

NCC Test Report

Equipment : 牆座式雙頻無線接入點
Brand Name : UBIQUITI
Model Name : UAP-IW-HD
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 Oct. 30, 2017, and testing was started from Nov. 13, 2017 and completed on Jan. 30, 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

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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 Tsai

Report Producer: Michelle Tsai

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5700	100-140 [11]
straddle 5725		5720	144 [1]
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		5510-5670	102-134 [5]
straddle 5725		5710	142 [1]
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]
straddle 5725		5690	138 [1]
5725-5850		5775	155 [1]
5150-5350	ac (VHT80+80)	5210+5290 MHz	42+58 [1]
5470-5725		5530+5610 MHz	106+122 [1]

Non-Beamforming for Indoor

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
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	2TX(Port 1/2)
5.25-5.35GHz	802.11ac VHT80+80	80	2TX(Port 3/4)
5.47-5.725GHz	802.11ac VHT80+80	80	4TX

Beamforming for Indoor

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ac VHT20-BF	20	4TX
5.25-5.35GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.725-5.85GHz	802.11ac VHT20-BF	20	4TX
5.15-5.25GHz	802.11ac VHT40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.725-5.85GHz	802.11ac VHT40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT80-BF	80	4TX
5.25-5.35GHz	802.11ac VHT80-BF	80	4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	4TX
5.725-5.85GHz	802.11ac VHT80-BF	80	4TX
5.15-5.25GHz	802.11ac VHT80+80-BF	80	2TX(Port 1/2)
5.25-5.35GHz	802.11ac VHT80+80-BF	80	2TX(Port 3/4)
5.47-5.725GHz	802.11ac VHT80+80-BF	80	4TX

Non-Beamforming for Outdoor

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
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
5.25-5.35GHz	802.11ac VHT80+80	80	4TX
5.47-5.725GHz	802.11ac VHT80+80	80	4TX

Beamforming for Outdoor

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

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80, VHT80+80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

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	-	-	internal antenna	Murata
2	2	-	-	internal antenna	i-Pex
3	3	-	-	internal antenna	i-Pex
4	4	-	-	internal antenna	i-Pex
5	1	-	-	internal antenna	fixed on board

Ant.	Port	Gain (dBi)		
		2.4G	5G	BT
1	1	1.8	4	-
2	2			
3	3	-	4	-
4	4			
5	1	-	-	1.4

Note 1: The EUT has five antennas.

For 2.4GHz function:

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

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

For 5GHz function:

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

Ant. 1 & Ant. 2 & Ant. 3 and Ant. 4 can be used as transmitting/receiving antenna.

For Bluetooth function:

For Bluetooth mode (1TX/1RX)

Only Ant. 5 can be used as transmitting/receiving antenna.

1.1.4 EUT Information

Operational Condition			
EUT Power Type	From PoE		
EUT Function	☒ Outdoor	☒ Indoor	
	☐ Fixed P2P	☐ Client	
Beamforming Function	☒ With beamforming	☐ Without beamforming	
TPC Function	☒ TPC Function	☐ TPC Function	
Weather Band	☒ With 5600~5650MHz	☐ Without 5600~5650MHz	
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	0.798	0.98	1.397m	1k
802.11ac VHT20	0.791	1.018	1.317m	1k
802.11ac VHT40	0.649	1.878	657.813u	3k
802.11ac VHT80	0.49	3.098	328.125u	10k
802.11ac VHT80+80	0.364	4.389	193.75u	10k

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	0.985	0.066	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT40-BF	0.98	0.088	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT80+80-BF	0.252	5.986	131.25u	10k
802.11ac VHT80-BF	0.959	0.182	1.134m	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
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085

Indoor

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Tim	22.5°C / 65%	23/Mar/2018
Radiated	03CH03-HY	Jeff	25°C / 59%	24/Mar/2018
AC Conduction	CO04-HY	Jeff	25°C / 59%	30/Mar/2018

Outdoor

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Barry	23.3°C / 63%	31/Mar/2018
Radiated	03CH03-HY	Andy	23°C / 57%	03/Apr/2018
AC Conduction	CO04-HY	Jeff	28°C / 59%	31/Mar/2018

RX

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated	03CH03-HY	Paul	23.2°C / 52.5%	30/Jan/2019
AC Conduction	CO04-HY	Lego	24°C / 53%	30/Jan/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	110V

2.2 Test Channel Mode

Non-Beamforming

Test Software Version	MT7603 QA 0.0.1.58
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Beamforming

Test Software	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	PoE Mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	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	PoE Mode		
Operating Mode > 1GHz	CTX/CRX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V		

2.4 Support Equipment

Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	R33002 / DOC
2	Adapter for NB	DELL	HA65NM130	R35737 / DOC
3	Notebook	DELL	E5410	R33002 / DOC
4	Adapter for NB	DELL	HA65NM130	R35737 / DOC
5	AC Source	GW	APS-9102	-
6	PoE for EUT	CERIO	POE-S48G	-
7	Client	UBNT	UAP-HD-Nano_Tier 1	-
8	PoE for client	UBNT	GP-H480-050G	-

Note. Support equipment No.7 was provided by customer.

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PoE for EUT	CERIO	POE-S48G	-
2	PoE for client	CERIO	POE-S48G	-
3	Client	UBNT	UAP-HD-Nano_Tier 1	-
4	AC adapter	EDACPOWER	EA10681E-520	-

Note. Support equipment No.3 was provided by customer.

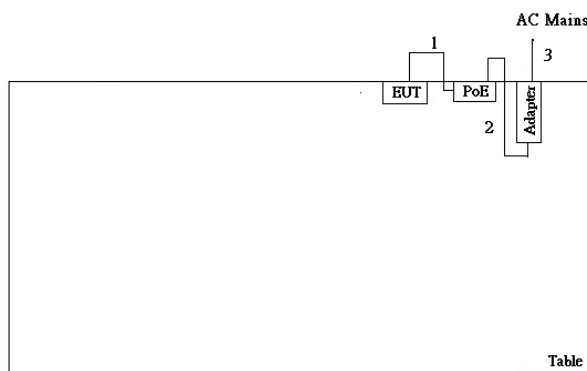
Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PoE for EUT	CERIO	POE-S48G	-
2	PoE for client	CERIO	POE-S48G	-
3	Client	UBNT	UAP-HD-Nano_Tier 1	-
4	Notebook	Dell	E4300	-
5	AC adapter	EDACPOWER	EA10681E-520	-

Note. Support equipment No.3 was provided by customer.

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

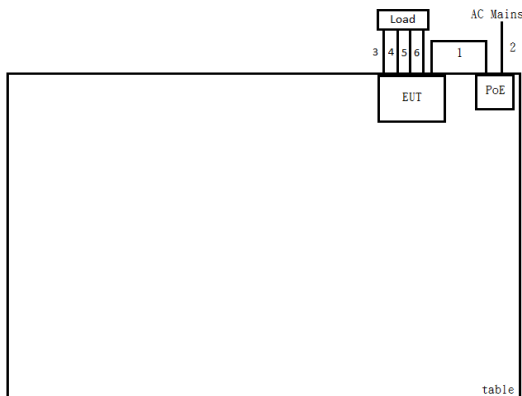
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test (TX)

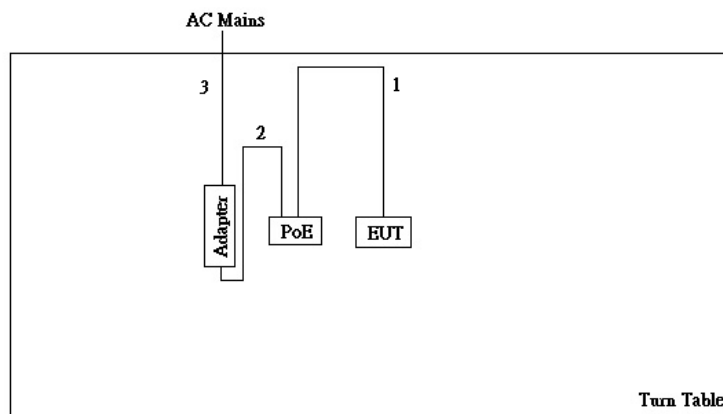


Item	Connection	Shielded	Length(m)	Remark
1	RJ-45 Cable	No	1.0	-
2	DC power line	No	1.0	-
3	AC power line	No	1.5	-

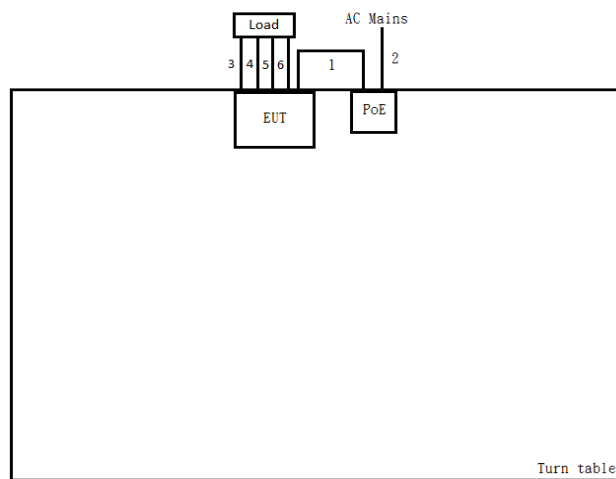
Test Setup Diagram – AC Line Conducted Emission Test (RX)



Item	Connection	Shielded	Length(m)	Remark
1	LAN Cable	No	1.0	-
2	AC power line	No	1.8	-
3	LAN Cable	No	0.5	-
4	LAN Cable	No	0.5	-
5	LAN Cable	No	0.5	-
6	LAN Cable	No	0.5	-

Test Setup Diagram - Radiated Test (TX)


Item	Connection	Shielded	Length(m)	Remark
1	RJ-45 Cable	No	1.0	-
2	DC power line	No	1.0	-
3	AC power line	No	1.5	-

Test Setup Diagram - Radiated Test (RX)


Item	Connection	Shielded	Length(m)	Remark
1	LAN Cable	No	1.0	-
2	AC power line	No	1.8	-
3	LAN Cable	No	0.5	-
4	LAN Cable	No	0.5	-
5	LAN Cable	No	0.5	-
6	LAN Cable	No	0.5	-

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.

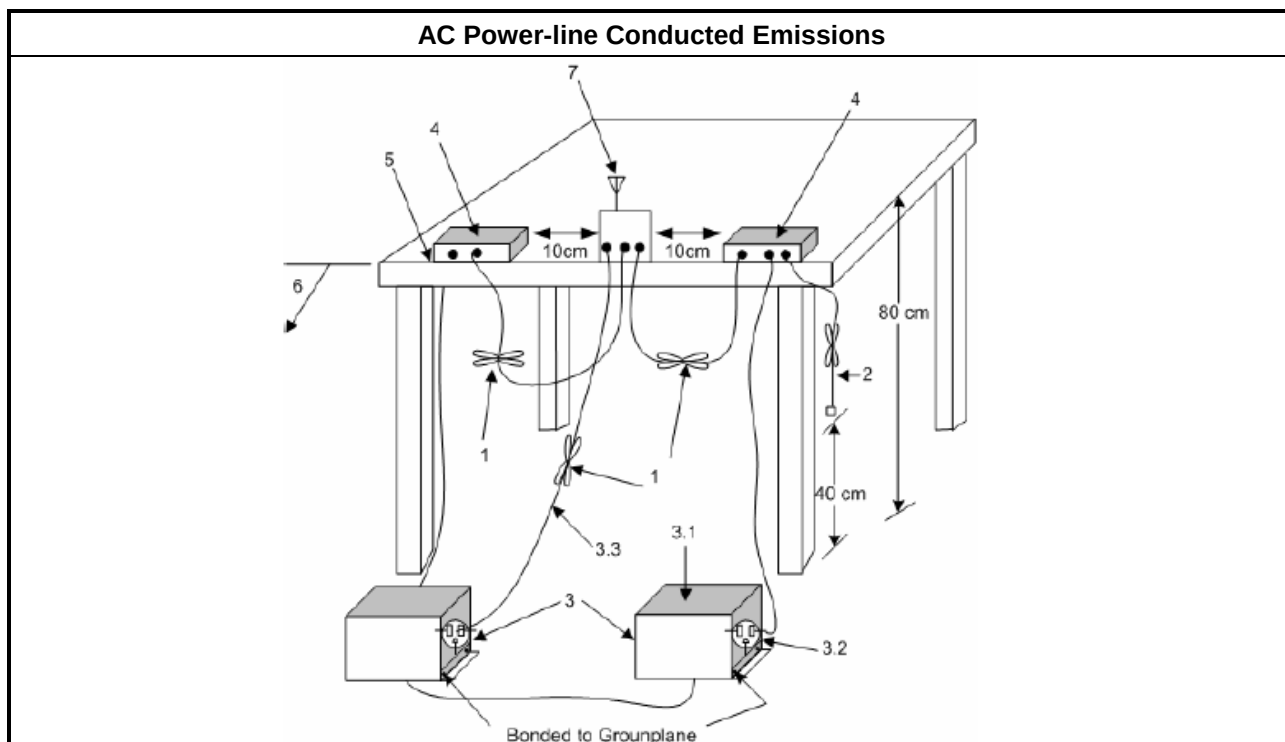
3.1.2 Measuring Instruments

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.

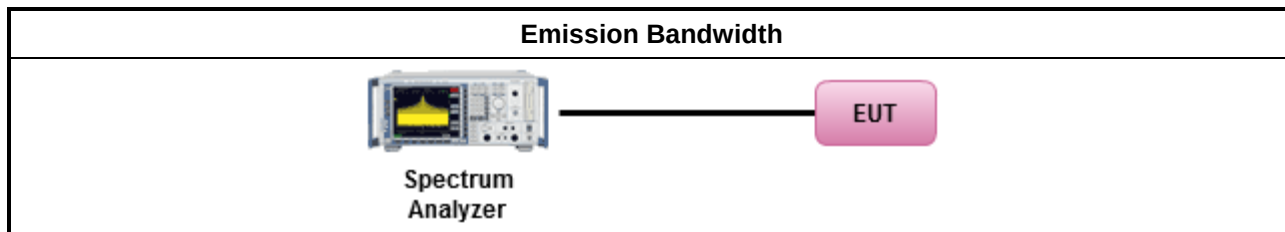
3.2.2 Measuring Instruments

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.	

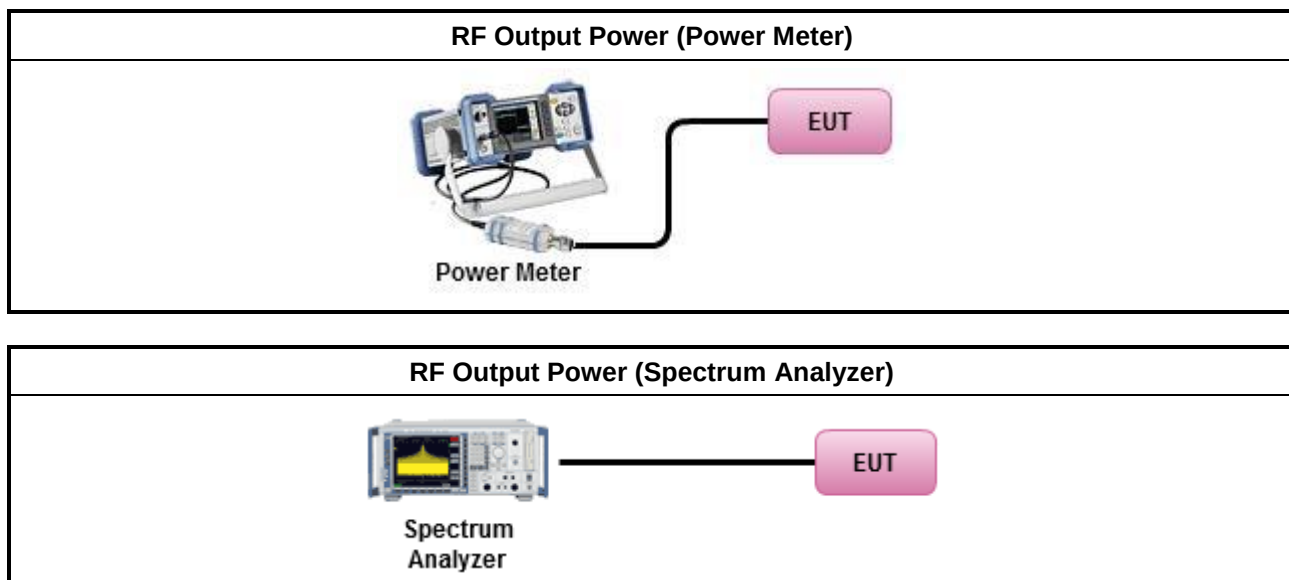
3.3.2 Measuring Instruments

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: $P_{\text{total}} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$

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.	

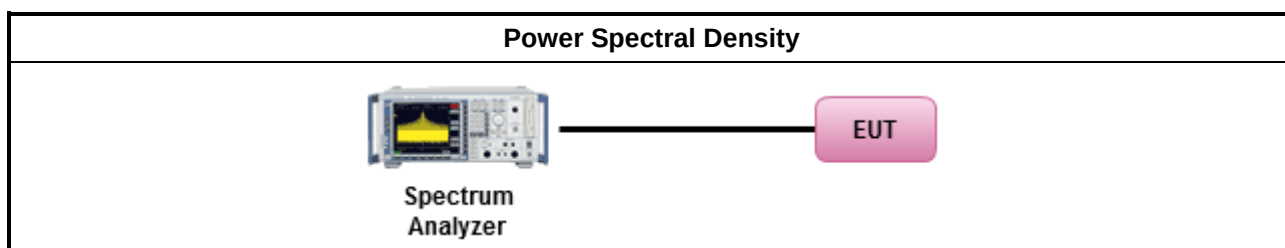
3.4.2 Measuring Instruments

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).	

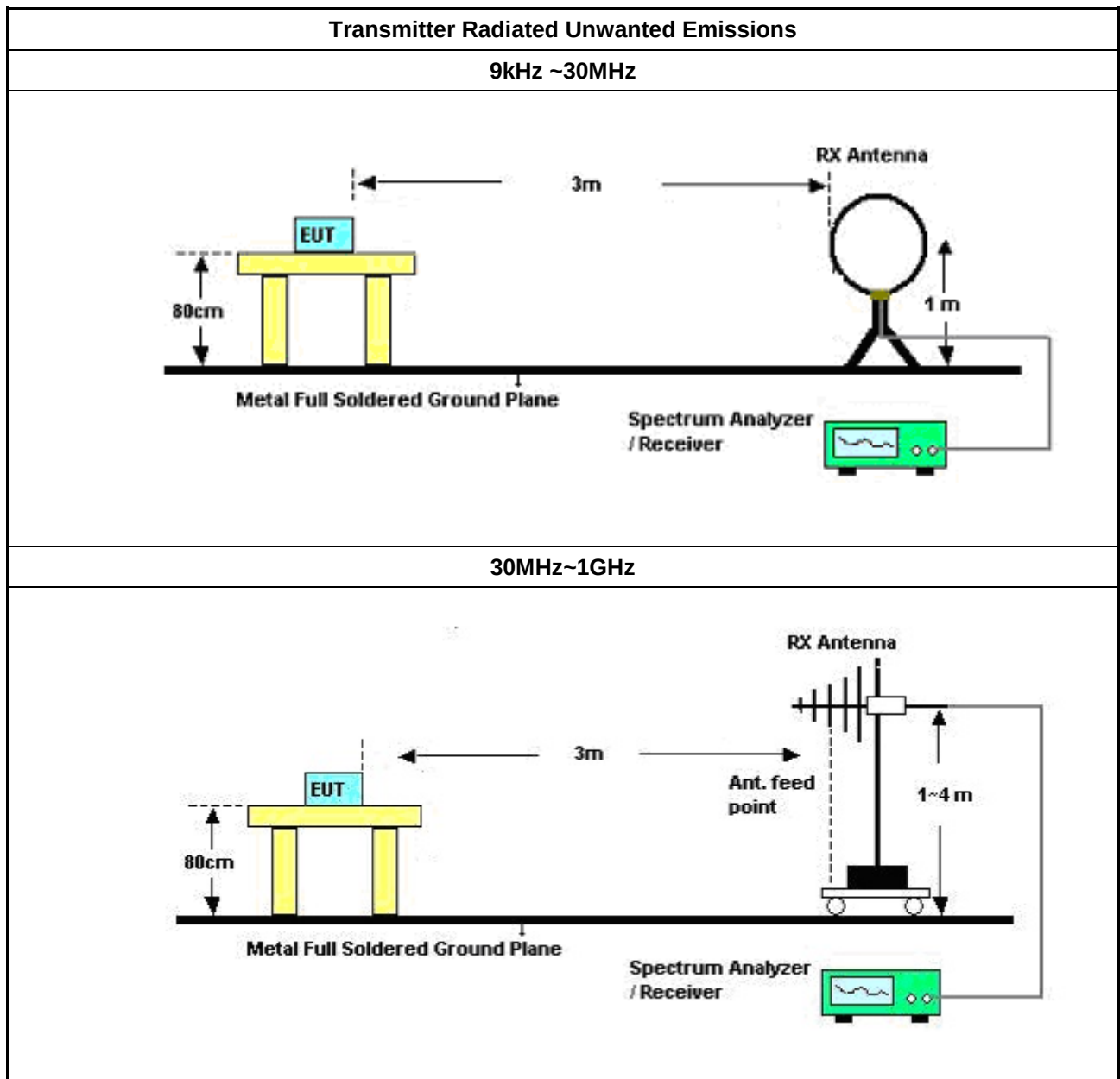
3.5.2 Measuring Instruments

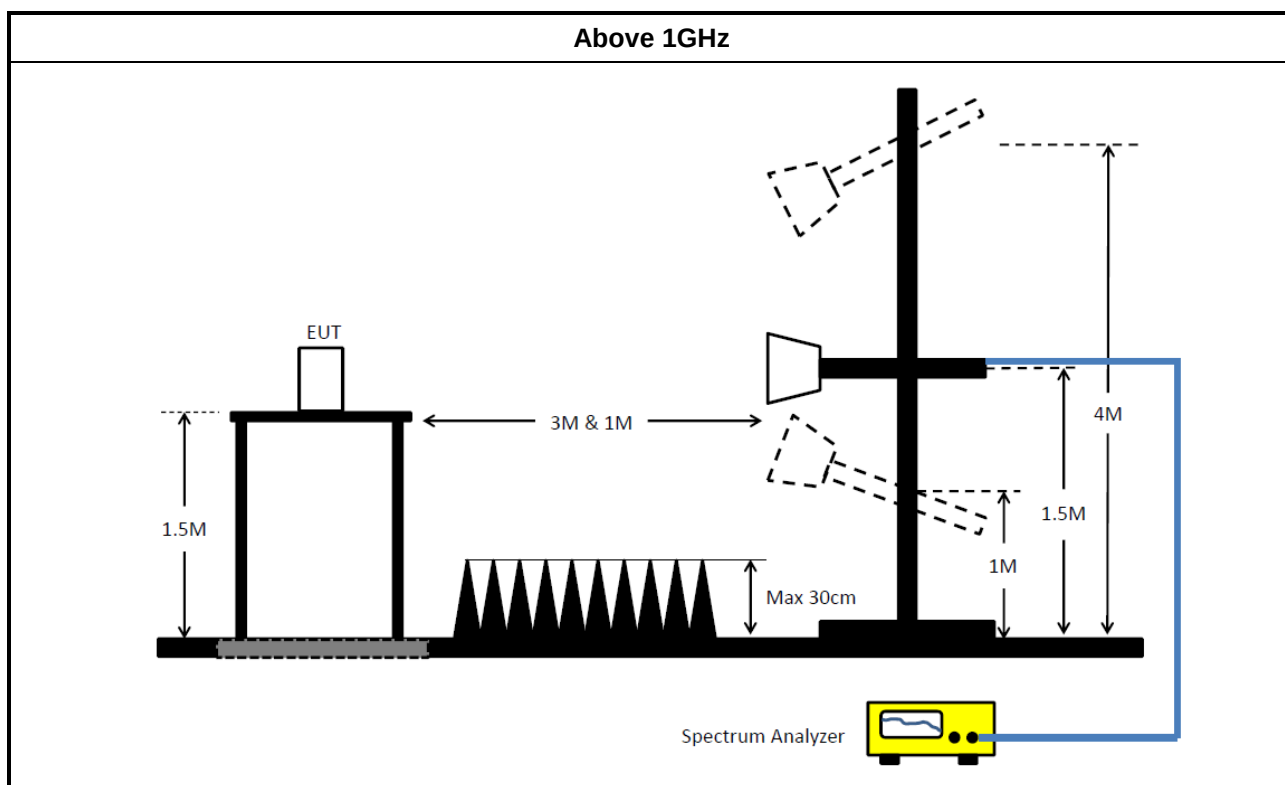
Refer a test equipment and calibration data table in this test report.

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.

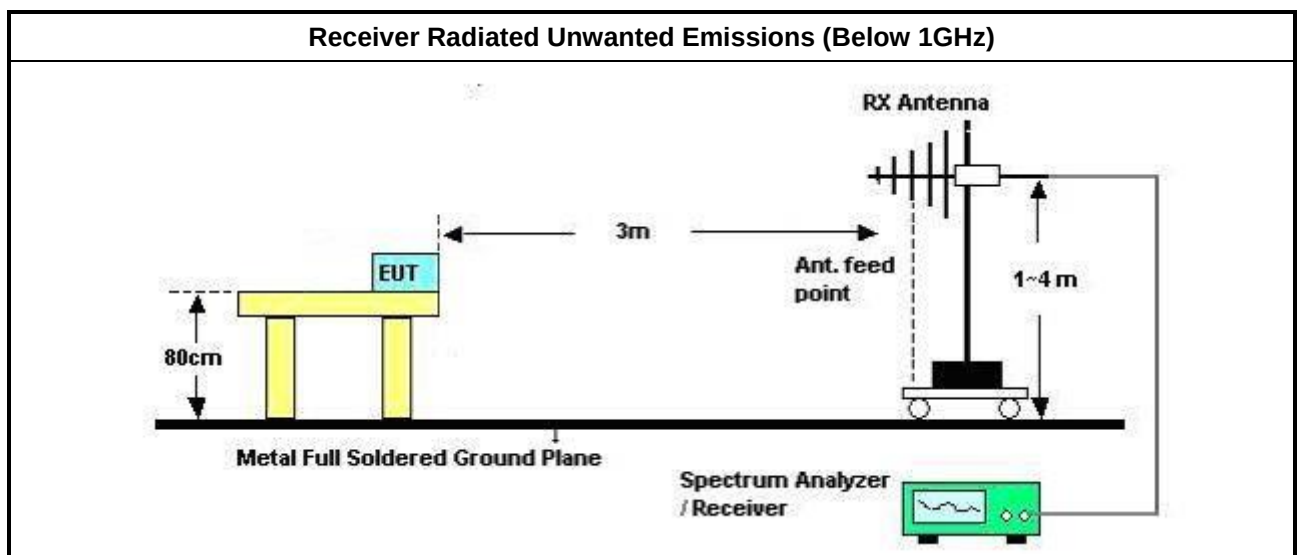
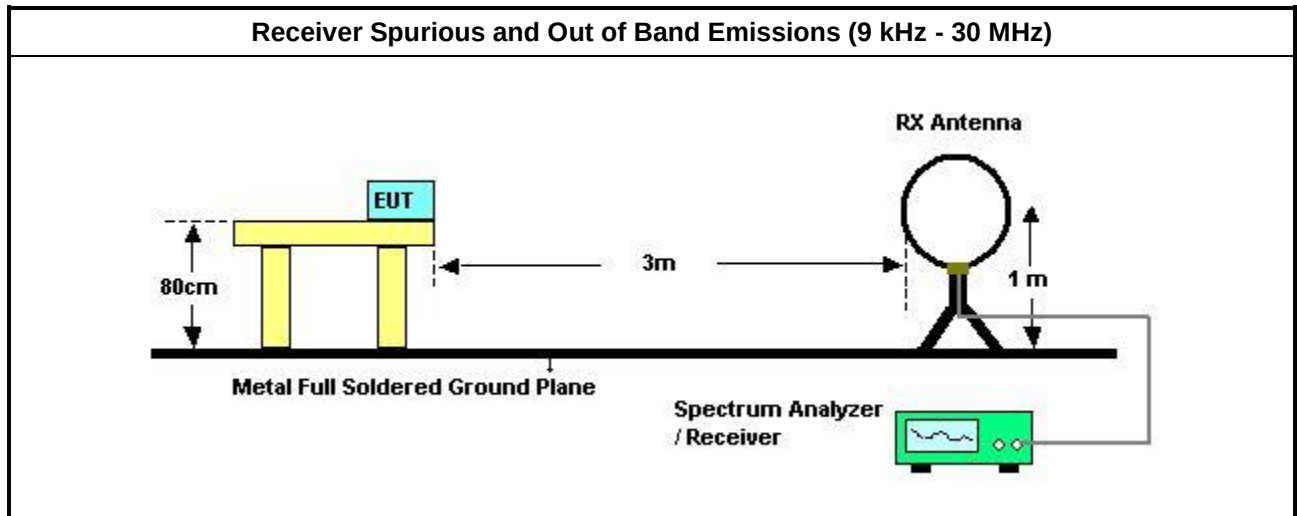
3.6.2 Measuring Instruments

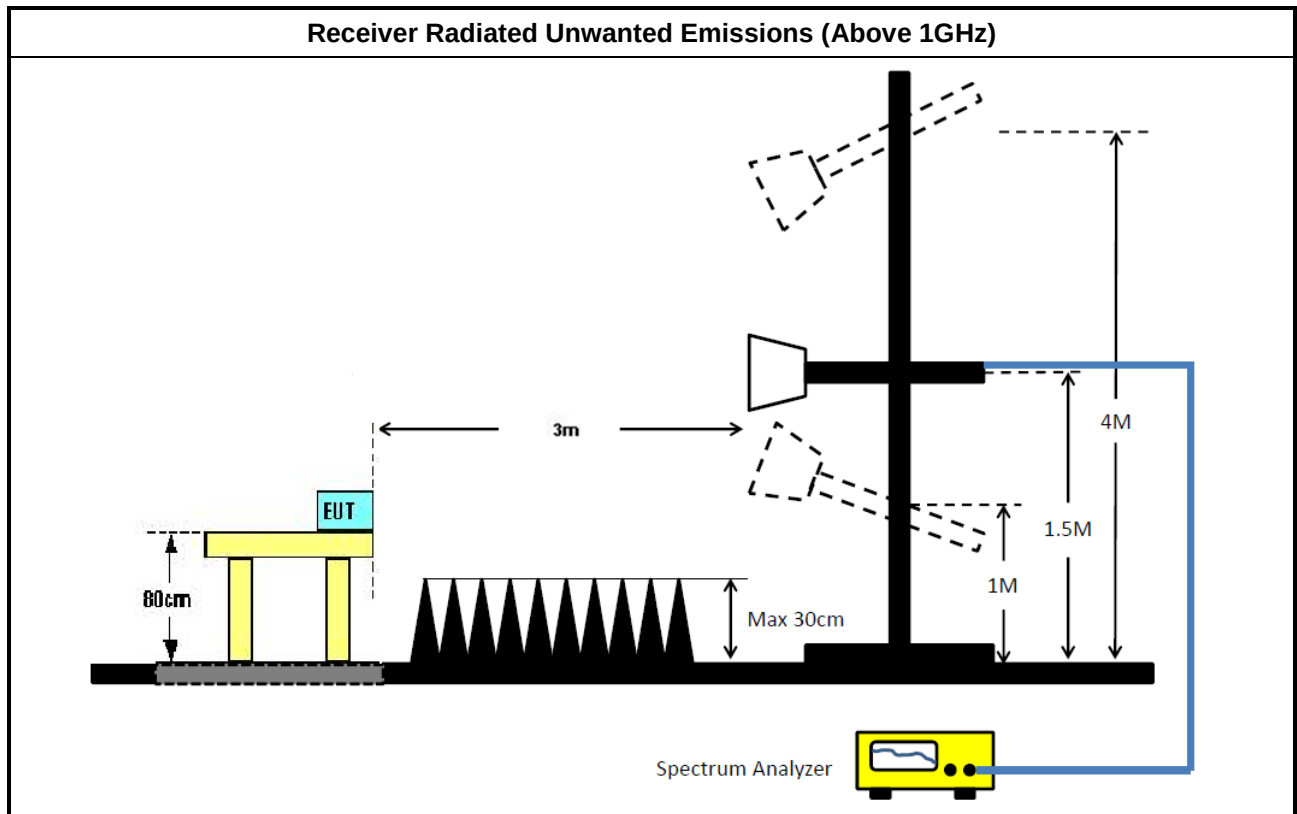
Refer a test equipment and calibration data table in this test report.

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 (TX)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9KHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	17/Nov/2017	16/Nov/2018
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	06/Oct/2017	05/Oct/2018
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2017	11/Oct/2018

NCR : Non-Calibration Require

Instrument for AC Conduction (RX)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2018	11/Oct/2019

NCR : Non-Calibration Require

Instrument for Conducted Test (Indoor)

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
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	-20 ~ 100℃	10/May/2017	09/May/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
RF Cable-1.5m	HUBER+SUHNER	SUCOFLEX_104	MY12582/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-1.5m	HUBER+SUHNER	SUCOFLEX_104	MY12583/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-1.5m	HUBER+SUHNER	SUCOFLEX_104	MY12581/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-1.5m	HUBER+SUHNER	SUCOFLEX_104	MY12584/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10712/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10713/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	10/May/2017	09/May/2018
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	06/Nov/2017	05/Nov/2018

Instrument for Conducted Test (Outdoor)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	29/Dec/2017	28/Dec/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-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY679/3	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
Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018

Instrument for Radiated Test (TX)

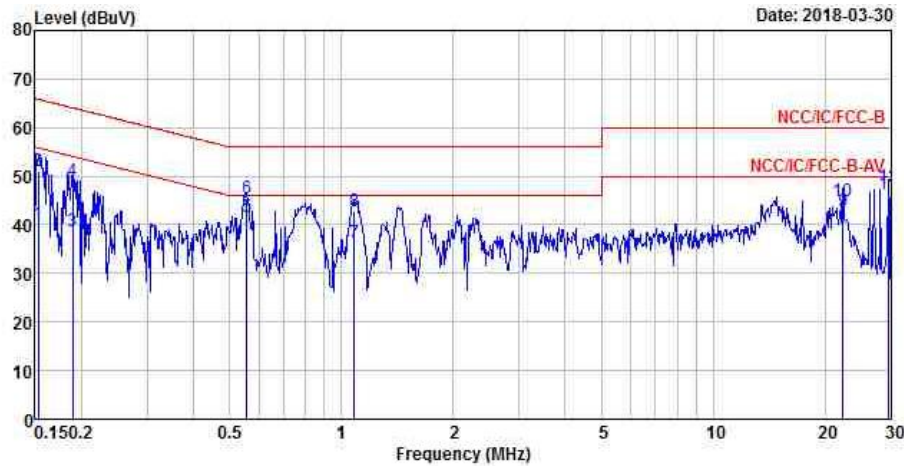
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	31/Oct/2017	30/Oct/2018
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	01/Nov/2017	31/Oct/2018
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	19/Apr/2017	18/Apr/2018
Amplifier	Keysight	83017A	MY53270196	1GHz ~ 26.5GHz	31/Aug/2017	30/Aug/2018
Spectrum	R&S	FSV40	101500	9kHz ~ 40GHz	28/Jun/2017	27/Jun/2018
Receiver	R&S	ESR3	102052	9KHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	26/Jan/2018	25/Jan/2019
RF Cable-high	SUHNER	SUCOFLEX106	CB222	1GHz ~ 40GHz	26/Jan/2018	25/Jan/2019
Bilog Antenna	SCHAFFNER	CBL 6112B	22237	30MHz ~ 1GHz	08/Jul/2017	07/Jul/2018
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	18GHz ~ 40GHz	09/Feb/ 2018	08/Feb/2019
Horn Antenna	SCHWARZBECK	BBHA9120D	1531	1GHz ~ 18GHz	25/Apr/ 2017	24/Apr/2018
Amplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2017	23/Aug/2018
Loop Antenna	TESEQ	HLA 6120	31244	9 kHz~30 MHz	16/Mar/2018	15/Mar/2019

Instrument for Radiated Test (RX)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	30/Oct/2018	29/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	30/Oct/2018	29/Oct/2019
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	23/Apr/2018	19/Apr/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	10/Apr/2018	09/Apr/2019
Bilog Antenna with 5dB Pad	ETS	3142B & MTJ6102-05	00022055	26 MHz - 3 GHz	19/Nov/2018	18/Nov/2019
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	05/Sep/2018	04/Sep/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	28/Jan/2019	27/Jan/2020
RF Cable-high	SUHNER	SUCOFLEX 106	CB222	1GHz ~ 40GHz	28/Jan/2019	27/Jan/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz ~ 40GHz	06/Feb/ 2018	05/Feb/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	18/Apr/ 2018	17/Apr/2019

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	PoE Mode;TX		

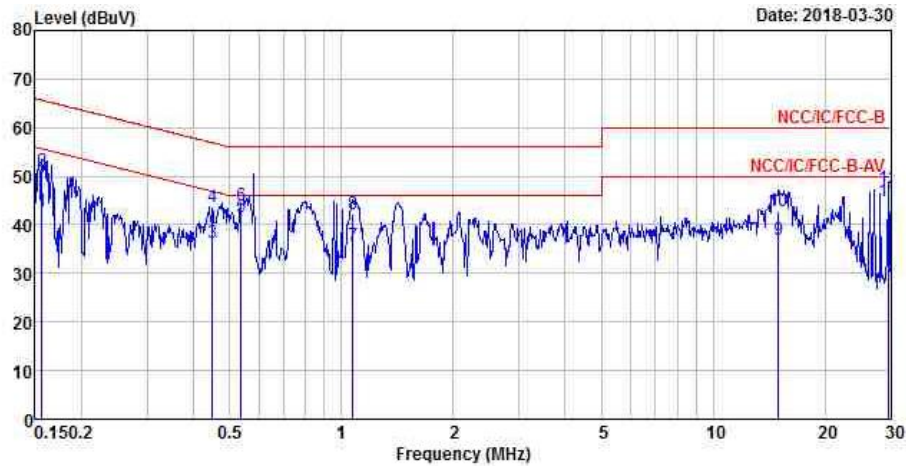


	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.1532	40.04	-15.78	55.82	30.37	9.63	0.04	Average
2	0.1532	51.04	-14.78	65.82	41.37	9.63	0.04	QP
3	0.1894	38.77	-15.29	54.06	29.14	9.62	0.01	Average
4	0.1894	48.96	-15.10	64.06	39.33	9.62	0.01	QP
5	0.5552	41.62	-4.38	46.00	31.95	9.61	0.06	Average
6	0.5552	45.44	-10.56	56.00	35.77	9.61	0.06	QP
7	1.0824	36.17	-9.83	46.00	26.55	9.62	0.00	Average
8	1.0824	42.66	-13.34	56.00	33.04	9.62	0.00	QP
9	22.3966	42.77	-7.23	50.00	32.97	9.70	0.10	Average
10	22.3966	44.87	-15.13	60.00	35.07	9.70	0.10	QP
11 MAX	29.6150	46.33	-3.67	50.00	36.36	9.69	0.28	Average
12	29.6150	47.69	-12.31	60.00	37.72	9.69	0.28	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	PoE Mode;TX		



	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.1565	42.81	-12.84	55.65	33.15	9.62	0.04	Average
2	0.1565	51.04	-14.61	65.65	41.38	9.62	0.04	QP
3	0.4492	36.41	-10.48	46.89	26.71	9.61	0.09	Average
4	0.4492	43.60	-13.29	56.89	33.90	9.61	0.09	QP
5 MAX	0.5378	41.55	-4.45	46.00	31.87	9.61	0.07	Average
6	0.5378	44.11	-11.89	56.00	34.43	9.61	0.07	QP
7	1.0710	35.73	-10.27	46.00	26.12	9.61	0.00	Average
8	1.0710	42.33	-13.67	56.00	32.72	9.61	0.00	QP
9	14.9860	36.88	-13.12	50.00	27.24	9.64	0.00	Average
10	14.9860	42.77	-17.23	60.00	33.13	9.64	0.00	QP
11	29.6088	44.79	-5.21	50.00	35.01	9.50	0.28	Average
12	29.6088	47.45	-12.55	60.00	37.67	9.50	0.28	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	PoE Mode;RX		

AC Conduction_Mode 3

30/01/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	156.734k	52.02	65.64	-13.62	19.48	Line	-	32.54	9.60	0.01	9.87			
AV	156.734k	34.52	55.64	-21.12	19.48	Line	-	15.04	9.60	0.01	9.87			
QP	182.408k	48.45	64.37	-15.92	19.48	Line	-	28.97	9.60	0.01	9.87			
AV	182.408k	32.72	54.37	-21.65	19.48	Line	-	13.24	9.60	0.01	9.87			
QP	206.437k	45.30	63.34	-18.04	19.48	Line	-	25.82	9.60	0.01	9.87			
AV	206.437k	30.47	53.34	-22.87	19.48	Line	-	10.99	9.60	0.01	9.87			
QP	475.482k	49.63	56.42	-6.79	19.48	Line	-	30.15	9.59	0.01	9.88			
AV	475.482k	43.02	46.42	-3.40	19.48	Line	"Worst"	23.54	9.59	0.01	9.88			
QP	18.564M	44.97	60.00	-15.03	19.63	Line	-	25.34	9.63	0.10	9.90			
AV	18.564M	42.55	50.00	-7.45	19.63	Line	-	22.92	9.63	0.10	9.90			
QP	22.575M	46.21	60.00	-13.79	19.62	Line	-	26.59	9.60	0.12	9.90			
AV	22.575M	45.08	50.00	-4.92	19.62	Line	-	25.46	9.60	0.12	9.90			

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

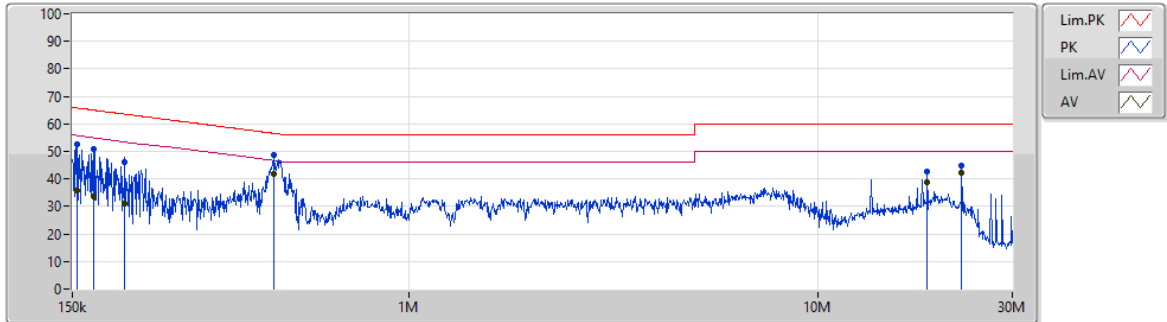
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	PoE Mode;RX		

AC Conduction_Mode 3

30/01/2019



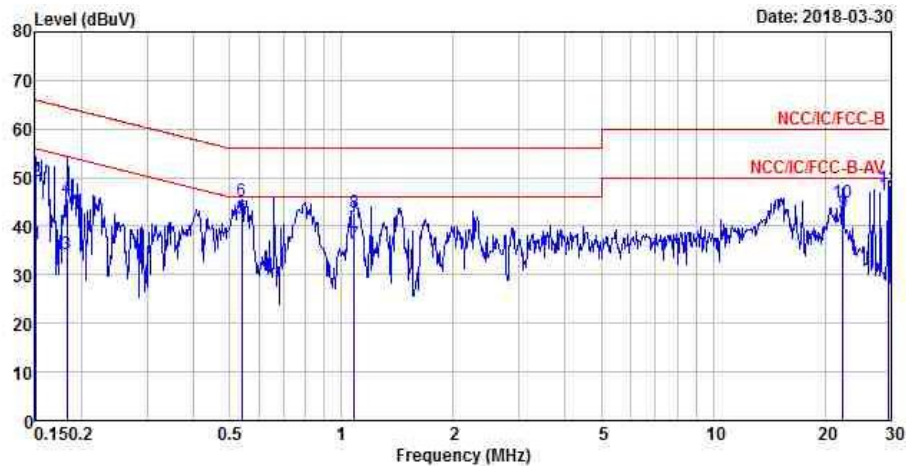
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	153.636k	52.70	65.81	-13.11	19.48	Neutral	-	33.22	9.60	0.01	9.87			
AV	153.636k	35.72	55.81	-20.09	19.48	Neutral	-	16.24	9.60	0.01	9.87			
QP	169.084k	50.76	65.01	-14.25	19.48	Neutral	-	31.28	9.60	0.01	9.87			
AV	169.084k	33.74	55.01	-21.27	19.48	Neutral	-	14.26	9.60	0.01	9.87			
QP	201.551k	45.92	63.55	-17.63	19.47	Neutral	-	26.45	9.59	0.01	9.87			
AV	201.551k	31.25	53.55	-22.30	19.47	Neutral	-	11.78	9.59	0.01	9.87			
QP	466.086k	48.74	56.59	-7.85	19.48	Neutral	-	29.26	9.59	0.01	9.88			
AV	466.086k	41.83	46.59	-4.76	19.48	Neutral	"Worst"	22.35	9.59	0.01	9.88			
QP	18.564M	42.84	60.00	-17.16	19.68	Neutral	-	23.16	9.68	0.10	9.90			
AV	18.564M	38.93	50.00	-11.07	19.68	Neutral	-	19.25	9.68	0.10	9.90			
QP	22.575M	45.04	60.00	-14.96	19.70	Neutral	-	25.34	9.68	0.12	9.90			
AV	22.575M	42.12	50.00	-7.88	19.70	Neutral	-	22.42	9.68	0.12	9.90			

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	PoE Mode;TX		

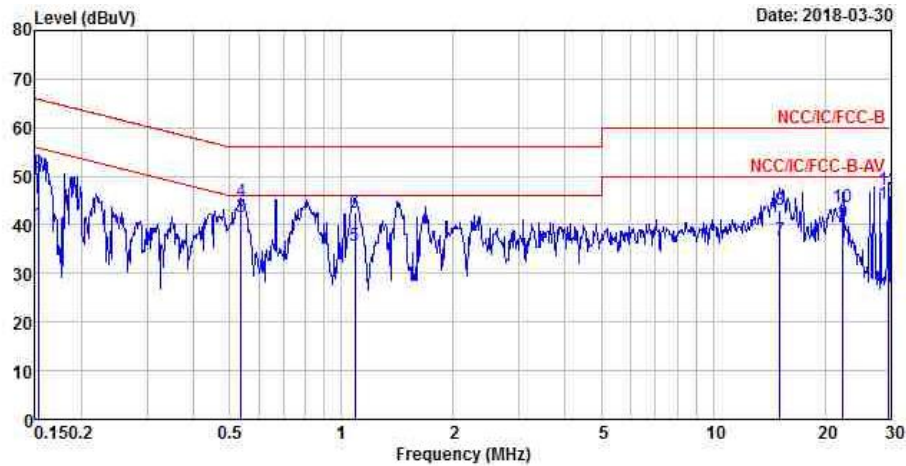


	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.1508	36.44	-19.52	55.96	26.77	9.63	0.04	Average
2	0.1508	49.29	-16.67	65.96	39.62	9.63	0.04	QP
3	0.1825	34.17	-20.20	54.37	24.54	9.62	0.01	Average
4	0.1825	45.87	-18.50	64.37	36.24	9.62	0.01	QP
5	0.5382	41.77	-4.23	46.00	32.09	9.61	0.07	Average
6	0.5382	45.09	-10.91	56.00	35.41	9.61	0.07	QP
7	1.0824	36.28	-9.72	46.00	26.66	9.62	0.00	Average
8	1.0824	42.72	-13.28	56.00	33.10	9.62	0.00	QP
9	22.3966	42.77	-7.23	50.00	32.97	9.70	0.10	Average
10	22.3966	44.73	-15.27	60.00	34.93	9.70	0.10	QP
11 MAX	29.6150	46.29	-3.71	50.00	36.32	9.69	0.28	Average
12	29.6150	47.69	-12.31	60.00	37.72	9.69	0.28	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	PoE Mode;TX		



	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1532	40.16	-15.66	55.82	30.50	9.62	0.04	Average
2	0.1532	50.63	-15.19	65.82	40.97	9.62	0.04	QP
3 MAX	0.5378	41.70	-4.30	46.00	32.02	9.61	0.07	Average
4	0.5378	45.01	-10.99	56.00	35.33	9.61	0.07	QP
5	1.0881	35.67	-10.33	46.00	26.06	9.61	0.00	Average
6	1.0881	42.45	-13.55	56.00	32.84	9.61	0.00	QP
7	15.1457	36.99	-13.01	50.00	27.34	9.64	0.01	Average
8	15.1457	43.19	-16.81	60.00	33.54	9.64	0.01	QP
9	22.3954	40.41	-9.59	50.00	30.72	9.59	0.10	Average
10	22.3954	43.70	-16.30	60.00	34.01	9.59	0.10	QP
11	29.6138	44.29	-5.71	50.00	34.51	9.50	0.28	Average
12	29.6138	47.15	-12.85	60.00	37.37	9.50	0.28	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

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	29.95M	16.567M	16M6D1D	19.6M	16.342M
802.11ac VHT20_Nss1,(MCS0)_4TX	34.05M	17.741M	17M7D1D	19.95M	17.566M
802.11ac VHT40_Nss1,(MCS0)_4TX	71.65M	36.232M	36M2D1D	40.05M	35.932M
802.11ac VHT80_Nss1,(MCS0)_4TX	81.1M	75.162M	75M2D1D	79.7M	74.863M
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port1&Port2)	80.3M	75.162M	75M2D1D	80.3M	75.062M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	20.125M	16.392M	16M4D1D	19.475M	16.317M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.45M	17.566M	17M6D1D	19.775M	17.516M
802.11ac VHT40_Nss1,(MCS0)_4TX	41.6M	36.082M	36M1D1D	39.9M	35.932M
802.11ac VHT80_Nss1,(MCS0)_4TX	81.3M	75.162M	75M2D1D	79.9M	75.062M
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port3&Port4)	80.3M	5.327681G	5G33D1D	80.3M	5.327681G
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	20.2M	16.417M	16M4D1D	14.775M	13.148M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.5M	17.566M	17M6D1D	14.925M	13.748M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.85M	36.132M	36M1D1D	35.14M	32.709M
802.11ac VHT80_Nss1,(MCS0)_4TX	87.45M	75.262M	75M3D1D	74.85M	71.814M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	80.7M	75.412M	75M4D1D	80.1M	75.112M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	15.275M	22.614M	22M6D1D	3.14M	3.558M
802.11ac VHT20_Nss1,(MCS0)_4TX	15.925M	19.74M	19M7D1D	3.5M	4.038M
802.11ac VHT40_Nss1,(MCS0)_4TX	35.1M	39.38M	39M4D1D	3.14M	3.918M
802.11ac VHT80_Nss1,(MCS0)_4TX	75M	75.462M	75M5D1D	3.14M	28.386M

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_TnomVnom	Pass	Inf	19.6M	16.367M	24.425M	16.442M	19.975M	16.367M	19.875M	16.342M
5200MHz_TnomVnom	Pass	Inf	29.95M	16.492M	28.25M	16.492M	27.025M	16.417M	28.625M	16.442M
5240MHz_TnomVnom	Pass	Inf	26.725M	16.467M	28.525M	16.567M	26.775M	16.392M	27M	16.442M
5260MHz_TnomVnom	Pass	Inf	19.85M	16.317M	19.75M	16.342M	20.125M	16.367M	19.625M	16.342M
5300MHz_TnomVnom	Pass	Inf	19.475M	16.367M	19.65M	16.342M	19.875M	16.342M	19.775M	16.392M
5320MHz_TnomVnom	Pass	Inf	19.525M	16.367M	19.7M	16.392M	19.9M	16.392M	19.725M	16.392M
5500MHz_TnomVnom	Pass	Inf	19.825M	16.392M	19.7M	16.417M	20.125M	16.367M	19.7M	16.392M
5580MHz_TnomVnom	Pass	Inf	19.6M	16.417M	19.75M	16.367M	20.2M	16.392M	19.7M	16.367M
5700MHz_TnomVnom	Pass	Inf	19.625M	16.367M	19.675M	16.367M	20M	16.367M	19.6M	16.367M
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	14.85M	13.163M	14.88M	13.178M	14.91M	13.148M	14.775M	13.163M
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.14M	3.558M	3.16M	3.678M	3.14M	3.658M	3.16M	3.698M
5745MHz_TnomVnom	Pass	500k	15M	17.191M	13.825M	18.266M	15.05M	17.316M	15.1M	17.316M
5785MHz_TnomVnom	Pass	500k	15.05M	16.692M	15.075M	19.215M	14.95M	17.091M	14.4M	22.614M
5825MHz_TnomVnom	Pass	500k	15M	16.517M	15.075M	16.792M	15.05M	16.542M	15.275M	16.742M
802.11ac_VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	20.525M	17.566M	19.95M	17.566M	19.95M	17.591M	20.25M	17.591M
5200MHz_TnomVnom	Pass	Inf	33.75M	17.641M	34.05M	17.741M	31.225M	17.641M	28.975M	17.641M
5240MHz_TnomVnom	Pass	Inf	30.3M	17.641M	33.325M	17.691M	27.575M	17.591M	27.725M	17.641M
5260MHz_TnomVnom	Pass	Inf	20.4M	17.541M	19.95M	17.541M	19.85M	17.516M	20.25M	17.541M
5300MHz_TnomVnom	Pass	Inf	20.45M	17.566M	19.875M	17.541M	19.925M	17.516M	20.3M	17.541M
5320MHz_TnomVnom	Pass	Inf	20.45M	17.566M	19.775M	17.541M	19.925M	17.541M	20.25M	17.516M
5500MHz_TnomVnom	Pass	Inf	20.35M	17.541M	19.925M	17.516M	19.85M	17.541M	20.25M	17.566M
5580MHz_TnomVnom	Pass	Inf	20.5M	17.541M	19.9M	17.516M	19.95M	17.541M	20.3M	17.566M
5700MHz_TnomVnom	Pass	Inf	20.425M	17.566M	19.95M	17.566M	20M	17.541M	20.225M	17.516M
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	15.12M	13.793M	14.925M	13.748M	15M	13.778M	14.97M	13.763M
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.5M	4.038M	3.76M	4.058M	3.78M	4.058M	3.76M	4.058M
5745MHz_TnomVnom	Pass	500k	14.975M	17.891M	15.575M	18.216M	14.925M	18.091M	15.025M	17.891M
5785MHz_TnomVnom	Pass	500k	15.1M	17.941M	15.925M	19.74M	15.075M	18.266M	15.1M	18.341M
5825MHz_TnomVnom	Pass	500k	15.025M	17.916M	15.925M	19.315M	15.075M	17.966M	15.9M	18.266M
802.11ac_VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	Inf	40.4M	35.932M	40.05M	35.982M	40.15M	35.932M	40.25M	35.932M
5230MHz_TnomVnom	Pass	Inf	68M	36.132M	71.65M	36.232M	54.8M	36.132M	69.15M	36.132M
5270MHz_TnomVnom	Pass	Inf	40.8M	35.932M	39.9M	36.032M	40.55M	36.032M	40.45M	35.982M
5310MHz_TnomVnom	Pass	Inf	41.6M	36.082M	40.1M	35.932M	40.65M	36.082M	40.5M	35.932M
5510MHz_TnomVnom	Pass	Inf	40.85M	35.932M	39.9M	35.982M	40.5M	35.932M	40.4M	35.932M
5550MHz_TnomVnom	Pass	Inf	40.5M	35.982M	40M	36.032M	40.15M	35.932M	40.3M	35.982M
5670MHz_TnomVnom	Pass	Inf	40.3M	35.982M	39.8M	36.082M	40.15M	35.982M	40.45M	36.132M
5710MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	35.63M	32.814M	35.14M	32.709M	35.175M	32.779M	35.14M	32.779M
5710MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.14M	4.858M	3.14M	4.138M	3.14M	3.918M	3.14M	6.037M

