

NCC Test Report

Equipment : 無線接入點
Brand Name : UBIQUITI
Model Name : UWB-XG
Applicant : 香港商優比快科技有限公司台灣分公司
臺北市信義區松仁路 107 號 12 樓
Manufacturer : Ubiquiti Networks, Inc.
685 Third Avenue, 27th Floor New York,
New York 10017 USA
Standard : LP0002 Section 4.7 (2018-01-10)

The product was received on Dec. 05, 2017, and testing was started from Jan. 10, 2018 and completed on Jul. 18, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

[illegible]

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.3	4.7.8	Antenna Requirement	PASS	-
3.1	2.3	AC Power-line Conducted Emissions	PASS	-
3.2	4.7.3	Emission Bandwidth	PASS	-
3.3	4.7.3	Maximum Conducted Output Power	PASS	-
3.4	4.7.3	Peak Power Spectral Density	PASS	-
3.5	4.7.4	Unwanted Emissions	PASS	-
3.6	2.11	Receiver Radiated Unwanted Emissions	PASS	-

Declaration of Conformity:

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

Comments and explanations:

None

Reviewed by: Jackson Tasi

Report Producer: Michelle Tsai

1 General Description

1.1 Information

The EUT have WLAN 5G scanning Radio and it shall be able to wake up the system to complete the pairing, and does not intentionally transmit.

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5640	100-128 [8]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5630	102-126 [4]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5610	106-122 [2]
5725-5850		5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	4TX
5.25-5.35GHz	802.11a	20	4TX
5.47-5.725GHz	802.11a	20	4TX
5.725-5.85GHz	802.11a	20	4TX
5.15-5.25GHz	802.11ac VHT20	20	4TX
5.25-5.35GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.725-5.85GHz	802.11ac VHT20	20	4TX
5.15-5.25GHz	802.11ac VHT40	40	4TX
5.25-5.35GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.725-5.85GHz	802.11ac VHT40	40	4TX
5.15-5.25GHz	802.11ac VHT80	80	4TX
5.25-5.35GHz	802.11ac VHT80	80	4TX

Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.725-5.85GHz	802.11ac VHT80	80	4TX
5.15-5.25GHz	802.11ac VHT80+80	80	4TX(Port 1/2)
5.25-5.35GHz	802.11ac VHT80+80	80	4TX(Port 3/4)
5.47-5.725GHz	802.11ac VHT80+80	80	4TX
5.725-5.85GHz	802.11ac VHT80+80	80	4TX

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ Off Band 5650 MHz-5725 MHz by software.

1.1.2 Table for 80+80 MHz Mode

Type	Channel No.	Frequency
13	42+58	5210+5290 MHz
14	106+122	5530+5610 MHz

1.1.3 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector
1	1	UBNT	Internal Antenna	Internal Antenna	I-PEX
2	2	UBNT	Internal Antenna	Internal Antenna	I-PEX
3	3	UBNT	Internal Antenna	Internal Antenna	I-PEX
4	4	UBNT	Internal Antenna	Internal Antenna	I-PEX
5	1	UBNT	Internal Antenna	Internal Antenna	I-PEX
6	1	UBNT	Internal Antenna	Internal Antenna	I-PEX

Ant.	Gain (dBi)				
	Bluetooth	UNII-1	UNII-2A	UNII-2C	UNII-3
1	-	10	10	10	10
		15	15	15	15
2	-	10	10	10	10
		15	15	15	15
3	-	10	10	10	10
		15	15	15	15
4	-	10	10	10	10
		15	15	15	15
5	2	-	-	-	-
Scanning Radio Gain (dBi)					
Ant.	UNII-1	UNII-2A	UNII-2C	UNII-3	
6	8	8	8	8	

Note 1: The EUT has six antennas.

Note 2: Antenna 1-4 supported 10dBi & 15dBi antenna, please refer to "Photographs of EUT" for antenna location.

For Bluetooth function:

For IEEE 802.15.4 Bluetooth mode (1TX/1RX)

Only Ant. 5 (port 1) can be used as transmitting/receiving antenna.

For 5GHz function:

For IEEE 802.11 a/n/ac mode (4TX/4RX)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

For 5GHz function (Scanning Radio):

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

Ant. 6 (port 1) could receive simultaneously.

1.1.4 EUT Information

Operational Condition	
EUT Power Type	From PoE
RF Chip	QCA9984
Type of EUT	
☒	Stand-alone
☐	Combined (EUT where the radio part is fully integrated within another device)
	Combined Equipment - Brand Name / Model No.: ...
☐	Plug-in radio (EUT intended for a variety of host systems)
	Host System - Brand Name / Model No.: ...
☐	Other:

1.1.5 Mode Test Duty Cycle

Non-Beamforming

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.972	0.123	2.069m	1k
802.11ac VHT20	0.989	0.048	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT40	0.977	0.101	2.441m	1k
802.11ac VHT80	0.953	0.209	1.153m	1k
802.11ac VHT80+80	0.974	0.114	2.241m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Beamforming

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT20-BF	0.937	0.283	1.974m	1k
802.11ac VHT40-BF	0.922	0.353	1.694m	1k
802.11ac VHT80-BF	0.92	0.362	1.949m	1k



Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT80+80-BF	0.928	0.325	1.95m	1k

Note. If $DC < 0.98$, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied Standards

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

- ♦ LP0002 (2018-01-10)
- ♦ ANSI C63.10-2013
- ♦ KDB 789033 D02 v02r01
- ♦ KDB 662911 D01 v02r01
- ♦ ANSI C63.4-2014

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO01-HY	Jeff	23.4~25.6°C / 53.4~56.1%	29/May/2019~30/May/2019
AC Conduction (Scanning Radio RX)	CO01-HY	Justin	20.1~25.9°C / 52.6~55.1%	02/Jul/2019
RF Conducted (Beamforming)	TH01-HY	Barry	22.8°C / 65%	18/Jan/2018
RF Conducted (U-NII-1& U-NII-2A) (Non-Beamforming)	TH01-HY	Barry	22.8°C / 65%	18/Jan/2018
RF Conducted (U-NII-2C& U-NII-3) (Non-Beamforming)	TH01-HY	Tim	22.8°C / 65%	26/Dec/2017
Radiated (TX Non-Beamforming Below 1GHz)	03CH02-HY	Patirck	22.5~24.8°C / 51.3~56.1%	18/Jun/2019
Radiated (TX Non-Beamforming Above 1GHz)	03CH09-HY	Eric	25.8°C / 55%	19/Dec/2017~20/Dec/2017
Radiated (TX Beamforming)	03CH09-HY	Eric	25.8°C / 55%	10/Jan/2018~26/Jan/2018
Radiated (RX)	03CH02-HY	Patirck	23.6~24.5°C / 53.2~56.5%	28/May/2019~31/May/2019
Radiated (Scanning Radio RX)	03CH02-HY	Patirck	23.4~25.6°C / 51.2~57.3%	02/Jul/2019~18/Jul/2019

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Non-Beamforming

Test Software Version	QDART 00037.27
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Beamforming

U-NII-1& U-NII-2A

Test Software Version	Dos,Lantest
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U-NII-2C& U-NII-3

Test Software Version	DoS
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2.3 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/CRX
1	5G PoE Mode (TX/RX)
2	5G Scanning Radio Mode (RX)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth,Maximum Conducted Output Power,Peak Power Spectral Density,Frequency Stability. (See Note 1)
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Unwanted Emissions (TX Above 1GHz) (See Note 1)		
	Unwanted Emissions Receiver Radiated 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/CRX		
1	5G PoE Mode (TX/RX)		
2	5G Scanning Radio Mode (RX)		
Operating Mode > 1GHz	CTX/CRX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

Note 1: According to the manufacturer's declaration of product application, the brand name are same as Sporton Project No.: FR661623-24AN, FR661623-25AN and FR661623-27AN. After evaluation and verify, the test data meet our expectation. Therefore the test data could be leveraged Sporton Project No.: FR661623-24AN, FR661623-25AN and FR661623-27AN.

2.4 Accessories and Support Equipment

Accessories				
PoE	Brand Name	UBIQUITI	Model Name	GP-C500-120G
	Power Rating	I/P: 100 - 240Vac, 1.5 A ; O/P: 50Vdc, 1.2A		

Reminder: Regarding to more detail and other information, please refer to user manual.

Non-Beamforming

Beamforming_U-NII-1& U-NII-2A

Support Equipment – RF Conducted (Non-Beamforming)				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	PoE	UBIQUITI	GP-C500-120G	N/A
4	Adapter for PoE	D-Link	DSA-0421S-50	N/A
5	AC Source	GW	APS-9102	N/A
6	Test Fixture	N/A	N/A	N/A

Note: Support equipment No.6 was provided by customer.

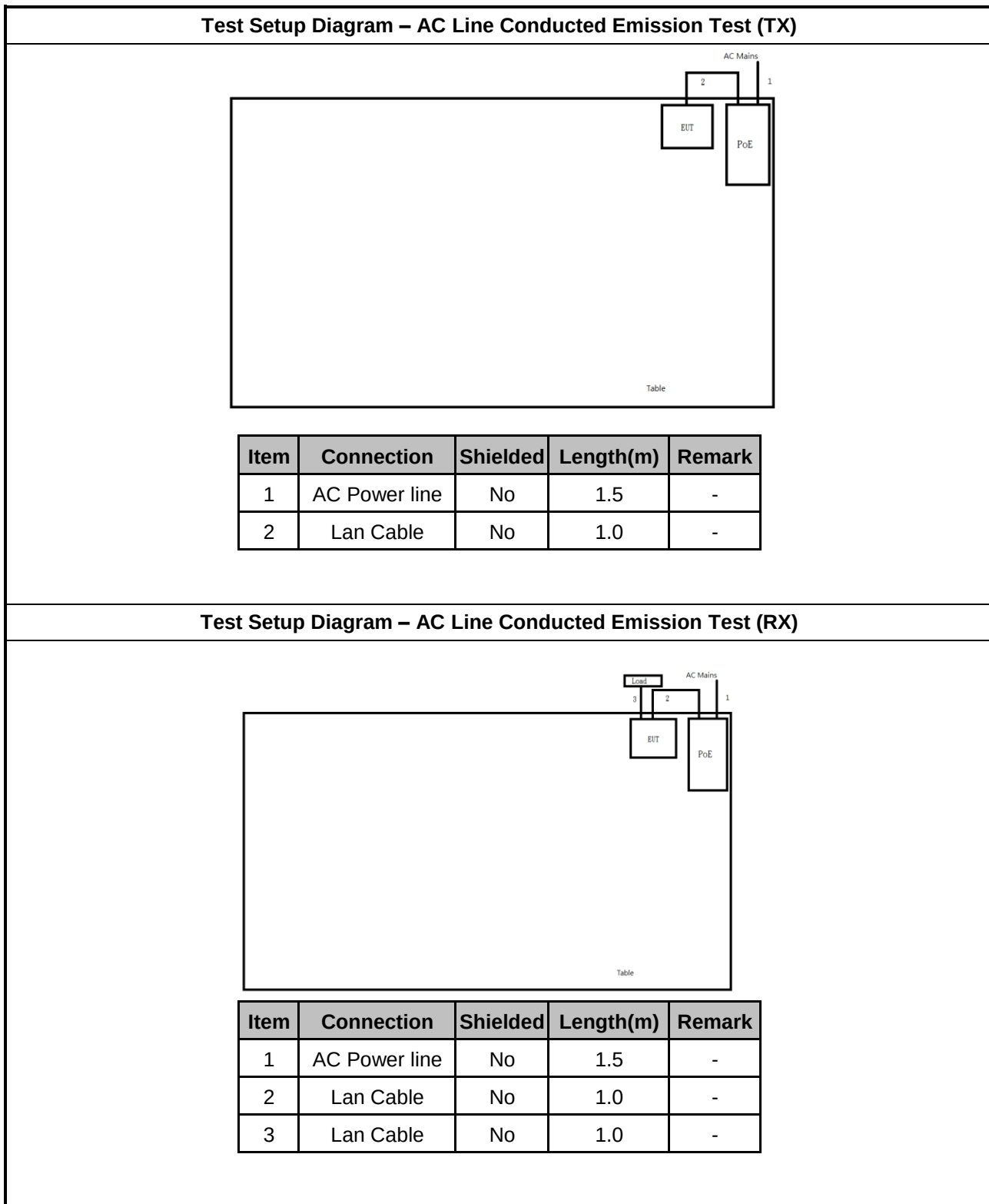
Beamforming_U-NII-2C& U-NII-3

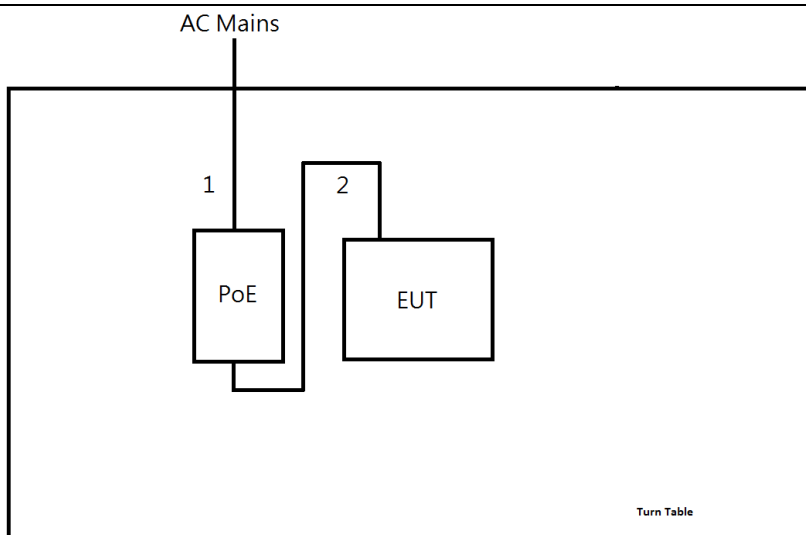
Support Equipment – RF Conducted(Beamforming)				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DOC
2	Adapter for NB	DELL	HA65NM130	DOC
3	Notebook	DELL	E5410	DOC
4	Adapter for NB	DELL	HA65NM130	DOC
5	PoE for Fixture	UBIQUITI	GP-C500-120G	N/A
6	PoE for Client	UBIQUITI	GP-C500-120G	N/A
7	AC Source	GW	APS-9102	N/A
8	Test Fixture	N/A	N/A	N/A
9	Client	N/A	N/A	N/A
10	Notebook	DELL	E5410	DOC
11	Adapter for NB	DELL	HA65NM130	DOC

Note: Support equipment No.8 and 9 was provided by customer.

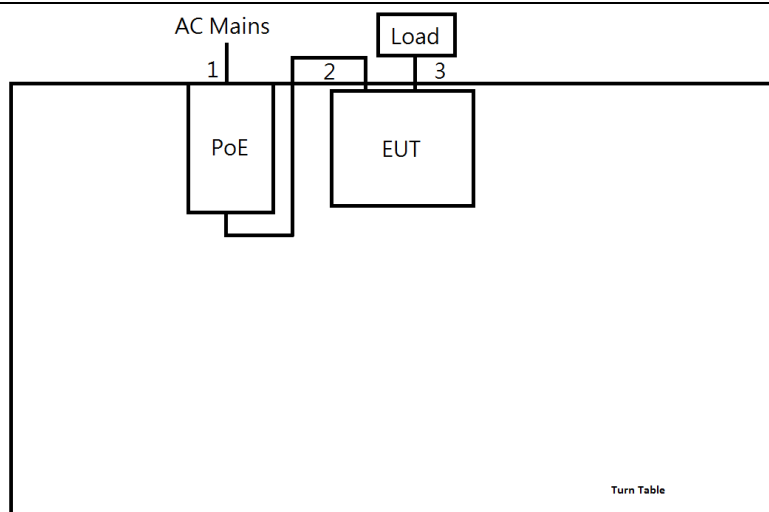
Support Equipment – AC Conduction (RX) and Radiated Emission (RX)				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Load	-	-	N/A

2.5 Test Setup Diagram



Test Setup Diagram - Radiated Test (TX)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.5	-
2	LAN Cable	No	1.0	-

Test Setup Diagram - Radiated Test (RX)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.5	-
2	LAN Cable	No	1.0	-
3	LAN Cable	No	1.0	-

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.

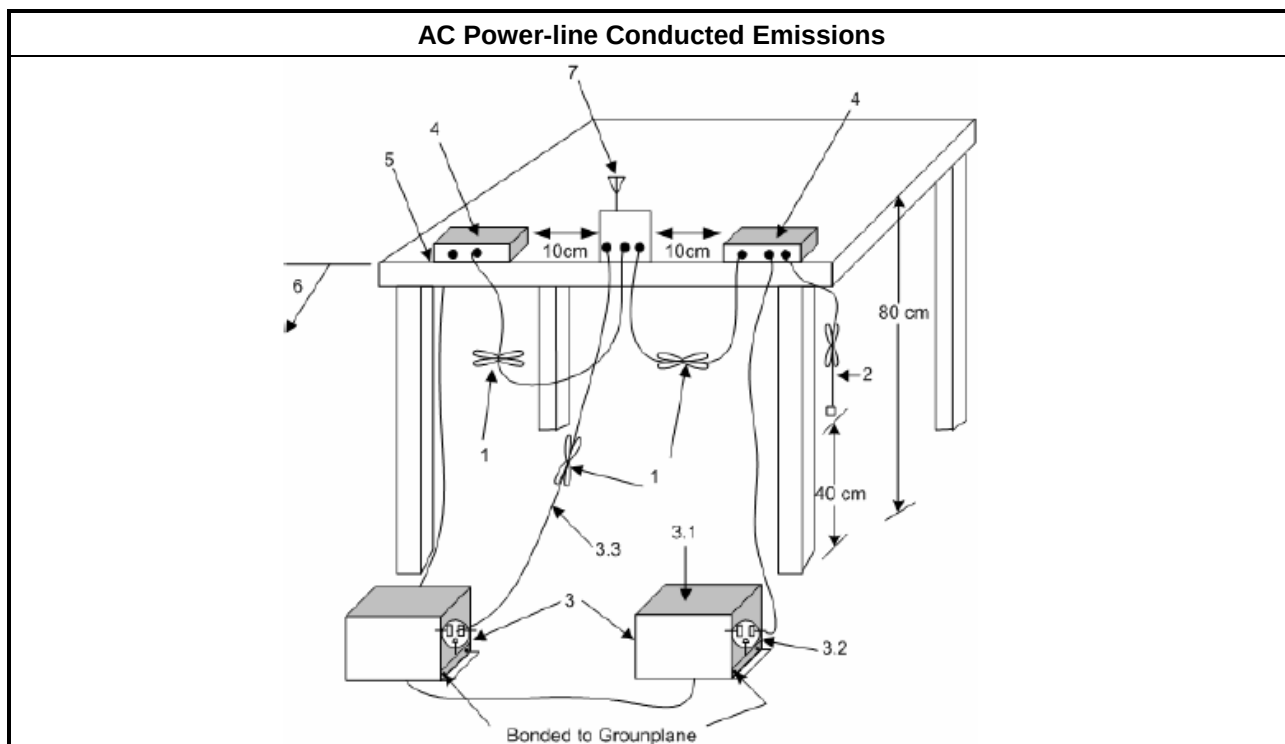
3.1.2 Measuring Instruments

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 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, N/A
☒	For the 5.47-5.725 GHz band, N/A
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

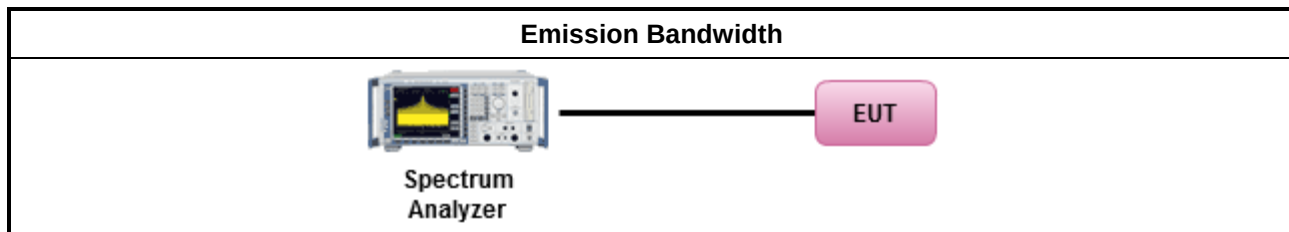
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 6.6 for bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

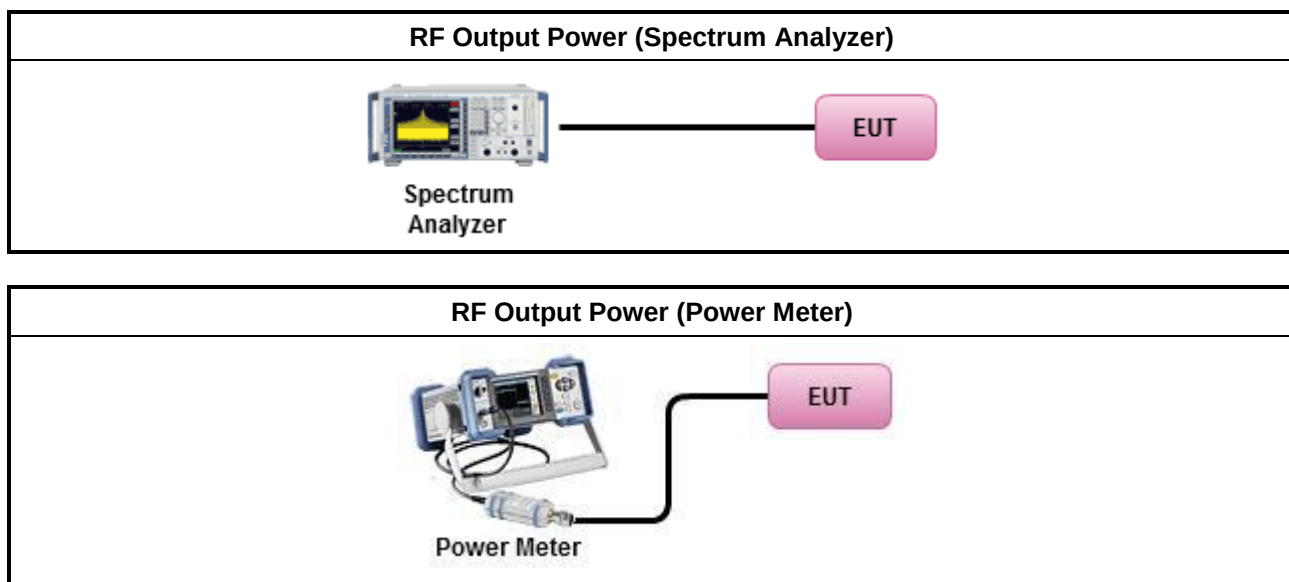
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Conducted Output Power	
	Duty cycle $\geq 98\%$
☒	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle $< 98\%$
☒	Refer as 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 KDB 789033, clause E Method PM (using an RF average power meter).
For conducted measurement.	
	If the EUT supports multiple transmit chains using options given below: Refer as 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



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
	Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
	Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
	Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$.
	Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
☒ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
	Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$.
	Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
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.	

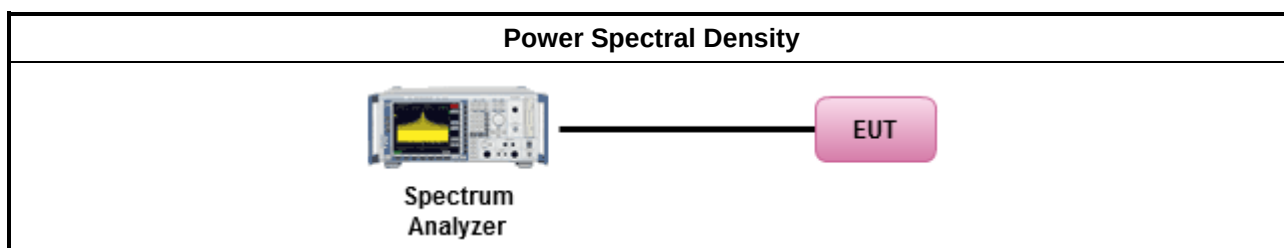
3.4.2 Measuring Instruments

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 KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth	
Duty cycle ≥ 98%	
☒ Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).	
Duty cycle < 98%	
☒ Refer as 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:	
☐ Measure and sum the spectra across the outputs. Refer as 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.	
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 Radiated 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	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
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).	

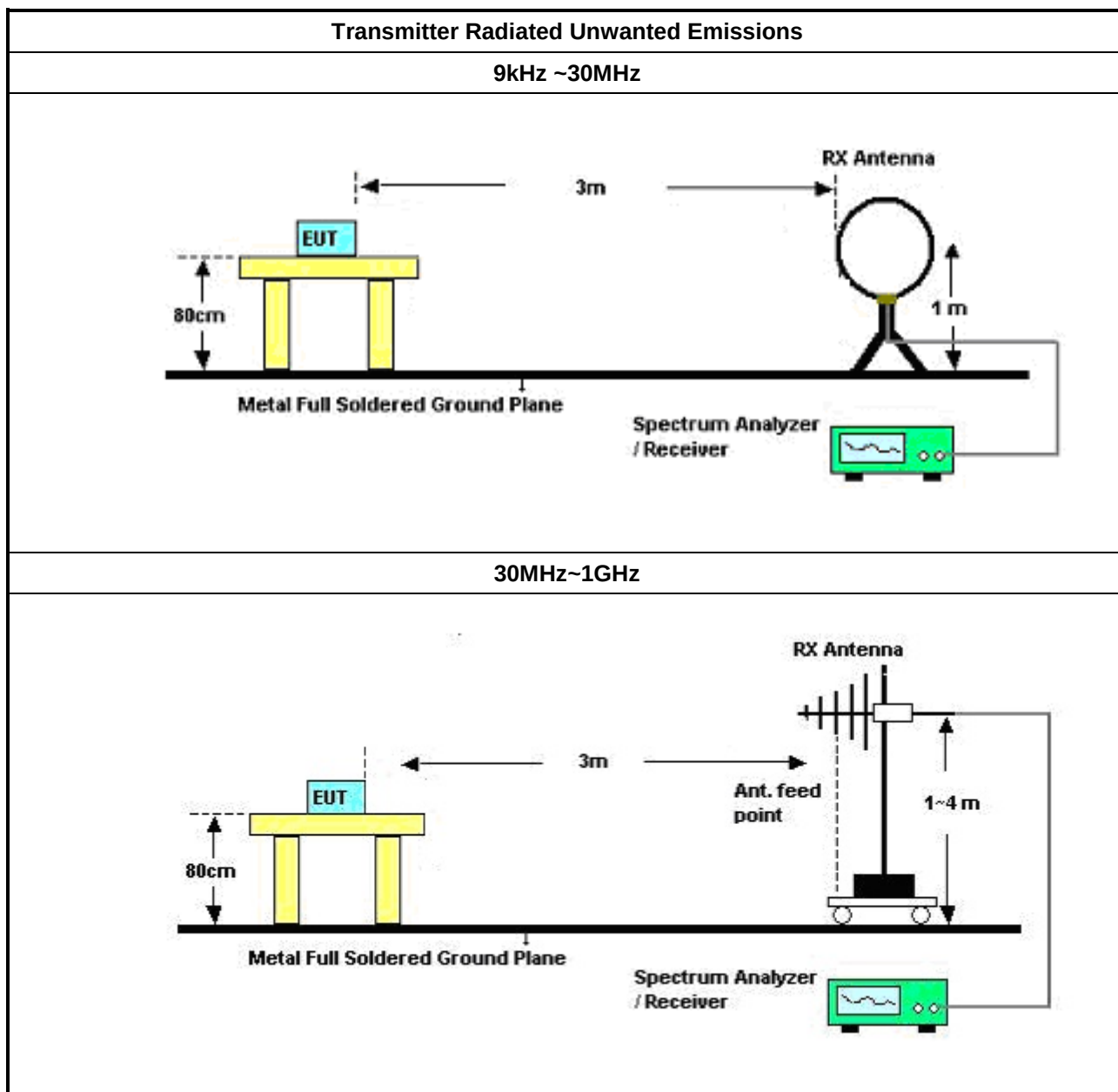
3.5.2 Measuring Instruments

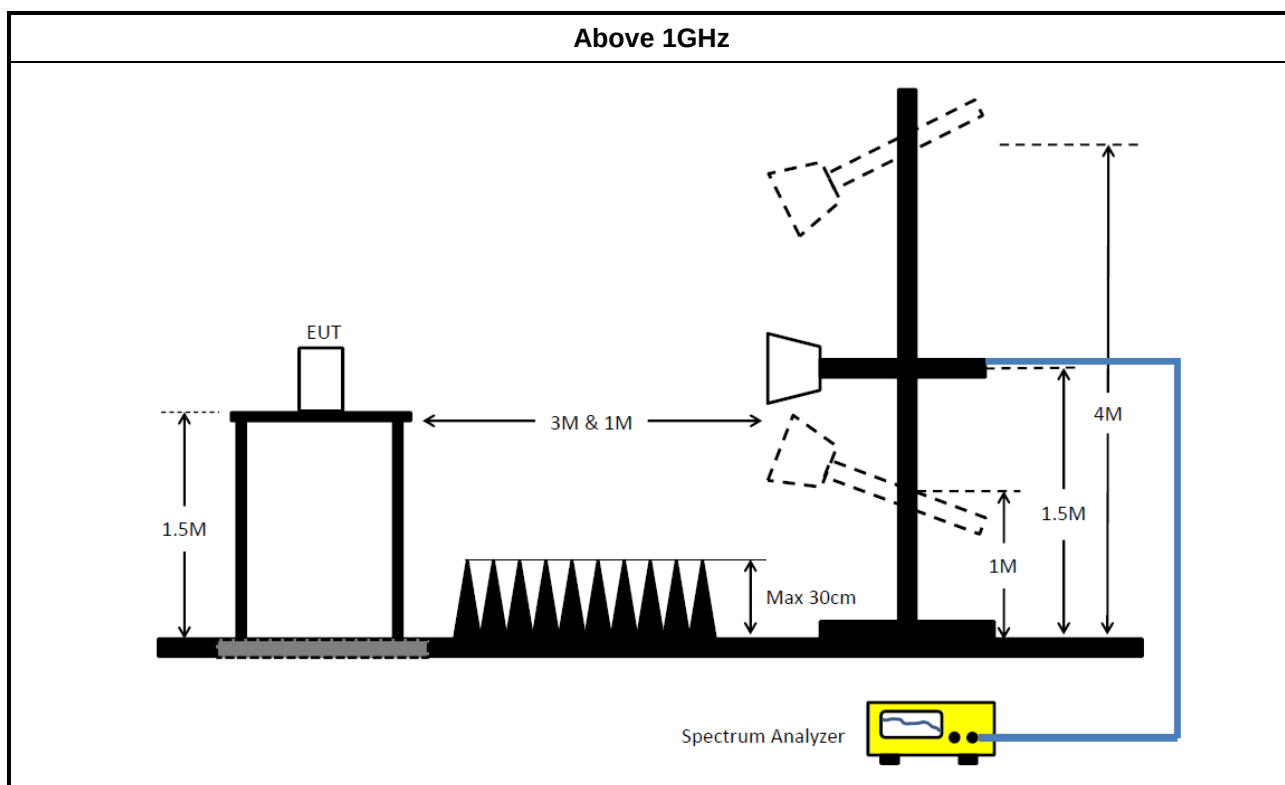
Refer a test equipment and calibration data table in this test report.

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 KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.
	☒ Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.
	☒ Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.
For radiated measurement.	
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
The any unwanted emissions level shall not exceed the fundamental emission level.	
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	

3.5.4 Test Setup





3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Receiver Radiated Unwanted Emissions

3.6.1 Receiver Radiated Unwanted Emissions Limit

Restricted Spurious Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: 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.

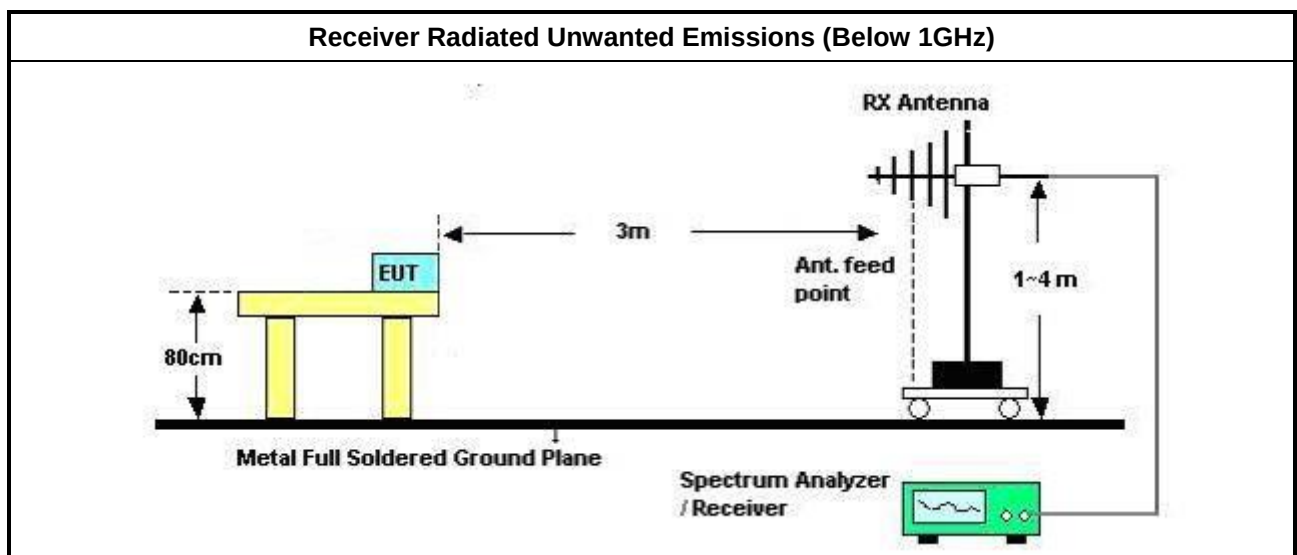
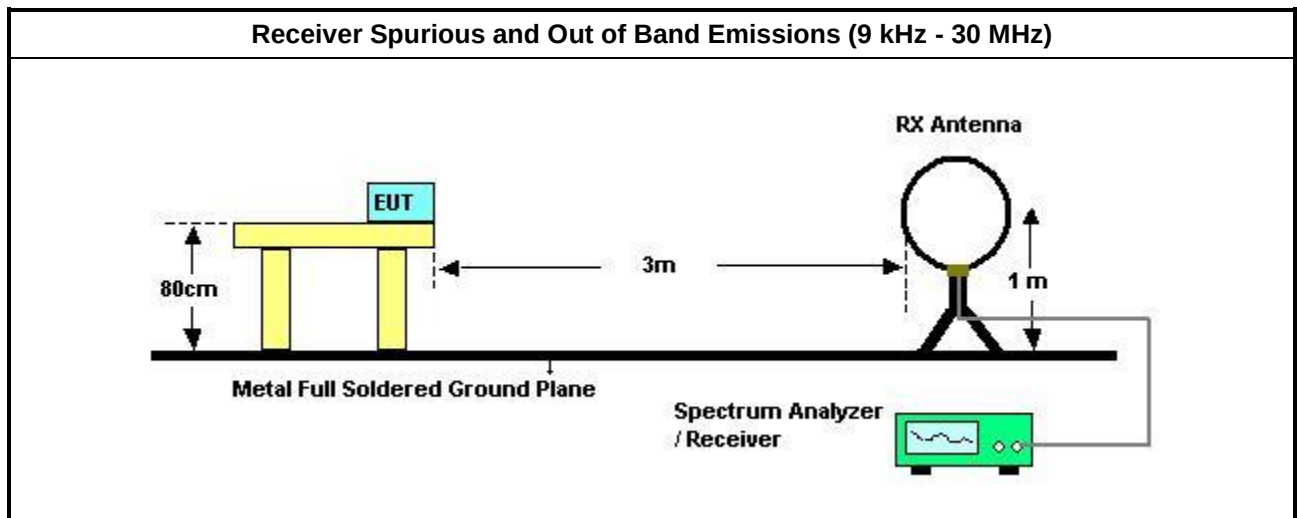
3.6.2 Measuring Instruments

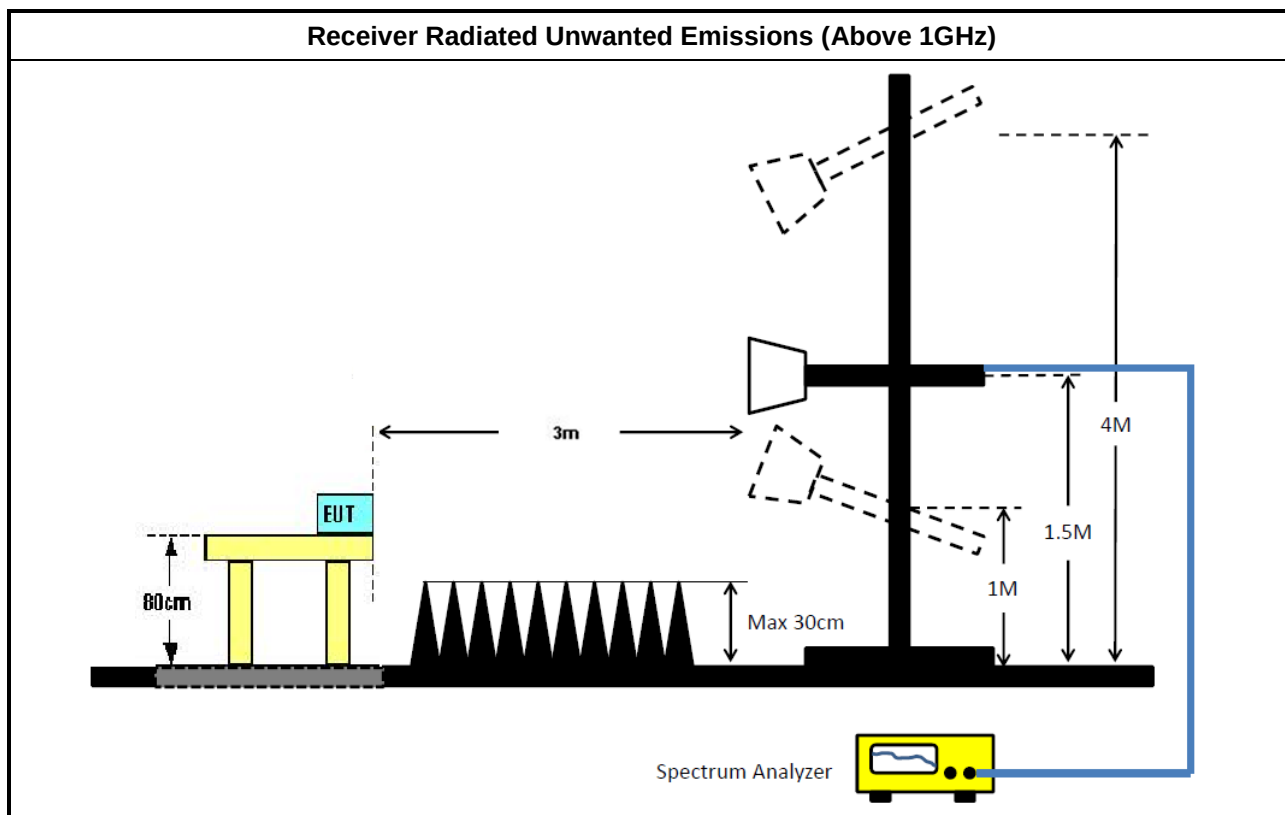
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
☒	The search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency), or 30 MHz, whichever is higher, to at least 3 times the highest tuneable or local oscillator frequency, whichever is higher, without exceeding 40 GHz.
☒	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).
☒	For radiated measurement, refer as KDB 789033, clause G)2).
☒	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.1 for radiated emissions from below 30 MHz.
☒	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.1 for radiated emissions from 30 MHz-1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the QP-Limit so that the QP level does not need to be reported in addition.
☒	Refer as ANSI C63.4, clause 8.3.1.2 and 8.3.2.2 for radiated emissions from above 1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
☒	All amplitude of spurious emissions that are attenuated by more than 30 dB below the permissible value has no need to be reported.

3.6.4 Test Setup





3.6.5 Receiver Radiated Unwanted Emissions (Below 30MHz)

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

3.6.6 Test Result of Receiver Radiated Unwanted Emissions

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction (PoE Mode TX/RX)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV 216	101274	9kHz ~ 30MHz	12/Jun/2018	11/Jun/2019
RF Cable-CON	MTJ	RG142	CB001-CO	9kHz ~ 30MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11003G	F308010045	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561F	9495	9kHz ~ 30MHz	11/Oct/2018	10/Oct/2019
EMC Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV 216	101274	9kHz ~ 30MHz	12/Jun/2018	11/Jun/2019

NCR : Non-Calibration Require

Instrument for AC Conduction (Scanning Radio Mode RX)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV 216	101274	9kHz ~ 30MHz	03/Jun/2019	02/Jun/2020
RF Cable-CON	MTJ	RG142	CB001-CO	9kHz ~ 30MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11003G	F308010045	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561F	9495	9kHz ~ 30MHz	11/Oct/2018	10/Oct/2019

NCR : Non-Calibration Require

Instrument for Radiated Test (TX Non-Beamforming below 1GHz & RX)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	19/Oct/2018	18/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	17/Oct/2018	16/Oct/2019
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	27Jul/2018	02/Jul/2019
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	02/Jul/2019	01/Jul/2020
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	23/Oct/2018	22/Oct/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
Spectrum Analyzer	Rohde & Schwarz	FSP40	100593	9KHz - 40GHz	27/Dec/2018	26/Dec/2019
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	18/Jan/2019	17/Jan/2020
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	18/Jan/2019	17/Jan/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz ~ 1GHz	08/Sep/2018	07/Sep/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
EMI Test Receiver	R&S	ESR	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	15/Mar/2019	14/Mar/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar/2019	21/Mar/2020
Double Ridged Guide Horn Antenna	COM-POWER	AH-118	10094	1GHz ~ 18GHz	13/Jul/2018	12/Jul/2019

Instrument for Radiated Test (TX Non-Beamforming above 1GHz)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	25/Apr/2017	24/Apr/2018
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	21/Jun/2017	20/Jun/2018
Amplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	25/Apr/2017	24/Apr/2018
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	25/Apr/2017	24/Apr/2018
Spectrum Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	20/Jul/2017	19/Jul/2018
Bilog Antenna	TESEQ	CBL 6111D	35418	30MHz~1GHz	09/Sep/2017	08/Sep/2018
Horn Antenna	SCHWARZBECK	BBHA 9120D	BBHA9120D 1534	1GHz~18GHz	28/Apr/2017	27/Apr/2018
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170614	18GHz ~ 40GHz	06/Feb/2017	05/Feb/2018
Amplifier	MITEQ	JS44-18004000 -33-8P	1840917	18GHz ~ 40GHz	06/Feb/2017	05/Feb/2018
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	02/Feb/2017	01/Feb/2018
RF Cable-high	Jye Bao	RG142	03CH09-HY	1GHz ~ 40GHz	02/Feb/2017	01/Feb/2018
Receiver	R&S	ESR3	102052	9KHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018

Instrument for Radiated Test (TX Beamforming)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	25/Apr/2017	24/Apr/2018
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	21/Jun/2017	20/Jun/2018
Amplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	25/Apr/2017	24/Apr/2018
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	25/Apr/2017	24/Apr/2018
Spectrum Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	20/Jul/2017	19/Jul/2018
Bilog Antenna	TESEQ	CBL 6111D	35418	30MHz~1GHz	09/Sep/2017	08/Sep/2018
Horn Antenna	SCHWARZBECK	BBHA 9120D	BBHA9120D 1534	1GHz~18GHz	28/Apr/2017	27/Apr/2018
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170614	18GHz ~ 40GHz	06/Feb/2017	05/Feb/2018
Amplifier	MITEQ	JS44-18004000 -33-8P	1840917	18GHz ~ 40GHz	06/Feb/2017	05/Feb/2018
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	02/Feb/2017	01/Feb/2018
RF Cable-high	Jye Bao	RG142	03CH09-HY	1GHz ~ 40GHz	02/Feb/2017	01/Feb/2018
Receiver	R&S	ESR3	102052	9KHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018
Loop Antenna	TESEQ	HLA 6120	31244	9KHz-30MHz	02/Mar/2017	01/Mar/2018

Instrument for Conducted Test (Non-Beamforming)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	30/Dec/2016	29/Dec/2017
Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
Temp. and Humidity Chamber	Giant Force	GTH-225-40-CP-AR	MAA1611-005	-40 ~ 100℃	21/Nov/2016	20/Nov/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY677/3	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY678/3	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10717/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-1.5m	HUBER+SUHNER	SUCOFLEX_104	MY12586/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018

Instrument for Conducted Test (Beamforming) U-NII-1& U-NII-2A

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	30/Dec/2016	29/Dec/2017
Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
Temp. and Humidity Chamber	Giant Force	GTH-225-40-CP-AR	MAA1611-005	-40 ~ 100℃	21/Nov/2016	20/Nov/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY677/3	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY678/3	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10717/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-1.5m	HUBER+SUHNER	SUCOFLEX_104	MY12586/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018

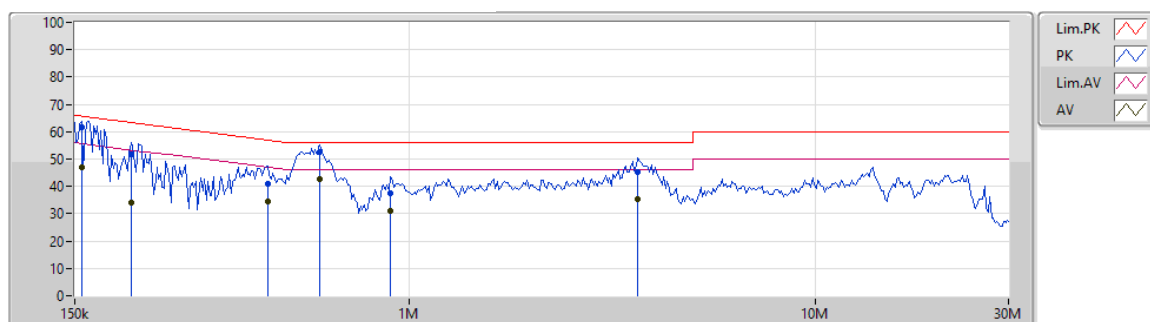
Instrument for Conducted Test (Beamforming) U-NII-2C& U-NII-3

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101515	9kHz~40GHz	08/Dec/2017	07/Dec/2018
Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY677/3	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY678/3	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10717/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	5G PoE Mode (TX)		

29/05/2019

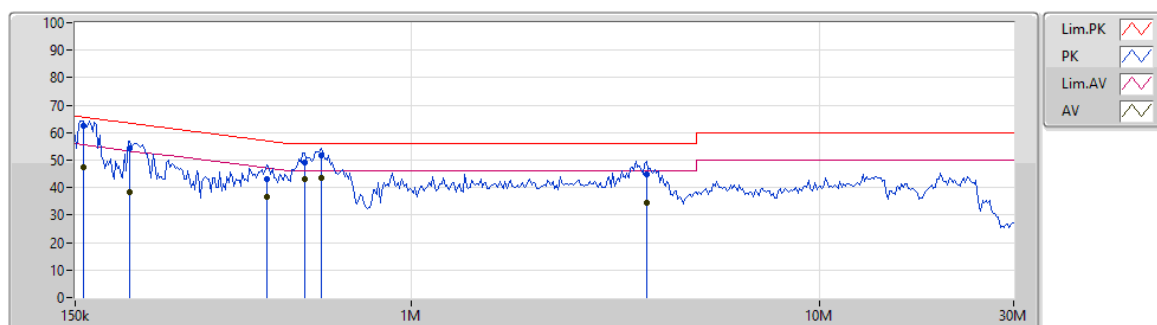


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	156.091k	61.82	65.67	-3.85	19.52	Neutral	-	42.30	9.65	0.01	9.86			
AV	156.091k	46.78	55.67	-8.89	19.52	Neutral	-	27.26	9.65	0.01	9.86			
QP	206.241k	51.70	63.36	-11.66	19.51	Neutral	-	32.19	9.64	0.01	9.86			
AV	206.241k	34.21	53.36	-19.15	19.51	Neutral	-	14.70	9.64	0.01	9.86			
QP	448.17k	41.15	56.92	-15.77	19.51	Neutral	-	21.64	9.64	0.01	9.86			
AV	448.17k	34.42	46.92	-12.50	19.51	Neutral	-	14.91	9.64	0.01	9.86			
QP	604.065k	52.50	56.00	-3.50	19.51	Neutral	-	32.99	9.64	0.01	9.86			
AV	604.065k	42.76	46.00	-3.24	19.51	Neutral	"Worst"	23.25	9.64	0.01	9.86			
QP	899.37k	37.47	56.00	-18.53	19.52	Neutral	-	17.95	9.64	0.02	9.86			
AV	899.37k	31.21	46.00	-14.79	19.52	Neutral	-	11.69	9.64	0.02	9.86			
QP	3.658M	45.31	56.00	-10.69	19.58	Neutral	-	25.73	9.66	0.04	9.88			
AV	3.658M	35.55	46.00	-10.45	19.58	Neutral	-	15.97	9.66	0.04	9.88			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	5G PoE Mode (TX)		

29/05/2019

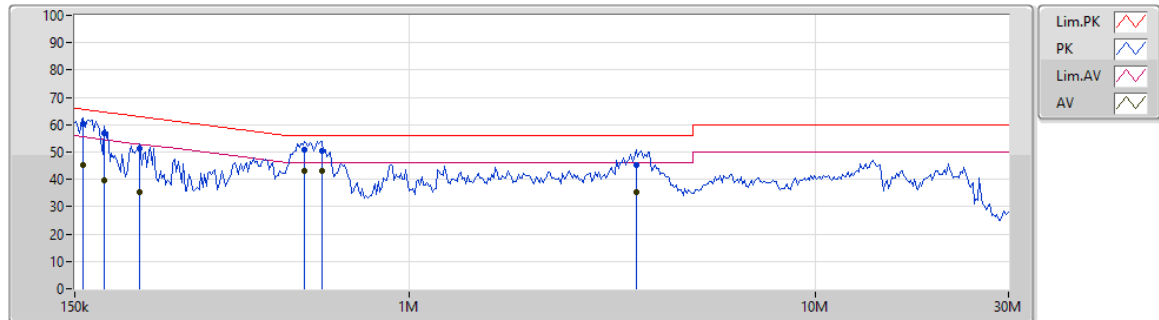


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	157.652k	62.35	65.58	-3.23	19.48	Line	-	42.87	9.61	0.01	9.86			
AV	157.652k	47.58	55.58	-8.00	19.48	Line	-	28.10	9.61	0.01	9.86			
QP	204.199k	54.49	63.44	-8.95	19.48	Line	-	35.01	9.61	0.01	9.86			
AV	204.199k	38.27	53.44	-15.17	19.48	Line	-	18.79	9.61	0.01	9.86			
QP	443.732k	43.20	56.99	-13.79	19.48	Line	-	23.72	9.61	0.01	9.86			
AV	443.732k	36.55	46.99	-10.44	19.48	Line	-	17.07	9.61	0.01	9.86			
QP	546.852k	49.02	56.00	-6.98	19.48	Line	-	29.54	9.61	0.01	9.86			
AV	546.852k	43.03	46.00	-2.97	19.48	Line	-	23.55	9.61	0.01	9.86			
QP	604.065k	51.73	56.00	-4.27	19.48	Line	-	32.25	9.61	0.01	9.86			
AV	604.065k	43.39	46.00	-2.61	19.48	Line	"Worst"	23.91	9.61	0.01	9.86			
QP	3.769M	44.81	56.00	-11.19	19.55	Line	-	25.26	9.63	0.04	9.88			
AV	3.769M	34.32	46.00	-11.68	19.55	Line	-	14.77	9.63	0.04	9.88			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	5G PoE Mode (RX)		

29/05/2019

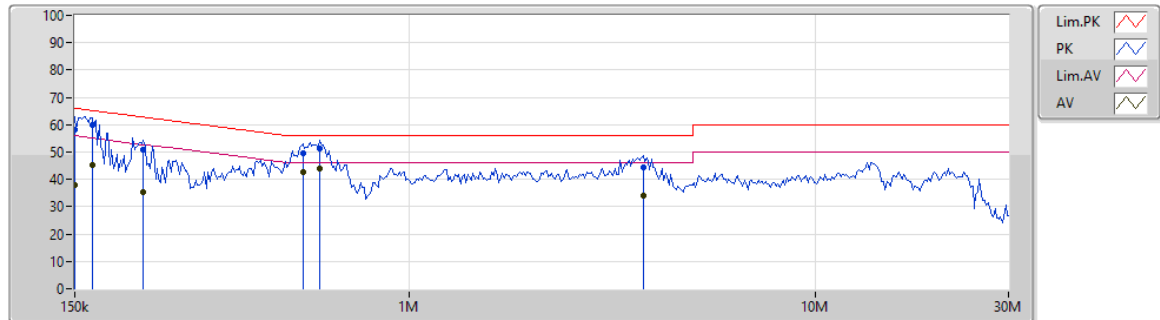


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	157.652k	60.54	65.58	-5.04	19.52	Neutral	-	41.02	9.65	0.01	9.86			
AV	157.652k	45.40	55.58	-10.18	19.52	Neutral	-	25.88	9.65	0.01	9.86			
QP	177.646k	56.98	64.59	-7.61	19.51	Neutral	-	37.47	9.64	0.01	9.86			
AV	177.646k	39.47	54.59	-15.12	19.51	Neutral	-	19.96	9.64	0.01	9.86			
QP	216.761k	51.08	62.94	-11.86	19.51	Neutral	-	31.57	9.64	0.01	9.86			
AV	216.761k	35.56	52.94	-17.38	19.51	Neutral	-	16.05	9.64	0.01	9.86			
QP	552.321k	50.71	56.00	-5.29	19.51	Neutral	-	31.20	9.64	0.01	9.86			
AV	552.321k	43.30	46.00	-2.70	19.51	Neutral	"Worst"	23.79	9.64	0.01	9.86			
QP	610.106k	50.48	56.00	-5.52	19.51	Neutral	-	30.97	9.64	0.01	9.86			
AV	610.106k	43.08	46.00	-2.92	19.51	Neutral	-	23.57	9.64	0.01	9.86			
QP	3.622M	45.21	56.00	-10.79	19.58	Neutral	-	25.63	9.66	0.04	9.88			
AV	3.622M	35.51	46.00	-10.49	19.58	Neutral	-	15.93	9.66	0.04	9.88			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	5G PoE Mode (RX)		

29/05/2019

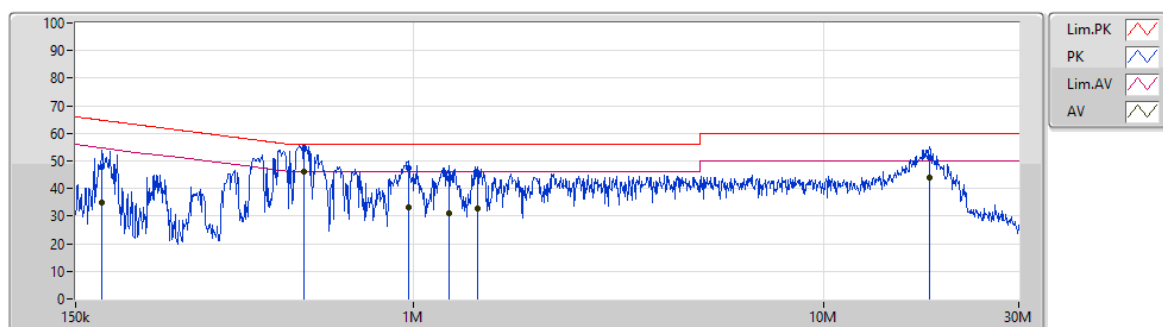


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	150k	58.20	66.00	-7.80	19.48	Line	-	38.72	9.61	0.01	9.86			
AV	150k	38.02	56.00	-17.98	19.48	Line	-	18.54	9.61	0.01	9.86			
QP	165.693k	60.09	65.18	-5.09	19.48	Line	-	40.61	9.61	0.01	9.86			
AV	165.693k	45.36	55.18	-9.82	19.48	Line	-	25.88	9.61	0.01	9.86			
QP	221.118k	50.82	62.77	-11.95	19.48	Line	-	31.34	9.61	0.01	9.86			
AV	221.118k	35.48	52.77	-17.29	19.48	Line	-	16.00	9.61	0.01	9.86			
QP	546.852k	49.76	56.00	-6.24	19.48	Line	-	30.28	9.61	0.01	9.86			
AV	546.852k	42.64	46.00	-3.36	19.48	Line	-	23.16	9.61	0.01	9.86			
QP	604.065k	51.11	56.00	-4.89	19.48	Line	-	31.63	9.61	0.01	9.86			
AV	604.065k	44.12	46.00	-1.88	19.48	Line	"Worst"	24.64	9.61	0.01	9.86			
QP	3.769M	44.44	56.00	-11.56	19.55	Line	-	24.89	9.63	0.04	9.88			
AV	3.769M	34.24	46.00	-11.76	19.55	Line	-	14.69	9.63	0.04	9.88			

AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Neutral
Operating Function	5G Scanning Radio Mode (RX)		

02/07/2019

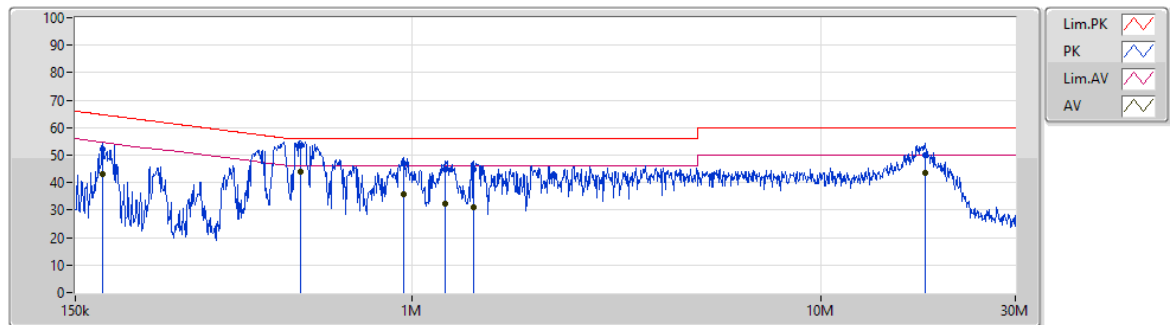


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	173.876k	47.97	64.78	-16.81	19.52	Neutral	-	28.45	9.65	0.01	9.86			
AV	173.876k	35.09	54.78	-19.69	19.52	Neutral	-	15.57	9.65	0.01	9.86			
QP	540.273k	54.42	56.00	-1.58	19.51	Neutral	-	34.91	9.64	0.01	9.86			
AV	540.273k	45.92	46.00	-0.08	19.51	Neutral	"Worst"	26.41	9.64	0.01	9.86			
QP	971.558k	47.49	56.00	-8.51	19.52	Neutral	-	27.97	9.64	0.02	9.86			
AV	971.558k	33.26	46.00	-12.74	19.52	Neutral	-	13.74	9.64	0.02	9.86			
QP	1.225M	43.70	56.00	-12.30	19.52	Neutral	-	24.18	9.64	0.02	9.86			
AV	1.225M	30.94	46.00	-15.06	19.52	Neutral	-	11.42	9.64	0.02	9.86			
QP	1.431M	45.47	56.00	-10.53	19.53	Neutral	-	25.94	9.64	0.03	9.86			
AV	1.431M	32.78	46.00	-13.22	19.53	Neutral	-	13.25	9.64	0.03	9.86			
QP	18.125M	51.39	60.00	-8.61	19.76	Neutral	-	31.63	9.71	0.10	9.95			
AV	18.125M	43.85	50.00	-6.15	19.76	Neutral	-	24.09	9.71	0.10	9.95			

AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Line
Operating Function	5G Scanning Radio Mode (RX)		

02/07/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	174.571k	52.18	64.74	-12.56	19.48	Line	-	32.70	9.61	0.01	9.86			
AV	174.571k	43.15	54.74	-11.59	19.48	Line	-	23.67	9.61	0.01	9.86			
QP	533.841k	53.66	56.00	-2.34	19.48	Line	-	34.18	9.61	0.01	9.86			
AV	533.841k	44.15	46.00	-1.85	19.48	Line	"Worst"	24.67	9.61	0.01	9.86			
QP	952.358k	47.00	56.00	-9.00	19.49	Line	-	27.51	9.61	0.02	9.86			
AV	952.358k	35.96	46.00	-10.04	19.49	Line	-	16.47	9.61	0.02	9.86			
QP	1.21M	44.94	56.00	-11.06	19.49	Line	-	25.45	9.61	0.02	9.86			
AV	1.21M	32.43	46.00	-13.57	19.49	Line	-	12.94	9.61	0.02	9.86			
QP	1.414M	44.71	56.00	-11.29	19.50	Line	-	25.21	9.61	0.03	9.86			
AV	1.414M	30.96	46.00	-15.04	19.50	Line	-	11.46	9.61	0.03	9.86			
QP	18.053M	50.14	60.00	-9.86	19.68	Line	-	30.46	9.63	0.10	9.95			
AV	18.053M	43.34	50.00	-6.66	19.68	Line	-	23.66	9.63	0.10	9.95			

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.85M	16.442M	16M4D1D	19.2M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.725M	17.641M	17M6D1D	19.95M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.15M	36.032M	36M0D1D	39.15M	35.882M
802.11ac VHT80_Nss1,(MCS0)_4TX	83.5M	75.762M	75M8D1D	82.3M	75.562M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	84.2M	75.762M	75M8D1D	83.4M	75.662M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.675M	16.442M	16M4D1D	19.275M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.625M	17.666M	17M7D1D	19.975M	17.566M
802.11ac VHT40_Nss1,(MCS0)_4TX	39.9M	36.032M	36M0D1D	39.2M	35.932M
802.11ac VHT80_Nss1,(MCS0)_4TX	83.2M	75.762M	75M8D1D	82.7M	75.562M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	83.5M	75.862M	75M9D1D	83M	75.662M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.85M	16.442M	16M4D1D	19.075M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.625M	17.641M	17M6D1D	19.95M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.1M	36.082M	36M1D1D	39.15M	35.832M
802.11ac VHT80_Nss1,(MCS0)_4TX	84M	75.962M	76M0D1D	82.9M	75.762M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	84.3M	76.012M	76M0D1D	82.8M	75.712M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.325M	24.788M	24M8D1D	15.65M	16.442M
802.11ac VHT20_Nss1,(MCS0)_4TX	17.55M	21.389M	21M4D1D	15.875M	17.641M
802.11ac VHT40_Nss1,(MCS0)_4TX	35.6M	38.081M	38M1D1D	31.3M	36.182M
802.11ac VHT80_Nss1,(MCS0)_4TX	75.7M	110.845M	111MD1D	74.4M	82.359M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	19.575M	16.392M	19.35M	16.392M	19.225M	16.392M	19.5M	16.417M
5200MHz	Pass	Inf	19.425M	16.417M	19.575M	16.417M	19.2M	16.417M	19.225M	16.417M
5240MHz	Pass	Inf	19.65M	16.392M	19.425M	16.442M	19.45M	16.392M	19.85M	16.392M
5260MHz	Pass	Inf	19.275M	16.392M	19.35M	16.442M	19.525M	16.442M	19.675M	16.417M
5300MHz	Pass	Inf	19.4M	16.417M	19.475M	16.417M	19.4M	16.442M	19.425M	16.417M
5320MHz	Pass	Inf	19.475M	16.392M	19.65M	16.417M	19.375M	16.392M	19.475M	16.392M
5500MHz	Pass	Inf	19.55M	16.417M	19.25M	16.442M	19.475M	16.392M	19.85M	16.417M
5580MHz	Pass	Inf	19.5M	16.417M	19.1M	16.417M	19.275M	16.442M	19.45M	16.417M
5640MHz	Pass	Inf	19.575M	16.392M	19.075M	16.392M	19.625M	16.417M	19.35M	16.392M
5745MHz	Pass	500k	16.3M	16.567M	16.3M	16.442M	16.275M	16.442M	16.275M	16.567M
5785MHz	Pass	500k	16.3M	21.814M	16.025M	18.066M	16.275M	16.542M	15.65M	24.788M
5825MHz	Pass	500k	16.025M	16.492M	16.325M	16.492M	15.9M	16.567M	16.275M	16.442M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.5M	17.641M	20.475M	17.616M	20.5M	17.591M	20.4M	17.591M
5200MHz	Pass	Inf	20.575M	17.591M	20.55M	17.641M	20.5M	17.616M	20.4M	17.616M
5240MHz	Pass	Inf	19.95M	17.616M	20.4M	17.641M	20.725M	17.616M	20.525M	17.616M
5260MHz	Pass	Inf	20.575M	17.616M	20.425M	17.616M	20.55M	17.616M	20.35M	17.616M
5300MHz	Pass	Inf	19.975M	17.591M	20.4M	17.616M	20.5M	17.591M	20.25M	17.616M
5320MHz	Pass	Inf	20.425M	17.591M	20.525M	17.666M	20.625M	17.591M	20.325M	17.566M
5500MHz	Pass	Inf	20.5M	17.616M	20.4M	17.591M	20.575M	17.616M	20.425M	17.591M
5580MHz	Pass	Inf	20.6M	17.616M	20M	17.616M	20.6M	17.616M	20.5M	17.591M
5640MHz	Pass	Inf	20.625M	17.616M	19.95M	17.591M	20.525M	17.641M	20.35M	17.616M
5745MHz	Pass	500k	16.525M	17.766M	17.525M	17.716M	17.55M	17.691M	17.525M	17.841M
5785MHz	Pass	500k	16.775M	21.389M	17.525M	18.066M	15.875M	17.691M	17.55M	20.99M
5825MHz	Pass	500k	17.275M	17.641M	17.125M	17.666M	16.9M	17.716M	16.525M	17.641M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	39.9M	35.882M	39.85M	35.882M	39.2M	35.882M	39.15M	35.932M
5230MHz	Pass	Inf	40.15M	35.982M	39.85M	35.932M	39.9M	35.982M	39.25M	36.032M
5270MHz	Pass	Inf	39.8M	35.982M	39.55M	35.932M	39.65M	36.032M	39.35M	36.032M
5310MHz	Pass	Inf	39.9M	35.932M	39.65M	35.932M	39.3M	35.932M	39.2M	35.932M
5510MHz	Pass	Inf	39.65M	35.982M	39.85M	35.832M	39.8M	35.982M	39.15M	35.932M
5550MHz	Pass	Inf	39.95M	35.982M	39.8M	36.082M	39.85M	35.982M	39.4M	35.982M
5630MHz	Pass	Inf	40.1M	36.032M	40.05M	35.982M	39.6M	35.982M	39.3M	35.982M
5755MHz	Pass	500k	35.6M	36.582M	34.9M	36.232M	34.95M	36.182M	35M	37.031M
5795MHz	Pass	500k	32.55M	36.732M	35M	36.732M	31.3M	36.182M	35M	38.081M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	83.3M	75.662M	83.5M	75.662M	82.9M	75.762M	82.3M	75.562M
5290MHz	Pass	Inf	82.7M	75.662M	83.1M	75.562M	83.2M	75.662M	82.8M	75.762M
5530MHz	Pass	Inf	83.5M	75.862M	83.3M	75.962M	83.8M	75.762M	83.7M	75.862M
5610MHz	Pass	Inf	84M	75.862M	83.1M	75.862M	83.3M	75.762M	82.9M	75.862M
5775MHz	Pass	500k	75M	86.857M	75.7M	110.845M	75.6M	82.359M	74.4M	109.145M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	Inf	83.4M	75.662M	84.2M	75.762M				



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	Inf					83M	75.662M	83.5M	75.862M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	Inf	83.4M	75.712M	84.3M	76.012M	82.8M	75.862M	83.4M	75.862M

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

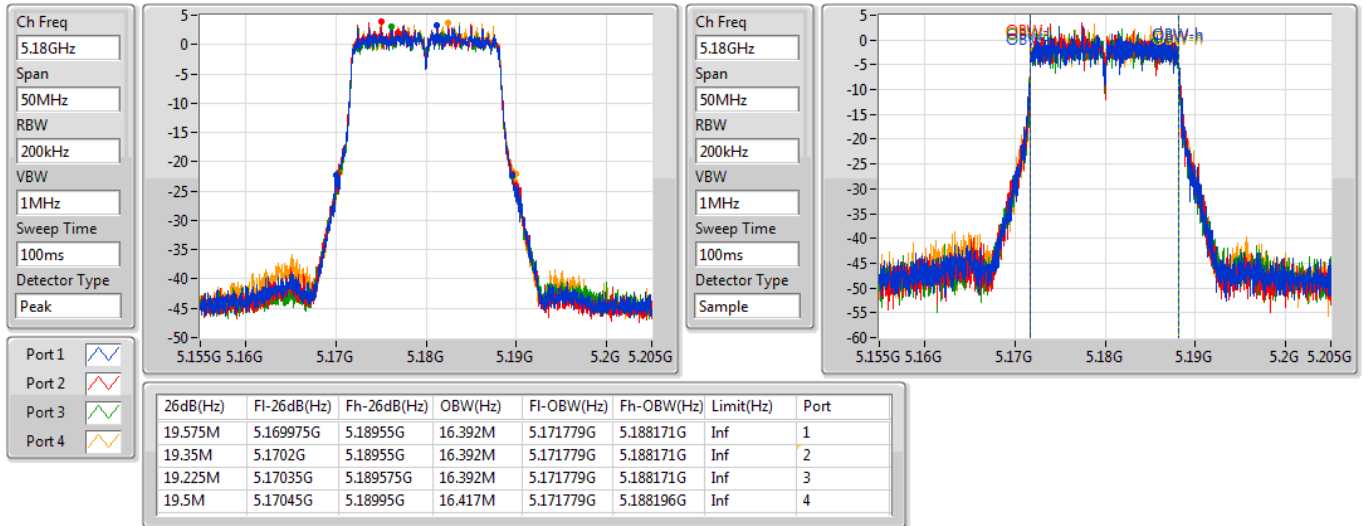
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX

