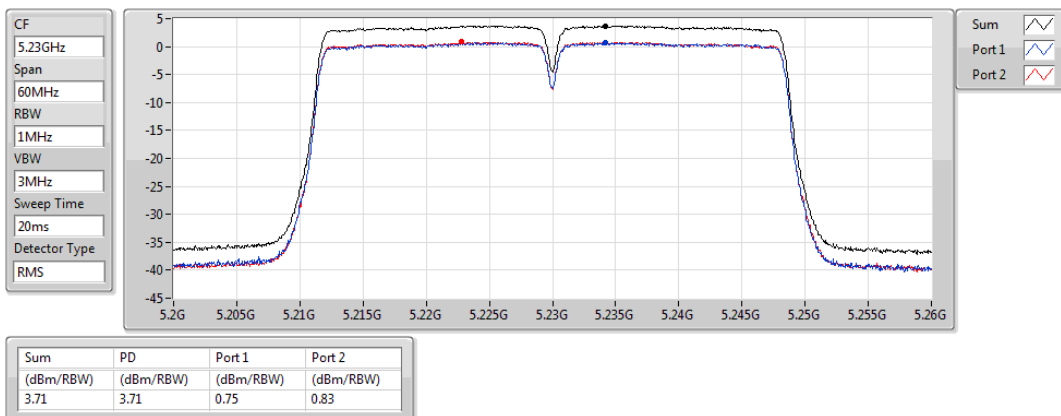


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5230MHz

29/04/2020

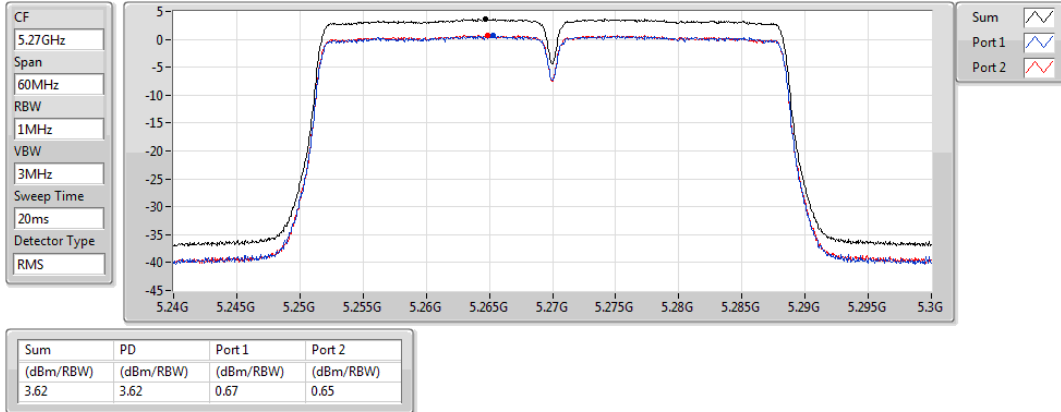


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5270MHz

29/04/2020

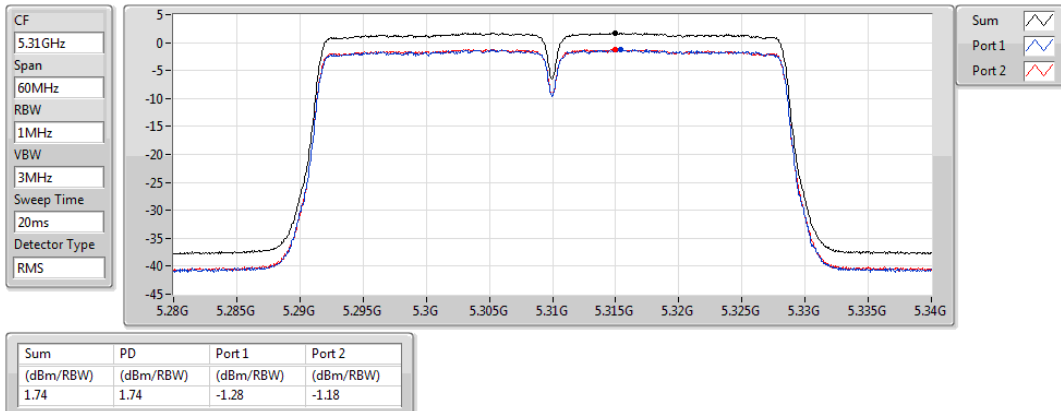


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5310MHz

29/04/2020

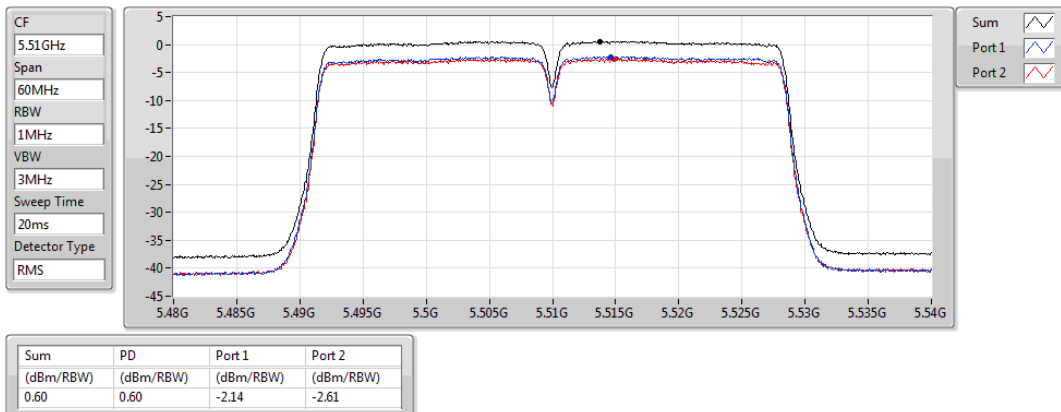


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5510MHz

29/04/2020

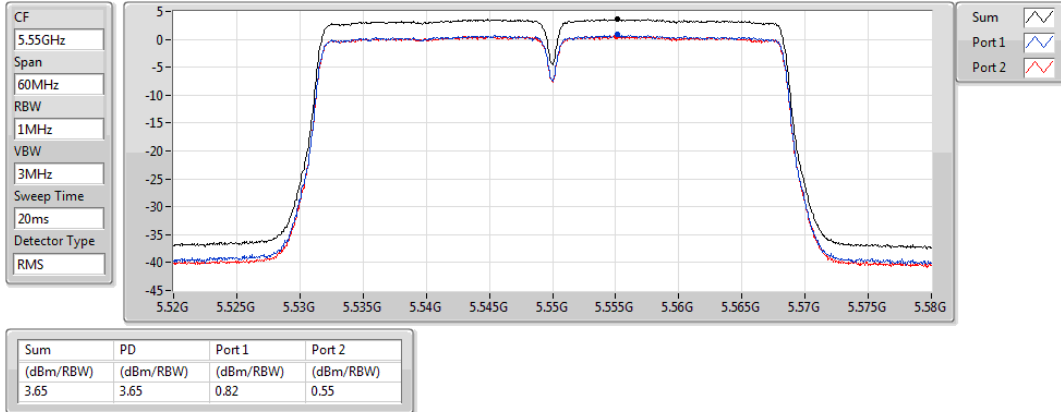


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5550MHz

29/04/2020

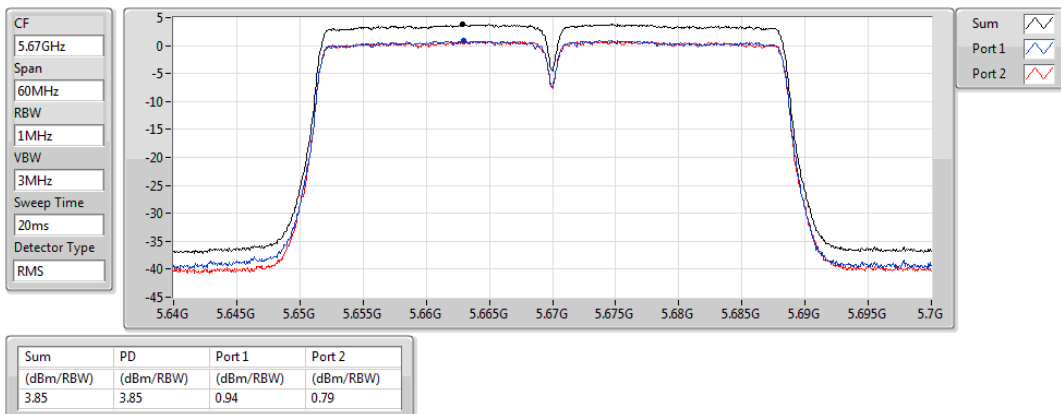


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5670MHz

29/04/2020

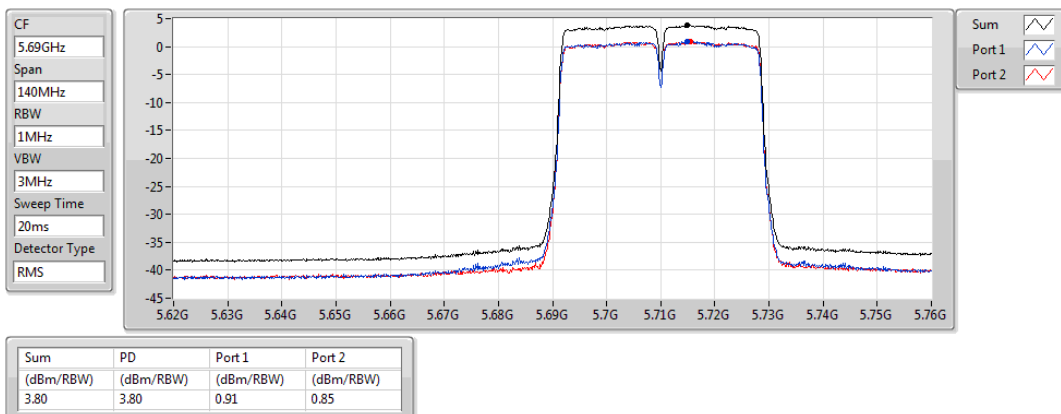


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.47-5.725GHz

29/04/2020

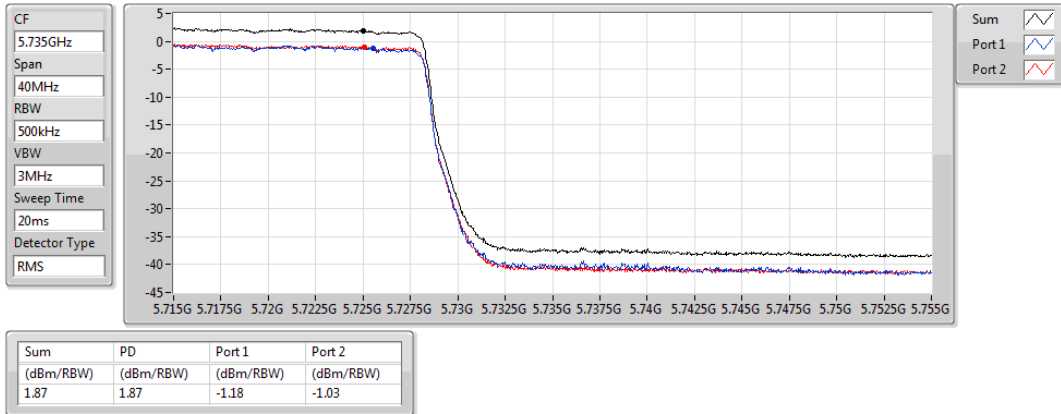


802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.725-5.85GHz

29/04/2020

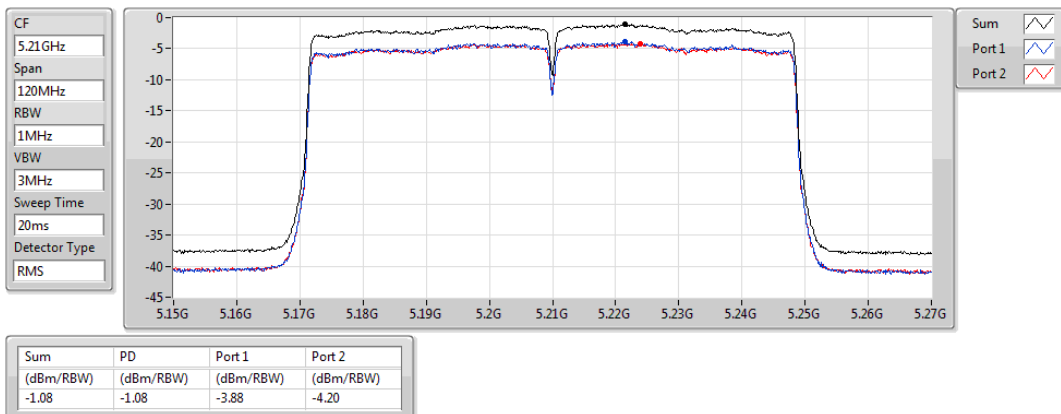


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5210MHz

29/04/2020

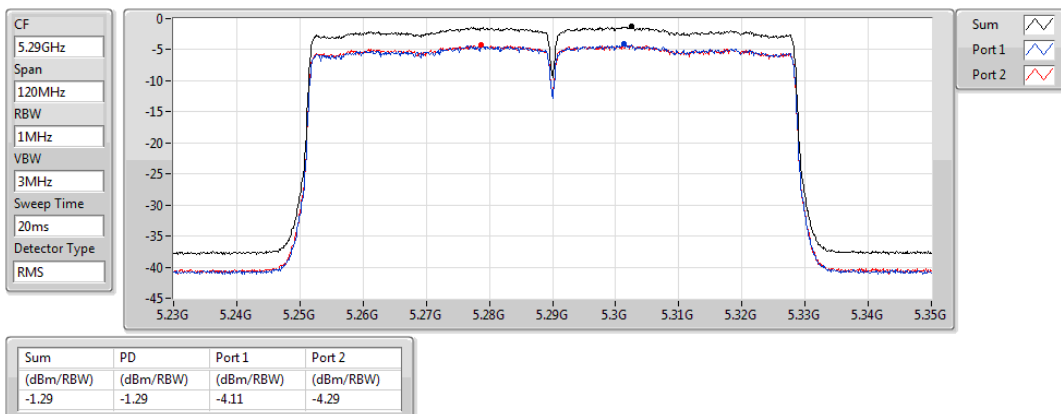


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5290MHz

29/04/2020

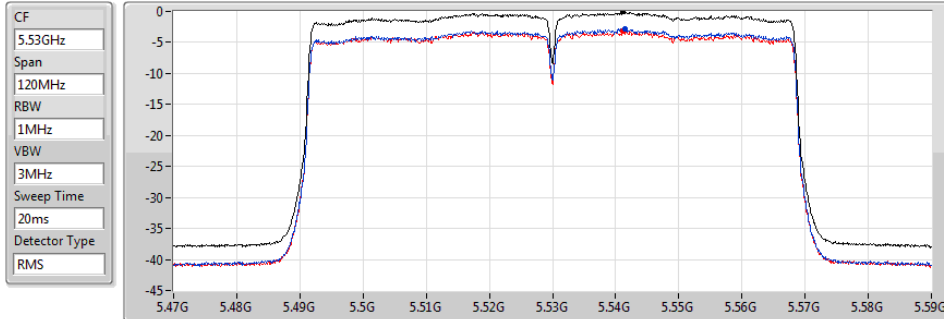


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5530MHz

29/04/2020



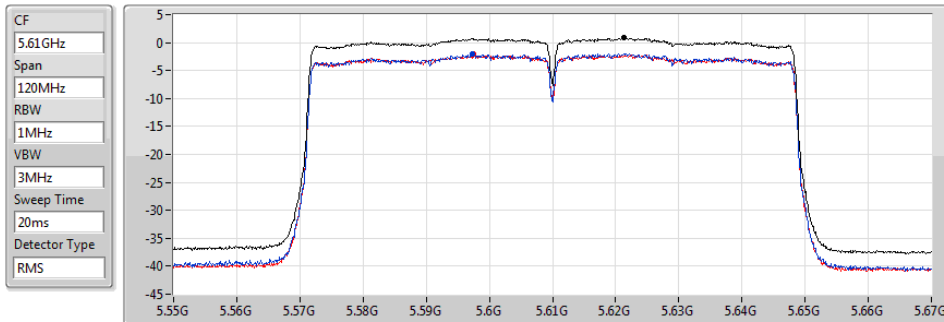
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.01	-0.01	-2.78	-3.24

802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5610MHz

29/04/2020



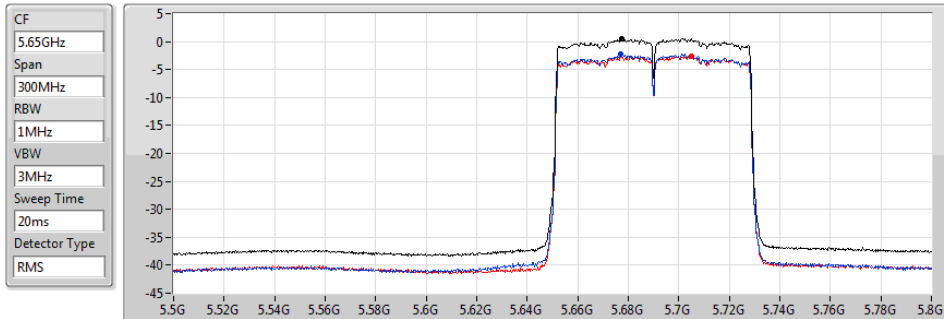
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.81	0.81	-1.98	-2.11

802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.47-5.725GHz

29/04/2020



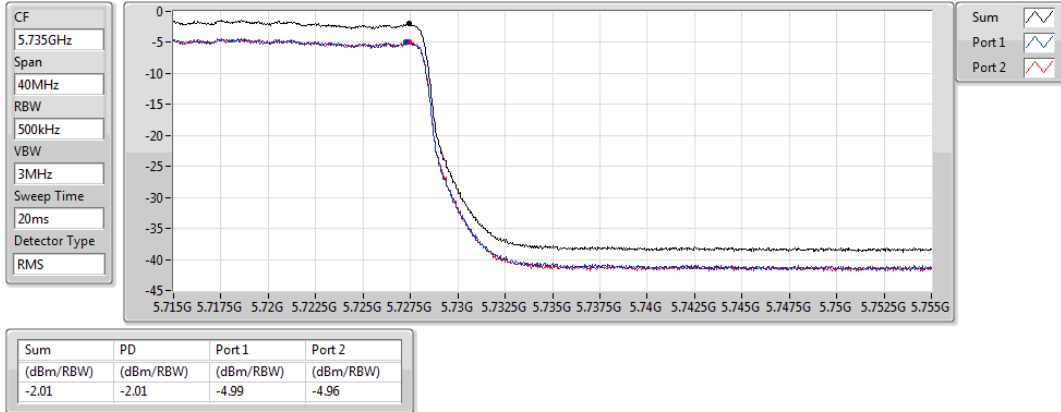
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.50	0.50	-2.29	-2.56

802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.725-5.85GHz

29/04/2020

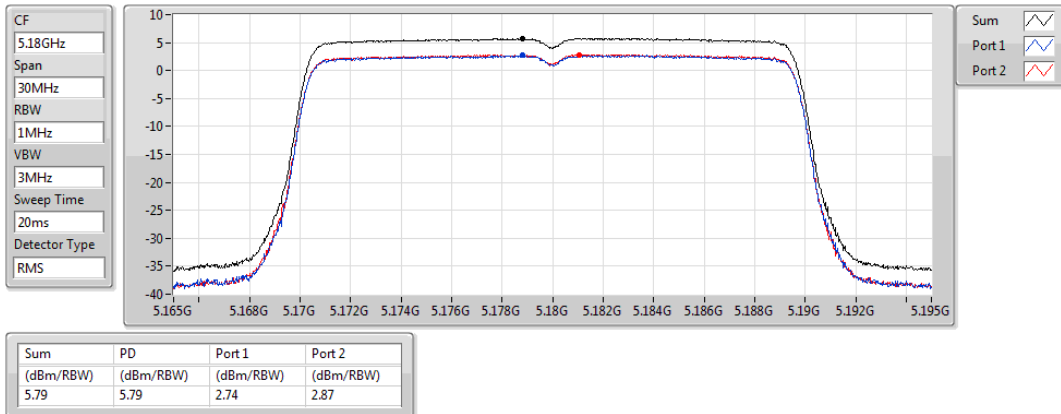


802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5180MHz

29/04/2020

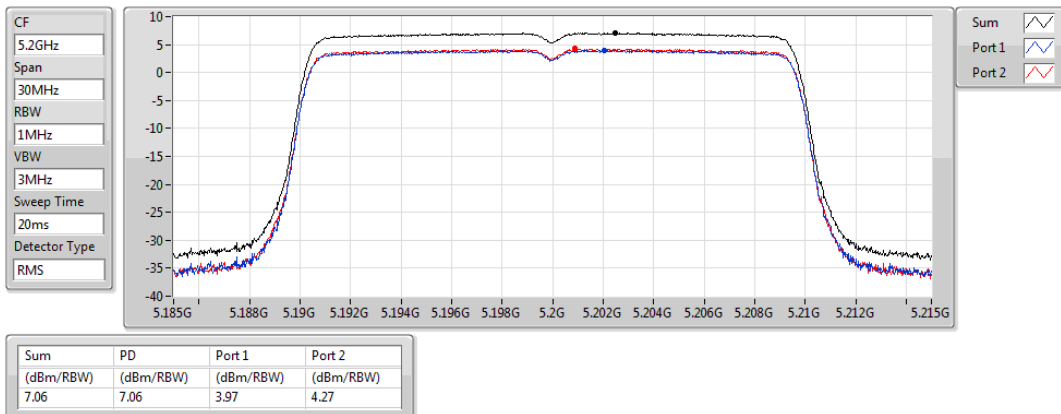


802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5200MHz

29/04/2020

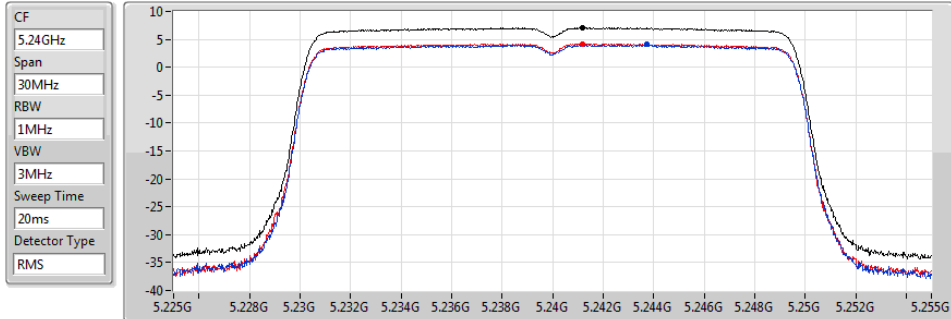


802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5240MHz

29/04/2020



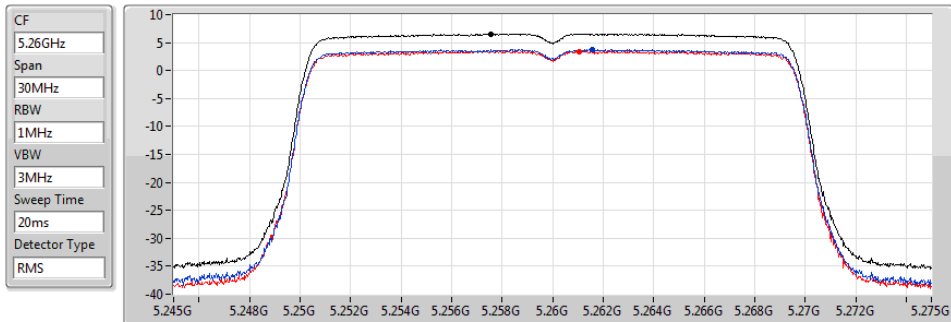
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.08	7.08	4.07	4.23