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)
5755MHz_TnomVnom	Pass	500k	35.1M	37.831M	35.1M	37.781M	35.1M	37.381M	35.05M	36.932M
5795MHz_TnomVnom	Pass	500k	35M	36.732M	34.4M	39.38M	35.1M	36.882M	33.2M	37.981M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	Inf	81.1M	75.062M	79.7M	75.162M	80.1M	75.162M	79.9M	74.863M
5290MHz_TnomVnom	Pass	Inf	81.3M	75.162M	79.9M	75.062M	79.9M	75.062M	80.2M	75.162M
5530MHz_TnomVnom	Pass	Inf	81.2M	75.062M	79.7M	75.162M	79.9M	74.863M	79.9M	74.863M
5610MHz_TnomVnom	Pass	Inf	81.3M	75.162M	79.5M	75.162M	80.5M	75.162M	80M	75.262M
5690MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	87.45M	72.114M	75.225M	71.814M	76.35M	71.889M	74.85M	71.964M
5690MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.14M	30.805M	3.14M	30.405M	3.14M	28.386M	3.16M	32.404M
5775MHz_TnomVnom	Pass	500k	68.9M	75.462M	66.2M	75.162M	61.3M	75.262M	75M	75.462M
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port1&Port2)	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz_TnomVnom	Pass	Inf	80.3M	75.062M	80.3M	75.162M				
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port3&Port4)	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz_TnomVnom	Pass	Inf					80.3M	75.062M	80.3M	75.162M
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz_TnomVnom	Pass	Inf	80.1M	75.412M	80.25M	75.262M	80.7M	75.262M	80.4M	75.112M

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

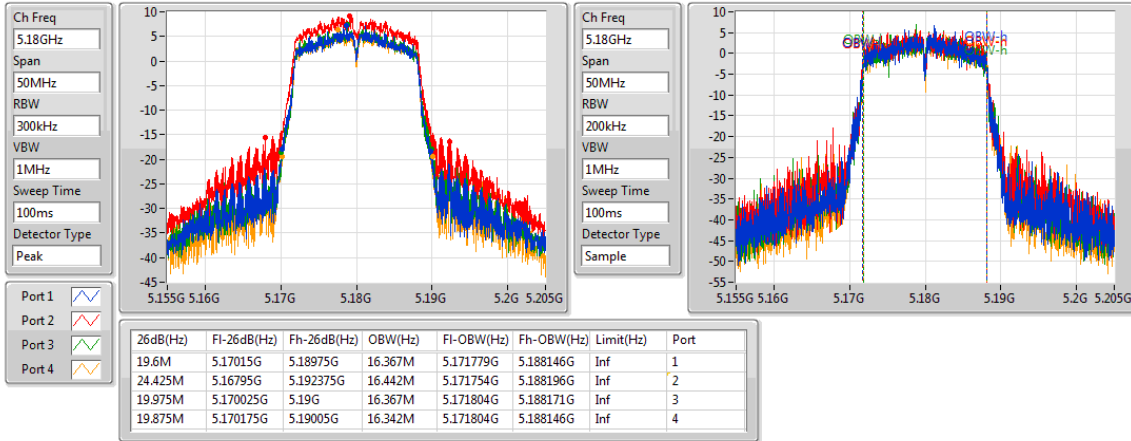
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX

EBW

5180MHz

20/03/2018

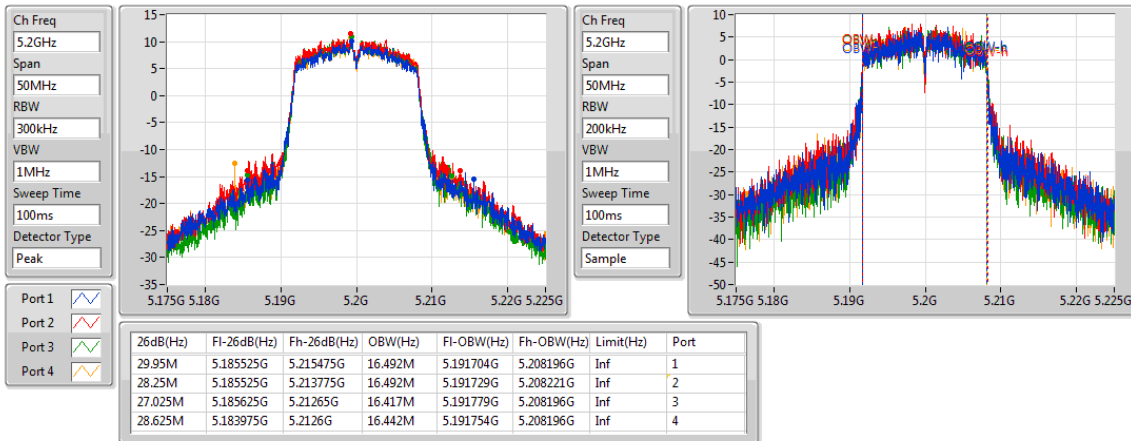


802.11a_Nss1,(6Mbps)_4TX

EBW

5200MHz

14/03/2018

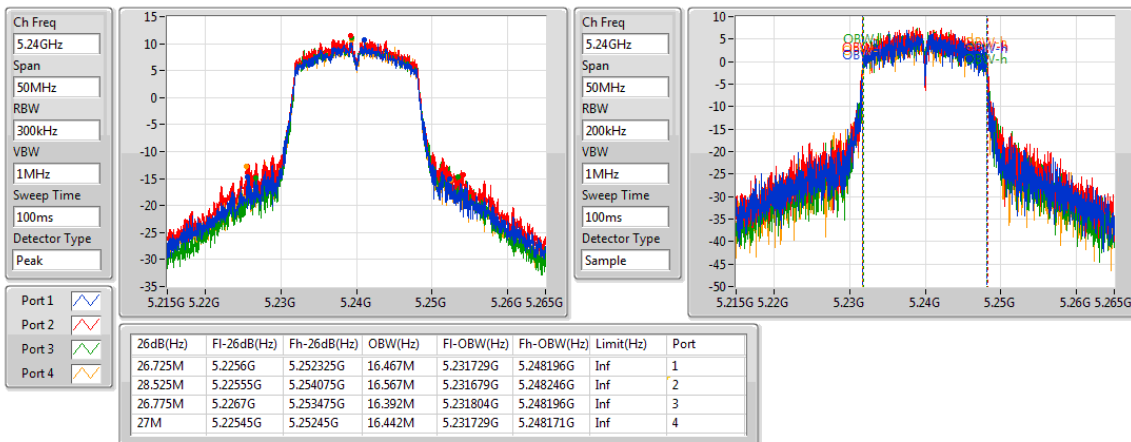


802.11a_Nss1,(6Mbps)_4TX

EBW

5240MHz

14/03/2018

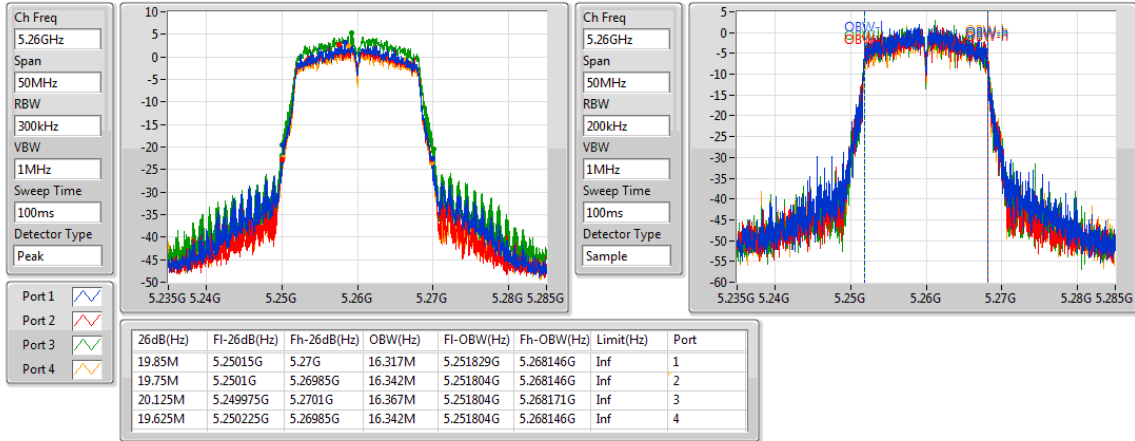


802.11a_Nss1,(6Mbps)_4TX

EBW

5260MHz

14/03/2018

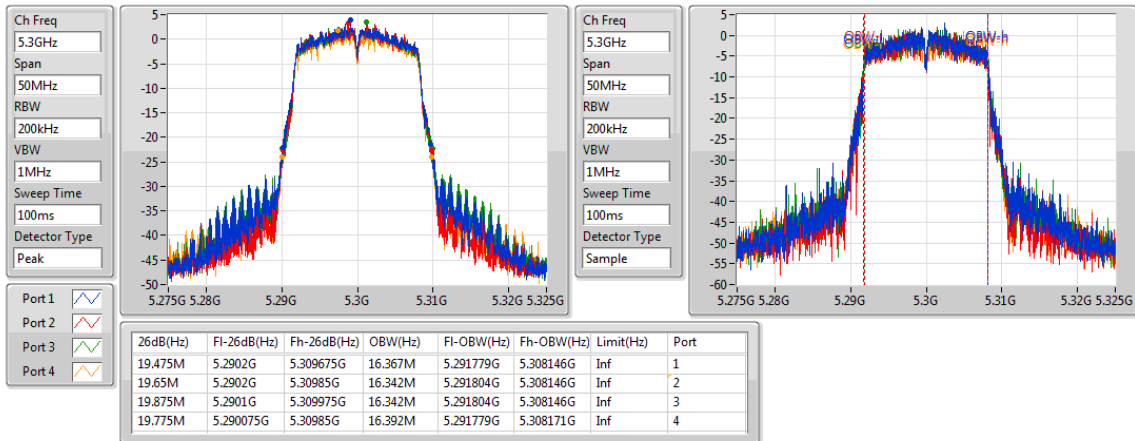


802.11a_Nss1,(6Mbps)_4TX

EBW

5300MHz

14/03/2018

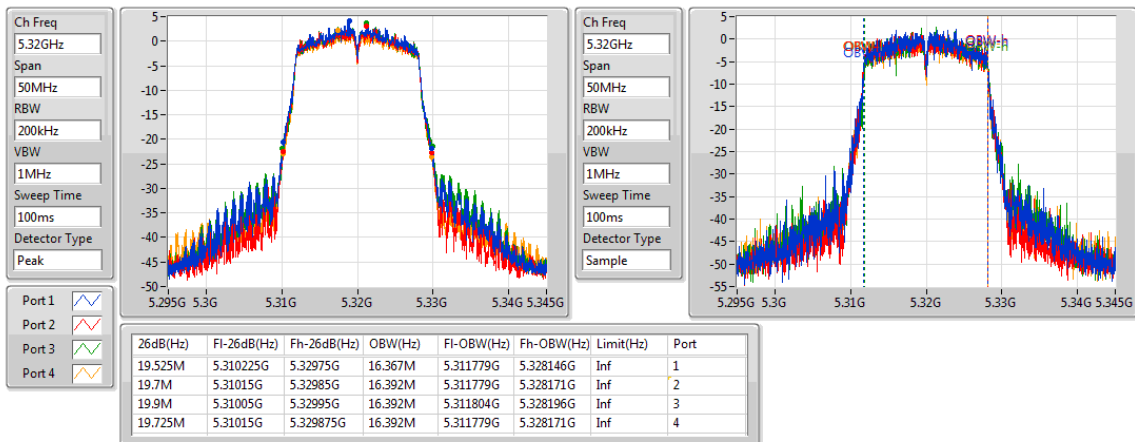


802.11a_Nss1,(6Mbps)_4TX

EBW

5320MHz

14/03/2018

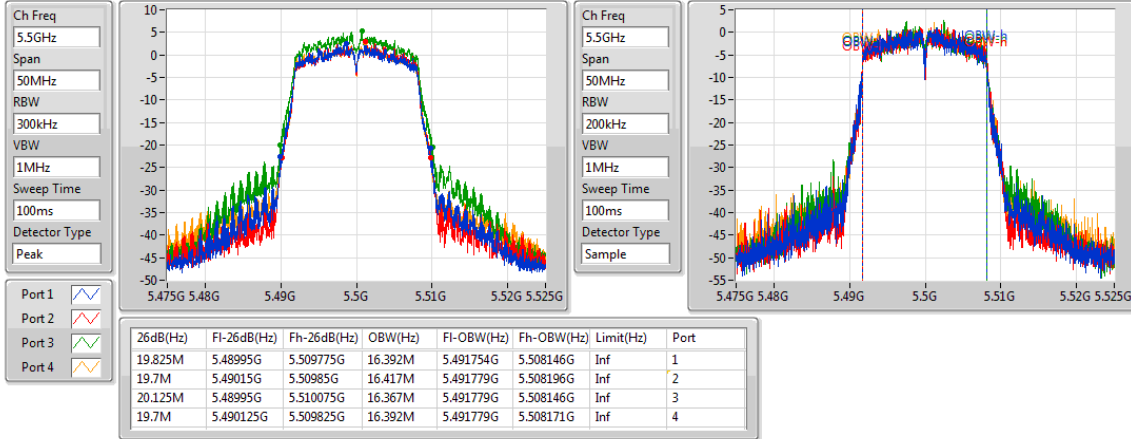


802.11a_Nss1,(6Mbps)_4TX

EBW

5500MHz

14/03/2018

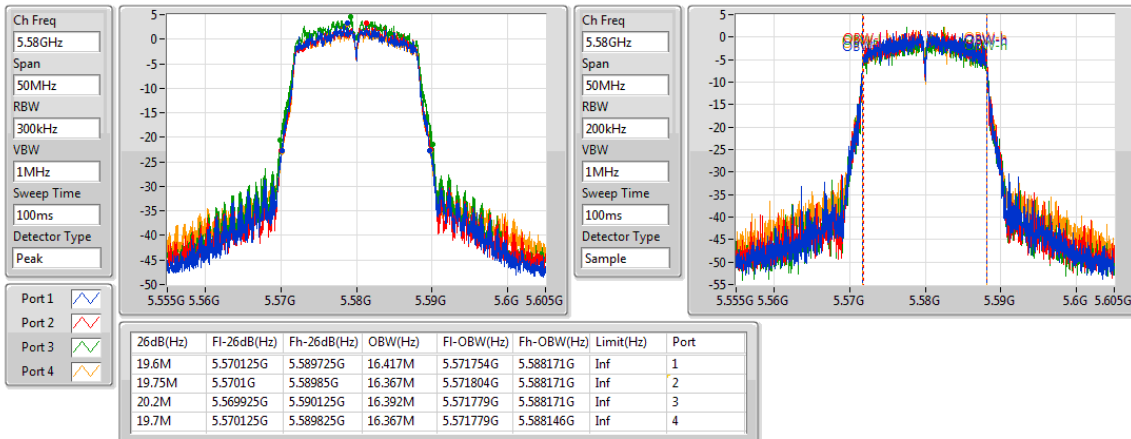


802.11a_Nss1,(6Mbps)_4TX

EBW

5580MHz

14/03/2018

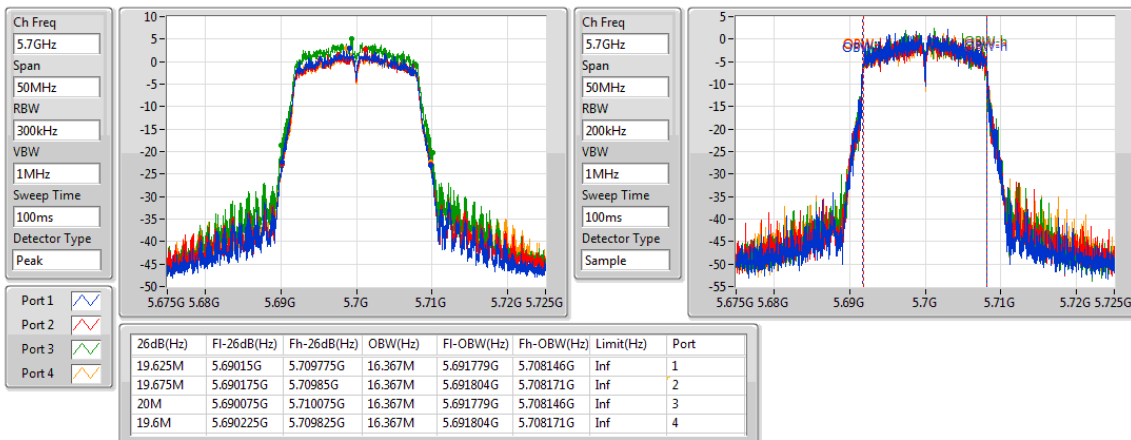


802.11a_Nss1,(6Mbps)_4TX

EBW

5700MHz

14/03/2018

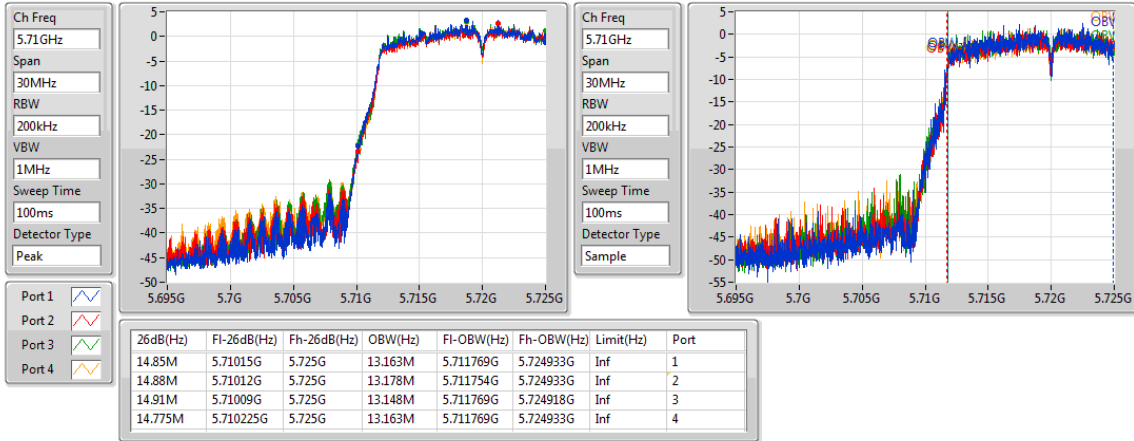


802.11a_Nss1,(6Mbps)_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

14/03/2018

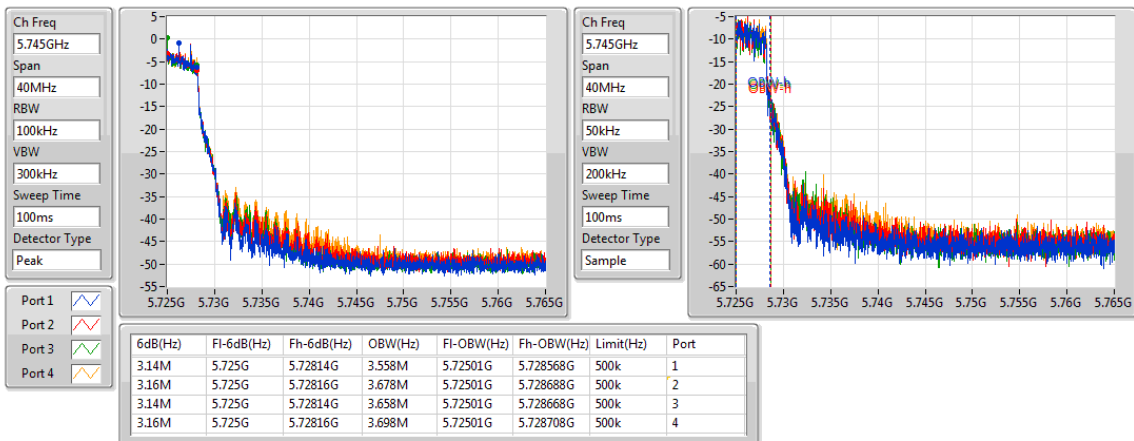


802.11a_Nss1,(6Mbps)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

14/03/2018

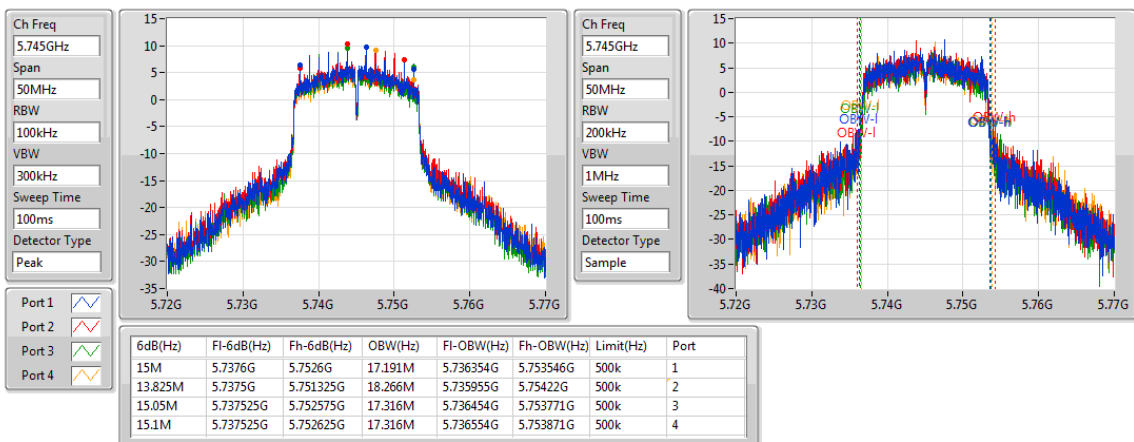


802.11a_Nss1,(6Mbps)_4TX

EBW

5745MHz

14/03/2018



802.11a_Nss1,(6Mbps)_4TX

EBW

5785MHz

14/03/2018

Ch Freq
5.785GHz

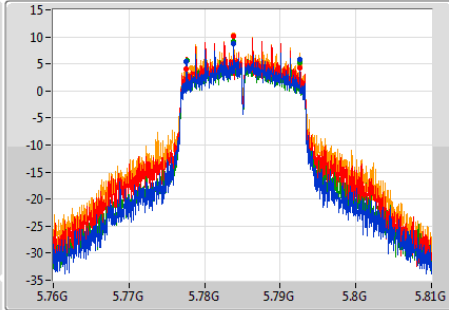
Span
50MHz

RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak



Ch Freq
5.785GHz

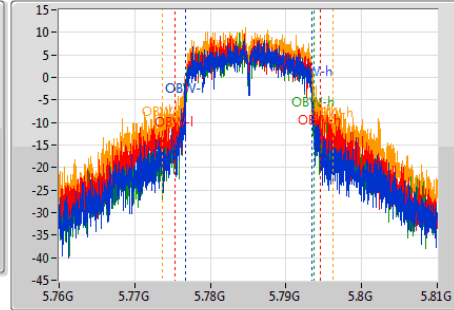
Span
50MHz

RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.05M	5.777575G	5.792625G	16.692M	5.776704G	5.793396G	500k	1
15.075M	5.777525G	5.7926G	19.215M	5.77538G	5.794595G	500k	2
14.95M	5.77625G	5.792575G	17.091M	5.776679G	5.793771G	500k	3
14.4M	5.77825G	5.792625G	22.614M	5.773656G	5.796269G	500k	4

802.11a_Nss1,(6Mbps)_4TX

EBW

5825MHz

20/03/2018

Ch Freq
5.825GHz

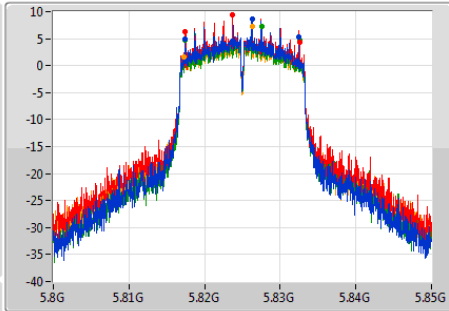
Span
50MHz

RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak



Ch Freq
5.825GHz

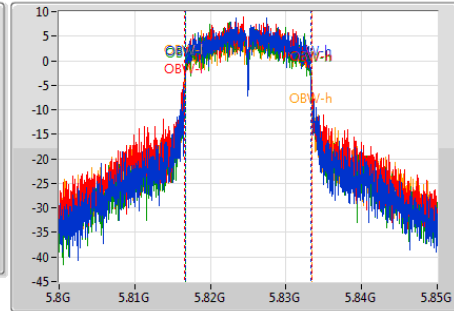
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15M	5.817475G	5.832475G	16.517M	5.816704G	5.833221G	500k	1
15.075M	5.817475G	5.83255G	16.792M	5.816579G	5.833371G	500k	2
15.05M	5.817475G	5.832525G	16.542M	5.816704G	5.833246G	500k	3
15.275M	5.81725G	5.832525G	16.742M	5.816629G	5.833371G	500k	4

802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5180MHz

20/03/2018

Ch Freq
5.18GHz

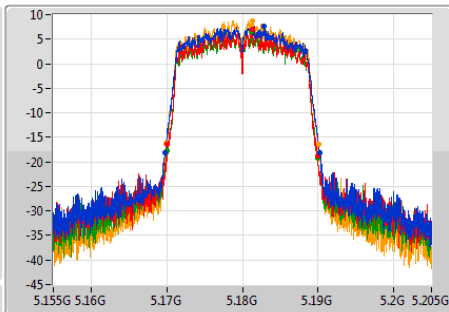
Span
50MHz

RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



Ch Freq
5.18GHz

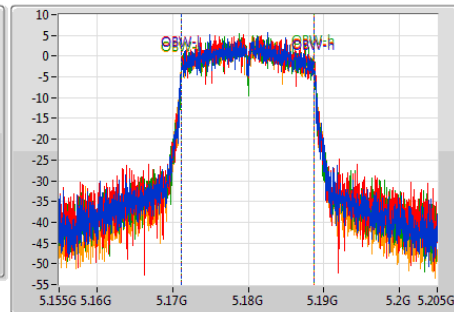
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

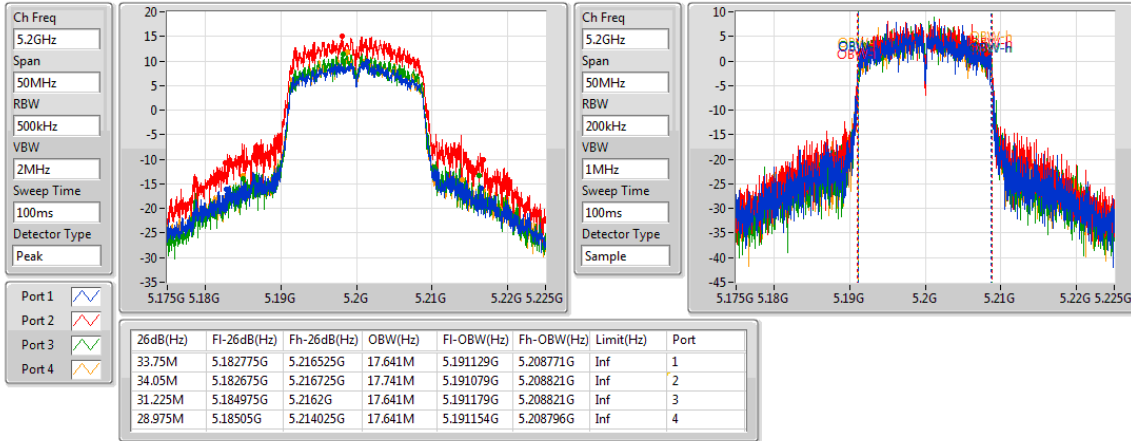
Detector Type
Sample



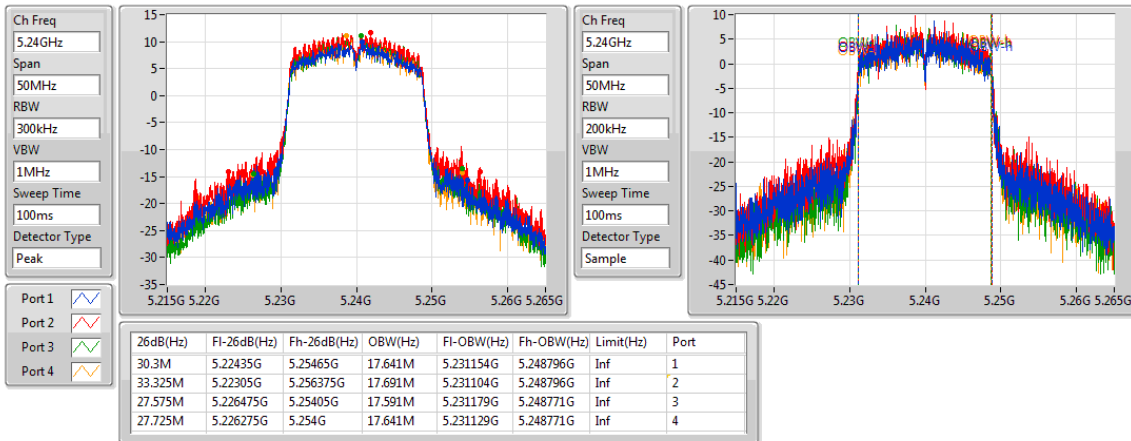
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.525M	5.169725G	5.19025G	17.566M	5.171179G	5.188746G	Inf	1
19.95M	5.170025G	5.189975G	17.566M	5.171179G	5.188746G	Inf	2
19.95M	5.169975G	5.189925G	17.591M	5.171179G	5.188771G	Inf	3
20.25M	5.169875G	5.190125G	17.591M	5.171179G	5.188771G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5200MHz

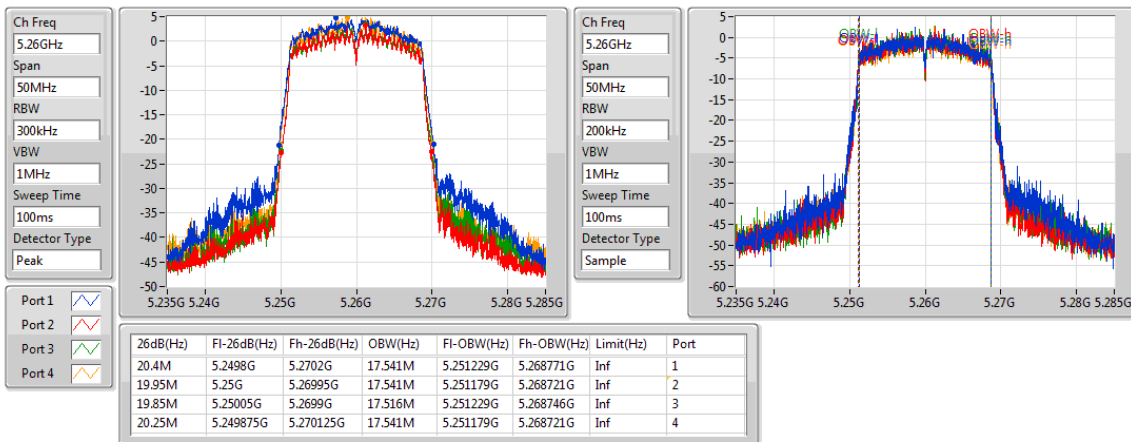
14/03/2018


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5240MHz

14/03/2018


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5260MHz

14/03/2018

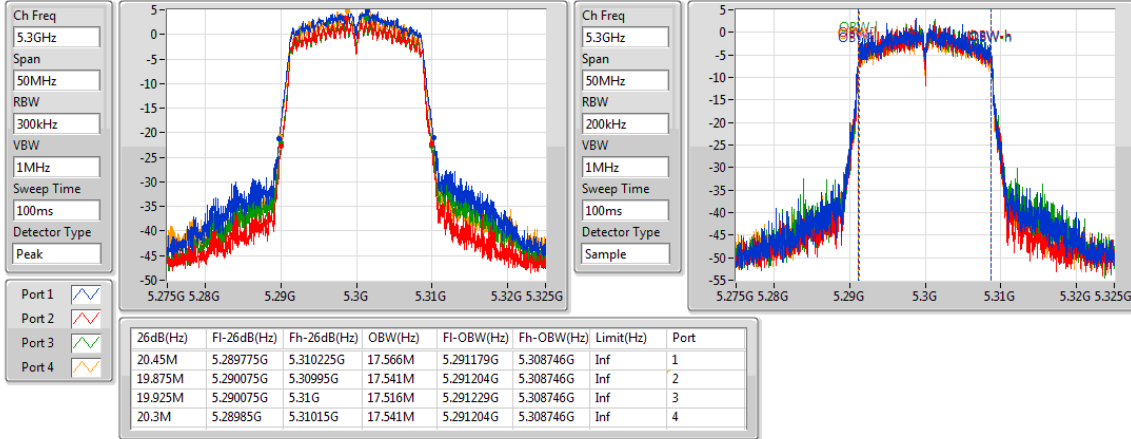


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5300MHz

14/03/2018

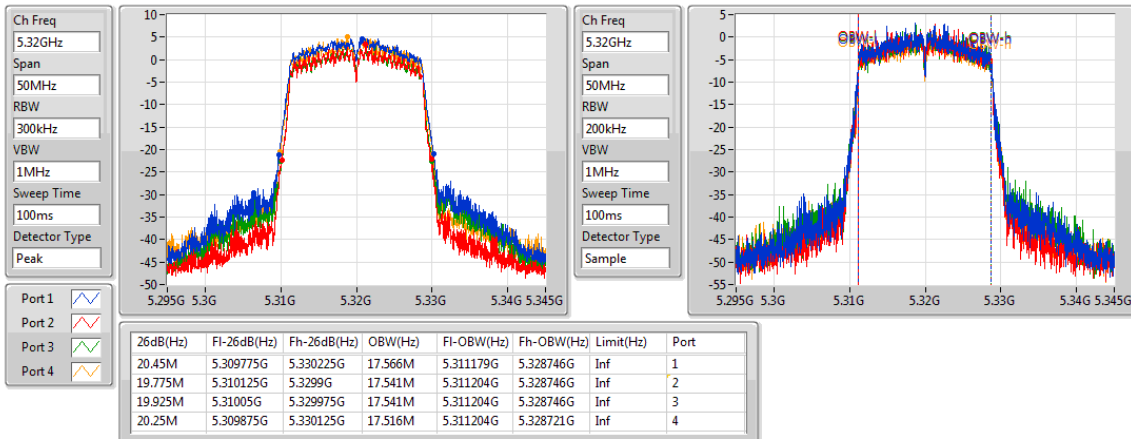


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5320MHz

14/03/2018

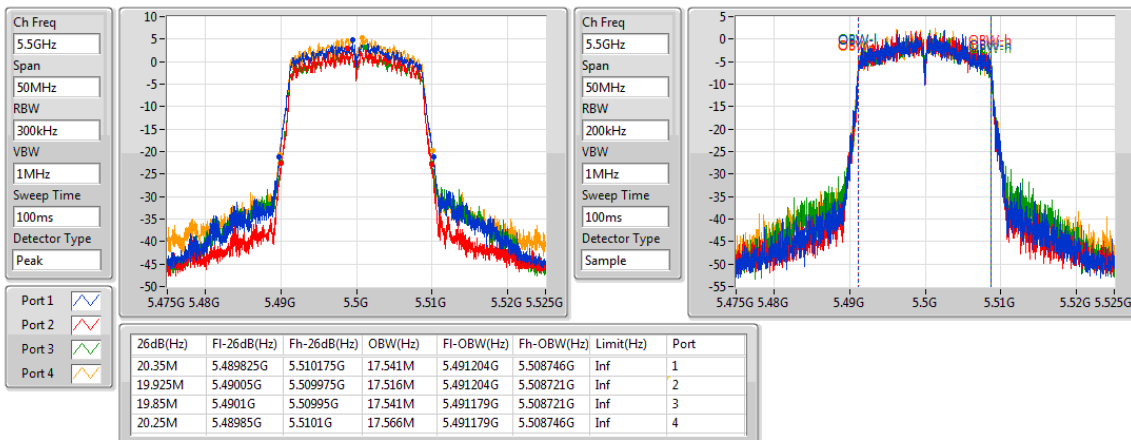


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

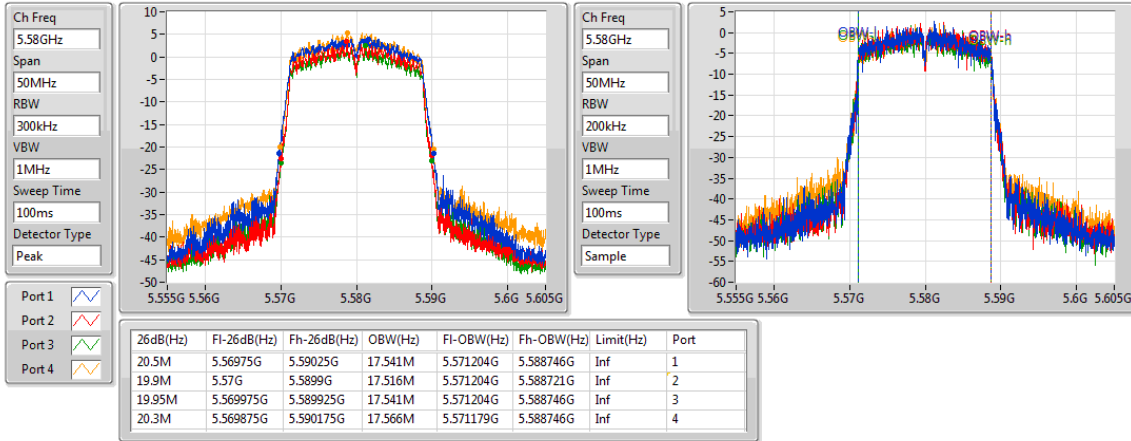
5500MHz

14/03/2018

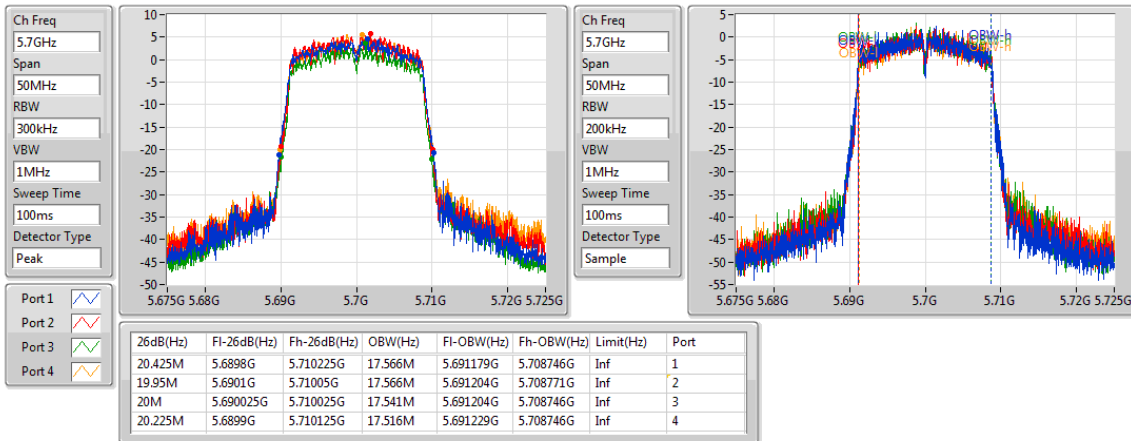


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5580MHz

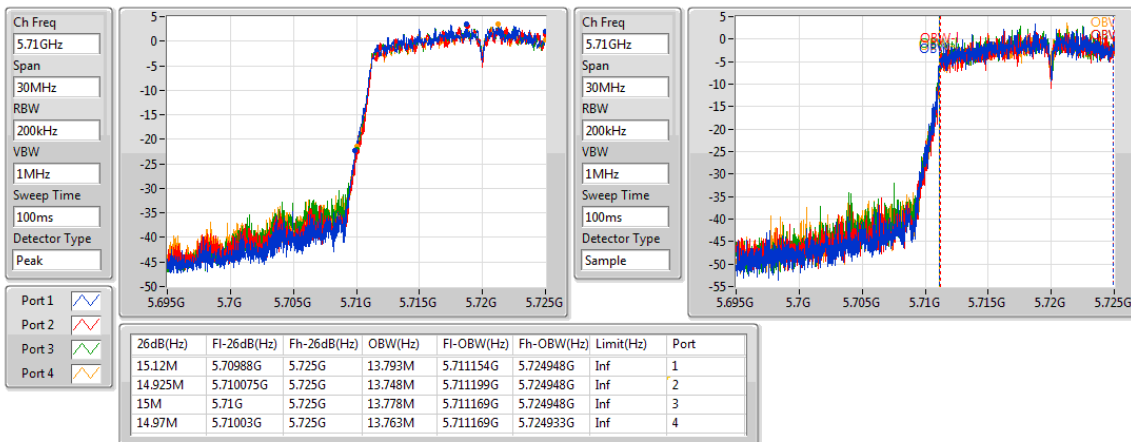
14/03/2018


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5700MHz

14/03/2018

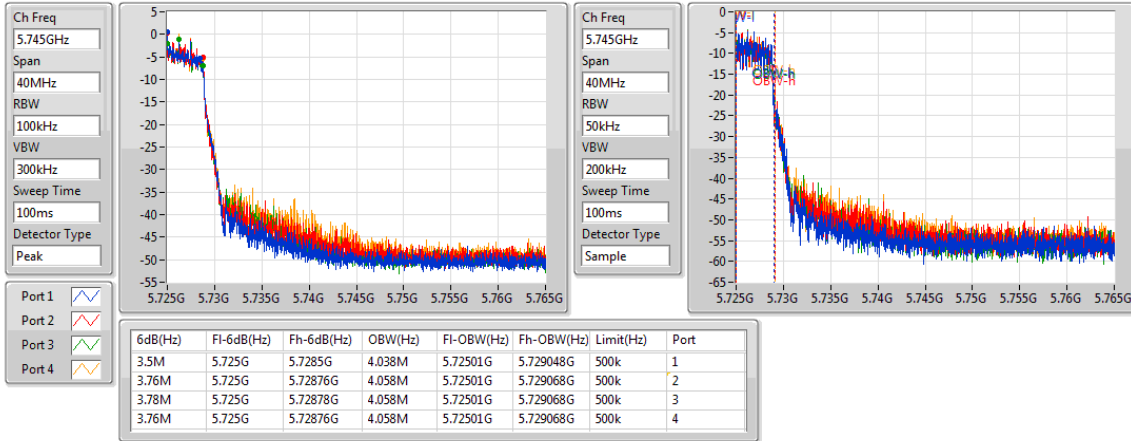

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5720MHz Straddle 5.47-5.725GHz

14/03/2018

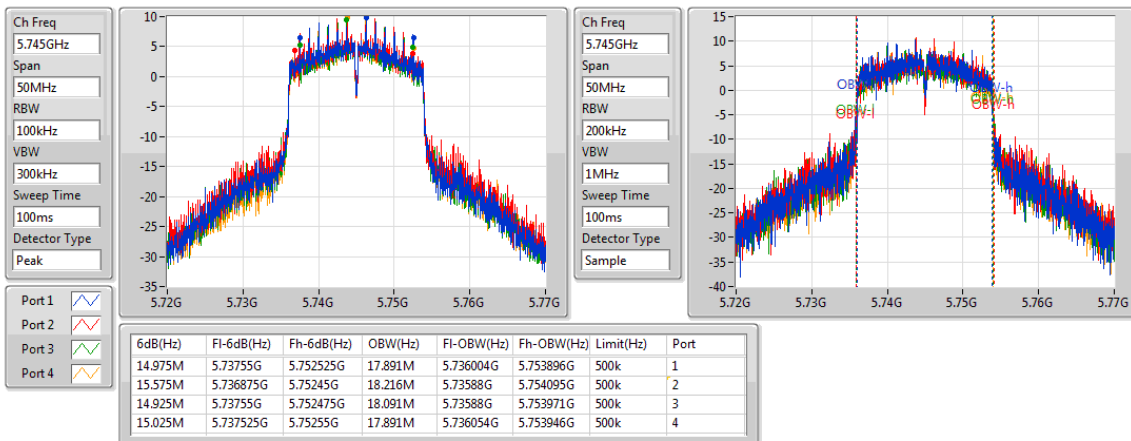


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5720MHz Straddle 5.725-5.85GHz

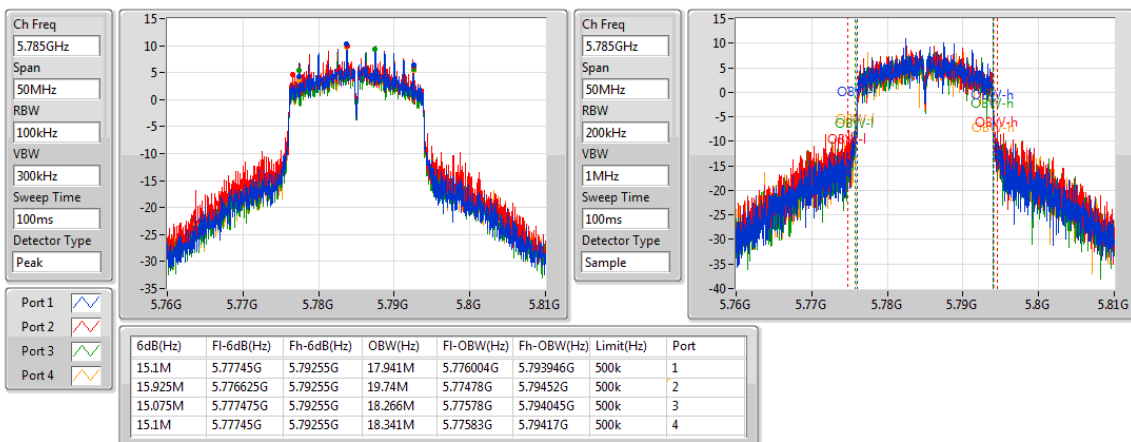
14/03/2018


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5745MHz

14/03/2018


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5785MHz

14/03/2018



802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5825MHz

14/03/2018

Ch Freq
5.825GHz

Span
50MHz

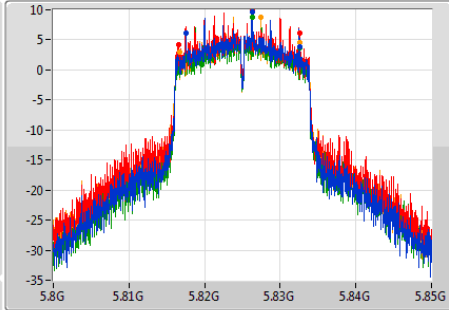
RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.825GHz

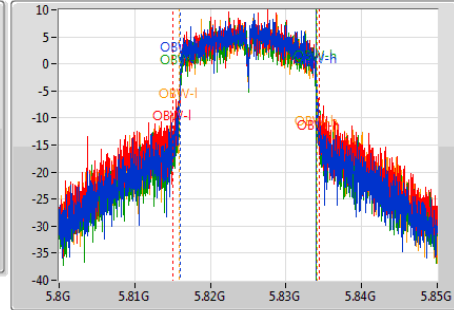
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.025M	5.81755G	5.83255G	17.916M	5.816004G	5.833921G	500k	1
15.925M	5.816625G	5.83255G	19.315M	5.81508G	5.834395G	500k	2
15.075M	5.8175G	5.83255G	17.966M	5.816029G	5.833996G	500k	3
15.9M	5.81665G	5.83255G	18.266M	5.815855G	5.83412G	500k	4

802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5190MHz

20/03/2018

Ch Freq
5.19GHz

Span
100MHz

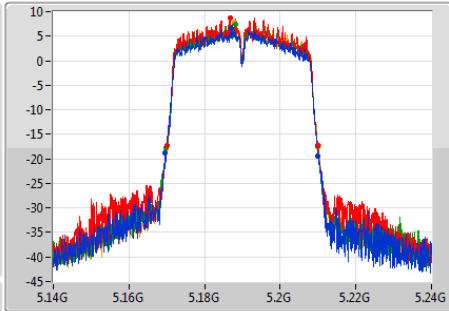
RBW
500kHz

VBW
2MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.19GHz

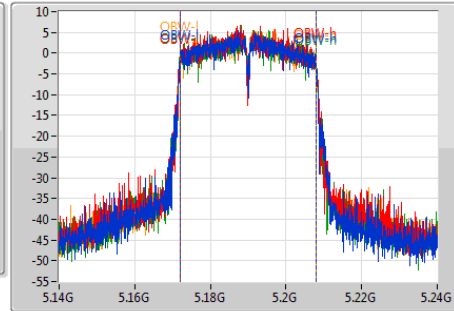
Span
100MHz

RBW
500kHz

VBW
2MHz

Sweep Time
100ms

Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.4M	5.16965G	5.21005G	35.932M	5.171959G	5.207891G	Inf	1
40.05M	5.16995G	5.21G	35.982M	5.171959G	5.207941G	Inf	2
40.15M	5.16985G	5.21G	35.932M	5.171959G	5.207891G	Inf	3
40.25M	5.16985G	5.2101G	35.932M	5.171959G	5.207891G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5230MHz

20/03/2018

Ch Freq
5.23GHz

Span
100MHz

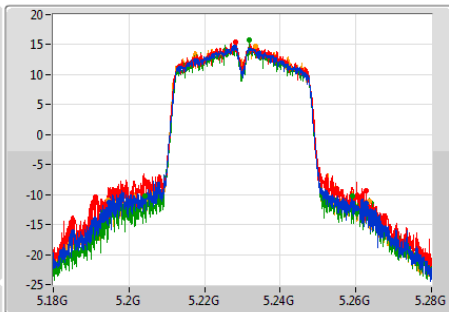
RBW
1MHz

VBW
3MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.23GHz

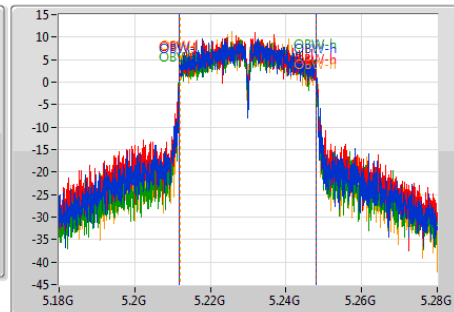
Span
100MHz

RBW
500kHz

VBW
2MHz

Sweep Time
100ms

Detector Type
Sample



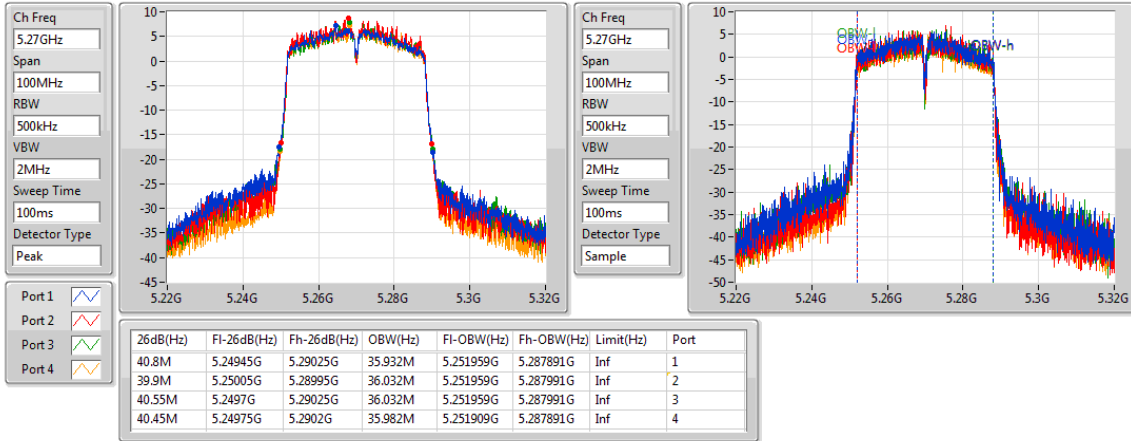
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
68M	5.19475G	5.26275G	36.132M	5.211859G	5.247991G	Inf	1
71.65M	5.1911G	5.26275G	36.232M	5.211809G	5.248041G	Inf	2
54.8M	5.2042G	5.259G	36.132M	5.211859G	5.247991G	Inf	3
69.15M	5.19445G	5.2636G	36.132M	5.211909G	5.248041G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5270MHz