EBW

5180MHz

27/12/2017

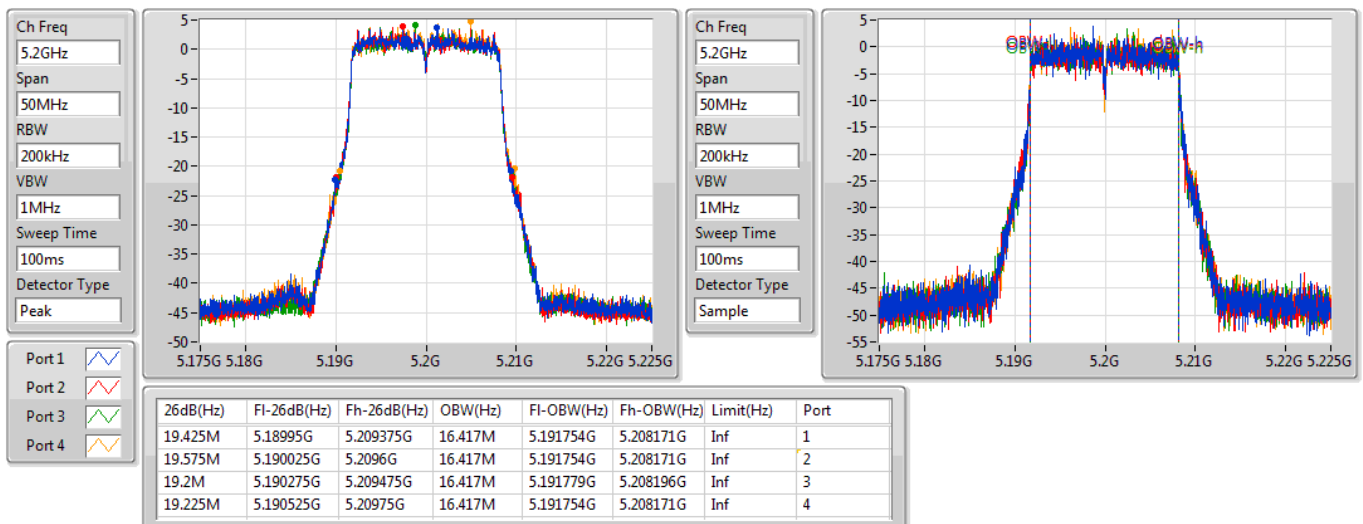


802.11a_Nss1,(6Mbps)_4TX

EBW

5200MHz

27/12/2017

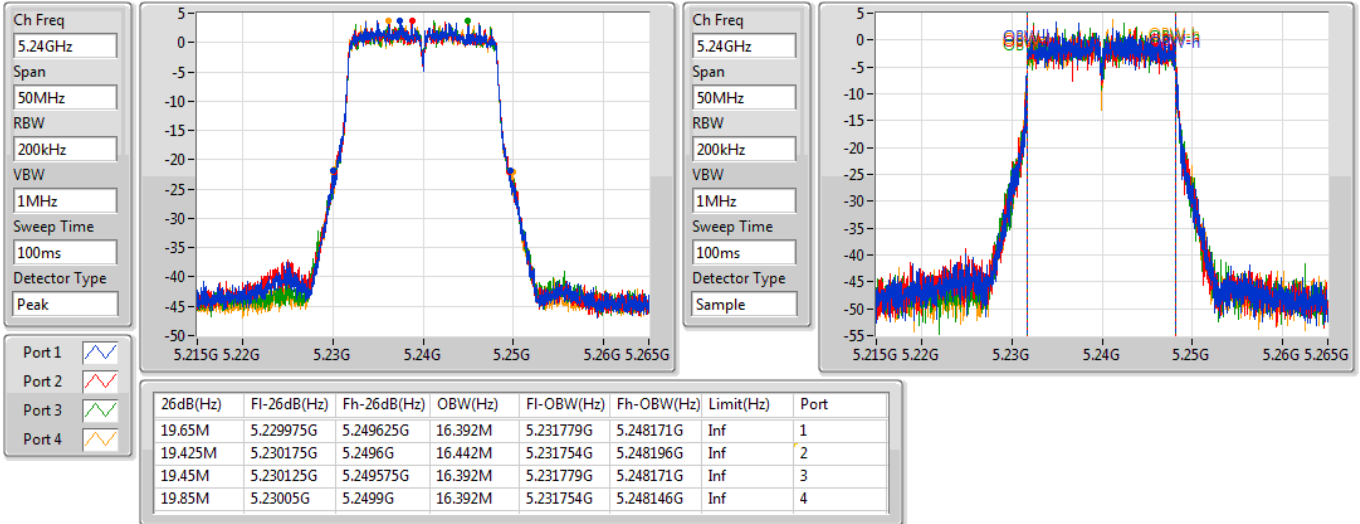


802.11a_Nss1,(6Mbps)_4TX

EBW

5240MHz

27/12/2017

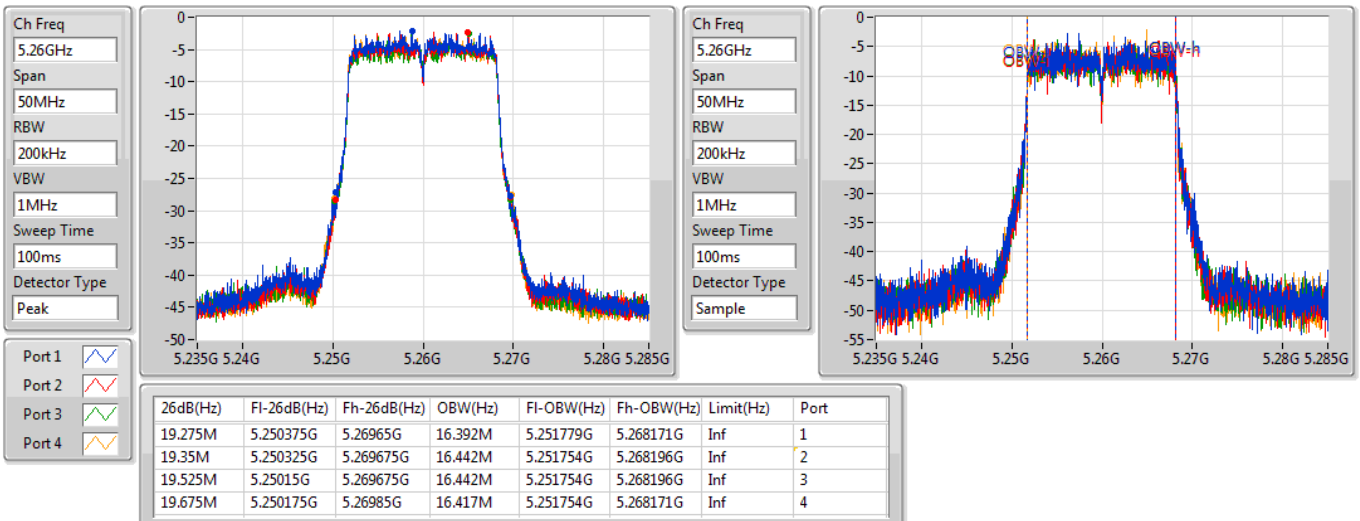


802.11a_Nss1,(6Mbps)_4TX

EBW

5260MHz

27/12/2017

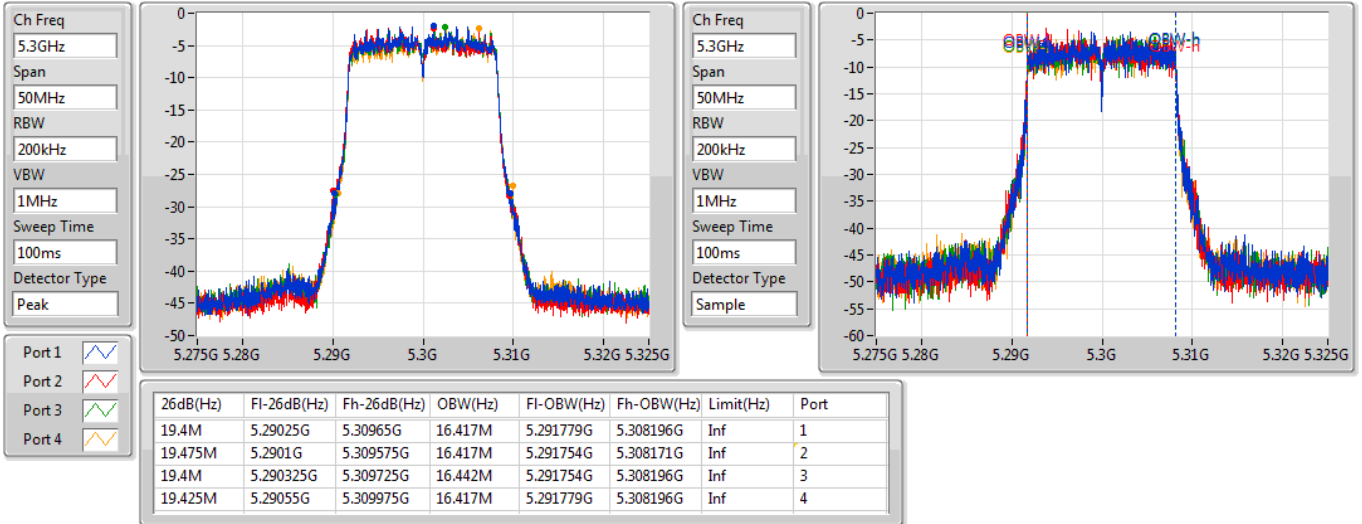


802.11a_Nss1,(6Mbps)_4TX

EBW

5300MHz

27/12/2017

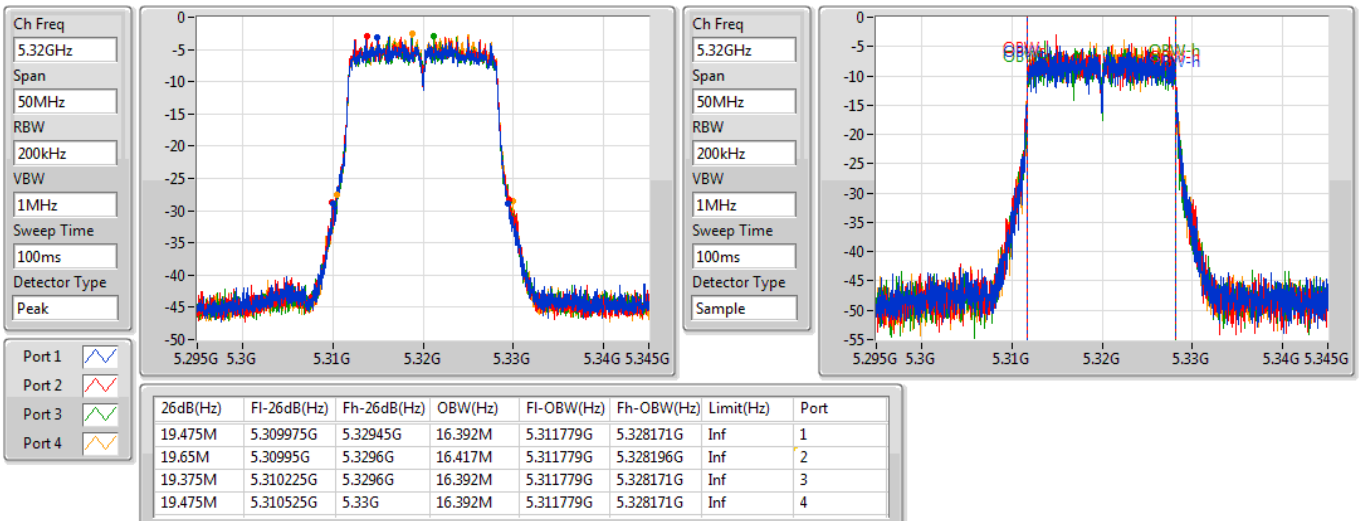


802.11a_Nss1,(6Mbps)_4TX

EBW

5320MHz

27/12/2017

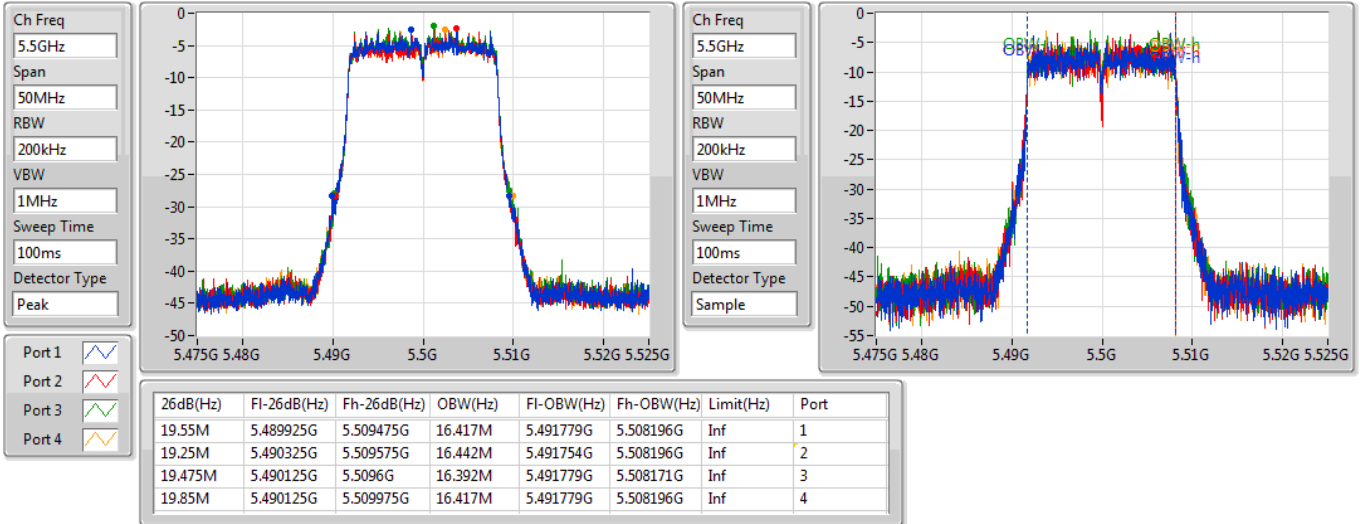


802.11a_Nss1,(6Mbps)_4TX

EBW

5500MHz

26/12/2017

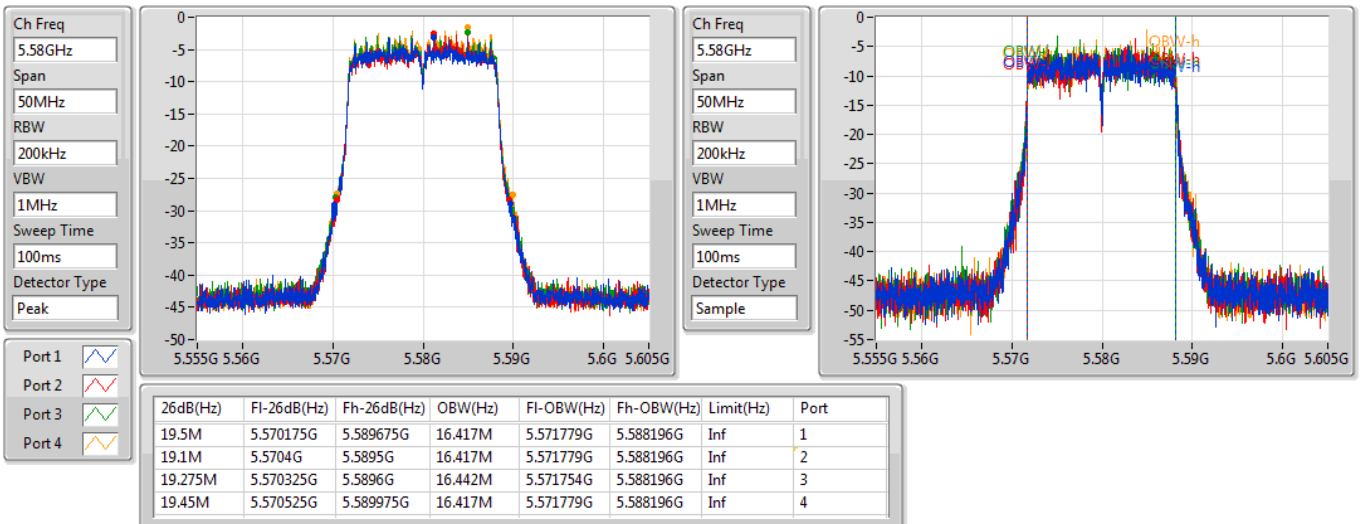


802.11a_Nss1,(6Mbps)_4TX

EBW

5580MHz

26/12/2017

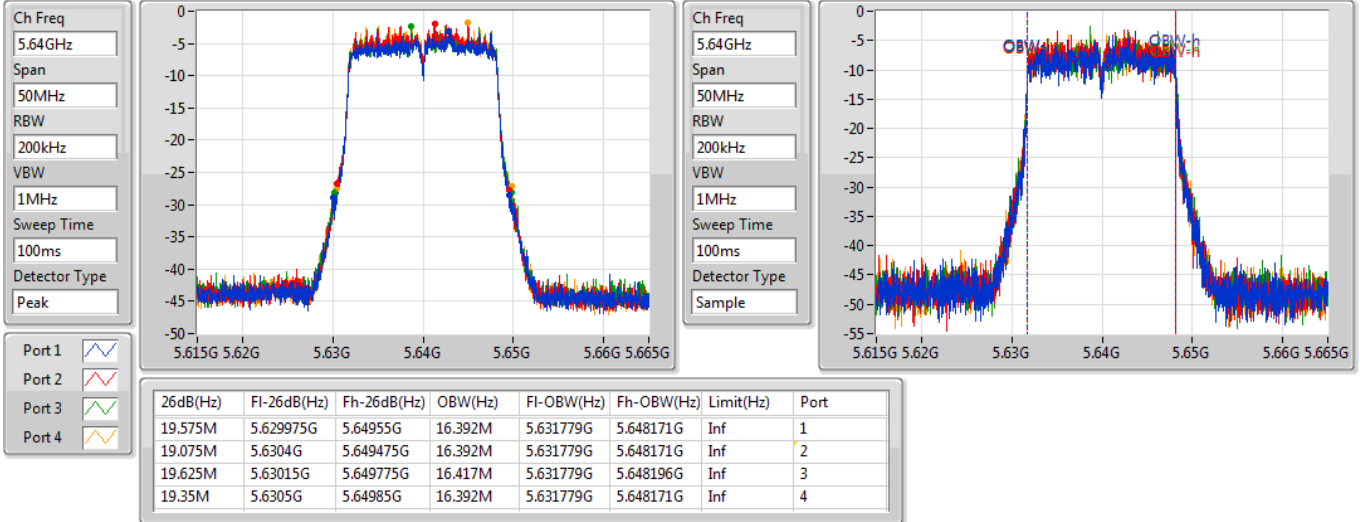


802.11a_Nss1,(6Mbps)_4TX

EBW

5640MHz

26/12/2017

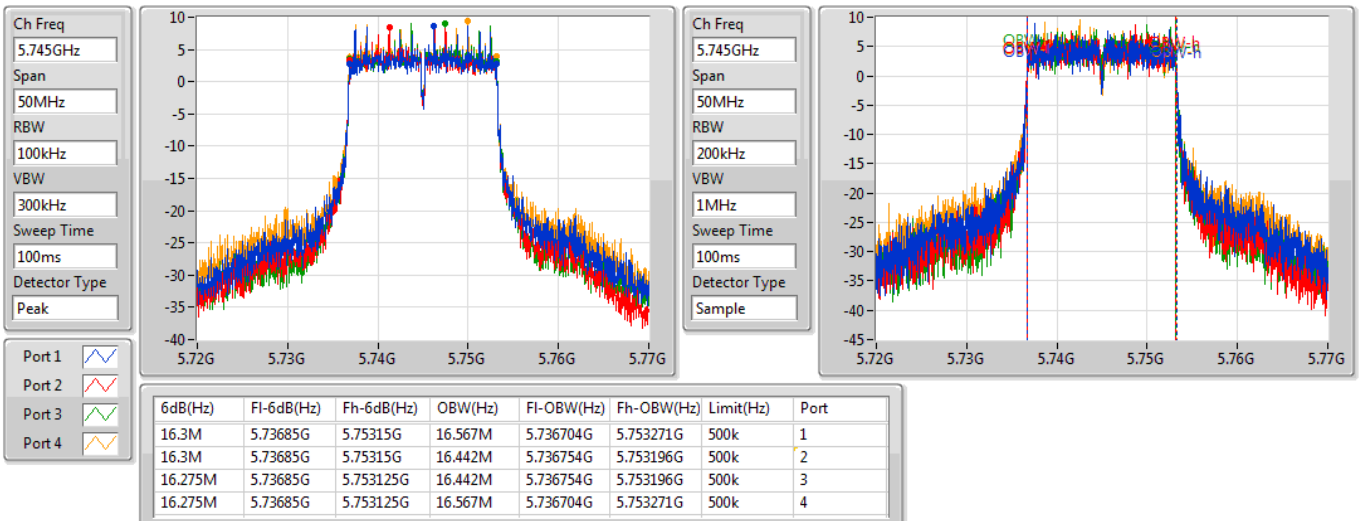


802.11a_Nss1,(6Mbps)_4TX

EBW

5745MHz

26/12/2017

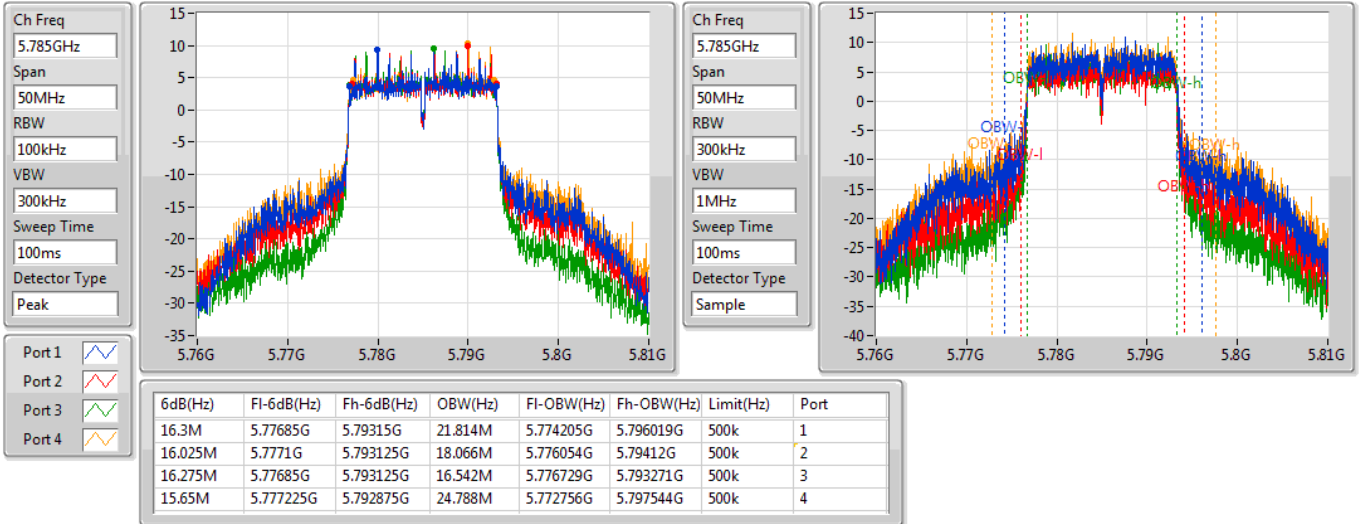


802.11a_Nss1,(6Mbps)_4TX

EBW

5785MHz

26/12/2017

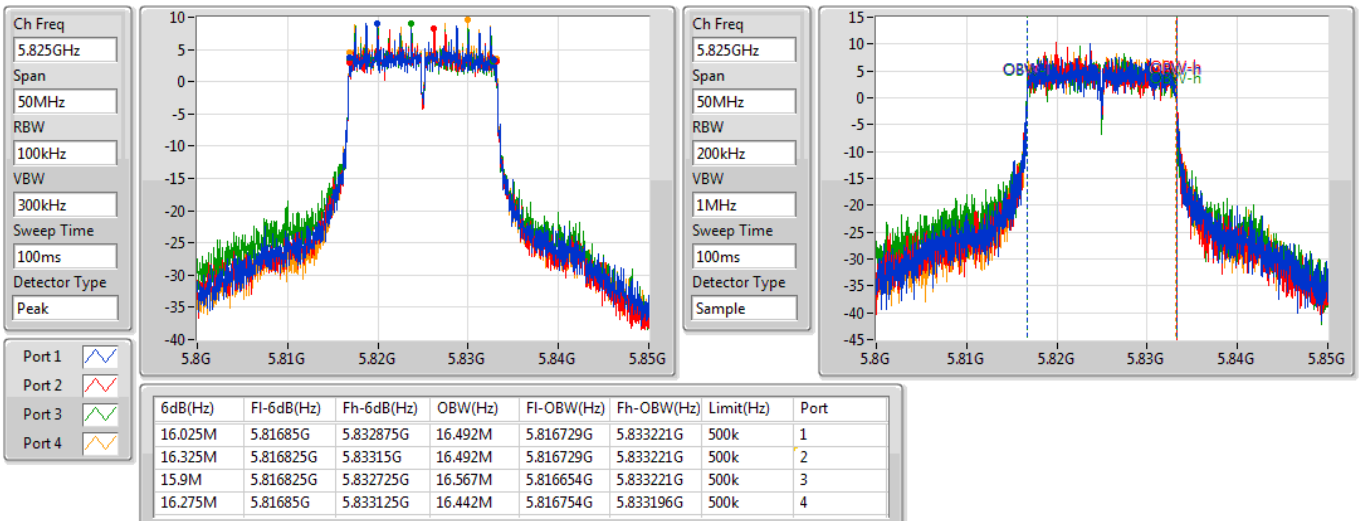


802.11a_Nss1,(6Mbps)_4TX

EBW

5825MHz

26/12/2017

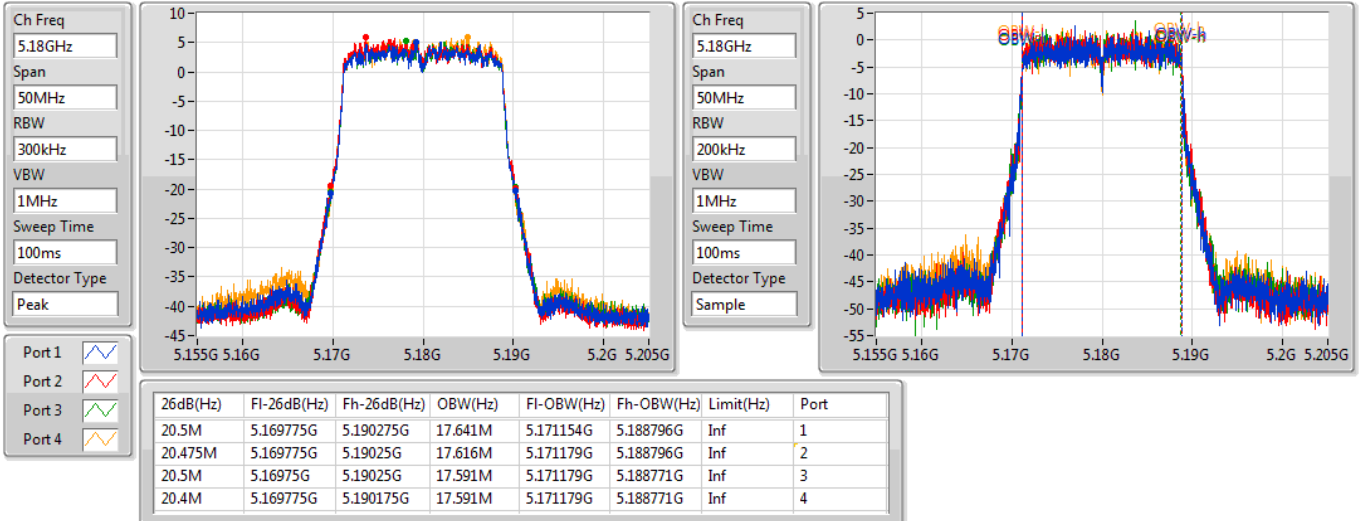


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5180MHz

27/12/2017

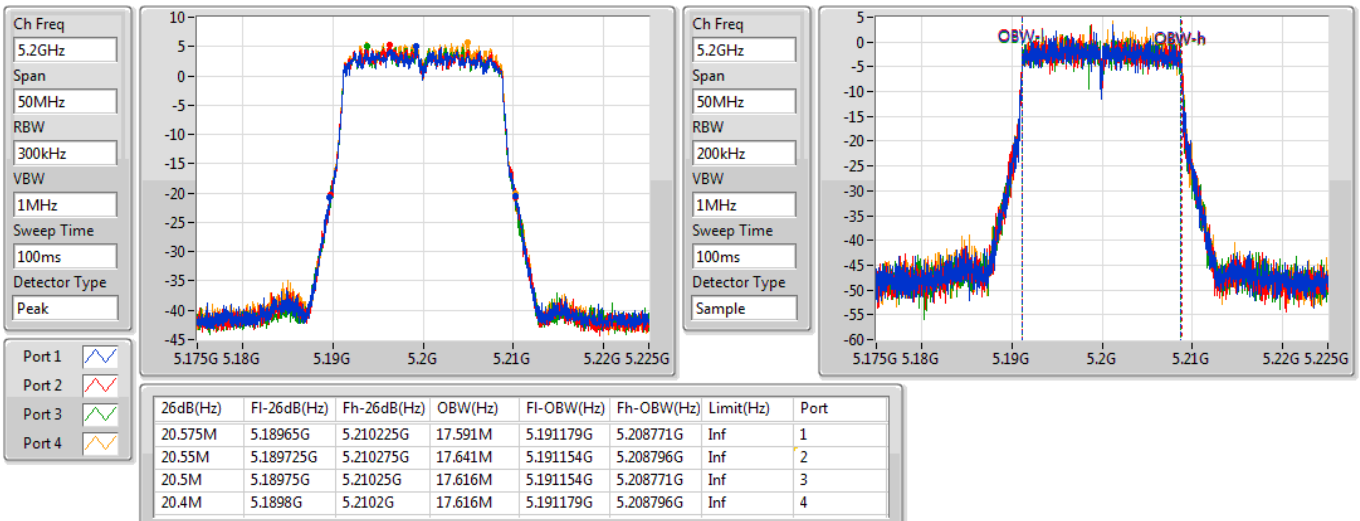


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5200MHz

27/12/2017

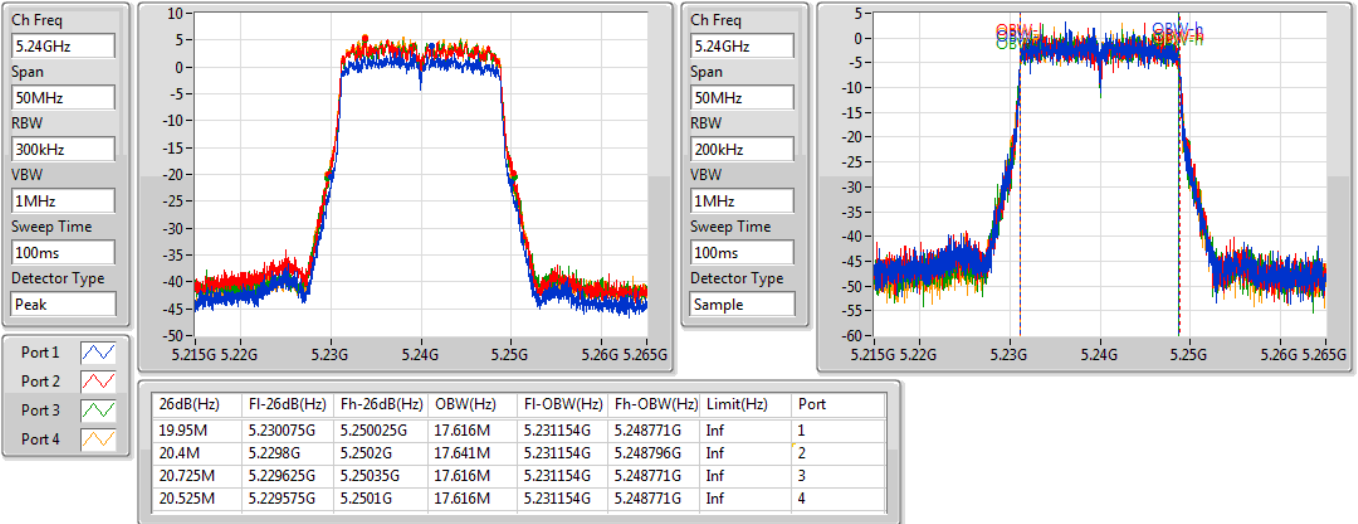


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5240MHz

27/12/2017

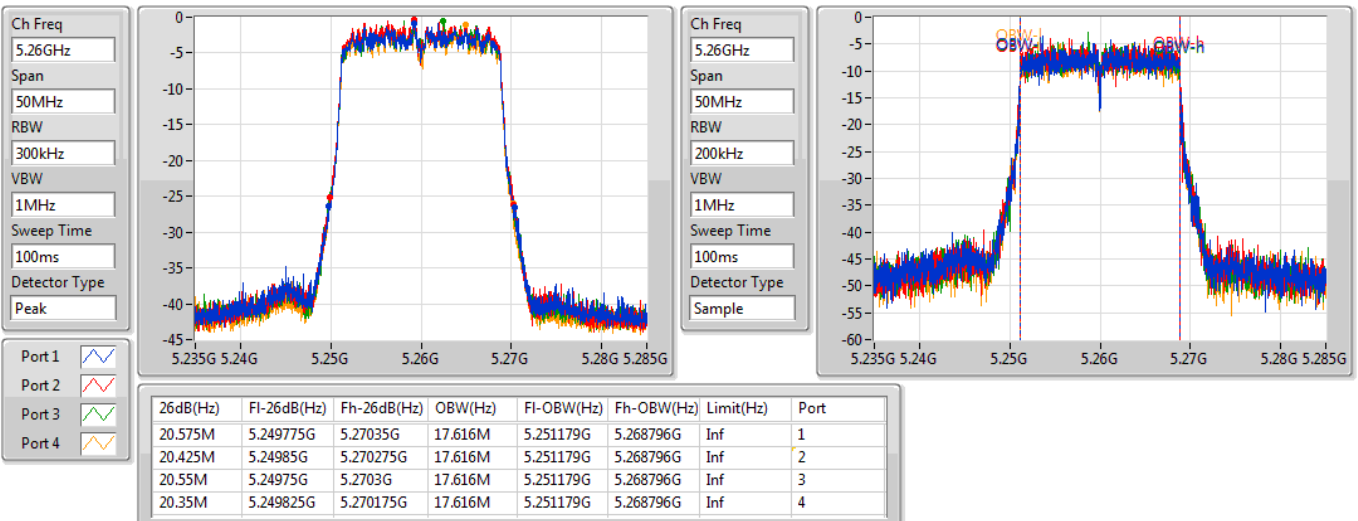


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5260MHz

27/12/2017

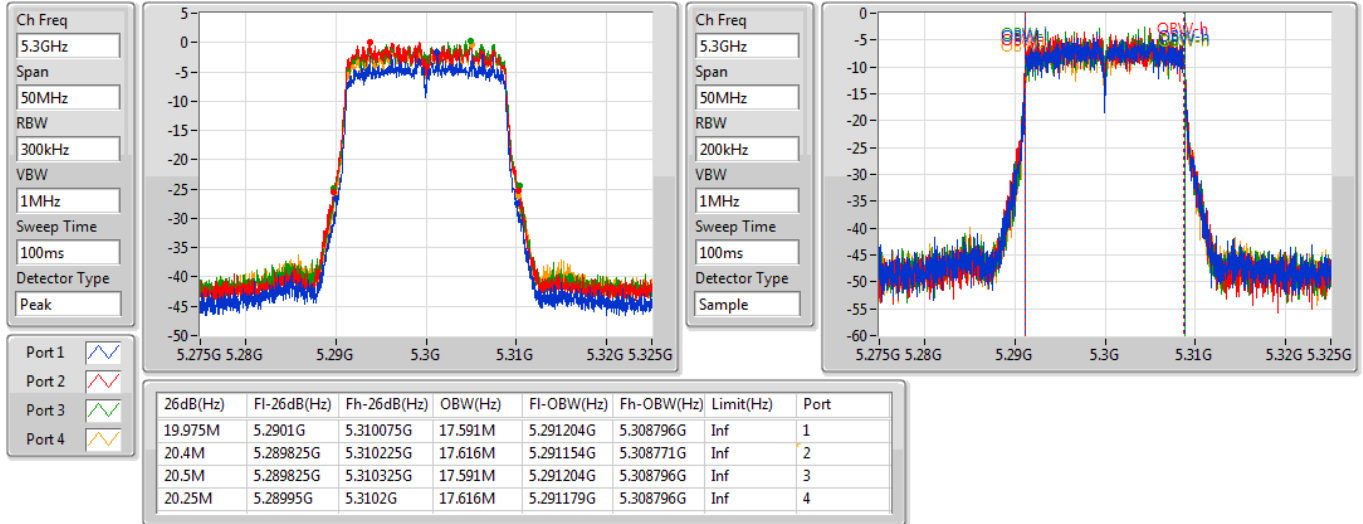


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5300MHz

27/12/2017

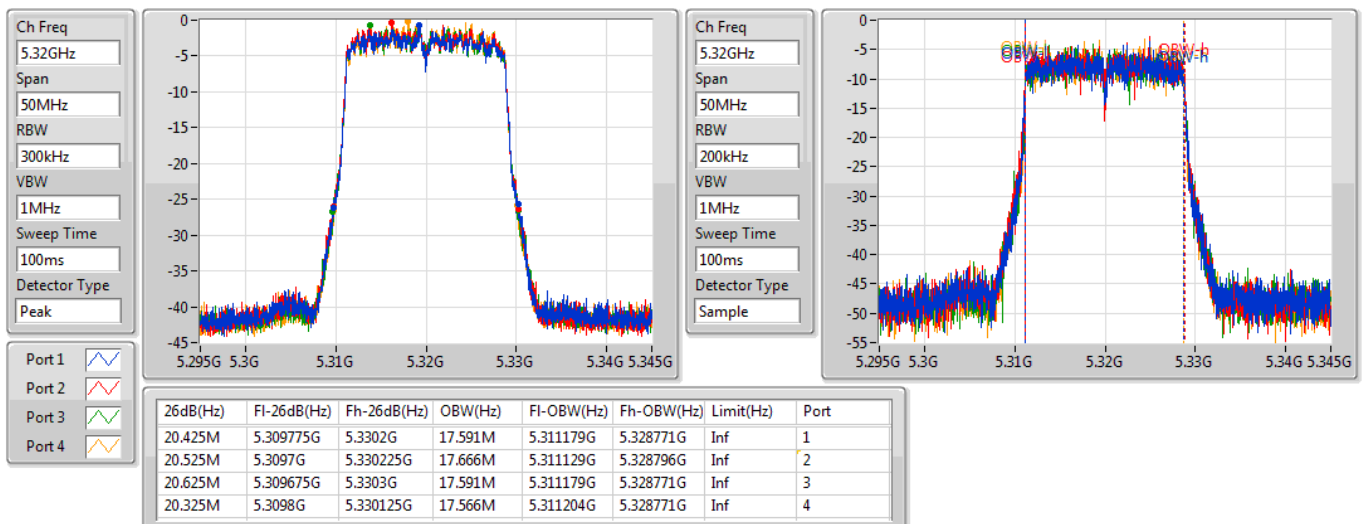


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5320MHz

27/12/2017

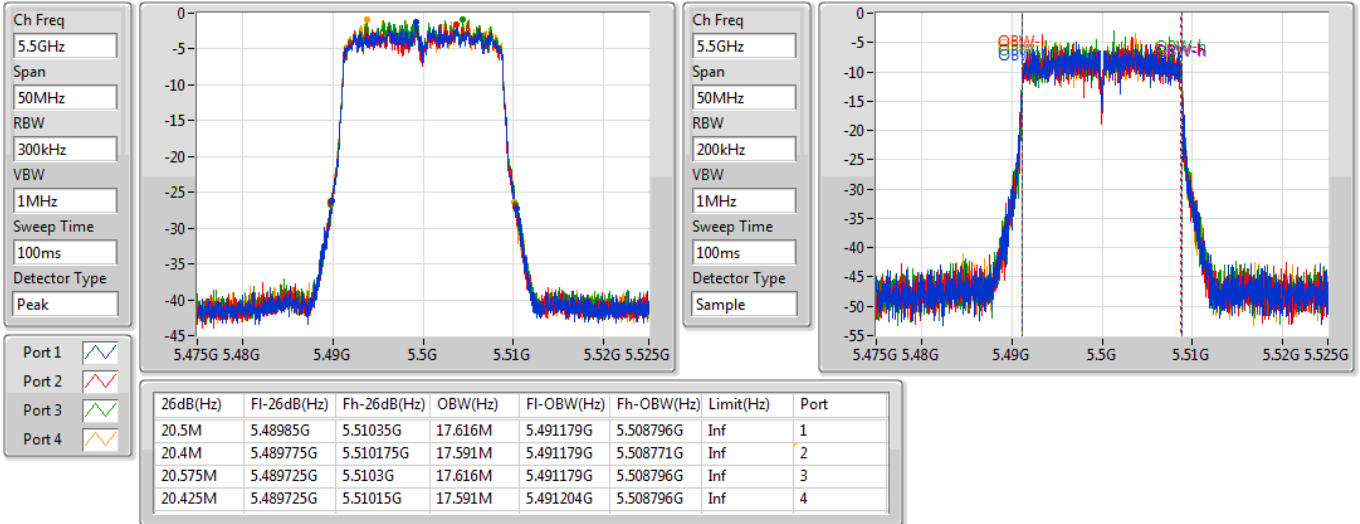


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5500MHz

26/12/2017

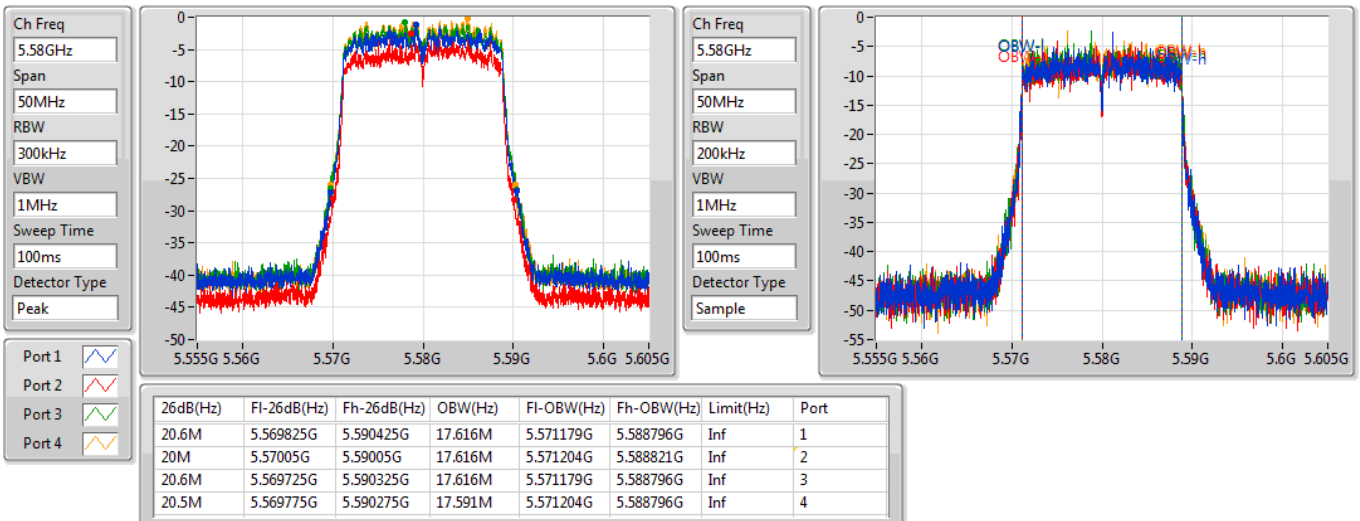


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5580MHz

26/12/2017

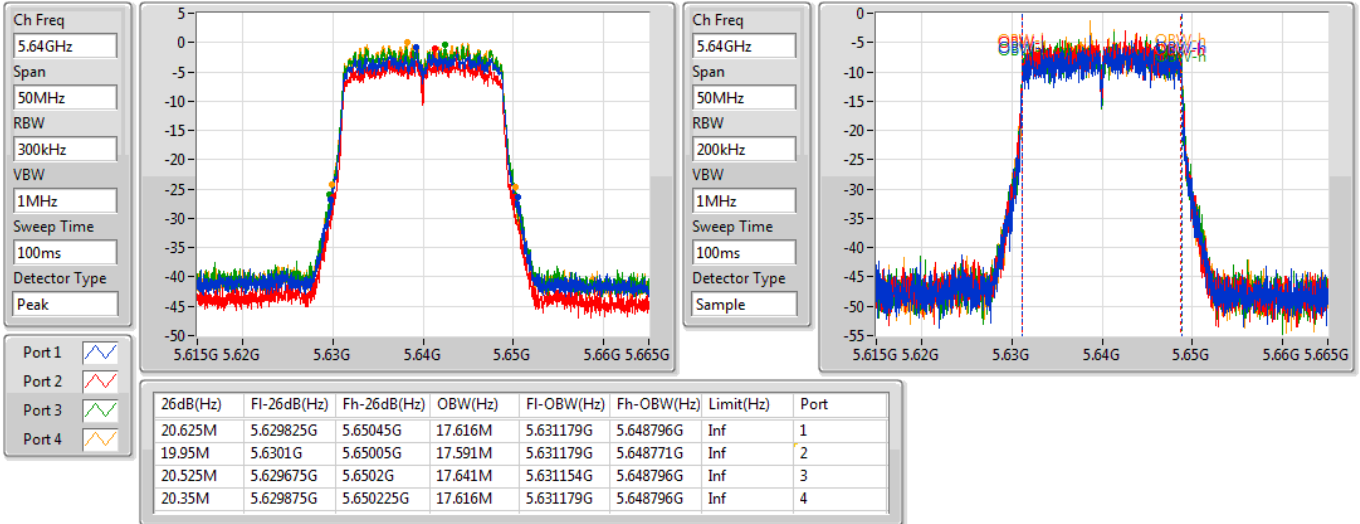


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5640MHz

26/12/2017

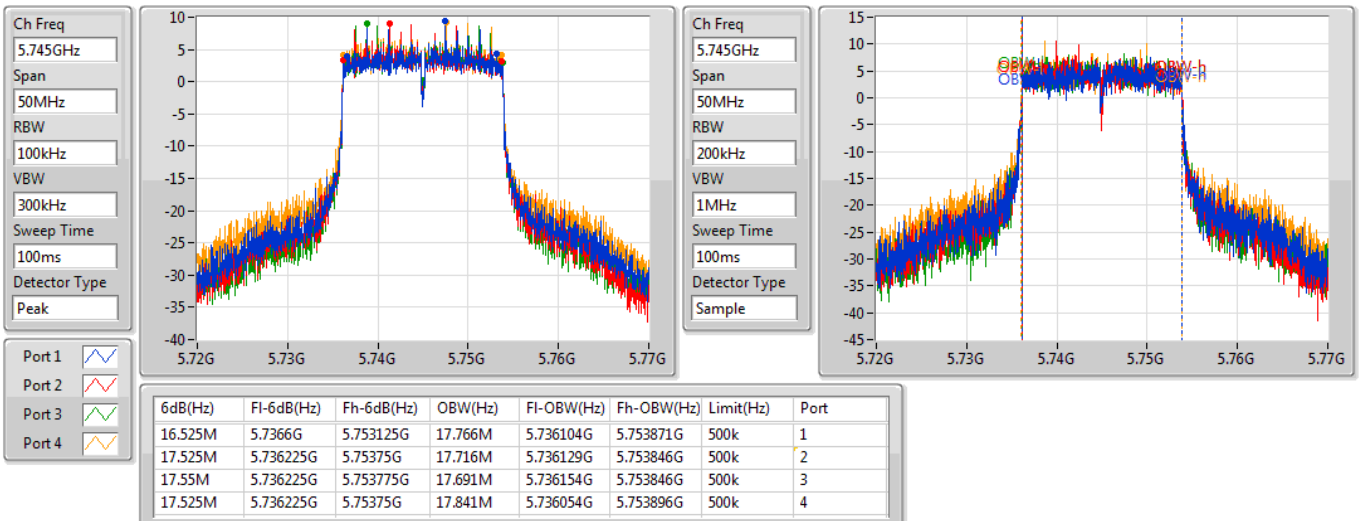


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

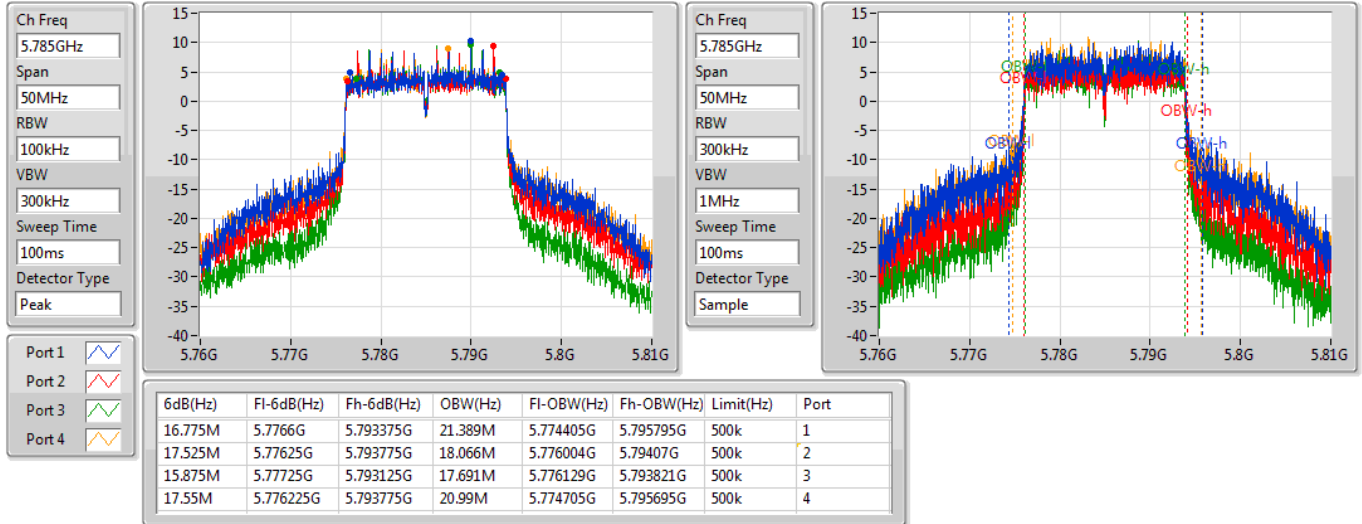
5745MHz

26/12/2017

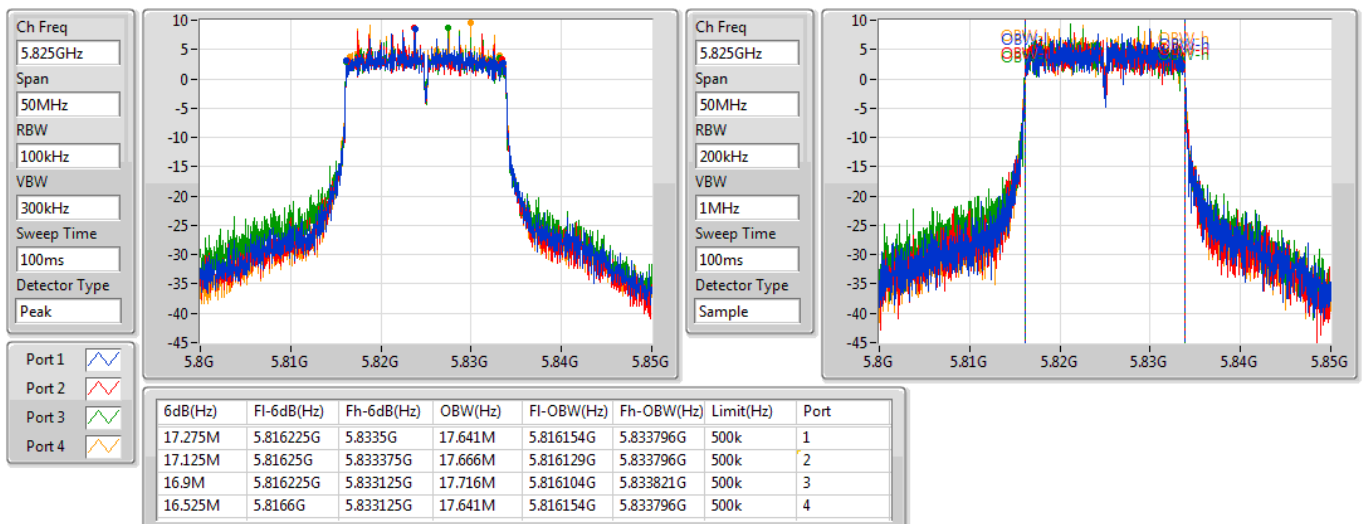


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5785MHz

26/12/2017


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5825MHz

26/12/2017

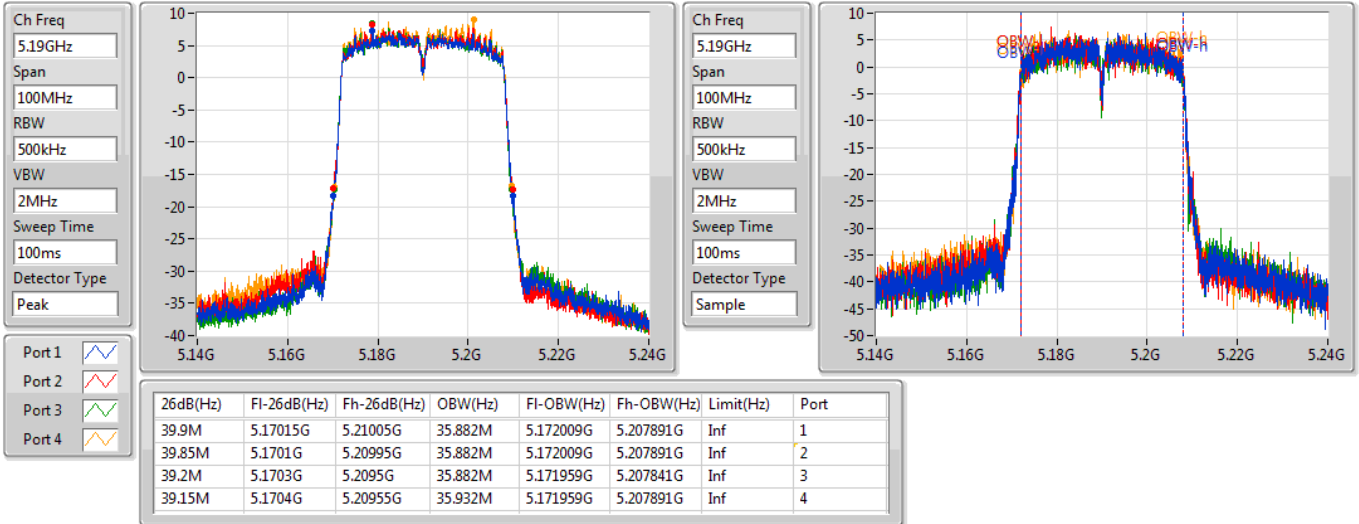


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5190MHz

27/12/2017

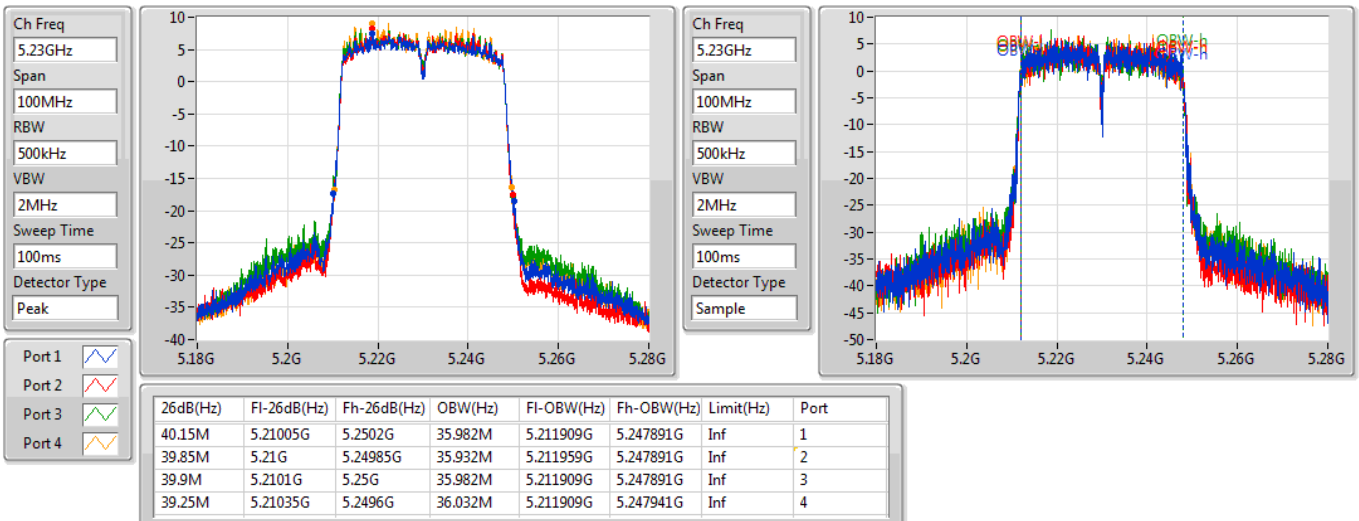


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5230MHz

27/12/2017

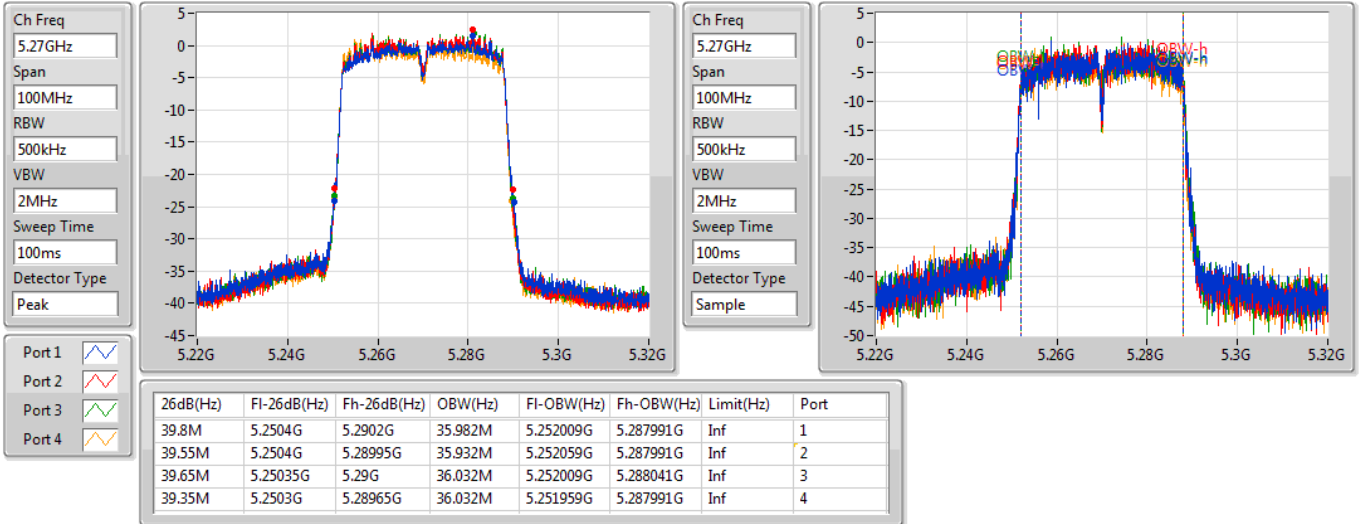


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5270MHz

27/12/2017

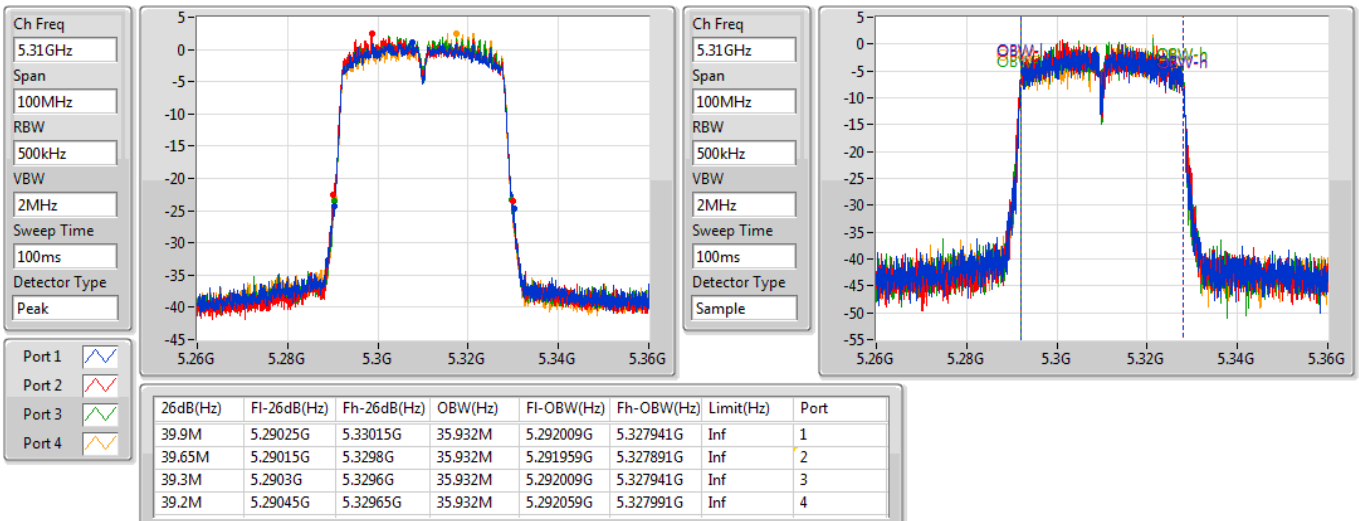


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5310MHz

27/12/2017

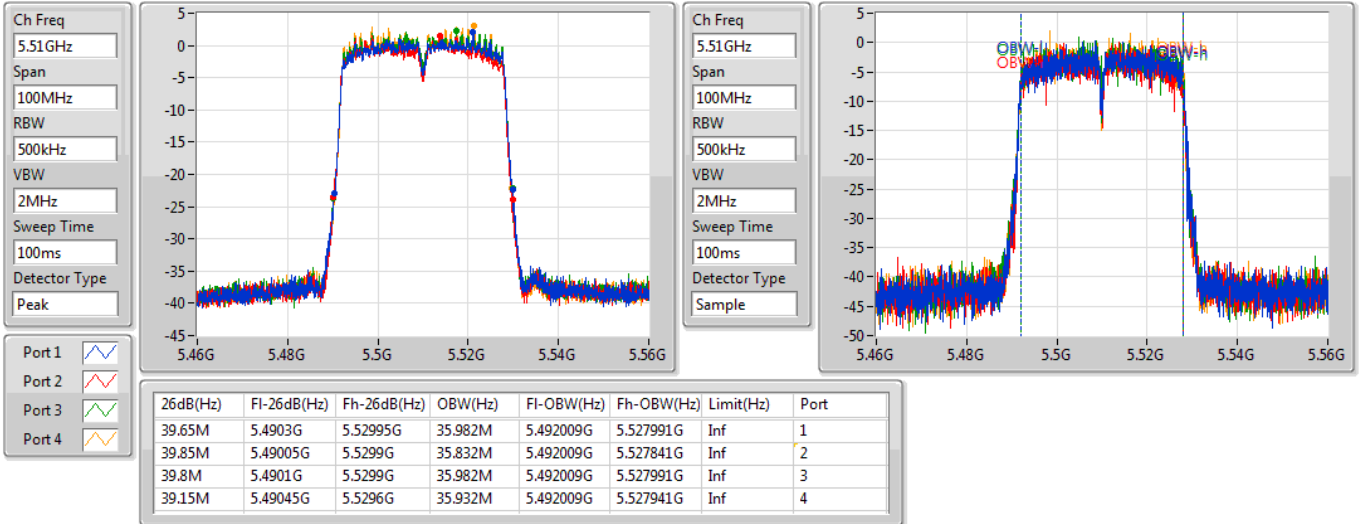


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5510MHz

26/12/2017

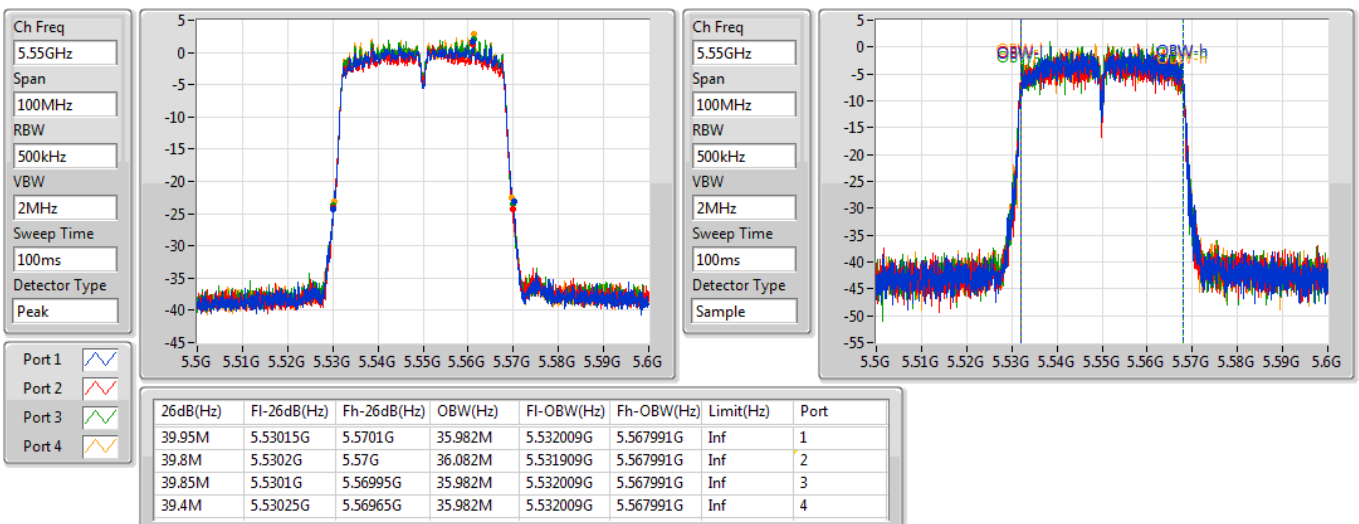


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

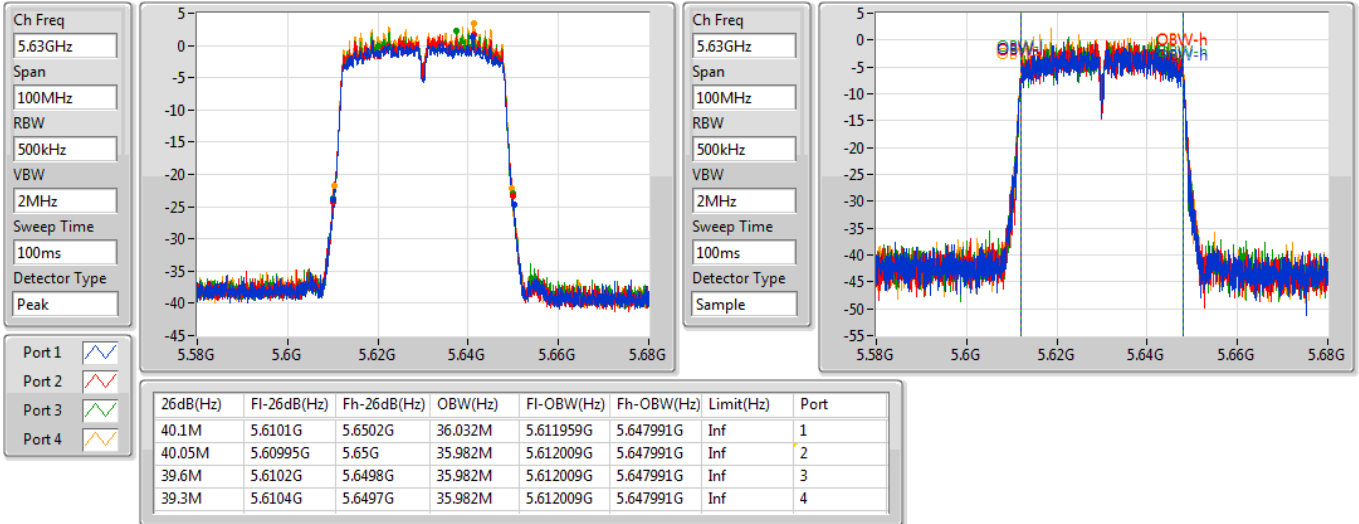
5550MHz

26/12/2017

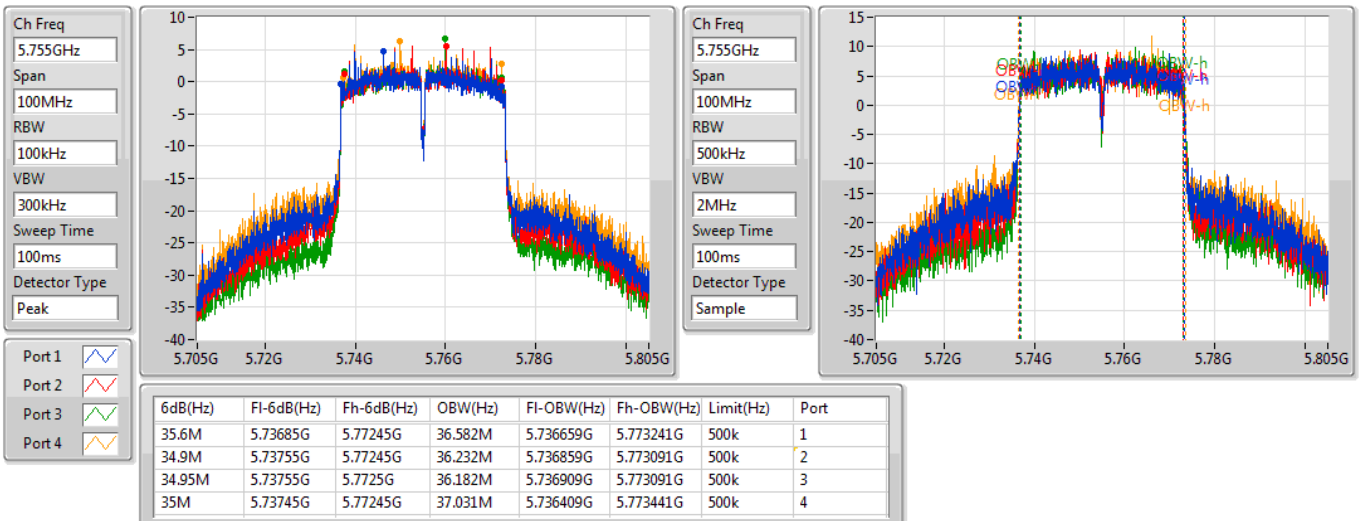


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5630MHz

26/12/2017


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5755MHz

26/12/2017

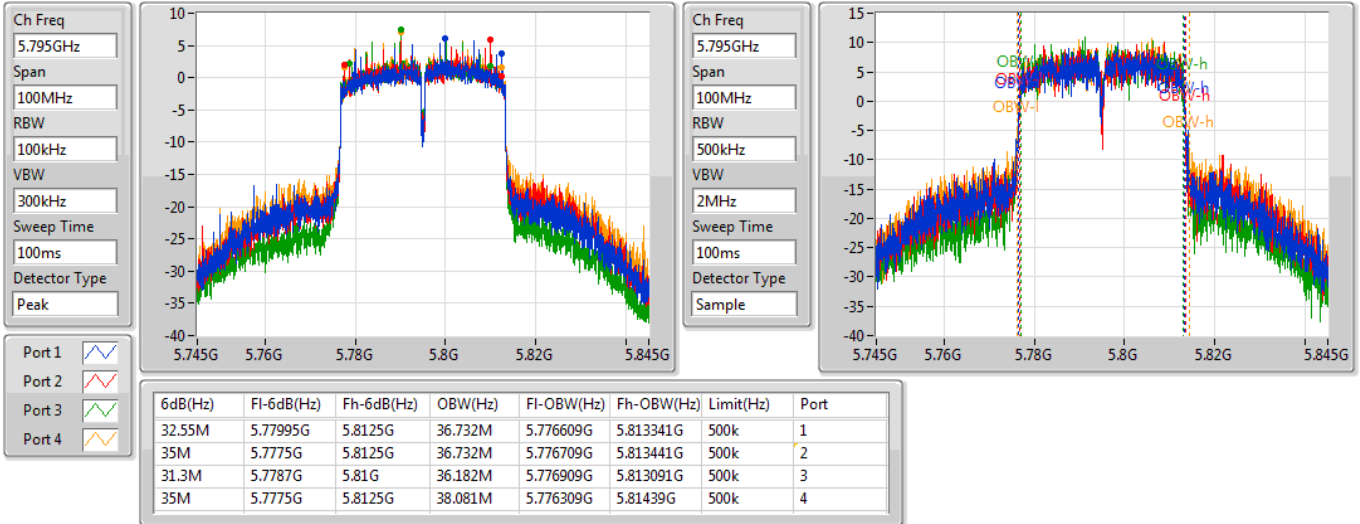


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5795MHz

26/12/2017

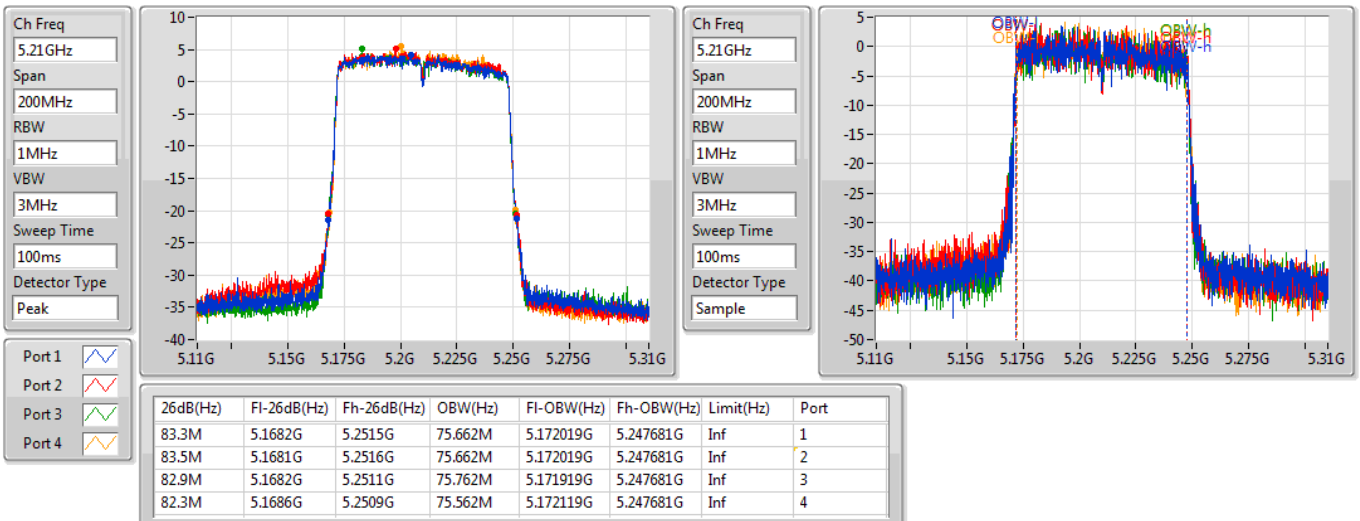


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5210MHz

27/12/2017

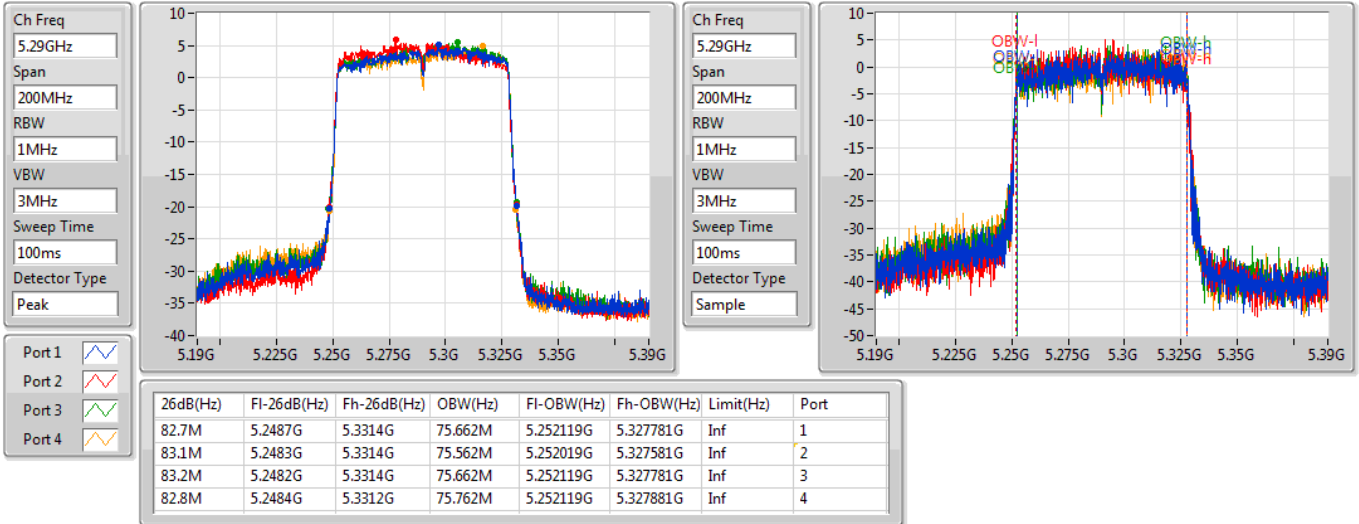


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5290MHz

27/12/2017

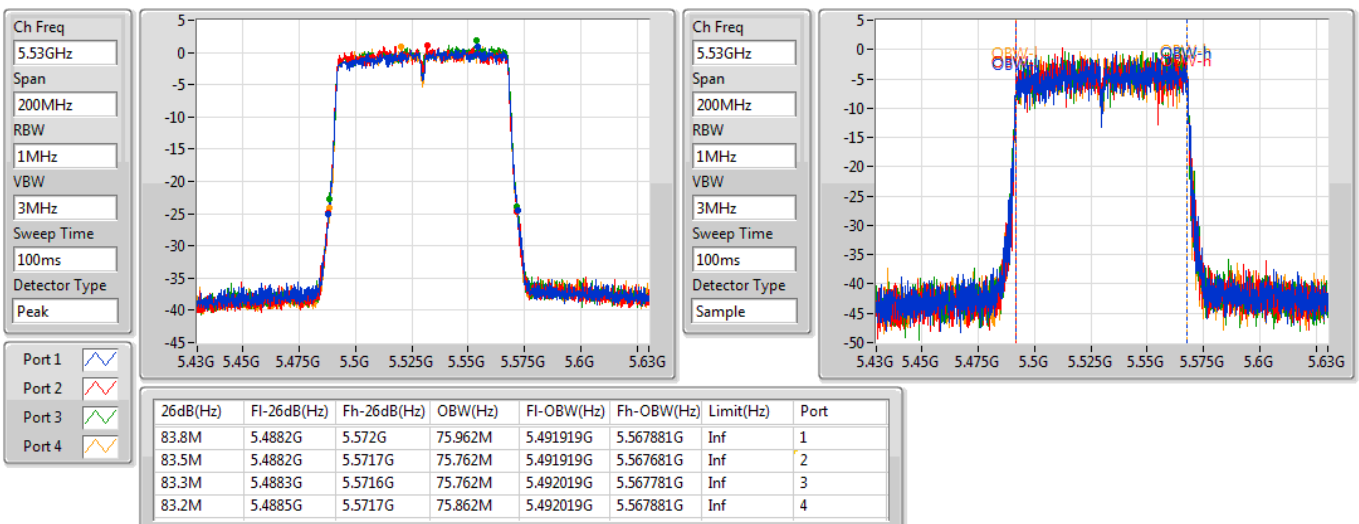


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5530MHz

22/01/2018

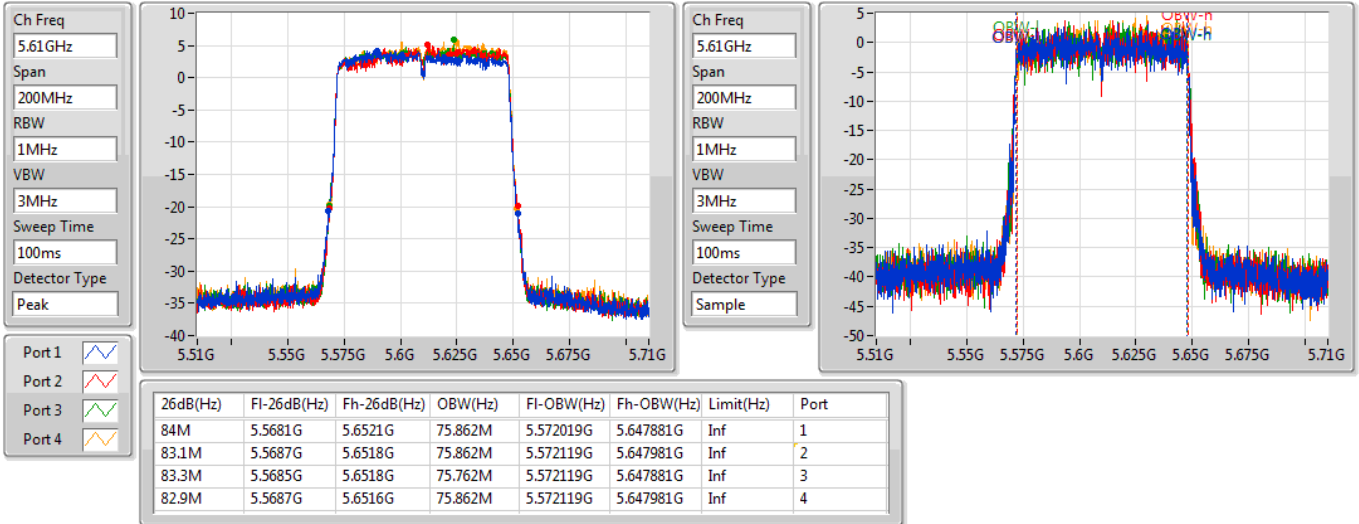


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5610MHz

26/12/2017

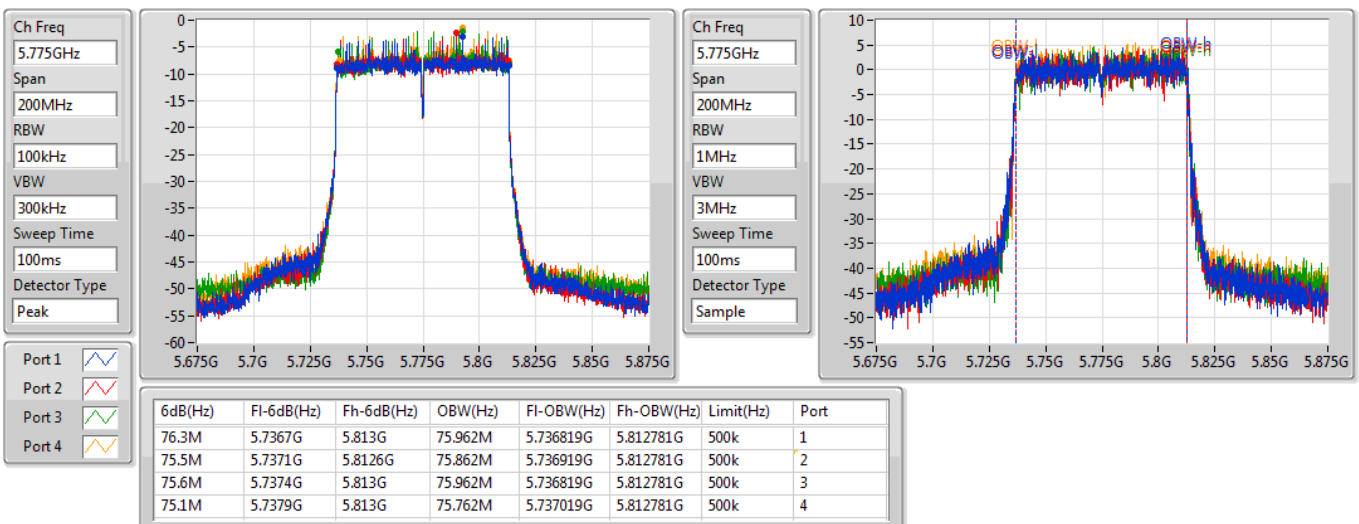


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5775MHz

22/01/2018

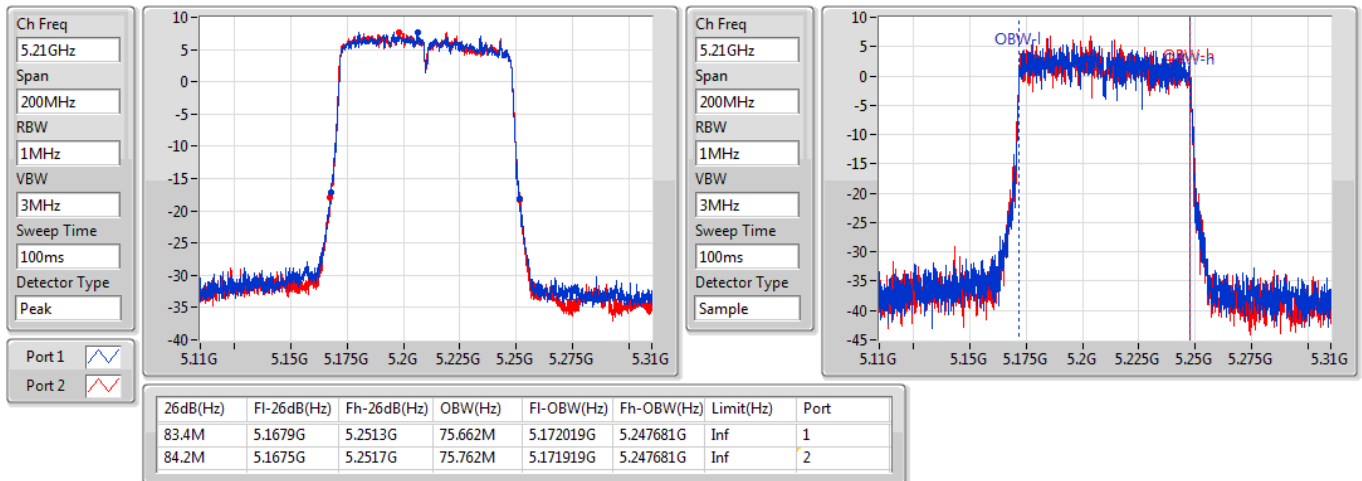


802.11ac VHT80+80_Nss2,(MCS0)_4TX(Port1&Port2)

EBW

#5210MHz,5290MHz

28/12/2017

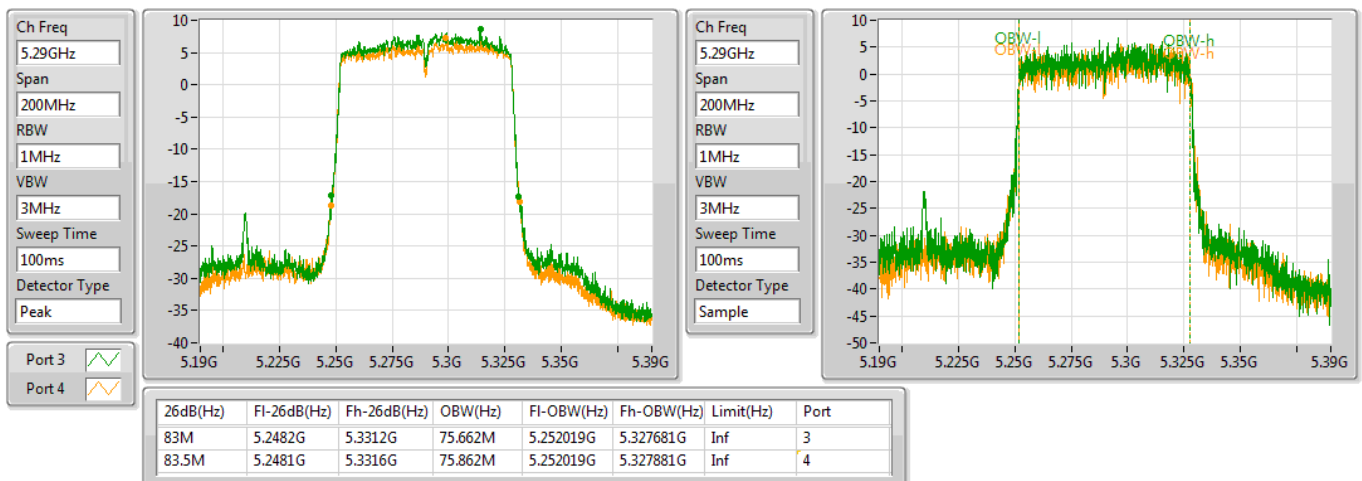


802.11ac VHT80+80_Nss2,(MCS0)_4TX(Port3&Port4)

EBW

5210MHz,#5290MHz

28/12/2017

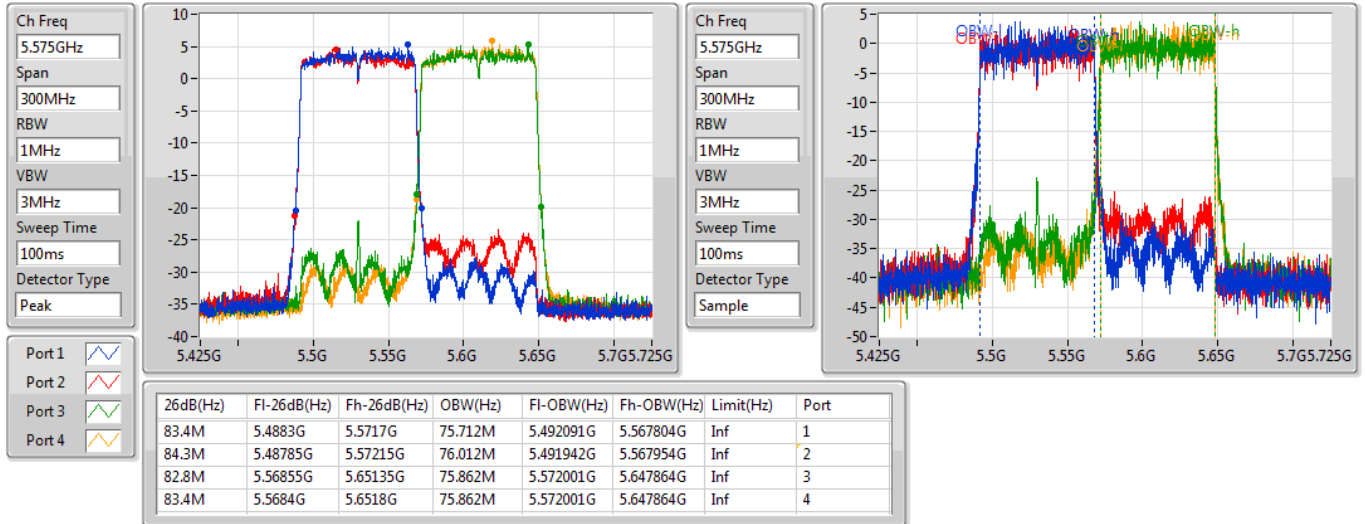


802.11ac VHT80+80_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

26/12/2017



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.9M	16.442M	16M4D1D	19.15M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.8M	17.666M	17M7D1D	20M	17.566M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.2M	36.032M	36M0D1D	39.05M	35.882M
802.11ac VHT80_Nss1,(MCS0)_4TX	85.7M	75.962M	76M0D1D	82.9M	75.662M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	84.4M	75.962M	76M0D1D	83.8M	75.662M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.675M	16.442M	16M4D1D	19.275M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.625M	17.666M	17M7D1D	19.975M	17.566M
802.11ac VHT40_Nss1,(MCS0)_4TX	39.9M	36.032M	36M0D1D	39.2M	35.932M
802.11ac VHT80_Nss1,(MCS0)_4TX	83.2M	75.762M	75M8D1D	82.7M	75.562M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	84.5M	75.762M	75M8D1D	81.9M	75.462M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.85M	16.442M	16M4D1D	19.075M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.625M	17.641M	17M6D1D	19.95M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.1M	36.082M	36M1D1D	39.15M	35.832M
802.11ac VHT80_Nss1,(MCS0)_4TX	84M	75.962M	76M0D1D	82.9M	75.762M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	84.3M	76.012M	76M0D1D	82.8M	75.712M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.325M	24.788M	24M8D1D	15.65M	16.442M
802.11ac VHT20_Nss1,(MCS0)_4TX	17.55M	21.389M	21M4D1D	15.875M	17.641M
802.11ac VHT40_Nss1,(MCS0)_4TX	35.6M	38.081M	38M1D1D	31.3M	36.182M
802.11ac VHT80_Nss1,(MCS0)_4TX	75.7M	110.845M	111MD1D	74.4M	82.359M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	19.25M	16.442M	19.175M	16.392M	19.475M	16.442M	19.15M	16.417M
5200MHz	Pass	Inf	19.2M	16.417M	19.35M	16.392M	19.275M	16.417M	19.375M	16.392M
5240MHz	Pass	Inf	19.475M	16.442M	19.675M	16.417M	19.9M	16.417M	19.675M	16.392M
5260MHz	Pass	Inf	19.275M	16.392M	19.35M	16.442M	19.525M	16.442M	19.675M	16.417M
5300MHz	Pass	Inf	19.4M	16.417M	19.475M	16.417M	19.4M	16.442M	19.425M	16.417M
5320MHz	Pass	Inf	19.475M	16.392M	19.65M	16.417M	19.375M	16.392M	19.475M	16.392M
5500MHz	Pass	Inf	19.55M	16.417M	19.25M	16.442M	19.475M	16.392M	19.85M	16.417M
5580MHz	Pass	Inf	19.5M	16.417M	19.1M	16.417M	19.275M	16.442M	19.45M	16.417M
5640MHz	Pass	Inf	19.575M	16.392M	19.075M	16.392M	19.625M	16.417M	19.35M	16.392M
5745MHz	Pass	500k	16.3M	16.567M	16.3M	16.442M	16.275M	16.442M	16.275M	16.567M
5785MHz	Pass	500k	16.3M	21.814M	16.025M	18.066M	16.275M	16.542M	15.65M	24.788M
5825MHz	Pass	500k	16.025M	16.492M	16.325M	16.492M	15.9M	16.567M	16.275M	16.442M
802.11ac_VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20M	17.591M	20.4M	17.591M	20.5M	17.566M	20.375M	17.616M
5200MHz	Pass	Inf	20.475M	17.616M	20.375M	17.566M	20.525M	17.616M	20.275M	17.616M
5240MHz	Pass	Inf	20.675M	17.616M	20.8M	17.616M	20.45M	17.666M	20.575M	17.616M
5260MHz	Pass	Inf	20.575M	17.616M	20.425M	17.616M	20.55M	17.616M	20.35M	17.616M
5300MHz	Pass	Inf	19.975M	17.591M	20.4M	17.616M	20.5M	17.591M	20.25M	17.616M
5320MHz	Pass	Inf	20.425M	17.591M	20.525M	17.666M	20.625M	17.591M	20.325M	17.566M
5500MHz	Pass	Inf	20.5M	17.616M	20.4M	17.591M	20.575M	17.616M	20.425M	17.591M
5580MHz	Pass	Inf	20.6M	17.616M	20M	17.616M	20.6M	17.616M	20.5M	17.591M
5640MHz	Pass	Inf	20.625M	17.616M	19.95M	17.591M	20.525M	17.641M	20.35M	17.616M
5745MHz	Pass	500k	16.525M	17.766M	17.525M	17.716M	17.55M	17.691M	17.525M	17.841M
5785MHz	Pass	500k	16.775M	21.389M	17.525M	18.066M	15.875M	17.691M	17.55M	20.99M
5825MHz	Pass	500k	17.275M	17.641M	17.125M	17.666M	16.9M	17.716M	16.525M	17.641M
802.11ac_VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.1M	35.932M	40.05M	35.982M	39.8M	35.932M	39.05M	35.882M
5230MHz	Pass	Inf	40.2M	35.982M	40.05M	35.982M	39.75M	36.032M	39.35M	35.982M
5270MHz	Pass	Inf	39.8M	35.982M	39.55M	35.932M	39.65M	36.032M	39.35M	36.032M
5310MHz	Pass	Inf	39.9M	35.932M	39.65M	35.932M	39.3M	35.932M	39.2M	35.932M
5510MHz	Pass	Inf	39.65M	35.982M	39.85M	35.832M	39.8M	35.982M	39.15M	35.932M
5550MHz	Pass	Inf	39.95M	35.982M	39.8M	36.082M	39.85M	35.982M	39.4M	35.982M
5630MHz	Pass	Inf	40.1M	36.032M	40.05M	35.982M	39.6M	35.982M	39.3M	35.982M
5755MHz	Pass	500k	35.6M	36.582M	34.9M	36.232M	34.95M	36.182M	35M	37.031M
5795MHz	Pass	500k	32.55M	36.732M	35M	36.732M	31.3M	36.182M	35M	38.081M
802.11ac_VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	85.7M	75.962M	84M	75.762M	83.9M	75.662M	82.9M	75.662M
5290MHz	Pass	Inf	82.7M	75.662M	83.1M	75.562M	83.2M	75.662M	82.8M	75.762M
5530MHz	Pass	Inf	83.5M	75.862M	83.3M	75.962M	83.8M	75.762M	83.7M	75.862M
5610MHz	Pass	Inf	84M	75.862M	83.1M	75.862M	83.3M	75.762M	82.9M	75.862M
5775MHz	Pass	500k	75M	86.857M	75.7M	110.845M	75.6M	82.359M	74.4M	109.145M
802.11ac_VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	Inf	83.8M	75.662M	84.4M	75.962M				



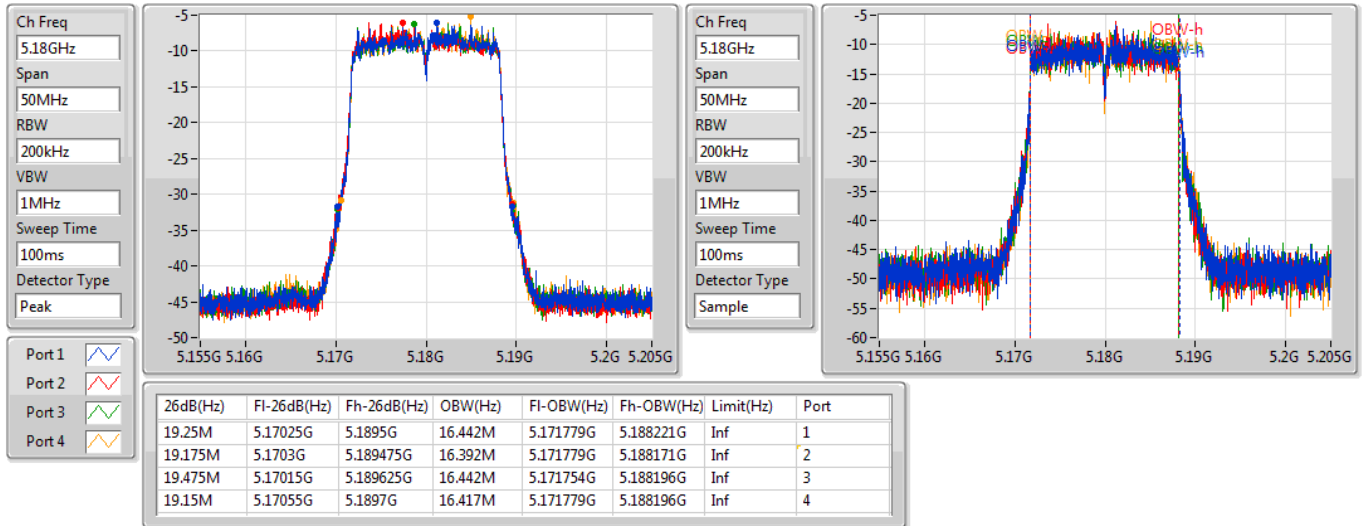
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	Inf					84.5M	75.762M	81.9M	75.462M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	Inf	83.4M	75.712M	84.3M	76.012M	82.8M	75.862M	83.4M	75.862M

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

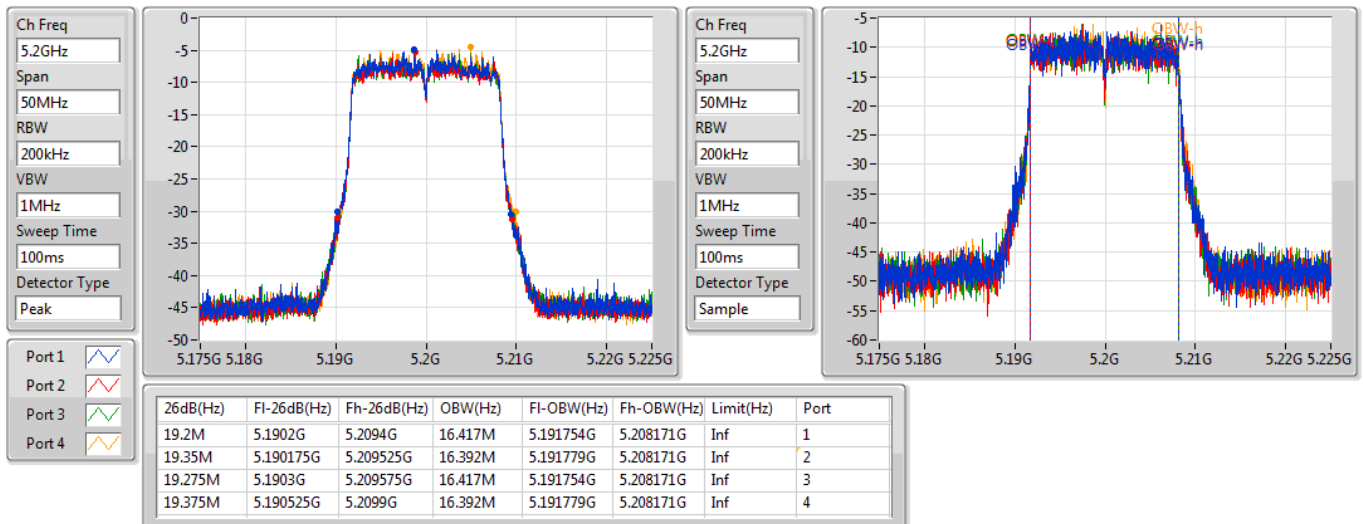
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX
EBW
5180MHz