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5260MHz

29/04/2020



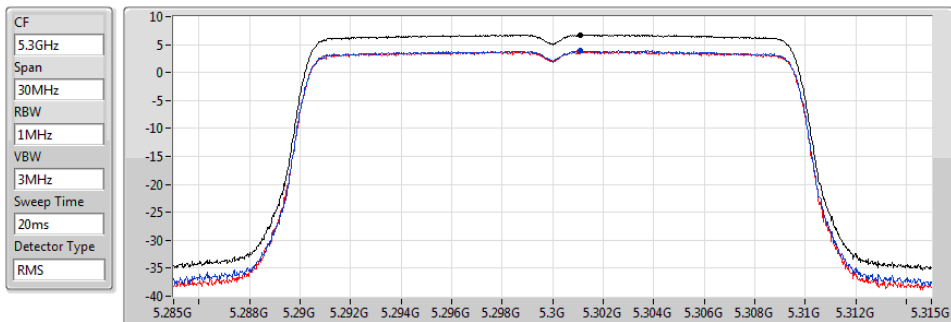
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.58	6.58	3.76	3.42

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5300MHz

29/04/2020



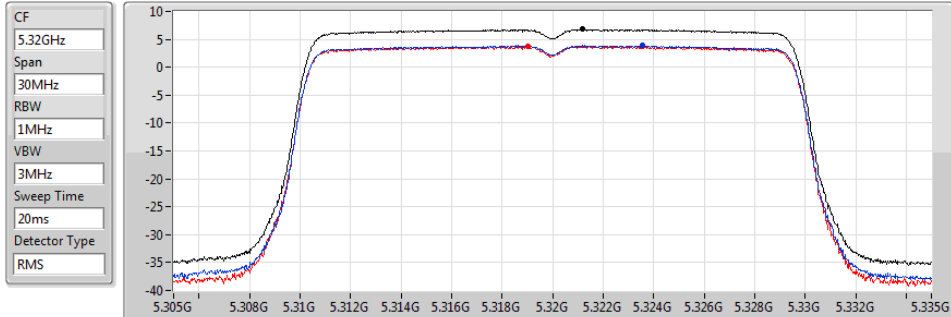
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.77	6.77	3.91	3.70

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5320MHz

29/04/2020



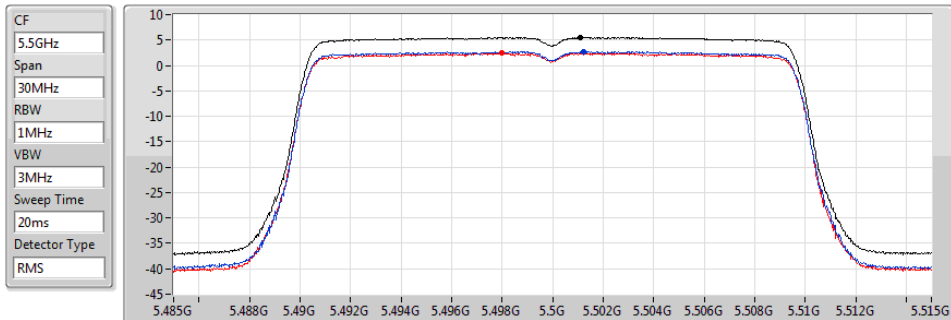
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.79	6.79	3.88	3.70

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5500MHz

29/04/2020



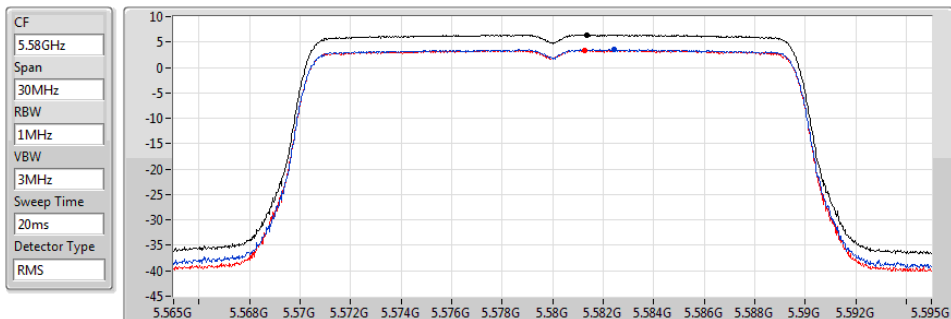
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.51	5.51	2.70	2.38

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5580MHz

29/04/2020



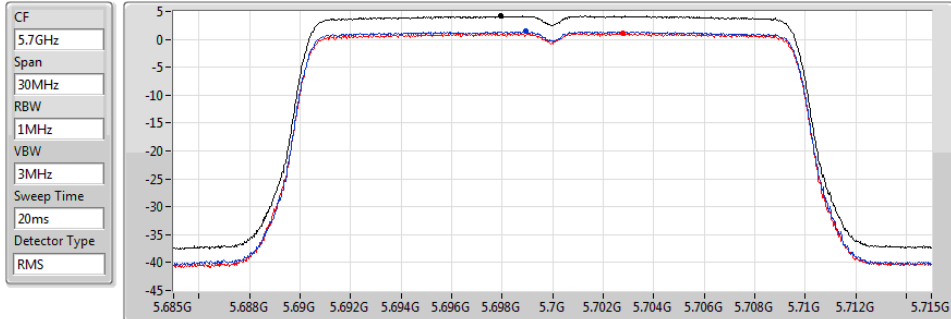
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.44	6.44	3.54	3.43

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5700MHz

29/04/2020



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.18	4.18	1.39	1.05

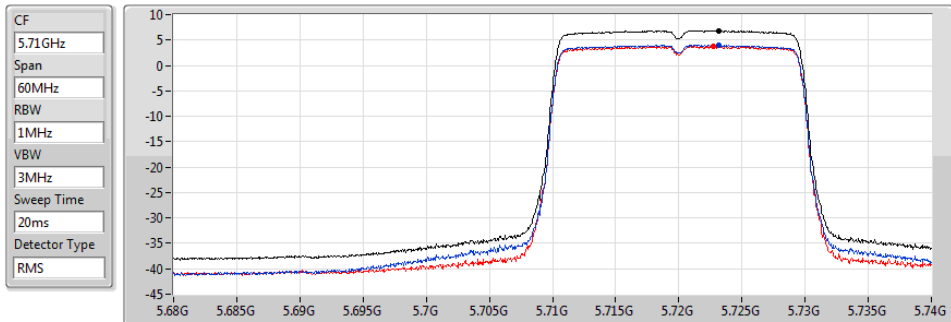
Sum	
Port 1	
Port 2	

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

29/04/2020



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.87	6.87	4.03	3.74

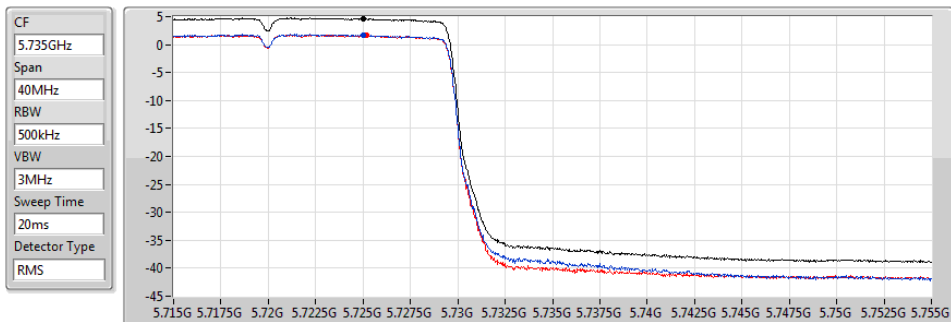
Sum	
Port 1	
Port 2	

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.725-5.85GHz

29/04/2020



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.61	4.61	1.64	1.71

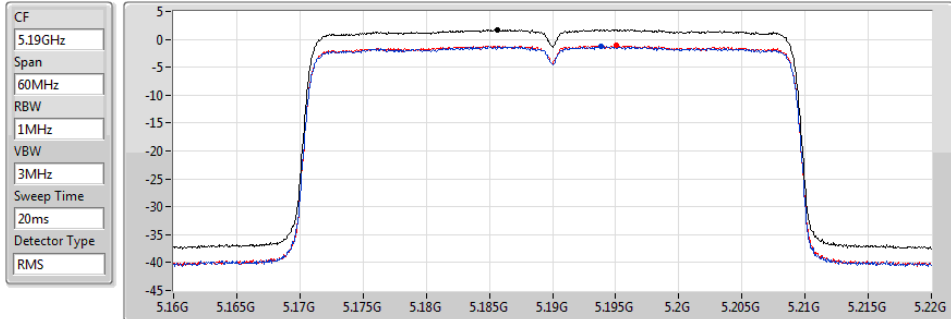
Sum	
Port 1	
Port 2	

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5190MHz

29/04/2020



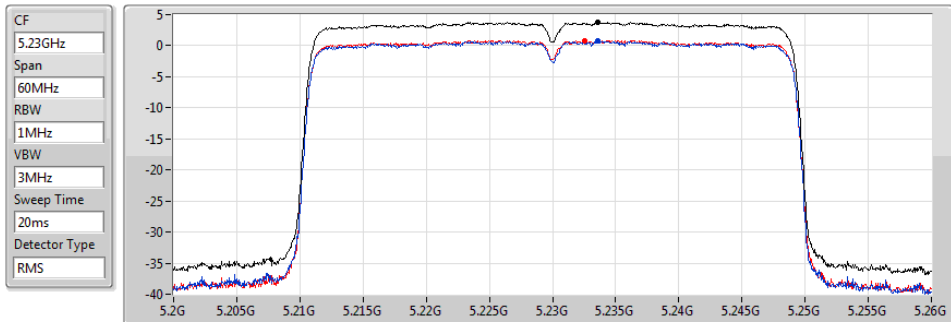
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.75	1.75	-1.32	-1.15

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5230MHz

29/04/2020



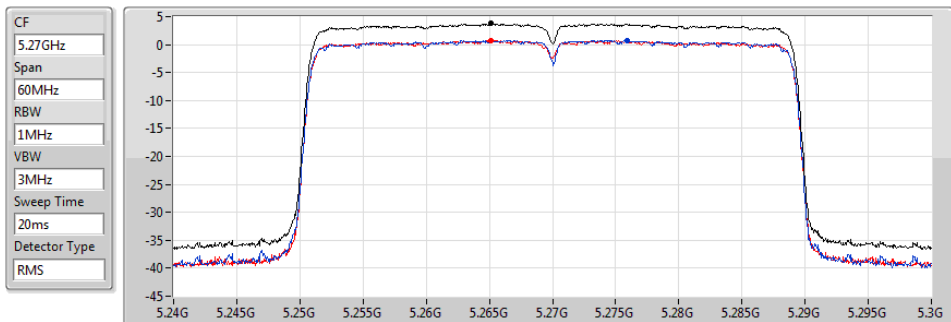
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.76	3.76	0.73	0.86

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5270MHz

29/04/2020



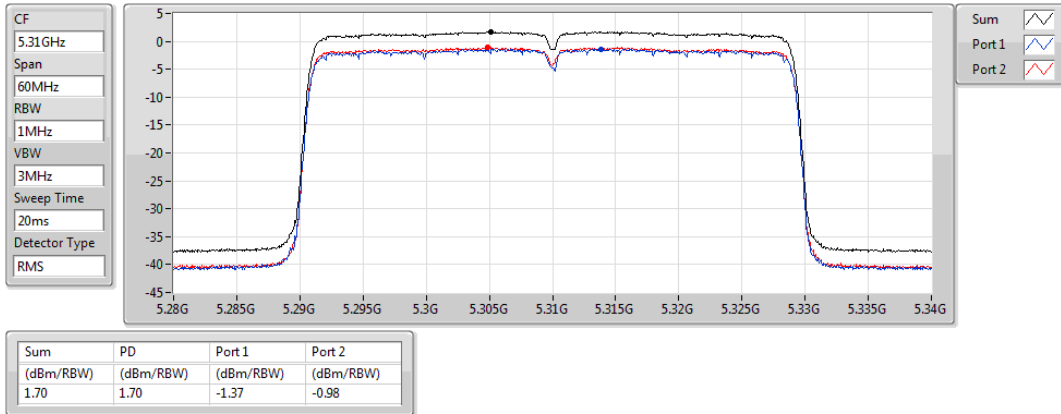
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.74	3.74	0.74	0.75