14/03/2018

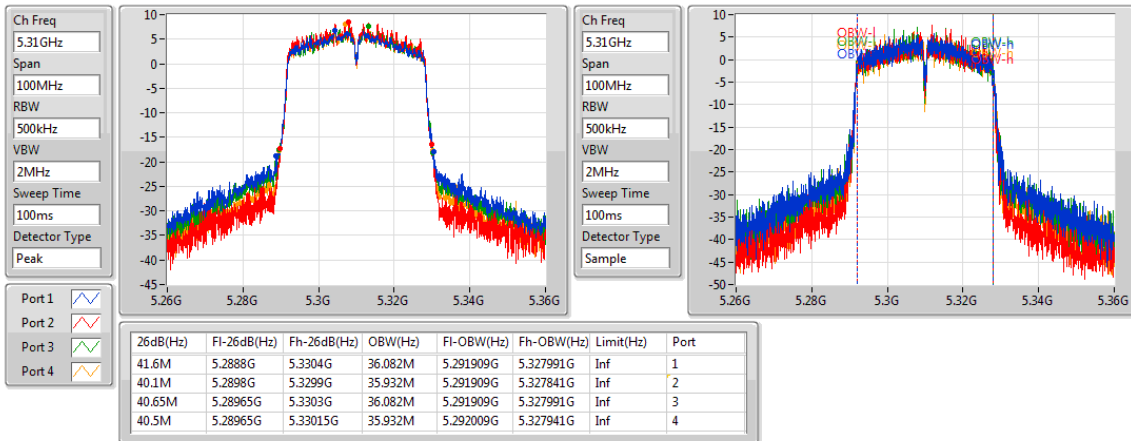


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5310MHz

31/03/2018

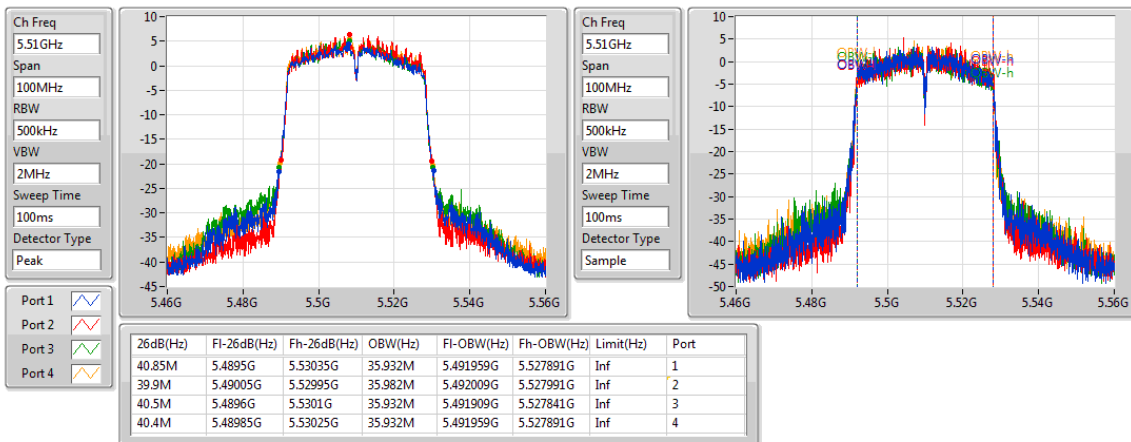


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5510MHz

14/03/2018

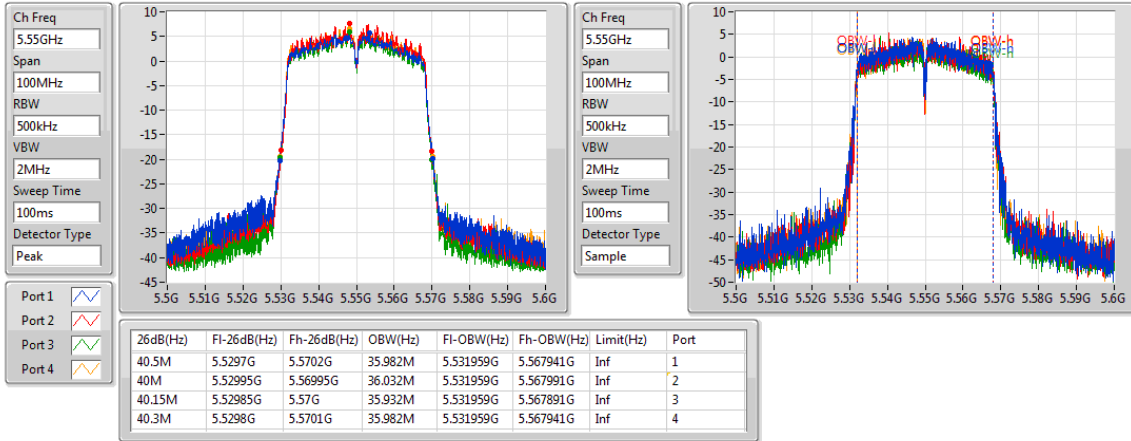


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5550MHz

14/03/2018

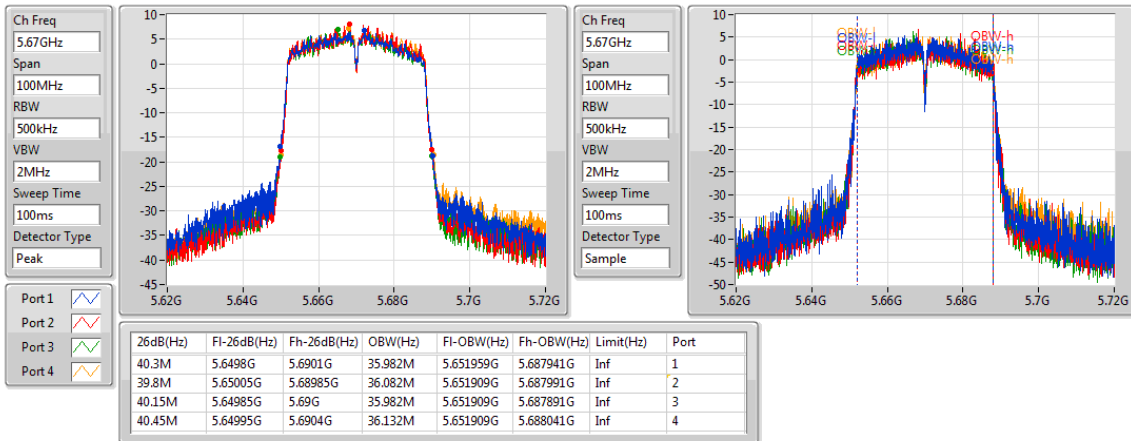


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5670MHz

14/03/2018

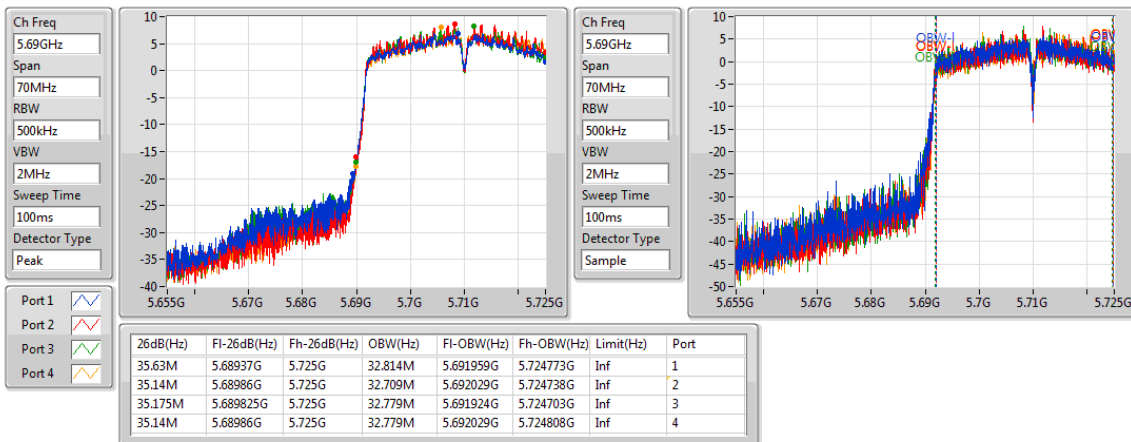


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.47-5.725GHz

14/03/2018

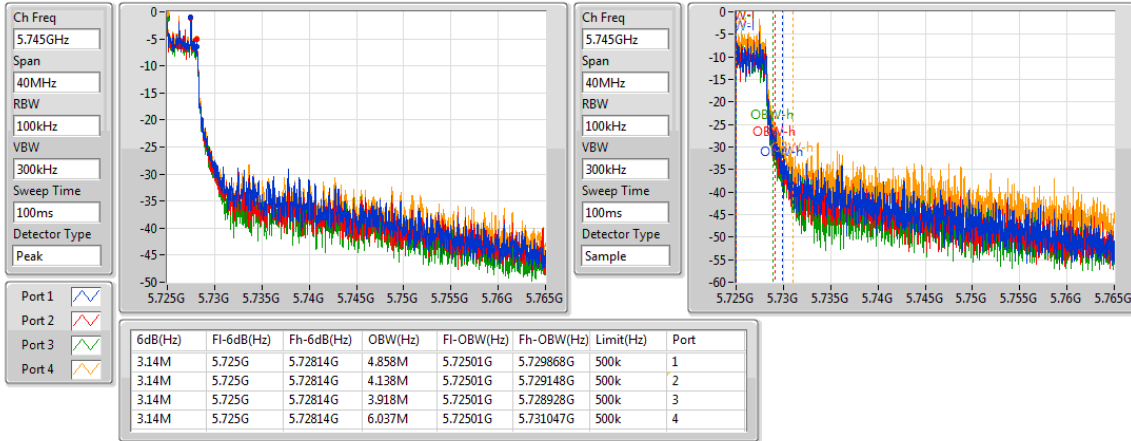


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

14/03/2018

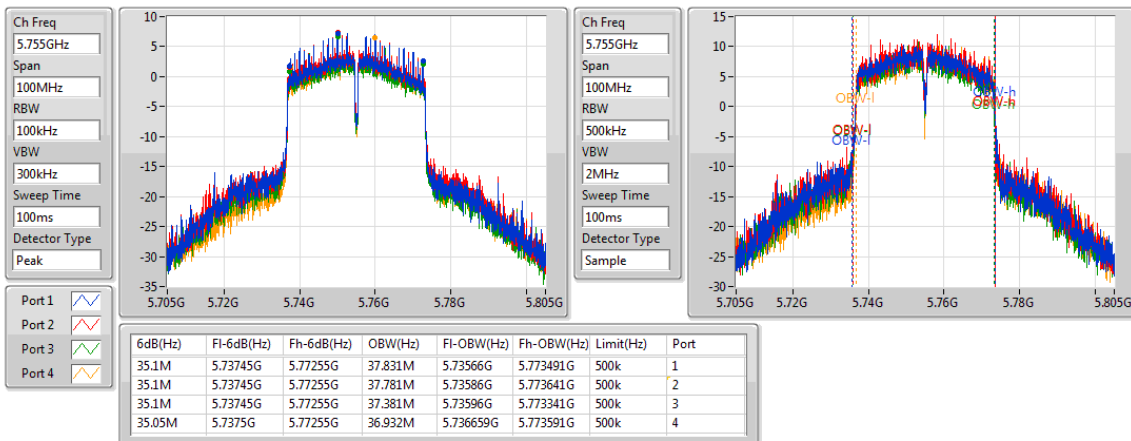


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5755MHz

14/03/2018

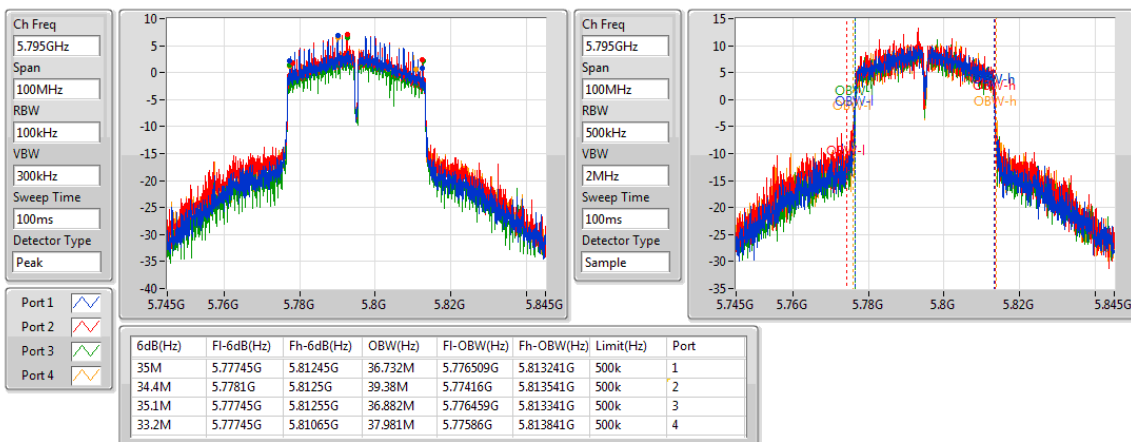


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5795MHz

14/03/2018

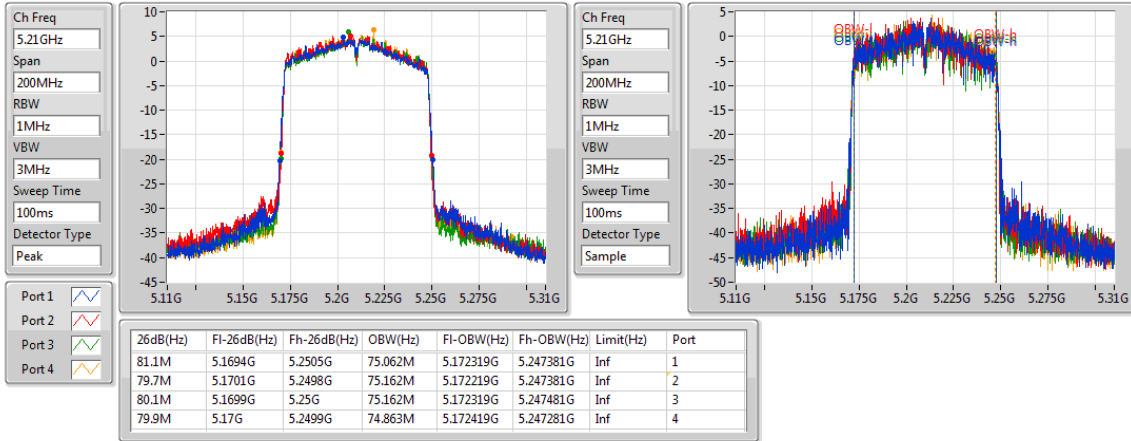


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5210MHz

20/03/2018

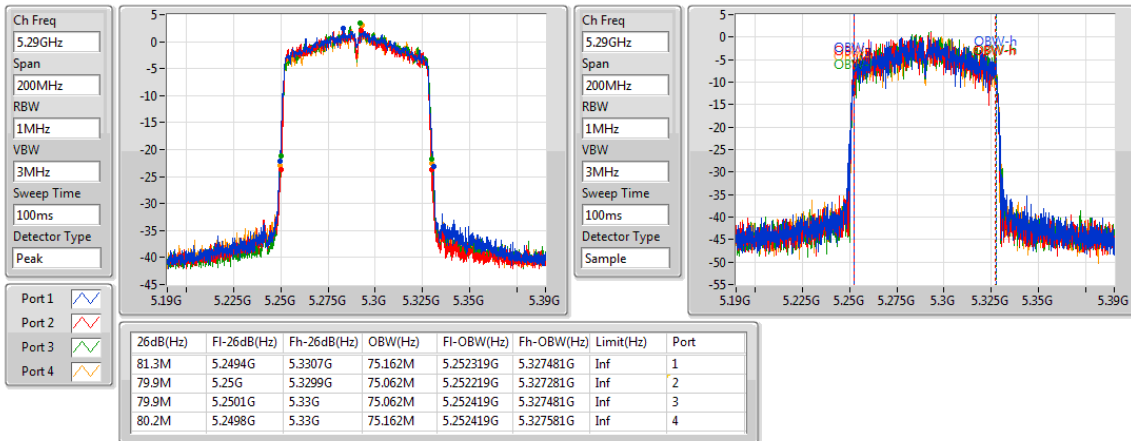


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5290MHz

30/03/2018

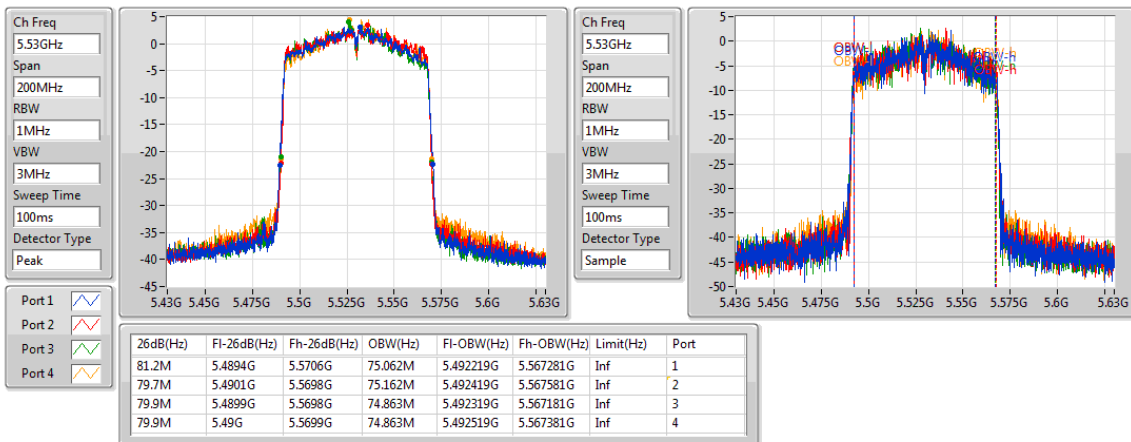


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

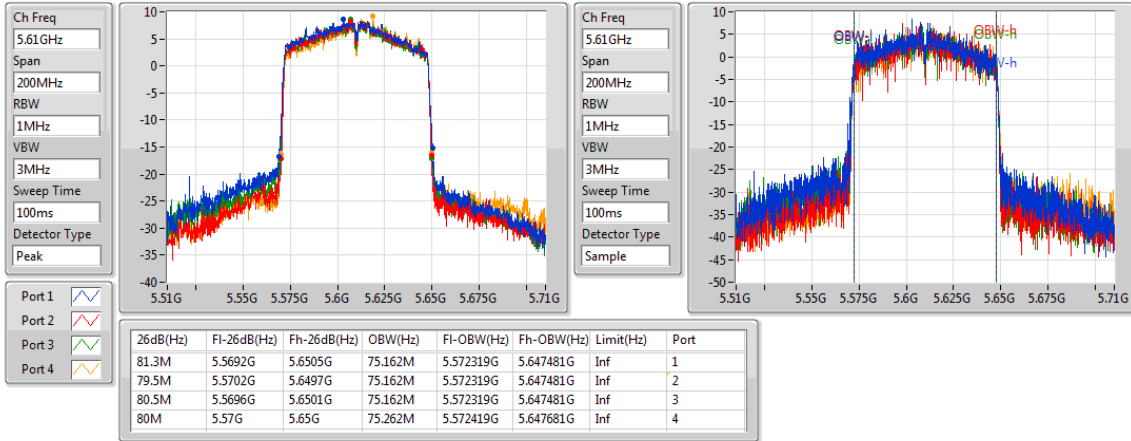
5530MHz

30/03/2018

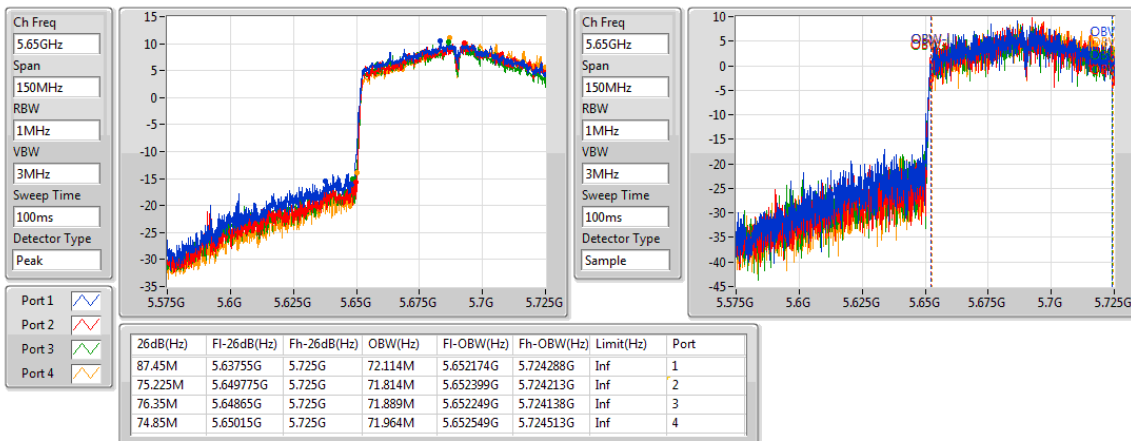


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5610MHz

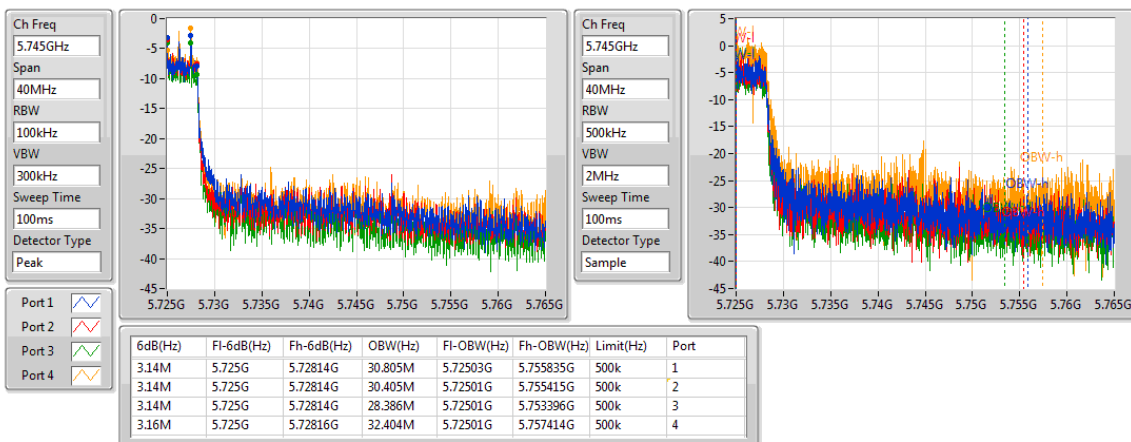
14/03/2018


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5690MHz Straddle 5.47-5.725GHz

14/03/2018

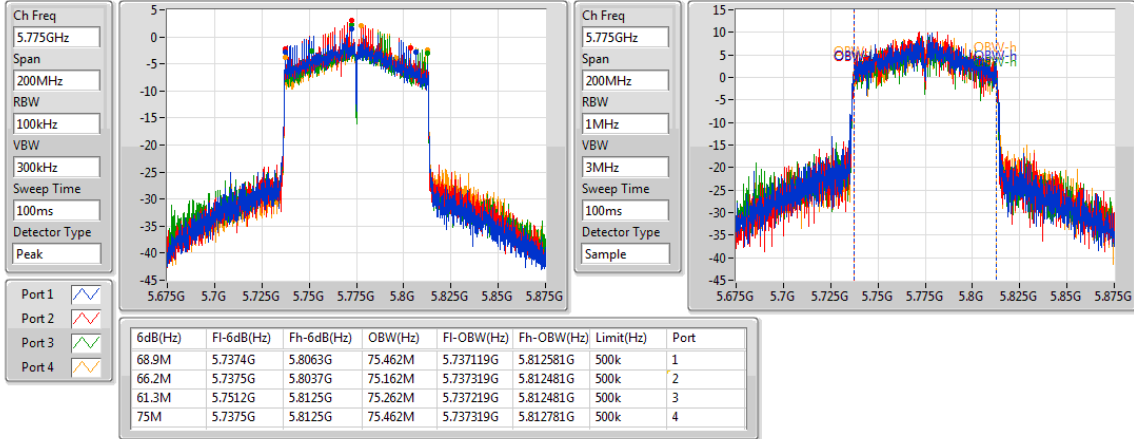

802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5690MHz Straddle 5.725-5.85GHz

14/03/2018

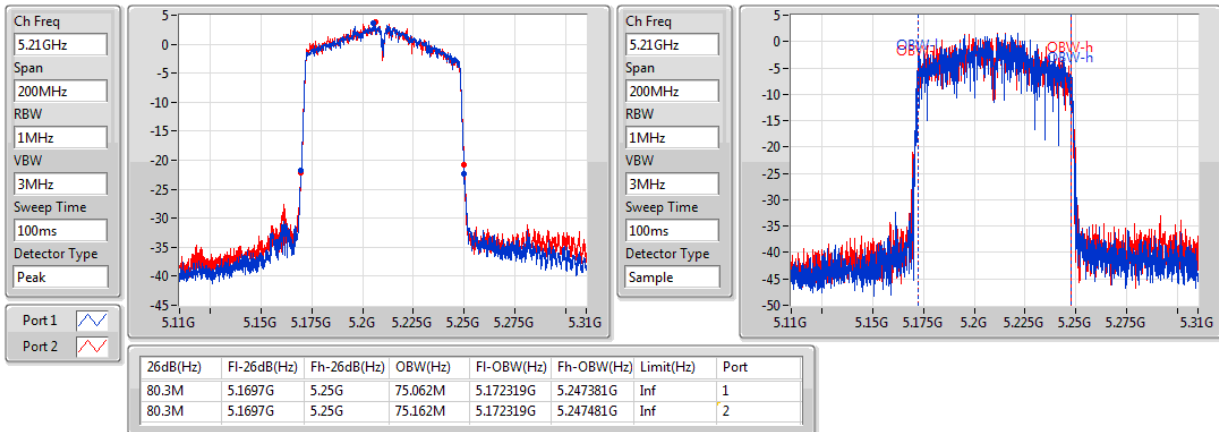


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5775MHz

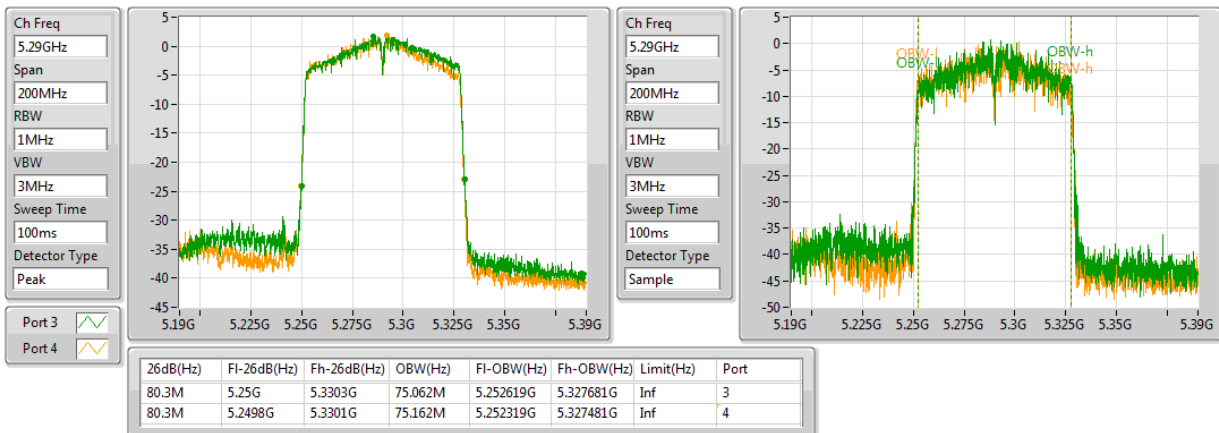
20/03/2018


802.11ac VHT80+80_Nss2,(MCS0)_2TX(Port1&Port2)
EBW
#5210MHz,5290MHz

14/03/2018


802.11ac VHT80+80_Nss2,(MCS0)_2TX(Port3&Port4)
EBW
5210MHz,#5290MHz

16/03/2018

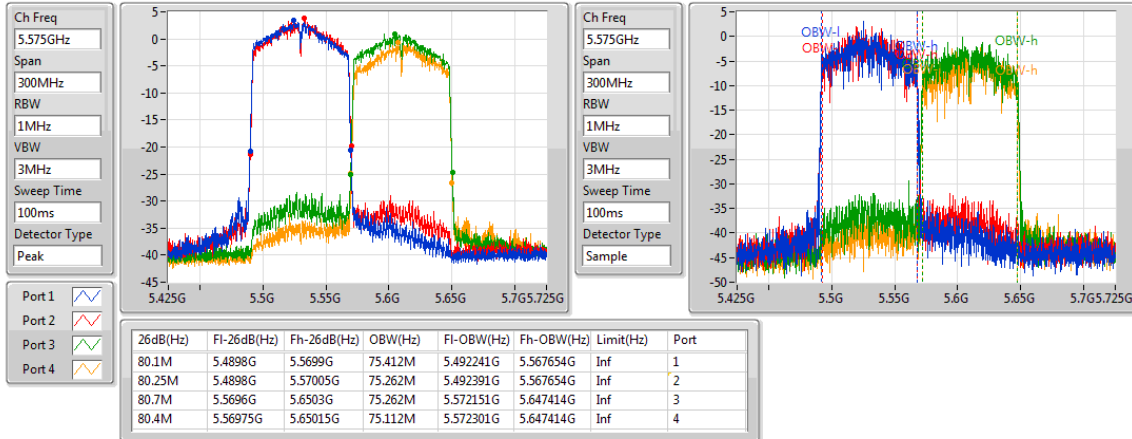


802.11ac VHT80+80_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

14/03/2018



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	19.95M	16.417M	16M4D1D	19.55M	16.317M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.475M	17.566M	17M6D1D	19.825M	17.516M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.85M	36.032M	36M0D1D	39.9M	35.932M
802.11ac VHT80_Nss1,(MCS0)_4TX	81M	75.162M	75M2D1D	79.5M	74.763M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	80.6M	75.262M	75M3D1D	80.3M	74.963M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	20.125M	16.392M	16M4D1D	19.475M	16.317M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.45M	17.566M	17M6D1D	19.775M	17.516M
802.11ac VHT40_Nss1,(MCS0)_4TX	41.6M	36.082M	36M1D1D	39.9M	35.932M
802.11ac VHT80_Nss1,(MCS0)_4TX	81.3M	75.162M	75M2D1D	79.9M	75.062M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	80.6M	75.162M	75M2D1D	80.2M	75.062M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	20.2M	16.417M	16M4D1D	14.775M	13.148M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.5M	17.566M	17M6D1D	14.925M	13.748M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.85M	36.132M	36M1D1D	35.14M	32.709M
802.11ac VHT80_Nss1,(MCS0)_4TX	87.45M	75.262M	75M3D1D	74.85M	71.814M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	80.7M	75.412M	75M4D1D	80.1M	75.112M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	15.275M	22.614M	22M6D1D	13.825M	16.517M
802.11ac VHT20_Nss1,(MCS0)_4TX	15.925M	19.74M	19M7D1D	14.925M	17.891M
802.11ac VHT40_Nss1,(MCS0)_4TX	35.1M	39.38M	39M4D1D	33.2M	36.732M
802.11ac VHT80_Nss1,(MCS0)_4TX	75M	75.462M	75M5D1D	61.3M	75.162M

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_TnomVnom	Pass	Inf	19.8M	16.317M	19.725M	16.392M	19.95M	16.392M	19.725M	16.392M
5200MHz_TnomVnom	Pass	Inf	19.55M	16.342M	19.575M	16.417M	19.95M	16.342M	19.675M	16.367M
5240MHz_TnomVnom	Pass	Inf	19.8M	16.367M	19.8M	16.392M	19.925M	16.392M	19.725M	16.392M
5260MHz_TnomVnom	Pass	Inf	19.85M	16.317M	19.75M	16.342M	20.125M	16.367M	19.625M	16.342M
5300MHz_TnomVnom	Pass	Inf	19.475M	16.367M	19.65M	16.342M	19.875M	16.342M	19.775M	16.392M
5320MHz_TnomVnom	Pass	Inf	19.525M	16.367M	19.7M	16.392M	19.9M	16.392M	19.725M	16.392M
5500MHz_TnomVnom	Pass	Inf	19.825M	16.392M	19.7M	16.417M	20.125M	16.367M	19.7M	16.392M
5580MHz_TnomVnom	Pass	Inf	19.6M	16.417M	19.75M	16.367M	20.2M	16.392M	19.7M	16.367M
5700MHz_TnomVnom	Pass	Inf	19.625M	16.367M	19.675M	16.367M	20M	16.367M	19.6M	16.367M
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	14.85M	13.163M	14.88M	13.178M	14.91M	13.148M	14.775M	13.163M
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.14M	3.558M	3.16M	3.678M	3.14M	3.658M	3.16M	3.698M
5745MHz_TnomVnom	Pass	500k	15M	17.191M	13.825M	18.266M	15.05M	17.316M	15.1M	17.316M
5785MHz_TnomVnom	Pass	500k	15.05M	16.692M	15.075M	19.215M	14.95M	17.091M	14.4M	22.614M
5825MHz_TnomVnom	Pass	500k	15M	16.517M	15.075M	16.792M	15.05M	16.542M	15.275M	16.742M
802.11ac_VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	20.375M	17.566M	19.925M	17.566M	19.85M	17.516M	20.25M	17.541M
5200MHz_TnomVnom	Pass	Inf	20.475M	17.541M	19.825M	17.516M	19.9M	17.541M	20M	17.541M
5240MHz_TnomVnom	Pass	Inf	20.4M	17.566M	19.95M	17.541M	19.95M	17.516M	20.2M	17.566M
5260MHz_TnomVnom	Pass	Inf	20.4M	17.541M	19.95M	17.541M	19.85M	17.516M	20.25M	17.541M
5300MHz_TnomVnom	Pass	Inf	20.45M	17.566M	19.875M	17.541M	19.925M	17.516M	20.3M	17.541M
5320MHz_TnomVnom	Pass	Inf	20.45M	17.566M	19.775M	17.541M	19.925M	17.541M	20.25M	17.516M
5500MHz_TnomVnom	Pass	Inf	20.35M	17.541M	19.925M	17.516M	19.85M	17.541M	20.25M	17.566M
5580MHz_TnomVnom	Pass	Inf	20.5M	17.541M	19.9M	17.516M	19.95M	17.541M	20.3M	17.566M
5700MHz_TnomVnom	Pass	Inf	20.425M	17.566M	19.95M	17.566M	20M	17.541M	20.225M	17.516M
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	15.12M	13.793M	14.925M	13.748M	15M	13.778M	14.97M	13.763M
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.5M	4.038M	3.76M	4.058M	3.78M	4.058M	3.76M	4.058M
5745MHz_TnomVnom	Pass	500k	14.975M	17.891M	15.575M	18.216M	14.925M	18.091M	15.025M	17.891M
5785MHz_TnomVnom	Pass	500k	15.1M	17.941M	15.925M	19.74M	15.075M	18.266M	15.1M	18.341M
5825MHz_TnomVnom	Pass	500k	15.025M	17.916M	15.925M	19.315M	15.075M	17.966M	15.9M	18.266M
802.11ac_VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	Inf	40.4M	35.982M	39.95M	35.982M	40.2M	35.982M	40.25M	36.032M
5230MHz_TnomVnom	Pass	Inf	40.85M	35.932M	39.9M	35.982M	40.2M	35.982M	40.2M	35.932M
5270MHz_TnomVnom	Pass	Inf	40.8M	35.932M	39.9M	36.032M	40.55M	36.032M	40.45M	35.982M
5310MHz_TnomVnom	Pass	Inf	41.6M	36.082M	40.1M	35.932M	40.65M	36.082M	40.5M	35.932M
5510MHz_TnomVnom	Pass	Inf	40.85M	35.932M	39.9M	35.982M	40.5M	35.932M	40.4M	35.932M
5550MHz_TnomVnom	Pass	Inf	40.5M	35.982M	40M	36.032M	40.15M	35.932M	40.3M	35.982M
5670MHz_TnomVnom	Pass	Inf	40.3M	35.982M	39.8M	36.082M	40.15M	35.982M	40.45M	36.132M
5710MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	35.63M	32.814M	35.14M	32.709M	35.175M	32.779M	35.14M	32.779M
5710MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.14M	4.858M	3.14M	4.138M	3.14M	3.918M	3.14M	6.037M



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)
5755MHz_TnomVnom	Pass	500k	35.1M	37.831M	35.1M	37.781M	35.1M	37.381M	35.05M	36.932M
5795MHz_TnomVnom	Pass	500k	35M	36.732M	34.4M	39.38M	35.1M	36.882M	33.2M	37.981M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	Inf	81M	75.162M	79.5M	74.863M	79.9M	75.162M	79.8M	74.763M
5290MHz_TnomVnom	Pass	Inf	81.3M	75.162M	79.9M	75.062M	79.9M	75.062M	80.2M	75.162M
5530MHz_TnomVnom	Pass	Inf	81.2M	75.062M	79.7M	75.162M	79.9M	74.863M	79.9M	74.863M
5610MHz_TnomVnom	Pass	Inf	81.3M	75.162M	79.5M	75.162M	80.5M	75.162M	80M	75.262M
5690MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	87.45M	72.114M	75.225M	71.814M	76.35M	71.889M	74.85M	71.964M
5690MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.14M	30.805M	3.14M	30.405M	3.14M	28.386M	3.16M	32.404M
5775MHz_TnomVnom	Pass	500k	68.9M	75.462M	66.2M	75.162M	61.3M	75.262M	75M	75.462M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz_TnomVnom	Pass	Inf	80.3M	75.062M	80.3M	75.162M				
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz_TnomVnom	Pass	Inf					80.3M	75.062M	80.3M	75.162M
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz_TnomVnom	Pass	Inf	80.1M	75.412M	80.25M	75.262M	80.7M	75.262M	80.4M	75.112M

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

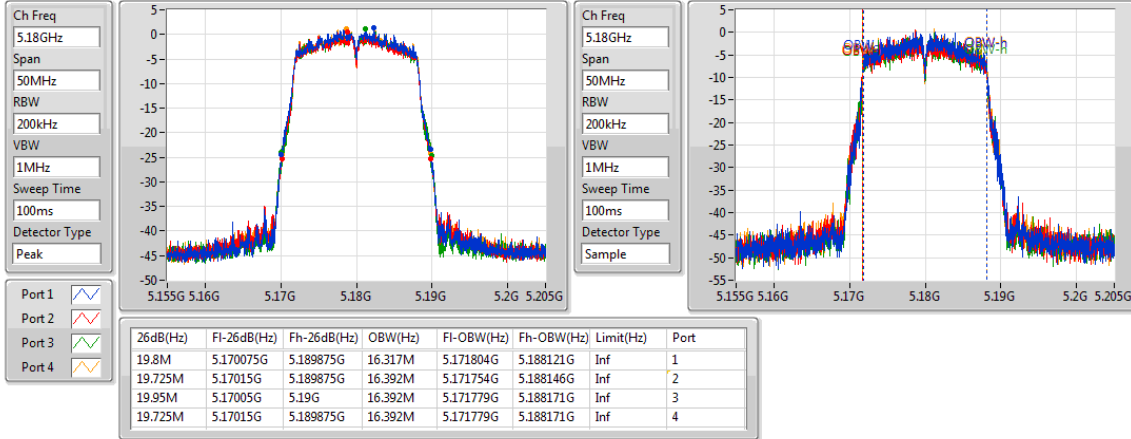
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX

EBW

5180MHz

22/03/2018

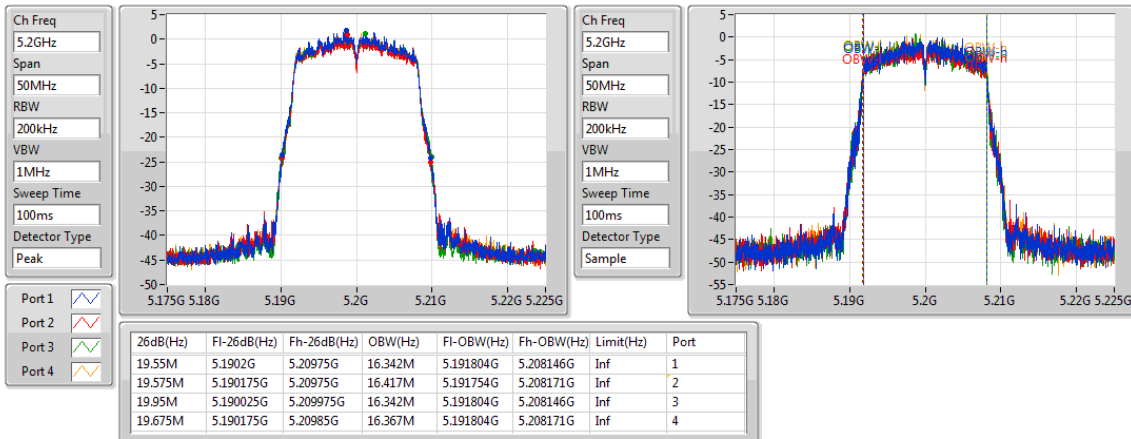


802.11a_Nss1,(6Mbps)_4TX

EBW

5200MHz

22/03/2018

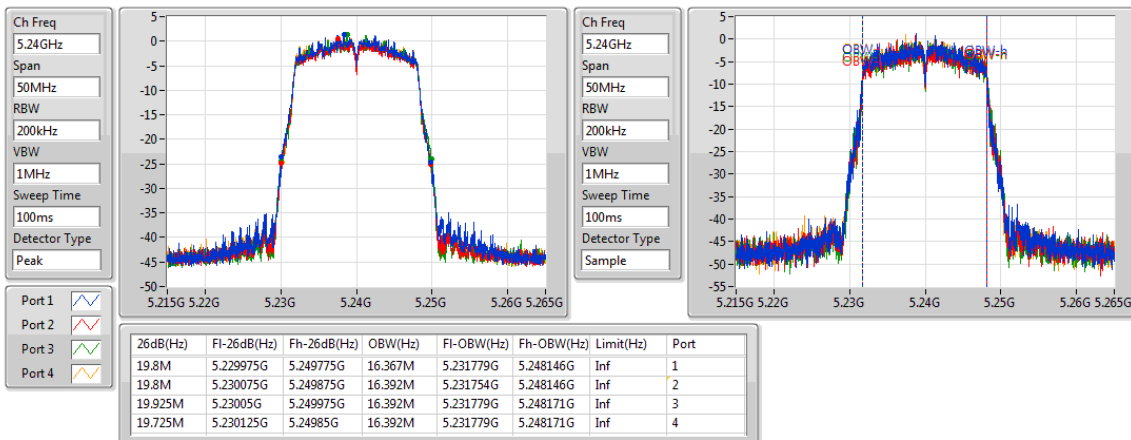


802.11a_Nss1,(6Mbps)_4TX

EBW

5240MHz

22/03/2018

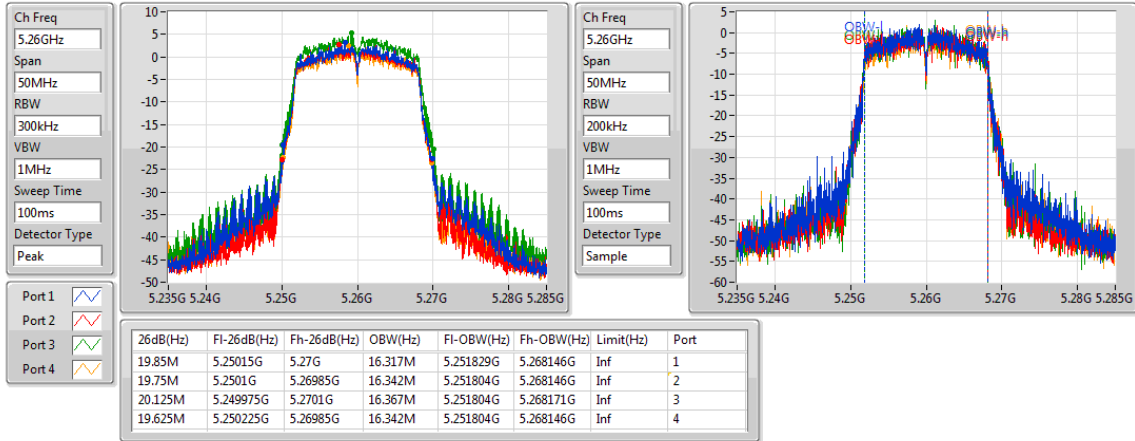


802.11a_Nss1,(6Mbps)_4TX

EBW

5260MHz

14/03/2018

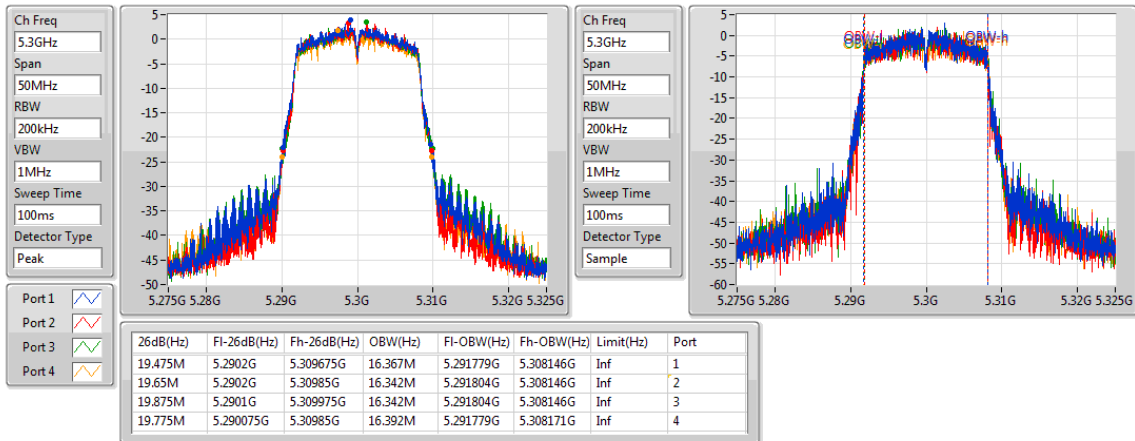


802.11a_Nss1,(6Mbps)_4TX

EBW

5300MHz

14/03/2018

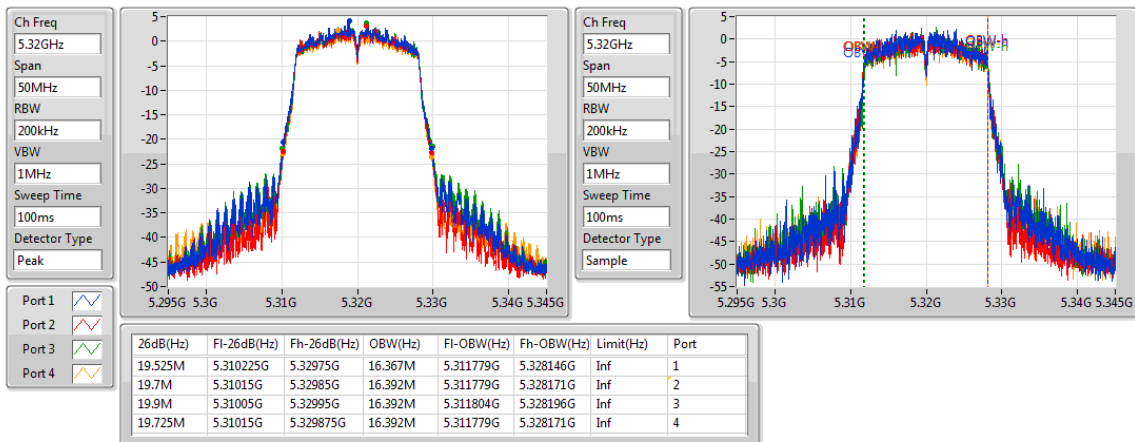


802.11a_Nss1,(6Mbps)_4TX

EBW

5320MHz

14/03/2018



802.11a_Nss1,(6Mbps)_4TX

EBW

5500MHz

14/03/2018

Ch Freq
5.5GHz

Span
50MHz

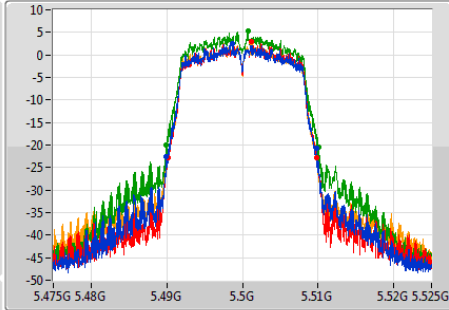
RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.5GHz

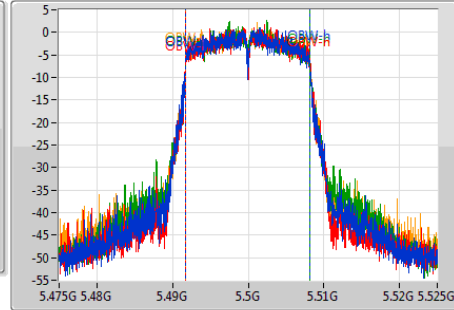
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.825M	5.48995G	5.509775G	16.392M	5.491754G	5.508146G	Inf	1
19.7M	5.49015G	5.50985G	16.417M	5.491779G	5.508196G	Inf	2
20.125M	5.48995G	5.510075G	16.367M	5.491779G	5.508146G	Inf	3
19.7M	5.490125G	5.509825G	16.392M	5.491779G	5.508171G	Inf	4

802.11a_Nss1,(6Mbps)_4TX

EBW

5580MHz

14/03/2018

Ch Freq
5.58GHz

Span
50MHz

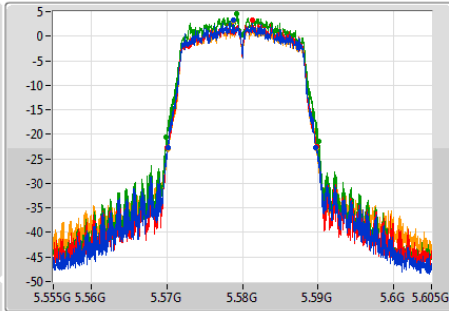
RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.58GHz

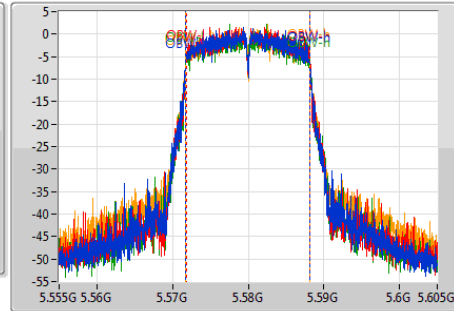
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.6M	5.570125G	5.589725G	16.417M	5.571754G	5.588171G	Inf	1
19.75M	5.5701G	5.58985G	16.367M	5.571804G	5.588171G	Inf	2
20.2M	5.569925G	5.590125G	16.392M	5.571779G	5.588171G	Inf	3
19.7M	5.570125G	5.589825G	16.367M	5.571779G	5.588146G	Inf	4

802.11a_Nss1,(6Mbps)_4TX

EBW

5700MHz

14/03/2018

Ch Freq
5.7GHz

Span
50MHz

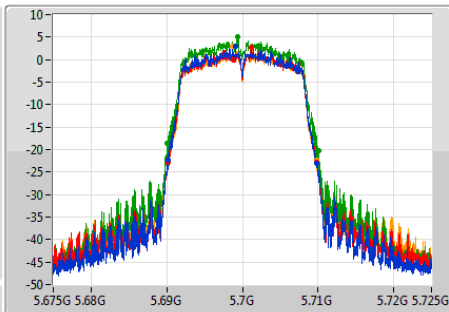
RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.7GHz

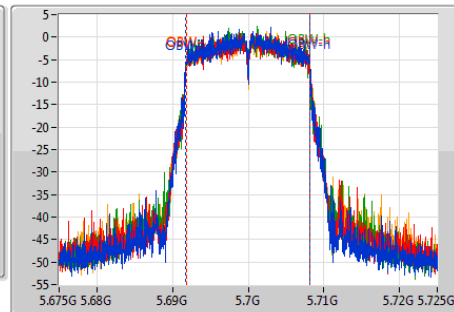
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



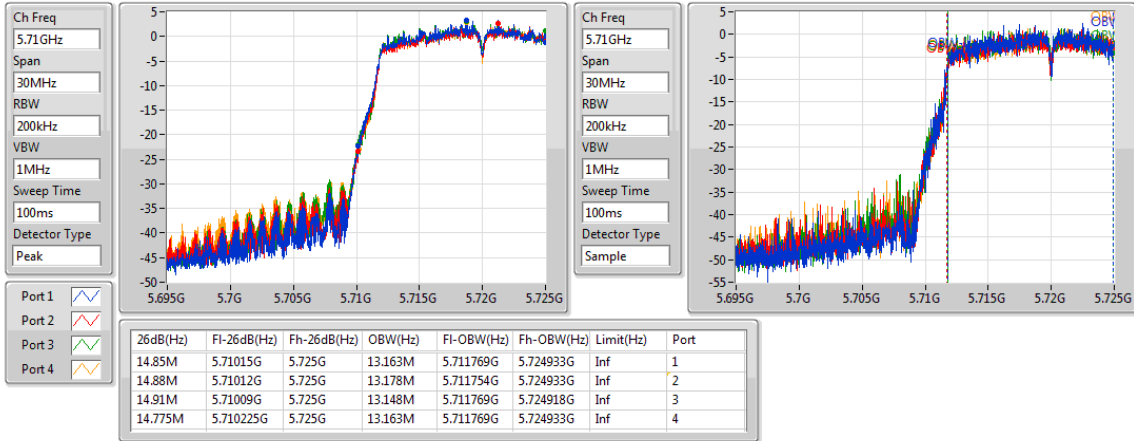
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.625M	5.69015G	5.709775G	16.367M	5.691779G	5.708146G	Inf	1
19.675M	5.690175G	5.70985G	16.367M	5.691804G	5.708171G	Inf	2
20M	5.690075G	5.710075G	16.367M	5.691779G	5.708146G	Inf	3
19.6M	5.690225G	5.709825G	16.367M	5.691804G	5.708171G	Inf	4