27/12/2017

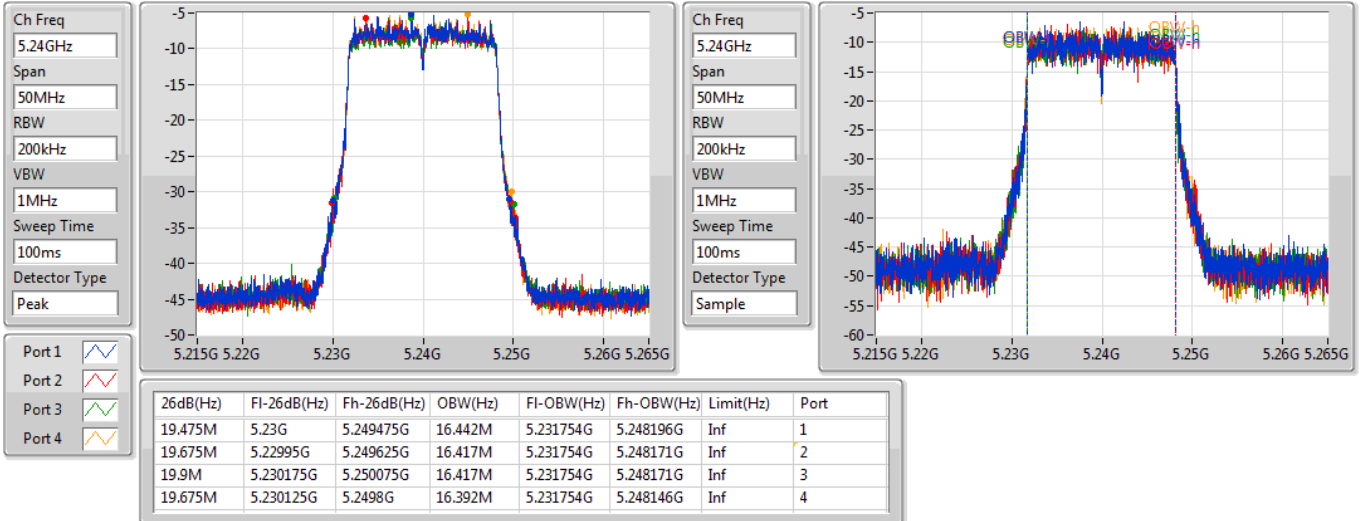

802.11a_Nss1,(6Mbps)_4TX
EBW
5200MHz

27/12/2017

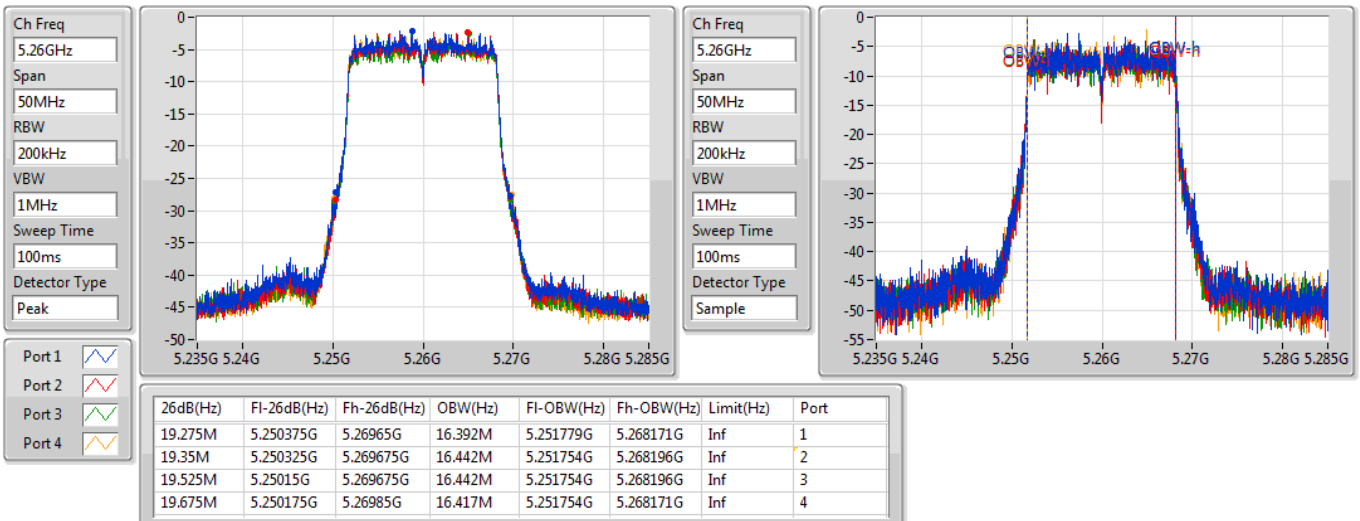


802.11a_Nss1,(6Mbps)_4TX
EBW
5240MHz

27/12/2017

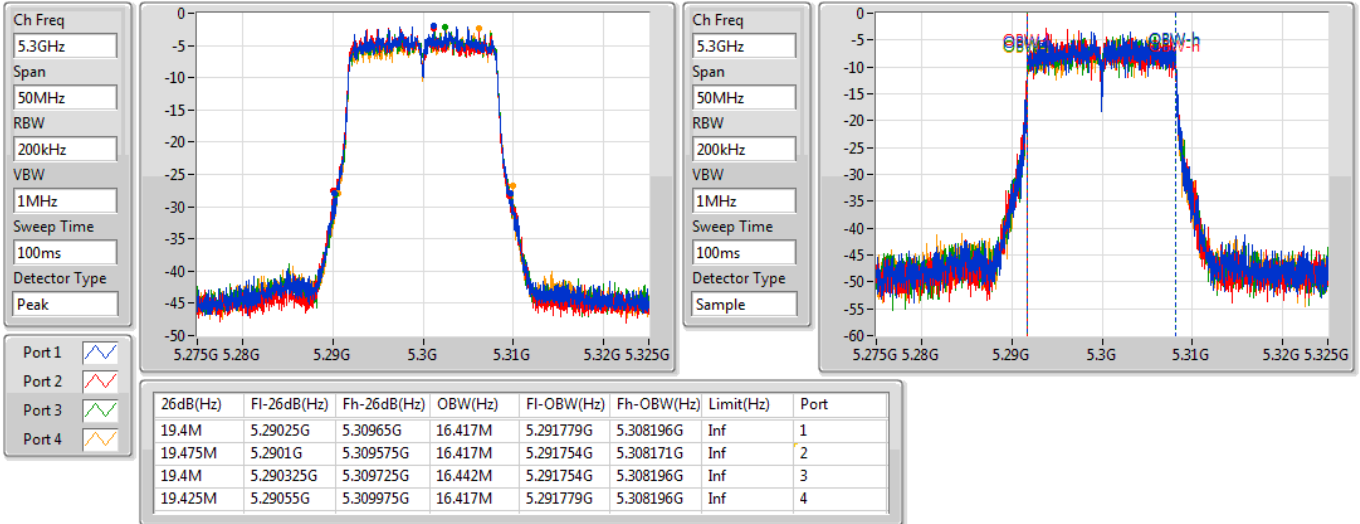

802.11a_Nss1,(6Mbps)_4TX
EBW
5260MHz

27/12/2017

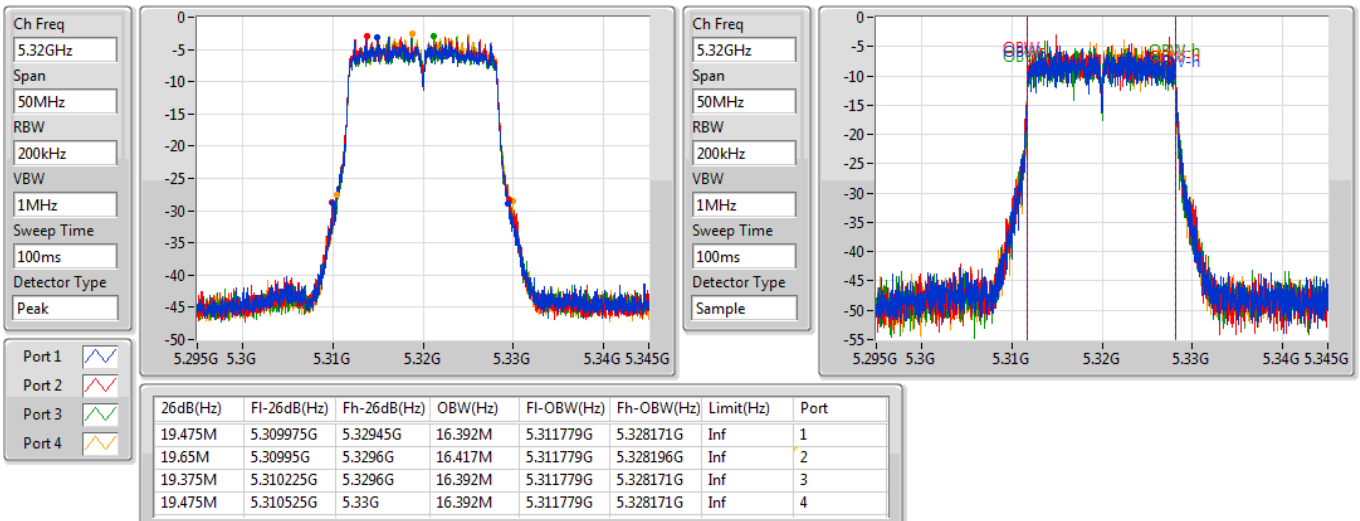


802.11a_Nss1,(6Mbps)_4TX
EBW
5300MHz

27/12/2017

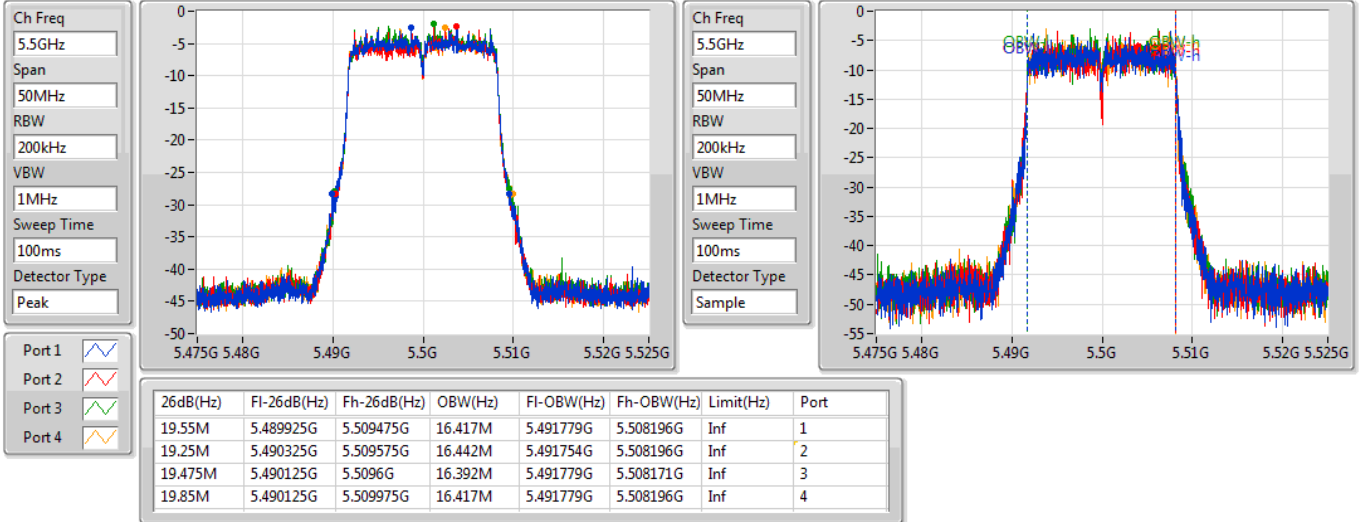

802.11a_Nss1,(6Mbps)_4TX
EBW
5320MHz

27/12/2017

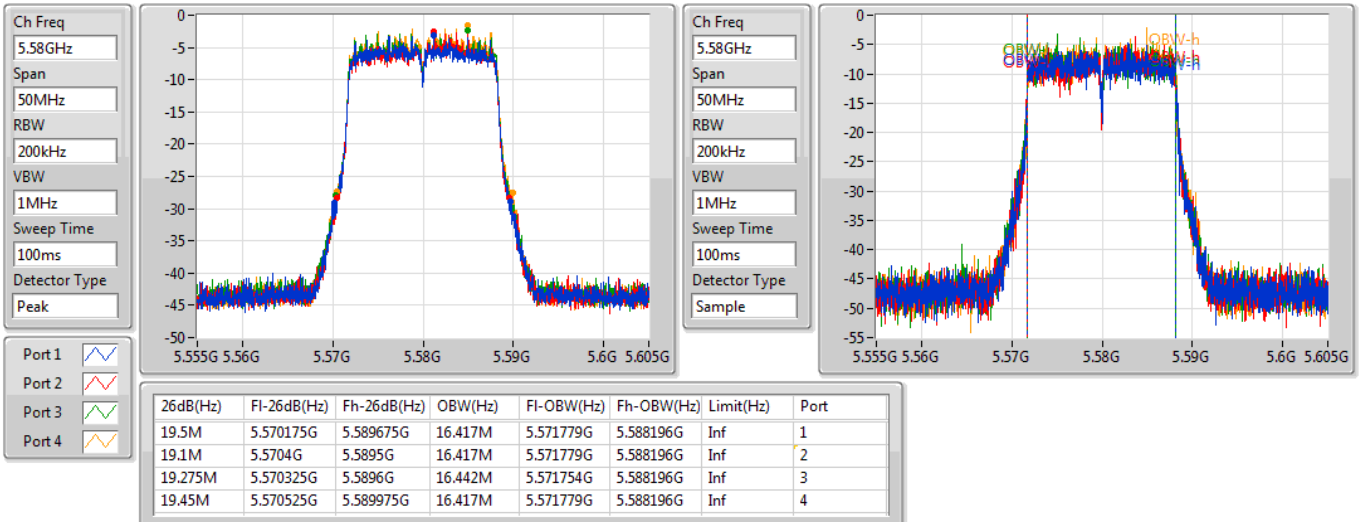


802.11a_Nss1,(6Mbps)_4TX
EBW
5500MHz

26/12/2017

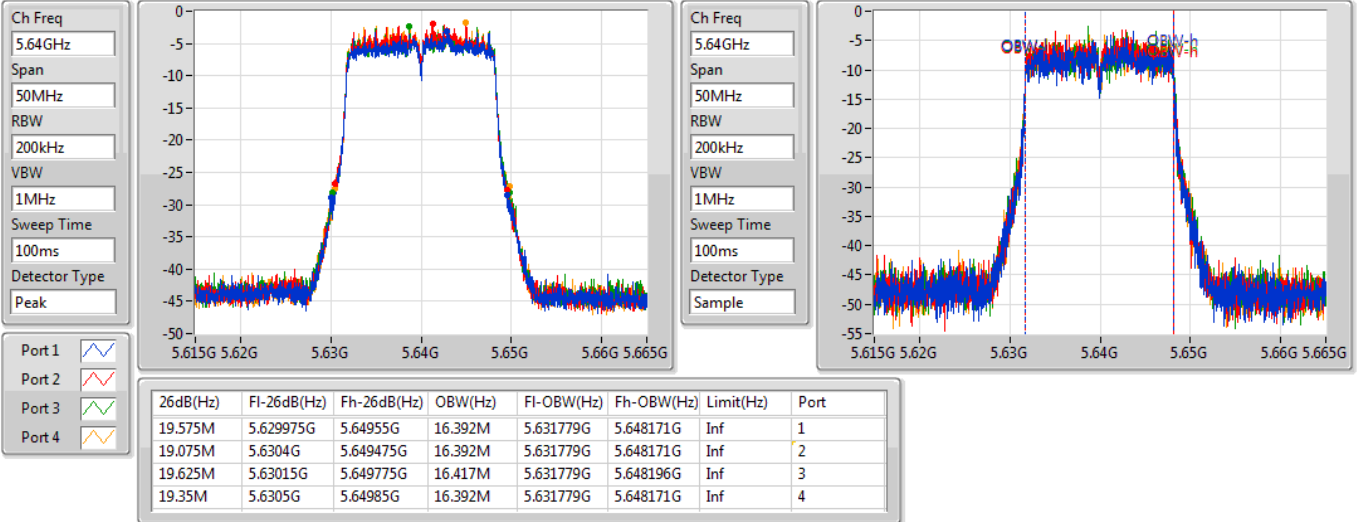

802.11a_Nss1,(6Mbps)_4TX
EBW
5580MHz

26/12/2017

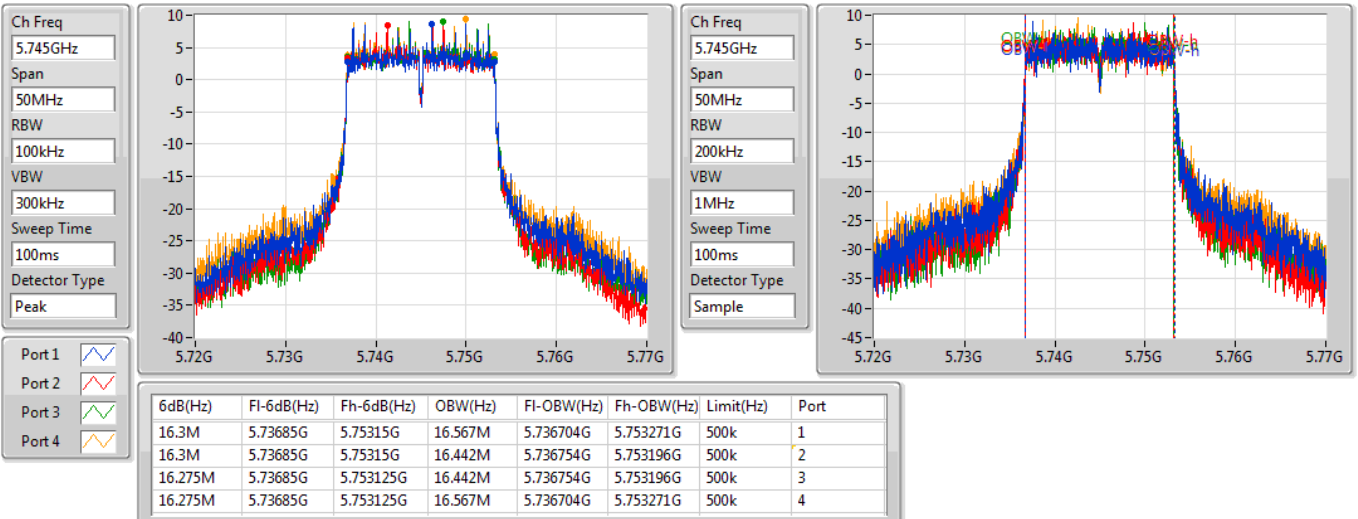


802.11a_Nss1,(6Mbps)_4TX
EBW
5640MHz

26/12/2017

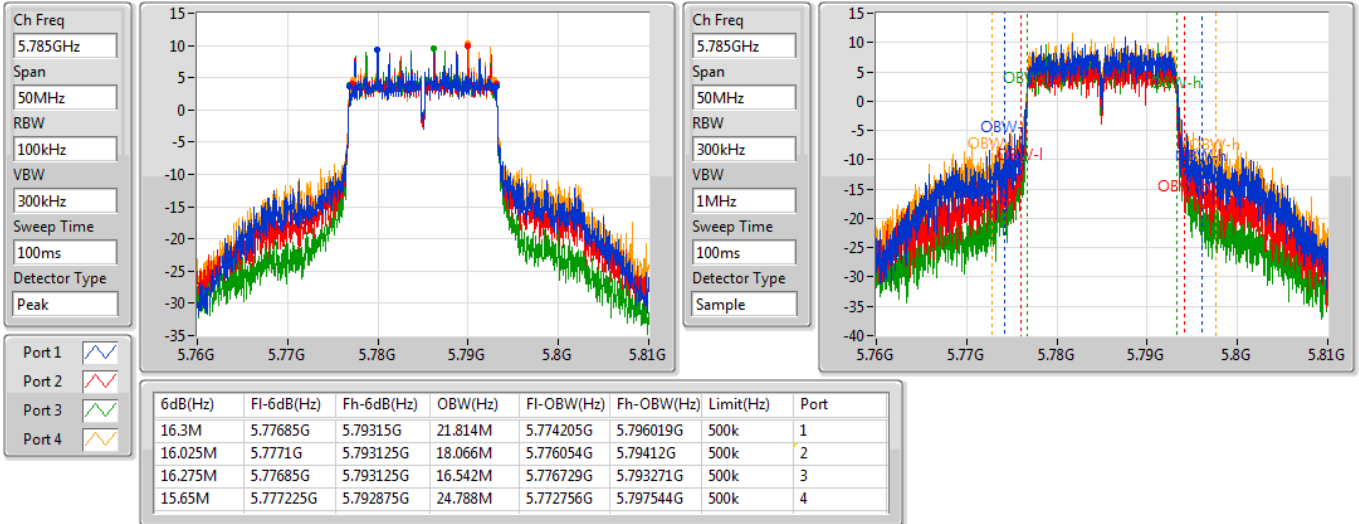

802.11a_Nss1,(6Mbps)_4TX
EBW
5745MHz

26/12/2017

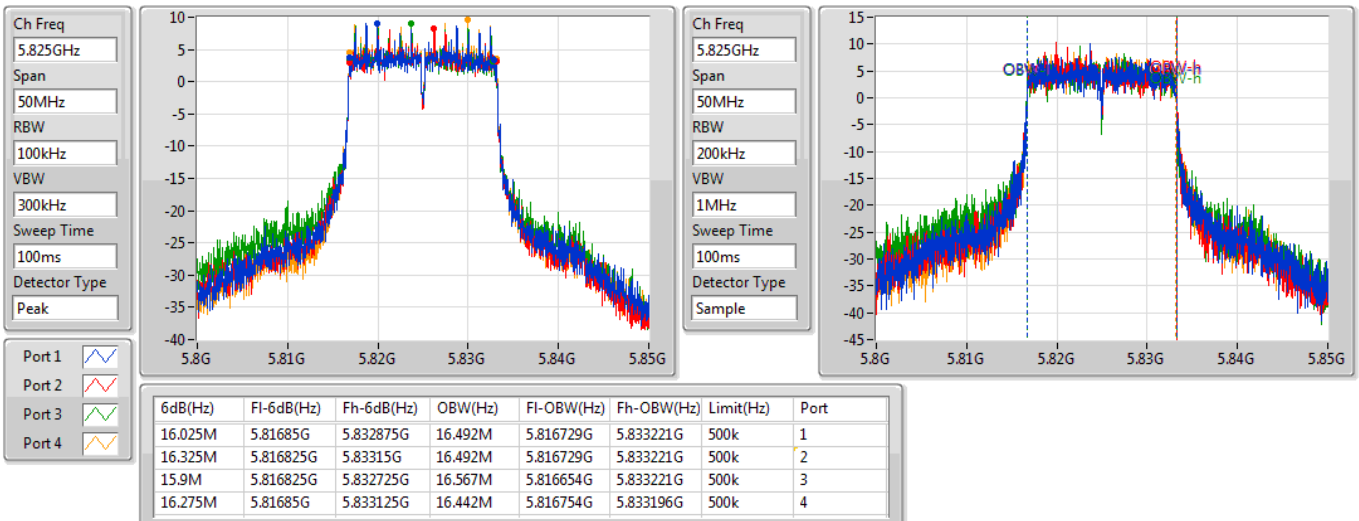


802.11a_Nss1,(6Mbps)_4TX
EBW
5785MHz

26/12/2017

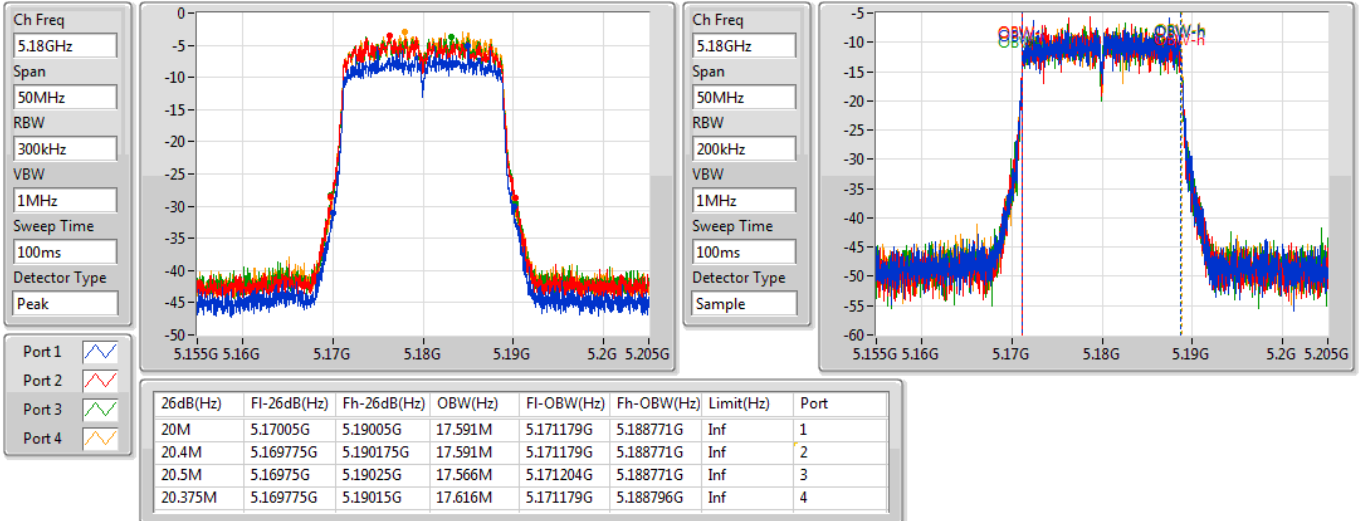

802.11a_Nss1,(6Mbps)_4TX
EBW
5825MHz

26/12/2017

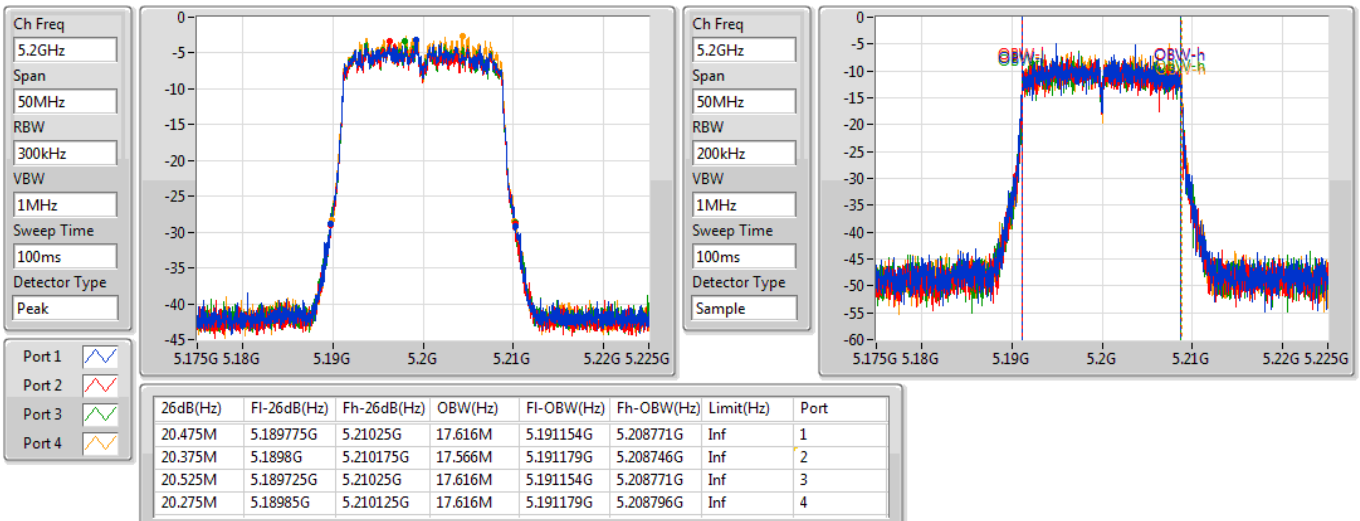


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5180MHz

27/12/2017

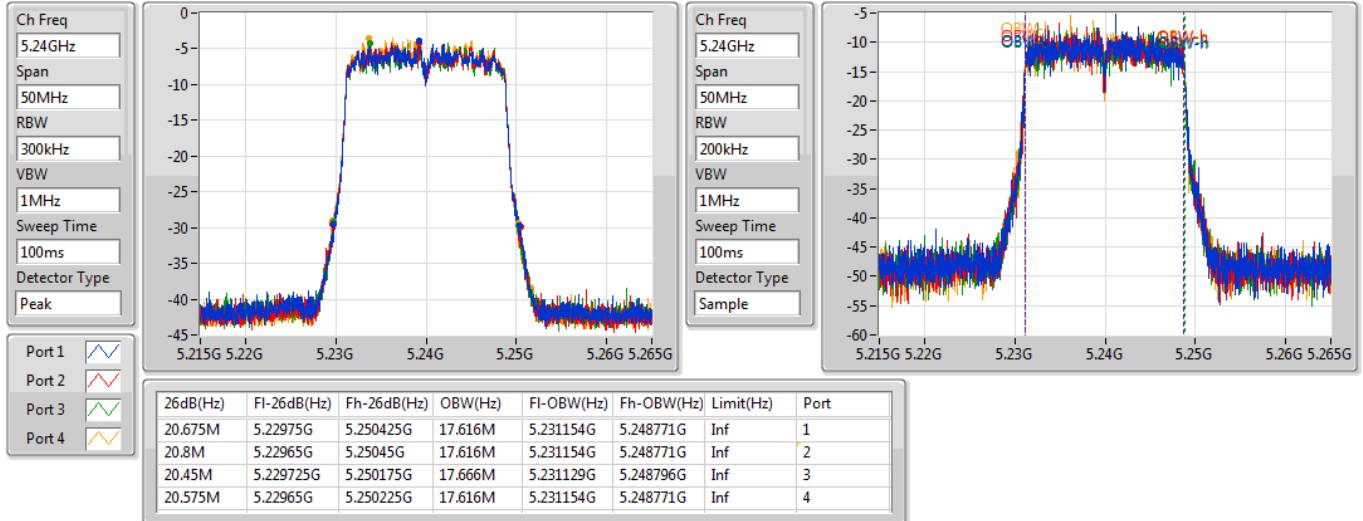

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5200MHz

27/12/2017

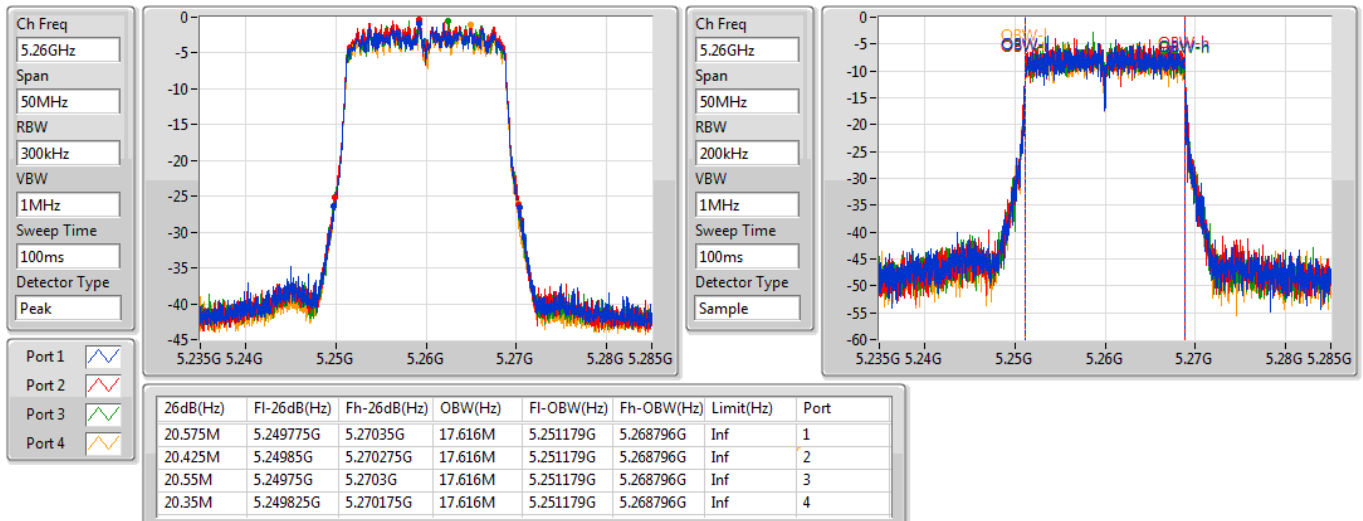


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5240MHz

27/12/2017

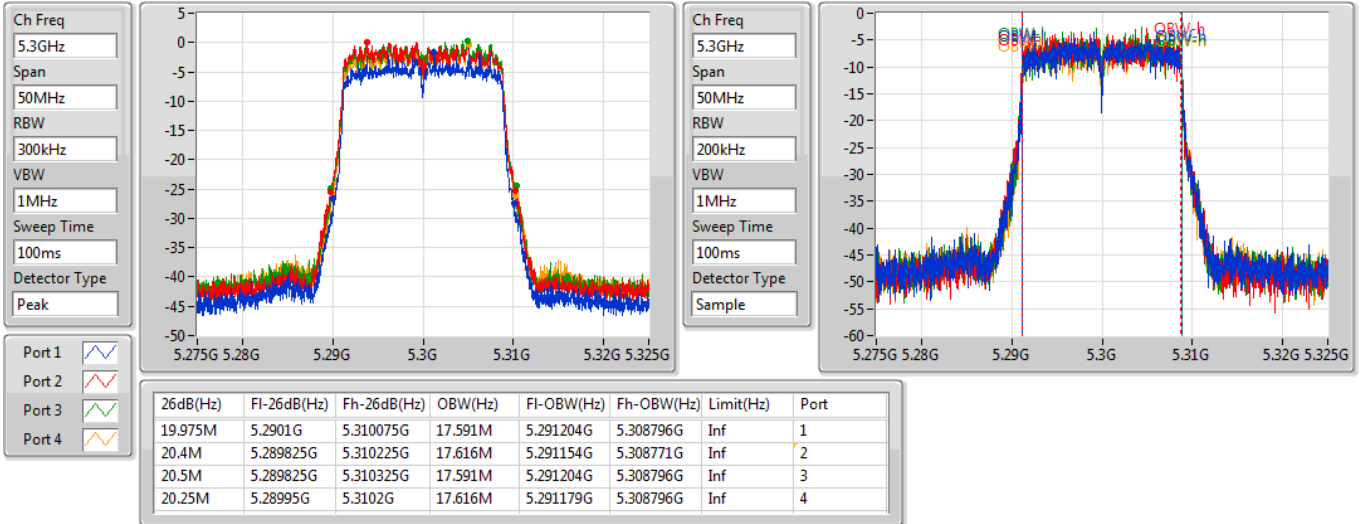

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5260MHz

27/12/2017

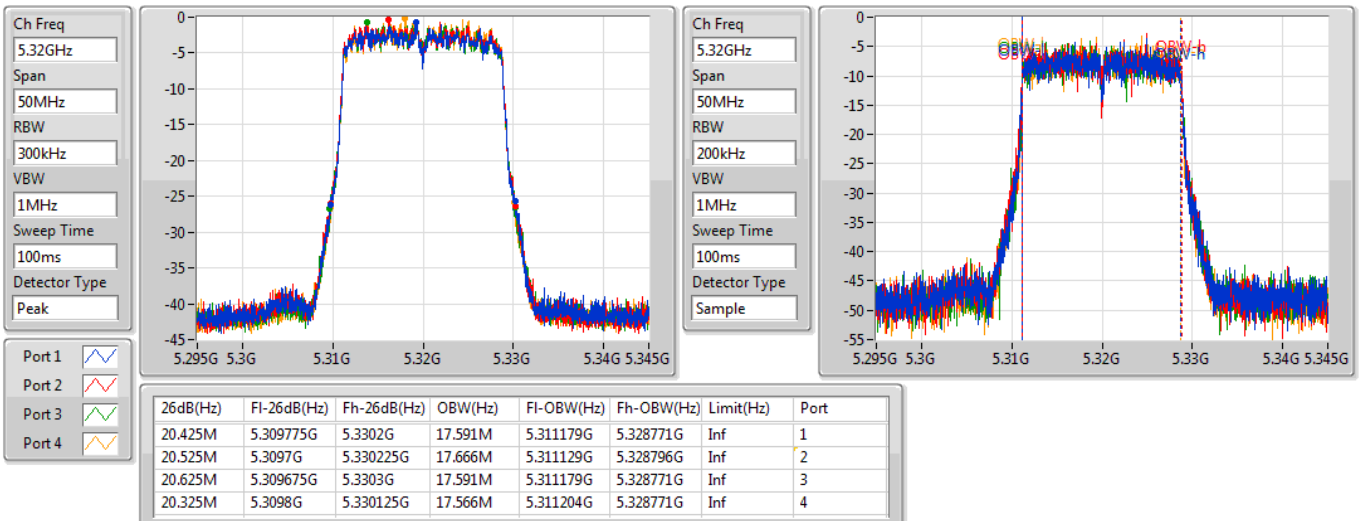


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5300MHz

27/12/2017

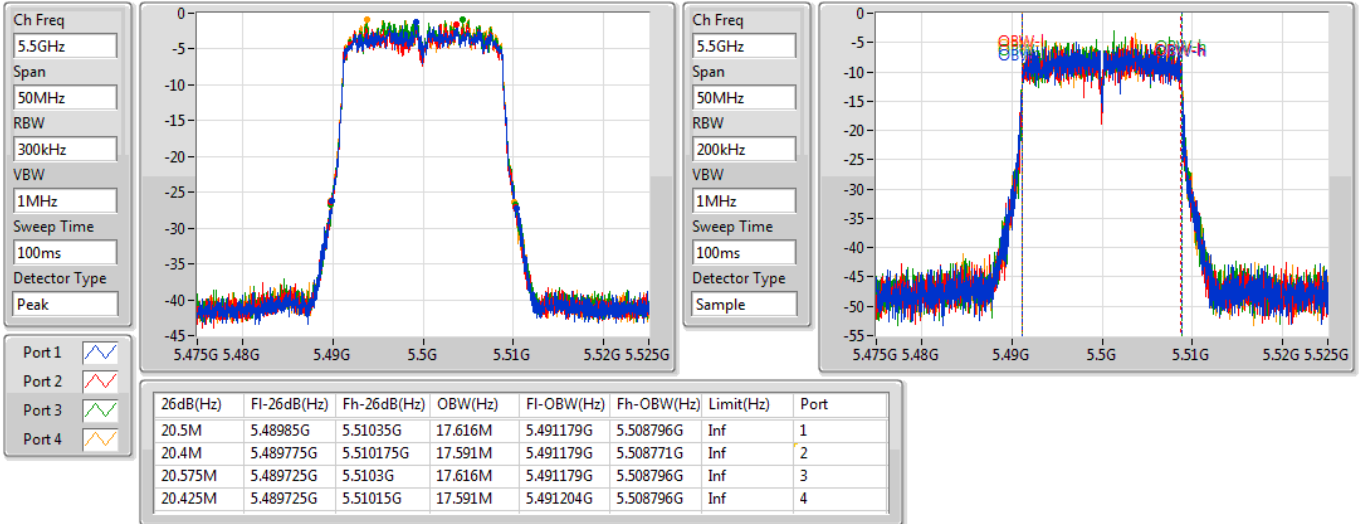

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5320MHz

27/12/2017

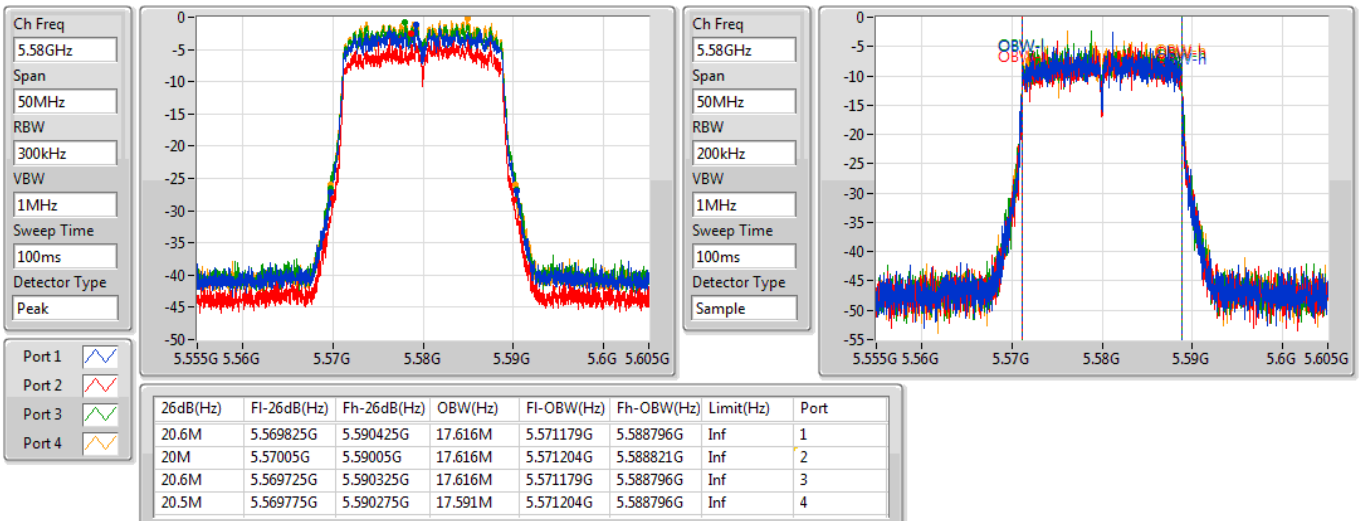


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5500MHz

26/12/2017

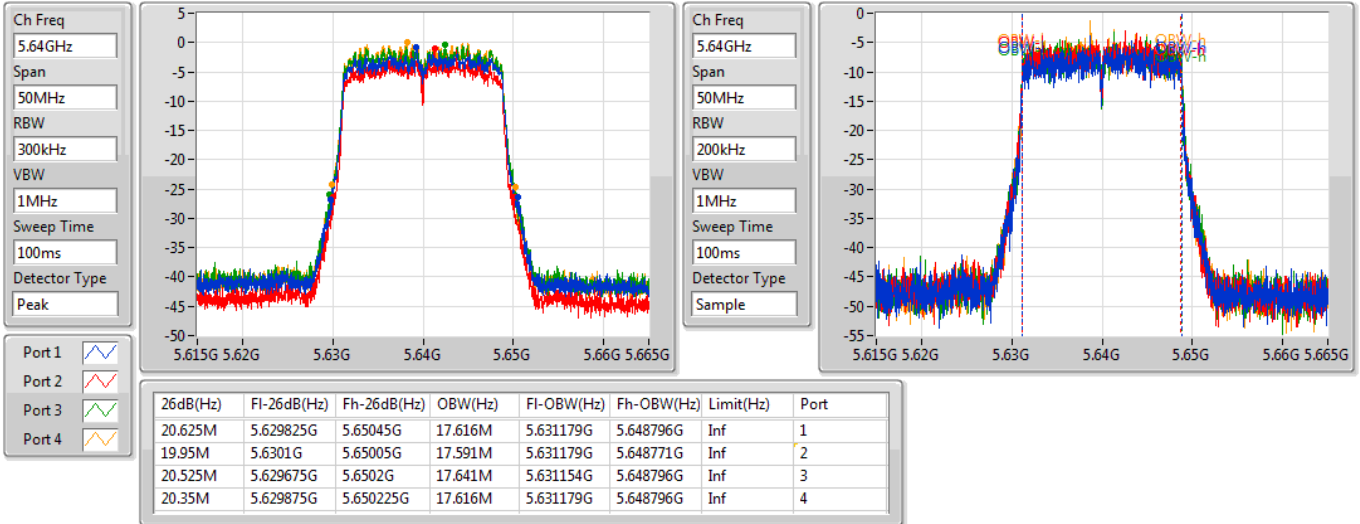

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5580MHz

26/12/2017

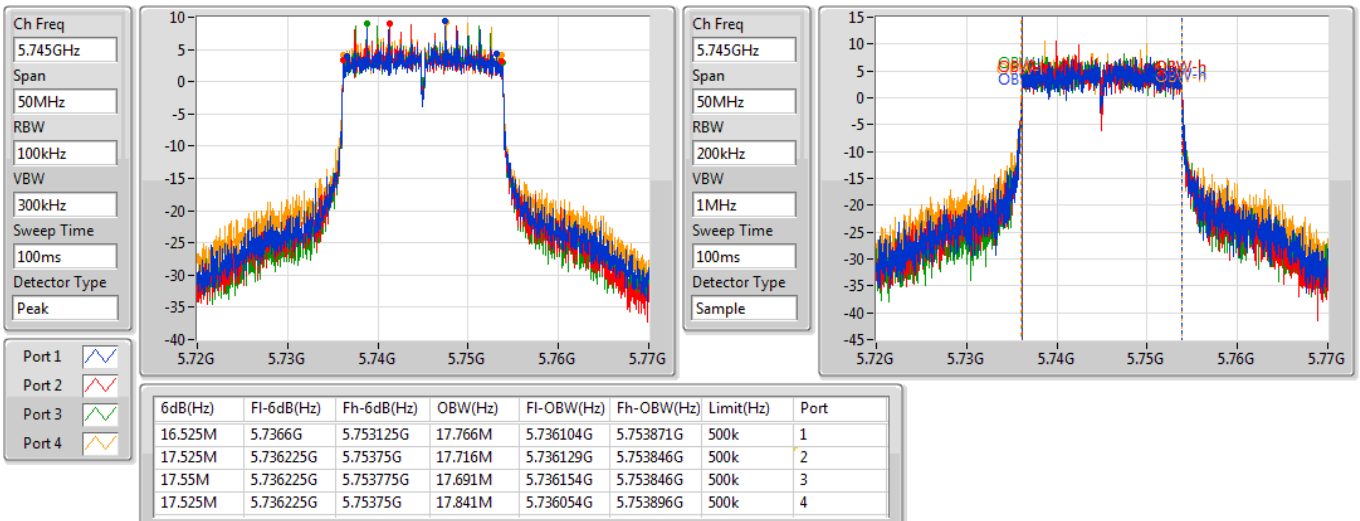


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5640MHz

26/12/2017

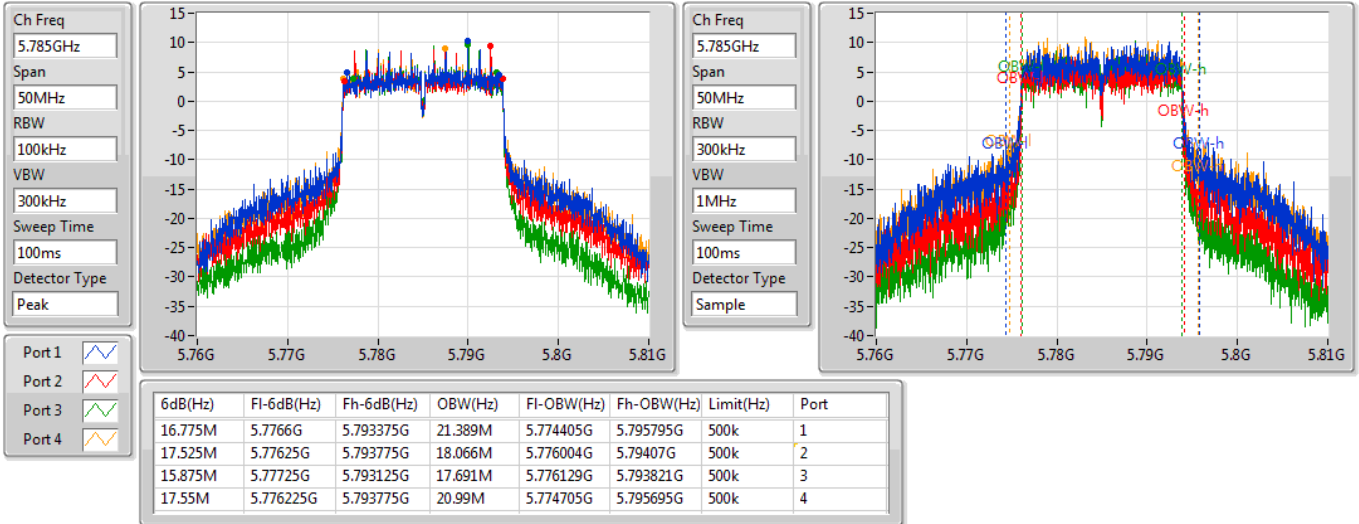

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5745MHz

26/12/2017

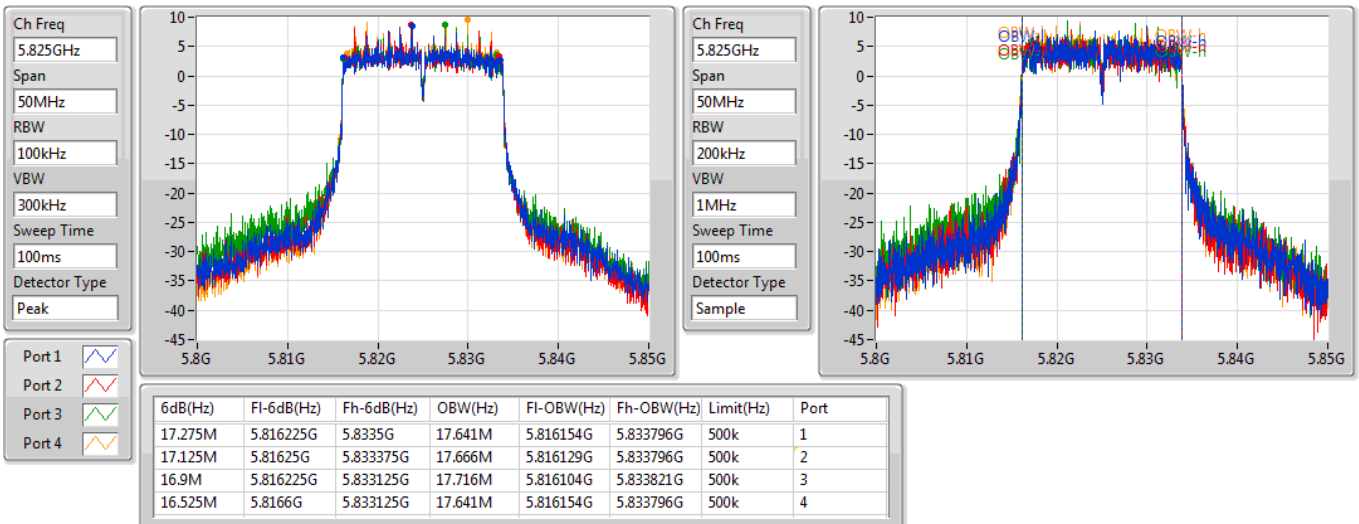


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5785MHz

26/12/2017

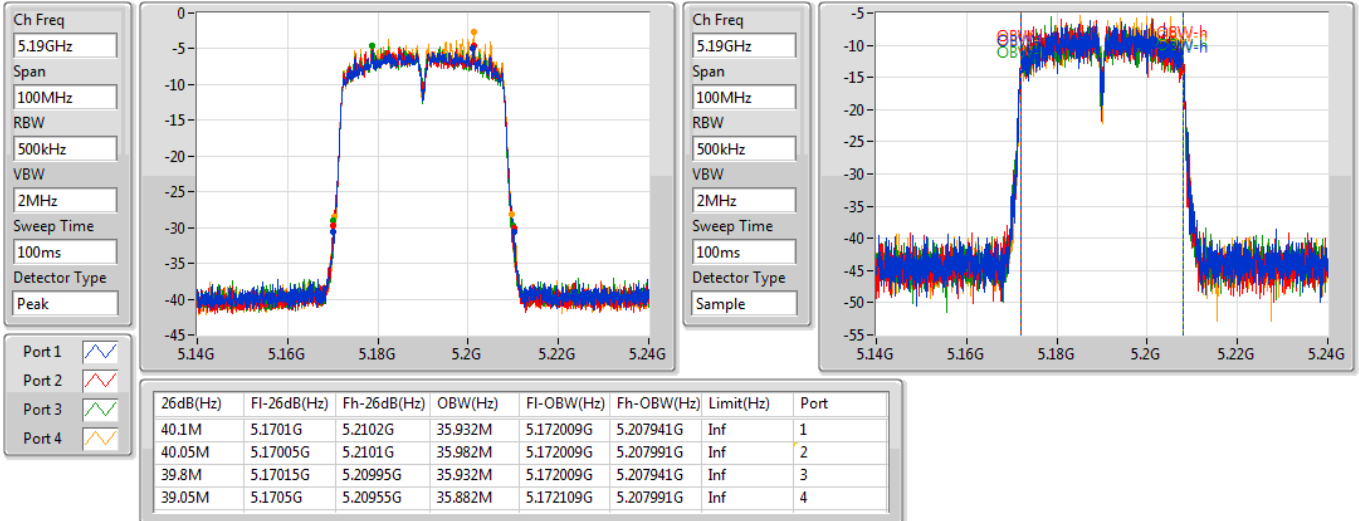

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5825MHz

26/12/2017



802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5190MHz

27/12/2017

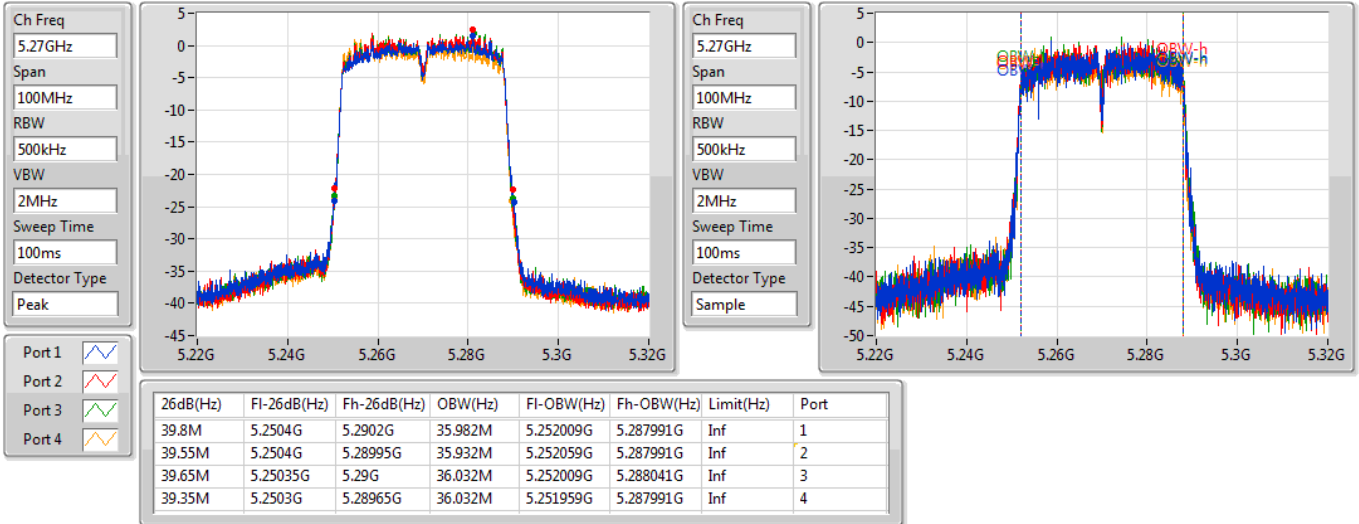

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5230MHz

27/12/2017

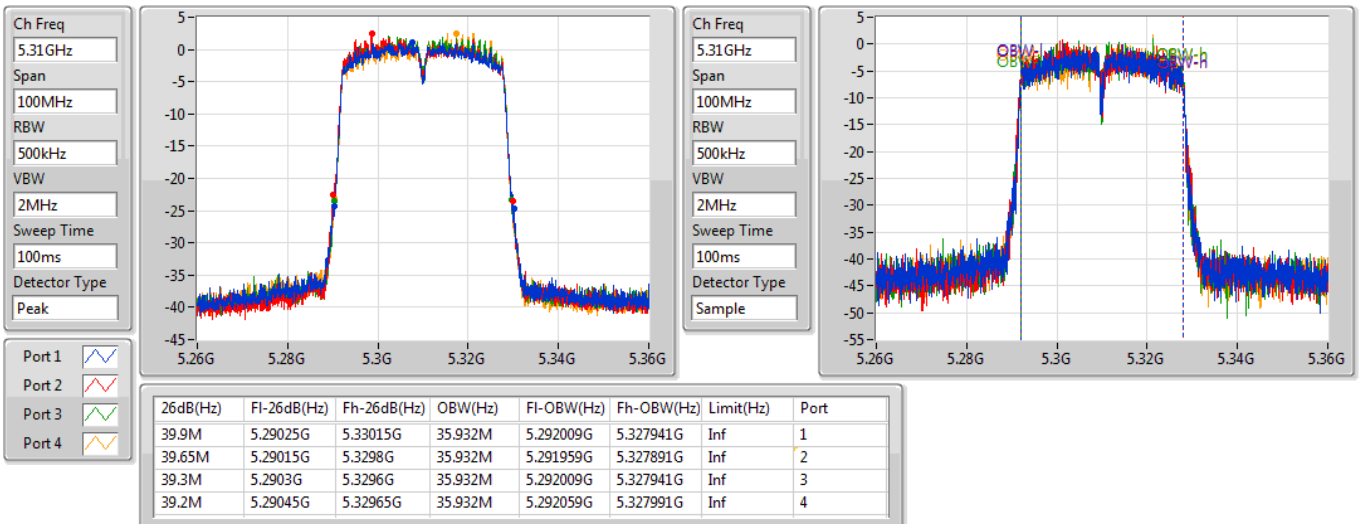


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5270MHz

27/12/2017

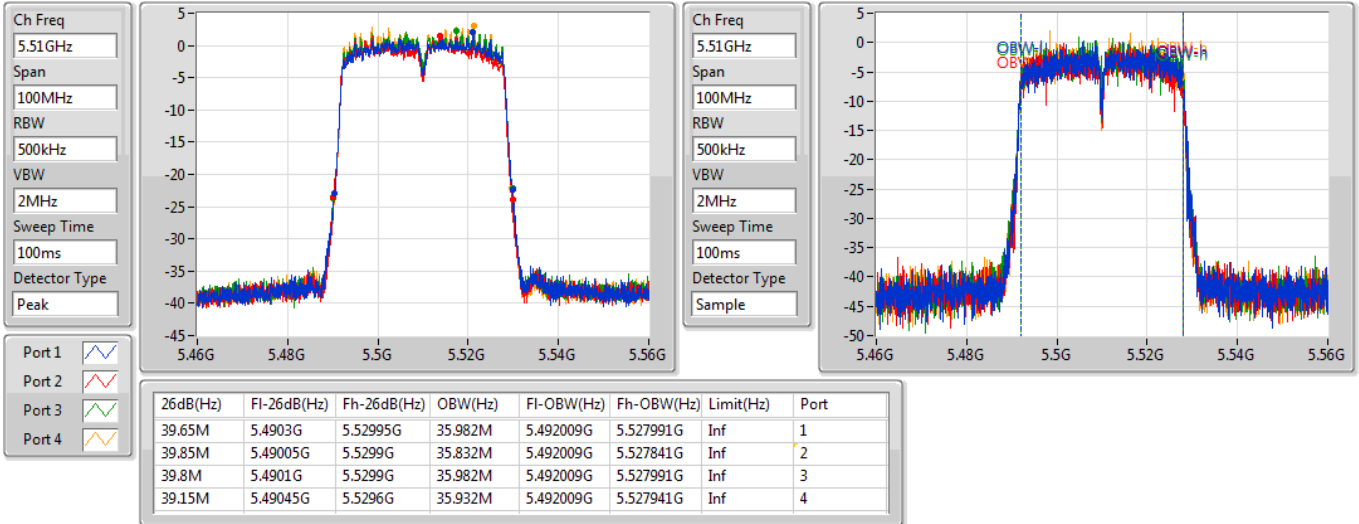

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5310MHz

27/12/2017

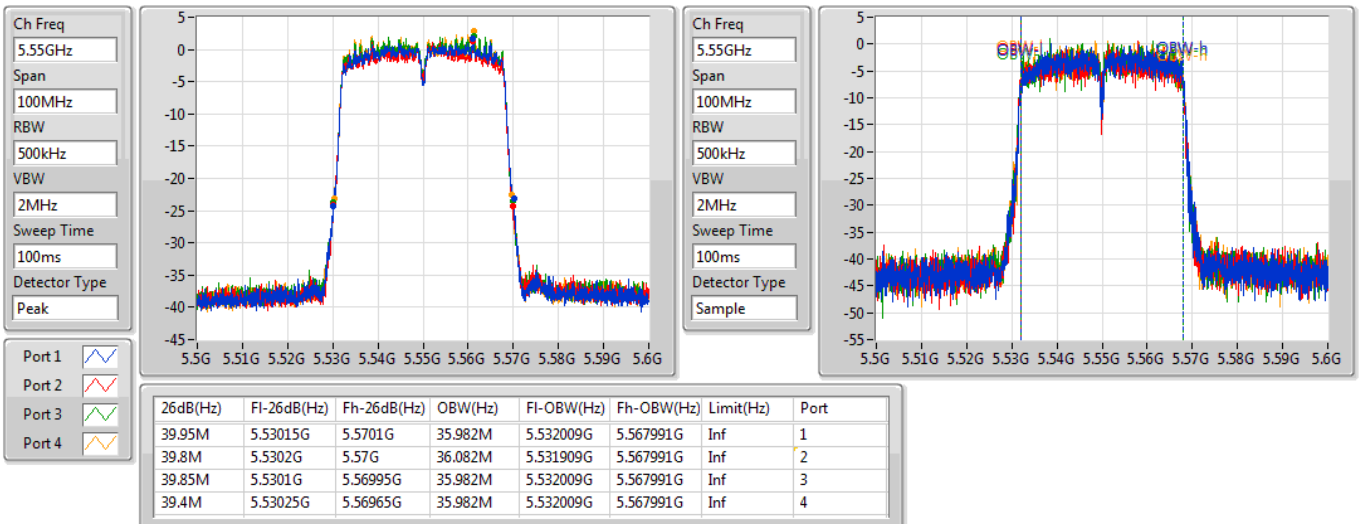


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5510MHz

26/12/2017

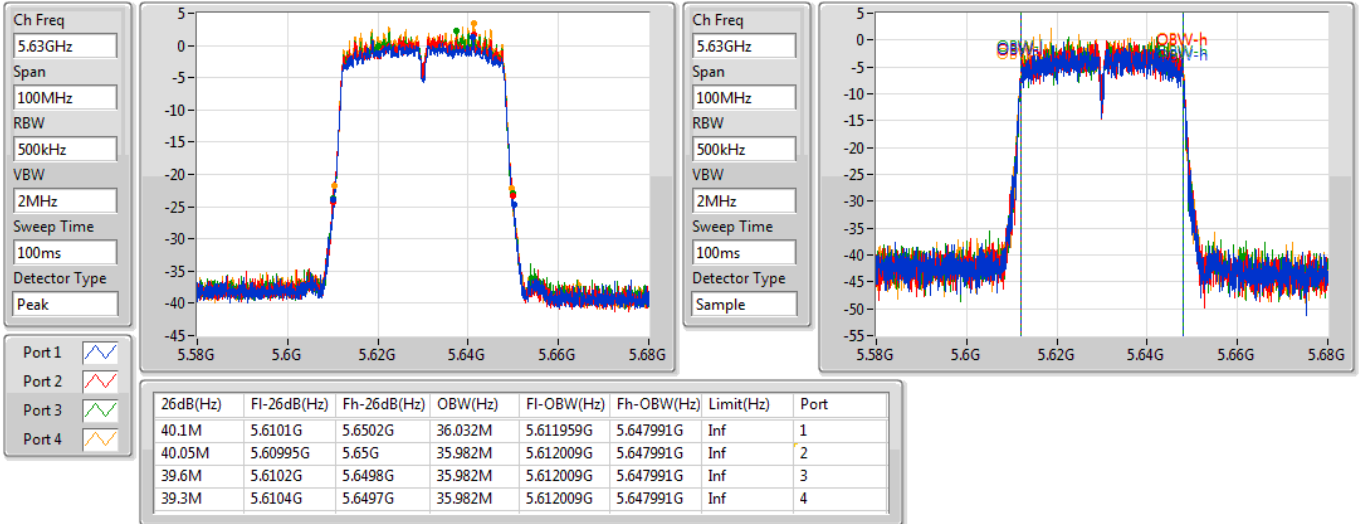

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5550MHz

26/12/2017

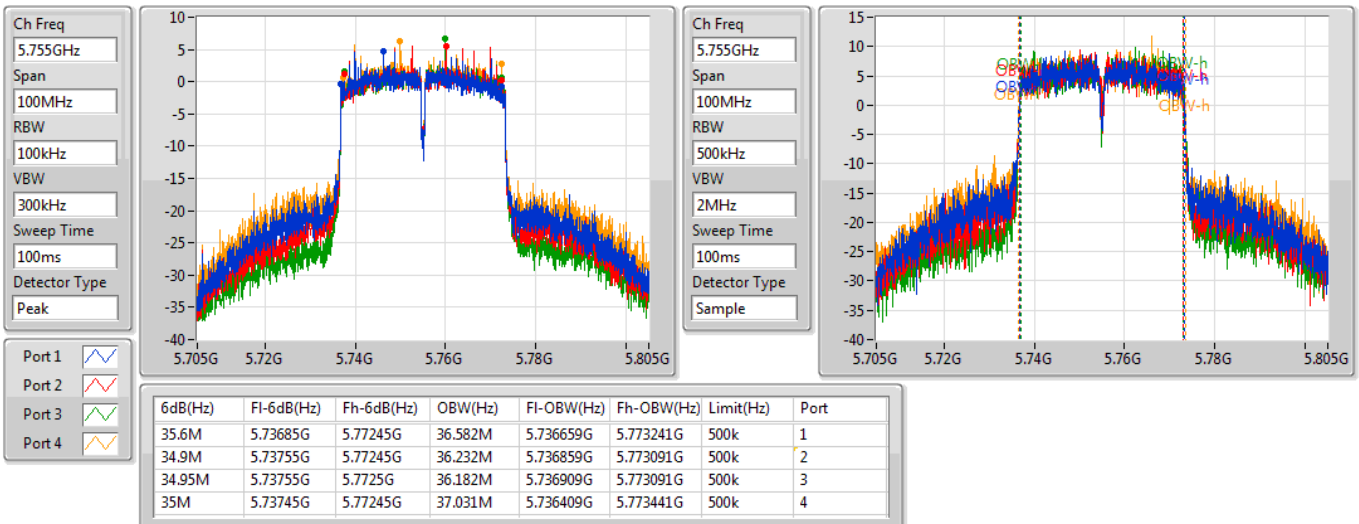


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5630MHz

26/12/2017

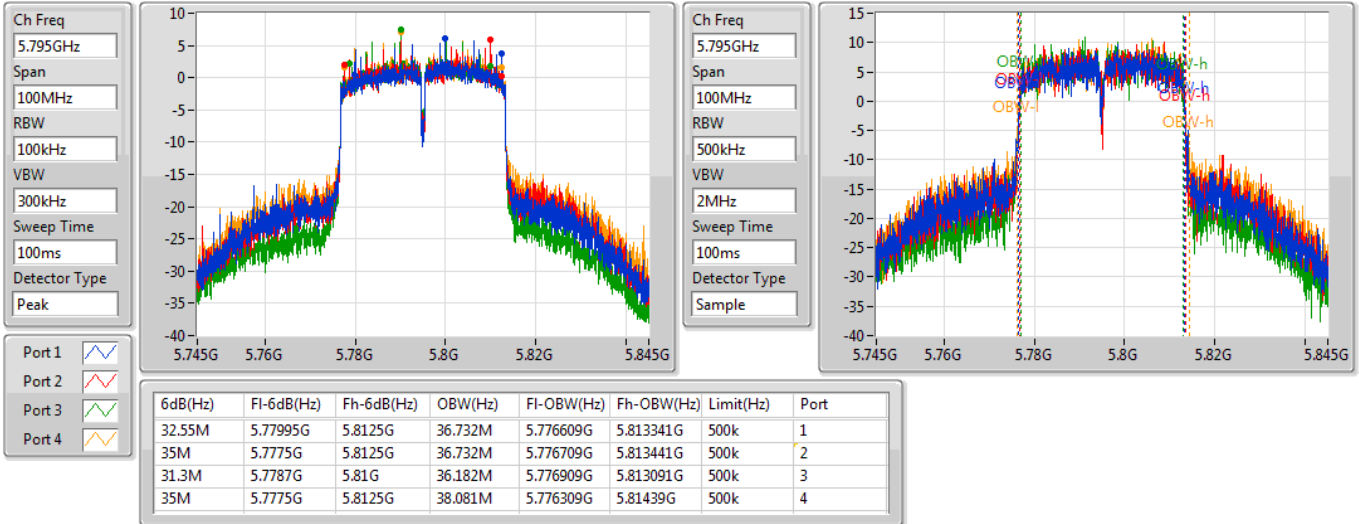

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5755MHz

26/12/2017

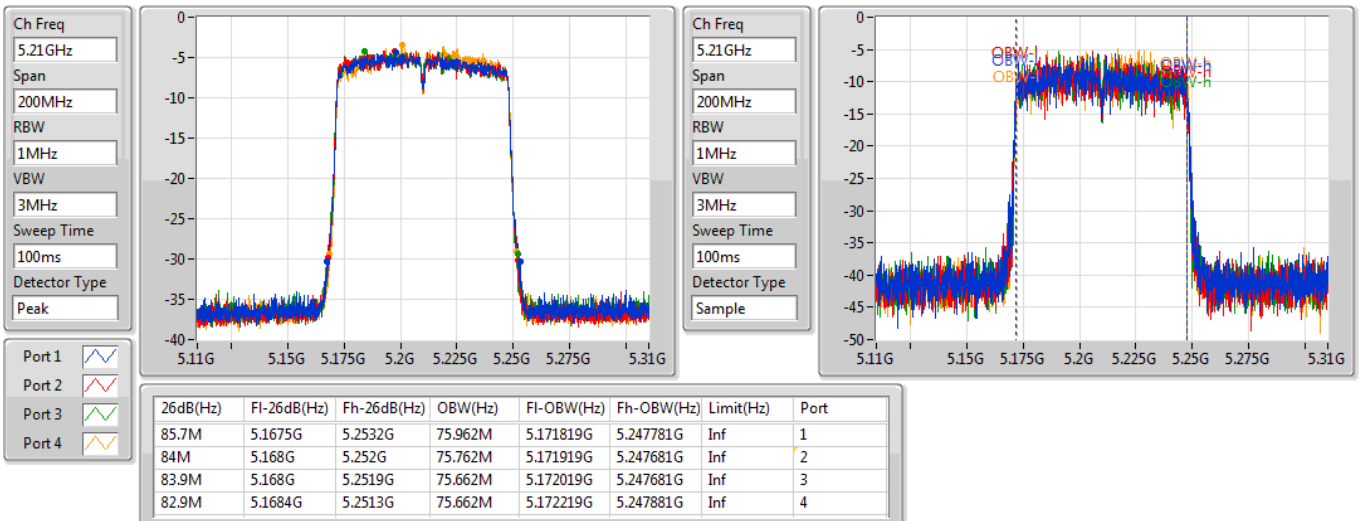


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5795MHz

26/12/2017

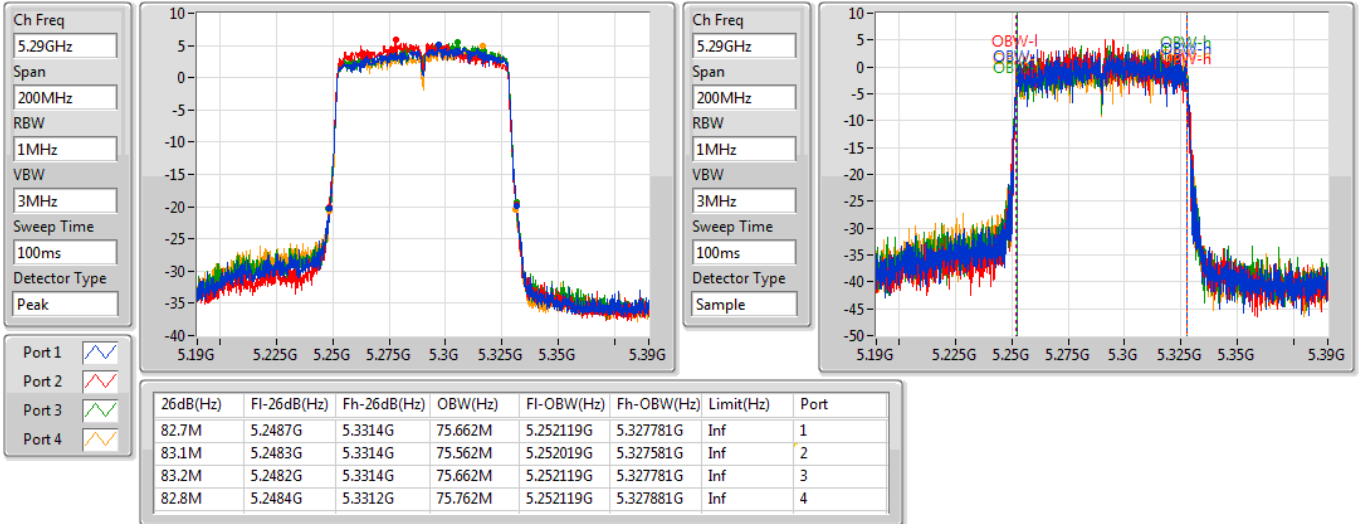

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5210MHz

27/12/2017

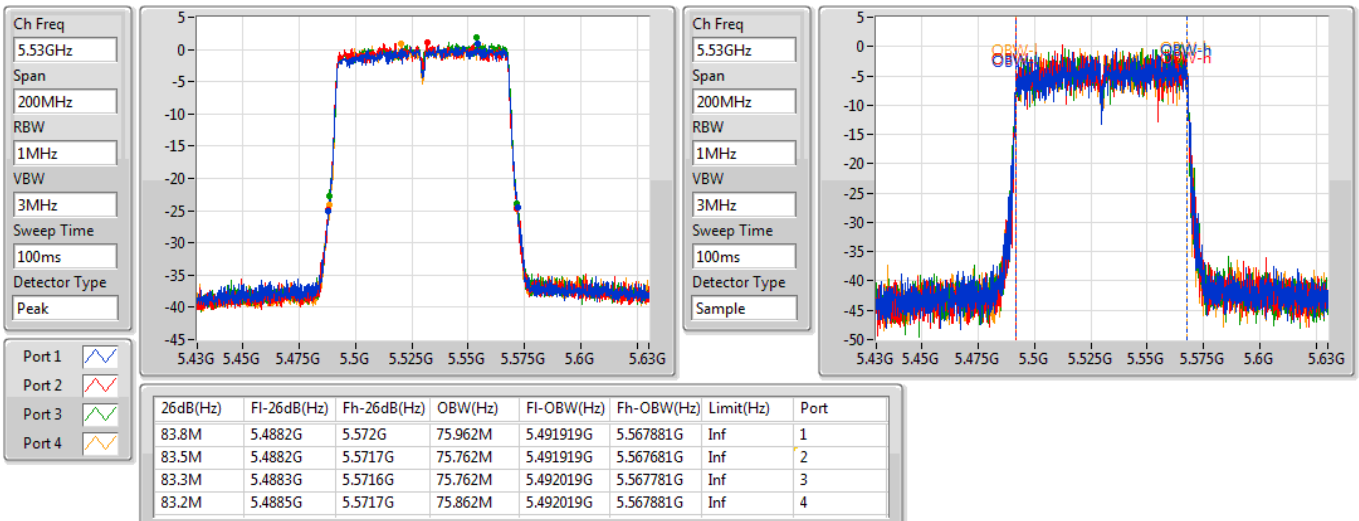


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5290MHz

27/12/2017

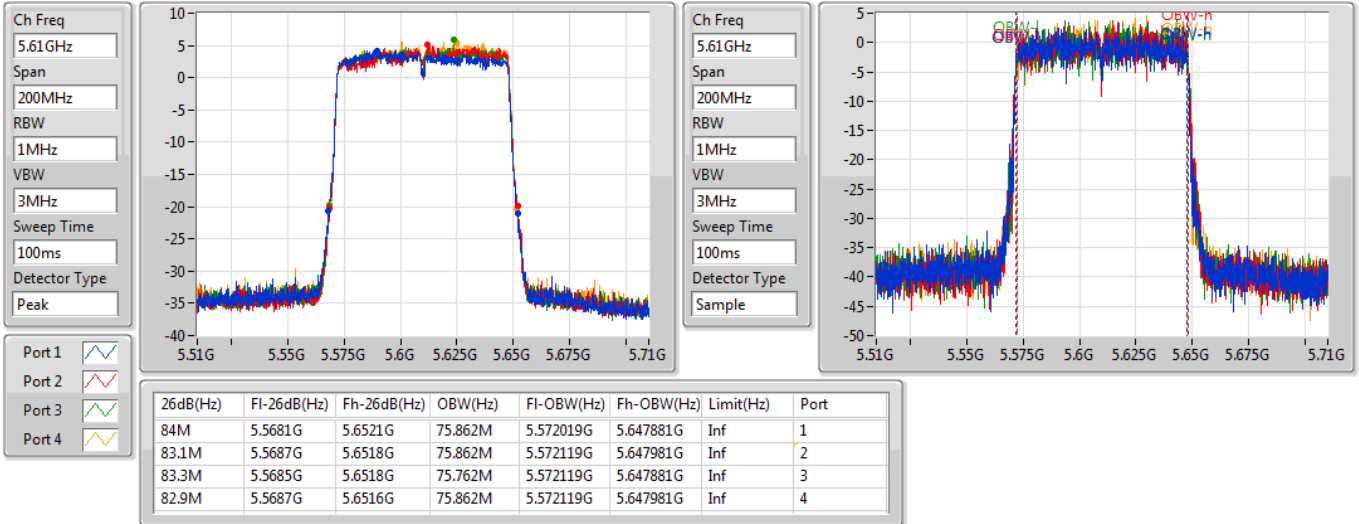

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5530MHz

22/01/2018

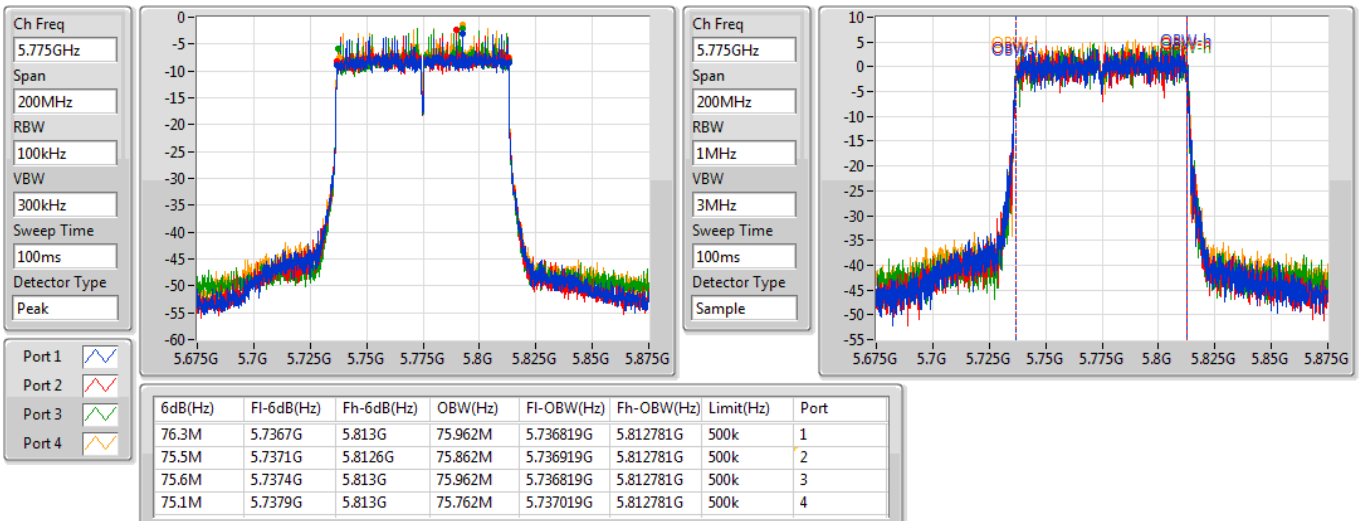


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5610MHz

26/12/2017

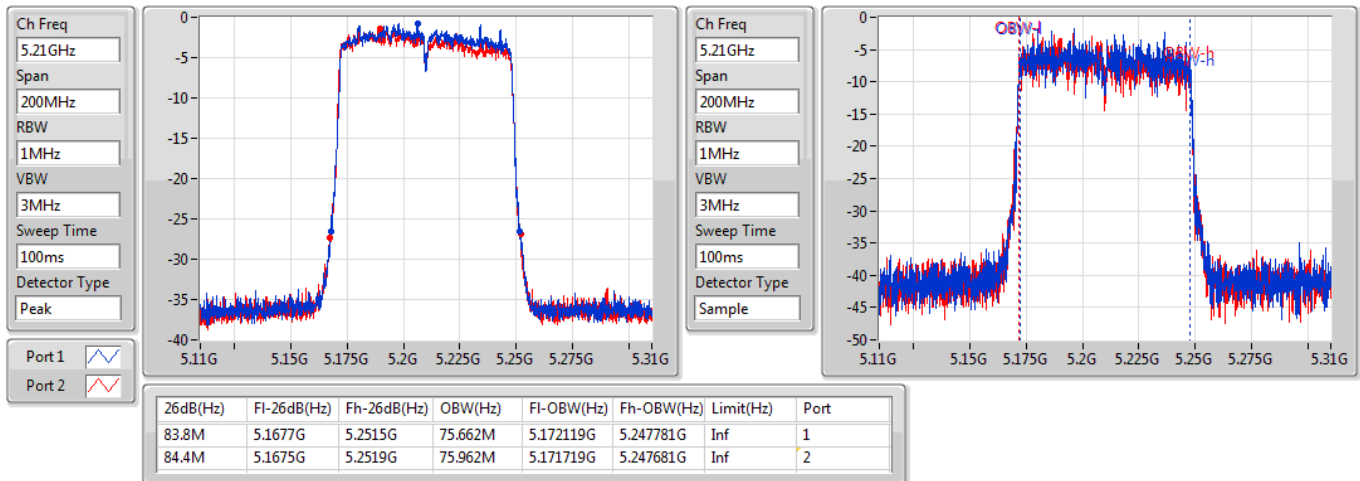

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5775MHz

22/01/2018

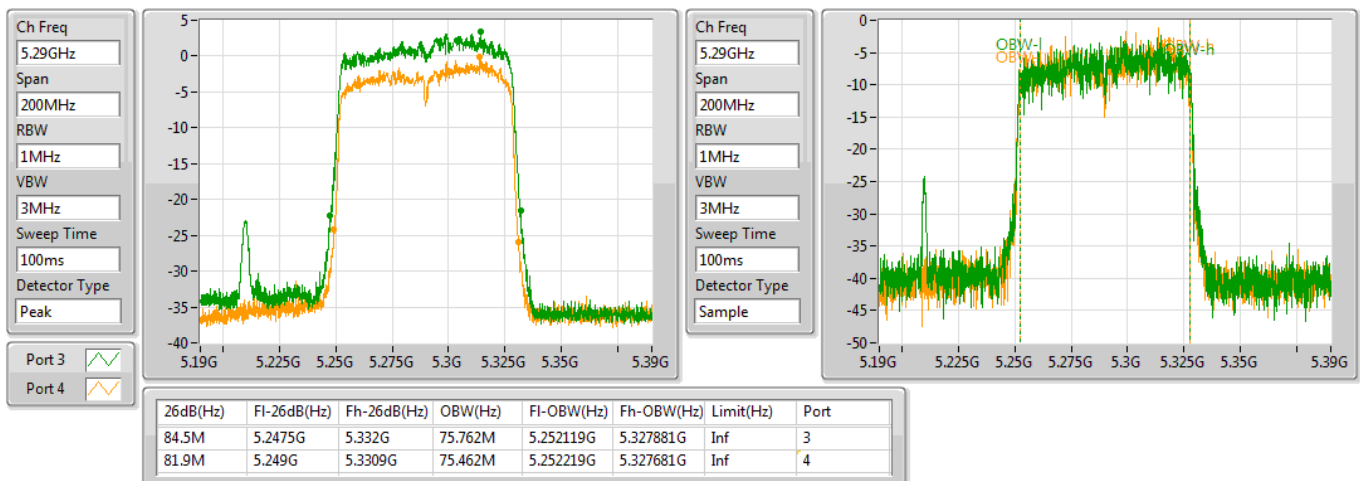


802.11ac VHT80+80_Nss2,(MCS0)_4TX(Port1&Port2)
EBW
#5210MHz,5290MHz

28/12/2017


802.11ac VHT80+80_Nss2,(MCS0)_4TX(Port3&Port4)
EBW
5210MHz,#5290MHz

28/12/2017

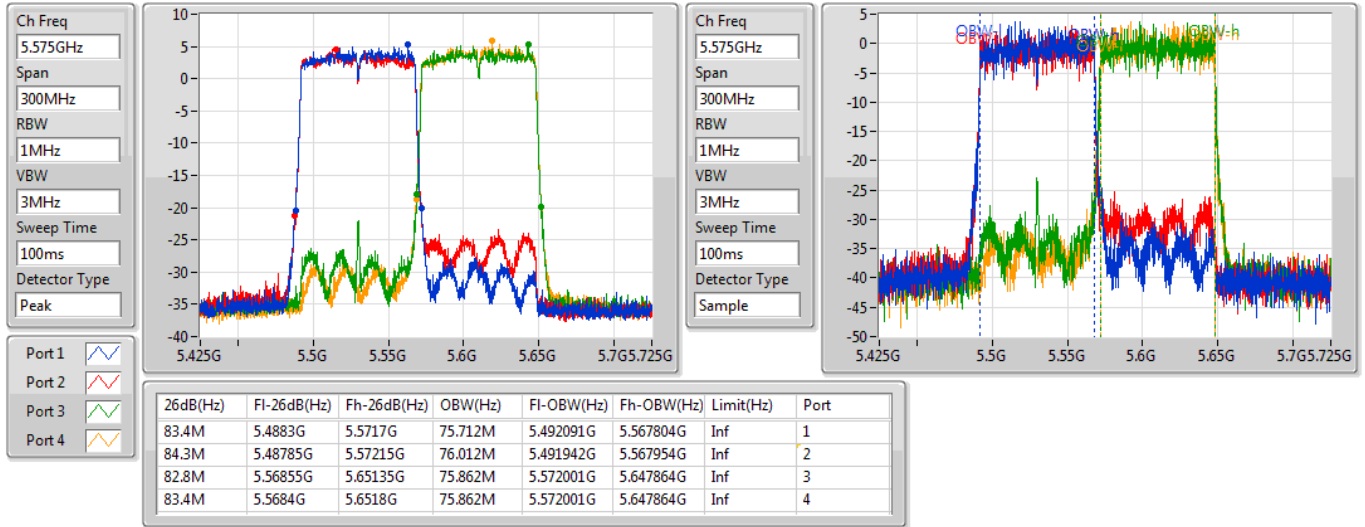


802.11ac VHT80+80_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

26/12/2017



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.775M	17.666M	17M7D1D	19.875M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	39.4M	36.082M	36M1D1D	38.35M	35.882M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	82.3M	76.162M	76M2D1D	80M	75.562M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	81M	75.962M	76M0D1D	80.4M	75.762M
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.9M	17.641M	17M6D1D	20M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	39.45M	36.082M	36M1D1D	38.65M	35.832M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	81.1M	75.862M	75M9D1D	79.8M	75.462M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	85.3M	75.562M	75M6D1D	82M	75.262M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21M	17.666M	17M7D1D	20.475M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	39.9M	36.132M	36M1D1D	38.6M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	83.2M	76.262M	76M3D1D	80.8M	75.662M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	151.5M	153.523M	154MD1D	80.85M	75.862M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	17.525M	17.641M	17M6D1D	16.825M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	34.9M	36.082M	36M1D1D	31.35M	35.832M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	75.5M	75.862M	75M9D1D	69.3M	75.562M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

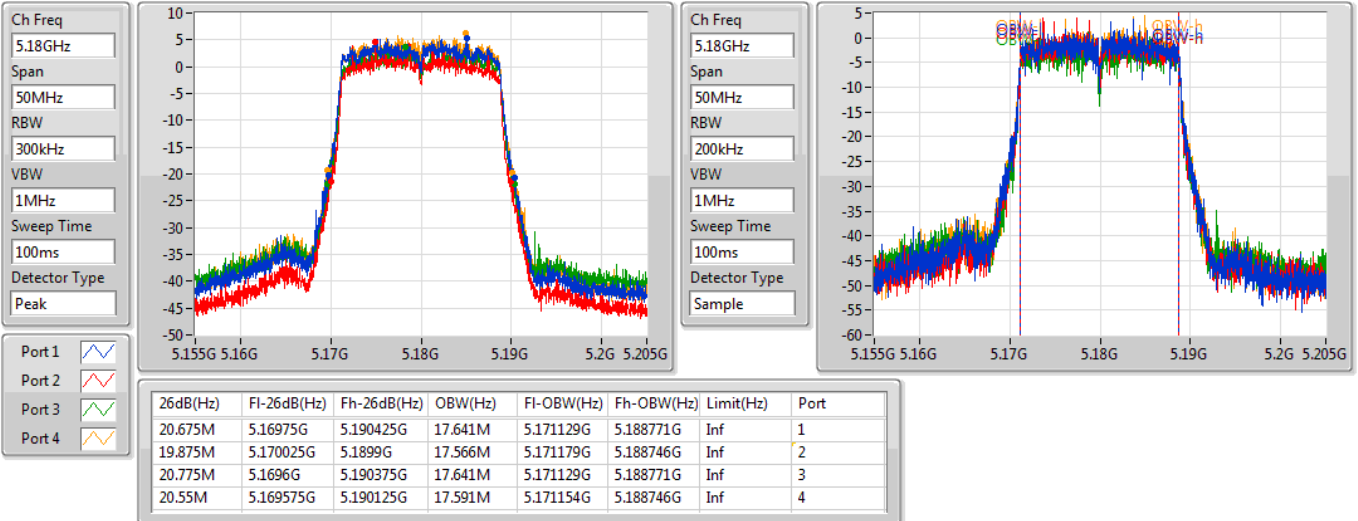
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.675M	17.641M	19.875M	17.566M	20.775M	17.641M	20.55M	17.591M
5200MHz	Pass	Inf	20.675M	17.616M	20.65M	17.566M	20.5M	17.666M	20.625M	17.616M
5240MHz	Pass	Inf	20.65M	17.616M	20.45M	17.591M	20.625M	17.616M	20.65M	17.641M
5260MHz	Pass	Inf	20M	17.616M	20.525M	17.616M	20.75M	17.641M	20.775M	17.616M
5300MHz	Pass	Inf	20.625M	17.616M	20.475M	17.591M	20.85M	17.591M	20M	17.591M
5320MHz	Pass	Inf	20.725M	17.641M	20.725M	17.616M	20.9M	17.641M	20.6M	17.616M
5500MHz	Pass	Inf	20.925M	17.616M	21M	17.616M	20.475M	17.641M	20.475M	17.616M
5580MHz	Pass	Inf	20.525M	17.616M	20.775M	17.616M	20.9M	17.641M	20.725M	17.641M
5640MHz	Pass	Inf	20.925M	17.641M	20.7M	17.591M	20.725M	17.641M	20.675M	17.641M
5745MHz	Pass	500k	17.275M	17.616M	17.4M	17.591M	17.5M	17.616M	17.25M	17.591M
5785MHz	Pass	500k	17.25M	17.641M	17.525M	17.641M	17.375M	17.616M	17.525M	17.616M
5825MHz	Pass	500k	16.85M	17.641M	17.275M	17.591M	17.325M	17.641M	16.825M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	39.15M	35.882M	38.85M	36.032M	39.05M	35.932M	39M	35.932M
5230MHz	Pass	Inf	39.4M	36.032M	39.1M	36.082M	38.65M	35.882M	38.35M	35.932M
5270MHz	Pass	Inf	39.3M	36.082M	39M	36.032M	39.45M	35.982M	39.35M	35.982M
5310MHz	Pass	Inf	38.9M	35.982M	38.65M	36.032M	39.1M	35.882M	39.4M	35.832M
5510MHz	Pass	Inf	39.7M	36.032M	39.05M	35.982M	39.15M	36.132M	38.6M	36.132M
5550MHz	Pass	Inf	39M	36.032M	39.9M	36.032M	38.95M	36.082M	39.55M	35.932M
5630MHz	Pass	Inf	39.55M	35.982M	38.7M	35.982M	39.7M	35.982M	39.45M	36.032M
5755MHz	Pass	500k	32.55M	35.932M	31.35M	36.082M	32.6M	35.982M	34.9M	35.832M
5795MHz	Pass	500k	33.8M	35.982M	33.85M	35.982M	31.35M	35.882M	33.8M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	82M	75.562M	80.6M	76.162M	82.3M	75.662M	80M	75.662M
5290MHz	Pass	Inf	81.1M	75.662M	80.3M	75.862M	80.7M	75.762M	79.8M	75.462M
5530MHz	Pass	Inf	81.1M	75.662M	81.2M	75.762M	83.2M	76.262M	81.6M	76.062M
5610MHz	Pass	Inf	80.8M	75.762M	82.5M	75.762M	82.8M	75.762M	82.5M	75.762M
5775MHz	Pass	500k	69.3M	75.662M	75.1M	75.562M	75.1M	75.862M	75.5M	75.762M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	Inf	80.4M	75.762M	81M	75.962M				
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	Inf					85.3M	75.562M	82M	75.262M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	Inf	80.85M	75.862M	82.05M	75.862M	144.45M	153.523M	151.5M	140.93M

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

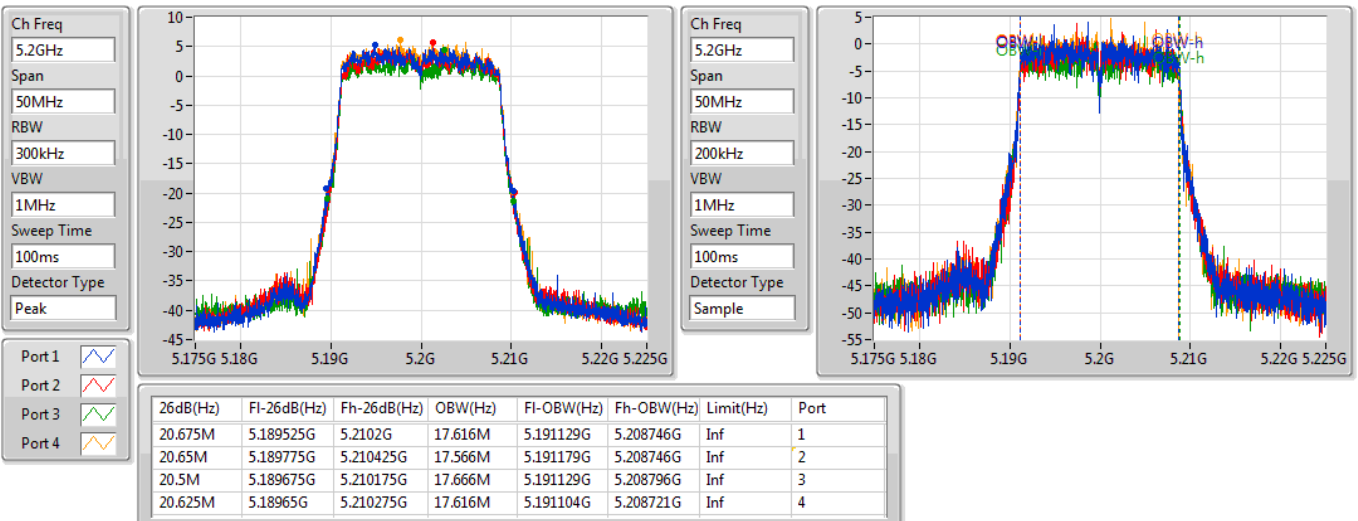
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5180MHz