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5310MHz

29/04/2020

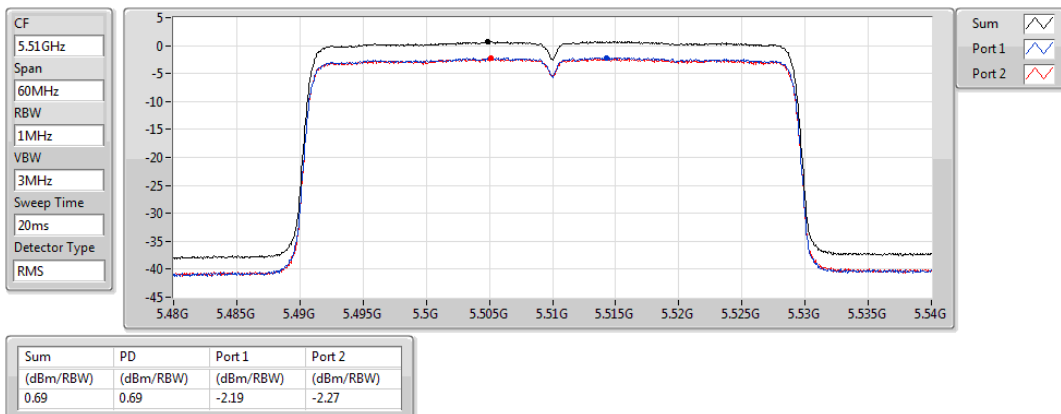


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5510MHz

29/04/2020

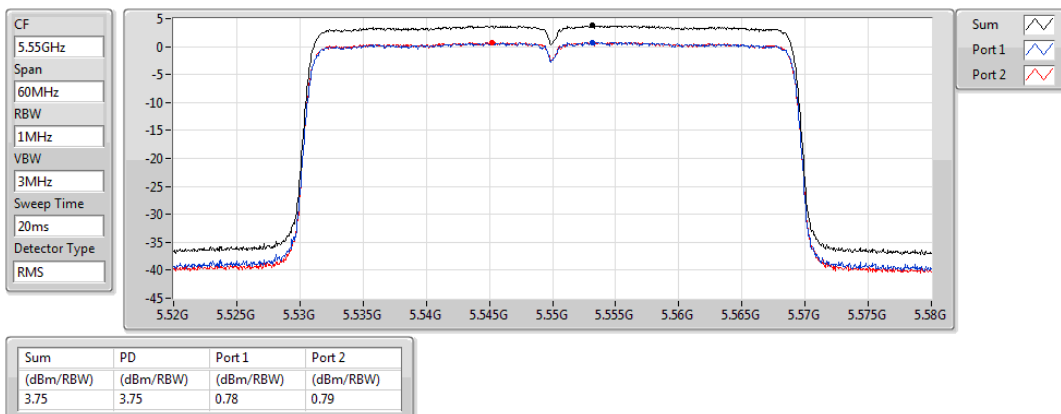


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5550MHz

29/04/2020

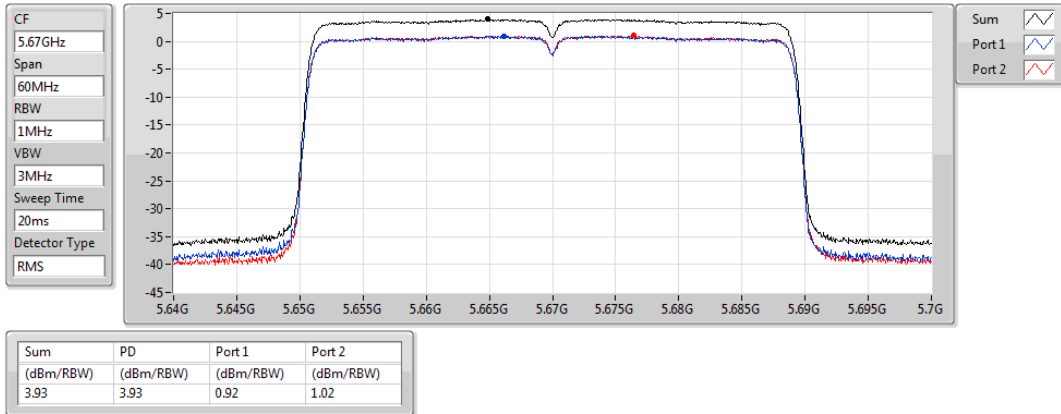


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5670MHz

29/04/2020

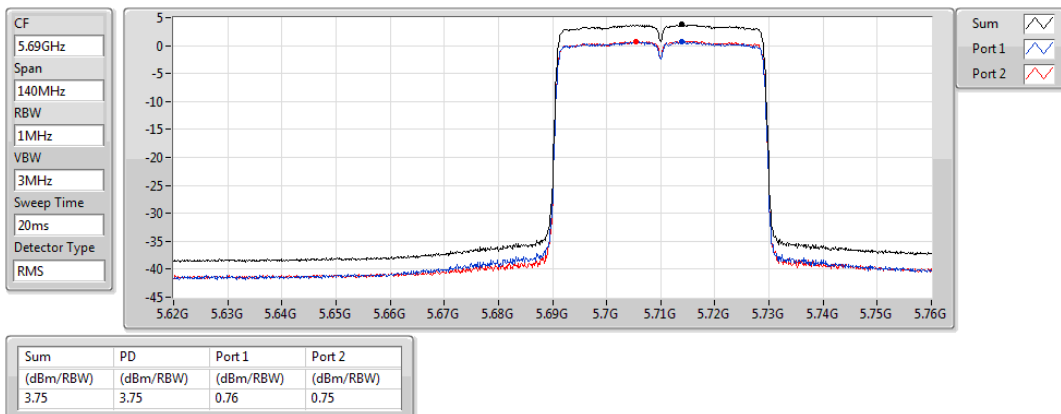


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.47-5.725GHz

29/04/2020

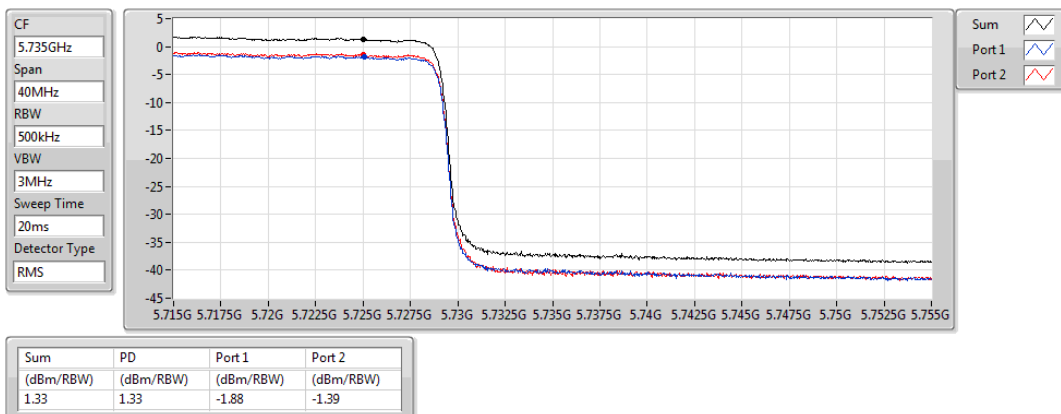


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.725-5.85GHz

29/04/2020

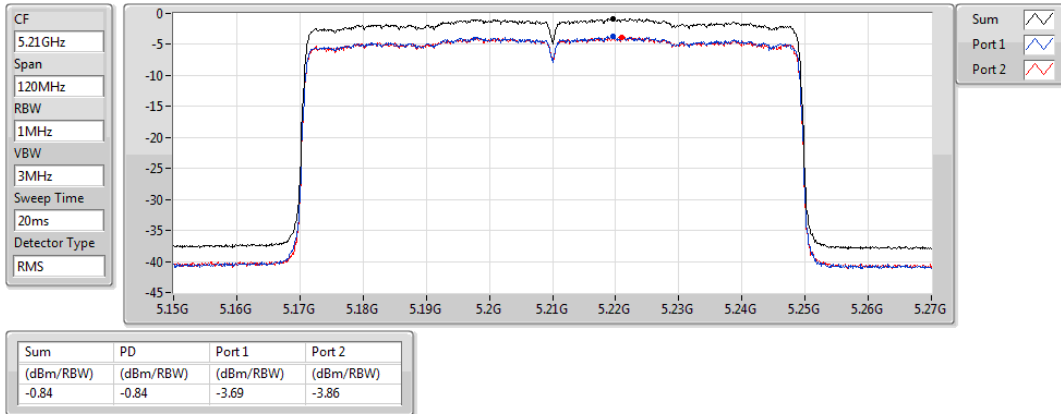


802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

5210MHz

29/04/2020

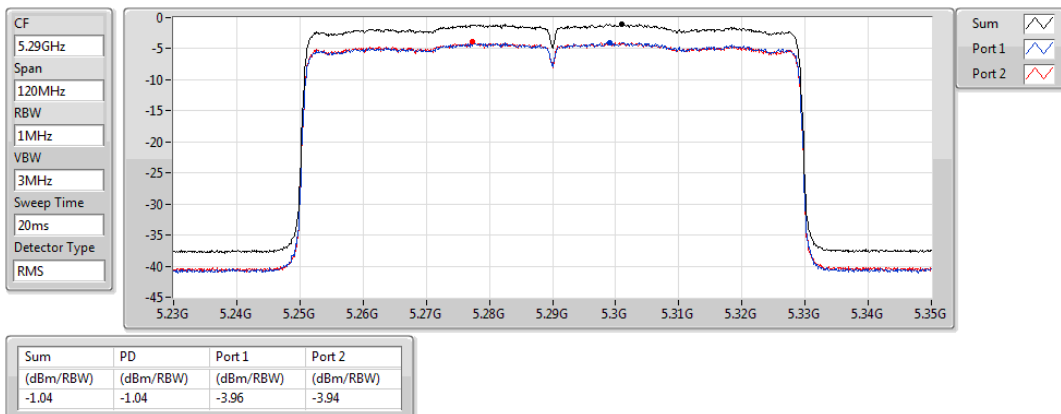


802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

5290MHz

29/04/2020

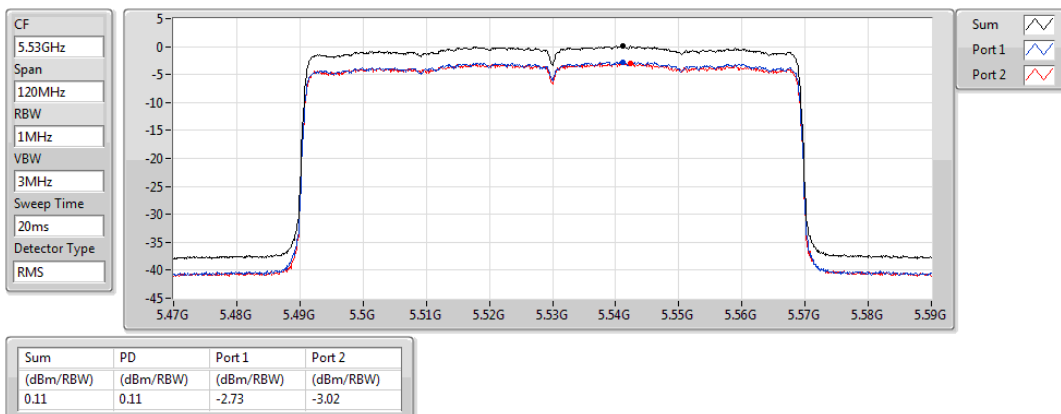


802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

5530MHz

29/04/2020

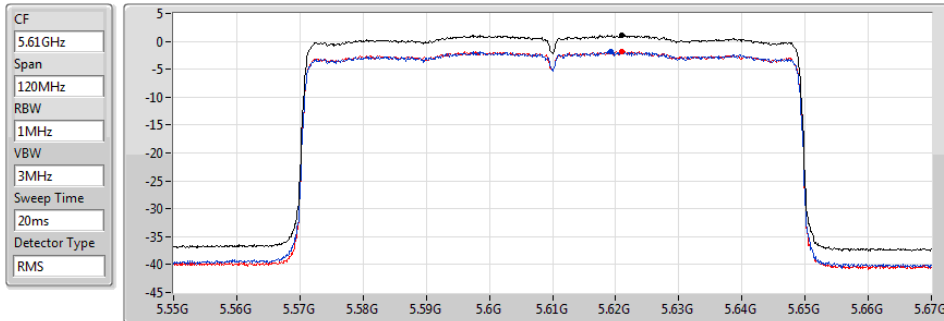


802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

5610MHz

29/04/2020



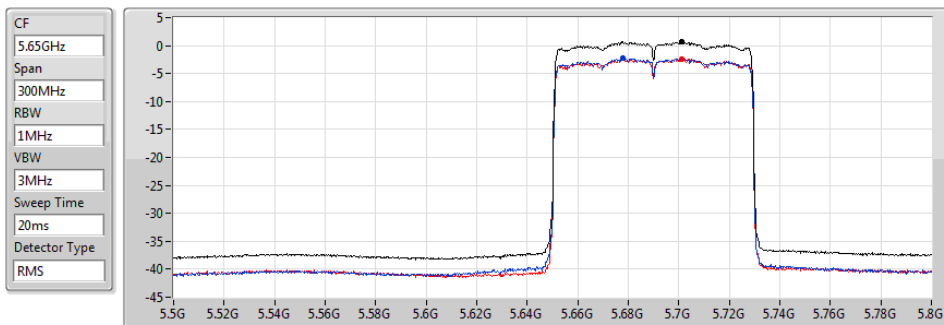
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.12	1.12	-1.82	-1.78

802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.47-5.725GHz

29/04/2020



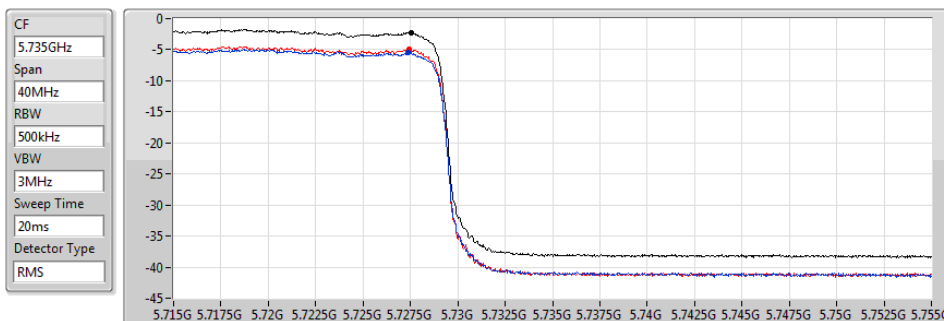
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.72	0.72	-2.20	-2.34

802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.725-5.85GHz

29/04/2020



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.21	-2.21	-5.48	-4.88

<2T1S>

For beamforming mode

Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
11a20,BF_Nss1,(6Mbps)_2TX	7.37
11a40,BF_Nss1,(6Mbps)_2TX	4.08
11a80,BF_Nss1,(6Mbps)_2TX	-1.69
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	7.07
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	3.71
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-1.08
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	7.08
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	3.76
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-0.84
5.25-5.35GHz	-
11a20,BF_Nss1,(6Mbps)_2TX	7.04
11a40,BF_Nss1,(6Mbps)_2TX	3.99
11a80,BF_Nss1,(6Mbps)_2TX	-0.75
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	6.62
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	3.62
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-1.29
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	6.79
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	3.74
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-1.04
5.47-5.725GHz	-
11a20,BF_Nss1,(6Mbps)_2TX	7.17
11a40,BF_Nss1,(6Mbps)_2TX	4.17
11a80,BF_Nss1,(6Mbps)_2TX	1.36
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	6.91
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	3.85
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	0.81
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	6.87
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	3.93
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	1.12
5.725-5.85GHz	-
11a20,BF_Nss1,(6Mbps)_2TX	4.97
11a40,BF_Nss1,(6Mbps)_2TX	1.59
11a80,BF_Nss1,(6Mbps)_2TX	-1.86
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	5.32
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	1.87
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-2.01
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	4.61
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	1.33
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-2.21

RBW = 500 kHz 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)
11a20,BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.49	4.14	4.3	7.19	15.51
5200MHz	Pass	7.49	4.25	4.39	7.29	15.51
5240MHz	Pass	7.51	4.37	4.48	7.37	15.49
5260MHz	Pass	7.51	4.03	3.79	6.89	9.49
5300MHz	Pass	7.51	4.23	3.91	7.02	9.49
5320MHz	Pass	7.51	4.1	4.04	7.04	9.49
5500MHz	Pass	7.57	2.93	2.65	5.78	9.43
5580MHz	Pass	7.57	4.09	3.89	6.94	9.43
5700MHz	Pass	7.79	2.52	2.22	5.33	9.21
5720MHz Straddle 5.47-5.725GHz	Pass	7.79	4.39	3.98	7.17	9.21
5720MHz Straddle 5.725-5.85GHz	Pass	7.79	2.03	1.97	4.97	28.21
11a40,BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5190MHz	Pass	7.49	-0.94	-0.67	2.16	15.51
5230MHz	Pass	7.51	1.03	1.25	4.08	15.49
5270MHz	Pass	7.51	1.1	0.98	3.99	9.49
5310MHz	Pass	7.51	-1.06	-0.84	2.01	9.49
5510MHz	Pass	7.57	-0.68	-1	2.12	9.43
5550MHz	Pass	7.57	1.04	1.05	3.98	9.43
5670MHz	Pass	7.79	1.22	1.24	4.17	9.21
5710MHz Straddle 5.47-5.725GHz	Pass	7.79	1.11	1.17	4.15	9.21
5710MHz Straddle 5.725-5.85GHz	Pass	7.79	-1.44	-1.24	1.59	28.21
11a80,BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5210MHz	Pass	7.49	-4.51	-4.74	-1.69	15.51
5290MHz	Pass	7.51	-3.74	-3.73	-0.75	9.49
5530MHz	Pass	7.57	-4.47	-4.5	-1.56	9.43
5610MHz	Pass	7.79	-1.63	-1.56	1.36	9.21
5690MHz Straddle 5.47-5.725GHz	Pass	7.79	-1.9	-1.91	1.07	9.21
5690MHz Straddle 5.725-5.85GHz	Pass	7.79	-4.93	-4.68	-1.86	28.21
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.49	1.46	1.6	4.50	15.51
5200MHz	Pass	7.49	3.91	3.96	6.88	15.51
5240MHz	Pass	7.51	4.17	4.02	7.07	15.49
5260MHz	Pass	7.51	3.83	3.5	6.62	9.49
5300MHz	Pass	7.51	3.88	3.5	6.60	9.49
5320MHz	Pass	7.51	3.76	3.57	6.62	9.49
5500MHz	Pass	7.57	2.61	2.32	5.44	9.43
5580MHz	Pass	7.57	3.81	3.43	6.59	9.43
5700MHz	Pass	7.79	1.28	1.04	4.11	9.21
5720MHz Straddle 5.47-5.725GHz	Pass	7.79	4.21	3.73	6.91	9.21
5720MHz Straddle 5.725-5.85GHz	Pass	7.79	2.61	2.15	5.32	28.21
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	7.49	-1.22	-1.19	1.78	15.51
5230MHz	Pass	7.51	0.75	0.83	3.71	15.49

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
5270MHz	Pass	7.51	0.67	0.65	3.62	9.49
5310MHz	Pass	7.51	-1.28	-1.18	1.74	9.49
5510MHz	Pass	7.57	-2.14	-2.61	0.60	9.43
5550MHz	Pass	7.57	0.82	0.55	3.65	9.43
5670MHz	Pass	7.79	0.94	0.79	3.85	9.21
5710MHz Straddle 5.47-5.725GHz	Pass	7.79	0.91	0.85	3.80	9.21
5710MHz Straddle 5.725-5.85GHz	Pass	7.79	-1.18	-1.03	1.87	28.21
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	7.49	-3.88	-4.2	-1.08	15.51
5290MHz	Pass	7.51	-4.11	-4.29	-1.29	9.49
5530MHz	Pass	7.57	-2.78	-3.24	-0.01	9.43
5610MHz	Pass	7.79	-1.98	-2.11	0.81	9.21
5690MHz Straddle 5.47-5.725GHz	Pass	7.79	-2.29	-2.56	0.50	9.21
5690MHz Straddle 5.725-5.85GHz	Pass	7.79	-4.99	-4.96	-2.01	28.21
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.49	2.74	2.87	5.79	15.51
5200MHz	Pass	7.49	3.97	4.27	7.06	15.51
5240MHz	Pass	7.51	4.07	4.23	7.08	15.49
5260MHz	Pass	7.51	3.76	3.42	6.58	9.49
5300MHz	Pass	7.51	3.91	3.7	6.77	9.49
5320MHz	Pass	7.51	3.88	3.7	6.79	9.49
5500MHz	Pass	7.57	2.7	2.38	5.51	9.43
5580MHz	Pass	7.57	3.54	3.43	6.44	9.43
5700MHz	Pass	7.79	1.39	1.05	4.18	9.21
5720MHz Straddle 5.47-5.725GHz	Pass	7.79	4.03	3.74	6.87	9.21
5720MHz Straddle 5.725-5.85GHz	Pass	7.79	1.64	1.71	4.61	28.21
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	7.49	-1.32	-1.15	1.75	15.51
5230MHz	Pass	7.51	0.73	0.86	3.76	15.49
5270MHz	Pass	7.51	0.74	0.75	3.74	9.49
5310MHz	Pass	7.51	-1.37	-0.98	1.70	9.49
5510MHz	Pass	7.57	-2.19	-2.27	0.69	9.43
5550MHz	Pass	7.57	0.78	0.79	3.75	9.43
5670MHz	Pass	7.79	0.92	1.02	3.93	9.21
5710MHz Straddle 5.47-5.725GHz	Pass	7.79	0.76	0.75	3.75	9.21
5710MHz Straddle 5.725-5.85GHz	Pass	7.79	-1.88	-1.39	1.33	28.21
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	7.49	-3.69	-3.86	-0.84	15.51
5290MHz	Pass	7.51	-3.96	-3.94	-1.04	9.49
5530MHz	Pass	7.57	-2.73	-3.02	0.11	9.43
5610MHz	Pass	7.79	-1.82	-1.78	1.12	9.21
5690MHz Straddle 5.47-5.725GHz	Pass	7.79	-2.2	-2.34	0.72	9.21
5690MHz Straddle 5.725-5.85GHz	Pass	7.79	-5.48	-4.88	-2.21	28.21

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

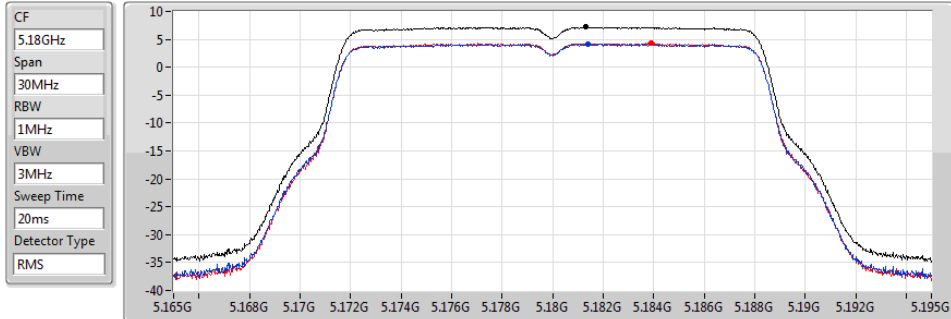
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

11a20,BF_Nss1,(6Mbps)_2TX

PSD

5180MHz

29/04/2020



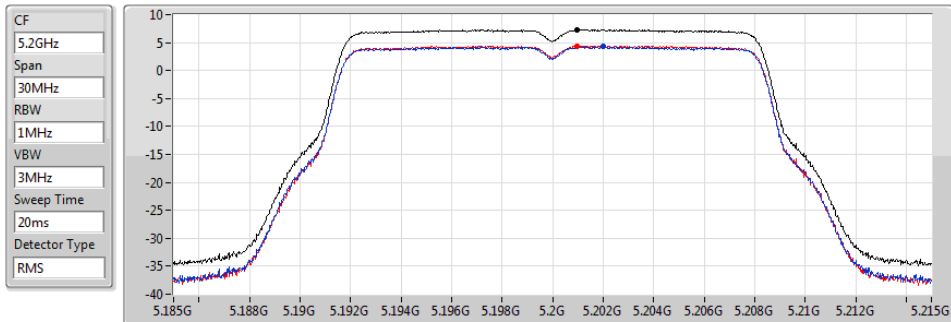
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.19	7.19	4.14	4.30

11a20,BF_Nss1,(6Mbps)_2TX

PSD

5200MHz

29/04/2020



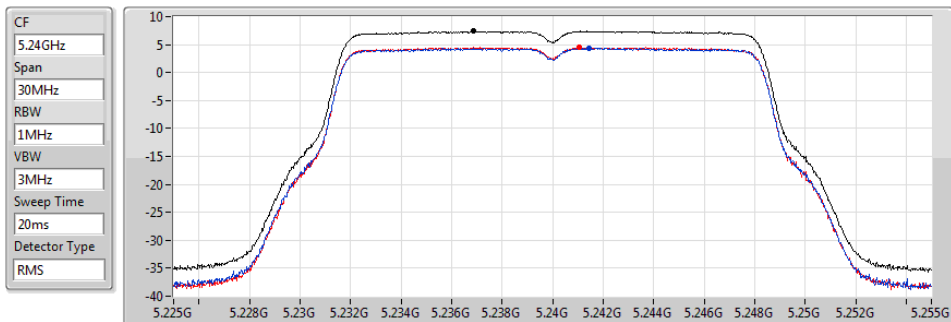
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.29	7.29	4.25	4.39

11a20,BF_Nss1,(6Mbps)_2TX

PSD

5240MHz

29/04/2020



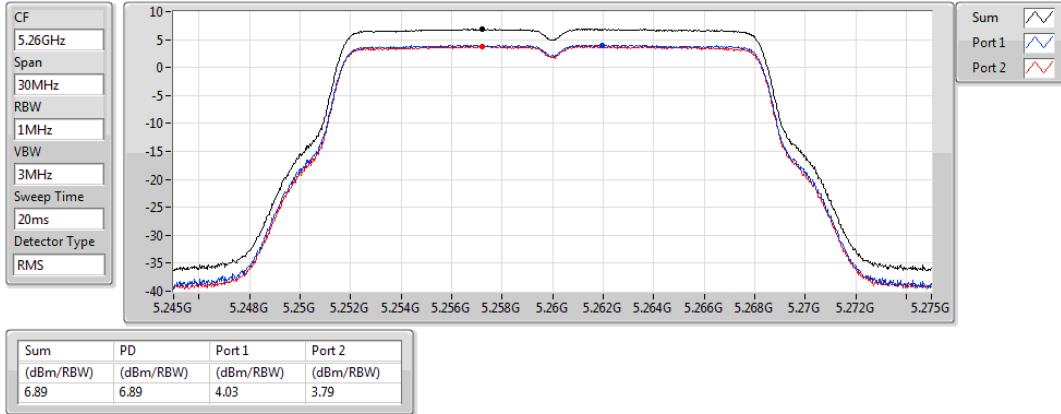
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.37	7.37	4.37	4.48

11a20,BF_Nss1,(6Mbps)_2TX

PSD

5260MHz

29/04/2020

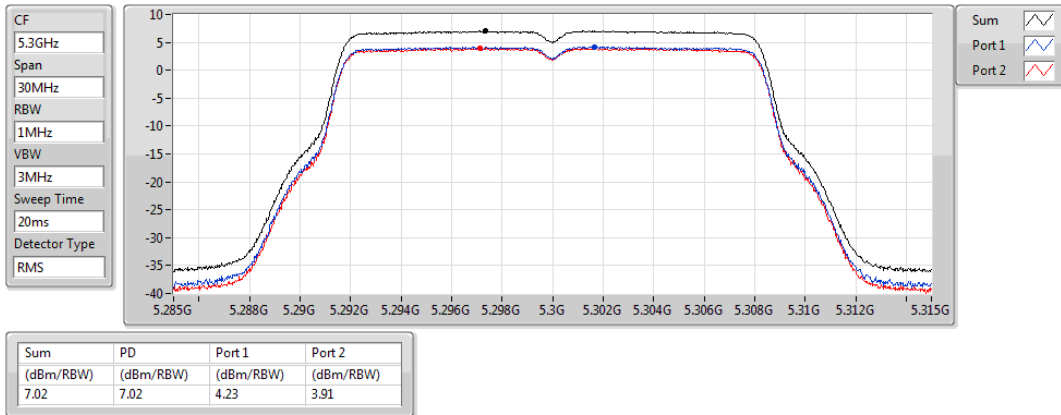


11a20,BF_Nss1,(6Mbps)_2TX

PSD

5300MHz

29/04/2020

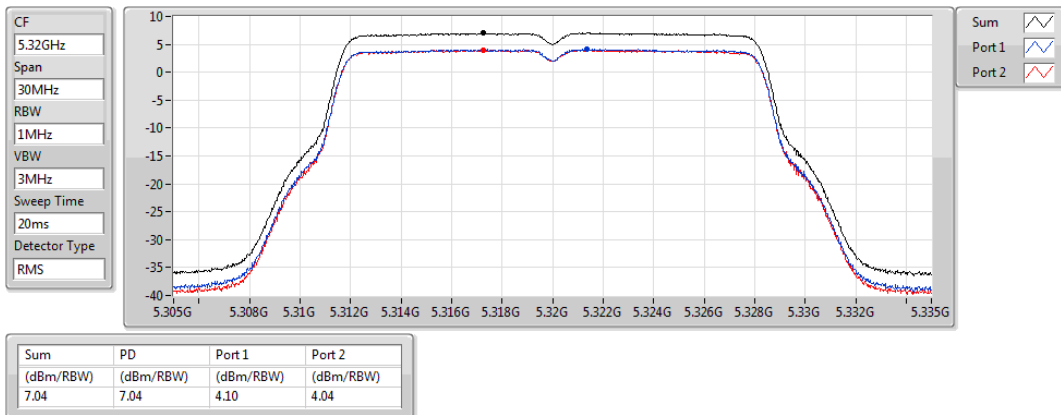


11a20,BF_Nss1,(6Mbps)_2TX

PSD

5320MHz

29/04/2020

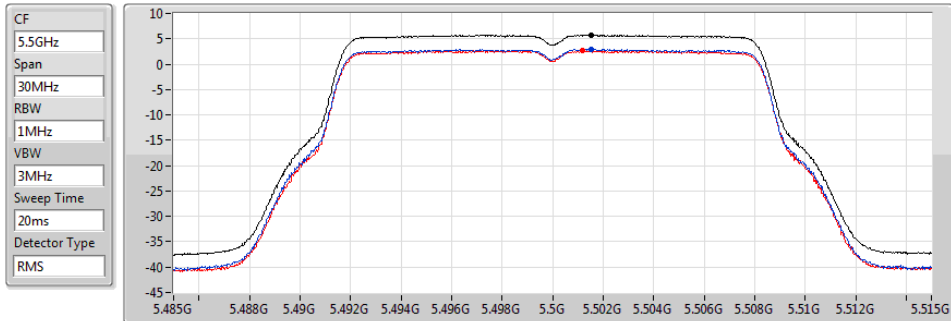


11a20,BF_Nss1,(6Mbps)_2TX

PSD

5500MHz

29/04/2020



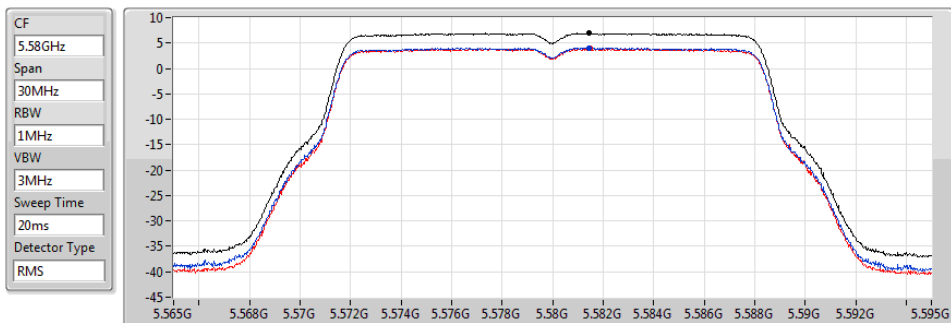
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.78	5.78	2.93	2.65