802.11a_Nss1,(6Mbps)_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

14/03/2018

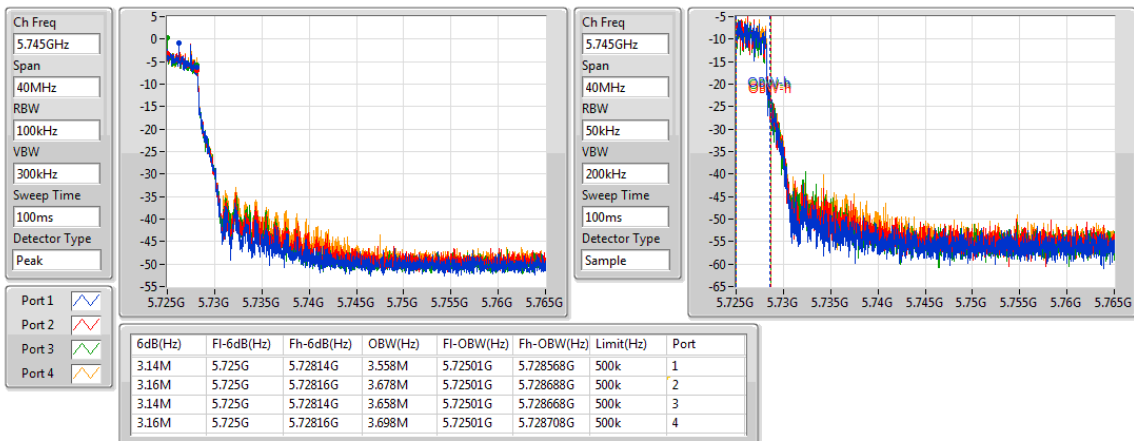


802.11a_Nss1,(6Mbps)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

14/03/2018

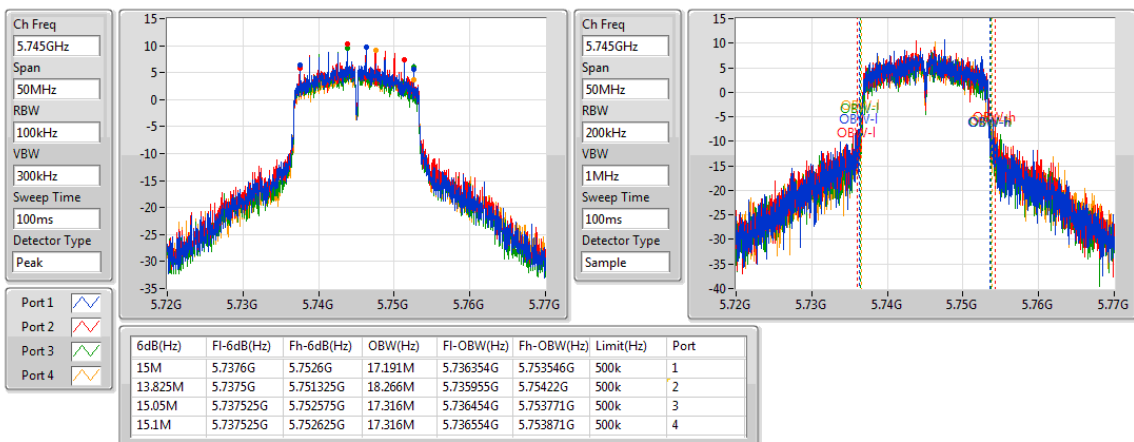


802.11a_Nss1,(6Mbps)_4TX

EBW

5745MHz

14/03/2018

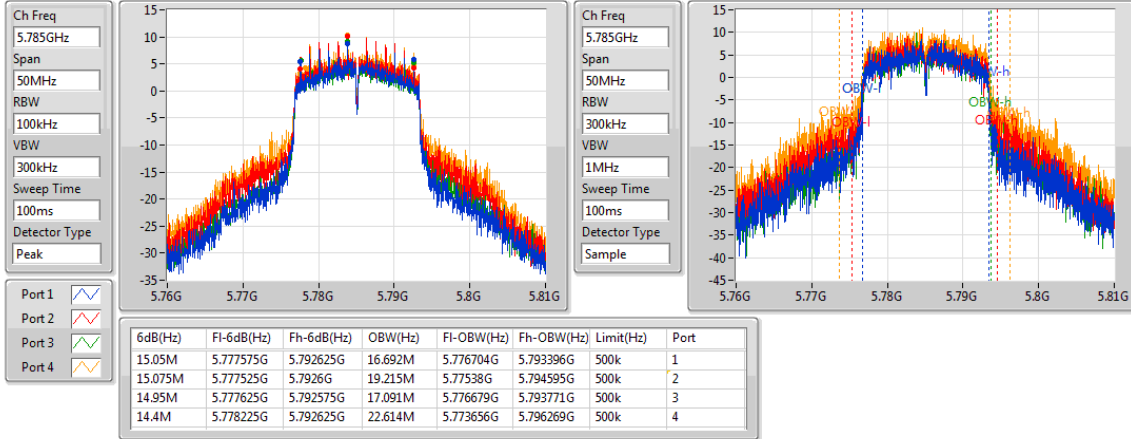


802.11a_Nss1,(6Mbps)_4TX

EBW

5785MHz

14/03/2018

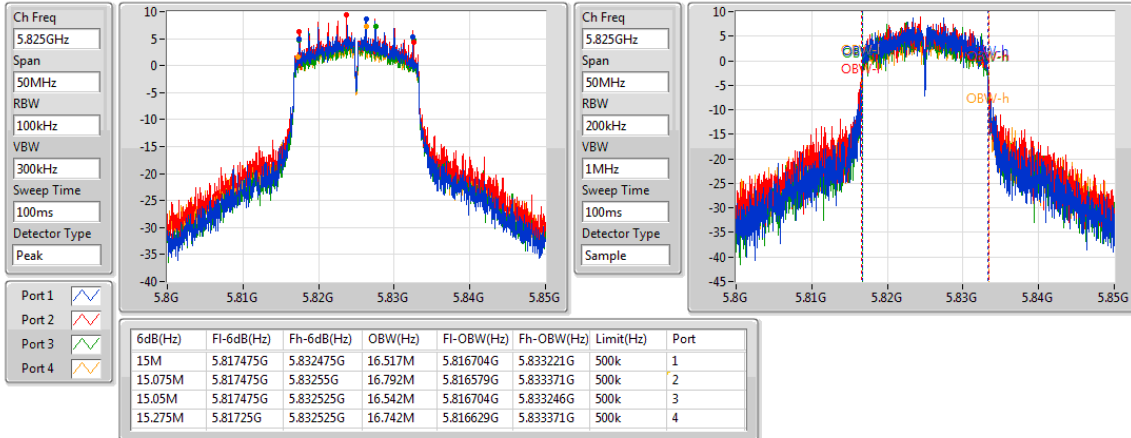


802.11a_Nss1,(6Mbps)_4TX

EBW

5825MHz

20/03/2018

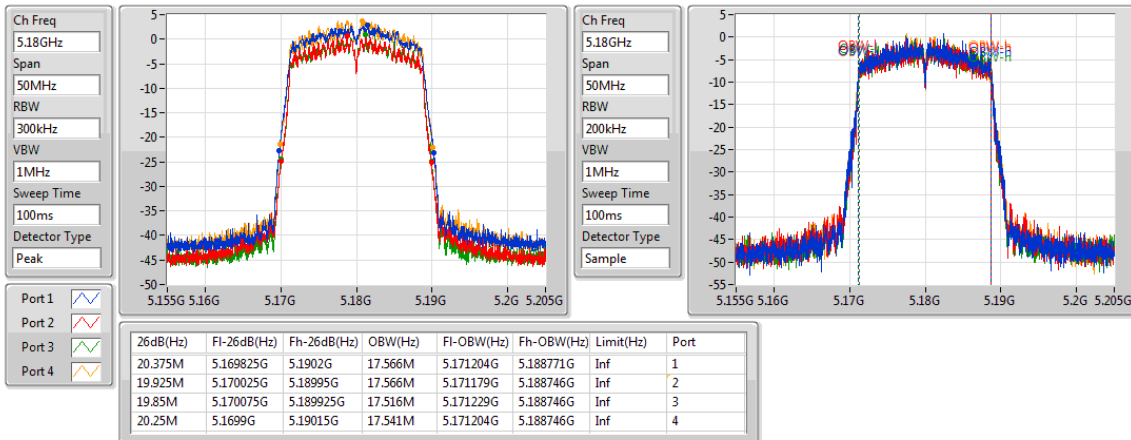


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5180MHz

22/03/2018

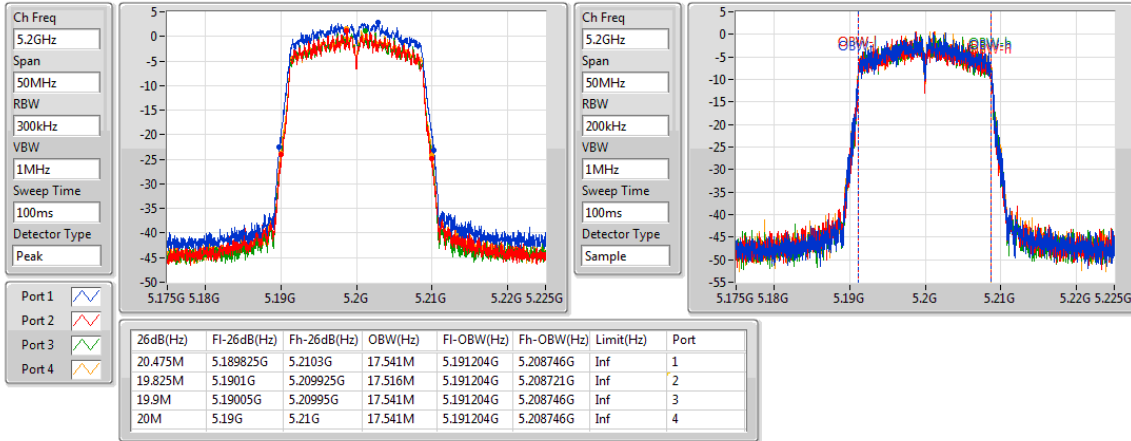


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5200MHz

22/03/2018

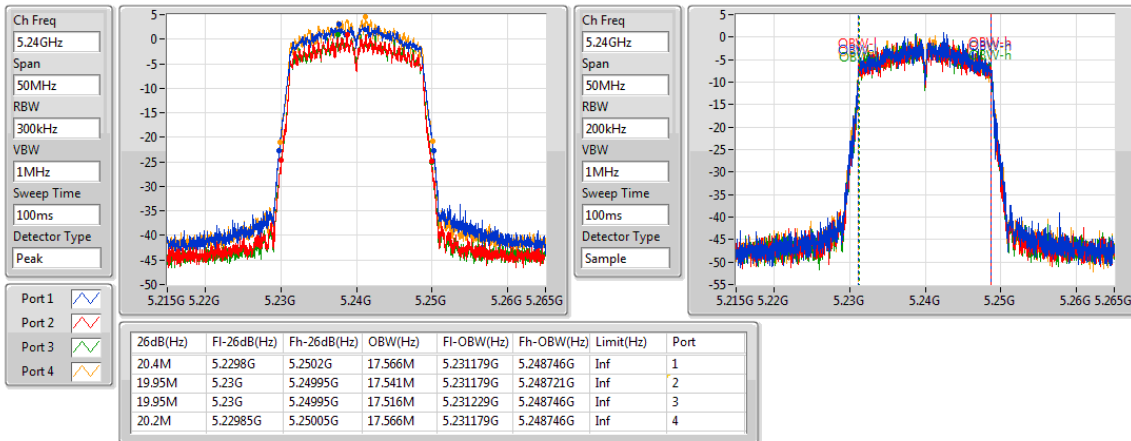


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5240MHz

22/03/2018

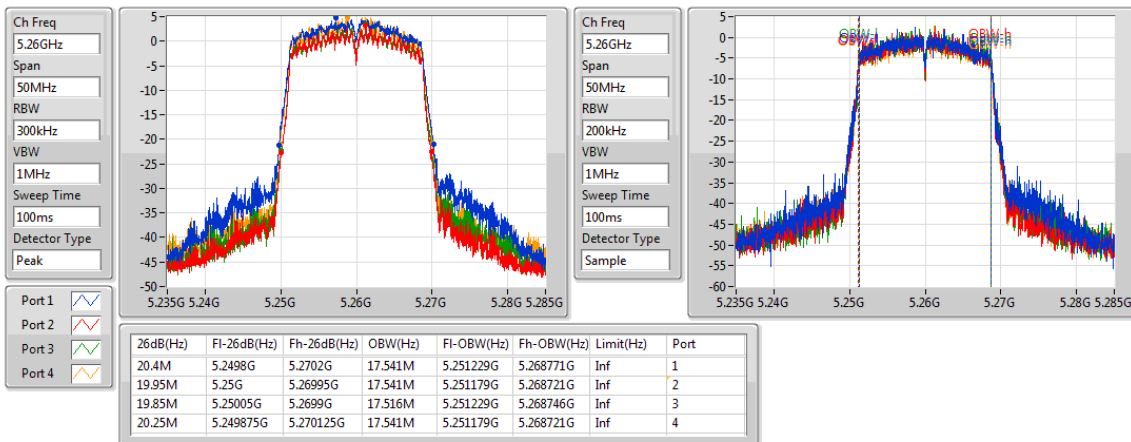


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5260MHz

14/03/2018

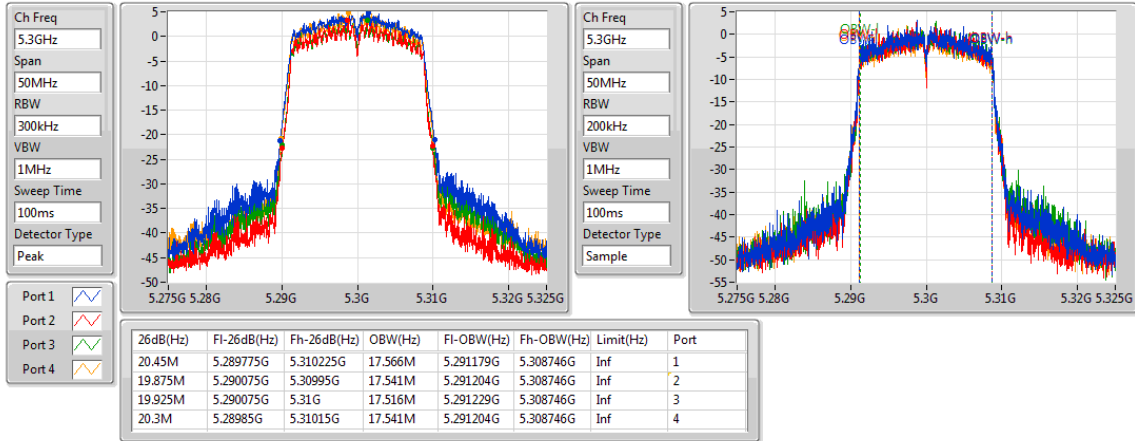


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5300MHz

14/03/2018

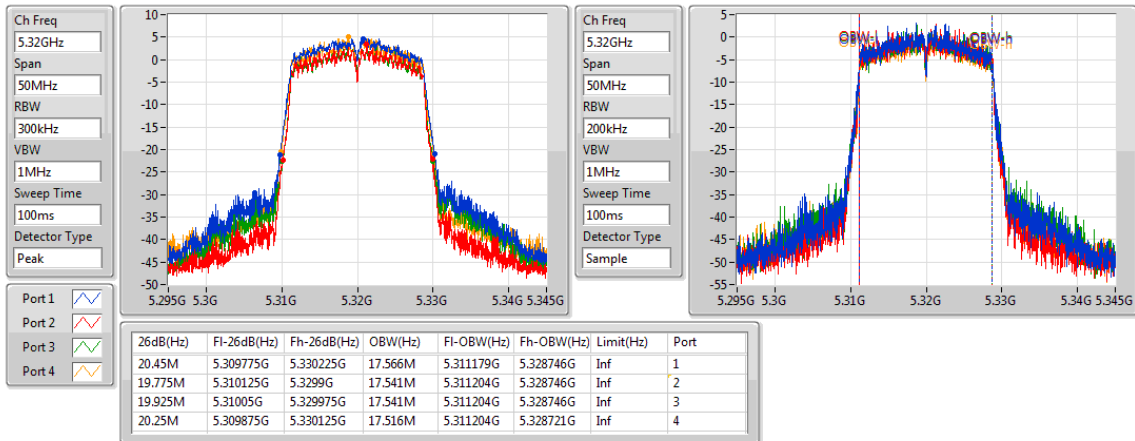


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5320MHz

14/03/2018

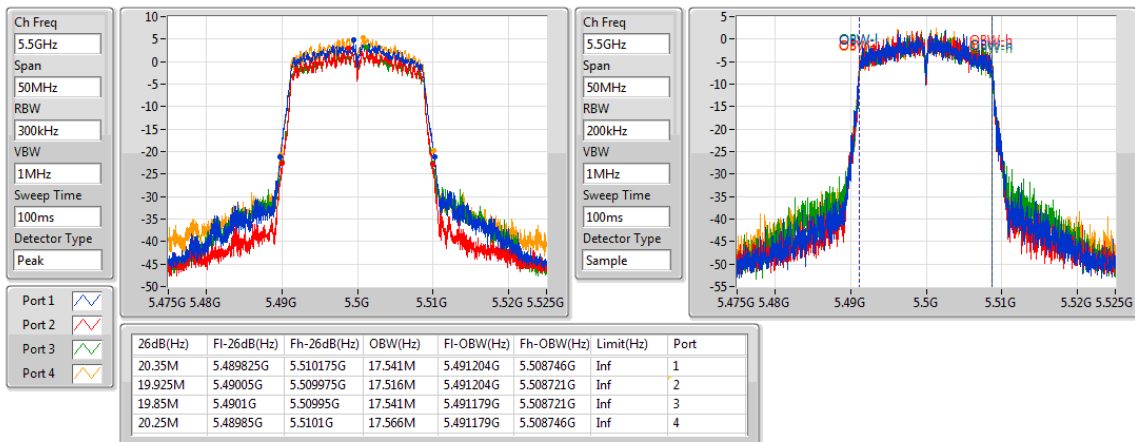


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5500MHz

14/03/2018

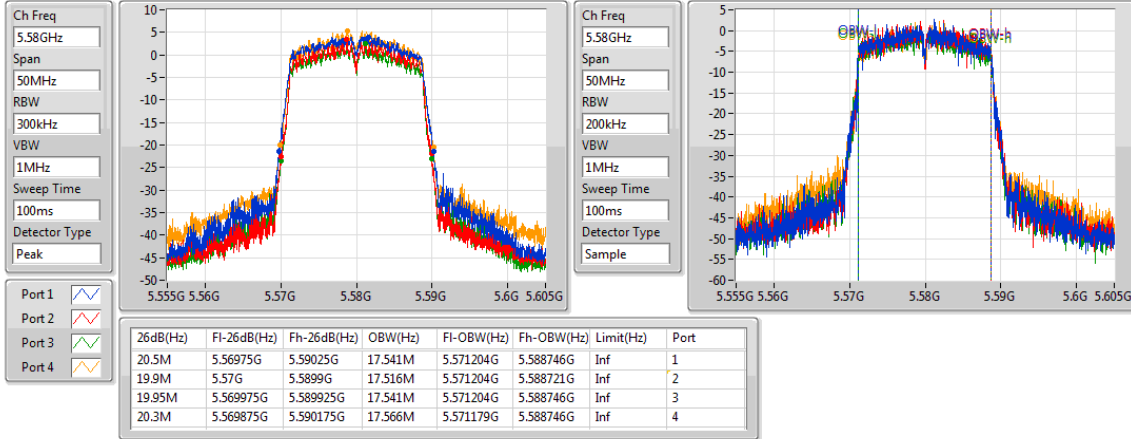


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5580MHz

14/03/2018

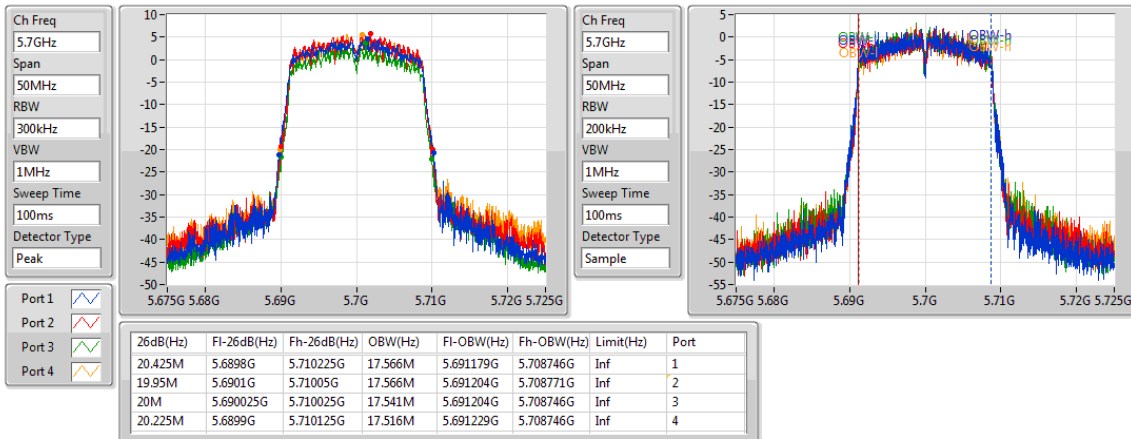


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5700MHz

14/03/2018

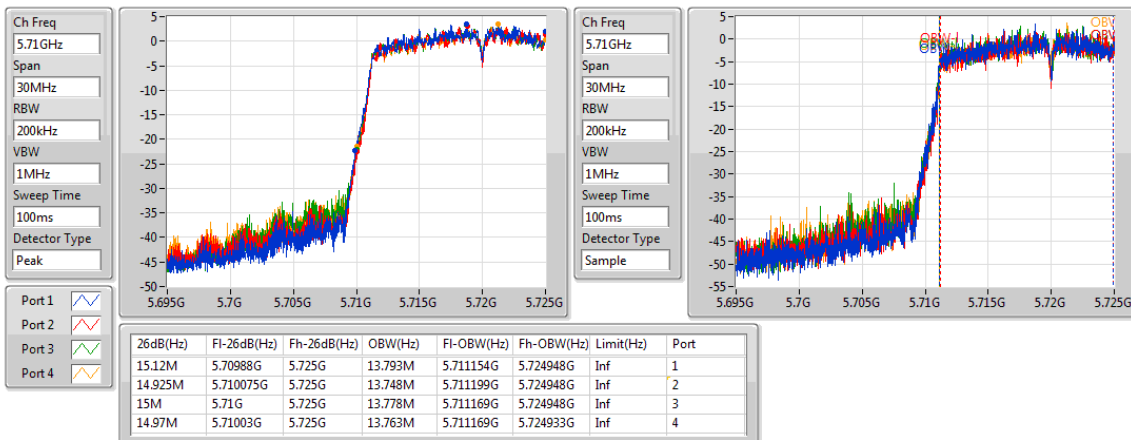


802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

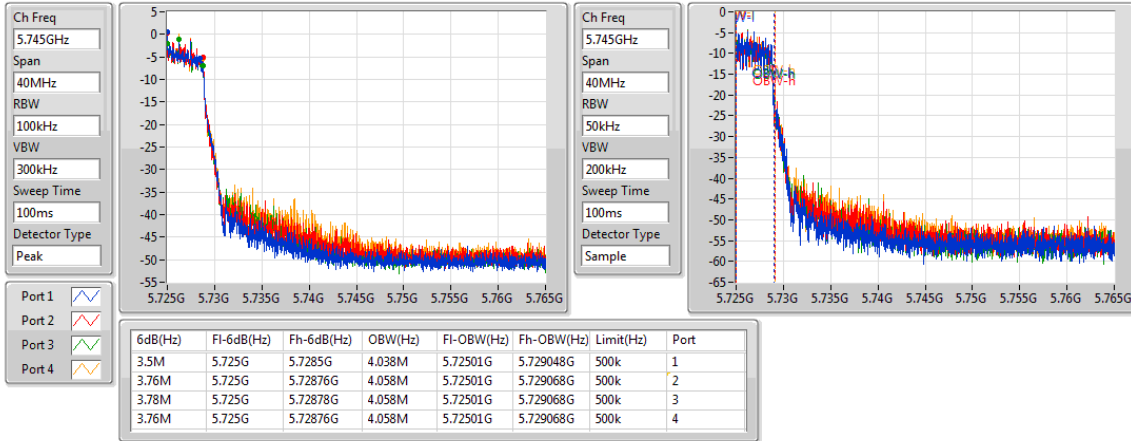
5720MHz Straddle 5.47-5.725GHz

14/03/2018

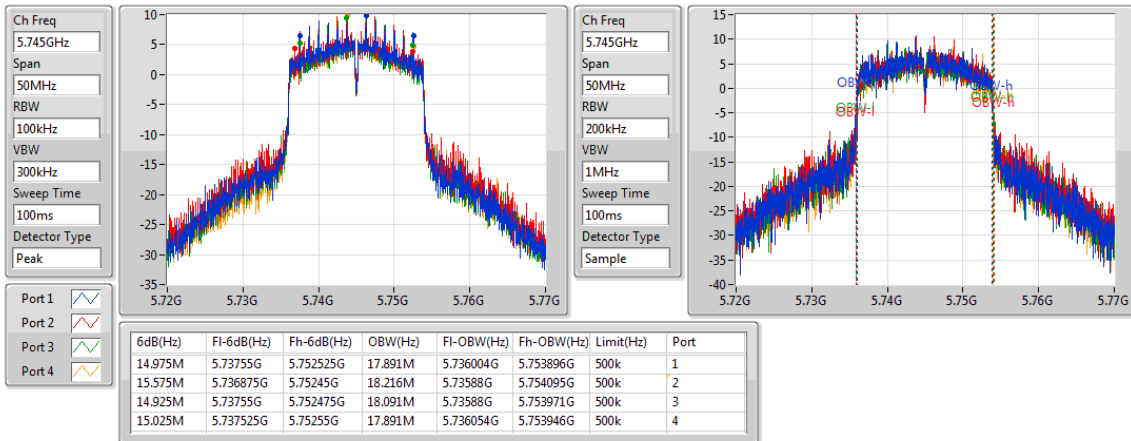


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5720MHz Straddle 5.725-5.85GHz

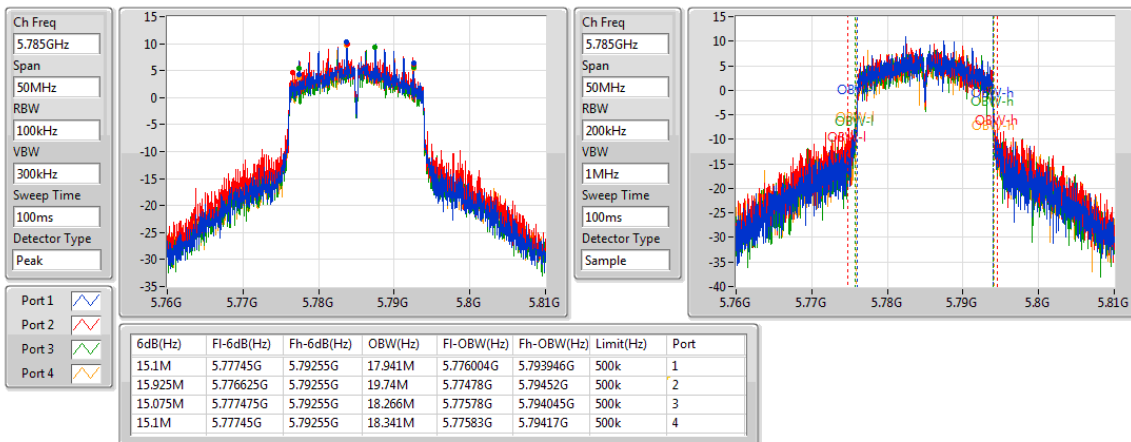
14/03/2018


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5745MHz

14/03/2018


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5785MHz

14/03/2018



802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
5825MHz

14/03/2018

Ch Freq
5.825GHz

Span
50MHz

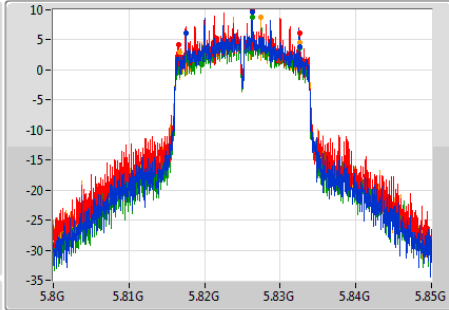
RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.825GHz

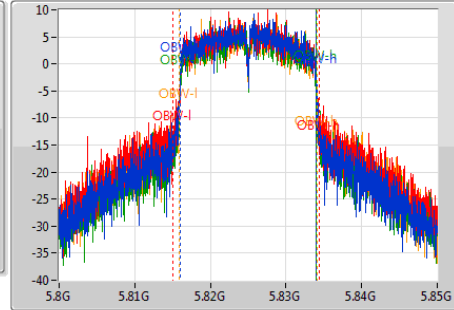
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.025M	5.81755G	5.83255G	17.916M	5.816004G	5.833921G	500k	1
15.925M	5.816625G	5.83255G	19.315M	5.81508G	5.834395G	500k	2
15.075M	5.8175G	5.83255G	17.966M	5.816029G	5.833996G	500k	3
15.9M	5.81665G	5.83255G	18.266M	5.815855G	5.83412G	500k	4

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5190MHz

22/03/2018

Ch Freq
5.19GHz

Span
100MHz

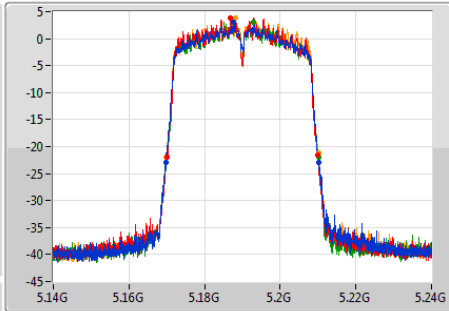
RBW
500kHz

VBW
2MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.19GHz

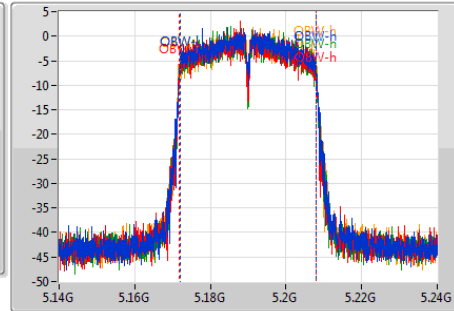
Span
100MHz

RBW
500kHz

VBW
2MHz

Sweep Time
100ms

Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.4M	5.1698G	5.2102G	35.982M	5.171959G	5.207941G	Inf	1
39.95M	5.17G	5.20995G	35.982M	5.171859G	5.207841G	Inf	2
40.2M	5.16995G	5.21015G	35.982M	5.171909G	5.207891G	Inf	3
40.25M	5.1699G	5.21015G	36.032M	5.171959G	5.207991G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
5230MHz

22/03/2018

Ch Freq
5.23GHz

Span
100MHz

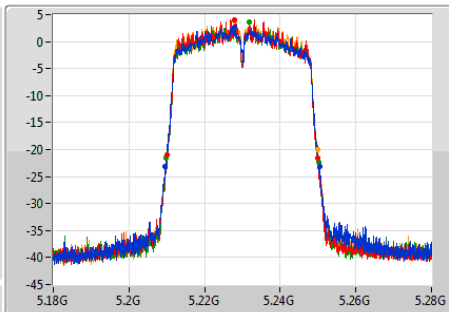
RBW
500kHz

VBW
2MHz

Sweep Time
100ms

Detector Type
Peak

Port 1
Port 2
Port 3
Port 4



Ch Freq
5.23GHz

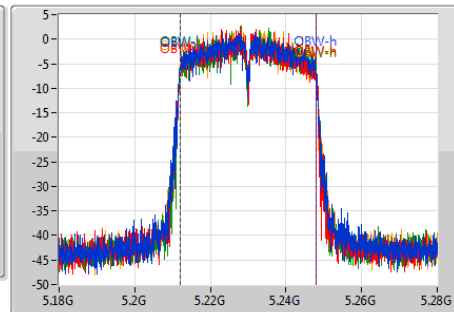
Span
100MHz

RBW
500kHz

VBW
2MHz

Sweep Time
100ms

Detector Type
Sample



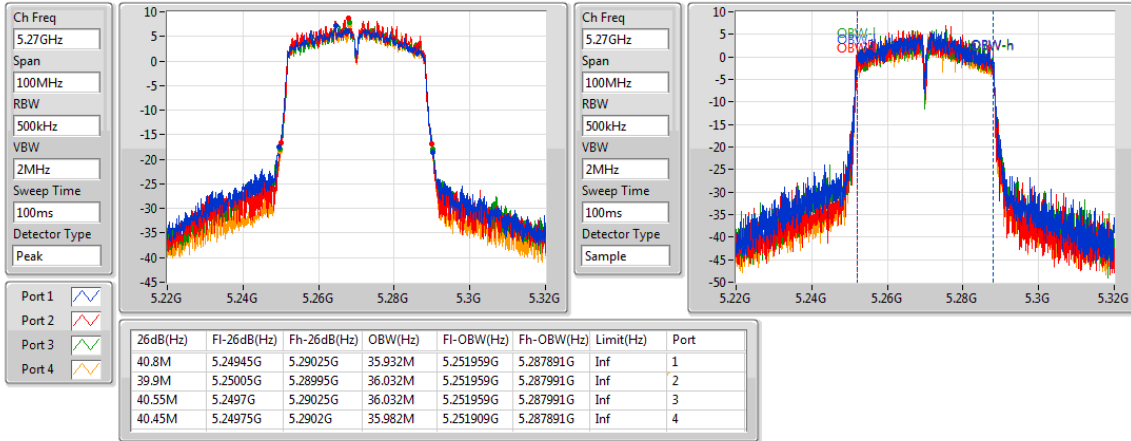
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.85M	5.2096G	5.25045G	35.932M	5.211959G	5.247891G	Inf	1
39.9M	5.21G	5.2499G	35.982M	5.211909G	5.247891G	Inf	2
40.2M	5.2099G	5.2501G	35.982M	5.211959G	5.247941G	Inf	3
40.2M	5.20985G	5.25005G	35.932M	5.211959G	5.247891G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5270MHz

14/03/2018

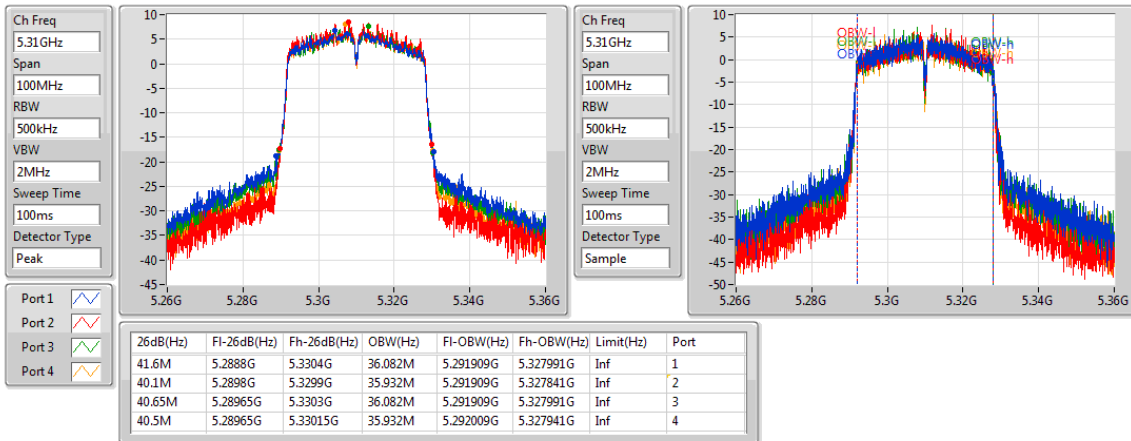


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5310MHz

31/03/2018

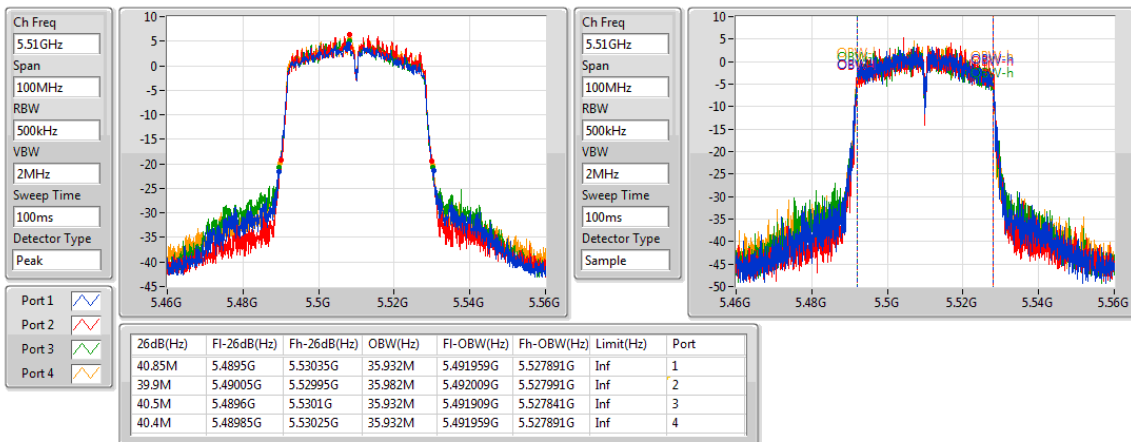


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5510MHz

14/03/2018

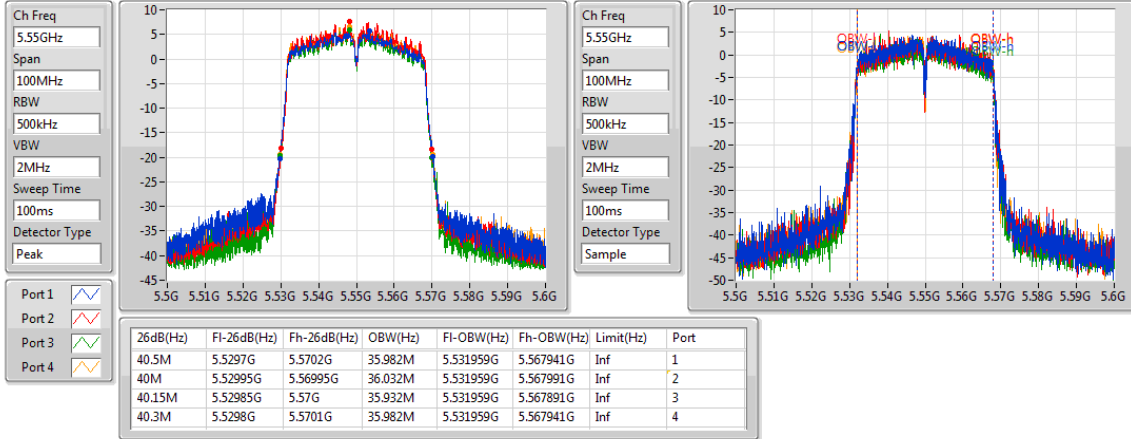


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5550MHz

14/03/2018

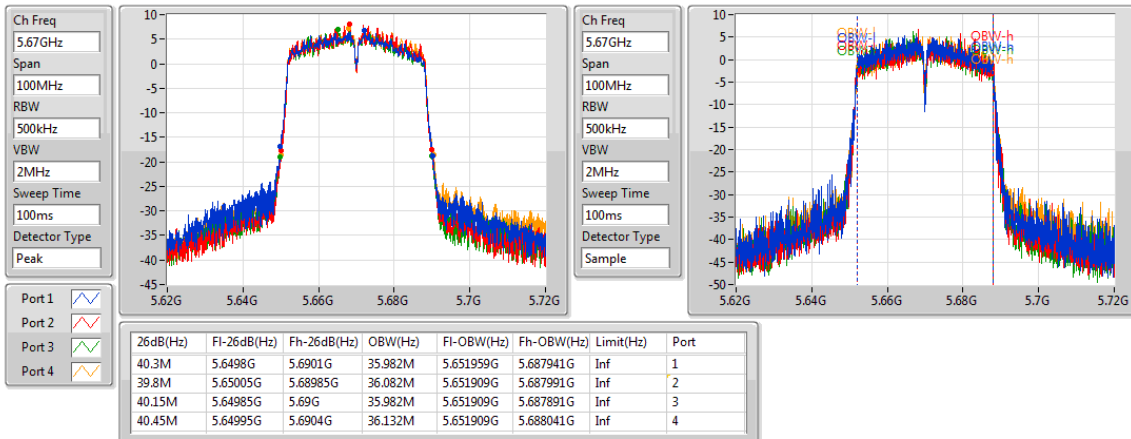


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5670MHz

14/03/2018

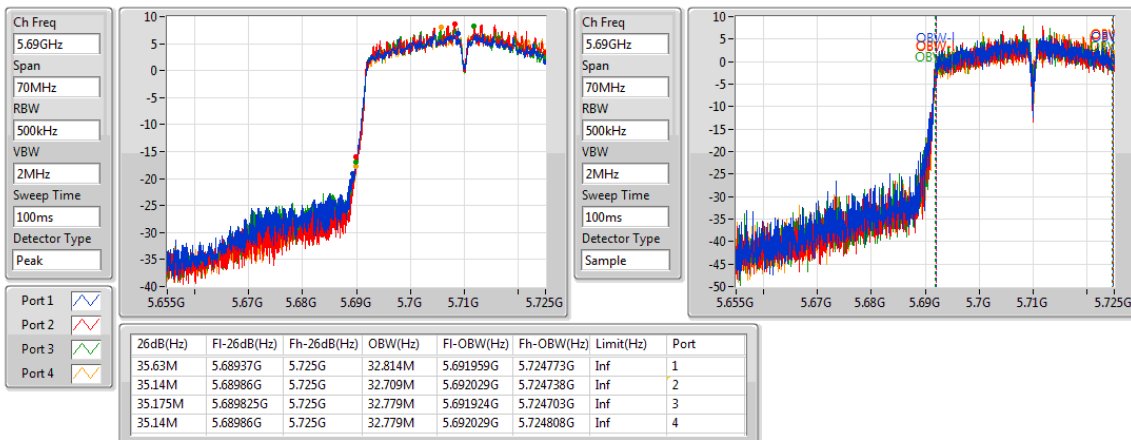


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.47-5.725GHz

14/03/2018

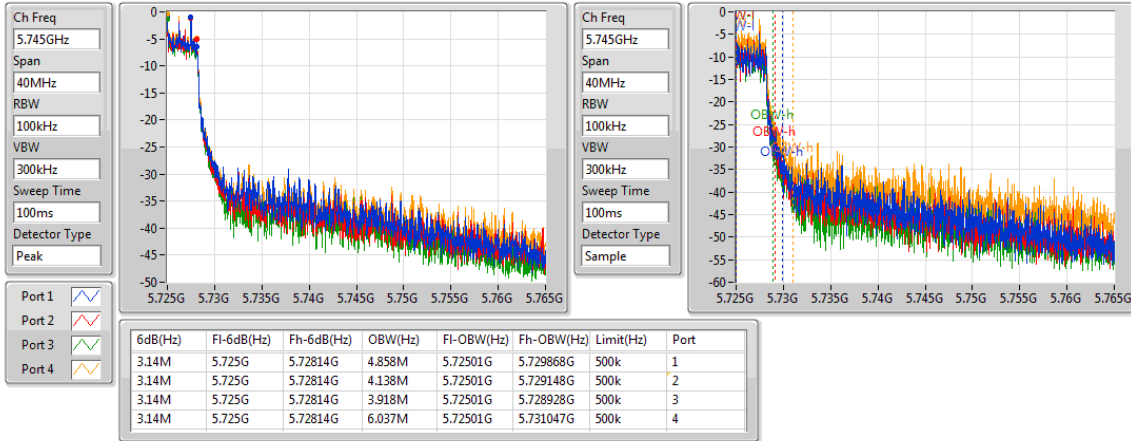


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

14/03/2018

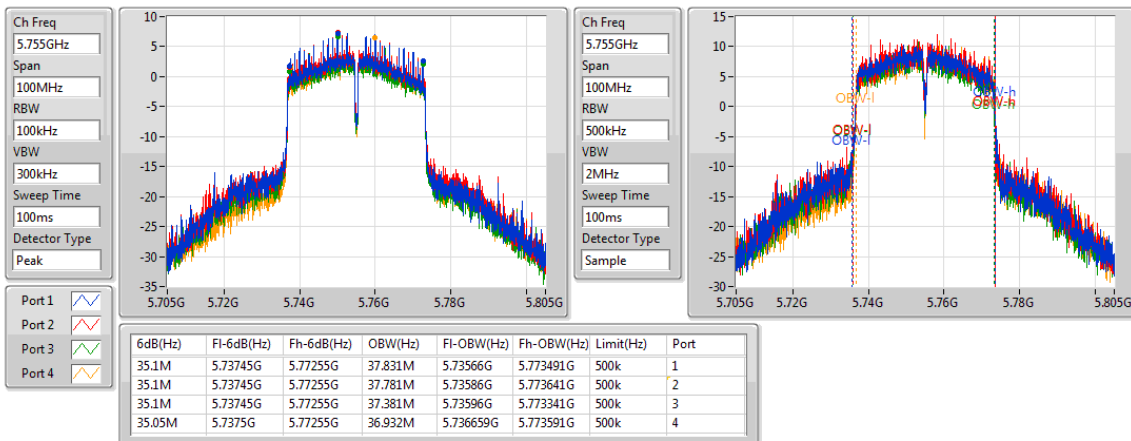


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5755MHz

14/03/2018

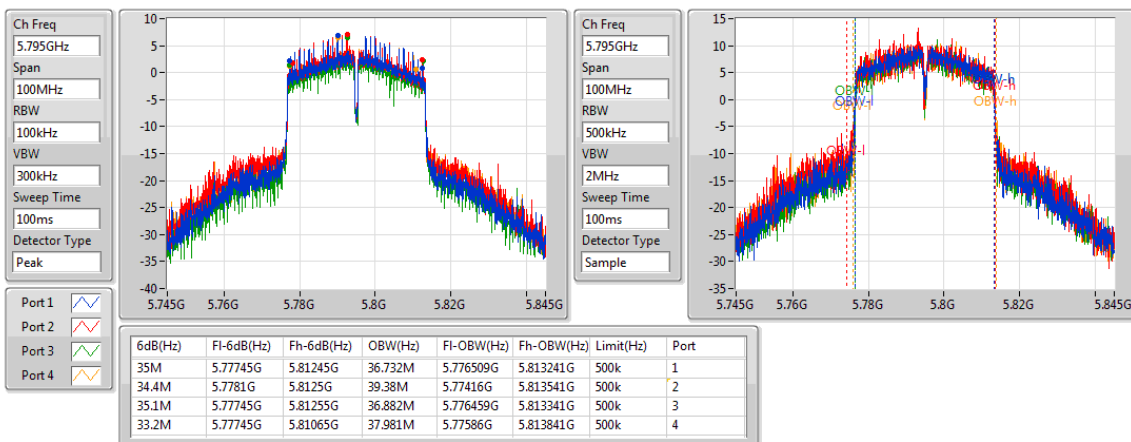


802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

5795MHz

14/03/2018

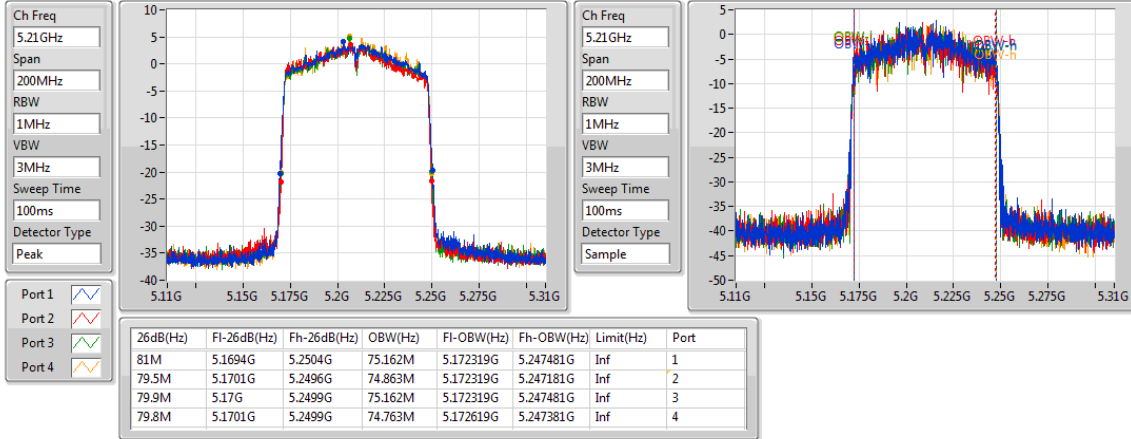


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5210MHz

22/03/2018

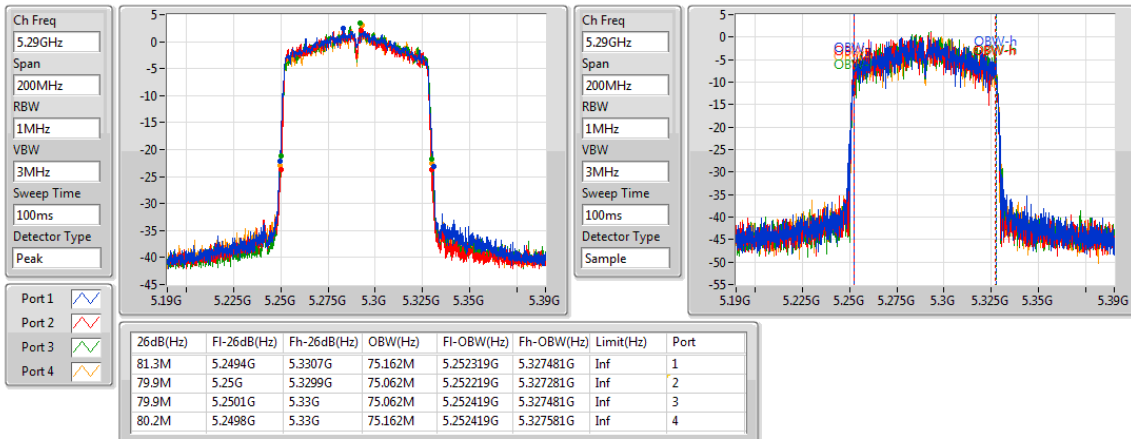


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5290MHz

30/03/2018

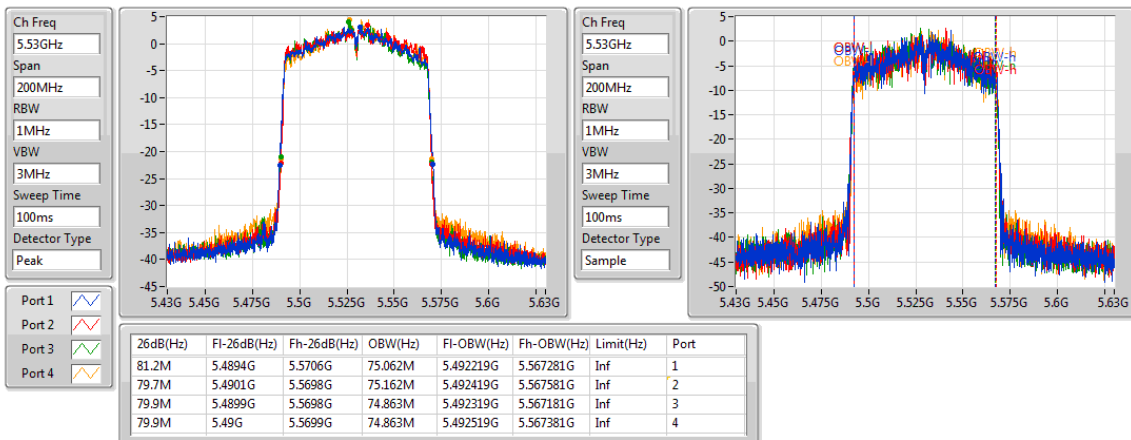


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

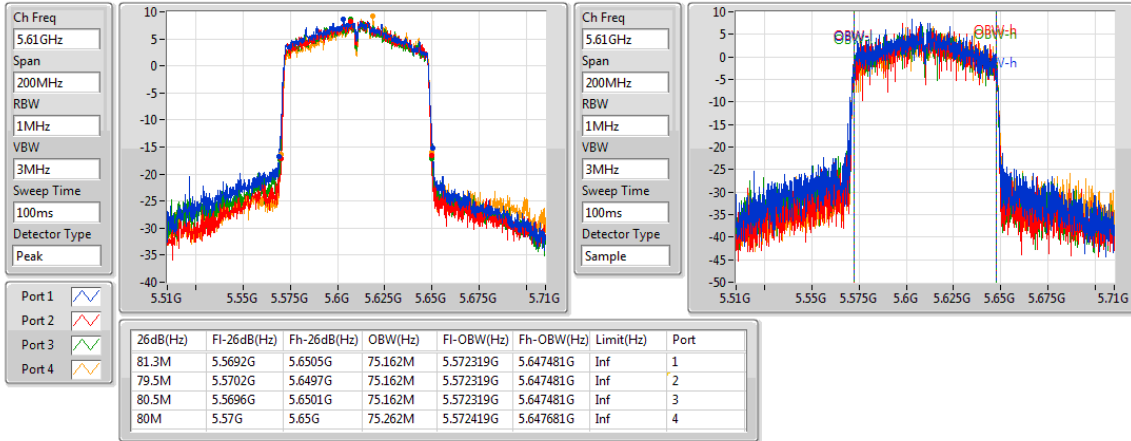
5530MHz

30/03/2018

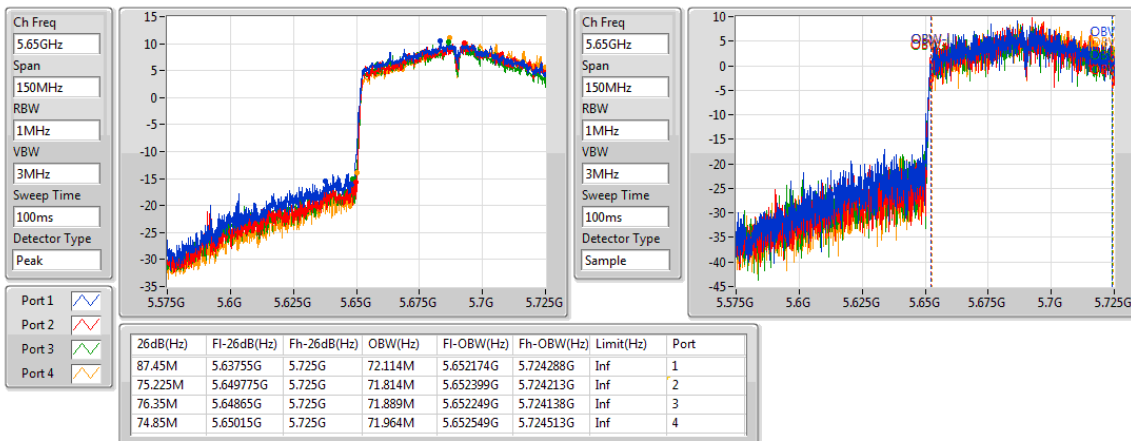


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5610MHz

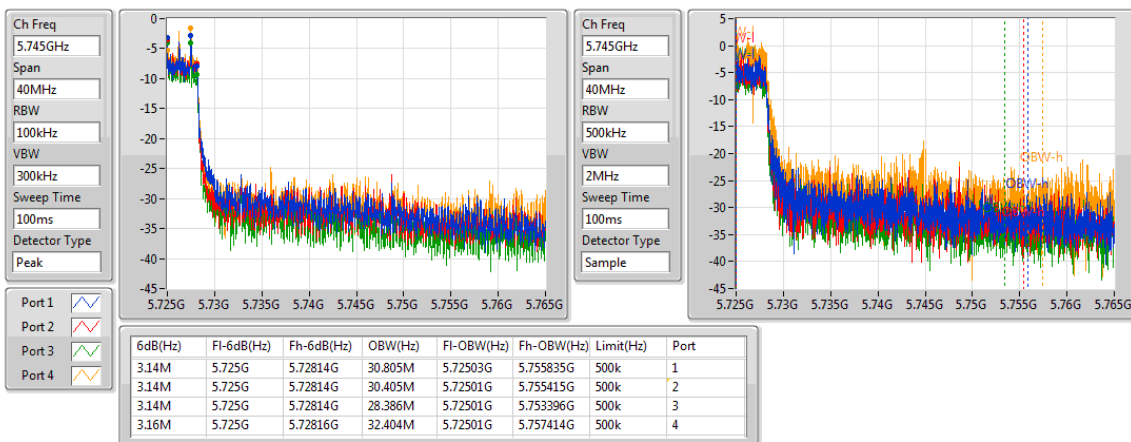
14/03/2018


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5690MHz Straddle 5.47-5.725GHz