10/01/2018

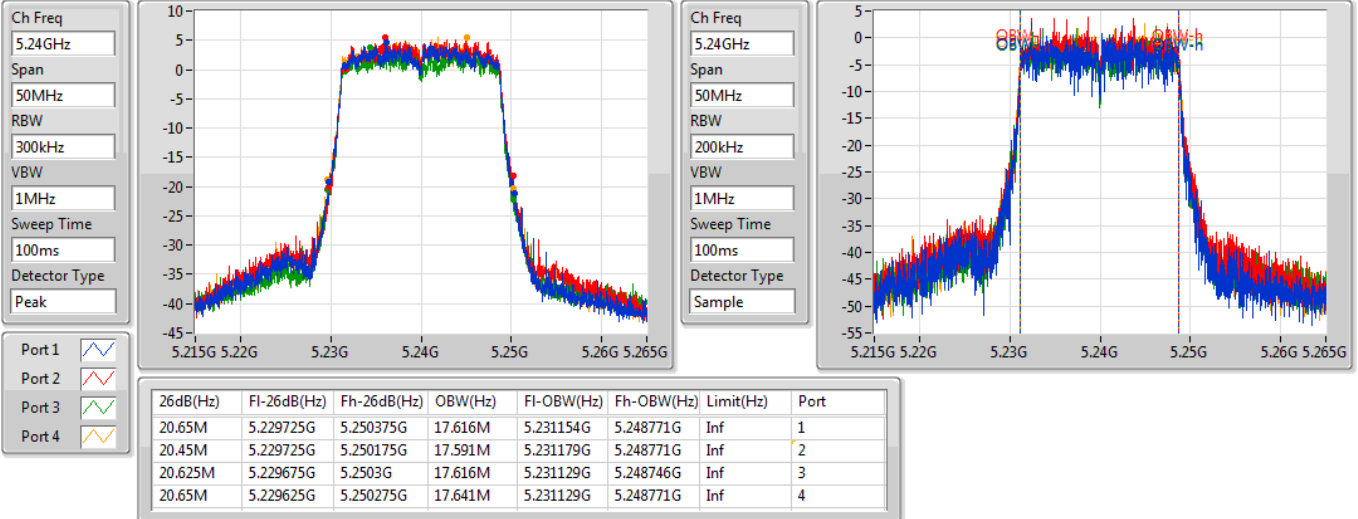

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5200MHz

10/01/2018

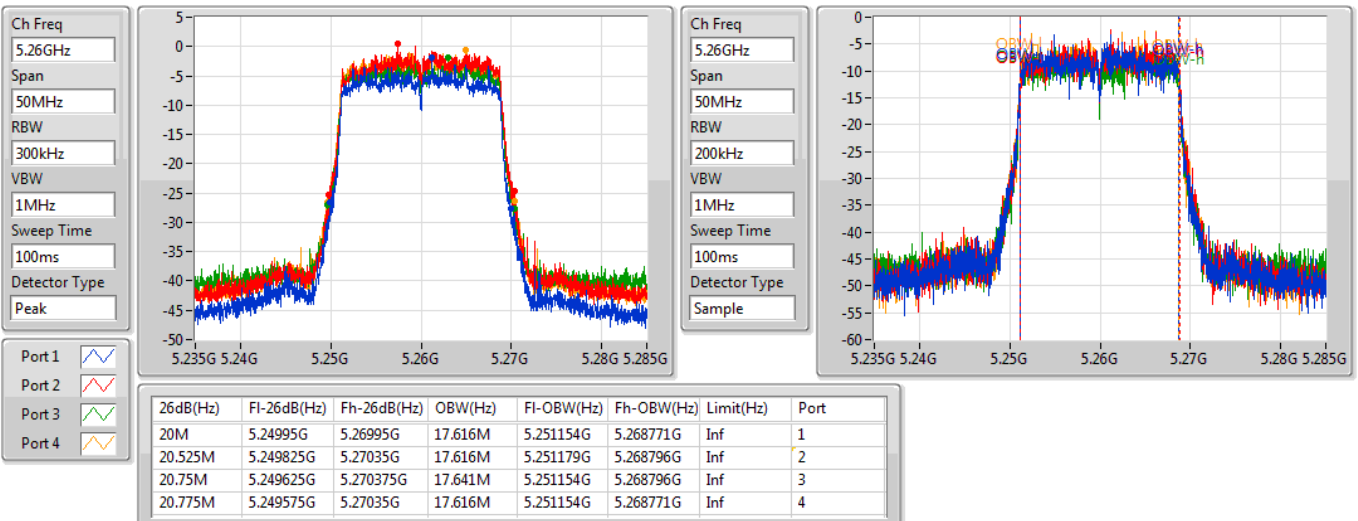


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5240MHz

10/01/2018

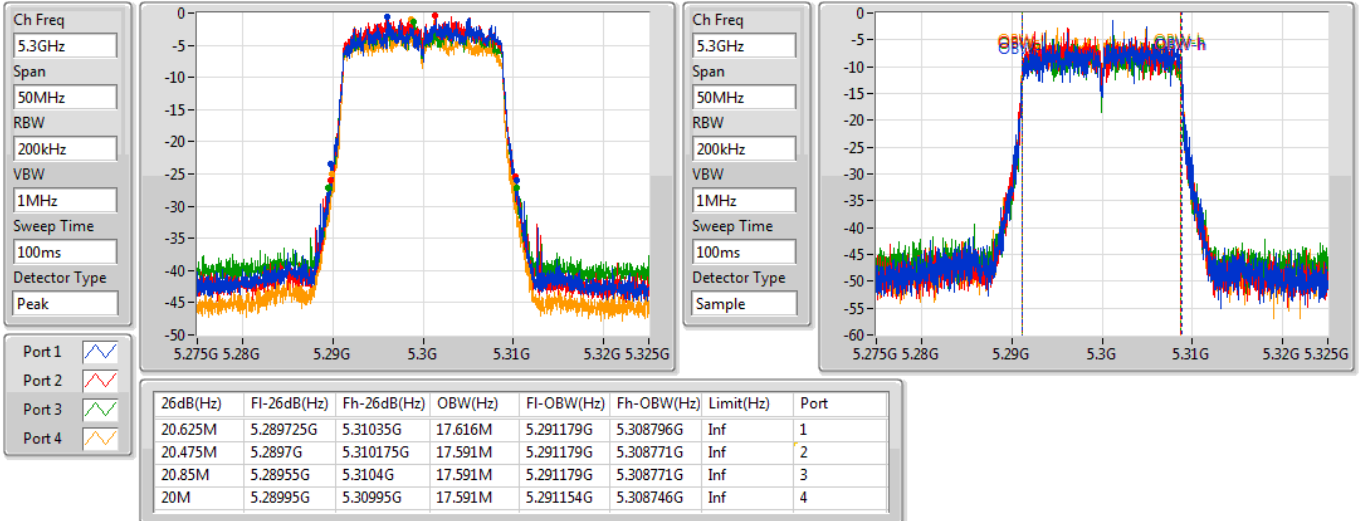

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5260MHz

10/01/2018

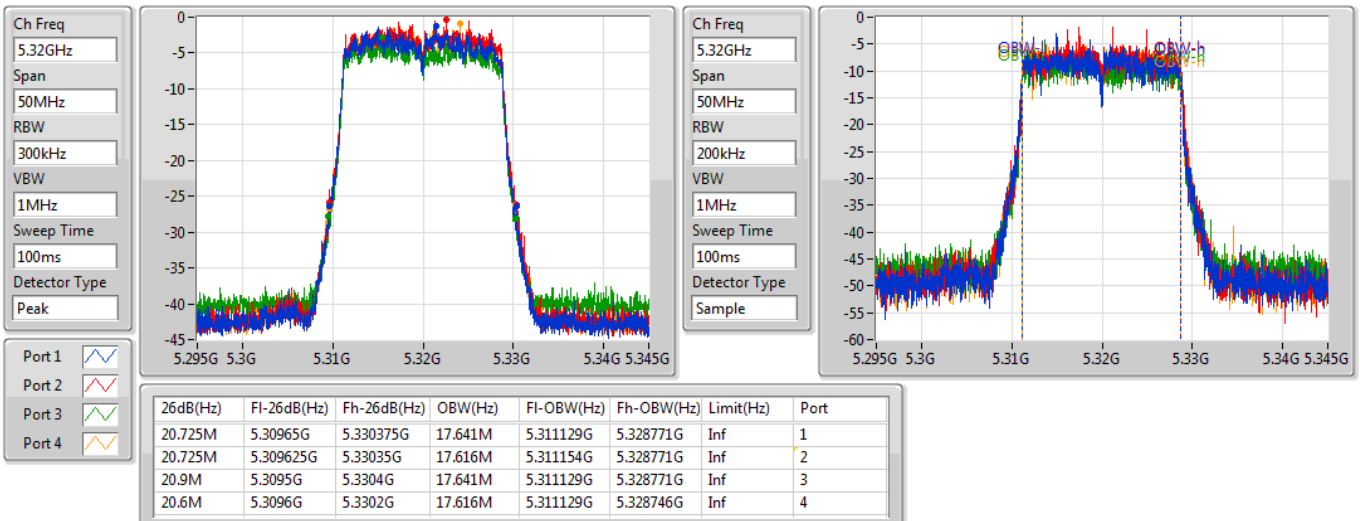


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5300MHz

10/01/2018

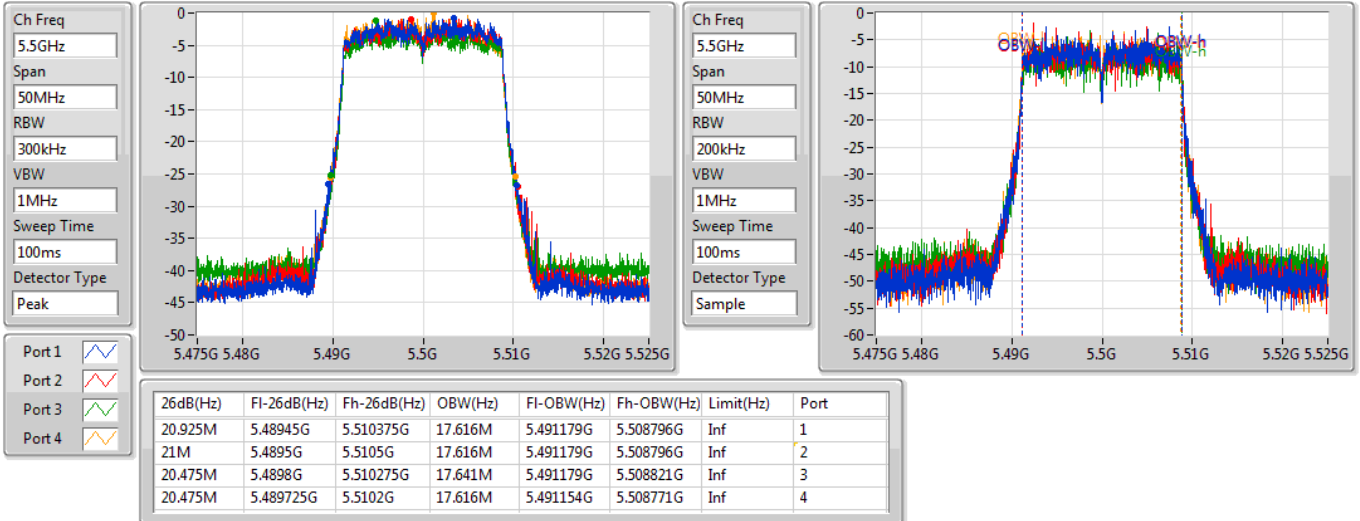

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5320MHz

10/01/2018

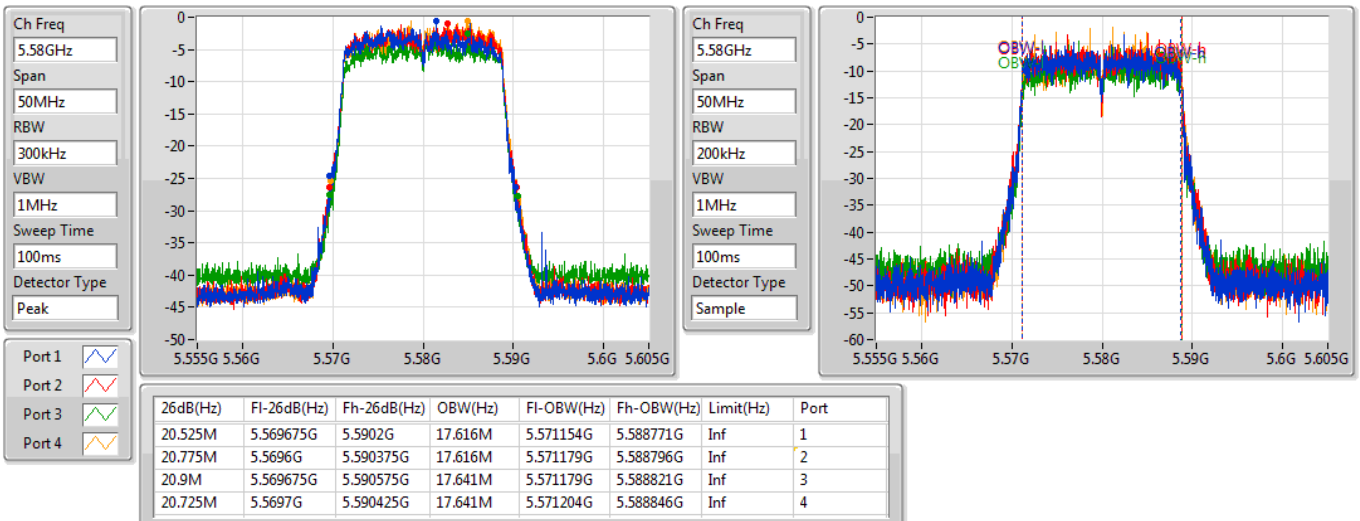


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5500MHz

11/01/2018

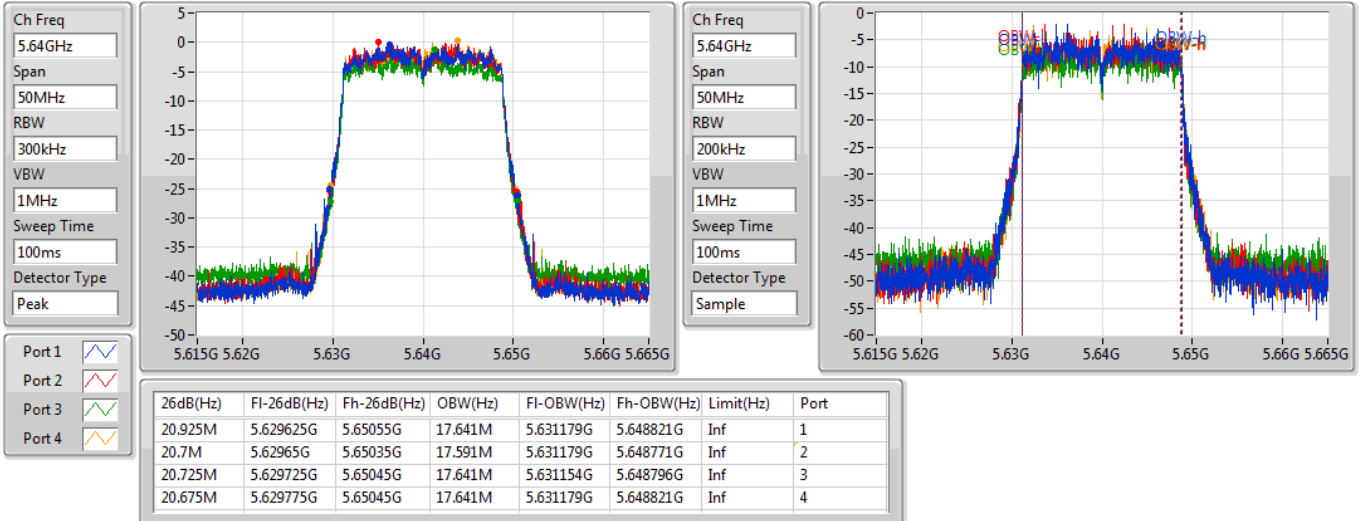

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5580MHz

11/01/2018

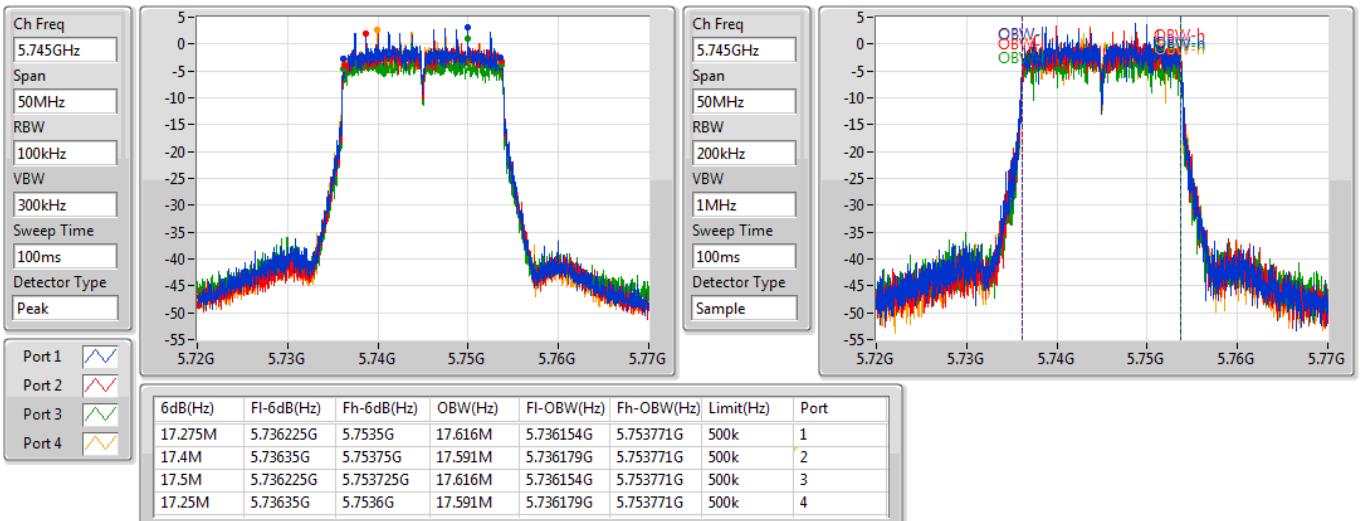


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5640MHz

11/01/2018

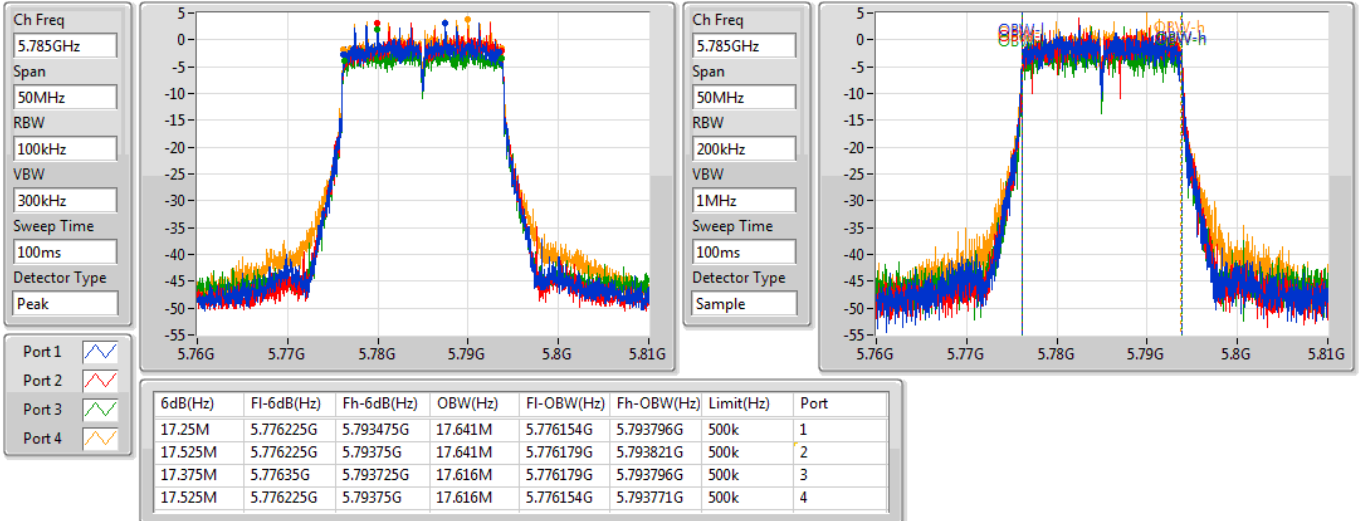

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5745MHz

11/01/2018

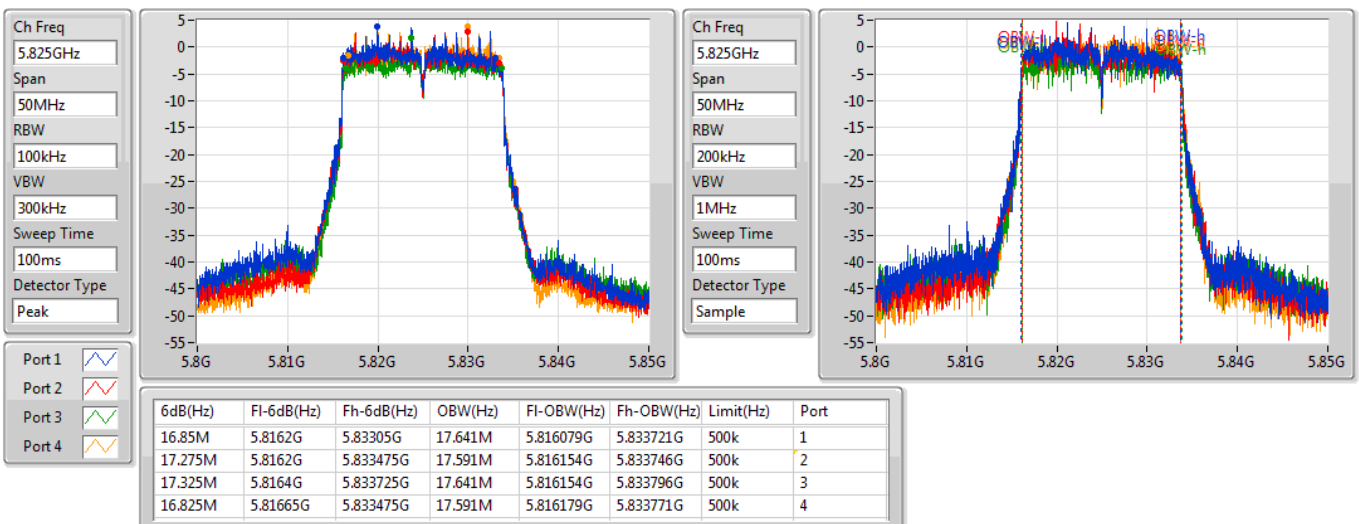


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5785MHz

11/01/2018

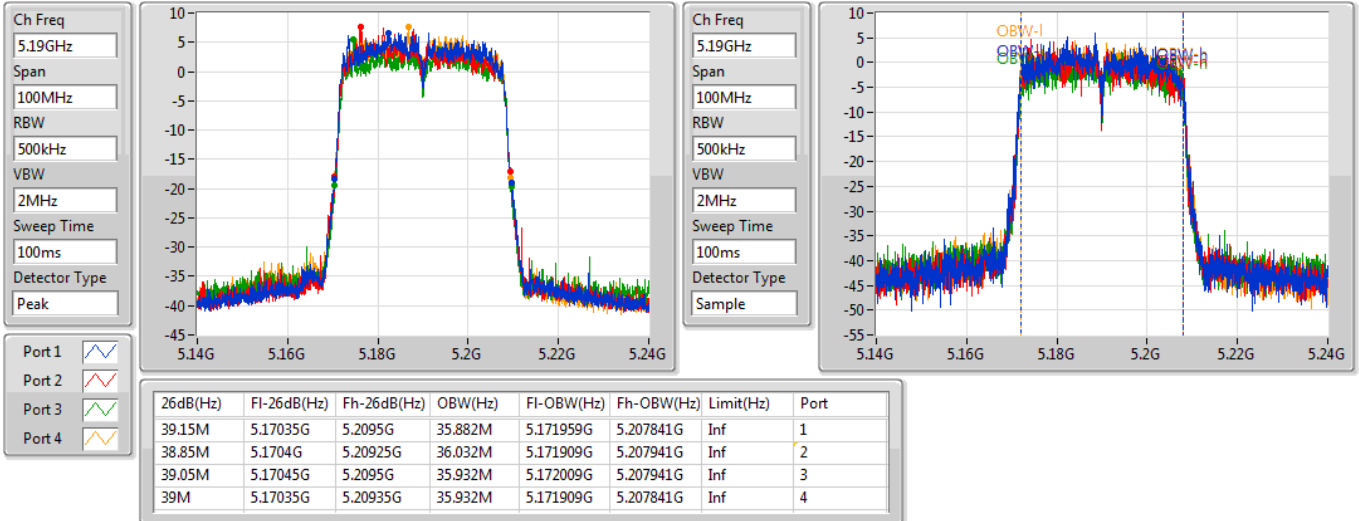

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5825MHz

11/01/2018

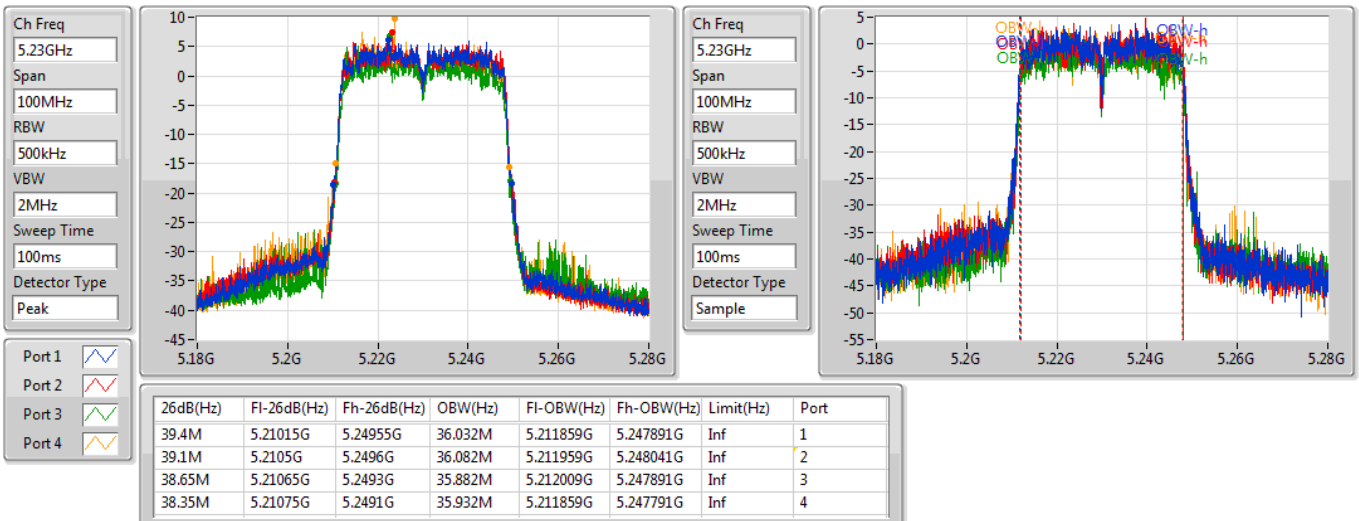


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5190MHz

10/01/2018

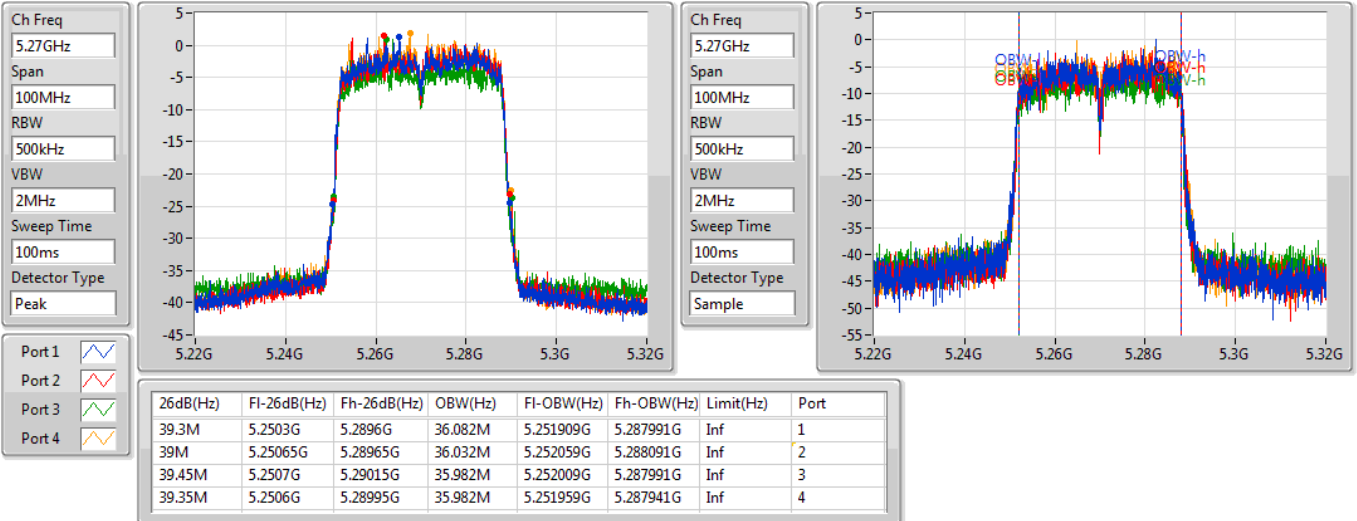

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5230MHz

10/01/2018

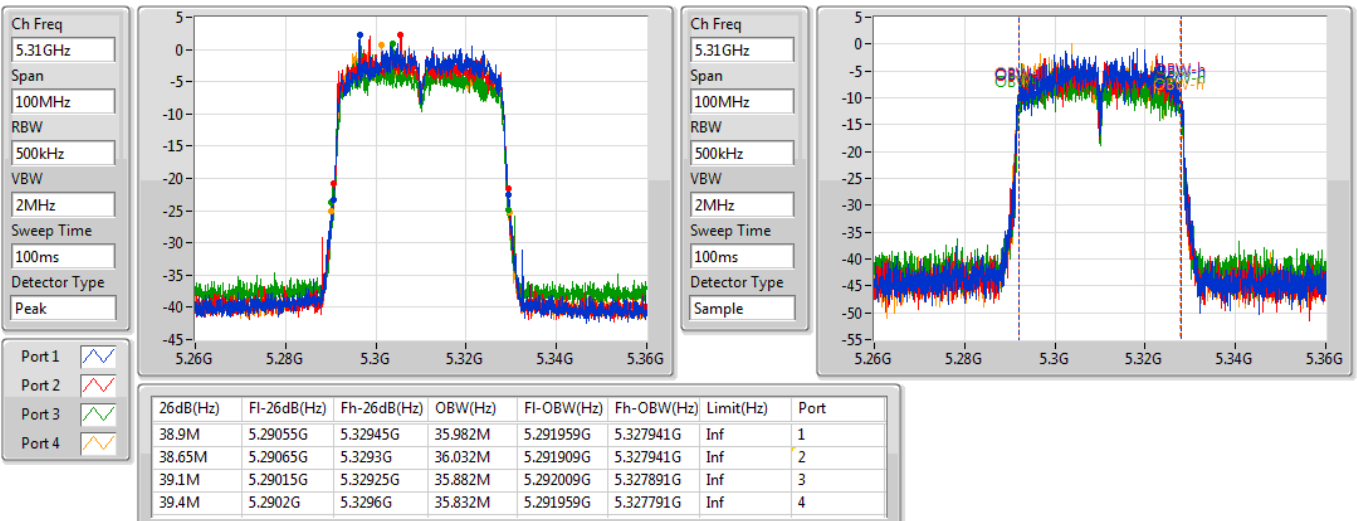


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5270MHz

10/01/2018

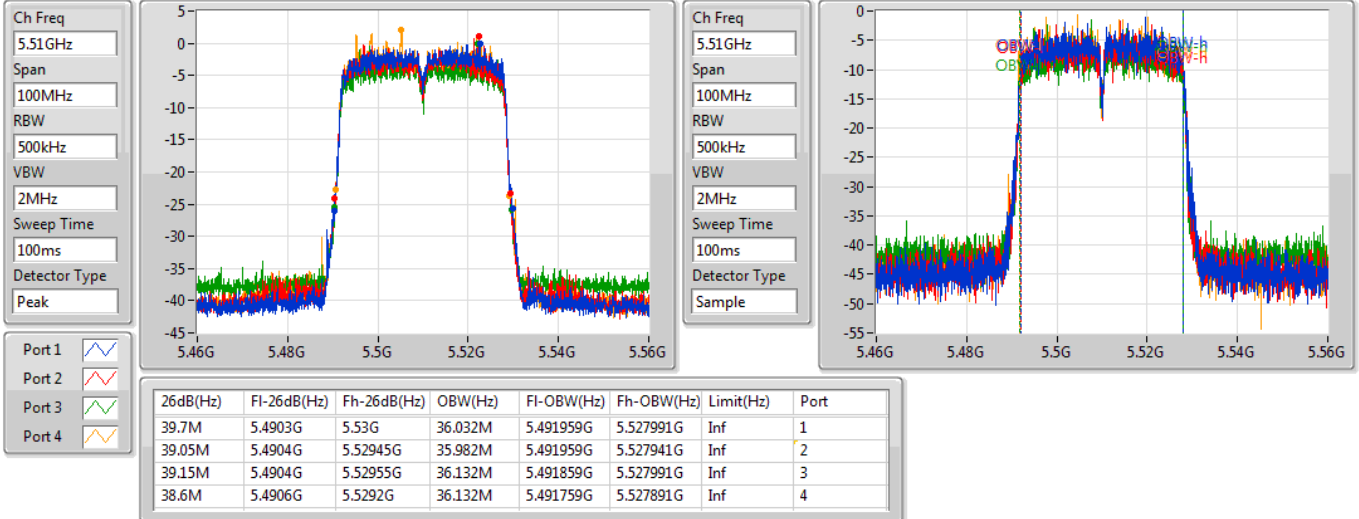

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5310MHz

10/01/2018

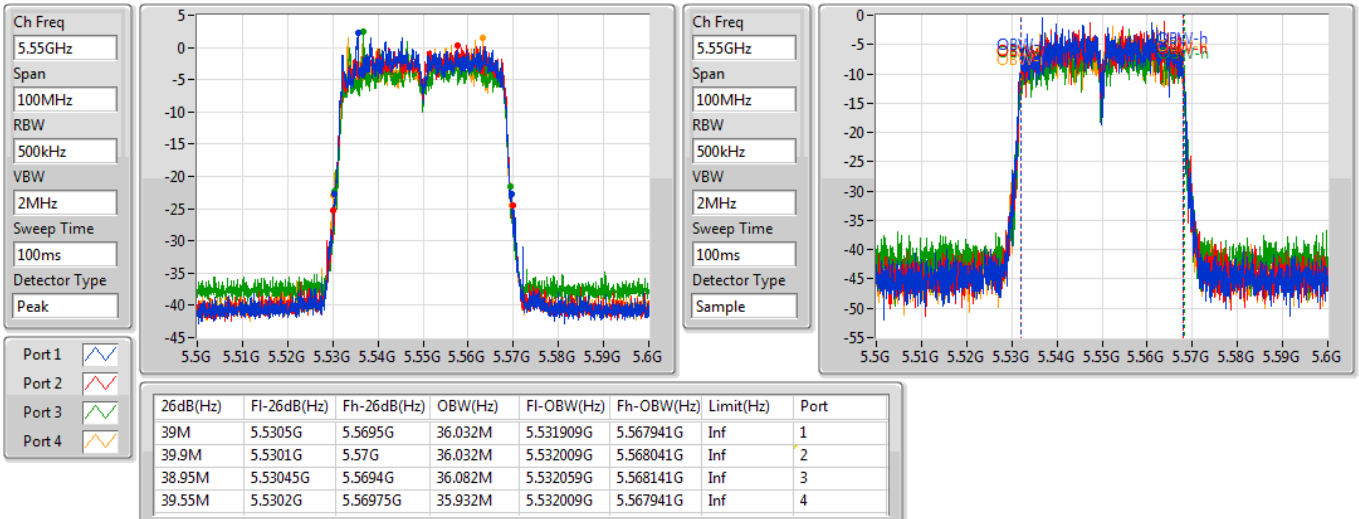


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5510MHz

11/01/2018

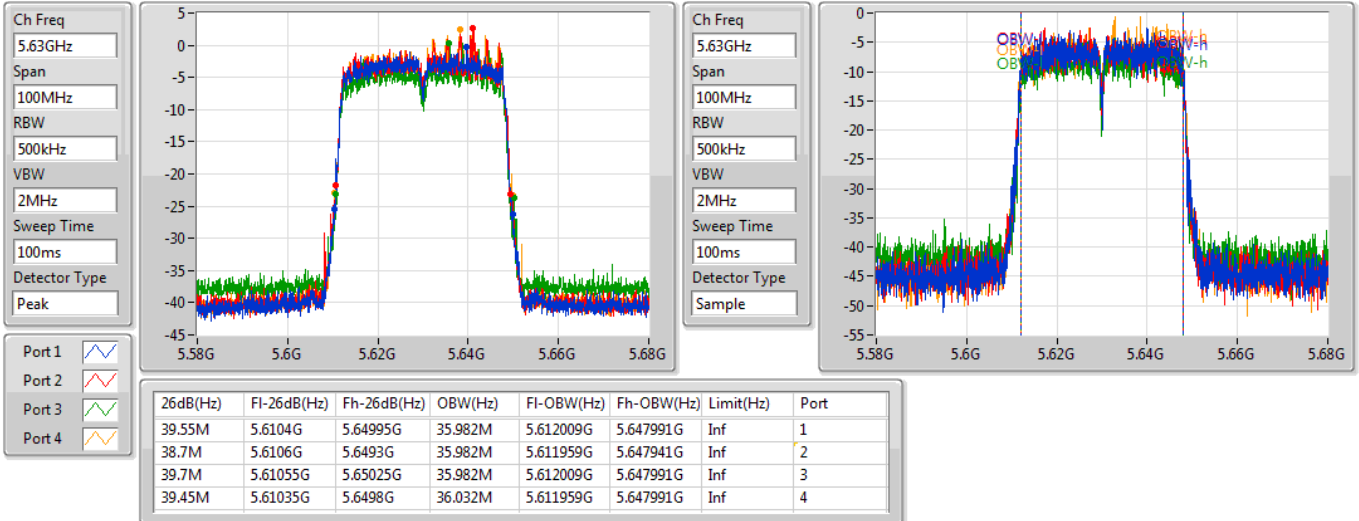

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5550MHz

11/01/2018

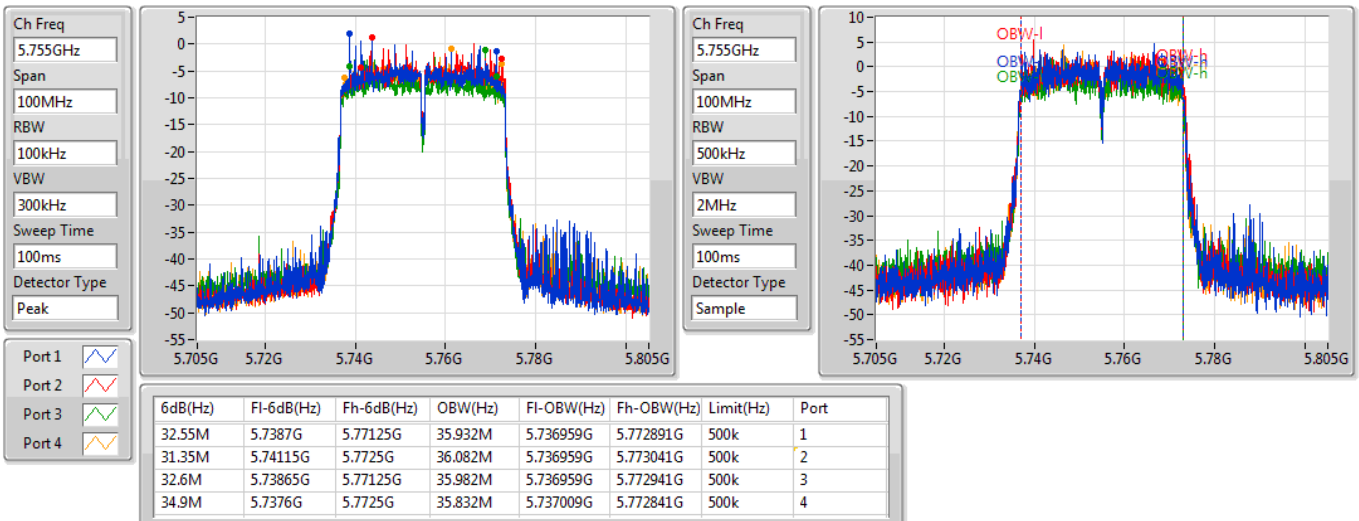


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5630MHz

11/01/2018

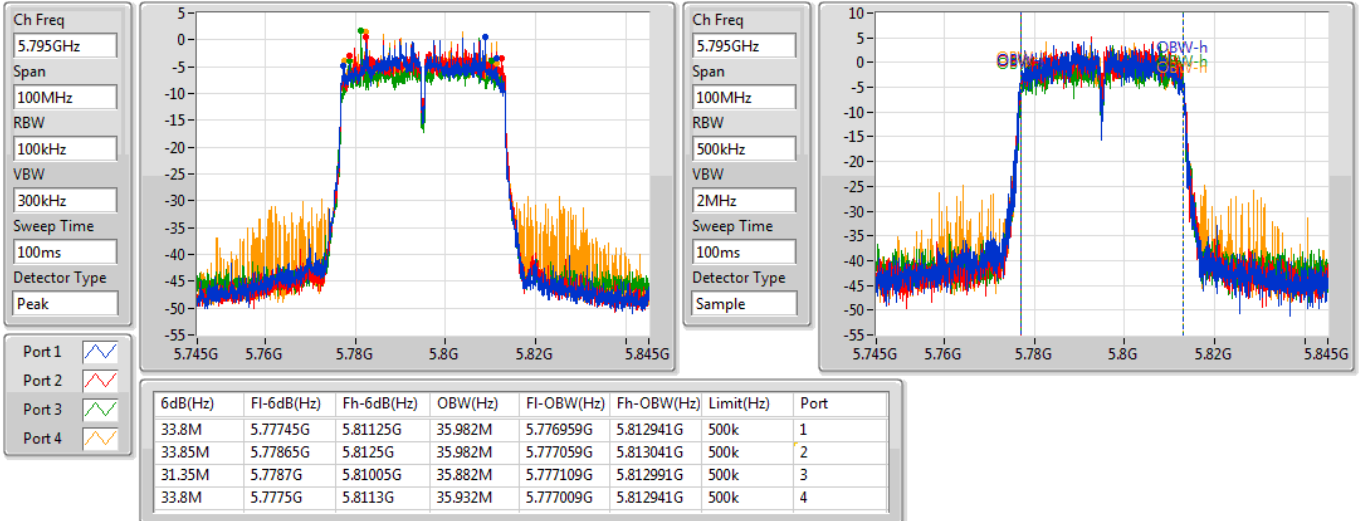

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5755MHz

11/01/2018

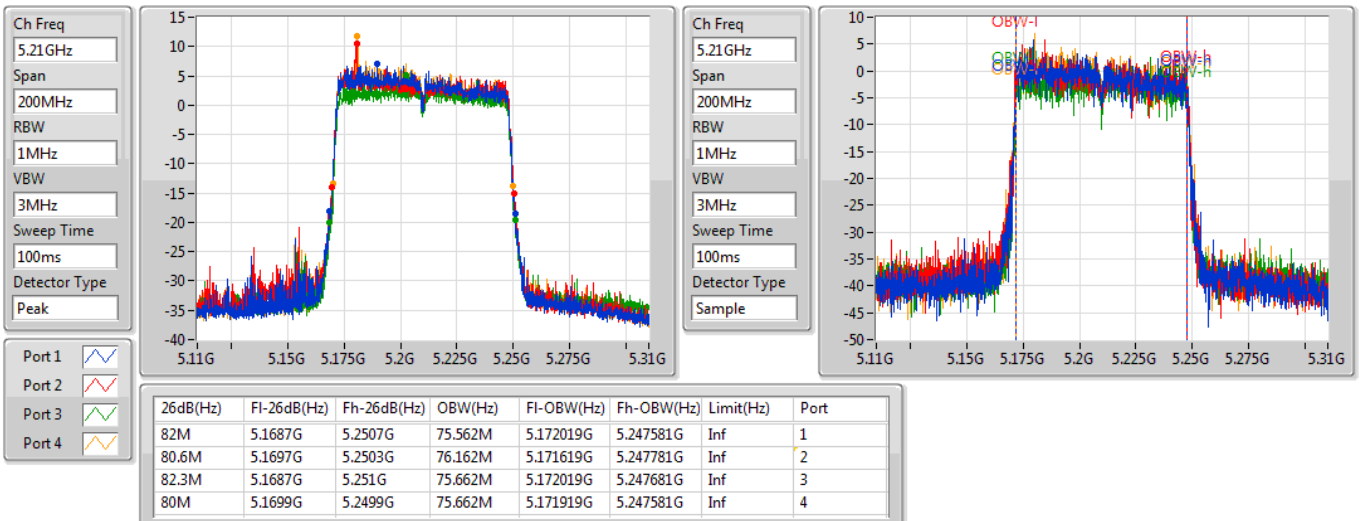


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5795MHz

11/01/2018


802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5210MHz

10/01/2018

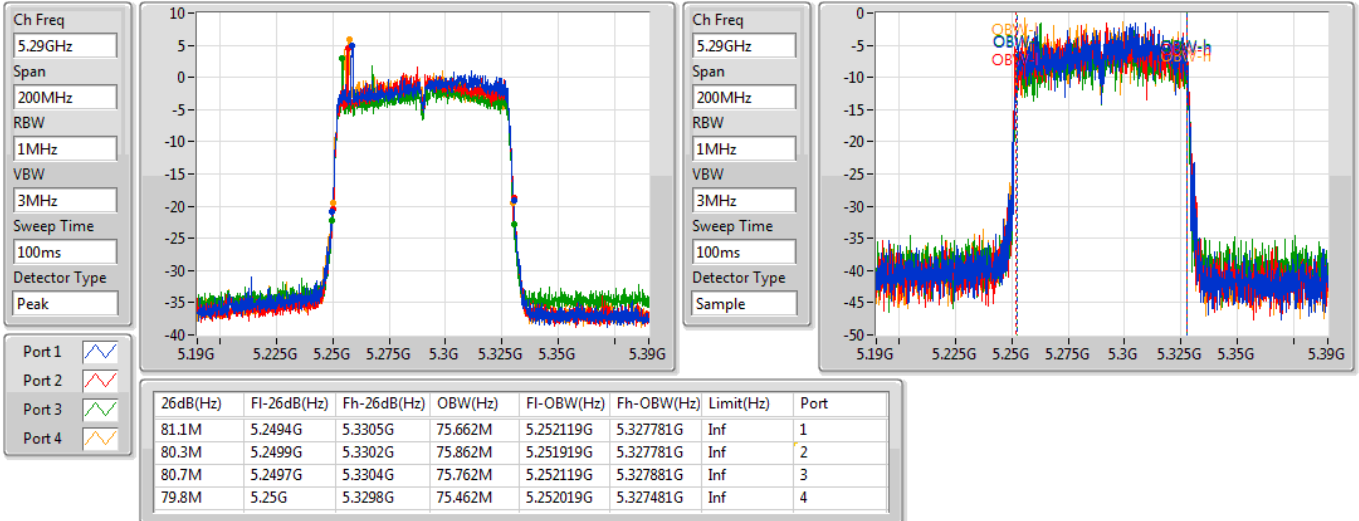


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5290MHz

10/01/2018

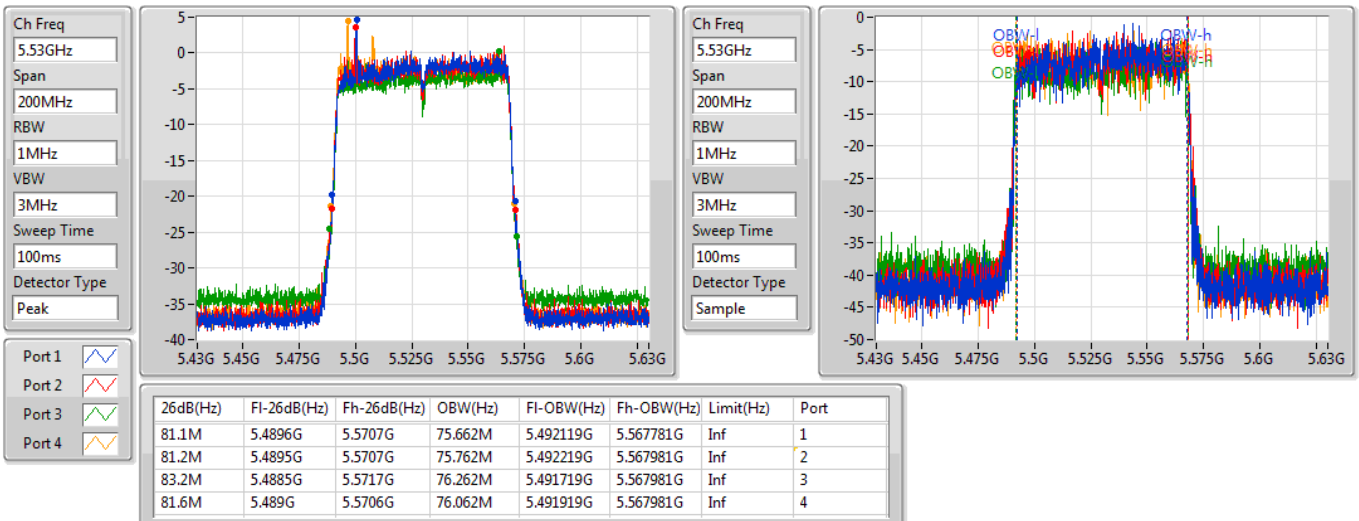


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

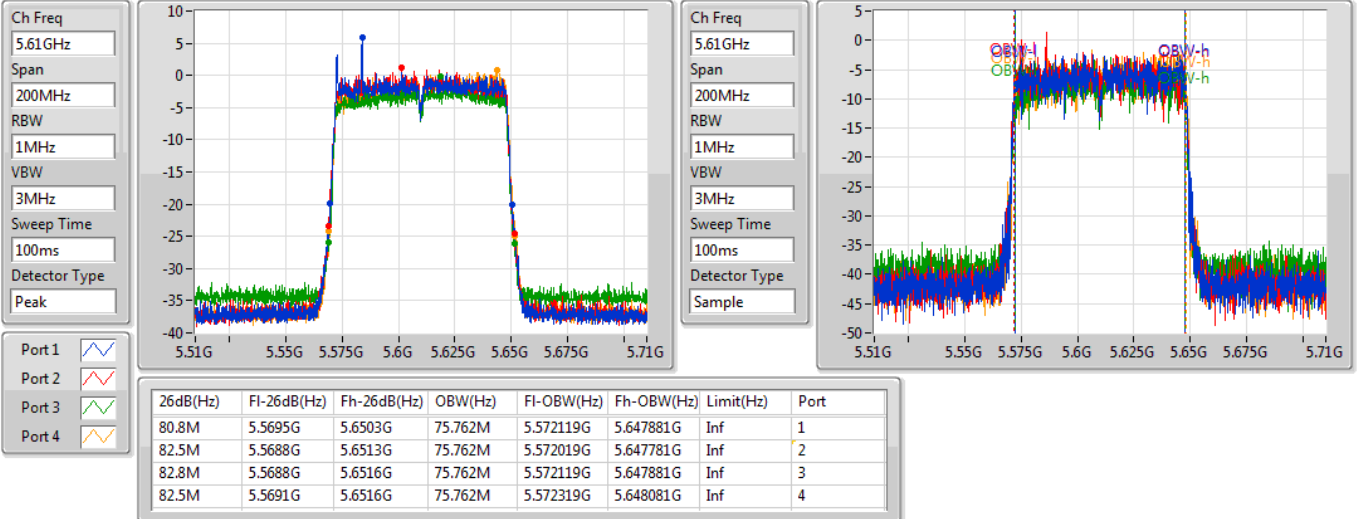
5530MHz

11/01/2018

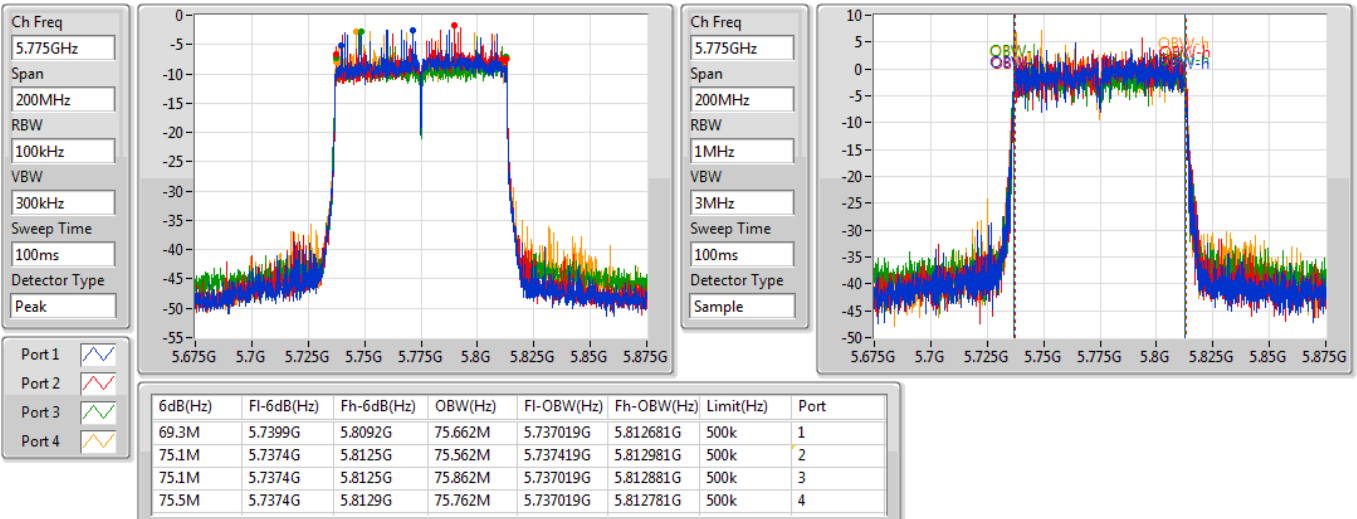


802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5610MHz

11/01/2018

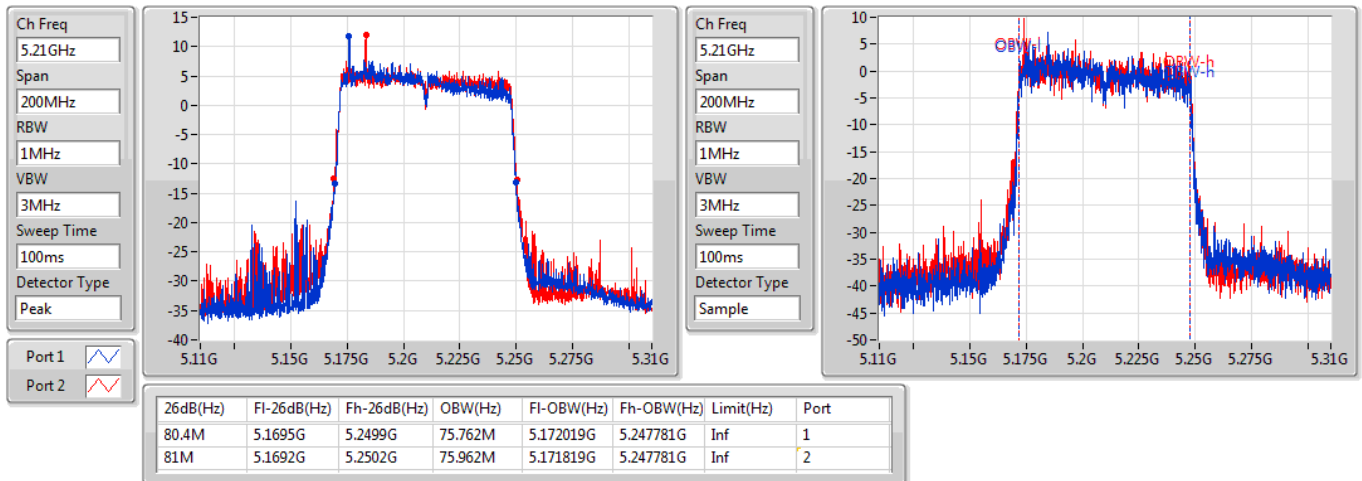

802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5775MHz

11/01/2018

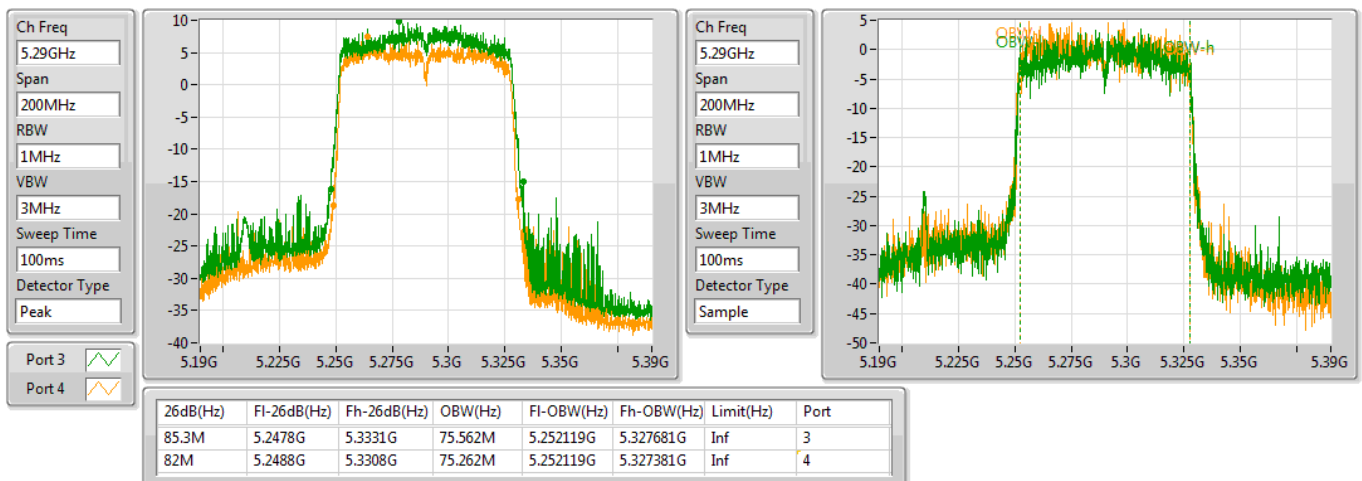


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX(Port1&Port2)
EBW
#5210MHz,5290MHz

10/01/2018


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX(Port3&Port4)
EBW
5210MHz,#5290MHz

10/01/2018

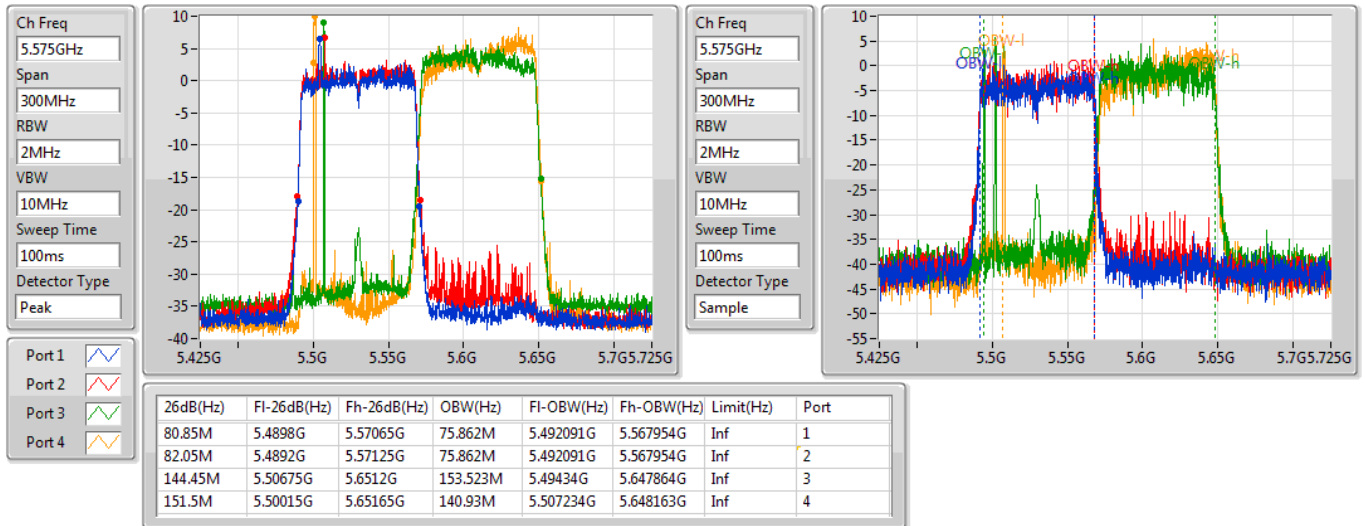


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

11/01/2018



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21.9M	17.716M	17M7D1D	19.925M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	40.3M	36.432M	36M4D1D	38.9M	36.032M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	81.4M	77.161M	77M2D1D	80.4M	75.962M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	83.3M	76.062M	76M1D1D	81.3M	75.662M
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.9M	17.641M	17M6D1D	20M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	39.45M	36.082M	36M1D1D	38.65M	35.832M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	81.1M	75.862M	75M9D1D	79.8M	75.462M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	85.2M	75.862M	75M9D1D	82.8M	75.262M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21M	17.666M	17M7D1D	20.475M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	39.9M	36.132M	36M1D1D	38.6M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	83.2M	76.262M	76M3D1D	80.8M	75.662M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	151.5M	153.523M	154MD1D	80.85M	75.862M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	17.525M	17.641M	17M6D1D	16.825M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	34.9M	36.082M	36M1D1D	31.35M	35.832M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	75.5M	75.862M	75M9D1D	69.3M	75.562M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.9M	17.666M	20.95M	17.566M	21.45M	17.691M	20.775M	17.641M
5200MHz	Pass	Inf	20.5M	17.666M	20.875M	17.616M	21.475M	17.716M	19.925M	17.641M
5240MHz	Pass	Inf	20.6M	17.641M	20.925M	17.616M	21.9M	17.716M	20.825M	17.666M
5260MHz	Pass	Inf	20M	17.616M	20.525M	17.616M	20.75M	17.641M	20.775M	17.616M
5300MHz	Pass	Inf	20.625M	17.616M	20.475M	17.591M	20.85M	17.591M	20M	17.591M
5320MHz	Pass	Inf	20.725M	17.641M	20.725M	17.616M	20.9M	17.641M	20.6M	17.616M
5500MHz	Pass	Inf	20.925M	17.616M	21M	17.616M	20.475M	17.641M	20.475M	17.616M
5580MHz	Pass	Inf	20.525M	17.616M	20.775M	17.616M	20.9M	17.641M	20.725M	17.641M
5640MHz	Pass	Inf	20.925M	17.641M	20.7M	17.591M	20.725M	17.641M	20.675M	17.641M
5745MHz	Pass	500k	17.275M	17.616M	17.4M	17.591M	17.5M	17.616M	17.25M	17.591M
5785MHz	Pass	500k	17.25M	17.641M	17.525M	17.641M	17.375M	17.616M	17.525M	17.616M
5825MHz	Pass	500k	16.85M	17.641M	17.275M	17.591M	17.325M	17.641M	16.825M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	38.9M	36.032M	39.3M	36.132M	40.3M	36.232M	39.35M	36.032M
5230MHz	Pass	Inf	39.75M	36.082M	39.3M	36.132M	40.25M	36.432M	39M	36.232M
5270MHz	Pass	Inf	39.3M	36.082M	39M	36.032M	39.45M	35.982M	39.35M	35.982M
5310MHz	Pass	Inf	38.9M	35.982M	38.65M	36.032M	39.1M	35.882M	39.4M	35.832M
5510MHz	Pass	Inf	39.7M	36.032M	39.05M	35.982M	39.15M	36.132M	38.6M	36.132M
5550MHz	Pass	Inf	39M	36.032M	39.9M	36.032M	38.95M	36.082M	39.55M	35.932M
5630MHz	Pass	Inf	39.55M	35.982M	38.7M	35.982M	39.7M	35.982M	39.45M	36.032M
5755MHz	Pass	500k	32.55M	35.932M	31.35M	36.082M	32.6M	35.982M	34.9M	35.832M
5795MHz	Pass	500k	33.8M	35.982M	33.85M	35.982M	31.35M	35.882M	33.8M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.1M	76.262M	81.1M	76.362M	81.4M	77.161M	80.4M	75.962M
5290MHz	Pass	Inf	81.1M	75.662M	80.3M	75.862M	80.7M	75.762M	79.8M	75.462M
5530MHz	Pass	Inf	81.1M	75.662M	81.2M	75.762M	83.2M	76.262M	81.6M	76.062M
5610MHz	Pass	Inf	80.8M	75.762M	82.5M	75.762M	82.8M	75.762M	82.5M	75.762M
5775MHz	Pass	500k	69.3M	75.662M	75.1M	75.562M	75.1M	75.862M	75.5M	75.762M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	Inf	81.3M	75.662M	83.3M	76.062M				
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	Inf					85.2M	75.862M	82.8M	75.262M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	Inf	80.85M	75.862M	82.05M	75.862M	144.45M	153.523M	151.5M	140.93M

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

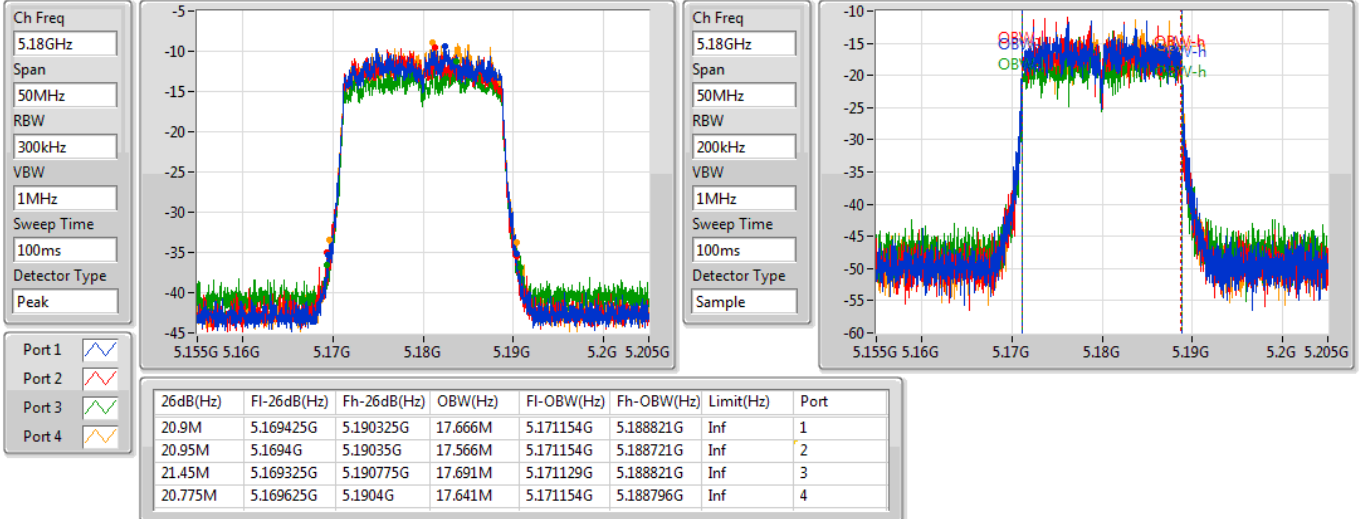
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5180MHz