11a20,BF_Nss1,(6Mbps)_2TX

PSD

5580MHz

29/04/2020



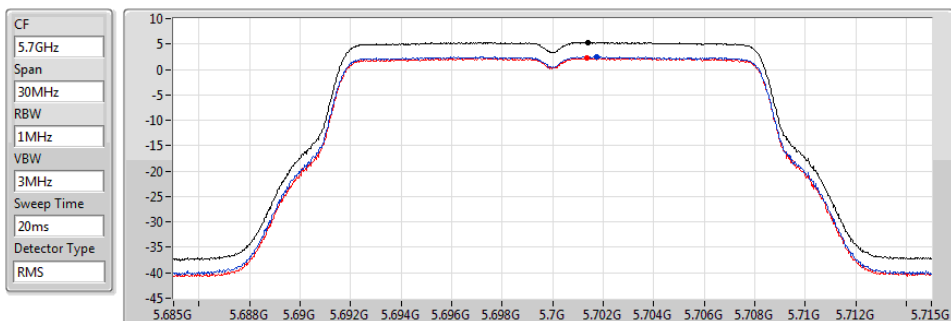
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.94	6.94	4.09	3.89

11a20,BF_Nss1,(6Mbps)_2TX

PSD

5700MHz

29/04/2020

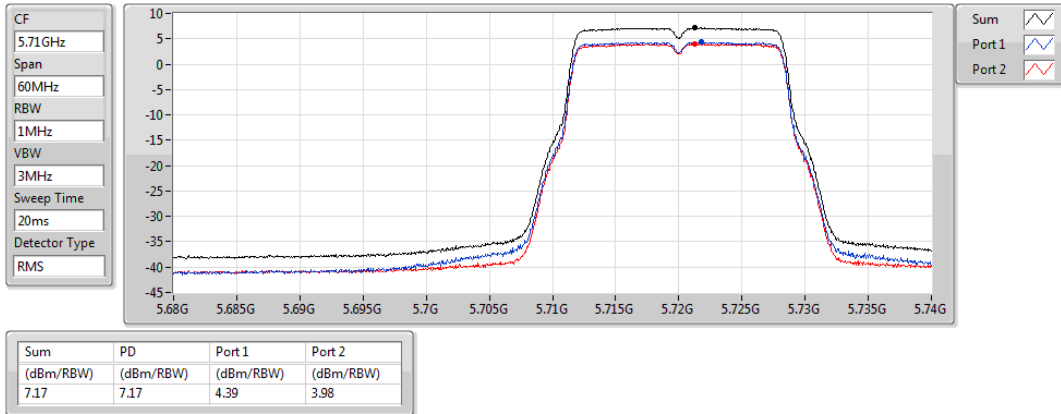


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.33	5.33	2.52	2.22

11a20,BF_Nss1,(6Mbps)_2TX 5720MHz Straddle 5.47-5.725GHz

PSD

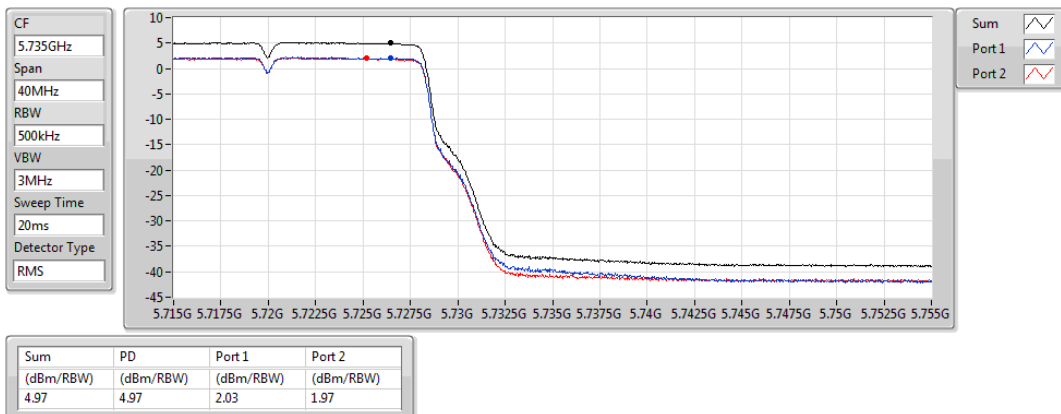
29/04/2020



11a20,BF_Nss1,(6Mbps)_2TX 5720MHz Straddle 5.725-5.85GHz

PSD

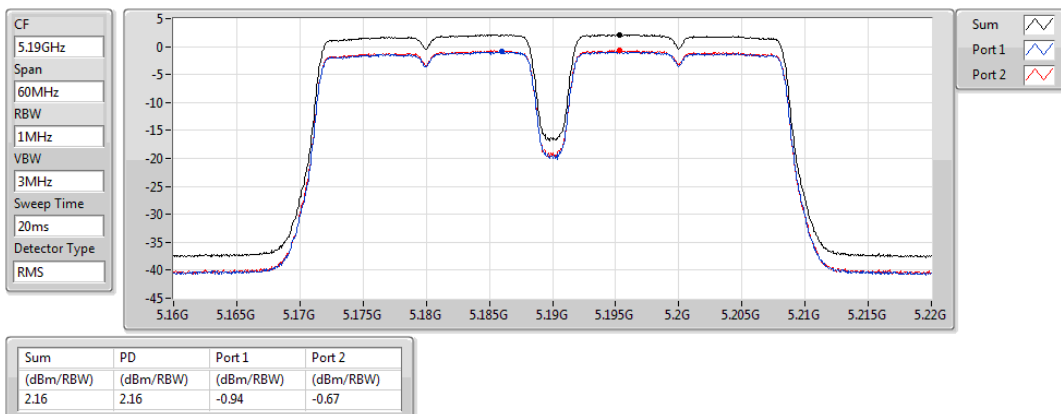
28/04/2020



11a40,BF_Nss1,(6Mbps)_2TX 5190MHz

PSD

29/04/2020

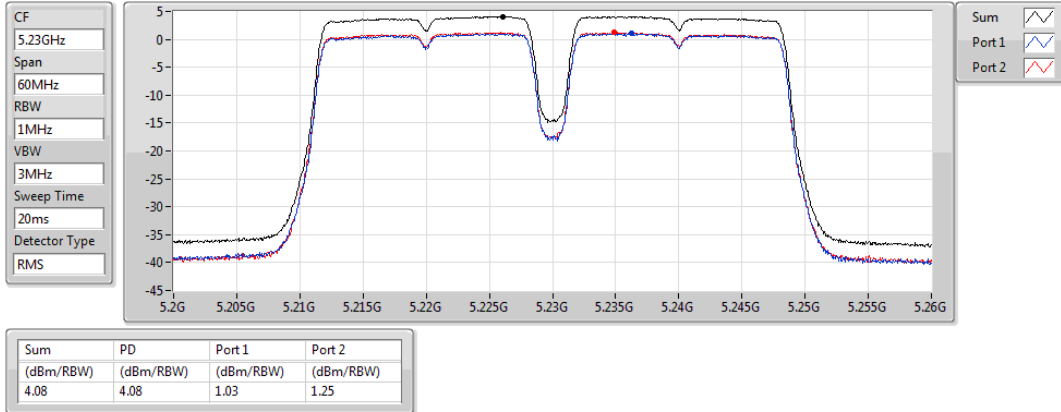


11a40,BF_Nss1,(6Mbps)_2TX

PSD

5230MHz

29/04/2020

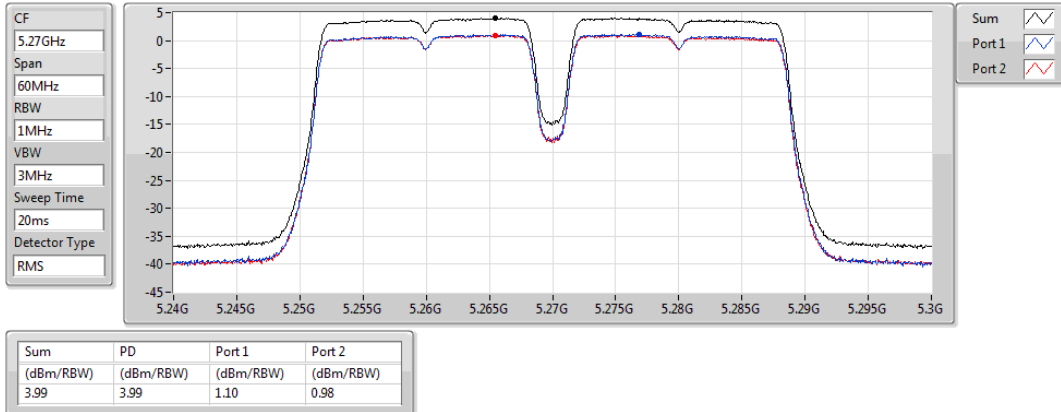


11a40,BF_Nss1,(6Mbps)_2TX

PSD

5270MHz

29/04/2020

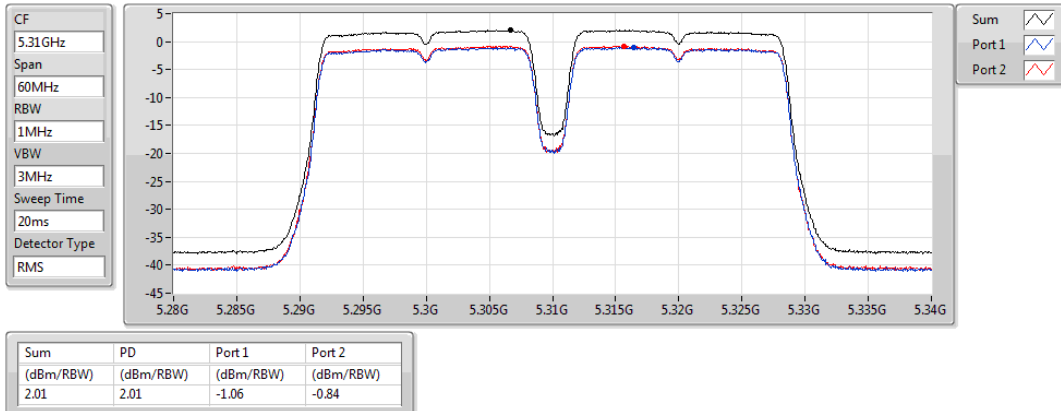


11a40,BF_Nss1,(6Mbps)_2TX

PSD

5310MHz

29/04/2020

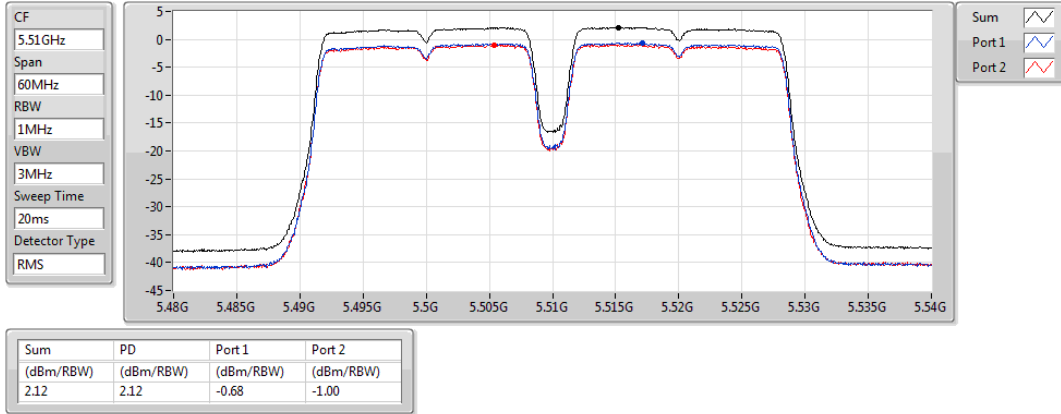


11a40,BF_Nss1,(6Mbps)_2TX

PSD

5510MHz

29/04/2020

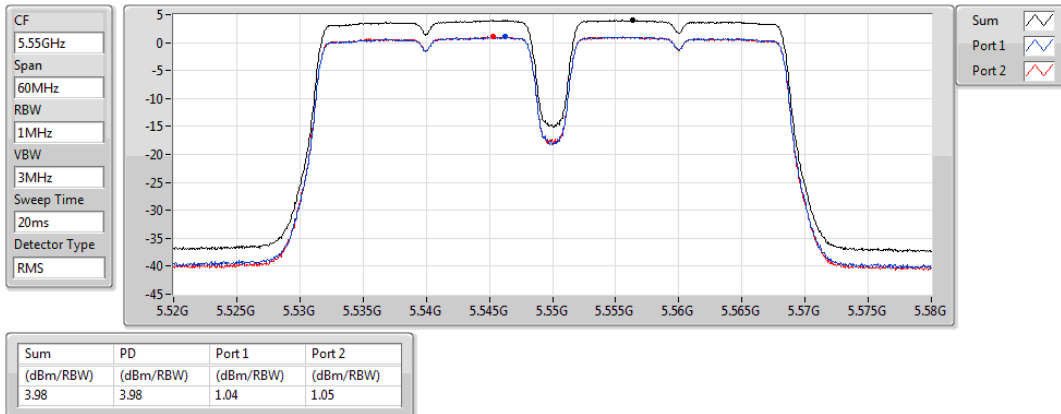


11a40,BF_Nss1,(6Mbps)_2TX

PSD

5550MHz

29/04/2020

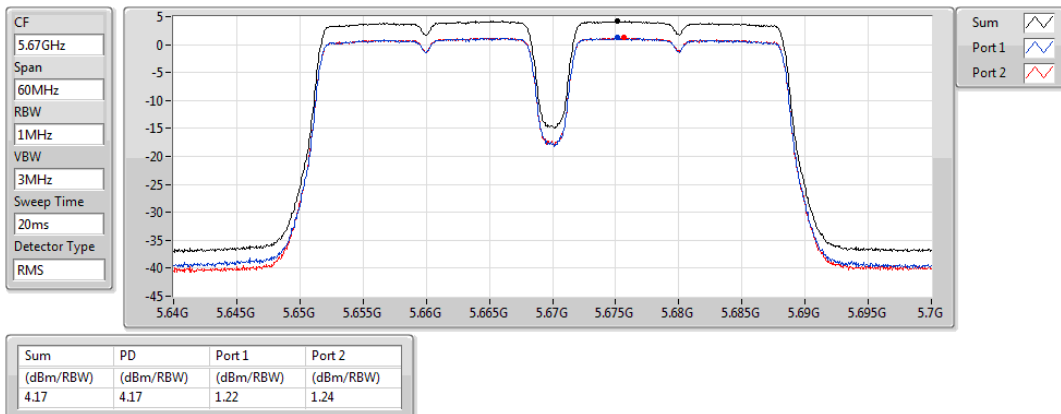


11a40,BF_Nss1,(6Mbps)_2TX

PSD

5670MHz

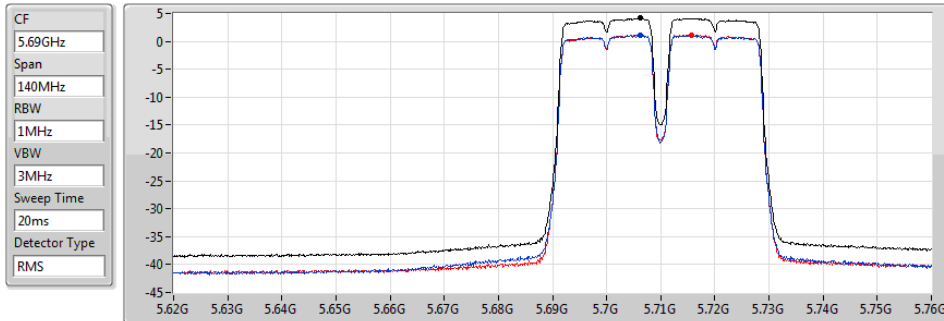
29/04/2020



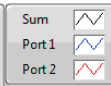
11a40,BF_Nss1,(6Mbps)_2TX 5710MHz Straddle 5.47-5.725GHz

PSD

29/04/2020



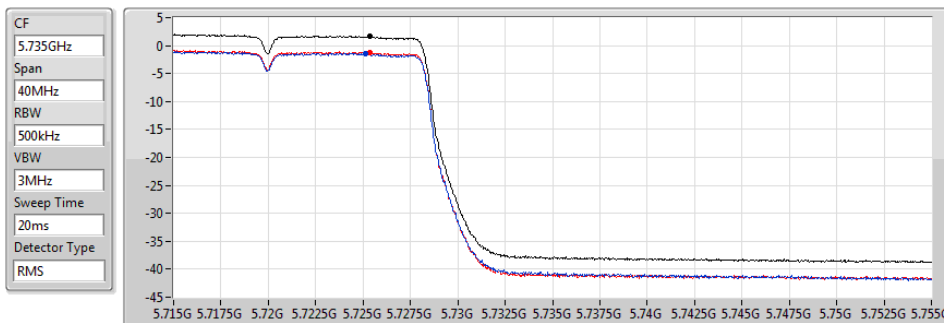
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.15	4.15	1.11	1.17



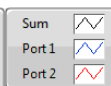
11a40,BF_Nss1,(6Mbps)_2TX 5710MHz Straddle 5.725-5.85GHz

PSD

28/04/2020



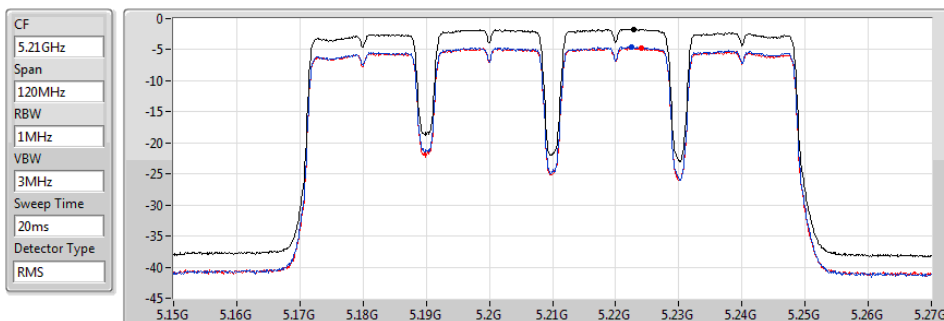
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.59	1.59	-1.44	-1.24



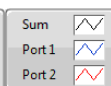
11a80,BF_Nss1,(6Mbps)_2TX 5210MHz

PSD

29/04/2020



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.69	-1.69	-4.51	-4.74

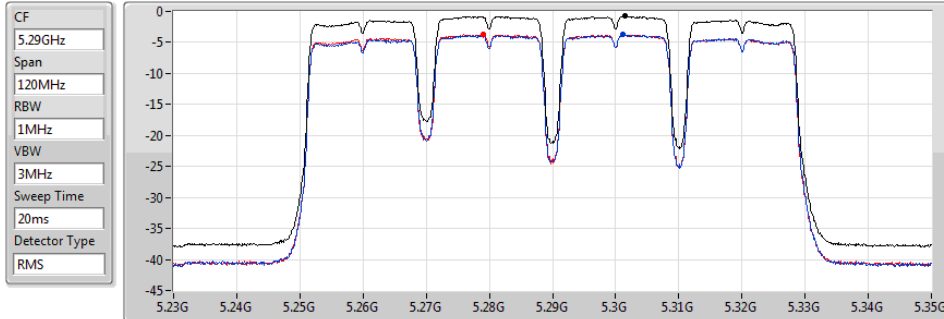


11a80,BF_Nss1,(6Mbps)_2TX

PSD

5290MHz

29/04/2020



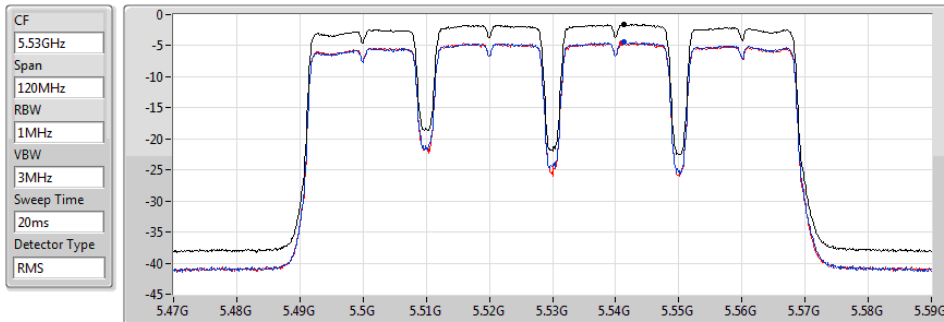
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.75	-0.75	-3.74	-3.73

11a80,BF_Nss1,(6Mbps)_2TX

PSD

5530MHz

29/04/2020



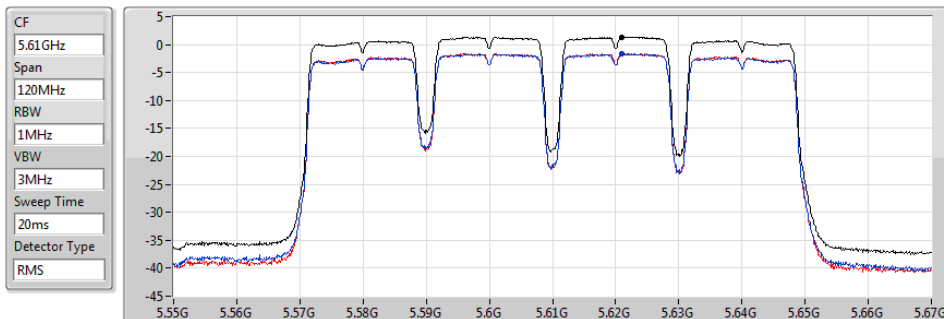
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.56	-1.56	-4.47	-4.50