14/03/2018


802.11ac VHT80_Nss1,(MCS0)_4TX
EBW
5690MHz Straddle 5.725-5.85GHz

14/03/2018

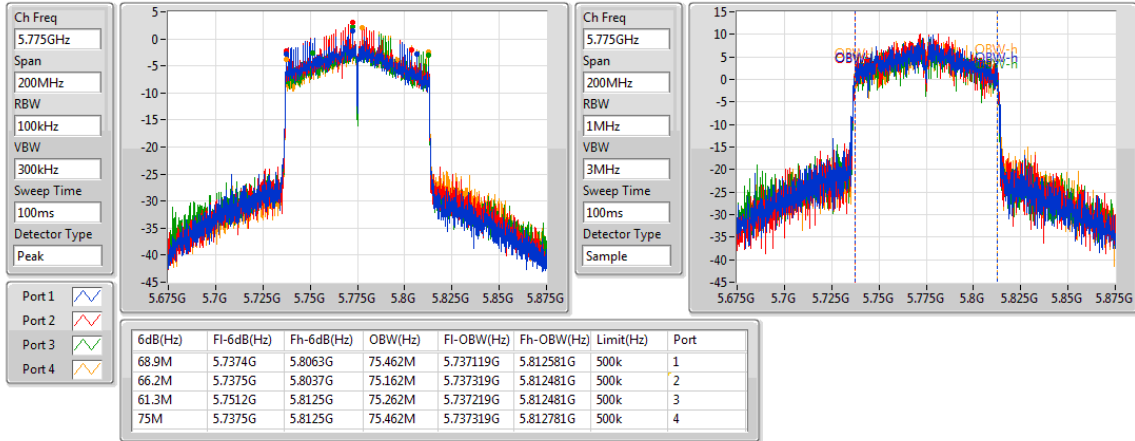


802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5775MHz

20/03/2018

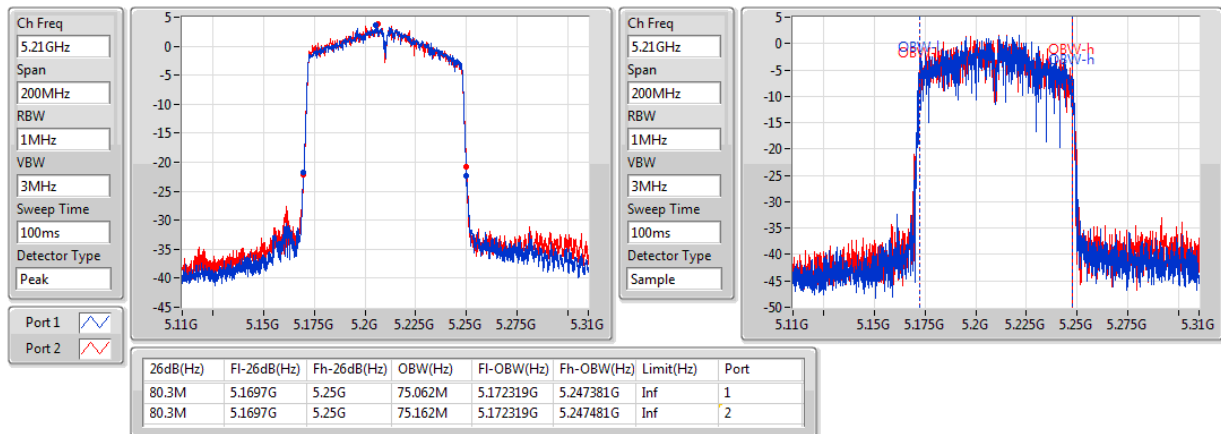


802.11ac VHT80+80_Nss2,(MCS0)_4TX

EBW

#5210MHz,5290MHz

14/03/2018

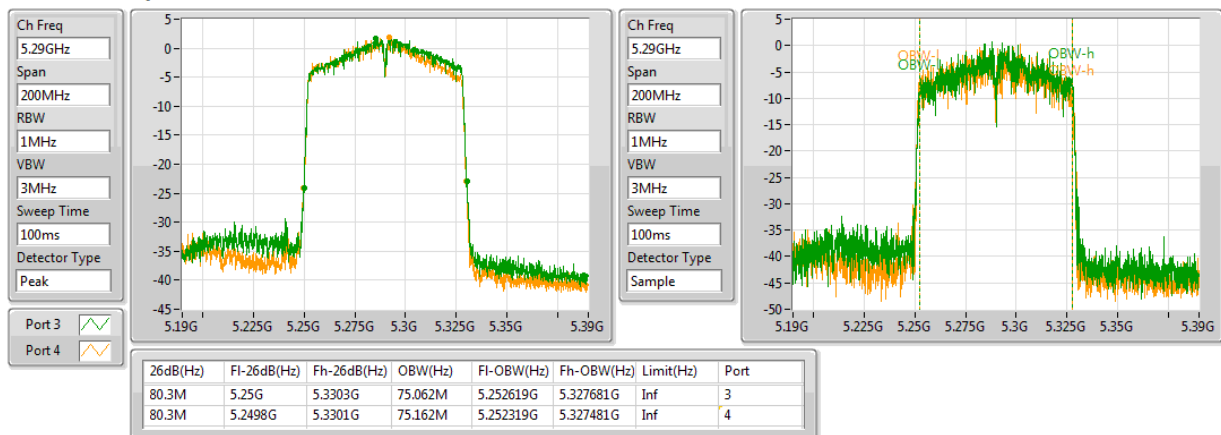


802.11ac VHT80+80_Nss2,(MCS0)_4TX

EBW

5210MHz,#5290MHz

16/03/2018

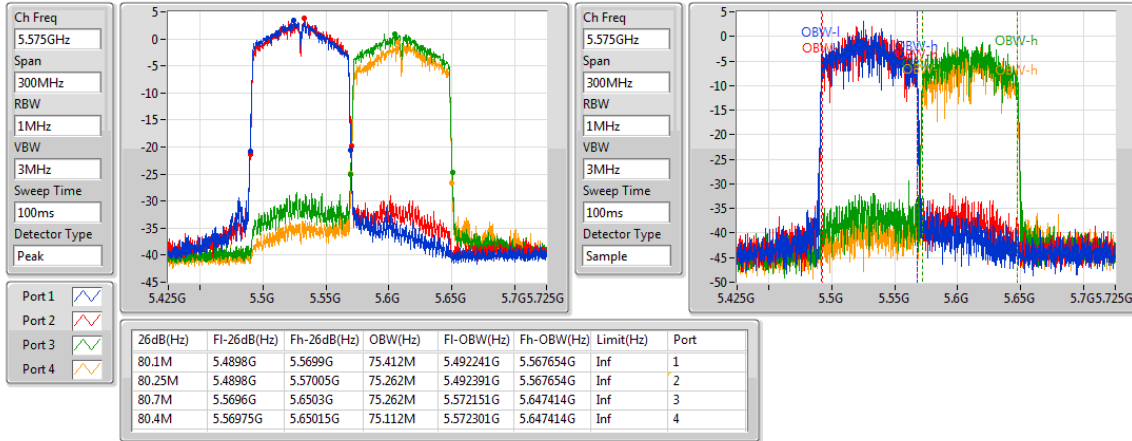


802.11ac VHT80+80_Nss2,(MCS0)_4TX

#5530MHz,#5610MHz

EBW

14/03/2018



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	42.225M	17.991M	18M0D1D	26.775M	17.691M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	75.5M	36.582M	36M6D1D	41.05M	36.182M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	84.4M	76.062M	76M1D1D	82M	75.662M
802.11ac VHT80+80-BF_Nss1,(MCS0)_2TX(Port1&Port2)	78.9M	75.462M	75M5D1D	78.6M	75.162M
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.775M	17.741M	17M7D1D	20.525M	17.616M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	41.35M	36.282M	36M3D1D	40.55M	36.082M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	94.1M	75.862M	75M9D1D	81.7M	75.762M
802.11ac VHT80+80-BF_Nss1,(MCS0)_2TX(Port3&Port4)	139M	5.327581G	5G33D1D	139M	5.327581G
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.675M	17.716M	17M7D1D	15.06M	13.808M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	41.2M	36.282M	36M3D1D	35.455M	32.884M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	84.7M	75.962M	76M0D1D	75.825M	72.414M
802.11ac VHT80+80-BF_Nss1,(MCS0)_4TX	170.55M	75.412M	75M4D1D	79.95M	74.963M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	17.6M	18.191M	18M2D1D	3.78M	4.058M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	35.1M	36.432M	36M4D1D	3.14M	3.738M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	75.4M	76.162M	76M2D1D	3.18M	6.577M

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_TnomVnom	Pass	Inf	41.9M	17.866M	42.225M	17.991M	40.3M	17.891M	41.5M	17.841M
5200MHz_TnomVnom	Pass	Inf	38.225M	17.741M	42.05M	17.791M	34.45M	17.841M	32.15M	17.716M
5240MHz_TnomVnom	Pass	Inf	30.175M	17.766M	38.35M	17.741M	26.775M	17.691M	32.55M	17.766M
5260MHz_TnomVnom	Pass	Inf	20.65M	17.666M	20.675M	17.691M	20.625M	17.616M	20.55M	17.666M
5300MHz_TnomVnom	Pass	Inf	20.625M	17.691M	20.675M	17.666M	20.575M	17.691M	20.525M	17.691M
5320MHz_TnomVnom	Pass	Inf	20.775M	17.641M	20.6M	17.616M	20.65M	17.741M	20.65M	17.641M
5500MHz_TnomVnom	Pass	Inf	20.625M	17.641M	20.6M	17.691M	20.55M	17.641M	20.475M	17.691M
5580MHz_TnomVnom	Pass	Inf	20.675M	17.641M	20.6M	17.716M	20.6M	17.666M	20.625M	17.691M
5700MHz_TnomVnom	Pass	Inf	20.6M	17.666M	20.65M	17.666M	20.625M	17.666M	20.625M	17.666M
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	15.105M	13.823M	15.15M	13.808M	15.06M	13.823M	15.105M	13.838M
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.84M	4.078M	3.88M	4.058M	3.78M	4.098M	3.78M	4.078M
5745MHz_TnomVnom	Pass	500k	15.925M	17.791M	16.325M	17.916M	16.05M	17.891M	17.575M	18.016M
5785MHz_TnomVnom	Pass	500k	15.05M	17.816M	17.6M	18.066M	15.425M	17.916M	17.575M	18.191M
5825MHz_TnomVnom	Pass	500k	16.05M	17.816M	15.35M	17.841M	15.325M	17.816M	15.35M	17.941M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	Inf	41.4M	36.232M	41.15M	36.232M	41.15M	36.182M	41.05M	36.182M
5230MHz_TnomVnom	Pass	Inf	74.25M	36.482M	75.5M	36.582M	72.65M	36.382M	73.75M	36.332M
5270MHz_TnomVnom	Pass	Inf	41.1M	36.132M	40.55M	36.132M	41.15M	36.182M	41M	36.232M
5310MHz_TnomVnom	Pass	Inf	40.9M	36.132M	40.95M	36.082M	41.35M	36.282M	40.85M	36.182M
5510MHz_TnomVnom	Pass	Inf	41M	36.182M	41M	36.082M	40.95M	36.032M	40.85M	36.282M
5550MHz_TnomVnom	Pass	Inf	40.95M	36.182M	40.95M	36.132M	41.1M	36.182M	40.95M	36.282M
5670MHz_TnomVnom	Pass	Inf	41M	36.082M	40.85M	36.232M	41.2M	36.182M	41.15M	36.232M
5710MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	35.455M	32.919M	35.525M	32.884M	35.455M	32.919M	35.455M	32.954M
5710MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.16M	3.818M	3.26M	3.738M	3.14M	3.778M	3.18M	3.818M
5755MHz_TnomVnom	Pass	500k	33.8M	36.232M	35M	36.282M	35M	36.282M	34.2M	36.332M
5795MHz_TnomVnom	Pass	500k	34.95M	36.182M	35.05M	36.332M	35.1M	36.282M	33.8M	36.432M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	Inf	84.4M	75.862M	82M	76.062M	82M	76.062M	82M	75.662M
5290MHz_TnomVnom	Pass	Inf	94.1M	75.862M	81.9M	75.762M	81.7M	75.762M	82M	75.762M
5530MHz_TnomVnom	Pass	Inf	81.7M	75.862M	81.9M	75.862M	84.7M	75.862M	82.1M	75.762M
5610MHz_TnomVnom	Pass	Inf	81.7M	75.962M	82.1M	75.962M	81.8M	75.962M	82.1M	75.762M
5690MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	78.675M	72.414M	75.9M	72.489M	75.825M	72.564M	75.975M	72.639M
5690MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.24M	7.836M	3.24M	7.376M	3.18M	6.577M	3.18M	23.828M
5775MHz_TnomVnom	Pass	500k	75M	76.062M	75.1M	76.162M	75.4M	76.062M	66.3M	75.762M
802.11ac VHT80+80-BF_Nss1,(MCS0)_2TX(Port1&Port2)	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz_TnomVnom	Pass	Inf	78.9M	75.162M	78.6M	75.462M				
802.11ac VHT80+80-BF_Nss1,(MCS0)_2TX(Port3&Port4)	-	-	-	-	-	-	-	-	-	-



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)
5210MHz,#5290MHz_TnomVnom	Pass	Inf					139M	75.362M	79.9M	75.162M
802.11ac VHT80+80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz_TnomVnom	Pass	Inf	79.95M	74.963M	104.25M	75.112M	170.55M	75.412M	107.7M	75.262M

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

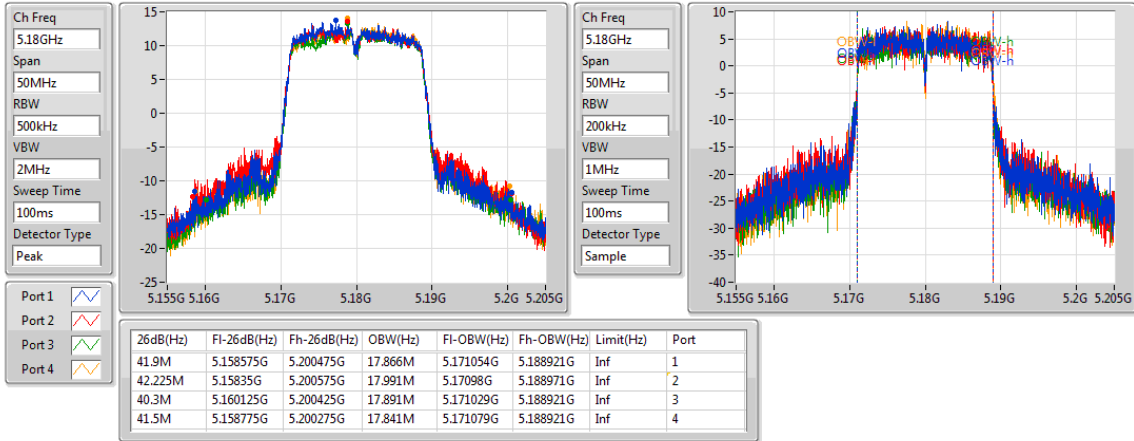
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5180MHz

16/03/2018

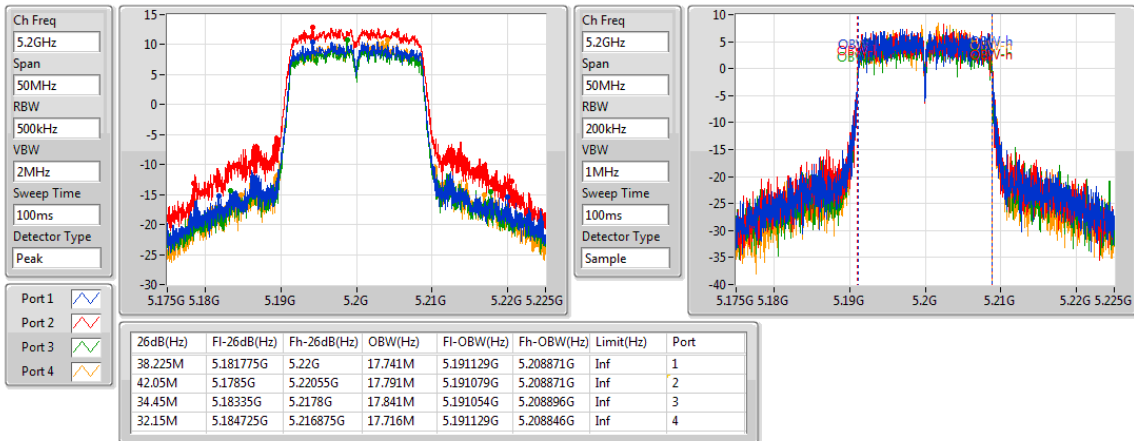


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5200MHz

16/03/2018

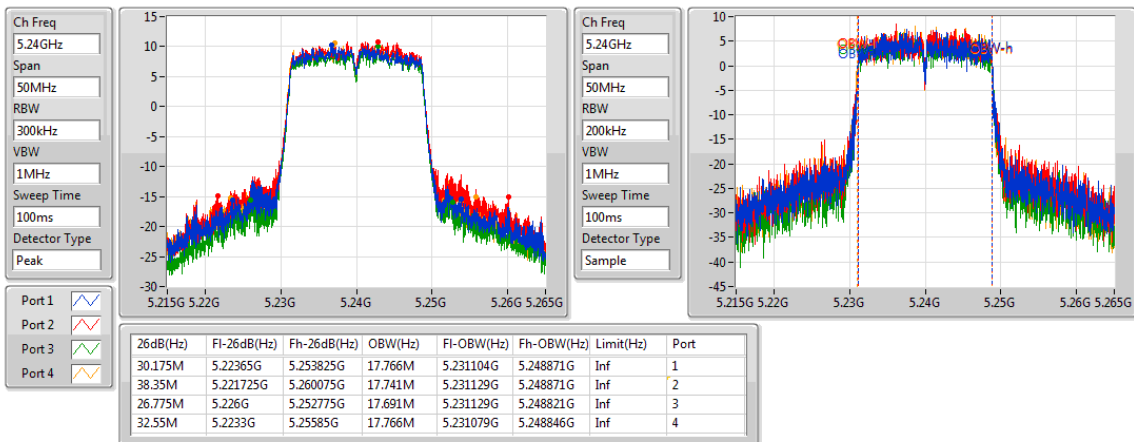


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5240MHz

16/03/2018

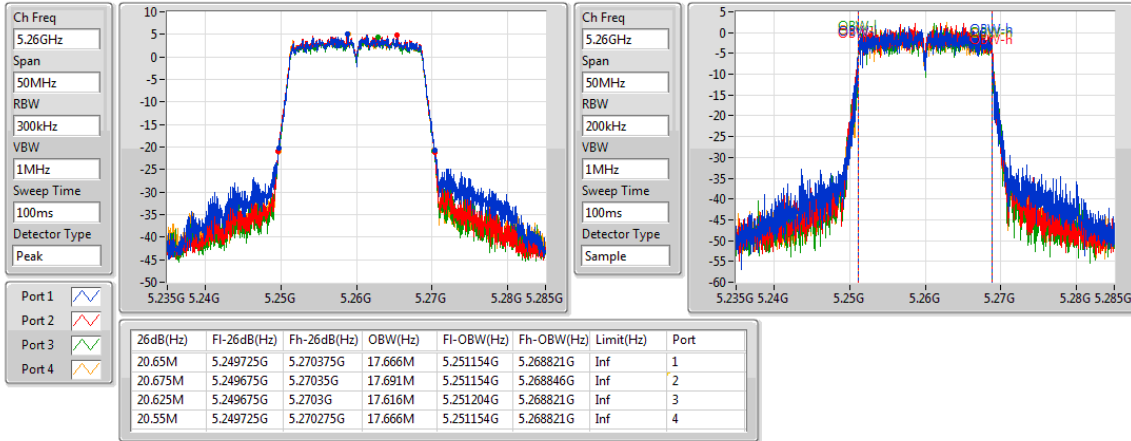


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5260MHz

16/03/2018

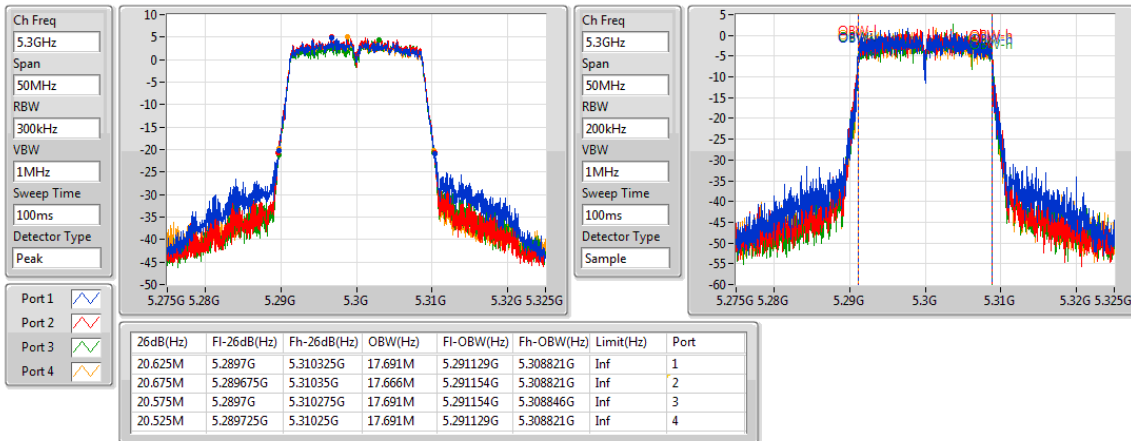


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5300MHz

16/03/2018

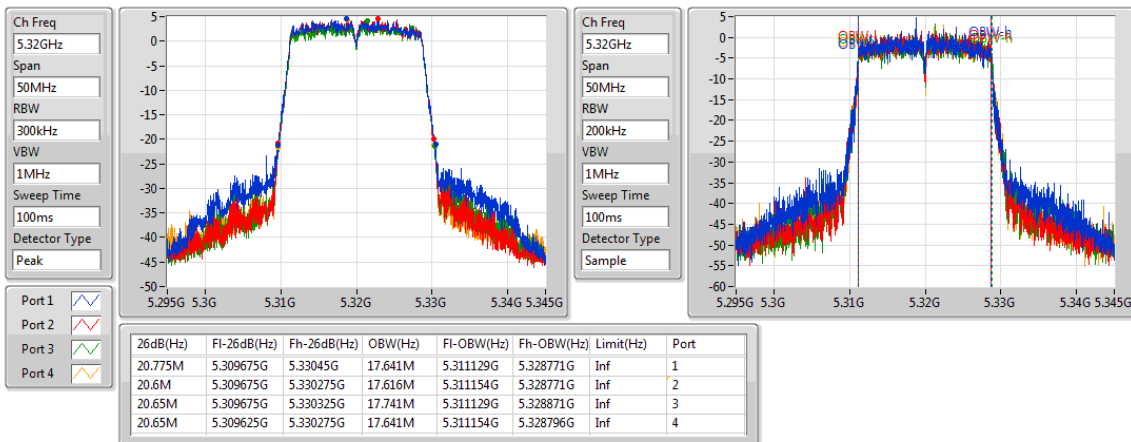


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5320MHz

16/03/2018

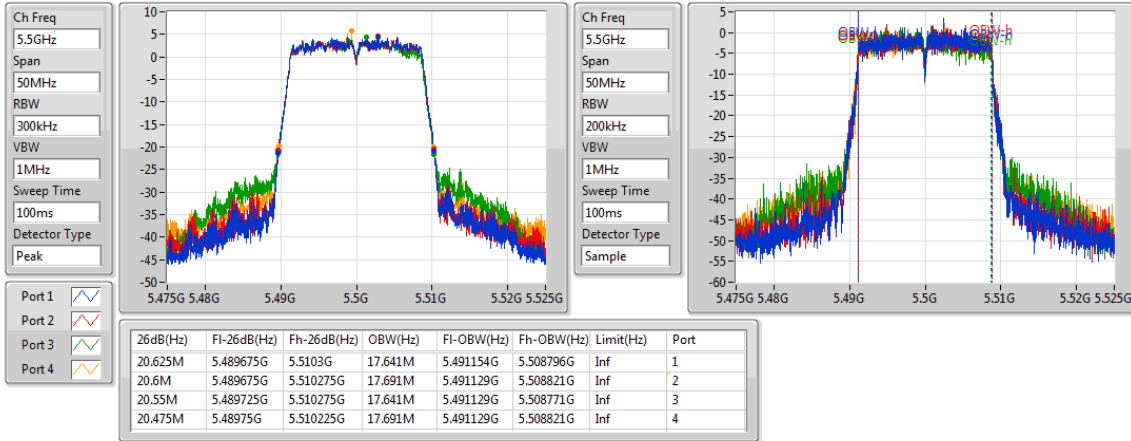


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5500MHz

16/03/2018

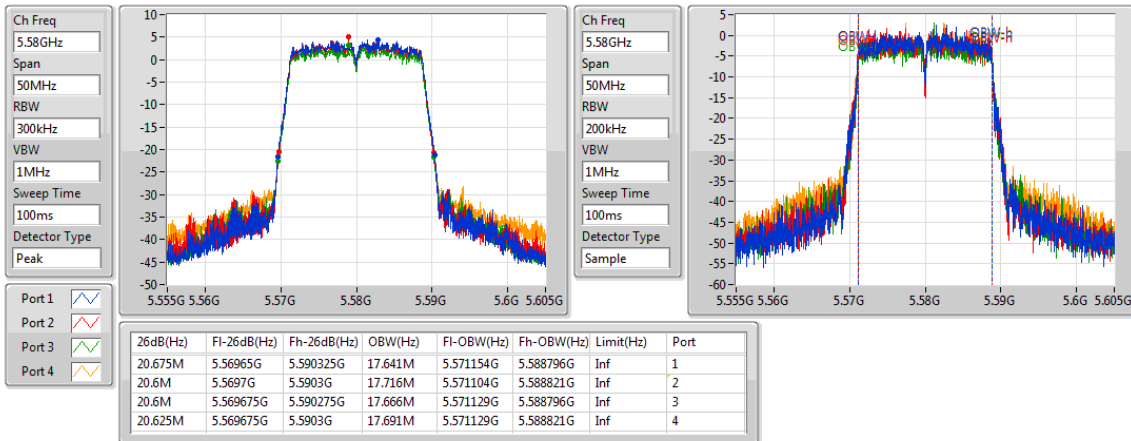


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5580MHz

16/03/2018

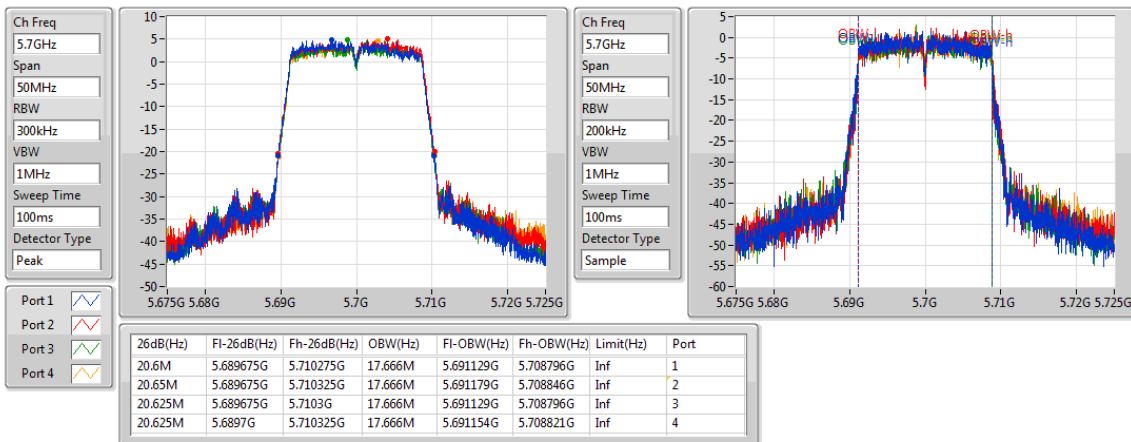


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5700MHz

16/03/2018

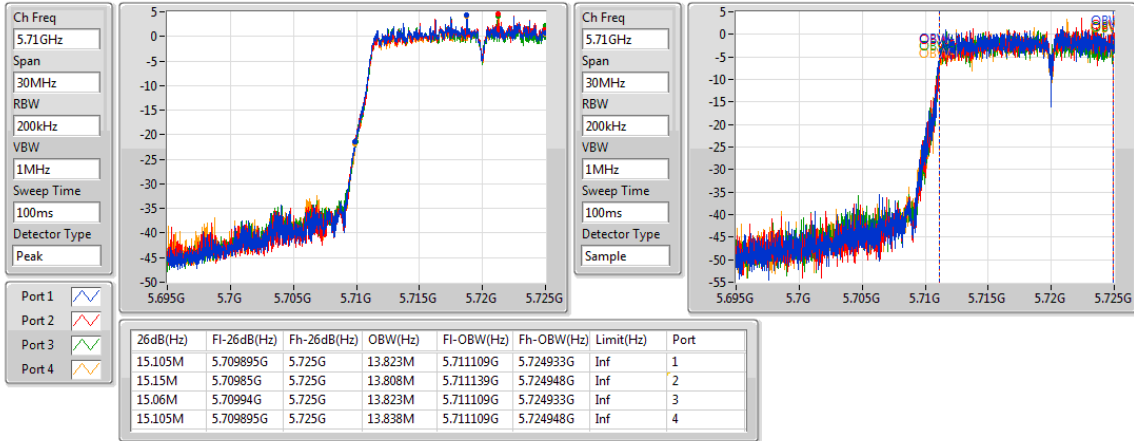


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

16/03/2018

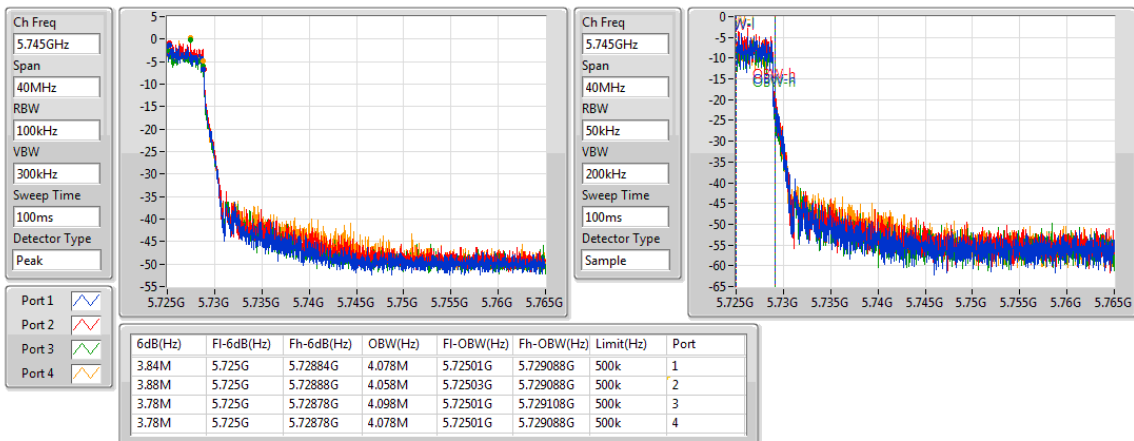


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

16/03/2018

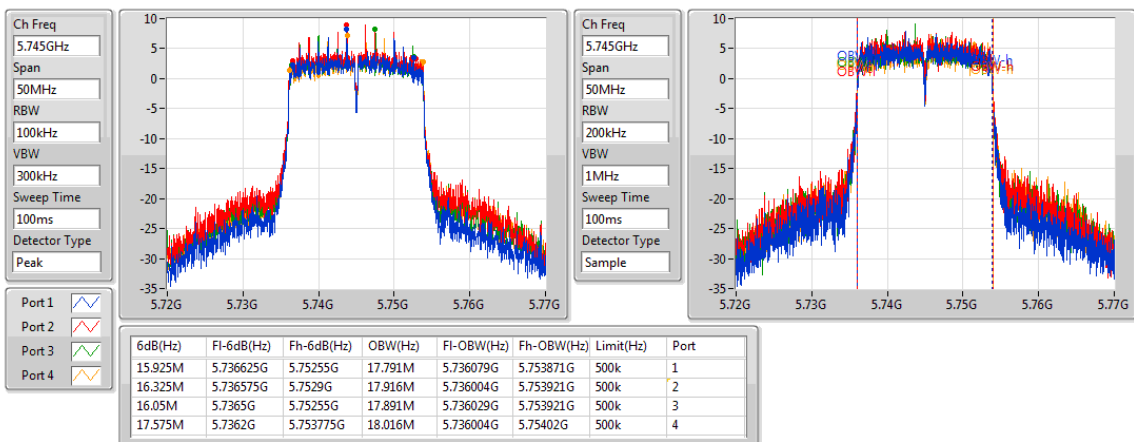


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5745MHz

23/03/2018

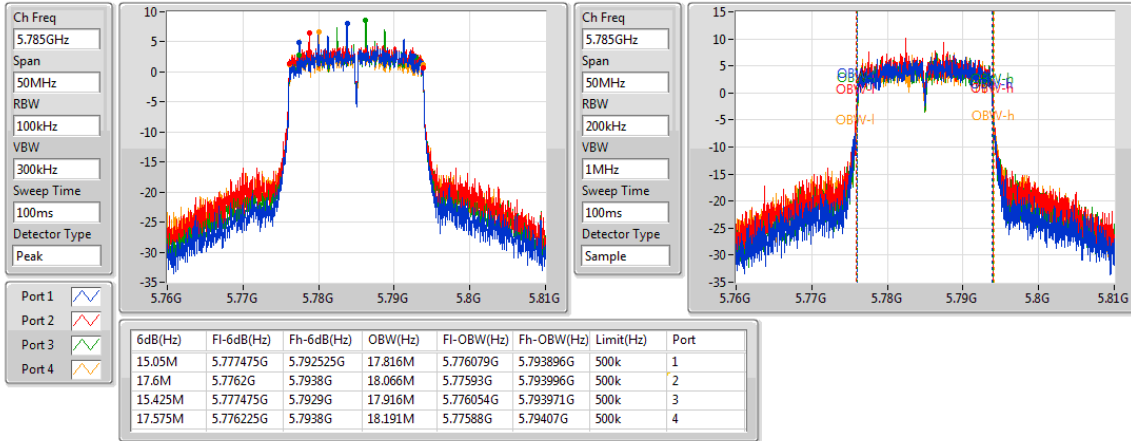


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5785MHz

23/03/2018

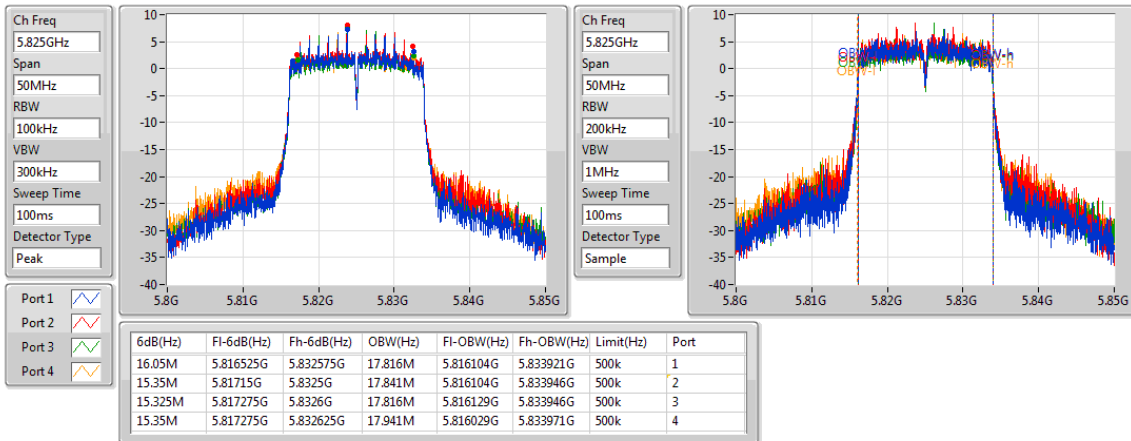


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5825MHz

23/03/2018

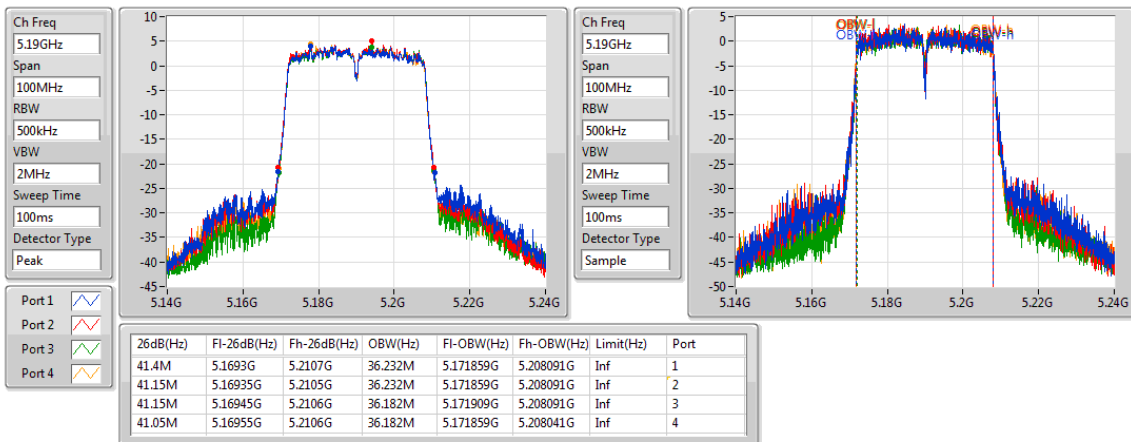


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5190MHz

23/03/2018

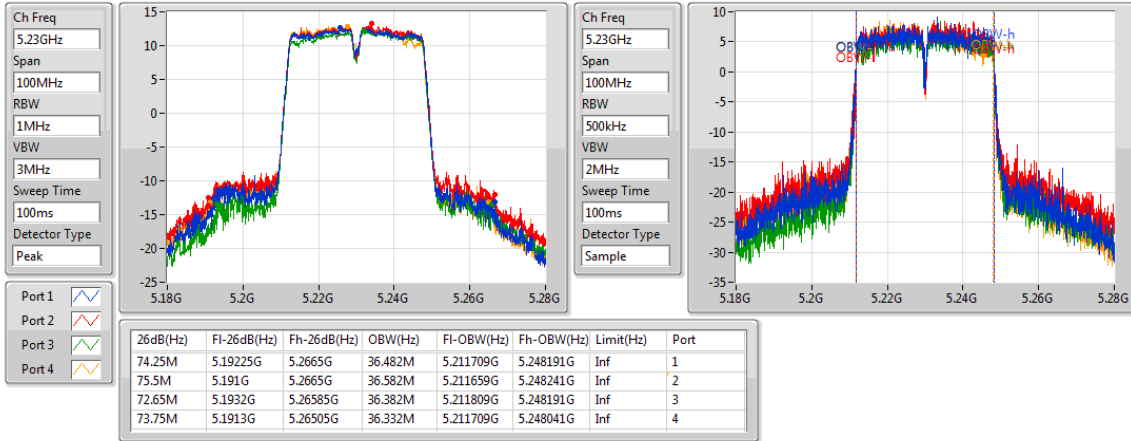


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5230MHz

23/03/2018

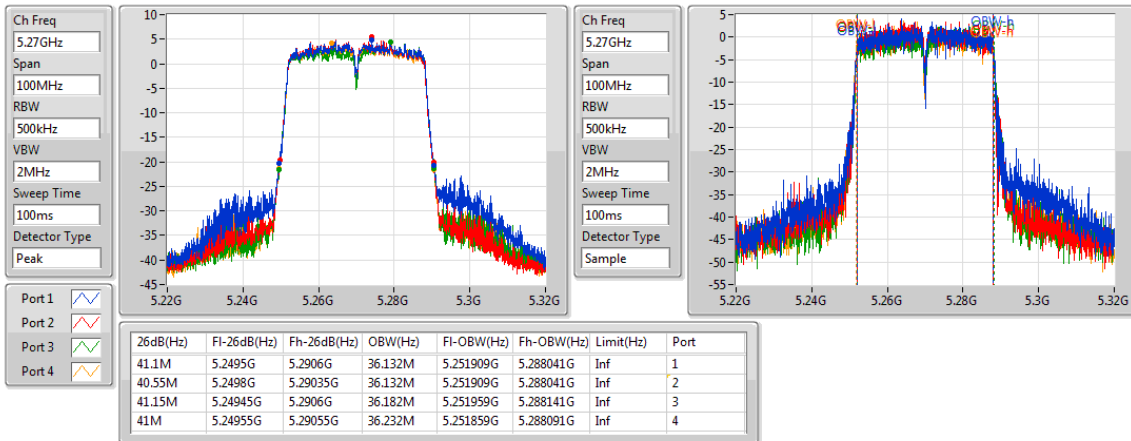


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5270MHz

16/03/2018

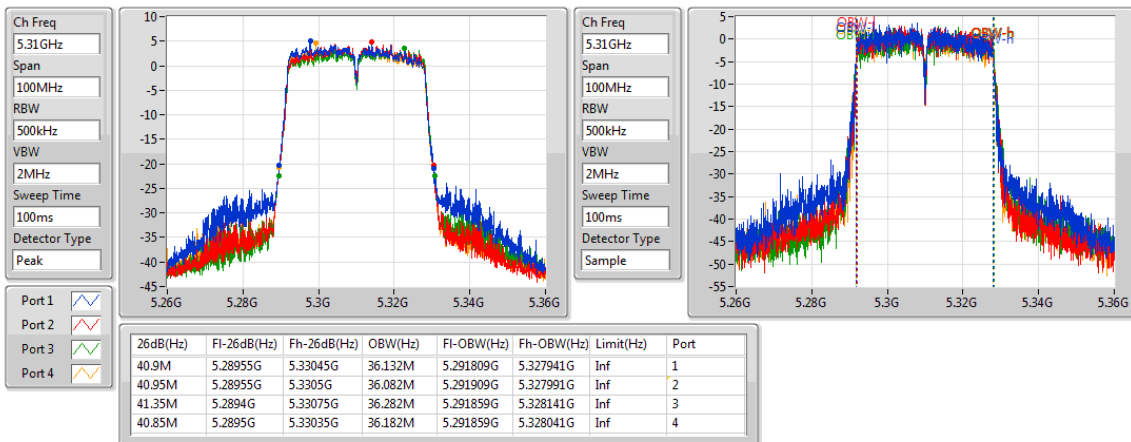


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5310MHz

16/03/2018

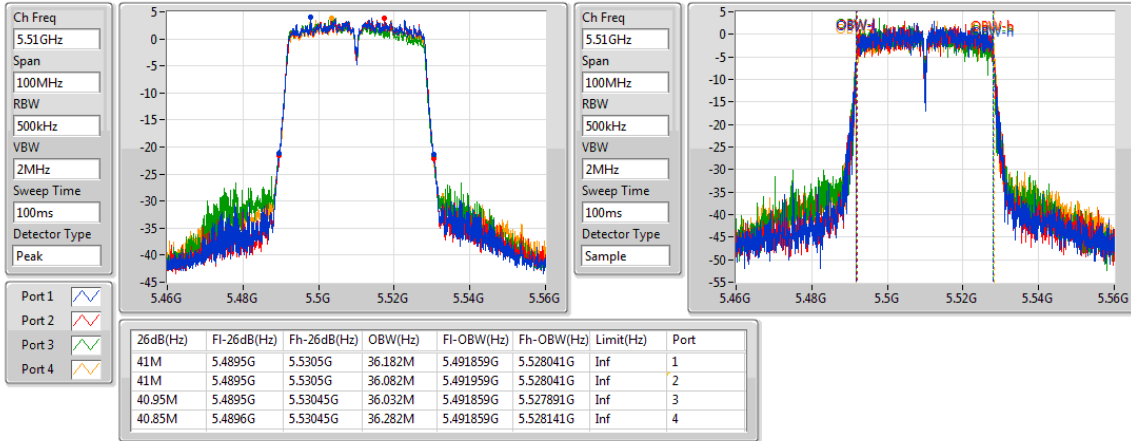


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5510MHz

16/03/2018

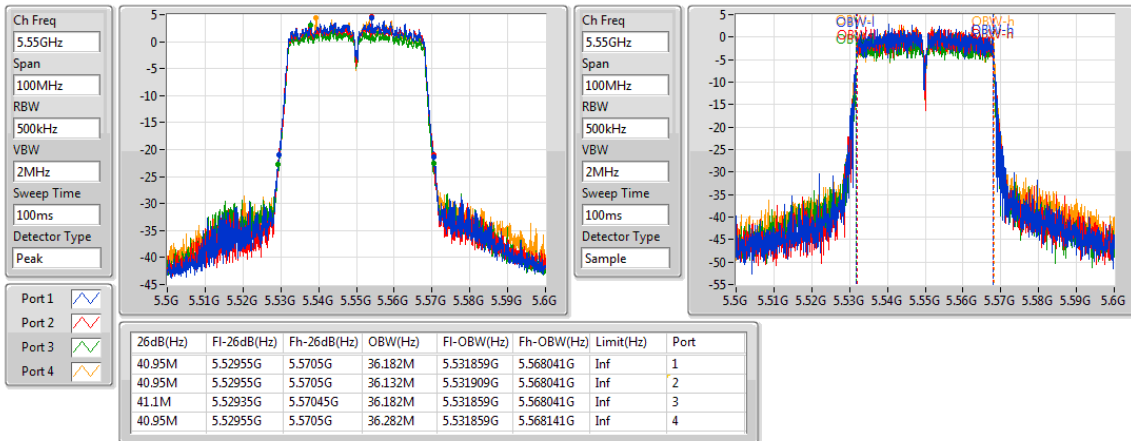


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5550MHz

16/03/2018

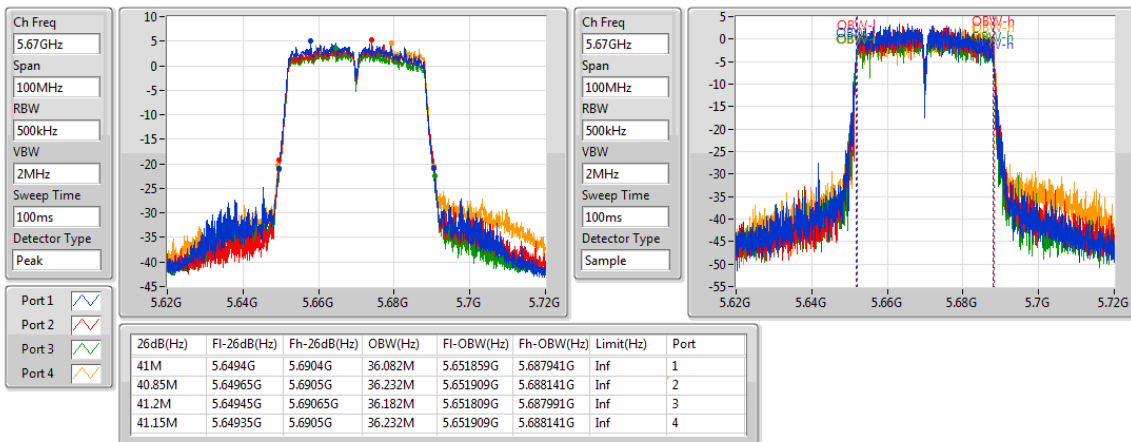


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5670MHz

16/03/2018

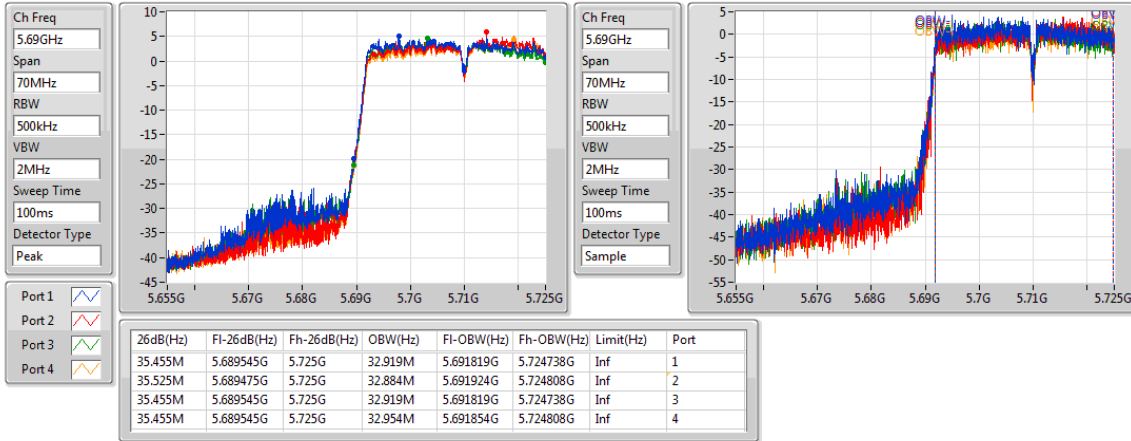


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.47-5.725GHz

16/03/2018

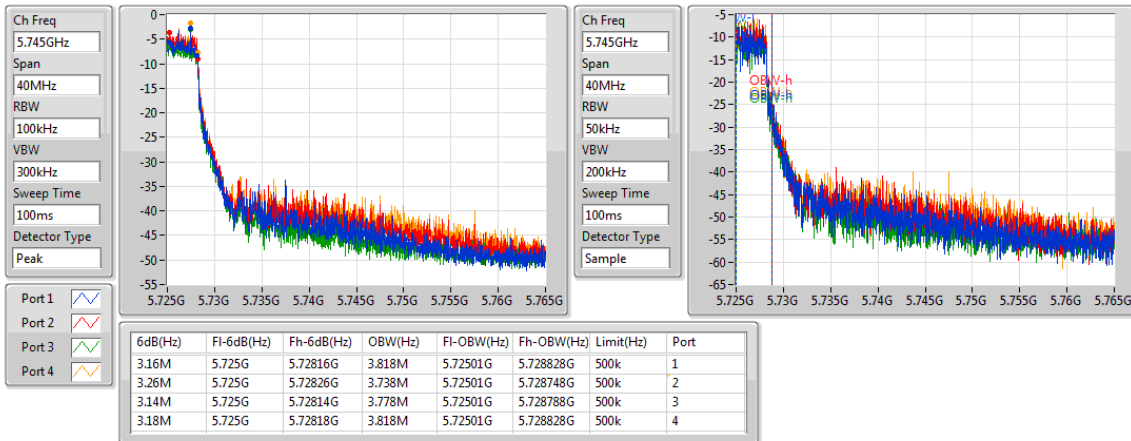


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

16/03/2018

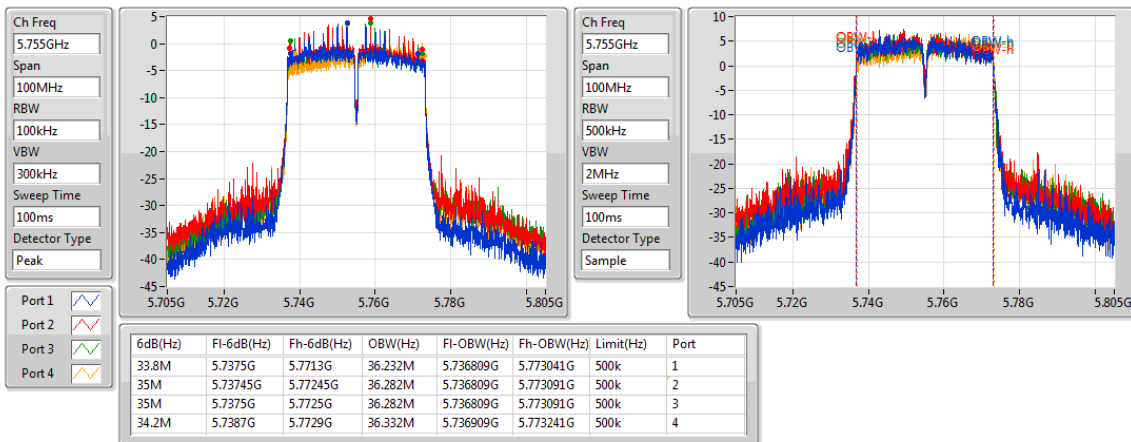


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5755MHz

23/03/2018

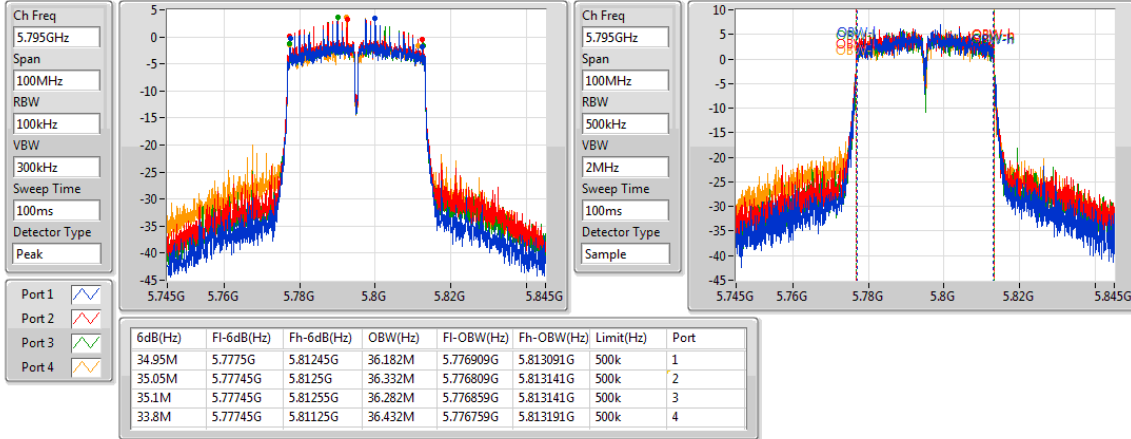


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5795MHz

23/03/2018

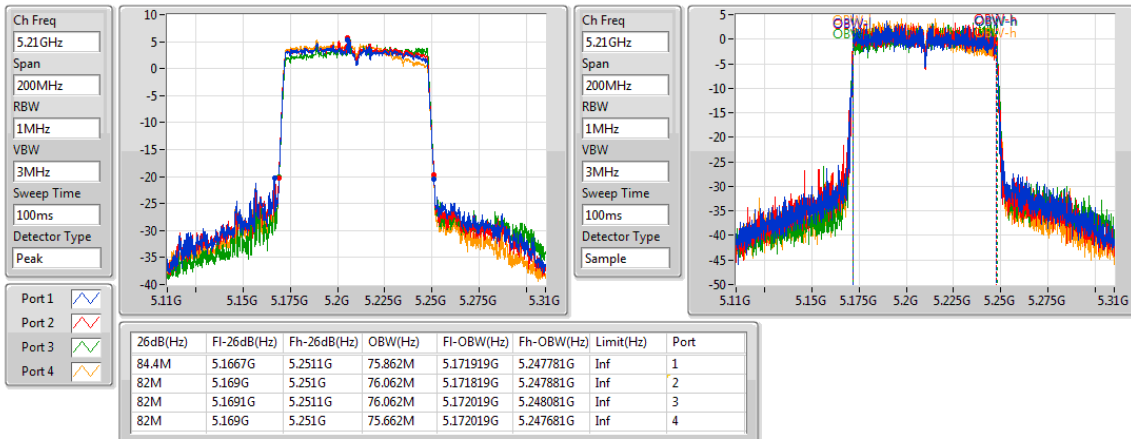


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5210MHz

23/03/2018

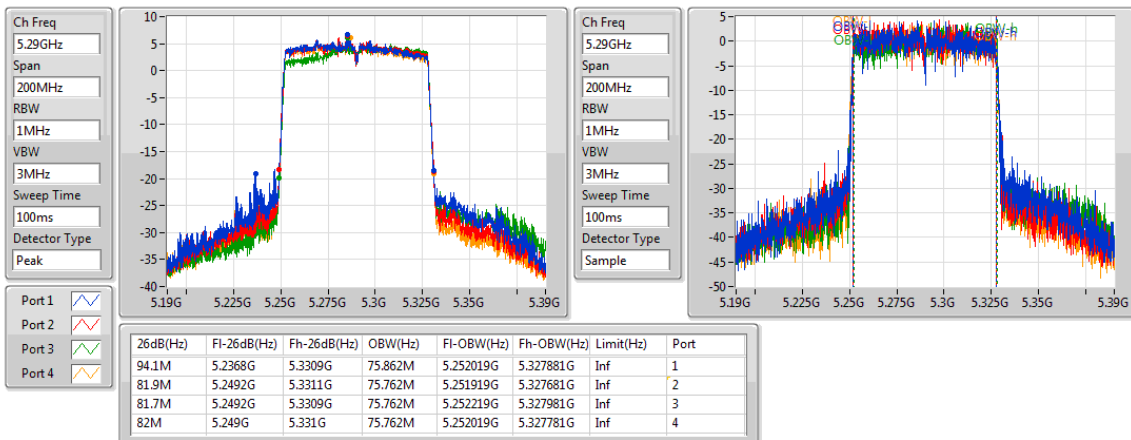


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5290MHz

16/03/2018

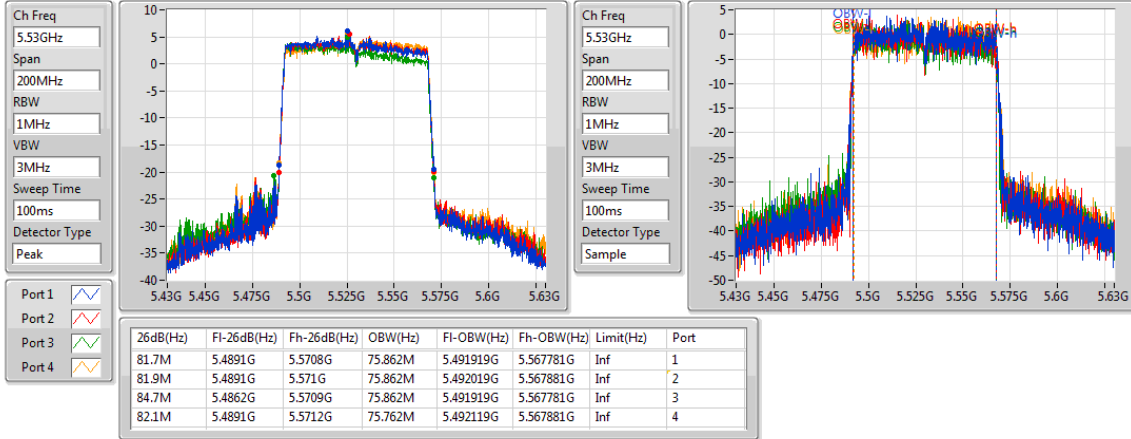


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5530MHz

16/03/2018

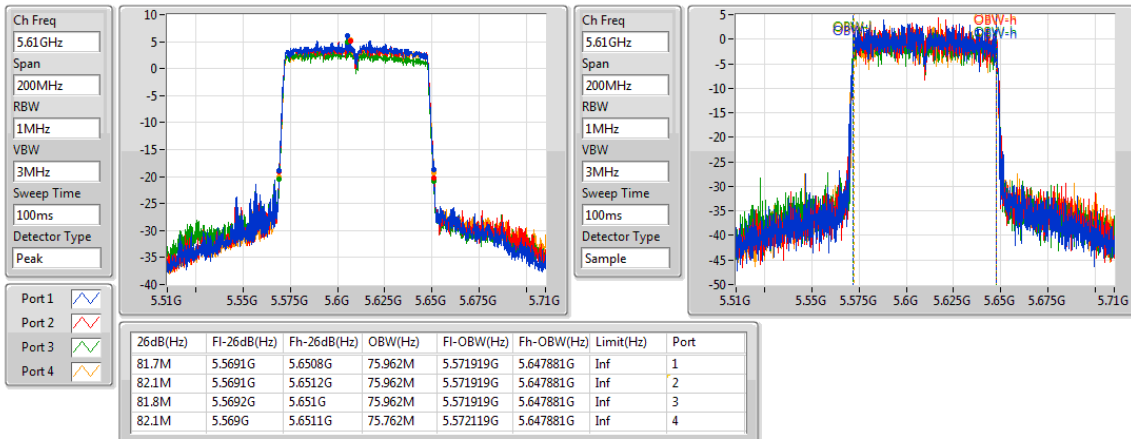


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5610MHz

16/03/2018

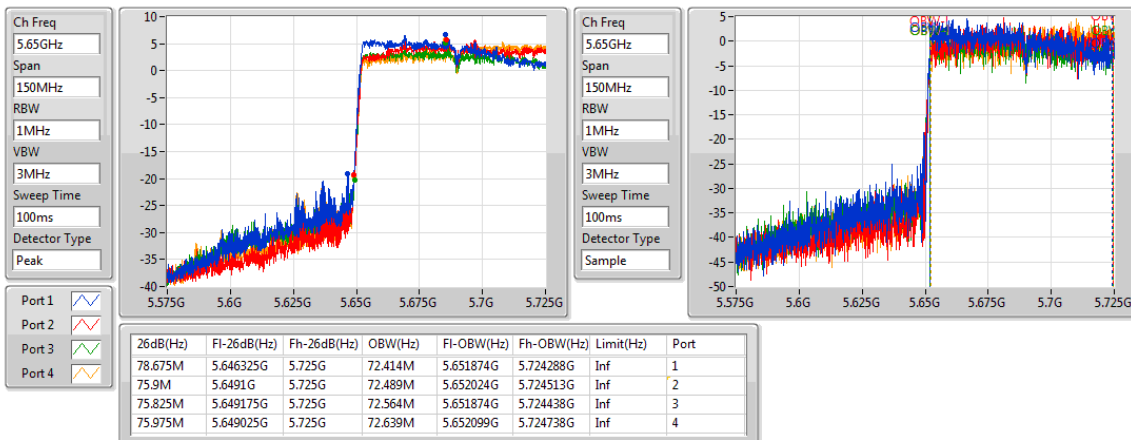


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5690MHz Straddle 5.47-5.725GHz