10/01/2018

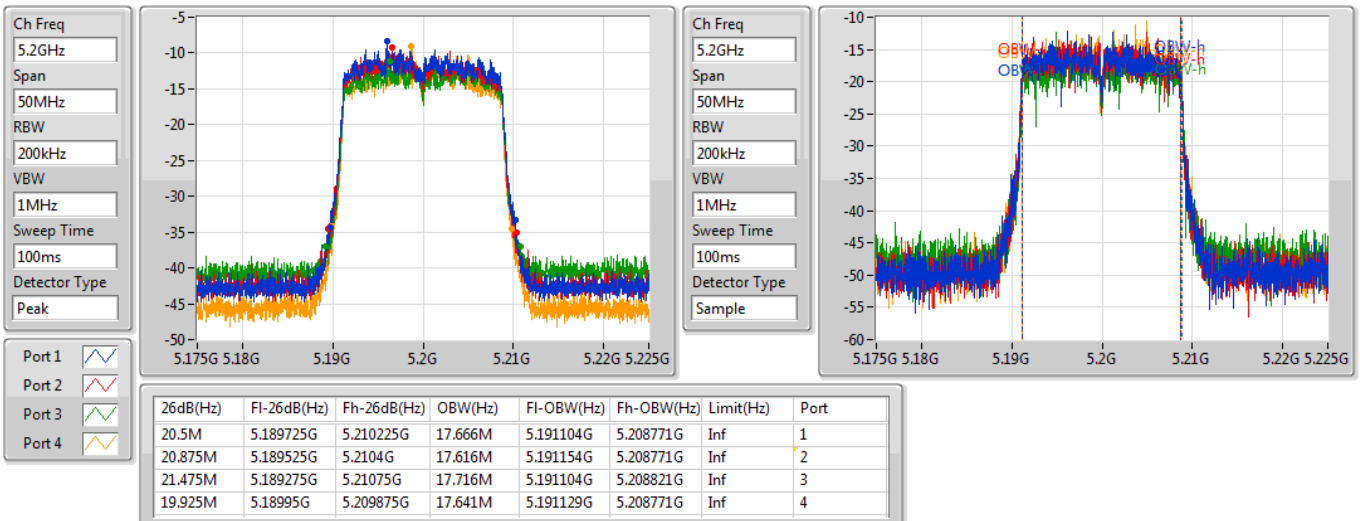


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

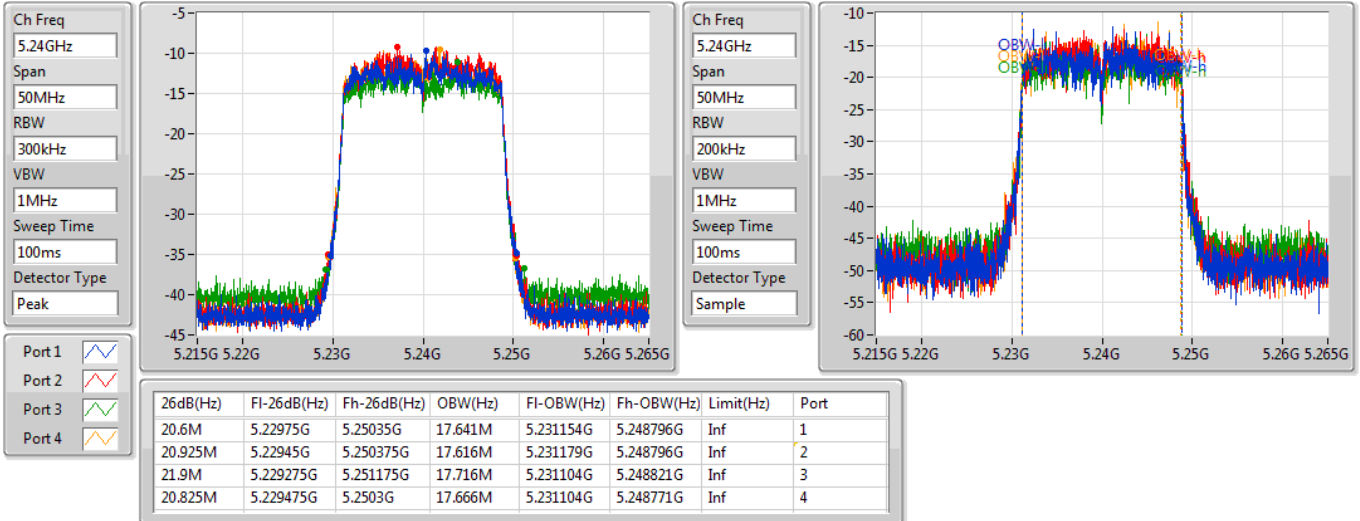
5200MHz

11/01/2018

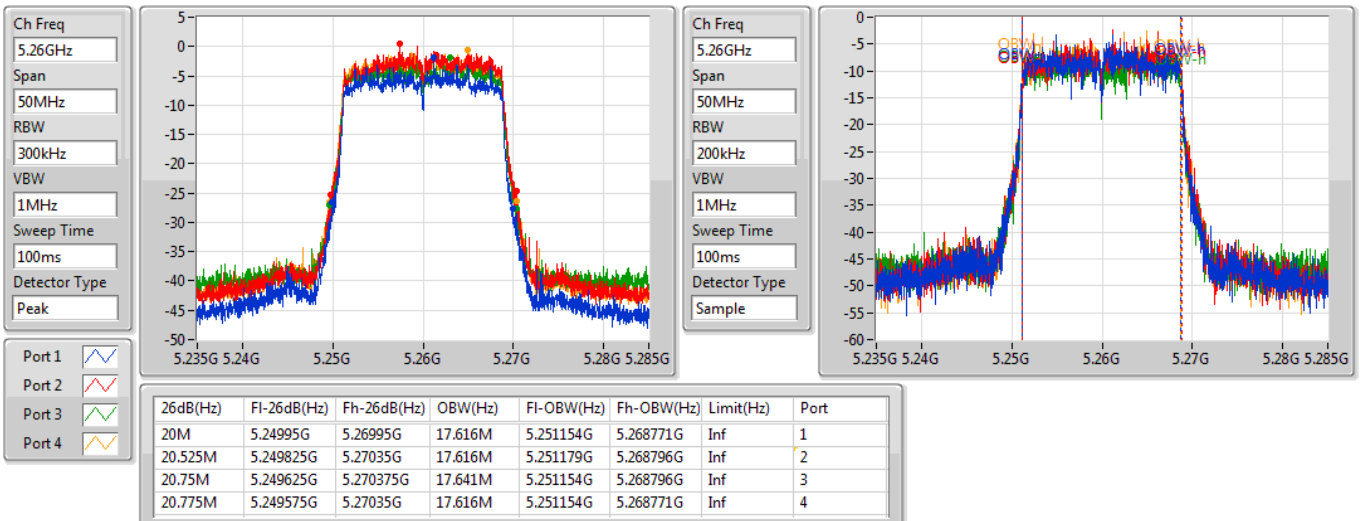


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5240MHz

11/01/2018

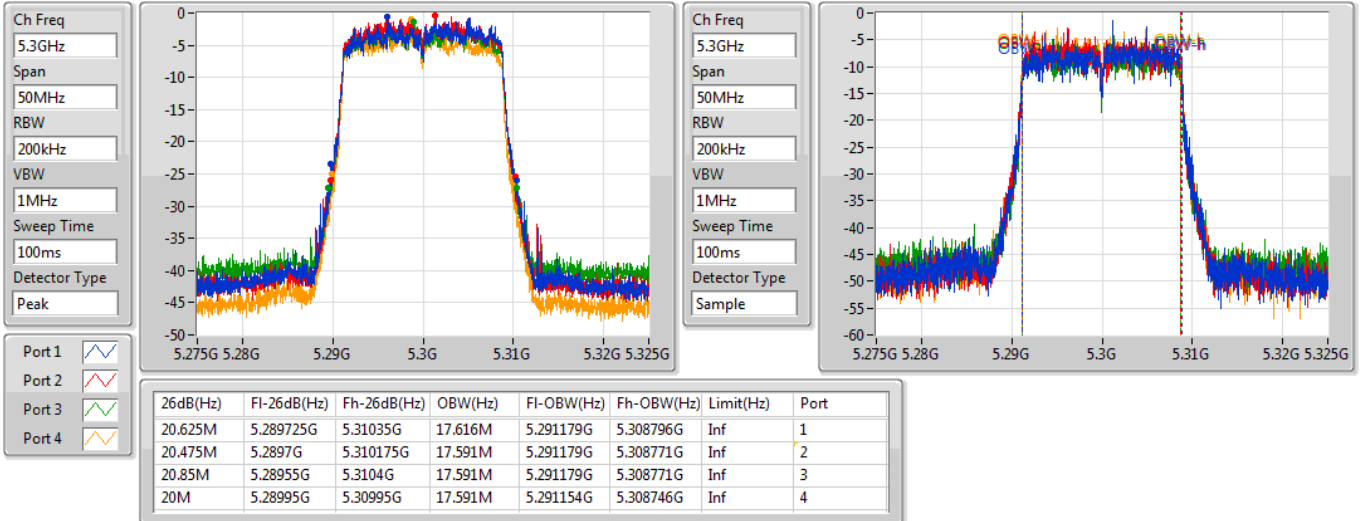

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5260MHz

10/01/2018

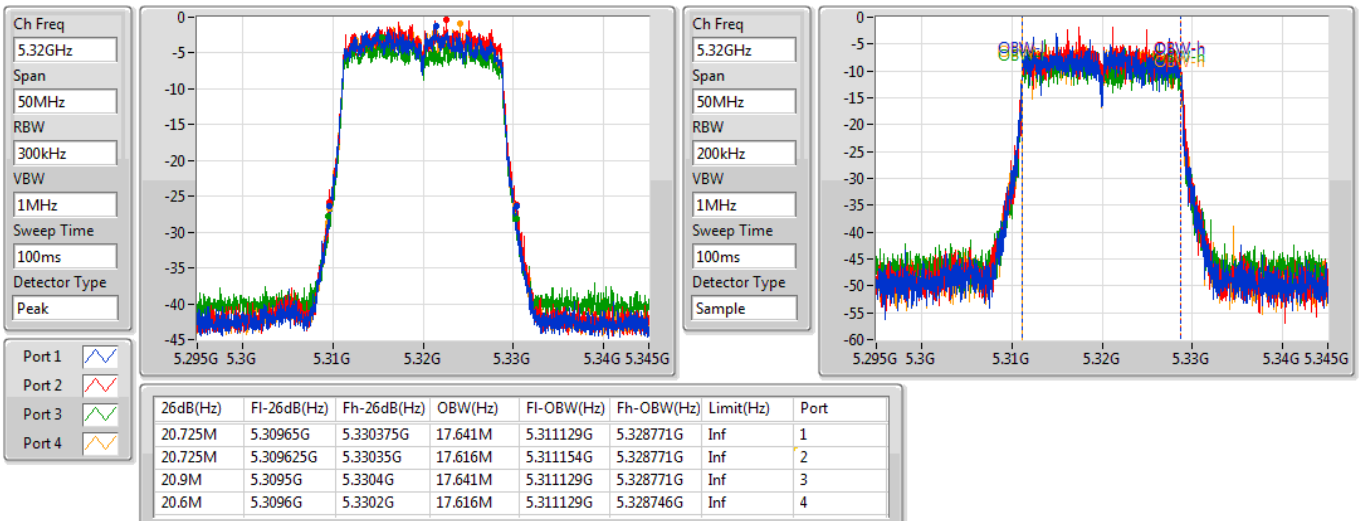


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5300MHz

10/01/2018


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5320MHz

10/01/2018

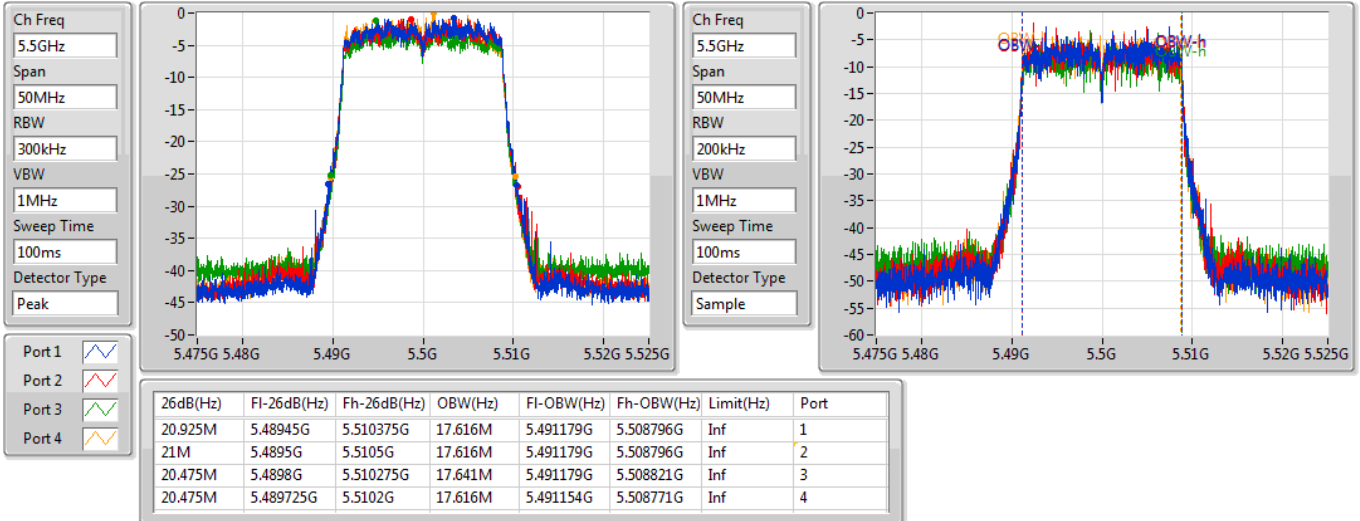


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5500MHz

11/01/2018

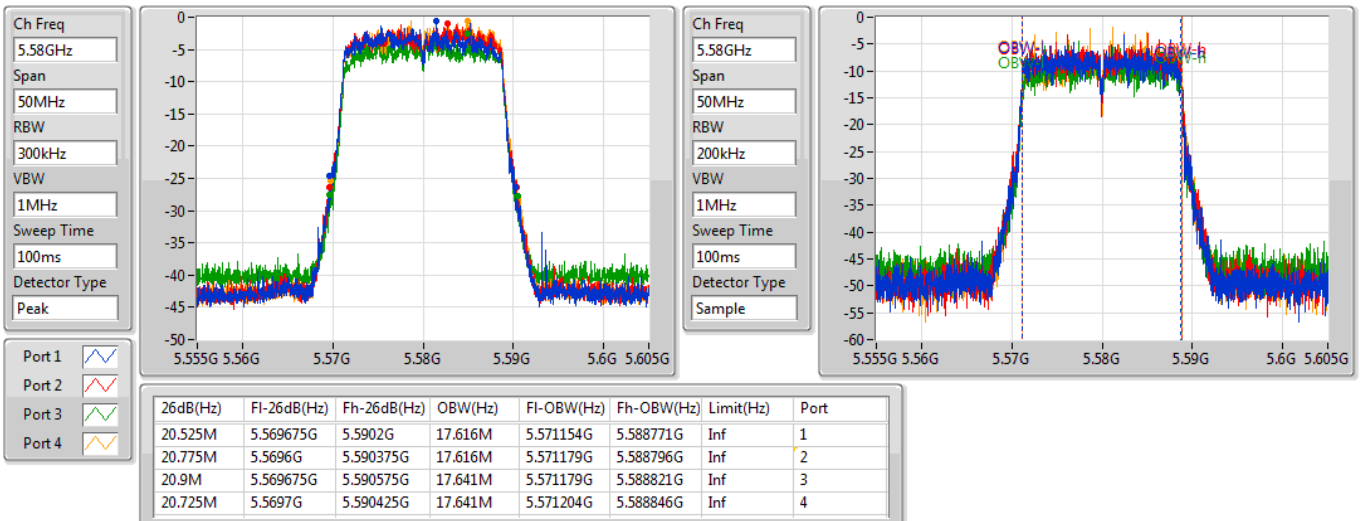


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

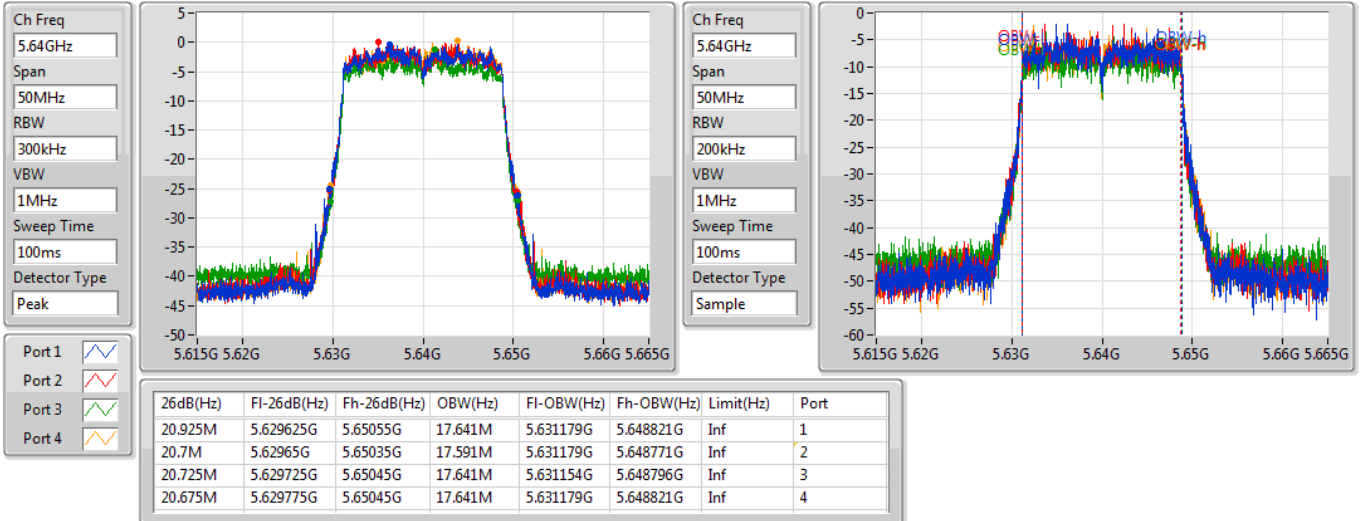
5580MHz

11/01/2018

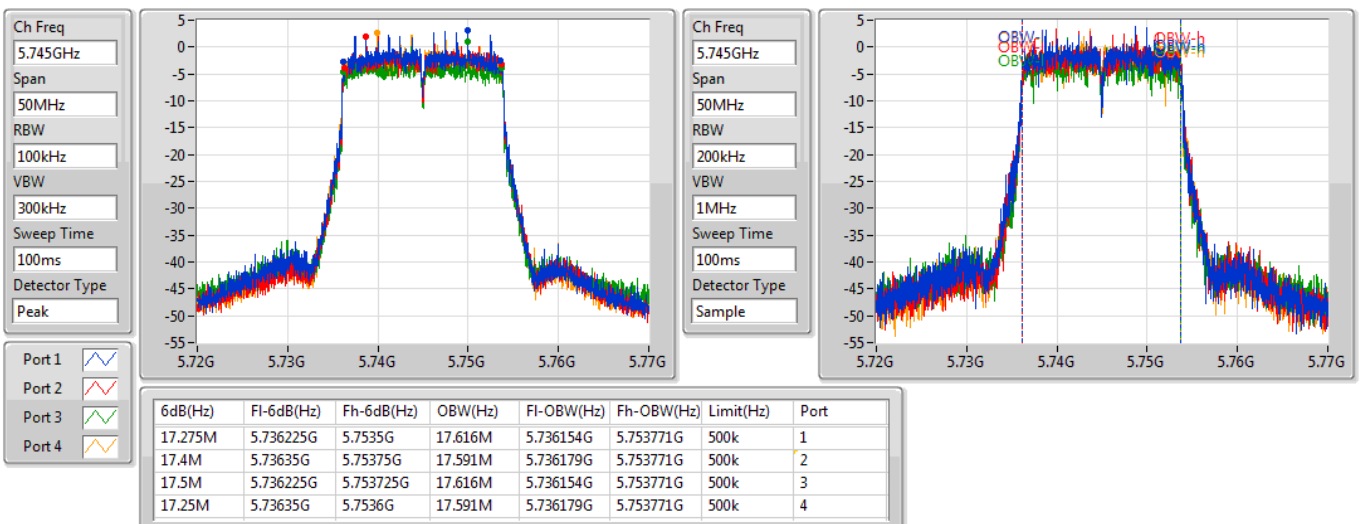


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5640MHz

11/01/2018


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5745MHz

11/01/2018

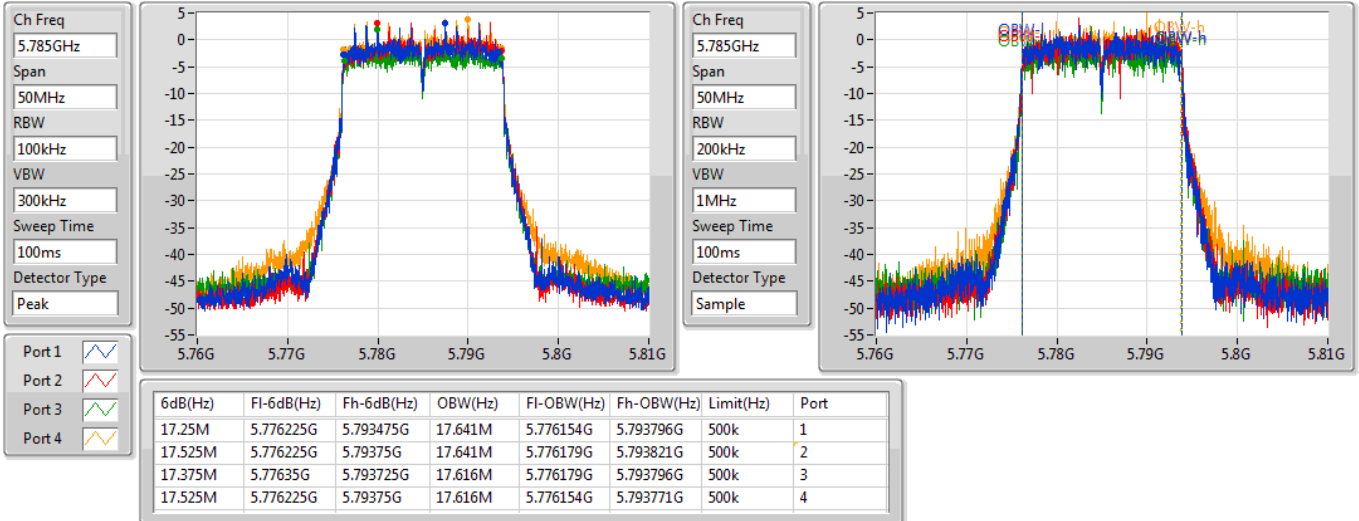


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5785MHz

11/01/2018

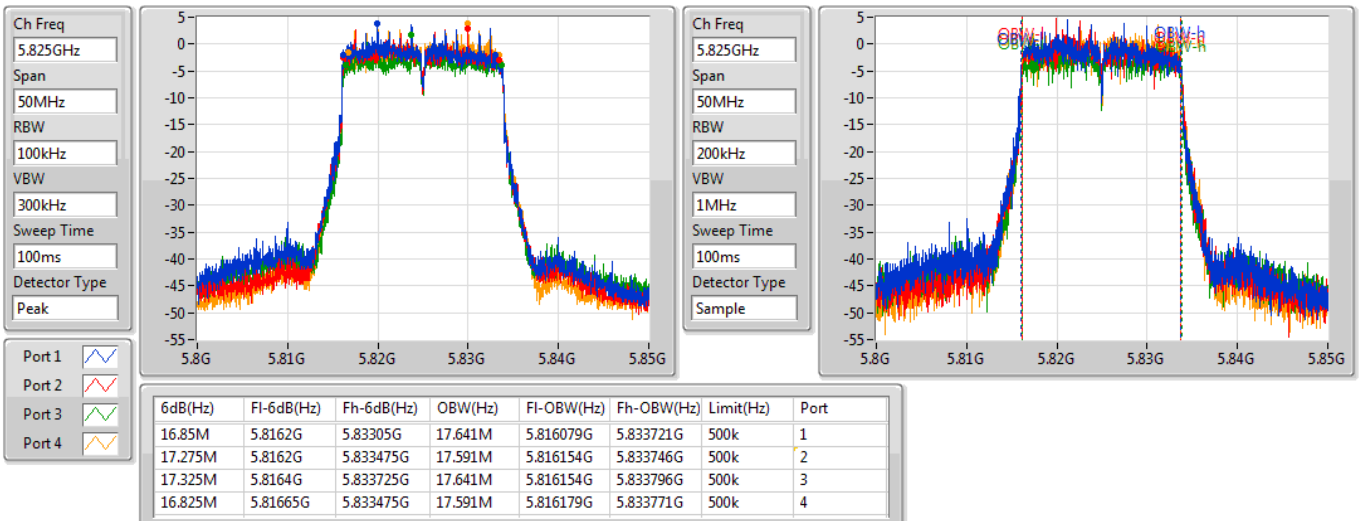


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5825MHz

11/01/2018

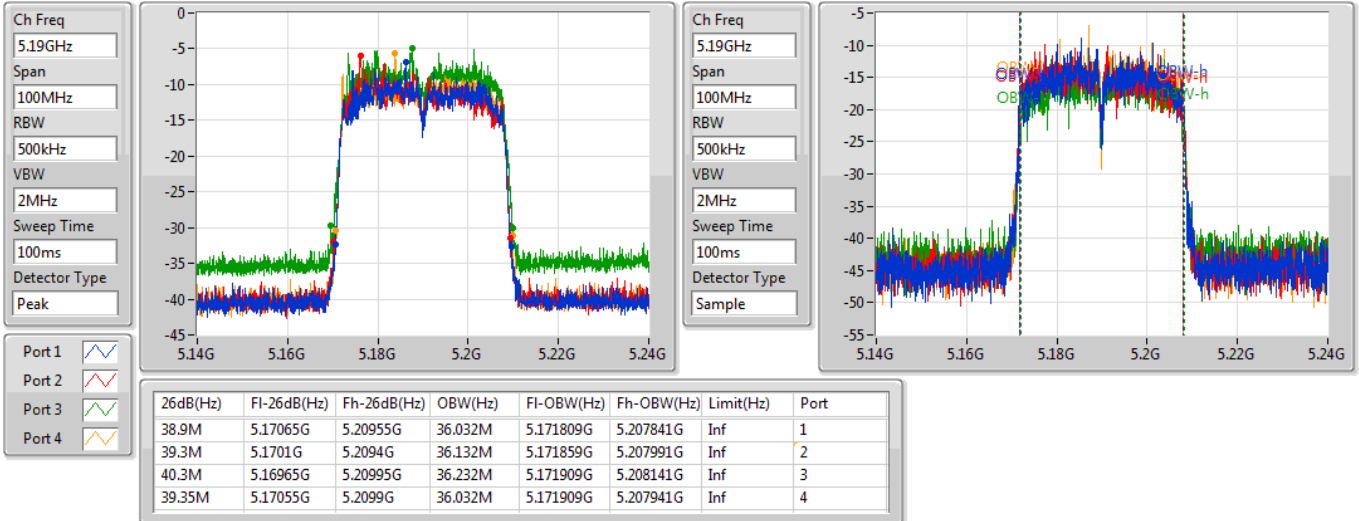


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5190MHz

11/01/2018

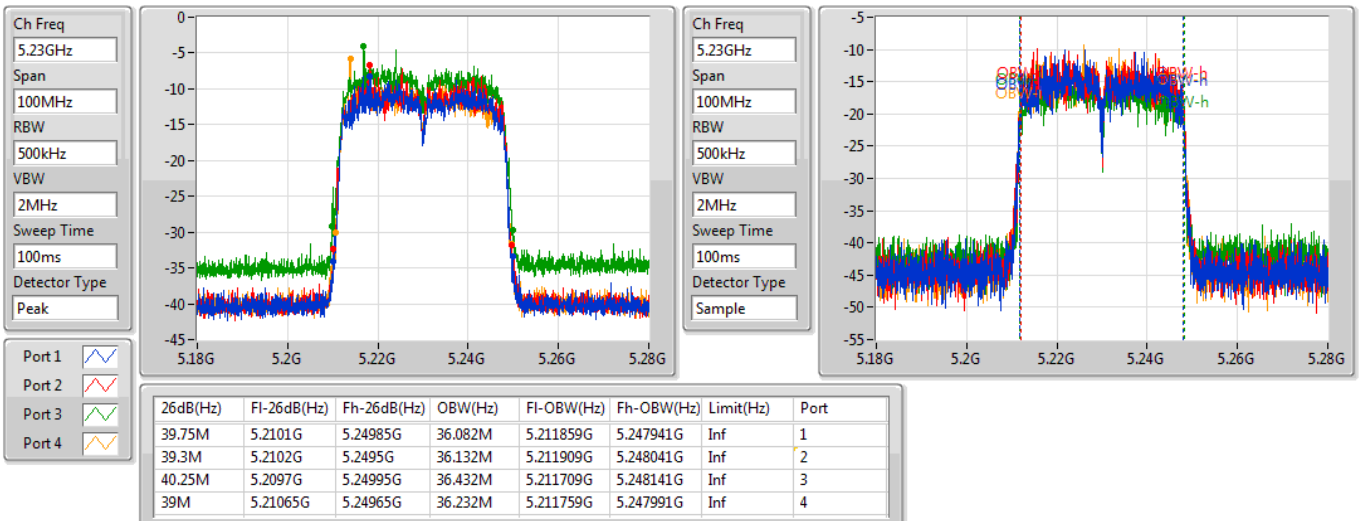


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5230MHz

11/01/2018

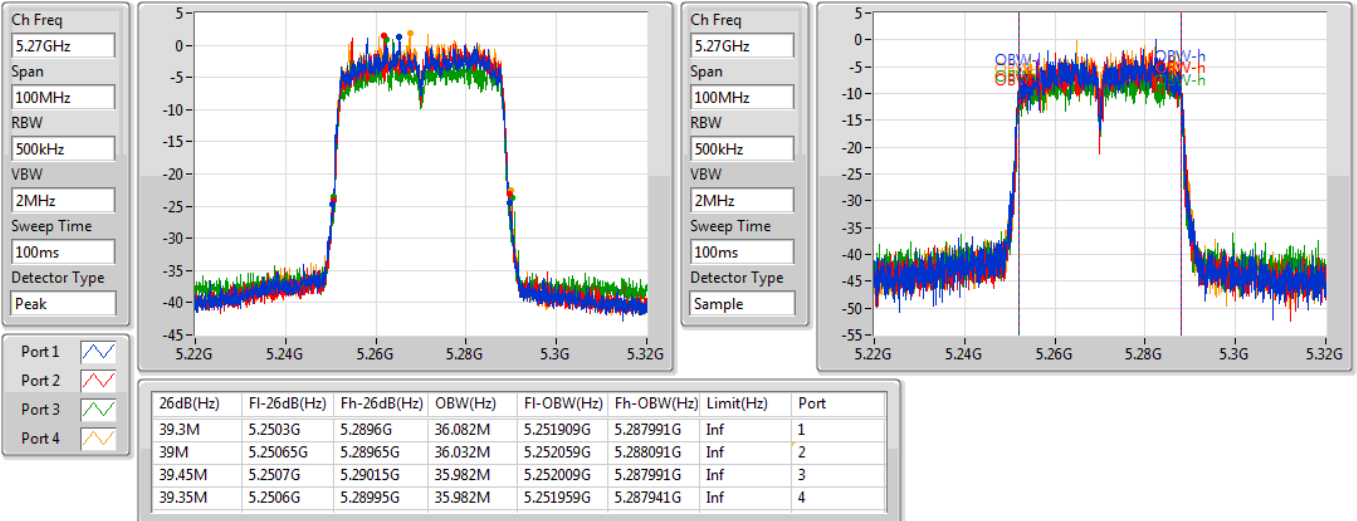


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5270MHz

10/01/2018

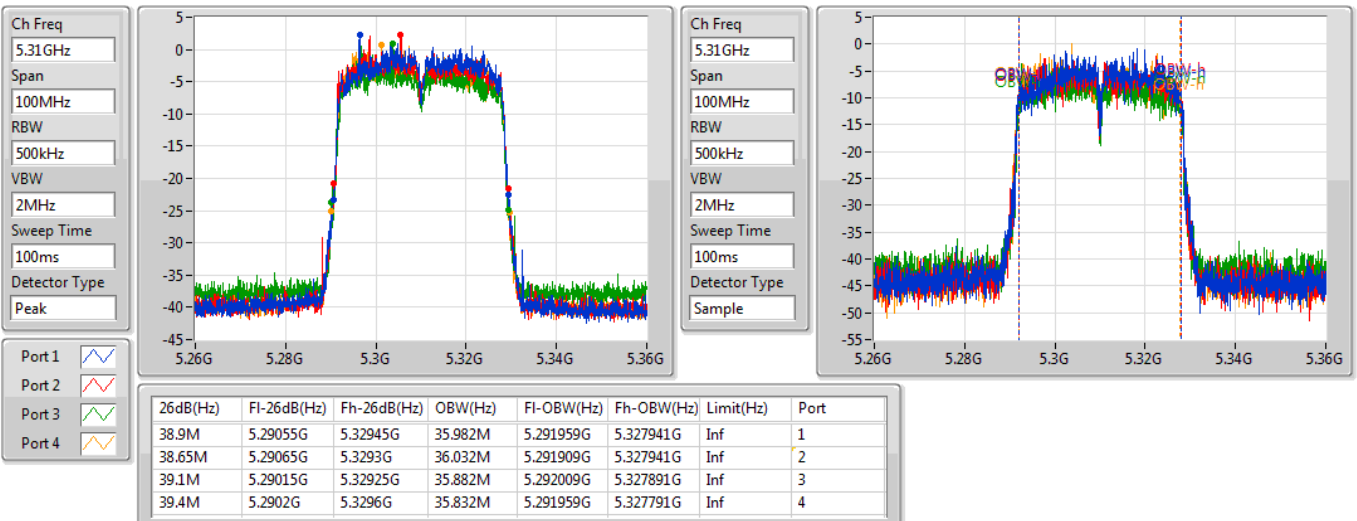


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5310MHz

10/01/2018

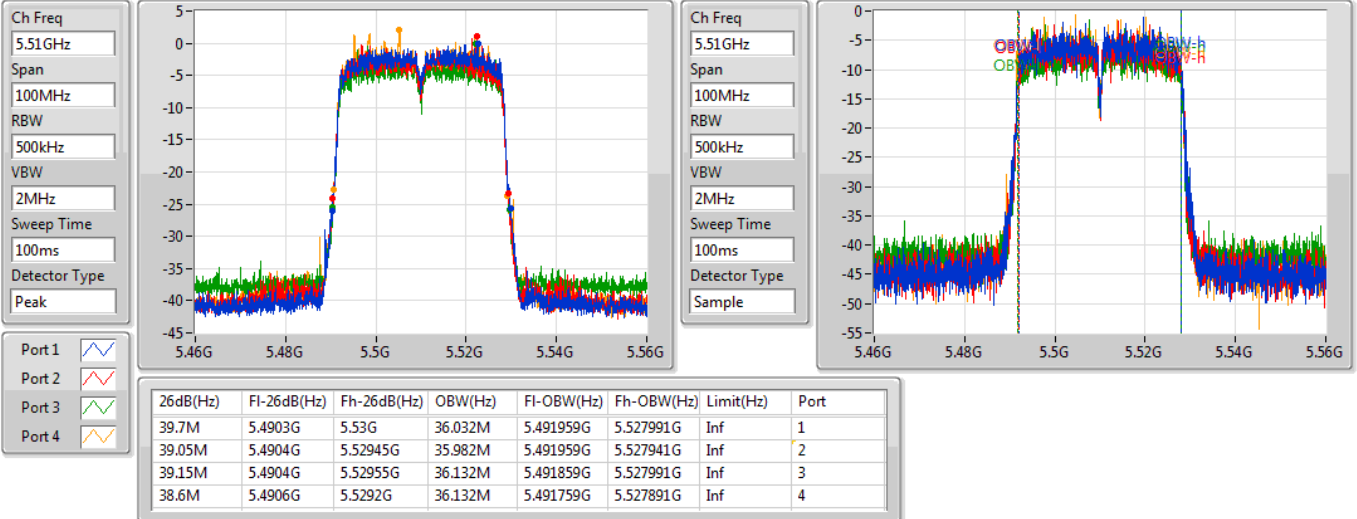


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5510MHz

11/01/2018

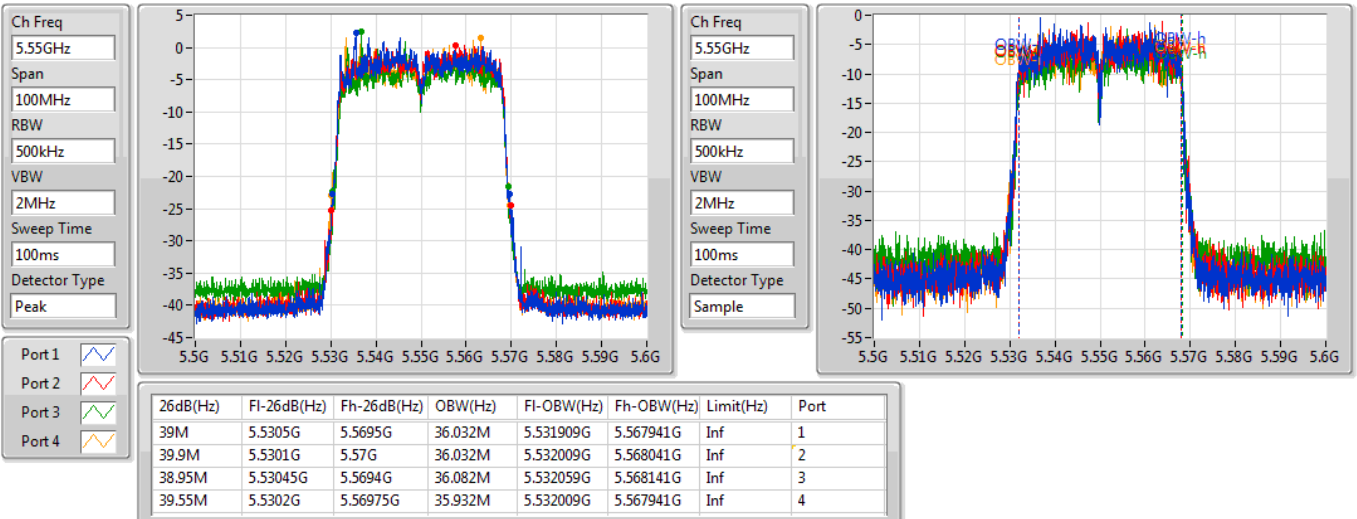


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

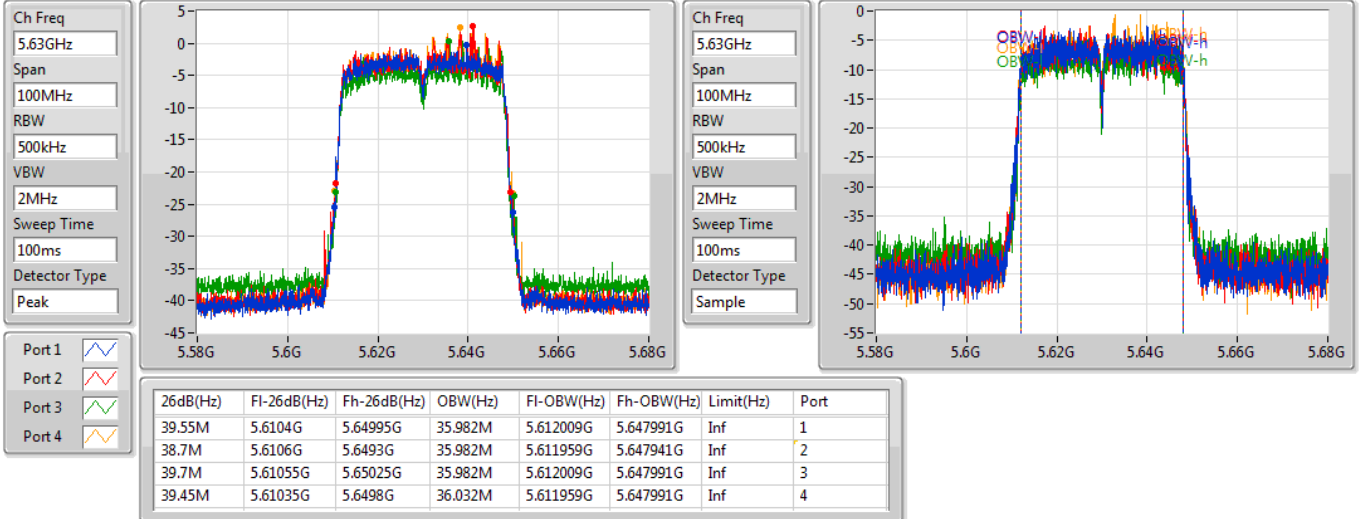
5550MHz

11/01/2018

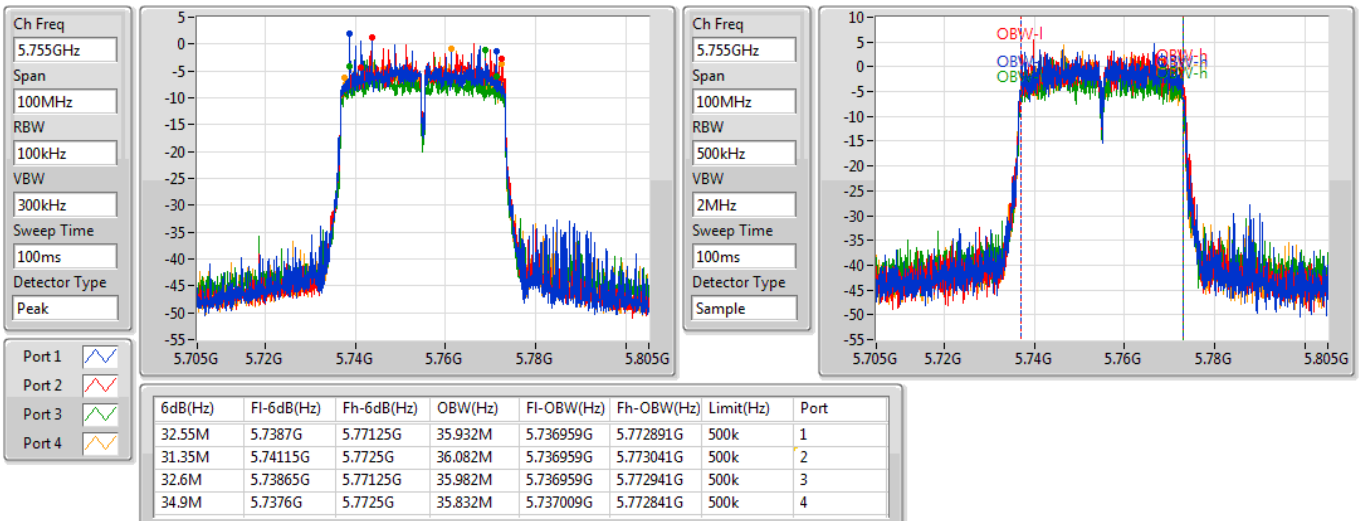


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5630MHz

11/01/2018

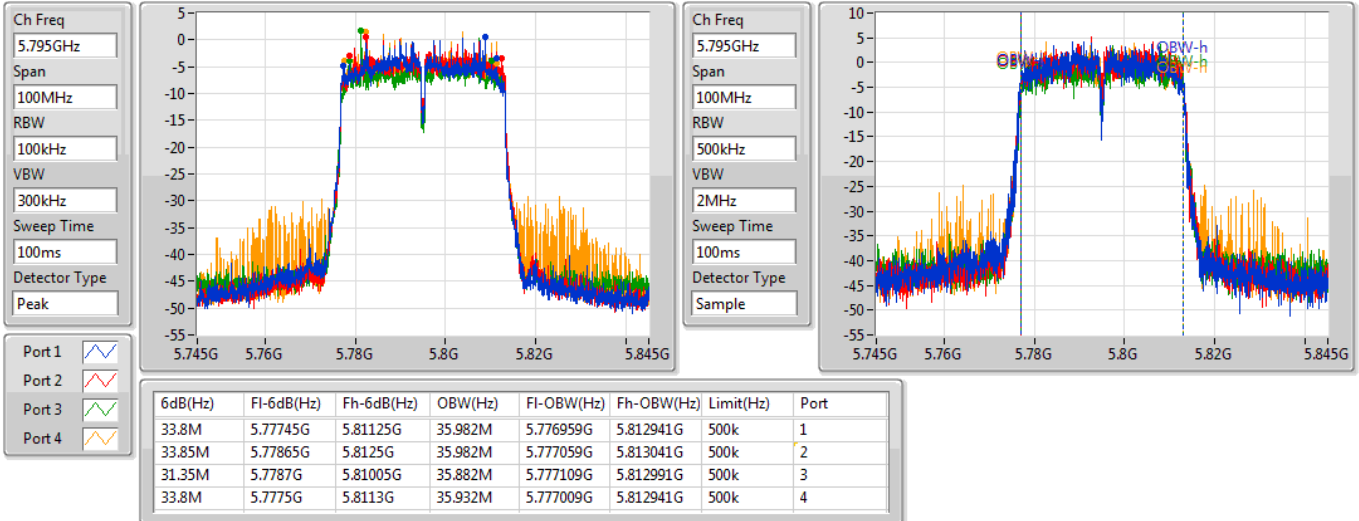

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5755MHz

11/01/2018

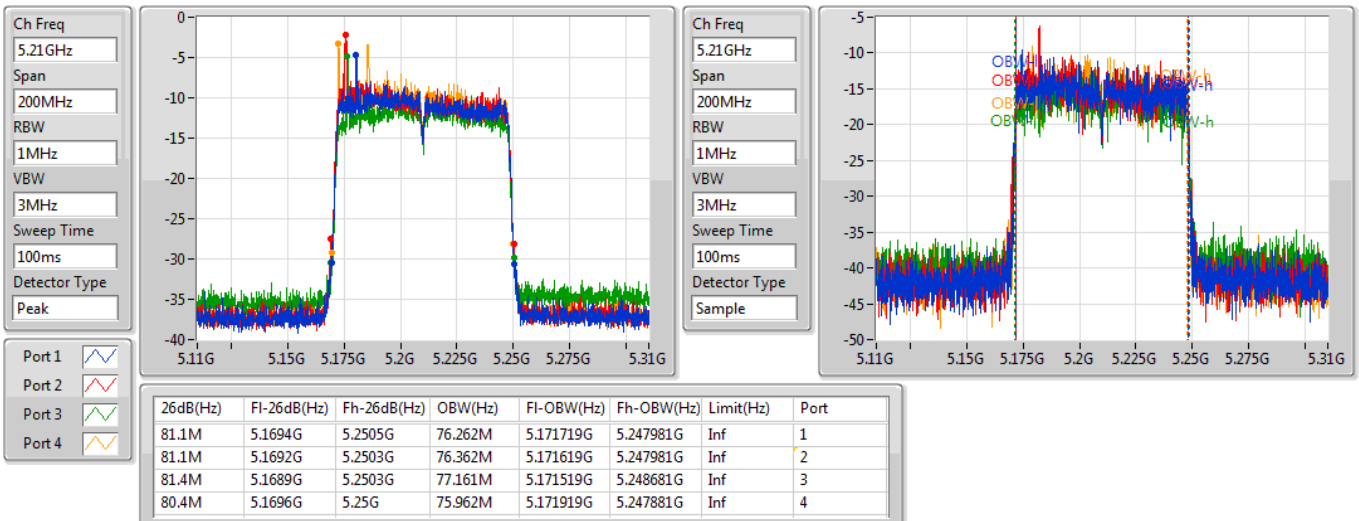


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5795MHz

11/01/2018

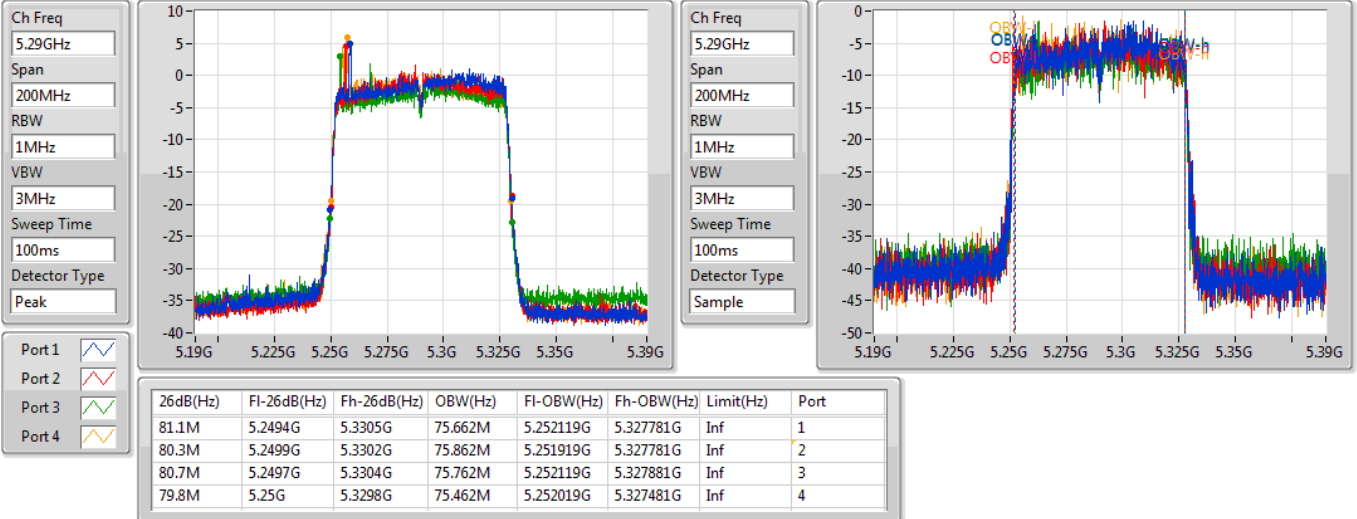

802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5210MHz

11/01/2018

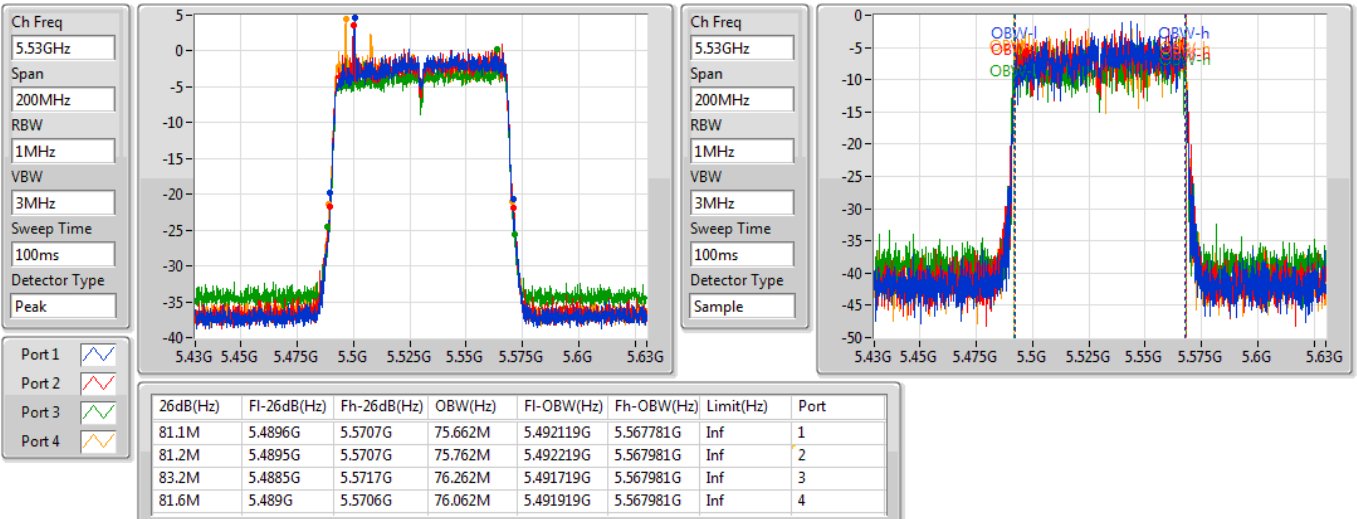


802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5290MHz

10/01/2018


802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5530MHz

11/01/2018

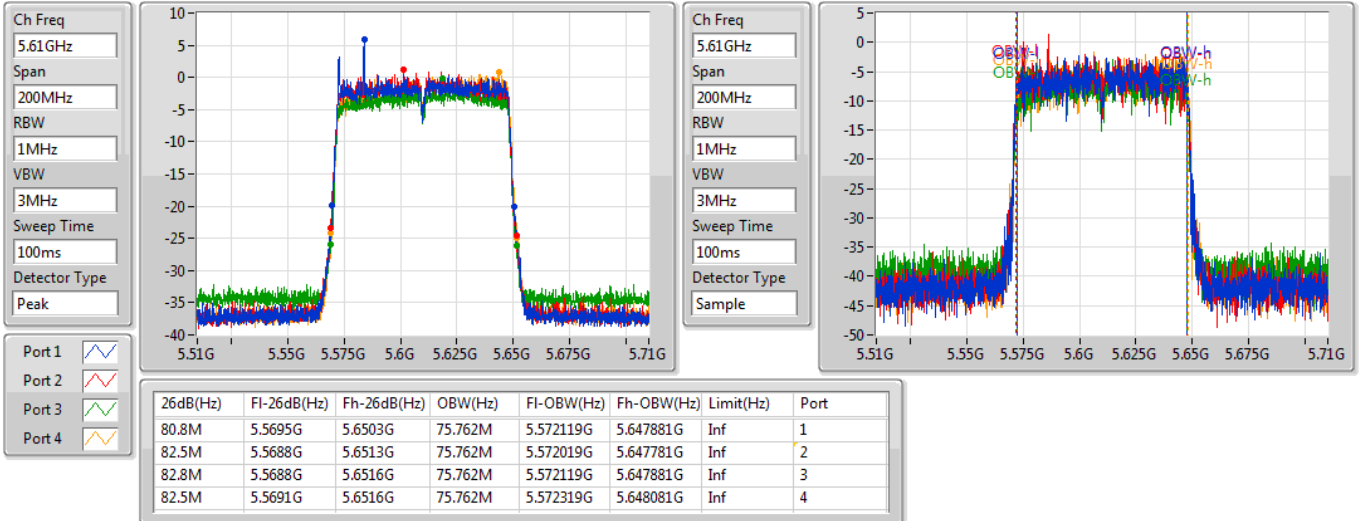


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5610MHz

11/01/2018

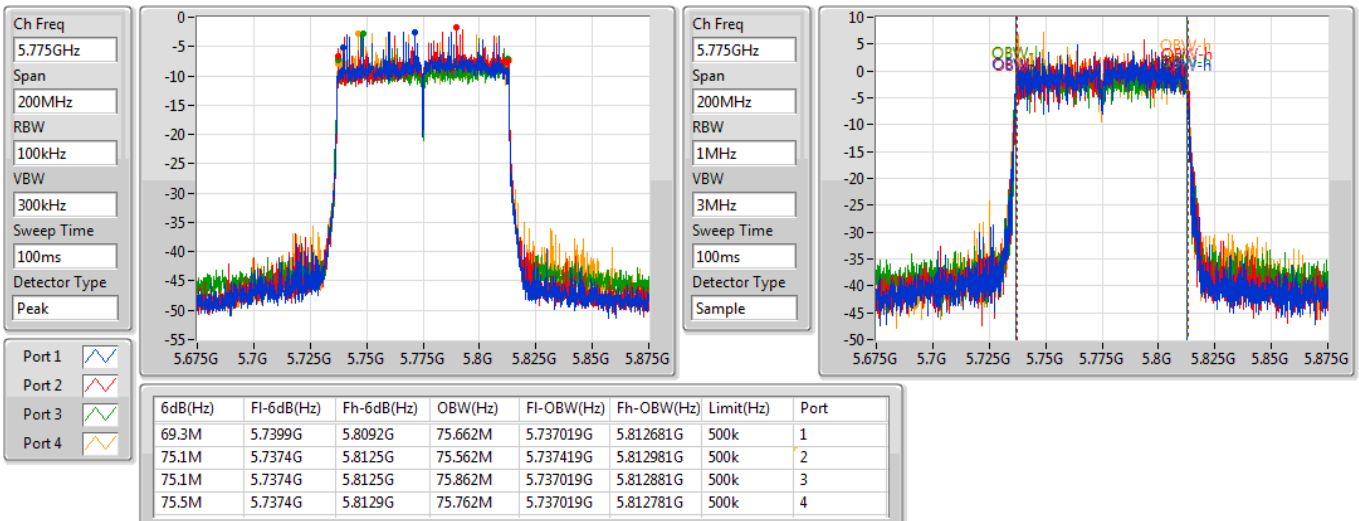


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5775MHz

11/01/2018

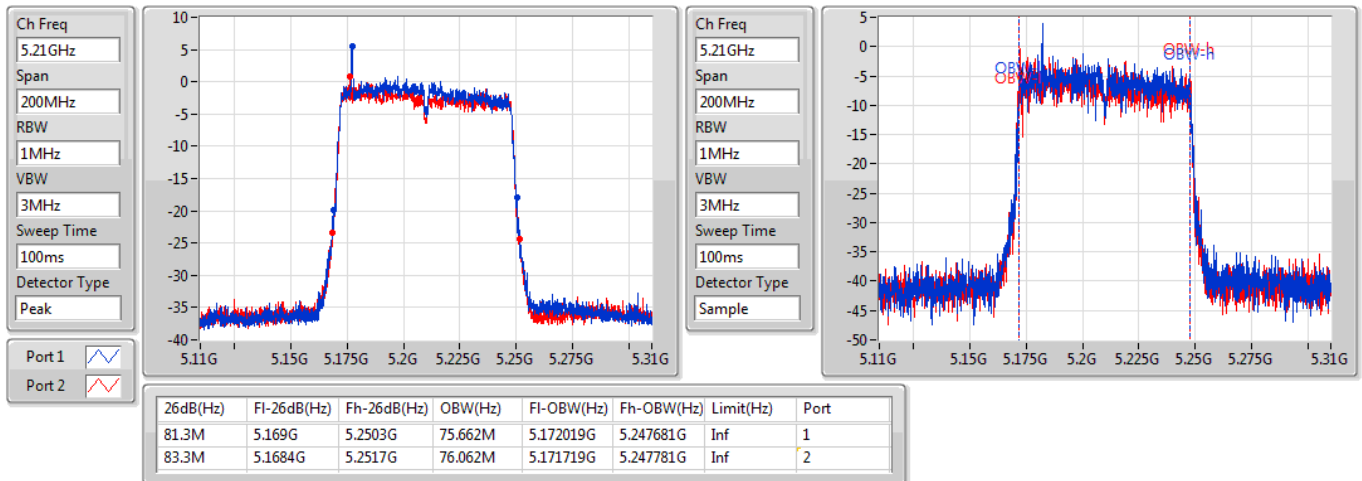


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX(Port1&Port2)

EBW

#5210MHz,5290MHz

11/01/2018

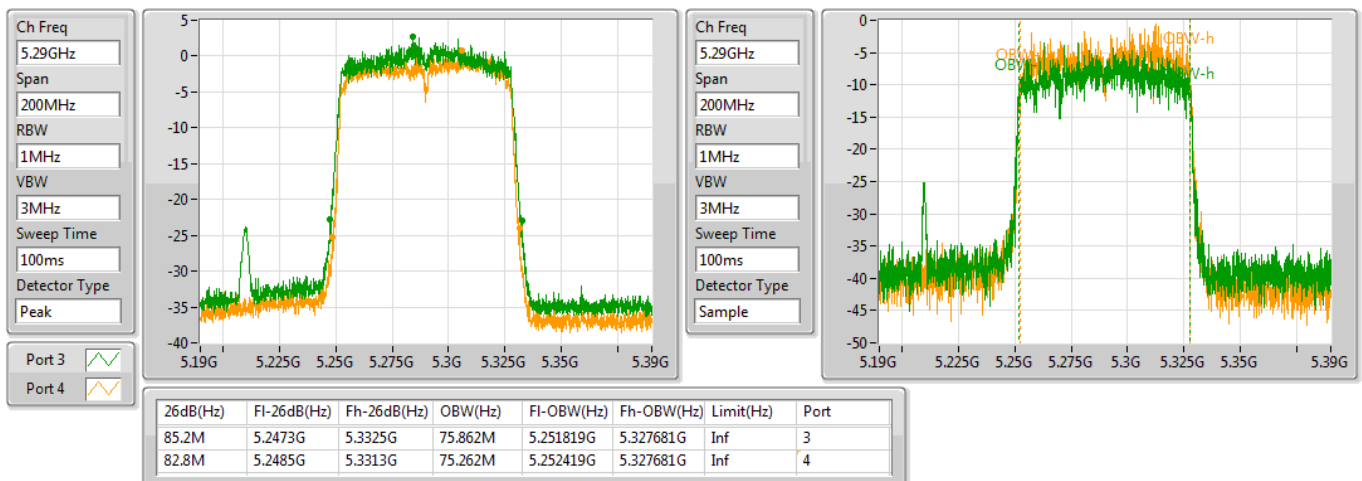


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX(Port3&Port4)

EBW

5210MHz,#5290MHz

11/01/2018

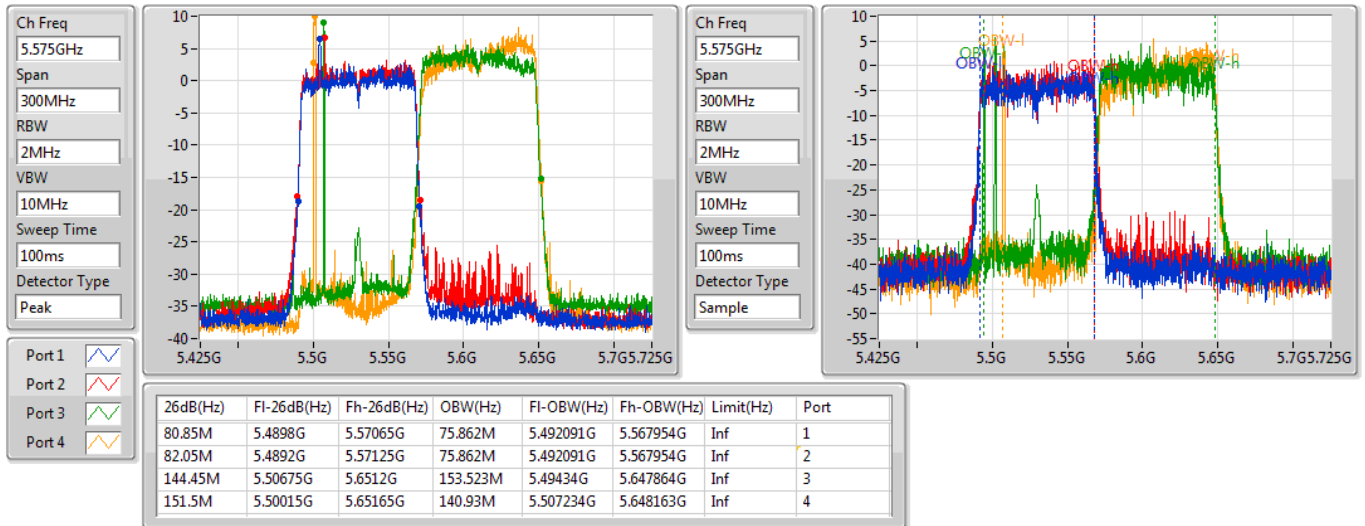


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

11/01/2018



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.725M	16.442M	16M4D1D	18.95M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.675M	17.641M	17M6D1D	20.225M	17.566M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.15M	35.982M	36M0D1D	39.2M	35.832M
802.11ac VHT80_Nss1,(MCS0)_4TX	83.2M	75.662M	75M7D1D	82.6M	75.362M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	83.4M	75.862M	75M9D1D	83.1M	75.562M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.875M	16.442M	16M4D1D	19.125M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	21M	17.641M	17M6D1D	20.45M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.05M	36.032M	36M0D1D	39.25M	35.932M
802.11ac VHT80_Nss1,(MCS0)_4TX	84M	75.962M	76M0D1D	82.5M	75.362M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	84.8M	75.562M	75M6D1D	83.2M	75.562M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.975M	16.467M	16M5D1D	19.2M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.875M	17.641M	17M6D1D	20.425M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.35M	36.082M	36M1D1D	39.2M	35.982M
802.11ac VHT80_Nss1,(MCS0)_4TX	84M	76.062M	76M1D1D	83.1M	75.762M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	84.6M	76.012M	76M0D1D	83.1M	75.862M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.325M	16.442M	16M4D1D	16.25M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	17.55M	17.641M	17M6D1D	16.525M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	35.9M	36.032M	36M0D1D	31.5M	35.882M
802.11ac VHT80_Nss1,(MCS0)_4TX	76.3M	76.062M	76M1D1D	75.9M	75.762M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	19.15M	16.417M	19.275M	16.417M	19.15M	16.392M	19.55M	16.417M
5200MHz	Pass	Inf	18.95M	16.417M	19.45M	16.417M	19.275M	16.417M	19.425M	16.392M
5240MHz	Pass	Inf	19.5M	16.392M	19.525M	16.442M	19.25M	16.442M	19.725M	16.442M
5260MHz	Pass	Inf	19.5M	16.442M	19.7M	16.442M	19.375M	16.442M	19.875M	16.442M
5300MHz	Pass	Inf	19.625M	16.442M	19.35M	16.392M	19.125M	16.417M	19.6M	16.442M
5320MHz	Pass	Inf	19.525M	16.442M	19.675M	16.417M	19.4M	16.417M	19.825M	16.417M
5500MHz	Pass	Inf	19.975M	16.442M	19.65M	16.442M	19.25M	16.392M	19.975M	16.442M
5580MHz	Pass	Inf	19.65M	16.442M	19.625M	16.442M	19.925M	16.417M	19.5M	16.442M
5640MHz	Pass	Inf	19.8M	16.467M	19.2M	16.417M	19.475M	16.417M	19.975M	16.417M
5745MHz	Pass	500k	16.3M	16.417M	16.3M	16.392M	16.3M	16.392M	16.325M	16.417M
5785MHz	Pass	500k	16.275M	16.392M	16.325M	16.417M	16.275M	16.392M	16.275M	16.442M
5825MHz	Pass	500k	16.25M	16.392M	16.3M	16.417M	16.3M	16.392M	16.3M	16.417M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.375M	17.641M	20.6M	17.616M	20.325M	17.591M	20.225M	17.616M
5200MHz	Pass	Inf	20.3M	17.591M	20.45M	17.566M	20.675M	17.616M	20.425M	17.616M
5240MHz	Pass	Inf	20.5M	17.616M	20.3M	17.641M	20.625M	17.616M	20.25M	17.641M
5260MHz	Pass	Inf	20.75M	17.641M	20.875M	17.641M	20.6M	17.641M	20.5M	17.616M
5300MHz	Pass	Inf	20.6M	17.591M	21M	17.641M	20.575M	17.616M	20.5M	17.616M
5320MHz	Pass	Inf	20.9M	17.641M	20.85M	17.641M	20.8M	17.616M	20.45M	17.616M
5500MHz	Pass	Inf	20.725M	17.641M	20.875M	17.641M	20.675M	17.616M	20.425M	17.641M
5580MHz	Pass	Inf	20.875M	17.616M	20.775M	17.591M	20.875M	17.641M	20.575M	17.591M
5640MHz	Pass	Inf	20.675M	17.641M	20.8M	17.591M	20.75M	17.616M	20.525M	17.616M
5745MHz	Pass	500k	16.825M	17.591M	16.525M	17.616M	16.925M	17.641M	17.525M	17.591M
5785MHz	Pass	500k	16.9M	17.616M	17.55M	17.641M	17.525M	17.616M	17.175M	17.616M
5825MHz	Pass	500k	16.775M	17.641M	17.525M	17.591M	16.925M	17.641M	17.525M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	39.7M	35.932M	39.7M	35.832M	39.45M	35.882M	39.2M	35.882M
5230MHz	Pass	Inf	40.15M	35.932M	39.6M	35.882M	39.7M	35.982M	39.3M	35.932M
5270MHz	Pass	Inf	39.8M	35.982M	40M	35.982M	39.4M	35.982M	39.25M	36.032M
5310MHz	Pass	Inf	40.05M	35.932M	39.95M	35.982M	39.65M	35.982M	39.4M	35.982M
5510MHz	Pass	Inf	40.35M	36.032M	39.9M	36.032M	40M	36.032M	39.25M	36.082M
5550MHz	Pass	Inf	40.1M	35.982M	40.05M	36.032M	39.75M	36.082M	39.3M	36.082M
5630MHz	Pass	Inf	40.2M	36.082M	39.8M	36.032M	39.8M	36.032M	39.2M	36.032M
5755MHz	Pass	500k	33.85M	36.032M	34M	35.882M	35.05M	35.982M	32.55M	35.882M
5795MHz	Pass	500k	31.5M	36.032M	33.8M	35.982M	35M	36.032M	35.9M	35.882M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	82.7M	75.562M	83.1M	75.362M	83.2M	75.662M	82.6M	75.562M
5290MHz	Pass	Inf	83.7M	75.962M	84M	75.662M	83.1M	75.362M	82.5M	75.662M
5530MHz	Pass	Inf	83.7M	75.962M	83.4M	75.962M	83.9M	76.062M	83.9M	76.062M
5610MHz	Pass	Inf	84M	75.862M	83.7M	75.962M	83.1M	75.762M	83.9M	75.762M
5775MHz	Pass	500k	76.3M	75.962M	75.9M	76.062M	76.3M	75.862M	76.3M	75.762M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	Inf	83.1M	75.562M	83.4M	75.862M				

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	Inf					84.8M	75.562M	83.2M	75.562M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	Inf	84.15M	76.012M	84.6M	76.012M	84.3M	76.012M	83.1M	75.862M

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

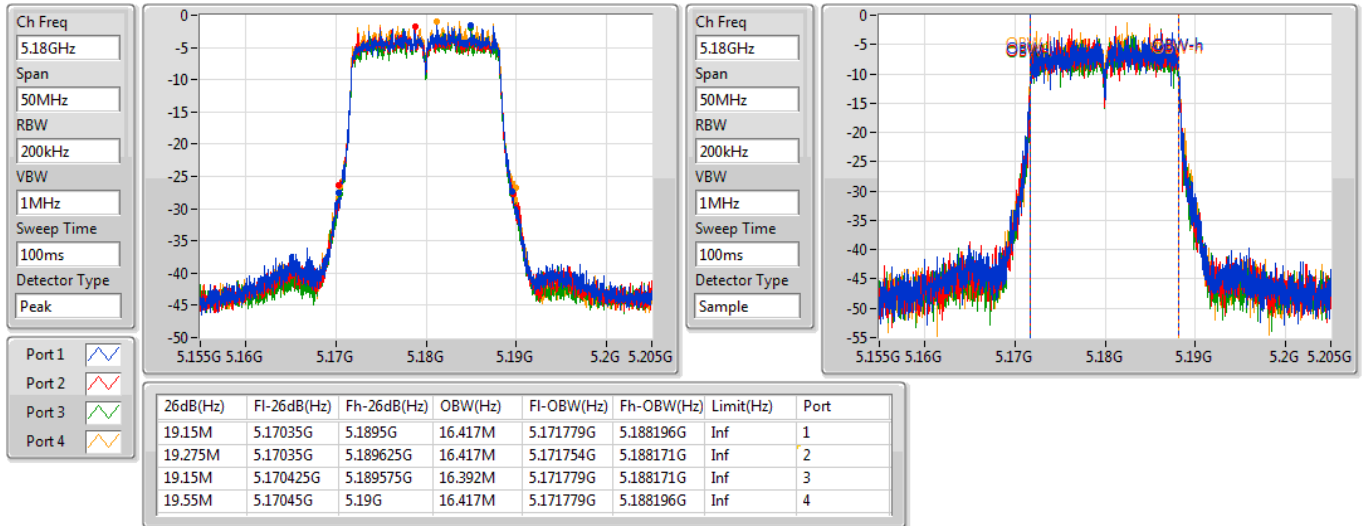
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX

EBW

5180MHz

08/12/2017

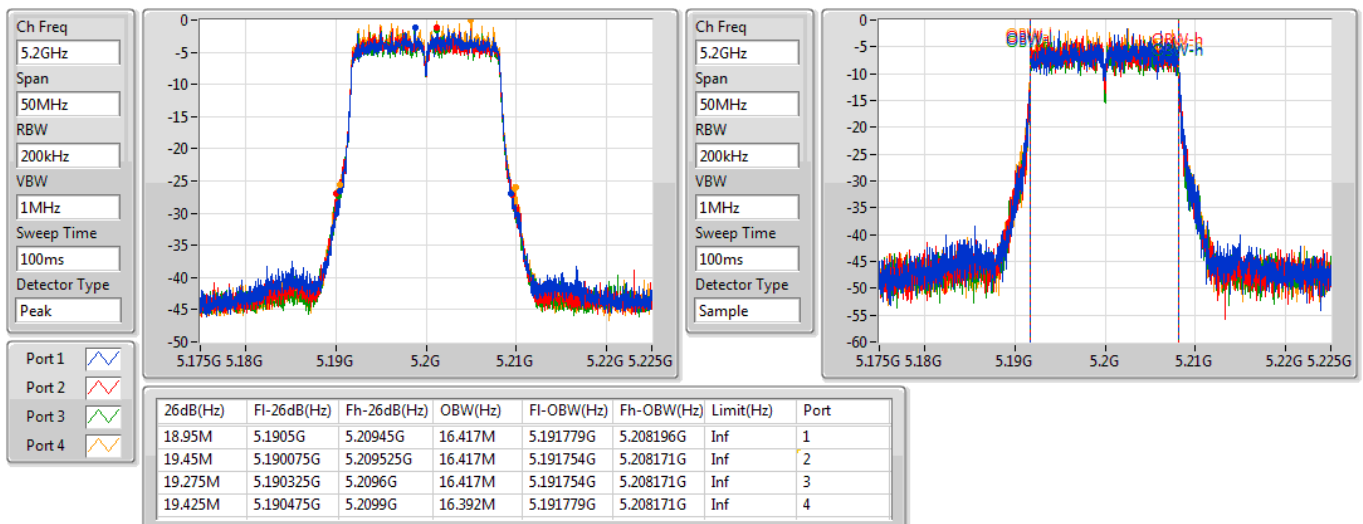


802.11a_Nss1,(6Mbps)_4TX

EBW

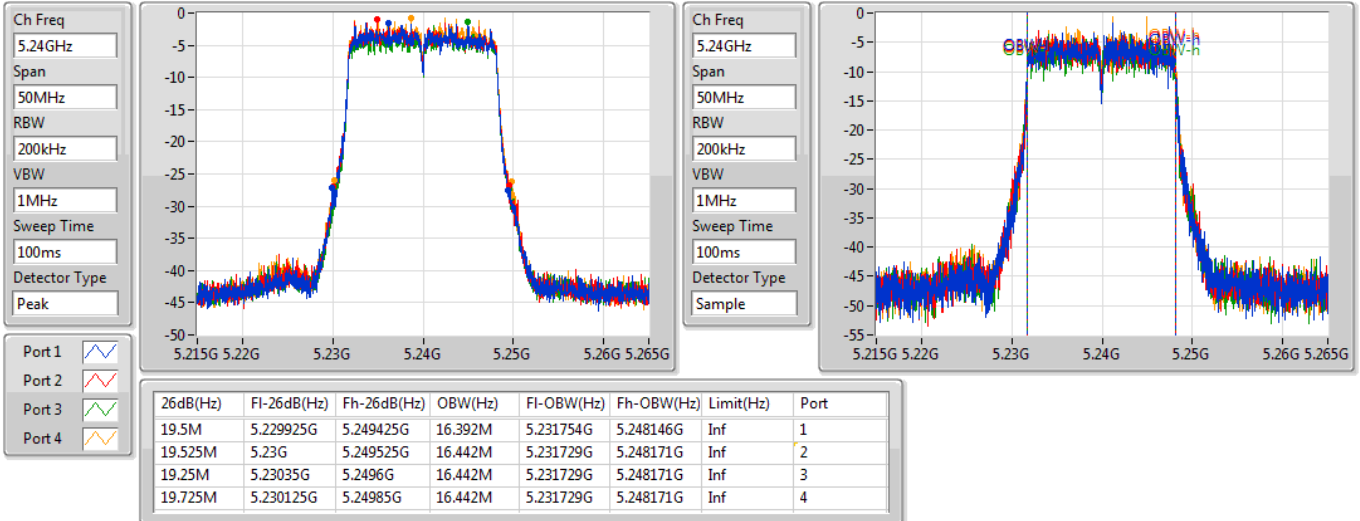
5200MHz

08/12/2017

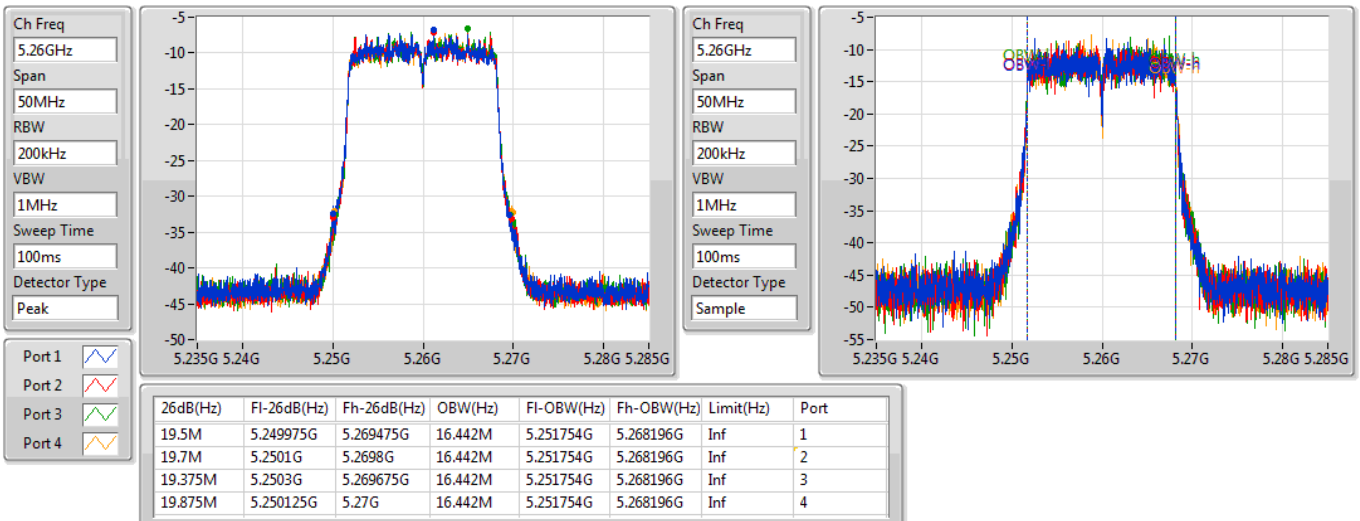


802.11a_Nss1,(6Mbps)_4TX
EBW
5240MHz

08/12/2017

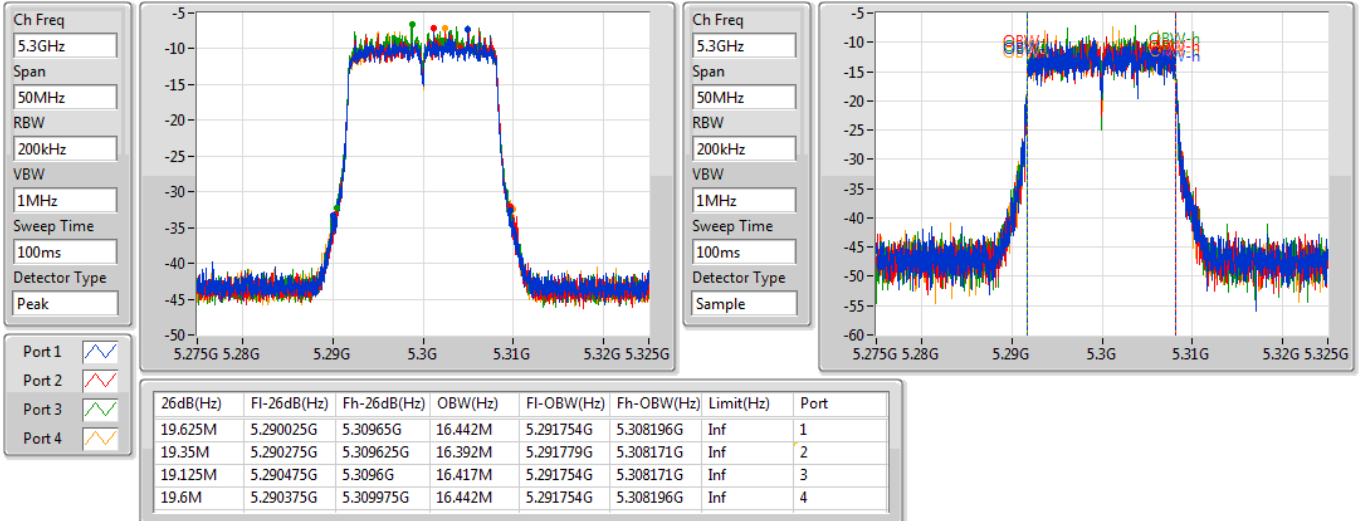

802.11a_Nss1,(6Mbps)_4TX
EBW
5260MHz

08/12/2017

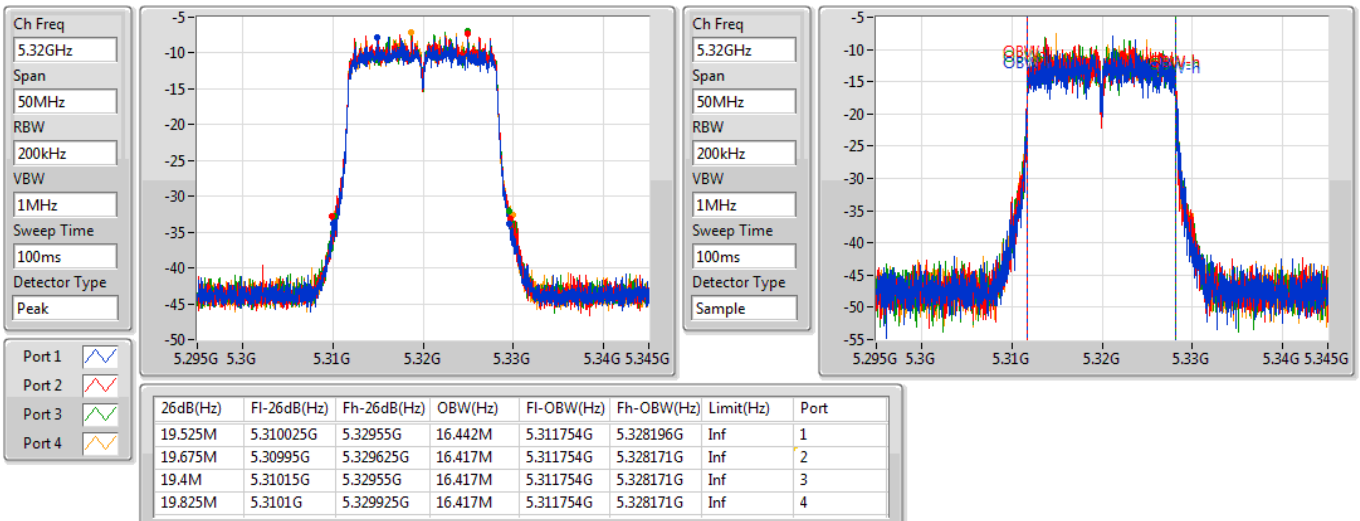


802.11a_Nss1,(6Mbps)_4TX
EBW
5300MHz

08/12/2017

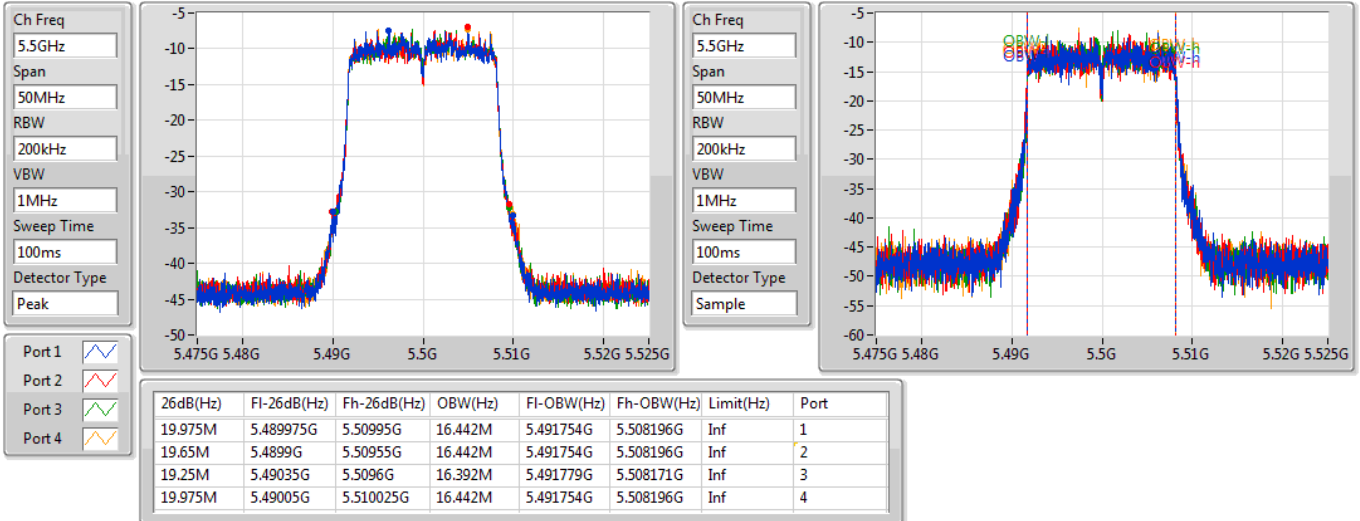

802.11a_Nss1,(6Mbps)_4TX
EBW
5320MHz

08/12/2017

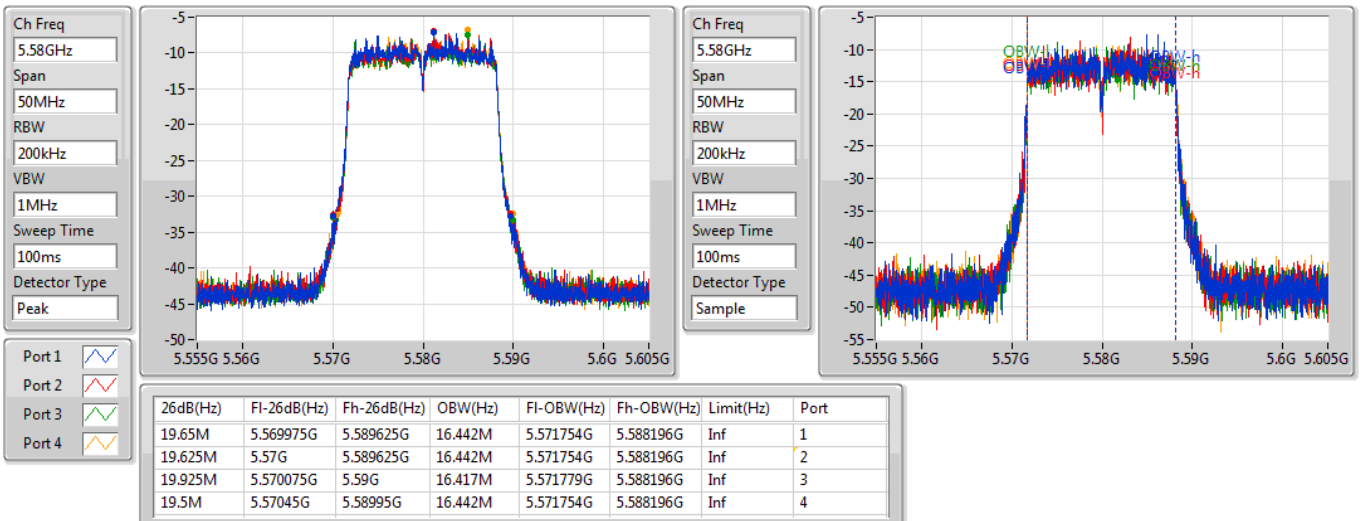


802.11a_Nss1,(6Mbps)_4TX
EBW
5500MHz

08/12/2017

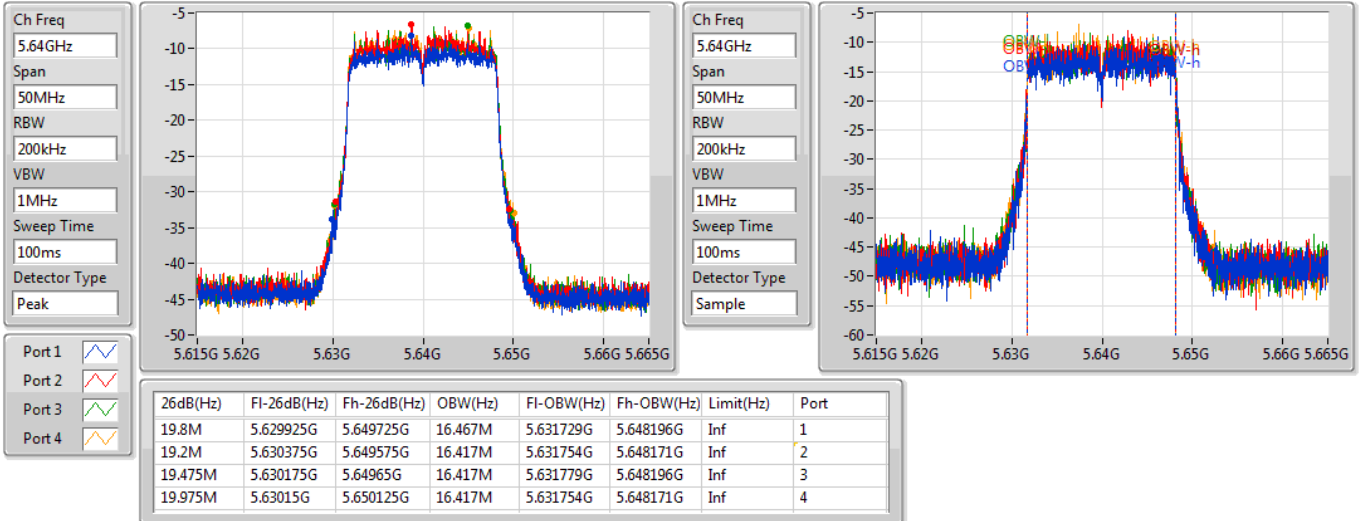

802.11a_Nss1,(6Mbps)_4TX
EBW
5580MHz

08/12/2017

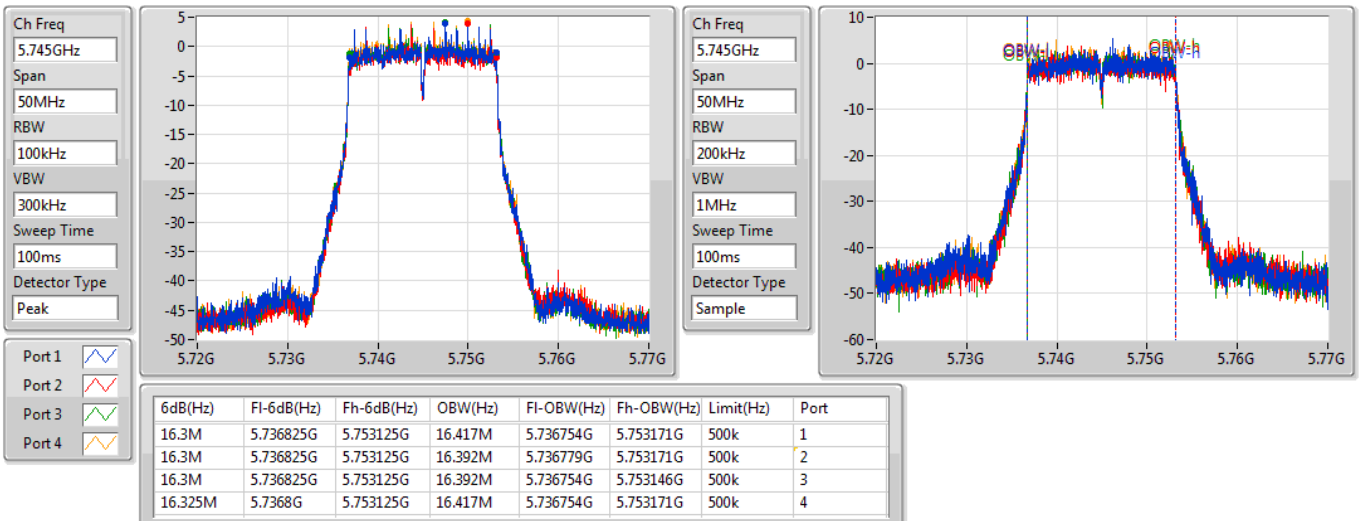


802.11a_Nss1,(6Mbps)_4TX
EBW
5640MHz

19/12/2017


802.11a_Nss1,(6Mbps)_4TX
EBW
5745MHz

08/12/2017

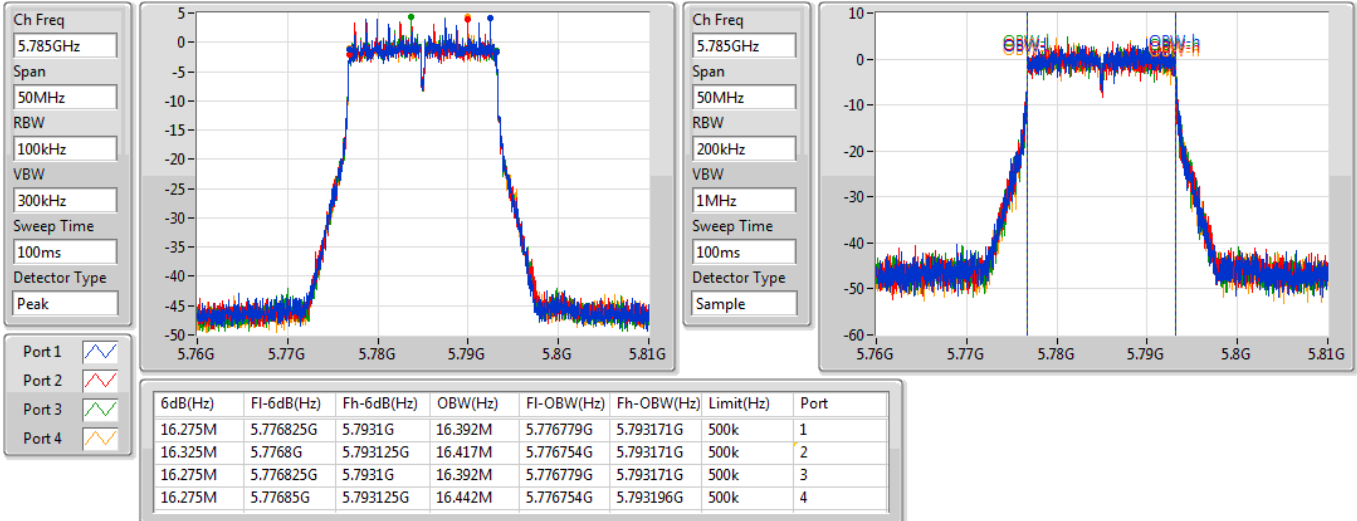


802.11a_Nss1,(6Mbps)_4TX

EBW

5785MHz

08/12/2017

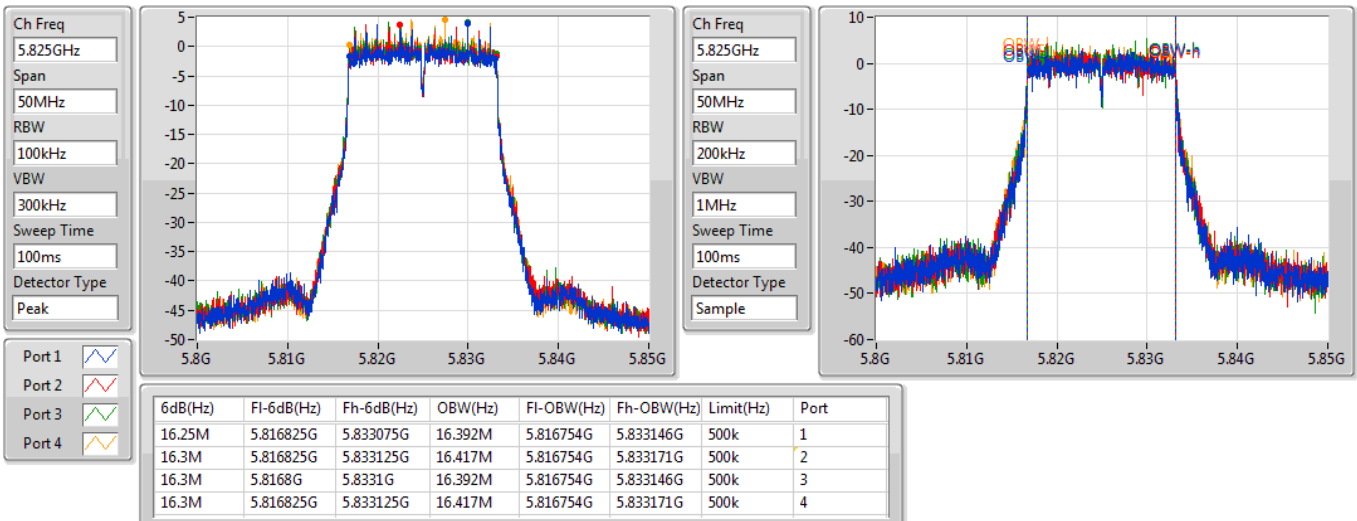


802.11a_Nss1,(6Mbps)_4TX

EBW

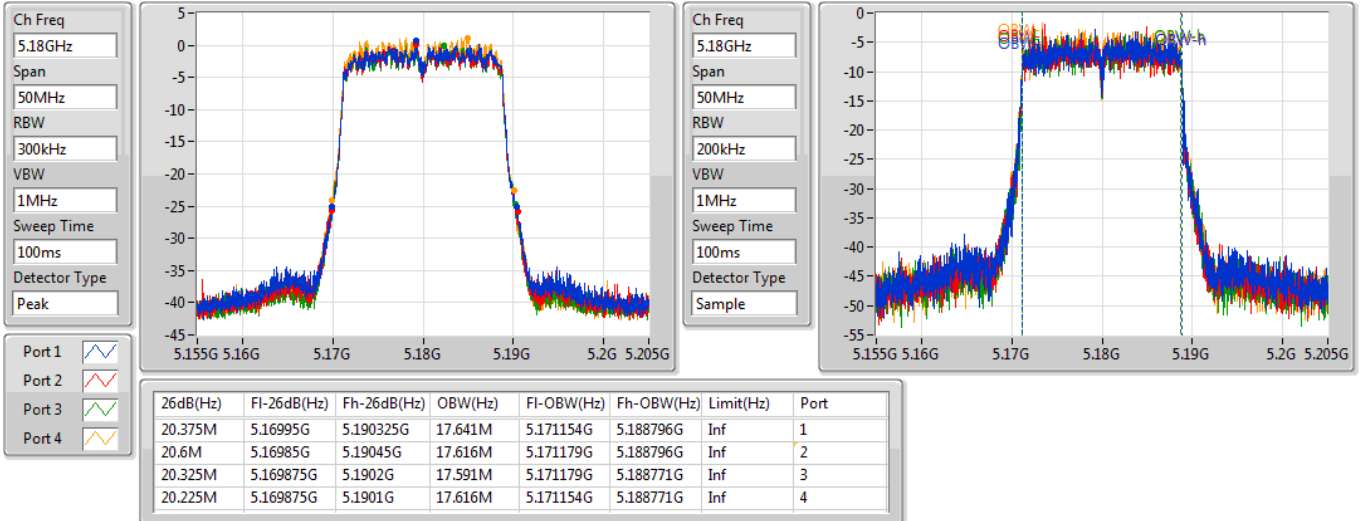
5825MHz

08/12/2017

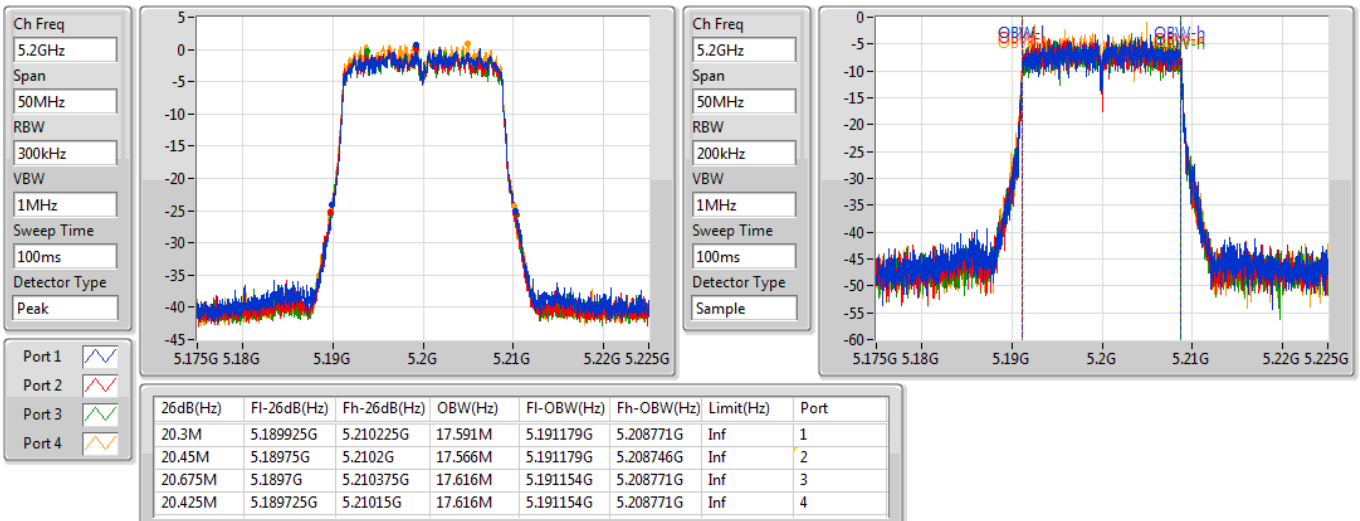


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5180MHz

08/12/2017

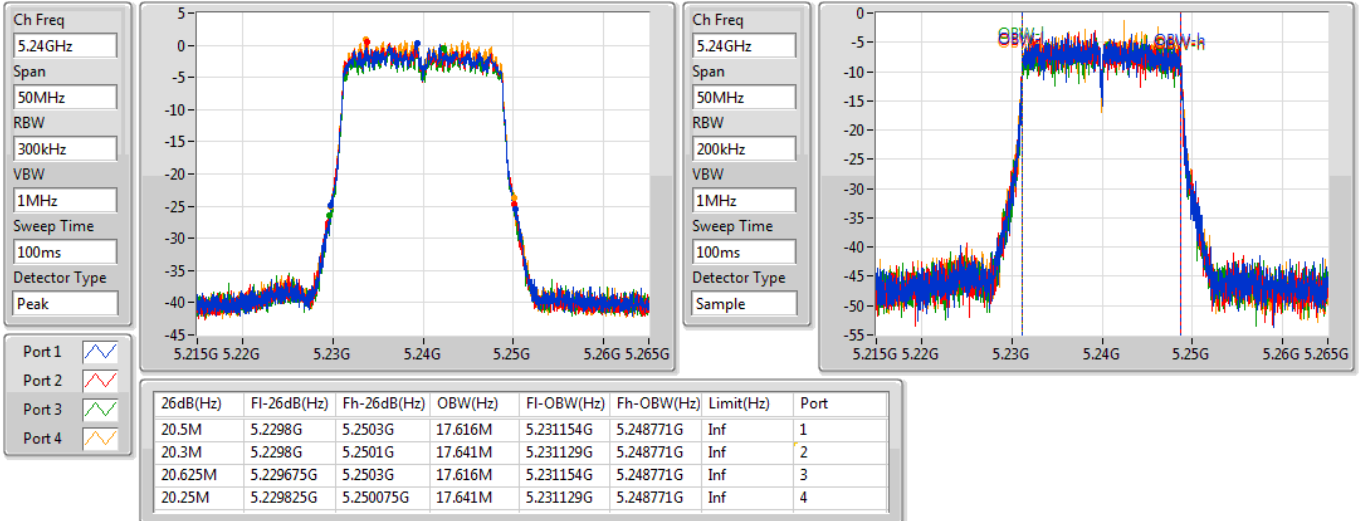

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5200MHz

08/12/2017

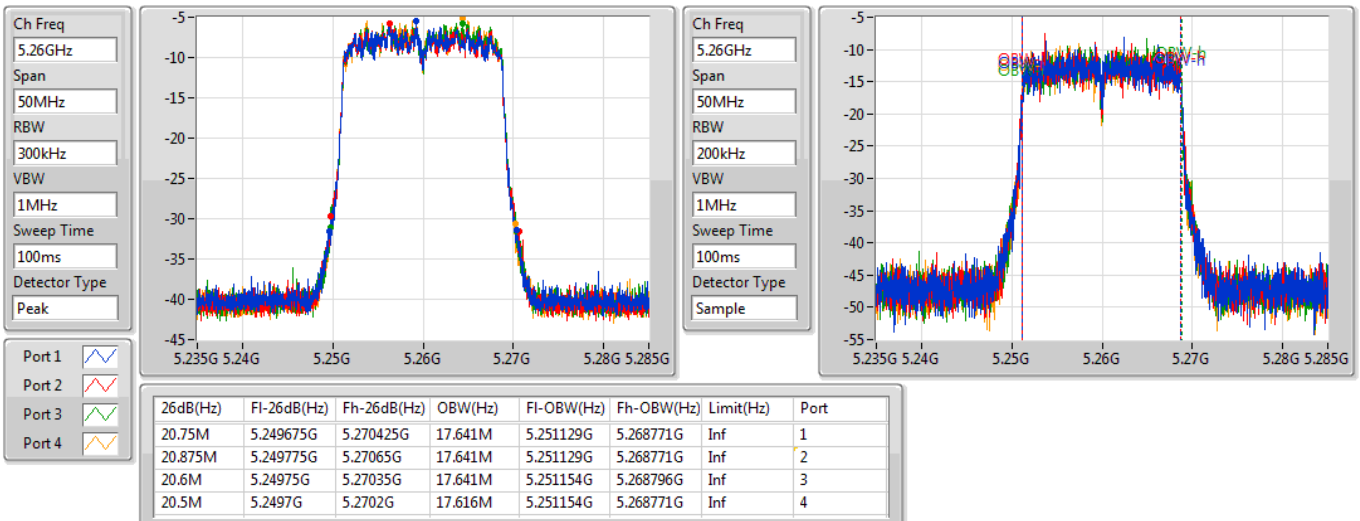


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5240MHz

08/12/2017

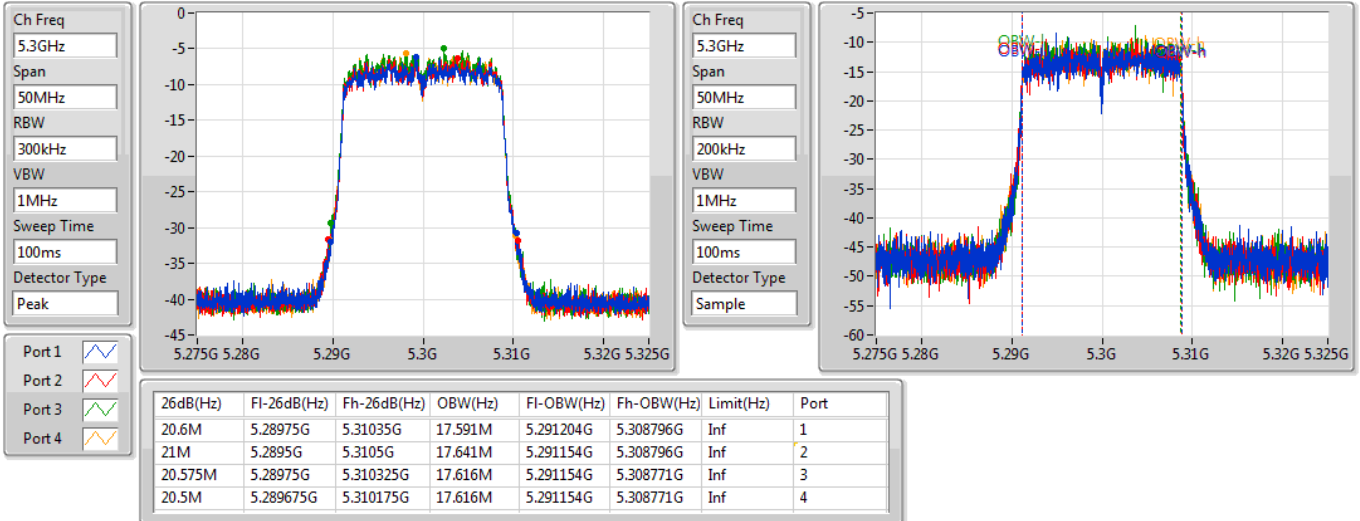

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5260MHz

08/12/2017

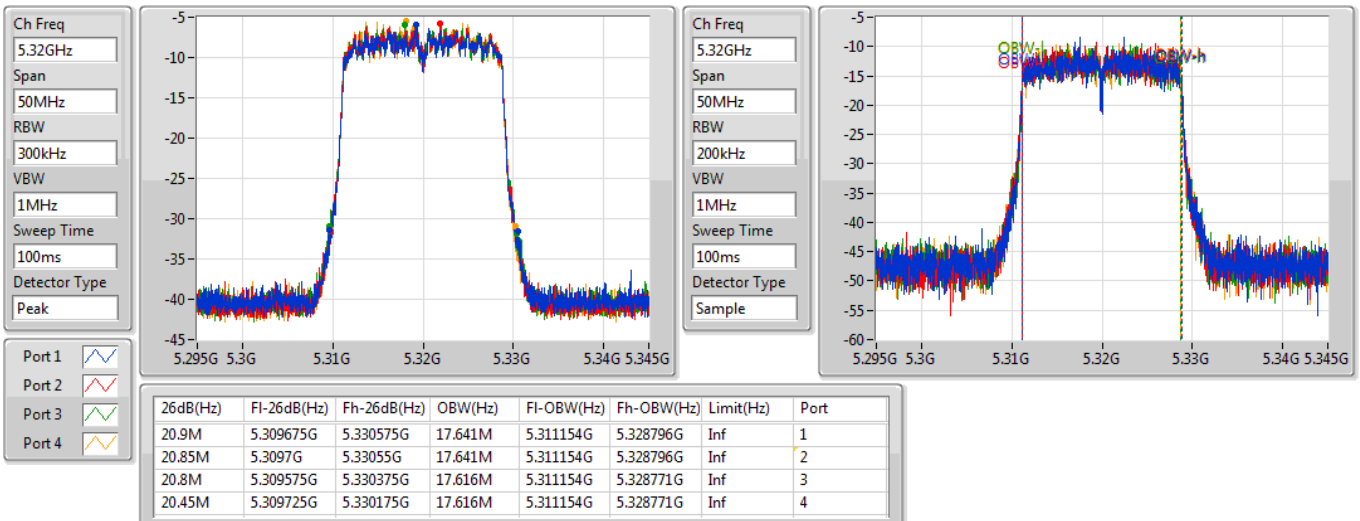


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5300MHz

08/12/2017

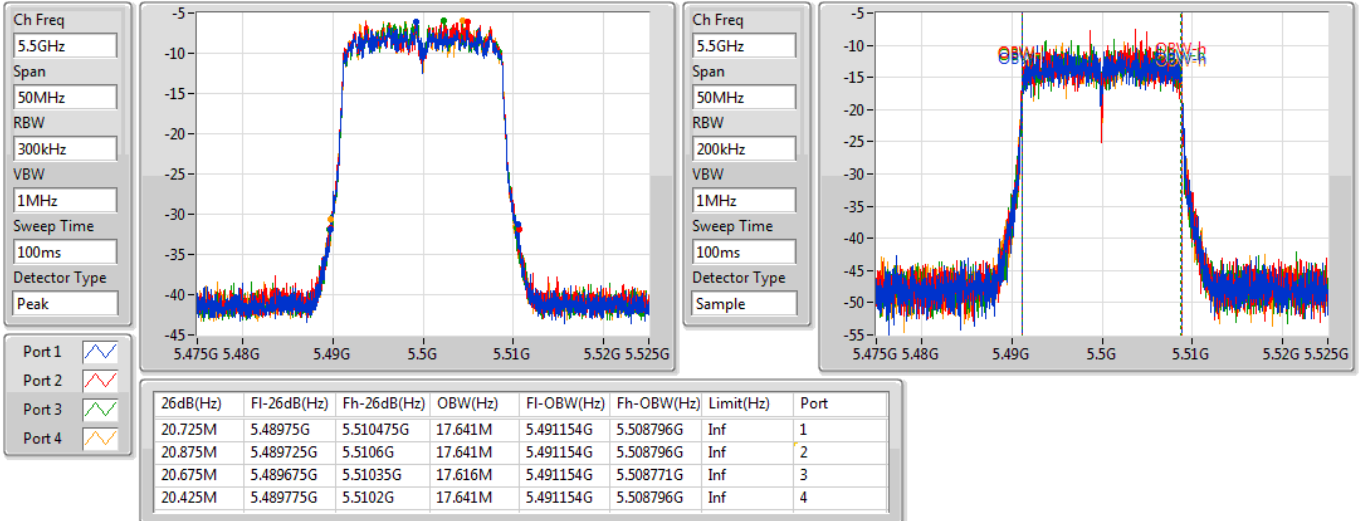

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5320MHz

08/12/2017

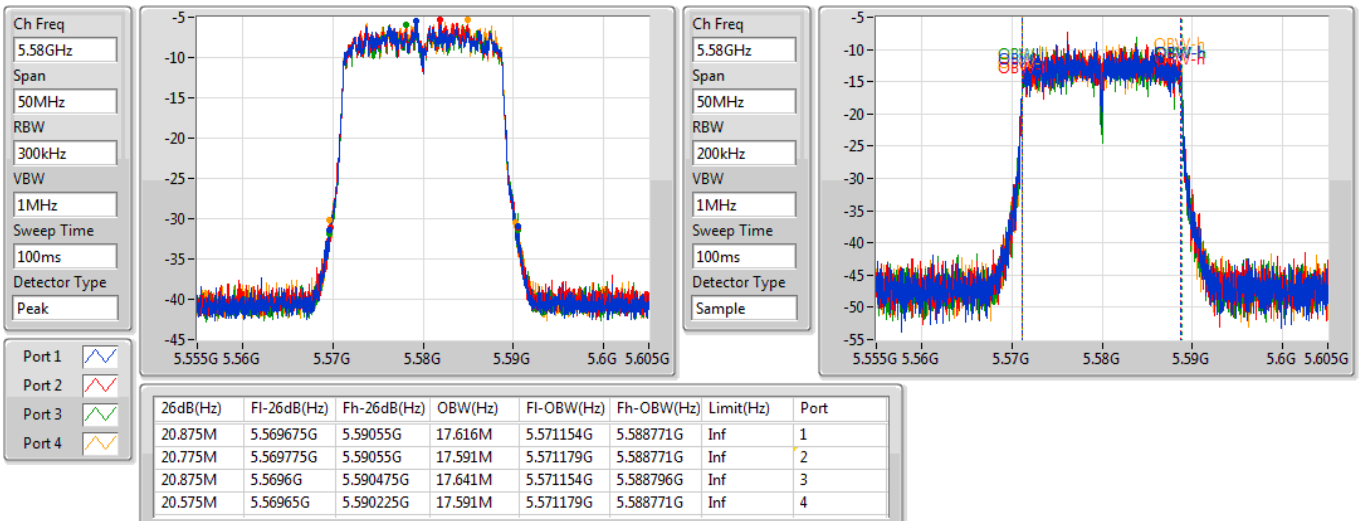


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5500MHz

08/12/2017

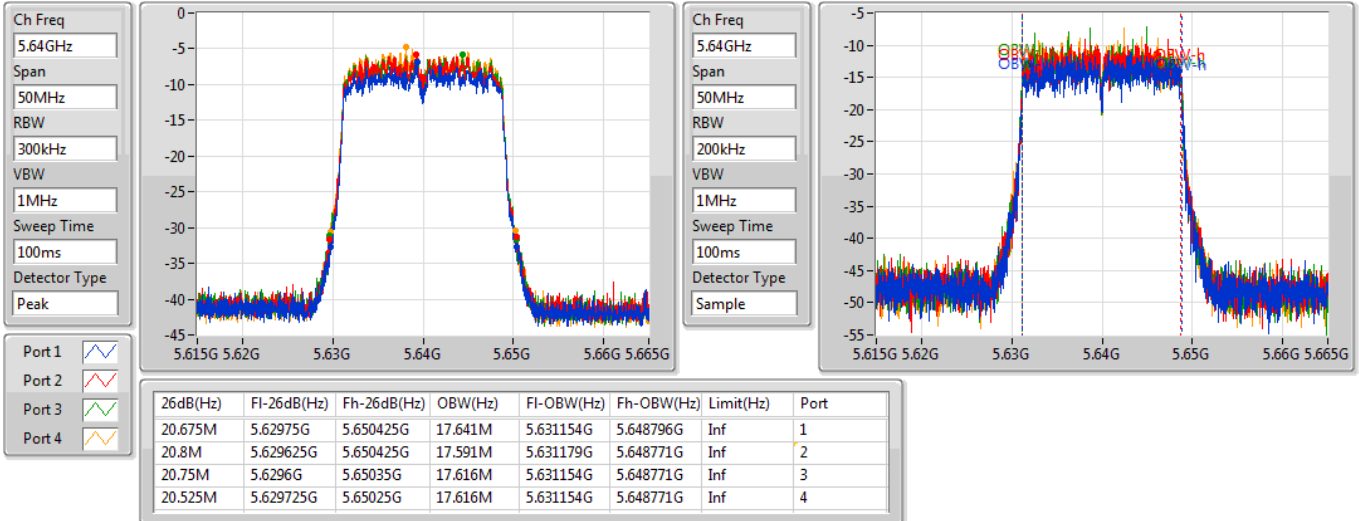

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5580MHz

08/12/2017

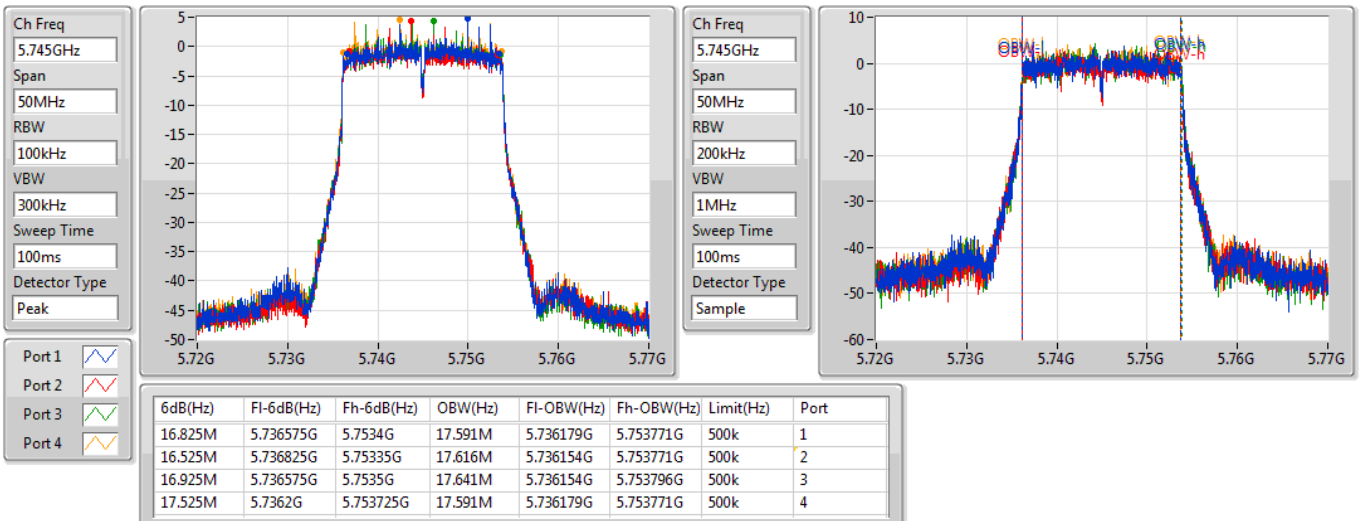


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5640MHz

19/12/2017

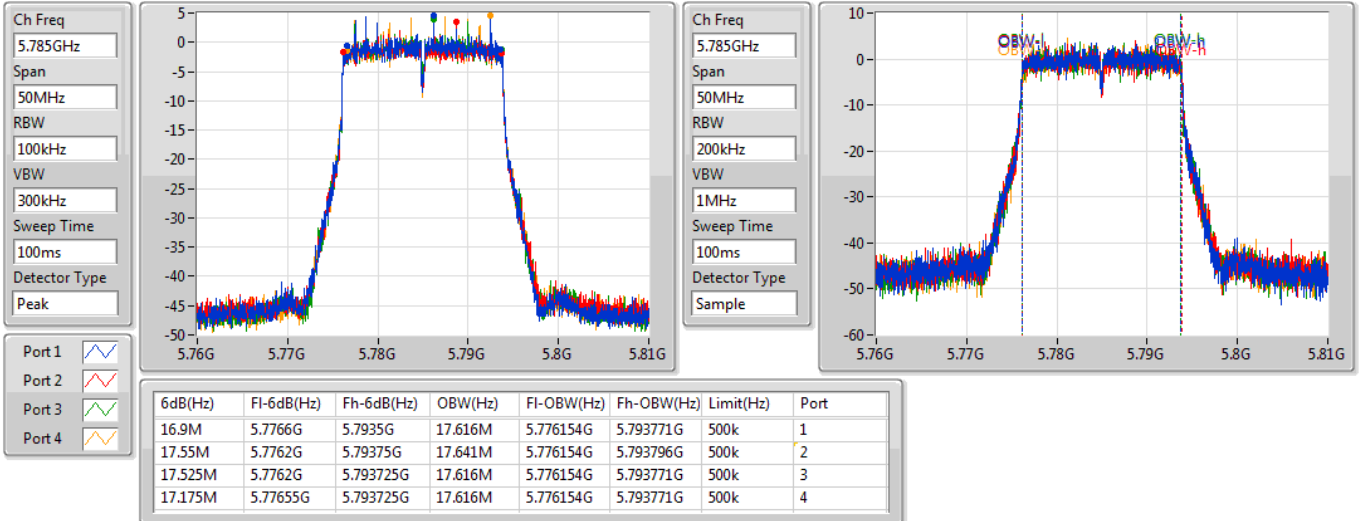

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5745MHz

08/12/2017

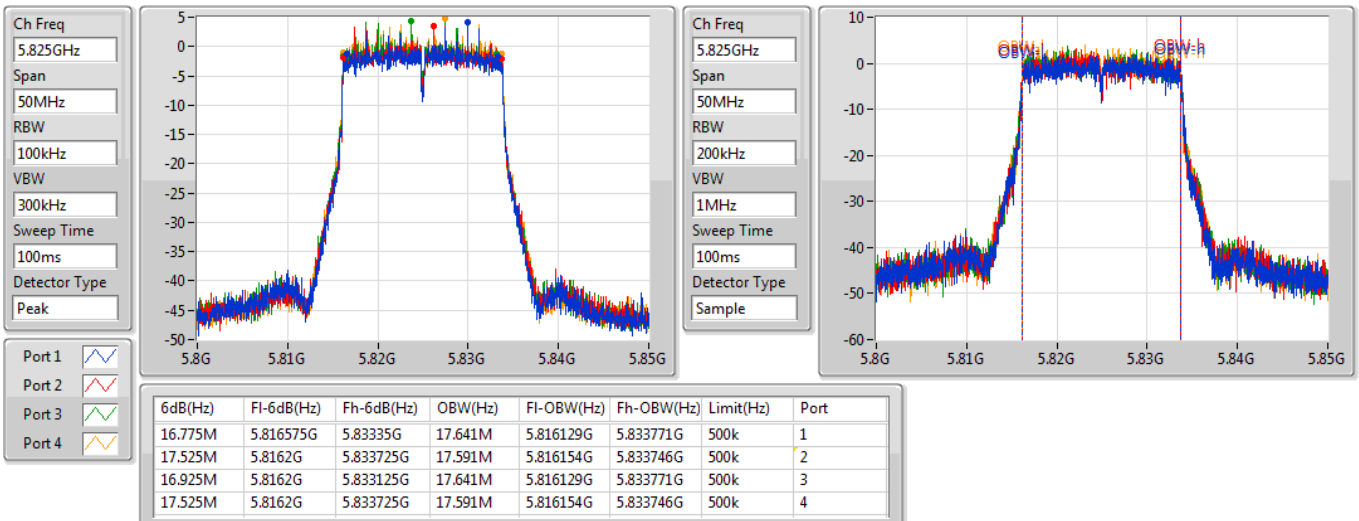


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5785MHz

08/12/2017

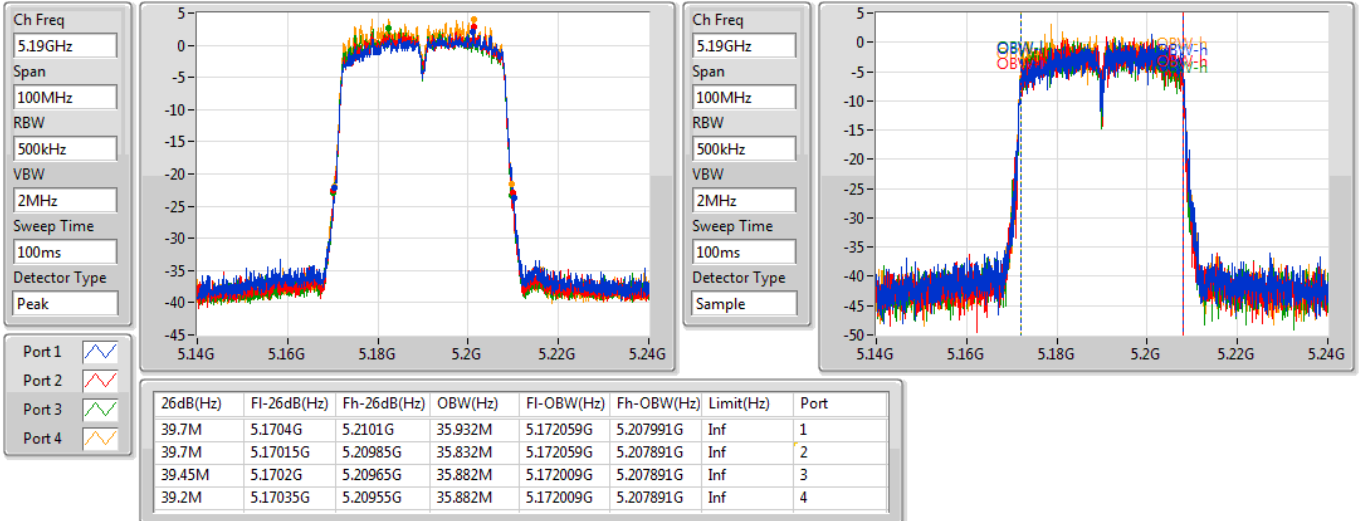

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5825MHz

08/12/2017

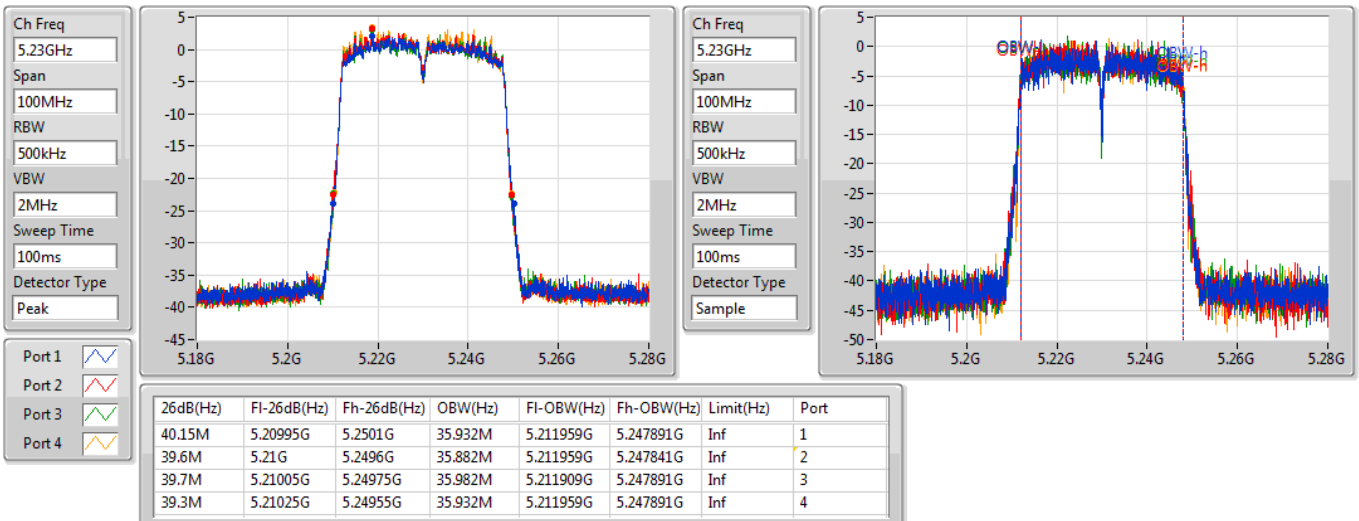


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5190MHz

08/12/2017

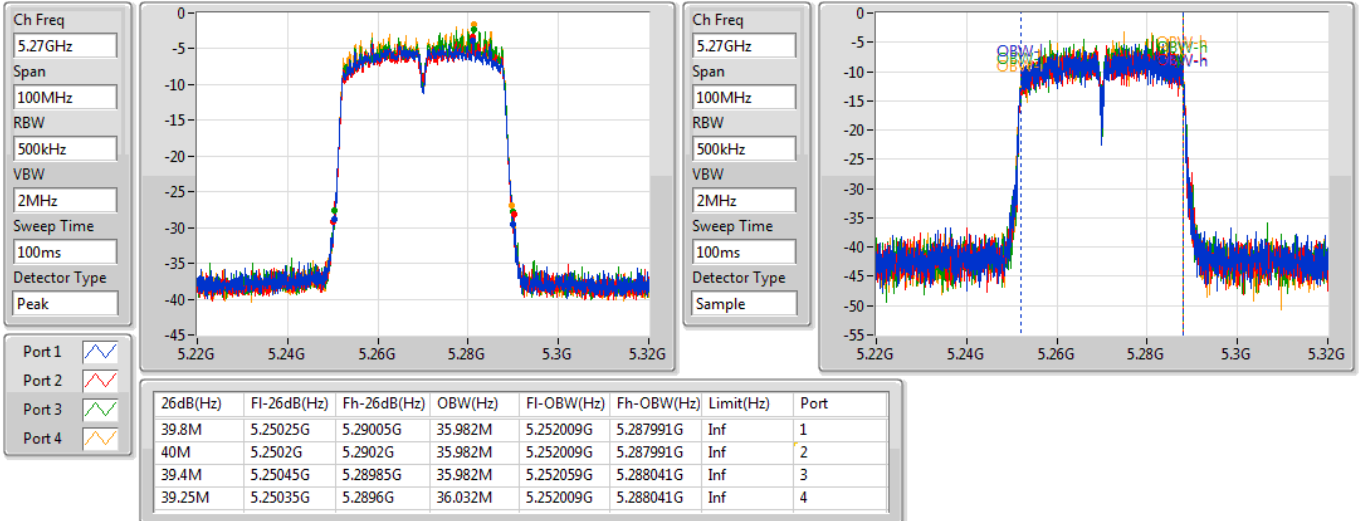

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5230MHz

08/12/2017

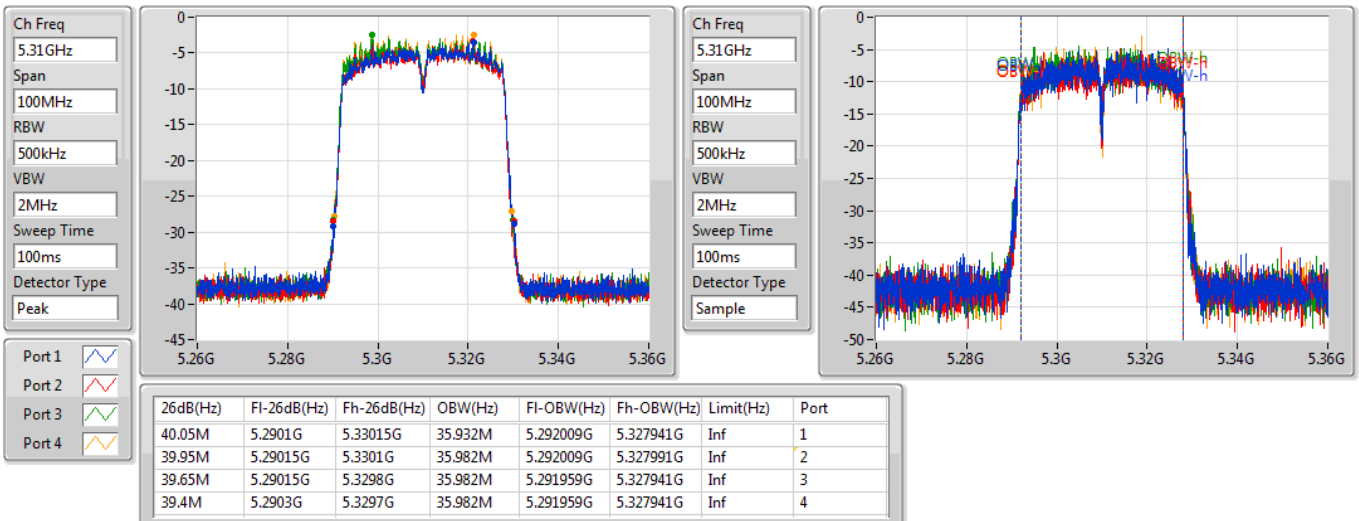


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5270MHz

08/12/2017

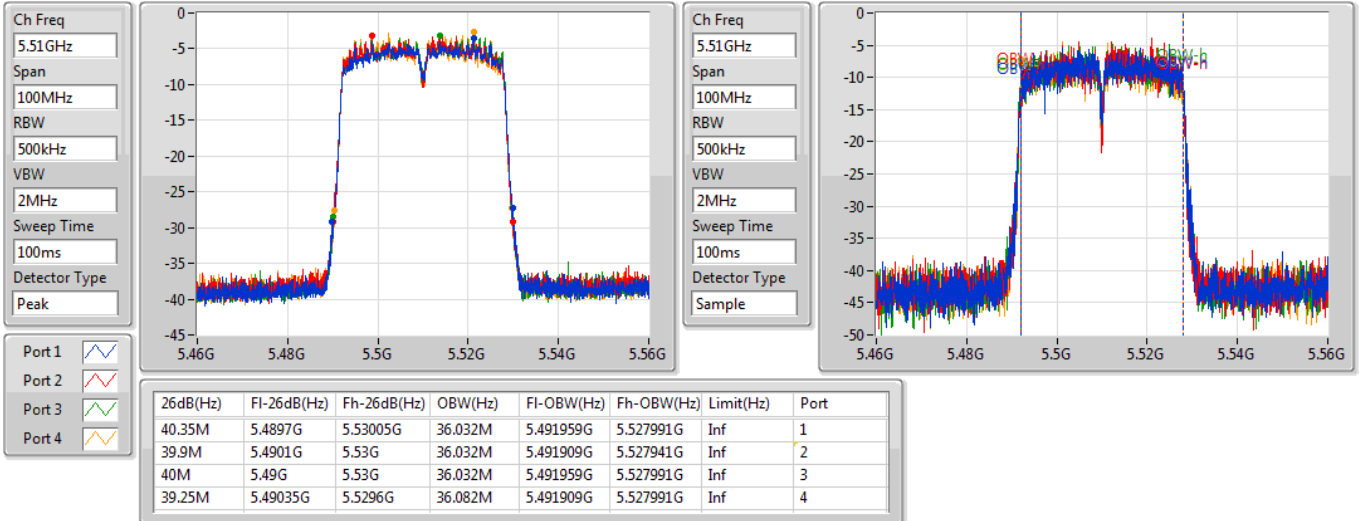

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5310MHz

08/12/2017

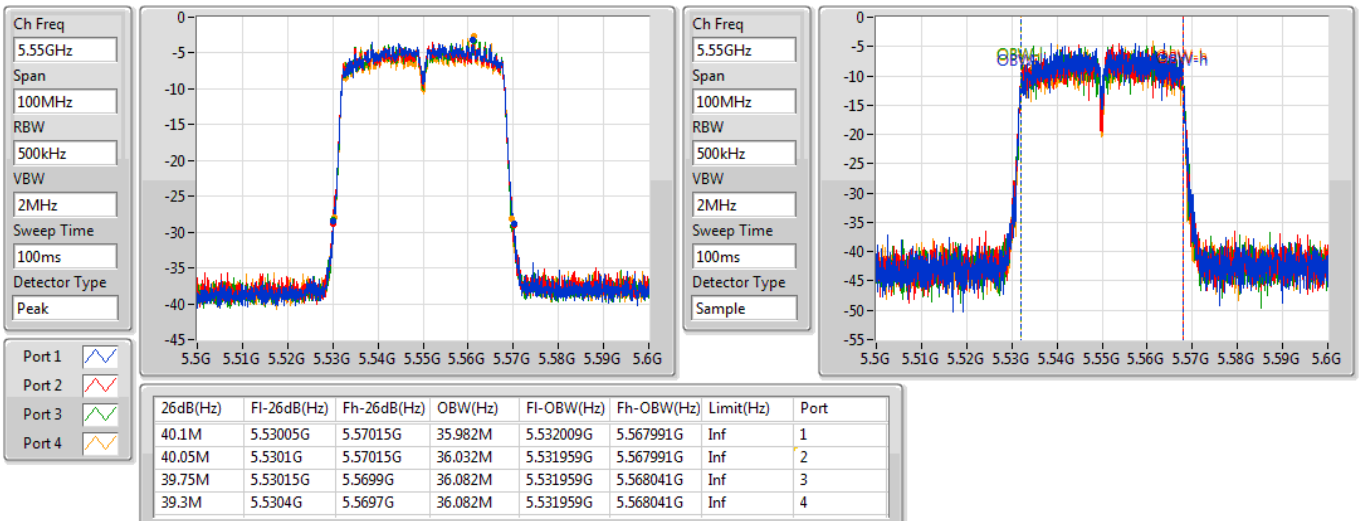


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5510MHz

08/12/2017

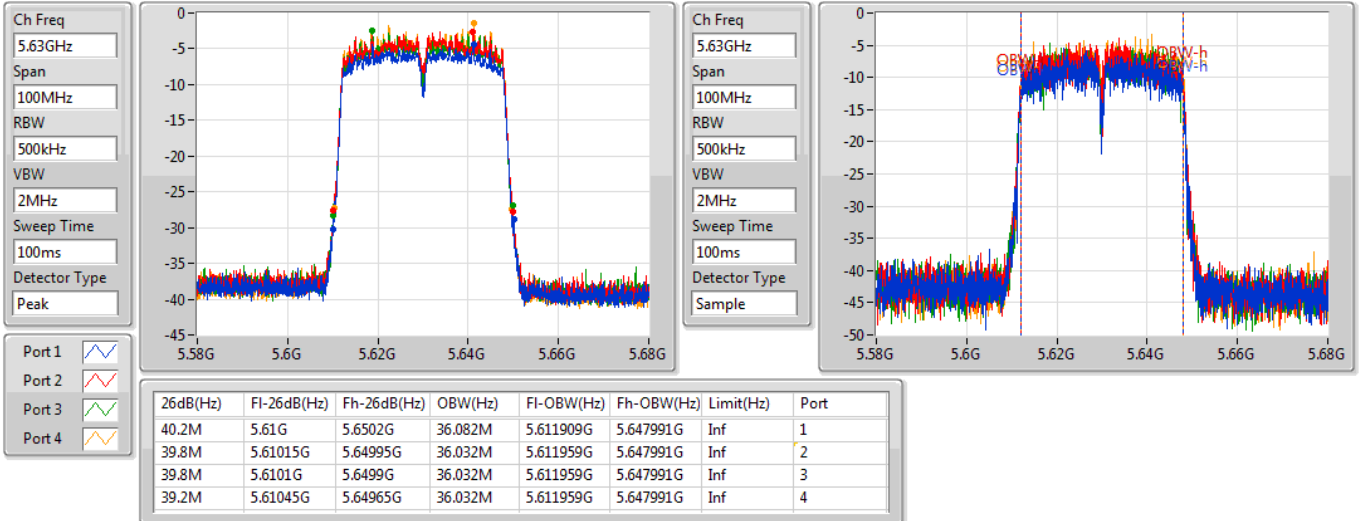

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5550MHz

08/12/2017

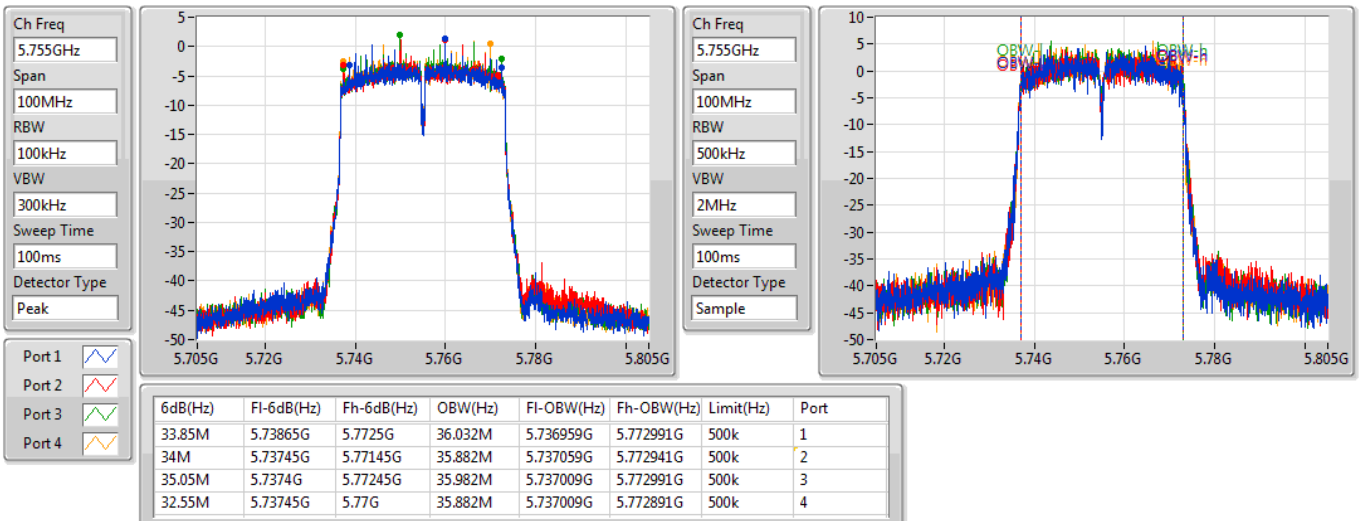


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5630MHz

19/12/2017

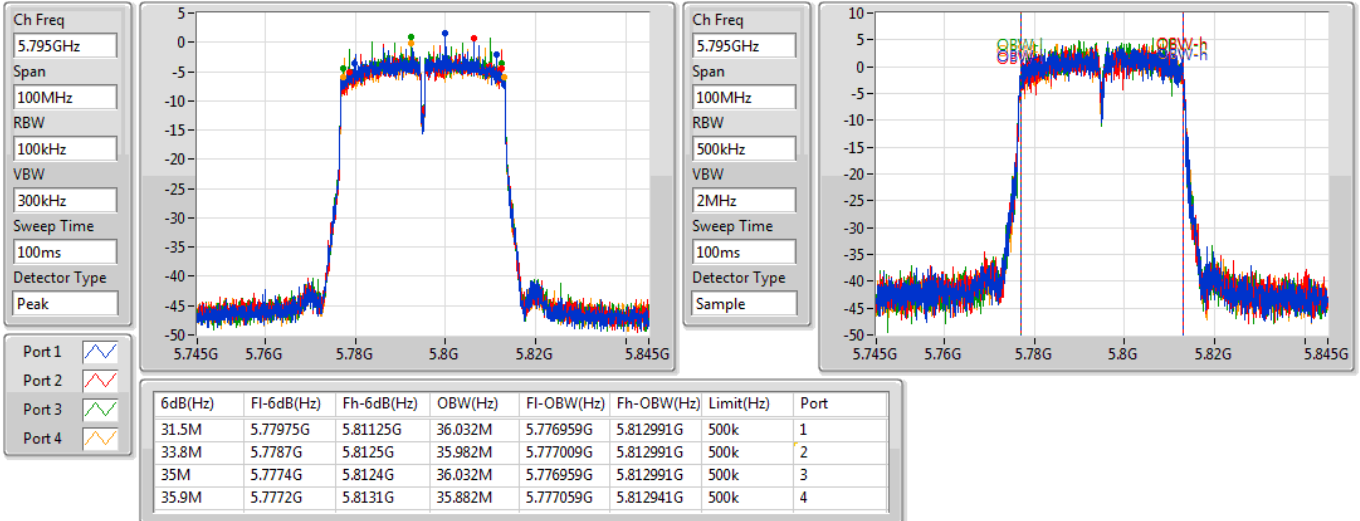

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5755MHz

08/12/2017

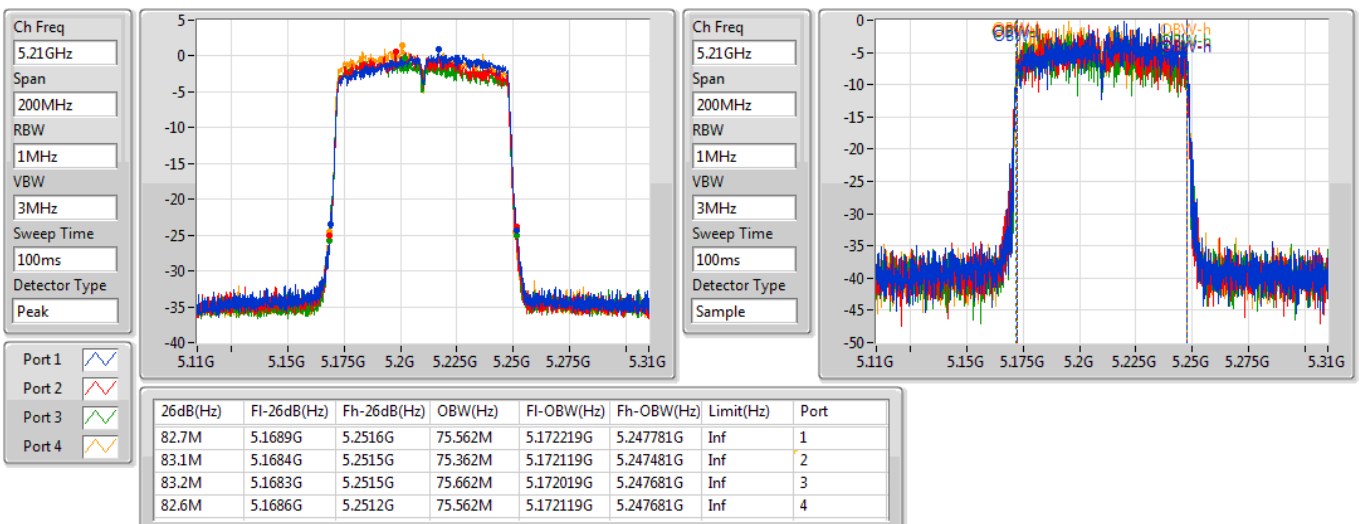


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5795MHz

08/12/2017

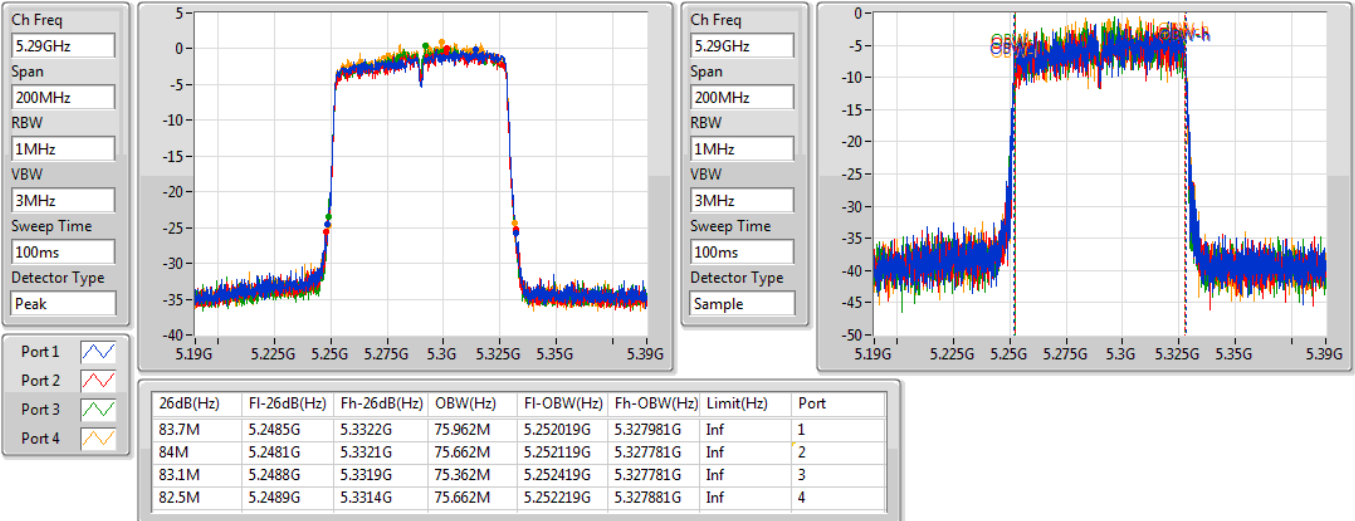

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5210MHz

08/12/2017

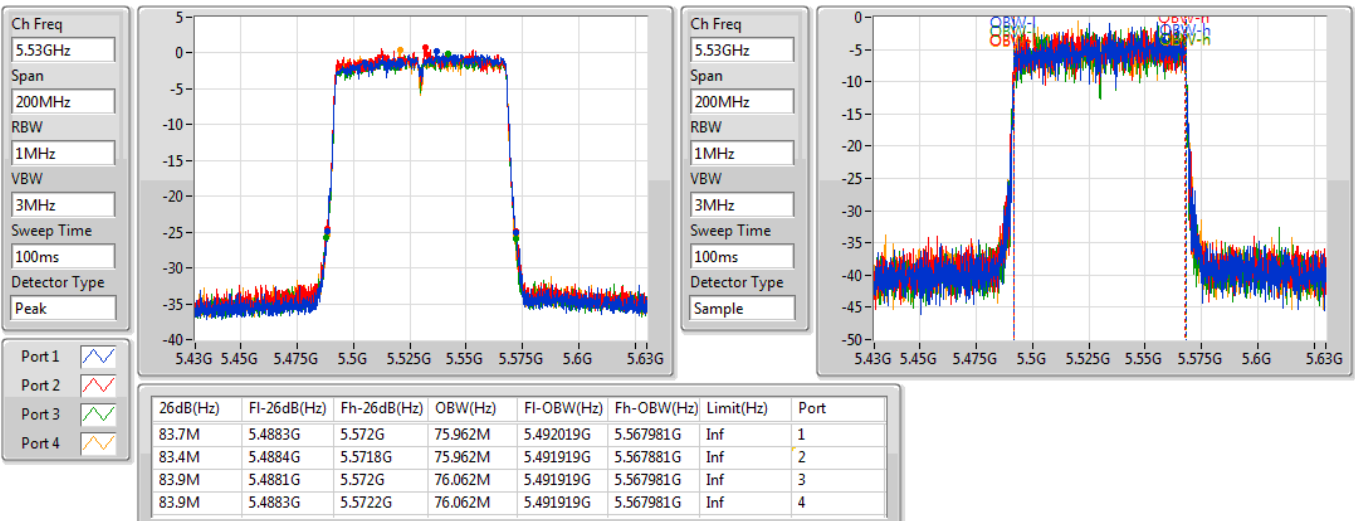


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5290MHz

08/12/2017

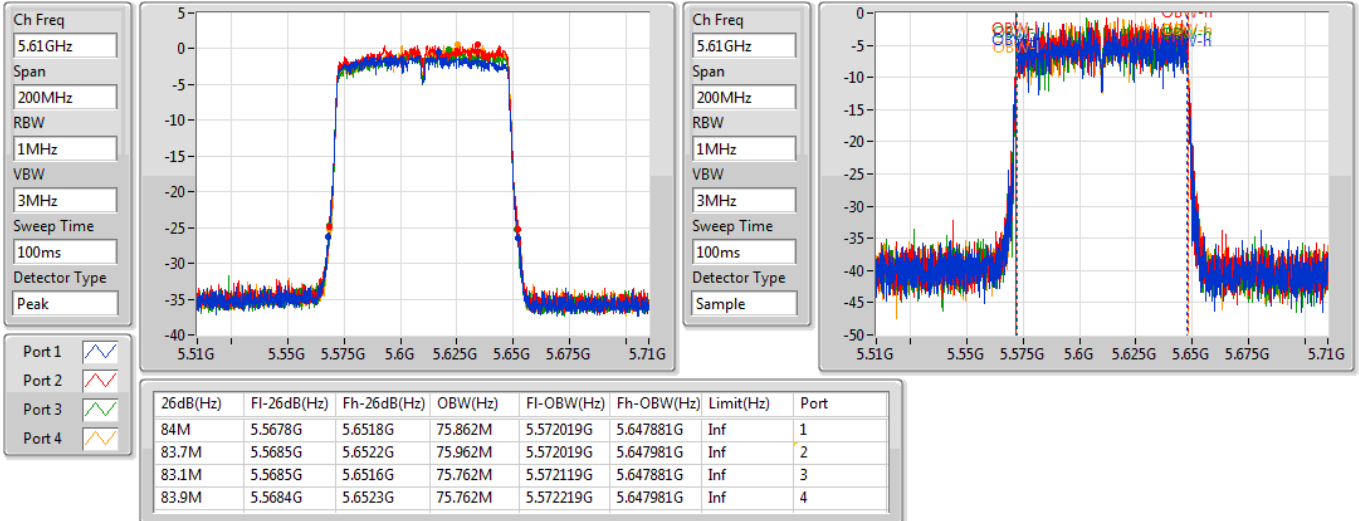

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5530MHz

08/12/2017

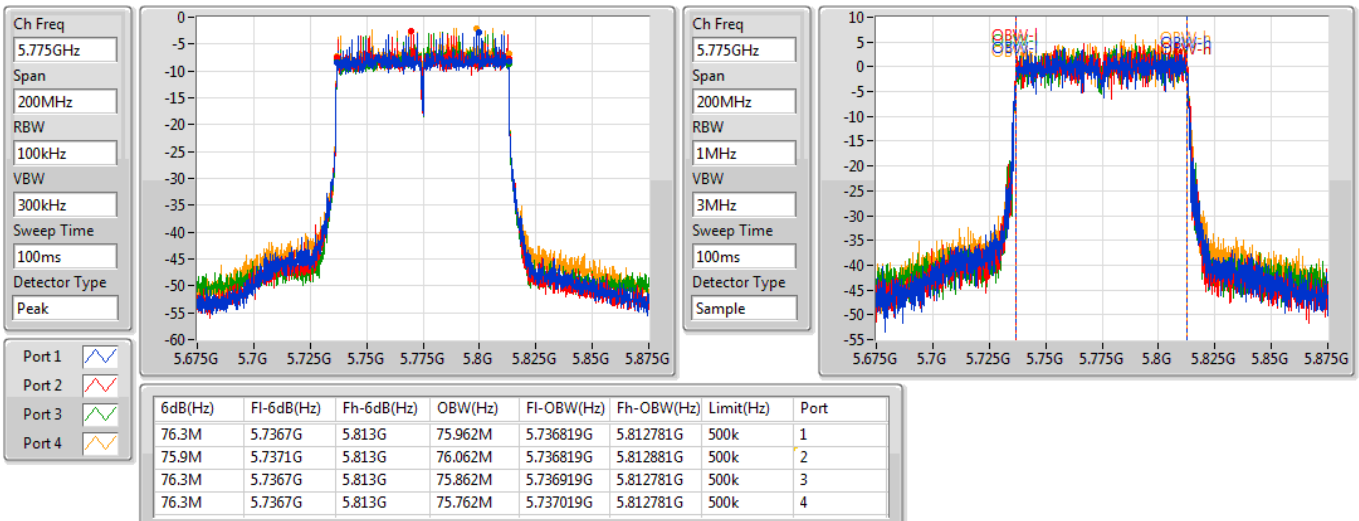


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5610MHz

08/12/2017

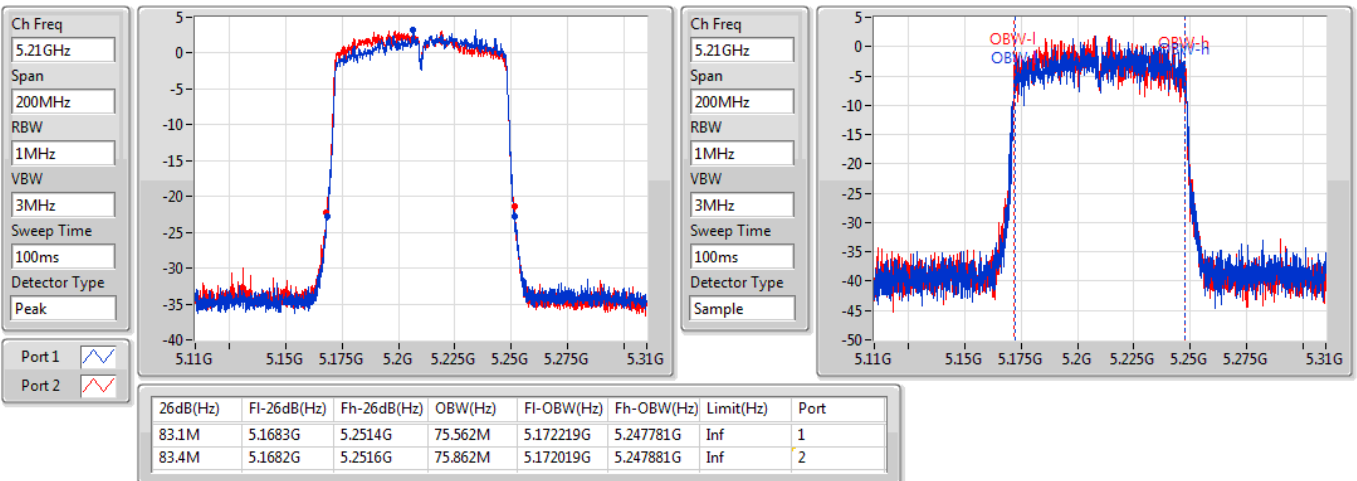

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5775MHz

22/01/2018

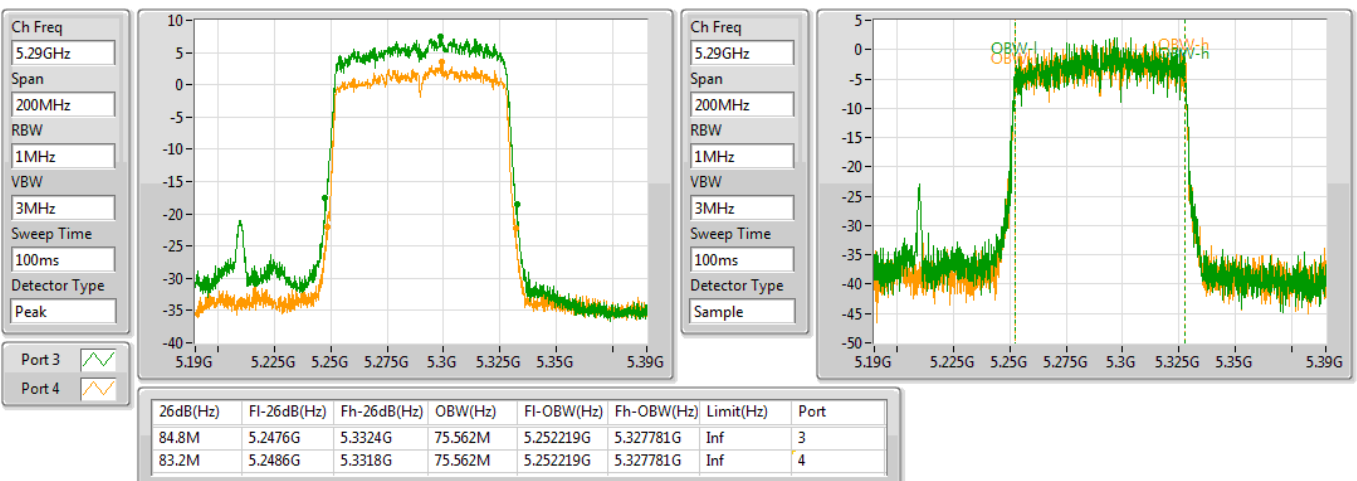


802.11ac VHT80+80_Nss2,(MCS0)_4TX(Port1&Port2)
EBW
#5210MHz,5290MHz

08/12/2017


802.11ac VHT80+80_Nss2,(MCS0)_4TX(Port3&Port4)
EBW
5210MHz,#5290MHz

08/12/2017

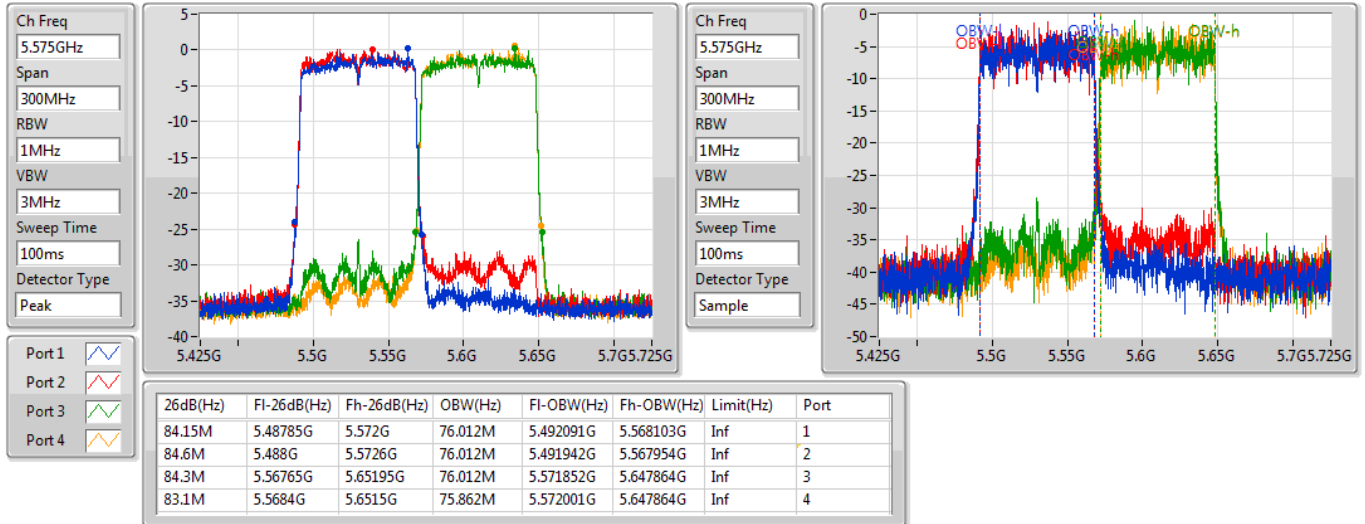


802.11ac VHT80+80_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

19/12/2017



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.95M	16.442M	16M4D1D	19.325M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.775M	17.641M	17M6D1D	20.4M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.05M	36.032M	36M0D1D	39.1M	35.882M
802.11ac VHT80_Nss1,(MCS0)_4TX	84.5M	75.862M	75M9D1D	82.7M	75.762M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	83.9M	75.862M	75M9D1D	82.9M	75.862M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.875M	16.442M	16M4D1D	19.125M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	21M	17.641M	17M6D1D	20.45M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.05M	36.032M	36M0D1D	39.25M	35.932M
802.11ac VHT80_Nss1,(MCS0)_4TX	84M	75.962M	76M0D1D	82.5M	75.362M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	84.6M	75.662M	75M7D1D	82.6M	75.462M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.975M	16.467M	16M5D1D	19.2M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.875M	17.641M	17M6D1D	20.425M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.35M	36.082M	36M1D1D	39.2M	35.982M
802.11ac VHT80_Nss1,(MCS0)_4TX	84M	76.062M	76M1D1D	83.1M	75.762M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	84.6M	76.012M	76M0D1D	83.1M	75.862M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.325M	16.442M	16M4D1D	16.25M	16.392M
802.11ac VHT20_Nss1,(MCS0)_4TX	17.55M	17.641M	17M6D1D	16.525M	17.591M
802.11ac VHT40_Nss1,(MCS0)_4TX	35.9M	36.032M	36M0D1D	31.5M	35.882M
802.11ac VHT80_Nss1,(MCS0)_4TX	76.3M	76.062M	76M1D1D	75.9M	75.762M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	19.4M	16.417M	19.55M	16.417M	19.325M	16.417M	19.95M	16.417M
5200MHz	Pass	Inf	19.65M	16.442M	19.75M	16.417M	19.525M	16.417M	19.375M	16.417M
5240MHz	Pass	Inf	19.5M	16.417M	19.625M	16.417M	19.5M	16.442M	19.825M	16.392M
5260MHz	Pass	Inf	19.5M	16.442M	19.7M	16.442M	19.375M	16.442M	19.875M	16.442M
5300MHz	Pass	Inf	19.625M	16.442M	19.35M	16.392M	19.125M	16.417M	19.6M	16.442M
5320MHz	Pass	Inf	19.525M	16.442M	19.675M	16.417M	19.4M	16.417M	19.825M	16.417M
5500MHz	Pass	Inf	19.975M	16.442M	19.65M	16.442M	19.25M	16.392M	19.975M	16.442M
5580MHz	Pass	Inf	19.65M	16.442M	19.625M	16.442M	19.925M	16.417M	19.5M	16.442M
5640MHz	Pass	Inf	19.8M	16.467M	19.2M	16.417M	19.475M	16.417M	19.975M	16.417M
5745MHz	Pass	500k	16.3M	16.417M	16.3M	16.392M	16.3M	16.392M	16.325M	16.417M
5785MHz	Pass	500k	16.275M	16.392M	16.325M	16.417M	16.275M	16.392M	16.275M	16.442M
5825MHz	Pass	500k	16.25M	16.392M	16.3M	16.417M	16.3M	16.392M	16.3M	16.417M
802.11ac_VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.775M	17.641M	20.475M	17.616M	20.625M	17.616M	20.4M	17.616M
5200MHz	Pass	Inf	20.575M	17.616M	20.625M	17.616M	20.65M	17.616M	20.425M	17.591M
5240MHz	Pass	Inf	20.75M	17.641M	20.7M	17.616M	20.625M	17.641M	20.4M	17.591M
5260MHz	Pass	Inf	20.75M	17.641M	20.875M	17.641M	20.6M	17.641M	20.5M	17.616M
5300MHz	Pass	Inf	20.6M	17.591M	21M	17.641M	20.575M	17.616M	20.5M	17.616M
5320MHz	Pass	Inf	20.9M	17.641M	20.85M	17.641M	20.8M	17.616M	20.45M	17.616M
5500MHz	Pass	Inf	20.725M	17.641M	20.875M	17.641M	20.675M	17.616M	20.425M	17.641M
5580MHz	Pass	Inf	20.875M	17.616M	20.775M	17.591M	20.875M	17.641M	20.575M	17.591M
5640MHz	Pass	Inf	20.675M	17.641M	20.8M	17.591M	20.75M	17.616M	20.525M	17.616M
5745MHz	Pass	500k	16.825M	17.591M	16.525M	17.616M	16.925M	17.641M	17.525M	17.591M
5785MHz	Pass	500k	16.9M	17.616M	17.55M	17.641M	17.525M	17.616M	17.175M	17.616M
5825MHz	Pass	500k	16.775M	17.641M	17.525M	17.591M	16.925M	17.641M	17.525M	17.591M
802.11ac_VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.05M	35.982M	39.8M	35.882M	39.35M	35.982M	39.1M	35.982M
5230MHz	Pass	Inf	40M	36.032M	40.05M	35.982M	39.7M	35.982M	39.25M	35.982M
5270MHz	Pass	Inf	39.8M	35.982M	40M	35.982M	39.4M	35.982M	39.25M	36.032M
5310MHz	Pass	Inf	40.05M	35.932M	39.95M	35.982M	39.65M	35.982M	39.4M	35.982M
5510MHz	Pass	Inf	40.35M	36.032M	39.9M	36.032M	40M	36.032M	39.25M	36.082M
5550MHz	Pass	Inf	40.1M	35.982M	40.05M	36.032M	39.75M	36.082M	39.3M	36.082M
5630MHz	Pass	Inf	40.2M	36.082M	39.8M	36.032M	39.8M	36.032M	39.2M	36.032M
5755MHz	Pass	500k	33.85M	36.032M	34M	35.882M	35.05M	35.982M	32.55M	35.882M
5795MHz	Pass	500k	31.5M	36.032M	33.8M	35.982M	35M	36.032M	35.9M	35.882M
802.11ac_VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	83.8M	75.762M	84.5M	75.862M	83.8M	75.862M	82.7M	75.762M
5290MHz	Pass	Inf	83.7M	75.962M	84M	75.662M	83.1M	75.362M	82.5M	75.662M
5530MHz	Pass	Inf	83.7M	75.962M	83.4M	75.962M	83.9M	76.062M	83.9M	76.062M
5610MHz	Pass	Inf	84M	75.862M	83.7M	75.962M	83.1M	75.762M	83.9M	75.762M
5775MHz	Pass	500k	76.3M	75.962M	75.9M	76.062M	76.3M	75.862M	76.3M	75.762M
802.11ac_VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	Inf	82.9M	75.862M	83.9M	75.862M				



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	Inf					84.6M	75.662M	82.6M	75.462M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	Inf	84.15M	76.012M	84.6M	76.012M	84.3M	76.012M	83.1M	75.862M

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

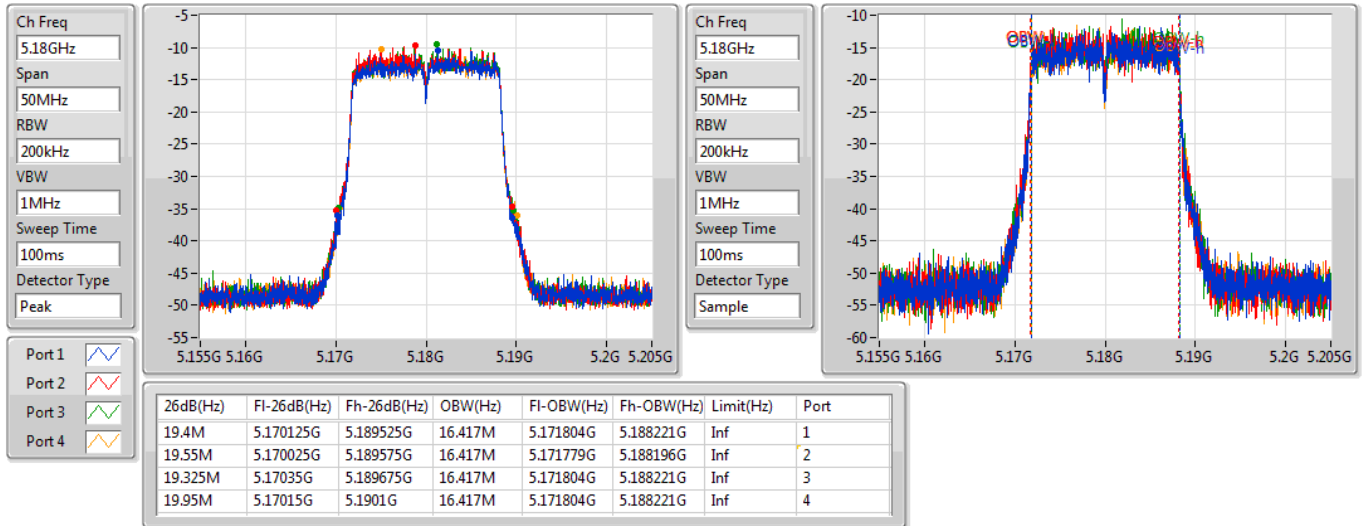
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX

EBW

5180MHz

15/12/2017

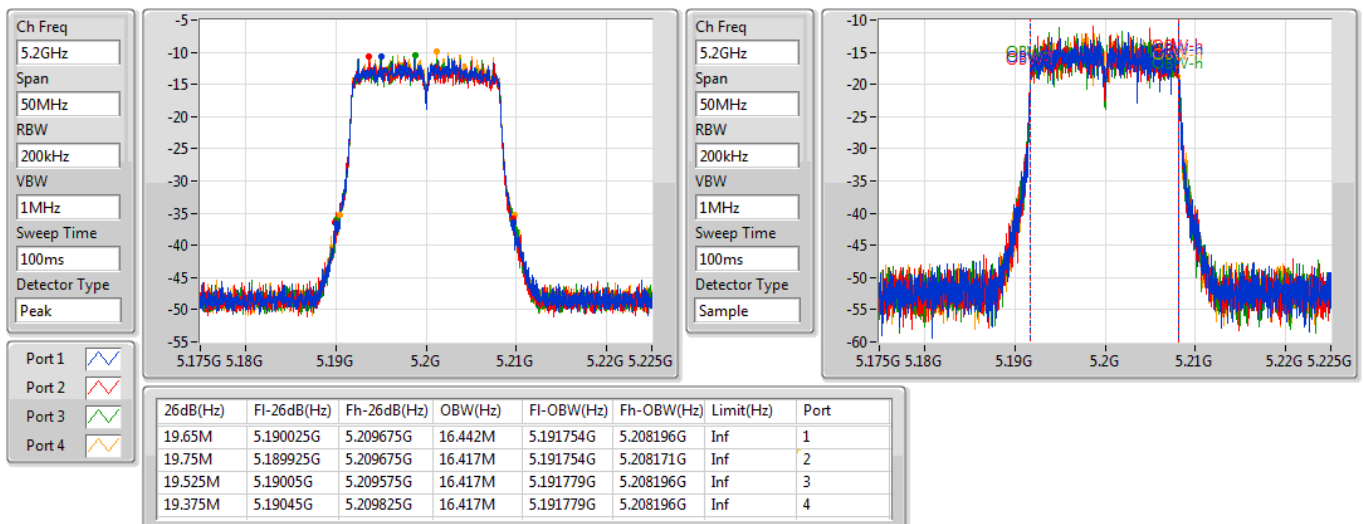


802.11a_Nss1,(6Mbps)_4TX

EBW

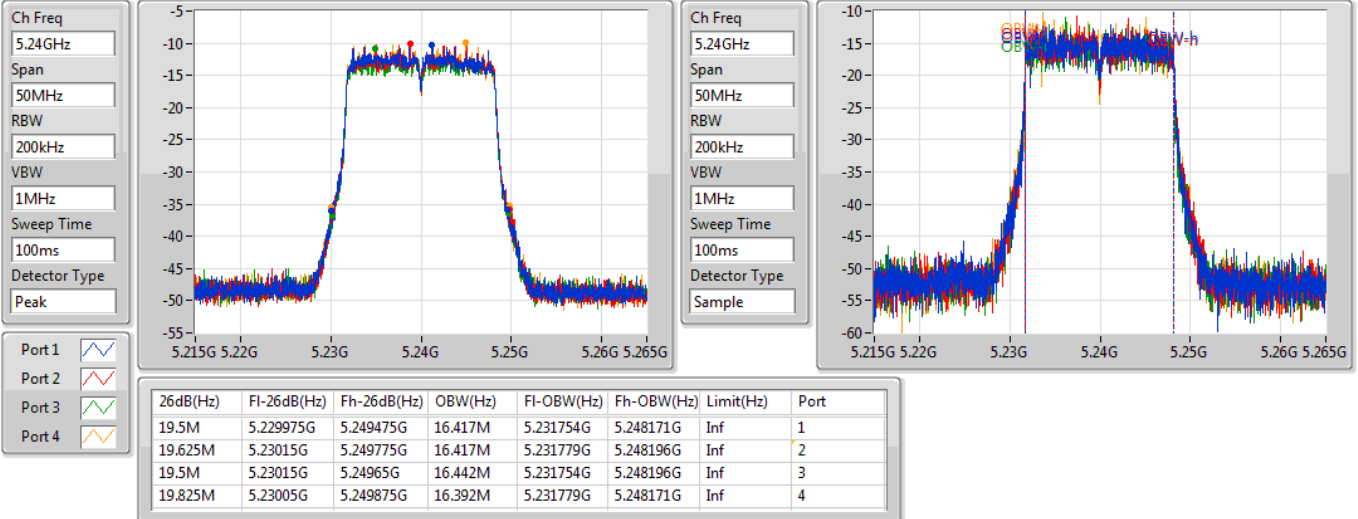
5200MHz

15/12/2017

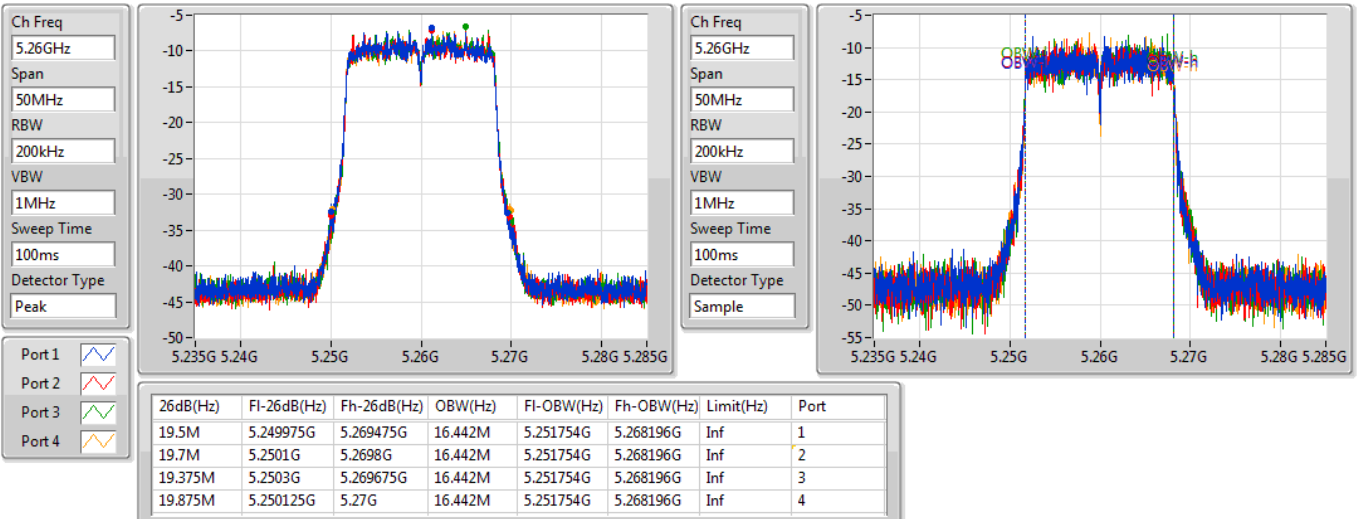


802.11a_Nss1,(6Mbps)_4TX
EBW
5240MHz

15/12/2017

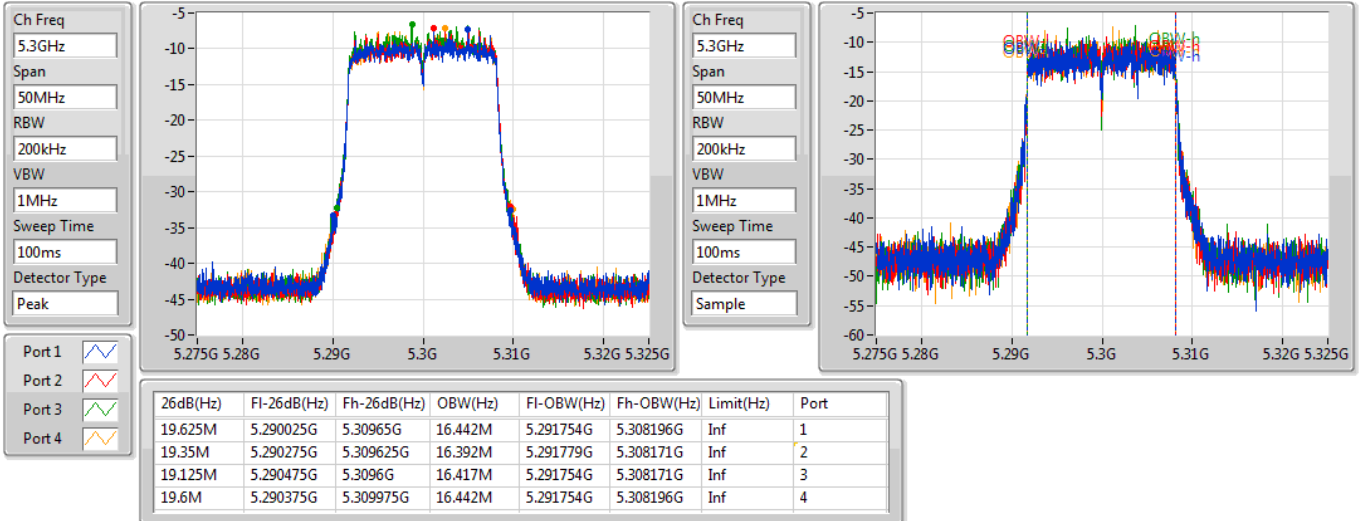

802.11a_Nss1,(6Mbps)_4TX
EBW
5260MHz

08/12/2017

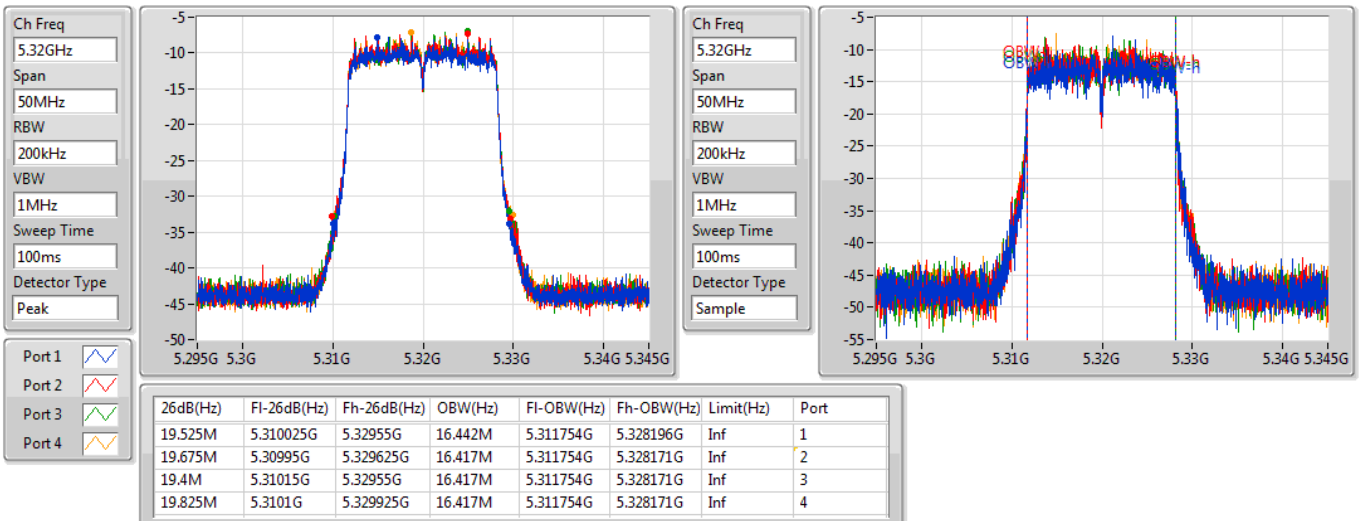


802.11a_Nss1,(6Mbps)_4TX
EBW
5300MHz

08/12/2017

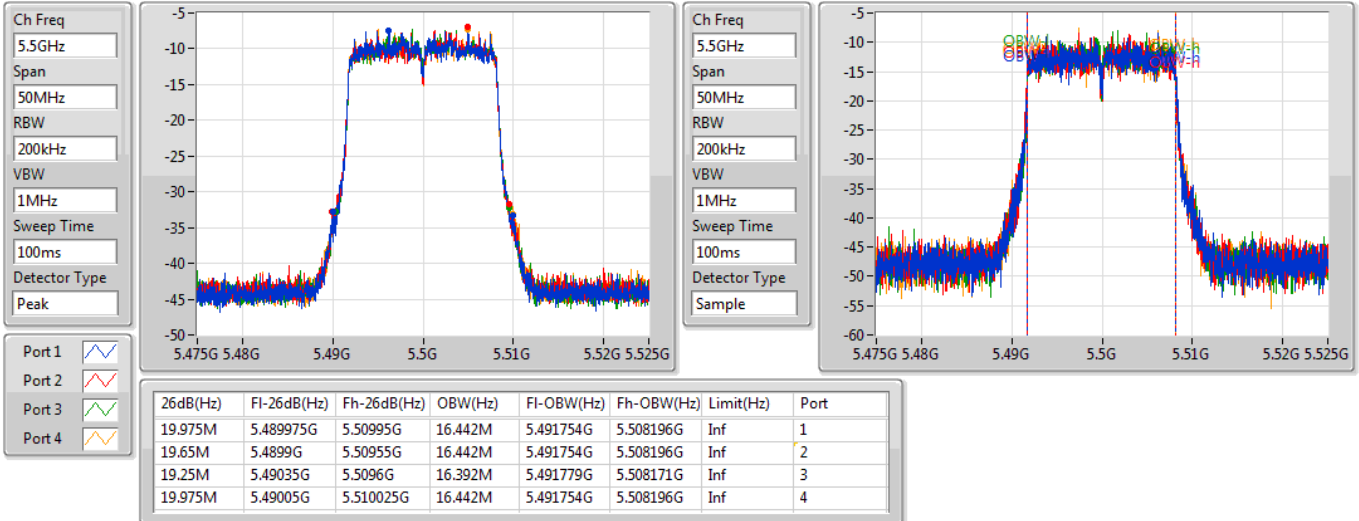

802.11a_Nss1,(6Mbps)_4TX
EBW
5320MHz

08/12/2017

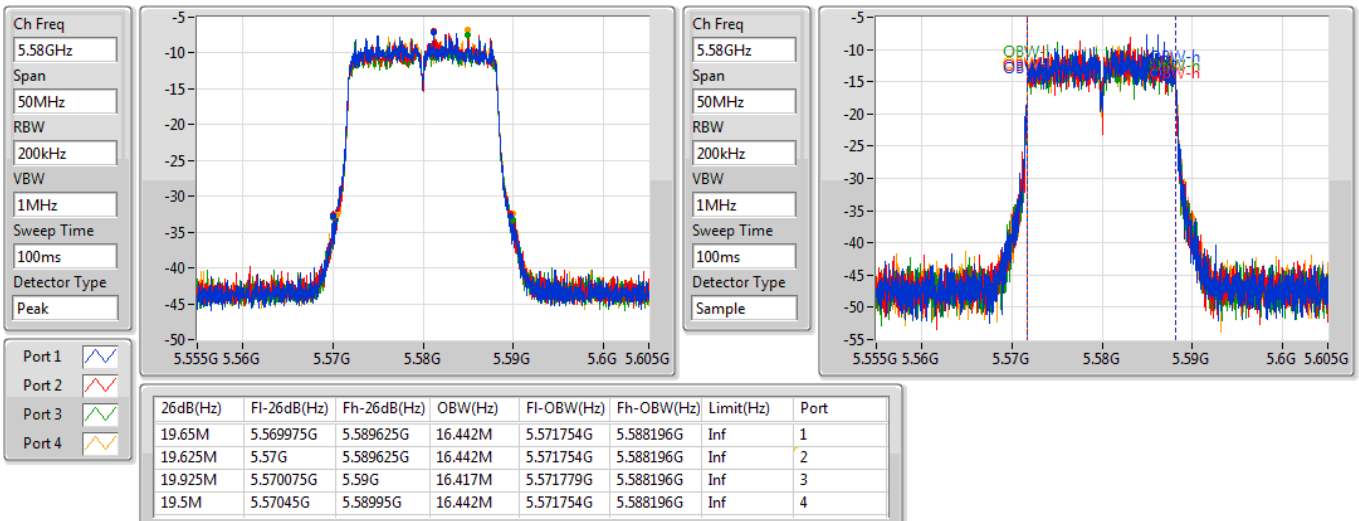


802.11a_Nss1,(6Mbps)_4TX
EBW
5500MHz

08/12/2017

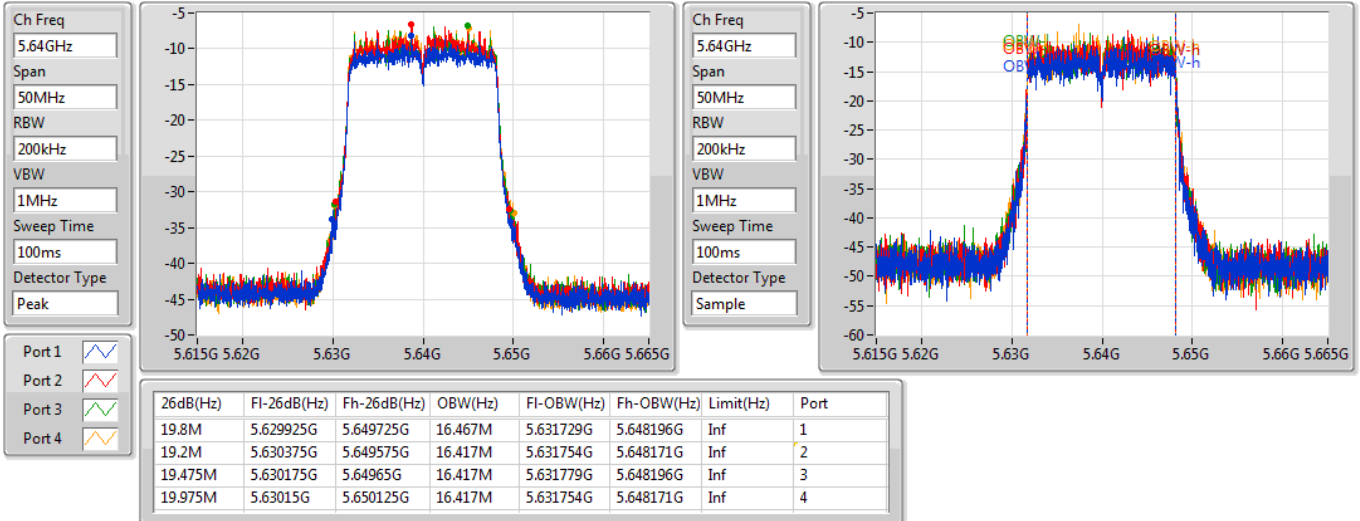

802.11a_Nss1,(6Mbps)_4TX
EBW
5580MHz

08/12/2017

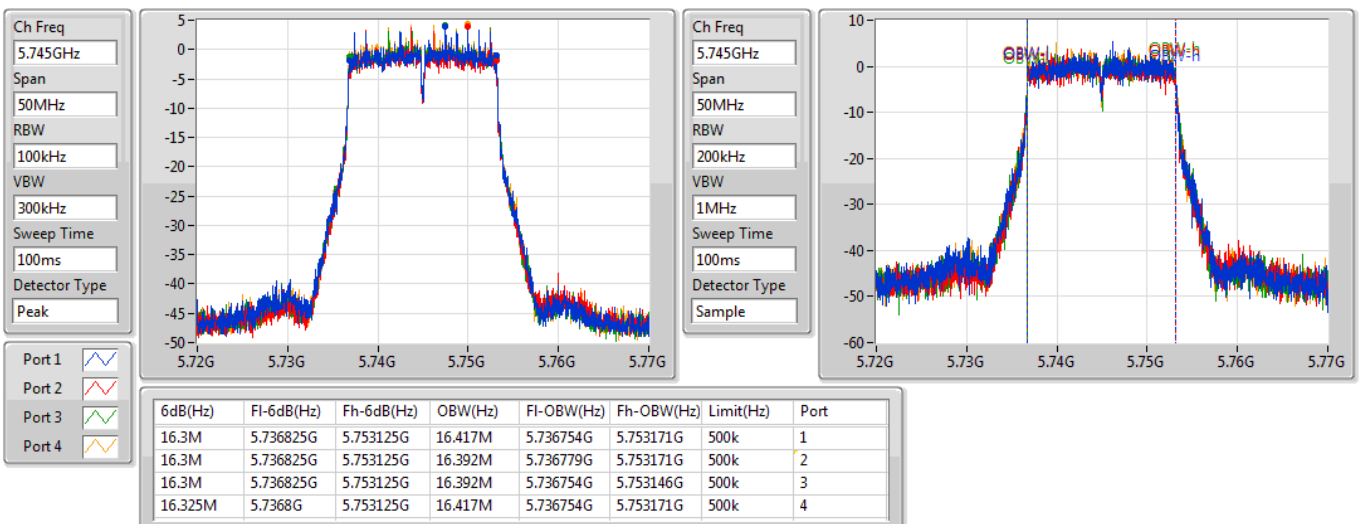


802.11a_Nss1,(6Mbps)_4TX
EBW
5640MHz

19/12/2017

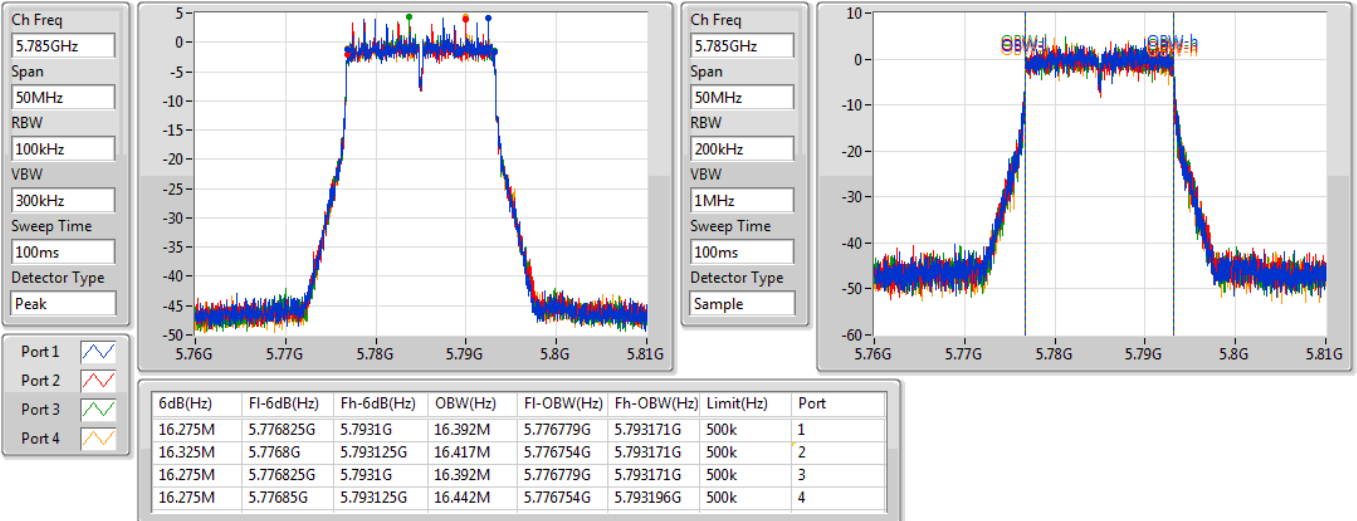

802.11a_Nss1,(6Mbps)_4TX
EBW
5745MHz

08/12/2017

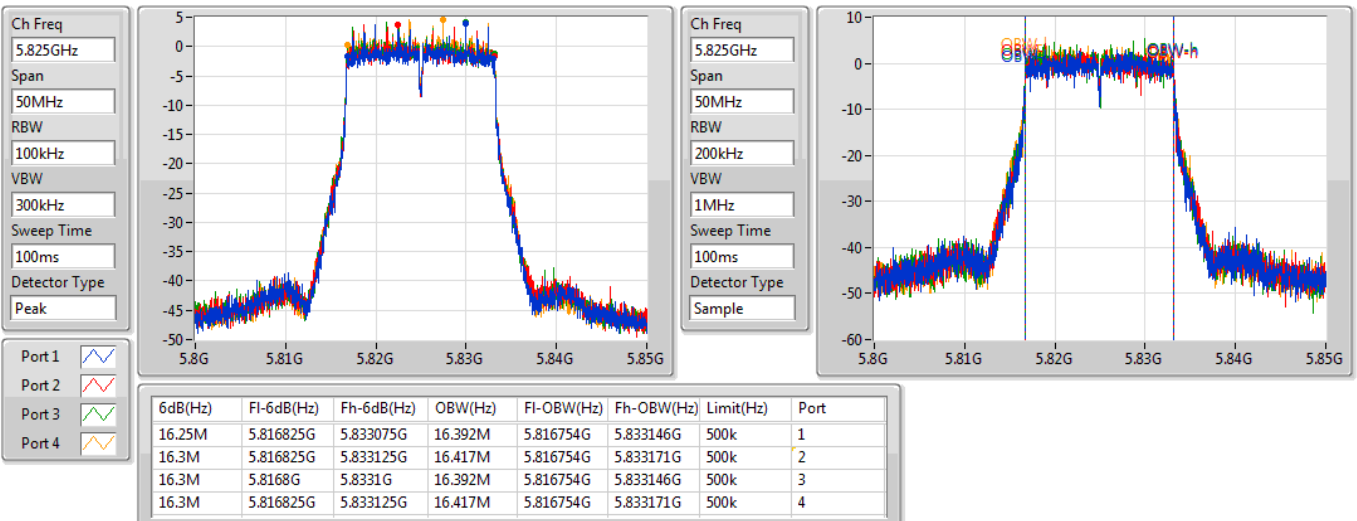


802.11a_Nss1,(6Mbps)_4TX
EBW
5785MHz

08/12/2017

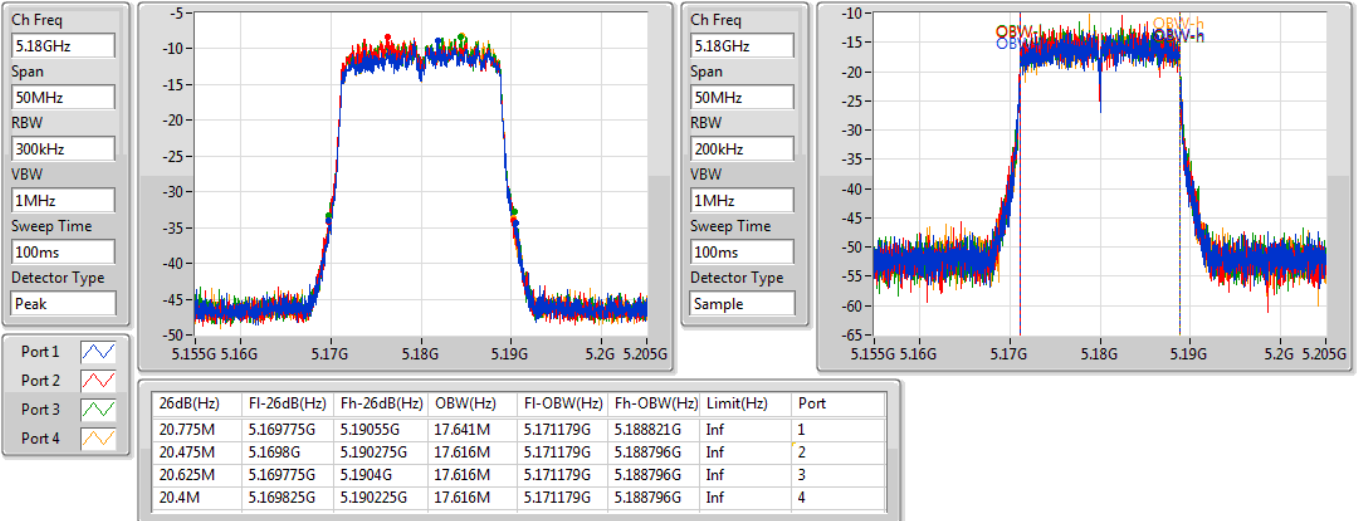

802.11a_Nss1,(6Mbps)_4TX
EBW
5825MHz

08/12/2017

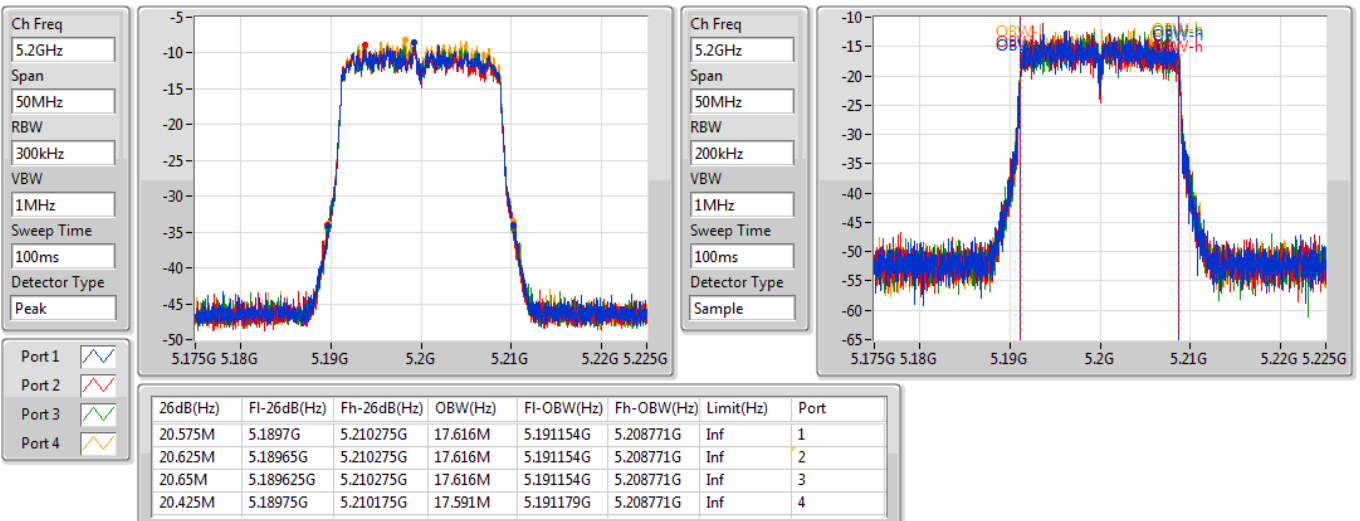


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5180MHz

15/12/2017

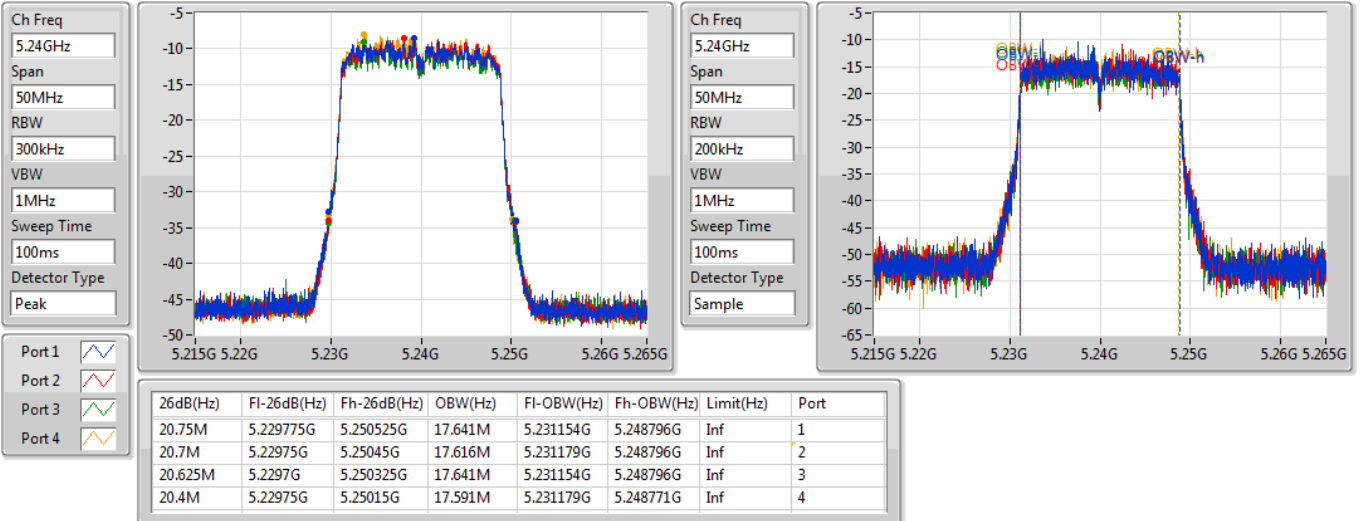

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5200MHz

15/12/2017

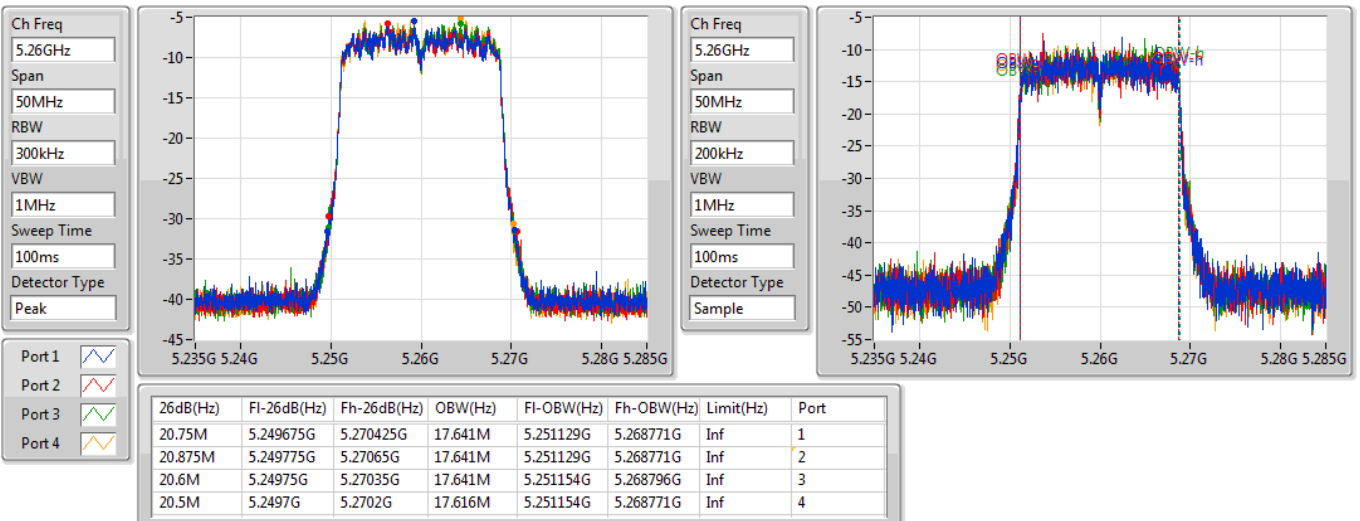


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5240MHz

15/12/2017

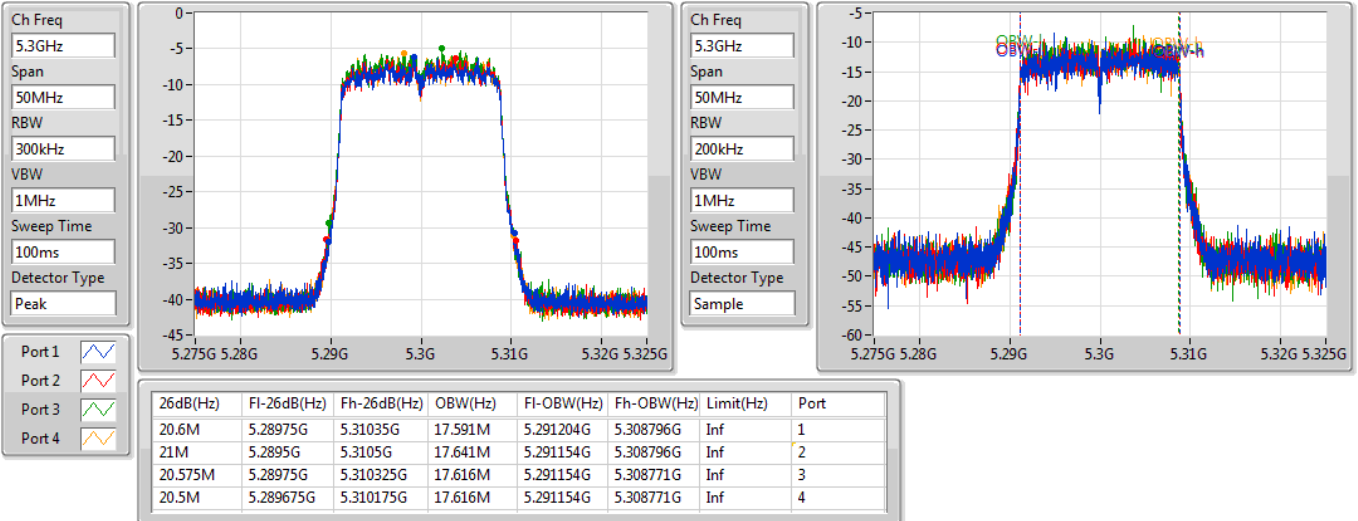

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5260MHz

08/12/2017

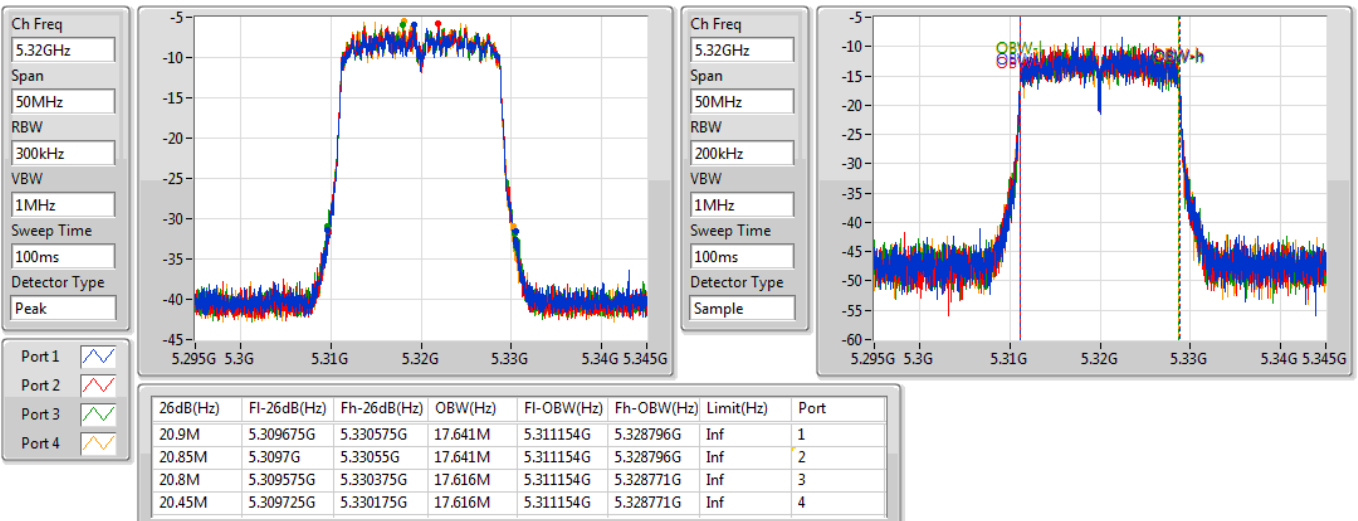


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5300MHz

08/12/2017

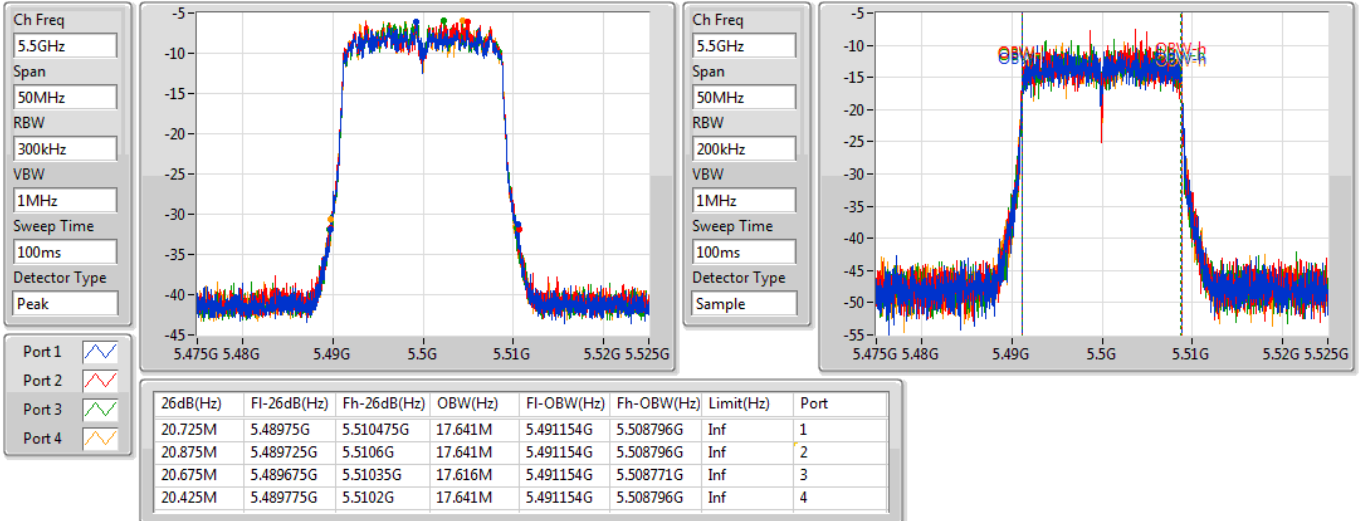

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5320MHz

08/12/2017

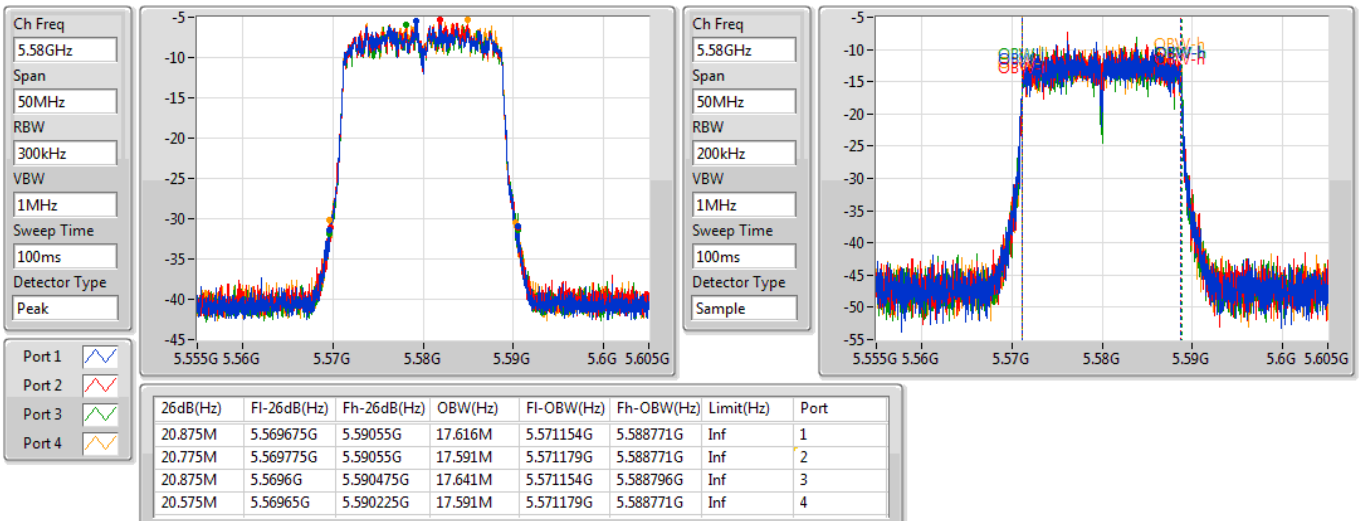


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5500MHz

08/12/2017

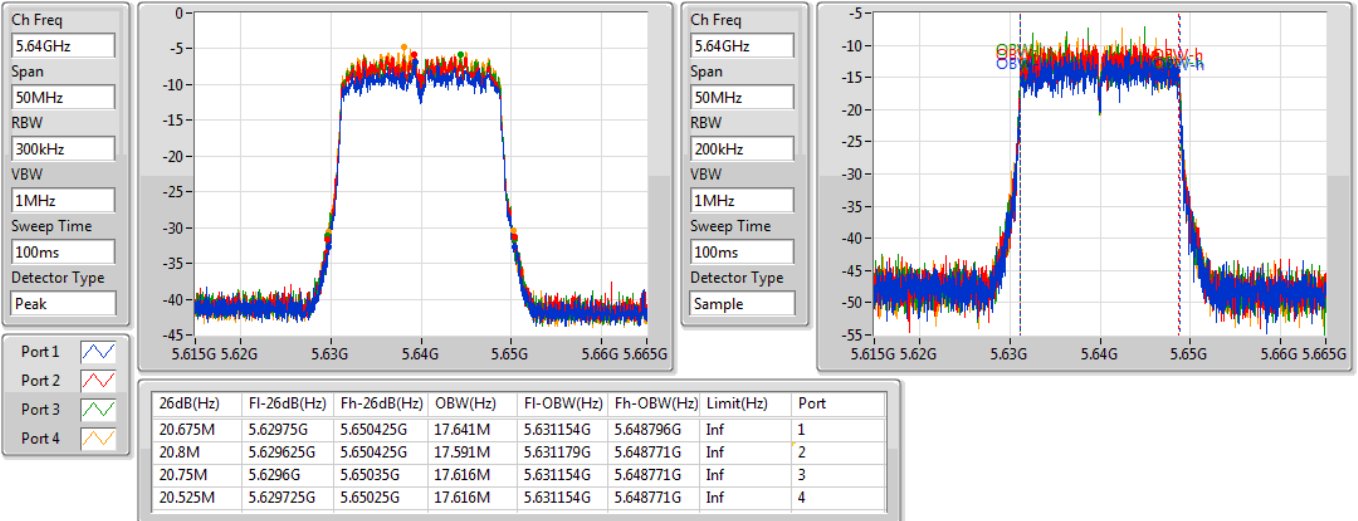

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5580MHz

08/12/2017

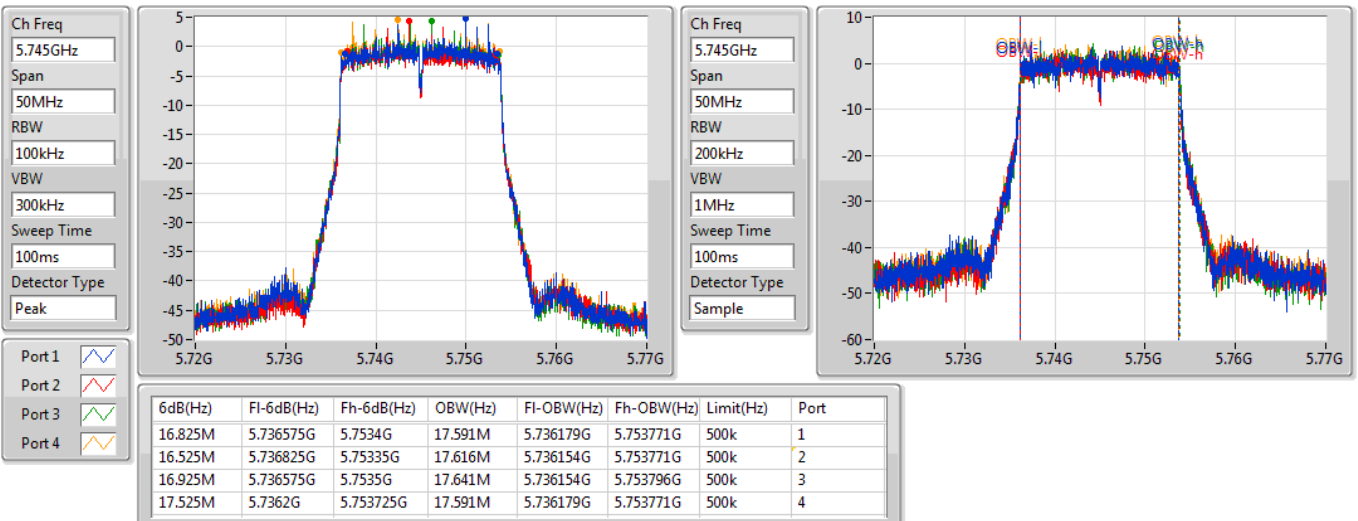


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5640MHz

19/12/2017

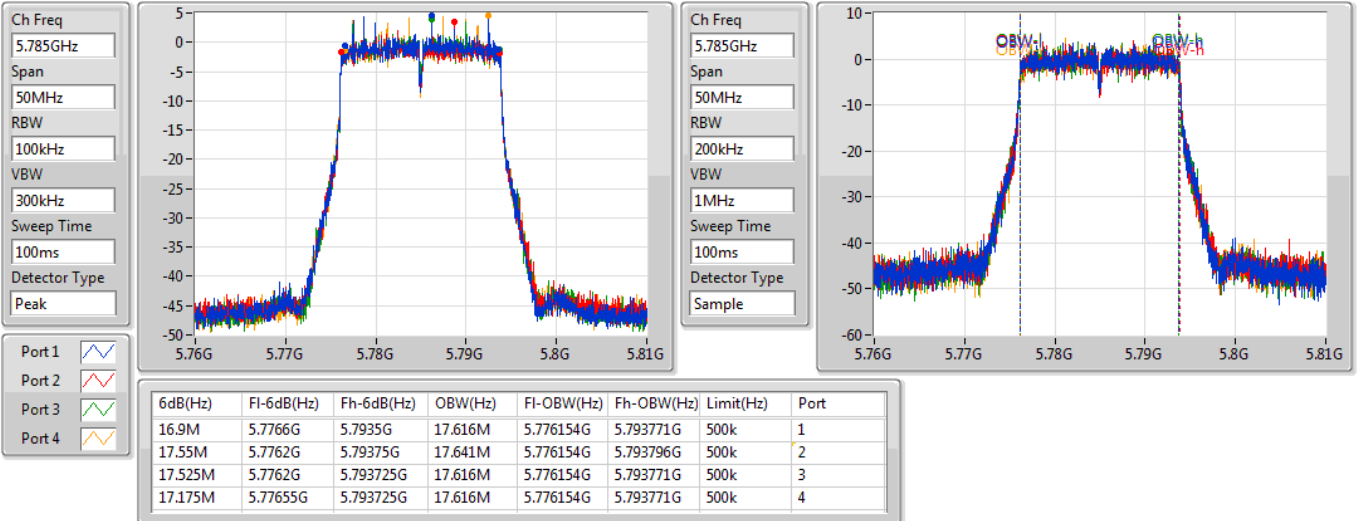

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5745MHz

08/12/2017

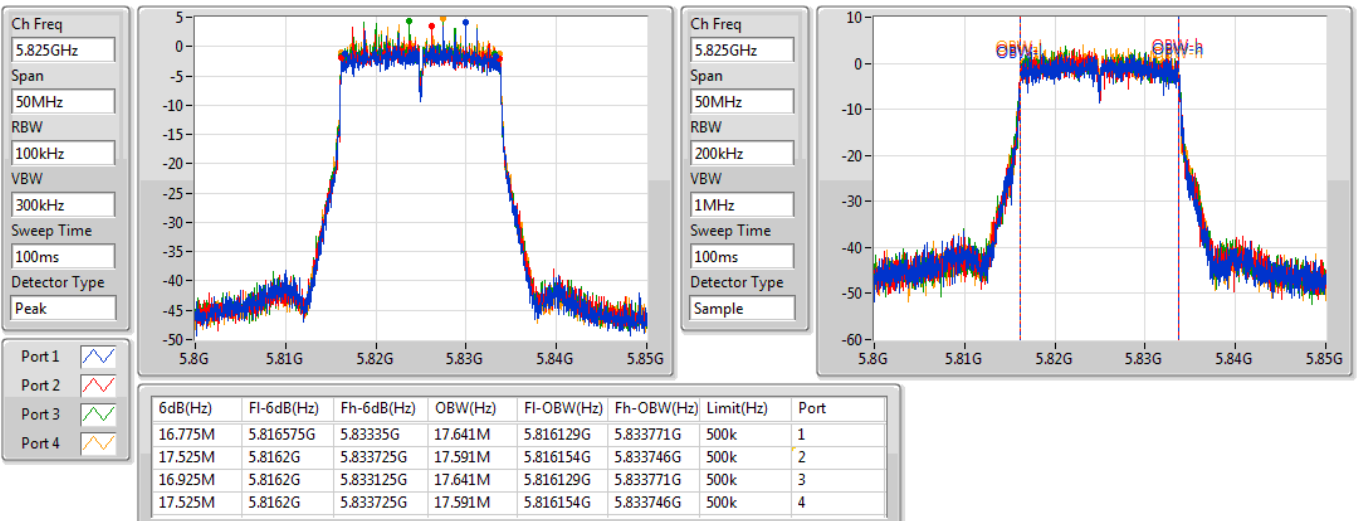


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5785MHz

08/12/2017

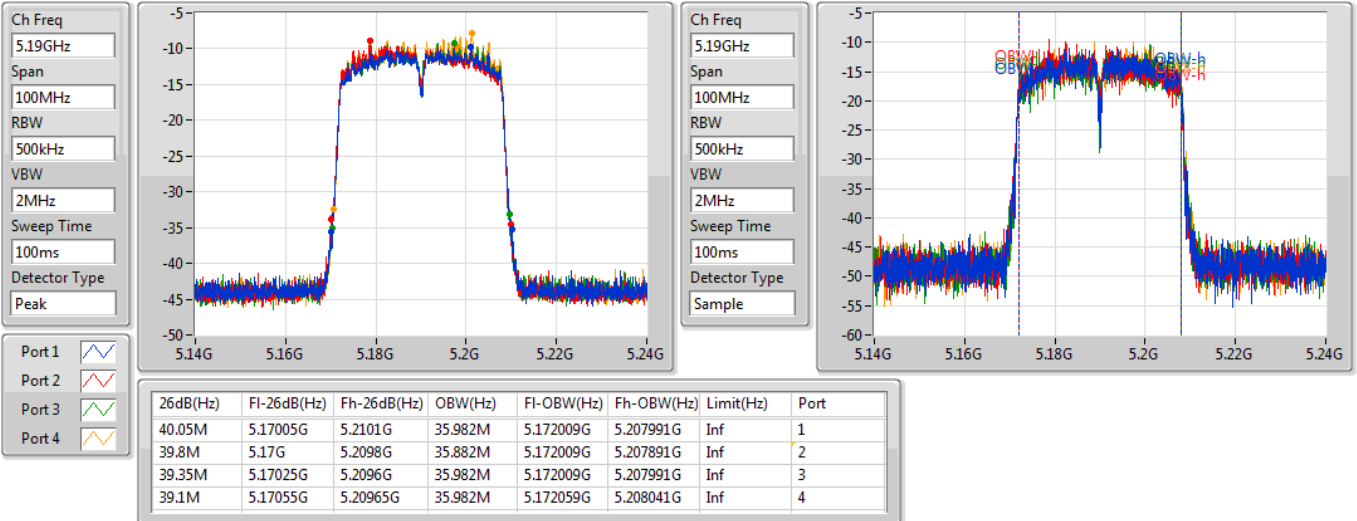

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5825MHz

08/12/2017

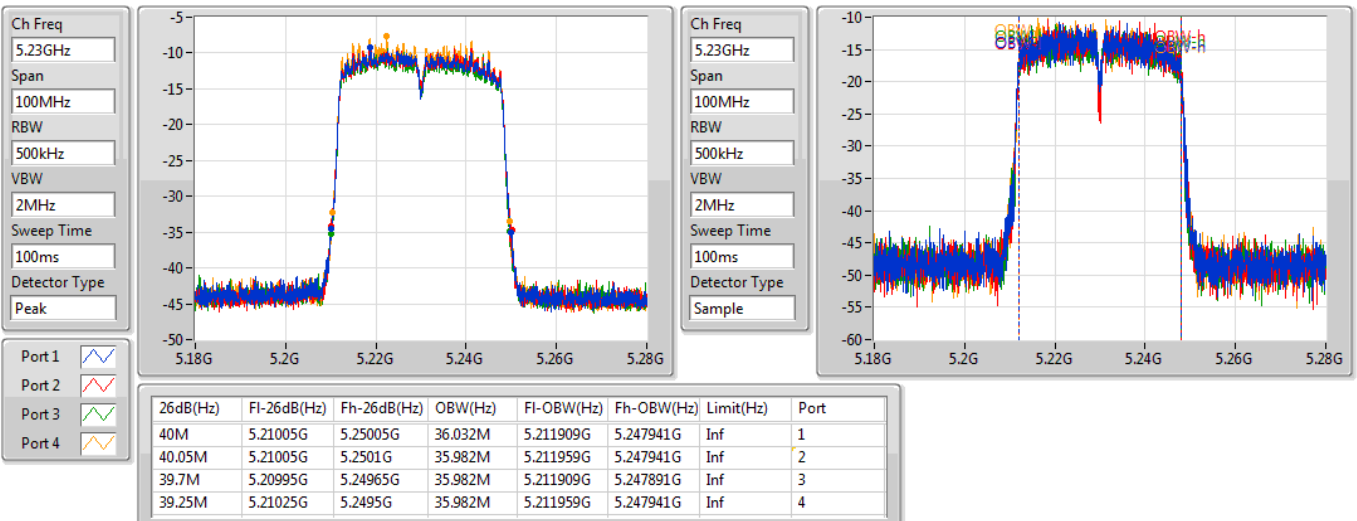


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5190MHz

15/12/2017

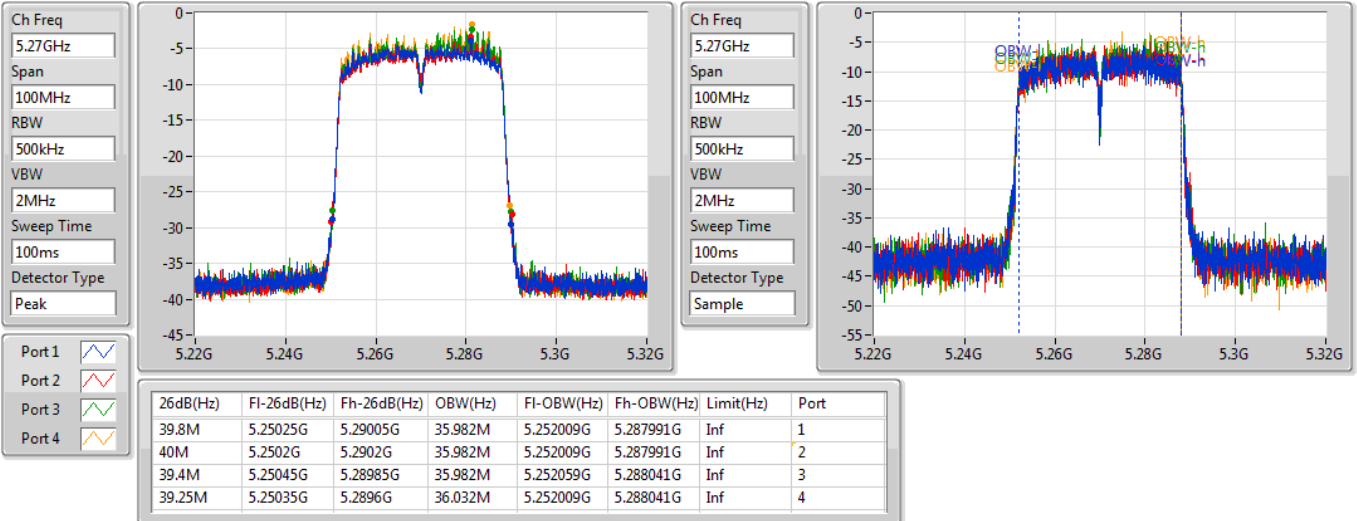

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5230MHz

15/12/2017

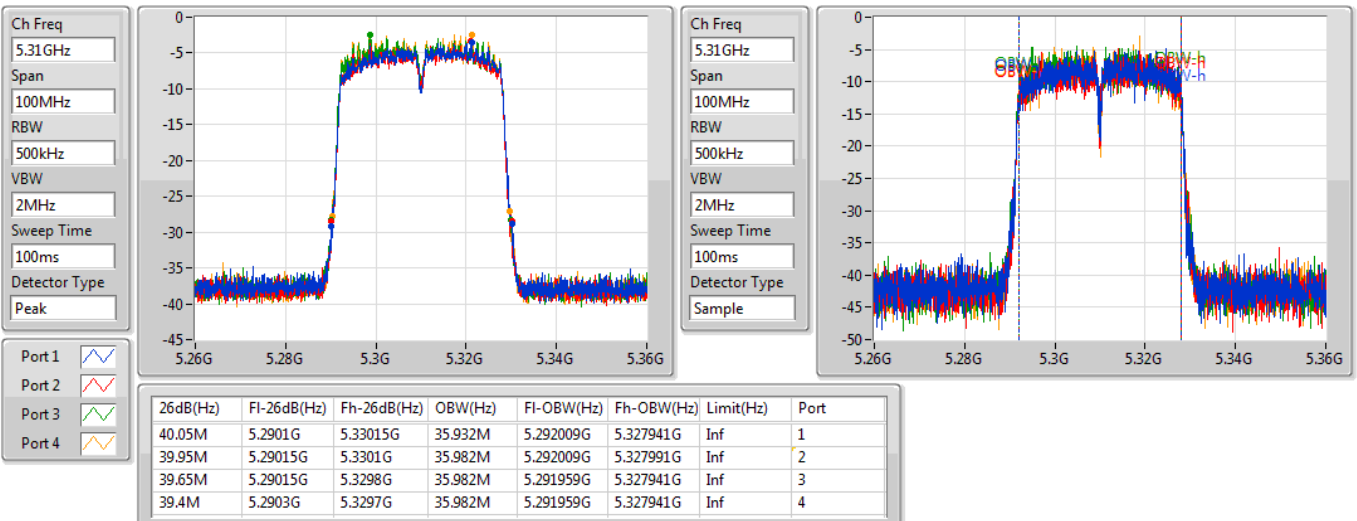


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5270MHz

08/12/2017

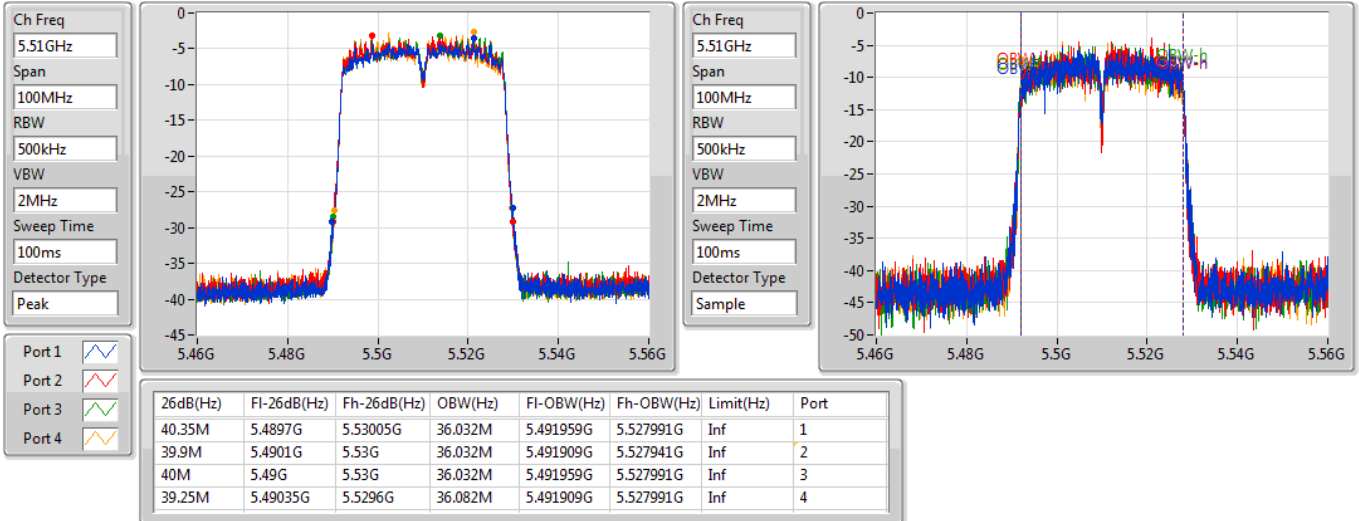

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5310MHz

08/12/2017

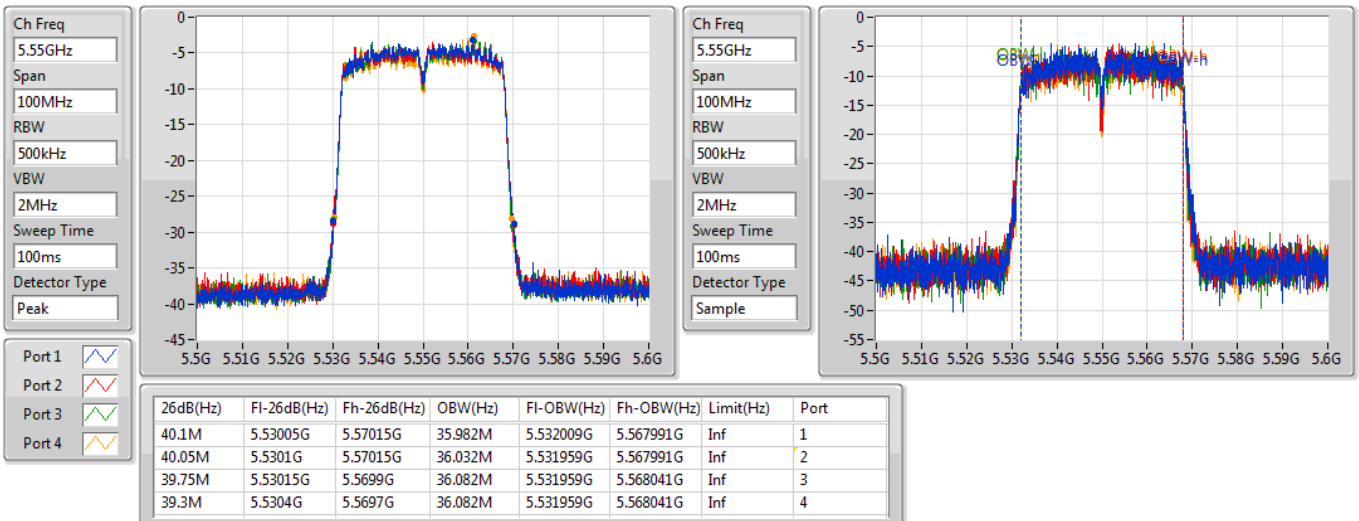


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5510MHz

08/12/2017

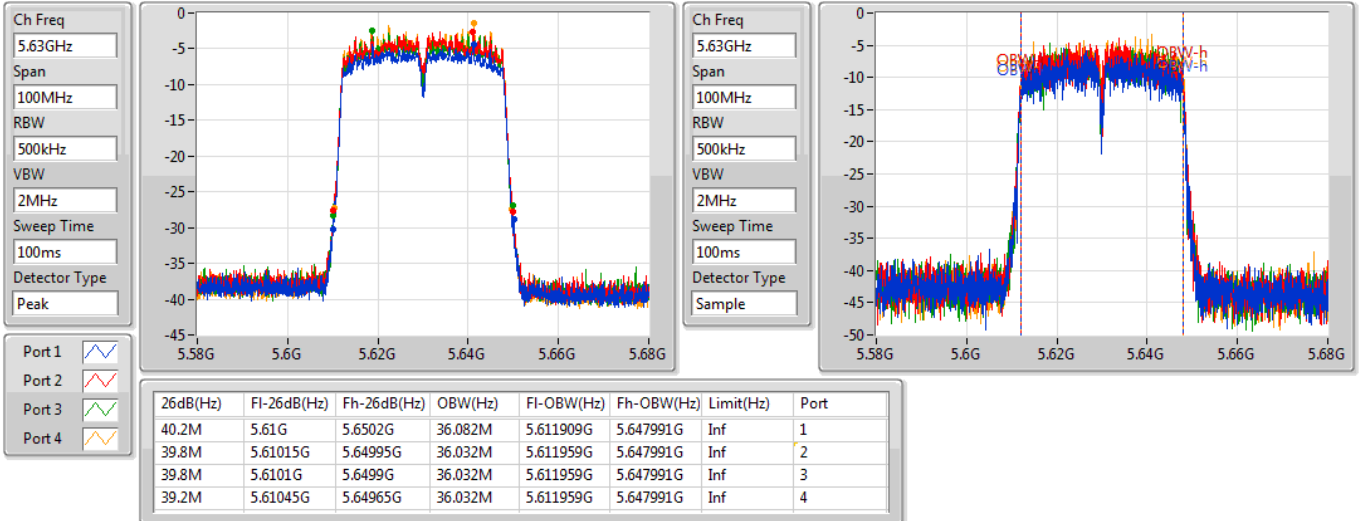

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5550MHz

08/12/2017

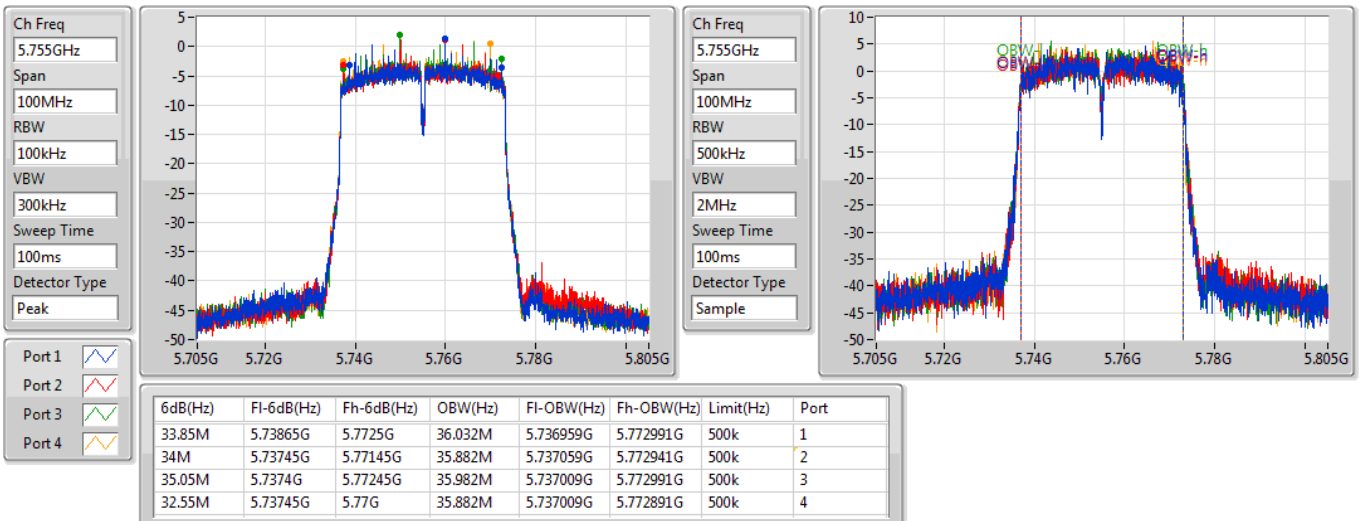


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5630MHz

19/12/2017

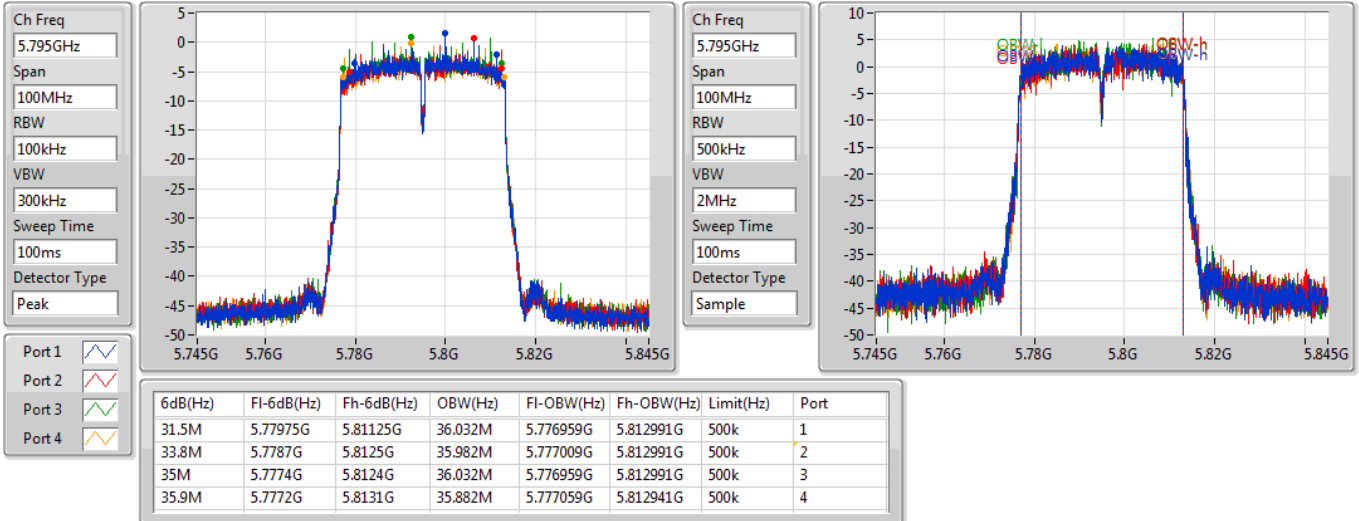

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5755MHz

08/12/2017

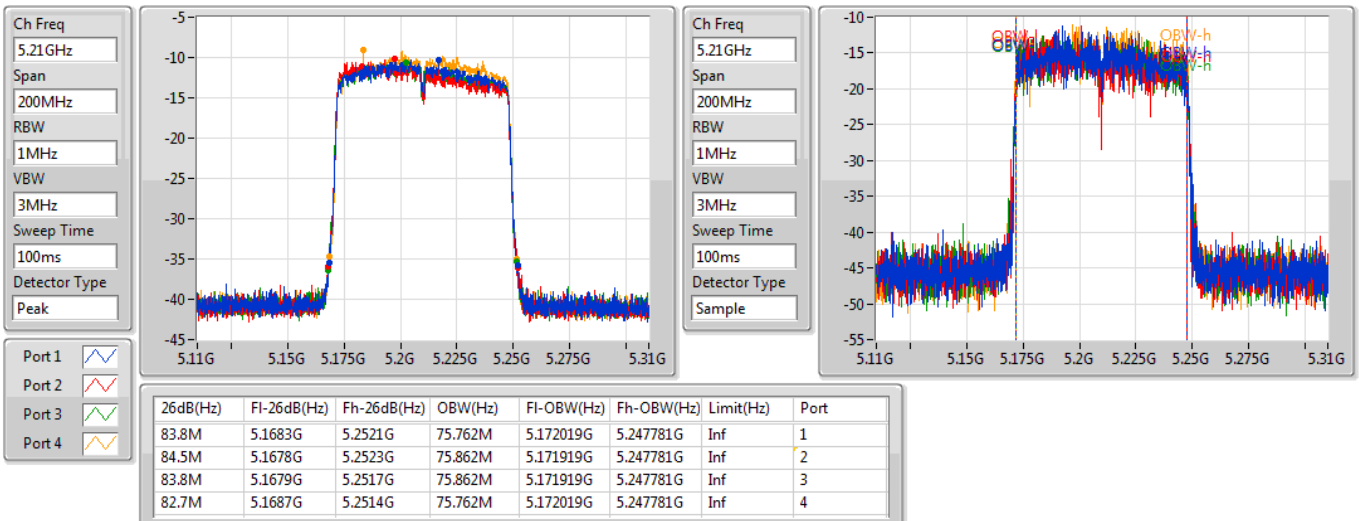


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5795MHz

08/12/2017

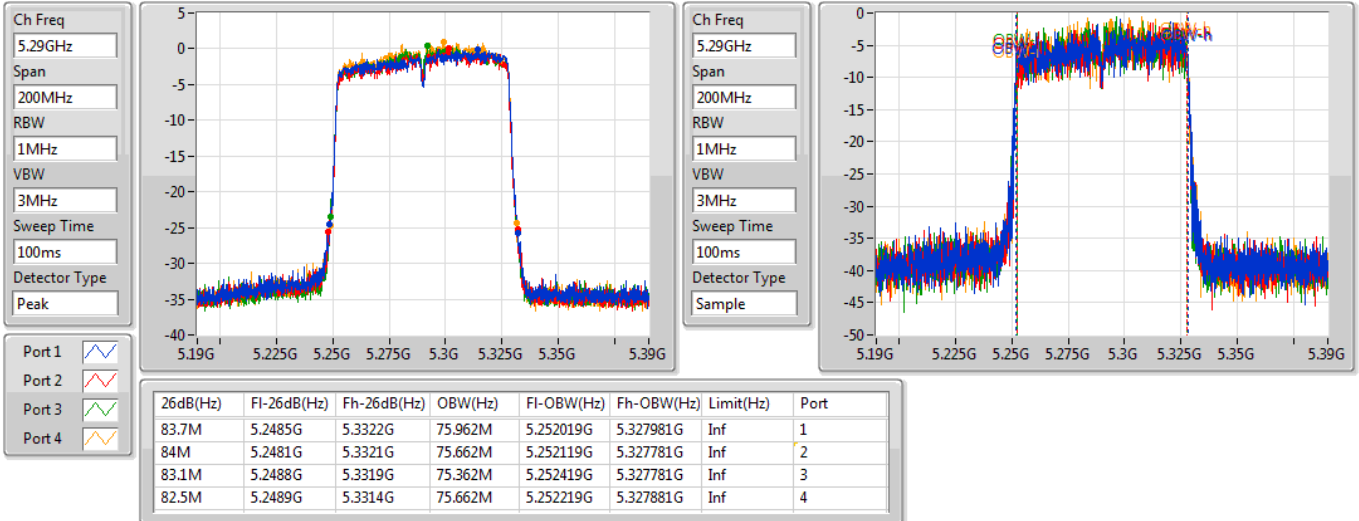

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5210MHz

15/12/2017

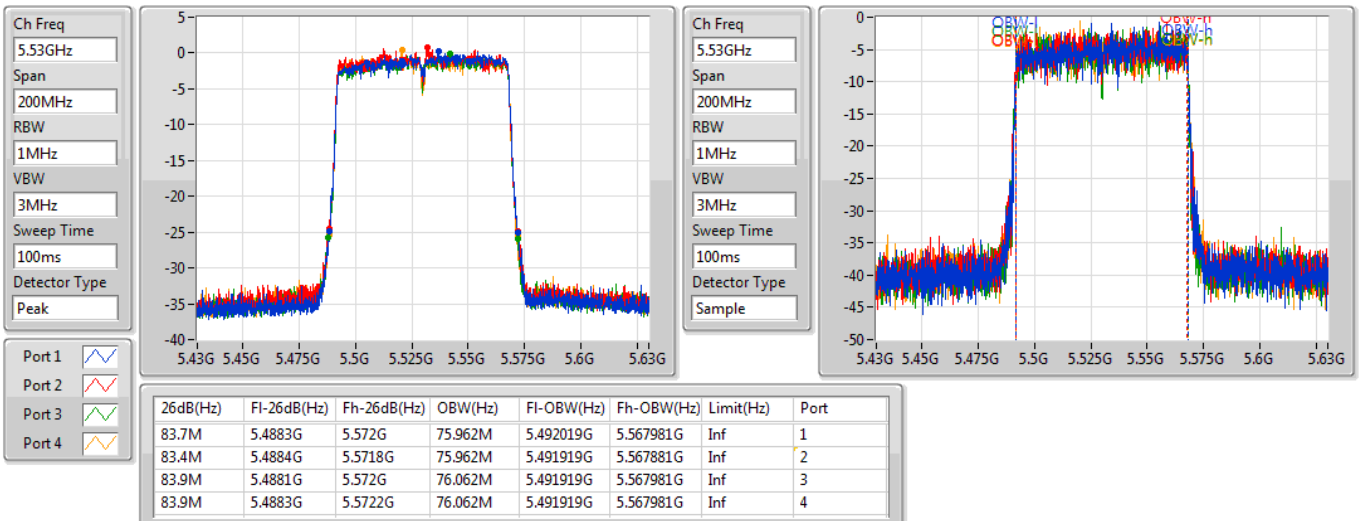


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5290MHz

08/12/2017

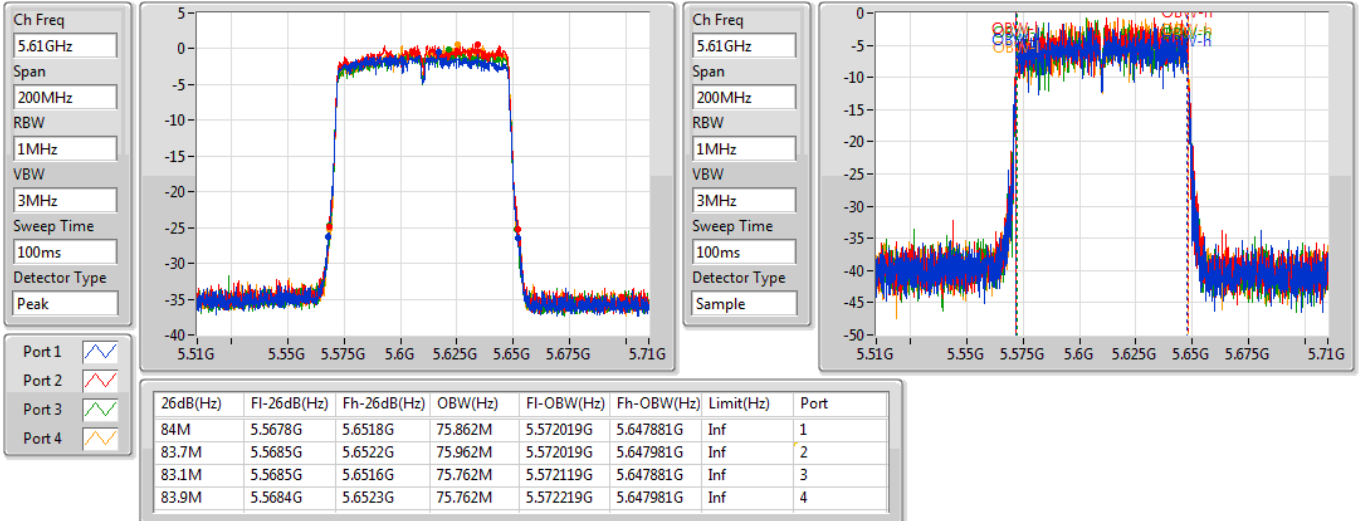

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5530MHz

08/12/2017

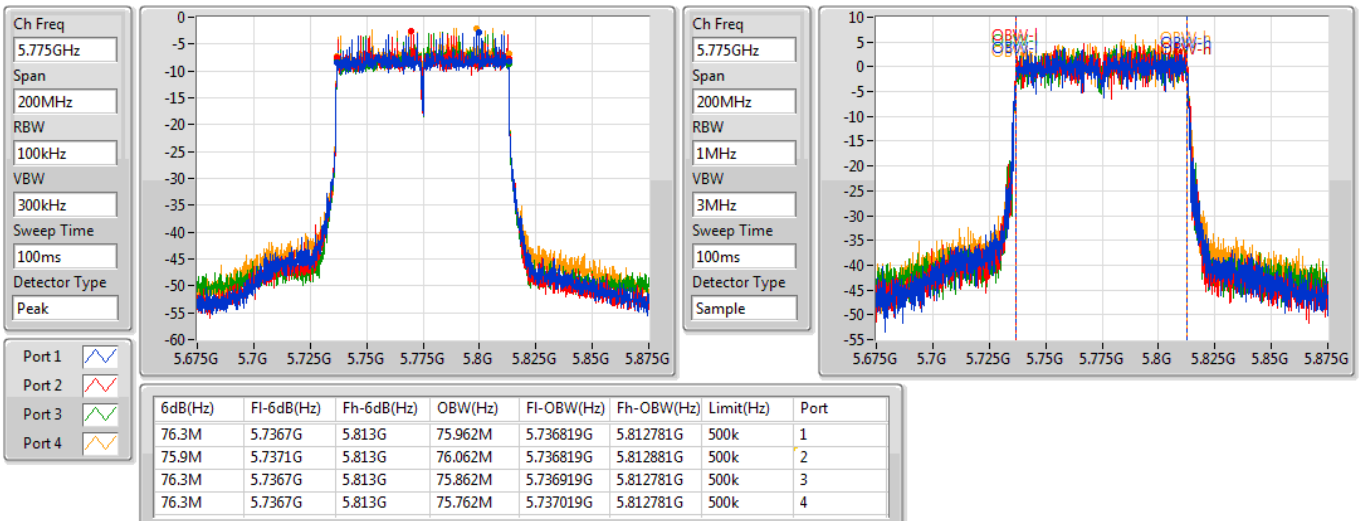


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5610MHz

08/12/2017

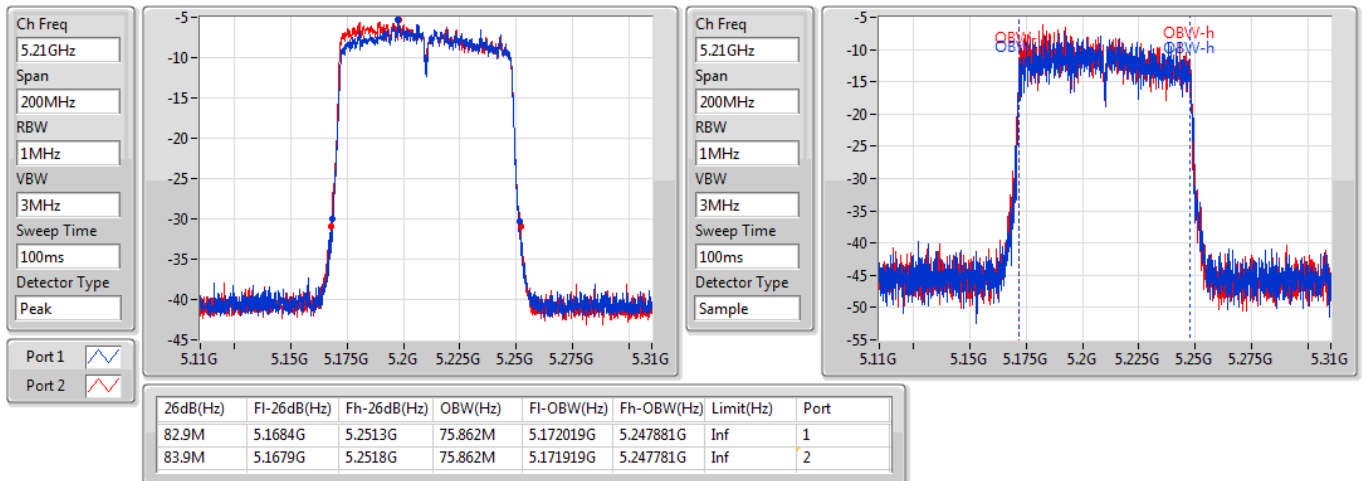

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5775MHz

22/01/2018

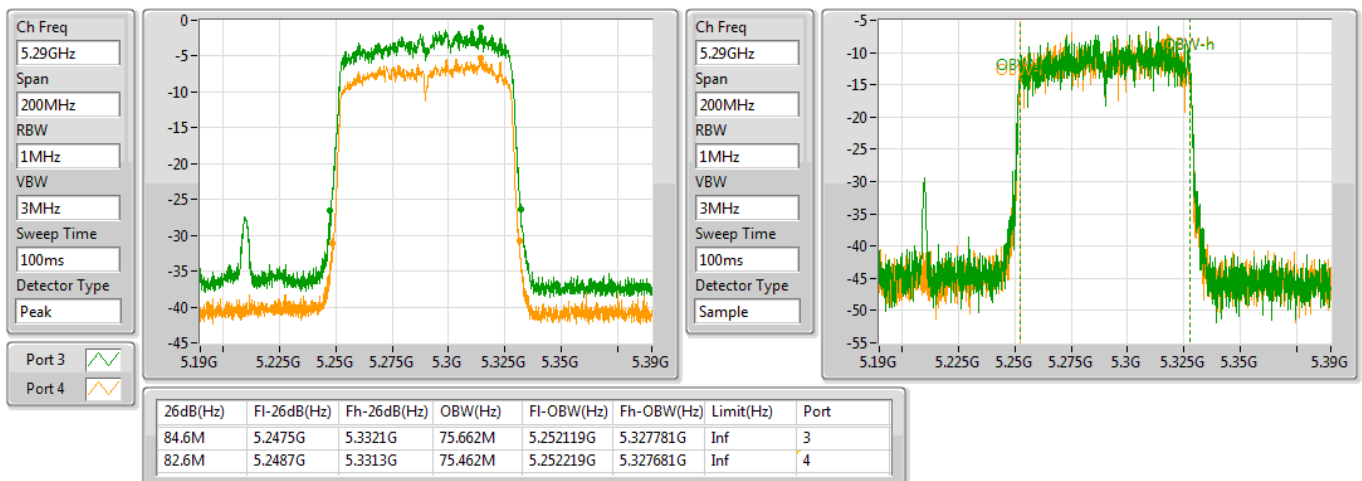


802.11ac VHT80+80_Nss2,(MCS0)_4TX(Port1&Port2)
EBW
#5210MHz,5290MHz

15/12/2017


802.11ac VHT80+80_Nss2,(MCS0)_4TX(Port3&Port4)
EBW
5210MHz,#5290MHz

15/12/2017

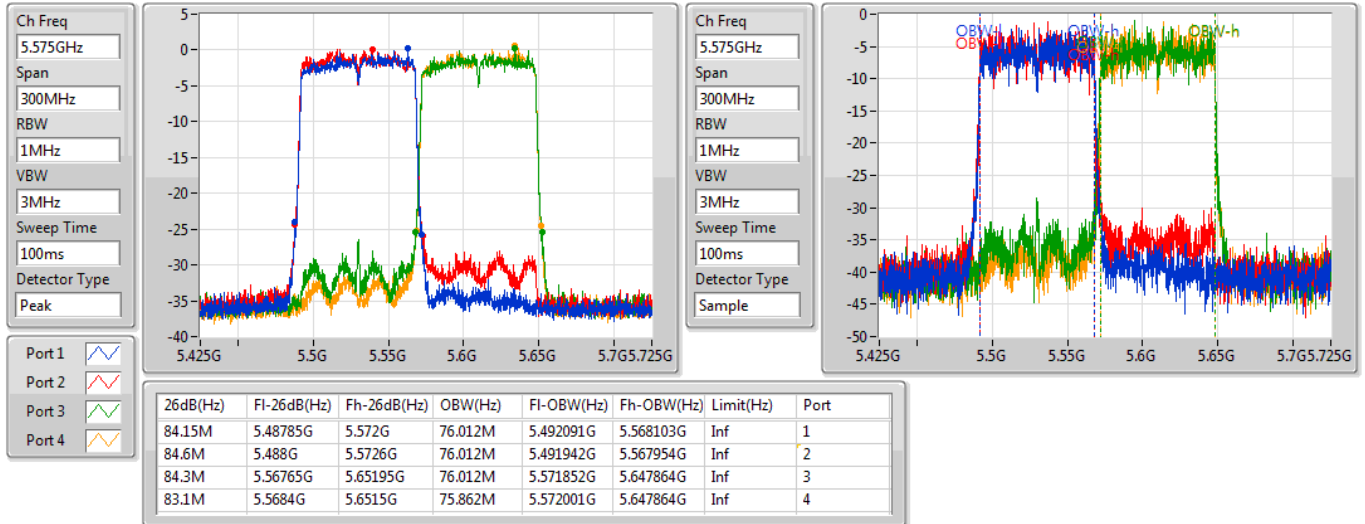


802.11ac VHT80+80_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

19/12/2017



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.85M	17.641M	17M6D1D	19.95M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	39.25M	36.032M	36M0D1D	38.65M	35.832M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	82.6M	75.862M	75M9D1D	80.4M	75.062M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	83.3M	76.062M	76M1D1D	80.6M	75.462M
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.875M	17.666M	17M7D1D	20.4M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	39.7M	36.032M	36M0D1D	38.7M	35.732M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	81.5M	75.662M	75M7D1D	80.6M	75.562M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	84.1M	75.662M	75M7D1D	83.5M	75.662M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21.025M	17.641M	17M6D1D	20.525M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	40.15M	36.182M	36M2D1D	38.6M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	83.3M	76.062M	76M1D1D	80.6M	75.762M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	153.3M	146.177M	146MD1D	81M	76.012M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	17.5M	17.666M	17M7D1D	16.55M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	35.15M	36.132M	36M1D1D	31.35M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	74.2M	76.362M	76M4D1D	73.8M	75.662M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

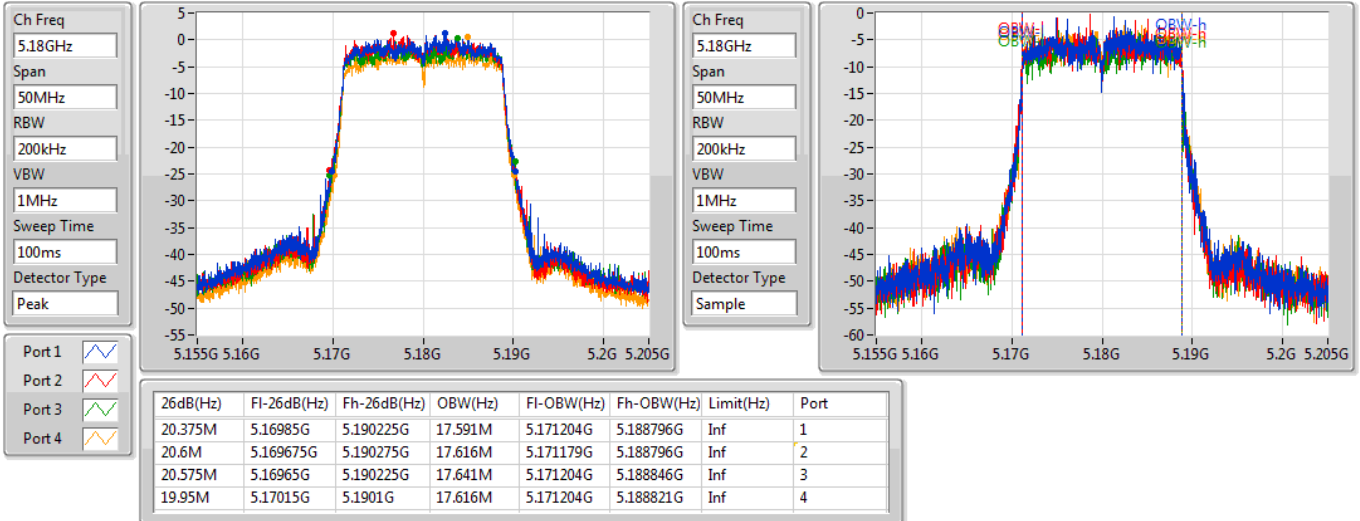
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.375M	17.591M	20.6M	17.616M	20.575M	17.641M	19.95M	17.616M
5200MHz	Pass	Inf	20.475M	17.641M	20.725M	17.566M	20.65M	17.616M	20.85M	17.591M
5240MHz	Pass	Inf	20.825M	17.616M	20.425M	17.566M	20.475M	17.616M	20.675M	17.591M
5260MHz	Pass	Inf	20.475M	17.616M	20.775M	17.566M	20.575M	17.641M	20.8M	17.666M
5300MHz	Pass	Inf	20.85M	17.591M	20.825M	17.616M	20.4M	17.591M	20.775M	17.616M
5320MHz	Pass	Inf	20.625M	17.616M	20.4M	17.566M	20.875M	17.616M	20.625M	17.616M
5500MHz	Pass	Inf	20.525M	17.641M	20.8M	17.616M	20.825M	17.616M	21M	17.566M
5580MHz	Pass	Inf	20.575M	17.641M	20.7M	17.641M	21.025M	17.616M	20.9M	17.591M
5640MHz	Pass	Inf	20.975M	17.641M	20.825M	17.616M	20.875M	17.641M	20.6M	17.616M
5745MHz	Pass	500k	21M	17.616M	20.85M	17.616M	20.875M	17.641M	20.825M	17.641M
5785MHz	Pass	500k	17.15M	17.666M	17.4M	17.641M	17.25M	17.641M	16.7M	17.591M
5825MHz	Pass	500k	16.625M	17.616M	17.375M	17.641M	17.075M	17.616M	16.55M	17.616M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	38.85M	35.882M	38.65M	35.832M	38.65M	35.882M	38.85M	36.032M
5230MHz	Pass	Inf	38.9M	35.932M	39.25M	35.982M	38.8M	35.882M	39M	36.032M
5270MHz	Pass	Inf	39.45M	36.032M	38.9M	35.932M	39.7M	36.032M	39.5M	35.932M
5310MHz	Pass	Inf	39.55M	35.982M	38.7M	35.932M	39.1M	35.732M	39.15M	36.032M
5510MHz	Pass	Inf	39.25M	36.132M	39.85M	36.082M	39.65M	35.932M	39.6M	35.982M
5550MHz	Pass	Inf	39.25M	36.082M	39.25M	36.032M	39.2M	36.182M	40.15M	36.082M
5630MHz	Pass	Inf	39.5M	36.032M	39.6M	36.082M	39.45M	36.032M	38.6M	36.032M
5755MHz	Pass	500k	33.8M	36.132M	32.75M	36.082M	35.15M	36.032M	32.55M	35.982M
5795MHz	Pass	500k	33.4M	35.982M	33.85M	36.082M	31.35M	35.982M	32.55M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	80.9M	75.762M	80.8M	75.762M	82.6M	75.062M	80.4M	75.862M
5290MHz	Pass	Inf	81.5M	75.662M	80.6M	75.662M	80.7M	75.662M	80.8M	75.562M
5530MHz	Pass	Inf	80.7M	75.962M	81.1M	76.062M	83.3M	76.062M	80.9M	75.862M
5610MHz	Pass	Inf	83.2M	75.862M	80.6M	75.762M	80.8M	75.862M	81M	75.962M
5775MHz	Pass	500k	73.8M	75.662M	74.1M	76.362M	74.2M	75.662M	74.1M	75.962M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	Inf	83.3M	76.062M	80.6M	75.462M				
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	Inf					84.1M	75.662M	83.5M	75.662M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	Inf	81M	76.012M	81.45M	76.012M	153.3M	146.177M	147.15M	81.259M

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

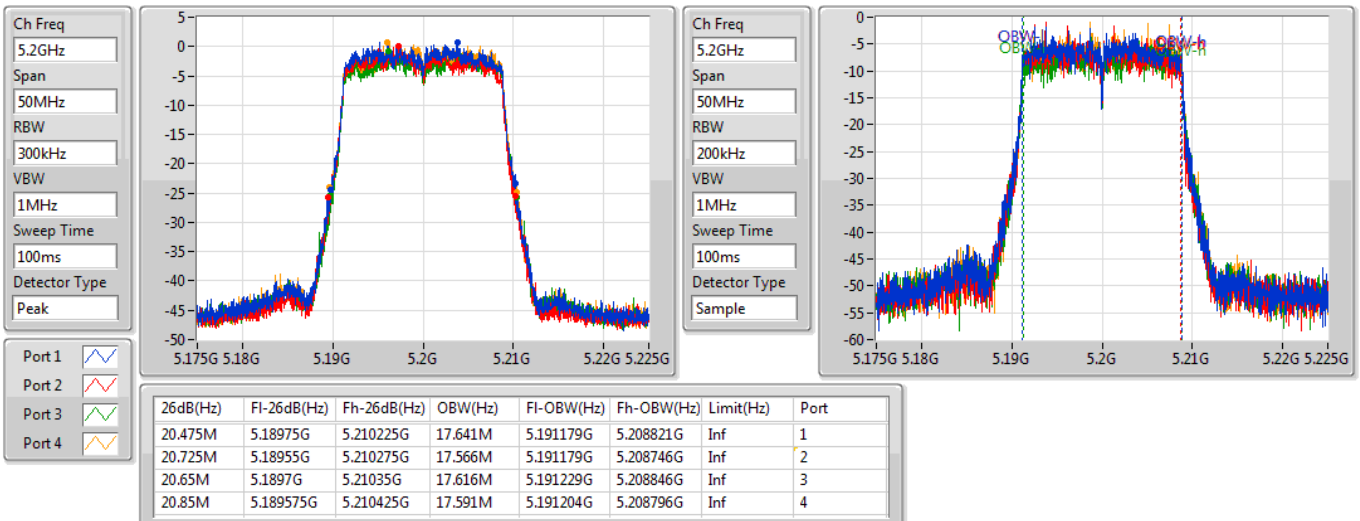
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5180MHz

12/01/2018

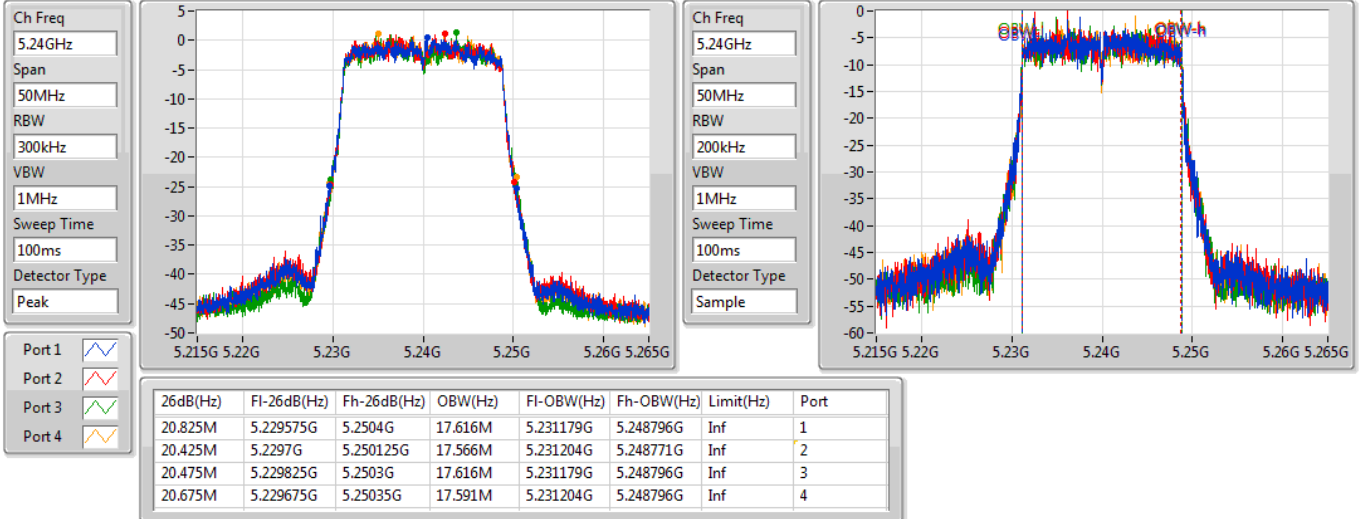

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5200MHz

12/01/2018

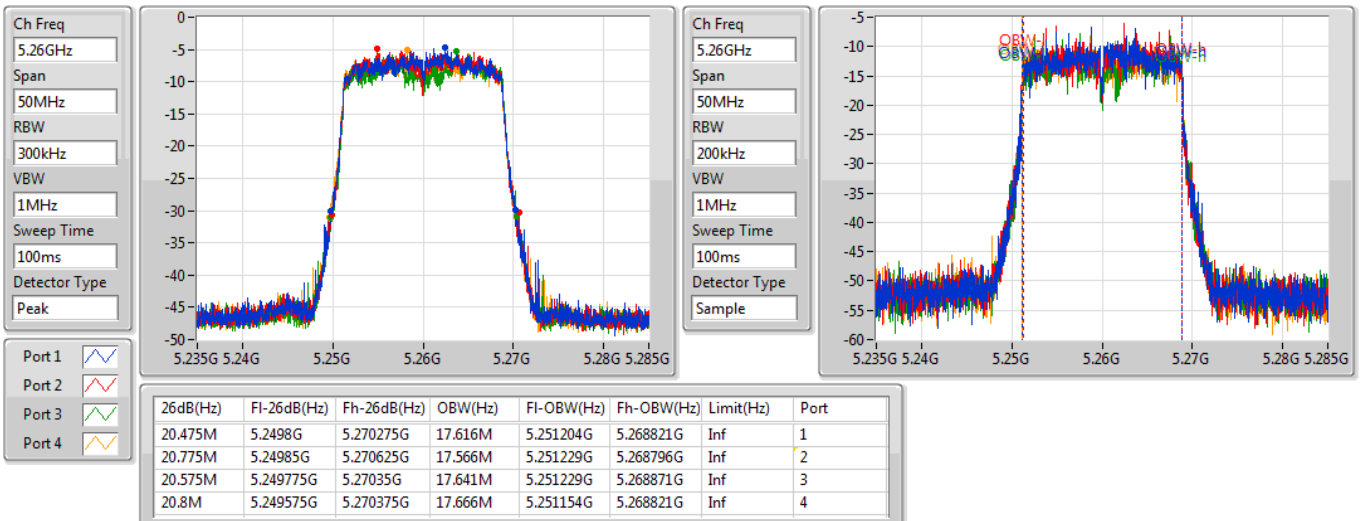


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5240MHz

12/01/2018

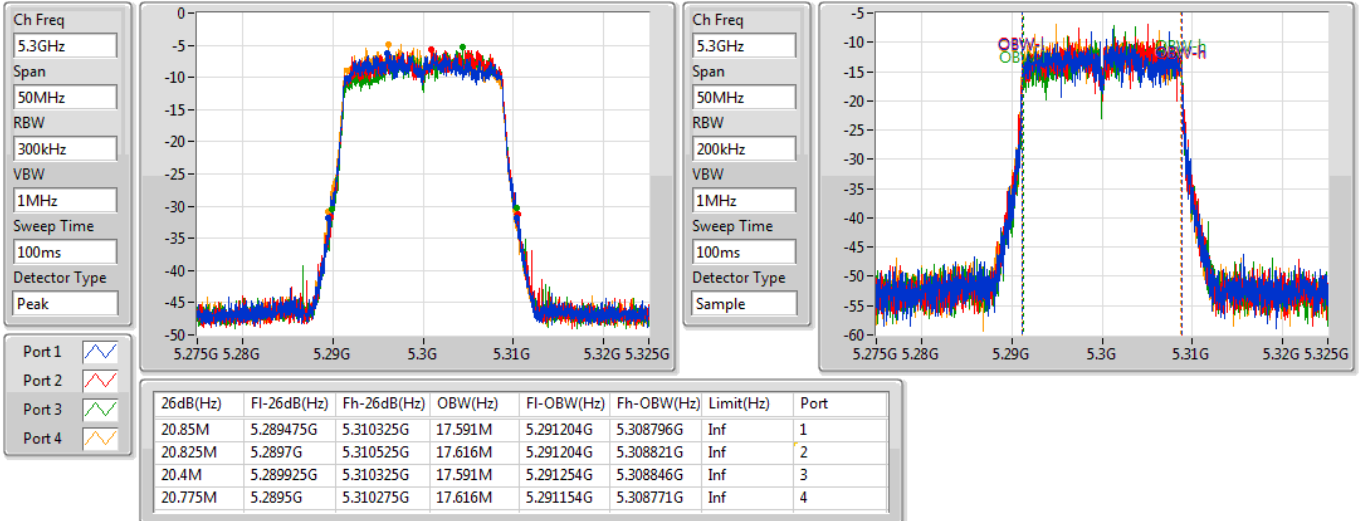

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5260MHz

12/01/2018

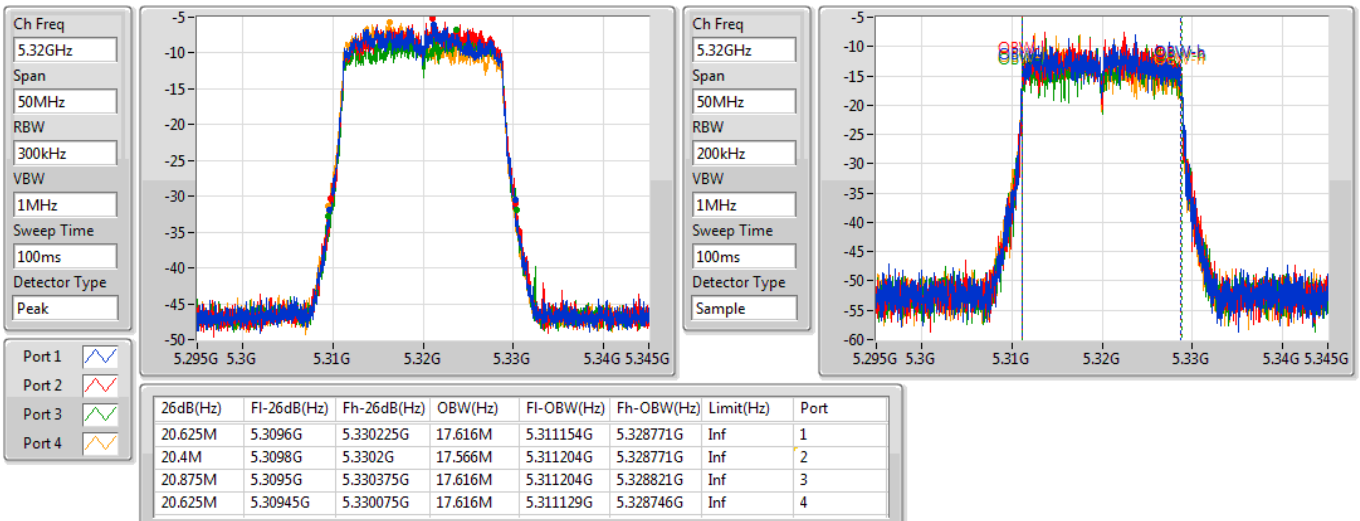


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5300MHz

12/01/2018

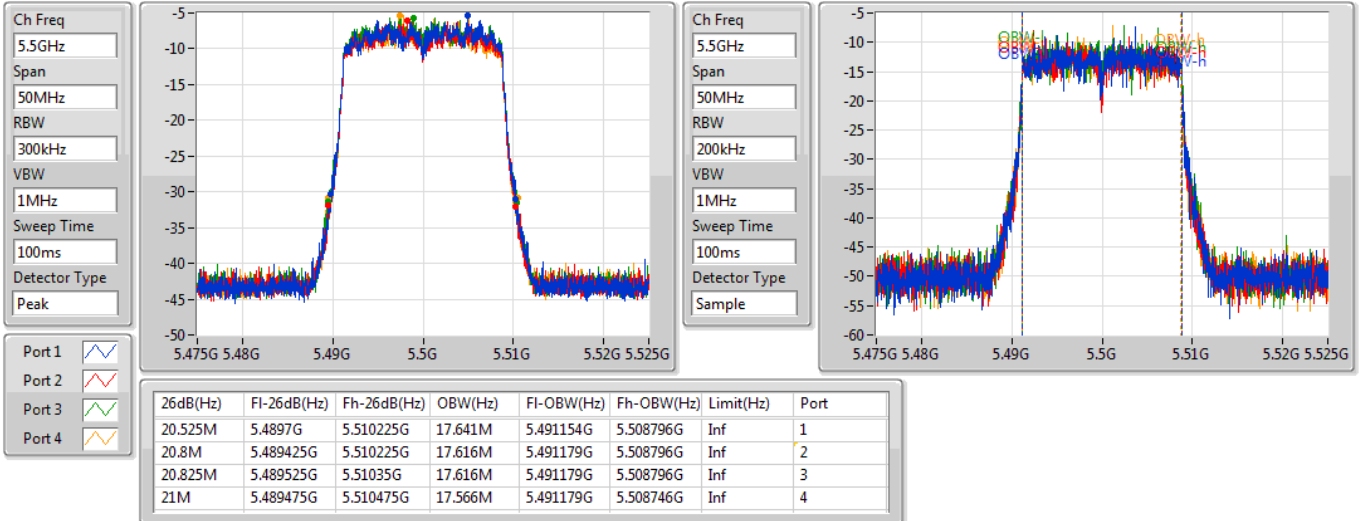

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5320MHz

12/01/2018

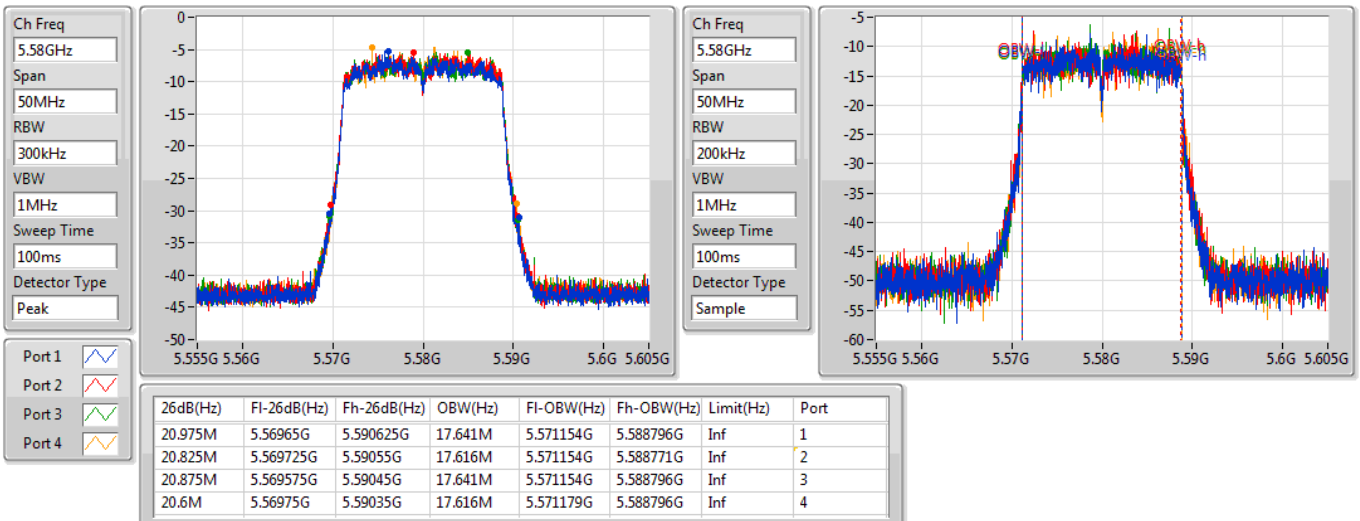


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5500MHz

12/01/2018

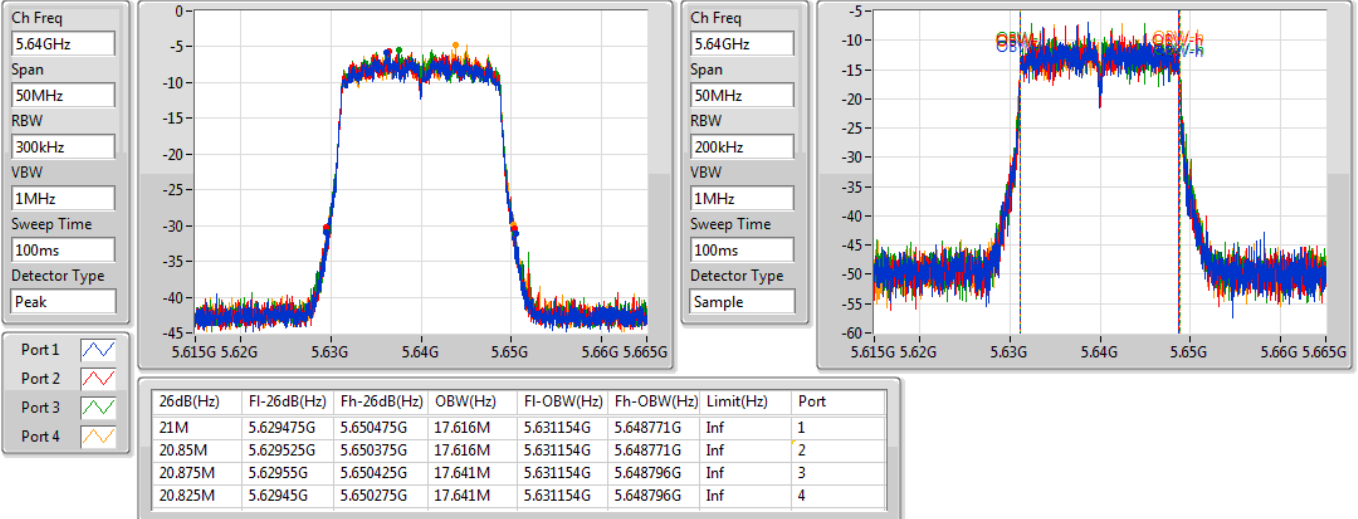

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5580MHz

12/01/2018

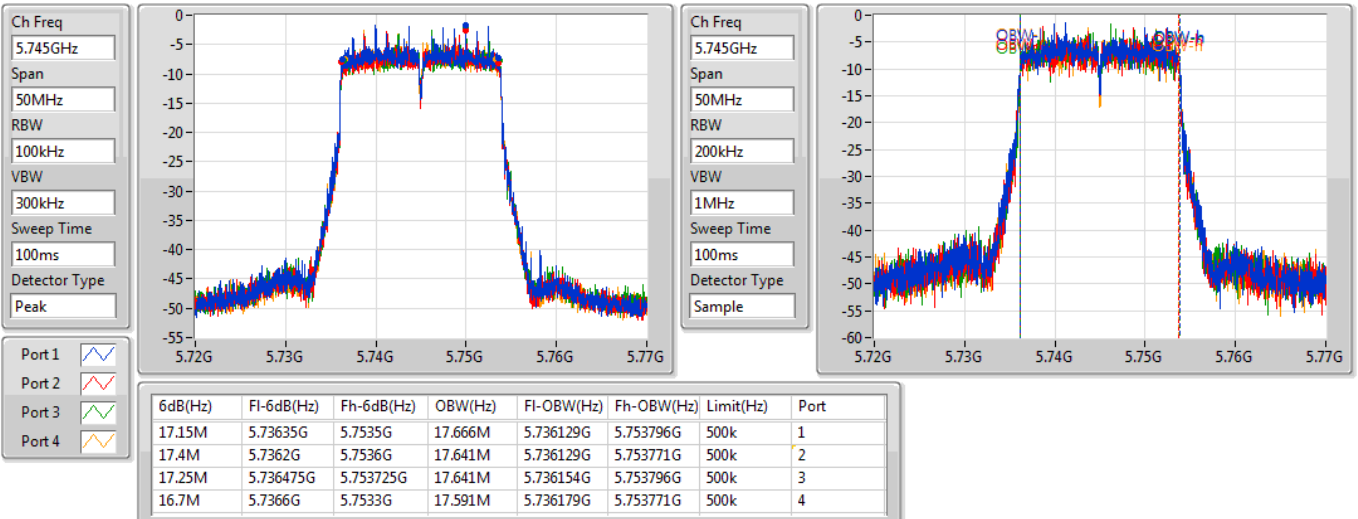


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5640MHz

12/01/2018

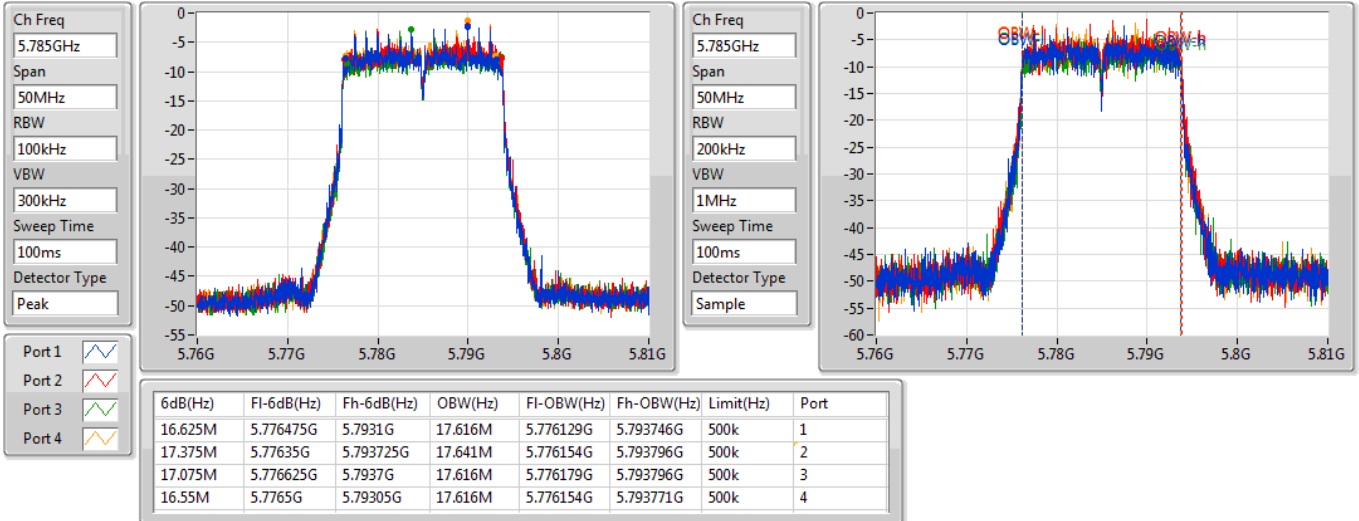

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5745MHz

12/01/2018

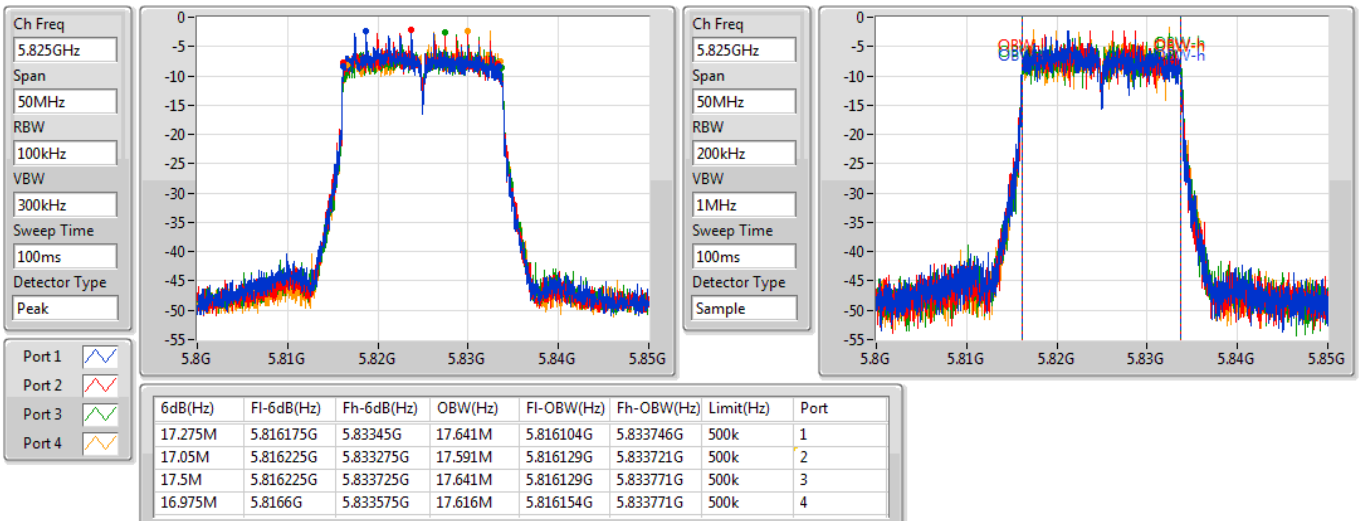


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5785MHz

12/01/2018

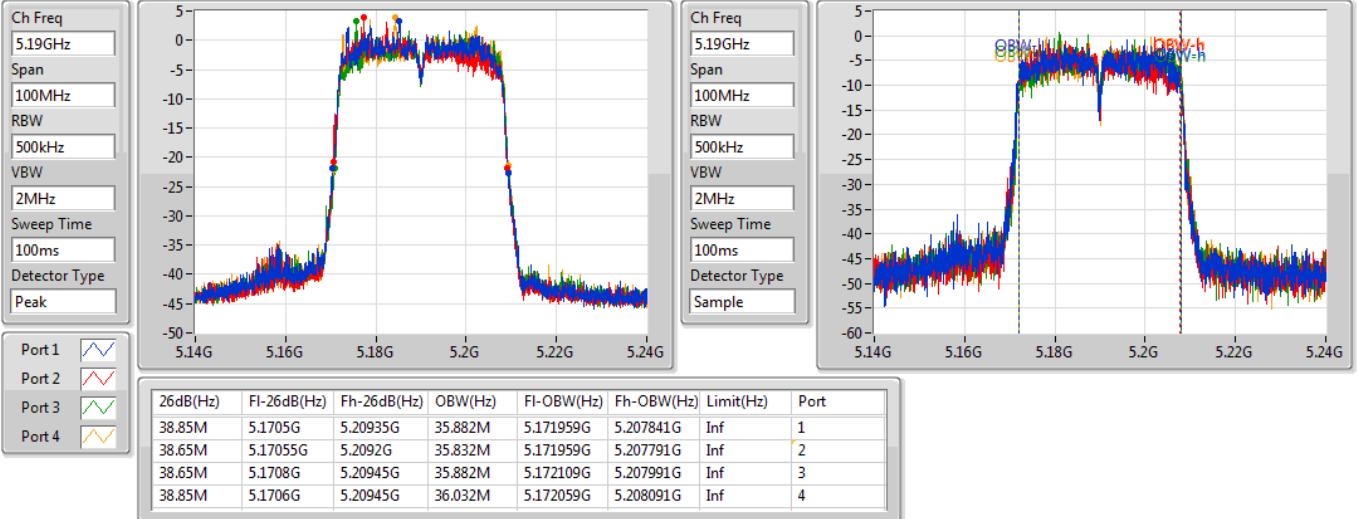

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5825MHz

12/01/2018

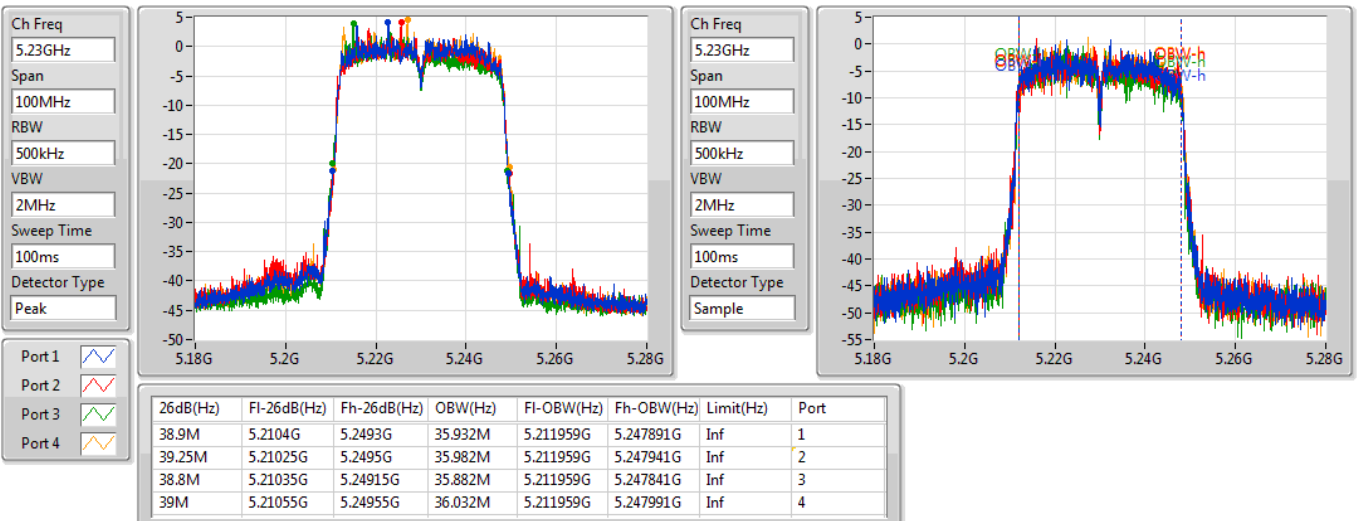


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5190MHz

12/01/2018

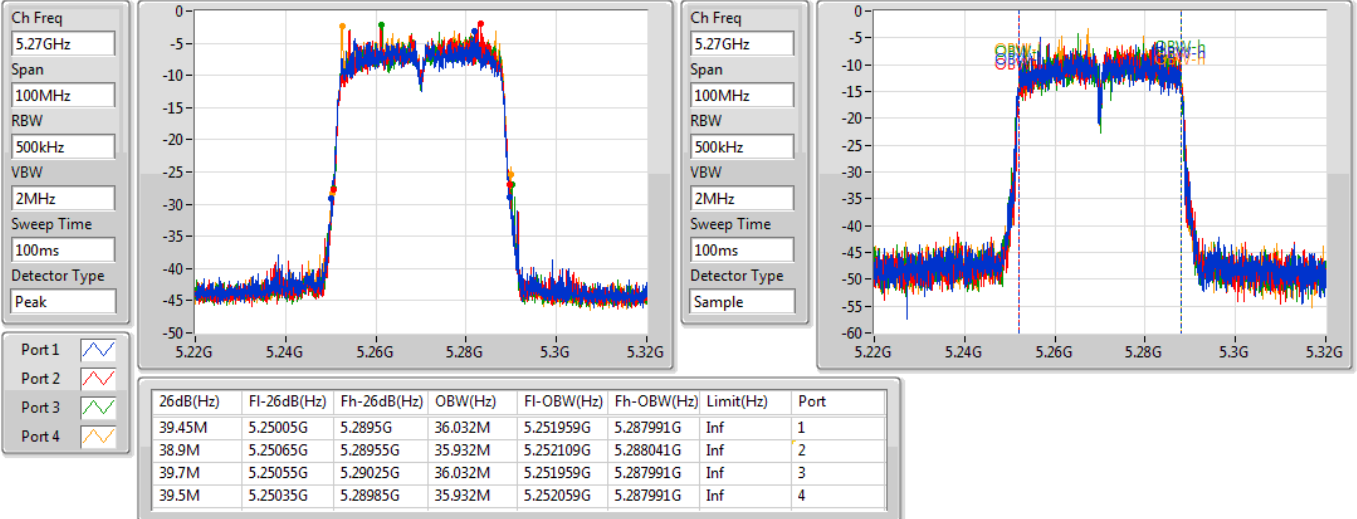

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5230MHz

12/01/2018

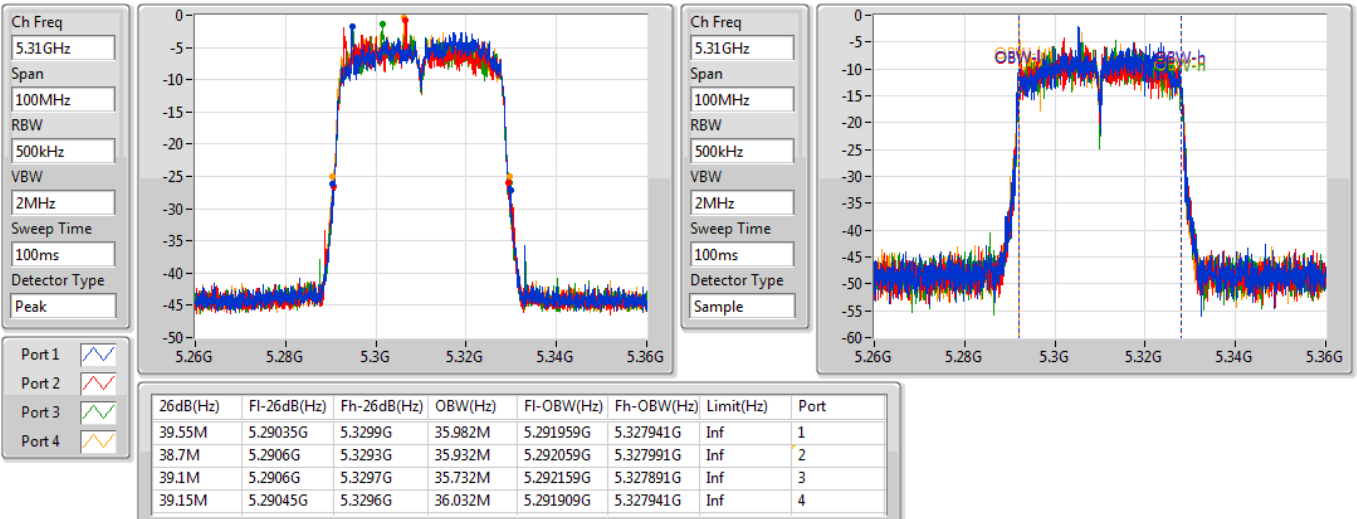


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5270MHz

12/01/2018

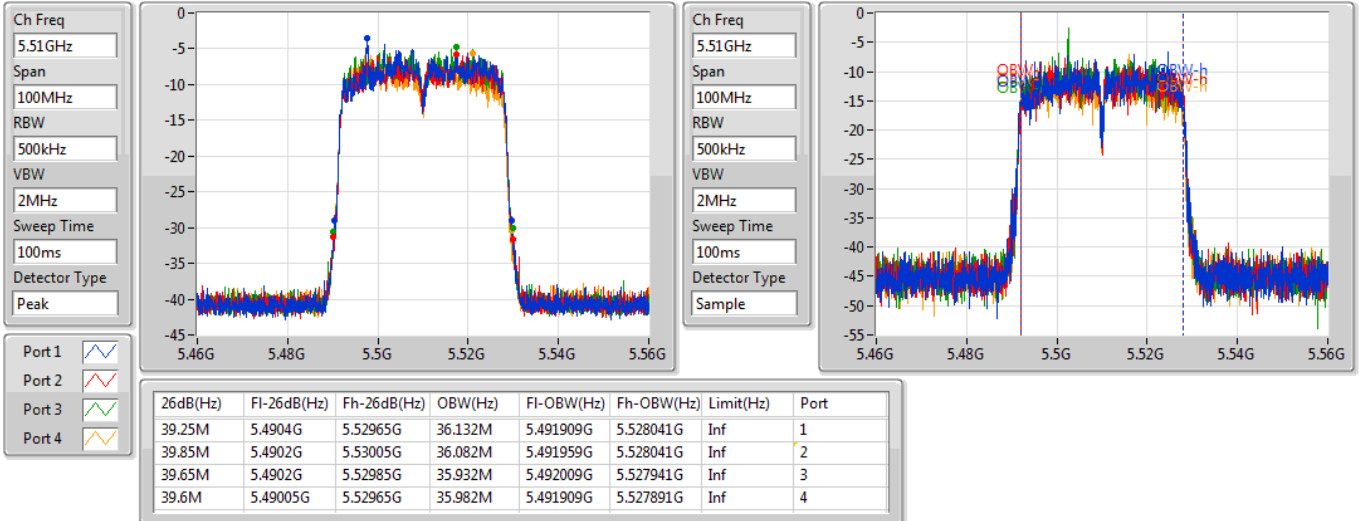

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5310MHz

12/01/2018

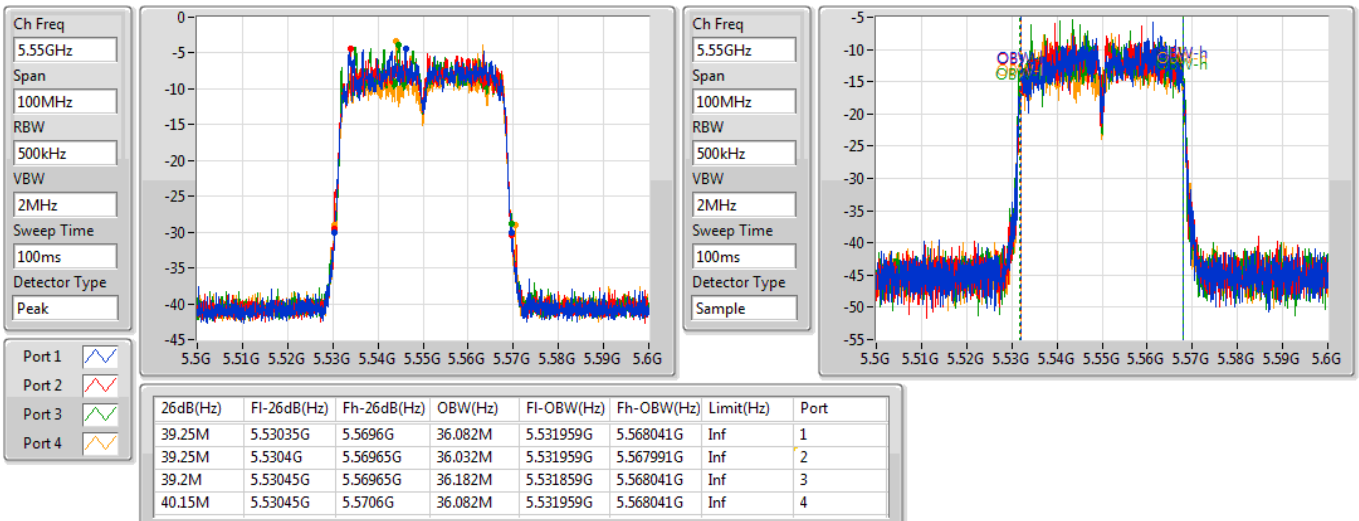


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5510MHz

12/01/2018

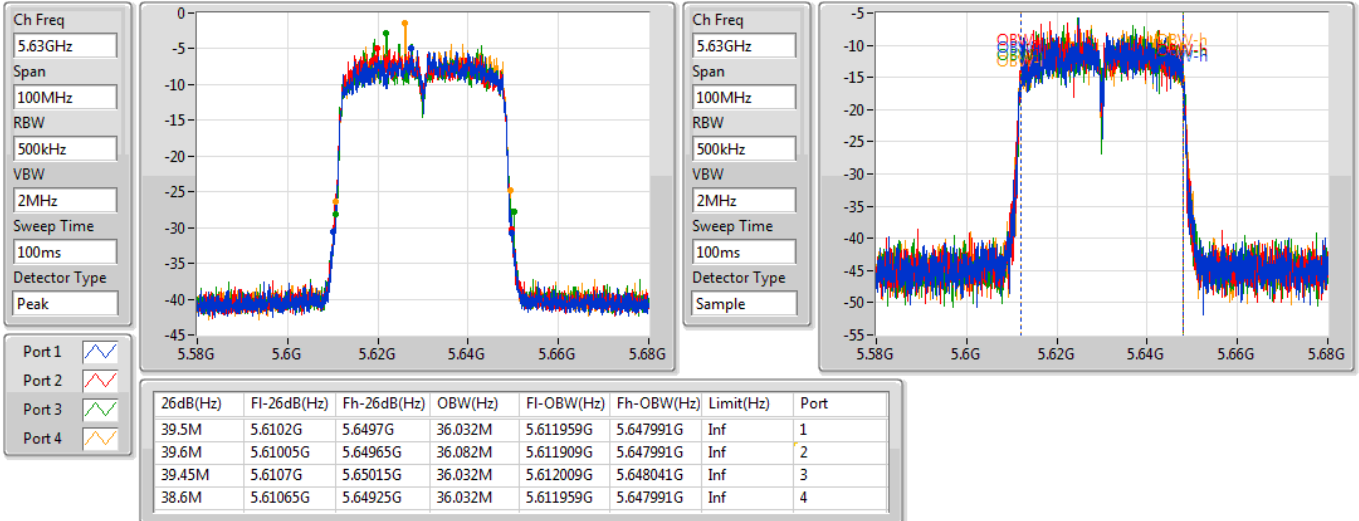

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5550MHz

12/01/2018

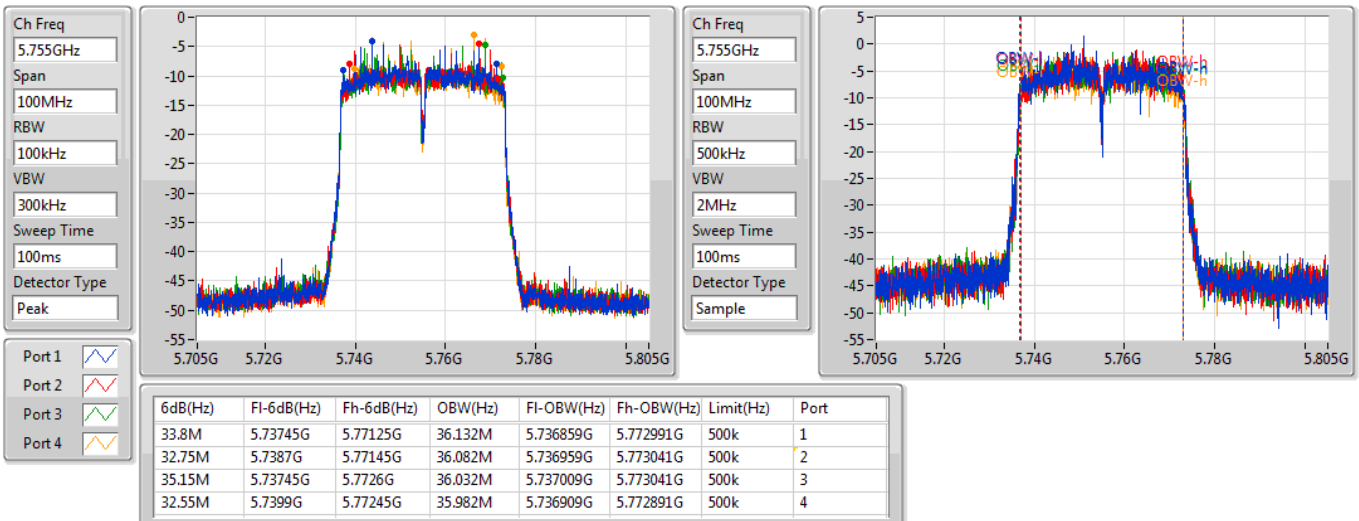


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5630MHz

12/01/2018

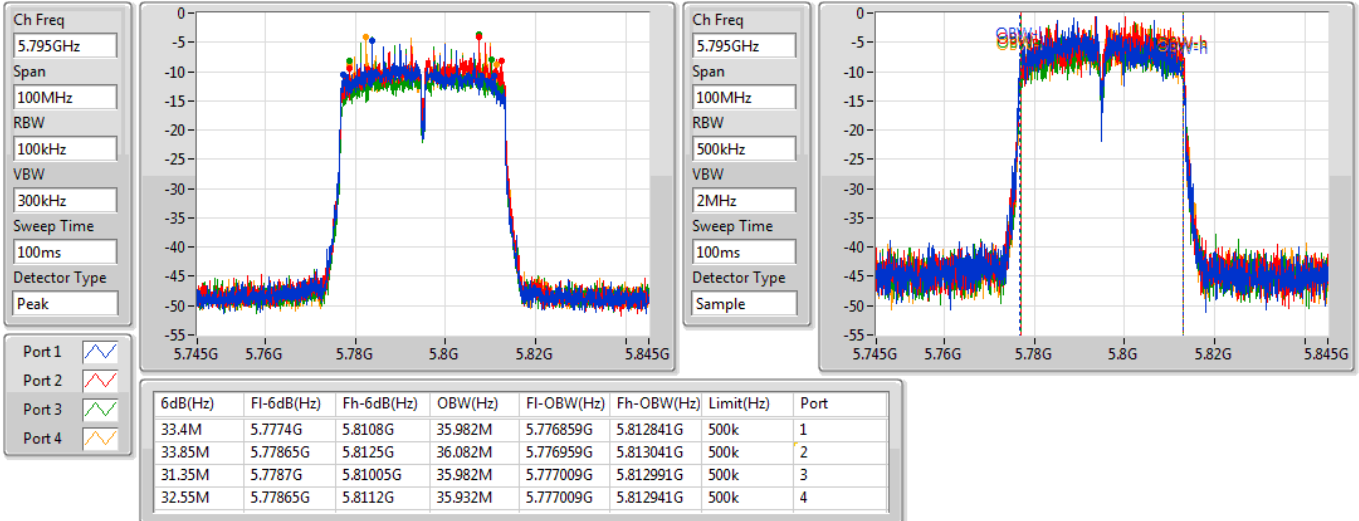

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5755MHz

12/01/2018

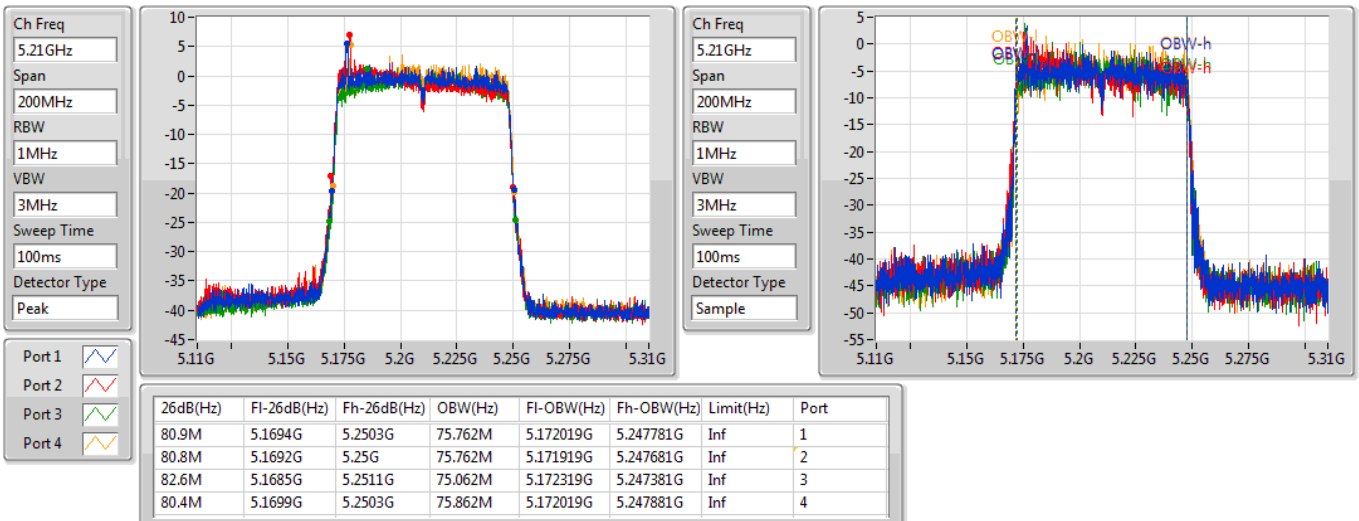


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5795MHz

12/01/2018

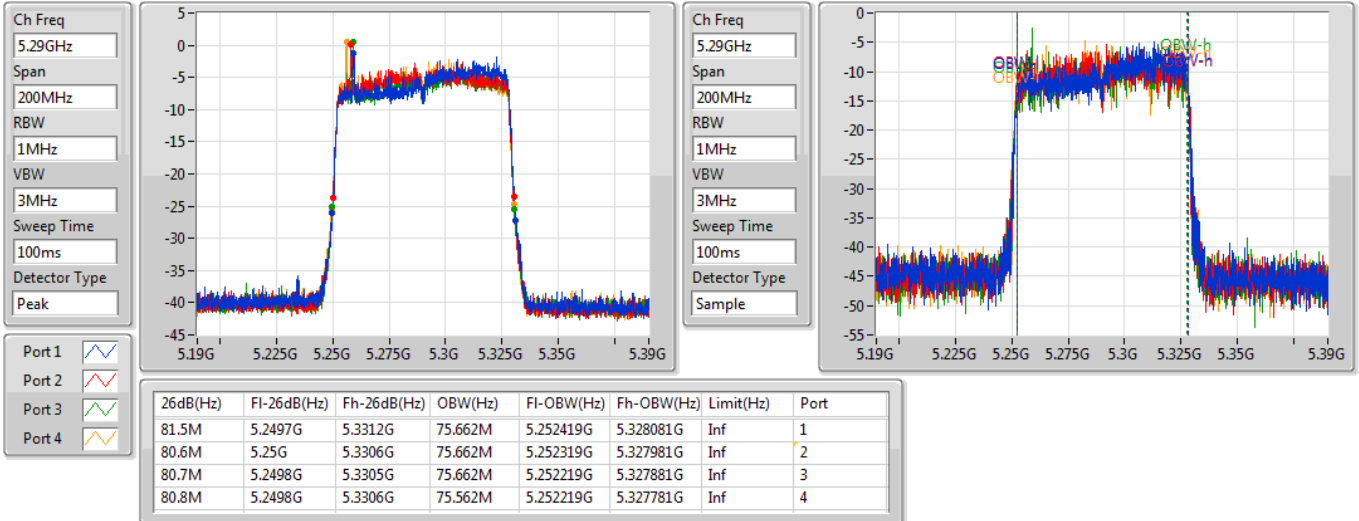

802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5210MHz

12/01/2018

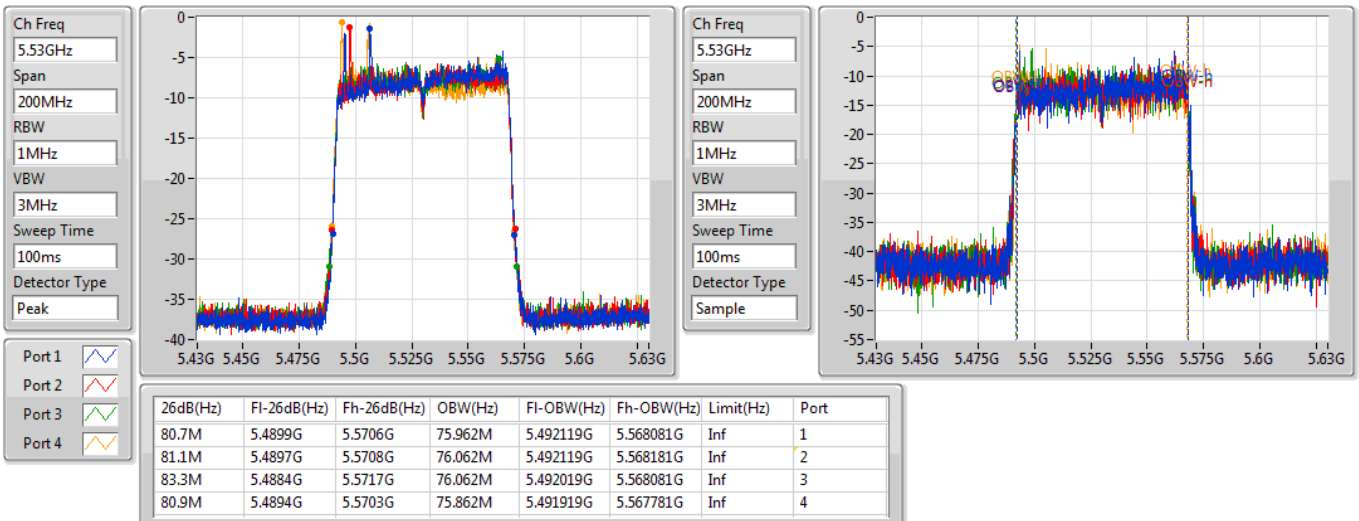


802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5290MHz

12/01/2018

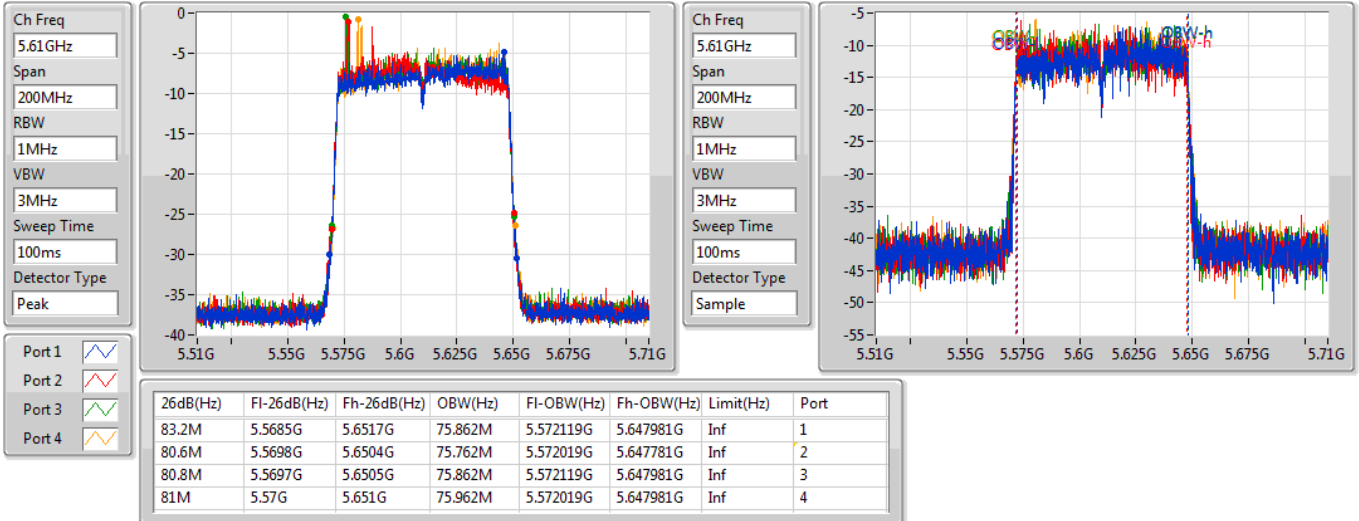

802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5530MHz

12/01/2018

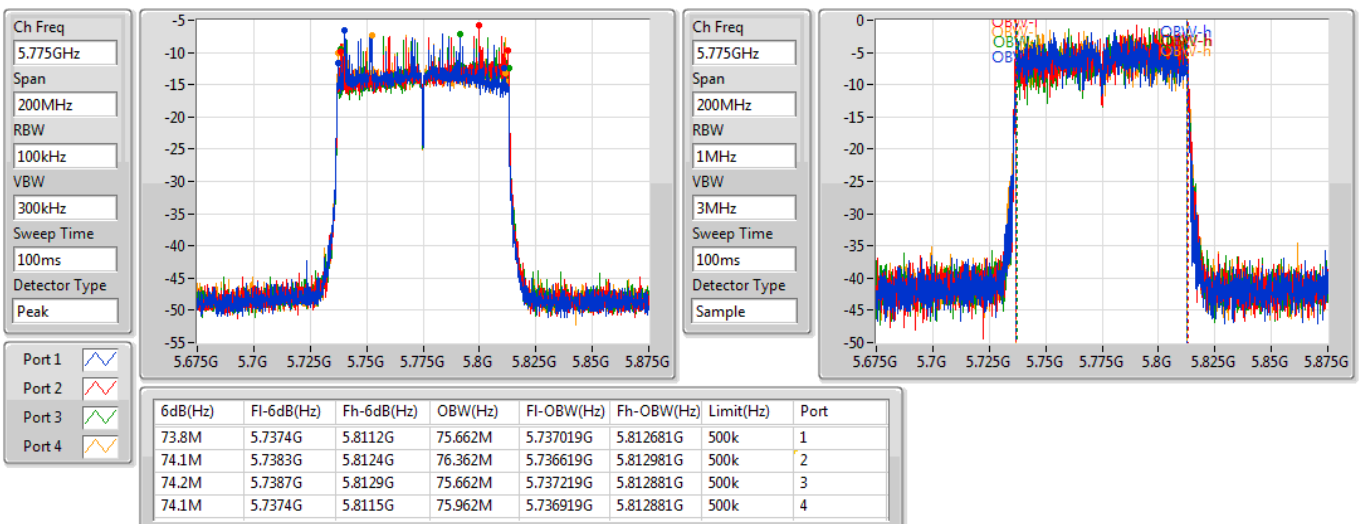


802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5610MHz

12/01/2018

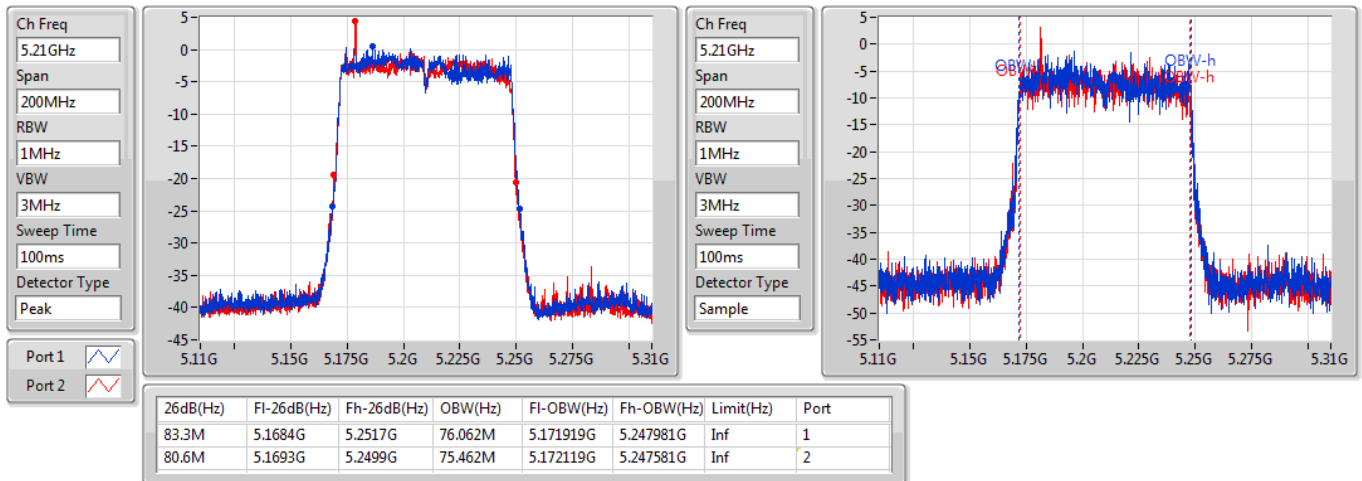

802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5775MHz

12/01/2018

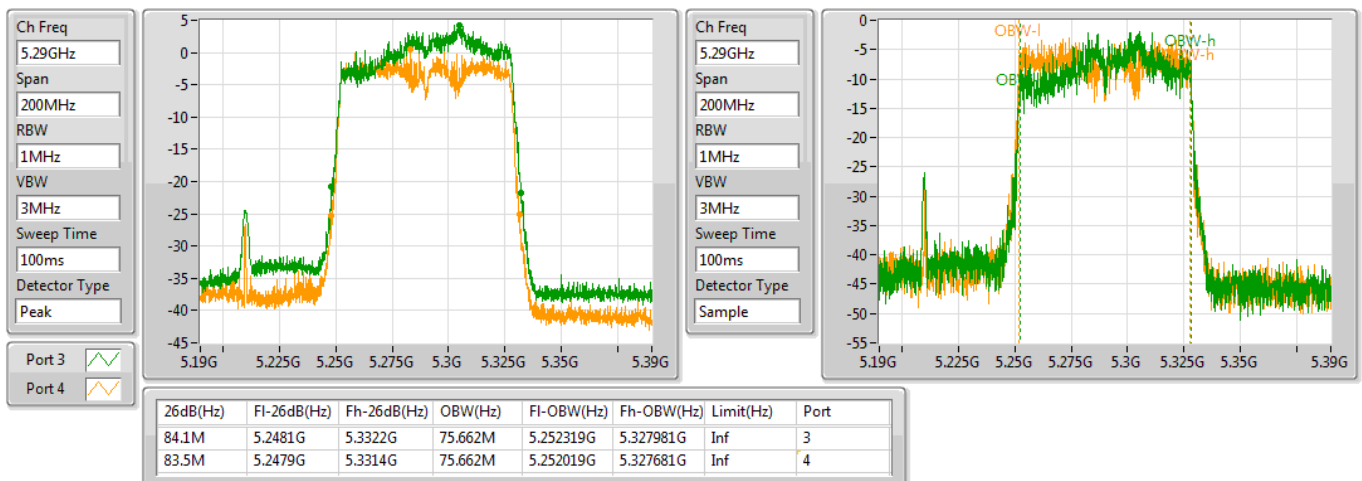


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX(Port1&Port2)
EBW
#5210MHz,5290MHz