11a80,BF_Nss1,(6Mbps)_2TX

PSD

5610MHz

29/04/2020

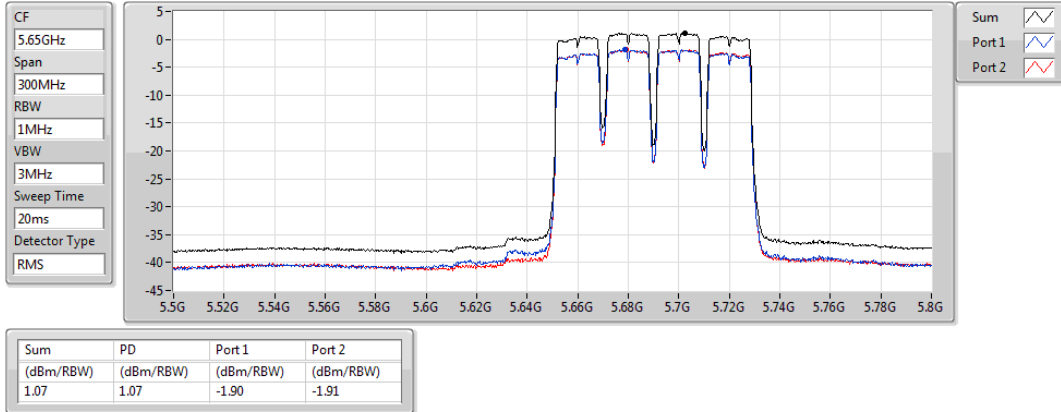


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.36	1.36	-1.63	-1.56

11a80,BF_Nss1,(6Mbps)_2TX 5690MHz Straddle 5.47-5.725GHz

PSD

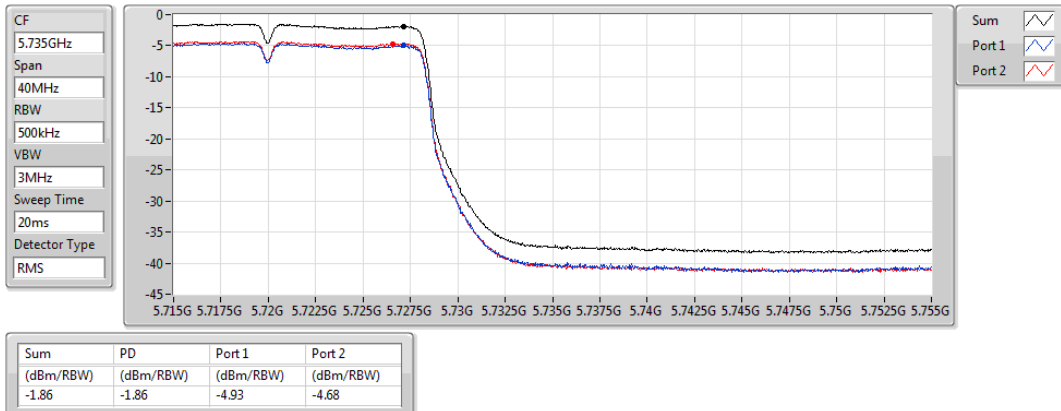
29/04/2020



11a80,BF_Nss1,(6Mbps)_2TX 5690MHz Straddle 5.725-5.85GHz

PSD

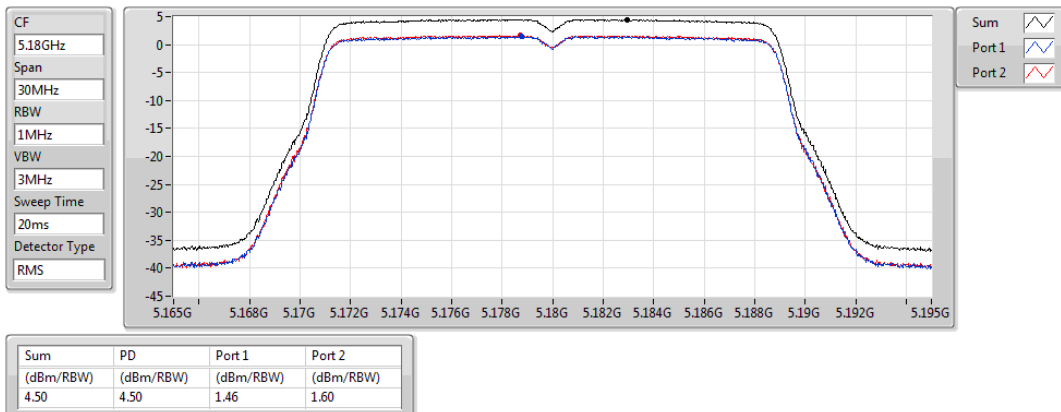
28/04/2020



802.11ac VHT20-BF_Nss1,(MCS0)_2TX 5180MHz

PSD

29/04/2020

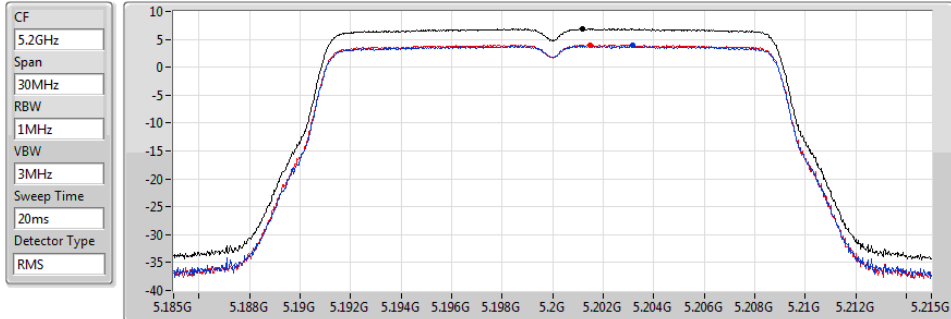


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5200MHz

29/04/2020



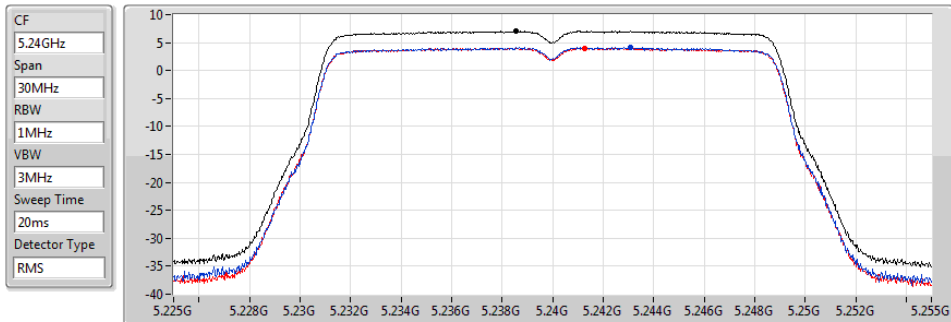
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.88	6.88	3.91	3.96

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5240MHz

29/04/2020



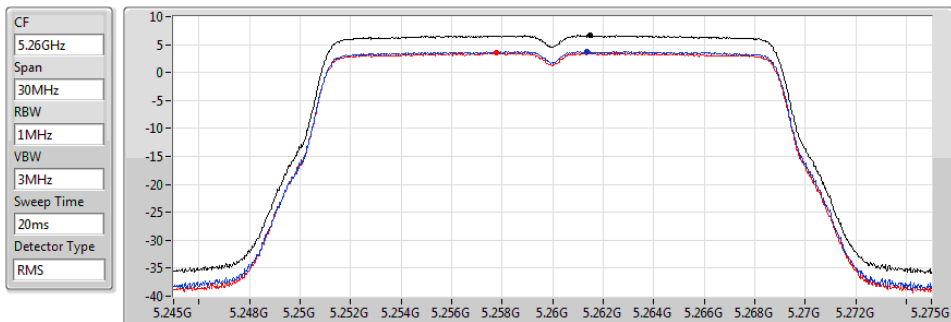
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.07	7.07	4.17	4.02

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5260MHz

29/04/2020



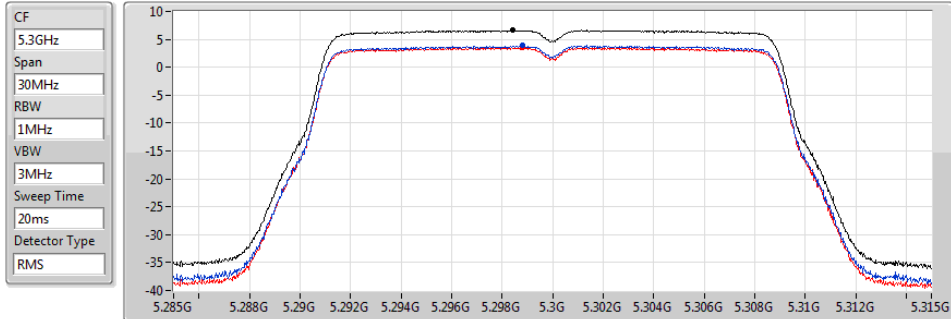
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.62	6.62	3.83	3.50

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5300MHz

29/04/2020



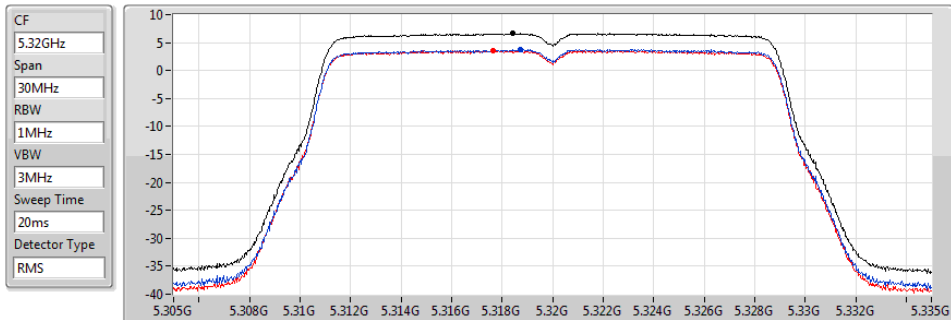
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.60	6.60	3.88	3.50

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5320MHz

29/04/2020



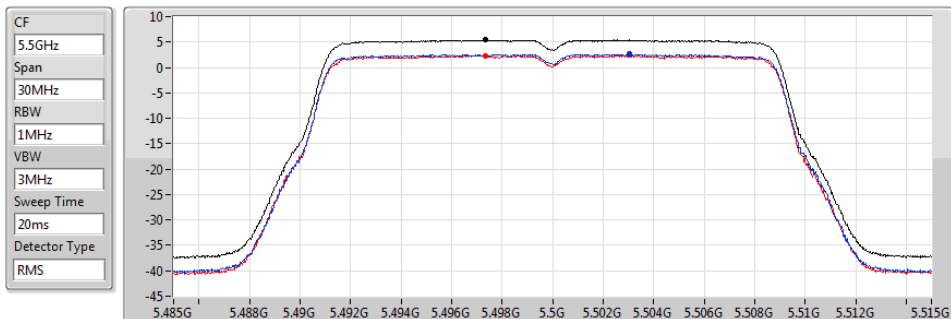
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.62	6.62	3.76	3.57

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5500MHz

29/04/2020



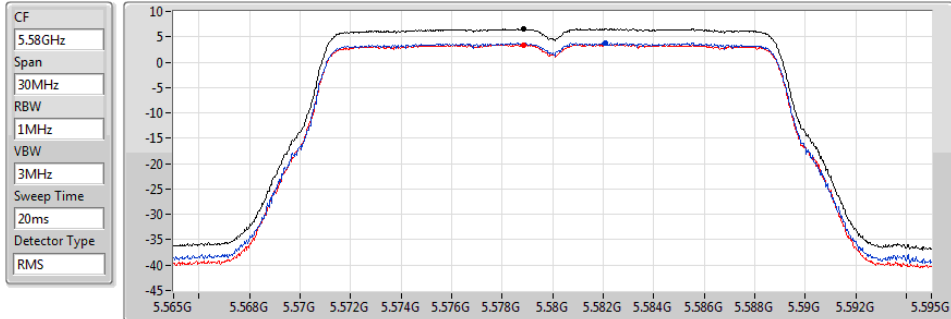
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.44	5.44	2.61	2.32

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5580MHz

29/04/2020



Sum
Port 1
Port 2

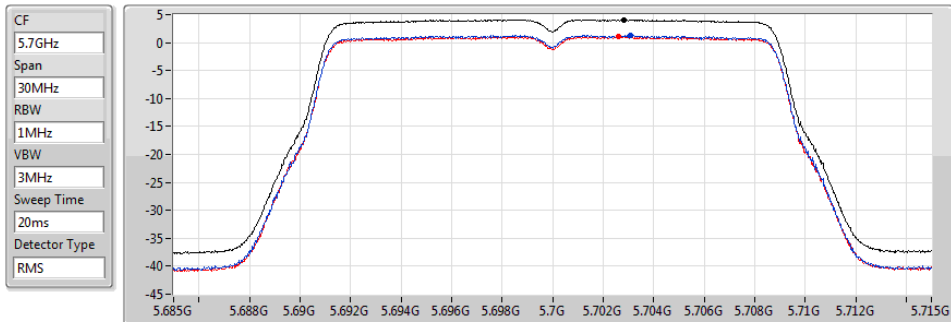
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.59	6.59	3.81	3.43

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5700MHz

29/04/2020



Sum
Port 1
Port 2

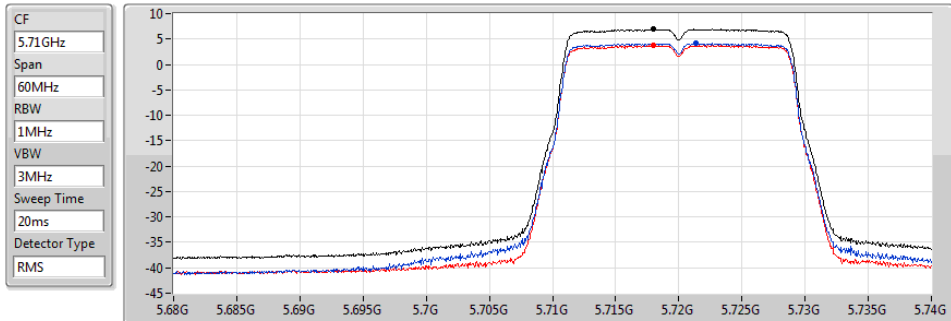
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.11	4.11	1.28	1.04

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

29/04/2020



Sum
Port 1
Port 2

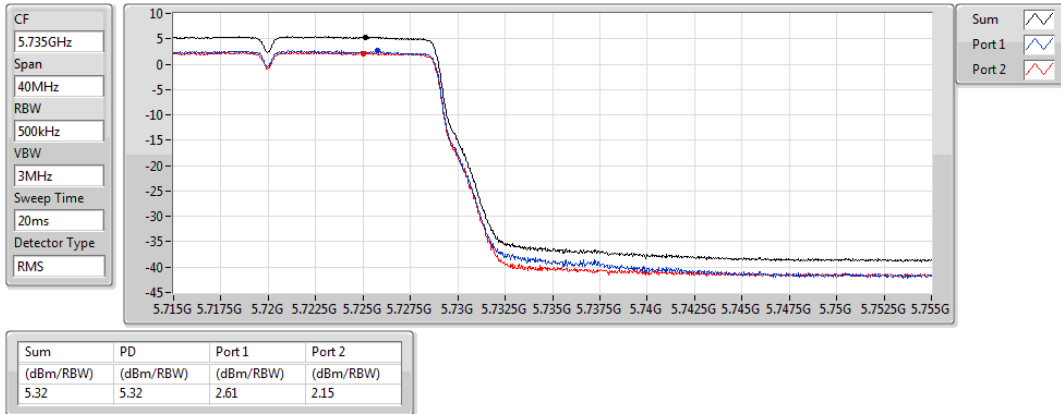
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.91	6.91	4.21	3.73