16/03/2018

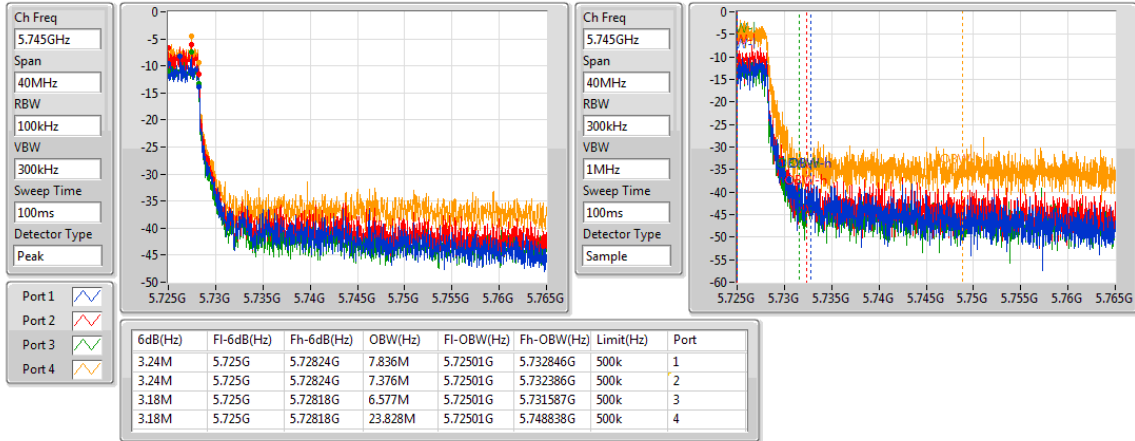


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5690MHz Straddle 5.725-5.85GHz

16/03/2018

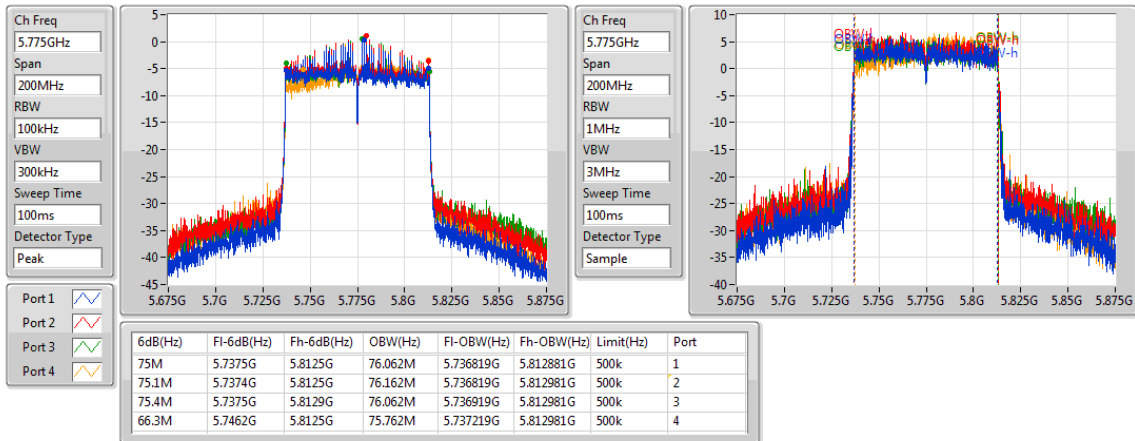


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5775MHz

23/03/2018

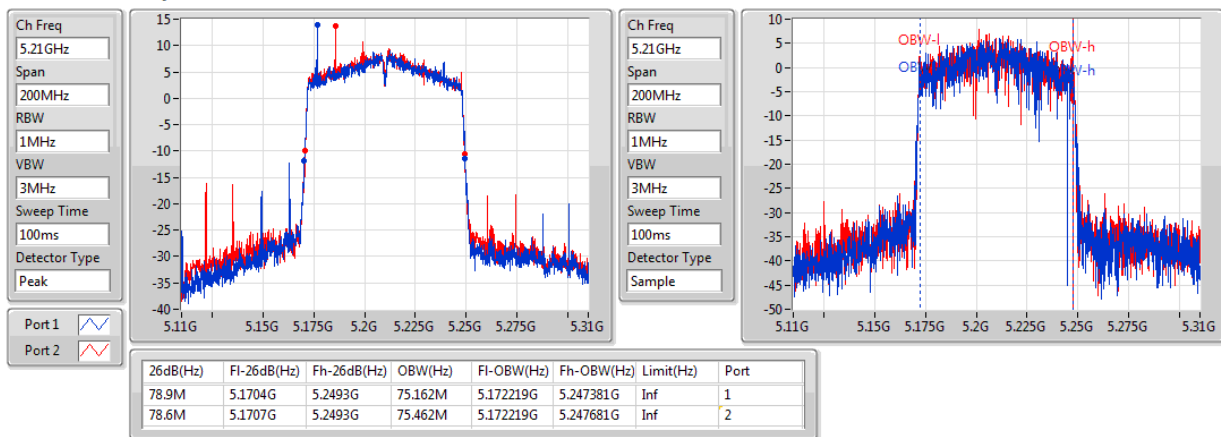


802.11ac VHT80+80-BF_Nss2,(MCS0)_2TX(Port1&Port2)

EBW

#5210MHz,5290MHz

16/03/2018

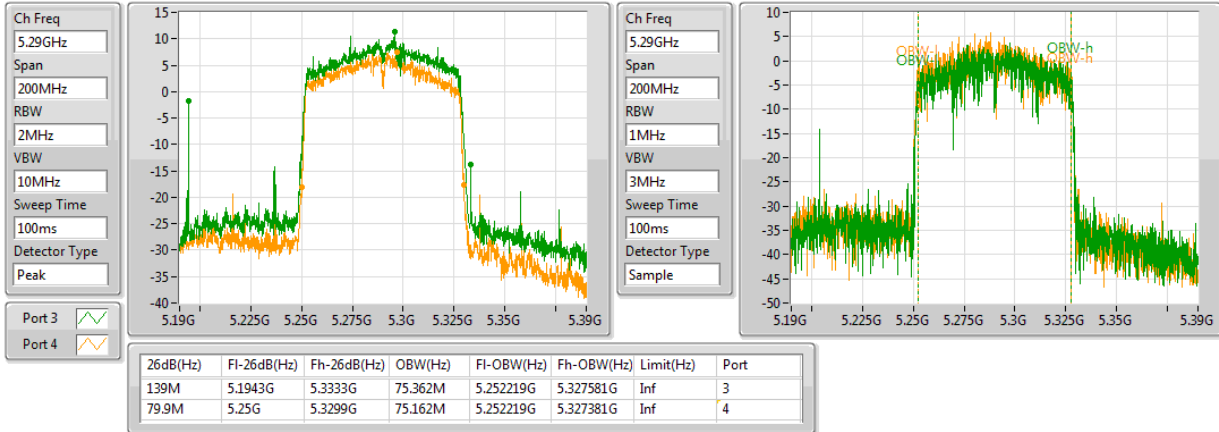


802.11ac VHT80+80-BF_Nss2,(MCS0)_2TX(Port3&Port4)

EBW

5210MHz,#5290MHz

16/03/2018

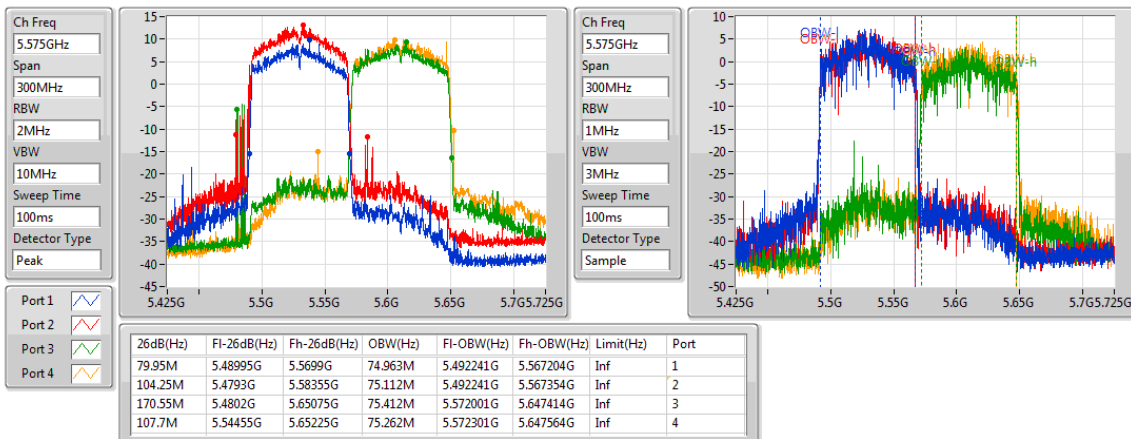


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

16/03/2018



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	20.725M	17.741M	17M7D1D	20.575M	17.666M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	41.45M	36.232M	36M2D1D	40.85M	36.132M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	82M	76.162M	76M2D1D	81.8M	75.662M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	78.9M	75.462M	75M5D1D	78.6M	75.162M
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.775M	17.741M	17M7D1D	20.525M	17.616M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	41.35M	36.282M	36M3D1D	40.55M	36.082M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	94.1M	75.862M	75M9D1D	81.7M	75.762M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	139M	75.362M	75M4D1D	79.9M	75.162M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.675M	17.716M	17M7D1D	15.06M	13.808M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	41.2M	36.282M	36M3D1D	35.455M	32.884M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	84.7M	75.962M	76M0D1D	75.825M	72.414M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	170.55M	75.412M	75M4D1D	79.95M	74.963M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	17.6M	18.191M	18M2D1D	3.78M	4.058M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	35.1M	36.432M	36M4D1D	3.14M	3.738M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	75.4M	76.162M	76M2D1D	3.18M	6.577M

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_TnomVnom	Pass	Inf	20.65M	17.666M	20.575M	17.716M	20.7M	17.666M	20.6M	17.691M
5200MHz_TnomVnom	Pass	Inf	20.725M	17.741M	20.675M	17.666M	20.575M	17.666M	20.625M	17.666M
5240MHz_TnomVnom	Pass	Inf	20.675M	17.691M	20.7M	17.666M	20.575M	17.716M	20.625M	17.691M
5260MHz_TnomVnom	Pass	Inf	20.65M	17.666M	20.675M	17.691M	20.625M	17.616M	20.55M	17.666M
5300MHz_TnomVnom	Pass	Inf	20.625M	17.691M	20.675M	17.666M	20.575M	17.691M	20.525M	17.691M
5320MHz_TnomVnom	Pass	Inf	20.775M	17.641M	20.6M	17.616M	20.65M	17.741M	20.65M	17.641M
5500MHz_TnomVnom	Pass	Inf	20.625M	17.641M	20.6M	17.691M	20.55M	17.641M	20.475M	17.691M
5580MHz_TnomVnom	Pass	Inf	20.675M	17.641M	20.6M	17.716M	20.6M	17.666M	20.625M	17.691M
5700MHz_TnomVnom	Pass	Inf	20.6M	17.666M	20.65M	17.666M	20.625M	17.666M	20.625M	17.666M
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	15.105M	13.823M	15.15M	13.808M	15.06M	13.823M	15.105M	13.838M
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.84M	4.078M	3.88M	4.058M	3.78M	4.098M	3.78M	4.078M
5745MHz_TnomVnom	Pass	500k	15.925M	17.791M	16.325M	17.916M	16.05M	17.891M	17.575M	18.016M
5785MHz_TnomVnom	Pass	500k	15.05M	17.816M	17.6M	18.066M	15.425M	17.916M	17.575M	18.191M
5825MHz_TnomVnom	Pass	500k	16.05M	17.816M	15.35M	17.841M	15.325M	17.816M	15.35M	17.941M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	Inf	41.25M	36.182M	40.85M	36.132M	41.45M	36.132M	41.15M	36.182M
5230MHz_TnomVnom	Pass	Inf	41.15M	36.232M	41.15M	36.232M	41.3M	36.232M	41.1M	36.182M
5270MHz_TnomVnom	Pass	Inf	41.1M	36.132M	40.55M	36.132M	41.15M	36.182M	41M	36.232M
5310MHz_TnomVnom	Pass	Inf	40.9M	36.132M	40.95M	36.082M	41.35M	36.282M	40.85M	36.182M
5510MHz_TnomVnom	Pass	Inf	41M	36.182M	41M	36.082M	40.95M	36.032M	40.85M	36.282M
5550MHz_TnomVnom	Pass	Inf	40.95M	36.182M	40.95M	36.132M	41.1M	36.182M	40.95M	36.282M
5670MHz_TnomVnom	Pass	Inf	41M	36.082M	40.85M	36.232M	41.2M	36.182M	41.15M	36.232M
5710MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	35.455M	32.919M	35.525M	32.884M	35.455M	32.919M	35.455M	32.954M
5710MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.16M	3.818M	3.26M	3.738M	3.14M	3.778M	3.18M	3.818M
5755MHz_TnomVnom	Pass	500k	33.8M	36.232M	35M	36.282M	35M	36.282M	34.2M	36.332M
5795MHz_TnomVnom	Pass	500k	34.95M	36.182M	35.05M	36.332M	35.1M	36.282M	33.8M	36.432M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	Inf	81.9M	75.762M	82M	76.162M	81.8M	75.762M	81.8M	75.662M
5290MHz_TnomVnom	Pass	Inf	94.1M	75.862M	81.9M	75.762M	81.7M	75.762M	82M	75.762M
5530MHz_TnomVnom	Pass	Inf	81.7M	75.862M	81.9M	75.862M	84.7M	75.862M	82.1M	75.762M
5610MHz_TnomVnom	Pass	Inf	81.7M	75.962M	82.1M	75.962M	81.8M	75.962M	82.1M	75.762M
5690MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	Inf	78.675M	72.414M	75.9M	72.489M	75.825M	72.564M	75.975M	72.639M
5690MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	500k	3.24M	7.836M	3.24M	7.376M	3.18M	6.577M	3.18M	23.828M
5775MHz_TnomVnom	Pass	500k	75M	76.062M	75.1M	76.162M	75.4M	76.062M	66.3M	75.762M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz_TnomVnom	Pass	Inf	78.9M	75.162M	78.6M	75.462M				
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz_TnomVnom	Pass	Inf					139M	75.362M	79.9M	75.162M
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-



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)
#5530MHz,#5610MHz_TnomVnom	Pass	Inf	79.95M	74.963M	104.25M	75.112M	170.55M	75.412M	107.7M	75.262M

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

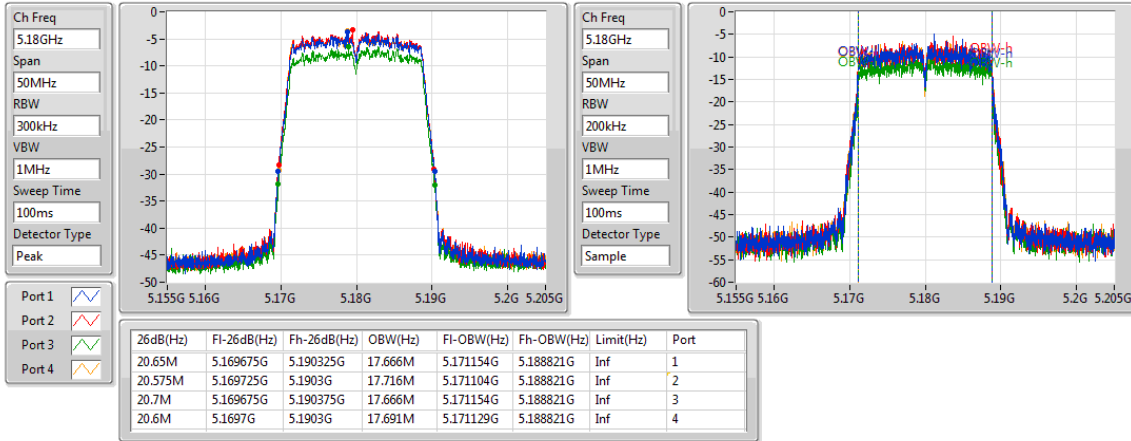
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5180MHz