12/01/2018


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX(Port3&Port4)
EBW
5210MHz,#5290MHz

12/01/2018

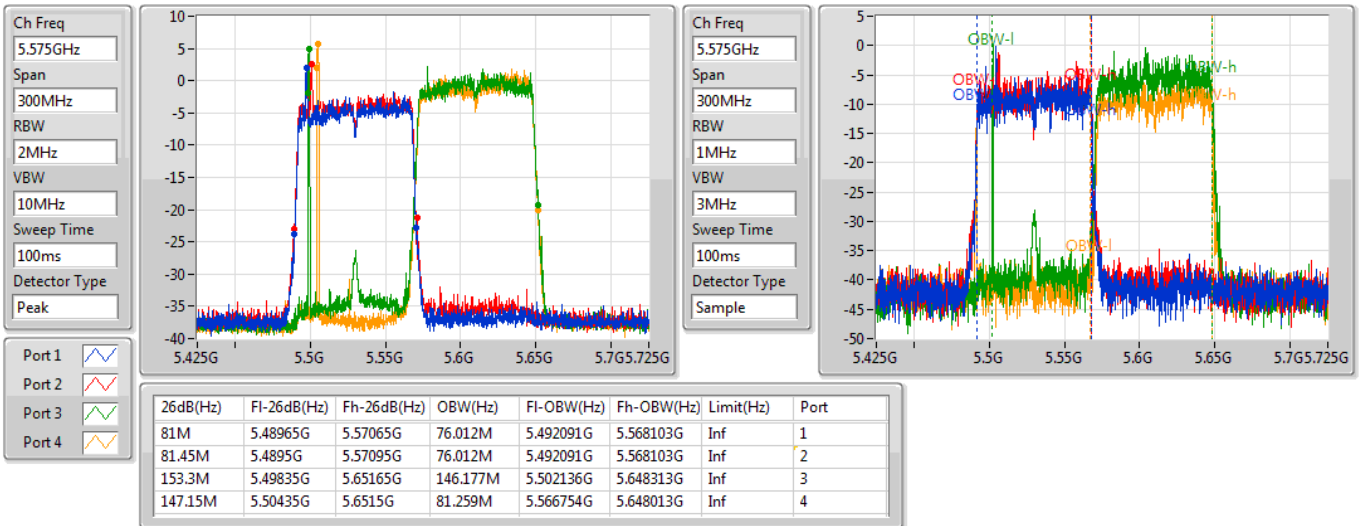


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

12/01/2018



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21.05M	17.666M	17M7D1D	20.55M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	39.7M	36.182M	36M2D1D	38.85M	36.082M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	83.2M	76.362M	76M4D1D	81.1M	75.962M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	83.2M	75.562M	75M6D1D	81.6M	75.462M
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.875M	17.666M	17M7D1D	20.4M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	39.7M	36.032M	36M0D1D	38.7M	35.732M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	81.5M	75.662M	75M7D1D	80.6M	75.562M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	123.2M	76.162M	76M2D1D	83.8M	75.562M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21.025M	17.641M	17M6D1D	20.525M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	40.15M	36.182M	36M2D1D	38.6M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	83.3M	76.062M	76M1D1D	80.6M	75.762M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	153.3M	146.177M	146MD1D	81M	76.012M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	17.5M	17.666M	17M7D1D	16.55M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	35.15M	36.132M	36M1D1D	31.35M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	74.2M	76.362M	76M4D1D	73.8M	75.662M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

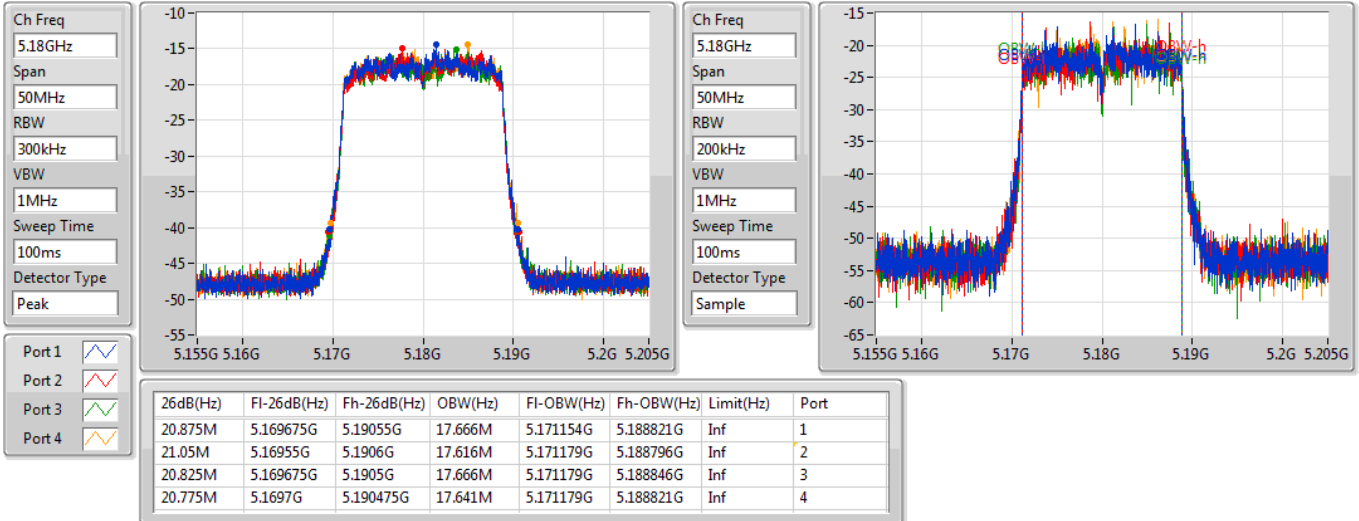
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.875M	17.666M	21.05M	17.616M	20.825M	17.666M	20.775M	17.641M
5200MHz	Pass	Inf	20.75M	17.666M	20.825M	17.616M	20.55M	17.641M	20.975M	17.641M
5240MHz	Pass	Inf	20.85M	17.666M	20.875M	17.641M	20.95M	17.591M	20.825M	17.641M
5260MHz	Pass	Inf	20.475M	17.616M	20.775M	17.566M	20.575M	17.641M	20.8M	17.666M
5300MHz	Pass	Inf	20.85M	17.591M	20.825M	17.616M	20.4M	17.591M	20.775M	17.616M
5320MHz	Pass	Inf	20.625M	17.616M	20.4M	17.566M	20.875M	17.616M	20.625M	17.616M
5500MHz	Pass	Inf	20.525M	17.641M	20.8M	17.616M	20.825M	17.616M	21M	17.566M
5580MHz	Pass	Inf	20.575M	17.641M	20.7M	17.641M	21.025M	17.616M	20.9M	17.591M
5640MHz	Pass	Inf	20.975M	17.641M	20.825M	17.616M	20.875M	17.641M	20.6M	17.616M
5745MHz	Pass	500k	21M	17.616M	20.85M	17.616M	20.875M	17.641M	20.825M	17.641M
5785MHz	Pass	500k	17.15M	17.666M	17.4M	17.641M	17.25M	17.641M	16.7M	17.591M
5825MHz	Pass	500k	16.625M	17.616M	17.375M	17.641M	17.075M	17.616M	16.55M	17.616M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	39.25M	36.182M	39.5M	36.082M	39.7M	36.132M	39.2M	36.082M
5230MHz	Pass	Inf	39.2M	36.082M	39.55M	36.182M	39.35M	36.082M	38.85M	36.132M
5270MHz	Pass	Inf	39.45M	36.032M	38.9M	35.932M	39.7M	36.032M	39.5M	35.932M
5310MHz	Pass	Inf	39.55M	35.982M	38.7M	35.932M	39.1M	35.732M	39.15M	36.032M
5510MHz	Pass	Inf	39.25M	36.132M	39.85M	36.082M	39.65M	35.932M	39.6M	35.982M
5550MHz	Pass	Inf	39.25M	36.082M	39.25M	36.032M	39.2M	36.182M	40.15M	36.082M
5630MHz	Pass	Inf	39.5M	36.032M	39.6M	36.082M	39.45M	36.032M	38.6M	36.032M
5755MHz	Pass	500k	33.8M	36.132M	32.75M	36.082M	35.15M	36.032M	32.55M	35.982M
5795MHz	Pass	500k	33.4M	35.982M	33.85M	36.082M	31.35M	35.982M	32.55M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.5M	76.162M	81.1M	76.362M	83.2M	75.962M	81.6M	76.162M
5290MHz	Pass	Inf	81.5M	75.662M	80.6M	75.662M	80.7M	75.662M	80.8M	75.562M
5530MHz	Pass	Inf	80.7M	75.962M	81.1M	76.062M	83.3M	76.062M	80.9M	75.862M
5610MHz	Pass	Inf	83.2M	75.862M	80.6M	75.762M	80.8M	75.862M	81M	75.962M
5775MHz	Pass	500k	73.8M	75.662M	74.1M	76.362M	74.2M	75.662M	74.1M	75.962M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	Inf	81.6M	75.462M	83.2M	75.562M				
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	Inf					123.2M	76.162M	83.8M	75.562M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	Inf	81M	76.012M	81.45M	76.012M	153.3M	146.177M	147.15M	81.259M

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

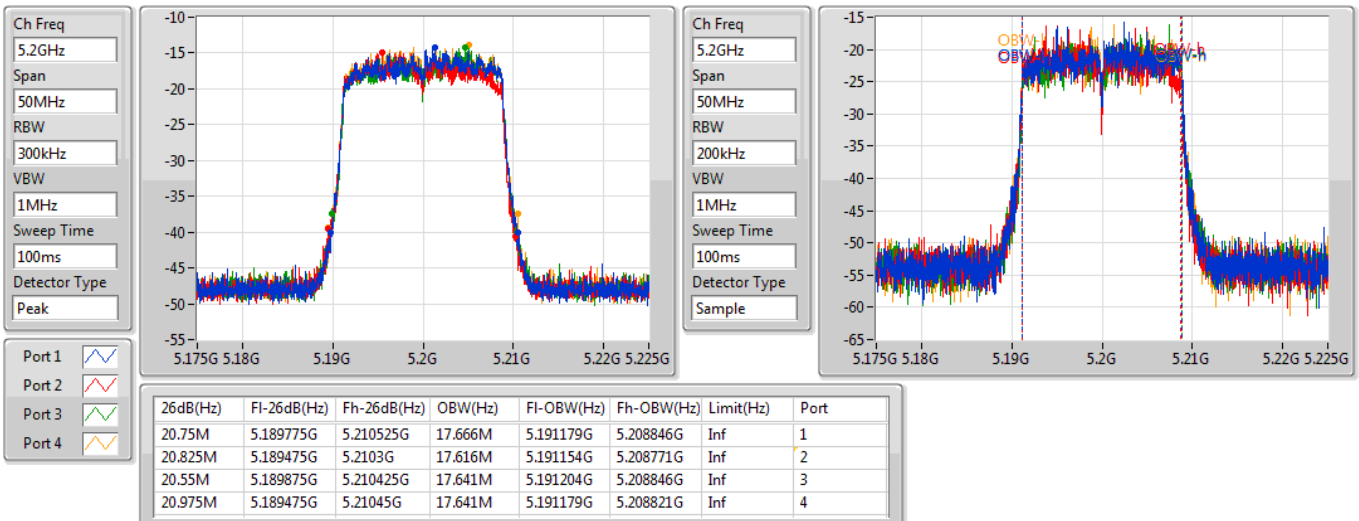
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5180MHz

18/01/2018

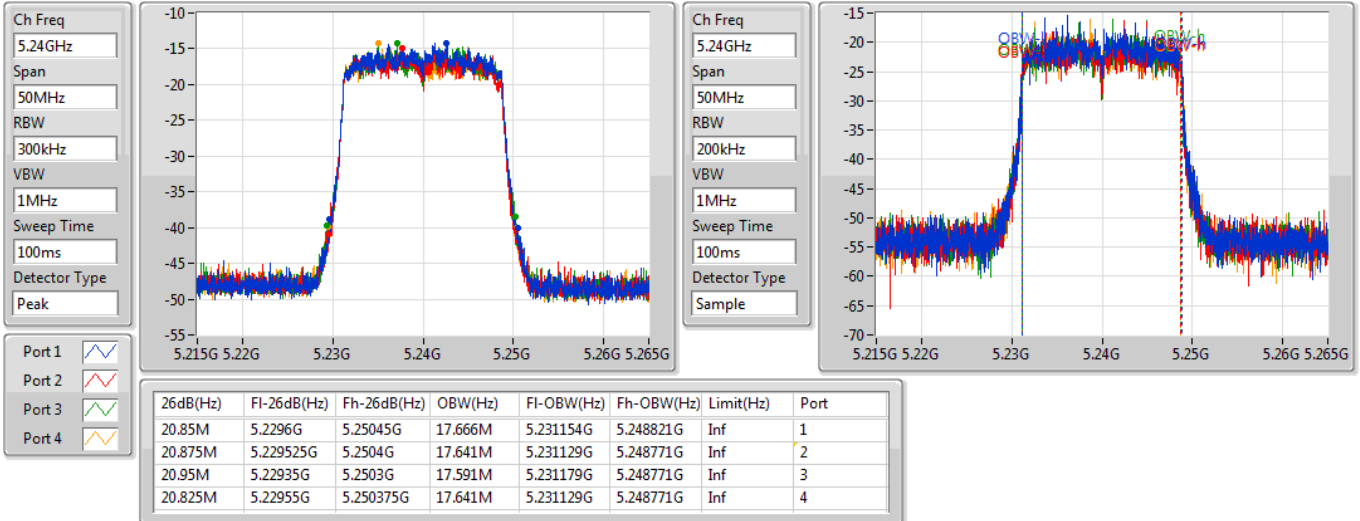

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5200MHz

18/01/2018

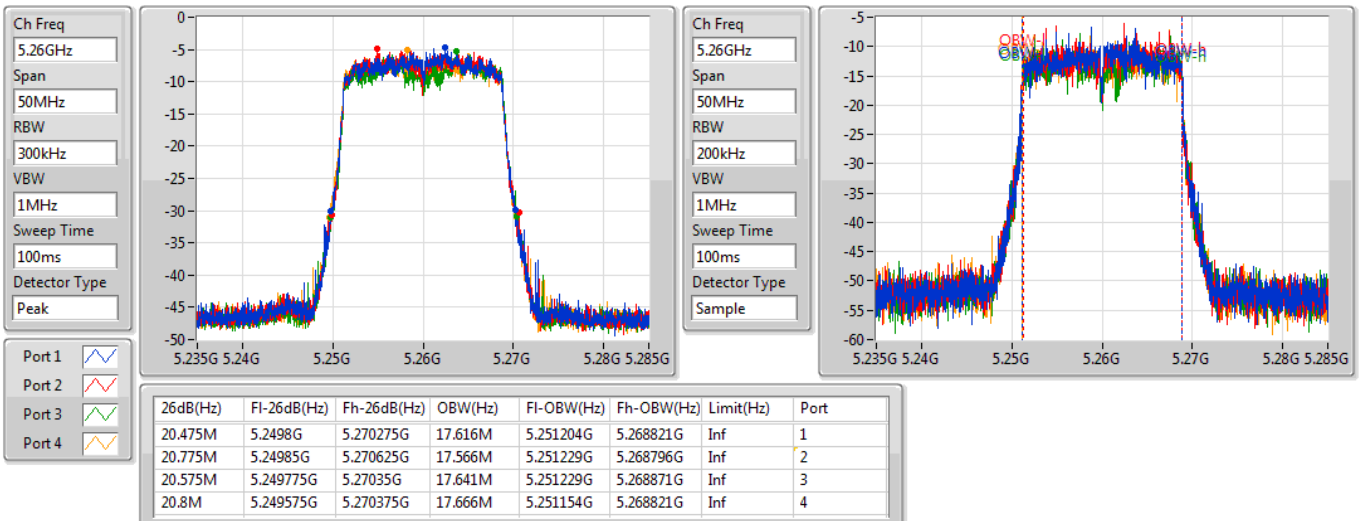


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5240MHz

18/01/2018

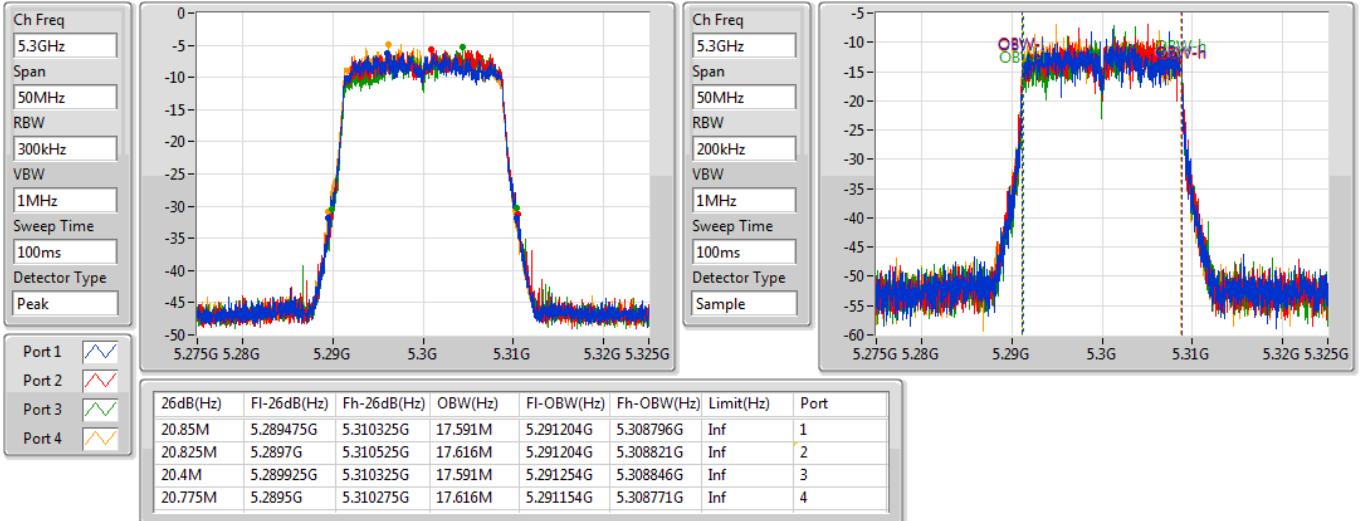

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5260MHz

12/01/2018

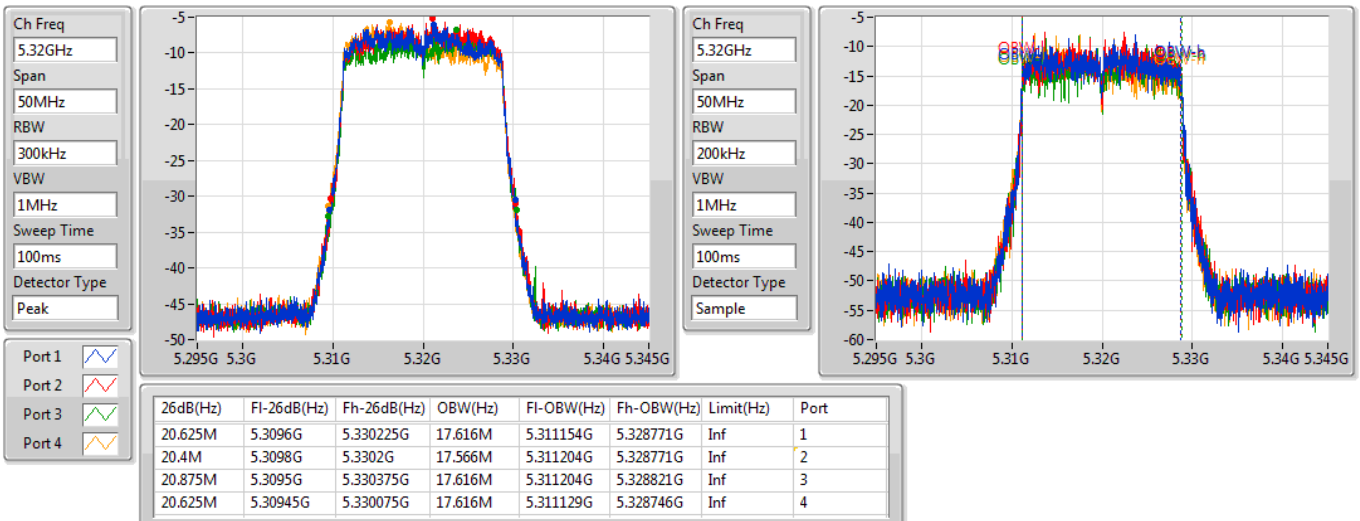


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5300MHz

12/01/2018

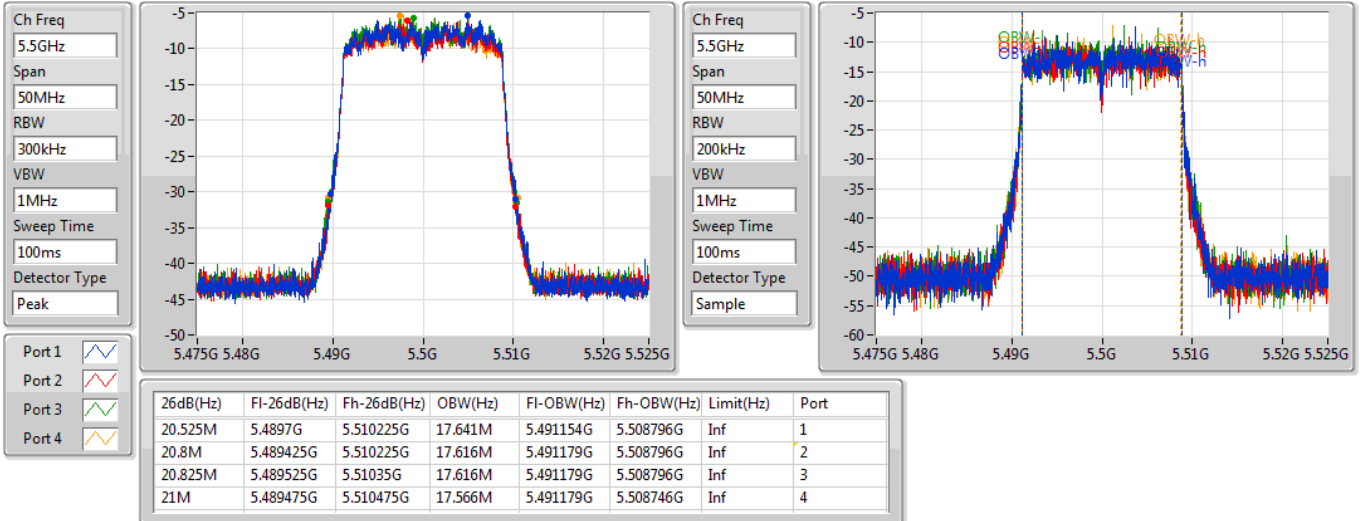

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5320MHz

12/01/2018

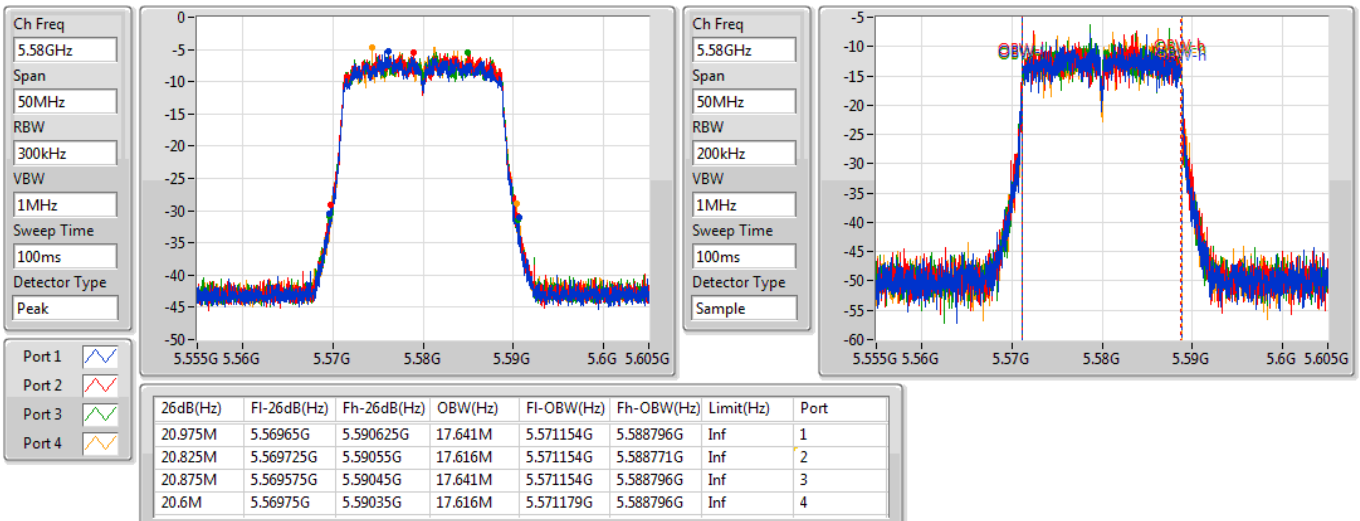


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5500MHz

12/01/2018

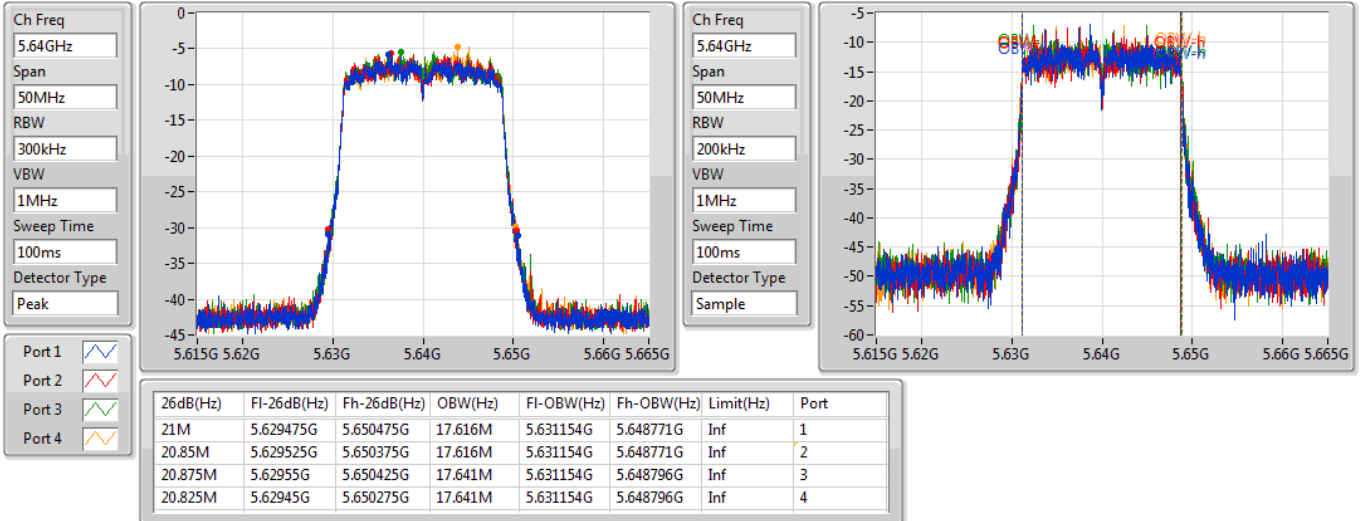

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5580MHz

12/01/2018

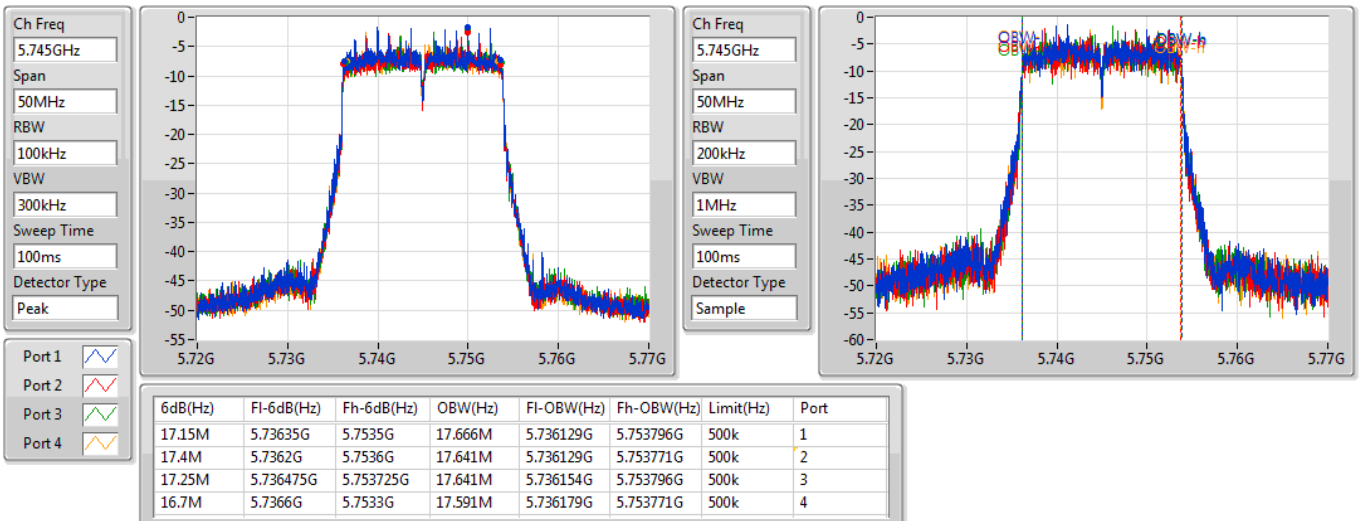


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5640MHz

12/01/2018

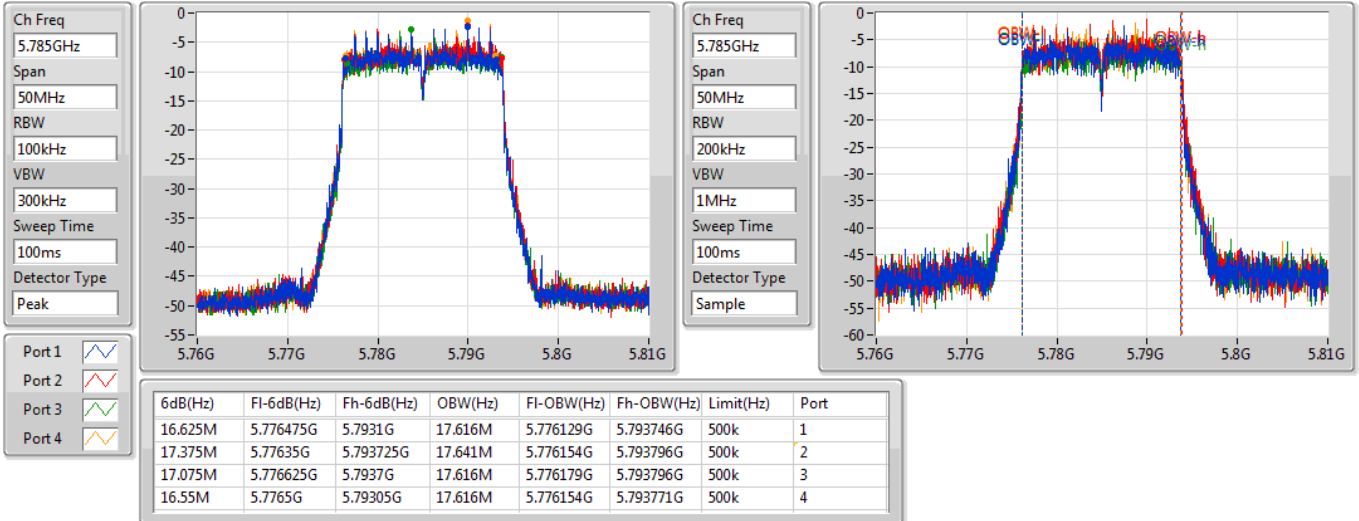

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5745MHz

12/01/2018

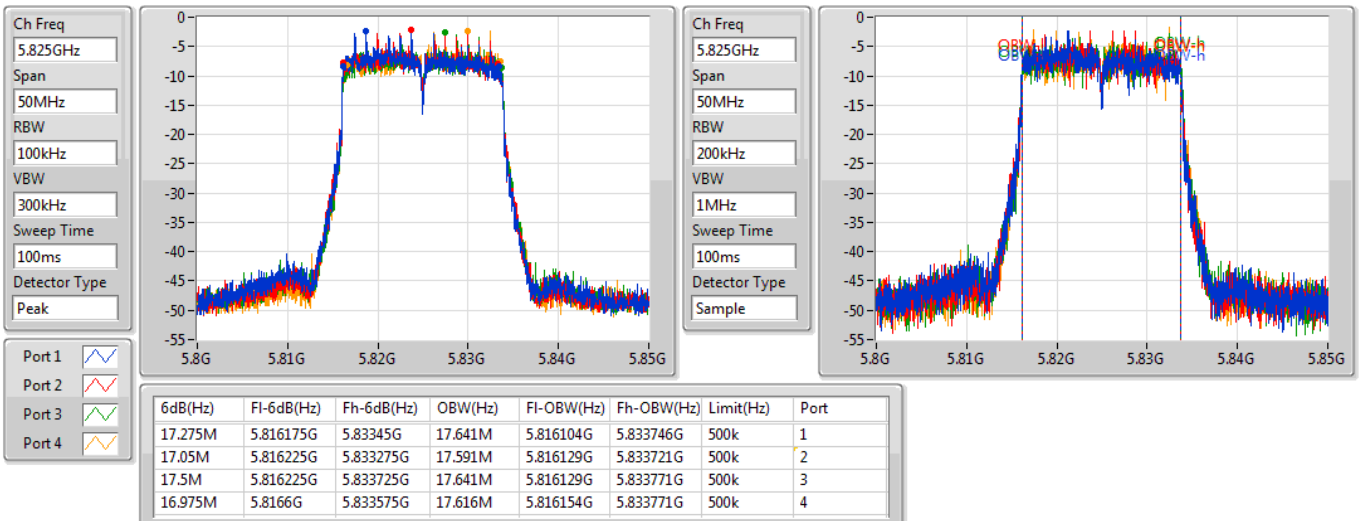


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5785MHz

12/01/2018

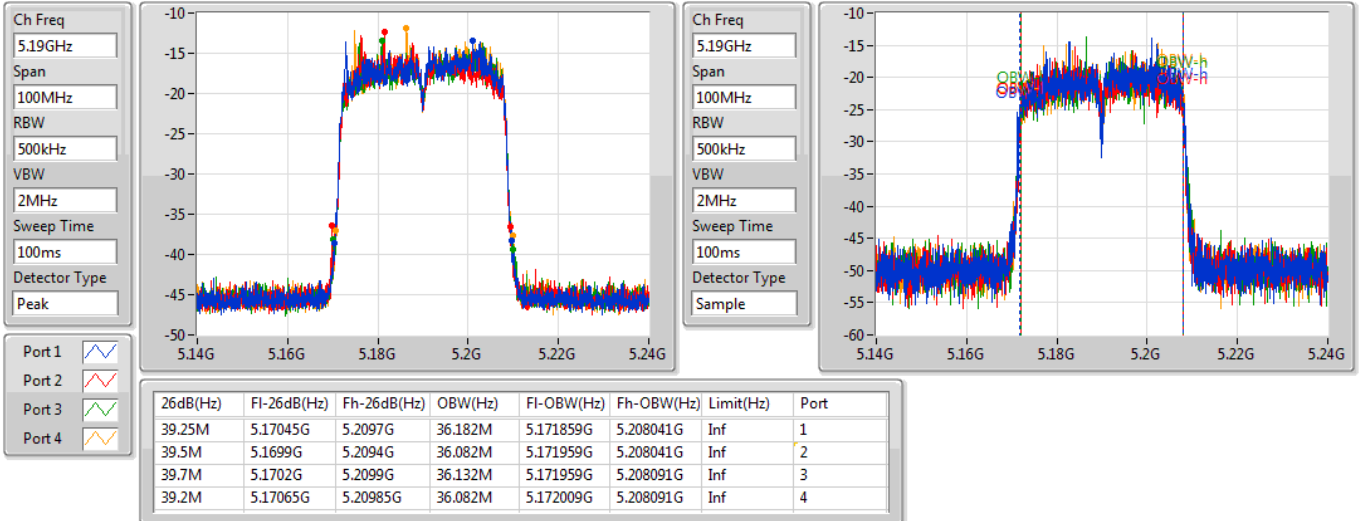

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
5825MHz

12/01/2018

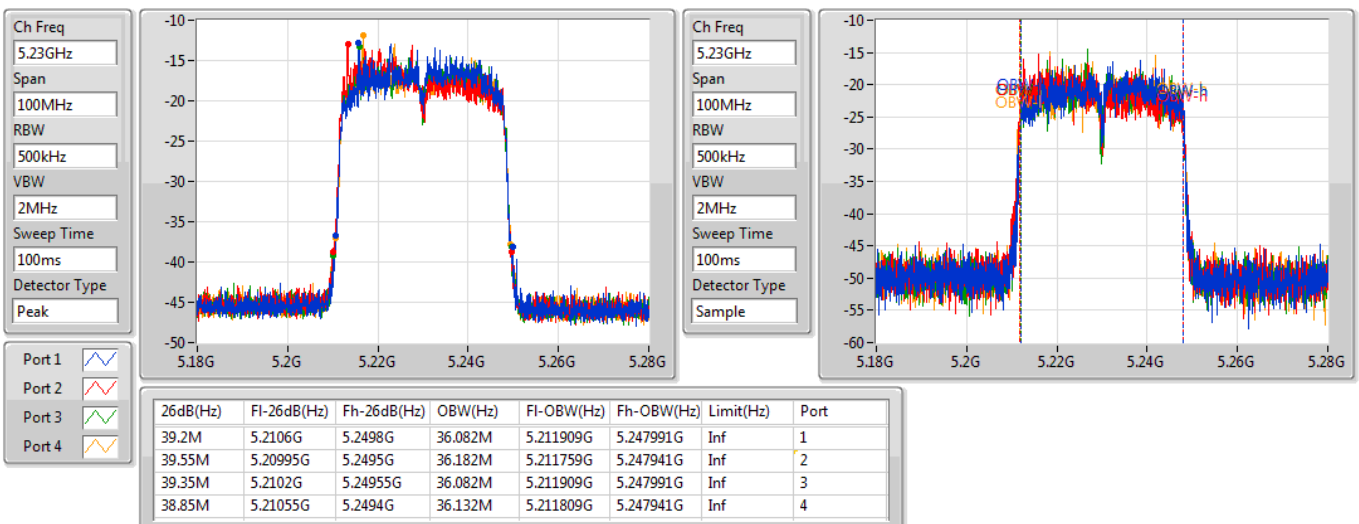


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5190MHz

18/01/2018

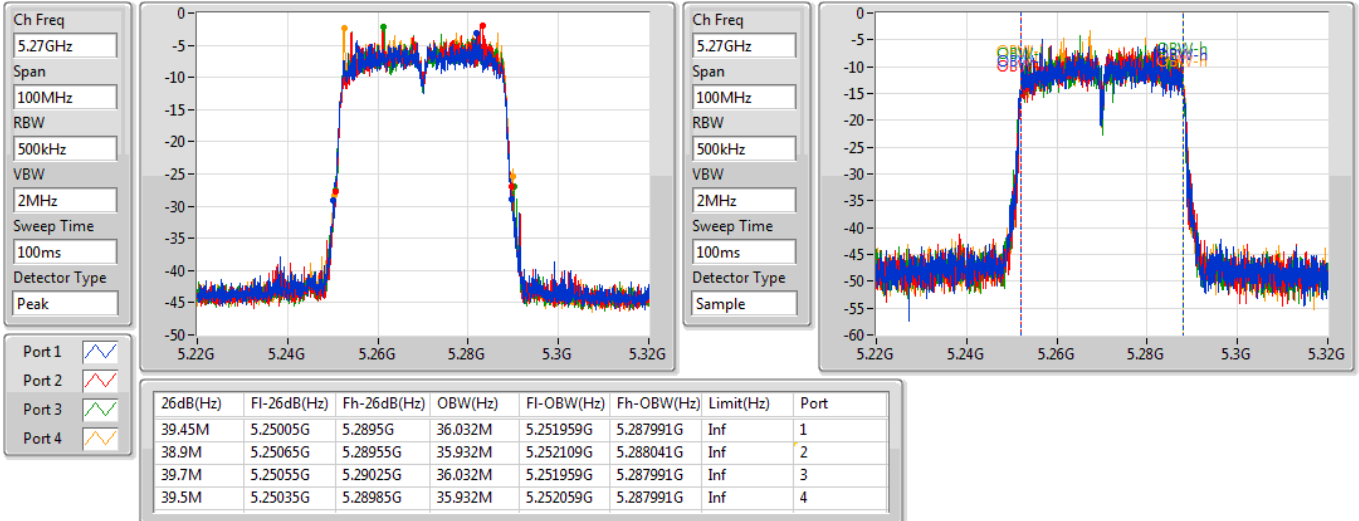

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5230MHz

18/01/2018

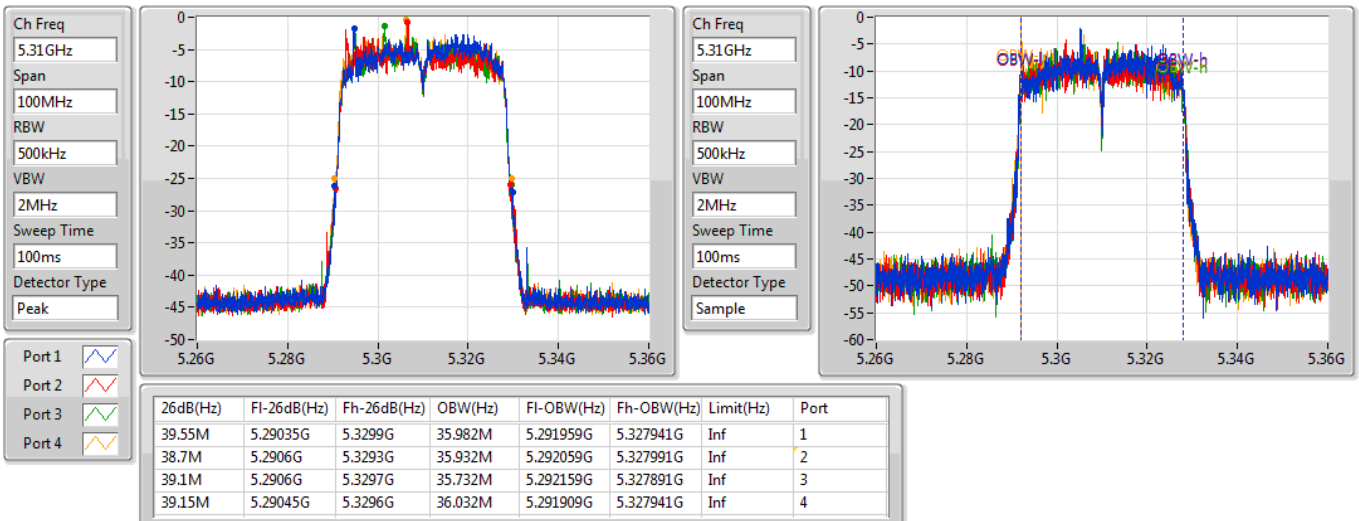


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5270MHz

12/01/2018

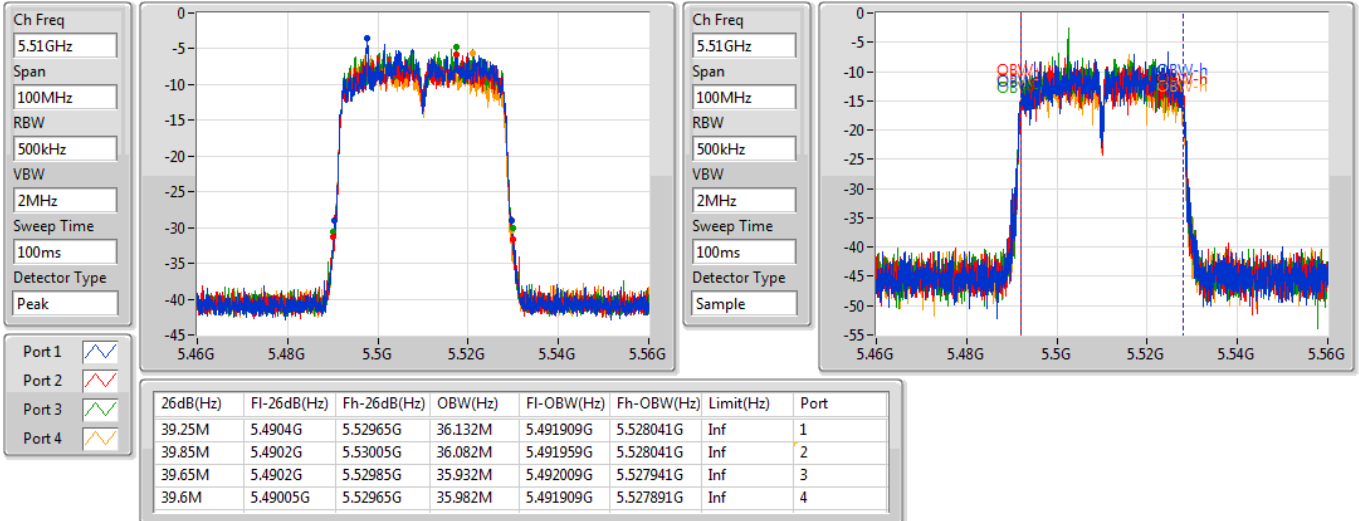

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5310MHz

12/01/2018

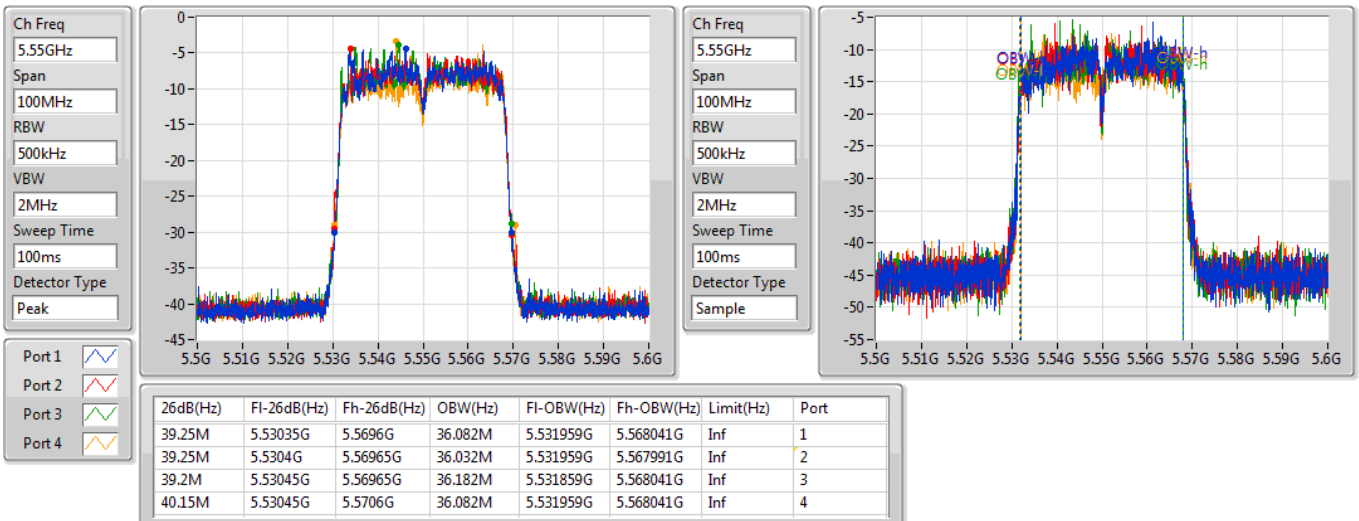


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5510MHz

12/01/2018

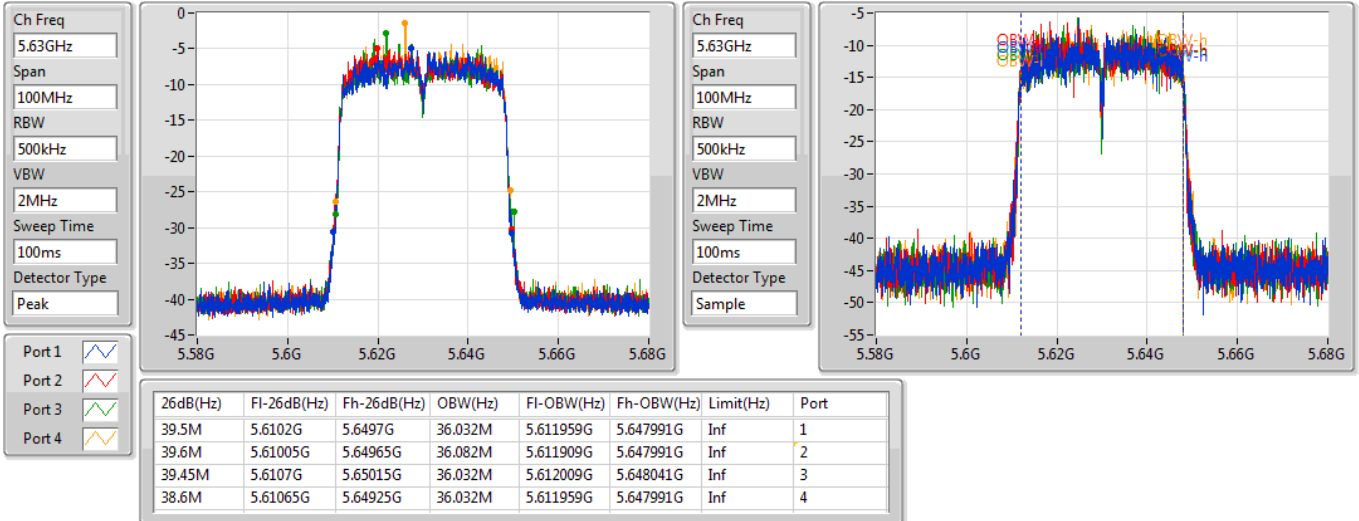

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5550MHz

12/01/2018

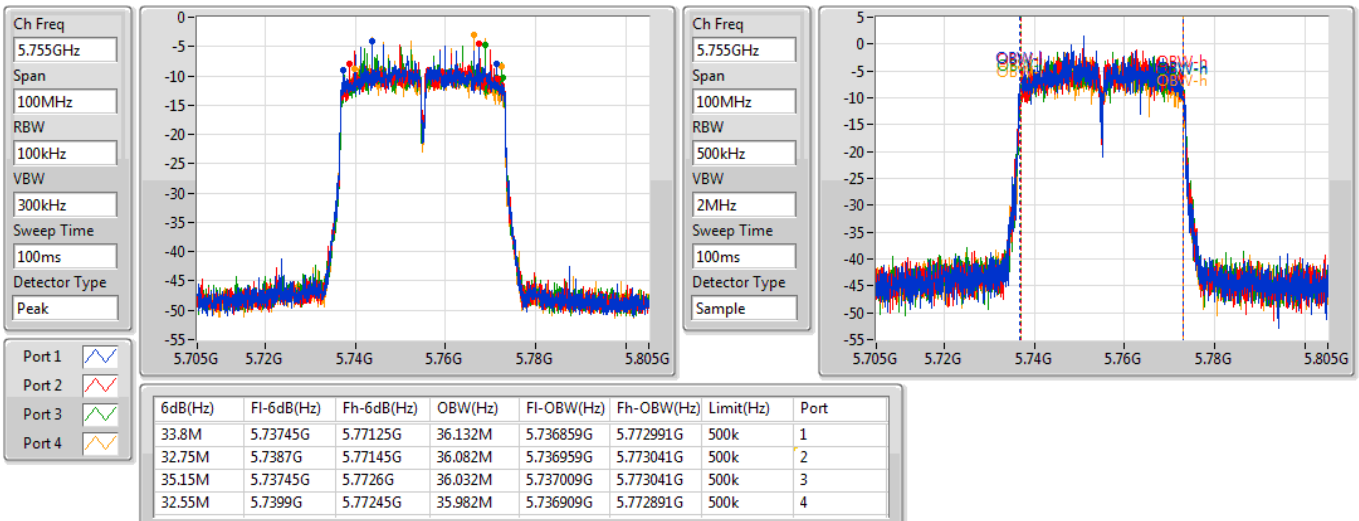


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5630MHz

12/01/2018

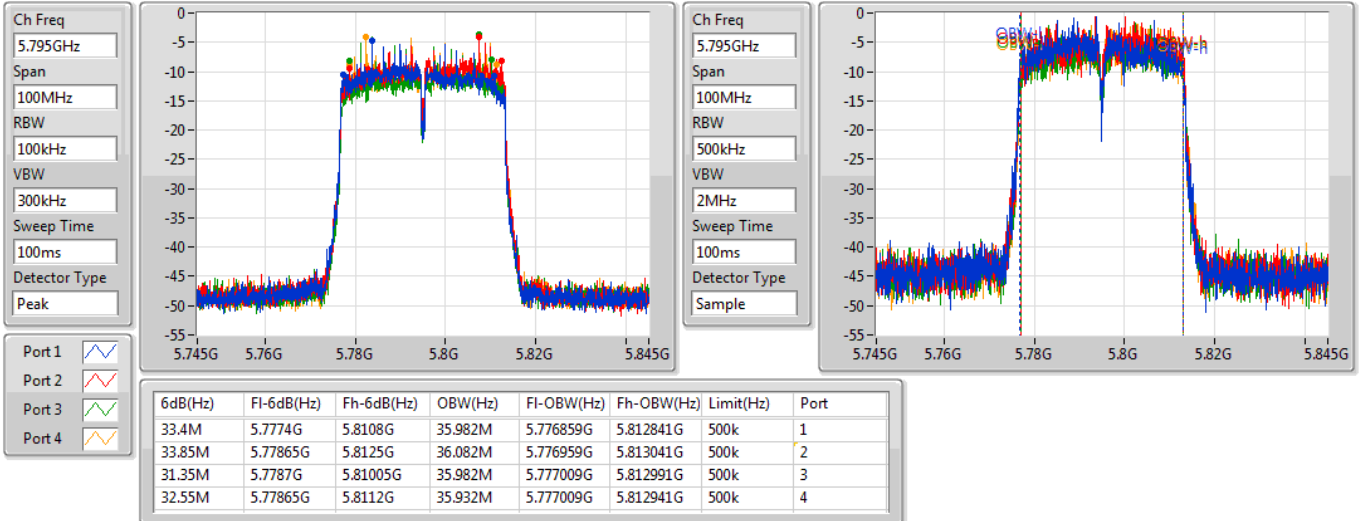

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5755MHz

12/01/2018

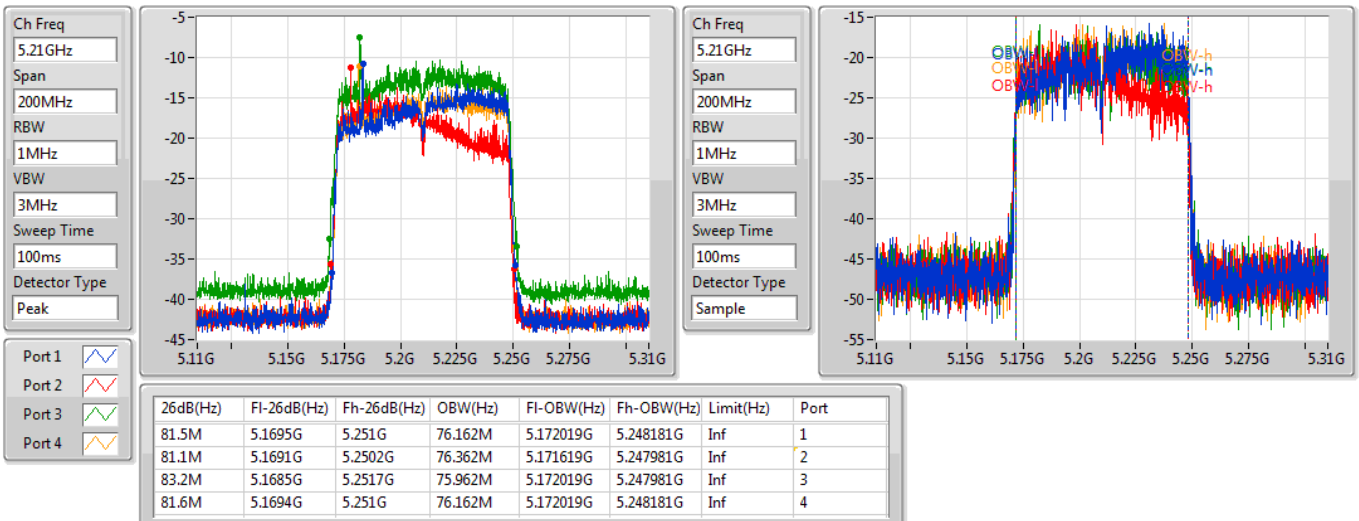


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
5795MHz

12/01/2018

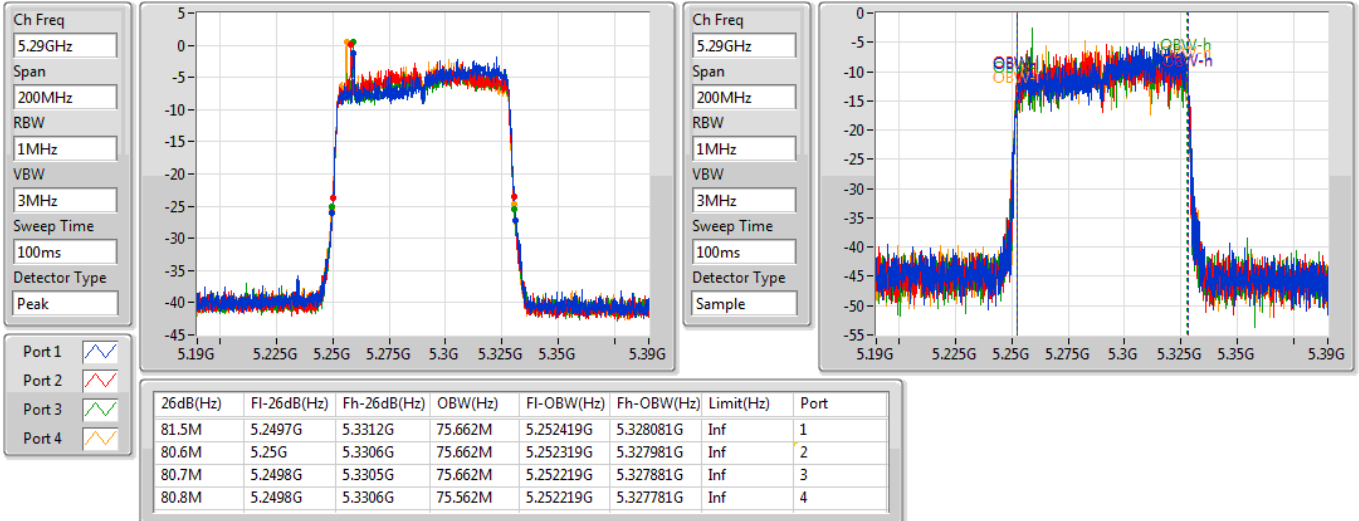

802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5210MHz

18/01/2018

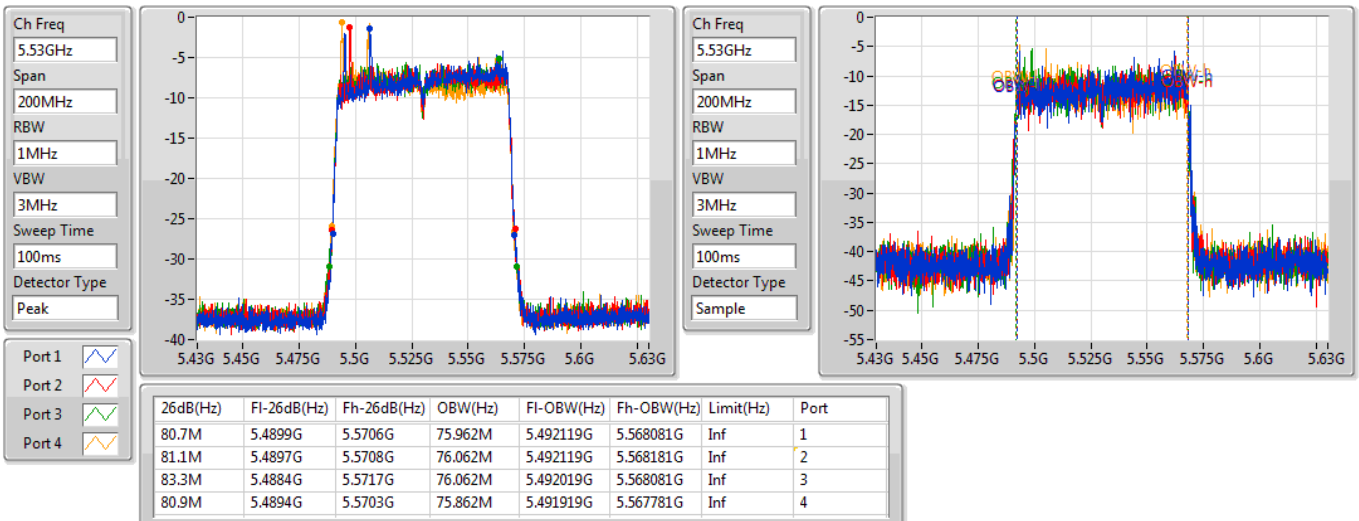


802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5290MHz

12/01/2018

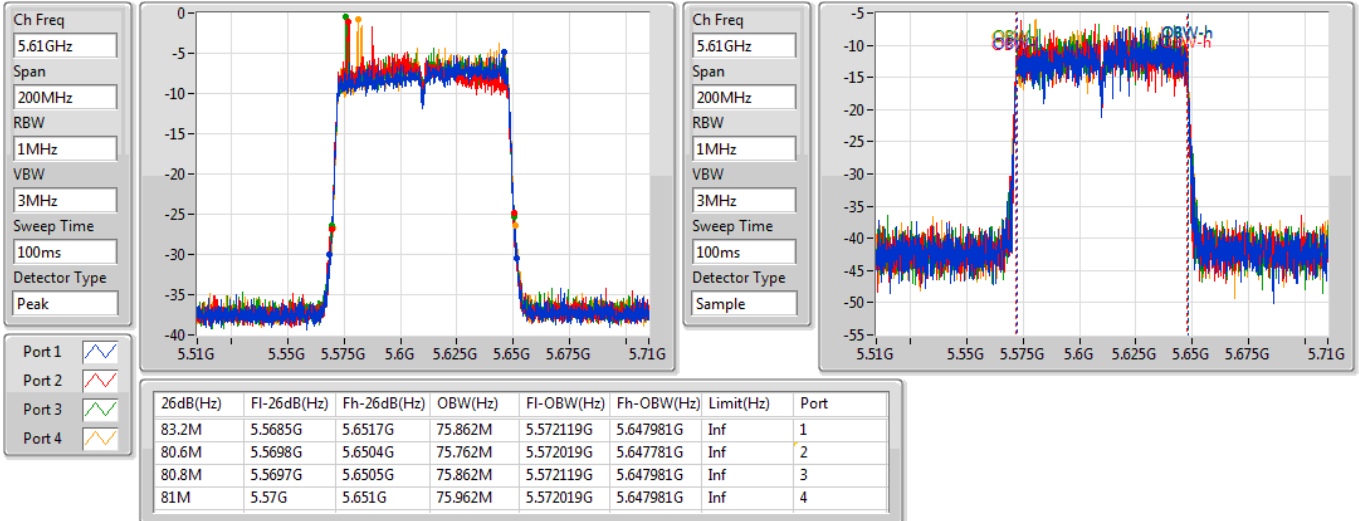

802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5530MHz

12/01/2018

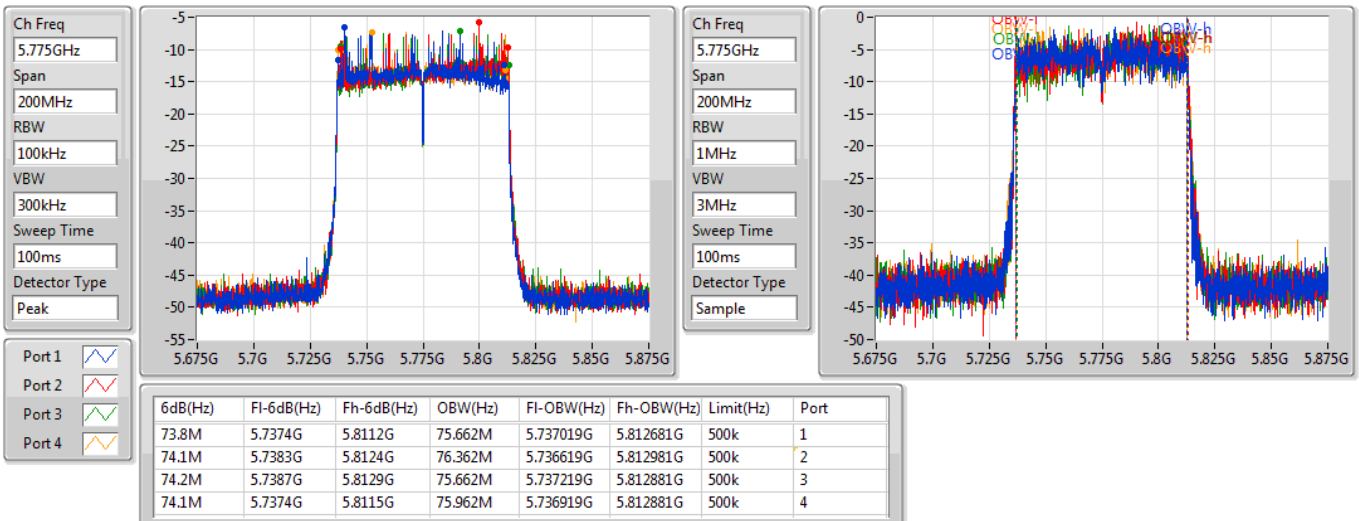


802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5610MHz

12/01/2018

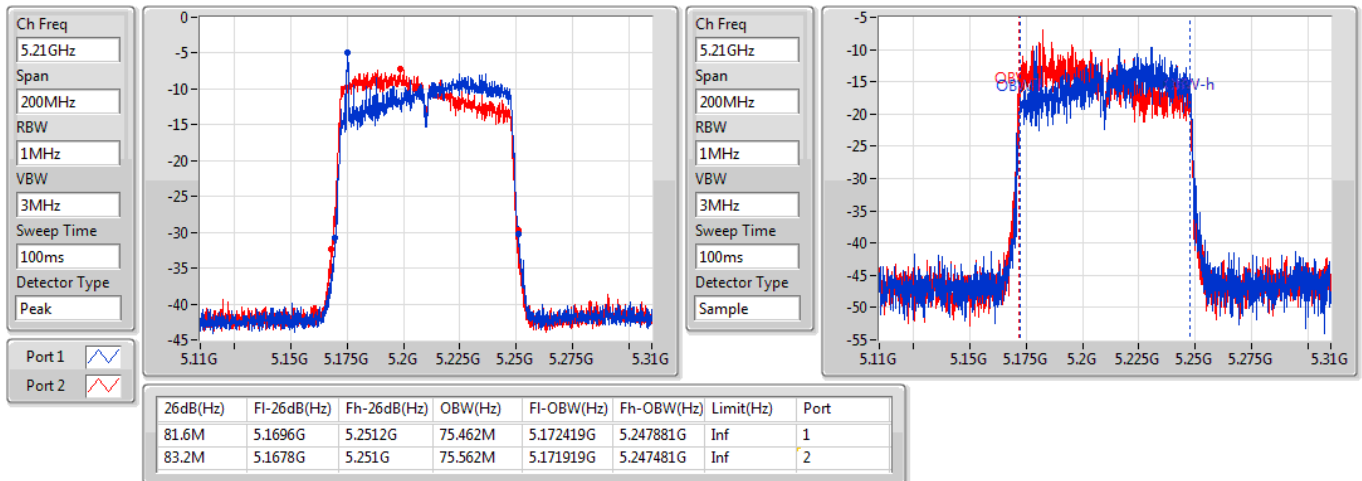

802.11ac VHT80-BF_Nss1,(MCS0)_4TX
EBW
5775MHz

12/01/2018

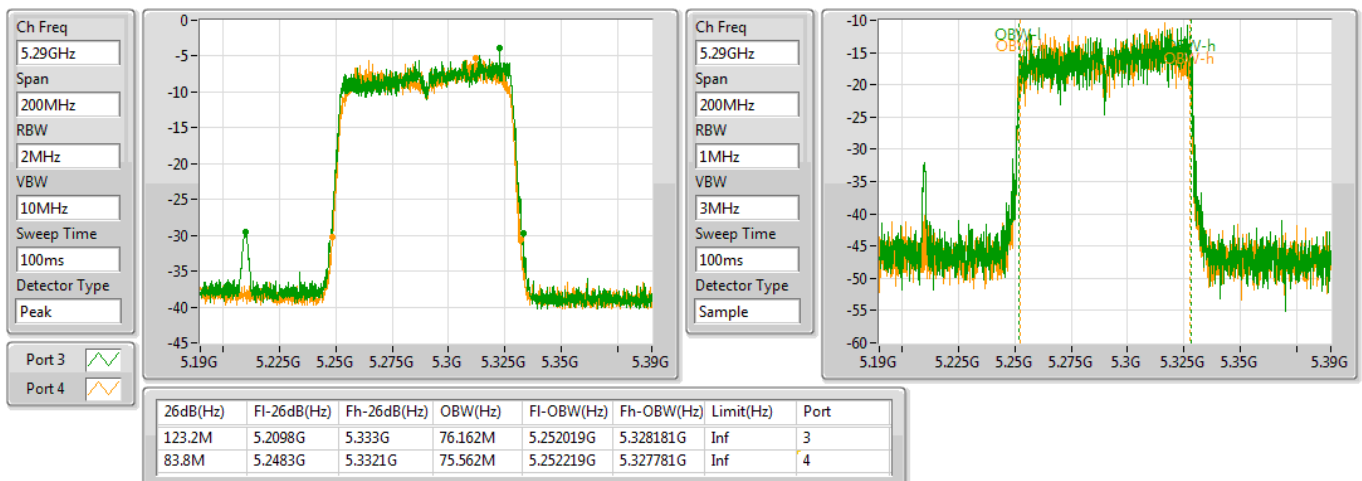


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX(Port1&Port2)
EBW
#5210MHz,5290MHz

18/01/2018


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX(Port3&Port4)
EBW
5210MHz,#5290MHz

18/01/2018

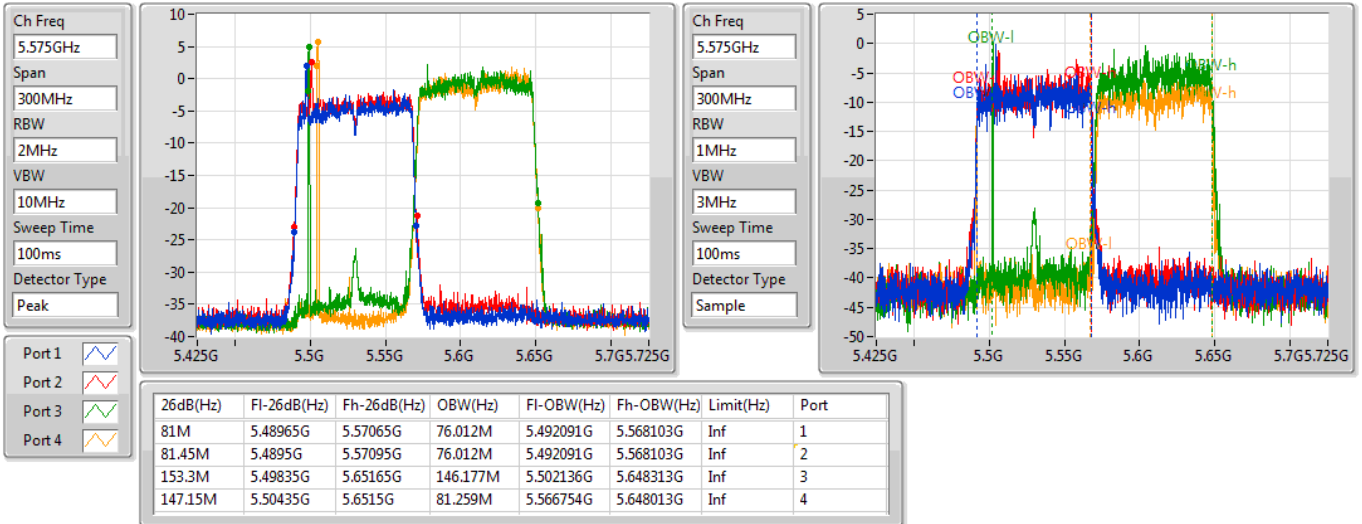


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

12/01/2018





Average Power (Antenna Gain 10 dBi) Non-Beamforming Indoor Appendix C.1

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.96	0.09908	29.96	0.99083
802.11ac VHT20_Nss1,(MCS0)_4TX	20.12	0.10280	30.12	1.02802
802.11ac VHT40_Nss1,(MCS0)_4TX	22.82	0.19143	32.82	1.91426
802.11ac VHT80_Nss1,(MCS0)_4TX	19.45	0.08810	29.45	0.88105
802.11ac VHT80+80_Nss2,(MCS0)_4TX	20.19	0.10447	30.19	1.04472
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	13.79	0.02393	23.79	0.23933
802.11ac VHT20_Nss1,(MCS0)_4TX	14.15	0.02600	24.15	0.26002
802.11ac VHT40_Nss1,(MCS0)_4TX	16.80	0.04786	26.80	0.47863
802.11ac VHT80_Nss1,(MCS0)_4TX	19.80	0.09550	29.80	0.95499
802.11ac VHT80+80_Nss2,(MCS0)_4TX	19.45	0.08810	29.45	0.88105
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	13.51	0.02244	23.51	0.22439
802.11ac VHT20_Nss1,(MCS0)_4TX	13.88	0.02443	23.88	0.24434
802.11ac VHT40_Nss1,(MCS0)_4TX	16.79	0.04775	26.79	0.47753
802.11ac VHT80_Nss1,(MCS0)_4TX	19.76	0.09462	29.76	0.94624
802.11ac VHT80+80_Nss1,(MCS0)_4TX	19.68	0.09290	29.68	0.92897
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	25.76	0.37670	35.76	3.76704
802.11ac VHT20_Nss1,(MCS0)_4TX	25.93	0.39174	35.93	3.91742
802.11ac VHT40_Nss1,(MCS0)_4TX	25.95	0.39355	35.95	3.93550
802.11ac VHT80_Nss1,(MCS0)_4TX	20.46	0.11117	30.46	1.11173



Average Power (Antenna Gain 10 dBi) Non-Beamforming Indoor Appendix C.1

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	10.00	13.52	13.80	13.55	13.90	19.72	26.00	29.72	36.00
5200MHz	Pass	10.00	13.79	13.88	13.74	14.34	19.96	26.00	29.96	36.00
5240MHz	Pass	10.00	13.87	13.80	13.71	13.84	19.83	26.00	29.83	36.00
5260MHz	Pass	10.00	8.01	7.80	7.49	7.73	13.78	19.85	23.78	29.85
5300MHz	Pass	10.00	7.90	7.76	7.86	7.53	13.79	19.88	23.79	29.88
5320MHz	Pass	10.00	7.34	7.73	7.42	8.07	13.67	19.87	23.67	29.87
5500MHz	Pass	10.00	7.20	7.09	7.68	7.37	13.36	19.84	23.36	29.84
5580MHz	Pass	10.00	6.58	6.66	7.22	7.70	13.08	19.81	23.08	29.81
5640MHz	Pass	10.00	6.97	7.73	7.48	7.73	13.51	19.80	23.51	29.80
5745MHz	Pass	10.00	19.36	19.45	19.69	19.85	25.61	26.00	35.61	36.00
5785MHz	Pass	10.00	19.77	19.78	19.29	20.08	25.76	26.00	35.76	36.00
5825MHz	Pass	10.00	19.49	19.63	19.47	19.99	25.67	26.00	35.67	36.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	10.00	13.75	14.30	13.93	14.39	20.12	26.00	30.12	36.00
5200MHz	Pass	10.00	13.59	13.74	13.68	14.23	19.84	26.00	29.84	36.00
5240MHz	Pass	10.00	13.60	13.65	13.60	13.90	19.71	26.00	29.71	36.00
5260MHz	Pass	10.00	7.70	8.11	7.86	7.53	13.83	20.00	23.83	30.00
5300MHz	Pass	10.00	8.41	8.11	8.17	7.82	14.15	20.00	24.15	30.00
5320MHz	Pass	10.00	7.73	8.01	7.73	7.83	13.85	20.00	23.85	30.00
5500MHz	Pass	10.00	7.08	6.79	7.45	7.26	13.17	20.00	23.17	30.00
5580MHz	Pass	10.00	6.94	6.88	7.63	7.95	13.39	20.00	23.39	30.00
5640MHz	Pass	10.00	7.09	8.21	7.87	8.17	13.88	20.00	23.88	30.00
5745MHz	Pass	10.00	19.51	19.75	20.06	20.27	25.93	26.00	35.93	36.00
5785MHz	Pass	10.00	19.79	19.69	19.90	20.10	25.89	26.00	35.89	36.00
5825MHz	Pass	10.00	19.44	19.42	19.58	19.90	25.61	26.00	35.61	36.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	10.00	16.62	16.83	16.48	16.79	22.70	26.00	32.70	36.00
5230MHz	Pass	10.00	16.69	16.81	16.76	16.93	22.82	26.00	32.82	36.00
5270MHz	Pass	10.00	10.50	10.89	10.76	9.85	16.54	20.00	26.54	30.00
5310MHz	Pass	10.00	10.65	10.95	11.04	10.44	16.80	20.00	26.80	30.00
5510MHz	Pass	10.00	10.76	10.32	11.02	10.94	16.79	20.00	26.79	30.00
5550MHz	Pass	10.00	10.65	10.19	10.90	10.49	16.59	20.00	26.59	30.00
5630MHz	Pass	10.00	10.07	10.69	10.81	11.06	16.69	20.00	26.69	30.00
5755MHz	Pass	10.00	19.42	19.53	19.54	19.88	25.62	26.00	35.62	36.00
5795MHz	Pass	10.00	19.76	19.83	19.95	20.18	25.95	26.00	35.95	36.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	10.00	13.29	13.50	13.24	13.66	19.45	26.00	29.45	36.00
5290MHz	Pass	10.00	13.69	14.05	13.97	13.36	19.80	20.00	29.80	30.00
5530MHz	Pass	10.00	9.74	9.75	10.03	9.62	15.81	20.00	25.81	30.00
5610MHz	Pass	10.00	13.36	13.68	13.79	14.09	19.76	20.00	29.76	30.00
5775MHz	Pass	10.00	13.96	14.16	14.42	15.14	20.46	26.00	30.46	36.00
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	10.00	16.93	17.41			20.19	26.00	30.19	36.00



Average Power (Antenna Gain 10 dBi) Non-Beamforming_Indoor Appendix C.1

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	10.00			16.53	16.35	19.45	20.00	29.45	30.00
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	10.00	13.68	13.24	13.67	14.00	19.68	20.00	29.68	30.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	10.86	0.01219	20.86	0.12190
802.11ac VHT20_Nss1,(MCS0)_4TX	10.98	0.01253	20.98	0.12531
802.11ac VHT40_Nss1,(MCS0)_4TX	10.98	0.01253	20.98	0.12531
802.11ac VHT80_Nss1,(MCS0)_4TX	10.90	0.01230	20.90	0.12303
802.11ac VHT80+80_Nss2,(MCS0)_4TX	10.67	0.01167	20.67	0.11668
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	13.79	0.02393	23.79	0.23933
802.11ac VHT20_Nss1,(MCS0)_4TX	14.15	0.02600	24.15	0.26002
802.11ac VHT40_Nss1,(MCS0)_4TX	16.80	0.04786	26.80	0.47863
802.11ac VHT80_Nss1,(MCS0)_4TX	19.80	0.09550	29.80	0.95499
802.11ac VHT80+80_Nss2,(MCS0)_4TX	10.65	0.01161	20.65	0.11614
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	13.51	0.02244	23.51	0.22439
802.11ac VHT20_Nss1,(MCS0)_4TX	13.88	0.02443	23.88	0.24434
802.11ac VHT40_Nss1,(MCS0)_4TX	16.79	0.04775	26.79	0.47753
802.11ac VHT80_Nss1,(MCS0)_4TX	19.76	0.09462	29.76	0.94624
802.11ac VHT80+80_Nss1,(MCS0)_4TX	19.68	0.09290	29.68	0.92897
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	25.76	0.37670	35.76	3.76704
802.11ac VHT20_Nss1,(MCS0)_4TX	25.93	0.39174	35.93	3.91742
802.11ac VHT40_Nss1,(MCS0)_4TX	25.95	0.39355	35.95	3.93550
802.11ac VHT80_Nss1,(MCS0)_4TX	20.46	0.11117	30.46	1.11173

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	10.00	4.44	4.49	4.61	4.57	10.55	26.00	20.55	36.00
5200MHz	Pass	10.00	4.76	4.48	4.75	5.32	10.86	26.00	20.86	36.00
5240MHz	Pass	10.00	4.66	4.52	4.47	4.69	10.61	26.00	20.61	36.00
5260MHz	Pass	10.00	8.01	7.80	7.49	7.73	13.78	19.85	23.78	29.85
5300MHz	Pass	10.00	7.90	7.76	7.86	7.53	13.79	19.88	23.79	29.88
5320MHz	Pass	10.00	7.34	7.73	7.42	8.07	13.67	19.87	23.67	29.87
5500MHz	Pass	10.00	7.20	7.09	7.68	7.37	13.36	19.84	23.36	29.84
5580MHz	Pass	10.00	6.58	6.66	7.22	7.70	13.08	19.81	23.08	29.81
5640MHz	Pass	10.00	6.97	7.73	7.48	7.73	13.51	19.80	23.51	29.80
5745MHz	Pass	10.00	19.36	19.45	19.69	19.85	25.61	26.00	35.61	36.00
5785MHz	Pass	10.00	19.77	19.78	19.29	20.08	25.76	26.00	35.76	36.00
5825MHz	Pass	10.00	19.49	19.63	19.47	19.99	25.67	26.00	35.67	36.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	10.00	4.84	4.76	5.02	5.21	10.98	26.00	20.98	36.00
5200MHz	Pass	10.00	4.64	4.43	4.43	5.26	10.72	26.00	20.72	36.00
5240MHz	Pass	10.00	4.95	4.91	4.69	5.26	10.98	26.00	20.98	36.00
5260MHz	Pass	10.00	7.70	8.11	7.86	7.53	13.83	20.00	23.83	30.00
5300MHz	Pass	10.00	8.41	8.11	8.17	7.82	14.15	20.00	24.15	30.00
5320MHz	Pass	10.00	7.73	8.01	7.73	7.83	13.85	20.00	23.85	30.00
5500MHz	Pass	10.00	7.08	6.79	7.45	7.26	13.17	20.00	23.17	30.00
5580MHz	Pass	10.00	6.94	6.88	7.63	7.95	13.39	20.00	23.39	30.00
5640MHz	Pass	10.00	7.09	8.21	7.87	8.17	13.88	20.00	23.88	30.00
5745MHz	Pass	10.00	19.51	19.75	20.06	20.27	25.93	26.00	35.93	36.00
5785MHz	Pass	10.00	19.79	19.69	19.90	20.10	25.89	26.00	35.89	36.00
5825MHz	Pass	10.00	19.44	19.42	19.58	19.90	25.61	26.00	35.61	36.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	10.00	4.88	4.89	4.93	5.14	10.98	26.00	20.98	36.00
5230MHz	Pass	10.00	4.55	4.39	4.48	4.75	10.57	26.00	20.57	36.00
5270MHz	Pass	10.00	10.50	10.89	10.76	9.85	16.54	20.00	26.54	30.00
5310MHz	Pass	10.00	10.65	10.95	11.04	10.44	16.80	20.00	26.80	30.00
5510MHz	Pass	10.00	10.76	10.32	11.02	10.94	16.79	20.00	26.79	30.00
5550MHz	Pass	10.00	10.65	10.19	10.90	10.49	16.59	20.00	26.59	30.00
5630MHz	Pass	10.00	10.07	10.69	10.81	11.06	16.69	20.00	26.69	30.00
5755MHz	Pass	10.00	19.42	19.53	19.54	19.88	25.62	26.00	35.62	36.00
5795MHz	Pass	10.00	19.76	19.83	19.95	20.18	25.95	26.00	35.95	36.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	10.00	4.84	4.83	4.84	5.01	10.90	26.00	20.90	36.00
5290MHz	Pass	10.00	13.69	14.05	13.97	13.36	19.80	20.00	29.80	30.00
5530MHz	Pass	10.00	9.74	9.75	10.03	9.62	15.81	20.00	25.81	30.00
5610MHz	Pass	10.00	13.36	13.68	13.79	14.09	19.76	20.00	29.76	30.00
5775MHz	Pass	10.00	13.96	14.16	14.42	15.14	20.46	26.00	30.46	36.00
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	10.00	7.78	7.53			10.67	26.00	20.67	36.00



Average Power (Antenna Gain 10 dBi) Non-Beamforming_Outdoor Appendix C.2

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	10.00			7.64	7.63	10.65	20.00	20.65	30.00
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	10.00	13.68	13.24	13.67	14.00	19.68	20.00	29.68	30.00

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

**Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	19.35	0.08610	35.37	3.44350
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	19.52	0.08954	35.54	3.58096
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	19.06	0.08054	35.08	3.22107
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	16.81	0.04797	29.82	0.95940
5.25-5.35GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	13.67	0.02328	29.69	0.93111
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	13.65	0.02317	29.67	0.92683
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	13.66	0.02323	29.68	0.92897
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	16.85	0.04842	29.86	0.96828
5.47-5.725GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	13.89	0.02449	29.91	0.97949
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	13.90	0.02455	29.92	0.98175
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	13.94	0.02477	29.96	0.99083
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	16.67	0.04645	29.68	0.92897
5.725-5.85GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	19.97	0.09931	35.99	3.97192
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	19.91	0.09795	35.93	3.91742
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	19.76	0.09462	35.78	3.78443

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	16.02	13.13	13.49	11.89	13.95	19.20	19.98	35.22	36.00
5200MHz	Pass	16.02	13.60	13.40	11.69	14.25	19.35	19.98	35.37	36.00
5240MHz	Pass	16.02	13.06	14.01	11.94	13.10	19.11	19.98	35.13	36.00
5260MHz	Pass	16.02	6.73	7.71	6.32	7.59	13.15	13.98	29.17	30.00
5300MHz	Pass	16.02	7.23	8.05	6.99	8.22	13.67	13.98	29.69	30.00
5320MHz	Pass	16.02	7.07	8.05	5.53	7.31	13.10	13.98	29.12	30.00
5500MHz	Pass	16.02	8.28	8.09	6.68	8.22	13.89	13.98	29.91	30.00
5580MHz	Pass	16.02	7.36	7.83	5.96	7.72	13.30	13.98	29.32	30.00
5640MHz	Pass	16.02	8.26	8.25	6.74	7.79	13.82	13.98	29.84	30.00
5745MHz	Pass	16.02	13.88	13.70	12.24	13.81	19.48	19.98	35.50	36.00
5785MHz	Pass	16.02	14.15	14.10	11.24	14.69	19.75	19.98	35.77	36.00
5825MHz	Pass	16.02	14.51	14.11	12.68	14.27	19.97	19.98	35.99	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	16.02	14.23	13.47	12.22	13.81	19.52	19.98	35.54	36.00
5230MHz	Pass	16.02	13.63	13.76	11.48	12.95	19.06	19.98	35.08	36.00
5270MHz	Pass	16.02	7.98	7.95	6.05	8.20	13.65	13.98	29.67	30.00
5310MHz	Pass	16.02	8.28	7.91	5.92	7.43	13.49	13.98	29.51	30.00
5510MHz	Pass	16.02	8.31	7.44	6.48	7.78	13.57	13.98	29.59	30.00
5550MHz	Pass	16.02	8.26	8.60	6.94	7.54	13.90	13.98	29.92	30.00
5630MHz	Pass	16.02	7.15	7.50	6.18	7.71	13.19	13.98	29.21	30.00
5755MHz	Pass	16.02	12.93	13.90	11.75	13.21	19.04	19.98	35.06	36.00
5795MHz	Pass	16.02	13.98	14.33	12.89	14.20	19.91	19.98	35.93	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	16.02	13.16	13.00	12.11	13.75	19.06	19.98	35.08	36.00
5290MHz	Pass	16.02	8.18	8.15	6.61	7.45	13.66	13.98	29.68	30.00
5530MHz	Pass	16.02	7.77	7.83	6.72	7.81	13.58	13.98	29.60	30.00
5610MHz	Pass	16.02	8.33	8.43	6.77	7.96	13.94	13.98	29.96	30.00
5775MHz	Pass	16.02	13.96	13.98	12.97	13.98	19.76	19.98	35.78	36.00
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	13.01	13.66	13.94			16.81	16.99	29.82	36.00
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	13.01			13.37	14.26	16.85	16.99	29.86	30.00
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	13.01	10.49	11.30	9.39	11.17	16.67	16.99	29.68	30.00

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



Average Power (Antenna Gain 10 dBi) Beamforming_Outdoor Appendix C.4

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	4.47	0.00280	20.49	0.11194
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	4.57	0.00286	20.59	0.11455
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	4.97	0.00314	20.99	0.12560
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	7.68	0.00586	20.69	0.11722
5.25-5.35GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	13.67	0.02328	29.69	0.93111
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	13.65	0.02317	29.67	0.92683
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	13.66	0.02323	29.68	0.92897
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	7.55	0.00569	20.56	0.11376
5.47-5.725GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	13.89	0.02449	29.91	0.97949
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	13.90	0.02455	29.92	0.98175
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	13.94	0.02477	29.96	0.99083
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	16.67	0.04645	29.68	0.92897
5.725-5.85GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	19.97	0.09931	35.99	3.97192
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	19.91	0.09795	35.93	3.91742
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	19.76	0.09462	35.78	3.78443