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.725-5.85GHz

29/04/2020

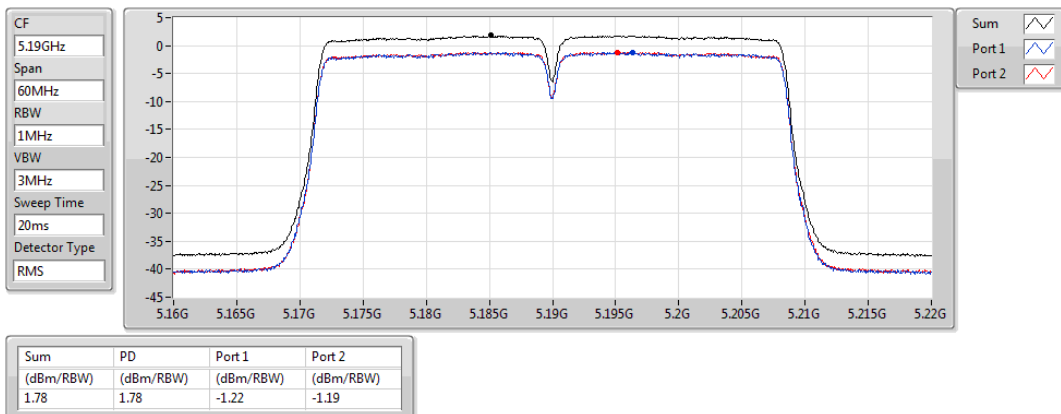


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5190MHz

29/04/2020

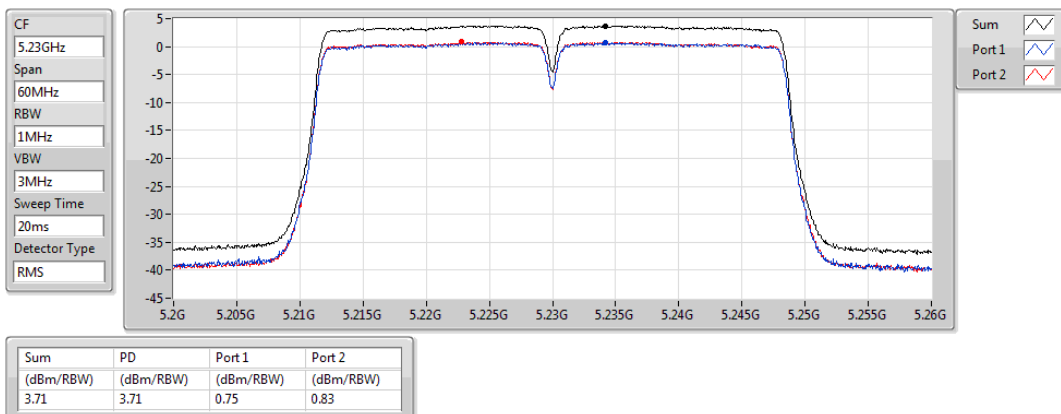


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5230MHz

29/04/2020

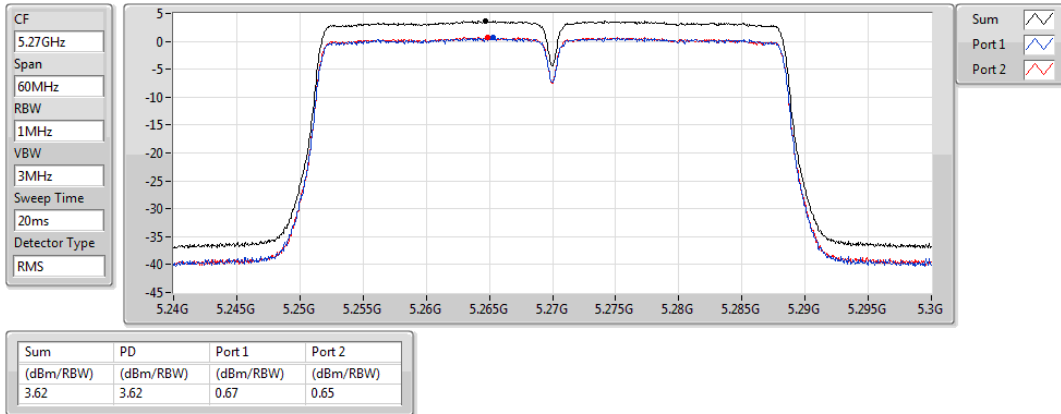


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5270MHz

29/04/2020

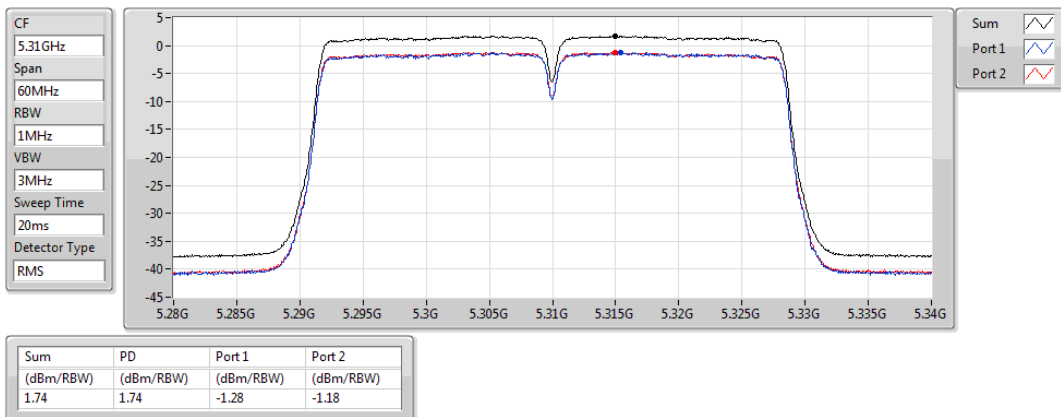


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5310MHz

29/04/2020

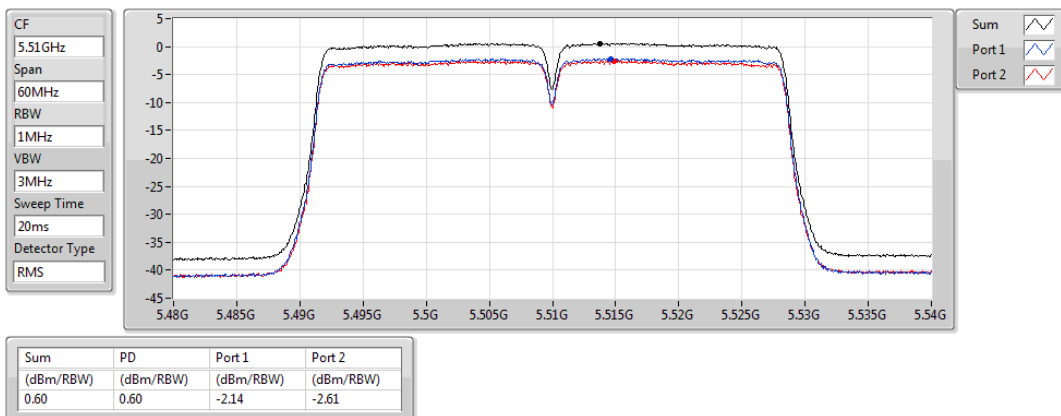


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5510MHz

29/04/2020

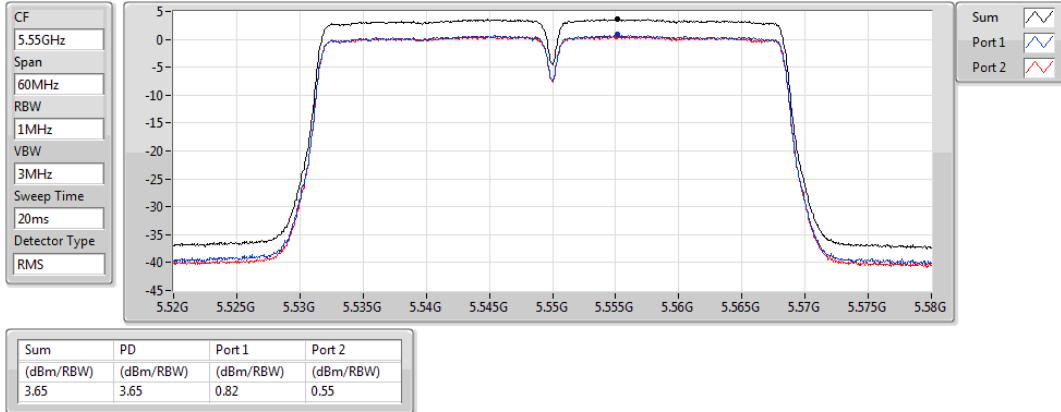


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5550MHz

29/04/2020

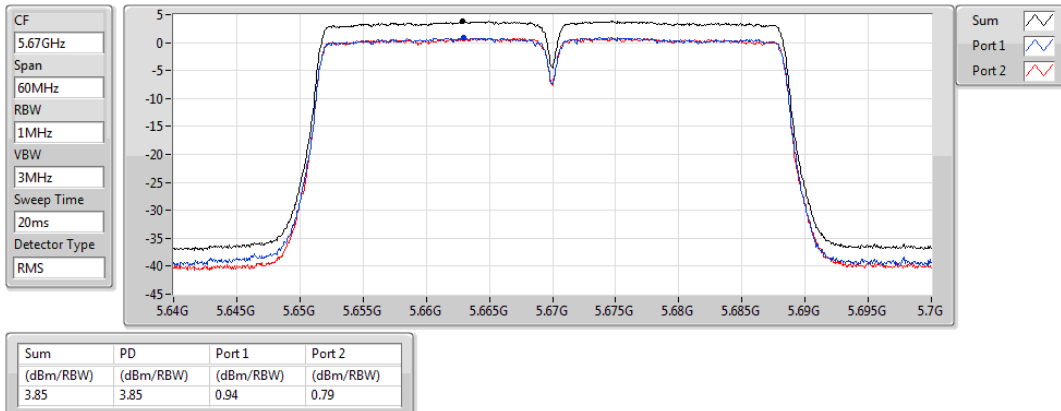


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5670MHz

29/04/2020

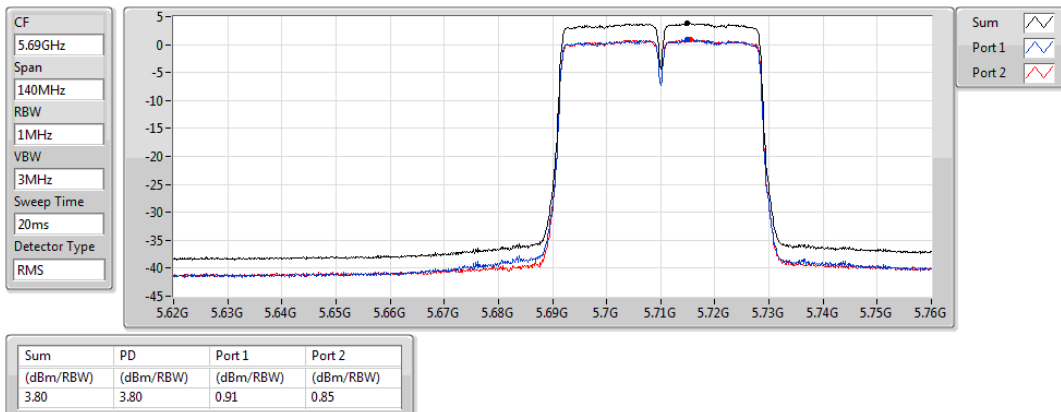


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.47-5.725GHz

29/04/2020

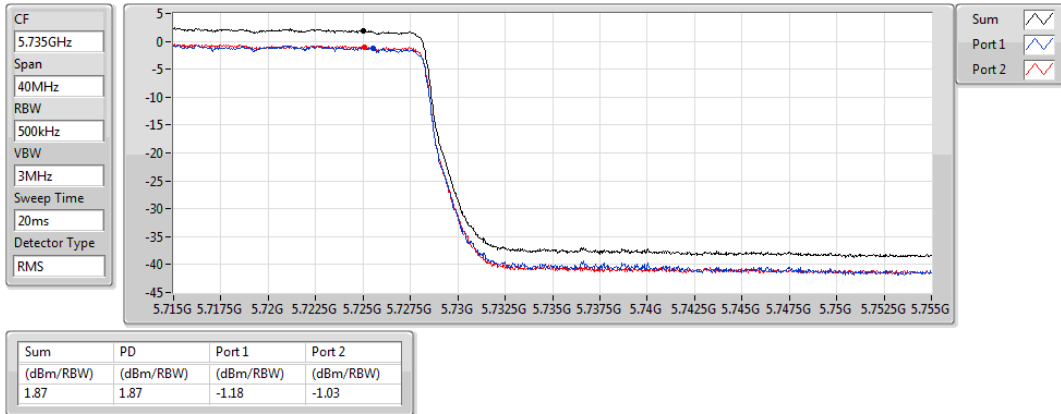


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.725-5.85GHz

29/04/2020

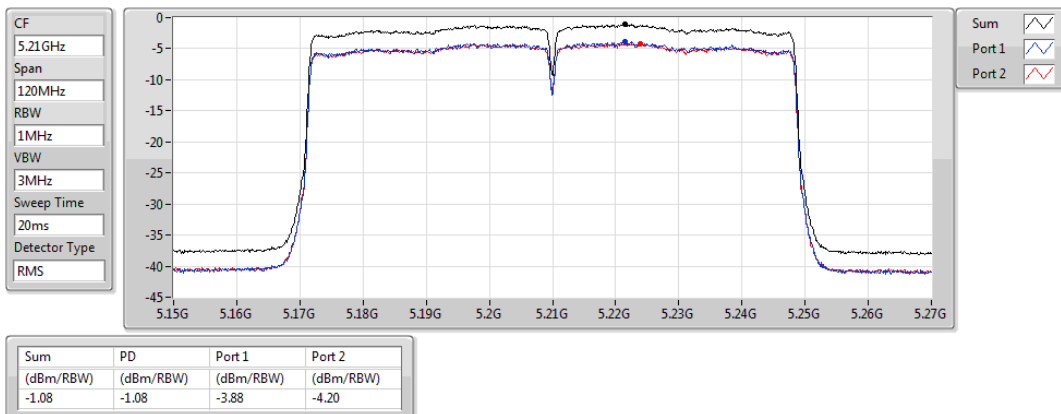


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5210MHz

29/04/2020

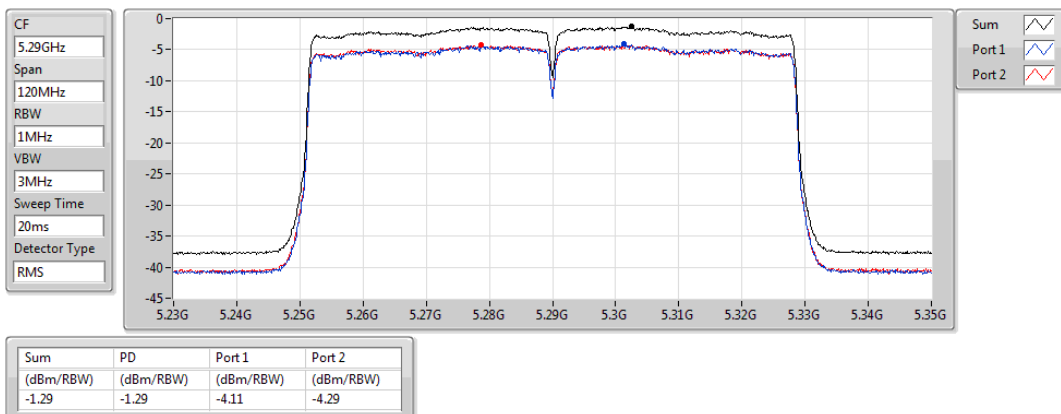


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5290MHz

29/04/2020

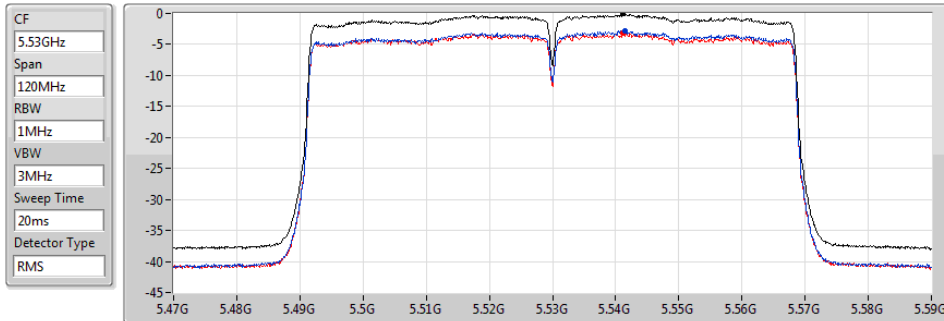


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5530MHz

29/04/2020



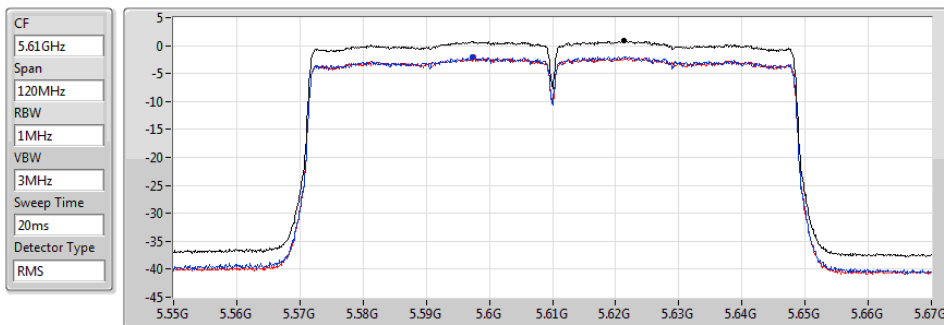
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-0.01	-0.01	-2.78	-3.24

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5610MHz

29/04/2020



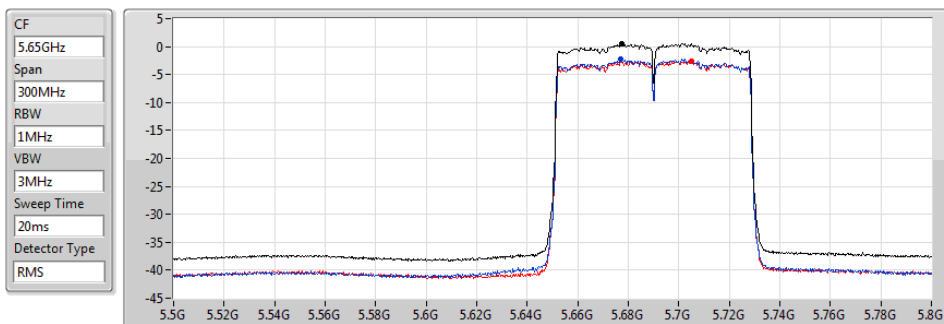
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
0.81	0.81	-1.98	-2.11

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.47-5.725GHz

29/04/2020



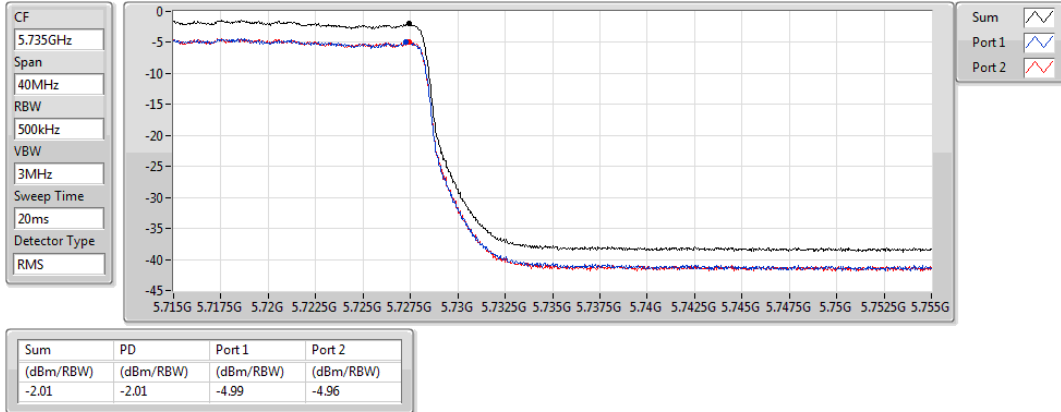
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
0.50	0.50	-2.29	-2.56

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.725-5.85GHz

29/04/2020

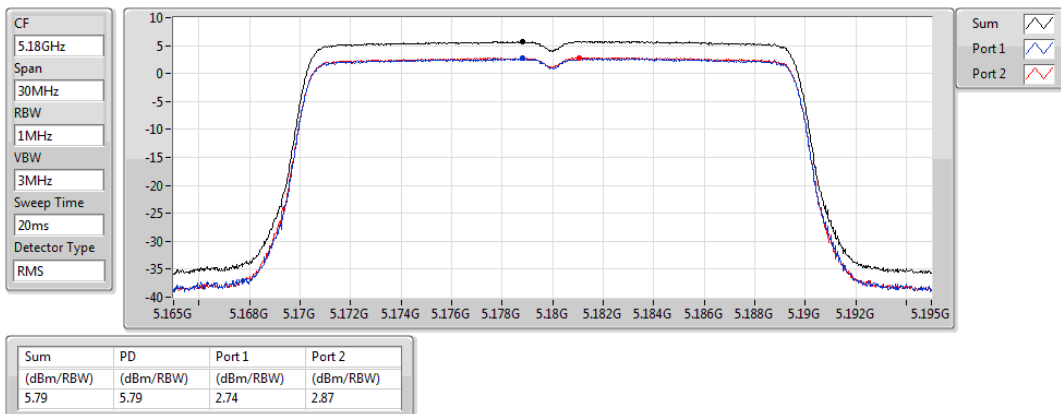


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5180MHz

29/04/2020

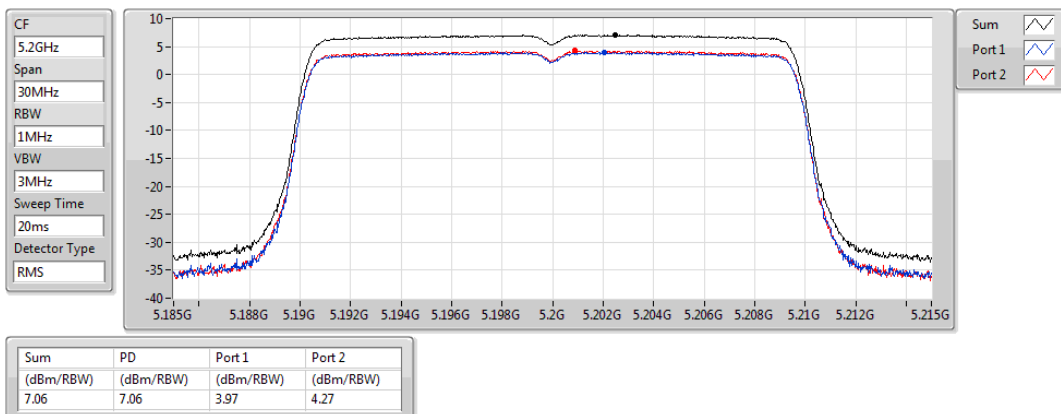


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5200MHz

29/04/2020

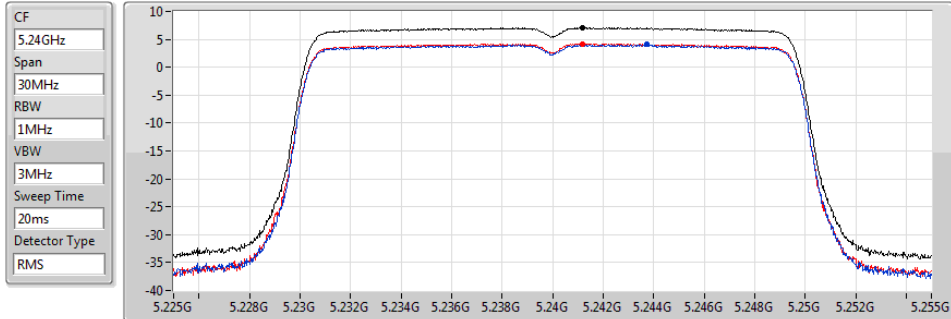


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5240MHz

29/04/2020



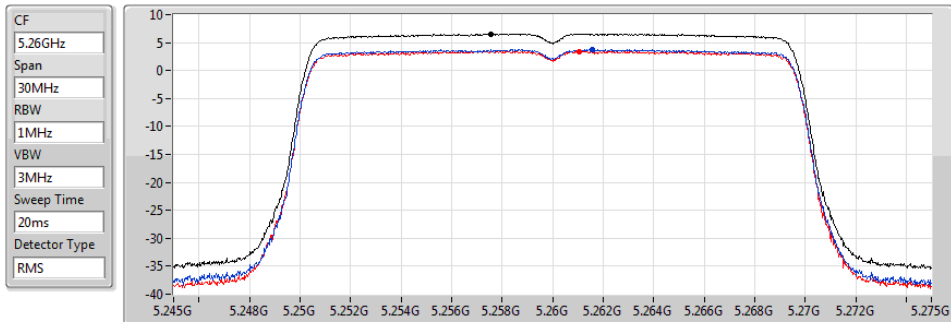
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.08	7.08	4.07	4.23

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5260MHz

29/04/2020



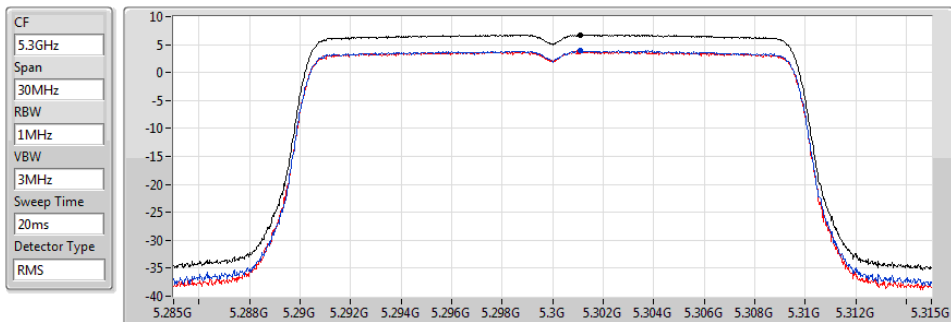
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.58	6.58	3.76	3.42

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5300MHz

29/04/2020



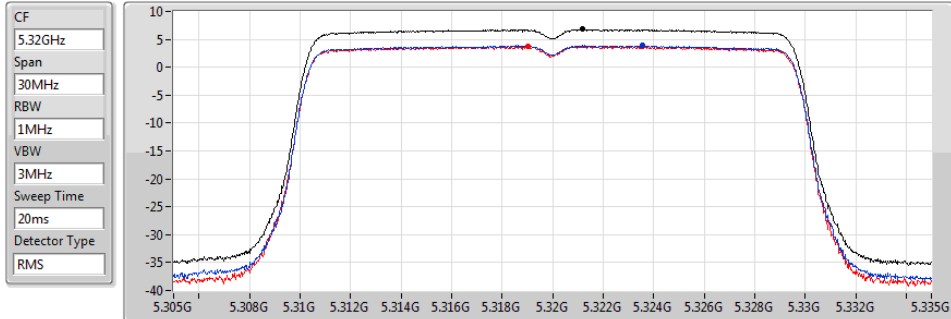
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.77	6.77	3.91	3.70

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5320MHz

29/04/2020



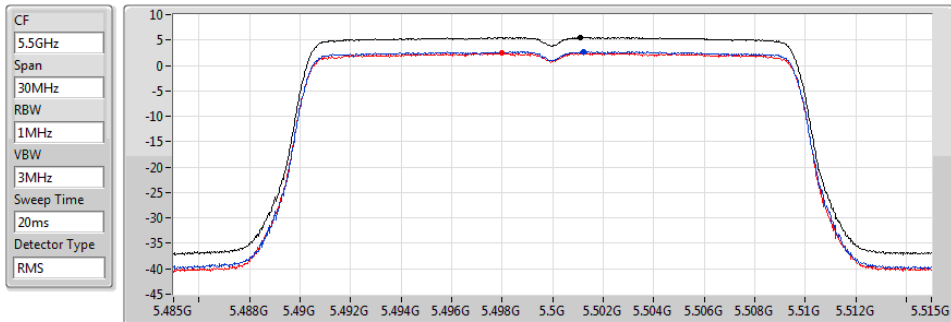
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.79	6.79	3.88	3.70

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5500MHz

29/04/2020



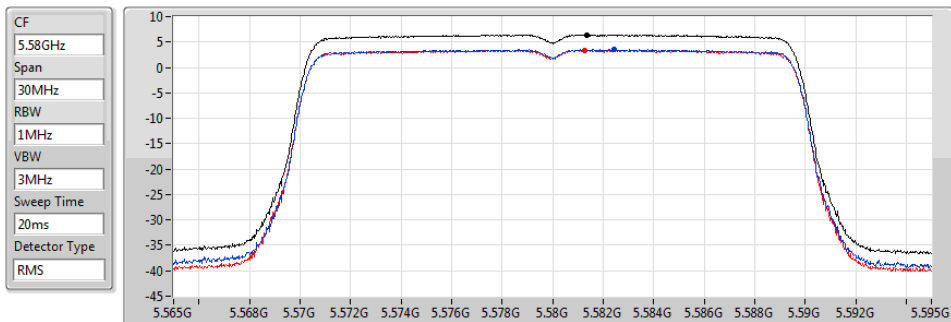
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.51	5.51	2.70	2.38