23/03/2018

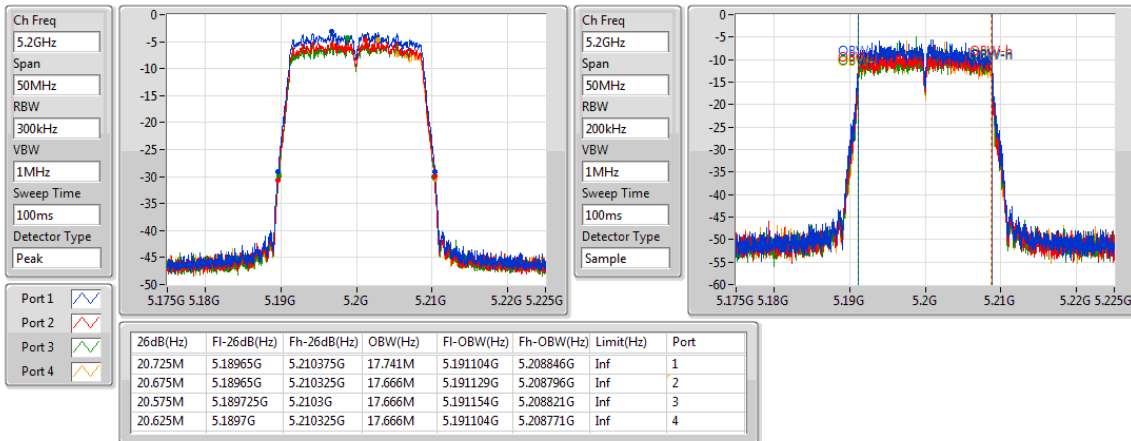


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5200MHz

23/03/2018

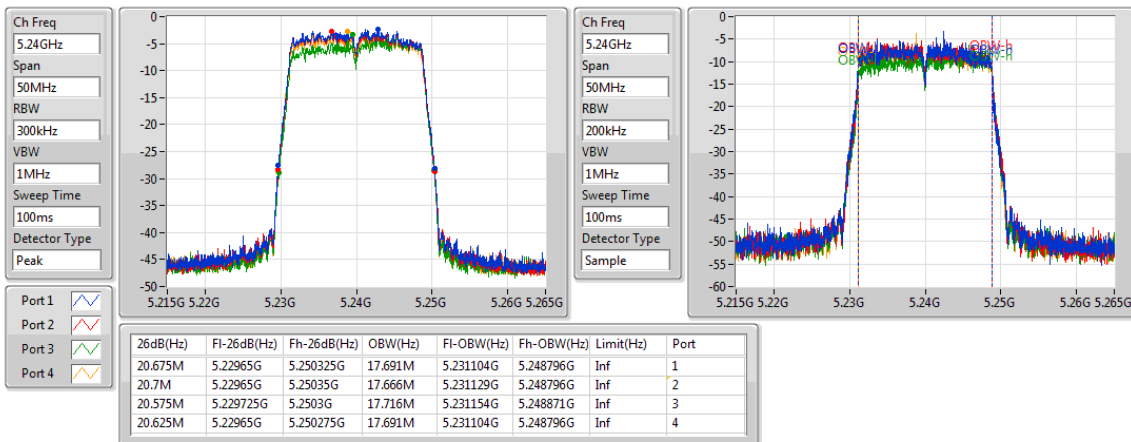


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5240MHz

23/03/2018

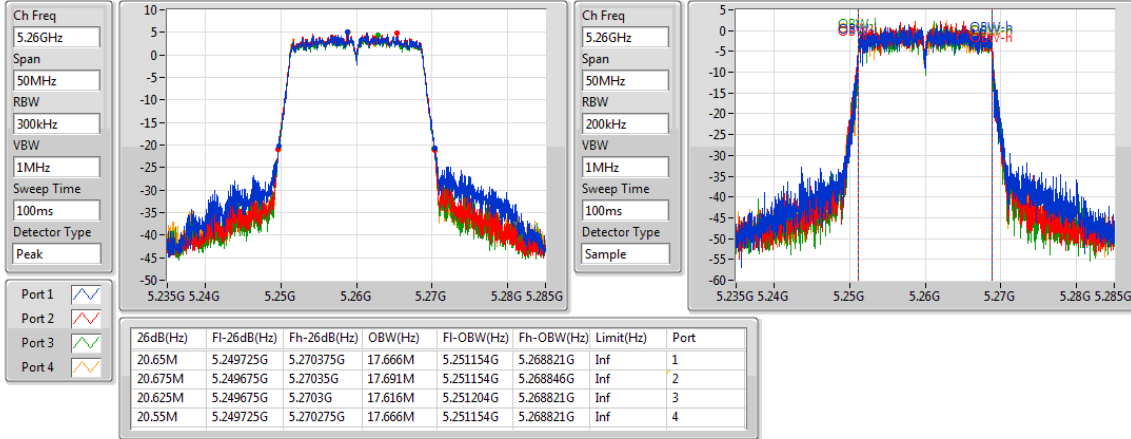


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5260MHz

16/03/2018

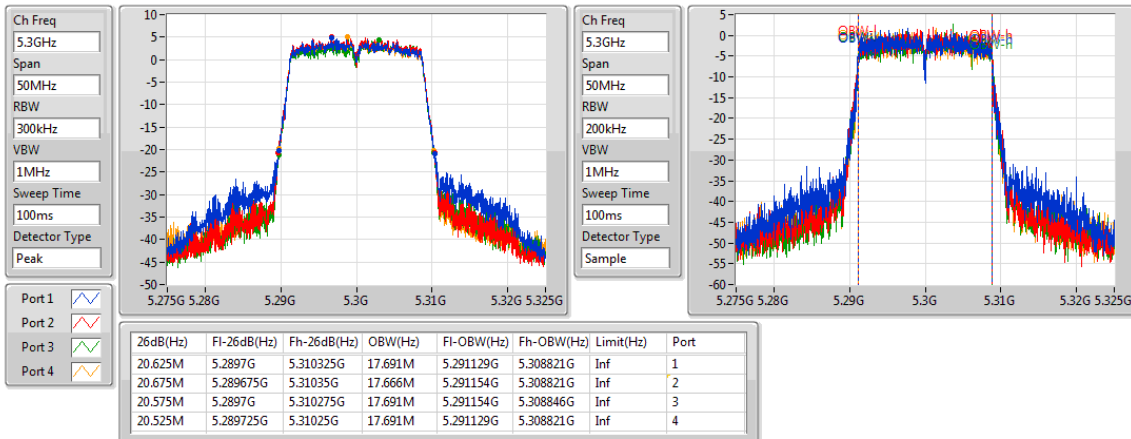


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5300MHz

16/03/2018

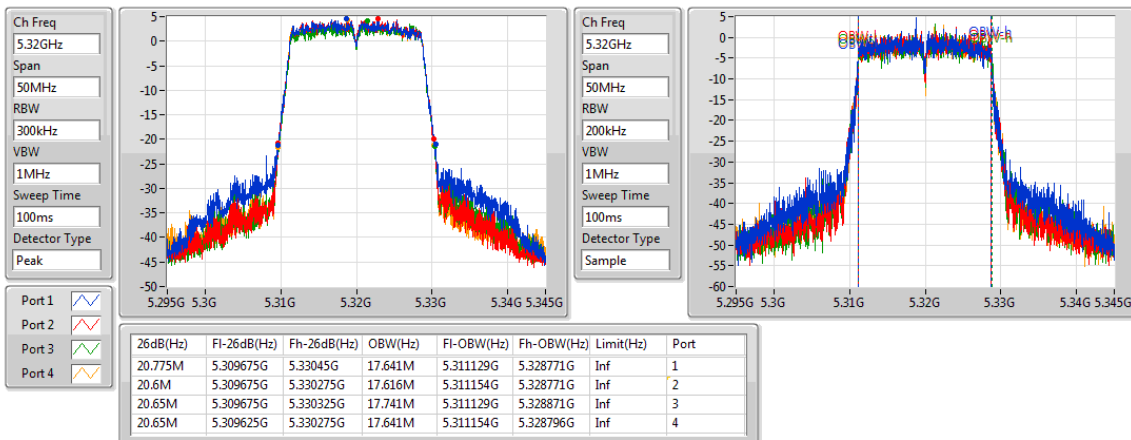


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5320MHz

16/03/2018

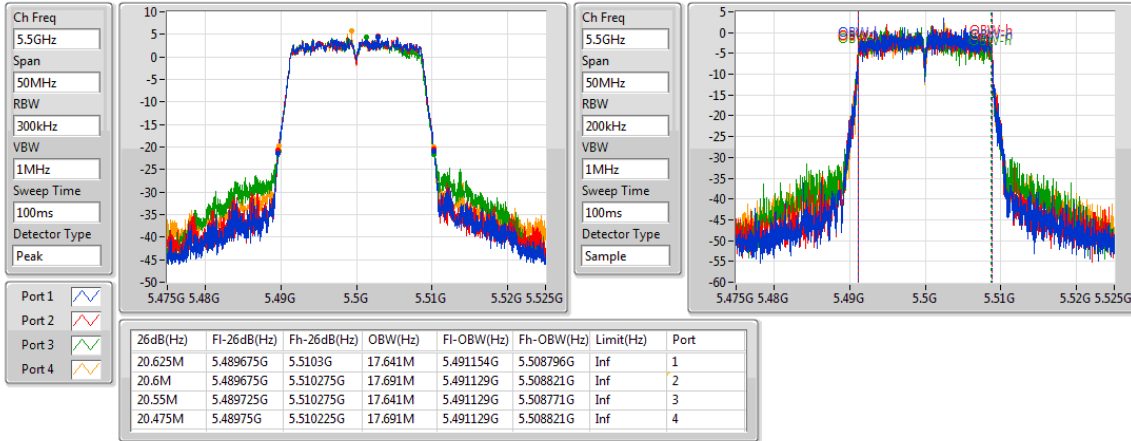


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5500MHz

16/03/2018

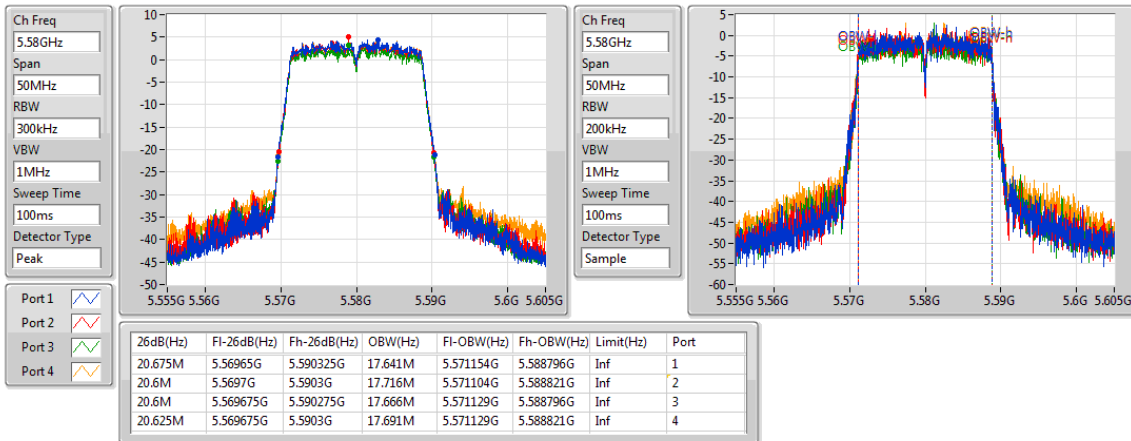


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5580MHz

16/03/2018

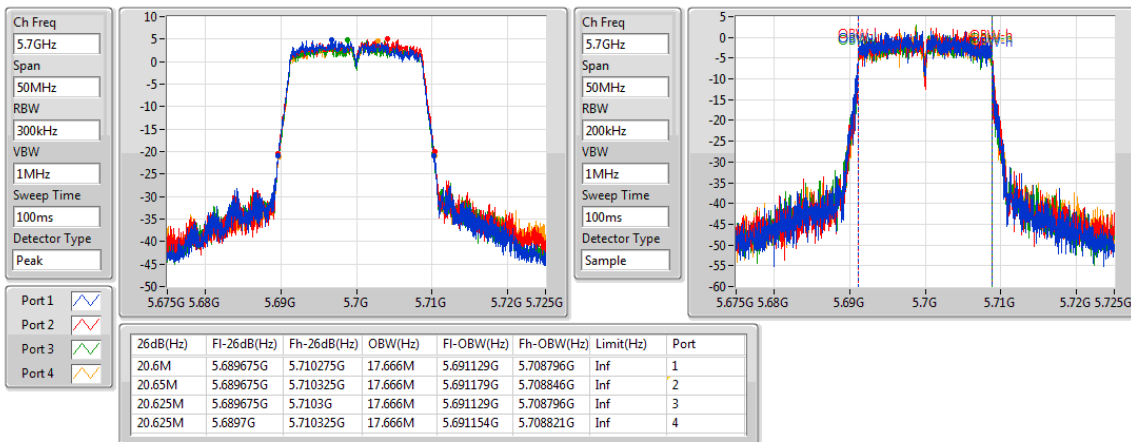


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5700MHz

16/03/2018

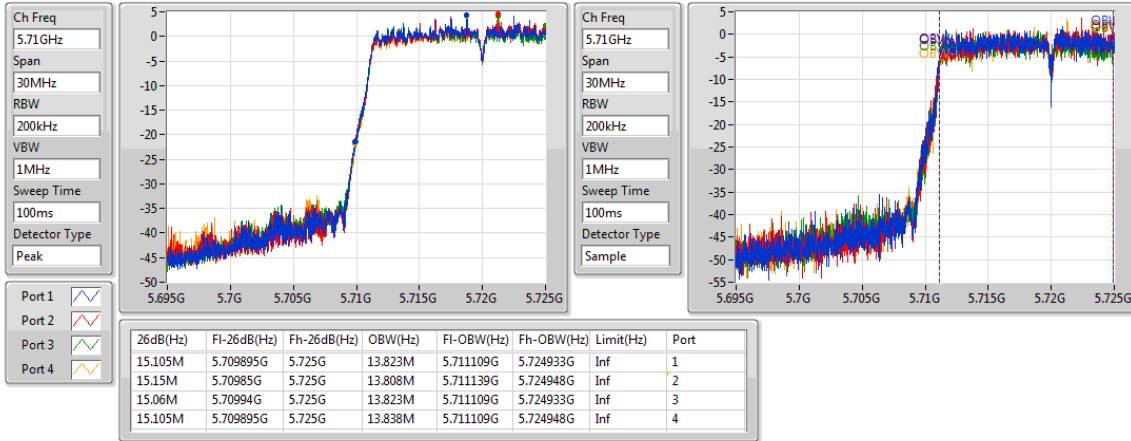


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

16/03/2018

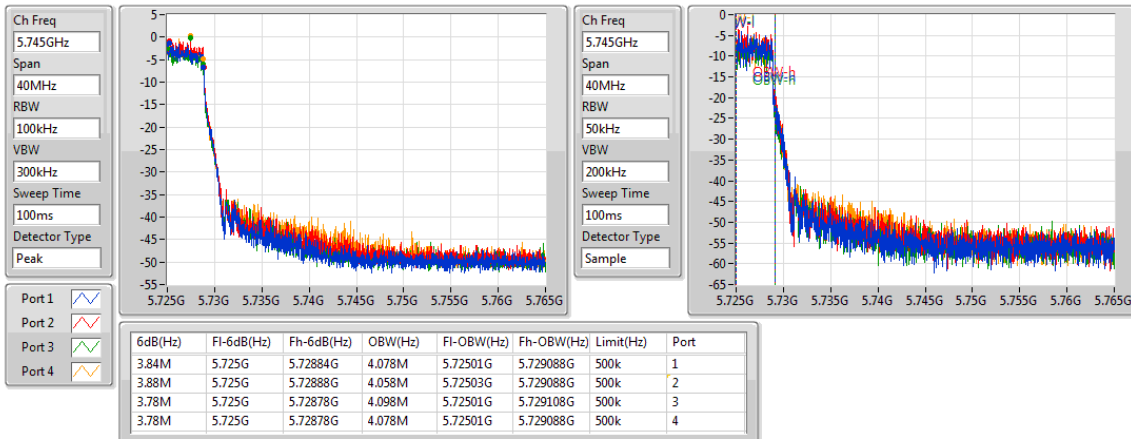


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

16/03/2018

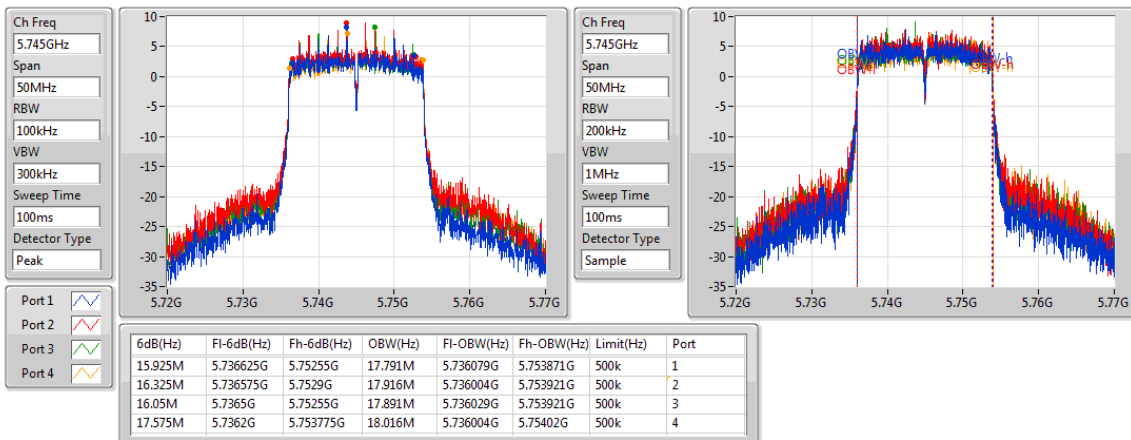


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5745MHz

23/03/2018

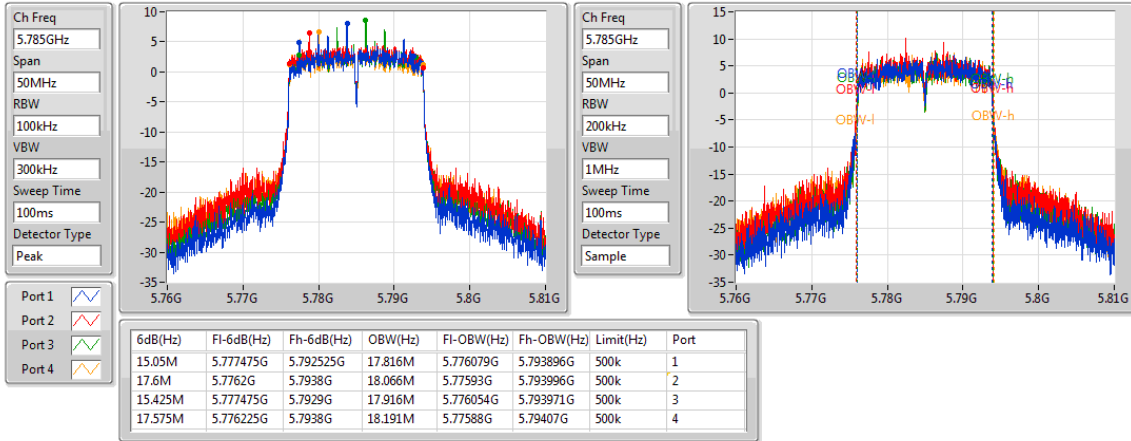


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5785MHz

23/03/2018

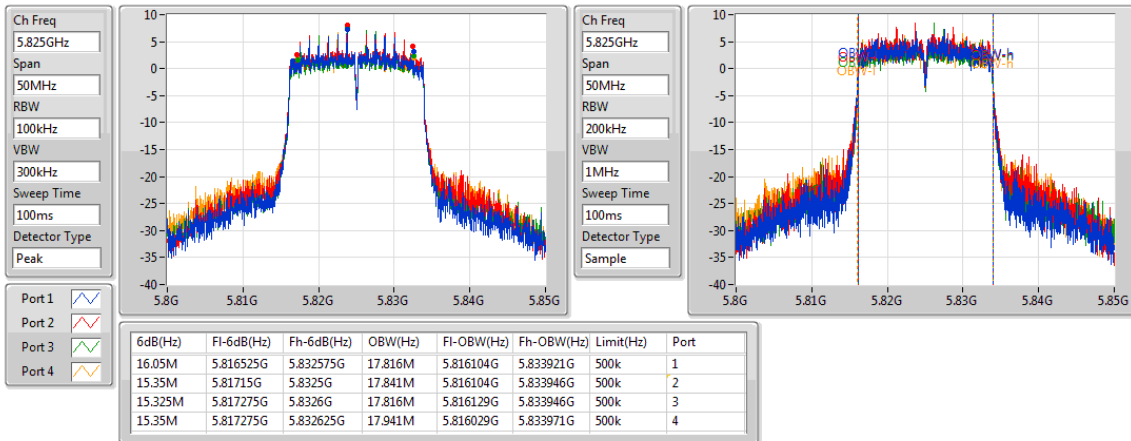


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

5825MHz

23/03/2018

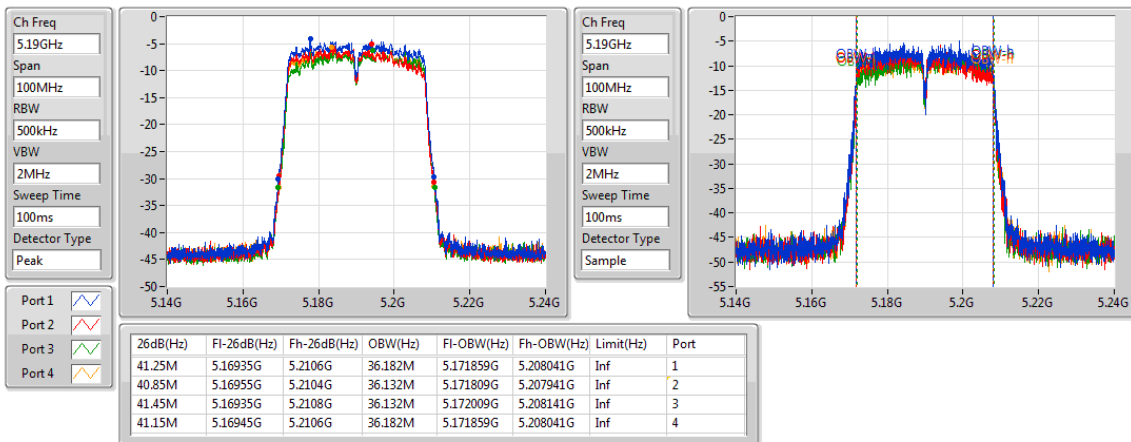


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5190MHz

23/03/2018

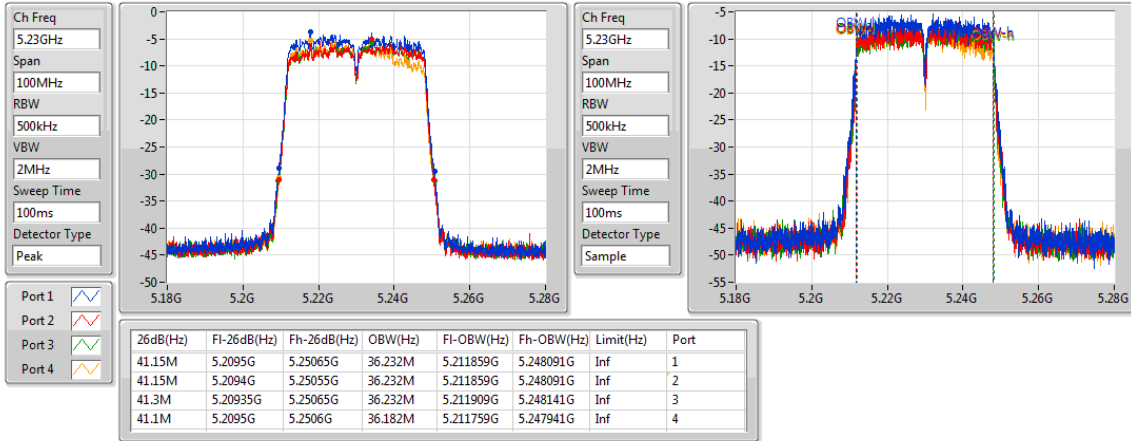


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5230MHz

23/03/2018

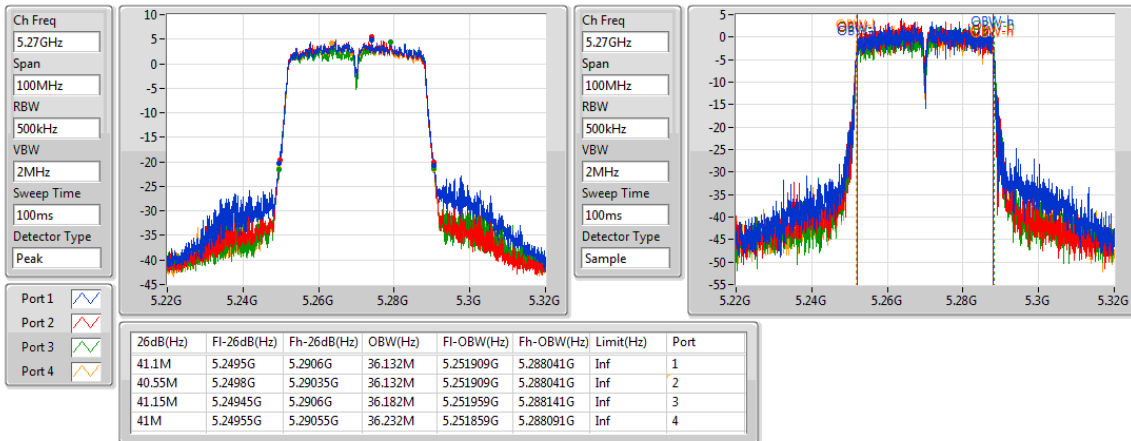


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5270MHz

16/03/2018

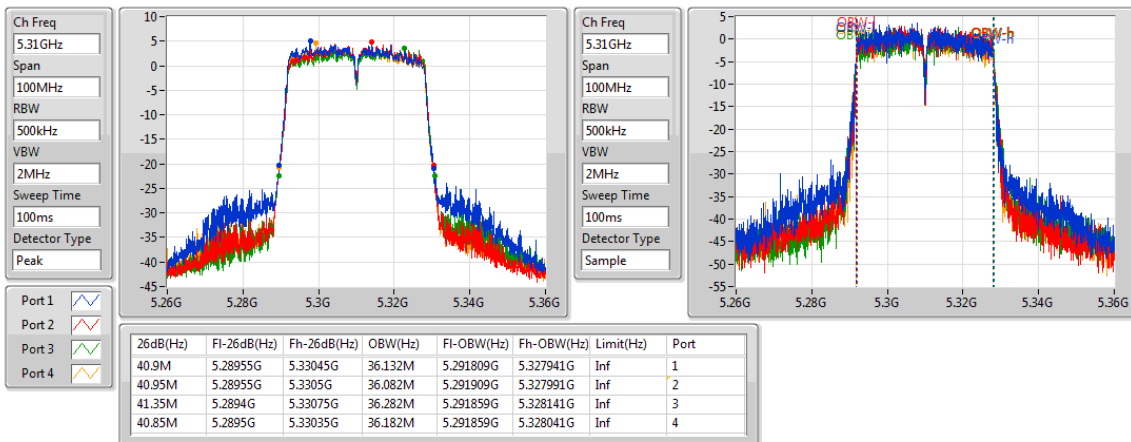


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5310MHz

16/03/2018

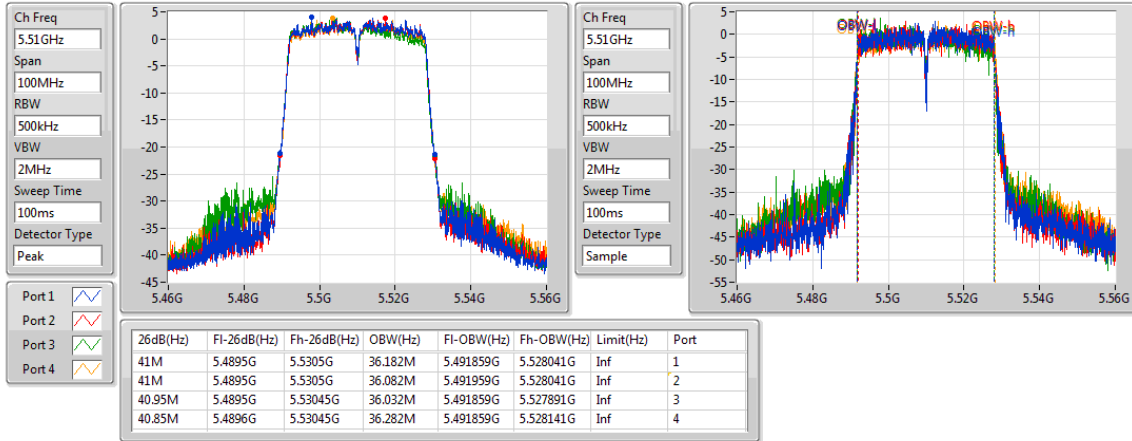


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5510MHz

16/03/2018

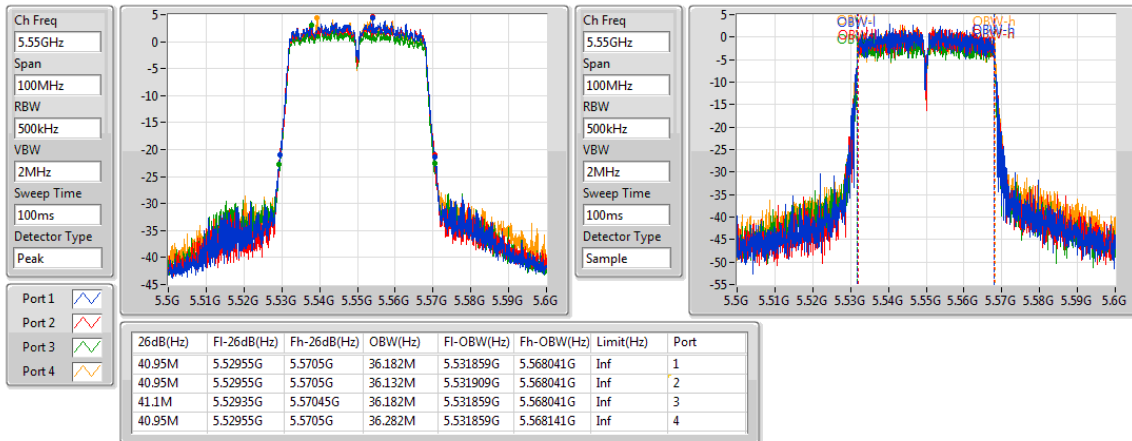


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5550MHz

16/03/2018

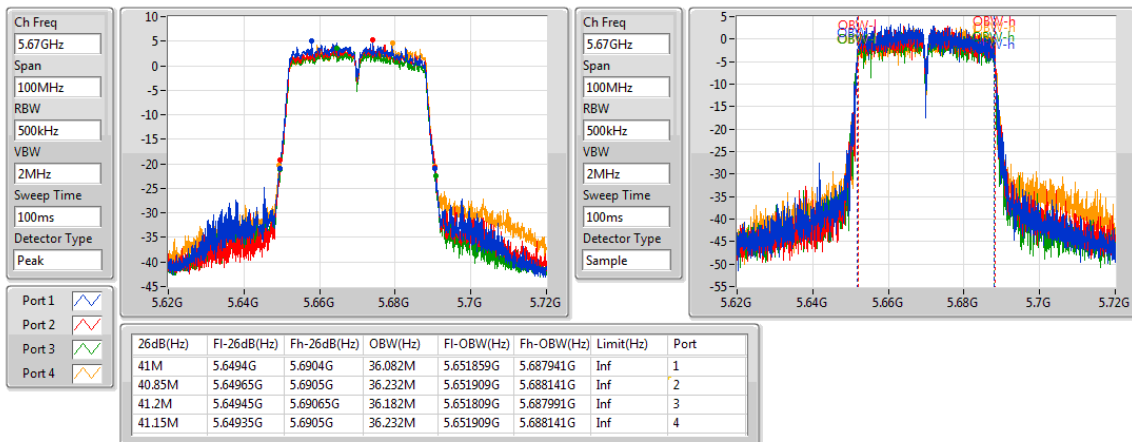


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5670MHz

16/03/2018

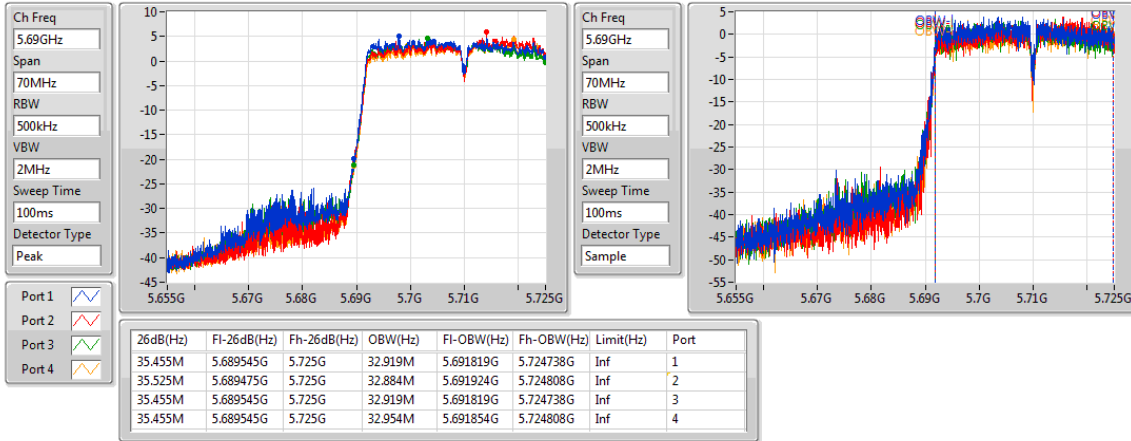


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.47-5.725GHz

16/03/2018

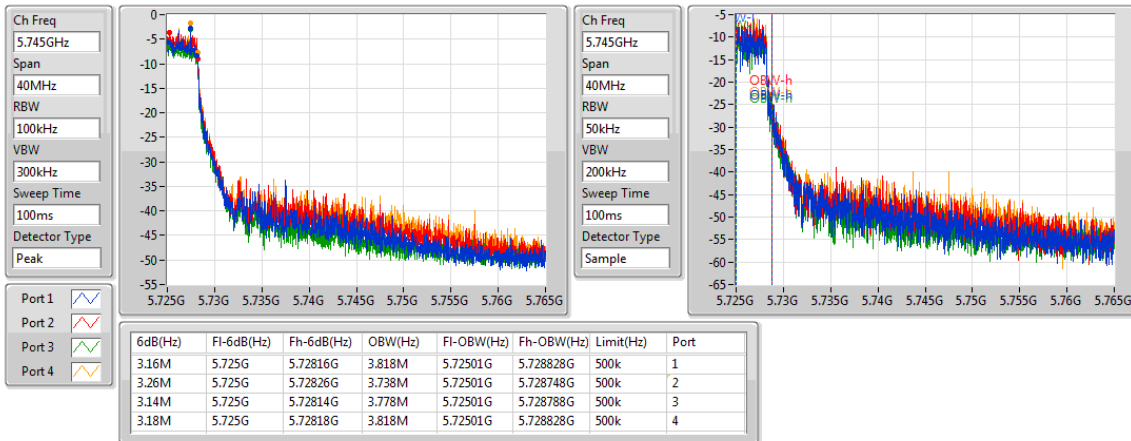


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

16/03/2018

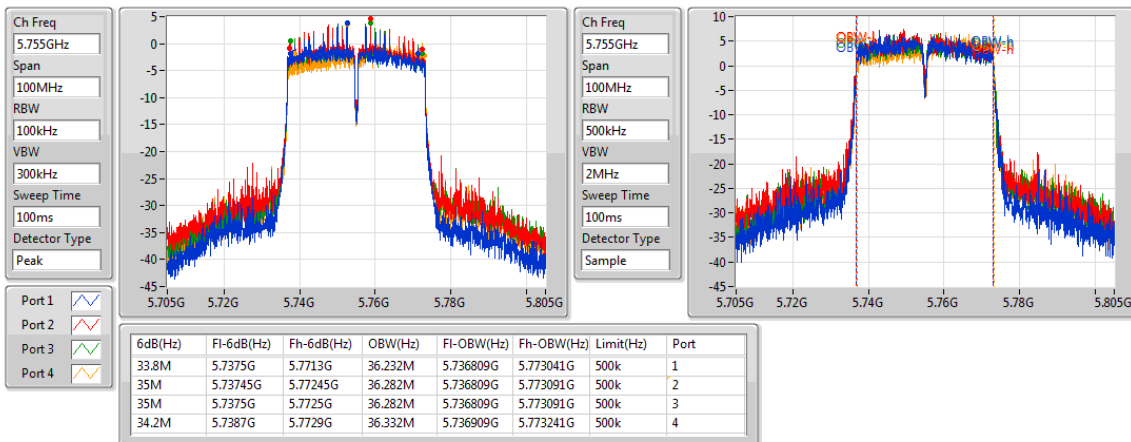


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5755MHz

23/03/2018

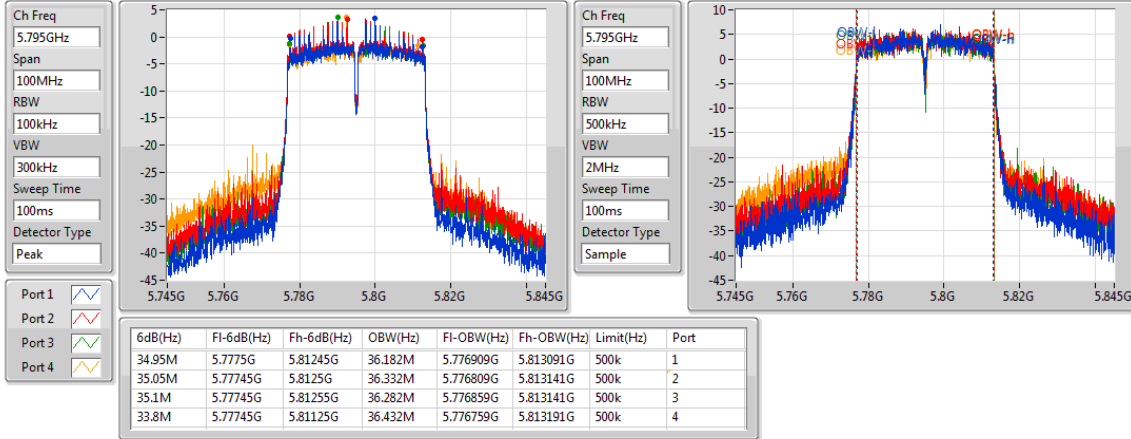


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

5795MHz

23/03/2018

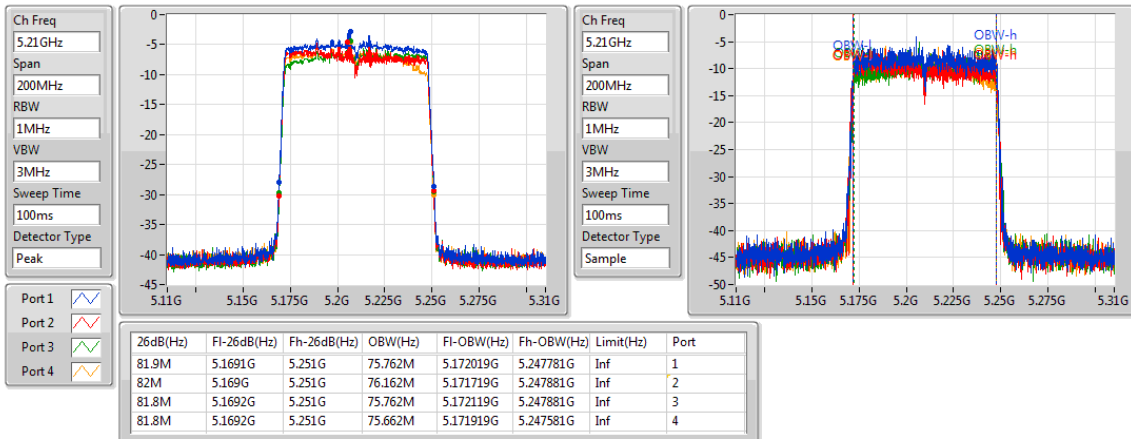


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5210MHz

23/03/2018

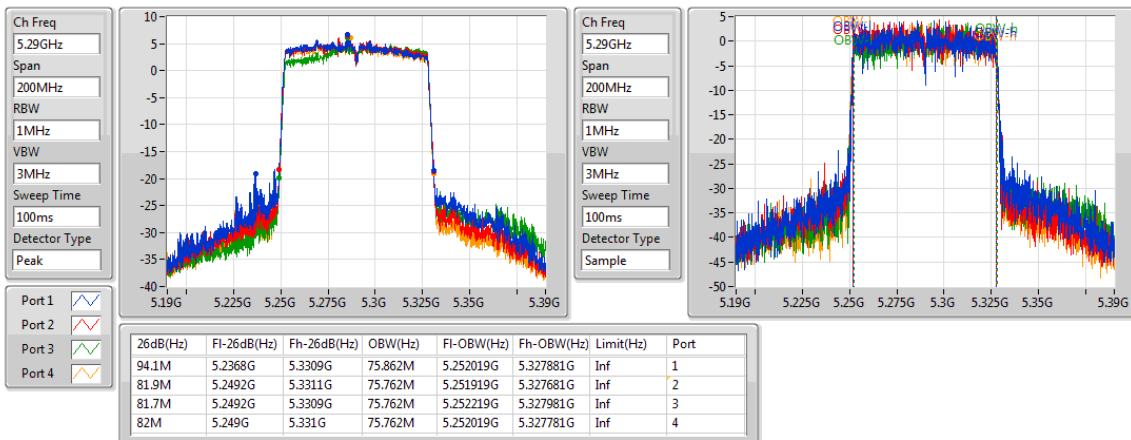


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5290MHz

16/03/2018

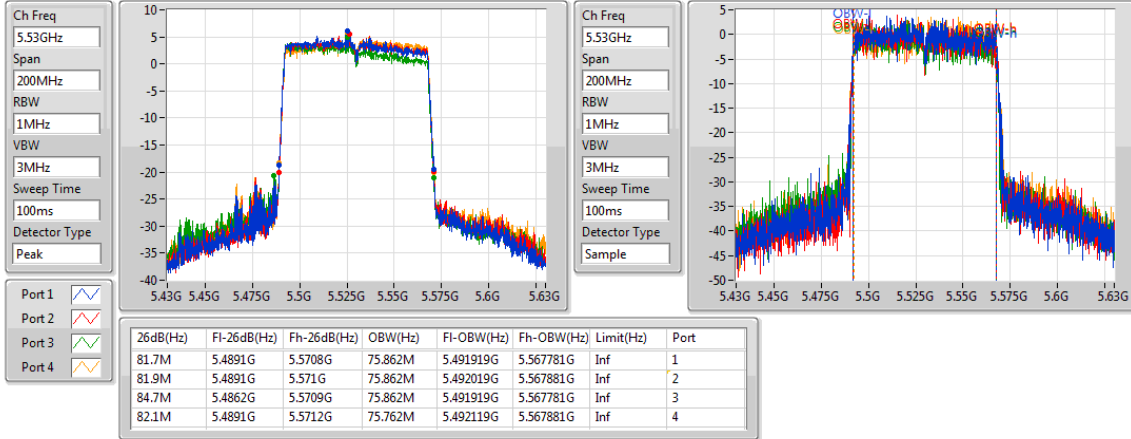


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5530MHz

16/03/2018

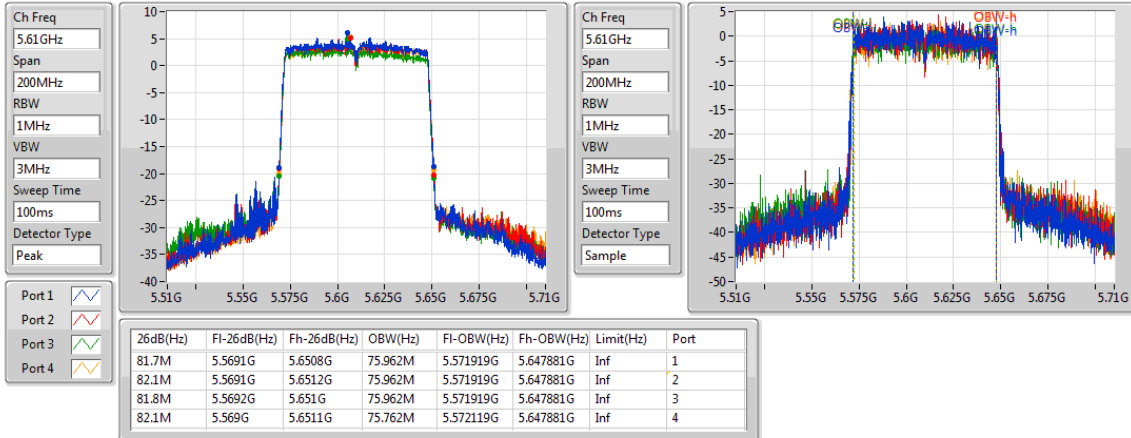


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5610MHz

16/03/2018

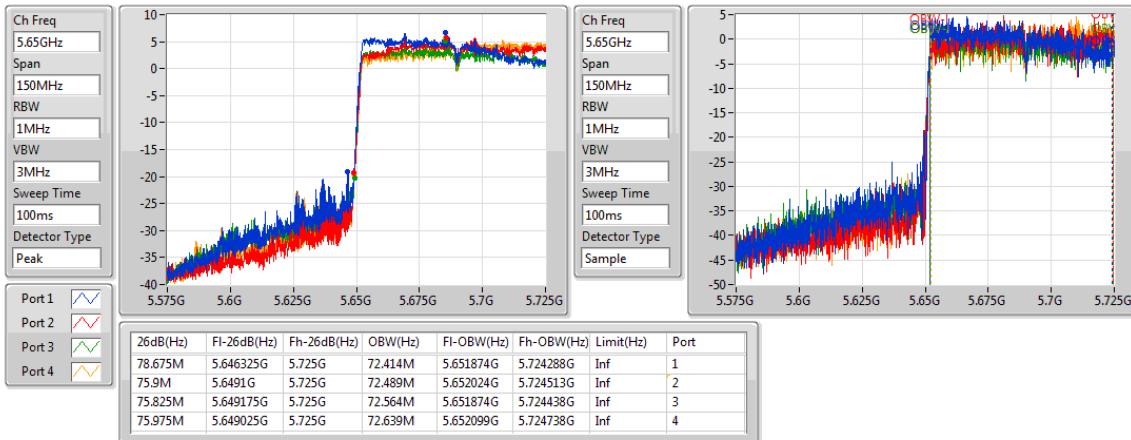


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5690MHz Straddle 5.47-5.725GHz

16/03/2018

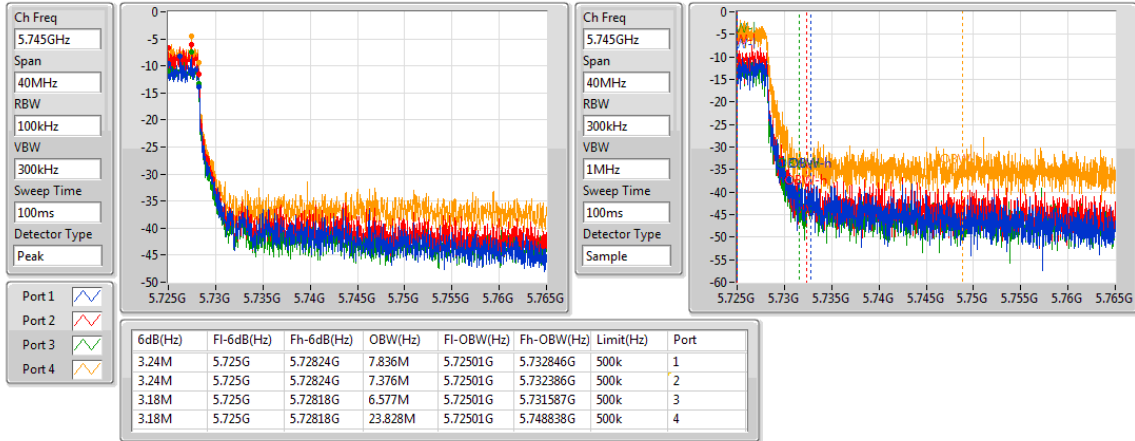


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5690MHz Straddle 5.725-5.85GHz

16/03/2018

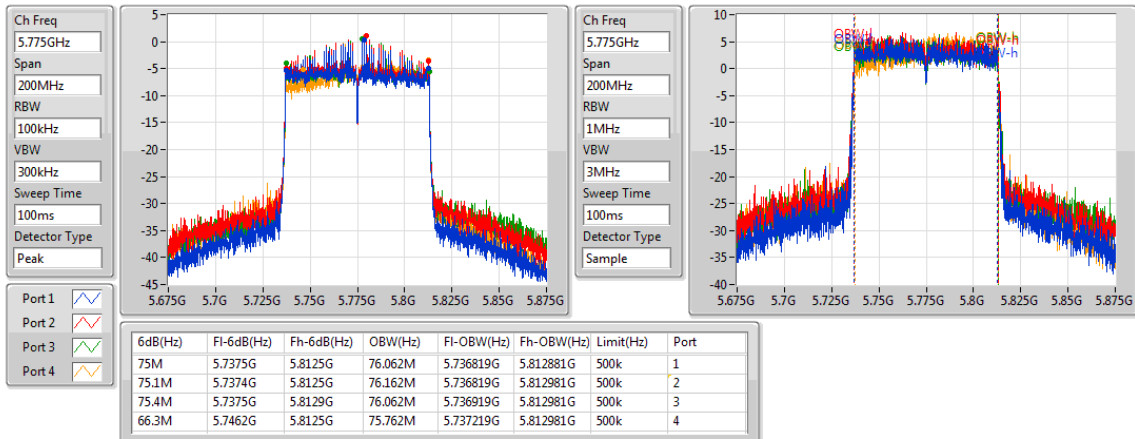


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5775MHz

23/03/2018

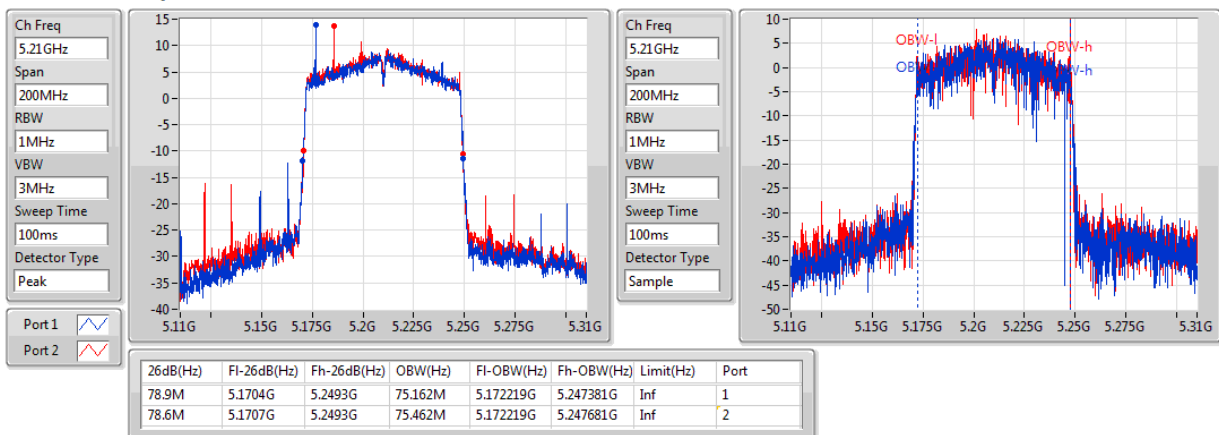


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX

EBW

#5210MHz,5290MHz

16/03/2018

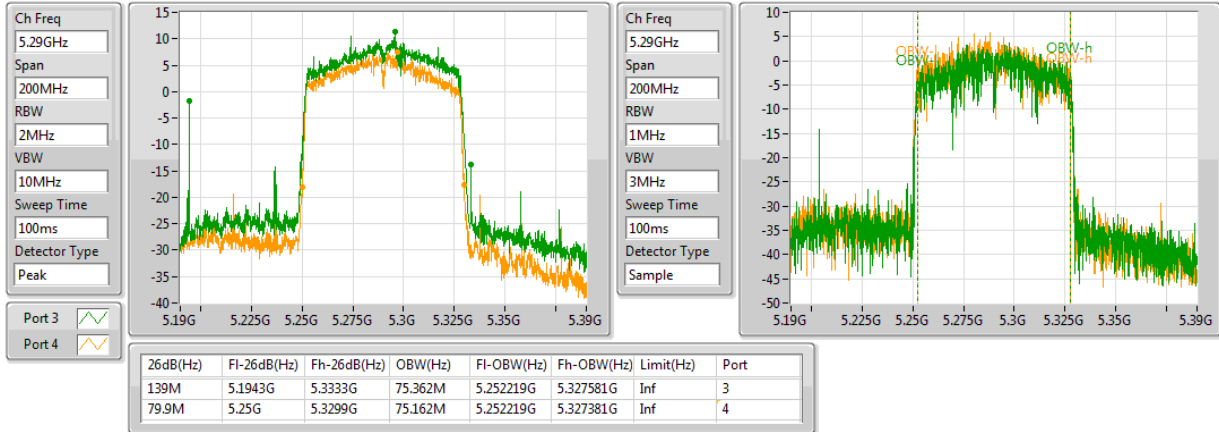


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX

EBW

5210MHz,#5290MHz

16/03/2018

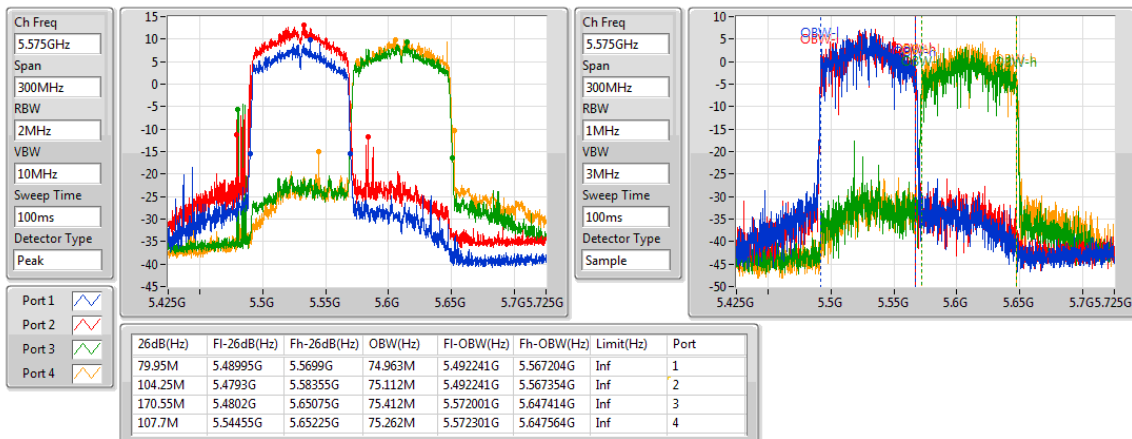


802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX

EBW

#5530MHz,#5610MHz

16/03/2018





Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	24.62	0.28973	28.62	0.72778
802.11ac VHT20_Nss1,(MCS0)_4TX	24.97	0.31405	28.97	0.78886
802.11ac VHT40_Nss1,(MCS0)_4TX	25.24	0.33420	29.24	0.83946
802.11ac VHT80_Nss1,(MCS0)_4TX	17.69	0.05875	21.69	0.14757
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port1&Port2)	13.45	0.02213	17.45	0.05559
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	18.89	0.07745	22.89	0.19454
802.11ac VHT20_Nss1,(MCS0)_4TX	18.87	0.07709	22.87	0.19364
802.11ac VHT40_Nss1,(MCS0)_4TX	18.95	0.07852	22.95	0.19724
802.11ac VHT80_Nss1,(MCS0)_4TX	15.18	0.03296	19.18	0.08279
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port3&Port4)	10.88	0.01225	14.88	0.03076
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.02	0.07980	23.02	0.20045
802.11ac VHT20_Nss1,(MCS0)_4TX	18.98	0.07907	22.98	0.19861
802.11ac VHT40_Nss1,(MCS0)_4TX	21.81	0.15171	25.81	0.38107
802.11ac VHT80_Nss1,(MCS0)_4TX	23.82	0.24099	27.82	0.60534
802.11ac VHT80+80_Nss1,(MCS0)_4TX	15.56	0.03597	19.56	0.09036
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.13	0.41020	30.13	1.03039
802.11ac VHT20_Nss1,(MCS0)_4TX	26.07	0.40458	30.07	1.01625
802.11ac VHT40_Nss1,(MCS0)_4TX	25.89	0.38815	29.89	0.97499
802.11ac VHT80_Nss1,(MCS0)_4TX	23.49	0.22336	27.49	0.56105

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_TnomVnom	Pass	4.00	16.49	16.99	16.77	16.31	22.67	30.00	26.67	36.00
5200MHz_TnomVnom	Pass	4.00	18.09	18.99	18.74	18.27	24.56	30.00	28.56	36.00
5240MHz_TnomVnom	Pass	4.00	18.21	19.22	18.57	18.32	24.62	30.00	28.62	36.00
5260MHz_TnomVnom	Pass	4.00	13.22	13.03	12.85	12.24	18.87	23.93	22.87	29.93
5300MHz_TnomVnom	Pass	4.00	13.21	12.95	13.05	12.2	18.89	23.89	22.89	29.89
5320MHz_TnomVnom	Pass	4.00	13.32	12.81	12.88	12.42	18.89	23.91	22.89	29.91
5500MHz_TnomVnom	Pass	4.00	12.94	12.91	13.16	12.98	19.02	23.94	23.02	29.94
5580MHz_TnomVnom	Pass	4.00	12.95	13.15	12.43	12.88	18.88	23.92	22.88	29.92
5700MHz_TnomVnom	Pass	4.00	12.76	12.39	12.64	12.46	18.59	23.92	22.59	29.92
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	4.00	12.02	11.72	11.98	11.75	17.89	22.70	21.89	28.70
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	4.00	4.24	4.33	3.78	4.6	10.27	30.00	14.27	36.00
5745MHz_TnomVnom	Pass	4.00	20.03	20.26	19.51	19.56	25.87	30.00	29.87	36.00
5785MHz_TnomVnom	Pass	4.00	19.87	20.68	19.56	20.23	26.13	30.00	30.13	36.00
5825MHz_TnomVnom	Pass	4.00	19.21	19.49	18.46	18.56	24.97	30.00	28.97	36.00
802.11ac_VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	4.00	15.75	16.43	16.03	15.95	22.07	30.00	26.07	36.00
5200MHz_TnomVnom	Pass	4.00	18.34	19.5	19.2	18.66	24.97	30.00	28.97	36.00
5240MHz_TnomVnom	Pass	4.00	18.17	19.15	18.59	18.36	24.60	30.00	28.60	36.00
5260MHz_TnomVnom	Pass	4.00	12.95	12.82	13.06	12.2	18.79	23.98	22.79	29.98
5300MHz_TnomVnom	Pass	4.00	13.17	12.68	12.94	12.28	18.80	23.98	22.80	29.98
5320MHz_TnomVnom	Pass	4.00	13.18	12.92	12.94	12.29	18.87	23.96	22.87	29.96
5500MHz_TnomVnom	Pass	4.00	12.65	12.92	13.18	13.08	18.98	23.98	22.98	29.98
5580MHz_TnomVnom	Pass	4.00	12.98	13.16	12.43	12.8	18.87	23.99	22.87	29.99
5700MHz_TnomVnom	Pass	4.00	13.07	12.84	13.03	12.85	18.97	24.00	22.97	30.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	4.00	12.38	12.04	12.37	12.26	18.29	22.74	22.29	28.74
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	4.00	4.99	4.97	4.81	5.32	11.05	30.00	15.05	36.00
5745MHz_TnomVnom	Pass	4.00	20.28	20.28	19.74	19.85	26.07	30.00	30.07	36.00
5785MHz_TnomVnom	Pass	4.00	20.19	20.27	19.68	20.02	26.07	30.00	30.07	36.00
5825MHz_TnomVnom	Pass	4.00	20.22	20.43	19.44	19.67	25.98	30.00	29.98	36.00
802.11ac_VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	4.00	15.03	15.25	14.92	15.06	21.09	30.00	25.09	36.00
5230MHz_TnomVnom	Pass	4.00	19.09	19.45	19.04	19.27	25.24	30.00	29.24	36.00
5270MHz_TnomVnom	Pass	4.00	12.98	12.28	12.43	12.98	18.70	24.00	22.70	30.00
5310MHz_TnomVnom	Pass	4.00	14.49	12.11	11.98	12.66	18.95	24.00	22.95	30.00
5510MHz_TnomVnom	Pass	4.00	13.71	13.32	13.42	13.51	19.51	24.00	23.51	30.00
5550MHz_TnomVnom	Pass	4.00	14.86	14.58	13.89	14.47	20.48	24.00	24.48	30.00
5670MHz_TnomVnom	Pass	4.00	15.39	14.63	14.64	14.89	20.92	24.00	24.92	30.00
5710MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	4.00	15.98	15.56	15.93	15.66	21.81	24.00	25.81	30.00
5710MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	4.00	3.63	3.44	3.07	4.25	9.64	30.00	13.64	36.00



Power Result_Indoor Non-Beamforming

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)
5755MHz_TnomVnom	Pass	4.00	20.01	20.16	19.39	19.51	25.80	30.00	29.80	36.00
5795MHz_TnomVnom	Pass	4.00	20.06	20.02	19.39	19.99	25.89	30.00	29.89	36.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	4.00	11.55	11.83	11.43	11.86	17.69	30.00	21.69	36.00
5290MHz_TnomVnom	Pass	4.00	9.51	8.87	9.21	9.03	15.18	24.00	19.18	30.00
5530MHz_TnomVnom	Pass	4.00	10.03	10.21	10	10.27	16.15	24.00	20.15	30.00
5610MHz_TnomVnom	Pass	4.00	15.84	15.54	15.23	15.09	21.46	24.00	25.46	30.00
5690MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	4.00	18.23	17.59	17.48	17.85	23.82	24.00	27.82	30.00
5690MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	4.00	1.97	1.79	0.82	2.72	7.90	30.00	11.90	36.00
5775MHz_TnomVnom	Pass	4.00	17.44	17.94	17.23	17.23	23.49	30.00	27.49	36.00
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port1&Port2)	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz_TnomVnom	Pass	4.00	10.42	10.46			13.45	30.00	17.45	36.00
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port3&Port4)	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz_TnomVnom	Pass	4.00			8.78	6.72	10.88	24.00	14.88	30.00
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz_TnomVnom	Pass	4.00	10.95	10.67	8.61	6.61	15.56	24.00	19.56	30.00

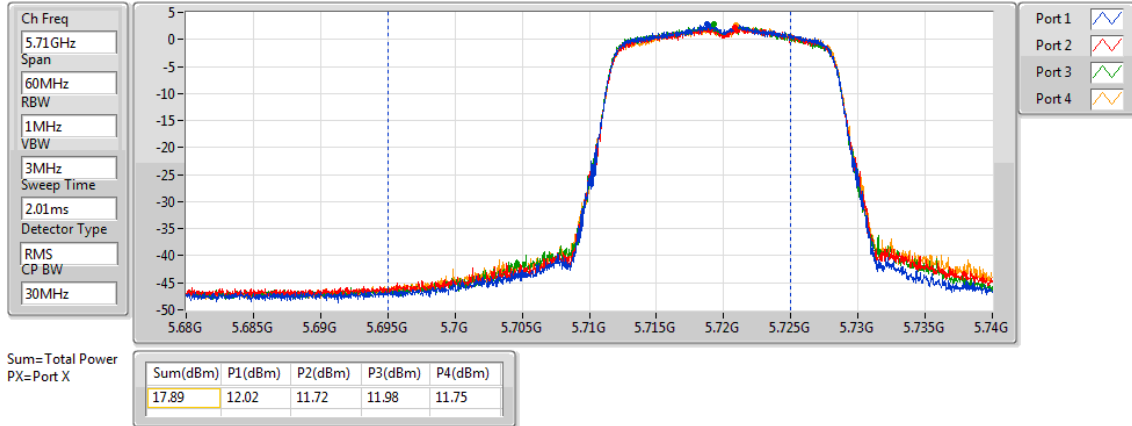
DG = Directional Gain;Port X = Port X output power

802.11a_Nss1,(6Mbps)_4TX

AV Power

5720MHz Straddle 5.47-5.725GHz

14/03/2018

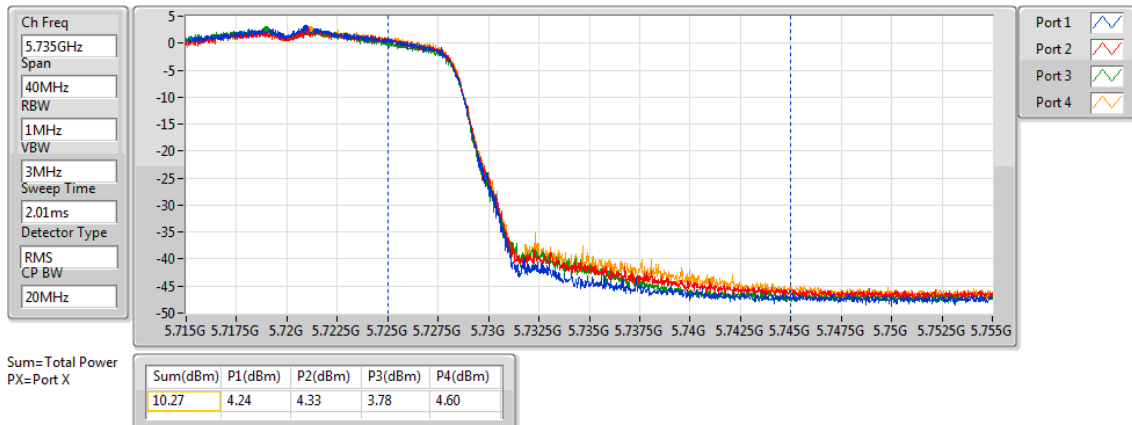


802.11a_Nss1,(6Mbps)_4TX

AV Power

5720MHz Straddle 5.725-5.85GHz

14/03/2018

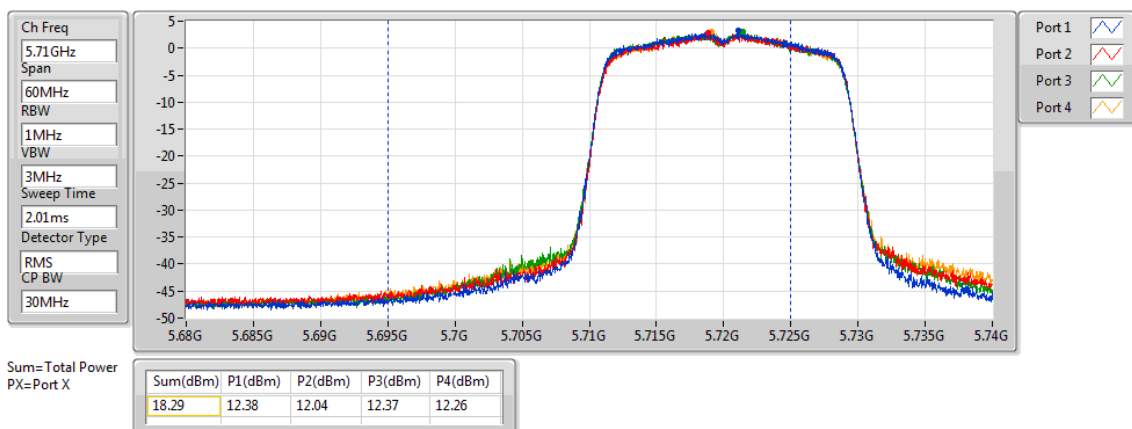


802.11ac VHT20_Nss1,(MCS0)_4TX

AV Power

5720MHz Straddle 5.47-5.725GHz

14/03/2018

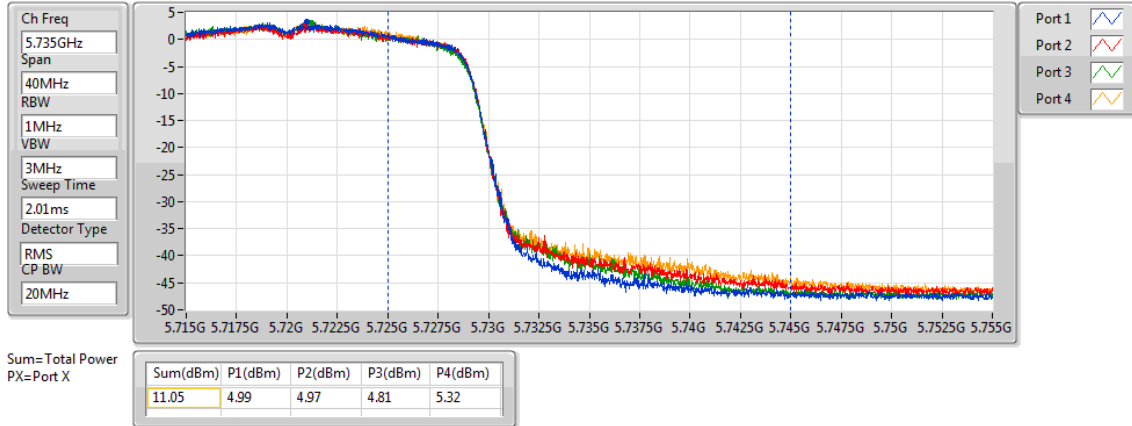


802.11ac VHT20_Nss1,(MCS0)_4TX

AV Power

5720MHz Straddle 5.725-5.85GHz

14/03/2018

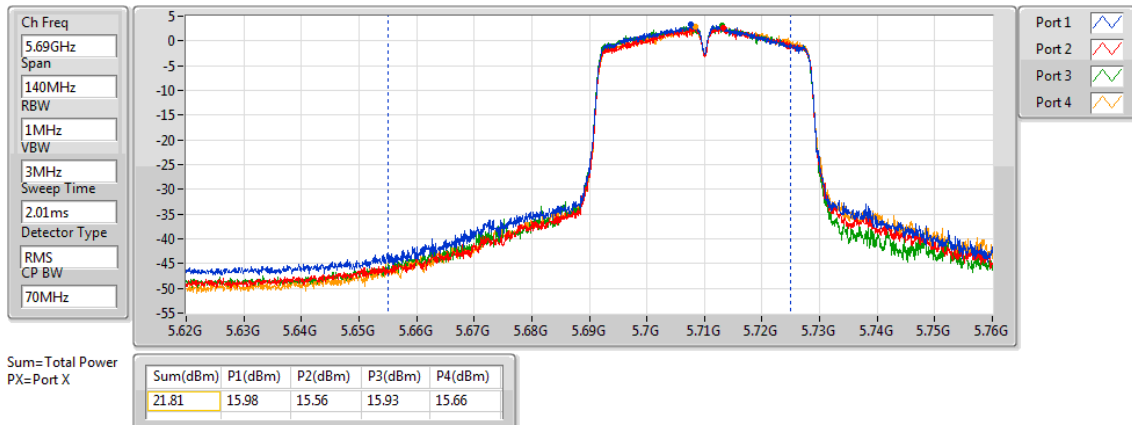


802.11ac VHT40_Nss1,(MCS0)_4TX

AV Power

5710MHz Straddle 5.47-5.725GHz

14/03/2018

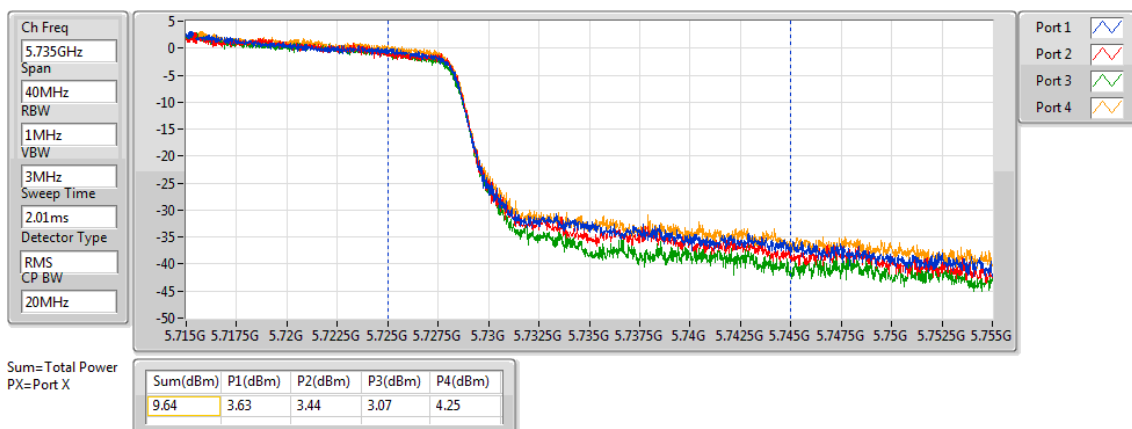


802.11ac VHT40_Nss1,(MCS0)_4TX

AV Power

5710MHz Straddle 5.725-5.85GHz

14/03/2018

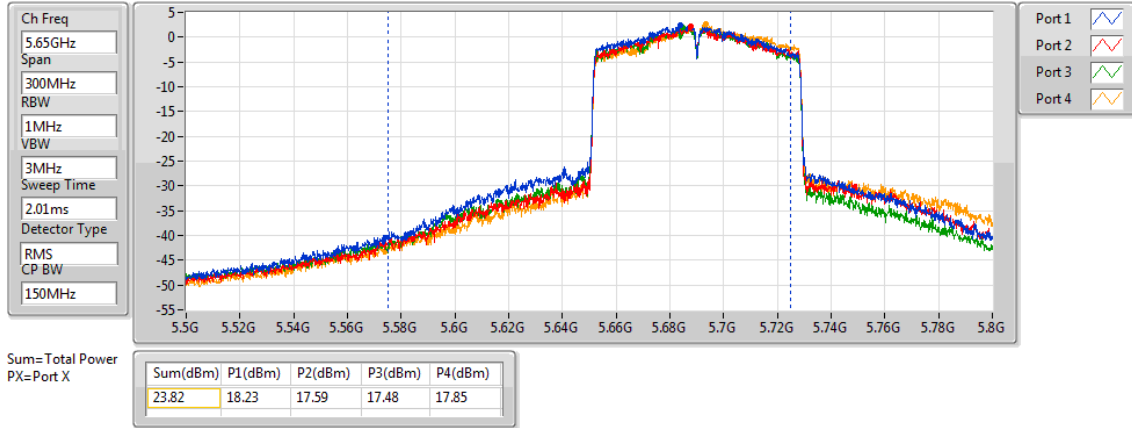


802.11ac VHT80_Nss1,(MCS0)_4TX

AV Power

5690MHz Straddle 5.47-5.725GHz

14/03/2018

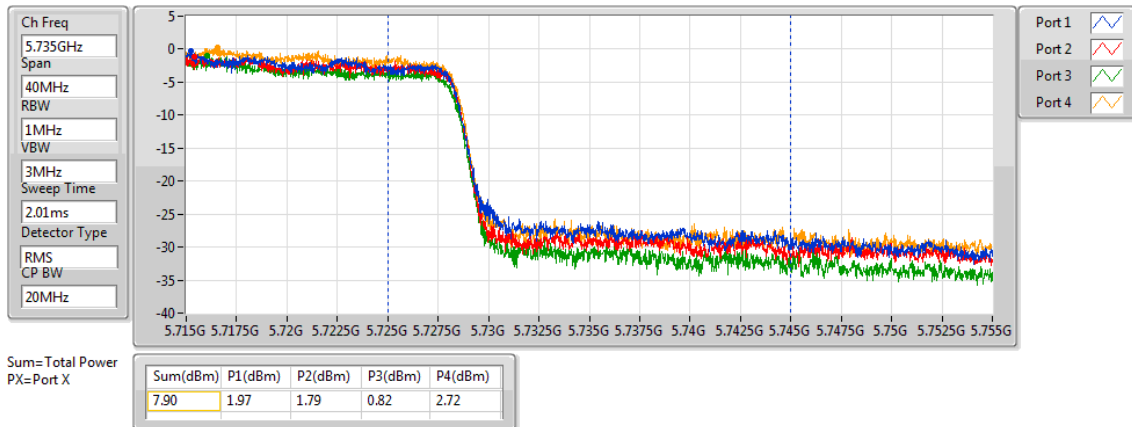


802.11ac VHT80_Nss1,(MCS0)_4TX

AV Power

5690MHz Straddle 5.725-5.85GHz

14/03/2018



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.96	0.04966	20.96	0.12474
802.11ac VHT20_Nss1,(MCS0)_4TX	16.83	0.04819	20.83	0.12106
802.11ac VHT40_Nss1,(MCS0)_4TX	16.98	0.04989	20.98	0.12531
802.11ac VHT80_Nss1,(MCS0)_4TX	16.78	0.04764	20.78	0.11967
802.11ac VHT80+80_Nss2,(MCS0)_4TX	13.45	0.02213	17.45	0.05559
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	18.89	0.07745	22.89	0.19454
802.11ac VHT20_Nss1,(MCS0)_4TX	18.87	0.07709	22.87	0.19364
802.11ac VHT40_Nss1,(MCS0)_4TX	21.29	0.13459	25.29	0.33806
802.11ac VHT80_Nss1,(MCS0)_4TX	15.18	0.03296	19.18	0.08279
802.11ac VHT80+80_Nss2,(MCS0)_4TX	10.88	0.01225	14.88	0.03076
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.02	0.07980	23.02	0.20045
802.11ac VHT20_Nss1,(MCS0)_4TX	18.98	0.07907	22.98	0.19861
802.11ac VHT40_Nss1,(MCS0)_4TX	21.81	0.15171	25.81	0.38107
802.11ac VHT80_Nss1,(MCS0)_4TX	23.82	0.24099	27.82	0.60534
802.11ac VHT80+80_Nss2,(MCS0)_4TX	15.56	0.03597	19.56	0.09036
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.13	0.41020	30.13	1.03039
802.11ac VHT20_Nss1,(MCS0)_4TX	26.07	0.40458	30.07	1.01625
802.11ac VHT40_Nss1,(MCS0)_4TX	25.89	0.38815	29.89	0.97499
802.11ac VHT80_Nss1,(MCS0)_4TX	23.49	0.22336	27.49	0.56105

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_TnomVnom	Pass	4.00	11.14	10.58	10.51	10.99	16.83	30.00	20.83	36.00
5200MHz_TnomVnom	Pass	4.00	11.26	10.38	10.63	10.93	16.83	30.00	20.83	36.00
5240MHz_TnomVnom	Pass	4.00	11.13	10.61	10.89	11.10	16.96	30.00	20.96	36.00
5260MHz_TnomVnom	Pass	4.00	13.22	13.03	12.85	12.24	18.87	23.93	22.87	29.93
5300MHz_TnomVnom	Pass	4.00	13.21	12.95	13.05	12.20	18.89	23.89	22.89	29.89
5320MHz_TnomVnom	Pass	4.00	13.32	12.81	12.88	12.42	18.89	23.91	22.89	29.91
5500MHz_TnomVnom	Pass	4.00	12.94	12.91	13.16	12.98	19.02	23.94	23.02	29.94
5580MHz_TnomVnom	Pass	4.00	12.95	13.15	12.43	12.88	18.88	23.92	22.88	29.92
5700MHz_TnomVnom	Pass	4.00	12.76	12.39	12.64	12.46	18.59	23.92	22.59	29.92
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	4.00	12.02	11.72	11.98	11.75	17.89	22.70	21.89	28.70
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	4.00	4.24	4.33	3.78	4.60	10.27	30.00	14.27	36.00
5745MHz_TnomVnom	Pass	4.00	20.03	20.26	19.51	19.56	25.87	30.00	29.87	36.00
5785MHz_TnomVnom	Pass	4.00	19.87	20.68	19.56	20.23	26.13	30.00	30.13	36.00
5825MHz_TnomVnom	Pass	4.00	19.21	19.49	18.46	18.56	24.97	30.00	28.97	36.00
802.11ac_VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	4.00	10.91	10.57	10.55	10.91	16.76	30.00	20.76	36.00
5200MHz_TnomVnom	Pass	4.00	10.94	10.58	10.70	11.01	16.83	30.00	20.83	36.00
5240MHz_TnomVnom	Pass	4.00	10.97	10.51	10.54	10.84	16.74	30.00	20.74	36.00
5260MHz_TnomVnom	Pass	4.00	12.95	12.82	13.06	12.20	18.79	23.98	22.79	29.98
5300MHz_TnomVnom	Pass	4.00	13.17	12.68	12.94	12.28	18.80	23.98	22.80	29.98
5320MHz_TnomVnom	Pass	4.00	13.18	12.92	12.94	12.29	18.87	23.96	22.87	29.96
5500MHz_TnomVnom	Pass	4.00	12.65	12.92	13.18	13.08	18.98	23.98	22.98	29.98
5580MHz_TnomVnom	Pass	4.00	12.98	13.16	12.43	12.80	18.87	23.99	22.87	29.99
5700MHz_TnomVnom	Pass	4.00	13.07	12.84	13.03	12.85	18.97	24.00	22.97	30.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	4.00	12.38	12.04	12.37	12.26	18.29	22.74	22.29	28.74
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	4.00	4.99	4.97	4.81	5.32	11.05	30.00	15.05	36.00
5745MHz_TnomVnom	Pass	4.00	20.28	20.28	19.74	19.85	26.07	30.00	30.07	36.00
5785MHz_TnomVnom	Pass	4.00	20.19	20.27	19.68	20.02	26.07	30.00	30.07	36.00
5825MHz_TnomVnom	Pass	4.00	20.22	20.43	19.44	19.67	25.98	30.00	29.98	36.00
802.11ac_VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	4.00	11.38	10.54	10.77	11.10	16.98	30.00	20.98	36.00
5230MHz_TnomVnom	Pass	4.00	11.21	10.55	10.80	11.03	16.93	30.00	20.93	36.00
5270MHz_TnomVnom	Pass	4.00	15.74	15.25	15.29	14.74	21.29	24.00	25.29	30.00
5310MHz_TnomVnom	Pass	4.00	15.21	14.96	14.88	14.57	20.93	24.00	24.93	30.00
5510MHz_TnomVnom	Pass	4.00	13.71	13.32	13.42	13.51	19.51	24.00	23.51	30.00
5550MHz_TnomVnom	Pass	4.00	14.86	14.58	13.89	14.47	20.48	24.00	24.48	30.00
5670MHz_TnomVnom	Pass	4.00	15.39	14.63	14.64	14.89	20.92	24.00	24.92	30.00
5710MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	4.00	15.98	15.56	15.93	15.66	21.81	24.00	25.81	30.00
5710MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	4.00	3.63	3.44	3.07	4.25	9.64	30.00	13.64	36.00



Power Result_Outdoor Non-Beamforming

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)
5755MHz_TnomVnom	Pass	4.00	20.01	20.16	19.39	19.51	25.80	30.00	29.80	36.00
5795MHz_TnomVnom	Pass	4.00	20.06	20.02	19.39	19.99	25.89	30.00	29.89	36.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	4.00	11.13	10.42	10.40	11.02	16.78	30.00	20.78	36.00
5290MHz_TnomVnom	Pass	4.00	9.51	8.87	9.21	9.03	15.18	24.00	19.18	30.00
5530MHz_TnomVnom	Pass	4.00	10.03	10.21	10.00	10.27	16.15	24.00	20.15	30.00
5610MHz_TnomVnom	Pass	4.00	15.84	15.54	15.23	15.09	21.46	24.00	25.46	30.00
5690MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	4.00	18.23	17.59	17.48	17.85	23.82	24.00	27.82	30.00
5690MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	4.00	1.97	1.79	0.82	2.72	7.90	30.00	11.90	36.00
5775MHz_TnomVnom	Pass	4.00	17.44	17.94	17.23	17.23	23.49	30.00	27.49	36.00
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz_TnomVnom	Pass	4.00	10.42	10.46			13.45	30.00	17.45	36.00
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz_TnomVnom	Pass	4.00			8.78	6.72	10.88	24.00	14.88	30.00
802.11ac VHT80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz_TnomVnom	Pass	4.00	10.95	10.67	8.61	6.61	15.56	24.00	19.56	30.00

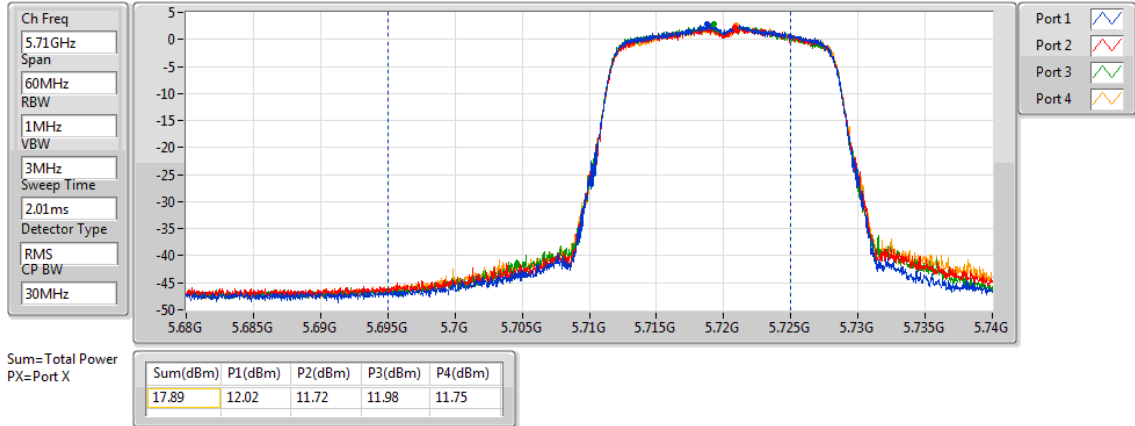
DG = Directional Gain;Port X = Port X output power

802.11a_Nss1,(6Mbps)_4TX

AV Power

5720MHz Straddle 5.47-5.725GHz

14/03/2018

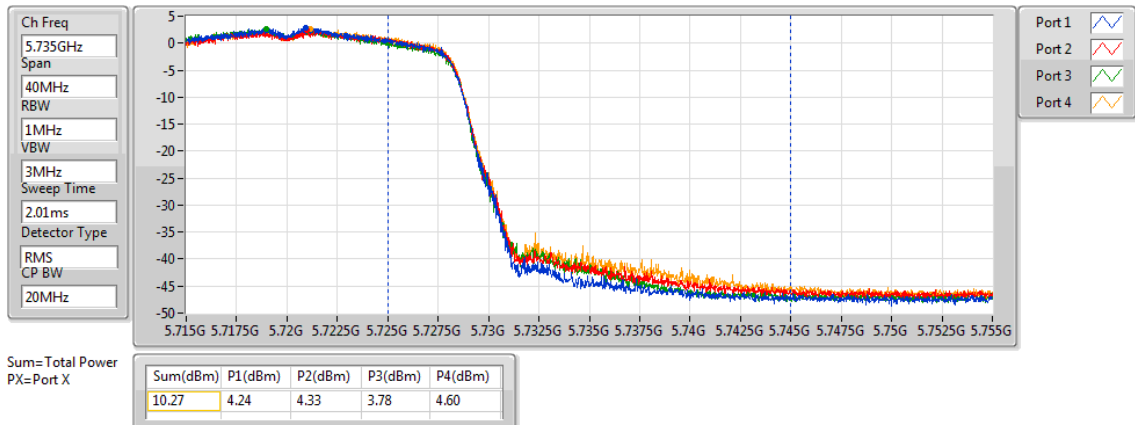


802.11a_Nss1,(6Mbps)_4TX

AV Power

5720MHz Straddle 5.725-5.85GHz

14/03/2018

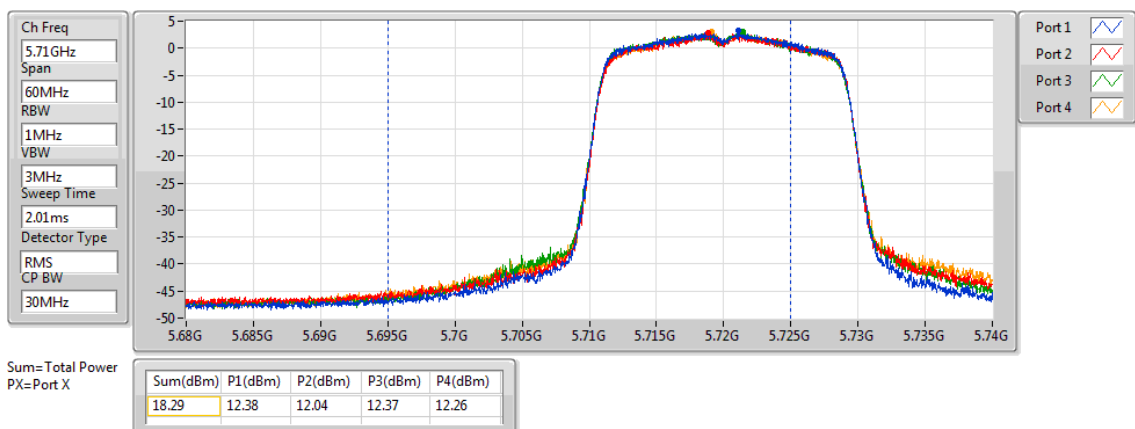


802.11ac VHT20_Nss1,(MCS0)_4TX

AV Power

5720MHz Straddle 5.47-5.725GHz

14/03/2018

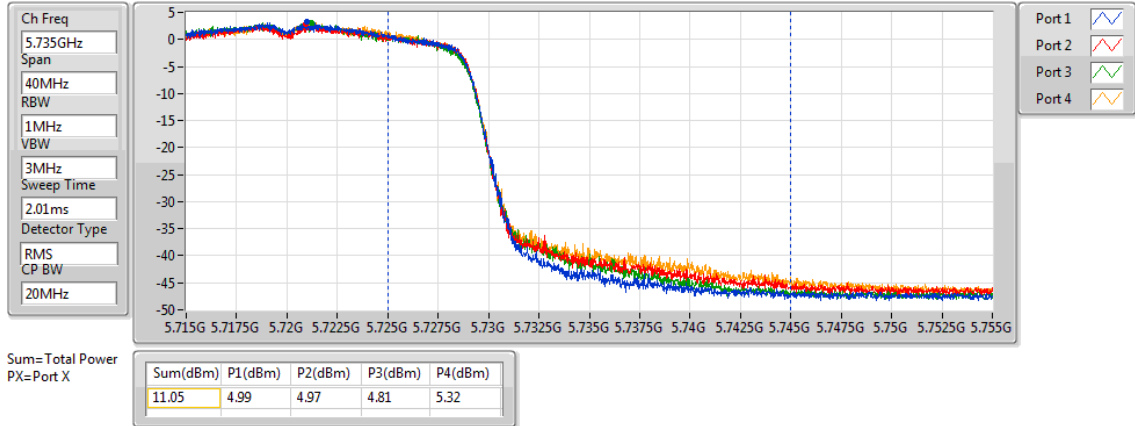


802.11ac VHT20_Nss1,(MCS0)_4TX

AV Power

5720MHz Straddle 5.725-5.85GHz

14/03/2018

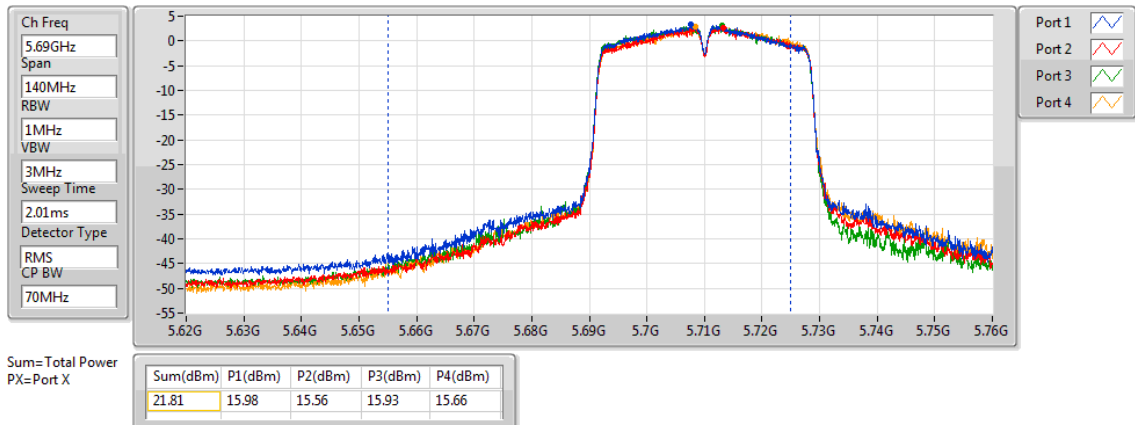


802.11ac VHT40_Nss1,(MCS0)_4TX

AV Power

5710MHz Straddle 5.47-5.725GHz

14/03/2018

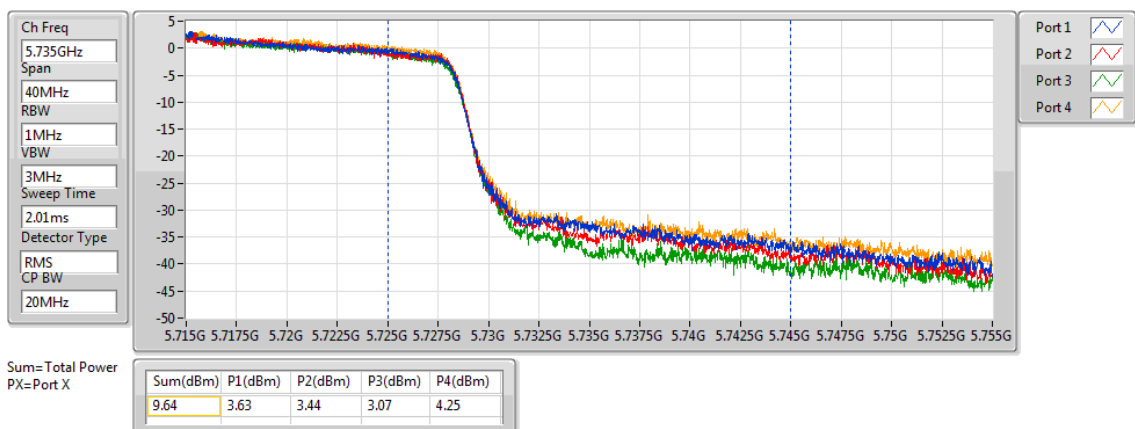


802.11ac VHT40_Nss1,(MCS0)_4TX

AV Power

5710MHz Straddle 5.725-5.85GHz

14/03/2018

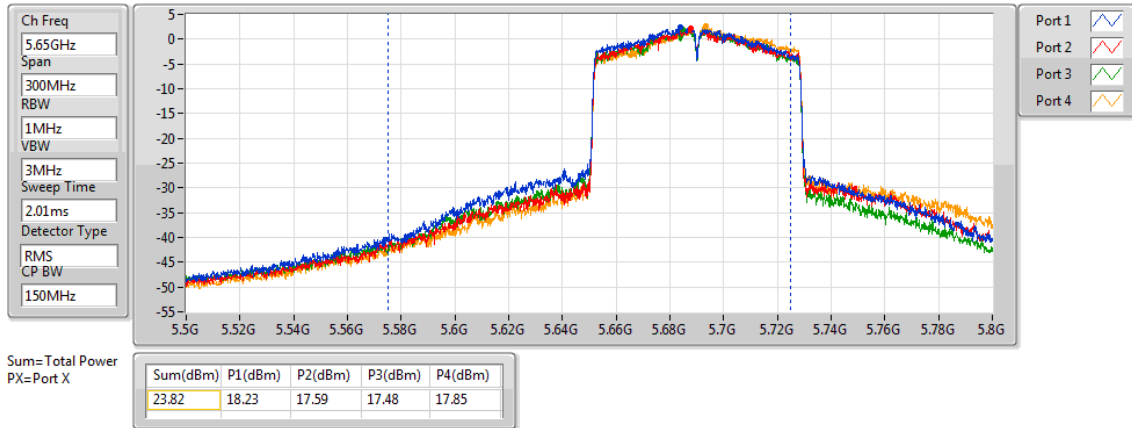


802.11ac VHT80_Nss1,(MCS0)_4TX

AV Power

5690MHz Straddle 5.47-5.725GHz

14/03/2018

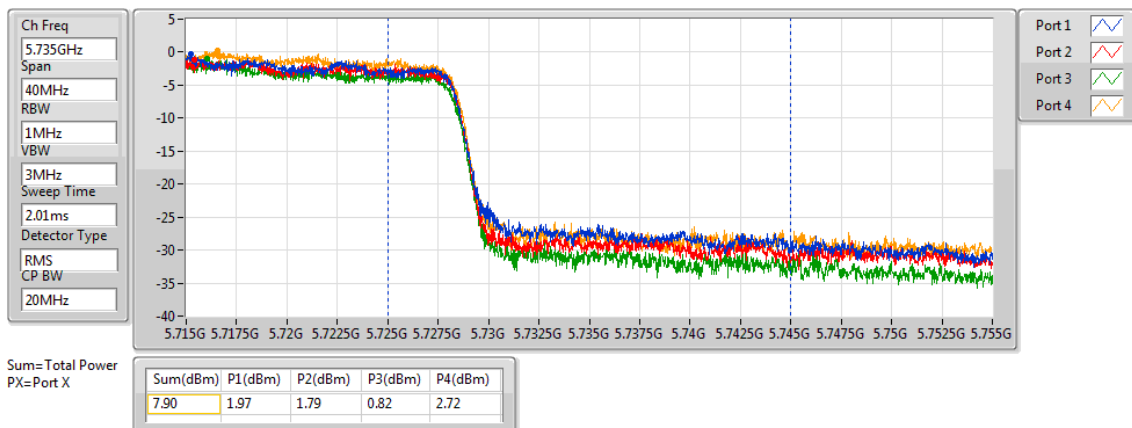


802.11ac VHT80_Nss1,(MCS0)_4TX

AV Power

5690MHz Straddle 5.725-5.85GHz

14/03/2018



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	25.77	0.37757	35.79	3.79315
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	24.48	0.28054	34.50	2.81838
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	19.70	0.09333	29.72	0.93756
802.11ac VHT80+80-BF_Nss1,(MCS0)_2TX(Port1&Port2)	17.40	0.05495	24.41	0.27606
5.25-5.35GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	19.35	0.08610	29.37	0.86497
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	19.62	0.09162	29.64	0.92045
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	19.77	0.09484	29.79	0.95280
802.11ac VHT80+80-BF_Nss1,(MCS0)_2TX(Port3&Port4)	15.26	0.03357	22.27	0.16866
5.47-5.725GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	19.49	0.08892	29.51	0.89331
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	19.89	0.09750	29.91	0.97949
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	19.87	0.09705	29.89	0.97499
802.11ac VHT80+80-BF_Nss1,(MCS0)_4TX	19.78	0.09506	29.80	0.95499
5.725-5.85GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	24.10	0.25704	34.12	2.58226
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	22.33	0.17100	32.35	1.71791
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	21.66	0.14655	31.68	1.47231

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_TnomVnom	Pass	10.02	20.37	19.69	19.15	19.69	25.77	25.98	35.79	36.00
5200MHz_TnomVnom	Pass	10.02	19.41	19.56	18.76	19.34	25.30	25.98	35.32	36.00
5240MHz_TnomVnom	Pass	10.02	18.74	19.35	18.35	19.06	24.91	25.98	34.93	36.00
5260MHz_TnomVnom	Pass	10.02	13.45	13.71	12.97	13.14	19.35	19.98	29.37	30.00
5300MHz_TnomVnom	Pass	10.02	12.9	13	12.62	12.76	18.84	19.98	28.86	30.00
5320MHz_TnomVnom	Pass	10.02	12.79	13.03	12.36	12.72	18.75	19.98	28.77	30.00
5500MHz_TnomVnom	Pass	10.02	13.53	13.61	13.25	13.49	19.49	19.98	29.51	30.00
5580MHz_TnomVnom	Pass	10.02	13.36	13.37	12.23	13.19	19.08	19.98	29.10	30.00
5700MHz_TnomVnom	Pass	10.02	13.41	13.52	12.95	13.03	19.25	19.98	29.27	30.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	12.58	12.59	12.15	12.13	18.39	18.76	28.41	28.78
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	6.43	7.26	5.64	6.54	12.53	25.98	22.55	36.00
5745MHz_TnomVnom	Pass	10.02	18	18.61	17.98	17.68	24.10	25.98	34.12	36.00
5785MHz_TnomVnom	Pass	10.02	18.01	18.49	18.04	17.71	24.09	25.98	34.11	36.00
5825MHz_TnomVnom	Pass	10.02	18.4	17.71	16.89	17.06	23.58	25.98	33.60	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	10.02	13.4	13.67	13.42	13.47	19.51	25.98	29.53	36.00
5230MHz_TnomVnom	Pass	10.02	18.41	18.84	18.02	18.54	24.48	25.98	34.50	36.00
5270MHz_TnomVnom	Pass	10.02	13.89	13.82	13.16	13.48	19.62	19.98	29.64	30.00
5310MHz_TnomVnom	Pass	10.02	13.64	13.49	13.4	13.38	19.50	19.98	29.52	30.00
5510MHz_TnomVnom	Pass	10.02	13.93	13.72	13.37	13.56	19.67	19.98	29.69	30.00
5550MHz_TnomVnom	Pass	10.02	14.01	13.98	12.66	13.56	19.61	19.98	29.63	30.00
5670MHz_TnomVnom	Pass	10.02	14.14	13.74	12.7	13.46	19.56	19.98	29.58	30.00
5710MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	14.28	14.11	13.62	13.41	19.89	19.98	29.91	30.00
5710MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	2.71	3.49	1.84	3.71	9.02	25.98	19.04	36.00
5755MHz_TnomVnom	Pass	10.02	16.31	16.75	16.13	15.99	22.33	25.98	32.35	36.00
5795MHz_TnomVnom	Pass	10.02	15.8	16.43	15.92	15.8	22.02	25.98	32.04	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	10.02	13.07	15.2	12.81	13.18	19.70	25.98	29.72	36.00
5290MHz_TnomVnom	Pass	10.02	13.97	14.08	13.48	13.44	19.77	19.98	29.79	30.00
5530MHz_TnomVnom	Pass	10.02	14.27	14.07	13.02	13.95	19.87	19.98	29.89	30.00
5610MHz_TnomVnom	Pass	10.02	14.24	13.91	12.92	13.4	19.67	19.98	29.69	30.00
5690MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	14.48	13.99	12.86	13.77	19.83	19.98	29.85	30.00
5690MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	-1.35	0.91	-1.6	1.61	6.13	25.98	16.15	36.00
5775MHz_TnomVnom	Pass	10.02	15.39	16.06	15.49	15.57	21.66	25.98	31.68	36.00
802.11ac VHT80+80-BF_Nss1,(MCS0)_2TX(Port1&Port2)	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz_TnomVnom	Pass	7.01	14.47	14.31			17.40	28.99	24.41	36.00
802.11ac VHT80+80-BF_Nss1,(MCS0)_2TX(Port3&Port4)	-	-	-	-	-	-	-	-	-	-



Power Result_Indoor Beamforming

Appendix C.3

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)
5210MHz,#5290MHz_TnomVnom	Pass	7.01			11.56	12.84	15.26	22.99	22.27	30.00
802.11ac VHT80+80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz_TnomVnom	Pass	10.02	14.78	14.96	11.64	12.83	19.78	19.98	29.80	30.00

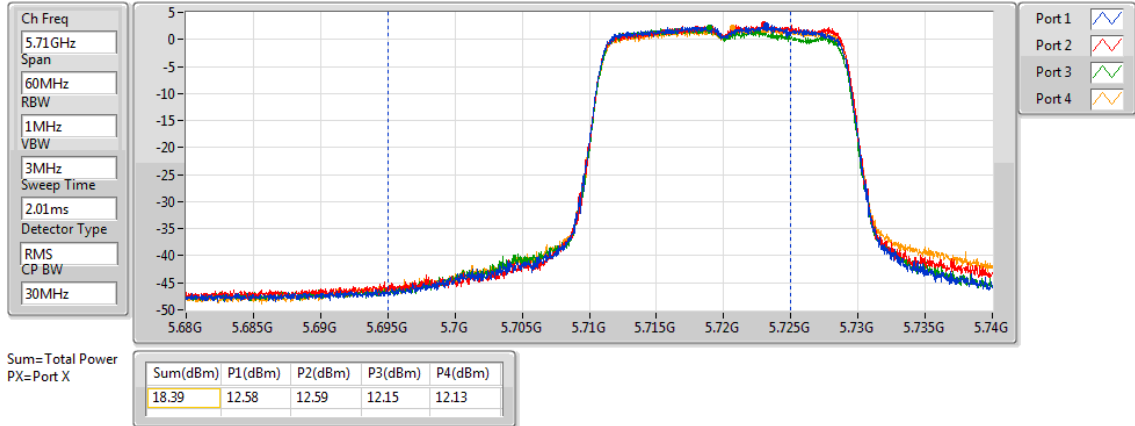
DG = Directional Gain;Port X = Port X output power

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

AV Power

5720MHz Straddle 5.47-5.725GHz

16/03/2018

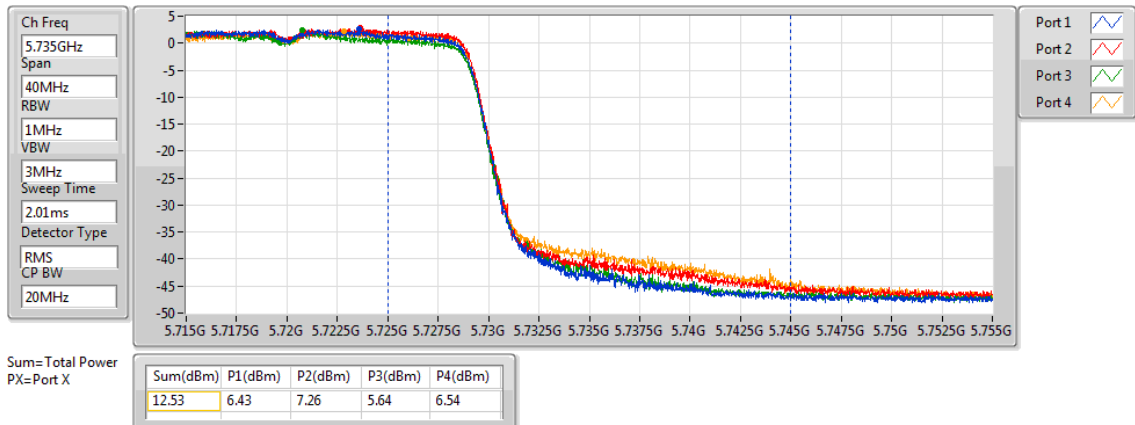


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

AV Power

5720MHz Straddle 5.725-5.85GHz

16/03/2018

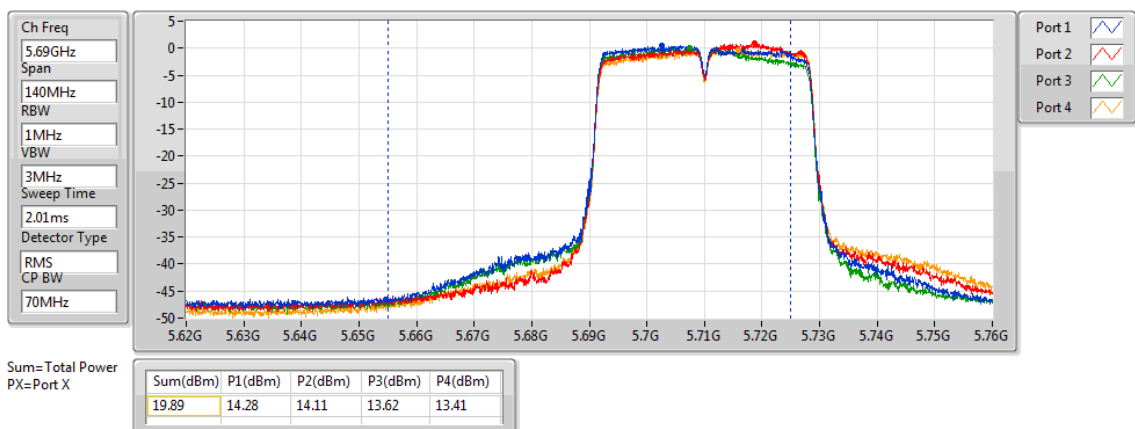


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

AV Power

5710MHz Straddle 5.47-5.725GHz

16/03/2018

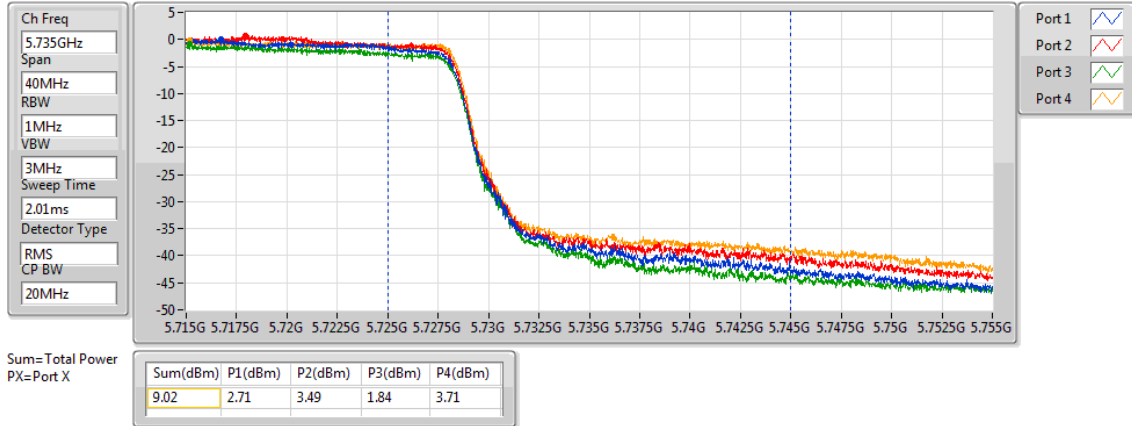


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

AV Power

5710MHz Straddle 5.725-5.85GHz

16/03/2018

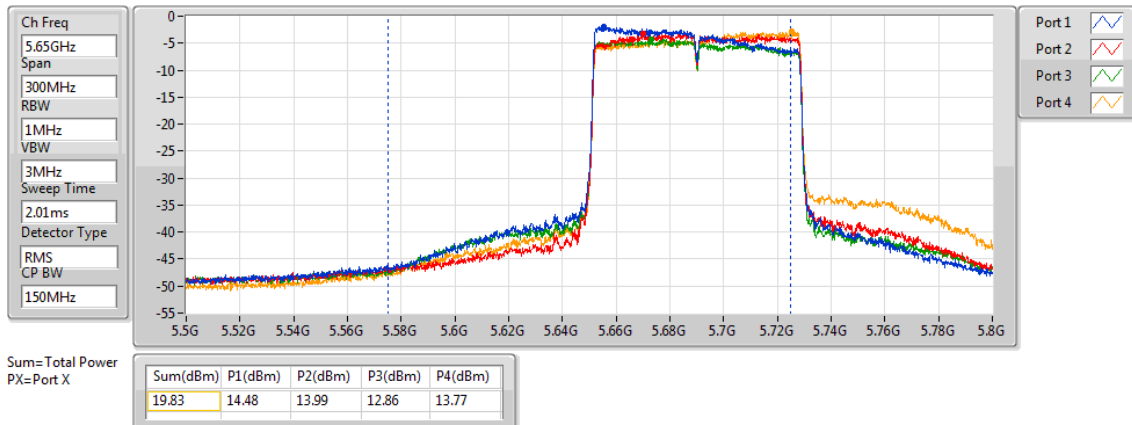


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

AV Power

5690MHz Straddle 5.47-5.725GHz

16/03/2018

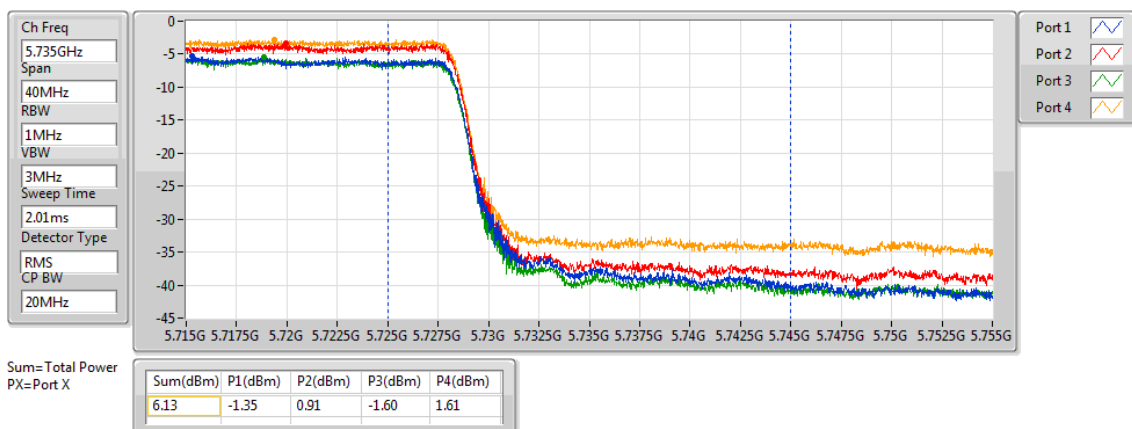


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

AV Power

5690MHz Straddle 5.725-5.85GHz

16/03/2018



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	10.92	0.01236	20.94	0.12417
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	10.29	0.01069	20.31	0.10740
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	10.45	0.01109	20.47	0.11143
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	13.83	0.02415	20.84	0.12134
5.25-5.35GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	19.35	0.08610	29.37	0.86497
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	19.62	0.09162	29.64	0.92045
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	19.77	0.09484	29.79	0.95280
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	12.33	0.01710	19.34	0.08590
5.47-5.725GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	19.49	0.08892	29.51	0.89331
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	19.89	0.09750	29.91	0.97949
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	19.87	0.09705	29.89	0.97499
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	17.41	0.05508	27.43	0.55335
5.725-5.85GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	24.10	0.25703	34.12	2.58226
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	22.33	0.17100	32.35	1.71790
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	21.66	0.14655	31.68	1.47231

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_TnomVnom	Pass	10.02	5.18	5.27	2.71	5.30	10.76	25.98	20.78	36.00
5200MHz_TnomVnom	Pass	10.02	5.85	4.15	3.77	4.09	10.57	25.98	20.59	36.00
5240MHz_TnomVnom	Pass	10.02	5.28	5.30	3.95	4.94	10.92	25.98	20.94	36.00
5260MHz_TnomVnom	Pass	10.02	13.45	13.71	12.97	13.14	19.35	19.98	29.37	30.00
5300MHz_TnomVnom	Pass	10.02	12.90	13.00	12.62	12.76	18.84	19.98	28.86	30.00
5320MHz_TnomVnom	Pass	10.02	12.79	13.03	12.36	12.72	18.75	19.98	28.77	30.00
5500MHz_TnomVnom	Pass	10.02	13.53	13.61	13.25	13.49	19.49	19.98	29.51	30.00
5580MHz_TnomVnom	Pass	10.02	13.36	13.37	12.23	13.19	19.08	19.98	29.10	30.00
5700MHz_TnomVnom	Pass	10.02	13.41	13.52	12.95	13.03	19.25	19.98	29.27	30.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	12.58	12.59	12.15	12.13	18.39	18.76	28.41	28.78
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	6.43	7.26	5.64	6.54	12.53	25.98	22.55	36.00
5745MHz_TnomVnom	Pass	10.02	18.00	18.61	17.98	17.68	24.10	25.98	34.12	36.00
5785MHz_TnomVnom	Pass	10.02	18.01	18.49	18.04	17.71	24.09	25.98	34.11	36.00
5825MHz_TnomVnom	Pass	10.02	18.40	17.71	16.89	17.06	23.58	25.98	33.60	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	10.02	4.89	4.44	2.85	4.28	10.20	25.98	20.22	36.00
5230MHz_TnomVnom	Pass	10.02	5.66	3.67	3.78	3.59	10.29	25.98	20.31	36.00
5270MHz_TnomVnom	Pass	10.02	13.89	13.82	13.16	13.48	19.62	19.98	29.64	30.00
5310MHz_TnomVnom	Pass	10.02	13.64	13.49	13.40	13.38	19.50	19.98	29.52	30.00
5510MHz_TnomVnom	Pass	10.02	13.93	13.72	13.37	13.56	19.67	19.98	29.69	30.00
5550MHz_TnomVnom	Pass	10.02	14.01	13.98	12.66	13.56	19.61	19.98	29.63	30.00
5670MHz_TnomVnom	Pass	10.02	14.14	13.74	12.70	13.46	19.56	19.98	29.58	30.00
5710MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	14.28	14.11	13.62	13.41	19.89	19.98	29.91	30.00
5710MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	2.71	3.49	1.84	3.71	9.02	25.98	19.04	36.00
5755MHz_TnomVnom	Pass	10.02	16.31	16.75	16.13	15.99	22.33	25.98	32.35	36.00
5795MHz_TnomVnom	Pass	10.02	15.80	16.43	15.92	15.80	22.02	25.98	32.04	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	10.02	5.73	4.09	3.73	3.86	10.45	25.98	20.47	36.00
5290MHz_TnomVnom	Pass	10.02	13.97	14.08	13.48	13.44	19.77	19.98	29.79	30.00
5530MHz_TnomVnom	Pass	10.02	14.27	14.07	13.02	13.95	19.87	19.98	29.89	30.00
5610MHz_TnomVnom	Pass	10.02	14.24	13.91	12.92	13.40	19.67	19.98	29.69	30.00
5690MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	14.48	13.99	12.86	13.77	19.83	19.98	29.85	30.00
5690MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	-1.35	0.91	-1.60	1.61	6.13	25.98	16.15	36.00
5775MHz_TnomVnom	Pass	10.02	15.39	16.06	15.49	15.57	21.66	25.98	31.68	36.00
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz_TnomVnom	Pass	7.01	10.73	10.91			13.83	28.99	20.84	36.00
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz_TnomVnom	Pass	7.01			8.80	9.79	12.33	22.99	19.34	30.00
802.11ac VHT80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-



Power Result_Outdoor Beamforming

Appendix C.4

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)
#5530MHz,#5610MHz_TnomVnom	Pass	10.02	12.68	12.54	9.83	9.53	17.41	19.98	27.43	30.00

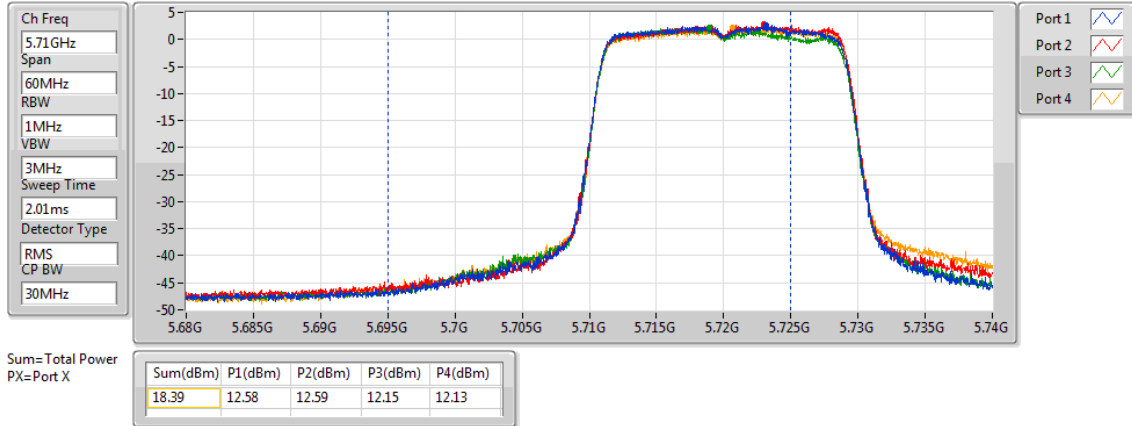
DG = Directional Gain;Port X = Port X output power

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

AV Power

5720MHz Straddle 5.47-5.725GHz

16/03/2018

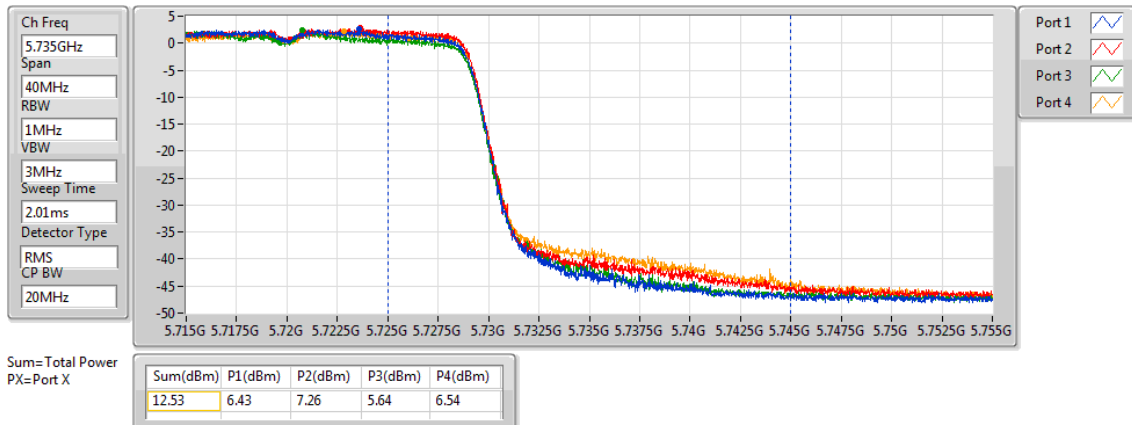


802.11ac VHT20-BF_Nss1,(MCS0)_4TX

AV Power

5720MHz Straddle 5.725-5.85GHz

16/03/2018

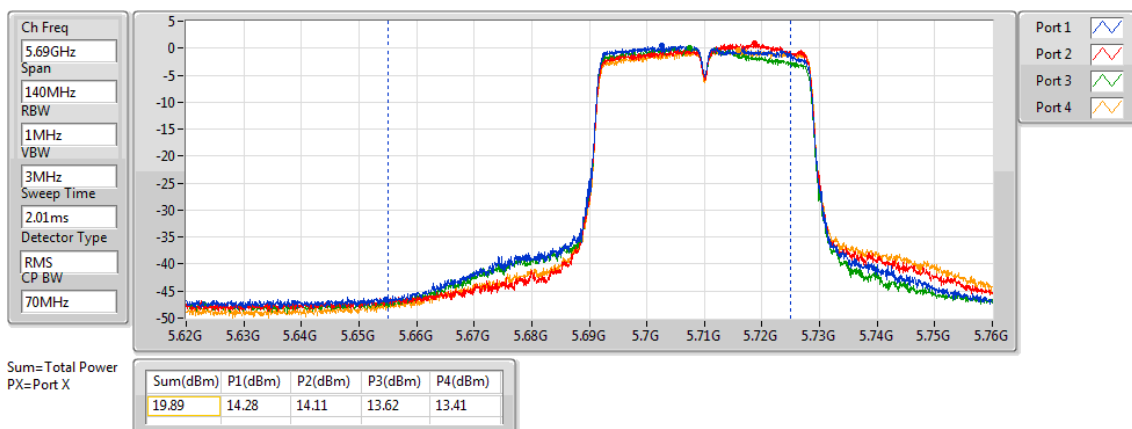


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

AV Power

5710MHz Straddle 5.47-5.725GHz

16/03/2018

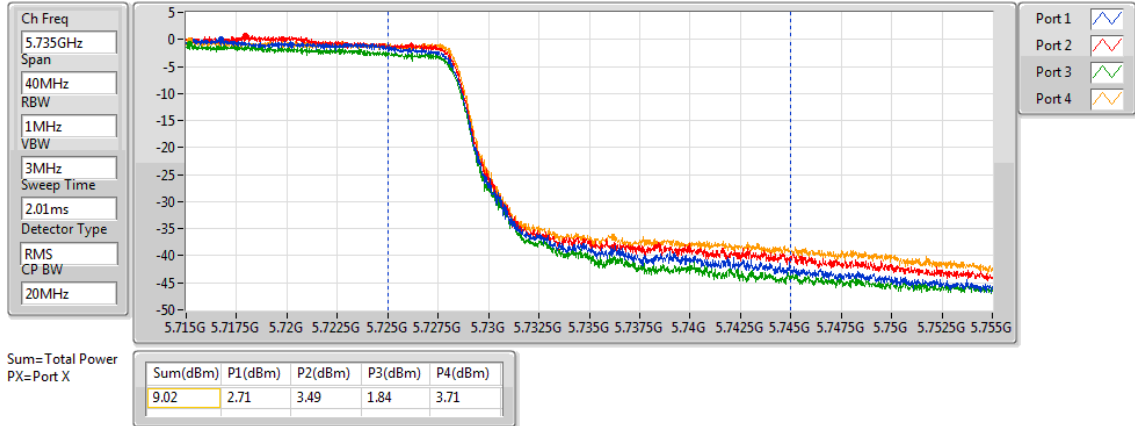


802.11ac VHT40-BF_Nss1,(MCS0)_4TX

AV Power

5710MHz Straddle 5.725-5.85GHz

16/03/2018

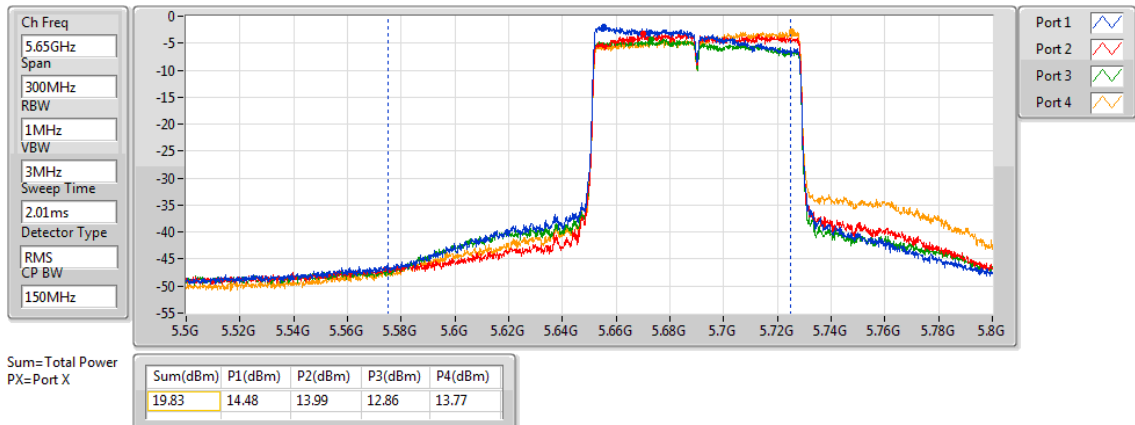


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

AV Power

5690MHz Straddle 5.47-5.725GHz

16/03/2018

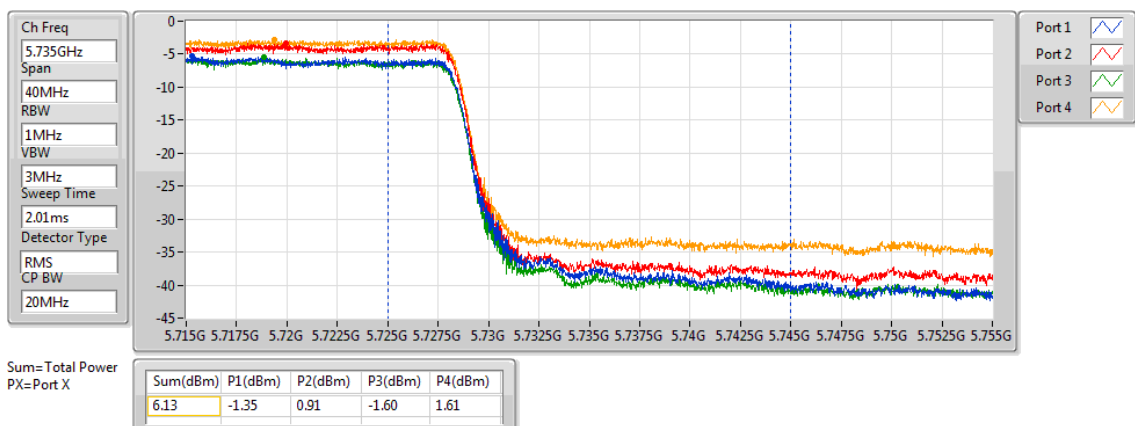


802.11ac VHT80-BF_Nss1,(MCS0)_4TX

AV Power

5690MHz Straddle 5.725-5.85GHz

16/03/2018



Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	12.81	22.83
802.11ac VHT20_Nss1,(MCS0)_4TX	12.9	22.92
802.11ac VHT40_Nss1,(MCS0)_4TX	10.94	20.96
802.11ac VHT80_Nss1,(MCS0)_4TX	1.08	11.10
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port1&Port2)	-2.89	4.12
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	6.95	16.97
802.11ac VHT20_Nss1,(MCS0)_4TX	6.85	16.87
802.11ac VHT40_Nss1,(MCS0)_4TX	5.35	15.37
802.11ac VHT80_Nss1,(MCS0)_4TX	-1.73	8.29
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port3&Port4)	-5.75	1.26
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	6.81	16.83
802.11ac VHT20_Nss1,(MCS0)_4TX	6.96	16.98
802.11ac VHT40_Nss1,(MCS0)_4TX	6.77	16.79
802.11ac VHT80_Nss1,(MCS0)_4TX	6.09	16.11
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-3.54	6.48
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	12.54	22.56
802.11ac VHT20_Nss1,(MCS0)_4TX	12.54	22.56
802.11ac VHT40_Nss1,(MCS0)_4TX	9.63	19.65
802.11ac VHT80_Nss1,(MCS0)_4TX	5.36	15.38

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	10.02	5.01	5.17	5.03	4.5	10.92	12.98	20.94	23.00
5200MHz_TnomVnom	Pass	10.02	6.41	7.1	6.92	6.37	12.68	12.98	22.70	23.00
5240MHz_TnomVnom	Pass	10.02	6.64	7.25	6.87	6.59	12.81	12.98	22.83	23.00
5260MHz_TnomVnom	Pass	10.02	1.47	0.72	1.14	0.36	6.89	6.98	16.91	17.00
5300MHz_TnomVnom	Pass	10.02	1.57	0.79	1.08	0.35	6.95	6.98	16.97	17.00
5320MHz_TnomVnom	Pass	10.02	1.58	0.86	1.07	0.37	6.95	6.98	16.97	17.00
5500MHz_TnomVnom	Pass	10.02	0.81	0.76	0.78	0.78	6.74	6.98	16.76	17.00
5580MHz_TnomVnom	Pass	10.02	1.25	1.13	0.35	0.8	6.81	6.98	16.83	17.00
5700MHz_TnomVnom	Pass	10.02	0.86	0.52	0.79	0.5	6.60	6.98	16.62	17.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	0.96	0.36	0.66	0.6	6.60	6.98	16.62	17.00
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	-2.51	-2.48	-2.75	-2.43	3.42	25.98	13.44	36.00
5745MHz_TnomVnom	Pass	10.02	6.81	6.96	6.12	6.2	12.54	25.98	22.56	36.00
5785MHz_TnomVnom	Pass	10.02	5.96	6.94	6.02	6.8	12.46	25.98	22.48	36.00
5825MHz_TnomVnom	Pass	10.02	5.97	5.88	5.15	4.93	11.47	25.98	21.49	36.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	10.02	4.11	4.83	4.37	4.38	10.41	12.98	20.43	23.00
5200MHz_TnomVnom	Pass	10.02	6.22	7.55	7.04	6.79	12.90	12.98	22.92	23.00
5240MHz_TnomVnom	Pass	10.02	6.21	7.2	6.76	6.49	12.65	12.98	22.67	23.00
5260MHz_TnomVnom	Pass	10.02	1	0.86	1.02	0.41	6.77	6.98	16.79	17.00
5300MHz_TnomVnom	Pass	10.02	1.03	1.02	0.94	0.54	6.81	6.98	16.83	17.00
5320MHz_TnomVnom	Pass	10.02	1.15	0.92	0.99	0.48	6.85	6.98	16.87	17.00
5500MHz_TnomVnom	Pass	10.02	0.32	0.69	0.82	0.81	6.61	6.98	16.63	17.00
5580MHz_TnomVnom	Pass	10.02	0.82	0.97	0.31	0.72	6.59	6.98	16.61	17.00
5700MHz_TnomVnom	Pass	10.02	0.82	0.76	1.2	1.1	6.96	6.98	16.98	17.00
5720MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	0.87	0.92	1.05	1.2	6.94	6.98	16.96	17.00
5720MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	-2.24	-2.68	-2.41	-2.24	3.57	25.98	13.59	36.00
5745MHz_TnomVnom	Pass	10.02	6.59	6.95	6.22	6.32	12.50	25.98	22.52	36.00
5785MHz_TnomVnom	Pass	10.02	6.63	7.01	6.09	6.49	12.54	25.98	22.56	36.00
5825MHz_TnomVnom	Pass	10.02	6.25	6.63	5.55	6.11	12.12	25.98	22.14	36.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	10.02	0.71	0.66	0.54	0.49	6.57	12.98	16.59	23.00
5230MHz_TnomVnom	Pass	10.02	5.06	5.1	4.52	5.04	10.94	12.98	20.96	23.00
5270MHz_TnomVnom	Pass	10.02	-0.35	-1.08	-0.77	-0.48	5.28	6.98	15.30	17.00
5310MHz_TnomVnom	Pass	10.02	-0.09	-0.9	-0.81	-0.4	5.35	6.98	15.37	17.00
5510MHz_TnomVnom	Pass	10.02	-1.4	-1.81	-1.62	-1.61	4.33	6.98	14.35	17.00
5550MHz_TnomVnom	Pass	10.02	-0.16	-0.51	-1.15	-0.57	5.39	6.98	15.41	17.00
5670MHz_TnomVnom	Pass	10.02	0.72	-0.15	-0.14	-0.14	6.08	6.98	16.10	17.00
5710MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	1.24	0.5	0.85	0.77	6.77	6.98	16.79	17.00
5710MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	-3.69	-4.27	-4.37	-3.73	1.98	25.98	12.00	36.00

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
5755MHz_TnomVnom	Pass	10.02	3.87	3.83	3.12	3.15	9.50	25.98	19.52	36.00
5795MHz_TnomVnom	Pass	10.02	3.79	4	3.14	3.54	9.63	25.98	19.65	36.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	10.02	-4.78	-4.78	-4.94	-4.69	1.08	12.98	11.10	23.00
5290MHz_TnomVnom	Pass	10.02	-7.34	-7.8	-7.24	-7.85	-1.73	6.98	8.29	17.00
5530MHz_TnomVnom	Pass	10.02	-6.27	-6.89	-6.45	-6.03	-0.74	6.98	9.28	17.00
5610MHz_TnomVnom	Pass	10.02	-1.24	-1.69	-1.93	-1.95	4.21	6.98	14.23	17.00
5690MHz Straddle 5.47-5.725GHz_TnomVnom	Pass	10.02	0.66	0.14	-0.19	0.2	6.09	6.98	16.11	17.00
5690MHz Straddle 5.725-5.85GHz_TnomVnom	Pass	10.02	-5.76	-5.9	-6.74	-4.74	0.21	25.98	10.23	36.00
5775MHz_TnomVnom	Pass	10.02	-0.5	0.03	-0.89	-0.87	5.36	25.98	15.38	36.00
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port1&Port2)	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz_TnomVnom	Pass	7.01	-5.71	-6.1			-2.89	15.99	4.12	23.00
802.11ac VHT80+80_Nss1,(MCS0)_2TX(Port3&Port4)	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz_TnomVnom	Pass	7.01			-7.65	-9.92	-5.75	9.99	1.26	17.00
802.11ac VHT80+80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz_TnomVnom	Pass	10.02	-6.34	-6.5	-8.39	-10.67	-3.54	6.98	6.48	17.00

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

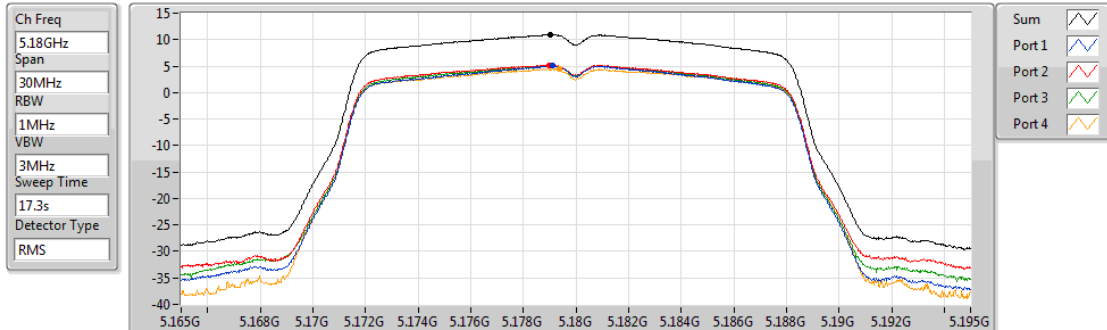
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11a_Nss1,(6Mbps)_4TX

PSD

5180MHz

20/03/2018



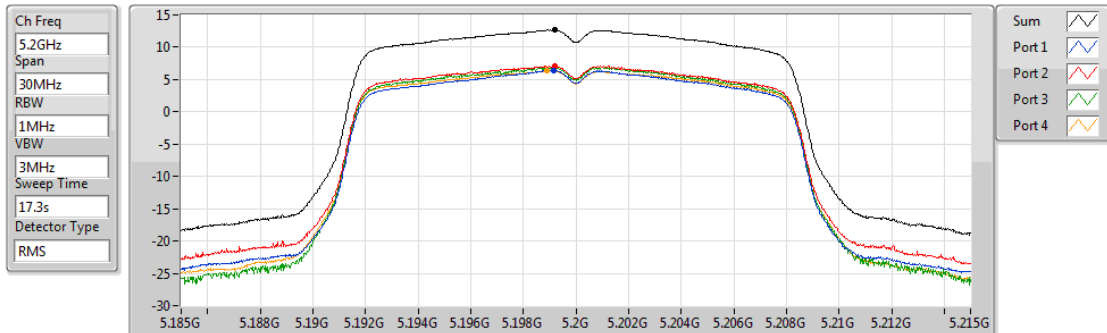
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
10.92	10.92	5.01	5.17	5.03	4.50

802.11a_Nss1,(6Mbps)_4TX

PSD

5200MHz

14/03/2018



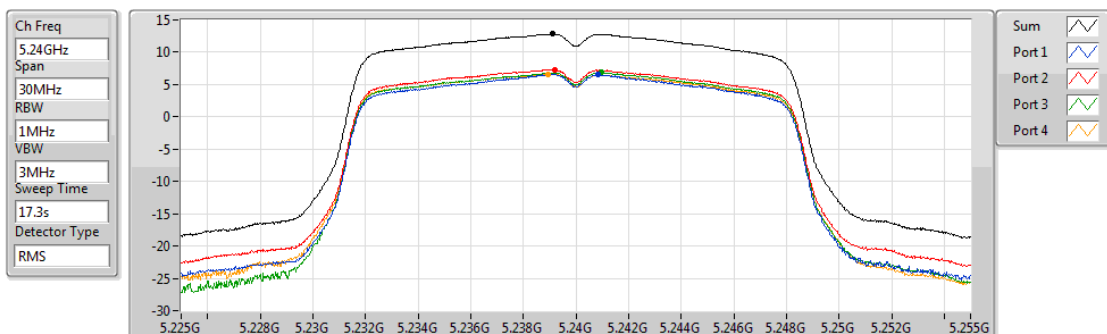
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
12.68	12.68	6.41	7.10	6.92	6.37

802.11a_Nss1,(6Mbps)_4TX

PSD

5240MHz

14/03/2018



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
12.81	12.81	6.64	7.25	6.87	6.59