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5580MHz

29/04/2020



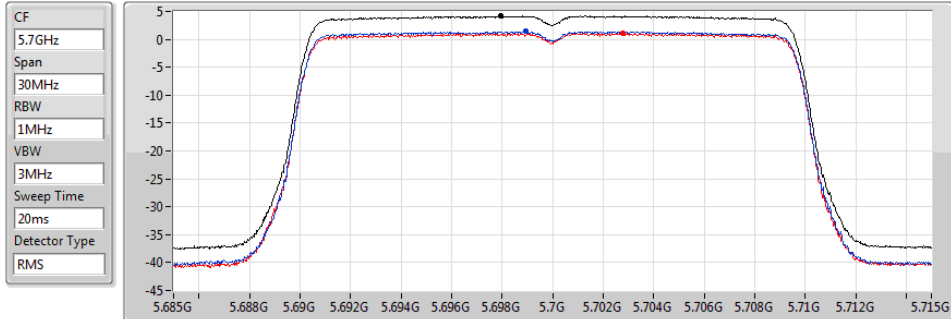
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.44	6.44	3.54	3.43

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5700MHz

29/04/2020



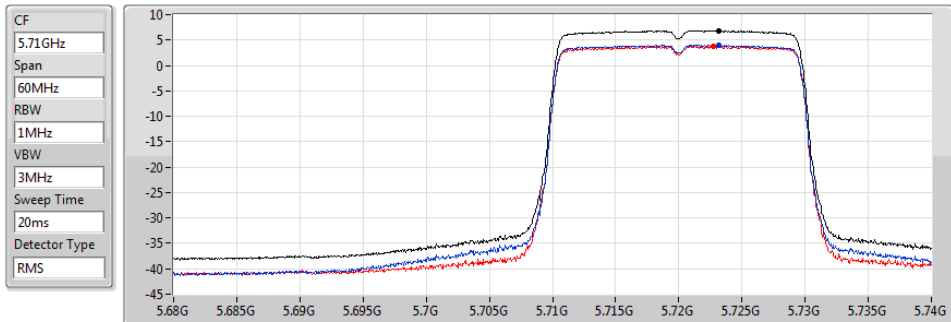
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.18	4.18	1.39	1.05

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

29/04/2020



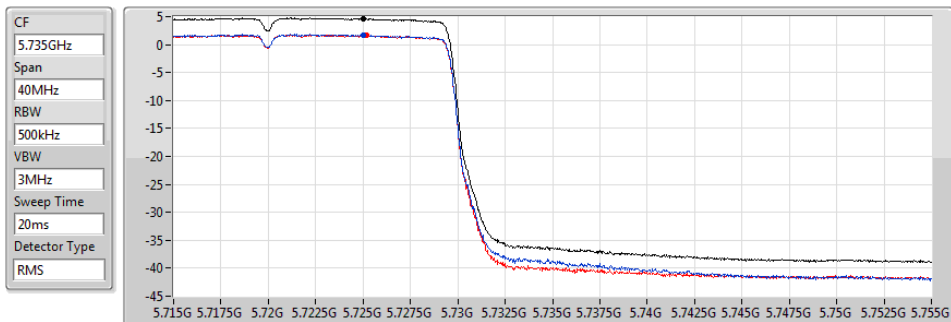
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.87	6.87	4.03	3.74

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.725-5.85GHz

29/04/2020



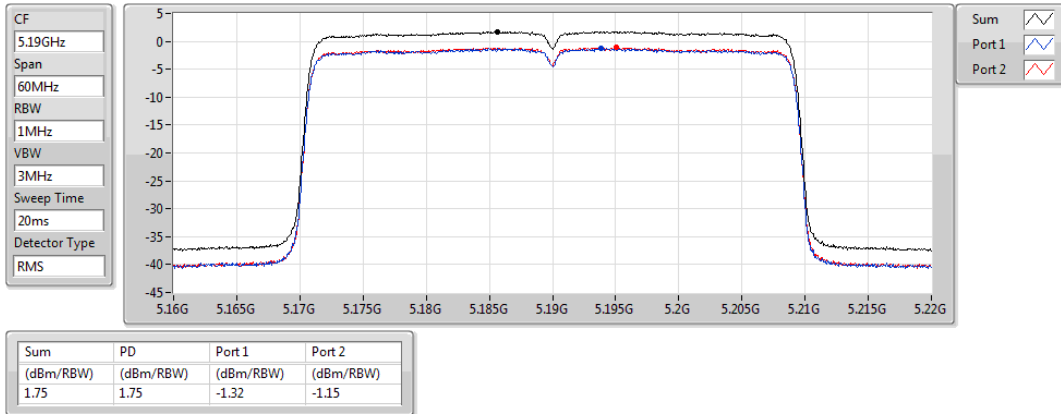
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.61	4.61	1.64	1.71

802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

5190MHz

29/04/2020

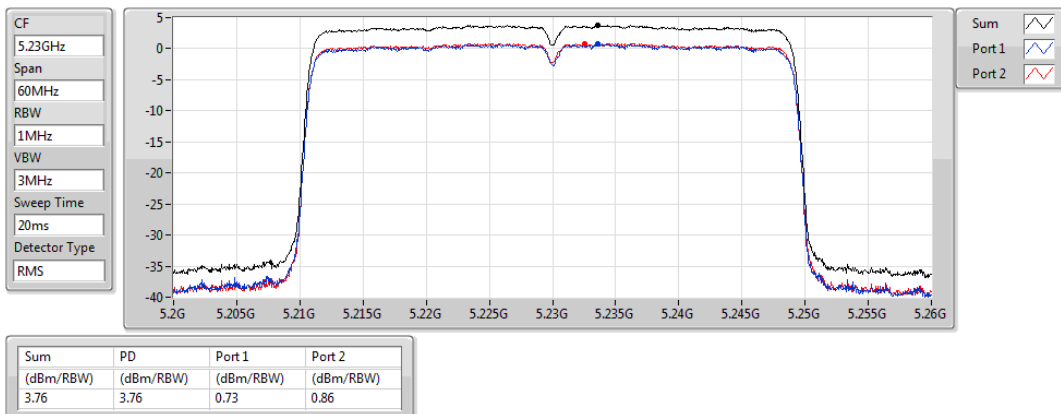


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

5230MHz

29/04/2020

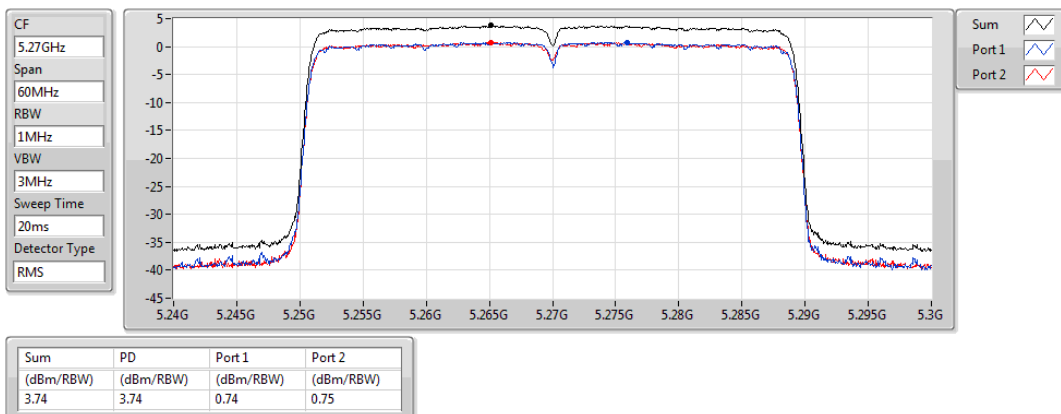


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

5270MHz

29/04/2020

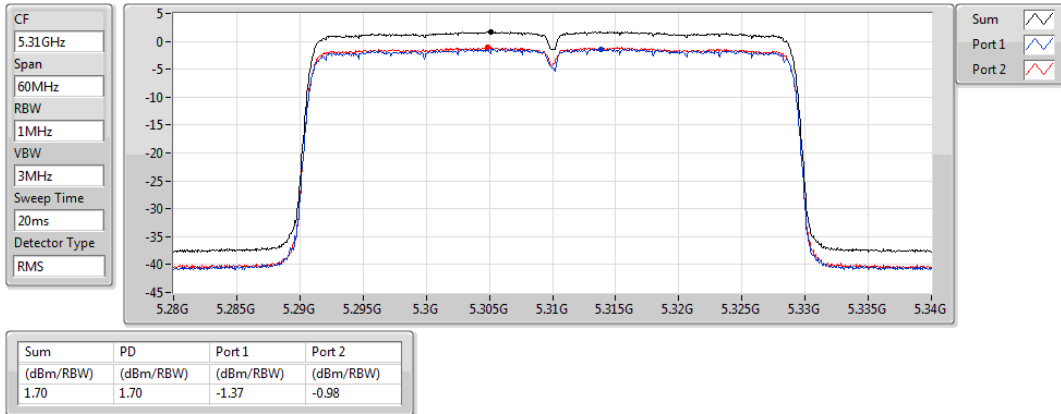


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

5310MHz

29/04/2020

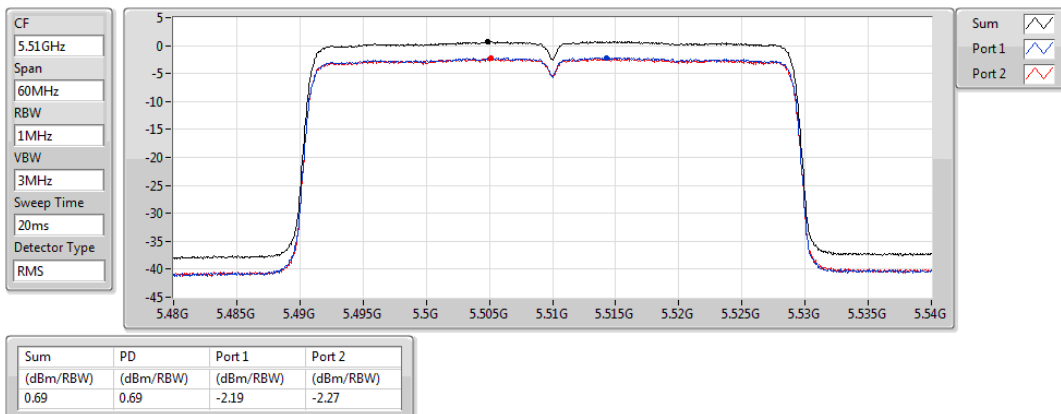


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

5510MHz

29/04/2020

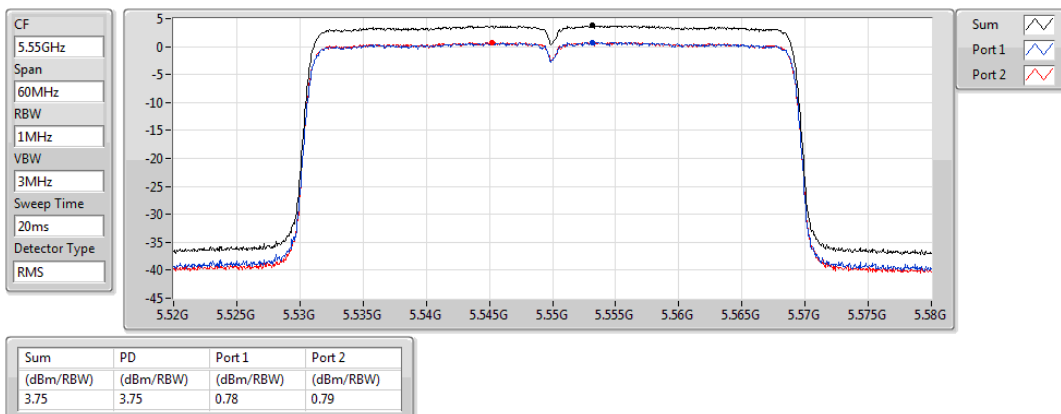


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

5550MHz

29/04/2020



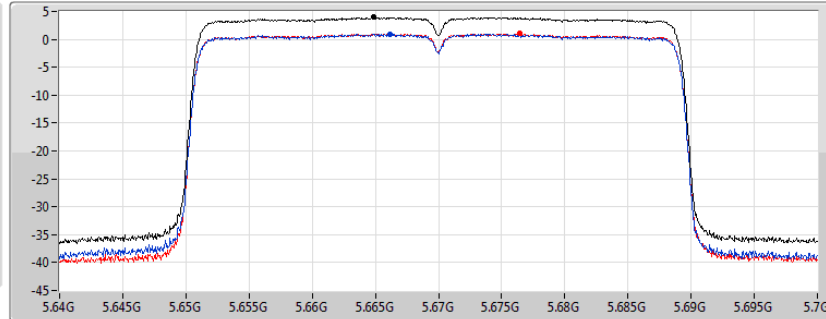
802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

5670MHz

29/04/2020

CF
5.67GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.93	3.93	0.92	1.02

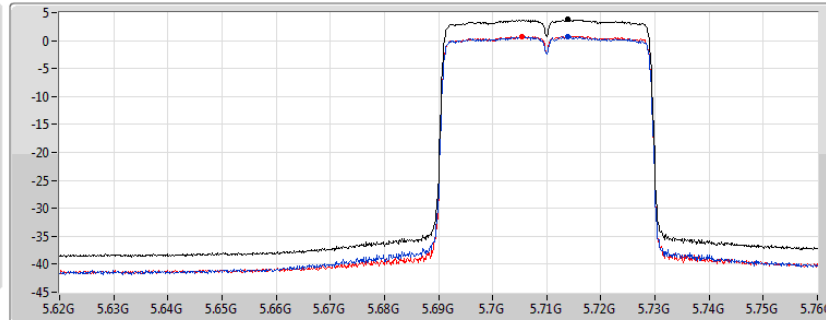
802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.47-5.725GHz

29/04/2020

CF
5.69GHz
Span
140MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.75	3.75	0.76	0.75

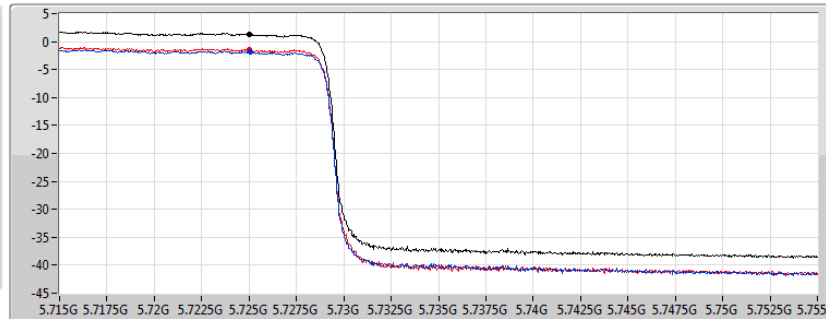
802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.725-5.85GHz

29/04/2020

CF
5.735GHz
Span
40MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

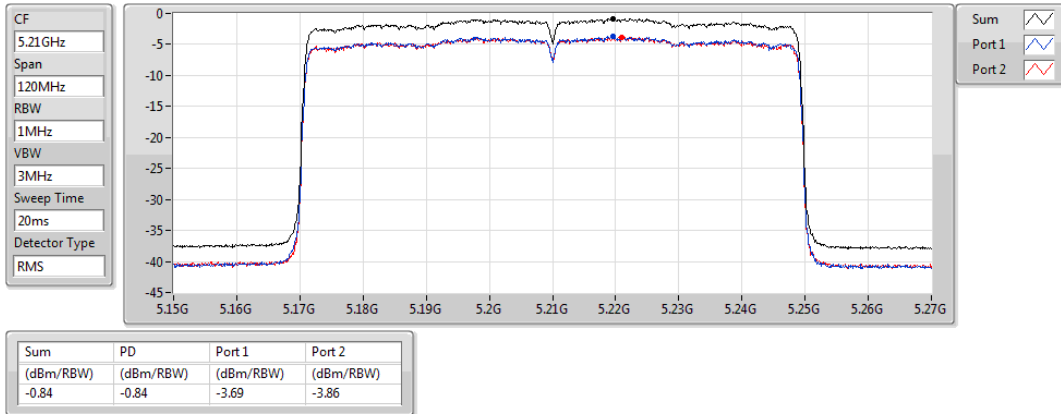
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.33	1.33	-1.88	-1.39

802.11ax HEW80-BF_Nss1,(MCS0)_2TX

PSD

5210MHz

29/04/2020

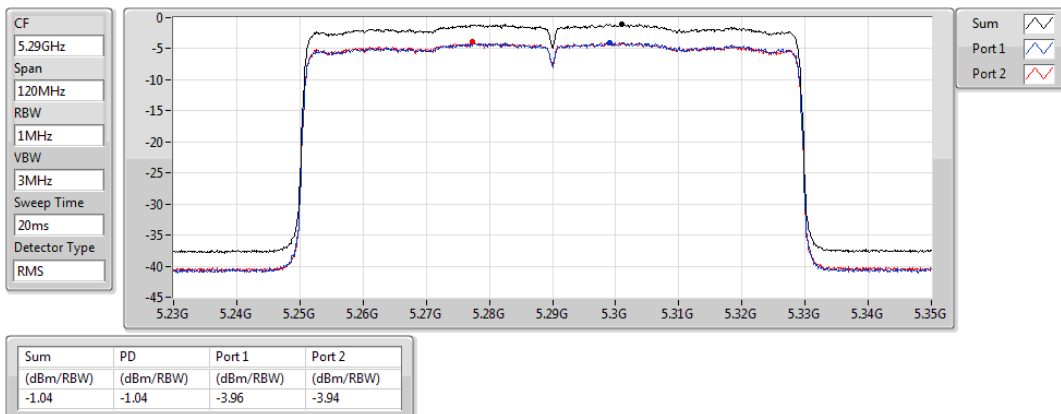


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

PSD

5290MHz

29/04/2020

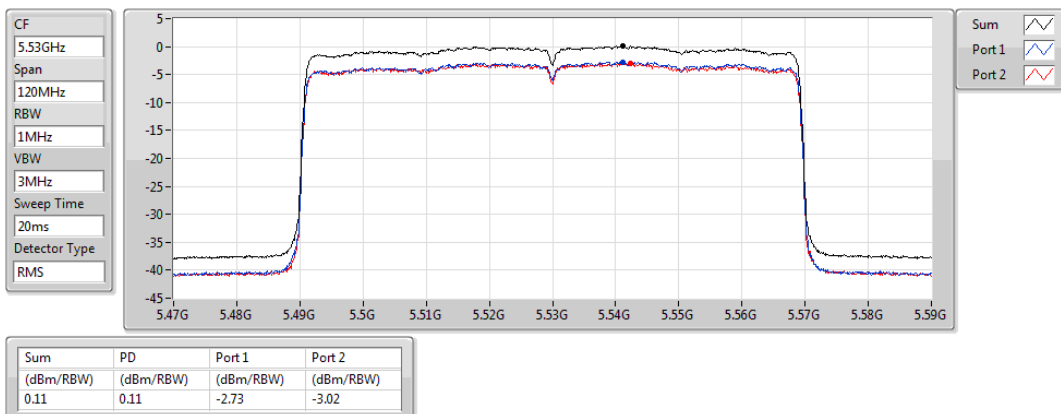


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

PSD

5530MHz

29/04/2020

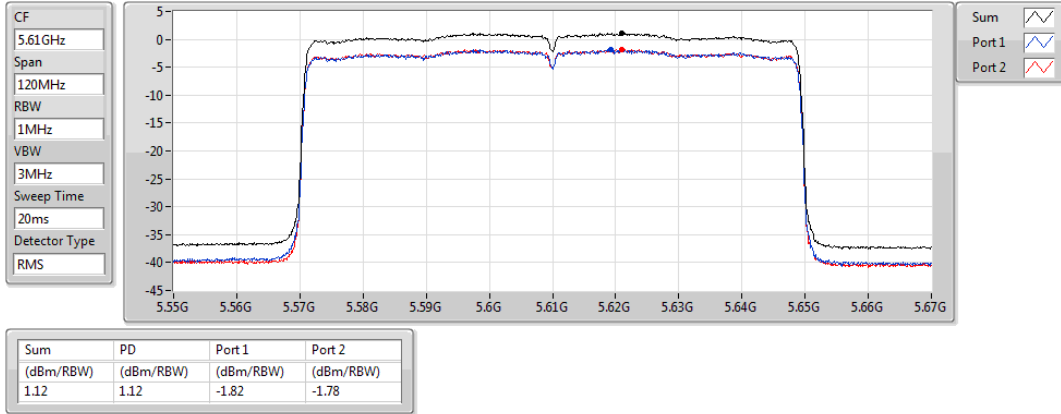


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

PSD

5610MHz

29/04/2020

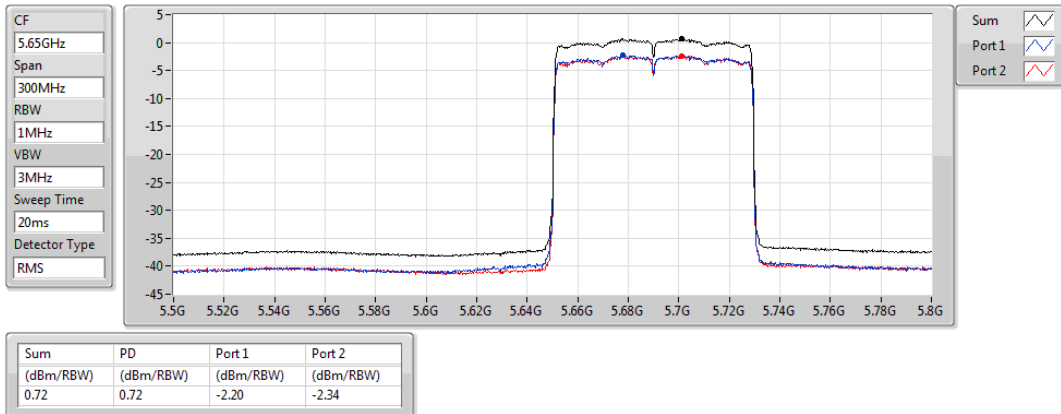


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.47-5.725GHz

29/04/2020

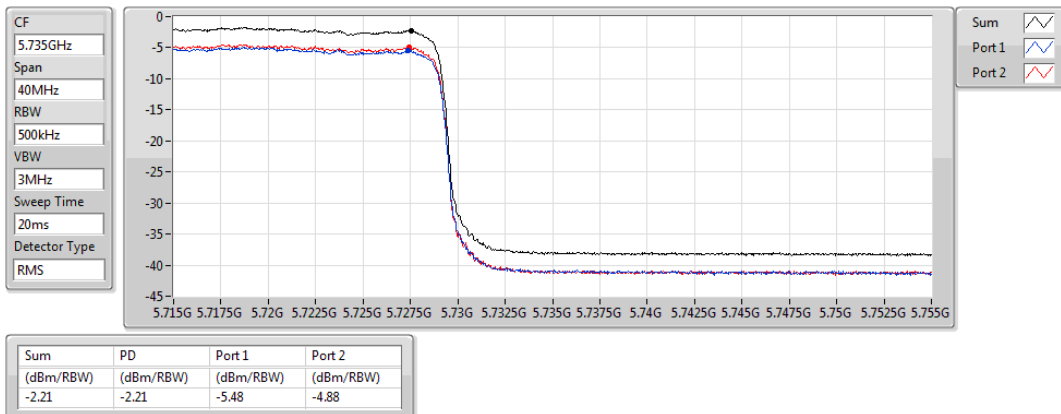


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.725-5.85GHz

29/04/2020



<2T2S>

Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11ac VHT20_Nss2,(MCS0)_2TX	6.92
802.11ac VHT40_Nss2,(MCS0)_2TX	1.90
802.11ac VHT80_Nss2,(MCS0)_2TX	-0.97
802.11ax HEW20_Nss2,(MCS0)_2TX	6.85
802.11ax HEW40_Nss2,(MCS0)_2TX	2.00
802.11ax HEW80_Nss2,(MCS0)_2TX	-0.84
5.25-5.35GHz	-
802.11ac VHT40_Nss2,(MCS0)_2TX	2.90
802.11ac VHT80_Nss2,(MCS0)_2TX	0.19
802.11ax HEW40_Nss2,(MCS0)_2TX	2.98
802.11ax HEW80_Nss2,(MCS0)_2TX	0.23
5.47-5.725GHz	-
802.11ac VHT20_Nss2,(MCS0)_2TX	6.74
802.11ac VHT40_Nss2,(MCS0)_2TX	1.94
802.11ac VHT80_Nss2,(MCS0)_2TX	0.12
802.11ax HEW20_Nss2,(MCS0)_2TX	6.81
802.11ax HEW40_Nss2,(MCS0)_2TX	2.14
802.11ax HEW80_Nss2,(MCS0)_2TX	0.29

RBW = 500 kHz 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)
802.11ac VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	4.48	3.69	4.18	6.92	17.00
5500MHz	Pass	4.56	3.71	3.80	6.74	11.00
5700MHz	Pass	4.78	2.53	2.36	5.39	11.00
802.11ac VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	4.48	-1.20	-0.87	1.90	17.00
5310MHz	Pass	4.50	-0.08	-0.03	2.90	11.00
5510MHz	Pass	4.56	-0.74	-1.23	1.94	11.00
802.11ac VHT80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	4.48	-3.71	-3.86	-0.97	17.00
5290MHz	Pass	4.50	-2.72	-2.73	0.19	11.00
5530MHz	Pass	4.56	-2.54	-2.85	0.12	11.00
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	4.48	3.68	4.09	6.85	17.00
5500MHz	Pass	4.56	3.92	3.72	6.81	11.00
5700MHz	Pass	4.78	2.61	2.22	5.35	11.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	4.48	-1.10	-0.86	2.00	17.00
5310MHz	Pass	4.50	0.09	0.08	2.98	11.00
5510MHz	Pass	4.56	-0.56	-1.04	2.14	11.00
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	4.48	-3.82	-3.83	-0.84	17.00
5290MHz	Pass	4.50	-2.66	-2.87	0.23	11.00
5530MHz	Pass	4.56	-2.55	-2.74	0.29	11.00

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

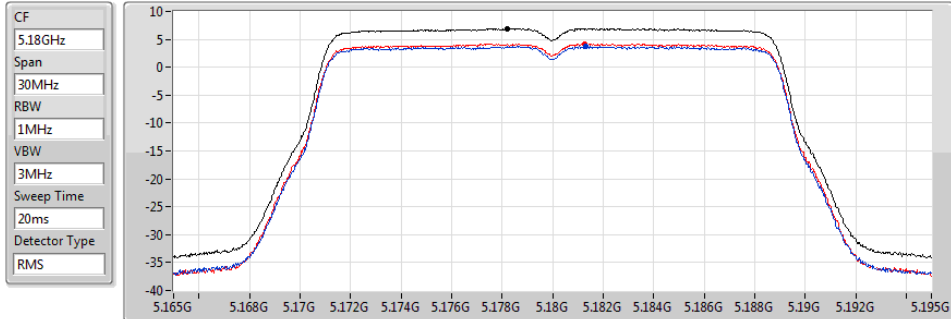
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11ac VHT20_Nss2,(MCS0)_2TX

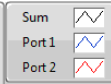
PSD

5180MHz

11/05/2020



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.92	6.92	3.69	4.18

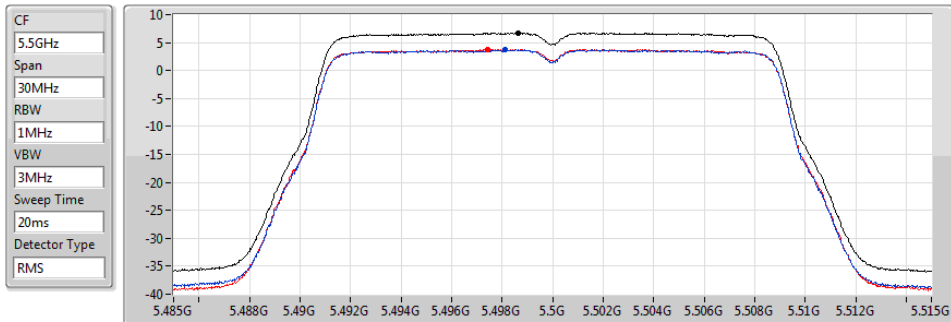


802.11ac VHT20_Nss2,(MCS0)_2TX

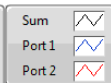
PSD

5500MHz

11/05/2020



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.74	6.74	3.71	3.80

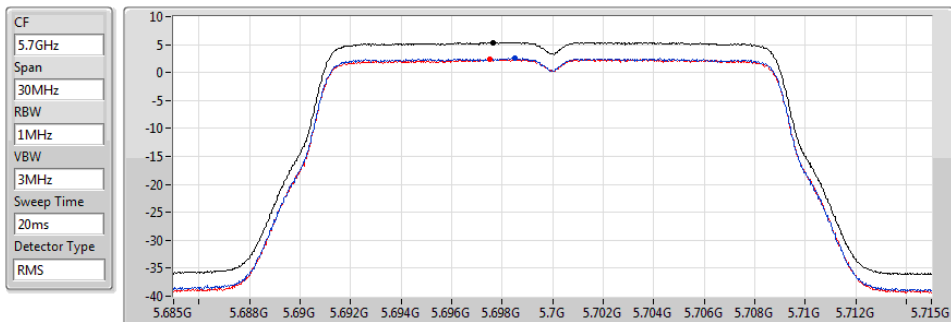


802.11ac VHT20_Nss2,(MCS0)_2TX

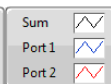
PSD

5700MHz

11/05/2020



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.39	5.39	2.53	2.36

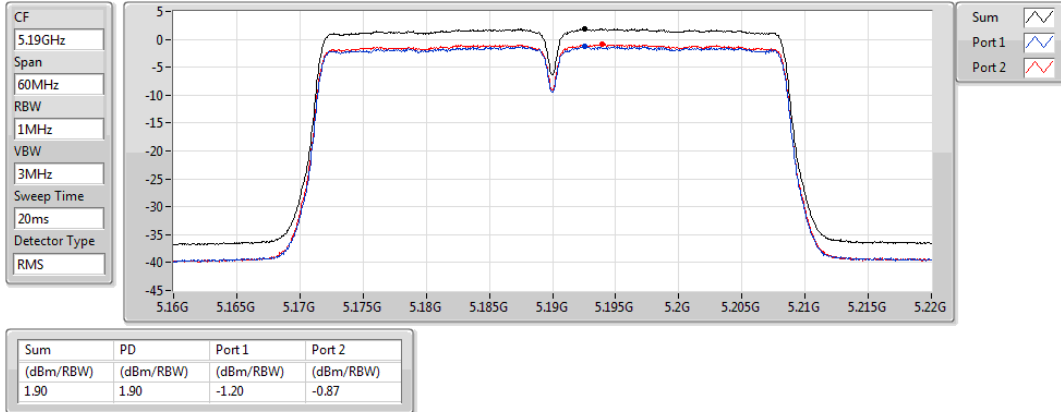


802.11ac VHT40_Nss2,(MCS0)_2TX

PSD

5190MHz

11/05/2020

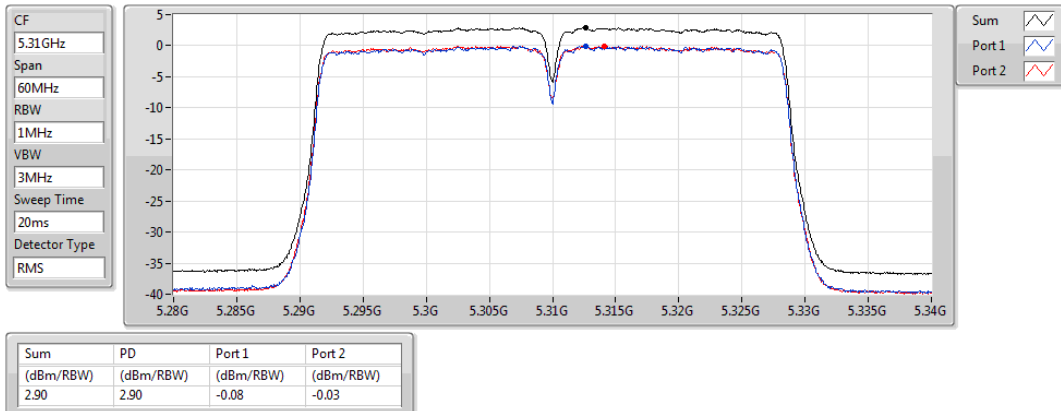


802.11ac VHT40_Nss2,(MCS0)_2TX

PSD

5310MHz

11/05/2020

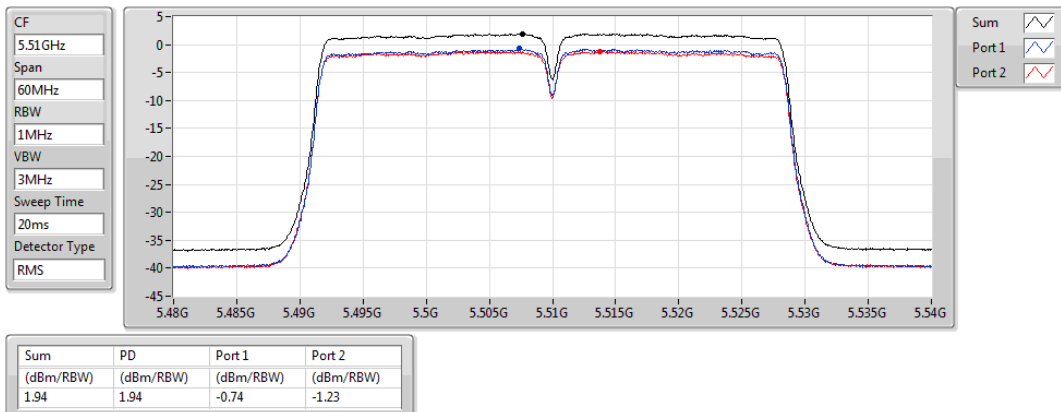


802.11ac VHT40_Nss2,(MCS0)_2TX

PSD

5510MHz

11/05/2020

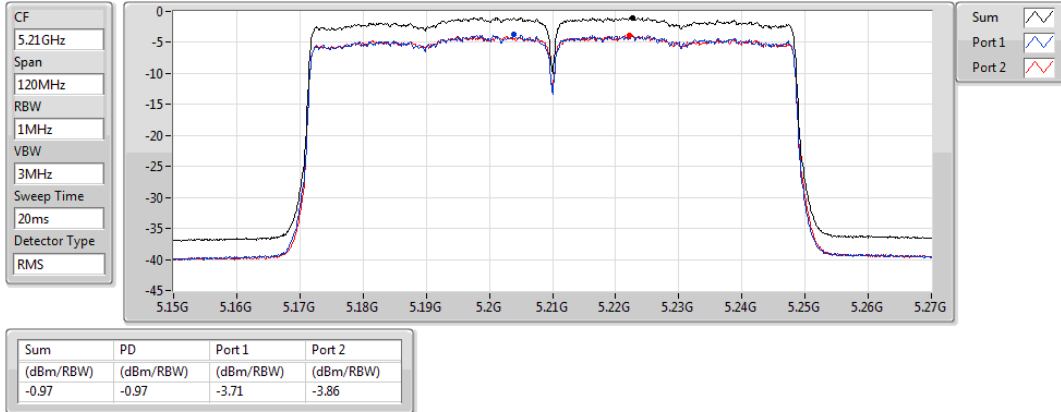


802.11ac VHT80_Nss2,(MCS0)_2TX

PSD

5210MHz

11/05/2020

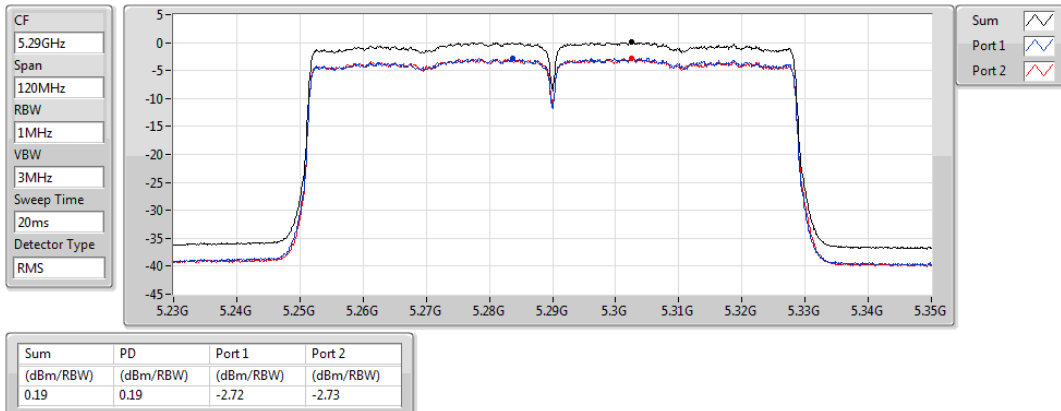


802.11ac VHT80_Nss2,(MCS0)_2TX

PSD

5290MHz

11/05/2020

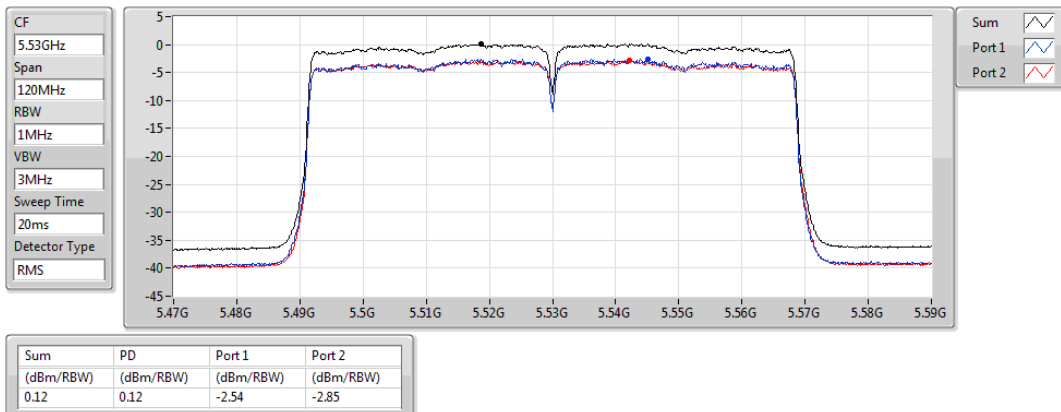


802.11ac VHT80_Nss2,(MCS0)_2TX

PSD

5530MHz

11/05/2020

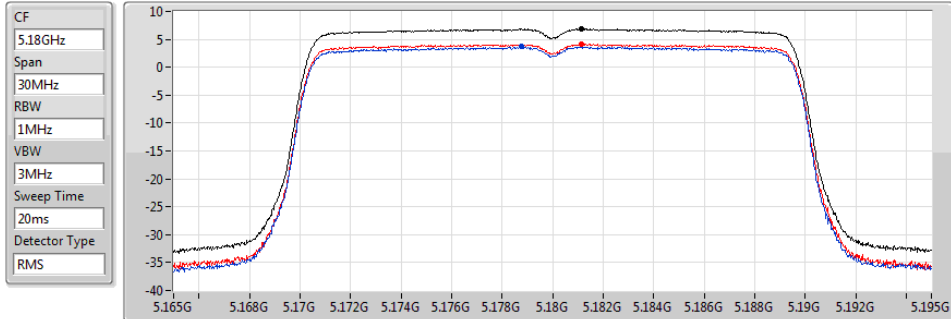


802.11ax HEW20_Nss2,(MCS0)_2TX

PSD

5180MHz

11/05/2020



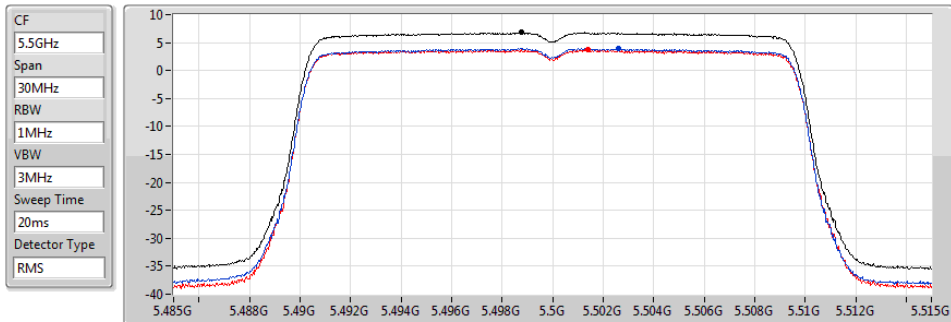
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.85	6.85	3.68	4.09

802.11ax HEW20_Nss2,(MCS0)_2TX

PSD

5500MHz

11/05/2020



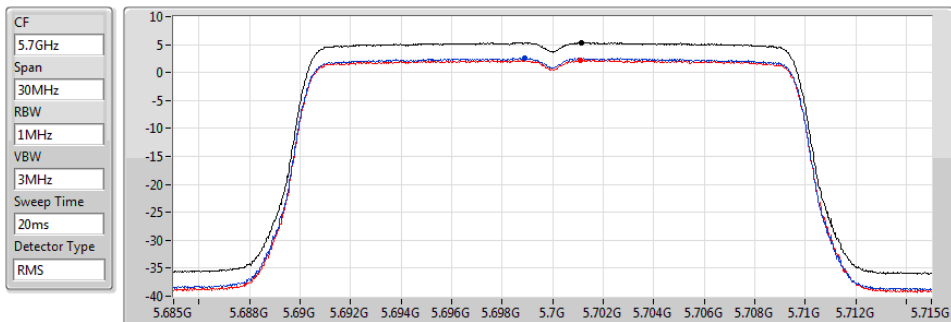
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.81	6.81	3.92	3.72

802.11ax HEW20_Nss2,(MCS0)_2TX

PSD

5700MHz

11/05/2020



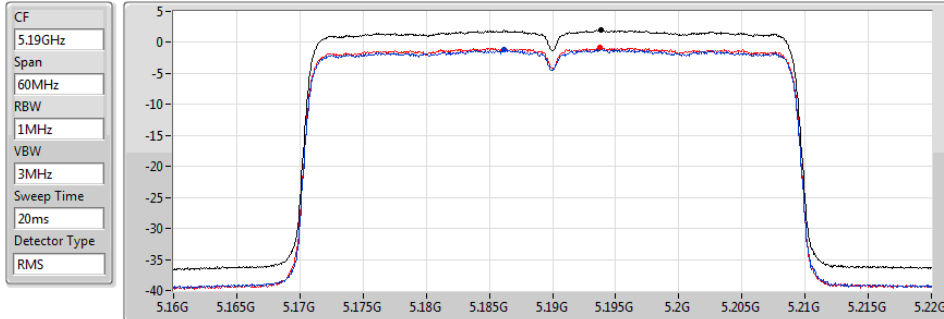
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.35	5.35	2.61	2.22

802.11ax HEW40_Nss2,(MCS0)_2TX

PSD

5190MHz

11/05/2020



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.00	2.00	-1.10	-0.86

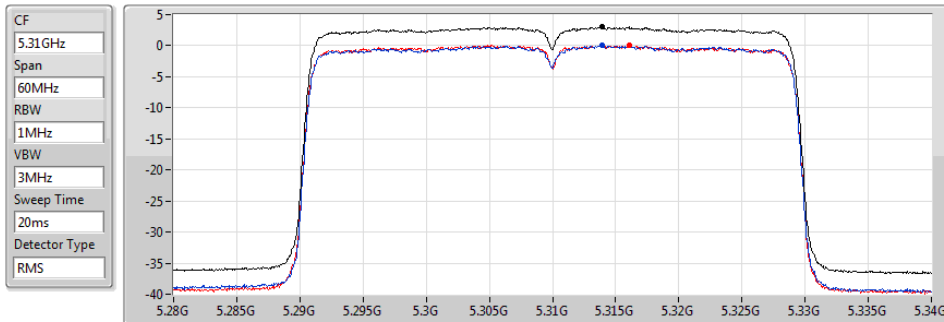
Sum
Port 1
Port 2

802.11ax HEW40_Nss2,(MCS0)_2TX

PSD

5310MHz

11/05/2020



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.98	2.98	0.09	0.08

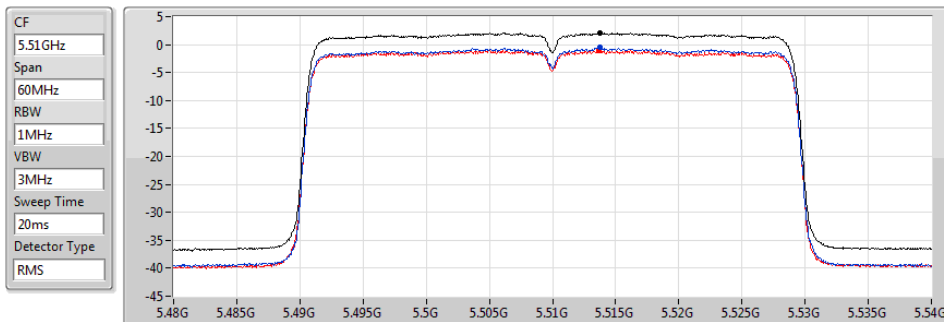
Sum
Port 1
Port 2

802.11ax HEW40_Nss2,(MCS0)_2TX

PSD

5510MHz

11/05/2020



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.14	2.14	-0.56	-1.04

Sum
Port 1
Port 2